



**Finance**

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305 Chestnut Street, 5th  
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Post Office Box 1810  
Wilmington, NC 28402-1810

910 341-7830  
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wilmingtonnc.gov

January 21, 2016

**RE: Request for Proposal – Consulting Services for a Significant Rail Realignment and Right of Way Use Alternatives  
RFP No. S5-0116.1**

Dear Sir or Madame:

This Request for Proposal (RFP) will provide your firm with sufficient information to enable you to prepare and submit a qualifications statement for Consulting Services for a Significant Rail Realignment and Right of Way Use Alternatives. Proposal documents for submission are attached.

The RFP includes a preliminary scope of work and general terms and conditions of any subsequent contract. The scope of services, as defined herein, may be modified after final selection of the consultant. The general terms and conditions are part of any submitted proposal and will be incorporated into any subsequent contract. Submission of a statement shall constitute acceptance of these terms and conditions. Conditional responses may be rejected.

In order for your RFP to be considered responsive, it must adhere to the submittal requirements that follow. This is a fixed fee project. The successful Consultant will be selected based on the quality, quantity and best value of services provided for the available budget.

After the most qualified firm is determined by the City, the staff will enter into negotiations with the firm to better define the final scope of work. If for any reason the City and the selected firm cannot agree on a scope for the fee available, the City will enter into negotiations with the next most qualified firm.

It is the goal of the City to promote local and minority business participation in all construction and service contracts. Therefore, in accordance with the City of Wilmington's MBE/DBE Policy, the CONSULTANT shall make a good faith effort to identify and hire minority subCONSULTANTS for this project. A complete copy of the City's MBE/DBE policy is available at my office.

Questions concerning the proposed contract terms and conditions should be addressed to my office.

I hope to receive your proposal for this work.

Sincerely,

Daryle L. Parker  
Purchasing Manager

Enclosure

cc: Glenn Harbeck, Director of Planning, Development and Transportation, City of Wilmington  
Mike Kozlosky, Executive Director of the Wilmington MPO

# REQUEST FOR PROPOSAL

January 21, 2016

FOR

CONSULTING SERVICES FOR A

SIGNIFICANT RAIL REALIGNMENT AND

RIGHT OF WAY USE ALTERNATIVES

WILMINGTON, NORTH CAROLINA



City of Wilmington, North Carolina  
305 Chestnut Street - Post Office Box 1810  
Wilmington, North Carolina 28402-1810  
910.341.7830

## INTRODUCTION

The City of Wilmington, North Carolina, requests proposals for professional consulting services to develop a feasibility study and cost/benefit assessment for significant rail realignment in the Wilmington urban area. Qualifications will be determined based on information provided in the RFP.

The study will investigate two issues: the relocation of the existing rail loop through the city of Wilmington to a more direct route into the Wilmington Terminal Rail Yard (WTRY), which serves the Port of Wilmington and surrounding industries, and upon relocation of the rail, the repurposing of the existing rail line to a potential urban trolley service, compatible with the character of Historic Wilmington.

### A. Description of the Community

The City of Wilmington is a coastal city in southeastern North Carolina with a population of approximately 110,000 residents, and an urban area population of 254,000. Within 25 years, the area is expected to grow to 365,927. During this same timeframe, the city's population is expected to grow by more than 50% to about 170,000. Growth and development is surging at present, led by significant multi-family and mixed use developments, many of which are locating within walking distance of the existing rail line through the city. The city has a thriving downtown, large historic district, strong cultural amenities, and an enviable quality of life overall. Wilmington was recently named the country's best riverfront city by USA Today readers. The U.S. Chamber of Commerce recently labeled Wilmington the "Dark Horse of North Carolina's economy".

### B. The Opportunity

Currently, freight rail travels a V-shape route through the heart of the City of Wilmington to reach the Port of Wilmington and other industrial and shipping-related sites, causing freight traffic to move east and west to get north to south and vice versa. The Port of Wilmington and freight traffic in general are expected to increase with the addition of new businesses. The current approximately 8-mile freight rail, operated by CSXT, crosses roadways 32 times, creating the potential for increasing major delays as well as public safety risks for both rail and road traffic in the heart of the City and on major thoroughfares. The "last mile" is a Short Line operated by Genesee & Wyoming throughout and near the Port of Wilmington. There is one major shipping business, MCO Transport, accessing the V-shape line. This project presents the opportunity to address all of these issues in one undertaking.

### C. Desired Outcomes

The feasibility study will seek to define and analyze a two-part project to improve freight travel time and access to the Port of Wilmington and Wilmington Terminal Rail Yard, and to provide economic and community benefits by re-purposing the track use within the City. The expected new alignment is a bridge across the Cape Fear River and approximately 4.5 – 5 miles of new track.

## D. Project Sponsor Actions to Date

A Rail Realignment Task Force has been appointed by the Mayor of Wilmington. At this time, the Task Force includes representation as follows:

- A Task Force Chair (at large)
- A Wilmington City Council Member
- A New Hanover County Commissioner
- A Brunswick County Commissioner
- The City's Director of Planning, Development and Transportation
- Rail Safety Company Owner and Consultant
- A Representative of CSXT Rail Corporation
- A Representative of NC State Ports
- A Representative of NC DOT Rail Division
- A Representative of a shipper currently served by the rail

Multiple contacts within the community and the surrounding area have been made by the Task Force to assess concerns regarding the potential projects. A list of those people and information will be provided to the consultant for further contact.

*A white paper outlining the major issues and opportunities involved in this project is attached. It is critical that any consultant considering this Request for Proposals review the White Paper carefully.*

## OBJECTIVE OF THE STUDY

The primary focus of the study should be the potential relocation of the rail line with a secondary benefit of establishing a trolley line utilizing the existing rail. Specific objectives of the study may be described in accordance with the two phases necessary for implementing rail and trolley system improvements:

### A. Assessment of Freight Rail Realignment

1. Development, analysis and evaluation of potentially viable rail connector alignment alternatives
2. Major design elements (esp. bridge types and locations) and Rail Capacity Analysis
3. Cost estimates for top 3 alternatives.
4. Market Analysis of Economic and Community Development Impacts and Opportunities in both New Hanover and Brunswick counties of the Realignment for:
  - a. rail companies
  - b. the NC State Ports Authority coordination of growth projections and the Port of Wilmington (Travel Demand Model analysis of existing/projected port traffic, land development, trucks and trains)
  - c. local growth and development (an example is along the US 421 Corridor)
  - d. CSXT Coordination of projections of shippers in Wilmington
  - e. impacts to residents along the Brunswick River.
5. Savings in urban area travel time, road maintenance, and operational efficiencies.

6. Community Safety Improvements such as reduced potential for rail derailments, reduced potential for grade crossing conflicts including the effects on emergency response, reduction in the volume of hazmat shipping in densely populated areas, Crossing Safety Analysis, etc.
7. Cost savings to rail service in terms of liability, crossing maintenance, and other factors.
8. Environmental cost-benefit analysis and assessment to determine the benefits and Impacts. Identify possible environmental “show stoppers” through screening Identify opportunities for mitigation, which may be part of the trolley portion, and may include use of a Land Bank. This will be an important part of the study as the broader community and region-wide environmental benefits are likely to far exceed the environmental costs associated with the narrow rail path.
9. Identification of costs and consequences of the potential rail realignment to the three businesses currently using the CSXT Beltline, the largest being MCO Transport.
10. An analysis to determine the tipping point of hauling on trucks vs. rail.
11. Review of examples of ownership and management in other localities.
12. Identification of funding opportunities/costs and revenue potential. In particular, analysis of private investor opportunities to include various Public Private Partnership formats.
13. Analysis of the project’s potential for funding from the North Carolina Strategic Transportation Investment state funding plan as well as from Federal grants through T.I.G.E.R., the National Freight Program and other state and federal granting opportunities.
14. Provide a comparison of potential revenue losses to businesses affected versus potential revenue gains for businesses affected, as well as an analysis of potential governmental benefits such as property taxes. The Chair and Task Force will help develop a list of such businesses.

#### B. Assessment of Potential Public Transportation Use of the Freight Rail Line

1. An assessment of the cost to rehabilitate the current tracks for passenger use.
2. Evaluation/recommendation on rail line to trolley service conversion and parallel greenway opportunity.
3. Evaluation of cost for north south on-street connector (3<sup>rd</sup> Street).
4. Evaluation of a potential connection between Brunswick and New Hanover counties, using the Hilton (CSX) Bridge.
5. Cost estimates for phased development of the trolley system.
6. Assessment of ridership potential -- housing and employment destinations.
7. Comprehensive Evaluation of Economic and Community Development Impacts of a Trolley Service, including potential for Transit Oriented Development, downtown development, affordable housing, and tourism development.
8. An analysis of specific Environmental impacts of repurposing the rail line from freight to public transportation.

9. Identification of funding and revenue arrangements, including a review of examples of ownership and management in other cities.

## BUDGET AND DELIVERABLES

### A. Cost

The project budget has been established at \$300,000 (three hundred thousand and 00/100 dollars) inclusive of all ancillary costs. Proposals will be compared based on the quality, quantity and value of services provided for the \$300,000.

### B. Education and Outreach

Consultation and coordination with a variety of stakeholders is needed. The study will include assistance with public outreach and engagement through the local support team to ensure that the public is kept informed and has opportunities for engagement.

### C. Updates

The consultant shall be responsible for providing regular updates to the Chair of the Task Force on the project progress so that elected officials, staff and the general public is kept informed by the Chair of key findings. The consultant will work with a staff review team.

### D. Presentations

The consultant will be expected to provide a scheduled presentation to City staff, the Planning Commission, City Council, and Wilmington MPO.

### E. Format

The report is to be presented in a format and language that is “user-friendly” and accessible to the general public. Technical language should be kept in balance with common sense understanding. The judicious use of graphics, mapping and illustrations or photographs that will enhance the understanding of the study is encouraged.

The City of Wilmington shall receive one digital copy (print ready digital format) and an internet-ready copy of all elements of the final document, including graphics, mapping and illustrations.

### F. Appendix

A detailed Technical Appendix shall be provided, in addition to the report.

### G. Ownership Rights

The City of Wilmington shall retain ownership of all data generated, with the exception of the Consultant’s Work Sample if it is requested to be returned.

## SUBMITTAL REQUIREMENTS

### A. Timeline

The proposal shall outline the consultant's best estimate of time to carry the proposed planning process and report to their completion. Staff anticipates the project to be able to be completed within a reasonable time, but not to exceed nine (9) months.

#### B. Items to be submitted

Six (6) hardcopies of the proposal and an electronic version (PDF format) on a flash drive must be submitted to Daryle L. Parker, Purchasing Manager 305 Chestnut St. 5<sup>th</sup> Floor Wilmington, NC 28402 **on or before, February 24, 2016 by 3 pm., EST.** The City shall not be responsible for any expense incurred by the firm in preparing and submitting a proposal. All proposals submitted become the property of the City.

The proposal shall not exceed 25 pages.

All proposals must be in a sealed envelope marked: REQUEST FOR PROPOSAL – RAIL REALIGNMENT FEASIBILITY REPORT.

#### C. The proposal shall contain the following information:

1. A brief description of the proposed team, identifying each key member, including the lead team member who will be primarily responsible for critical presentations to the Task Force.
2. A statement of qualifications and relevant experience, including any relevant work
3. A detailed organizational chart and management approach.
4. A detailed scope of services by task, with deliverables associated with each task. A description of who will be responsible in the organization to complete each task.
5. A detailed time line for the completion of the project, showing timing for each phase and task.
6. Itemized spreadsheet on how the consultant or consulting team intends to allocate the budget by task and the anticipated percentage of their time to be allocated to each task.
7. At least three (3) references for previously prepared feasibility studies or similar reports, including names, titles, and email, and telephone numbers.
8. A separate **sample work product** prepared by the consultant/consultant team for a related project, which can be returned upon request.
9. Any additional information you believe distinguishes your proposal from others.

#### D. Copyright Release

Firms responding to this RFP shall supply a statement of copyright release to allow the City of Wilmington to make copies of any copyrighted materials submitted (for internal review only).

#### E. Questions

Questions concerning this RFP should be directed to the Project Manager. Questions may be submitted no later than one week prior to the final submission deadline. All questions and answers regarding the RFP may be shared with all consultants known to be interested in submitting a proposal.



**Project Manager for the City of Wilmington:**

Mike Kozlosky

City of Wilmington Transportation Division Manager and  
Executive Director of the Wilmington MPO

Email: [mike.kozlosky@wilmingtonnc.gov](mailto:mike.kozlosky@wilmingtonnc.gov)

Phone: 910.342.2781

## SELECTION PROCESS

### A. Selection Committee

The Rail Realignment Task Force will serve as the selection committee for the project, as assisted by staff of the Department of Planning, Development and Transportation. The Selection Committee will provide a recommendation for final decision to the City of Wilmington.

### B. Criteria

Several criteria will be employed including, but not limited to the following:

1. Technical approach to the project
2. Qualifications of key personnel
3. Previous performance with similar projects
4. Project management capabilities
5. Financial management capabilities
6. Urban area planning capabilities
7. Ability to meet a compressed timeline
8. Scope of services provided.

### C. Interviews

Each proposal will be ranked by the Selection Committee based on above factors. Interviews will be conducted with the top three candidates.

*The City reserves the right to re-advertise and reject any or all proposals which are deemed to be non-responsive, late in submission, or unsatisfactory. The City of Wilmington shall have no obligation to award a contract for services as a result of this RFP.*

**REQUEST FOR PROPOSAL**  
**Consulting Services for a Significant Rail Realignment and Right of Way Use Alternatives**  
**PROPOSAL CERTIFICATION**

**Bidders Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**By Signing above I Certify that I have carefully read and fully understand the information contained in this RFP; and that I have the capability to successfully undertake and complete the responsibilities and obligations of the Proposal being submitted and have the authority to sign Proposal on behalf of my organization.**

BY (Printed): \_\_\_\_\_

TITLE: \_\_\_\_\_

COMPANY: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

TELEPHONE: \_\_\_\_\_

EMAIL: \_\_\_\_\_

The proposer supplies the information recorded below for use in the preparation of the contract documents, in event of contract award:

1. Please indicate type of business organization:

- (a) Proprietorship \_\_\_\_\_
- (b) Partnership \_\_\_\_\_
- (c) Corporation \_\_\_\_\_
- (d) Limited Liability Co. \_\_\_\_\_

2. If business is a Corporation, please answer the following questions:

Name and title of officers, authorized by Corporate Resolution, who will execute the contract on behalf of corporation (generally President and Secretary).

\_\_\_\_\_

Firm is incorporated in what state?

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If firm is a foreign corporation, does firm have a certificate of authority from the North Carolina Secretary of State? \_\_\_\_\_

3. If business is a Partnership, please answer the following:

Name in full or all general partners and addresses:

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Is this a limited or general partnership? \_\_\_\_\_

If a limited partnership, what is state of registration? \_\_\_\_\_

If business is a foreign limited partnership, does business have a certificate of authority from the North Carolina Secretary of State? \_\_\_\_\_

4. If business is a Proprietorship, please answer the following:

Name of owner: \_\_\_\_\_

5. If business is a limited liability company, please answer the following:

List the names and title of managers or member-managers who will execute the contract on behalf of the company? \_\_\_\_\_

What is state of organization? \_\_\_\_\_

If business is a foreign limited liability company, does business have a certificate of authority from the North Carolina Secretary of State? \_\_\_\_\_

6. For all bidders:

If the business operates under an assumed name, what is the assumed name?

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Has a certificate of assumed name been filed in the New Hanover County Registry?

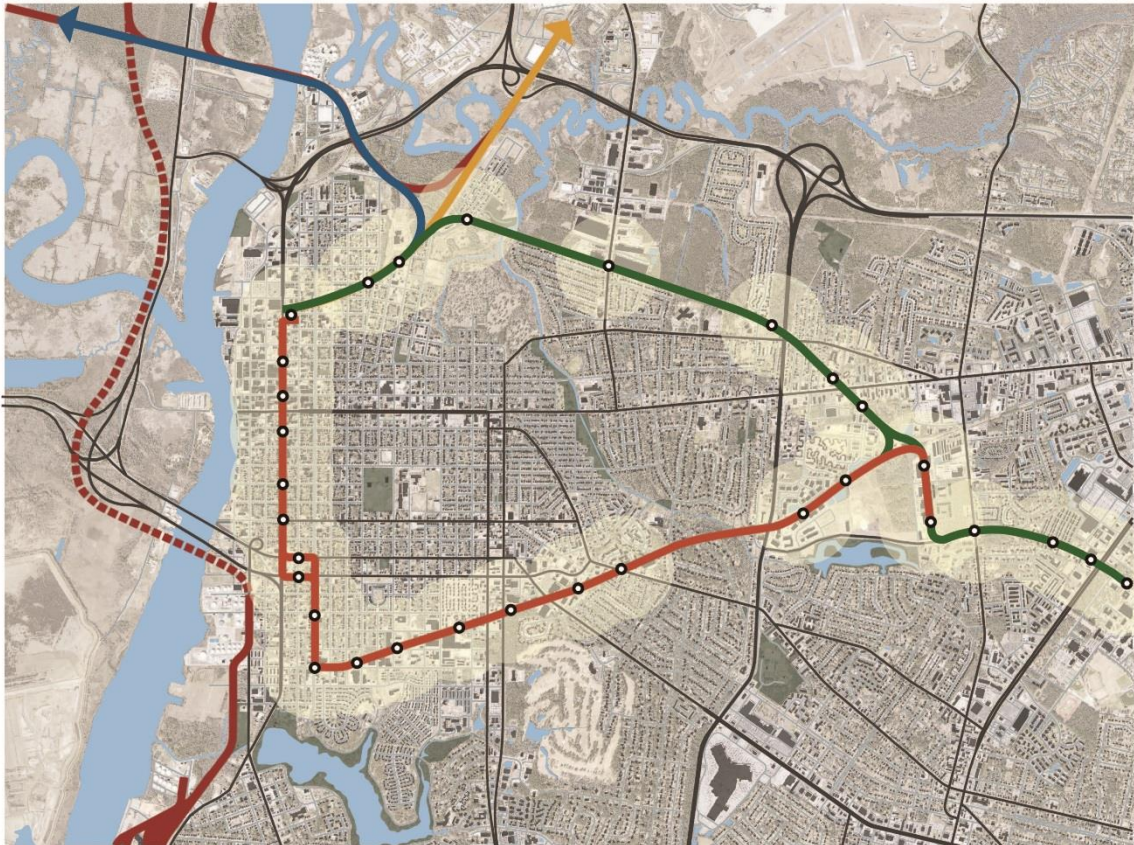
\_\_\_\_\_

If so, please provide the recording information:

Deed Book \_\_\_\_\_ at Page \_\_\_\_\_.

# The Economic and Community Development Opportunities of Rail Realignment in Wilmington, NC

Federal, State and Regional Interests<sup>1</sup>



Glenn R. Harbeck, AICP  
Director of Planning, Development and Transportation  
City of Wilmington  
April 28, 2015

Updated through December 22, 2015

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<sup>1</sup> This paper explores many of the key issues, opportunities and interests associated with the realignment of the freight rail line serving the port of Wilmington; however, it is not a substitute for a detailed evaluation of the same issues, or other issues that may arise during the course of a full feasibility study. It is primarily intended to stimulate thinking as to the merits of the proposal.

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## **Abstract**

This paper discusses the opportunity to realign the existing heavy rail corridor that currently runs through the City of Wilmington to a safer, more direct route into and out of the Port of Wilmington. The new route could make the Port more competitive, enhance economic development opportunities statewide and in the region, and improve safety and economic efficiencies for the rail carrier. In concert with the realignment, the existing rail corridor, along with its various hazard and noise issues, could be repurposed for a much quieter and useful urban trolley line, not unlike the Wilmington of 100 years ago. Such a conversion would improve the quality of life for many neighborhoods, increase property values, promote development and redevelopment, and reduce growing traffic congestion on area streets. It would stimulate investment downtown, and in the many vacant and underperforming properties along the proposed trolley corridor, particularly on the south side of town. Upon repurposing, the existing rail corridor could also serve a dual function as a trail/greenway linking up with other City trails. Many other benefits, ranging from the elimination of over 30 rail/street crossings, to significant tourism expansion, to affordable housing impacts are discussed. Numerous stakeholders who would have reasons to support the proposal are identified. A central theme throughout the paper is finding a multiple win solution that has economic and community development benefits for all parties concerned, including the port, the rail, the city and the region.

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Time passes quickly.

For many, 1990 doesn't seem that long ago.

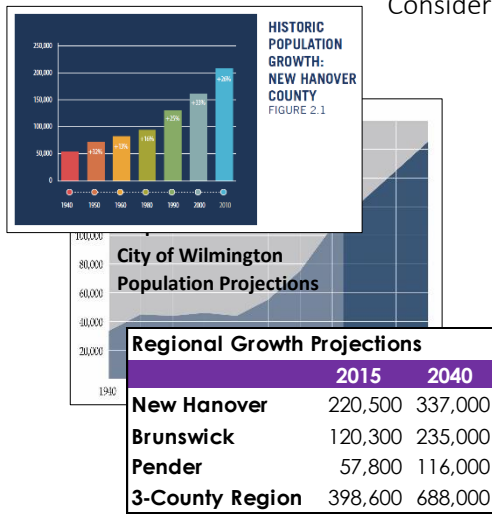
But consider how much things have changed in just 25 years. In 1990:

- I-40 to Wilmington was close to opening.
- Hardy Parker Farm on Military Cutoff was not to become Mayfaire for another 14 years.
- Traffic flowed freely over the Memorial Lift Bridge—pretty much any time of day.
- PPD had just become incorporated as a business in North Carolina.
- New Hanover County had about 140,000 people. (Today about 220,000)



2040 will be here before we know it.

Consider how things might change in the next 25 years:



- New Hanover County will likely see another 117,000 people. Of that increase, over 50,000 will be added to the City's population. Across the river, Brunswick County will add about 115,000.
- Given that Wilmington is just about built out, where will that many people find housing? How will they move about town?
- With today's road congestion already a challenge, how can the City and our region best accommodate growth without traffic grinding to a halt?
- With limited financial resources, what is the most strategic use of capital for dealing with the coming growth of the city and region?

What about today?

- The information presented in this paper describes actions that can be taken today to set the stage for sustainable economic growth and development in the greater Wilmington urban area. The paper affirms the importance of the Port of Wilmington and the rail that services the port to the economy of southeastern North Carolina. In doing so, the paper suggests a means by which rail access to the port might be improved, while also benefitting and helping to accommodate the continued growth of the Wilmington urban area. A summary as to the merits of the proposal is provided at the end of the document.



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Contents

<b>I.</b>	<b>Context for Rail</b> .....	<b>1</b>
	Existing Route into the Port of Wilmington .....	1
	Rail Companies Serving the Port of Wilmington.....	1
	The Future of Rail and Wilmington.....	2
	Why a Feasibility Study is Needed.....	3
<b>II.</b>	<b>Regional Rail Efficiency, Safety and Economic Development</b> .....	<b>5</b>
	Rail-Roadway Crossing Conflicts .....	5
	Love Grove .....	6
	Crashes and Derailments, Generally .....	6
	Neighborhood and Quality of Life Impacts.....	7
	Problems Related to Rail-Driven Road Design (e.g. Independence Boulevard).....	7
	Increasing Opposition to Train Traffic, as Port Volumes Grow.....	8
	“Last Mile” Rail Impediments .....	8
	Increased Efficiencies and Other Benefits for Rail .....	9
	Opportunity for Direct Rail Connection to the Port from US 421 Corridor .....	9
	Benefits to the Port of Wilmington .....	10
	Some Publicly Funded Infrastructure Costs Related to Rail Conflicts.....	11
<b>III.</b>	<b>The Trolley: Local and Regional Economic Development</b> .....	<b>12</b>
	Comparisons to Charleston .....	12
	Accommodating Growth without Adding to Traffic Congestion .....	13
	Wilmington as a Total Tourism Package, Bound Together by the Trolley .....	15
	Conversion of Low Value Parking into High Value Real Estate .....	15
	Revitalization and Reinvestment, Particularly on the Southside .....	16
	Commuter Relief to the Memorial Lift Bridge (from Brunswick County) .....	16
	Affordable Housing/Better Neighborhoods .....	17
	Greenway Bikeway Connector .....	17
	Environmental Benefits .....	18
	Social Integration and Sense of Community.....	19
	Likely Community Support for Trolley/Light Rail Service.....	19
<b>IV.</b>	<b>Advantages of the New Rail Route Proposed for Evaluation</b> .....	<b>21</b>
<b>V.</b>	<b>Advantages of Repurposing the Existing Heavy Rail to Trolley/Greenway</b> ...	<b>23</b>
<b>VI.</b>	<b>Support From and For the Governor’s 25-Year Vision for NC</b> .....	<b>25</b>
	Improve rail connections between military bases and ports.....	25
	Develop intermodal train service at the Port of Wilmington. ....	26
	Develop economically competitive rail service to inland ports. ....	26
	Improve rail-seaport connections to I-95 to serve the eastern US rail freight. ....	26
	Expand mass transit options in high growth areas, including rail.....	26
	Expand access to passenger rail options in all regions of the state.....	27
	Support the completion of significant bicycle and pedestrian systems. ....	27
<b>VII.</b>	<b>Support From and For the Comprehensive State Rail Plan</b> .....	<b>28</b>
<b>VIII.</b>	<b>Summary of Likely Stakeholders Having Reasons to Support</b> .....	<b>30</b>
<b>IX.</b>	<b>Summary and Conclusions</b> .....	<b>31</b>

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## I. Context for Rail

### Existing Route into the Port of Wilmington

From the northwest, the CSXT rail line enters New Hanover County from Brunswick County, crossing the Cape Fear River into the City of Wilmington north of the Isabel Holmes Bridge. The rail line then continues eastward through the City before turning south and west again--back toward the river and the Port of Wilmington. The sweeping path of the rail line thus forms a large “U” or “V” (on its side) which, at one time, wrapped around the eastern limits of the City. Today, this same rail line passes through the heart of Wilmington, resulting in tens of thousands of motor vehicle rail crossings each day and adversely impacting the quiet enjoyment of many neighborhoods in the city. This current route also impedes safe, efficient rail access to the Port of Wilmington and reduces the competitiveness of the Port.



*Map showing current rail route with 30+ at grade rail crossings.*

### Rail Companies Serving the Port of Wilmington

Wilmington is fortunate to be served by two gold standard railroads: CSXT Transportation and Genesee & Wyoming Corporation (G&W). These two railroads are business partners, with CSXT providing long haul service and G&W providing end point customer service in Wilmington.

CSXT is a Class I Railroad, one of seven such US freight railroads, based on its size, tons transported and revenue. Based in Jacksonville, Florida, the company was created in 1980 after a series of railroad mergers. Nearly two thirds of the U.S. population lies within CSXT service areas, supported by 21,000 route-miles of railroad track and 31,500 employees. CSXT serves more than 70 ocean, river and lake ports along the Atlantic and Gulf Coasts, the Mississippi River, the Great Lakes and the St. Lawrence Seaway. CSXT also serves thousands of production and distribution facilities through connections to more than 240 short line

## *I. Context For Rail*

and regional railroads. Wilmington has a proud heritage with CSXT. Two of its predecessor railroads served Wilmington for over 100 years: the Atlantic Coast Line (ACL) and the Seaboard Coastline Railroad. Wilmington was the corporate headquarters for the ACL until the early 1960's.

Genesee & Wyoming Railroad is a Class III Railroad based on size, tons transported, and revenue. Its locally owned subsidiary is the Wilmington Terminal Railroad, serving as a rail end and origin point for customers located in and around the Port of Wilmington. Genesee & Wyoming owns or leases 120 freight railroads worldwide that are organized in eleven operating regions with 7,500 employees and more than 2,500 customers. G&W's nine North American regions serve forty-one U.S. states and four Canadian provinces. The company operates 113 short line and regional freight railroads with more than 13,000 track-miles. G&W subsidiaries provide rail service at more than forty major ports in North America, Australia and Europe and perform contract coal loading and railcar switching for industrial customers.

### **The Future of Rail and Wilmington**

The U.S. continues to enjoy the national rail resurgence of the past five to seven years. Better rail service lanes and rapid growth internationally of integrated rail/truck/ship (intermodal) transport is driving national railroad infrastructure improvements. Wilmington has been no exception to this national trend, benefitting economically from this resurgence in rail. Several new companies recently located in Wilmington because of the availability of rail and port service. A new wood pellet trans-shipment project is nearing completion at the State Port. Pellets will be delivered by the two railroads to the Port for trans-shipment by ocean vessels. A new rail car builder has located near the port and is ramping up production. They will ship outbound rail tank cars by rail. These are but two examples of recent economic development, job creation and increased dollars being put back into the state and regional economy—and stimulated by rail service.

Improvements in intermodal transportation infrastructure (ocean shipping, highway trucks and rail) will lure additional import and export business to Wilmington. Recently CSX and G&W have made the infrastructure investments necessary to ship containerized freight, by improving track clearances and adding capacity to accommodate double stacked containers by rail. Double stacking containers is a key ingredient to ensure Wilmington's success in intermodal transportation. It will require significant port infrastructure investment to be competitive. Better port facilities are needed to attract the ocean shippers with enough container traffic to drive rail container service.

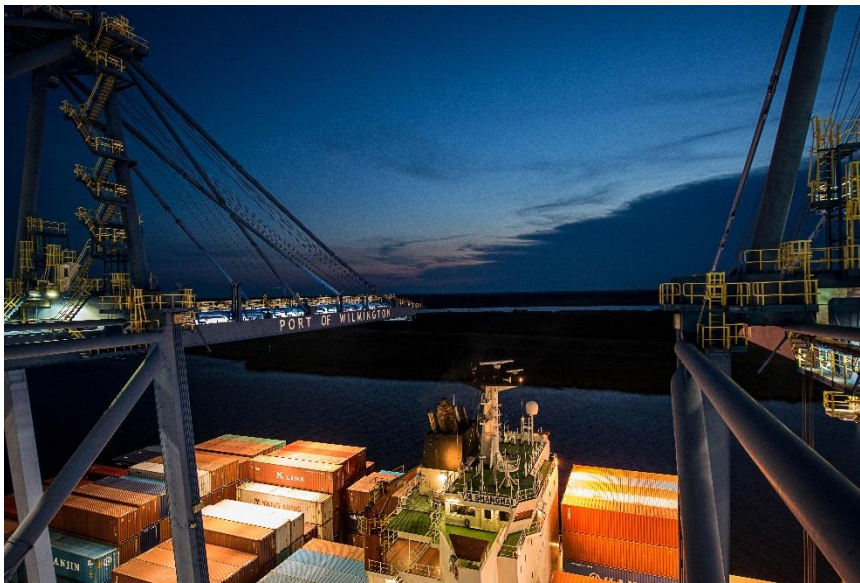


## I. Context For Rail

Another stakeholder, NCDOT-Rail, has already partnered with CSX to move increased traffic inbound and outbound for Wilmington customers. Although rail improvements in Pembroke, NC may not generate great local interest, it is a key to CSX moving increased rail freight to and from Wilmington. At Pembroke, NCDOT-Rail is funding a CSXT rail junction improvement that, when completed, will be maintained by CSXT. This investment, by both CSXT & NCDOT Rail is indicative of more rail traffic coming to and going from Wilmington. The rail improvement and some port improvements are already in the pipeline. This is a significant enhancement to rail service that benefits Wilmington shippers.



Docking capacity is already intermittently constrained at competing east coast ports at Charleston, SC, Savannah, GA and Jacksonville, FL. All three ports have benefitted from recent large infrastructure investments to compete. Current improvements to the Panama Canal will increase demands for east coast ocean vessel berthing space. In Wilmington, it was recently announced that the turning basin serving the State Port will soon be widened to accommodate bigger ships. Wilmington's railroads currently stand ready today to move intermodal containers from ships to inland ports or customers. The Port of Wilmington and access to it, if improved, could successfully compete for a larger portion of that freight.



*State Port Authority Photo*

### **Why a Feasibility Study is Needed**

A loss of rail capacity or degradation of rail service would be devastating to Wilmington and the broader state economy. Successful future economic development for Wilmington includes finding partners to improve rail capacity and efficiency. An added value is an opportunity to enhance community safety and quality of life by locating rail lines in

## *I. Context For Rail*

nonresidential areas, relocating trackage to areas that have minimal highway and pedestrian conflicts.

To meet its transportation challenges, the City of Wilmington, supported by the State, local government and business partners, must carefully plan for a future that ensures safe, efficient, minimally congested transportation routes. A consensus on a feasible plan would allow further discussion and increased partnerships with the rail industry to find reasonable and cost effective solutions.

The alternative, to do nothing, will result in lost economic and community development opportunity. Waiting for congested street systems, backed up railroad crossings--with citizens, tourists and other guests making plans to avoid Wilmington's traffic conditions-- is not a good option. The best alternative is long term planning and finding funds for port improvements, rail infrastructure and coordinated multimodal transportation improvements.

***Why plan now?*** --Because the problem is large, imminent and requires large solutions. It will cost large dollars. Transportation congestion of all kinds is already on Wilmington's door step. The solution impacts many stakeholders. Some stakeholders will have to make hard decisions on spending the public's scarce dollars. Wise planning choices do generate good transportation solutions. Failure to make timely transportation investments in Wilmington will come at a huge cost. Increased truck traffic will degrade local streets and highways. The resulting congestion will greatly lengthen everyone's travel times. Congestion can also have a negative impact on the delivery of public safety services. Emergency access to the hospital and medical center area could be blocked by trains moving slowly or stopped across 16<sup>th</sup> and 17<sup>th</sup> Streets or from the south near the port. Trains passing through the City will increase from several daily to more frequent moves to feed Wilmington's economic resurgence in and around the ports.

Managing this positive dilemma will require stakeholders to subscribe to reasonable and timely long range planning solutions. Wilmington must have a coordinated, connected and practical plan for the continued integration of rail into the region's transportation system. Funding projects is dependent on having factual information. Needed now is a reliable rail feasibility study that compares alternatives and weighs the outcomes. Rail transportation is but one component from a total systems standpoint, but it is critical and can be very beneficial.

## **II. Regional Efficiency, Safety and Economic Development: Impediments and Opportunities**

This section sets forth the many reasons why the existing rail corridor through Wilmington presents challenges for the continued economic development of the city, county, region and state. These same reasons also make the Port of Wilmington and the rail serving it less able to accommodate future growth. For every challenge, an opportunity for turning the problem into a powerful tool for positive economic growth is also identified.

### **Rail-Roadway Crossing Conflicts**

Each day, no less than 180,000 automobiles cross the CSXT railroad tracks in the City of Wilmington at about 30 at grade road crossings. This presents a major safety problem for both the rail line and for the citizens of the Wilmington urban area. In recognition of this issue, the City, NCDOT, the Wilmington MPO and CSXT have undertaken the Wilmington Traffic Separation Study (TSS) to evaluate all roadway/rail crossings along the CSXT ACB and Beltline rail line through the City of Wilmington. The purpose of the TSS is to *“determine the need for improvements and/or elimination of public at-grade crossings to improve safety and mobility for motorists, rail passengers and train crews.”* The outcome of this study may include *“the need for crossing closures and consolidations, adding or upgrading warning devices, roadway improvements, elimination of site obstructions and grade separations.”* Street closures impede urban mobility by reducing alternative routes, concentrating traffic on fewer streets and damaging the efficient grid system of streets in Wilmington. Dead ends create locations for drug dealing and other criminal activities. The costs of these changes, both direct and indirect, are substantial, and do not solve the problem, but only seek to reduce it marginally.<sup>2</sup> The proposed realignment of the rail out of the City would eliminate virtually all of the rail/vehicular crossings with one fell swoop, saving millions of dollars of unnecessary expense, with no disruption of the city’s street system and creating a less dangerous path for the rail.

That said, it is nonetheless recognized that a limited number of strategic street closings may be helpful in the near term until such time that the heavy freight traffic can be rerouted to a better alignment with more direct access to the port.

Each day, about 180,000 automobiles cross the CSXT railroad tracks in the City of Wilmington at over 30 at grade road crossings.



**“TRAFFIC ADVISORY: Section of Oleander Dr. closed for rail crossing improvements”**

(WECT News March 23, 2012)

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<sup>2</sup> The Cape Fear 2040 Transportation Plan lists these costs at \$10.9 million.



## II. Regional Efficiency, Safety and Economic Development

### Love Grove

At 5:00AM on June 28, 2013 six cars of a CSXT train derailed near the Love Grove community on the north side of Wilmington. Four of the six cars contained flammable xylenes. The derailed train blocked the one road in and out of the neighborhood; the City of Wilmington and CSXT worked diligently to build an emergency access road and clear the blockage by the end of the day. The immediate costs of the derailment included evacuation of residents, lifting the cars back on the track, repairing about 300 feet of track and building the emergency access road. In addition, it was later reported that CSXT reimbursed some residents for other costs (e.g. work time lost, etc.) The long term costs, however, are yet to be felt. Because of concern for public safety, the City's recent transportation bond included the construction of a second permanent road access into Love Grove, estimated at close to \$7 million. This expenditure of tax dollars would not be necessary with the relocation of the rail. Furthermore, the fear of a life threatening derailment in the midst of the urban area would be completely eliminated.



*Derailed train blocking Love Grove access*

Because of concern for public safety, the City's recent transportation bond issue included the construction of a second permanent road access into Love Grove that is estimated to cost close to **\$7 million**.

### Crashes and Derailments, Generally

As rail companies experience a marked increase in demand for freight hauling services and accelerated urbanization takes hold, opportunities for train related crashes and derailments also increase. These trends could reverse safety advances in the rail industry made over the previous decade. In the first few months of 2015, train crashes and derailments made headlines across the country. In February, for example, a derailment in Charleston, West Virginia involved a train carrying 3 million gallons of highly flammable North Dakota crude, "shooting fireballs into the sky leaking oil into a waterway and burning down a house".<sup>3</sup> All projections are that rail traffic into the port of Wilmington, as well as other ports nationwide, is going to increase significantly in the coming years, being driven by projected increases in port activity. (More on this follows on the next page.) This, while Wilmington and New Hanover County are on track for population increases of over 50,000 and 117,000 respectively, over the next 25 years. Assuming that recent development trends continue, much of that growth will be occurring on sites very close to the existing rail corridor—sites that the real estate market has generally shown to be no longer attractive or suitable for industries served by rail.



*Charleston, WV Train Derailment, February 2015*

*"The rail cars that split open and burst into flames during a western Illinois oil train derailment this week had been retrofitted with protective shields to meet a higher safety standard...No injuries were reported but the accident was the latest in a series of failures for the safe tank-car model..."*

Star News, 3/7/15

<sup>3</sup> Star News, March 7, 2015

## II. Regional Efficiency, Safety and Economic Development

### Neighborhood and Quality of Life Impacts

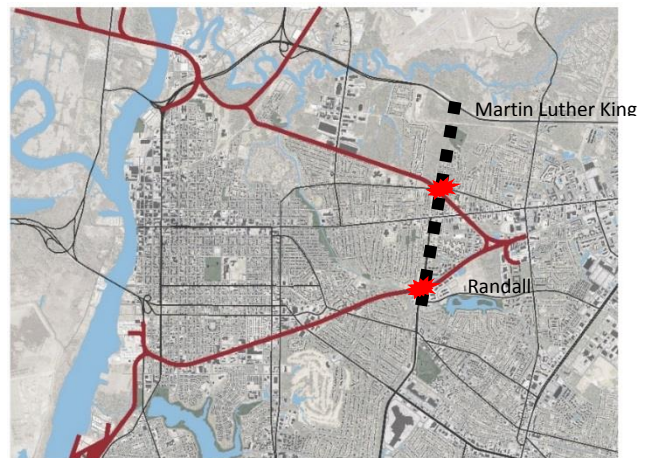
In addition to road crossing conflicts, derailments and crashes, the existing train traffic exerts a negative impact on many residential neighborhoods in Wilmington. Because of safety concerns, trains traveling through the city must slow to a “snail’s pace” and blow the train horn at frequent intervals. While this noise impact is felt most severely in neighborhoods closest to the track, the train horn can be heard for miles. Furthermore, the horns are often blasting during normal sleeping hours as the train seeks to avoid traffic interruptions during daytime hours. From time to time, the City of Wilmington receives requests to establish rail-related “Quiet Zones”--as described by the Federal Railroad Administration. The City’s Traffic Engineer has explored this possibility with the NCDOT Rail Division; estimates are that such Quiet Zone improvements would cost “on the order of \$250,000 to \$400,000 per crossing”. While that cost might be reduced at some rail crossings, the relatively large number of closely spaced crossings in the city overall would nonetheless make such a program unaffordable.<sup>4</sup>

*“Can’t something be done about these d \_\_\_ trains? Last night they just laid on the blasted horn forever. We can’t get any sleep!”*

--representative of complaints received at City offices.

### Problems Related to Rail-Driven Road Design (E.g. Independence Boulevard)

The presence of the rail corridor through the city has negative consequences relative to new road construction as well. The most recent example of this is the much needed extension of Independence Boulevard north from Randall Parkway to Martin Luther King Jr Parkway. This roadway extension has long been identified as a critical need for moving traffic north and south through the City of Wilmington. Proposed designs for this facility have called for an elevated roadway extension through the heart of the city. A primary reason for elevating the roadway over nearly its entire length is that it must pass over the circuitous, existing rail line twice. While City Council supports the need for the extension, they strongly oppose its design as an elevated facility, destroying the urban fabric of the city, bisecting neighborhoods, and adding millions of dollars to the cost of the project. Some estimates have indicated that if the Independence Boulevard Extension could be built without having to elevate over the rail, the total cost of the project could be reduced by at least \$75 million in 2015 dollars. The current rail alignment through the city is the primary impediment to this cost savings, as well as to allowing for a better design and preservation of nearby neighborhoods.<sup>5</sup>



Independence Boulevard Extension has been proposed as an elevated roadway. A primary reason for elevating the roadway is that it must pass over the circuitous, existing rail line twice. Estimates are that if it could be built without having to elevate over the rail, the cost of the project could be cut by about **\$75 million**.

<sup>4</sup> E-Mail communication dated November 6, 2014 from Andrew Thomas, PE NCDOT Rail Division to Don Bennett, PE City of Wilmington Traffic Engineer.

<sup>5</sup> The Cape Fear Transportation 2040 Plan lists the cost of construction for the Independence Boulevard Extension at \$197 million. In addition to the two rail crossings,

## II. Regional Efficiency, Safety and Economic Development

### Increased Opposition to Train Traffic Likely, as Port Volumes Grow

State Port projections for the next five years call for a doubling of container and general cargo.<sup>6</sup> Construction is nearing completion on two storage domes and related conveyors necessary to operate a wood pellet export facility at the Port. The facility will include a rail car unloading station which is expected to handle about 60% of the more than 1 million tons of pellets to be shipped annually from the port. Estimates are that it will take about 3 additional trains per week to keep up with the loading capabilities of the facility. These trains are expected to generate an additional 20,000 rail cars per year passing through the city of Wilmington. In addition to the pellet trains, the recently announced Vertex Company has begun to set up assembly operations for building hopper and tanker rail cars at the former Terex plant near the State Port. The Vertex plant will employ some 1,300 workers and will use a recently improved rail service to ship out newly manufactured rail cars. The company's original projections to ship out about 4,000 to 5,000 cars annually, were recently increased to about 8,000. This level of production could require an additional 2 to 3 trains each week. While the city of Wilmington supports this new economic activity, city offices receive frequent complaints from angry or irate citizens demanding that something be done about noise and safety issues related to rail. This situation is only going to get worse.

State Port projections for the period 2012 to 2020 call for bulk tonnage through the Wilmington port to increase by 15% and break-bulk tonnage to increase by over 100%.

### "Last Mile" Rail Impediments

The *Last Mile* is a term used in the rail industry to describe the last leg of a train's travel in reaching a transport hub, such as a shipping port. The *Last Mile* is often the least efficient portion of any rail shipment, comprising up to 28% of the total cost to move goods. Most often, the *Last Mile* impediments involve moving a train through a congested urban area in route to a long established shipping hub. This has become known as the "*last mile problem*."<sup>7</sup> Consistent with this problem, studies of rail movement in North Carolina have cited train travel through the city of Wilmington as a significant detriment to the shipment of goods through the port of Wilmington.<sup>8</sup> Relocation of the rail out of the congested city and to a more direct route unimpeded by land use and vehicular conflicts will make the port of Wilmington a more efficient, cost effective, and less hazardous port of choice for industries seeking a competitive facility.

The *Last Mile* is often the least efficient portion of any rail shipment, comprising up to 28% of the total cost to move goods.

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the proposed extension must also intersect with Market Street. Further study is needed as to the design of this intersection.

<sup>6</sup> As reported in the Greater Wilmington Business Journal "Ports on pace for continued growth" September 11 to 24, 2015, referencing the State Port Strategic Plan.

<sup>7</sup> Rodrigue, Jean-Paul; Claude Comtois; Brian Slack (2009). "The "Last Mile" in Freight Distribution". *The Geography of Transport Systems* (2nd Ed.). Routledge. p. 212. ISBN 978-0-415-48323-0.

<sup>8</sup> For example, see the 2012 North Carolina Maritime Strategy, page 19 and the Seven Portals Study (2011) page 105.

## II. Regional Efficiency, Safety and Economic Development

### Increased Efficiencies and Other Benefits for Rail

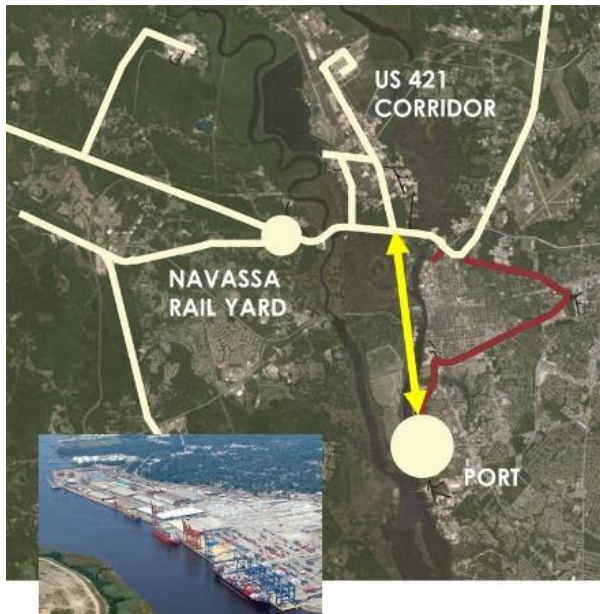
CSXT Rail has identified the port of Wilmington as a critical component of its National Gateway Corridor, an initiative intended to improve intermodal service between Mid-Atlantic Ports and the manufacturing and consumer centers in the Midwest. Relocation of the rail would allow CSXT to capitalize on what rail does best—high volumes of materials and goods shipped over great distances unimpeded by highway traffic and urban congestion. As noted above, the Last Mile Problem associated with urban congestion and 30+ road crossings in Wilmington is an impediment to that formula. A new rail bridge across the Cape Fear River near the State Ports would eliminate the Last Mile Problem, improve the efficiency of freight movement, dramatically decrease liability related to derailments and crashes, and eliminate costly maintenance issues at road crossings. The new route and improved tracks will also allow for longer trains, larger hopper cars and double stack trains to be more easily accommodated. Longer trains, large capacity hoppers and double stack trains have inherent efficiencies that work to the advantage of both the rail carrier and the customers served by the rail.



Relocation of the rail would allow CSXT to capitalize on what rail does best —high volumes of materials and goods shipped over great distances unimpeded by highway traffic and urban congestion.

### Opportunity for Direct Rail Connection to Ports from US 421 Corridor

New Hanover County recently committed to the extension of water and sewer services to the US 421 corridor north of Wilmington. This significant infrastructure investment is part of a major economic development initiative to improve manufacturing/distribution



opportunities in the area. The relocation of the rail to a new alignment on the west side of the river, would provide a direct rail connection between the US 421 corridor and the State Port, thereby leveraging local investments in utility infrastructure in this part of the urban area.

## II. Regional Efficiency, Safety and Economic Development

### Benefits to the Port of Wilmington

The benefits of improving rail access to the State Port are numerous and significant. One benefit, for example, is to reduce pressure for more truck traffic relative to rail. While no one expects truck traffic to and from the port to decrease in the coming years, there are clear advantages to shifting freight volumes from trucks to rail, while not impeding the upward trajectory of overall freight volume through the port.



State Port Authority Photo

Trucks must compete with cars for scarce space on the Cape Fear Memorial Lift Bridge. Traffic leading to the bridge is often in gridlock, especially during the ever expanding “peak” periods in the morning and evening. Neighborhoods near the port are known to complain about truck traffic more than any other aspect of port operations. Truck traffic is only expected to grow in volume as semis related to the new wood pellet operation will be coming and going a reported 22 hours per day.<sup>9</sup> In addition, the new cold storage facility is expected to be heavily truck dependent. If rail access to the port were improved and efficiencies enhanced, rail as a transportation option would also be improved; this could make rail the better choice for moving some types of freight, slowing the rate of increase in truck traffic relative to rail, while improving the profitability of the port.<sup>10</sup> At the same time, if the expected dependency on rail freight increases, but rail access to the port is not corrected and train related issues increase, the port and the rail will be facing more than an efficiency problem; they will also have a significantly greater public opposition problem likely to extend across the city and region.

While no one expects truck traffic to the port to decrease in the coming years, there are clear advantages to shifting freight volumes from trucks to rail, while not impeding the upward trajectory of overall freight volume through the port.

Many of the issues that impact CSXT Rail will also serve to either diminish or enhance the attractiveness of the port of Wilmington, depending on how they are handled. The *Last Mile Problem*, for example, currently makes the port of Wilmington less attractive for potential customers and can enflame the community, as noted above. A rail corridor that does not pass through the city, on the other hand, would enable the use of longer (and possibly double stack) trains, lowering costs and opening up business opportunities for high freight volume industries that might not otherwise consider the port of Wilmington.

*“The NC State Ports has the infrastructure and –possibly even more importantly—the available capacity to serve any automotive manufacturer...that decides to set up shop in North Carolina. That’s the message from the ports’ CEO as talk swirls in Raleigh about the state’s efforts to lure a major vehicle plant to the state.”—Star News, 3/3/15*

Finally, security and safety at the port would improve with greater reliance on rail relative to trucks. Fewer trucks would have to be checked in at the gates to the port or sit idle, waiting along roadsides outside the

<sup>9</sup> As stated at a community meeting between Enviva officials and Sunset park residents on March 5, 2015.

<sup>10</sup> See 2012 North Carolina Maritime Strategy for factors that make train service a viable alternative to trucking. Among the factors are “Potential for rail-delivered freight to avoid highway bottlenecks and congestion, particularly in and around North Carolina’s urban centers.” (p. 114)

## *II. Regional Efficiency, Safety and Economic Development*

port for their turn to get in. Inside the port, fewer trucks would be moving about the property at any given time, improving safety and efficiency of port operations. In addition, rail would no longer have to travel through the city at a crawl, making the train and its cargo less vulnerable.

### **Some Publicly Funded Infrastructure Costs Related to Rail Conflicts**

Information on various issues presented in this section of the paper included several examples of infrastructure expenses, to be paid for in whole or in part by taxpayers, to overcome conflicts with the existing rail line through the city of Wilmington. These expenses, if and when incurred, will likely need to be paid by a variety of federal, state and local governments. Thus, while the expenditures identified may not come from the same public source of funding, collectively, they nonetheless add up to a significant sum of money. Furthermore, the cost items below are intended only as a sampling of known costs and are in no way predictive of unanticipated future costs. If the rail were realigned to a more direct route to the port, most of these costs could be eliminated.

Love Grove Secondary Access (already committed)	<b>\$7 million</b>
Traffic Separation Study Street Closings/Improvements*	<b>\$11 million</b>
Independence Blvd Extension (extra cost if elevated over rail)	<b>\$75 million</b>
Quiet Zones @ \$250,000 per crossing	<b>___? millions</b>
Perpetual maintenance of street crossings (present value)	<b>___? millions</b>
<b>TOTAL (estimated and likely)</b>	<b>\$100+ million</b>

*\*Some portion of this cost may be paid for by CSXT. However, these street closings and related changes do not resolve the rail-vehicular crossing conflict issue. They seek only to reduce it. Thus, it may be considered a “down payment” on the problem.*

### III. The Trolley: Local and Regional Economic Development

This paper has thus far addressed only those impediments and opportunities that affect economic development relative to the safety, security and efficiency of *rail access* to the port of Wilmington. Not addressed to this point are the multitude of factors that could have a significant community impact upon repurposing the existing heavy freight rail line for a community- and region-serving public transit line. The following material sets forth the potential for Wilmington and all of southeastern North Carolina to become an economic engine of opportunity and a destination of choice for visitors near and far.

#### Comparisons to Charleston

What makes a city a major financial benefactor to the state and region in which it is located? The nation? The city of Charleston is often referred to as an economic powerhouse for all of South Carolina and a destination of choice for the entire nation. In 2014, Charleston was cited as the number one visitor destination in the United States for the fourth year in a row and number two in the world, second only to Florence, Italy.<sup>11</sup> The economic impact of Charleston’s tourism industry on the state and region has been conservatively estimated at over \$3 billion annually.<sup>12</sup> In addition, the same features that draw visitors to Charleston have also captured the attention and investments of major, high value industries, including Boeing, Google, and Daimler/Mercedes Benz, to mention a few<sup>13</sup>. Recently, Volvo announced that it will build its first U.S. auto plant on a site about 30 miles from the port of Charleston.<sup>14</sup>

In many respects, Wilmington has all of the features of Charleston, and in some cases, better. Wilmington has a larger national register historic district, closer proximity to the ocean and beach, a more moderate climate, and nearly two miles of what has been touted as the best riverfront in the nation.<sup>15</sup> While Charleston’s peninsula creates clearly defined “edges” for the historic city, it also presents a much smaller area for investment and growth, relative to the sizeable pre-1945 area of Wilmington.

This paper presents evidence of Wilmington’s opportunity to rival Charleston over the long run, catalyzed by one far-reaching project, with

The economic impact of Charleston’s tourism industry on the state and region has been conservatively estimated at over \$3 billion annually.



In October 2009, the Boeing Aerospace Company selected North Charleston for a major new manufacturing facility. Today, Boeing South Carolina employs nearly 8,000 workers.

<sup>11</sup> Conde Nast Magazine, reported in The Charleston Post and Courier, October 20, 2014.

<sup>12</sup> Office of Tourism Analysis, College of Charleston.

<sup>13</sup> As of May 2013, Boeing employed over 6,000 workers (*sic, currently over 8,000*), with an estimated \$4.6 billion annual impact on the Charleston region, (Charleston Regional Development Alliance, May 2013)

<sup>14</sup>“Volvo Chooses S. Carolina for New \$500 Million Auto Plant” ABC NEWS, May 11, 2015

<sup>15</sup> USA Today, October 24, 2014.

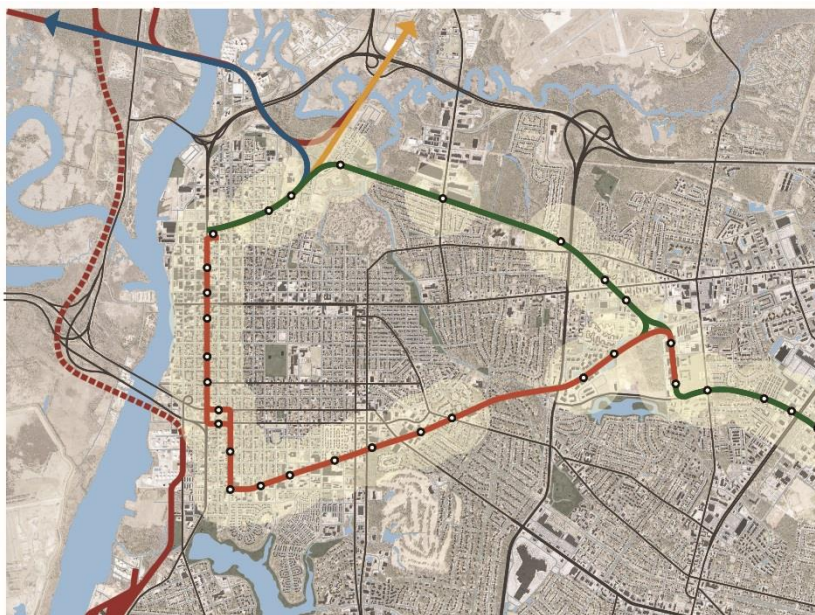
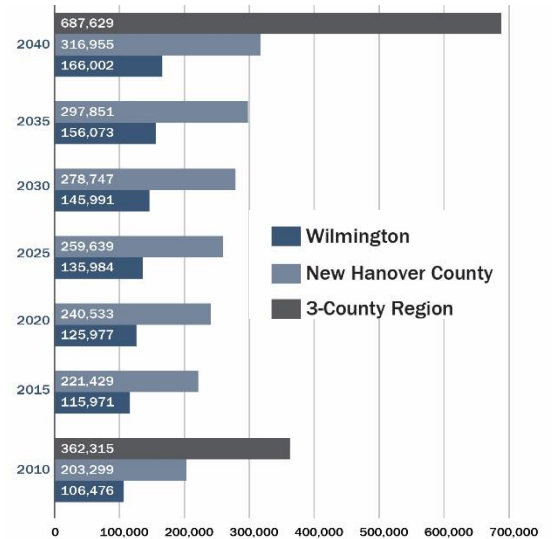
### III. Local and Regional Economic Development

transformative impacts: relocating the no longer relevant heavy rail line from the heart of the city to a safer, more efficient route and then repurposing it for an intra-urban trolley. Once the rail is relocated to a more functional location with direct access to the port, the existing heavy rail line could be converted to a powerful asset for urban mobility and economic investment. The result would be a city with an unsurpassed quality of life relative to any other mid-sized city in the nation. Some of the likely impacts are summarized as follows:

#### Accommodating Growth without Adding to Traffic Congestion

The City of Wilmington is expected to grow by over 50,000 people in the next 25 years, led by the “return to the city movement” of millennials and baby boomers. New Hanover County, including the City of Wilmington, will add 117,000 to the 220,000 already here. Brunswick County, just across the Cape Fear River, will add 115,000. With this growth, and if present trends continue, the entire region will experience rapidly expanding traffic congestion, especially focused on getting in, out and around Wilmington.

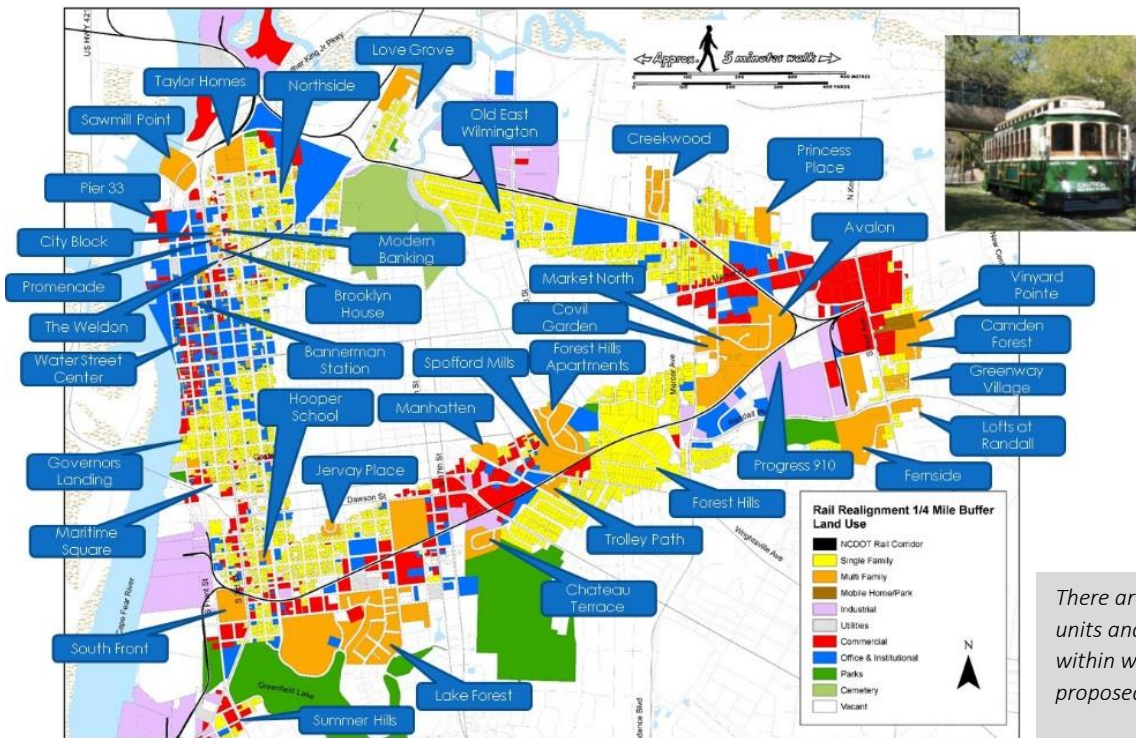
The establishment of a fixed rail transit service promises to leverage anticipated growth to create a dynamic urban center with multiple transportation options. The map below shows the future, strategically located trolley line, which would serve the urban core and reach west out into the main body of the city and center of the county. Thousands of employees, students, and others would be able to forego the daily use of their cars and opt instead for the convenience of a trolley system within a short walk of their homes and apartments.





### III. Local and Regional Economic Development

Estimates are that there are nearly 10,000 housing units and about 20,000 people *already* living within one quarter mile of the proposed trolley line (including the addition of an in-street connector running north and south serving the downtown).<sup>16</sup> The map below identifies some of the many housing developments that are either already built or under construction within easy walking distance of the future trolley line. Many of these housing units include newly developed, higher density multi-family projects, with student, young worker, and moderate income populations perfectly attuned to transit ridership. Once a trolley line is established, experience from other cities indicates that substantial new investment in mixed use “hubs” and transit-oriented development will follow. Transit ridership and related urban development thus become partners in making Wilmington an enviable, forward looking city of the 21<sup>st</sup> century.



There are about 10,000 housing units and 20,000 people living within walking distance of the proposed trolley line.

Map showing some of the many housing developments within 1/4 mile of proposed trolley line.

Given new development patterns and locations in the post-recession era, it would not be unreasonable to expect that a high percentage of the 50,000 new residents expected to call Wilmington home in 2040 might be accommodated in relatively high density, transit-oriented developments along the trolley line. Even better, these new transit oriented developments would not add to traffic congestion on area streets.

<sup>16</sup> One quarter mile is the walking distance most commonly associated with convenient transit ridership.

### III. Local and Regional Economic Development

#### Wilmington as a Total Tourism Package, Bound Together by the Trolley

It is not insignificant that the existing rail line loop through the city begins and ends at Wilmington's riverfront. As stated previously, Wilmington's riverfront was recently voted by the readers of USA Today as the best in America. In contrast to many other riverfront cities, the central business district of Wilmington has prominent views of the Cape Fear River at multiple street ends, and for the entire length of the riverwalk. Furthermore, most east-west streets of the pre-1945 city terminate at the riverwalk. Most of these streets extend eastward for many blocks, linking a vast area of the city directly to the river's edge.



It is not insignificant that the existing rail line loop through the city begins and ends at Wilmington's riverfront.

The existing heavy rail loop through this older part of the city, when converted to a transit line, has the potential to work with the entire street network to create a fully integrated multi-modal transportation system. Such a system would not only be convenient to city residents, but would also be a popular attraction for visitors—making Wilmington more like a European counterpart than any other city of its size in the nation. In much the same way that tourists are drawn to other communities for the unique experiences they offer, tourists would be drawn to the coastal city of Wilmington to experience the city's several historic districts, the vibrant downtown nightlife, the magnificent riverfront, the cultural offerings, dining and accommodations, and an enjoyable, functional trolley system that binds it all together.



Savannah's trolley system (2009) uses vintage streetcars running on high tech batteries that can also operate with overhead power.

#### Conversion of Low Value Parking into High Value Real Estate

In the past ten to fifteen years, Wilmington and New Hanover County have seen many new large scale projects developed downtown. Included among them are the PPD headquarters, the Wilmington Convention Center, and major expansions of Cape Fear Community College facilities. It is estimated that there are over 10,000 employees and about 7,500 college students attending classes downtown each day, the vast majority of which arrive by a car that requires a parking space. These numbers do not take into account visitors and tourists.

It is estimated that there are nearly 11,000 employees and about 7,500 college students downtown each day, the vast majority of which arrive by a car that requires a parking space.

In addition, many new land use intensive residential, commercial and mixed use projects have been built or are soon to be added. A new Marriott Hotel will soon be joined by several other new hotels. Land for a significant new northern waterfront park has been purchased and the unimproved site is already being used for major outdoor events. Pier 33 will soon be a major mixed use project and entertainment venue on the waterfront. Sawmill Point will add several hundred new residential units just south of the Isabel Holmes Bridge. A new Performing Arts Center recently opened. All of these projects have a common denominator-- a need for large amounts of parking. To meet the demand for parking created by employees, students, tourists, residents and others, costly parking decks have been built, or extensive surface parking lots have

### III. Local and Regional Economic Development

paved over what could otherwise be developed as valuable real estate. These parking facilities contribute very little to the economic value or character of the downtown. A convenient trolley system would dramatically reduce the need for surface parking, freeing up these properties for productive development and increasing the tax base for the benefit of all city and county residents.

#### Revitalization and Reinvestment, Particularly on the Southside

Consistent experience from other communities reveals that fixed rail transit systems generate a demand for transit oriented development at underutilized properties along the length of the line. One area of Wilmington, in particular, that would benefit from this rail conversion is the so-called “Southside”, where underutilized and now defunct commercial and industrial properties and brownfields adjoin the tracks. These relatively small, early 20th century manufacturing facilities, now empty or underperforming as storage or other low value uses, are no longer relevant to the high volume, long distance shipping and delivery business model that is the bread and butter of today’s rail carriers. As has been the case with trolley systems elsewhere, integrated real estate investment follows the addition of convenient, reliable fixed rail transit. As an aside, one unique funding mechanism that could be employed to build light rail facilities in this part of town would be tax increment financing, whereby the increase in taxes generated by the additional development are employed to pay for transit-related improvements.



The Public Market at the 7<sup>th</sup> Street Station of the LYNX Blue Line has become a popular destination in Charlotte.

#### Commuter Relief to the Memorial Lift Bridge (from Brunswick County)

The two existing vehicular bridges crossing the Cape Fear River, especially the Memorial Lift Bridge, are strained to serve the traffic volumes they must carry each day. The cost of replacing the 1969 Lift Bridge or building another bridge at a location farther south has been estimated on the order of \$600 million to \$1.3 billion, depending on location, design and financing arrangements. These dollar amounts are not easily found, nowhere budgeted, and likely still 20 years off at best. While a second, more direct rail crossing is not intended to eliminate the need for a third vehicular bridge, it could be built sooner and at less cost, providing much needed relief to commuters and truckers competing for road space on the Lift Bridge.



While a more direct rail crossing is not intended to eliminate the need for a new vehicular bridge, a rail bridge could be built sooner and at less cost, providing much needed relief to commuters and truckers competing for road space on the Lift Bridge.

Of note, the Wilmington MPO recently initiated a park and ride service from Leland to Wilmington for the purpose of alleviating congestion on the lift bridge. While the service has attracted a few dozen commuters, the buses employed must still compete for road space on the bridge, and the numbers involved to date are so small as to have no significant impact on bridge traffic. A light rail/trolley service for Wilmington could be extended to include a high volume park and ride carrier serving Leland, Belville, Navassa and other locations in northeast Brunswick

### III. Local and Regional Economic Development

County--an area so close to Wilmington but so hard to get to across the river. This service would add no additional traffic loading on the two existing vehicular bridges--or on city streets and parking lots--while providing a much needed transit service to the residents of this area. Coincidentally, this commuter service would work neatly into plans for a new multi-modal center in downtown Wilmington, the site for which adjoins the original passenger rail line serving downtown Wilmington.

#### Affordable Housing/Better Neighborhoods

The availability of convenient (i.e. frequent, dependable, close to home and work) public transportation, such as that offered by a trolley system, has a direct bearing on the ability of an individual or family to pay for housing. Numerous studies have confirmed a shortage of decent affordable housing in Wilmington and New Hanover County. Federal guidelines state that housing costs should not exceed 30 percent of household income to be considered affordable. Currently, 54 percent of renters and 40 percent of homeowners in the Wilmington area pay more than these percentages for their housing.<sup>17</sup> One effective way to stretch a limited budget is to reduce transportation costs as a percentage of household income. Nationally, the cost of owning a typical automobile today stands at close to \$10,000 a year.<sup>18</sup> If just one car of a two-car household could be eliminated, it would add substantially to the income available for housing, and improve the prospects for affording better housing.<sup>19</sup> A light rail/trolley service is one of the most effective means of addressing the affordable housing challenge. It might also cause homes within walking distance of the trolley line to become more valuable, leading to better upkeep and neighborhood enhancement.

Nationally, the cost of owning a typical automobile today stands at close to \$10,000 a year. If just one car of a two car household could be eliminated, it would add substantially to the income available for housing, and improve the prospects for affording better housing.



#### Greenway Bikeway Connector

Extensive public input for the City's Comprehensive Plan, as well as Cape Fear Transportation 2040, have identified bicycle and pedestrian facilities, including off road trails, as the number one priority of area residents. In addition to the trolley service, there may be opportunity for the establishment of a "rail and trail" bike-ped facility paralleling the track<sup>20</sup>.

*The artist's rendering above shows the potential conversion of the former downtown rail spur into a combined "rail and trail" facility.*

<sup>17</sup> Cape Fear Housing Coalition, as reported in the Star News, March 1, 2015.  
<sup>18</sup> USA Today April 16, 2013 citing a report by the American Automobile Association, including purchase price, maintenance fuel, insurance, etc.  
<sup>19</sup> Consistent with this number, the American Public Transit Association estimates that individuals who ride public transportation save an average of \$9942 annually-- after fare costs but with the addition of parking fees.  
<sup>20</sup> A similar arrangement was recently endorsed by City Council and approved by the NC General Assembly, in which the old railroad spur, leading to the proposed site of the Multi-Modal Center in downtown Wilmington, may be employed in the near term as a greenway corridor.

### III. Local and Regional Economic Development

Because of the arcing path of the existing rail corridor, a multi-use trail could be linked up with other popular bike-ped paths in the city such as the River to Sea Bikeway and the Cross City Trail. All of the same features of the rail corridor that make it attractive for use as a trolley line, would also apply to its use as a bike-ped trail corridor. As noted in the Comprehensive Greenway Plan adopted by the City of Wilmington, New Hanover County and the Wilmington MPO in 2013, benefits of such a trail would include increased property values, economic development, cost savings for transportation, improved health and greater community identity, among others.

#### Environmental Benefits

Environmental benefits resulting from the proposed rail realignment would be both broad and significant:

- **Air quality** will improve due to less motor vehicle idling while cars wait for long trains to pass at the 30+ rail crossings in the city. Freight in and out of the port may shift from trucks to more efficient and less polluting trains as rail access to the port is improved. Upon conversion of the existing rail to a trolley line, automobile air pollution in the urban area will decline in proportion to the on-going increase in population and related traffic congestion. The frequent bottleneck of cars backed up at the Memorial Lift Bridge could see some relief if a rail-based park and ride service across the river were established as part of the trolley system.
- **Water quality** in the Cape Fear River will benefit from less polluting stormwater runoff from fewer surface parking lots downtown, as well as the need for less paved parking overall in the city. Pollution on city streets would lessen as cars would move more efficiently through the city rather than stuck in growing traffic congestion.
- **Relief from noise pollution** across the city would be profound as heavy rail trains and their horn blasts would be replaced by a greenway and much quieter trolley cars that would not operate in the middle of the night.
- **Conservation of energy and investments in infrastructure and buildings** will be realized when vacant and underperforming buildings adjoining the existing rail corridor, particularly on the south side of town, may be adaptively reused. In addition, the fuel efficiency of the train will be increased by eliminating the long, circumferential route through the city.



Water quality in area streams will benefit from fewer surface parking lots downtown, as well as the need for less paved parking overall in the city.

### III. Local and Regional Economic Development

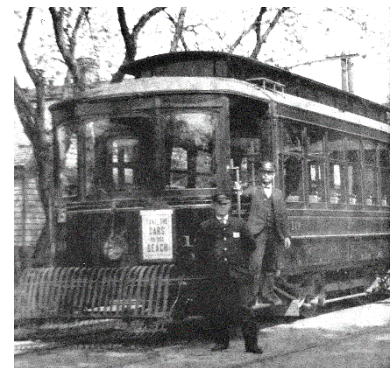
#### Social Integration and Sense of Community



Studies have shown that people prefer to ride fixed rail transit over buses. Whether this perception regarding the difference between buses and fixed rail transit is justified is not the point; the perception persists. Fixed rail transit presents an image of acceptability to people of all economic, demographic and social classes. The route of the new fixed rail trolley would pass through neighborhoods of all types. Riding in one trolley car, it would not be out of the ordinary to picture a student at Cape Fear Community College, an executive at PPD, a hotel housekeeper, an attorney in the court system, a waiter and a banker all riding in the same trolley car. Such a diverse mix of individuals would help to break down economic, racial and ethnic barriers and forge a stronger sense of community and greater appreciation for diversity in Wilmington--truly a 21<sup>st</sup> century community realizing its potential.

#### Likely Community Support for Trolley Service

Trolley lines and street cars are not a new concept for Wilmington and New Hanover County. One hundred years ago, trolley lines provided convenient service to residents of street car neighborhoods like Carolina Heights, Carolina Place, Sunset Park and Winoca Terrace. In addition, neighborhoods along the streetcar line from downtown Wilmington to Wrightsville Beach enjoyed the benefits of convenient mobility within a short walk of their homes<sup>21</sup>. Contrast the quaint nostalgia of a streetcar with the rumble and extraordinarily loud horn blast of a passing freight train through a neighborhood—especially in the middle of the night. Presented with the opportunity to replace heavy freight trains with a convenient trolley service that supplements and complements existing transit bus routes, it stands to reason that most residents would prefer to have the latter serving their neighborhood, improving their quality of life, and adding value to their homes.



Presented with the opportunity to replace heavy freight trains with convenient trolley service, it stands to reason that most residents would prefer to have the latter serving their neighborhood, improving their quality of life, and adding value to their homes.

<sup>21</sup> Growth Factor Report, Create Wilmington Comprehensive Plan, page 110.

### III. Local and Regional Economic Development

It is worth noting that the City's new Comprehensive Plan, identifies *Transit Oriented Development* as one of the six *Alternative Future Visions* for Wilmington. Comments offered by citizens on this Vision included "bring back the historic streetcar line from Downtown to Wrightsville Beach" and "utilize existing rail rights of way to establish a light rail system that connects major destinations across the city."<sup>22</sup> The policy portion of the plan also includes an extensive discussion of the need for and merits of convenient public transit, and a summary of the rail realignment<sup>23</sup>. The Growth Strategies Report includes a summary of the Rail Relocation and Transit/Greenway Loop opportunity outlined in this paper<sup>24</sup>.



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<sup>22</sup> Foundations Report, Create Wilmington Comprehensive Plan, page40.

<sup>23</sup> Policy Report, Create Wilmington Comprehensive Plan. See page 51-54 and 63.

<sup>24</sup> Growth Strategies Report, Create Wilmington Comprehensive Plan, pages 46-47

#### IV. Advantages of the Relocated Rail Route Proposed for Evaluation

### IV. Advantages of the New Rail Route Proposed for Evaluation

The route proposed for relocation of the rail line presents numerous advantages over the current rail corridor through the City of Wilmington. Advantages include:

- **Short Path, Unobstructed by Development**

The 5 mile path is free of development for its entire length.

- **Strategic Location Available for a New Rail Bridge**

A new, non-elevated bridge across the Cape Fear River could be located north of the ship turning basin and south of the Memorial Lift Bridge. This location promises to have the least impact on ship navigation, as most ships do not proceed beyond this point. As with the Hilton Railroad Bridge, the new bridge could nonetheless be opened for any vessels headed north of this location.<sup>25</sup>

- **Minimal Environmental Impacts**

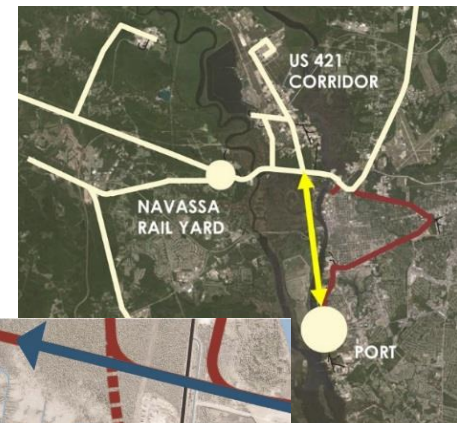
The proposed route closely parallels US 421 for much of its length, generally within the same transportation corridor, a classic alignment that minimizes environmental impacts and the potential for habitat fragmentation/restricted wildlife movement. In addition, up to one third of the proposed alignment, that section north of the Thomas Rhodes Bridge, could be built on a former rail bed.

- **No At Grade Road Crossings**

The proposed route would have no at-grade road crossings. This is in stark contrast with the current route through the city with over 30 road crossings. Grade separation would be required as part of the design in the one or two locations where necessary.

- **Opportunity for Direct Rail Connection to Ports from US 421 Corridor**

The proposed realignment would provide a direct rail connection between the US 421 corridor and the Port of Wilmington. This would dovetail nicely with New Hanover County's recent commitment to extend water and sewer



The proposed route parallels US 421, generally within the same transportation corridor, an alignment that minimizes environmental impacts.

<sup>25</sup> A nearby example is the openable Hilton Railroad Bridge just north of the Isabel Holmes highway bridge across the Northeast Cape Fear. This single span bascule bridge, built in the early 1970's, reportedly stays open most of the time, closing only when it is necessary for a train to cross. Source: Matthew B Ridpath



#### *IV. Advantages of the Relocated Rail Route Proposed for Evaluation*

services to improve manufacturing/distribution opportunities in this area.

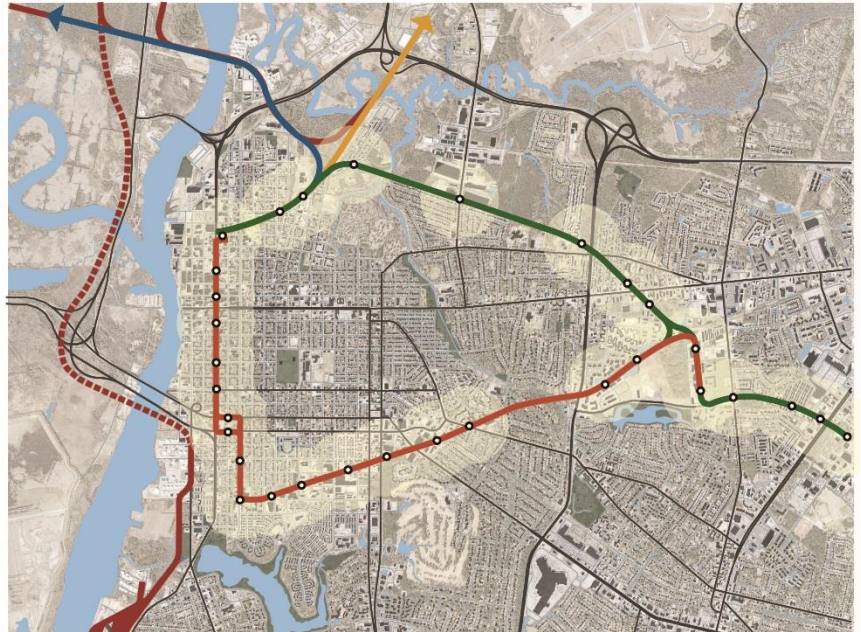
- ***Away From Human Settlements***

The proposed route is well over a mile from the nearest human settlement to the west and about a quarter mile from *Wilmington* to the east. Because there would be no road crossings, there should be no need for the blast of the train's horn in the middle of the night, and no need for maintenance of any at-grade road crossings. In addition, should a significant derailment or other unintended rail event occur, negative impacts on life and property would be far less threatening and more easily mitigated than a similar event occurring in the densely developed urban core of Wilmington.

V. *Advantages of Repurposing the Existing Heavy Rail to a Trolley*

V. **Advantages of Repurposing the Existing Heavy Rail to a Trolley/Greenway**

Establishing and paying for a fixed rail transit system in any city, much less a city the size of Wilmington, can be a big deal. For a totally new system, corridor acquisition, system design and track construction can be time-consuming, difficult and extraordinarily expensive. For reuse or shared use of an existing heavy rail line, reconstruction or a major upfitting of the existing line, safety measures for rail user conflicts, and additional parallel track construction can be cost prohibitive. Fortunately, many of these potential hurdles are non-existent or much less onerous in Wilmington than what might be found in other cities. Consider the following potential advantages:



- **The rail corridor is already in place and well located.**

As a transit line, the existing rail corridor would offer a near perfect arc through the heart of the city, reaching out to thousands of existing (and future) housing units, commercial and business destinations, and terminating at either end of the downtown core. A north-south in-street connector would complete the loop to effectively serve the downtown. There would be no need to take out buildings, disrupt neighborhoods or overcome other obstacles to create the transit corridor. There would be no need to build bridges or facilities to cross streams. The arc is nearly symmetrically split east to west by the historic axial road into the city: Market Street. A city planner designing a city from scratch could do no better.

- **The trolley would use standard gauge rail already in place.**

The use of heavy rail already in place has many potential advantages. Most light rail systems today use standard gauge.<sup>26</sup> One key advantage of standard gauge is the ability to use common maintenance equipment on it, rather than custom-built machinery. Using standard gauge also allows light rail vehicles to be delivered

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<sup>26</sup> Bottoms, Glen (2000). *Continuing Developments in Light Rail Transit in Western Europe* (PDF). 9th Annual Light Rail Transit Conference, Portland, Oregon: Light Rail Transit Association. Retrieved 2007-01-02.

## V. *Advantages of Repurposing the Existing Heavy Rail to a Trolley*

and relocated conveniently using freight railways and locomotives. Standard gauge also allows low-floor vehicles to be used, as there is generally insufficient space inside the car for wheelchairs to move between the wheel wells in a narrow gauge layout.

- **Initially, trains could operate on a single existing track.**

So as to minimize the cost of first establishing trolley/light rail service, occasional sidings could be used to allow trolley cars to pass each other in opposite directions. As ridership grows, a second full track could eventually be installed if justified.

- **Major track upgrades may not be necessary.**

Given the wholly urban setting of the trolley loop through the city, high rail speeds would not be anticipated. This may significantly reduce or even eliminate the need for expensive rail upfitting and/or curve realignments.

- **Initially, trolley cars need not use overhead power lines (catenary).**

One major expense normally associated with light rail and street cars is an overhead power line, including all the poles necessary to support it, and an electric power source. Several recently opened systems in North America use diesel-powered trains to eliminate this initial cost. Among these 21<sup>st</sup> century light rail systems are the O-Train in Ottawa (opened in 2001), the River Line in New Jersey (opened in 2004), and the Sprinter in northern San Diego County, California (opened in 2008).

Savannah's streetcar system, opened in 2009, is a vintage (appearing) system that uses super capacitor technology along with batteries that enable it to operate with or without overhead power. Diesel and battery powered trolleys are employed in transit systems where lower ridership is expected (and thus do not justify the expense of the electric power infrastructure). Operations with diesel- and battery powered trains can be an interim measure until ridership growth and the availability of funding allow the system to be upgraded to electric power operations—or they can continue on indefinitely.<sup>27</sup>

Still another option is to use the right of way of the rail corridor for rubber wheel trolley cars, requiring no infrastructure associated with fixed rail transit but nonetheless still benefitting from having their own dedicated transit corridor with no competition for road space—as with on-street busses.

Given the wholly urban setting of the trolley loop through the city, high rail speeds would not be anticipated. This may significantly reduce the need for expensive rail upfitting and/or curve realignments.



Galveston, Texas constructed a streetcar system in 1988 using diesel powered vintage streetcars.

<sup>27</sup> [http://en.wikipedia.org/wiki/Light\\_rail\\_in\\_North\\_America](http://en.wikipedia.org/wiki/Light_rail_in_North_America)

VI. Support From and For the Governor's 25-Year Vision for North Carolina

VI. Support From and For the Governor's 25-Year Vision for North Carolina



*"If we fail to make improvements at our ports, we stand to lose business in a highly competitive shipping industry. Doing nothing may make it difficult for our ports to attract investments and create new employment opportunities."*

*--Governor Pat McCrory*

Governor McCrory's 25-Year (Transportation) Vision for North Carolina includes the following goals, all of which lend support and are strongly supported by the rail realignment proposal outlined in this paper:

**Governor's Vision:**

- *"Improve rail connections between military bases and ports."*

Beginning during World War II and continuing to this day, the Port of Wilmington has been called upon to support operations critical to national defense. During Operation Iraqi Freedom II, for example, the North Carolina State Port at Wilmington was one of only fourteen strategic military ports in the country (Morehead City was another) that played a key role in moving massive quantities of equipment and vehicles to and from the war zone. In fact, some 200,000 square feet of equipment, including Humvees, bridging equipment and containers of supplies, were loaded at the Wilmington State Port in less than 4 days.<sup>28</sup> The Department of Defense values ports that can respond to secure, rapid deployment needs. Direct rail service into the Wilmington Port would help meet this objective. (As noted later in this paper, this desired capability argues for Federal government financial support for improved access to the Port.)



Humvees ready to be loaded on ships to the war zone.

<sup>28</sup> "Ports Play Key Role in Iraqi Freedom II" News Release from the North Carolina Ports, undated.

## VI. Support From and For the Governor's 25 Year Vision for North Carolina

### Governor's Vision:

- "Develop intermodal train service at the Port of Wilmington."
- "Develop economically competitive rail service to inland ports"
- "Improve rail-seaport connections to I-95 to serve the eastern US rail freight"

The North Carolina Department of Transportation has worked with CSXT on the National Gateway Project, including improvements at the Charlotte Intermodal Terminal. The State Port at Wilmington is the critical transshipment facility for goods and materials entering and leaving the Gateway rail system from the Atlantic shipping lanes. If the promise of increased traffic on the Gateway system is to be realized, the efficient movement of trains in and out of Wilmington will become more important. The "Last Mile Problem" (see especially page 10 of this paper), caused by the passage of trains through the heart of Wilmington, will need to be addressed and resolved. A relocation of the rail is the most reliable, effective solution.

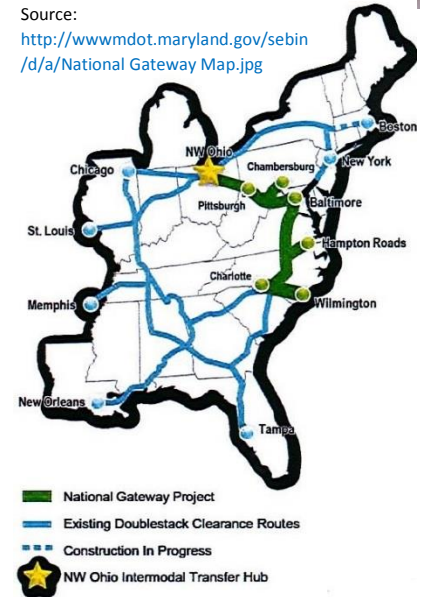
### Governor's Vision:

- "Expand mass transit options in high growth areas, including rail"

Fixed rail mass transit is most often associated with larger urban areas, such as Charlotte and Atlanta. Yet, there was a time about 100 years ago when street cars rolled along fixed rails through Wilmington and New Hanover County, supported by a much smaller population<sup>29</sup>. Today, the Wilmington urbanizing area, including southern Pender County and northeastern Brunswick County, is among the fastest growing areas in the nation. Relocating heavy rail out of the city and replacing it with a light rail/trolley system presents an unusual opportunity to return Wilmington and New Hanover County to a more balanced, true, multi-modal transportation system. In addition, the future extension of light rail to the west side of the Cape Fear could provide significant relief to residents of Leland and northeastern Brunswick County, who must fight the daily battle across the aging and overcapacity Memorial Lift Bridge. It could also make Wilmington a one of a kind, mid-sized American city with an unmatched quality of life and create a major economic engine for the entire State of North Carolina, just as the City of Charleston has done for the State of South Carolina. (See page 12 for additional information.)



Source:  
<http://www.mdot.maryland.gov/sebin/d/a/NationalGatewayMap.jpg>



There was a time about 100 years ago when street cars rolled along fixed rails through Wilmington and New Hanover County, supported by a much smaller population.

<sup>29</sup> Trolley service operated by the Tide Water Power Company reached its peak from 1915 to 1925, with about 22 miles of trolley lines, supported by a total New Hanover County population of about 40,000, or only about 1/6 of today's population. (US Census and New Hanover County Public Library, Dr. Robert M. Fales Collection)

## VI. Support From and For the Governor's 25Year Vision for North Carolina

### Governor's Vision:

- *Expand access to passenger rail options in all regions of the state.*

According to several broad sources of public input<sup>30</sup>, Wilmington area residents agree with the Governor's vision as to the desirability of passenger rail service connecting the port city with the Piedmont and key destinations north and south. Consistent with this desire, the City of Wilmington and NCDOT have reserved a site downtown for the development of a multimodal transportation center. Given the attractiveness of Wilmington as a coastal and beach destination, and growing economic ties to Charlotte and Raleigh, it is not surprising that passenger rail service to Wilmington would be a shared vision at both the state and local levels. The proposed relocation of the rail line would support future opportunities to provide intercity passenger rail service for Wilmington. In fact, the site of the planned multi-modal center was selected due to its proximity to the original passenger rail corridor that once brought travelers directly into the central business district of Wilmington. The center could eventually serve as a critical transfer point between intercity rail and intracity light rail/trolley service. To make this a reality, incorporating it into the planning stages of the multi-modal center is far preferable to attempting an add-on in the future.

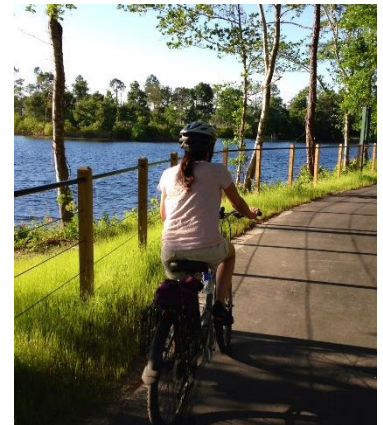


Amtrak Passenger Train

### Governor's Vision:

- *Support the completion of significant bicycle and pedestrian systems to provide transportation options and promote the "great trails state" brand.*

The city of Wilmington has literally been a trail blazer in recent years, building or substantially improving more than 20 miles of multi-use trails, another 20+ miles of bicycle lanes, and nearly 2 miles of the city's riverwalk. Among the multi-purpose paths has been the 13 mile long Gary Shell Cross City Trail, extending from Wade Park in southeast Wilmington, and arcing through the city all the way to the drawbridge at Wrightsville Beach. In addition, public input received during development of the city's recent Comprehensive Planning process identified walking and bicycle facilities as the number one priority of area residents. At the federal level, there is also support for ped/bike facilities under the MAP-21 Program and Fixing America's Transportation (FAST) Act. Upon relocation of the rail to a more direct route into the port, the repurposing of the rail line into a greenway trail/trolley facility is a singular opportunity to satisfy this identified community priority.



*The City's recent Comprehensive Planning process identified walking and bicycle facilities as the number one priority of area residents.*

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<sup>30</sup> From public input received during the Wilmington Comprehensive Planning Process, the Wilmington MPO 2040 Transportation Plan, for example.

## VII. Support From and For the Comprehensive State Rail Plan

The State Comprehensive Rail Plan, prepared by the Rail Division of NCDOT, contains many goals and provisions that are supported by the rail realignment proposal described in this paper—so many that it is not practical to itemize them all here. Instead, listed below are just the overriding Goals, Vision Statements and Objectives set forth in the State Rail Plan, accompanied by cross references to those portions of this white paper that speak to each Goal Area, Vision Statement and related Objectives.

State Rail Plan Vision, Goals and Objectives	Support From This Proposal
<p><b>Goal Area 1 – Safety and Security</b>  <b>Vision:</b> A rail system that safely moves people and products.  <b>Objectives:</b>                      1.1 Reduce the number of rail-related crashes, including pedestrian trespassers                      1.2 Maintain safety and mobility during emergencies                      1.3 Prevent harm from train crashes and incidents; address them safely and efficiently                      1.4 Improve the security of North Carolina’s rail system                      1.5 Maintain equipment properly</p>	<p>Rail-Roadway Crossing Conflicts p. 5                      Love Grove p. 6                      Crashes and Derailments, Generally p. 6                      Advantages of the New Rail Route p. 21</p>
<p><b>Goal Area 2 – Stewardship</b>  <b>Vision:</b> A rail system that is operated and improved with the greatest benefit and least impact feasible to the natural and human environment  <b>Objectives:</b>                      2.1 Minimize the negative impacts of rail operations and new rail projects on the natural and human environment                      2.2 Maximize the positive impacts of new rail projects on the natural and human environment                      2.3 Increase the understanding and support of rail among policy makers and the public as a mode of transportation that supports economic growth while limiting the impact of increased transportation demand on air quality, energy use and safety.</p>	<p>Neighborhood &amp; Quality of Life Impacts p. 7                      Problems of Rail-Driven Road Design p. 7                      Increasing Opposition to Train Traffic p. 8                      Environmental Benefits p. 18                      Likely Support for Trolley/Light Rail p 19</p>
<p><b>Goal Area 3 – Preservation</b>  <b>Vision:</b> A rail system that is preserved for current and future use  <b>Objectives:</b>                      3.1 Maintain and improve the viability of short line railroads and associated industries                      3.2 Preserve opportunities for future passenger or freight rail service to leverage existing corridor assets and capacity                      3.3 Preserve railroad corridors for future transportation use</p>	<p>Accommodating Growth While Minimizing Traffic p. 13                      Wilmington as a Total Tourism Package p. 15                      Advantages of Repurposing Existing Rail p. 23</p>

VII. Support From and For the Comprehensive State Rail Plan

<p><b>Goal Area 4 – System/Interoperability</b>  <b>Vision:</b> A rail system with connecting corridors and facilities that promotes the efficient movement of people and goods and supports economic growth and development.  <b>Objectives:</b>  4.1 Move people and goods more efficiently  4.2 Maintain and improve connectivity of the rail system. Supporting economic growth</p>	<p>“Last Mile” Rail Impediments p. 8  Increased Efficiencies/ Benefits for Rail p. 9  Benefits to the Port of Wilmington p. 10  Accommodating Growth While Minimizing Traffic p. 13</p>
<p><b>Goal Area 5– Freight</b>  <b>Vision:</b> A rail system that provides safe, reliable, efficient and well used rail freight service.  <b>Objectives:</b>  5.1 Increase the efficient use of freight rail service  5.2 Increase the freight customer base  5.3 Promote economic development</p>	<p>Advantages of the New Rail Route p. 21  “Last Mile” Rail Impediments p. 8  Increased Efficiencies/Benefits for Rail p. 9  Benefits to the Port of Wilmington p. 10</p>
<p><b>Goal Area 6– Passenger</b>  <b>Vision:</b> Provide a system of intercity passenger services connecting North Carolina’s major metropolitan areas and other communities to destinations within the state and long the east coast.  <b>Objectives:</b>  6.1 Increase ridership and enhance economic performance of the state’s passenger rail network  6.2 Provide passenger service or connections to intercity passenger service, from large growth areas to major East Coast destinations and feeder stops</p>	<p>Governor’s Vision: Expand access to passenger rail in all regions of the state. p. 27</p>
<p><b>Goal Area 7– Commuter</b>  <b>Vision:</b> A rail system that connects suburbs and bedroom communities  <b>Objectives:</b>  7.1 Support local plans and policies to implement commuter rail service</p>	<p>Governor’s Vision: Expand mass transit options in high growth areas p. 26  Accommodating Growth While Minimizing Traffic p. 13  Commuter Relief to the Lift Bridge p. 16  Advantages of Repurposing Existing Rail p. 23</p>
<p><b>Goal Area 8– Planning</b>  <b>Vision:</b> State rail planning addresses the collective needs of the Sate, its citizens, industries, traveling public and transportation providers  <b>Objectives:</b>  8.1 Support local plans and policies to maintain and improve commuter rail service to support business and employment growth</p>	<p>Comparisons to Charleston’s Economics p. 12  Accommodating Growth While Minimizing Traffic p. 13  Commuter Relief to the Lift Bridge p. 16  Wilmington as a Total Tourism Package p. 15  Convert Parking to Valuable Real Estate p. 15  Revitalization and Reinvestment p. 16</p>



## VIII. Summary of Likely Stakeholders Having Reasons to Support



This section identifies a number of stakeholders who may have reasons to either provide funding or take other positive steps to see this proposal come to fruition. Interested stakeholders can be identified at the federal, state and regional level and also in the private sector.

U.S. Department of Defense: Rapid response deployment of war materials and equipment through Wilmington's port would be improved.

Governor of North Carolina: The proposal supports and is supported by Governor McCrory's Transportation Vision for North Carolina.

NC General Assembly: The project would stimulate job creation and billions of dollars of economic impact, and related tax revenues annually to the State Treasury (a national visitor destination and economic powerhouse a la Charleston)

Port of Wilmington and the Wilmington Terminal Railroad: Attractiveness of the State Port at Wilmington and the Wilmington Terminal Railroad for freight would be improved. Freight services could shift from trucks to rail, increasing revenues and improving community relations.

CSXT: This rail carrier would see enhanced efficiencies, less risk from crashes and derailments, and less maintenance of road crossings. Conversion of the existing rail corridor from freight to transit would turn away growing citizen anger about the rail, and could create positive public relations drawing national attention.

Industries Served by Rail: Companies like Enviva (wood pellets) and Vertex (rail car manufacturer) are two examples of emerging industries that would be benefitted by efficient train service into the Port area.

U.S. Department of Transportation Federal Transit Administration: The FTA might be interested in funding a demonstration project for the creation of an intra-city fixed rail transit system using low cost development strategies.

NC Department of Transportation: Plans prepared by both the Highway and Rail Divisions of NCDOT would benefit significantly from the proposal. This would be a legacy project of major impact.

City of Wilmington and New Hanover County: Residents and business owners in the City and County would benefit from enhanced economic development, mobility and quality of life. Taxpayers would benefit financially from a broader tax base.

Brunswick County, the Towns of Leland, Belville and Navassa: Rail-based commuter service to Wilmington and congestion relief to the Lift Bridge could be provided. Residents would travel from northeastern Brunswick County to Wilmington in a few minutes, leaving their cars behind.

Wilmington Neighborhoods: e.g. Sunset Park (less truck traffic), Love Grove, (no blockage) North Wilmington (no elevated Independence Boulevard), and Forest Hills, among others (no ear-splitting train horn) would all benefit. Quality of life and property values would also go up.

## IX. Summary and Conclusions

### *Economic Opportunity*

The port of Wilmington is an important economic asset for southeastern North Carolina and the state as a whole. Projections for growth in freight volumes, combined with recent major business developments in and near the port, leave little doubt that southeastern North Carolina will soon see a dramatic increase in freight movements through the region. This will include significantly more truck traffic across the already overcapacity Memorial Lift Bridge, and more train traffic through the middle of some of the most densely developed residential areas in southeastern North Carolina. The current rail line that once skirted the perimeter of a smaller Wilmington, now runs right through the heart of today's city.



*State Port Authority Photo*

Currently, "heavy rail" freight trains present traffic conflicts and delays--soon to increase--at dozens of street crossings in Wilmington. As evidenced by recent incidents nationwide, these trains pose serious crash issues and derailment-related safety threats to many neighborhoods in Wilmington. Beyond safety issues, the horn blasts of freight trains can be heard across the city, disrupting the peace and quiet of thousands of residents day and night.

Significantly, the early to mid-20th century manufacturing operations, mainly on the south side of the city and once served by the rail line, have become largely irrelevant, abandoned and empty in favor of large volume, long distance freight customers elsewhere. These abandoned and underutilized buildings contribute to the blight of neighborhoods, particularly underserved minority neighborhoods.

Early to mid-20th century manufacturing operations, mainly on the south side of the city and once served by the rail line, have become largely irrelevant, abandoned and empty in favor of large volume, long distance freight customers elsewhere.

Given these issues, the current rail corridor through the city presents growing challenges going forward. A safer, more direct rail service into and out of the Port of Wilmington has many economic, safety and other advantages including:

- improving the competitiveness of the State Port
- enhancing the efficiency of rail operations
- enhancing economic and industrial development locally and elsewhere in North Carolina
- addressing national defense priorities for secure, rapid response deployments; posing fewer security risks as trains pass through the city.
- eliminating derailment-related safety issues in the heart of the urban area.

## *IX. Summary and Conclusions*

- eliminating traffic tie ups and crash potentials at dozens of street/rail crossings
- diverting freight volumes from truck to rail, thereby reducing the growth in truck traffic over the bottlenecked lift bridge and off of congested city streets
- bringing peace and quiet to area neighborhoods

### *Conflicts and Congestion or Sustainable Growth*

Now, consider what is projected to happen in Wilmington over the next 25 years if trends continue. At the same time that the Port and the rail serving it are poised for significant growth, the greater Wilmington area is on a path of unprecedented urban development. Over 50,000 more residents will look to the city of Wilmington as a place to live. Several times that many will be moving into the Wilmington Urban Area as a whole. Associated with these new residents will be substantial increases in traffic and road congestion. A legitimate question is whether the Wilmington area will continue to thrive as it has for past generations, or whether it will falter on the impacts of the growth ahead. Stated another way, will the region be able to reasonably absorb new growth, or will the current patterns of development and auto-dependent mobility stress the area's infrastructure past a breaking point, and undermine the attractiveness of the area for investment?

Some would say that indications of problems ahead have already begun to surface. The pressure on area streets and roads, in particular, is becoming increasingly apparent to even the casual observer. Visitors to Wilmington from the upstate are more frequently heard to say how especially bad the traffic has become in Wilmington, even compared to Piedmont cities. Every morning and evening, approaches to the aging, overcapacity Memorial Lift Bridge are filled with cars and trucks, too often stuck in stop and go traffic for miles. Heavily congested streets put area motorists, bicyclists and pedestrians at a greater risk for aggressive driving and accidents, even death; crash rates in New Hanover County are among the highest in the state.

Even so, congestion issues have not yet stopped new residents from flocking to southeastern North Carolina, and to the city of Wilmington in particular. In fact, at a macro level, the steady exodus of people and businesses from America's cities that has been going on since the mid-20th century, is now reversing. Wilmington is no exception. Thousands of new housing units, nearly all in higher density multi-family developments, are already under construction or are in the City's approval pipeline. Many of these new developments adjoin the rail corridor.

This unprecedented "return to the city" movement is being led by the two largest generations in U.S. history-- the Millennials, who are



## IX. Summary and Conclusions

shunning suburbia for an urban lifestyle, and the Baby Boomers, many of whom no longer want the maintenance of a single family home and upkeep of a large yard. Both generations want what a well-planned city can offer: (1) the convenience of services and activities close at hand, and (2) increased access to more transportation options.

Demand for alternatives to the automobile is growing nationally, and has recently been affirmed in Wilmington--area residents want more pedestrian and bikeway facilities. The numbers also show that Millennials simply have less interest in car ownership. Applications for driver's licenses by high school aged students is at an all-time low. Add to that, the region's large crop of Baby Boomers will soon be facing tough decisions about their own driving limitations, first at night, and eventually altogether. Reliable public transit serving the Wilmington urbanizing area will become an important mobility option of choice in the next decade and beyond. As the region looks ahead to the next 25 years, will a truly convenient, efficient transit system be available? Can such a system be created at a reasonable cost? Given that development patterns are becoming more intense, can the region afford not to realign the rail and create a higher level of public transit?

Repurposing the existing rail corridor through Wilmington for an urban area trolley system offers a potential solution to these challenges. Specifically, such a conversion would offer numerous economic and community development advantages, including:

- freeing up low value parking areas downtown and elsewhere for higher value urban development and an expanded tax base
- incentivizing transit oriented development, redevelopment and/or adaptive reuse of vacant and underperforming properties adjoining the tracks
- accommodating the waves of population growth ahead without adding to traffic congestion on city streets
- creating opportunity for a rail-based transit service from Leland, Belville, Navassa and northeastern Brunswick County
- providing traffic congestion relief to the Memorial Lift Bridge
- fostering the development of better quality, affordable housing (household income diverted from transportation to housing)
- creating a unique, 21st century community of national interest (e.g. Charleston conservatively generates \$3.2 billion annually from tourism)
- eliminating wasteful spending of hundreds of millions of dollars on rail-imposed infrastructure projects (e.g. an elevated Independence Boulevard, access roads into areas like the Love



## *IX. Summary and Conclusions*

Grove community, street closings, quiet zone installations, maintenance of heavy rail street crossings, etc.)

The final sections of the report covered the advantages of a possible new route for the rail into the Port, the unique reasons why a rail to transit repurposing in Wilmington may be more affordable than the typical fixed rail transit line, and an assessment of the multiple stakeholders that would likely have motivation to help fund or take other measures to bring this proposal to reality. The sum total of all of these factors point to a vision and opportunity of significant proportions worthy of further examination and perhaps--timely, concerted action.

*The best time to plant a tree is 20 years ago.  
The second best time is now.—Chinese proverb*

STATE OF NORTH CAROLINA

PROFESSIONAL SERVICES AGREEMENT

COUNTY OF NEW HANOVER

THIS AGREEMENT (hereinafter the "Agreement") is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by and between the City of Wilmington, a North Carolina municipal corporation, hereinafter referred to as the "CITY", and \_\_\_\_\_, hereinafter referred to as the "CONSULTANT".

W I T N E S S E T H

WHEREAS, the CITY desires to retain and engage the CONSULTANT to perform certain professional services hereinafter described, and further that the parties hereto desire to reduce the terms of this Agreement to writing:

NOW THEREFORE, for and in consideration of the mutual promises to each other, as hereinafter set forth, the parties hereto do mutually agree as follows:

1. Term of Agreement. The term of this Agreement shall commence as of the date set forth above and continue through to the completion of the project unless sooner terminated as provided herein.
2. Consultant's Services. The CONSULTANT hereby agrees to perform, in a manner satisfactory to the CITY, professional and timely services as set forth in Exhibit "A" attached hereto and incorporated herein by this reference. The parties hereto acknowledge that the terms outlined in Exhibit "A" shall be valid and enforceable to the extent they are not inconsistent with the provisions as set forth herein, and to the extent that they are inconsistent, the provisions as set forth in this Agreement shall control. The parties hereto further agree that the terms, conditions and requirements as set forth in any Request for Proposal ("RFP") put forth by CITY and responded to by CONSULTANT shall be binding upon the parties to the extent that they do not conflict with the provisions as set forth herein, said RFP, if applicable, being attached hereto as Exhibit "B" and incorporated herein by this reference.
3. Compensation to Consultant. The CITY hereby agrees to pay to CONSULTANT the amount not to exceed \_\_\_\_\_ dollars (\$\_\_\_\_\_) for services as provided herein. In the event that CONSULTANT should fail to provide the services as set forth above, CITY shall be entitled to a refund of its payment(s) to CONSULTANT. Payment will be made within 30 days after receipt of an approved invoice.
4. Termination. CITY shall have the right to terminate this Agreement at any time and without cause upon thirty (30) days written notice to the other party.
5. Records. The CITY has the right to audit all records pertaining to this Agreement both during its performance and after its completion. Further, upon termination of this Agreement, the

CONSULTANT shall deliver to the CITY all records, notes, memorandum, data, documents or any other materials produced by CONSULTANT in connection with services rendered pursuant to this Agreement. If compensation for expenses shall be provided to CONSULTANT, the CONSULTANT shall maintain all expense charge documents for a period of three (3) years following the completion of this agreement and said documents shall only be forwarded to the CITY upon request.

6. Ownership of Documents. The CONSULTANT agrees that all materials and documents developed pursuant to this Agreement shall be the exclusive property of the CITY, and the CONSULTANT shall retain no property or copyright interest therein. Further, upon termination of this Agreement, the CONSULTANT shall deliver to the CITY all records, notes, memorandum, data, documents or any other materials received or obtained from the CITY in connection with services rendered pursuant to this Agreement.

7. Independent Consultant. This Agreement does not create an employee/employer relationship between the parties. It is the intention of the parties that the CONSULTANT will be an independent consultant and not the CITY's employee for all purposes, including, but not limited to, the application of the Fair Labor Standards Act, the Social Security Act, the Federal Unemployment Tax Act, the provisions of the federal Internal Revenue Code, the provisions of the North Carolina revenue and taxation laws, the North Carolina Wage and Hour Act, the North Carolina Workers' Compensation Act, and the provisions of the North Carolina Employment Security Law. The CONSULTANT will retain sole and absolute discretion in the judgment of the manner and means of carrying out the CONSULTANT's activities and responsibilities hereunder. The CONSULTANT agrees that he/she/it is a separate and independent enterprise from the CITY; and that it has a full opportunity to find other business, that it has made its own investment in its business, and that it will utilize a high level of skill necessary to perform the services described herein. This Agreement shall not be construed as creating any joint employment relationship between the CONSULTANT and the CITY, and the CITY will not be liable for any obligation incurred by the CONSULTANT, including but not limited to unpaid minimum wages and/or overtime premiums.

8. Indemnity. The CONSULTANT shall release, indemnify, keep and save harmless the CITY, its agents, officials and employees, from any and all responsibility or liability for any and all damage or injury of any kind or nature whatever (including death resulting therefrom) to all persons, whether agents, officials or employees of the CITY or third persons, and to all property proximately caused by, incident to, resulting from, arising out of, or occurring in connection with, directly or indirectly, the performance or nonperformance by CONSULTANT (or by any person acting for CONSULTANT or for whom CONSULTANT is or is alleged to be in any way responsible), whether such claim may be based in whole or in part upon contract, tort (including alleged active or passive negligence or participation in the wrong), or upon any alleged breach of any duty or obligation on the part of CONSULTANT, its agents, officials and employees or otherwise. The provisions of this Section shall include any claims for equitable relief or for damages (compensatory or punitive) against the CITY, its agents, officials, and employees including alleged injury to the business of any claimant and shall include any and all losses, damages, injuries, settlements, judgments, decrees, awards, fines, penalties, claims, costs and expenses. Expenses as used herein shall include without limitation the costs incurred

by the CITY, its agents, officials and employees, in connection with investigating any claim or defending any action, and shall also include reasonable attorneys' fees by reason of the assertion of any such claim against the CITY, its agents, officials or employees. The provisions of this Section shall also include any claims for losses, injuries or damages, and wages or overtime compensation due the CONSULTANT's employees in rendering services pursuant to this Agreement, including payment of reasonable attorneys' fees and costs in the defense of any claim made under the Fair Labor Standards Act or any other federal or state law. The intention of the parties is to apply and construe broadly in favor of the CITY the foregoing provisions subject to the limitations, if any, set forth in N.C.G.S. 22B-1.

9. Representatives of the Parties. Sterling B. Cheatham, City Manager, is designated as the CITY's contract administrator for this Agreement. The contract administrator shall be responsible for monitoring the CONSULTANT's performance, coordinating the CONSULTANT's activities, approving all administrative requests by the CONSULTANT and approving all payments to the CONSULTANT pursuant to this Agreement. Further, any notice required to the CITY under this Agreement shall be sufficient if mailed to the CITY by certified mail as indicated below:

Sterling B. Cheatham, City Manager  
City of Wilmington  
P.O. Box 1810  
Wilmington, NC 28402

\_\_\_\_\_ shall be the CONSULTANT's representative for this Agreement. Any notice required to the CONSULTANT under this Agreement shall be sufficient if mailed to the CONSULTANT by certified mail as indicated below:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

10. Other Laws and Regulations. CONSULTANT will comply with any and all applicable federal, state and local standards, regulations, laws, statutes and ordinances including those regarding toxic, hazardous and solid wastes and any pollutants; public and private nuisances; health or safety; and zoning, subdivision or other land use controls. CONSULTANT will take all reasonably necessary, proper or required safety, preventative and remedial measures in accordance with any and all relations and directives from the North Carolina Department of Human Resources, the United States Environmental Protection Agency, the North Carolina Department of Environmental Management, Health Departments, and any other federal, state or local agency having jurisdiction, to insure the prompt prevention or cessation (now or in the future) of violations of either the applicable provisions of such standards, regulations, laws, statutes, and ordinances or any permits or conditions issued thereunder. CONSULTANT specifically acknowledges and agrees that CONSULTANT, and any subconsultants it uses, has complied with and shall continue to comply with the provisions of the federal E-Verify program in compliance with Article 2 of Chapter 64 of the North Carolina General Statutes. CONSULTANT shall maintain adequate safeguards with respect to sensitive customer information in conformance with and pursuant to 16 C.F.R. §681.1 and in accordance with N.C. Gen. Stat. §132-1.10



and §75-65.

11. Insurance Requirements.

A. Commercial General Liability

1. CONSULTANT shall maintain Commercial General Liability (CGL) and if necessary, Commercial Umbrella Liability insurance with a total limit of not less than \$1,000,000.00 each occurrence for bodily injury and property damage. If such CGL insurance contains a general aggregate limit, it shall apply separately to this project/location or the general aggregate shall be twice the required limit.
2. CGL insurance shall be written on Insurance Services Office (ISO) "occurrence" form CG 00 01 covering Commercial General Liability or its equivalent and shall cover the liability arising from premises, operations, independent CONSULTANTS, products-completed operations, personal and advertising injury, and liability assumed under an insured contract (including the tort liability of another assumed in a business contract).
3. The City of Wilmington, its officers, officials, agents, and employees are to be covered as additional insureds under the CGL by endorsement CG 20 10 or CG 20 33 **AND** CG 20 37 or an endorsement providing equivalent coverage as respects to liability arising out of activities performed by or on behalf of the CONSULTANT; products and completed operations of the CONSULTANT; premises owned, leased or used by the CONSULTANT; and under the commercial umbrella, if any. The coverage shall contain no special limitations on the scope of protection afforded to the City of Wilmington, its officers, officials, agents, and employees.
4. There shall be no endorsement or modification of the CGL or Umbrella Liability limiting the scope of coverage for liability arising from explosion, collapse, underground property damage, or damage to the named insured's work, when those exposures exist.
5. The CONSULTANT's Commercial General Liability insurance shall be primary as respects the City of Wilmington, its officers, officials, agents, and employees. Any other insurance or self-insurance maintained by the City of Wilmington, its officers, officials, and employees shall be excess of and not contribute with the CONSULTANT's insurance.
6. The insurer shall agree to waive all rights of subrogation against the City of Wilmington, its officers, officials, agents and employees for losses arising from work performed by the CONSULTANT for the City of Wilmington.

B. Workers' Compensation and Employer's Liability

1. CONSULTANT shall maintain Workers' Compensation as required by the general statutes of the State of North Carolina and Employer's Liability Insurance.
2. The Employer's Liability, and if necessary, Commercial Umbrella Liability insurance shall not be less than \$500,000.00 each accident for bodily injury by accident, \$500,000.00 each employee for bodily injury by disease, and \$500,000.00 policy limit.
3. The insurer shall agree to waive all rights of subrogation against the City of Wilmington, its officers, officials, agents and employees for losses arising from work performed by the CONSULTANT for the City of Wilmington.

4. The U.S. Longshore and Harborworkers Compensation Act endorsement shall be attached to the policy when the services will be on or in close proximity to navigable waterways.
5. The Maritime Coverage endorsement (WC 00 02 01) shall be attached to the policy when the contracted services involve the use of watercraft.

NOTE: Additional requirements needed if you have a borrowed servant, offshore platforms or federal act situations. (Federal Acts such as the Defense Base Act, Migrant and Seasonal Agricultural Worker Protection Act, and the Federal Coal Mine Health and Safety Act, etc.)

C. Business Auto Liability

1. CONSULTANT shall maintain Business Auto Liability and, if necessary, Commercial Umbrella Liability insurance with a limit of not less than \$1,000,000.00 each accident.
2. Such insurance shall cover liability arising out of any auto, including owned, hired, and non-owned autos.
3. Business Auto coverage shall be written on ISO form CA 00 01, or a substitute form providing equivalent liability coverage. If necessary, the policy shall be endorsed to provide contractual liability coverage equivalent to that provided in ISO form CA 00 01.
4. Pollution liability coverage equivalent to that provided under the ISO pollution liability-broadened coverage for covered autos endorsement (CA 99 48) shall be provided, and the Motor Carrier Act endorsement (MCS 90) shall be attached when those exposures exist.
5. CONSULTANT waives all rights against the City of Wilmington, its officers, officials, agents and employees for recovery of damages to the extent these damage are covered by the business auto liability or commercial umbrella liability insurance obtained by CONSULTANT pursuant to Section 11.C.1 of this agreement.
6. The CONSULTANT's Business Auto Liability insurance shall be primary as the City of Wilmington, its officers, officials, agents, and employees. Any other insurance or self-insurance maintained by the City of Wilmington, its officers, officials, and employees shall be excess of and not contribute with the CONSULTANT's insurance.

D. Professional Liability Insurance

1. CONSULTANT shall maintain in force for the duration of this contract professional liability or errors and omissions liability insurance appropriate to the CONSULTANT's profession. Coverage as required in this paragraph shall apply to liability for a professional error, act, or omission arising out of the scope of the CONSULTANT's services as defined in this contract. Coverage shall be written subject to limits of not less than \$ 1,000,000.00 per claim.
2. If coverage required in paragraph 1. above is written on a claims-made basis, the CONSULTANT warrants that any retroactive date applicable to coverage under the policy precedes the effective date of this contract; and that continuous coverage will be maintained or an extended discovery period will be exercised for a period of 2 (two) years beginning from the time that work under the contract is complete.

E. Deductibles and Self-Insured Retentions

1. The CONSULTANT shall be solely responsible for the payment of all deductibles to which such policies are subject, whether or not the City of Wilmington is an insured under the policy.

F. Miscellaneous Insurance Provisions

The policies are to contain, or be endorsed to contain, the following provisions:

1. Each insurance policy required by this contract shall be endorsed to state that coverage shall not canceled by either party except after 30 days prior written notice has been given to the City of Wilmington, PO Box 1810, Wilmington, NC 28402-1810.
2. If CONSULTANT's liability policies do not contain the standard ISO separation of insureds provision, or a substantially similar clause, they shall be endorsed to provide cross-liability coverage.

G. Acceptability of Insurers

Insurance is to be placed with insurers licensed to do business in the State of North Carolina with an A.M. Best's rating of no less than A VII unless specific approval has been granted by the City of Wilmington.

H. Evidence of Insurance

1. The CONSULTANT shall furnish the City of Wilmington with a certificate(s) of insurance, executed by a duly authorized representative of each insurer, showing compliance with the insurance requirements prior to commencing the work, and thereafter upon renewal or replacement of each certified coverage until all operations under this contract are deemed complete.
2. Evidence of additional insured status shall be noted on the certificate of insurance as per requirements in Section 11.
3. With respect to insurance maintained after final payment in compliance with requirements, an additional certificate(s) evidencing such coverage shall be provided to the City of Wilmington with final application for payment and thereafter upon renewal or replacement of such insurance until the expiration of the period for which such insurance must be maintained.

I. Sub Consultants

CONSULTANT shall include all sub consultants as insureds under its policies or shall furnish separate certificates for each sub consultant. All coverage for sub consultants shall be subject to all of the requirements stated herein. Commercial General Liability coverage shall include independent CONSULTANT's coverage, and the CONSULTANT shall be responsible for assuring that all sub consultants are properly insured.

J. Conditions

1. The insurance required for this contract must be on forms acceptable to the City of Wilmington.

2. The CONSULTANT shall provide that the insurance contributing to satisfaction of insurance requirements in Section 11. Minimum Scope and Insurance Requirements shall not be canceled, terminated or modified by the CONSULTANT without prior written approval of the City of Wilmington.
3. The CONSULTANT shall promptly notify the Safety & Risk Manager at (910) 341-5864 of any accidents arising in the course of operations under the contract causing bodily injury or property damage.
4. The City of Wilmington reserves the right to obtain complete, certified copies of all required insurance policies, at any time.
5. Failure of the City of Wilmington to demand a certificate of insurance or other evidence of full compliance with these insurance requirements or failure of the City of Wilmington to identify a deficiency from evidence that is provided shall not be construed as a waiver of CONSULTANT's obligation to maintain such insurance.
6. By requiring insurance herein, the City of Wilmington does not represent that coverage and limits will necessarily be adequate to protect the CONSULTANT and such coverage and limits shall not be deemed as a limitation of CONSULTANT's liability under the indemnities granted to the City of Wilmington in this contract.
7. The City of Wilmington shall have the right, but not the obligation of prohibiting CONSULTANT or any sub consultant from entering the project site or withhold payment until such certificates or other evidence that insurance has been placed in complete compliance with these requirements is received and approved by the City of Wilmington.

12. No Presumption. None of the Parties shall be considered the drafter of this Agreement or any provision hereof for the purpose of any statute, case law, or rule of interpretation or construction that would or might cause any provision to be construed against the drafter hereof. This Agreement was drafted with substantial input by all Parties and their counsel, and no reliance was placed on any representations other than those contained herein.

13. Entire Agreement and Amendment. This Agreement, including any Exhibits attached, which are incorporated herein and made a part hereof, constitutes the entire contract between the parties, and no warranties, inducements, considerations, promises or other inferences shall be implied or impressed upon this Agreement that are not set forth herein. This Agreement shall not be altered or amended except in writing signed by all Parties.

14. No Assignment. No party shall sell or assign any interest in or obligation under this Agreement without the prior express written consent of all the parties.

15. Conflict of Interest. No paid employee of the CITY shall have a personal or financial interest, direct or indirect, as a contracting party or otherwise, in the performance of this Agreement.

16. Non-Waiver of Rights. It is agreed that the CITY's failure to insist upon the strict performance of any provision of this Agreement, or to exercise any right based upon a breach thereof, or the acceptance of any performance during such breach, shall not constitute a waiver of any rights under this

Agreement.

17. Binding Effect. Subject to the specific provisions of this Agreement, this Agreement shall be binding upon and inure to the benefit of and be enforceable by the parties and their respective successors and assigns.

18. Reference. Use of the masculine includes feminine and neuter, singular includes plural; and captions and headings are inserted for convenience of reference and do not define, describe, extend or limit the scope of intent of this Agreement.

19. Interpretation/Governing Law. All of the terms and conditions contained herein shall be interpreted in accordance with the laws of the State of North Carolina without regard to any conflicts of law principles and subject to the exclusive jurisdiction of federal or state courts within the State of North Carolina. In the event of a conflict between the various terms and conditions contained herein or between these terms and other applicable provisions, then the more particular shall prevail over the general and the more stringent or higher standard shall prevail over the less stringent or lower standard. The place of this Agreement, its situs and forum, shall be Wilmington, New Hanover County, North Carolina, and in said County and State shall all matters, whether sounding in contract or tort relating to the validity, construction, interpretation or enforcement of this Agreement be determined.

20. Saving Clause. If any section, subsection, paragraph, sentence, clause, phrase or portion of this Agreement is for any reason held invalid, unlawful, or unconstitutional by any court of competent jurisdiction, such portion shall be deemed severable and such holding shall not affect the validity of the remaining portions hereof.

21. Time. Time is of the essence in this Agreement and each and all of its provisions.

22. Immunity Not Waived. This Agreement is governmental in nature, for the benefit of the public. CONSULTANT acknowledges that City reserves all immunities, defenses, rights or actions arising out of City's sovereign status under applicable law. No waiver of any such immunities, defenses, rights or actions shall be implied or otherwise deemed to exist by reason of City's entry into this Agreement.

23. Non-Appropriation. In the event no City funds or insufficient City funds are appropriated or otherwise available by any means whatsoever in any fiscal year for any payment due under this Agreement, then the City will immediately notify CONSULTANT of such occurrence and this Agreement shall create no further obligation of the City as to such fiscal year and shall be null and void, except as to the portions of payments for which funds shall have been appropriated and budgeted. In such event, this Agreement shall terminate on the last day of the fiscal year for which appropriations were received without penalty or expense to the City of any kind whatsoever.

24. Authority to Act. Each of the persons executing this Agreement on behalf of CONSULTANT does hereby covenant, warrant and represent that the Organization is a duly organized and validly existing \_\_\_\_\_, that the \_\_\_\_\_ has full right and authority to enter into

this Agreement, and that each and all persons signing on behalf of the CONSULTANT were authorized to do so.

25. Non-Discrimination. CONSULTANT will take affirmative action not to discriminate against any employee or applicant for employment or otherwise illegally deny any person participation in or the benefits of the program which is the subject of this agreement because of race, creed, color, sex, age, disability or national origin. To the extent applicable, CONSULTANT will comply with all provisions of Executive Order No. 11246 the Civil Rights Act of 1964, (P.L. 88-352) and 1968 (P.L. 90-284), and all applicable federal, state and local laws, ordinances, rules, regulations, orders, instructions, designations and other directives promulgated to prohibit discrimination. Violation of this provision, after notice, shall be a material breach of this agreement and may result, at CITY's option, in a termination or suspension of this agreement in whole or in part.

26. Counterparts. This Agreement may be executed in several counterparts, including separate counterparts. Each shall be an original, but all of them together constitute the same instrument.

27. Minority Business Enterprise (MBE)

The CITY desires that minority business enterprises have the maximum opportunity to participate in the performance of this contract and will:

1. Promote affirmatively (where feasible) in accordance with North Carolina General Statute 143-129, together with all other applicable laws, statutes and constitutional provisions) the procurement of goods, services in connection with construction projects for minority owned business enterprises.
2. Insure that competitive and equitable bidding opportunities are followed to afford minority business enterprises participation. Strive to obtain contract and subcontract awards to minority business enterprises.
3. Identify and communicate to the minority business enterprises community procedures and contract requirements necessary for procurement of goods and services for construction projects and subcontracts.
4. Provide technical assistance as needed.
5. Promulgate and enforce contractual requirements that the general CONSULTANT or all construction projects shall exercise all necessary and reasonable steps to insure that minority business enterprises participate in the work required in such construction contracts.

The CONSULTANT shall insure that minority business enterprises have the maximum opportunity to compete for and perform portions of the work included in this contract and shall not discriminate on the basis of race, color, national origin or sex. The CONSULTANT shall include this special provision,

Minority Business Enterprise (MBE), in all subcontracts for this contract. Failure on the part of the CONSULTANT to carry out the requirements set forth in this special provision may constitute a breach of contract and after proper notification may result in termination of the contract or other appropriate remedy.

A minority business enterprise is defined as a business, with at least fifty (51%) percent owned and controlled by minority group members. The minority ownership must exercise actual day-to-day management. Minority group members may consist of Black Americans (an individual of the Black race of African origin), Hispanic Americans (an individual of a Spanish speaking culture and origin at parentage), Asian Americans (an individual of a culture, origin or parentage traceable to the areas of the Far East, Southeast Asia, the Indian subcontinent and the Pacific Islands), Indian Americans (an individual who is an enrolled member of a Federally recognized Indian tribe, or recognized by the tribe as being an Indian, as evidenced by a certification of a tribal leader), American Aleuts or any recognized minority group approved by the CITY.

A Woman Business Enterprise is a business with at least fifty (51%) percent owned and controlled by women who exercise actual day-to-day management.

The CONSULTANT shall exercise all necessary and reasonable steps to insure that Minority Business Enterprises and Woman Business Enterprises participate in the work required in this contract. The CONSULTANT agrees by executing this contract that he will exercise all necessary and reasonable steps to insure that this special provision contained herein on Minority Business Enterprise is complied with.

IN WITNESS WHEREOF, the CITY and the CONSULTANT have each executed this Agreement in duplicate originals, one of which shall be retained by each of the parties.

CITY OF WILMINGTON

By: \_\_\_\_\_  
Sterling B. Cheatham, City Manager

Approved as to Form:

\_\_\_\_\_  
William E. Wolak, City Attorney

FINANCE OFFICER'S CERTIFICATION STATEMENT

This instrument has been preaudited in the manner required by The Local Government Budget and Fiscal Control Act.

This \_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
Brent McAbee, Interim Finance Officer

Project Number: \_\_\_\_\_ (if applicable)

Account Number: \_\_\_\_\_

Amount of Contract: \_\_\_\_\_

Federal ID Number: 56-6000239

STATE OF NORTH CAROLINA

COUNTY OF NEW HANOVER

I, \_\_\_\_\_, a Notary Public in said State and County, certify that Sterling B. Cheatham personally appeared before me this day and acknowledged that he is the City Manager of the City of Wilmington, a North Carolina Municipal Corporation, and that by authority duly given and as the act of the City of Wilmington, the foregoing instrument was signed in its named by him as its Manager.

WITNESS my hand and notarial seal, this the \_\_\_ day of \_\_\_\_\_, 2016.

[SEAL]

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

My Commission Expires: \_\_\_\_\_



CONSULTANT

By: \_\_\_\_\_  
President/Vice President

STATE OF \_\_\_\_\_

COUNTY OF \_\_\_\_\_

I, \_\_\_\_\_, a Notary Public, certify that  
\_\_\_\_\_, personally came before me this day and acknowledged that  
he (she) is President of \_\_\_\_\_, a corporation, and that by authority  
duly given and as the act of the corporation, he(she)executed the foregoing instrument on behalf of the  
corporation.

Witness my hand and official seal, this the \_\_\_\_ day of \_\_\_\_\_, 2016.

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

My Commission Expires:

[SEAL]

\_\_\_\_\_