



**Metropolitan Transit Commission  
November 17, 2010**



# Implementation Plan (2006)

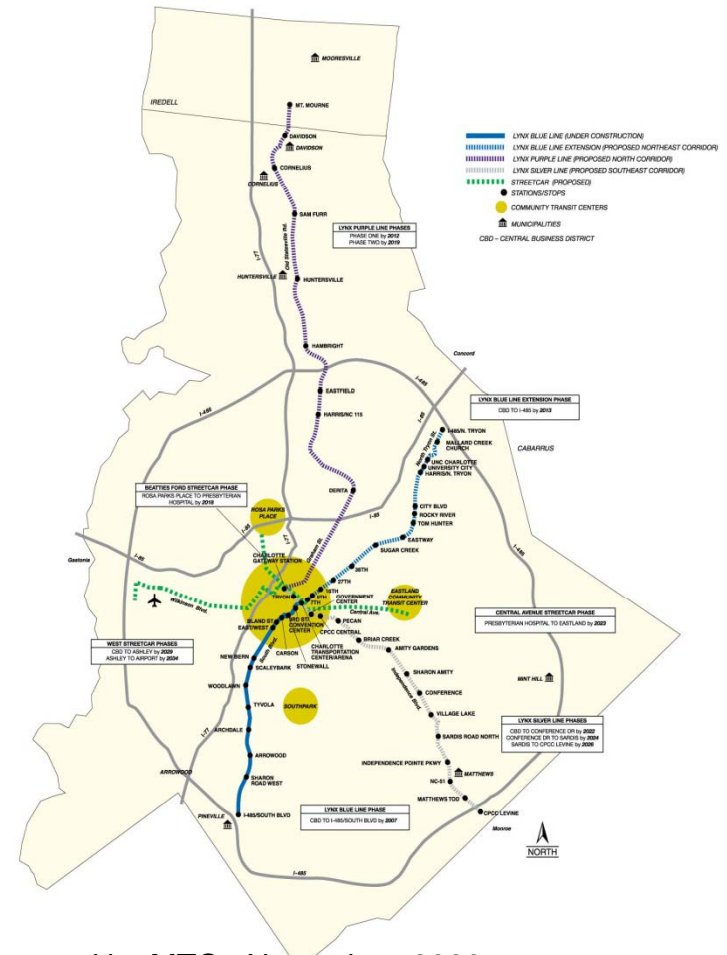
## Attachment B

### 2030 Corridor System Plan Implementation Plan

CORRIDORS	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
South	C																												
North - Phase I		Design		Const.			\$ 261.2																						
North - Phase II										Design	Const.				\$ 111.9														
Northeast		Design		Const.			\$ 740.5																						
Southeast - Phase I (CGS to Conference Sta)		ROW	\$ 3.2		Bus-way	\$ 32.2					Design	Const.				\$ 176.8													
Southeast - Phase II (Conf. Sta to Sardis Sta)											Design	Const.				\$ 174.7													
Southeast - Phase III (Sardis to CPCC/Levine)												Design	Const.				\$ 230.9												
Streetcar - Phase I (Rosa Parks to Presby.)								Design	Const.					\$ 210.6															
Streetcar - Phase II (Presby to Eastland)												Design	Const.			\$ 203.8													
West Corridor - Enhanced Bus		Wilkinson	West	Freedom			\$ 12.7																						
West Corridor - Phase I (CGS to Ashley)																Design	Const.						\$ 163.1						
West Corridor - Phase II (Ashley to CLT)																							Design	Const.		\$ 324.1			

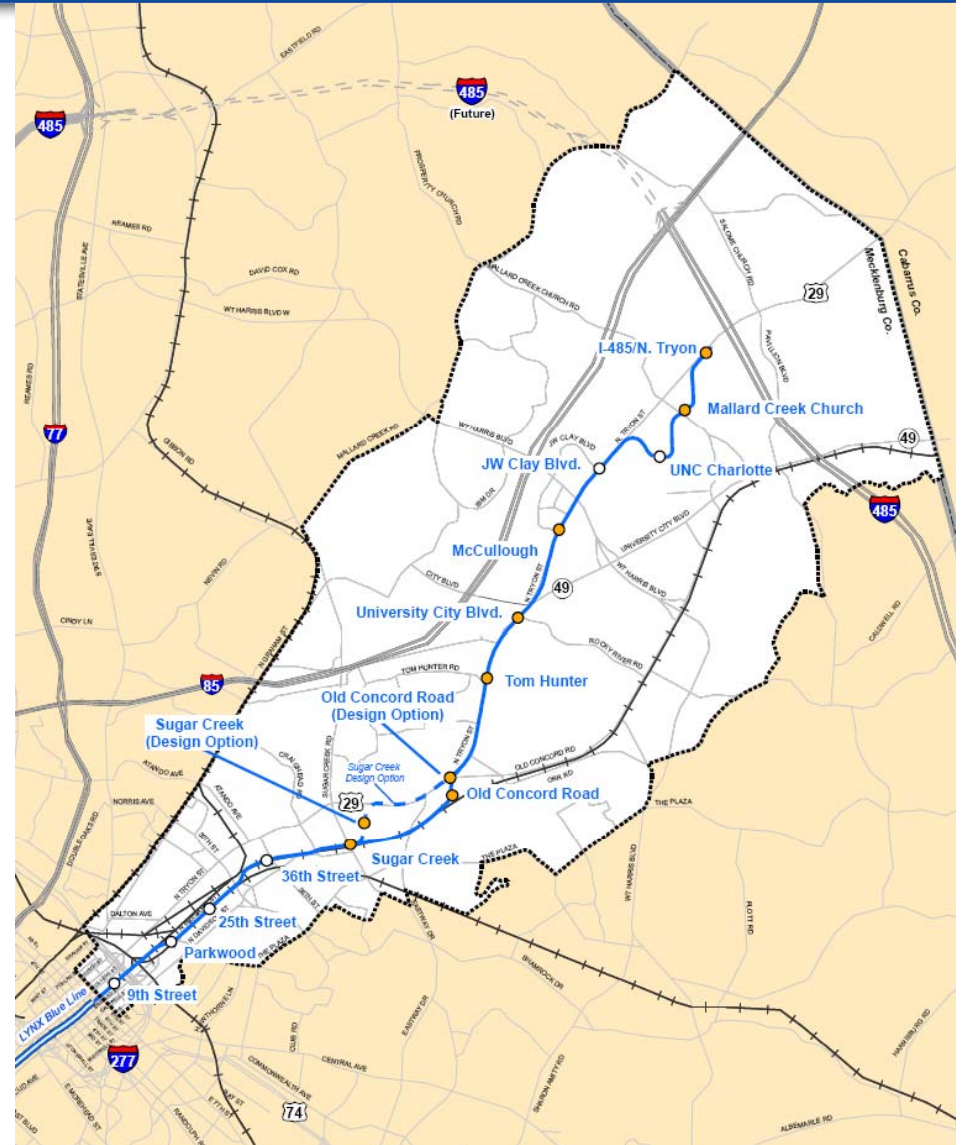
CATS 11-9-06

- **LYNX Blue Line (LRT)**
  - FTA considers very successful
  - Needs capacity for 3-car trains
- **Blue Line Extension (LRT)**
  - Strong New Starts rating – Medium
  - Funding schedule impacted
- **Red Line (Commuter Rail)**
  - Tracks & Crossings @ 90% design
  - No clear funding plan
- **Silver Line (LRT or BRT)**
  - Transit Technology Decision in 2011
  - Corridor Land Use and Road solution
- **West Corridor**
  - Enhanced Bus Service 2009
  - Convert to Streetcar
- **Streetcar Line (Modern)**
  - City of Charlotte funding PE
  - No clear funding plan



Approved by MTC November 2006

- 15% Project Description
  - 13 Stations: 6 walk-up & 7 park and ride (1 parking deck)
  - 7 at-grade crossings on Tryon St and Mallard Creek Church Rd
  - 5 grade separations
- 30% Project Description
  - 13 Stations: 9 walk-up & 4 park and ride (3 parking decks)
  - 12 at-grade crossings and 5 grade separations (note: CRI entrance is now at-grade and Mallard Creek Church is grade separated)





30%

15%

Base Year Estimate: \$983 m (\$2010)

\$902 m (\$2008)

YOE cost Estimate: \$1.12 b

\$1.04 b to \$1.12 b

(2016)

(3.25% escalation)

(3.25% & 5% escalation)

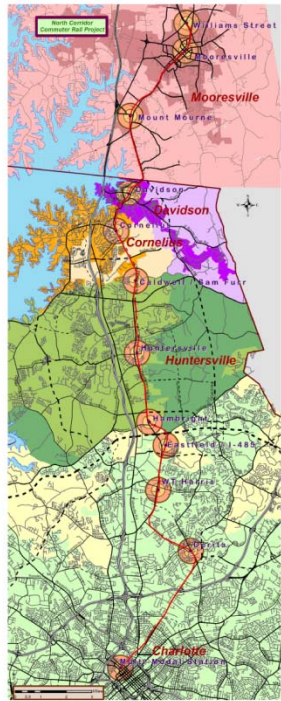
- Escalation between 2008 and 2010 was assumed to be 5% in the 15% estimate, but was actually only 2%
- Both YOE estimates assume 2016 opening
- Escalation rate for 30% design reduced based on additional construction cost data available over past year



## Blue Line Extension - New Starts

- Information submitted to FTA in Fall 2009 reflected:
  - Cost estimate (\$1.18 billion)
  - 2030 Ridership (23,800 average weekday)
  - Scheduled opening (2019)
- FY2011 New Starts Ratings:
  - Project Justification Rating – Medium
  - Local Financial Commitment rating – Medium
  - **Overall Rating – Medium**
- Based on 30% cost estimate – anticipate Project Justification rating of Medium including Medium-High cost-effectiveness
- **Financial Plan will be critical factor in FY13 Rating**

# Red Line Status



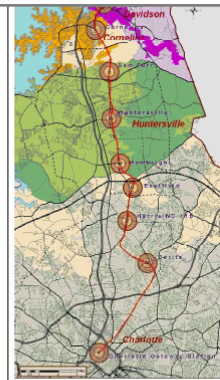
LYNX Purple Line  
Station Design  
Guidelines

Prepared by:  
HDR  
ColeJenest & Stone  
Prepared for:  
Charlotte Area Transit System  
Task Order E3/E4:  
Preliminary Station Design  
January 2009  
Revision #0



LYNX Purple Line  
Cost Estimating Report

Prepared by:  
HDR  
Prepared for:  
Charlotte Area Transit System  
May 2009  
Revision #0



LOCATION MAP



## Lynx Purple Line

### TASK B

### AT-GRADE CROSSINGS - CHARLOTTE 90% DESIGN

JANUARY 16, 2009



Submitted:  
Shawn M. Carroll, V.P. Project Manager  
HDR Engineering, Inc. of the Carolinas  
Design Consultant

Approved:  
David David, Project Director  
Charlotte Area Transit System

- Track and Grade Crossings
  - 90% plans complete
- Stations and VIF
  - 30% plans complete

Advancing FY2011 Work Plan

Does not currently qualify for federal funds – rules may change

Red Line should be coordinated with NCDOT grade separation of NS/CSX mainlines

NCDOT schedule is for completion fall of 2017

- The 2009 Cost Estimate - \$358 Million (2009 dollars)
- Final Project Cost Depends On Implementation Date & Underlying Inflation
- NCDOT Coordinated Schedule – 2017
  - \$456 Million



Assumes annual escalation of 3.25 %  
calculated to mid-point of construction



# Charlotte Gateway Station Partnership with NCDOT



## Legend: Rail & Transit Lines

-  Intercity Rail (DC-Raleigh-Charlotte-Atlanta)
-  Future CATS Commuter Rail (from Davidson)
-  Commuter Rail (from Monroe)/Intercity Rail (from Wilmington)
-  Commuter Rail (from Rock Hill)
-  Commuter Rail (from Gastonia)
-  Future CATS Trade Street Streetcar/ Bus Rapid Transit Corridor
-  CATS Blue Line Light Rail

*Site serves  
all major  
corridors in  
Charlotte*

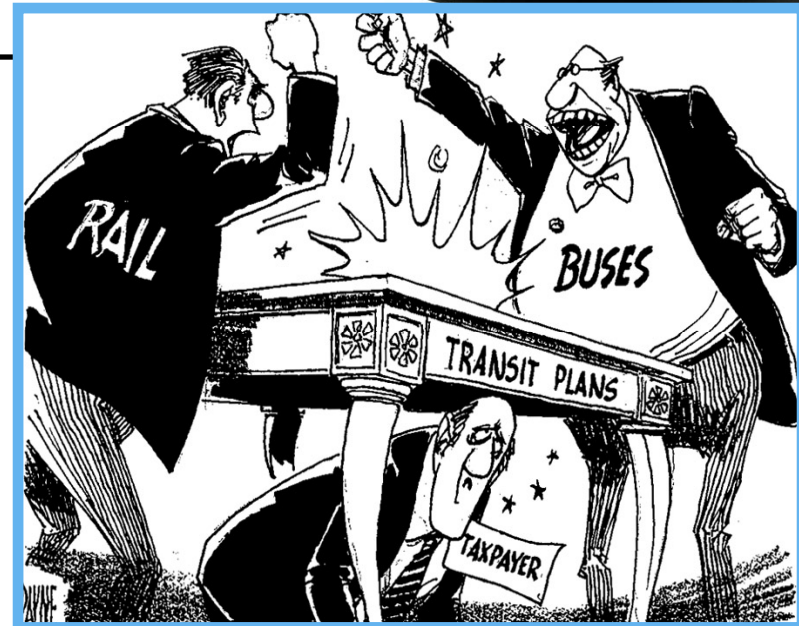
## Project Definition

- Determine CATS needs in future Gateway Station
- NCDOT issues RFQ summer 2011
- Short list for RFP by end of 2011
- Issue RFP late 2011/early 2012
- Select Master Developer mid-late 2012

## Funding

- CATS already has \$19 million in federal bus earmark funds for CGS
- NCDOT has funding secured for Norfolk-Southern/CSX grade separation .
- NCDOT pursuing funds for CGS track work and Station

- 13.5 Mile Bus Rapid Transit (BRT) Line to Matthews
- MTC Special Provisions:
  - BRT implementation delayed five years to revisit light rail transit (LRT) option
  - Extend busway and preserve ROW for BRT or LRT
- Evaluation of technology
  - Estimate 9-12 months to review technology
  - Bigger picture question is how technology integrates with land use, expressway conversion, and potential HOV/HOT lanes





Joint venture between  
Colorado DOT and  
Denver RTD

Combined freeway  
reconstruction (17  
miles) and light rail  
project (19 miles)

Cost: \$1.7 billion

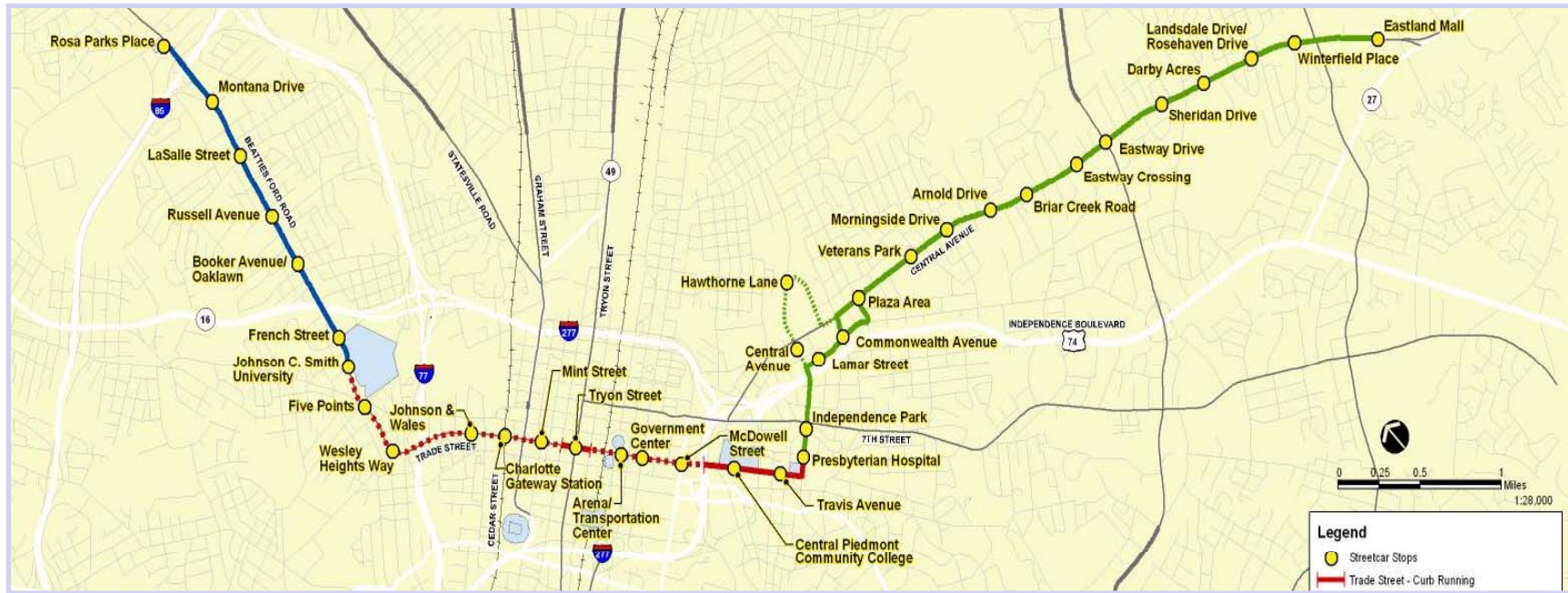
Light rail built on side  
rather than in median

Opened Nov. 2006



Denver T- Rex Project





- Rosa Parks Place To Eastland
- Serves many travel markets
- Catalyst for development
- PE funded by City of Charlotte
- Federal grant for 1.5 mile Starter Project
- Operations to be funded by City





## 2025 System Plan (2002)

- Bus Rapid Transit
- Light rail not FTA cost-effective

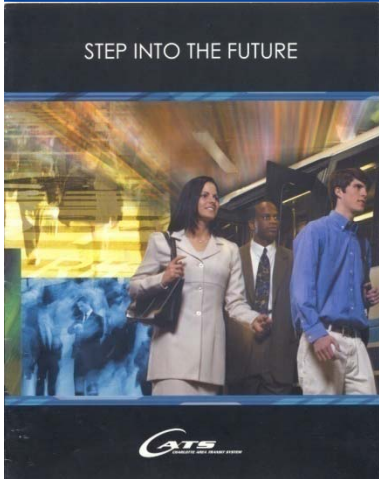
## 2030 System Plan (2006)

- Streetcar extension– post 2030
- Light rail not FTA cost-effective

## 2035 System Plan

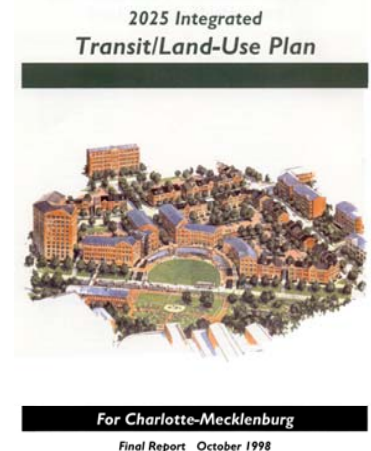
- Light Rail in Wilkinson Blvd.??
- Re-evaluate cost-effectiveness in light of Blue Line success





## Transportation Plans are Dynamic

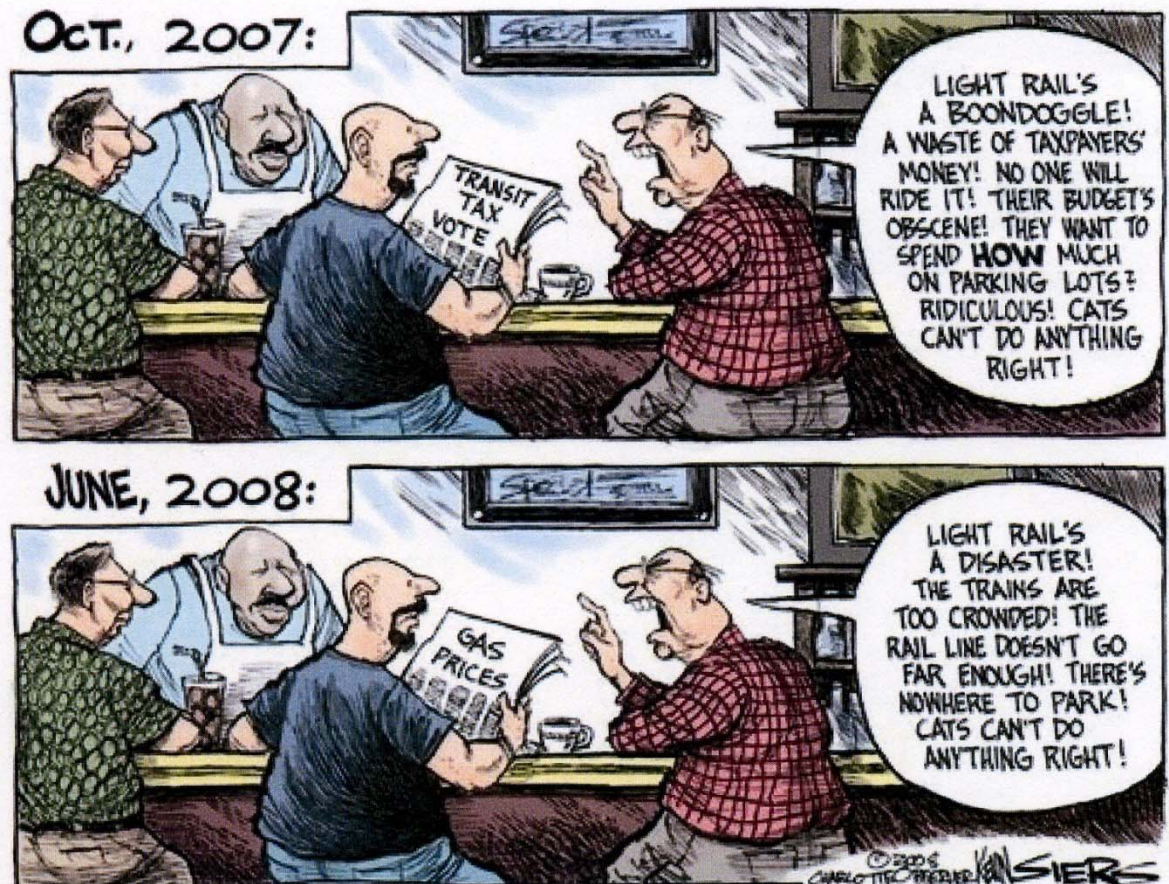
- Long Range Transit Plan (1977)
- Independence HOV Lane Plan (1988)
- Transit Corridor Study (1989)
- Transitional Analysis (1994)
- Five Year Transportation Plan (1996)
- 2025 Integrated Transit/LU Plan (1998)
- 2025 Corridor System Plan (2002)
- 2030 Corridor System Plan (2006)





## Success of LYNX Blue Line

- Greater than projected ridership shows people will ride
- Has led FTA to allow us to revise travel forecast model
- Suggests that light rail may be cost-effective in other corridors





- **Blue Line Extension**
  - Completion of 30% design and DEIS
  - Undertake 65% design and FEIS
- **Red Line**
  - Red Line Task Force
  - Red Line Work Plan
  - State consultant
- **Charlotte Gateway Station**
  - Operations study to determine CATS needs within CGS project
  - Norfolk Southern/CSX grade separation project funded (NCDOT)
  - Grant requests submitted for rail improvements and CGS project (NCDOT)
- **Streetcar**
  - 30% design plans complete (funded by City of Charlotte)
  - Demonstration project in design (Federal and City funding)
  - CATS staff support (funded by City of Charlotte)

## **Blue Line Extension & Red Line**

- Funding/Implementation plan for Blue Line Extension
- Funding/Implementation plan for Red Line

## **Silver Line**

- Technology for Silver Line (Independence Corridor)
- Transportation/Land Use Vision for Corridor
- Funding/Implementation plan for joint roadway/transit project

## **Charlotte Gateway Station**

- Economy and timing of Master Developer selection
- NCDOT funding for Gateway Station and related track work

## **Streetcar & West Corridor**

- Funding/Implementation plan for Streetcar
- Technology for West Corridor to Airport (currently Streetcar)

