



**GOLD RUSH**



# **CityLYNX Gold Line Phase One Gold Rush Red Line: Title VI Service Equity Analysis**

**February 28, 2014**  
Revision 0 Draft 00

Charlotte Area Transit System  
City of Charlotte  
600 East Fourth Street  
Charlotte-Mecklenburg Government Center  
Charlotte, North Carolina 28202

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## 1 INTRODUCTION

The purpose of this document is to document the Title VI service equity analysis for changes to the Charlotte Area Transit System (CATS) Gold Rush Red Line shuttle service as a result of the implementation of the City of Charlotte Streetcar Starter Service. The Gold Rush Service (Figure 1) is currently a free service, jointly funded by CATS and Charlotte Center City Partners (CCCP). The Charlotte Streetcar Starter Service is currently planned to be a free service. Therefore at this time, a fare equity analysis is not included as part of this document. The Charlotte Streetcar Starter project is expected to begin revenue service in 2015.

### 1.1 Project Background

As part of the 2030 Transit System Plan (Figure 2), the Charlotte Streetcar Starter Line (Figure 3) is the first phase of the proposed Center City Streetcar (Figure 4). The project will be funded by a \$24.99 million grant awarded in 2010 through the Urban Circulator Program administered by the Federal Transit Administration (FTA). When complete the project will be the first mile and half of the proposed ten mile Center City Streetcar. The alignment will extend along East Trade St and Elizabeth Ave to Hawthorne St utilizing a half mile of existing track that was installed as part of the Elizabeth Ave streetscape project. With one terminus at the Charlotte Transportation Center, CATS primary bus transfer facility as well as a LYNX Blue Line light rail station and the other terminus at the Novant Hospital main campus (formally Presbyterian), the project will provide service to numerous attractions and facilities along the East Trade St/Elizabeth Ave Corridor. Major destinations of the project area are the Time Warner Cable Arena, Charlotte/Mecklenburg Government District, Central Piedmont Community College and Elizabeth Ave shops and restaurants.



CTC and LYNX Blue Line

#### 1.1.1 Stations

The Charlotte Streetcar Starter Line will have six stations. Stations will utilize a side or center platform configuration, and will include shelters, lighting, benches, garbage cans, and public art.

#### 1.1.2 Operating Plan

The Charlotte Streetcar Starter Line service will operate seven days a week from approximately 6:00 am to 11:00 pm Monday thru Thursday, 6:00 am to 12:00 am on Friday, 8:00 am to 12:00 am on Saturday and on Sunday 9:00 am to 7:00 pm. The service will operate at 15-minute headways.

#### 1.1.3 CityLYNX Gold Line

As with all of CATS services, branding and marketing are key elements. Therefore, in order to incorporate the Center City Streetcar into CATS family of services, a new brand was developed. The CityLYNX Gold Line was selected In May 2013 as the new brand for the Center City Streetcar. The Charlotte Streetcar Starter Line is the first phase of the CityLYNX Gold Line and will be referred to in this document as the CityLYNX Gold Line Phase One.

## 2 PUBLIC INVOLVEMENT

### 2.1 Countywide Transit Services Plan

Every five years, CATS updates the Countywide Transit Services Plan (CTSP). The CTSP is developed to provide strategic analysis and recommendations for public transit service enhancements over a five year period. The plan focuses on three services: local bus service, neighborhood/community bus services, and express bus service. This focus allows CATS to make recommendations concerning the type and quantity of future bus services in the region.

This plan includes:

- *Public Engagement Process* – A review of the public outreach efforts to educate and learn from the passengers and the general public during the CTSP process
- *Review of CATS' Existing Transit Services and Performance* – A review of system performance of existing transit services focusing on productivity, cost-effectiveness, and service reliability
- *Capital Development Recommendations* – Recommendations regarding future Park and Ride facilities
- *Five Year Service Plan* – Development of an updated Five Year Plan for enhancing CATS transit services through 2017

#### 2.1.1 Countywide Transit Services Plan Public Involvement

Since the CityLYNX Gold Line Phase One will be implemented during the time frame of the FY 13 - FY17 CTSP, the resultant changes to the Gold Rush Red Line were incorporated into the CTSP. Figure 5 details the change included in the CTSP. In order to receive public input on the CTSP, CATS developed a public involvement plan (PIP). The plan consisted of publicly advertised meetings, presentations at neighborhood meetings, surveys, and stakeholder meetings. Ensuring successful public involvement is a top priority for CATS; to achieve that goal CATS utilized the following methods for public outreach and meeting notification:

- Neighborhood Association letters.
- Email notification.
- Meeting notification on CATS website as well as City of Charlotte's events calendar.
- Rider's Alerts on buses and trains.
- Media press releases.
- Advertisements placed in the local newspapers: Charlotte Observer, Charlotte Post (African American Readership Newspaper), and Que Pasa (Latin American Readership Newspaper).
- Distribution of a survey at the initial public meeting and online.

As a result of the outreach methods outlined above, the CTSP was presented at 42 meetings to 592 attendees. Table 2-1 provides detail on the meetings held during the public involvement phase of the CTSP. Figure 6 details the geographic locations of the public meetings and their relationship to CATS service area minority and low income census tracts within Mecklenburg County. Documentation for the geography and methodology that determines CATS service area minority and low income census tracts is described in Section 3 of this document.

**Table 2-1**  
**CTSP Public Involvement and Outreach**

<b>Date</b>	<b>Stakeholder / Neighborhood Association / Public Meeting</b>	<b>Attendance</b>
October 4, 2010	Grier Heights Neighborhood Association	27
October 5, 2010	Druid Hills Neighborhood Association	20
October 7, 2010	*Express Riders - Charlotte Mecklenburg Main Library	12
October 11, 2010	Villa Heights Community Association	15
October 11, 2010	Madison Park Neighborhood Association	32
October 12, 2010	*South Boulevard Light Rail Facility	1
October 13, 2010	*North Regional Library	0
October 13, 2010	*Independence Regional Library	3
October 14, 2010	*Arbor Glen Outreach Center	0
October 14, 2010	Transit Services Advisory Committee	8
October 18, 2010	Third Ward Neighborhood Association	13
October 19, 2010	Toddville Neighborhood Association	4
October 21, 2010	*Charlotte Mecklenburg Government Center	19
October 21, 2010	Charlotte East Community Partners	11
October 25, 2010	Center City Transportation Council	11
November 1, 2010	South End District	48
November 2, 2010	NoDa Neighborhood Association	23
November 3, 2010	Joint Use Task Force	19
November 3, 2010	CIGNA HealthCare	1
November 4, 2010	Washington Heights Neighborhood Association	8
November 4, 2010	*83X Public Meeting - Charlotte Mecklenburg Main Library	2
November 8, 2010	Johnson C. Smith	8
November 12, 2010	Davidson College	6
November 16, 2010	Highland Creek Home Owners Association	40
November 16, 2010	Camp Green Neighborhood Association	24
November 16, 2010	Carolina Medical Center - Steele Creek	3
November 18, 2010	University City Partners	18
November 22, 2010	Langston Neighborhood Association	14
November 23, 2010	Parktowne Terrace-Charlotte Housing Authority	33
December 7, 2010	Allan Hills Neighborhood Association	19
December 13, 2010	Charlotte Transportation Center Fair	25
December 16, 2010	Greenville Community	0
August 9, 2011	*South Boulevard Light Rail Facility	13
August 11, 2011	*Charlotte Mecklenburg Government Center	14
August 13, 2011	Historic West End Neighborhood Association	12
August 16, 2011	*Arbor Glen Outreach Center	0
August 17, 2011	*North Regional Library	10
August 18, 2011	*Independence Regional Library	7
August 24, 2011	*University City Regional Library	6
August 30, 2011	*West Charlotte Recreation Center	17
September 8, 2011	*Gateway Village YMCA	16
September 21, 2011	Villa Heights Community Organization and McCreesh Place	30

\*CATS Public Meeting

## 2.2 Countywide Transit Services Plan Public Comment

The CTSP PIP gathered public comment on all of CATS services. For the purposes of this document, only comments related to the Gold Rush Red Line are included. Complete documentation of the CTSP public process can be reviewed in the *FY13- FY17 Countywide Transit Services Plan*. Comments directly related to the Gold Rush Red Line are detailed in the below list. Mitigation for any possible service impacts are detailed in section 6 of this document.

- Operate evening service as well as all day service on Saturdays.
- Provide more frequent service on the Gold Rush during peak and non-peak times for uptown travelers.
- Provide additional service during uptown events for event attendees.

## 2.3 CityLYNX Gold Line Phase One Combined Communications Strategy

In order to receive feedback from the public on the CityLYNX Gold Line Phase One, the City of Charlotte developed a Combined Communications Strategy. This strategy was successfully implemented during the construction of the LYNX Blue Line. Just like the LYNX Blue Line, the CityLYNX Gold Line Phase One project will require the coordination of multiple city/county agencies. Thus far this strategy has guided the project through final design and into construction. Goals of the Combined Communications Strategy are listed below.

- Educate and inform the public about the project and the new mode of transportation.
- Keep elected officials informed and engaged.
- Provide up-to-date construction information to all interested parties.
- Remind people about why the Streetcar is important.
- Work with businesses to address their concerns and make them advocates of the project.

In order to achieve the aforementioned goals, the following outreach methods were applied.

- Email notification.
- Public Meetings were posted on the City of Charlotte's events calendar.
- Media press releases.
- Advertisements placed in the local newspapers: Charlotte Observer, Charlotte Post (African American readership newspaper, and Que Pasa (Latin American readership newspaper).
- Distribution of a surveys at public meetings and online.
- Designated Business Liaison responsible for contacting all businesses affected by the project.
- Business Roundtable was formed to provide input to the construction team
- Informational material such as fact sheets, postcards, progress reports, signage, flyers, posters doorhangars, as well up to date project information on [www.charlottefuture.com](http://www.charlottefuture.com).

As a result of the outreach methods outlined above, eleven public meetings were held. Table 2-2 provides detail on the meetings held during the public involvement phase of the Charlotte Streetcar Starter Project.

**Table 2-2**  
**Charlotte Streetcar Starter Project Public Meetings**

Date	Meeting Location
November 17, 2009	Charlotte-Mecklenburg Government Center
November 19, 2009	Johnson C. Smith University (Historically Black College located in Minority Community)
November 24, 2009	St. Andrews Episcopal Church
February 18, 2010	Charlotte-Mecklenburg Government Center
April 20, 2010	St. Andrews Episcopal Church
April 22, 2010	Charlotte-Mecklenburg Government Center
April 27, 2010	Johnson C. Smith University (Historically Black College located in Minority Community)
September 28, 2010	Memorial United Methodist Church
September 30, 2010	Johnson C. Smith University (Historically Black College located in Minority Community)
October 5, 2010	Charlotte-Mecklenburg Government Center
November 17, 2011	Charlotte-Mecklenburg Government Center

**2.3.1 CityLYNX Gold Line Phase One Public Comment**

The Combined Communications Strategy for the Charlotte Streetcar Starter Project gathered public comment, primarily on the design and implementation of the Streetcar Service. For the purposes of this document, only comments related to the Gold Rush Red Line are included. Comments directly related to the Gold Rush Red Line are detailed in the below list. Mitigation for any possible service impacts are detailed in section 6 of this document.

- Will CATS no longer provide the free Gold Rush service when the Streetcar is operational?
- Will there be a fare free zone on the Streetcar?

**3 SERVICE EQUITY ANALYSIS METHODOLOGY**

A Title VI service equity analysis was performed on the proposed changes to the Gold Rush Red Line Service as a result from the proposed service changes associated with the implementation of the Charlotte Streetcar Starter Project. This analysis determines if the proposed adjustments will have a disproportionately high and adverse impact on minority and low-income populations. The analysis also recommends mitigation, where necessary.

**3.1 Legal and Regulatory Context**

This analysis complies with the legal requirements outlined in *Title VI of the 1964 Civil Rights Act* (42 USC § 2000d et seq.) July 1964. The analysis additionally uses the guidance and references described in Section 3.1.1

**3.1.1 Title VI Guidance and References**

This document has been completed using the definitions, methodologies and guidance outlined in:

- *FTA Title VI Service and Fare Equity Analysis Questionnaire*, April 2011
- *CATS Policy for Major Service Changes and/or Fare Change Reviews* (CATS CivR01), August 2008
- *Title VI and Title VI – Dependent Guidelines for Federal Transit Administration Recipients* (FTA Circular C 4702.1A), May 2007
- *Title VI and Title VI – Dependent Guidelines for Federal Transit Administration Recipients* (FTA Circular C 4702.1B), October 1 2012

## 3.2 Datasets

The following Geographic data was used to complete the demographic and ridership analysis for the service equity analysis:

- 2010 U.S. Census Data – Tract Level Population by Race
- 2011 5 Year American Community Survey Data Table S1701 – Tract Level Poverty Status
- Ridership data generated from CATS Transit Vehicle Automatic Passenger Counters (APC): APC contains both infrared and temperature sensors which are located at each transit vehicle door. The APC sensors are only activated when the doors open and motion is detected. Information is collected as to how many people enter (boardings) and/or exit (alightings) the transit vehicle. Concurrently, the APC collects the transit stop coordinates (lat/long). A computer onboard each vehicle stores the data until it is transmitted to a fixed database.

## 3.3 Definitions

Low Income – Poverty rate by tract level as defined by the U.S. Census American Community Survey (ACS) 5-year estimates Table S1701.<sup>1</sup>

<sup>1</sup>The ACS survey replaced the Decennial Census Long Form, which previously asked questions about median income. The Department of Health and Human Services was previously responsible for developing the poverty guidelines based on this measurement of median income. CATS policy references the DHHS guidelines. BLE staff consulted with CATS Civil Rights staff, who accepted the use of the ACS data and geography for this variable.

Major Service Change Review – According to Section 4.0 of CATS CivR01 *Policy for Major Service Changes and/or Fare Change Reviews*, a major service adjustment review will occur whenever there is a major service adjustment to any transit service provided by CATS.

Major Service Adjustments – According to Section 4.1 of CATS CivR01 *Policy for Major Service Changes and/or Fare Change Reviews*, a major service adjustment includes:

- A greater than 25% reduction in route miles or revenue hours for any set of routes or any single route being modified within a corridor
- The abolishment of an existing transit route without a replacement
- The restructuring of transit service throughout a corridor as defined by CATS.
- Note: this policy is scheduled for update in September 2013, but this review qualifies under the new standards.

Minority – In aggregate, Non-White/Non-Hispanic population by race by census tract as defined by the U.S. Census 2010 Decennial Census.

## 3.4 Study Area

### 3.4.1 Service Area

The service area (in aggregate) is calculated:

1. The entire CATS system bus and rail GIS polyline files are overlaid onto North/South Carolina census tract polygons containing demographic data.
2. A ¾ mile buffer is calculated from the non-express bus and rail route polylines to represent both the fixed-route and Americans with Disability (ADA) complementary transit service.
3. A ¼ mile buffer is calculated from the express bus route polylines
4. The two buffers are then merged resulting in CATS total service area.
5. Census tracts with centroids within the service area are then selected.
6. The demographic data joined to the affected tracts is exported as a table.

### 3.5 Data Calculations

#### 3.5.1 Demographic Data

##### 3.5.1.1 Service Area Demographic Data

Demographic data is then calculated for the total CATS service area. Population by race is calculated using the most recent decennial US Census tract level geography. Percent minority is calculated for service tracts to provide a baseline comparison using the following formula.

- $\text{Percent Minority} = \frac{\text{Total Service Area Minority Population}}{\text{Total Service Area Population}}$

Low income percentage is calculated using tract level below poverty data sourced by the most recent 5 year ACS data table S1701. Percent low income is calculated for service area tracts to provide a baseline comparison using the following formula.

- $\text{Percent Low-income} = \frac{\text{Total Service Area Population Below Poverty}}{\text{Total Service Area Population whom Poverty Status is Determined}}$

The resulting demographic data percentages are then used as a threshold to determine minority and low income tracts. Any census tract that has a percentage of minority or low income populations at or higher than CATS Service Area demographic thresholds are considered minority or low income tracts for the purpose of Title VI analysis.

##### 3.5.1.2 Route Level Demographic Data

Demographic data for bus routes is calculated using the same method as described in section 3.5.1.1. However, In the case of express routes, demographic data is only calculated for portions of the route where the route is in service.

## 4 EXISTING CONDITIONS

### 4.1 Route Level Demographic Data

Demographic data for individual bus routes is calculated using the same method as described in section 3.5.1.1. However, in the case of express routes, demographic data is only calculated for portions of the route where the route is in service. A map of the existing Gold Rush Red Line detailing the minority and low income populations can be viewed in Figure 7.

### 4.2 Demographics

Table 4-1 details the service area minority and low income populations for the Gold Rush Red Line.

**Table 4-1  
 Existing Service Area Demographics (Percent by Demographic Type)**

Service Area	Minority Proportion of Population	Low Income Proportion of Population
CATS entire service area	47.52%	14.25%
Gold Rush Red Line	61.44%	26.04%

As stated in Section 1 of this document the CityLYNX Gold Line Phase One project will travel through the campus of Central Piedmont Community College (CPCC). Considering that CATS customers use numerous routes for travel to CPCC, there is a need to identify the minority proportion of the student enrollment. Table 4-2 details the 2012-2013 CPCC minority proportion of total student enrollment as reported to the U.S. Department of Education Institute of Education Sciences National Center for Education Statistics Integrated Postsecondary Education Data System.

**Table 4-2**

<b>CPCC Minority Proportion of Student Enrollment</b>	
	56.3%

### 4.3 Gold Rush Red Line Service Characteristics

The headways for the existing Gold Rush Red Line are listed in Table 4-3.

**Table 4-3**  
**Existing Gold Rush Red Line Headways (Minutes)**

<b>Route</b>	<b>Time Period</b>		
	<b>Peak</b>	<b>Midday</b>	<b>Night</b>
Gold Rush Red Line	12	12	---

Note: "----" refers to no service operated during time period

The span of service for the Gold Rush Red Line is listed in Table 4-3.

**Table 4-4**  
**Existing Gold Rush Red Line Span of Service**

<b>Route</b>	<b>Span of Service</b>		
	<b>Weekdays</b>	<b>Saturday</b>	<b>Sunday</b>
Gold Rush Red Line	6:40am – 6:30pm	---	---

Note: "----" refers to no service operated during time period

## 5 SERVICE EQUITY ANALYSIS

### 5.1 Description of Route Changes

The Gold Rush Red Line provides free weekday transportation from Johnson C. Smith University through the central business district of Uptown Charlotte connecting numerous destinations including the LYNX Blue Line, Charlotte Transportation Center, Charlotte-Mecklenburg Government District, Central Piedmont Community College and medical facilities. The currently under construction CityLYNX Gold Line Phase One will begin revenue service in 2015. Considering that the Streetcar would provide overlapping service (Figure 3) along the East Trade St / Elizabeth Ave corridor, CATS is proposing to alter the Gold Rush Red Line route as indicated in Figure 5. The proposed Gold Rush routing would no longer travel east of the Charlotte Transportation Center (CTC). The Streetcar service would provide fare free connecting service to destinations east of the CTC

### 5.2 Route Level Analysis

A thorough service equity analysis was performed on the Gold Rush Red Line and the CityLYNX Gold Line Phase One. Section 5.2 includes detailed analysis on the proposed restructuring of the Gold Rush Red Line and the CityLYNX Gold Line Phase One. Additionally, service level data including headways, span of service, and travel time analysis are also described in Section 5.2. Mitigation for possible impacts to minority and low income populations are detailed in Chapter 6.

### 5.3 Demographics

Utilizing the established methodology as described in Section 3, Table 5-2 compares minority/low income population demographics for the existing service area to the service areas of the proposed restructured 2015 Gold Rush Red Line and the CityLYNX Gold Line Phase One (Figure 8).

**Table 5-1  
 Service Area Demographic Comparison**

Service Area	Minority Proportion of Population	Low Income Proportion of Population
CATS entire service area	47.52%	14.25%
Gold Rush Red Line 2015	67.06%	28.67%
CityLYNX Gold Line Phase One	30.70%	11.54%

### 5.4 Frequency/Headways

As stated in Section 5.1 the Gold Rush Red Line is proposed to be truncated at the CTC once the CityLYNX Gold Line Phase One begins revenue service in 2015. Table 5-2 details the 2015 headways for the Gold Rush and Streetcar services. Although Streetcar headways will slightly increase when compared to the existing Gold Rush, the Streetcar would provide night and weekend service that is currently not provided by the Gold Rush (Section 5.5). Along with the increase in service span and vehicle capacity (Section 5.9) offset any change to headway.

**Table 5-2  
 2015 Gold Rush Red Line and CityLYNX Gold Line Phase One Headways (minutes)**

Route	Peak	Mid-Day	Night
Gold Rush Red Line	15	15	---
CityLYNX Gold Line Phase One	15	15	15

Note: "----" refers to no service operated during time period

### 5.5 Ridership

The implementation of the CityLYNX Gold Line Phase One would require the restructuring of the Gold Rush Red Line in 2015. As a result a portion of the existing Gold Rush passengers would need to transfer to or from the Streetcar in order to complete their trip. In order to better understand transfer impacts to existing Gold Rush passengers, a cumulative load analysis based upon stop ridership was performed. This was achieved by utilizing the following steps:

1. Isolate a bus stop ridership dataset that excludes factors that would alter typical ridership, such as special events, street closures or holidays. For this analysis, April 2013 average daily ridership by stop and direction was used.
2. Sort the bus stops in order by the Inbound/Outbound direction.
3. Identify the segment of the route to be analyzed. For the purposes of this document the following segments were used:

Inbound: Johnson C. Smith to the CTC  
 Outbound: Novant Hospital/Elizabeth Ave Area to the CTC

4. For each direction, beginning with the first stop, the following formula was used:

$$\text{Cumulative Load} = (\text{Target Stop Boardings} + \text{Prior Stop Boardings}) - \text{Target Stop Alightings}$$

By using the steps outlined, the findings show that 5.93% of inbound passengers and 21.07% of outbound passengers would need to transfer in order to complete their trip. Through this analysis it is evident that the majority of current Gold Rush passengers would not require a transfer to or from the CityLYNX Gold Line Phase One for trip completion.

## 5.6 Span of Service

The CityLYNX Gold Line Phase One would improve the span of service when compared to the existing Gold Rush Red Line. The Gold Rush provides weekday only service. The Streetcar once implemented will provide consistent all day service, including nights and weekends as detailed in Table 5-3.

**Table 5-3**  
**CityLYNX Gold Line Phase One Span of Service**

Route	Span of Service			
	Monday-Thursday	Friday	Saturday	Sunday
Gold Rush Red Line	6:40am - 6:30pm	6:40am - 6:30pm	---	---
CityLYNX Gold Line Phase One	6:00am - 11:00pm	6:00am - 12:00am	8:00am - 12:00am	9:00am - 7:00pm

Note: "----" refers to no service operated during time period

## 5.7 Travel Time Analysis

As previously covered in Sections 5.2.1 and 5.2.3 the implementation of the CityLYNX Gold Line Phase One service will not have a negative impact on the headways and span of service for the corridor currently served by Gold Rush Red Line. The streetcar will operate in mixed traffic and not in a separate guideway. Since this is the same operating environment as existing Gold Rush Red Line, there will be no measurable change to travel time for passengers along the East Trade St/ Elizabeth corridor.

## 5.8 Stop Spacing, Location, and Amenities

There is no discernible difference in the number of CityLYNX Gold Line Phase One stops when compared to the Gold Rush Red Line stops Figure 9. There are fewer CityLYNX stops due to the fact that streetcar stops cannot be located in the same manner as bus stops due to the required infrastructure and track location. From a service area standpoint the CityLYNX stops will serve the same service area when ¼ mile walk distances are taken into consideration. Additionally the streetcar service will extend free transit service to Novant Hospital and businesses along Elizabeth Ave. Also, in many ways the streetcar CityLYNX stops will be more customer focused as passengers will be able to board/alight in the same location. The current Gold Rush service has an open loop route structure along East Trade St/Elizabeth Ave and East 4th St. This creates a situation where inbound and outbound stops are located on different streets. Per CATS policy MTC-06 Transit Service Guidelines-Section 2.10, this is not an ideal service situation. With the implementation of the CityLYNX Gold Line Phase One project the open loop stop locations will be discontinued. As far as amenities, there will be a slight increase in shelters and benches. Each of the six CityLYNX Gold Line Phase One stops will include shelters, lighting, benches, garbage cans, and public art. By comparison, of the nine Gold Rush Red Line stops that will be replaced by CityLYNX, only two have a shelter.

## 5.9 Vehicle Capacity

The vehicles that will be used for the CityLYNX Gold Line Phase One project will improve capacity along the East Trade St/Elizabeth Ave corridor. The current Gold Rush Red Line vehicles have a seated capacity of 27 with room for an additional 14 standing, The CityLYNX Gold Line Phase One vehicles have a capacity of 48 seating with room for an additional 57 standing. With the additional seating and standing capacity offered by the streetcar vehicles, CATS customers will have less instance of standing. Additionally, as stated in Section 5.4 the headways for the CityLYNX will increase along the Gold Rush Red Line corridor to 15 minutes. Although this is a slight increase in headway from the 12 minutes offered by the Gold Rush Red Line, the CityLYNX Gold Line Phase One vehicle capacity and extended span of service offset any increase to headway.

## 6 MITIGATION

The public was notified of the Gold Rush Red Line proposed changes during the public involvement process for the approved 2013-2017 CTSP; an additional public comment period for the Gold Rush Red Line changes will begin 60 days prior to Charlotte Starter Streetcar Line implementation. During that period, the proposed modifications detailed in this Title VI Service Equity Analysis will be fully evaluated by the public before any change in service. In addition to the public outreach methods stated in Section 2 of this document, notification efforts will specifically be focused on populations within ¼ of a mile of the Gold Rush Red Line and CPCC. Depending upon comments received and the future existing conditions, additional mitigation may be necessary. Once the proposed Gold Rush changes have been fully vetted by the public an updated Title VI Service Equity Analysis will be completed.

During the CTSP 2013-2017 public comment period there were comments related to the Gold Rush Red Line. Those comments with mitigation responses are included in Table 6-1.

**Table 6-1  
 CTSP 2012-2017 Gold Rush Red Line Public Comment**

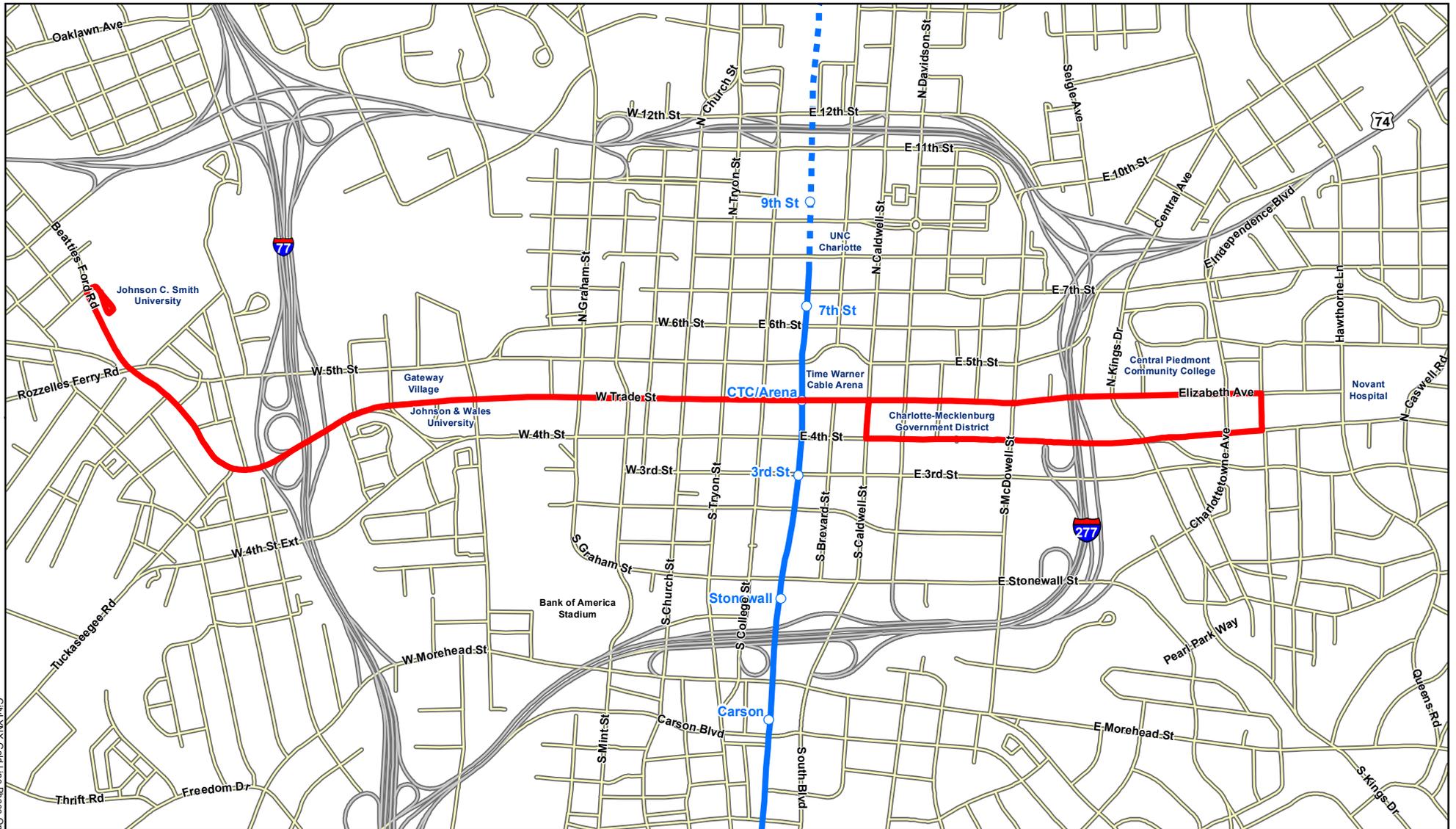
CTSP Public Comment	Mitigation Response
Operate evening service as well as all day service on Saturdays.	The Streetcar service will replace the Gold Rush from the Elizabeth Ave area to the CTC and will provide all day service and weekend service.
Provide more frequent service on the Gold Rush during peak and non-peak times for uptown travelers.	Due to the number of streetcar vehicles that will be available in 2015 to operate the CityLYNX Gold Line Phase One service, 15 minute headways are the most that can be provided.. Although this is a slight increase in headway from the 12 minutes offered by the Gold Rush Red Line, the CityLYNX Gold Line Phase One vehicle capacity and extended span of service offset any increase to headway. Additionally, since the 2015 Gold Rush Red Line routing will be shorter than it is today, there may be the opportunity to increase the headway. This will be evaluated during the public comment period required in advance of any permanent changes to the Gold Rush.
Provide additional service during uptown events for event attendees	The Streetcar service will replace the Gold Rush from the Elizabeth Ave area to the CTC and will provide all day service and weekend service.

Public comment was also documented during the public involvement phase of the Charlotte Streetcar Starter Project. Those comments with mitigation responses are included in Table 6-2.

**Table 6-2  
 CityLYNX Gold Line Phase One Public Comment**

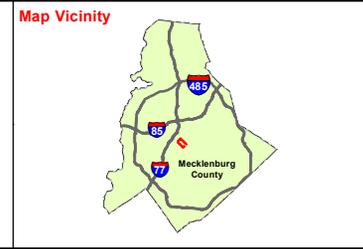
CTSP Public Comment	Mitigation Response
Would CATS no longer provide the free Gold Rush service when the Streetcar is operational?	Since the CityLYNX Gold Line Phase One will operate along the same corridor as a portion of The Gold Rush Red Line, the Gold Rush is proposed to be truncated at the CTC once the Streetcar service is implemented in 2015. Both services will operate fare free. Gold Rush service from Johnson C. Smith University to the CTC will be unaffected.
Will there be a fare free zone on the Streetcar?	The CityLYNX Gold Line Phase One will provide fare free service from the Elizabeth Ave area to the CTC

For the purposes of this initial Title VI Service Equity Analysis, there are no significant impacts to low income or minority populations



**Legend**

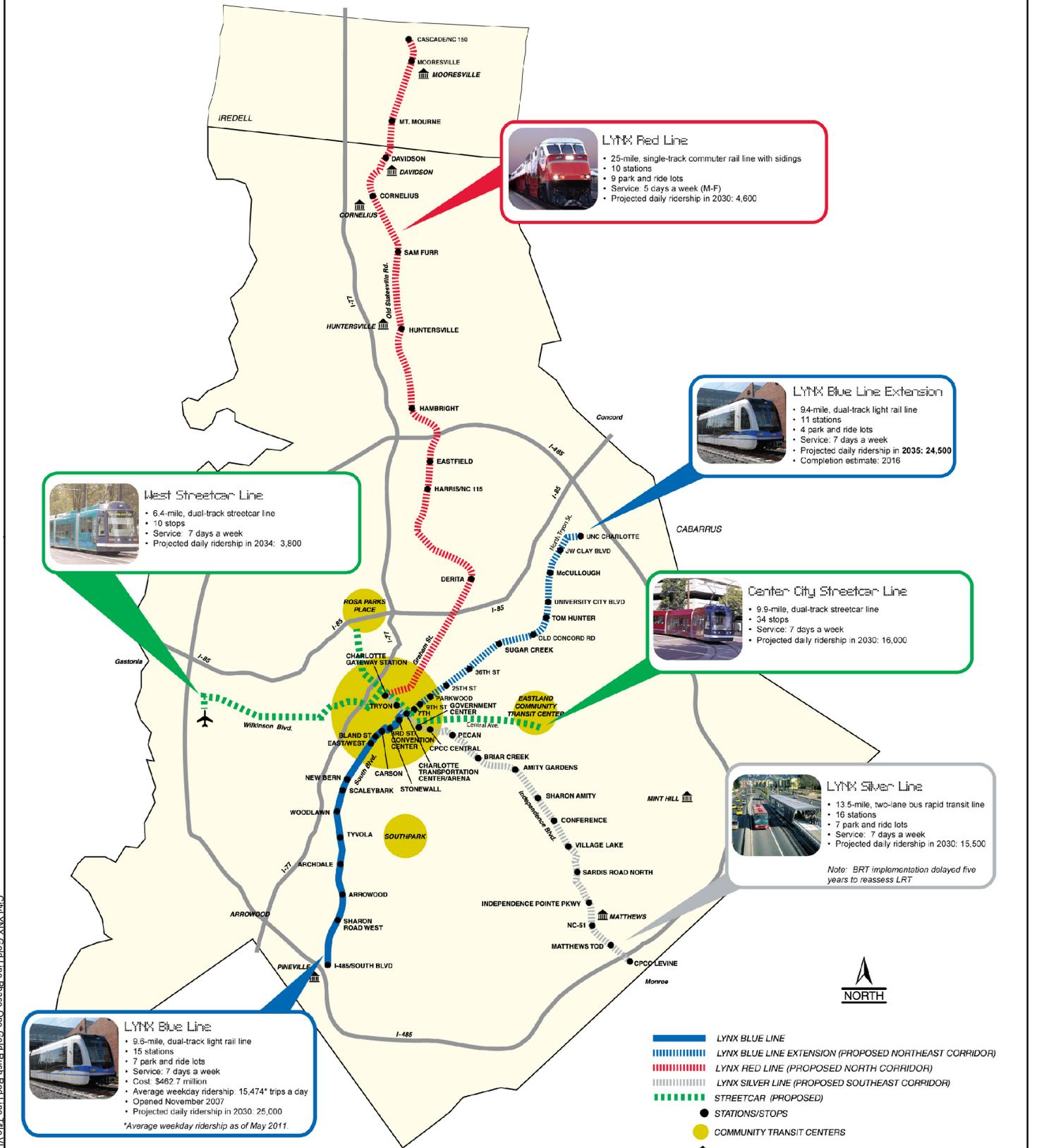
	Gold Rush Red Line		Streets
	LYNX Blue Line		Highway
	LYNX Station		
	LYNX Blue Line Extension		

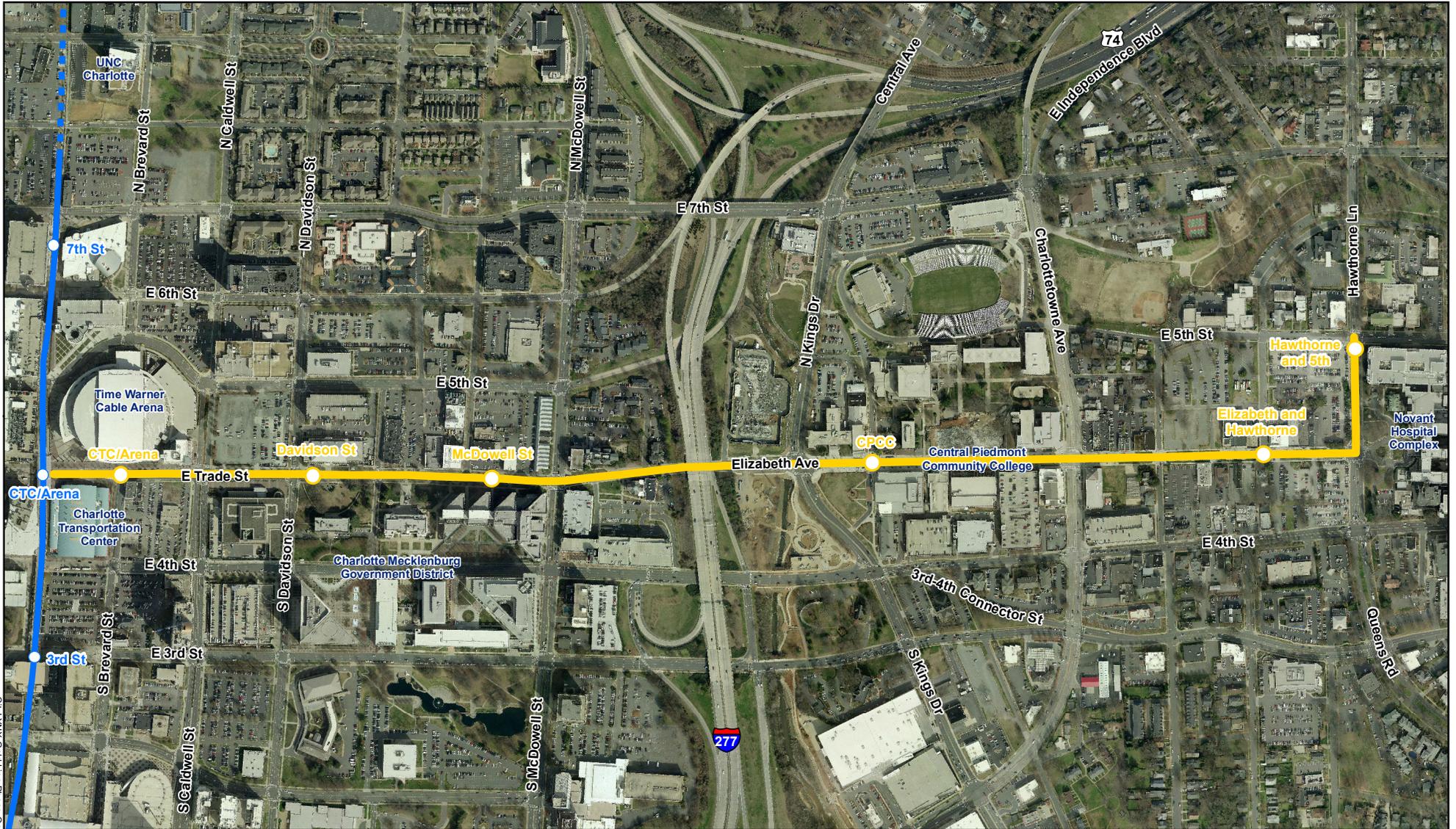


0 0.25 0.5 Miles

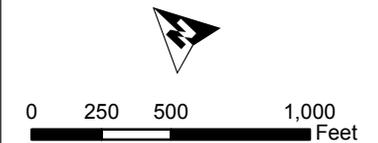
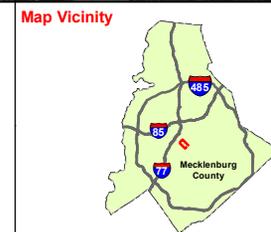
Data Source: City of Charlotte, CATS

# 2030 Transit System Plan

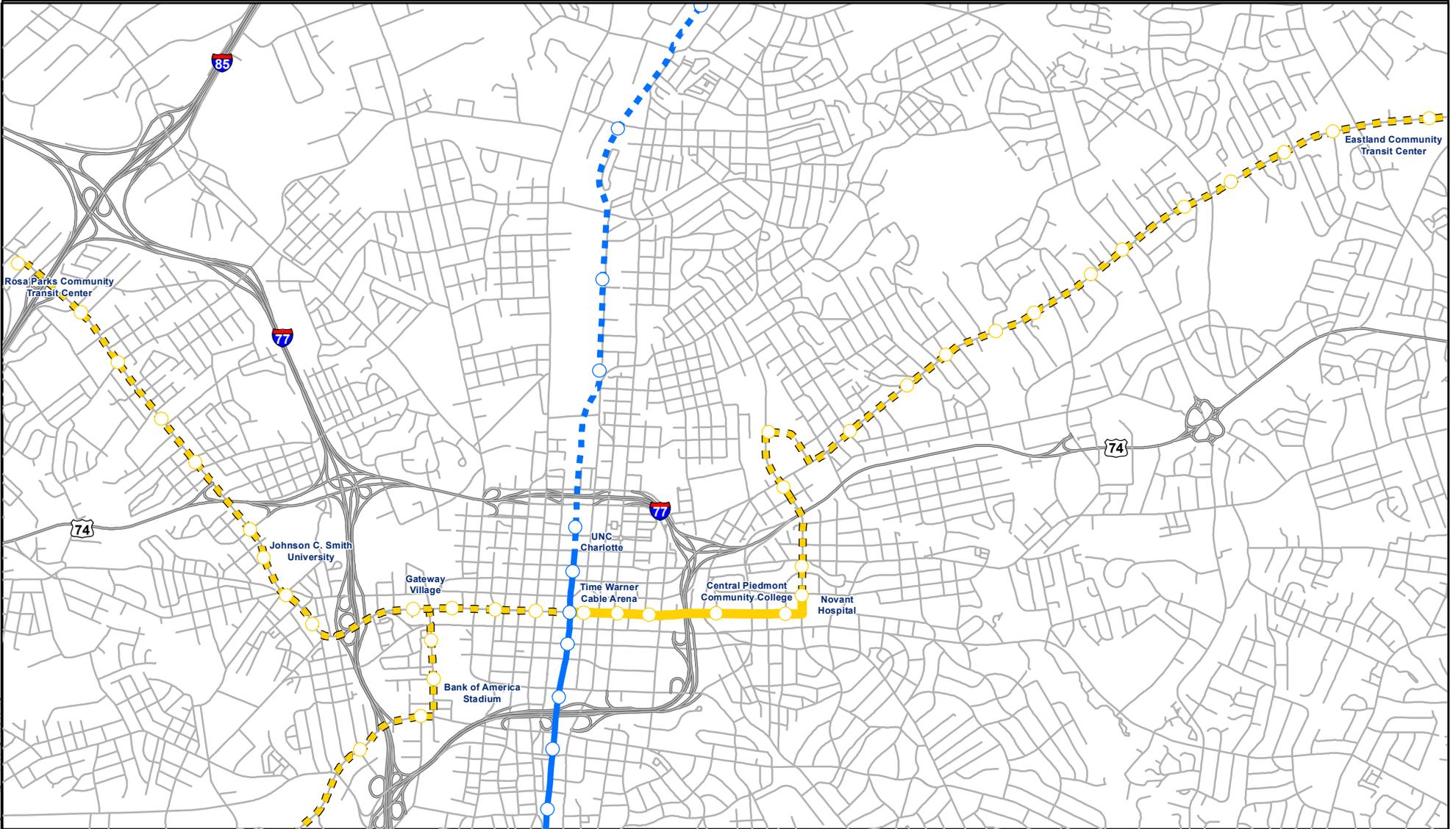




- Legend**
- City LYNX Gold Line Phase One
  - City LYNX Stop
  - LYNX Blue Line
  - LYNX Station
  - - - LYNX Blue Line Extension



Data Source: City of Charlotte, CATS,  
2012 Mecklenburg County Aerial



**Legend**

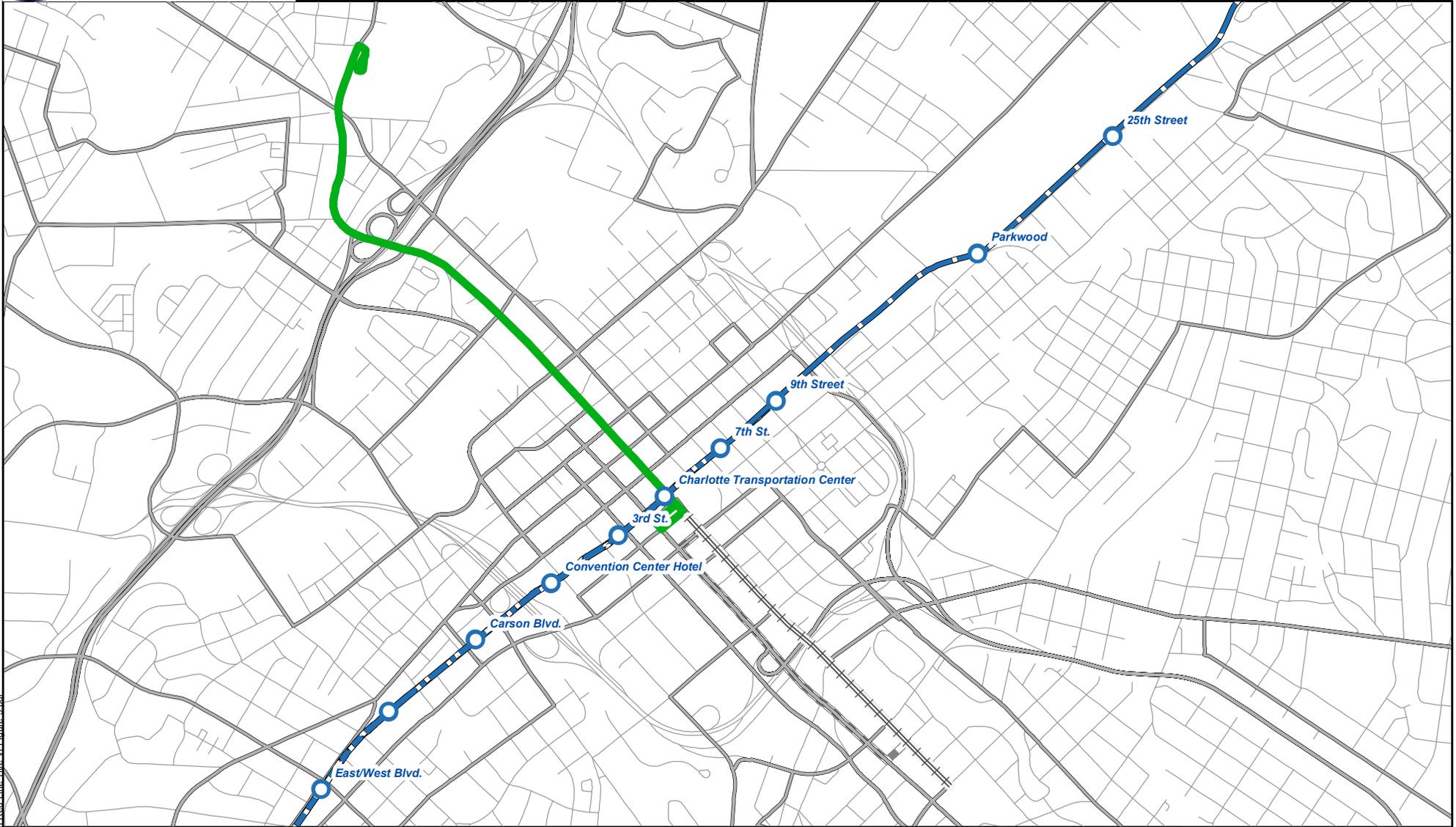
	City LYNX Gold Line Phase One		LYNX Blue Line		Streets
	City LYNX Gold Line Proposed Extensions		LYNX Station		Highway
	City LYNX Stop		LYNX Blue Line Extension		

**Map Vicinity**

0 0.25 0.5 Miles

Data Source: City of Charlotte, CATS

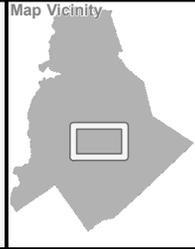
CTSP Proposed Route 86 - Gold Rush Red Line



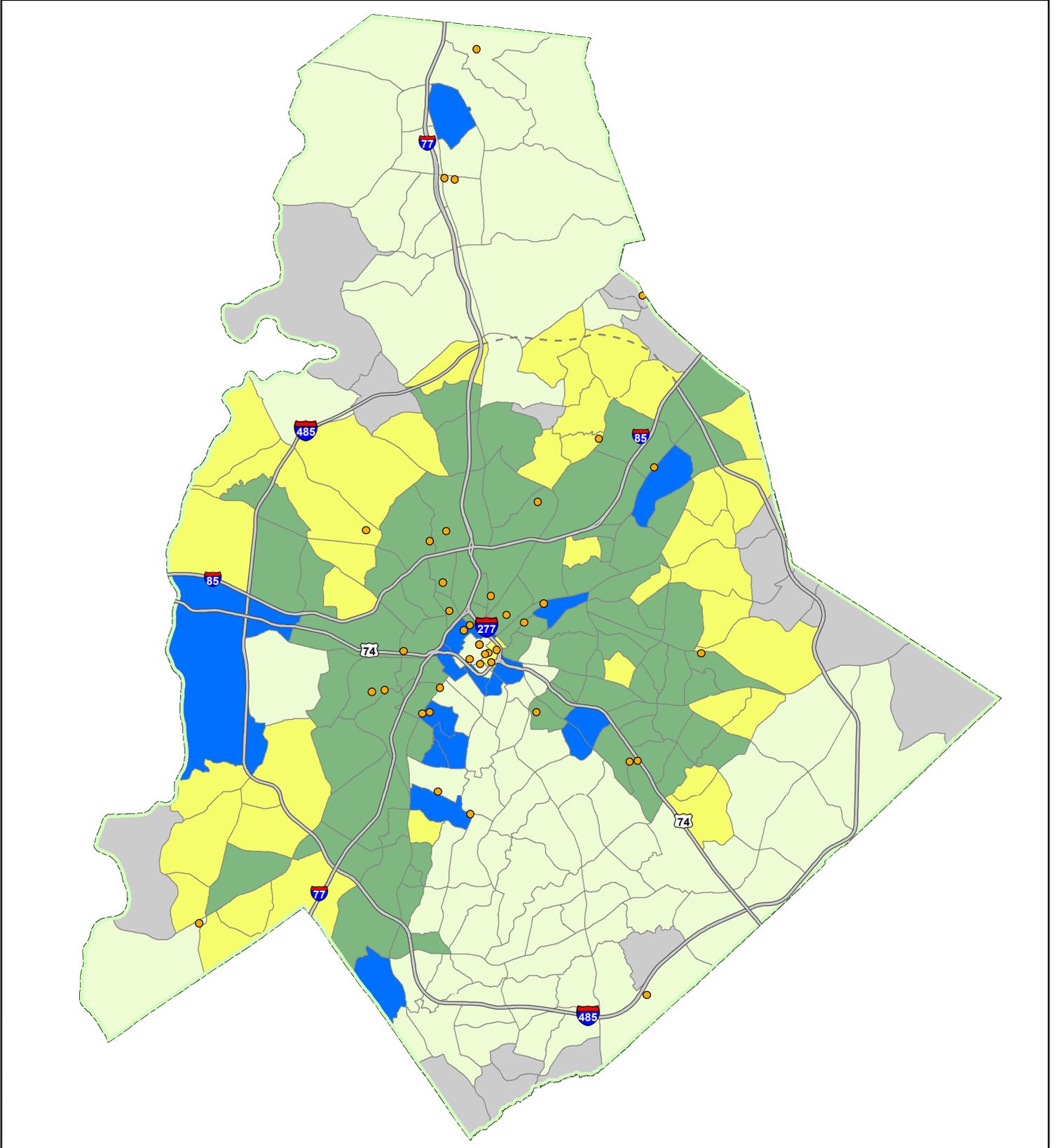
**Legend**

- Route 86 (Proposed)
- Streetcar Starter Line
- LYNX Blue Line
- LYNX Rail Station
- Proposed Bus Network

Service Frequency (min)	Proposed	Existing
Weekday Peak	15	15
Weekday Midday	15	15
Weekday Night	15	15



Data Source: City of Charlotte  
Charlotte Area Transit System

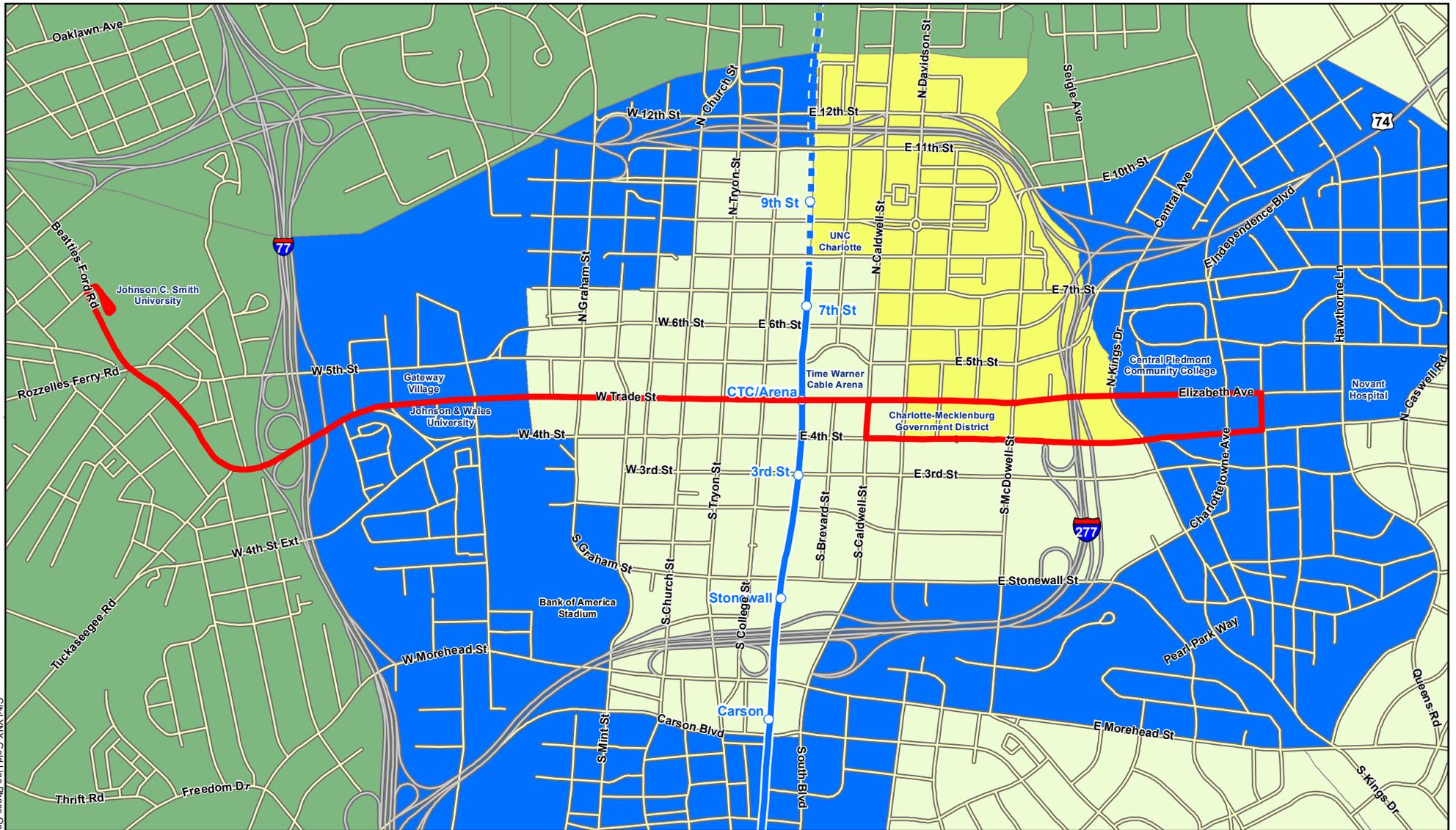


- Legend**
- Public Meeting Locations
  - Major Highways
  - I-485 Under Construction
  - Mecklenburg County Boundary

- CATS Service Area 2010 Census Tracts**
- Low Income
  - Minority
  - Low Income/Minority
  - Non Minority/Low Income
  - Not in Service Area

Data Source: City of Charlotte, CATS, US 2010 Census, American Community Survey

Gold Rush Red Line Low Income/Minority Census Tracts



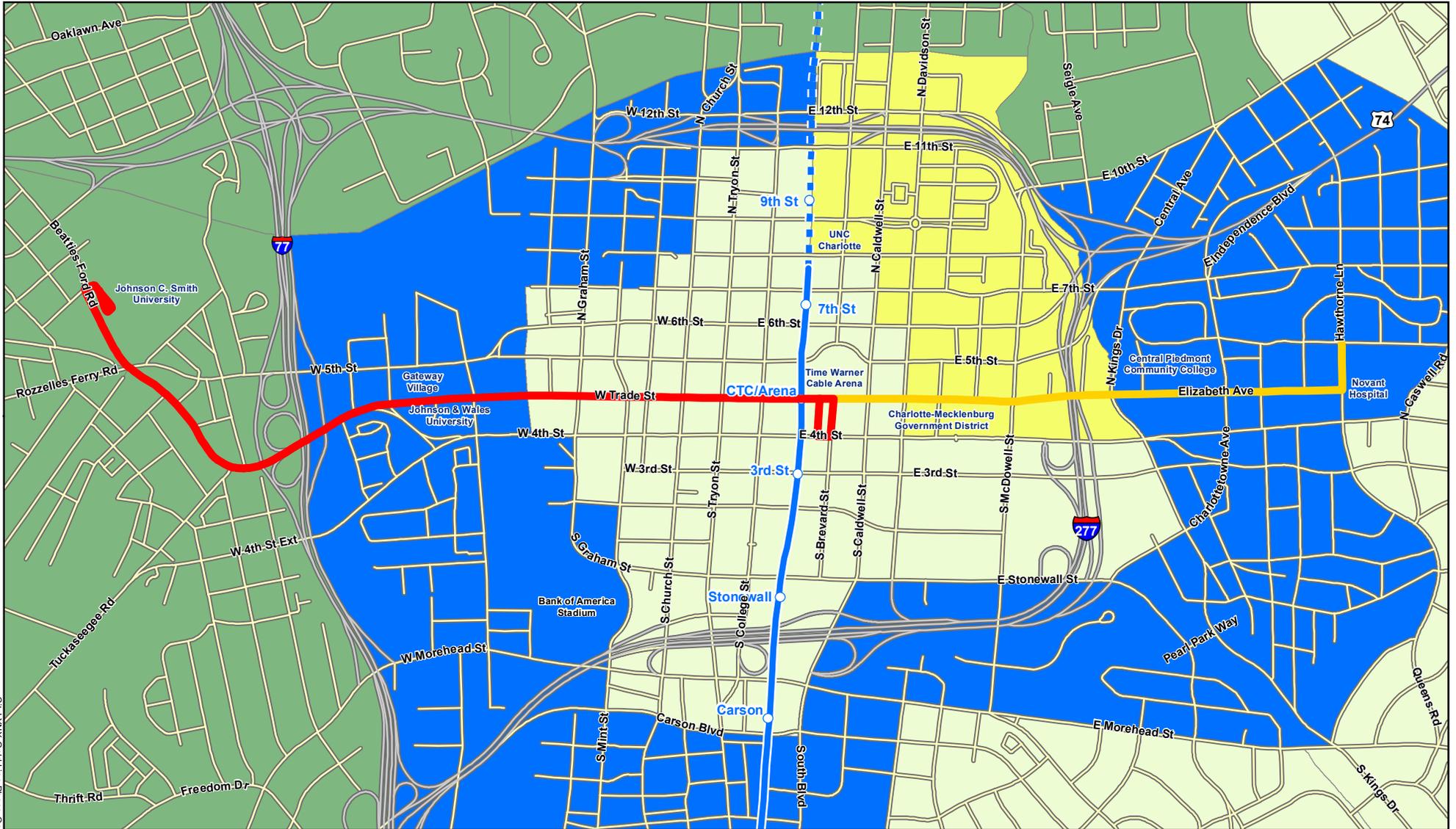
**Legend**

	Gold Rush Red Line		Low Income		Non Minority/Low Income		Streets
	LYNX Blue Line		Minority		Not in Service Area		Highway
	LYNX Station		Low Income/Minority				
	LYNX Blue Line Extension						

**Map Vicinity**

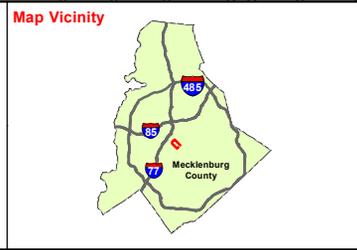
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Data Source: City of Charlotte, CATS, US 2010 Census, American Community Survey



**Legend**

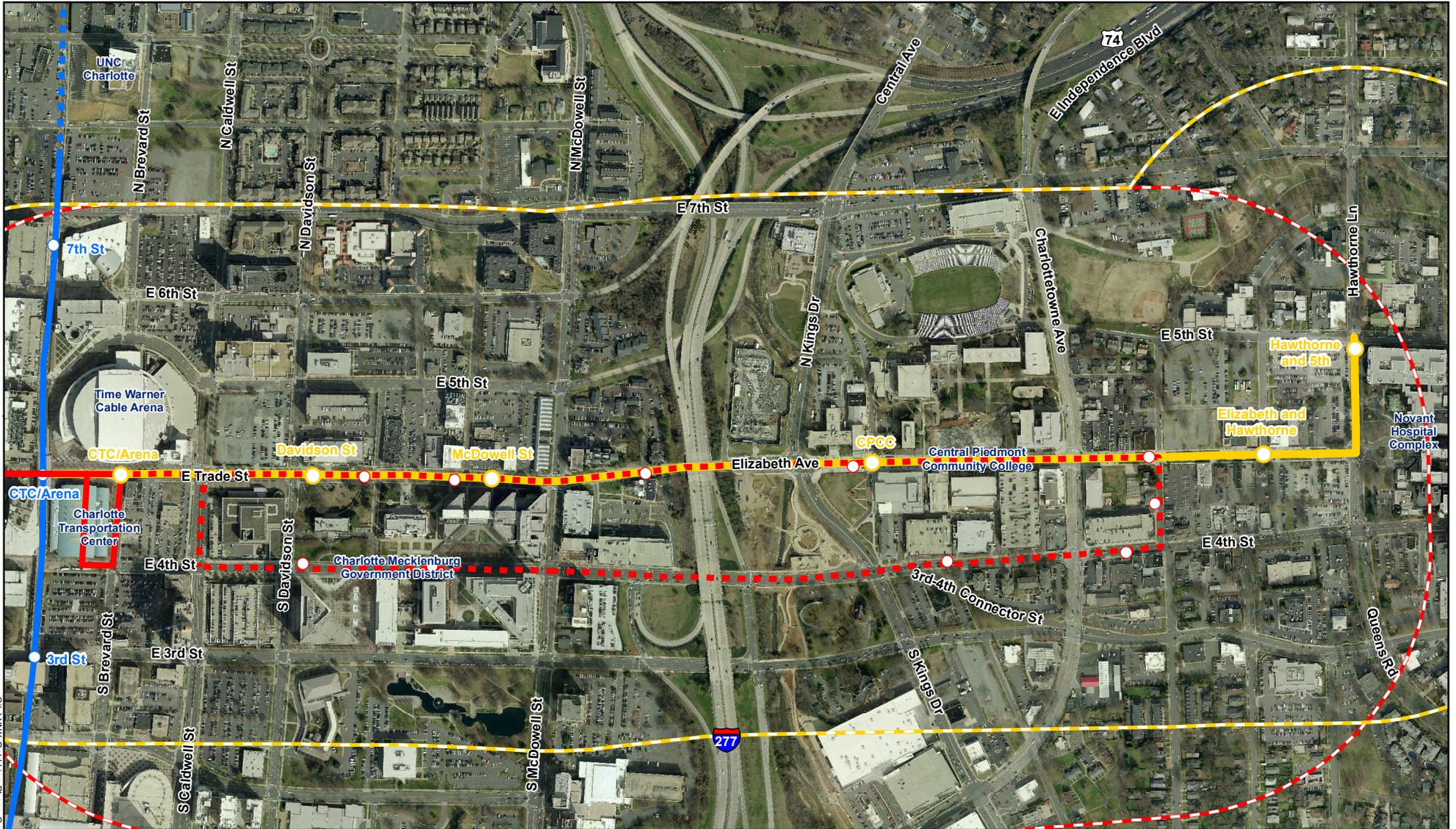
	Gold Rush Red Line-2015		CATS Service Area 2010 Census Tracts		Streets
	City LYNX Gold Line Phase One		Low Income		Highway
	LYNX Blue Line		Non Minority/Low Income		
	LYNX Station		Minority		Not in Service Area
	LYNX Blue Line Extension		Low Income/Minority		



0 0.25 0.5 Miles

Data Source: City of Charlotte, CATS, US 2010 Census, American Community Survey

Figure 9  
CityLYNX Gold Line Phase One-Gold Rush Red Line  
Stop Location Comparison



**Legend**

- CityLYNX Gold Line Phase One
- CityLYNX Stop
- Gold Rush Red Line 2015 Routing
- Gold Rush Red Line 2015 Route Removal
- Gold Rush Stops Discontinued in 2015
- Gold Rush 1/4 mile Buffer
- CityLYNX Gold Line Phase One 1/4 Mile Buffer
- LYNX Blue Line
- LYNX Station
- LYNX Blue Line Extension

**Map Vicinity**

0 250 500 1,000 Feet

Data Source: City of Charlotte, CATS, 2012 Mecklenburg County Aerial