



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

REGION IV  
Alabama, Florida, Georgia,  
Kentucky, Mississippi,  
North Carolina, Puerto  
Rico, South Carolina,  
Tennessee, Virgin Islands

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Atlanta, GA 30303  
404-865-5600  
404-865-5605 (fax)

June 21, 2011

Ms. Carolyn Flowers, CEO  
Charlotte Area Transit System (CATS)  
600 East Fourth St.  
Charlotte-Mecklenburg Government Center  
Charlotte, NC 28202

**Re: Finding of No Significant Impact (FONSI): Charlotte Streetcar Project (CSP)**

Dear Ms. Flowers:

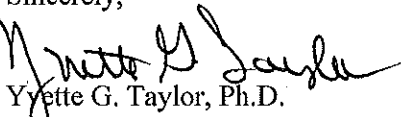
The Federal Transit Administration (FTA) has completed its review of the Environmental Assessment (EA) and related supporting documentation submitted to us for the referenced project. Based on our review of the material submitted and in accordance with 23 CFR 771.119, it is our finding that there are no significant environmental impacts associated with the construction and operation of the project. Therefore, FTA adopts the description, environmental determinations, and all mitigation commitments presented in the EA that are relevant to the selected alternative and a Finding of No Significant Impact (FONSI) has been issued.

A copy of the FONSI is enclosed. This letter of approval and the FONSI are good for a period of three years from the date of this letter (June 21, 2011). Should construction not begin by that time or any changes to the selected alternative or effected environment occur, FTA may require supplemental EA documentation.

A Notice of Availability (NOA) of the final EA and FONSI must be sent by CATS to the affected units of Federal, State and local government and the final EA and FONSI shall be made available upon request by the public, in accordance with 23 CFR 771.121 (b). Furthermore, this FONSI approval letter should be scanned and attached to any application for FTA funding placed in TEAM for the project.

Thank you for your cooperation in meeting the requirements of the National Environmental Policy Act (NEPA). If you need further assistance, please contact Keith Melton of my staff at (404) 865-5614 or at [keith.melton@dot.gov](mailto:keith.melton@dot.gov).

Sincerely,

  
Yvette G. Taylor, Ph.D.  
Regional Administrator

Enclosure: FONSI for referenced project

**CHARLOTTE STREETCAR PROJECT  
CHARLOTTE-MECKLENBURG COUNTY, NORTH CAROLINA**

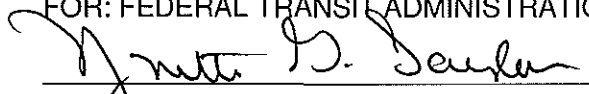
**ADMINISTRATIVE ACTION  
ENVIRONMENTAL ASSESSMENT**

**U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL TRANSIT ADMINISTRATION**

**DOCUMENT PREPARED BY:  
CITY OF CHARLOTTE, NORTH CAROLINA**

*Pursuant to the National Environmental Policy Act (NEPA) of 1969 as amended, 42 U.S.C. §4322(2); the regulations of the Council on Environmental Quality (CEQ), 40 CFR 1500-1508; the Federal Transit Laws, 49 U.S.C. Chapter 53; the National Historic Preservation Act of 1966, 16 U.S.C. §470(f); Section 4(f) of the Department of Transportation Act of 1966, as amended, Title 49 U.S.C. §303; the Federal Clean Air Act Amendments of 1990; the Endangered Species Act of 1973, 16 U.S.C. §1531; Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, 42 U.S.C. §4601; Section 402 of the Clean Water Act, 33 U.S.C. §1342; Executive Order 12898, Federal Actions to Address Environmental Justice in Minority & Low Income Populations; Executive Order 11990, Protection of Wetlands; Executive Order 11988, Floodplain Management; Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency; and all relevant laws and procedures of the State of North Carolina.*

FOR: FEDERAL TRANSIT ADMINISTRATION, REGION IV



YVETTE G. TAYLOR  
REGIONAL ADMINISTRATOR

6-22-11

DATE

FOR: CITY OF CHARLOTTE



JEB BLACKWELL, P.E.  
KEY BUSINESS EXECUTIVE FOR ENGINEERING & PROPERTY MANAGEMENT

6/7/2011

DATE

**FEDERAL TRANSIT ADMINISTRATION  
REGION IV**

**FINDING OF NO SIGNIFICANT IMPACT (FONSI)**

Project: Charlotte Streetcar Project  
Applicant: City of Charlotte  
Project Location: Charlotte, North Carolina

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**Proposed Project**

The City of Charlotte (City) proposes to construct the Charlotte Streetcar Project (CSP) in Charlotte, North Carolina. The CSP is a conventional in-street running electric streetcar operating in mixed traffic along a 10-mile corridor. The alignment would begin at Rosa Parks Place Community Transit Center on Beatties Ford Road just west of the I-85 interchange. The route would extend east along Beatties Ford Road to Trade Street. The alignment continues east on Trade Street where it proceeds through downtown Charlotte and interacts with the proposed Charlotte Gateway Station, the LYNX Red Line commuter train, and the Charlotte Transportation Center, the main transfer hub for the City's transit system including the LYNX Blue Line light rail system. The alignment continues east of downtown on Trade Street until it changes to Elizabeth Avenue at McDowell Street. The alignment turns north onto Hawthorne Lane and continues northeast before accessing Central Avenue via Clement Avenue. The alignment then travels east on Central Avenue and terminates at the Eastland Community Transit Center. A streetcar vehicle maintenance facility at the intersection of Beatties Ford Road and French Street is proposed in a future phase of the project. In addition, the project includes a non-revenue connector that will connect the streetcar alignment to the LYNX Blue Line alignment via Caldwell and Fifth Streets. The non-revenue connector will provide rail access to allow heavy maintenance to be performed at the South Boulevard Light Rail Maintenance Facility.

**Agency Coordination and Public Opportunity to Comment**

The City of Charlotte completed a thorough public involvement process for the Charlotte Streetcar Project. The public involvement process is summarized in Chapter 5 of the Environmental Assessment (EA). During the conceptual phase of the project a community meeting was held in November 2004, three public meetings were held in April 2005, three public meetings were held in June 2005, one public meeting was held in March 2006, and a final public meeting was held in July 2006. During the preliminary engineering phase three public

meetings were held in November 2009, a public workshop was held in February 2010, three public meetings were held in April 2010, and three more public meetings were held in September 2010. Finally, one public hearing was held on April 28, 2011, during the official public comment period for the Draft EA.

The Draft EA was circulated for public review on April 8, 2011. The Draft EA was submitted to the State Clearing House for State agency review during the same period. The 30-day comment period ended May 9, 2011. The notice of availability for the EA and public hearing was published in the Mecklenburg Times and the Charlotte Post in English and in Que Pasa in Spanish on April 8, 2011. Hard copies of the EA and supporting documents were available at the Charlotte Mecklenburg Government Center, the Charlotte Mecklenburg Public Library – Main Branch and Plaza Midwood Branch, and the North Carolina State Library in Raleigh. Electronic copies of the EA and supporting documents, along with notification of the public hearing, were available at [www.charlottefuture.com](http://www.charlottefuture.com). Postcards announcing the EA availability and the public hearing were mailed to over 17,900 recipients including affected property owners and interested parties. In addition, over 40 letters announcing the same were mailed to elected officials.

Comments on the EA were accepted via mail, e-mail, the website, and fax at the City of Charlotte offices through May 9, 2011. A formal public hearing was convened at the Charlotte Mecklenburg Government Center on April 28, 2011 from 6:00 pm to 8:00 pm to allow an opportunity for verbal comments to be accepted. At the meeting, 9 people were in attendance, but no one provided comments on the project. Appendix L of the Final EA includes copies of the hearing sign-in sheet and the public hearing transcript.

The City received a total of 11 written comments from the public and 5 written comments from agencies during the public comment period. No oral comments were received. Comments addressed the following issues:

- Bicycle and pedestrian interface at stop locations;
- Bicycle lanes;
- Greenway crossings;
- Traffic impacts; and
- General project comments.

Chapter 6 of the Final EA summarizes and addresses these comments. Copies of all comments submitted are included in the EA in Appendix K – Agency Approval Letters and in Appendix L – Public Comments.

## Determinations and Findings

### National Environmental Policy Act (NEPA) Finding

FTA served as lead agency under NEPA for the project. The EA analyzes and describes the project's potential significant impacts.

FTA reviewed preliminary versions of the EA. The EA was issued in June of 2011. The EA found that the project's construction and operation would cause no significant adverse environmental effects that would not be mitigated. This would apply to all applicable environmental elements including Transportation, Economic Development, Land Use, Property Acquisition, Neighborhoods and Protected Populations, Safety and Security, Visual and Aesthetic Resources, Historic Resources, Archaeological Resources, Parks and Recreation Lands, Noise and Vibration, Air Quality, Hazardous Materials, Biological Resources and Endangered Species, Water Quality and Hydrology, Utilities, Construction Activities, and Secondary and Cumulative Environmental Consequences.

After carefully considering the Final EA, its supporting documents, and the public comments and responses, FTA finds that the proposed project will have no significant adverse impacts on the environment. The record provides sufficient evidence and analysis for determining that an Environmental Impact Statement (EIS) is not required.

### Transportation

The project would not result in significant impacts to existing transportation elements.

#### *Vehicles*

The traffic analysis presented in Section 3.1B of the EA determined that two additional roadway segments and one intersection will operate at LOS F and/or have a Volume-to-Capacity ratio greater than 1.0 in the morning and/or afternoon peak hours. This is due to the road conversion that will be implemented along West Trade Street/Beatties Ford Road between Wesley Heights Way and French Street. The road conversion will reduce the vehicular capacity of the intersection and approaching roadways. Should traffic operations degrade as projected, NC 16 (West Brookshire Freeway) and I-277 could be used as an alternative route for motorists traveling along Beatties Ford Road and Trade Street to and from Uptown Charlotte during peak hour conditions. The West End Plan created a goal to eliminate driveways onto West Trade Street and improve street connectivity. These measures will serve to lessen traffic demand on West Trade Street and Beatties Ford Road.

#### *Transit*

The project will have no adverse effect on transit. The streetcars will provide higher capacity than the existing buses. The project will increase capacity on two of the City's busiest transit routes. The project will provide through-trips east and west of downtown thus enhancing

overall transit system connectivity and providing overall travel time savings for travelers within the corridor.

#### *Parking*

The project will have no adverse effect on parking. The project will operate in the median lanes along Trade Street where on-street parking is present. The project will eliminate 8 parking spaces along the 10 mile corridor. The loss of these parking spaces is considered to be negligible.

#### *Bicycles*

The project will maintain existing conditions for bicycles within the corridor. The project will maintain existing striped bicycle lanes through Central Avenue. Every effort will be made to connect bicycle routes with streetcar stops. The impacts on cyclists will remain the same with the exception to the interaction with in-street rails where the streetcar and bicycles share the same lane. The project will allow for striped bicycle lanes or widened outside lanes to accommodate bicyclists along Central Avenue, Hawthorne Lane, Elizabeth Avenue, and Beatties Ford Road. In addition, bicycles are routed behind the stop platforms in areas where striped bicycle lanes exist.

#### *Pedestrians*

The project will have no adverse effect on pedestrian facilities. Sidewalks will be reconstructed around new streetcar stops. Sidewalks will be modified in some areas to accommodate profile and elevation changes. Mid-block pedestrian crossing and high-intensity activated crosswalk (HAWK) signals will be installed to allow access to streetcar stops that are located mid-block.

#### *Economic Development*

The project is expected to accelerate infill development and redevelopment to more intensive uses along the corridor. This new development will result in construction related jobs as well as an increase in employers within the project study area for the businesses and offices that are projected to occupy the increased amount of retail and office space. The increased availability of jobs may be beneficial for the low- income residents in the project area who may be unemployed or underemployed. Charlotte's zoning code includes provisions for protecting low-income residents from property displacements, including working with local community development corporations and other community based organizations and business groups. The project will result in no significant impacts to economic development.

#### *Land Use*

The project will be constructed primarily within existing street right-of-way, limiting the existing land required to be converted under existing uses. The proposed alignment will require the utilization of approximately 3 acres of existing property predominantly along the non-revenue connector and the Clement Street connector. The project meets the needs, goals, objectives, and recommendations adopted in the Area Plans that apply to the project area. These Plans

call for more intensive land uses, which the project supports, along the corridor. The project will not result in any significant impacts to land use.

### Property Acquisition

The project will not result in significant impacts associated with property acquisitions. The project will be constructed predominantly within existing street right-of-way with the exception of substation locations, the non-revenue connector, and the Clement Street connector which in total will require approximately 3 acres of additional right-of-way. The proposed vehicle maintenance facility will be built on land currently owned by the City of Charlotte. Any property acquisition for the project will be in accordance with all applicable Federal, state and local regulations.

### Neighborhoods and Protected Populations

As a project that will use federal funds, the Charlotte Streetcar Project must comply with Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority and Low-income Populations. This Executive Order requires federal agencies to identify and address disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations, and to include outreach to the public in its decision-making process.

The City of Charlotte performed an environmental justice analysis as part of the EA. Based on that analysis, FTA finds that the construction and operation of the Charlotte Streetcar Project would not have disproportionately high and adverse effects on low-income or minority populations.

The project expands the capture area for transit service along the corridor and increases the percent of persons with access to public transportation. It improves the quality of life in the neighborhoods along the corridor by improving the following quality of life factors: total office and retail square footage, vacancy index, aggregate tax revenue, and percent of transit stops with transit shelter or bench. The project improves transit service and increases accessibility and mobility along the project corridor thus providing a positive effect on Transit Reliant and environmental justice populations. The project will provide through-trips east and west of downtown thus enhancing the overall connectivity of the transit system and benefiting the transit reliant population.

### Safety and Security

The City of Charlotte, streetcar system owner and operator, will take several precautionary measures to ensure that the project includes adequate provisions for safe and secure operations, and improve the safety and security of transit patrons. The precautionary measures will ensure no negative impacts by the project and will create a betterment along the streetcar corridor. These precautionary measures include; the streetcar will observe all traffic

laws while operating in mixed traffic; safety lighting standards will be met onboard the streetcar vehicle; stops will be well lit; the vehicle loading surface area will be covered by a highly visible tactile warning strip; access ramps will be ADA compliant; measures will be taken to promote safe crossing of pedestrians to median stops; overhead wire will be out of reach to persons at-grade; and substation equipment will be secured from the public.

#### Visual and Aesthetic Resources

The project will not result in significant impacts to visual and aesthetic resources. The project proposes to minimize the number of overhead catenary system (OCS) poles by using joint poles which combine the OCS and street lighting on the same pole. The stop platforms will be similar to those used for buses and will not present a substantial visual impact. Landscaping and other treatments will be used to mask the substations.

#### Historic Resources

The project will not result in significant impacts to historic resources. In compliance with Section 106 of the National Historic Preservation Act, the FTA has determined and the North Carolina State Historic Preservation Officer has agreed by a letter dated February 1, 2011, that the project will have "no adverse effect" on historic resources listed on, or eligible for, the State and National Register of Historic Places.

#### Archaeological Resources

The project will not result in significant impacts to archaeological resources. The area of potential effect (APE) covered 1,000 feet on either side of the track alignment. Only one site was identified in the APE and the site was considered not NRHP eligible.

#### Parks and Recreation Lands

At Veterans Park, the existing sidewalk is narrower than the current City standard and is located within close proximity to the curb. The right-of-way line is currently located either in the sidewalk or along the back edge of the sidewalk. To meet the Mecklenburg County Park and Recreation Department's goals of including a planting strip between the sidewalk and curb, the project proposes to reconstruct the sidewalk in a sidewalk easement adjacent to the right-of-way further from the curb. Shifting the sidewalk would allow the streetcar infrastructure to remain inside the right of way and would not affect the use of Park property or facilities. The streetcar system is expected to provide enhanced access to parklands for Charlotte residents and visitors.

#### Section 4(f)

The project is adjacent to 6 park resources and includes 23 NRHP-listed or eligible properties in the Area of Potential Effect (APE). The project's impacts were evaluated pursuant to Section



4(f), a provision of federal transportation law at Title 49, USC 303 that affords certain protections to public parks, historic sites, and wildlife refuges. In compliance with Section 4(f) the FTA has determined, and the Mecklenburg County Park and Recreation (MCPR) Department has agreed by a letter dated January 28, 2011, no impact to 5 park resources and a *de minimis* impact finding for the use of Veterans Park. In compliance with Section 4(f) the FTA has determined, and the NC SHPO has agreed by a letter dated February 1, 2011, no impact to 20 properties and a *de minimis* impact finding for Elizabeth Historic District, Johnson C Smith University Historic District, and Charlotte City Hall.

The concurrence letters from MCPR and NC SHPO are in Appendix H of the EA. These findings were included in the public comment period, during which NC SHPO responded with an additional concurrence. This letter is in Appendix K of the EA.

#### Noise and Vibration

The project will not result in significant impacts with regard to noise and vibration. Potential noise and vibration impacts for the project were assessed using FTA's *Transit Noise and Vibration Impact Assessment (2006)*.

#### Air Quality

The project will not result in significant impacts to air quality. The project is located within a non-attainment region for 8-hour ozone. The *Metrolina Conformity Analysis and Determination Report*, date February 8, 2010 documents the region's compliance. The project is included in the Mecklenburg-Union Metropolitan Planning Organization (MUMPO) 2035 Long Range Transportation Plan (LRTP) as adopted on March 16, 2011. The project is included in the State Transportation Implementation Plan as adopted on April 7, 2011. The project will not cause or contribute to any new violation of the federal air quality standards, or delay timely attainment of the standards. The FTA has determined that the MUMPO 2035 LRTP conforms to the purposes of the State Transportation Implementation Plan (STIP).

#### Hazardous Materials

The project will not result in significant impacts regarding hazardous materials. The results of the survey for contaminated and hazardous materials, performed during the EA, indicated that there are 549 sites of known or suspected concern within a 1-mile radius of the existing roadway centerline for the project alignment. Prior to right of way acquisition, additional assessments for the presence of contaminated and hazardous materials shall be done to determine if mitigation actions will be necessary.

The project will not result in any serious releases of contaminated or hazardous materials on a continuous basis. Any handling treatment and disposal of hazardous materials will occur in full compliance with all federal, state, and local requirements during construction and on-going operations and maintenance of the streetcar system. The Resource-Conservation-and-

Recovery-Act-classified hazardous materials used at the VMF will be handled, captured, and disposed of in accordance with state and federal regulations.

#### Biological Resources and Endangered Species

The project will not result in significant impacts to biological resources and endangered species. The design of the project is predominantly on existing pavement within the existing travel lanes with the exception of the entrance to the VMF site, the substation locations, the VMF, the non-revenue connector, and the Clement Street connector. An additional 3 acres of right-of-way will be required for the project. The project does not disturb or clear any vegetated areas within riparian zones.

#### Water Quality and Hydrology

The project will not result in significant impacts to surface waters, wetlands, floodplains/floodways, and groundwater. Any unavoidable impacts to the unnamed tributary to Little Sugar Creek will be approved by the USACE and the North Carolina Division of Environment and Natural Resources Division of Water Quality prior to construction. Compensatory mitigation will be addressed during the Section 404/401 permit process.

#### Utilities

The project will not result in significant impacts to utilities. Construction of the project will generally occur within existing street rights-of-way which are where the vast majority of the utility lines are located. Where there is a conflict between the project and a utility facility, the utility will be relocated. Disruptions to utility services will be kept at a minimum.

#### Construction Activities

The project will not result in significant construction impacts. The project will result in disturbances typical of any roadway construction project in Charlotte. While there may be some inconveniences associated with increased access limitations related to construction, traffic, air emissions, temporary construction easements, and noise, no conflicts are expected with the surrounding land uses during construction of the project.

Construction impacts are temporary, and will cease with the completion of construction. A construction plan will be prepared and executed to minimize disruptions along the corridor. In addition, temporary construction easements will be necessary to build the project, but will be kept to a minimum.

#### Secondary and Cumulative Environmental Consequences

The project will not result in any adverse secondary or cumulative environmental consequences.

## Measures to Minimize Harm

The project will implement the following mitigation measures described in the EA and this FONSI. The FTA requires that the project be built in a manner consistent with the EA and that all committed mitigation be implemented in accordance with the EA and this FONSI.

The following measures will be taken to avoid or mitigate adverse effects:

1. **Historic Resources:** One proposed traction power substation (TPSS) location is adjacent to the Elizabeth Historic District and will require vegetative screening to mask the TPSS from view of the historic district.
2. **Water Quality and Hydrology:** Compensatory mitigation will be addressed during the Section 404/401 permit process.
3. In order to minimize impacts during construction, the City intends to:
  - a. maintain one or two lanes of traffic through the construction areas, except during periodically required nighttime road closures;
  - b. detour traffic around two lane traffic portions;
  - c. not allow any construction work or contractor staging areas on 4(f) or historic properties;
  - d. maintain vehicular and pedestrian access for all residents and businesses in the vicinity of the project at all times;
  - e. perform "rail-pulls" during early morning hours to avoid disruption of traffic; comply with the City of Charlotte's Noise Ordinance,
  - f. provide protection at stream crossings to prevent any construction materials from entering the waterway;
  - g. keep temporary construction easements minimal; and
  - h. perform all work in coordination with the Charlotte Department of Transportation and the North Carolina Department of Transportation (when required).
4. **Truck Freight:** Streetcar stop locations will be placed where they do not interfere with access to adjacent properties.
5. **Bridge Clearance:** Signage denoting low clearance and high voltage will be posted at and in advance of bridge locations having a wire clearance of less than 18 feet.
6. **Bridge Clearance:** Explore the use of hybrid vehicles to avoid the use of OCS in areas where the 18 feet minimum clearance height is unattainable.
7. **Visual and Aesthetic:** Joint use poles, made from materials that blend into the surrounding environment and combining the OCS and the street lighting system, will be used to minimize visual impacts. However, no wooden poles will be used.
8. **Visual and Aesthetic:** Landscaping and street furniture will be chosen to ensure that the stop platforms are visually compatible with the surrounding environment.
9. **Visual and Aesthetic:** Landscaping and other treatments will be used to mask the substations.

The FTA finds that with the implementation of these mitigation measures outlined in the EA and in this FONSI, the Charlotte Streetcar Project will have taken all reasonable and prudent means to avoid or minimize adverse impacts of the project.

### **Streetcar Starter Project Design**

The Streetcar Starter Project (SSP) is the first phase of the project proposed to be constructed. The SSP begins at the Charlotte Transportation Center (CTC) and runs east along Trade Street / Elizabeth Avenue to Hawthorne Lane at Presbyterian Hospital. The SSP will utilize the existing South Boulevard LRT VMF facility which will be accessed using the non-revenue connection. In order to accommodate a phased approach, the design for the SSP will include some modifications from the original plans that accompany the EA. The design modifications will remain inside the project "footprint" for the EA. The modifications are as follows:

#### *"Turn around" track at end-of-line (CTC and Presbyterian)*

This modification moves the proposed stop at the CTC about 200 feet to the east and creates a "split stop" at the intersection of Brevard Street. This modification will reduce the property acquisition impacts on the CTC property. The "turn around" on Hawthorne will occur at the proposed stop and varies very little from the original alignment. The "turn around" on Hawthorne will have no impacts.

#### *Dedicated Left Turn Lanes*

This design modification addresses a safety issue of vehicles turning left from thru lanes near the streetcar stop platforms. Turn lanes were added on Trade Street at the following intersections: McDowell, Alexander, Myers, and Davidson; resulting in six new dedicated left turn lanes.

In order to accommodate the left turn lane at McDowell, the proposed streetcar stop shifted 500 feet west of its original location. This located the streetcar stop near, Myers Street, adjacent to land that has a high potential for redevelopment, thus increasing the economic development potential along the corridor.

#### *Lane Reduction*

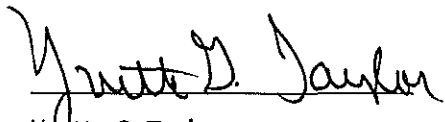
To accommodate the left hand turns and not further impact properties adjacent to the alignment, the City reduced the inbound lanes on Trade Street, between Kings Drive and Alexander Street, to a single lane. The traffic analysis showed that the LOS did not change from the initial EA report and the VC ratio remained below 1 after the lane was eliminated.

The reduction of one lane and the relocation of the stop reduced the property acquisition impacts for this section of the project. This change resulted in no negative impacts.

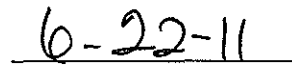
**Environmental Finding**

The Final Environmental Assessment (June 2011) is attached and incorporated by reference as part of this Finding of No Significant Impact.

Based on the Final Environmental Assessment and its associated supporting documents, the Federal Transit Administration finds pursuant to 23 CFR 771.121 that there are no significant impacts on the environment associated with the development and operation of the Charlotte Streetcar Project.



Yvette G. Taylor  
Regional Administrator  
Federal Transit Administration



Date