

**RED**



**LINE**

# **PUBLIC MEETING**

April 10, 2024

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# Agenda

1. Welcome & Introductions
2. Project History
3. What's Changed
4. Project Benefits
5. Current Design Phase
6. Q&A



01

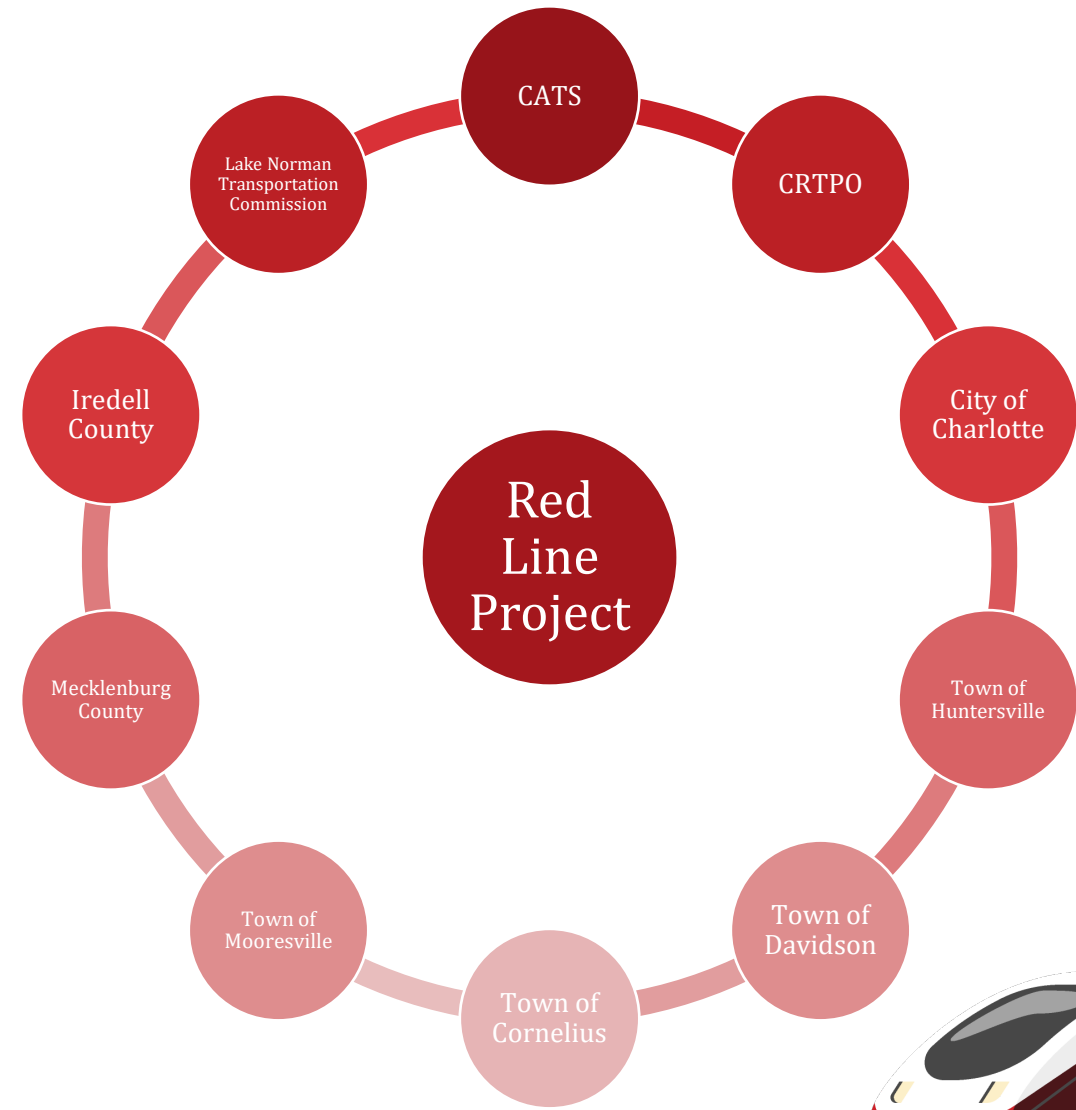
# WELCOME & INTRODUCTIONS



# Who's at the table

## Technical Planning Team:

- CATS
- CRTPO
- Charlotte
- Huntersville
- Cornelius
- Davidson
- Mooresville
- Iredell County
- Mecklenburg County
- Lake Norman Transportation Commission





02

# PROJECT HISTORY



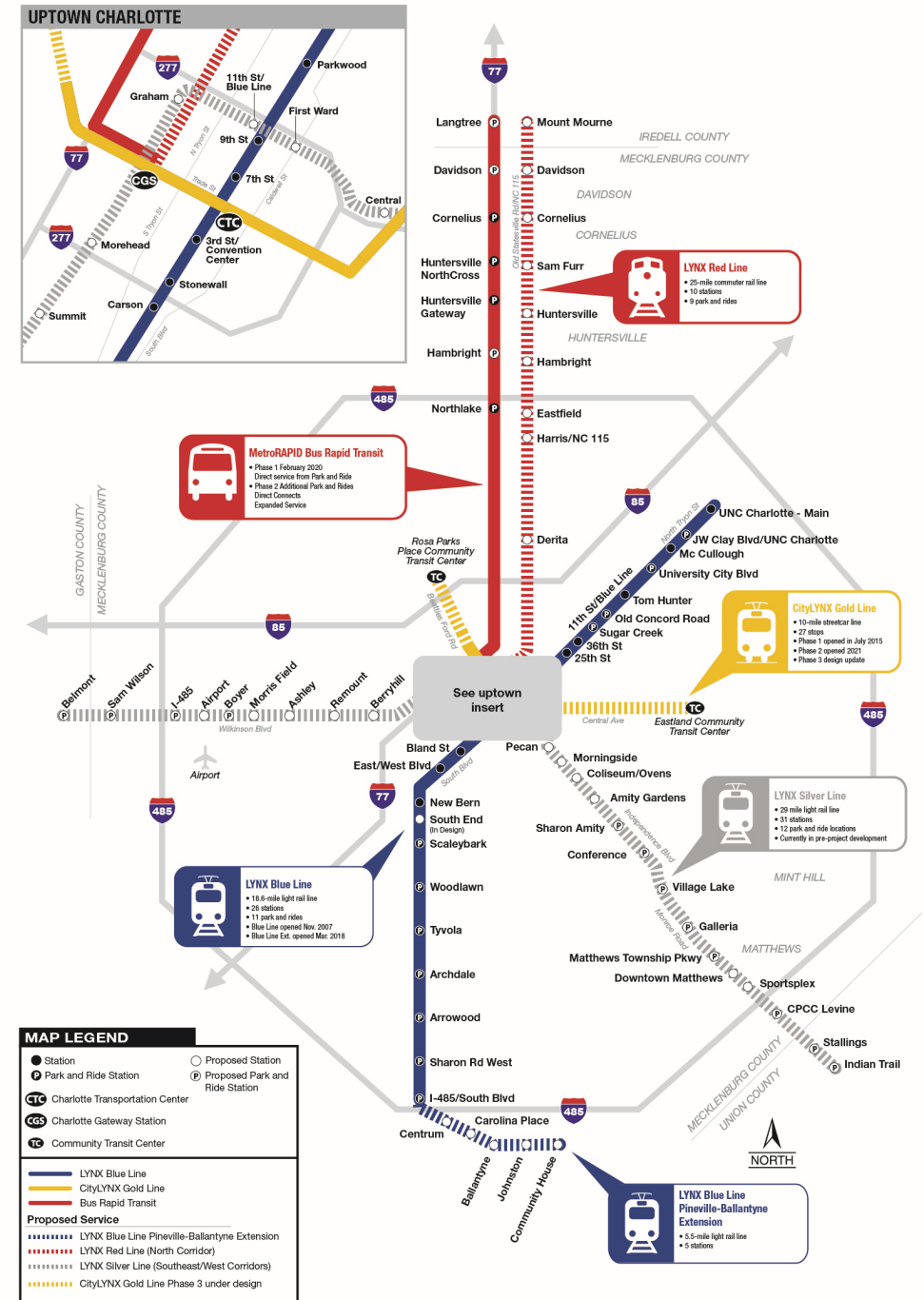
# Transit System Plan

## Operating

- Blue Line Light Rail - 2007
- Gold Line Phase 1 - 2015
- Blue Line Extension - 2018
- North Corridor Bus Rapid Transit - 2020
- Gold Line Phase 2 - 2021

## Under Design

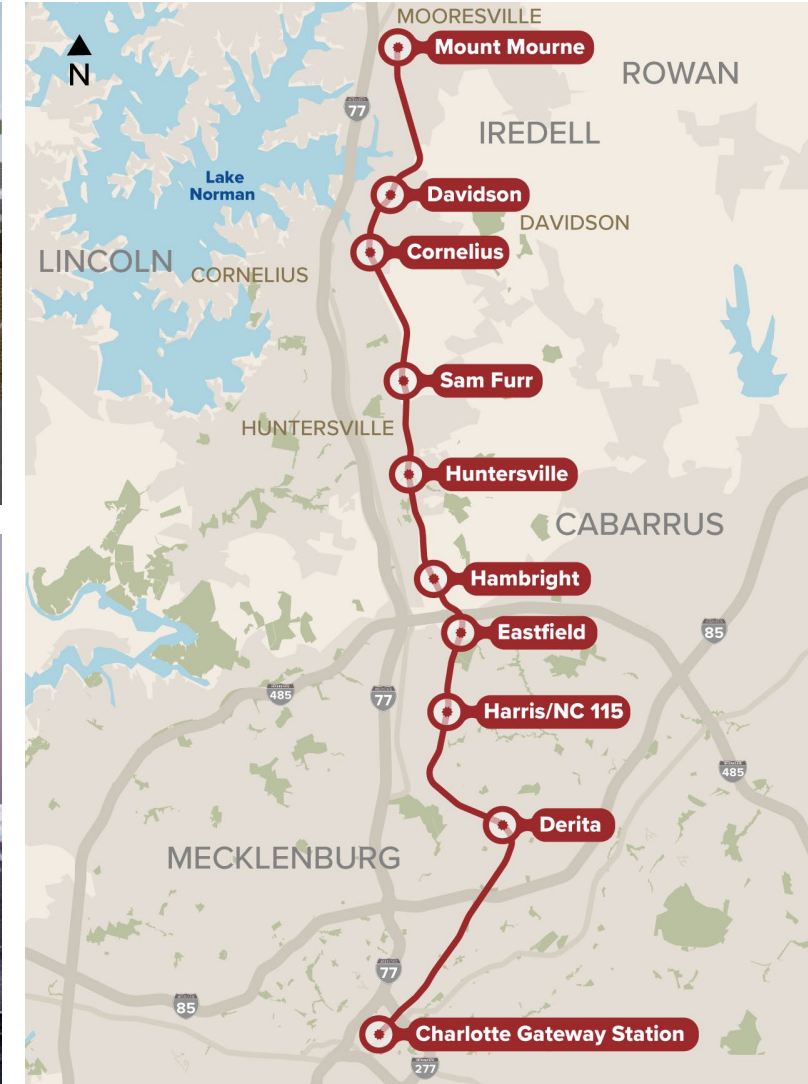
- Red Line Commuter Rail
- Silver Line Light Rail
- Gold Line Phase 3





# Original Design

- 25 Miles of track
- 10 Stations:
  - Mount Mourne
  - Davidson
  - Cornelius
  - Sam Furr
  - Huntersville
  - Hambricht
  - Eastfield
  - Harris/NC 115
  - Derita
  - Charlotte
- Frequency:
  - 16-28 daily trains
  - 30-minute headway during peak
  - Hourly service off-peak





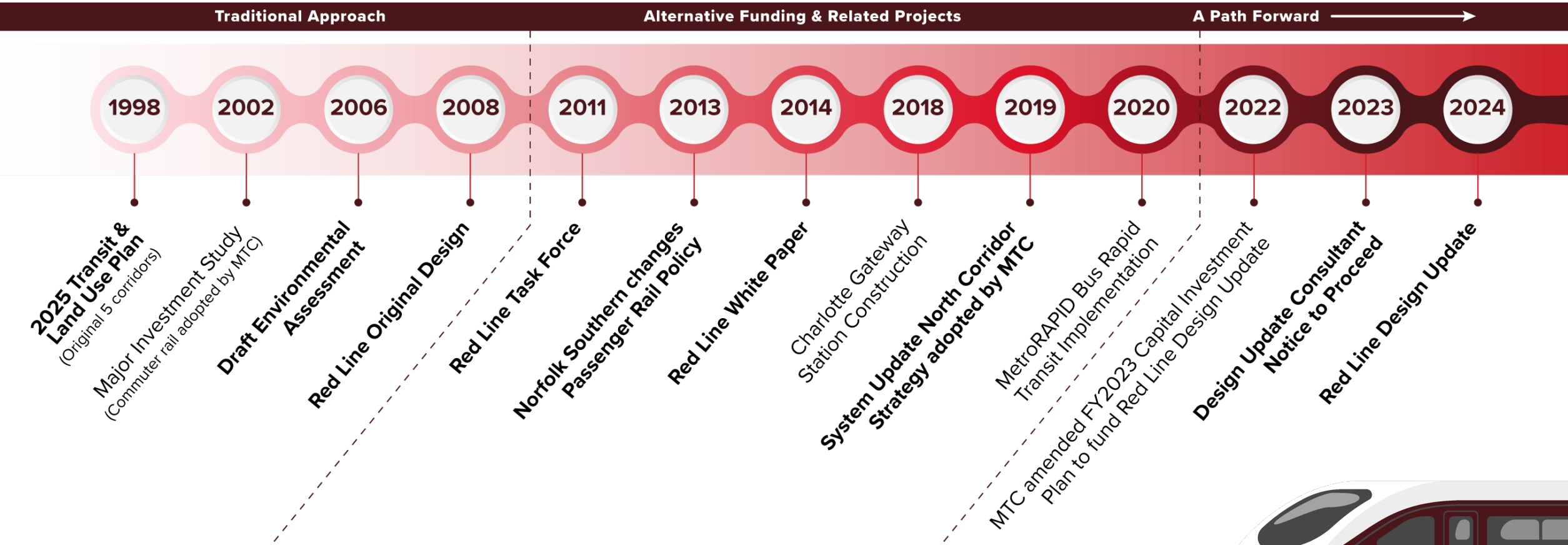
# What is the "O" Line?

- The Norfolk Southern (NS) "O" Line is a single-track rail line that runs through Charlotte, Huntersville, Cornelius, Davidson, and Mooresville.
- Currently used for low-volume freight with local customers.





# Project History Timeline



# 2019 System Plan Update

## North Corridor Recommendations

### Short Term

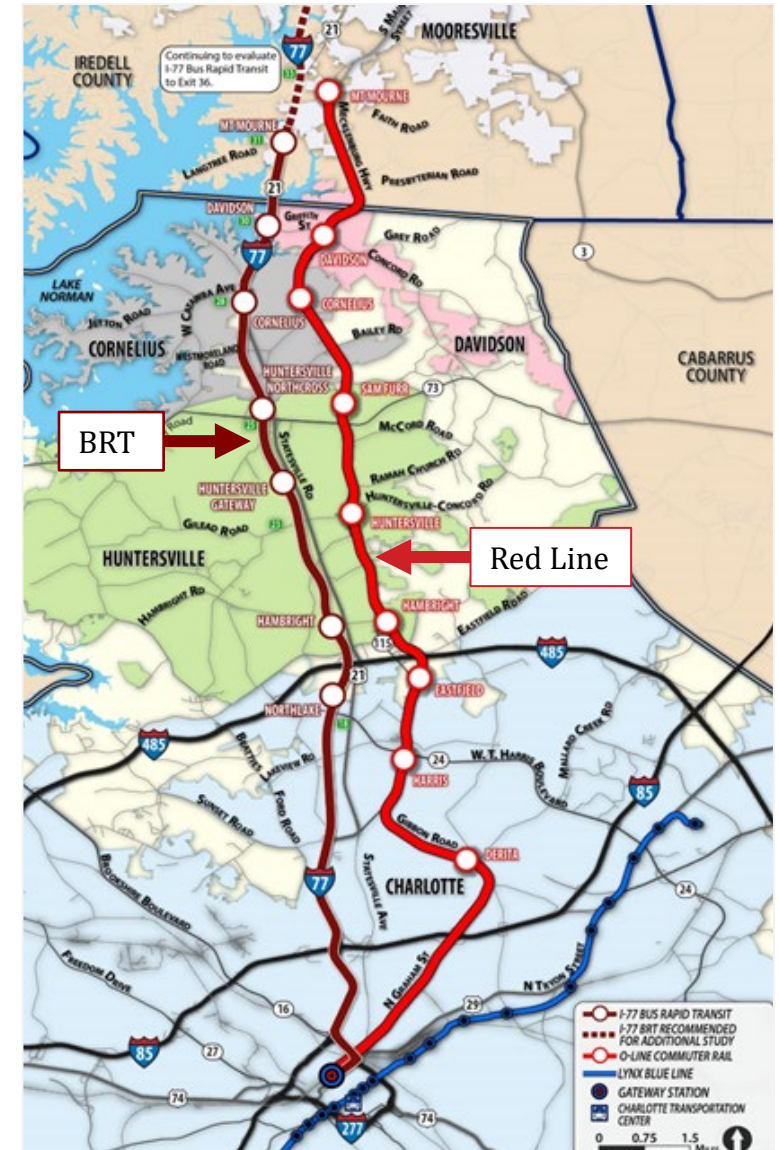
- Village Rider and Express bus stop amenity improvements
- Continued express lane bus service improvements

### Medium Term

- Implementation of an I-77 Bus Rapid Transit service from Charlotte Gateway Station to Mooresville to include:
  - All day service including nights and weekends
  - Additional park and rides and express lane direct connects
  - Integrated BRT stations into mixed use developments that also incorporate emerging mobility technologies for first/last mile.

### Long Term

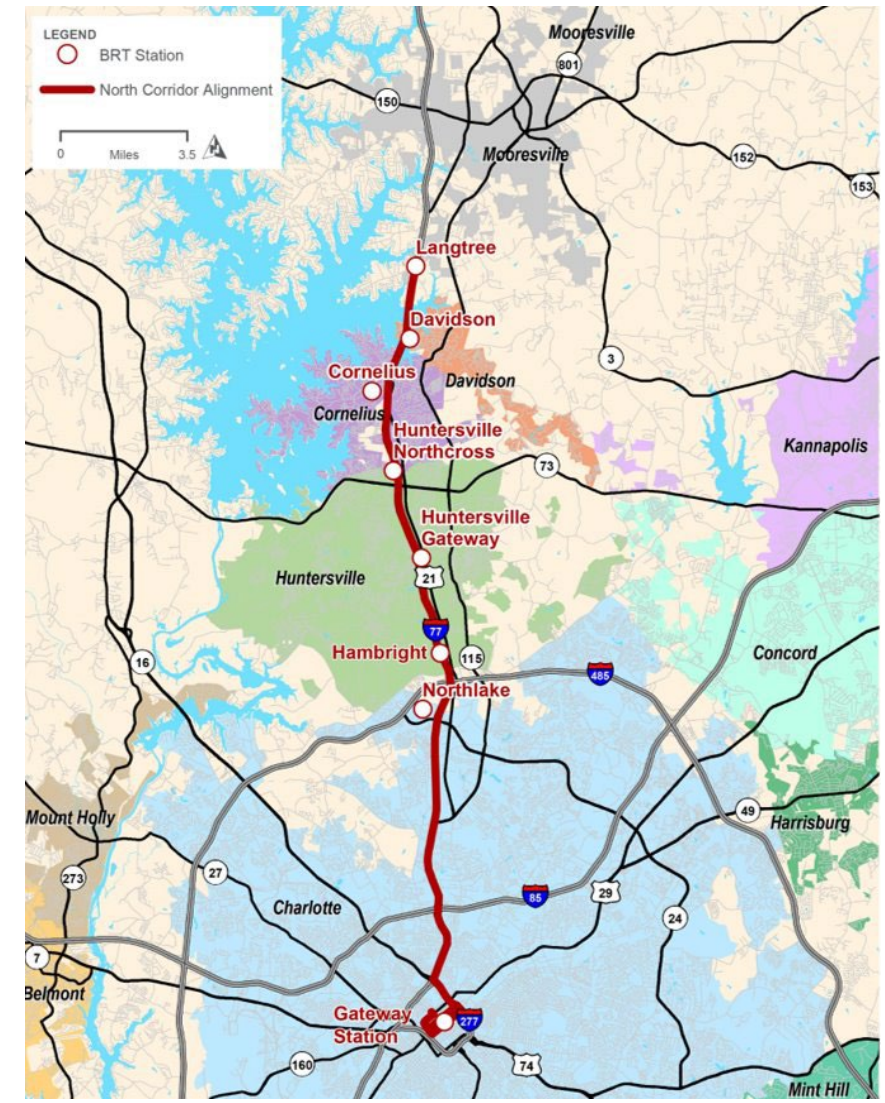
- Continue dialogue with Norfolk Southern on use of the “O” Line corridor for a Rapid Transit project





# Bus Rapid Transit (BRT) Implementation

- New MetroRapid BRT Express Service in 2020
- BRT Improvement Study completed in 2022
  - Park and Rides
  - Direct Connects and access improvements
- Hambright Park and Ride currently in design, planned for construction in 2025



# The Path Forward

## Local Process

## Federal Transit Administration Grant Process

### Transportation System Plan

- Mobility package for rail, roads, buses and bikes
- Request additional funding for Mecklenburg County
- Coordinate through Local and State officials

### Project Development

- Approximately 2 years
- Enter Federal Process
- Continue Design to 65%

### Construction

- Approximately 3-6 years



### Design Update

- Approximately 15 months
- Uptown alignment analysis
- Confirm station locations
- Update operations plan
- Update cost estimate

### 30% Design & NEPA Process

- Approximately 2 years
- Environmental Document
- Preliminary Design

### Project Engineering

- Approximately 1-3 years
- Complete Design
- Acquire Property
- Federal Funding Agreement

### Service Begins

*\*Public Engagement throughout process*





03

# WHAT'S CHANGED





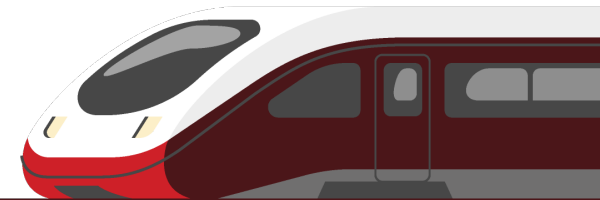
# Why Now?

## 2013

Norfolk Southern passed a new passenger rail policy. Under the new policy's requirements, the Red Line was not feasible.

## 2023

Norfolk Southern and the City of Charlotte entered good faith discussions about whether a potential transaction of the "O" Line is reasonable at this time.





# Station Area Land Use

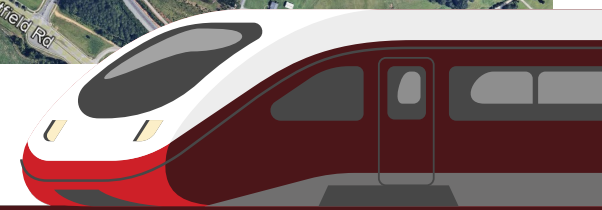
## Hambricht Station Area (Bryton Development)



2009



2023





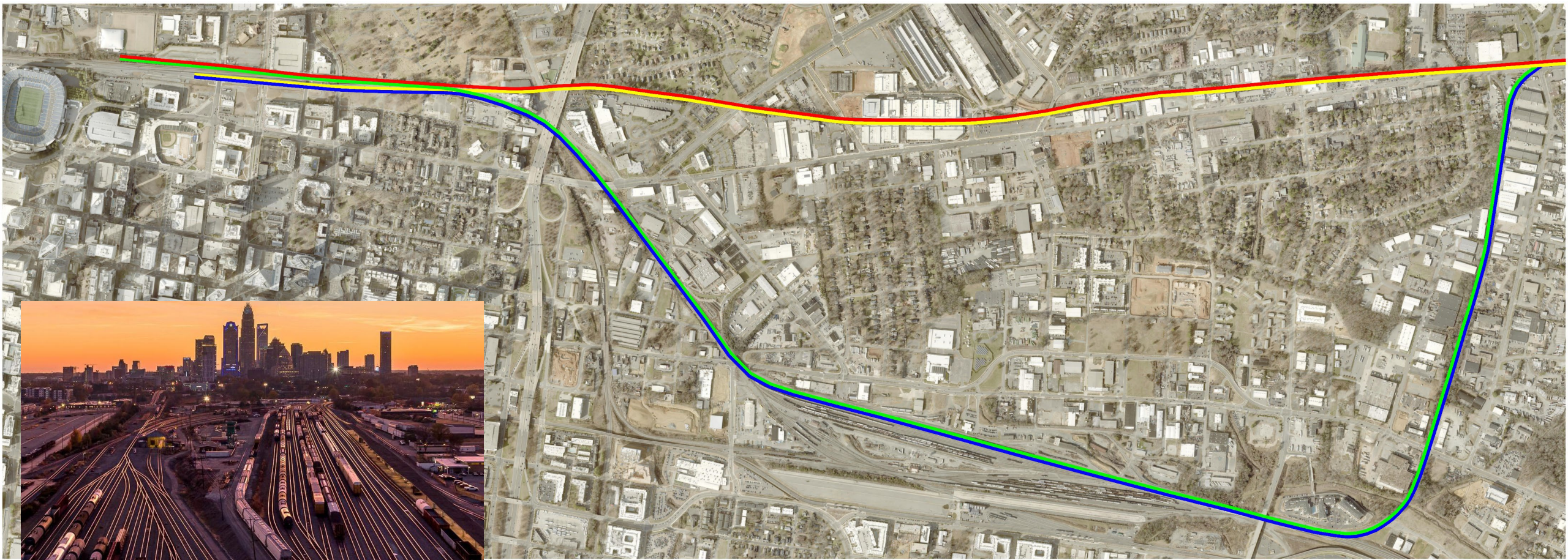
# New Development

## Camp North End





# Uptown Alignment





# Charlotte Gateway Station

- Connections to Gold Line, Silver Line, Red Line, Amtrak, Greyhound, local and express buses, and taxi/rideshare
- Access to entertainment and sports venues
- Phase 1 – Infrastructure
  - Construction completed in October 2022.
- Phase 2 – Master Developer
  - Transit hub, residential, commercial, retail, and transportation infrastructure.





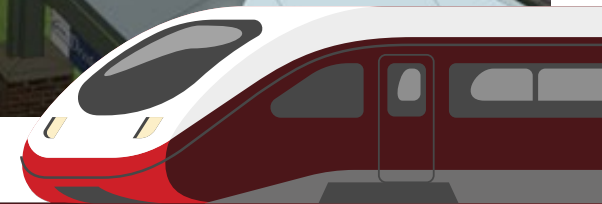
04

# PROJECT BENEFITS



# Project Benefits

- Provides a direct transit service between Charlotte, Huntersville, Cornelius and Davidson, extending to Mount Mourne in Iredell County.
- Drives economic development along the route.
- Stations will offer park and ride, mobility hubs and first/last mile connections and maximized with Transit Oriented Development.
- Provides the opportunity for expansion into Iredell County serving key destinations like Lowes Headquarters.
- Allows commuters to comfortably work while travelling.



# The Pre-77 Commuter Corridor

*“Train used to be the way to get to Charlotte. My late grandma took it during the 40’s”*

WINSTON-SALEM 4

WINSTON-SALEM—CHARLOTTE—SOUTHBOUND

Miles from Winston-Salem	Station Nos.	TIME TABLE NO. 56 In effect April 24, 1938	Minimum Time in min. bet'n Stations	FIRST CLASS				THIRD CLASS				
				1	13	21	Mixed 15	59	65	69	53	
				Daily	Daily	Daily	Daily	Daily	Mon. Wed. Fri.	Ex. Sun.	Daily	
		STATIONS	Passr	Freq	A.M.	A.M.	P.M.	P.M.	A.M.	A.M.	A.M.	P.M.
		Lv.										
55.0	O 29	WY... MOORESVILLE JCT...	6	10	10 38 <sup>12</sup>	.....	3 22	6 55	2 50 <sup>52</sup>	.....	12 45	1 15
55.8	O 28	MOORESVILLE ..... N			s10 42	.....	s 3 25	s 7 00	2 55	.....	2 04 <sup>23</sup>	1 20 <sup>52</sup>
59.5	O 25	MOUNT MOURNE ..... D	5	8	f10 47	.....	f 3 30	f 7 05	3 07	.....	2 12	A.M.
62.6	O 22	W..... DAVIDSON ..... D	4	6	s10 52	.....	s 3 35	s 7 10	3 15	.....	2 25	.....
64.0	O 21	CORNELIUS ..... D	6	10	s10 55	.....	s 3 38	s 7 13	3 18	.....	2 35	.....
66.7	O 18	CALDWELL ..... D	4	6	f10 59 <sup>68</sup>	.....	f 3 42	f 7 17	3 24	.....	2 45	.....
69.4	O 15	HUNTERSVILLE ..... D	7	10	s11 03	.....	s 3 46	s 7 21	3 30	.....	2 55	.....
74.5	O 10	CROFT ..... D	6	9	f11 10	.....	f 3 53	f 7 28	3 40	.....	3 10	.....
78.9	O 5	DERITA ..... D	4	6	f11 17	.....	f 3 59	f 7 34	3 49	.....	3 20	.....
81.5		ATANDO JCT. .... N	4	6	11 23	.....	4 05	7 40	3 55	.....	3 30	.....
		WC... AIR LINE JCT. .... N	3		.....	.....	.....	.....	4 05	.....	3 40	.....
83.5		S.A.L.R.R. CROSS. .... N	4		11 29	.....	4 10	7 45	.....	.....	.....	.....
84.8	380	W..... CHARLOTTE ..... N	2		11 35	.....	4 15	7 50 <sup>4</sup>	.....	.....	.....	.....
		(Trade St.) ..... Ar.			A.M.	A.M.	P.M.	P.M.	A.M.	A.M.	P.M.	A.M.
					Daily 1	Daily 13	Daily 21	Daily 15 Mixed	Daily 59	Mon. Wed. Fri. 65	Ex. Sun. 69	Daily 53





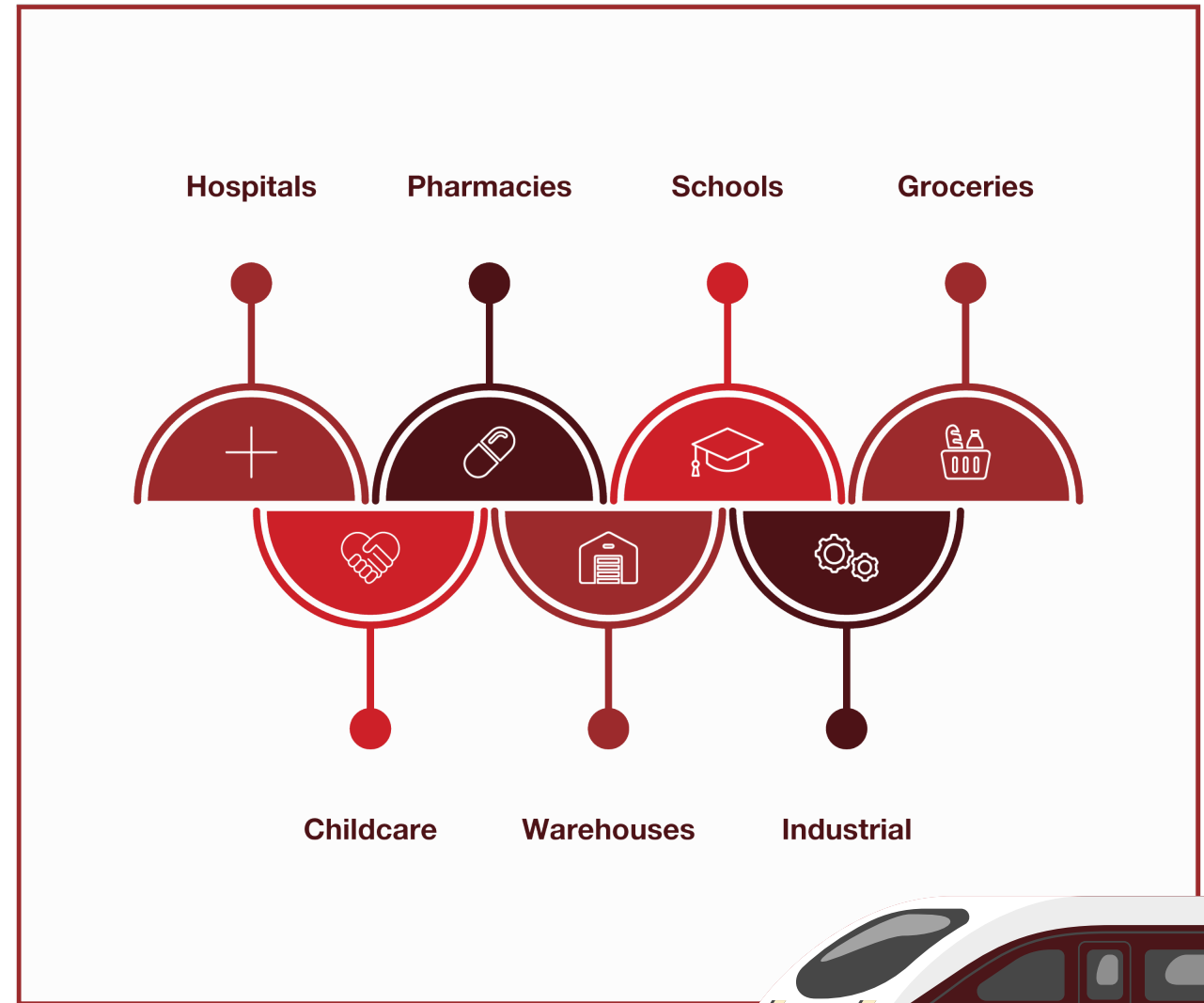
# The Post-Pandemic Commuter Corridor

Get essential employees to work, affordably:

- Hospitals
- Pharmacies
- Schools
- Groceries
- Childcare
- Warehouses
- Industrial

Get remote workers to leisure and education:

- Central Piedmont Community College, Davidson College, Johnson C. Smith, Johnson & Wales
- Sports
- Music and Events
- Museums
- Dining and Retail



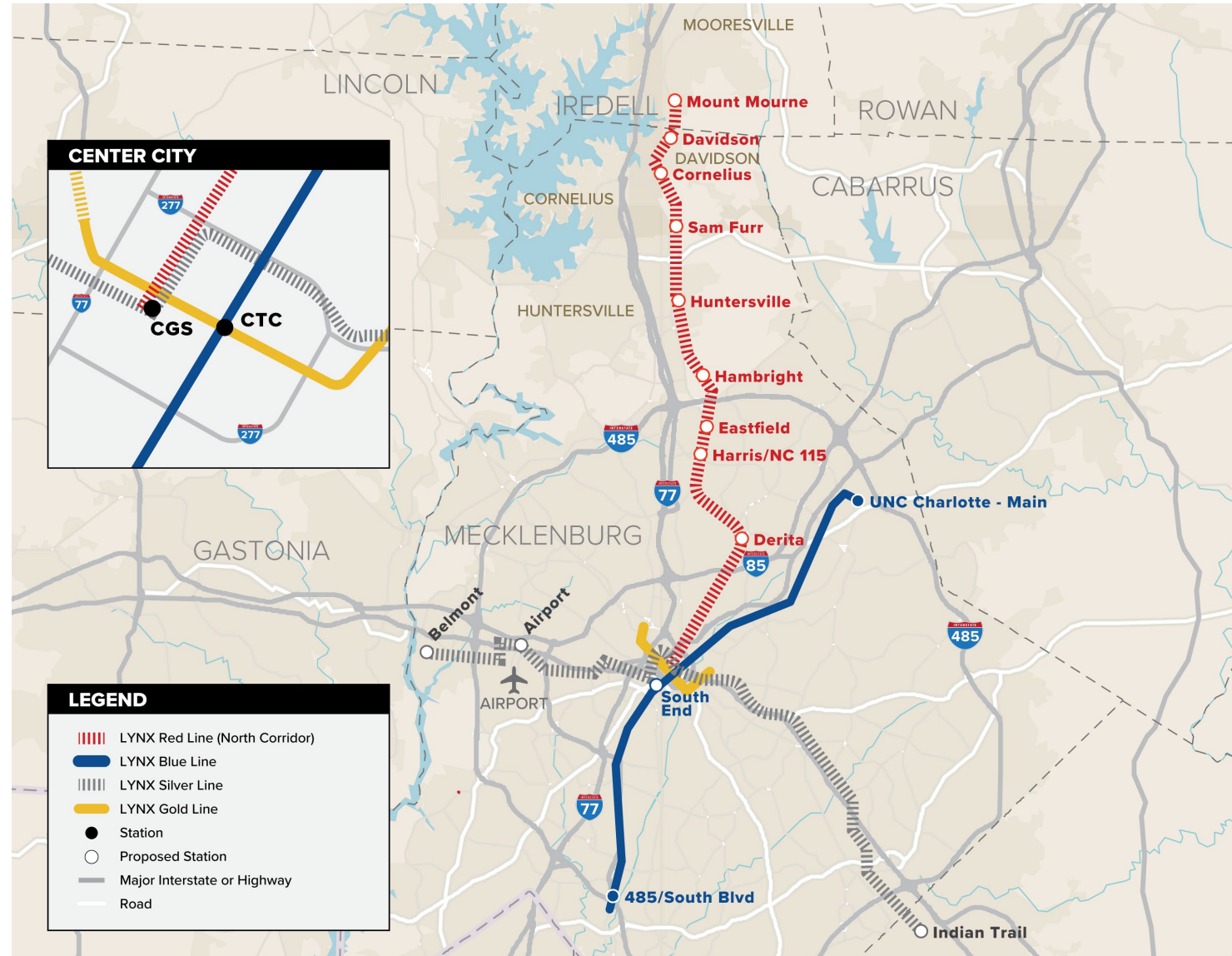
# Regional Mobility Network

## Transit Journey to the Airport:

- Red Line to Charlotte Gateway Station (CGS)
- Walk to the Silver Line platform in CGS

## Transit Journey to UNCC or South End:

- Red Line to CGS
- Walk to Gold Line and take it to Charlotte Transportation Center (CTC), or walk to CTC
- Get on Blue Line at CTC





# Transportation Equity

Benefits to the community:

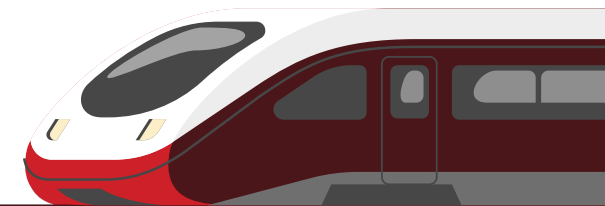
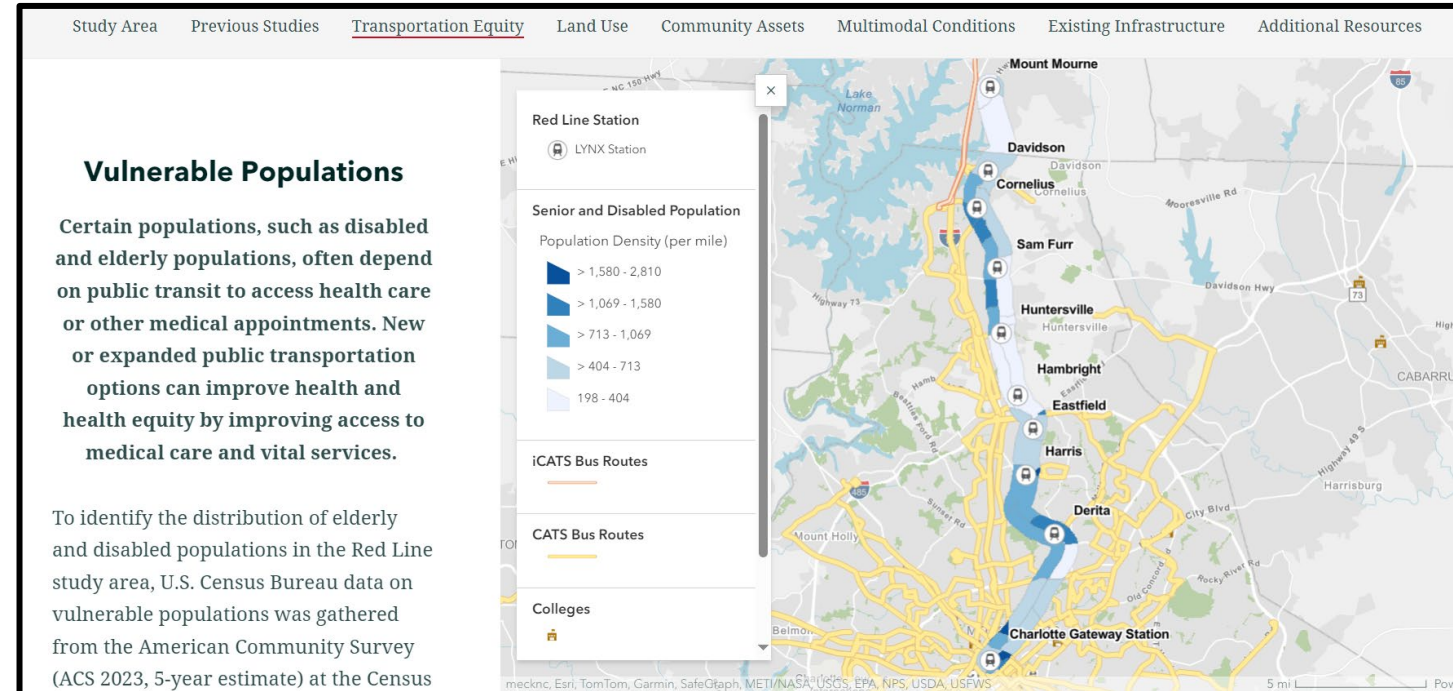
- Increase upward mobility
- Stimulate the economy
- Improve access to higher education
- Improve access to healthcare and groceries



# Transportation Equity

Looks at regional trends and metrics to inform study recommendations and ensure that the Red Line is accessible to those who need it most:

- Limited access to vehicles and reliance on public transit
- Disabled, Senior, and Vulnerable populations with limited transportation access to healthcare
- Areas with high projections for future population and employment growth





05

# CURRENT DESIGN PHASE



# Project Scope



Updated design and  
Uptown alignment



Station Locations



Cost Estimate



Public Involvement  
and Stakeholder  
Coordination



Vehicle Maintenance  
Facility



Vehicle Technology



Service Frequency

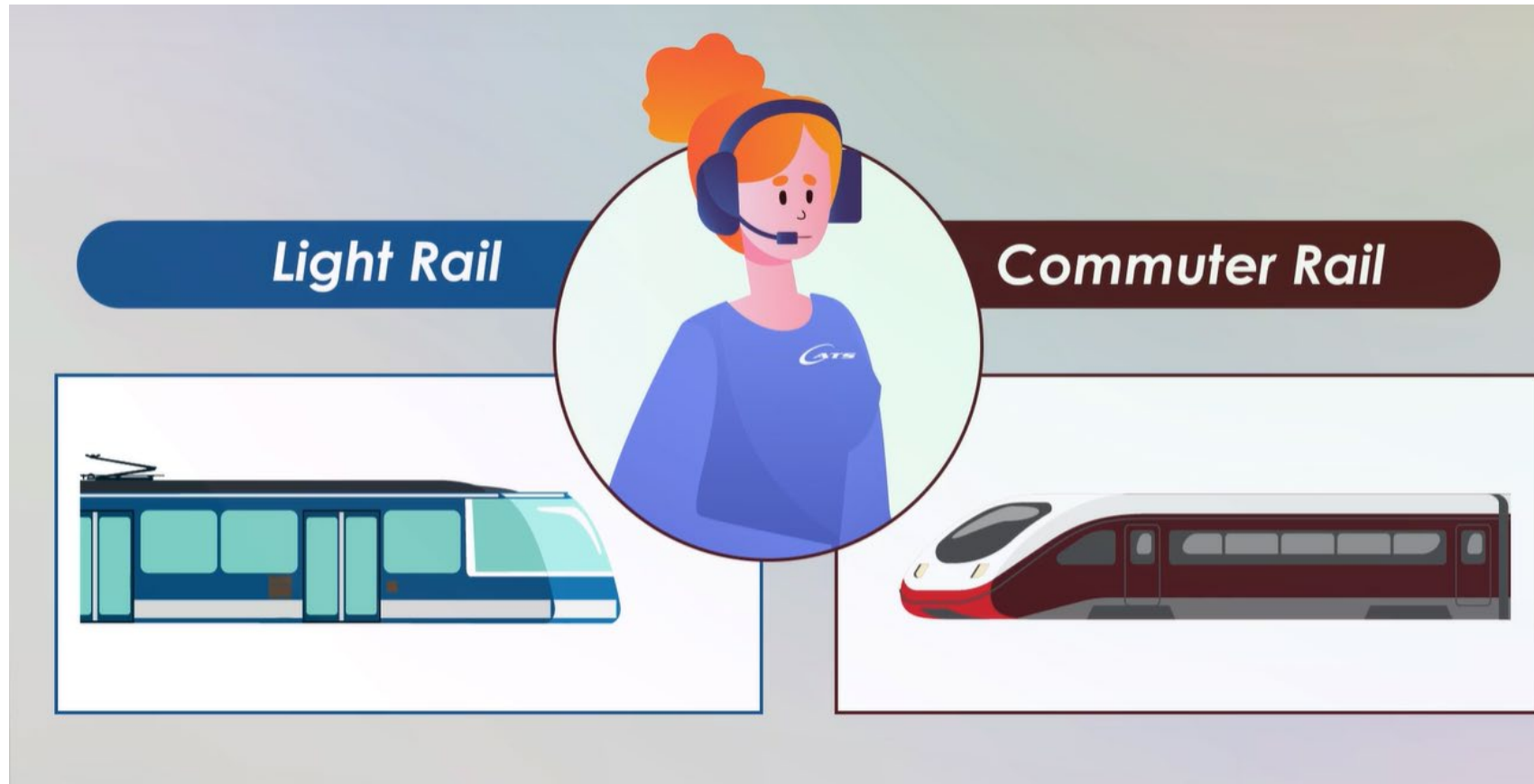


15% Design by  
Early-2025





# Commuter Rail vs. Light Rail



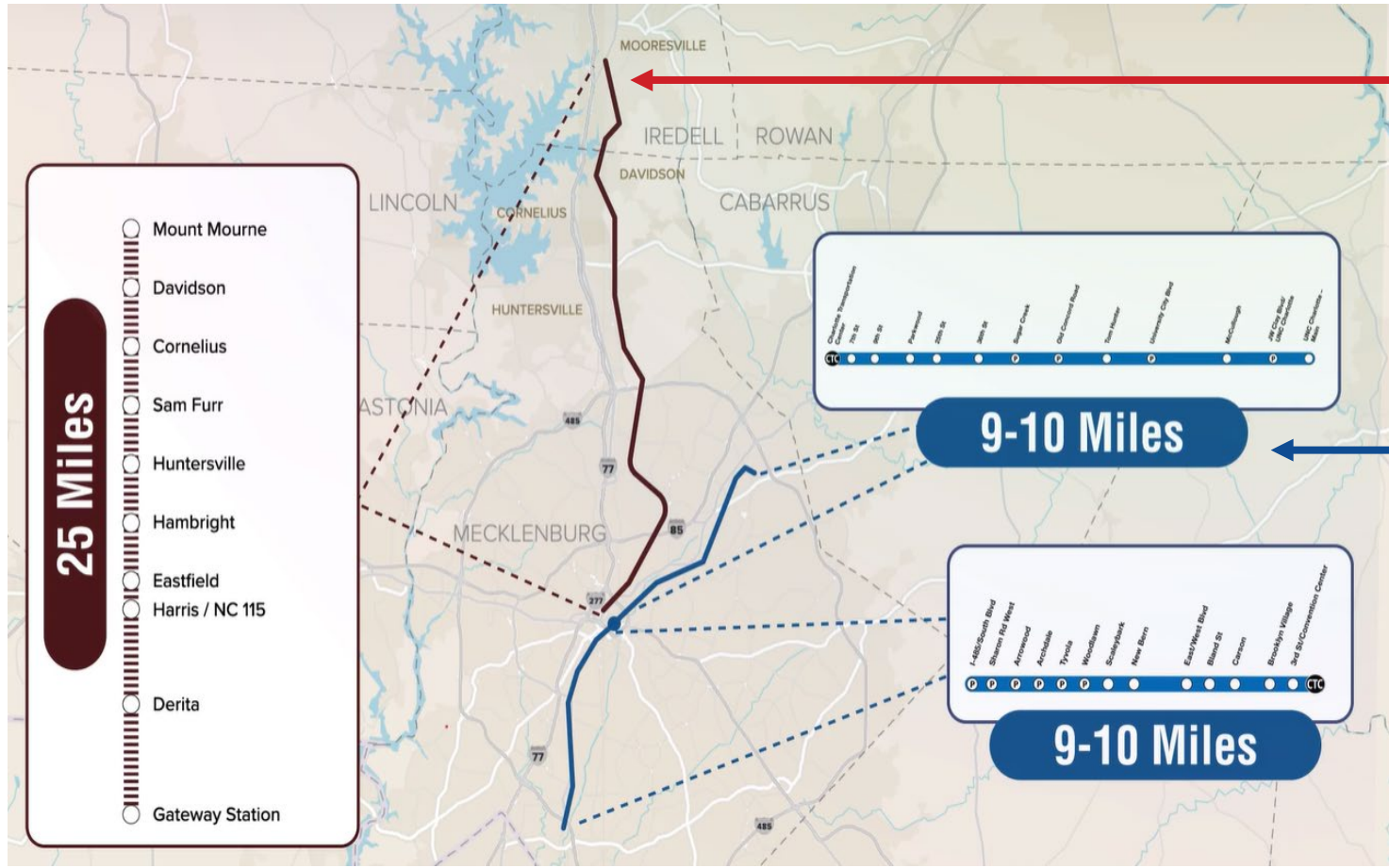
Scan the QR Code to watch video



Or go to Project Resources at [charlottenc.gov/CATS/Red-Line](http://charlottenc.gov/CATS/Red-Line)



# Commuter Rail vs. Light Rail



Longer Distance  
Connects Suburbs

Shorter Distance  
Connects Neighborhoods

Scan the QR Code to watch video

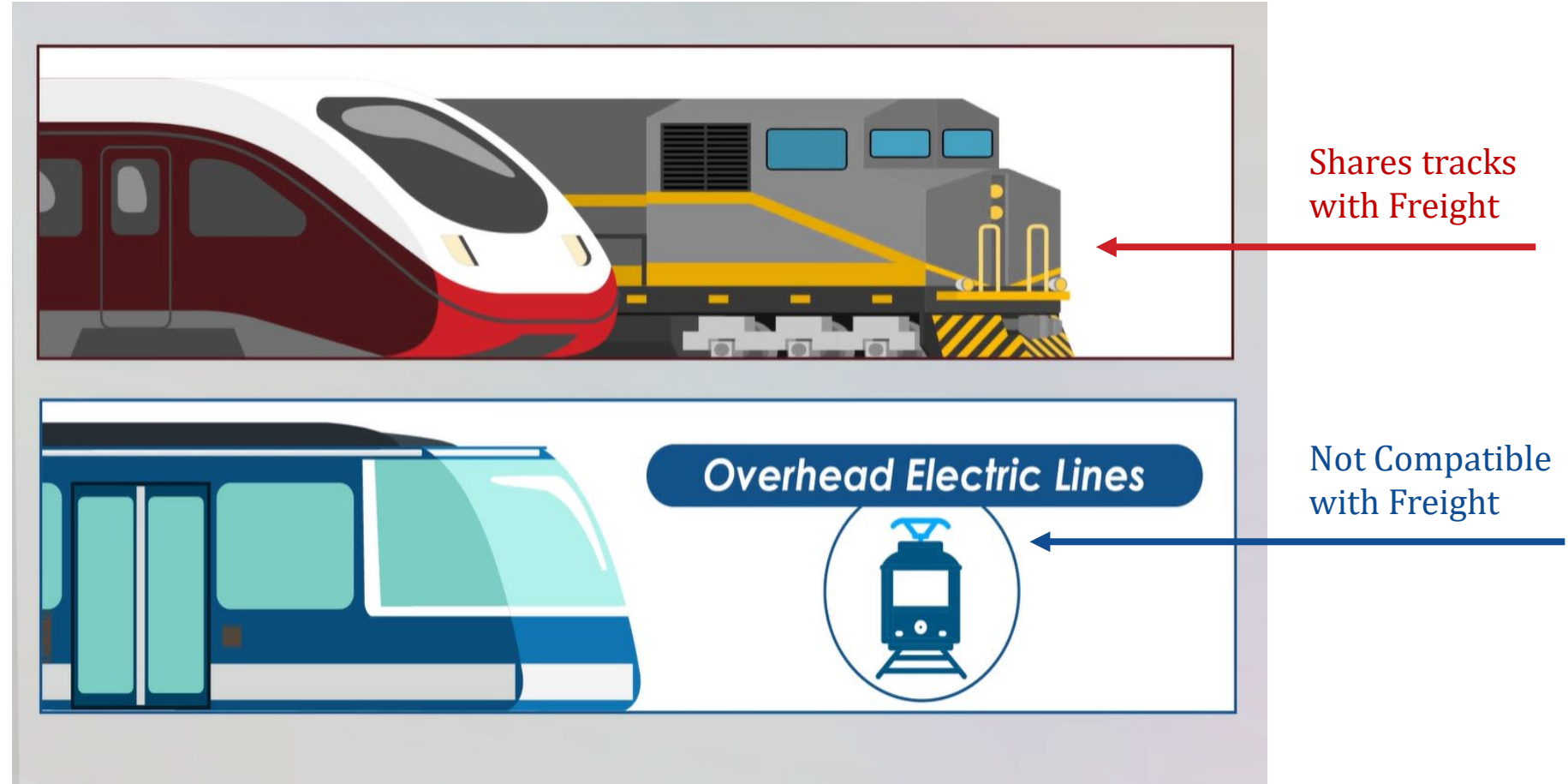


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# Commuter Rail vs. Light Rail



Scan the QR Code to watch video



Or go to Project Resources at [charlottenc.gov/CATS/Red-Line](http://charlottenc.gov/CATS/Red-Line)



# Commuter Rail vs. Light Rail



More Seating



More Standing

Scan the QR Code to watch video



Or go to Project Resources at [charlottenc.gov/CATS/Red-Line](http://charlottenc.gov/CATS/Red-Line)



# Commuter Rail vs. Light Rail



Scan the QR Code to watch video



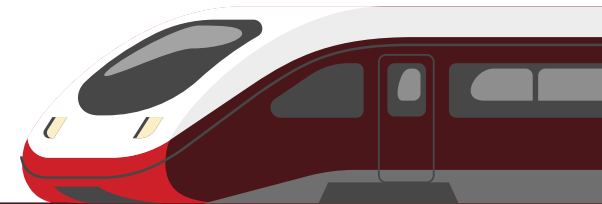
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# Mobility Hubs

- Designated spaces to connect residents with several transit options for first/last mile connections
- Transit options can include express and local bus services, rail service, park and rides, rideshare, electric scooters and bikes, and access to sidewalks and greenways
- Amenities can include Electric Vehicle (EV) charging stations, wifi, bike racks and greenspaces.
- Collaborating with the [Seam Trail](#)



# Vehicle Technology

An early decision point is to select the most appropriate vehicle type:



**Locomotive with coaches**  
*traditional train engine pulling  
coach cars*



**Multiple unit trainset**  
*each car has its own engine and can  
run independently or connected*

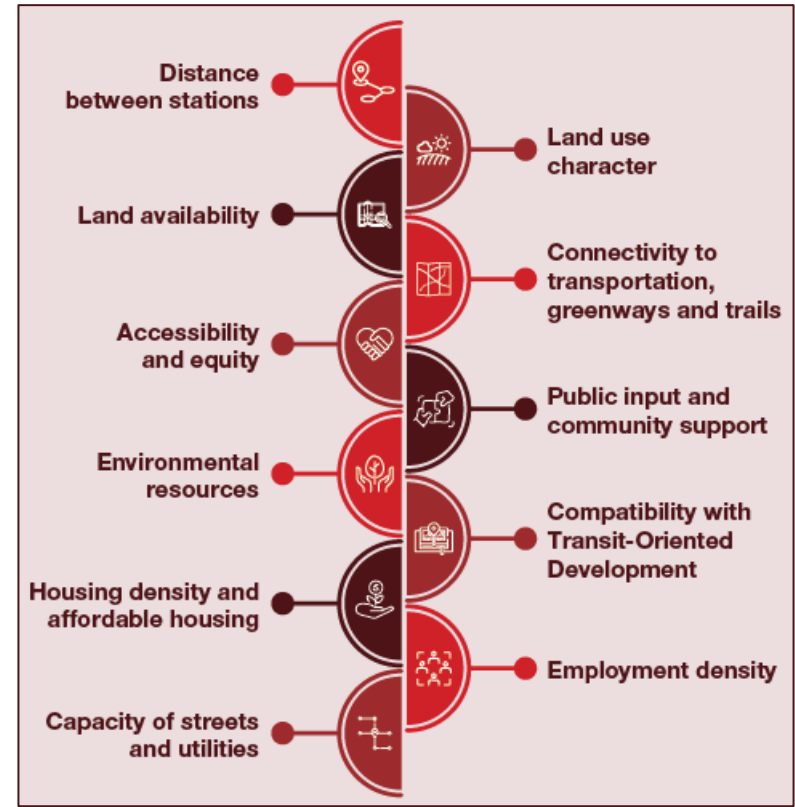
## Evaluation factors:

- Ridership
- Service frequency and trip times
- Emission requirements
- Station quantity, spacing, and platforms
- Signaling
- Track type, class and limits
- Bridge limits and vehicle clearances
- Compatible with freight traffic
- Fuel type (diesel, biodiesel, electric battery or hydrogen)



# Station Location Evaluation

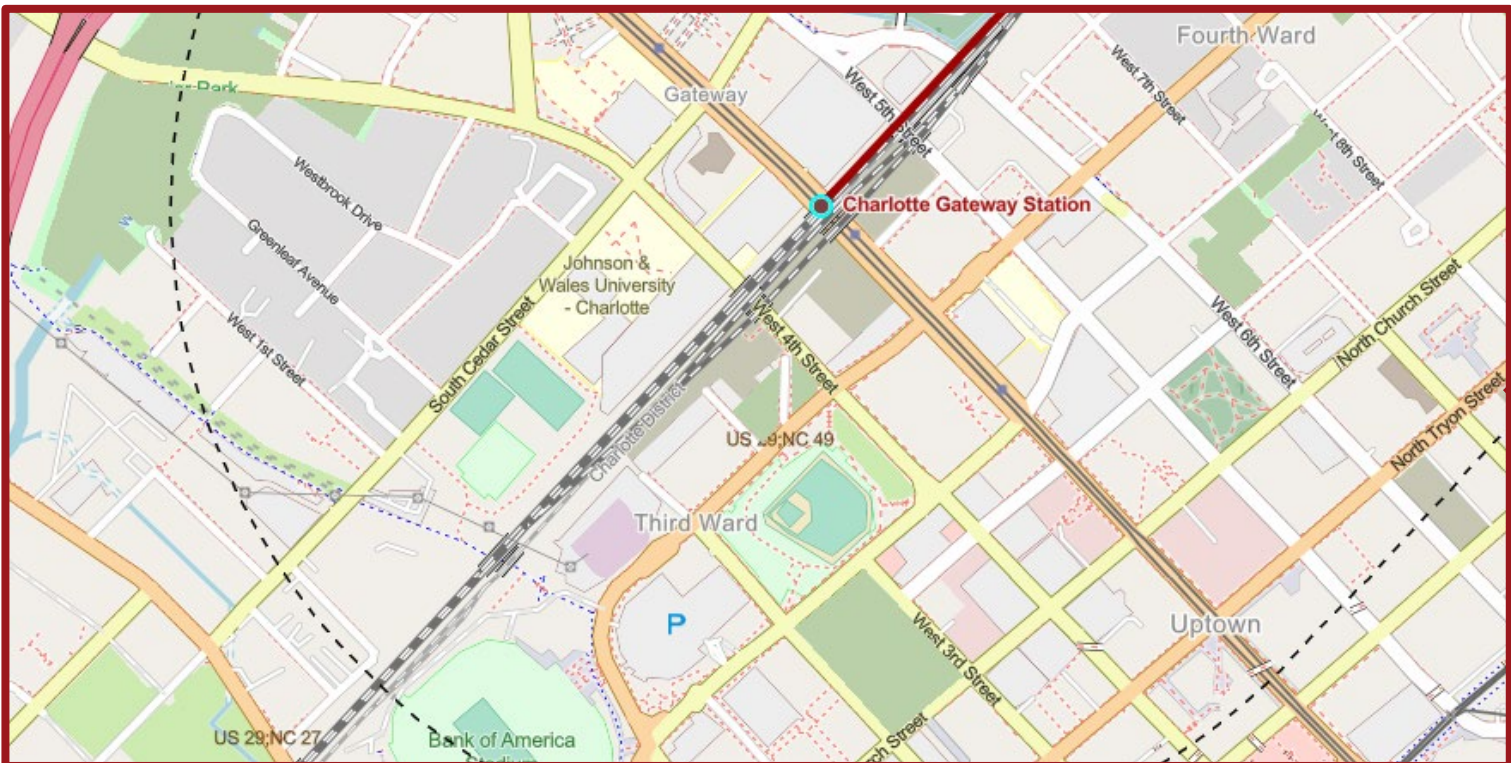
The previously identified station locations are being re-evaluated. In collaboration with the Towns, we are considering:



Note: Originally proposed station locations are being evaluated during this design phase.



# Original Station Locations:



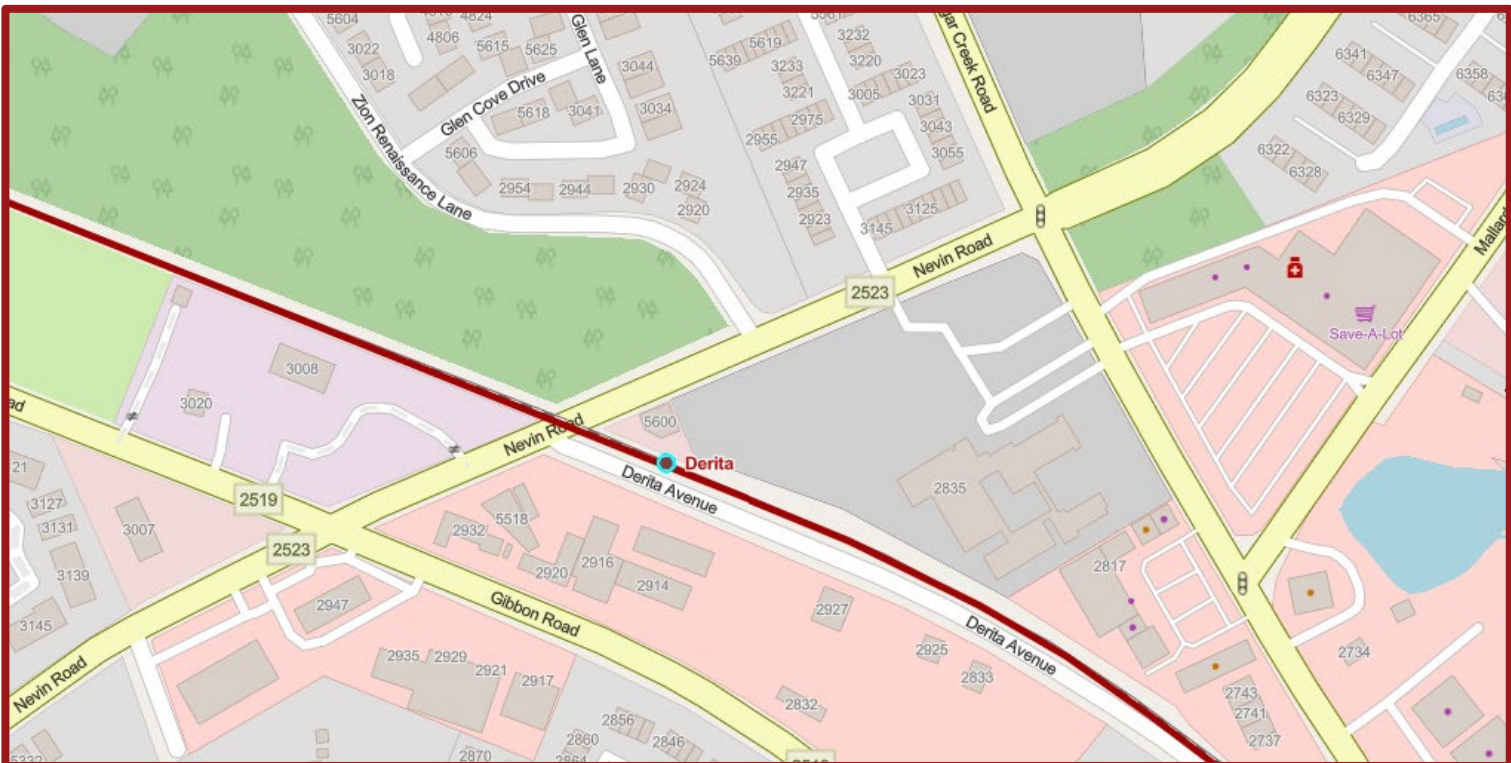
**Charlotte Gateway Station**  
W. Trade & N. Graham



Note: Originally proposed station locations are being evaluated during this design phase.



# Original Station Locations:



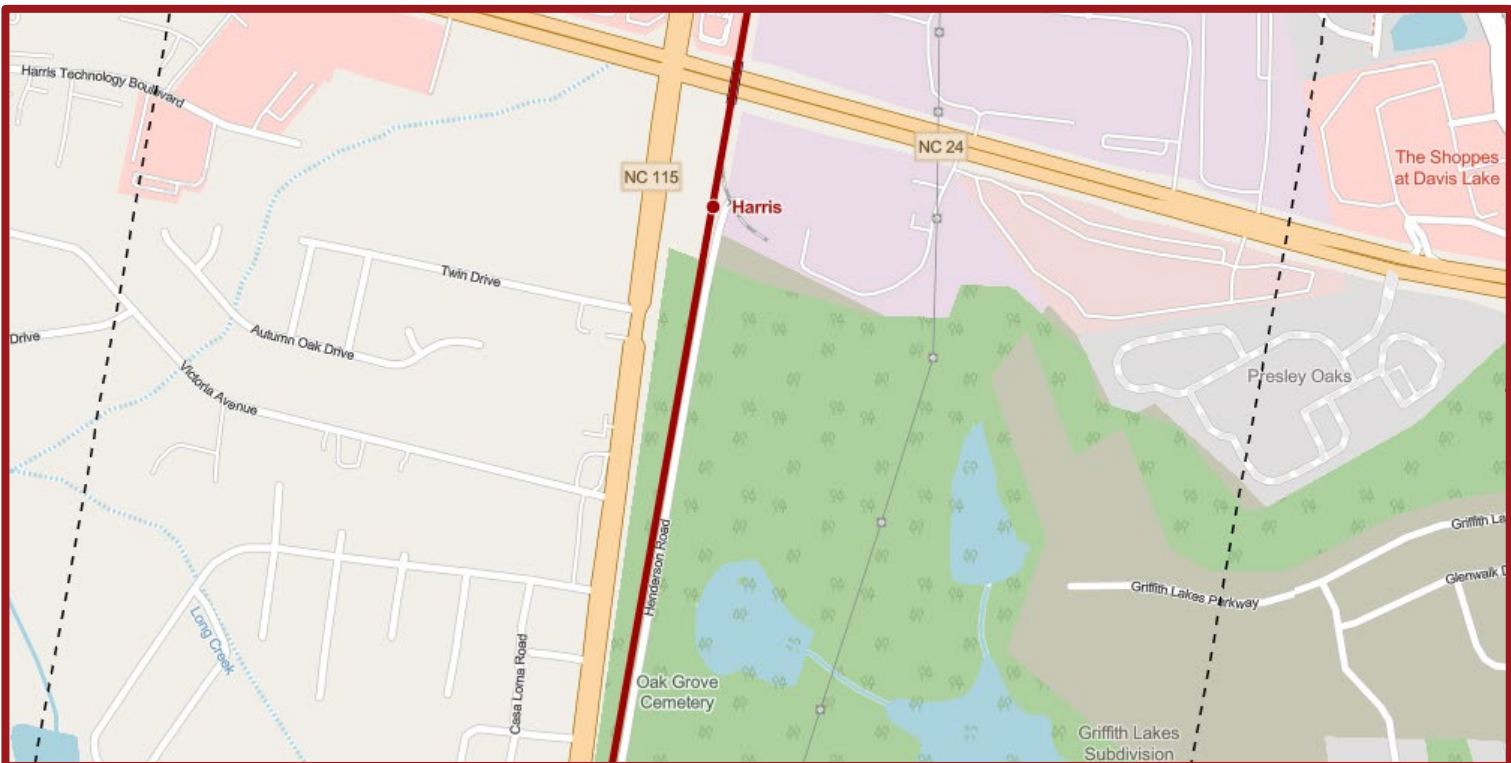
## Derita Station

Derita Avenue & Nevin Road *(Near West Sugar Creek Road)*



Note: Originally proposed station locations are being evaluated during this design phase.

# Original Station Locations:



**Harris/NC 115 Station**  
West W.T. Harris Avenue & Old Statesville Road (NC 115)



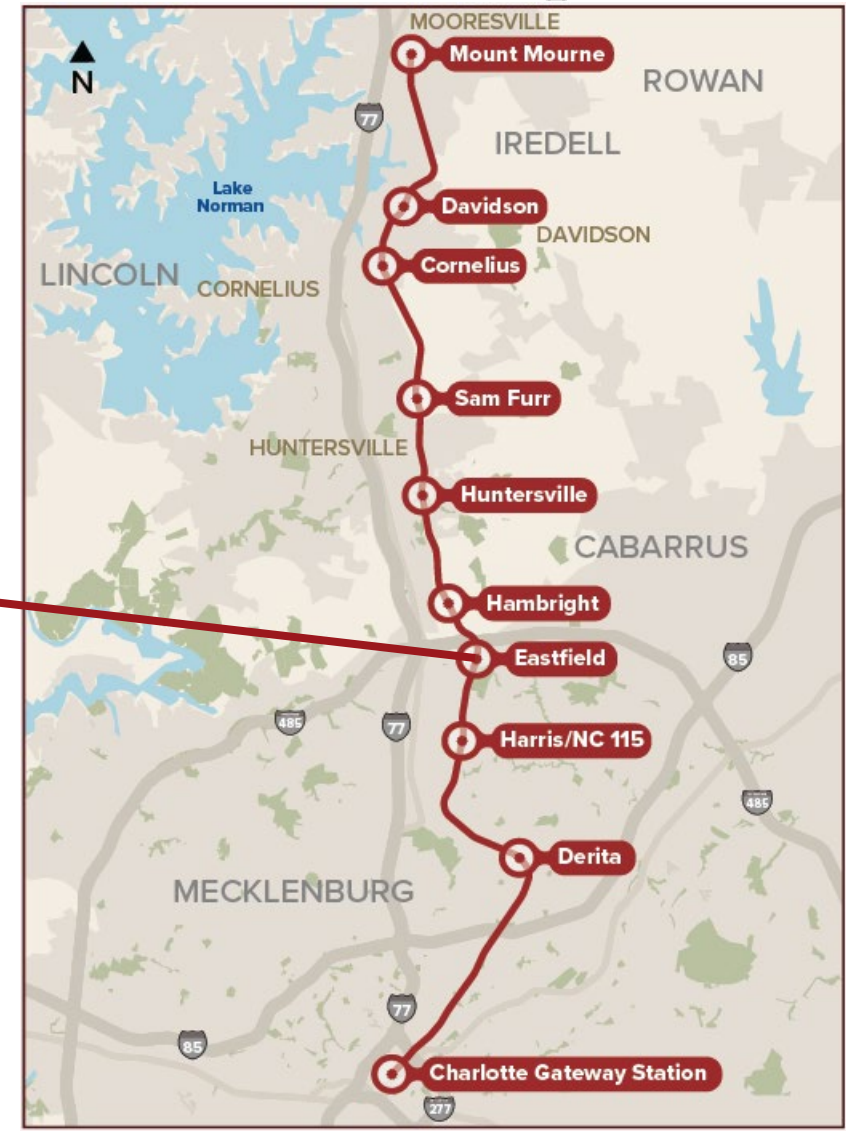
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# Original Station Locations:

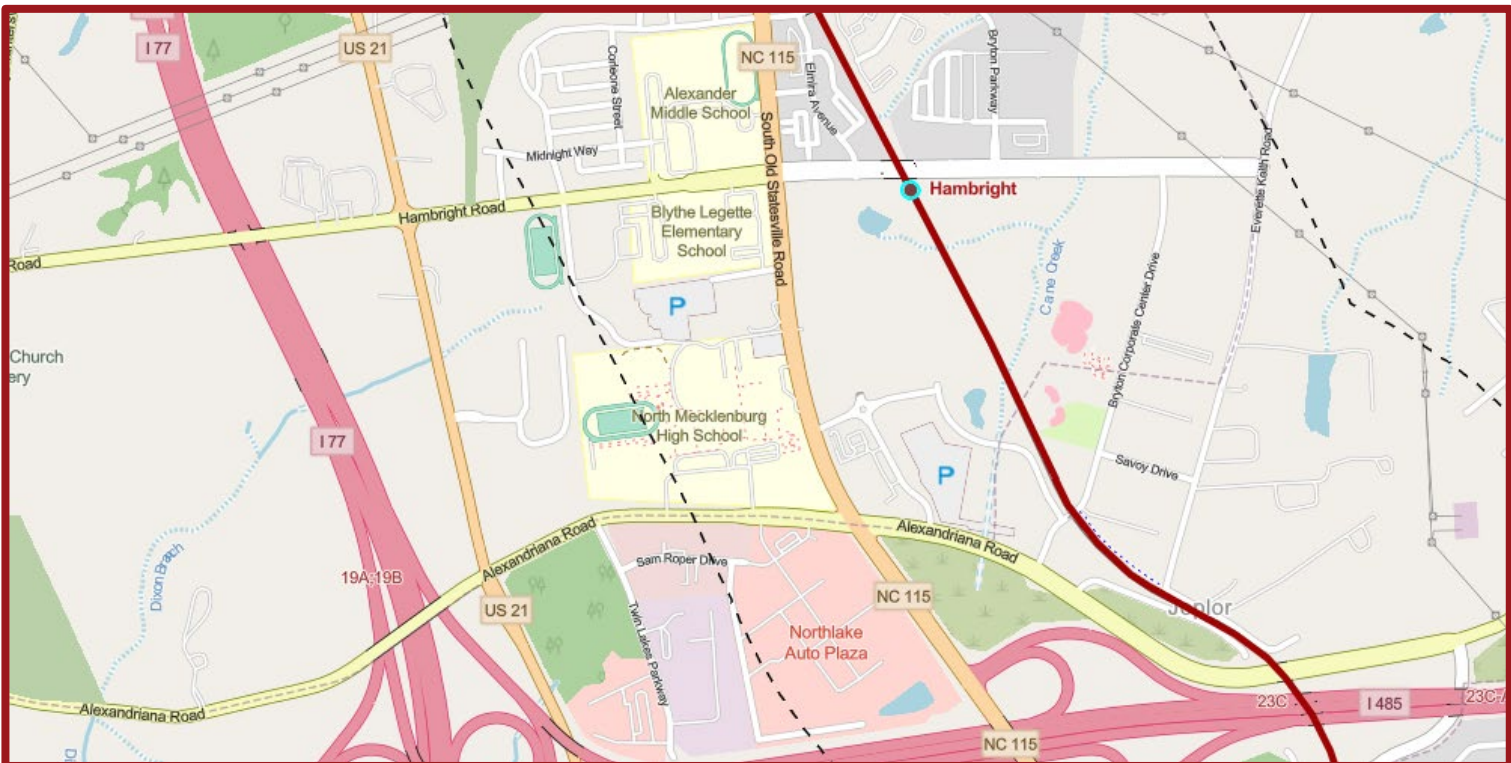


**Eastfield Station**  
Arthur Davis Road & Old Statesville Road (NC 115)



Note: Originally proposed station locations are being evaluated during this design phase.

# Original Station Locations:



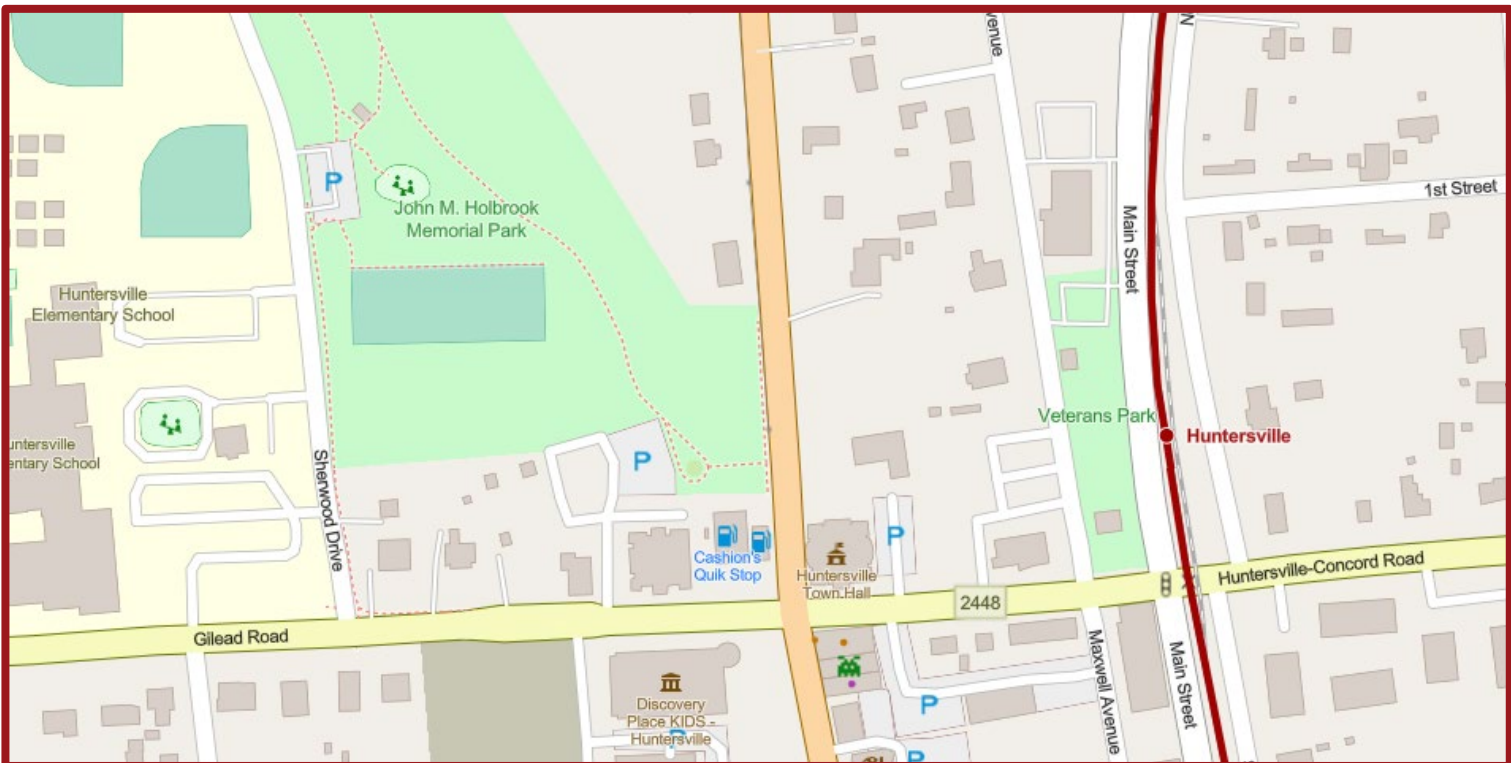
**Hambricht Station**  
 Hambricht Road & Old Statesville Road (NC 115)



Note: Originally proposed station locations are being evaluated during this design phase.



# Original Station Locations:



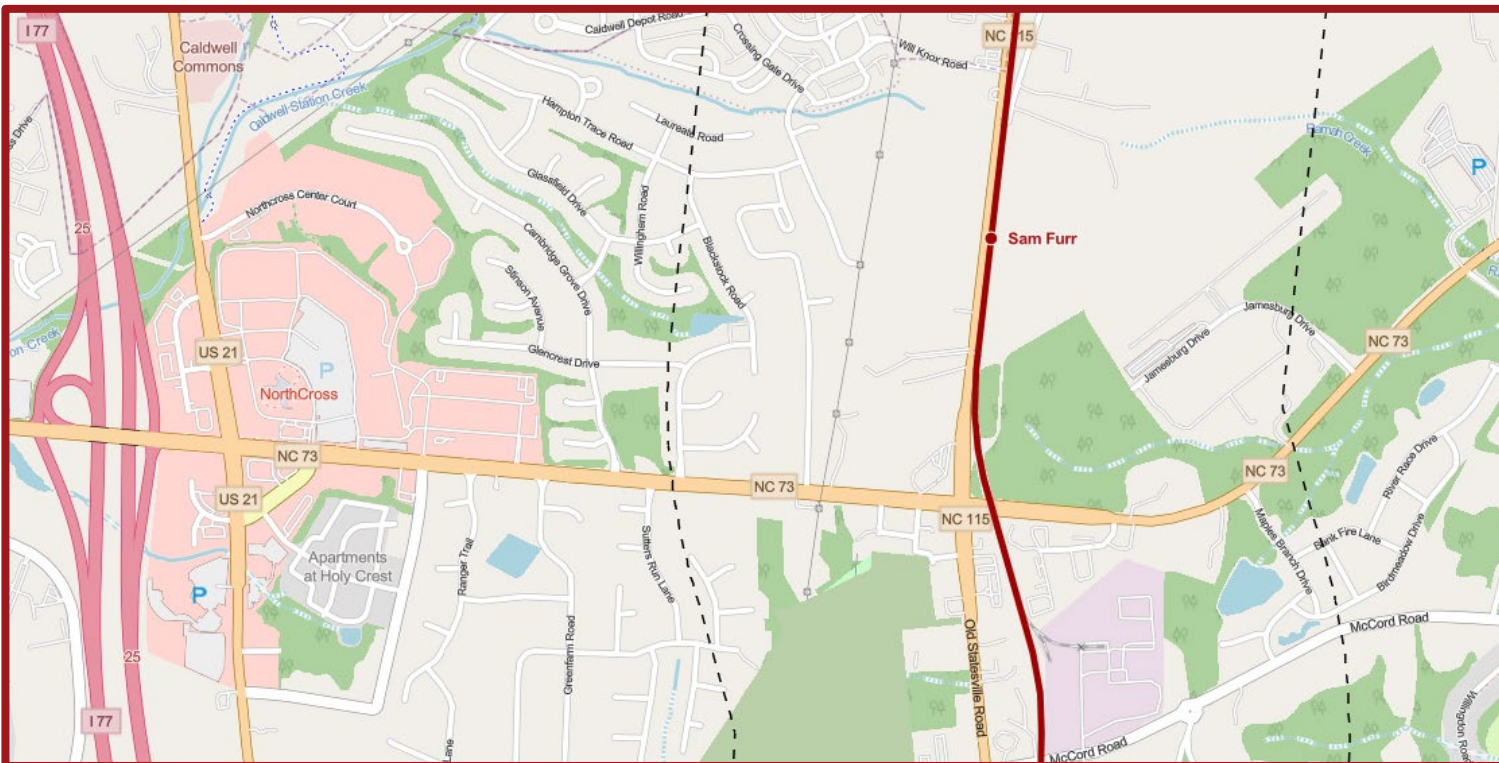
**Huntersville Station**  
Hambricht Road & Old Statesville Road (NC 115)



Note: Originally proposed station locations are being evaluated during this design phase.



# Original Station Locations:



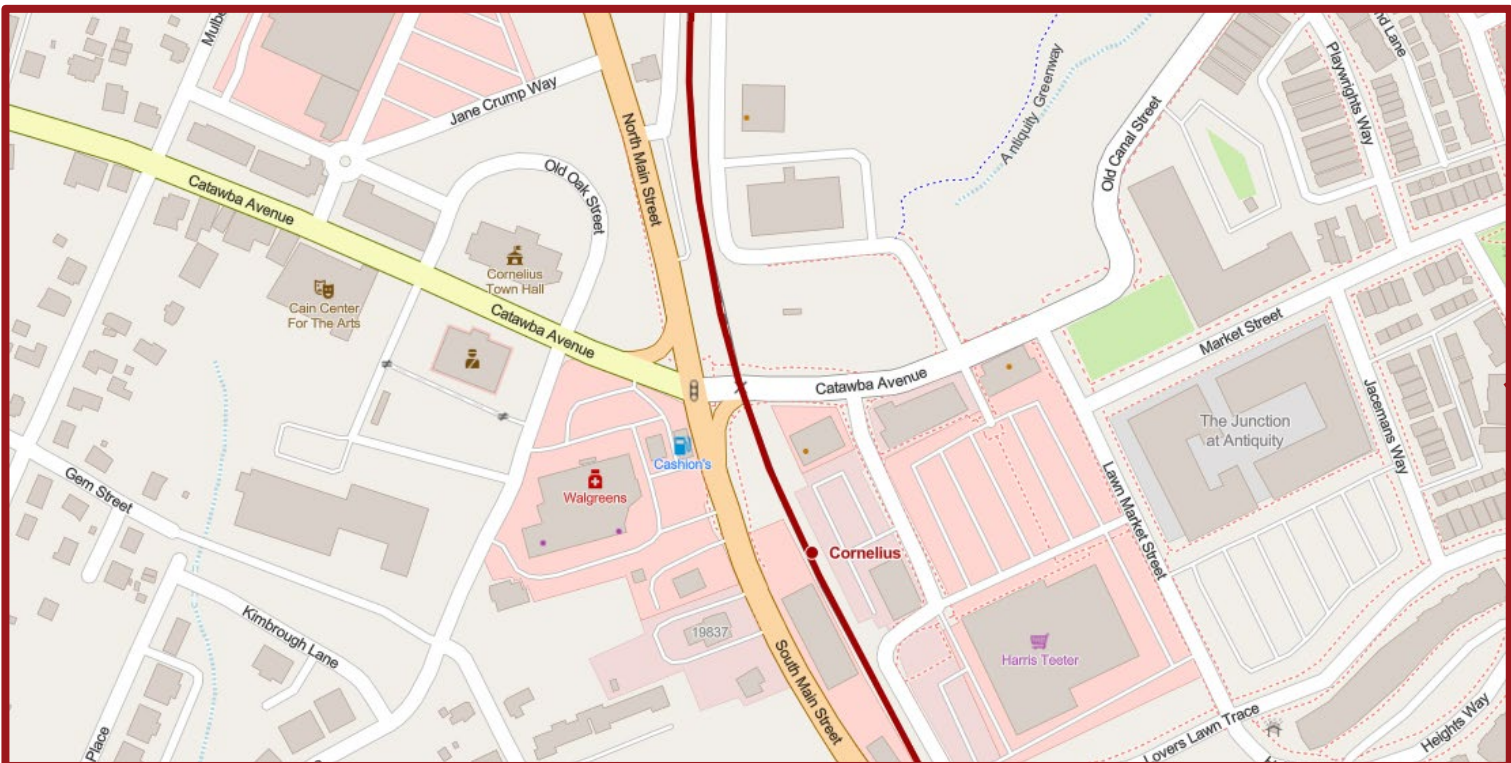
**Sam Furr Station**  
Sam Furr Road & Old Statesville Road (NC 115)



Note: Originally proposed station locations are being evaluated during this design phase.



# Original Station Locations:



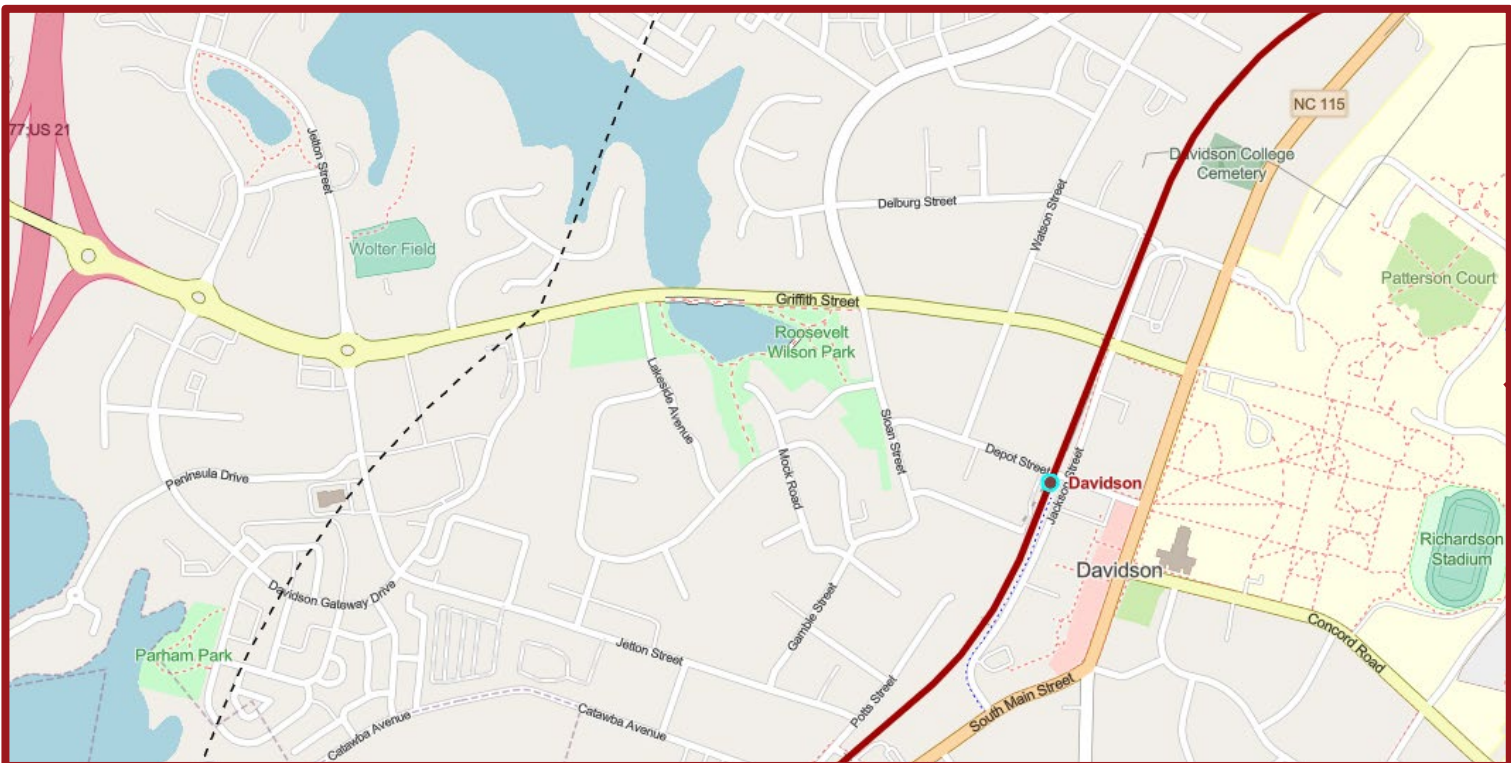
**Cornelius Station**  
Catawba Avenue & South Main Street



Note: Originally proposed station locations are being evaluated during this design phase.



# Original Station Locations:



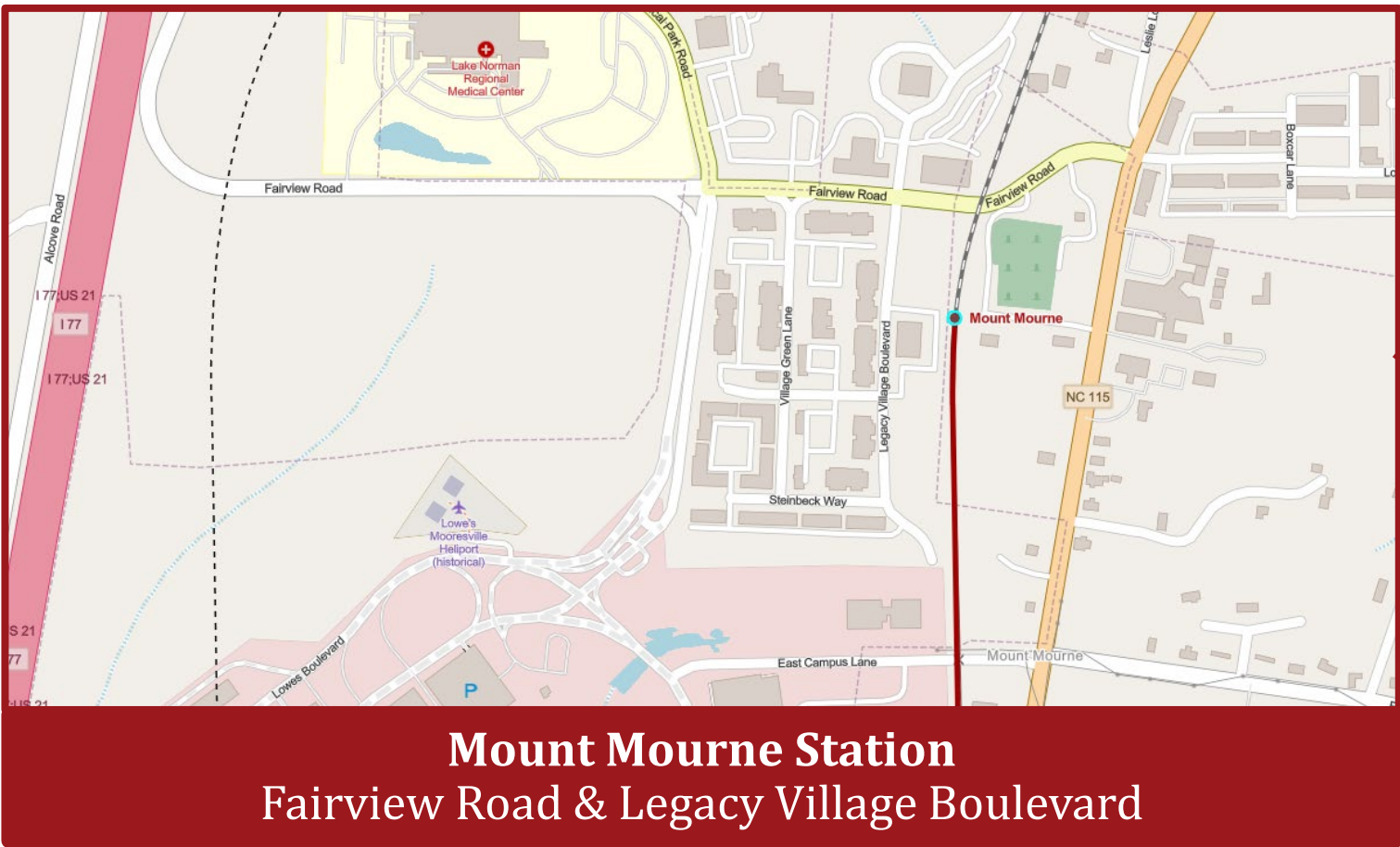
**Davidson Station**  
Jackson Street & Depot Street



Note: Originally proposed station locations are being evaluated during this design phase.



# Original Station Locations:



**Mount Mourne Station**  
Fairview Road & Legacy Village Boulevard



Note: Originally proposed station locations are being evaluated during this design phase.

# Virtual Interactive Map

Red Line Commuter Rail Project

Study Area Previous Studies Transportation Equity Land Use Community Assets Multimodal Conditions Existing Infrastructure Additional Resources Area Evaluation Tool

CATS Red Line Commuter Rail Project

Overview Community Analytics Screening & Export

**Layers**

- LYNX Red Line Stations
- LYNX Red Line
- 1/2 Mile Buffer
- Utilities
- Points of Interest
- Existing Transit Services
- Transportation
- Environmental
- Demographic
- Administrative
- 1ft Contours

**Legend**

- LYNX Red Line Stations
- LYNX Red Line
- 1/2 Mile Buffer
- Environmental
- Parke

**Zoom to Station**

- Mount Mourne
- Davidson
- Cornelius
- Sam Furr
- Huntersville
- Hambright

Scan the QR Code to view map

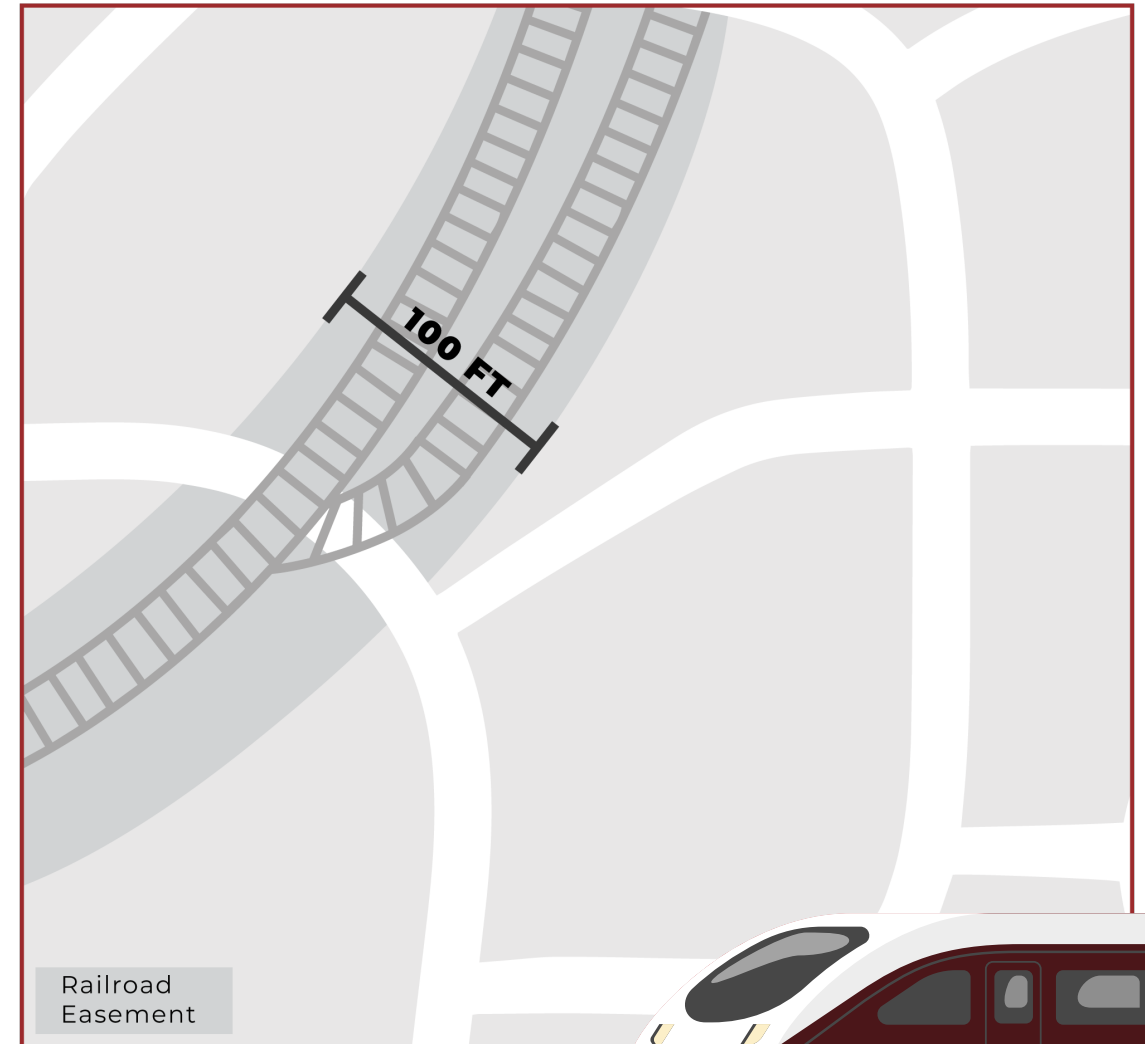


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# Tracks and Right of Way

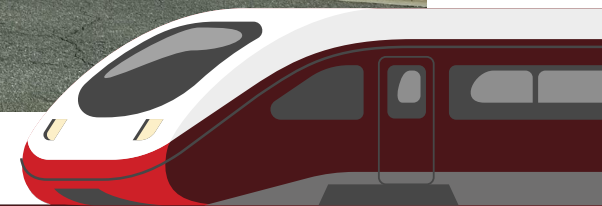
- Norfolk Southern has a 100-foot wide railroad easement from Charlotte to Mooresville.
- Currently a single-track line with existing areas of double track for passing sidings.
- The tracks would be upgraded for the commuter rail service.
- Collaborating with Norfolk Southern on where additional passing sidings would be needed to maintain freight service to local customers and to improve commuter rail service.



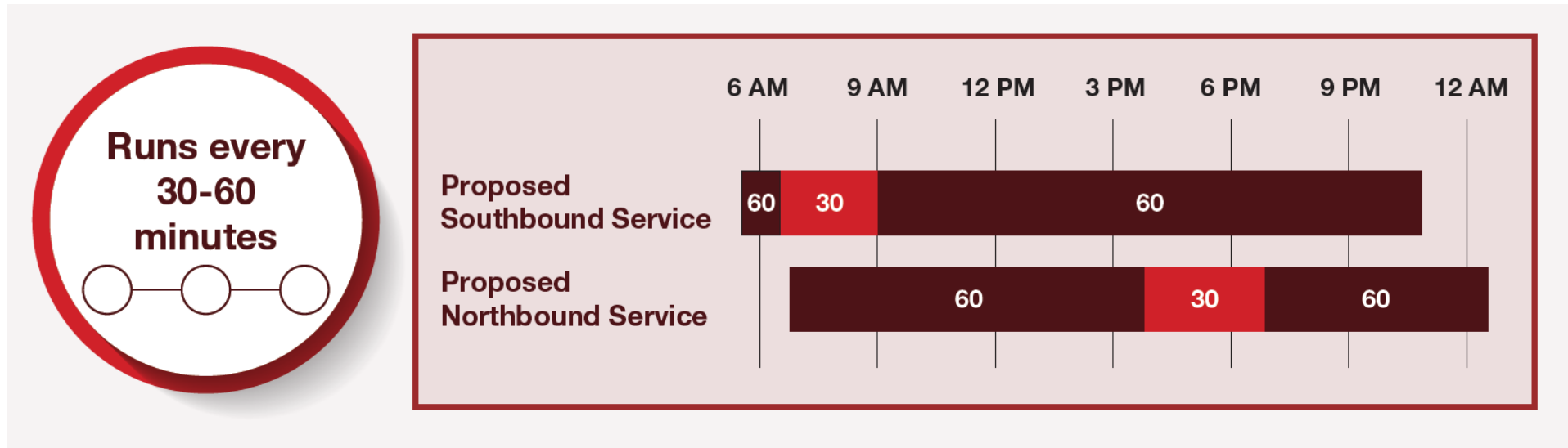


# Grade Crossings

- Project Team is assessing grade crossings to see what's changed.
- Grade crossing protections will be evaluated with the stakeholders and railroad.
- At a minimum protection for public road crossings will include gates and flashing lights.



# Proposed Service Frequency



- Peak times for 30-minute service
- Off-peak times for 60-minute service
- Weekend Service and Special Events
- About 42 Trips per day (21 in each direction)
- About 45 Minutes from Mount Mourne to Charlotte Gateway Station





# Vehicle Maintenance Facility (VMF)

- Assessing locations throughout corridor because the original location is no longer feasible.
- Typically, VMFs are located closer to the end of lines but can be sited anywhere along the route.
- Incorporate building design into existing community character.



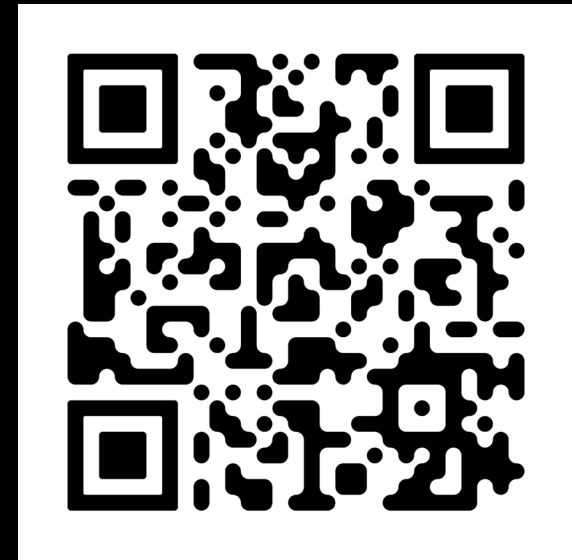
# Get Involved!

**Submit Comments and Questions:**

[RedLine@publicinput.com](mailto:RedLine@publicinput.com)

855-925-2801; Project Code 1752

Charlotte Area Transit System  
C/O Mr. Brian Nadolny  
600 E. 4<sup>th</sup> St., 14<sup>th</sup> Floor  
Charlotte, NC 28202



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Community Survey:  
[PublicInput.com/RedLine](https://PublicInput.com/RedLine)**

06

# Q&A





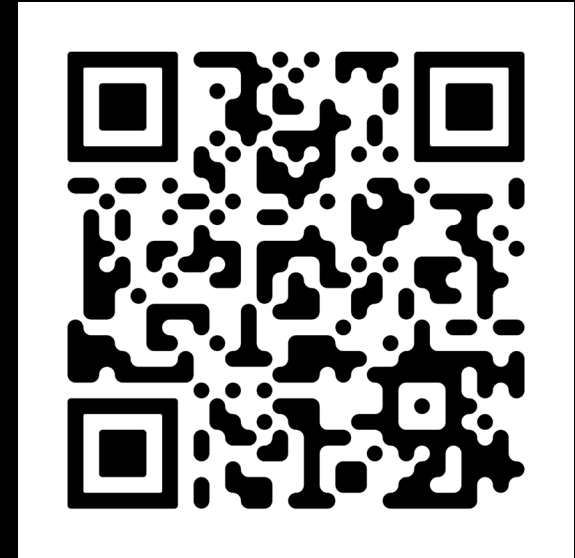
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Charlotte Area Transit System  
C/O Mr. Brian Nadolny  
600 E. 4<sup>th</sup> St., 14<sup>th</sup> Floor  
Charlotte, NC 28202



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