

Uptown/11th Street Alignment— LYNX Silver Line Charlotte, North Carolina

A ULI Advisory Services Panel Report

February 26–March 3, 2022



 **Urban Land
Institute**
Advisory Services

Uptown/11th Street Alignment— LYNX Silver Line Charlotte, North Carolina

Investing in Transit for More Livable Communities

A ULI Advisory Services Panel Report

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About the Urban Land Institute

THE URBAN LAND INSTITUTE is a global, member-driven organization comprising more than 45,000 real estate and urban development professionals dedicated to advancing the Institute's mission of shaping the future of the built environment for transformative impact in communities worldwide.

ULI's interdisciplinary membership represents all aspects of the industry, including developers, property owners, investors, architects, urban planners, public officials, real estate brokers, appraisers, attorneys, engineers, financiers, and academics. Established in 1936, the Institute has a presence in the Americas, Europe, and Asia Pacific regions, with members in 80 countries.

The extraordinary impact that ULI makes on land use decision-making is based on its members sharing expertise on a variety of factors affecting the built environment, including urbanization, demographic and population changes, new economic drivers, technology advancements, and environmental concerns.

Peer-to-peer learning is achieved through the knowledge shared by members at thousands of convenings each year that reinforce ULI's position as a global authority on land use and real estate. In 2021 alone, more than 2,700 events, both virtual and in person, were held in cities around the world.

Drawing on the work of its members, the Institute recognizes and shares best practices in urban design and development for the benefit of communities around the globe.

More information is available at uli.org. Follow ULI on Twitter, Facebook, LinkedIn, and Instagram.

COVER PHOTO: A visualization of a potential alignment for the Uptown/11th Street section of the planned Silver Line light rail in Charlotte, North Carolina. (CATS)

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About ULI Advisory Services

THE GOAL OF THE ULI ADVISORY SERVICES program is to bring the finest expertise in the real estate field to bear on complex land use planning and development projects, programs, and policies. Since 1947, this program has assembled well over 700 ULI-member teams to help sponsors find creative, practical solutions for issues such as downtown redevelopment, land management strategies, evaluation of development potential, growth management, community revitalization, brownfield redevelopment, military base reuse, provision of low-cost and affordable housing, and asset management strategies, among other matters. A wide variety of public, private, and nonprofit organizations have contracted for ULI's advisory services.

Each panel team is composed of highly qualified professionals who volunteer their time to ULI. They are chosen for their knowledge of the panel topic and are screened to ensure their objectivity. ULI's interdisciplinary panel teams provide a holistic look at development problems. A respected ULI member who has previous panel experience chairs each panel.

The agenda for a five-day panel assignment is intensive. It includes an in-depth briefing day composed of a tour of the site and meetings with sponsor representatives, a day of hour-long interviews of typically 50 to 100 key community representatives, and two days of formulating recommendations. Long nights of discussion precede the panel's conclusions. On the final day on site, the panel makes an oral presentation of its findings and conclusions to the sponsor. A written report is prepared and published.

Because the sponsoring entities are responsible for significant preparation before the panel's visit, including sending extensive briefing materials to each member and arranging for the panel to meet with key local community members and stakeholders in the project under consideration, participants in ULI's five-day panel assignments are able to make accurate assessments of a sponsor's issues and to provide recommendations in a compressed amount of time.

A major strength of the program is ULI's unique ability to draw on the knowledge and expertise of its members, including land developers and owners, public officials, academics, representatives of financial institutions, and others. In fulfillment of the mission of the Urban Land Institute, this Advisory Services panel report is intended to provide objective advice that will promote the responsible use of land to enhance the environment.

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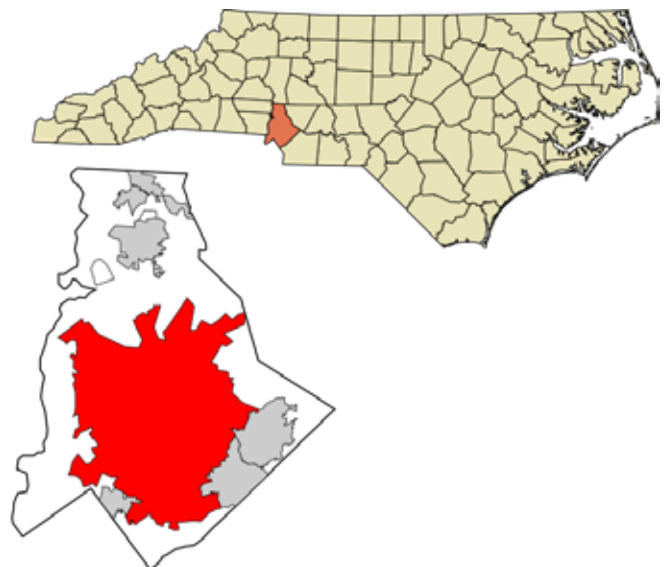


Introduction and the Panel's Assignment

CHARLOTTE, NORTH CAROLINA, a city of 874,579 residents, is one of the 20 most-populous U.S. cities and the most-populous city in North Carolina. The city sought a ULI Advisory Services panel in 2022 to advise on the transit alignment of the Silver Line in the next stage of LYNX transit development.

The overall study area encompasses about 1.7 square miles within Uptown. The general boundaries are Interstate 277 and CSX Rail to the west. The focused study area (FSA) is located in the northeast section of Uptown Charlotte, bordered by North Poplar and Church streets to the northwest, CSX to the northeast, the Brookshire Freeway to the southeast, and Eighth Street to the southwest.

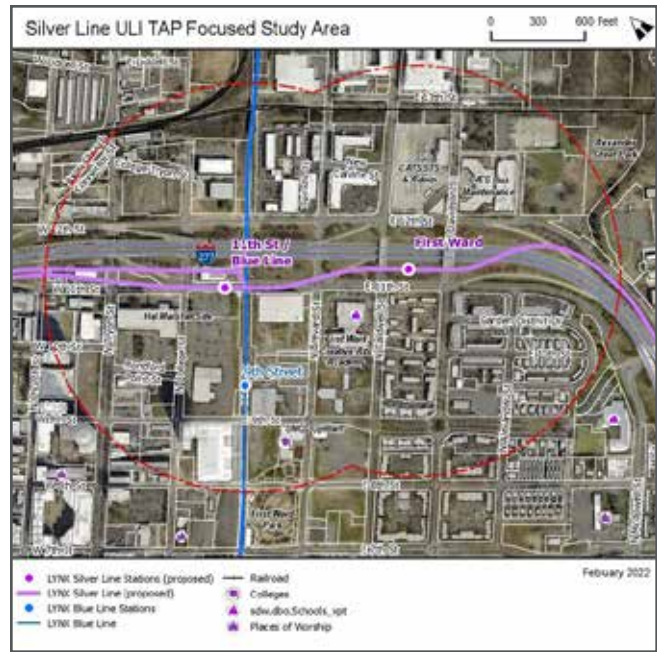
The FSA encompasses about 189 acres, straddling the First and Fourth Ward neighborhoods of Uptown. The general boundaries are about a quarter-mile radius from the two planned LYNX Silver Line station locations along the 11th Street corridor. In the FSA, the Silver Line Locally Preferred Alignment (LPA) has two planned stations: 11th Street/Blue Line Station: along 11th Street at the nexus of the LYNX Blue Line and LYNX Silver Line between College and Brevard streets, and the Davidson Street Station, located on 11th Street between Caldwell and Davidson streets.



Charlotte is one of the 20 largest cities in the United States and the largest city in North Carolina.



The overall study area encompasses about 1.7 square miles in Charlotte's Uptown.



The focused study area encompasses about 189 acres, straddling the First and Fourth Ward neighborhoods of Uptown.

Anchored to the northwest and southeast by residential development ranging from single family to high-density multifamily, the center of the FSA consists largely of vacant land, parking lots, and older, underused buildings. The Brookshire Freeway (I-277) bisects the FSA from the northwest to the southeast, creating a substantial barrier between Uptown and the Center City neighborhoods to the north/northeast. Despite robust planning and Charlotte's recent economic and population growth, this area of Uptown has lagged, not benefiting from the boom in investment seen in other areas of Uptown or adjacent areas outside the I-277 loop.

The FSA is currently served by the Charlotte Area Transit System (CATS) LYNX Blue Line at the Ninth Street Station. The Blue Line is the region's first light-rail service, spanning nearly 19 miles and 26 stations from I-485 at South Boulevard in the south to the University of North Carolina (UNC) Charlotte's main campus in University City in the north.

The future CATS LYNX Silver Line is planned to cross the Blue Line at 11th Street, creating the opportunity for a connection to the existing Blue Line Ninth Street Station. This would be the only transfer station between the Blue Line and the Silver Line, making it an iconic component of not only the transit system, but also the urban fabric of Uptown Charlotte and the community.

The panel explored how the Silver Line could help Charlotte thrive and continue to grow sustainably. Transit is a long-term investment to deliver stronger and more livable communities, although post-pandemic impacts are still emerging. Panelists examined the economic, environmental, and social implications of transit expansion for the region, while focusing on development opportunities for the Center City. Additional panel recommendations weighed in on station design, optimization of project financing, and engaging key partners.

The Panel's Assignment

With the City of Charlotte Planning, Design, and Development Department, CATS has engaged the Urban Land Institute to bring in national experts to conduct a multistep process with partners to discuss the future Silver Line alignment through Uptown and the potential of the FSA.

The city of Charlotte, North Carolina, and CATS provided background information and asked the panel to examine opportunities offered by the planned Silver Line, focusing on the following questions:

1. What are the opportunities for station area development along the 11th Street alignment?
2. Would another alignment (Seventh Street, Trade Street) provide better economic development or transportation/mobility equity opportunities?

3. How can the connection between the Blue Line and the Silver Line be optimized?
4. Does an additional station in the First Ward along the 11th Street alignment provide significant enhancements to station area development opportunities?

Summary of the Panel's Recommendations

Key recommendations from the panel are as follows:

- Maximize regional equity, mobility potential, and housing affordability along the Silver Line.
- Commit to pairing investment in the Silver Line with an anti-displacement strategy that can help maintain stability for current residents—especially renters and lower-income households.
- For post-pandemic success, add substantial housing in Uptown to increase affordability options, stimulate vibrancy, and boost ridership opportunities.
- Optimize transit-oriented development (TOD) by maximizing densities and varying uses to create connected communities with integrated multimodal street networks.
- Prioritize access to and create strong links between Uptown and the Northside to overcome the barriers I-277 poses to neighborhood connectivity.
- Make the 11th Street station an icon of the LYNX system with seamless and comfortable transitions and engaging traveler experiences.
- Enhance trails, bicycle, and pedestrian facilities in coordination with rail stations to make the regional network more available to potential riders.
- Prioritize a Silver Line alignment that can attract ridership at a level that justifies the cost.
- Given the residential growth potential along the corridor, craft a strategy to attract people to choose transit.
- Position the Silver Line for competitive federal funding opportunities by ensuring that ridership and cost figures present an optimal system. Revisit the interlining with the Blue Line to leverage ridership and reduce costs.
- Leverage the existing investment in the Gold Line to provide fast, reliable service through Uptown. Consider the expansion of the Gold Line to reach underserved communities to the east.
- Elevate engagement with business, civic, and community leaders, and build community trust for a successful referendum.



The Silver Line: Regional Implications

AS A REGIONAL EAST–WEST TRANSIT CONNECTION, the Silver Line stretches through three counties and five jurisdictions. The eastern terminus is planned in Union County, with the line passing through the towns of Indian Trail and Stallings. The Silver Line continues west to Mecklenburg County through the town of Matthews and Charlotte’s Center City, with the western terminus in the city of Belmont in Gaston County. The Silver Line is important to this region, offering a 29-mile opportunity to integrate equity in the greater region. With major job and residential growth expected in the southeast over the next 30 years, the strategic development of the Silver Line will reduce the need to build and maintain new highways, save households time and money on personal vehicle maintenance costs, relieve traffic congestion on the highways, and save billions of future dollars in the economy.

To ground the panel’s understanding of the Silver Line, panel members examined recent plans and policies for the city and region. Across the board, these plans and policies indicate that Charlotte needs places that can reduce automobile dependence. That means safe, convenient, multimodal mobility options throughout the day and for all trip purposes. The travel patterns of essential workers—disproportionately people of color, with fewer resources, and often relying on the bus—illustrate mobility needs across the region and all times of the day and week. The pandemic has also disrupted spatial and temporal patterns of white-collar, peak-focused, mostly driving commutes.

Energizing the Mobility Vision

The city of Charlotte has a strong multimodal transportation vision, expressed in the 2030 Transit System Plan and the Charlotte Future 2040 Comprehensive Plan. The 2030 Transit System Plan includes the Silver Line and other investments. It is aligned with Charlotte’s vision and values as described in the Charlotte Future 2040 Comprehensive Plan and requires significant new investment through a proposed sales tax increase.

The city’s modeling recognizes that continuing on the current path of vehicle-dominated streets and an oversupply of

parking cannot succeed, even by conventional and narrow metrics like vehicle-speed level of service (LOS). The vehicle-speed LOS metric assumes that cars must be moving everywhere fast and disregards widely held values such as equity and sustainability.

Yet, to date, the city streets—including in Uptown—have been optimized for driving. This includes space allocation (almost all of the public right-of-way is driving lanes), signalization, one-way streets, inadequate infrastructure for safe walking and rolling, and overprovision of parking.

Transit investments should incubate and support places that enable people to live without depending on driving everywhere. A transit system that supports reduced car dependence in turn must be supported by the “10-minute neighborhoods” envisioned in Charlotte Future 2040: first- and last-mile connections with additional feeder bus service as well as safe and convenient streets for walking and rolling. These measures really create the place—and the transit ridership.

The panel recommends linking all LYNX stations to other transit modes to achieve sustainable growth patterns and maximize the city’s infrastructure. Station developments that tie together local and commuter bus, light rail, commuter rail, and intercity bus allow for more convenient trips and create a central point of transportation for communities. The development of rail stations as multimodal transit centers makes the regional network more available to potential riders.

At a foundational level, planning for the Silver Line—as well as TOD around Silver Line stations—should prioritize the integration of improved walking and rolling connections, particularly access to stations. Stations along 11th Street should be directly connected to the treasured Greenway network, to the east as already planned, as well as to the north, west, and south.

High-quality walking and rolling connections to surrounding neighborhoods are an important way to support transit. From the Uptown CycleLink to the Rail Trail to the Cross Charlotte Trail, Charlotte has a wide-ranging and valued system of greenways, trails, and linear parks. Greenways that connect to on-street infrastructure create real opportunities for access to jobs, housing options, and other destinations. The region’s high-quality greenways and on-street connections will benefit from continued and increasing investment by the city of Charlotte and Mecklenburg County.

KEY ATTRIBUTES OF FUTURE MOBILITY

The Urban Mobility Readiness Index (UMRI) is an index comparing U.S. cities to international cities with forward-looking metrics to lead mobility in the future, released in 2021 by the Oliver Wyman Forum and the University of California, Berkeley. The UMRI notes that the leading cities boast strong local economies and mobility innovations. These features, often combined with the continuation of remote work, have encouraged residents to adopt mobility options like walking and cycling while reducing motor vehicle congestion.

The UMRI identifies six key attributes of future mobility ecosystems:

1. **Integrated:** Mobility in the future will stress intermodal, one-stop services that provide seamless travel, commutes, and delivery experiences.
2. **Accessible:** Future mobility will focus on user-oriented approaches that are transparent, easy to use, affordable, convenient, efficient, and available to everyone.
3. **Sustainable:** Systems and solutions will not degrade the environment or health of city residents and can even offer economic benefits to them.
4. **Innovative:** Cities should encourage a local innovation ecosystem and take advantage of the latest technologies, reinterpreting them to fit their needs.
5. **Collaborative:** Municipalities need to create coalitions with private-sector enterprises—both large legacy players and startups—so they can work together to shape the future.
6. **Resilient:** As disasters and other risks threaten the health of cities, it is important that mobility ecosystems emphasize preparedness in a conscious effort to meet the needs of their residents.

Although Charlotte was not among the cities included in the assessment, the panel’s recommendations address these key attributes for leading mobility systems.



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Strengthening Urban Growth

Future mobility will focus on user-oriented approaches that are transparent, easy to use, affordable, convenient, efficient, and available to everyone. Equity, innovation, and alignment of housing and transportation targets are important components of Charlotte's future mobility ecosystem.

Enhancing Regional Transit Access Equity

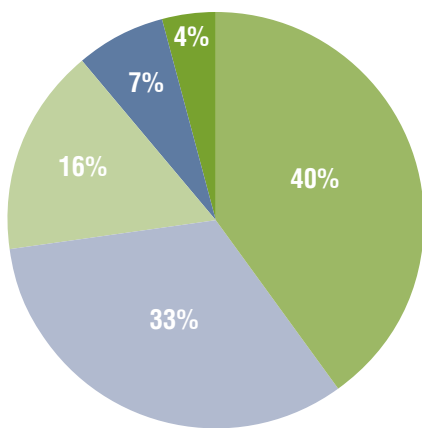
The Silver Line offers fundamental access for significant numbers of jobs and people in Charlotte, Matthews, and Mecklenburg County. Transit stops along the proposed Silver Line should be located to serve communities equitably in proportion to the race and ethnic distributions in the city and county.

The city of Charlotte had about 874,579 people, compared to Mecklenburg County with 1,115,482 people, according to the 2020 census. Charlotte is a diverse city, with majority minority population primarily composed of African American and Hispanic persons. Mecklenburg County has roughly the same population distribution.

Census figures show that 24 percent of Charlotte residents live within a two-mile buffer of the proposed Silver Line. In addition, 20 percent of housing units in Charlotte are within this two-mile buffer. Within a two-mile buffer around the proposed Silver Line, the race and ethnicity distribution is almost equal to the distribution across the entire county.

These numbers demonstrate the direct impact that the Silver Line will have on the region's existing population. However, boosting the raw numbers of people and density of housing

— 2020 City of Charlotte, Race & Ethnicity —



White Black Hispanic Asian Other

Data source: U.S. Census Bureau, 2020.

units will increase prospective ridership, making the Silver Line more competitive to qualify for expected federal funding.

Investing in Innovative Equity

Identify opportunities along the 29-mile span of the Silver Line to integrate innovative equity, such as an investment in business incubators for minorities and vulnerable populations.

This innovative investment could have the following types of strategies:

- Strong minority participation targets for construction projects, commensurate with the racial and ethnic distribution of the county of Mecklenburg;
- Funding minority business incubators for construction contractors and other development service firms such as planning firms, architects, and engineering firms;
- Funding minority businesses with incentives to relocate/locate around the proposed transit stops; and
- Funding minority scholarships to incentivize training and degrees in development service professions.

Aligning Housing and Transportation

The metropolitan planning organization (MPO) for Charlotte is composed of three counties: Mecklenburg, Union, and Iredell. Major job growth is expected in the southeast portion of the region over the next 30 years. The city of Charlotte is losing major value capture to the suburban areas. The proposed Silver Line will connect to the projected job growth locations in the southeast of the region.

The report "Housing Charlotte: A Framework for Building and Expanding Access to Opportunity through Housing Investments," approved by City Council in 2018, identified a deficit of nearly 24,000 units for households at and below 50 percent of area median income. Charlotte should identify new housing targets for the city, especially along the Silver Line. The lack of ample housing options, particularly in the Center City, undermines ridership potential for the Silver Line.

Boosting Housing Options in the Central City

Although Uptown has a strong economic base with banking jobs that are the envy of many cities in the country, valuable potential to add more housing units exists in Uptown. As a result, workers must commute from suburban areas. Extensive new development extending to the south side of Uptown, as well as robust population growth in the city as a whole, points to a clear demand for more housing units.

To support more sustainable development, the city should consider how to promote more housing development in the central city, particularly in areas served by high-capacity transit. The population growth forecast developed by the Charlotte Regional Transportation Planning Organization does not project high population growth numbers for the center of the city of Charlotte. The panel’s own research found only 12,500 households living in the Uptown area; in fact, an estimated 70,000 vehicle parking spaces in Uptown Charlotte outnumber households by more than five to one.

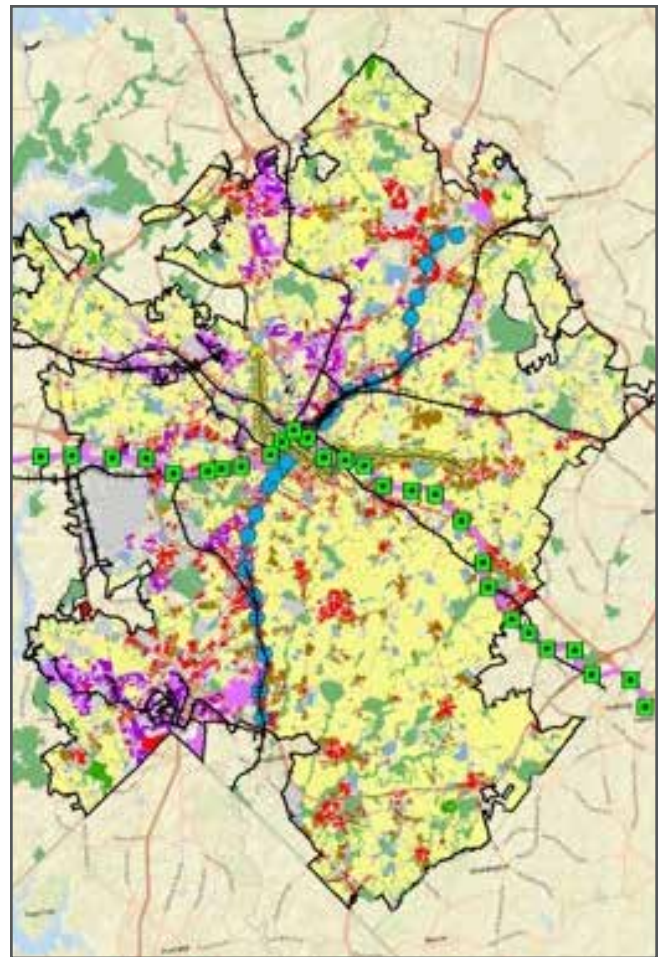
Housing and Anti-Displacement

The Charlotte Future 2040 Comprehensive Plan places the city into two distinct categories: the “Arc” and the “Wedge”—terms that have long been in use to describe a persistent pattern of race, income, and wealth distribution that shapes much of the city. Wealthier, whiter residents tend to be concentrated in the wedge-shaped slice of south Charlotte, while an arc of lower-income communities stretches to the north, east, and west.

Charlotte has historically invested in public improvements, especially in mobility, in Center City (specifically Uptown) and the Wedge, with less investment in neighborhoods of the Arc, according to research from the UNC Charlotte Urban Institute. Those latter residents and households tend to have fewer resources, reflected in lower rates of homeownership and vehicle ownership, as highlighted in maps in Charlotte/Mecklenburg Quality of Life Explorer—with associated higher risks of displacement and reliance on transit.

The Charlotte Future 2040 Comprehensive Plan emphasizes an approach to equitable development that mitigates vulnerability to displacement and improves access to jobs, housing opportunity, and goods and services. The city has been investing in new walking and biking infrastructure in and near vulnerable neighborhoods. Greenways and on-street bike facilities reach into and through Uptown to the Northside.

The current Silver Line alignment through Uptown along the 11th Street corridor offers opportunities for transit-oriented development. The Charlotte Future 2040 Comprehensive Plan also shows most of the 11th Street alignment of the Silver Line as a high-density regional activity center, with some mixed use on the north side of I-277 west of the Blue Line.



Land use map of Charlotte showing the proposed Silver Line (green squares).

DAVID ABRAHAM

Demographics for Uptown Charlotte

Total population in Uptown	12,550
Total density (people per square mile)	5.920
Jobs in Uptown	83,516
Parking spots (estimated)	70,000
Transit to work	256
Jobs—retail	754
Jobs—arts and entertainment	2,966

Data source: American Community Survey, Five-Year Estimate, 2018.

Uptown Charlotte has an estimated 70,000 vehicle parking spaces but only 12,500 households.

AUSTIN, TEXAS: PROJECT CONNECT AND RACIAL EQUITY ANTI-DISPLACEMENT TOOL

The city of Austin, Texas, is an excellent example of aligning a major transit development project with investment in racial equity and anti-displacement efforts. Project Connect will expand Austin's public transit system throughout the metro area, with new light rail, a subway, and more services across the city.

Voters approved \$7 billion for Project Connect in 2020, including \$300 million for anti-displacement work to help affordable areas remain affordable to the people who want to stay and to focus on preventing displacement in vulnerable areas near transit lines.

The Racial Equity Anti-Displacement Tool serves as the guiding framework for Austin to identify priority places and purposes to invest these anti-displacement funds. Over



13 years, the \$300 million will be allocated for land acquisition, production of affordable housing, and community-initiated solutions.

In addition to clearly allocating portions of the total revenues to equity goals, Austin developed the Racial Equity Anti-Displacement Tool by prioritizing the voices of people most at risk of displacement, openly communicating these goals to the public, fostering support from the community, and making this a policy priority for the city.

Yet the associated rise in real estate values that accompanies new TOD opportunities poses a risk of displacement to current residents, especially renters and lower-income households. The city must aim to avoid residents' displacement and leverage this economic development potential to create mixed-income housing opportunity around all Silver Line stations.

The city of Charlotte should work with the community to design, fund, and implement a range of anti-displacement tools.

- Allocate a clear portion of the proposed transit revenues tapped to build the Silver Line to strengthen vulnerable minority communities.
- Explore how the zoning code could offer tools for increasing affordable housing.
- Pair new transit investments with investments in anti-displacement.
- Pursue preservation and renovation of existing affordable housing.
- Examine potential for rehabilitating existing structures near transit as well as new construction for additional affordable housing.
- Openly communicate these efforts with the residents of Charlotte to foster shared goals.



Uptown and TOD: Evolving Central City

UPTOWN VIABILITY relies on a vision of a vibrant, resilient, and healthy Center City. The key themes that active cities demonstrate consist of factors such as business and employment centers, retail opportunities, complete neighborhoods, mixed-income housing, arts and culture, education, a government center, health care, hospitality, services, and multimodal choices. Uptown Charlotte already enjoys many of these key ingredients, such as a well-defined street grid, jobs and employment, transit, and cultural assets.

Cities are organic in how they grow, expand, and contract. Maintaining a city's vibrancy requires change. Adding more mixed-income housing, retail, recreation, and office will better balance uses in the post-pandemic era. Uptown Charlotte needs to plan for substantially more density over the next many decades and for what it wants to change to adapt to and manage its growth.

So, what drives this growth? Economic markets, demographic shifts, land value, housing demand, employment, entitlements, utilities, environmental awareness, equity, and infrastructure. Access points into and out of the core are most successful if multiple transportation modes are contemplated and intentional.

If the preceding factors drive development, what drives transit? Transit works only if it takes riders where they want to go when they want to go. Essential transit components include first/last-mile connections, competitive travel time, and minimal modal changes and transfers. A pleasant travel experience that is safe, clean, and healthy with amenities such as public art, internet, music, bicycle racks, and storage space is also part of the mix.

The value of city amenities is supported by and grows with the size of the transit network, accessible destinations, and service levels. Ridership grows incrementally as the system is built out over time. Charlotte is a very new transit city

(compared with legacy-transit-system cities like New York City, Boston, Chicago, and Washington, D.C.). Formulating the regional plan—and keeping it front of mind—is important.

Transit in the Center City will not drive development. For example, since the Blue Line opened in 2007, key elements were already in place, and real estate investment has occurred incrementally based on market demand and conditions.

Center City Charlotte already has many strong assets—jobs and workers, transit, cultural assets, entertainment,

hospitality, and institutions. Yet it is important to keep adding more mixed-income housing, retail, recreation, and office space, modified to better balance uses in a post-pandemic era. The Center City needs to plan for substantially more density over the next decades in every way, making improved transit options even more pressing. All the streets in Uptown are projected to be stretched to capacity with heavy congestion for motor vehicle traffic by 2045. In infrastructure terms, that's the day after tomorrow.

CREATIVE PLACEMAKING

Arts and culture are a key part of Uptown's central role as a lively, active neighborhood that can attract more residents—and maximize the impact of transit. Charlotte's arts and cultural offerings support a vibrant quality of life in the community and play an important role in economic development. The arts and culture community has remained vibrant in Charlotte even throughout the COVID-19 pandemic, with continued strong patronage and philanthropy.

Uptown hosts a plethora of institutions dedicated to arts and culture, such as the Blumenthal Performing Arts Center, McColl Center, the Charlotte Symphony, Opera Carolina, Charlotte Ballet, and the multifaceted Levine Center for the Arts—home to the Bechtler Museum of Modern Art, the Harvey B. Gantt Center for African-American Arts + Culture, the Knight Theater, and the Mint Museum Uptown.

Arts and performance experiences offer important opportunities to create special places throughout the central city that also provide respite to residents and Uptown employees. The panel recommends the consideration of the following initiatives to support the continued growth of vibrant arts and culture offerings in Uptown:

- Establish dedicated arts funding for live/work spaces for the creative community.
- Develop volunteer opportunities and programs to become vested in the community's cultural class and contributors.
- Create programs for children's cultural education.
- Adopt design standards that promote creative architecture in the central city.

Silver Line Stations

The panel heard from members of the city of Charlotte's Economic Development department that analyses have shown that transit does not drive additional growth in the already developed central city core. This is because the density of uses, people, and amenities already there makes its own market and creates its own demand. Convenient access to that developed city core is valuable, but only as valuable as the destination it serves.

Indeed, transit-oriented development—dense, mixed-use development around transit stations—is highly desirable. But it is only possible where market demand for that location already exists. For the purposes of this analysis, the panel's focus is on the proposed Silver Line stations that have the most potential for reinvestment. In many cases, a community needs assessment, a mixed-income housing strategy, and the creation of an investment strategy task force would help guide TOD around these stations.

First Ward

This part of First Ward has experienced greater disinvestment than other areas of the city. While some initial reinvestment has occurred, potential key redevelopment sites exist.

- A key redevelopment opportunity in this area is the CATS North Davidson Bus Maintenance Facility and Administration Building and its possible relocation. If the facility were relocated, the large, publicly owned site offers transformational redevelopment possibilities and a key location near LYNX transit lines and Uptown. This could create an important new center of activity and reinvestment on the Northside.

- Commercial development potential of the site would be enhanced by better north–south connections for pedestrians. Highway I-277 presents a significant barrier that effectively isolates this neighborhood from the activity and “value vector” of Uptown.
- A mixed-income housing strategy is important to include at this location, given the affordable housing stock and high level of social services in this area.
- Given the complexity of mixed-use and multimodal developments, public investment and incentives are likely necessary to realize the quality this project deserves.

Morehead Station

The Morehead station serves ridership mobility to entertainment venues Bank of America Stadium and BB&T Ballpark. While regional transit service to such large entertainment venues is unquestionably valuable from a mobility standpoint, the surrounding land development will be driven far more by those anchors than by a light-rail station. These land uses and venues drive surrounding business opportunities, which are less dependent upon the advent of light-rail service to encourage real estate investment. Opportunities include the potential redevelopment of the Pipe and Foundry site and a potential new football stadium site.

These parcels are also isolated by I-277, and redevelopment in the area is best addressed by enhancing connections to Uptown for pedestrians, bikes, shuttles, and the like. Monitoring area landownership changes will facilitate coordination opportunities.

11th Street

Development opportunities exist in the Northside if there is a willingness to create a collaborative spirit between public and private landowners. Development synergy is based on several factors, including government regulation, market conditions, access to capital, political support, public support, equity, access to the infrastructure system including dry and wet, and benefit. Access and circulation are key to ensuring development sites are viable to provide community amenities and ensure a reasonable return on capital to the investor.

Gateway Station

Historically, cities have evolved around the central square as the town center and focal point of the local community. Similarly, train stations (i.e., “Union Station”) and bus depots have functioned as a location for commerce and transportation. These hubs form a framework for potential economic activity and a focal point in the city today.

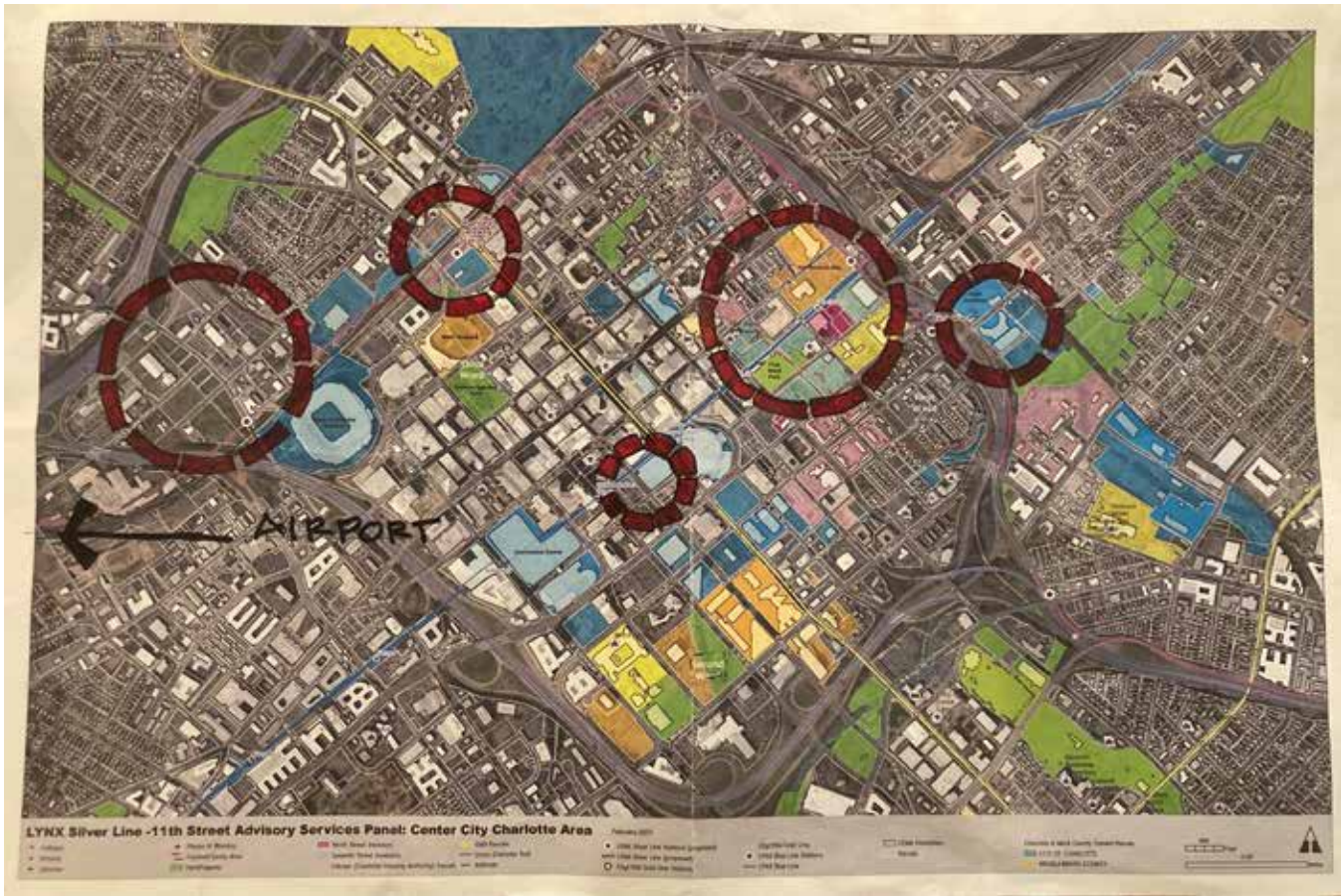
Gateway Station offers a placemaking opportunity for the west side of the central city, as well as a regional mobility hub with Amtrak and the possible expansion of the Red Line and potential future regional high-speed rail into Gateway Station. This station provides good upside for economic growth in the area if properly conceived.

- This mobility hub has the potential to become Charlotte’s “Union Station” with substantial vertical development and a strong residential component. A mix of uses is necessary to help stabilize Center City after-work activity and provide lifestyle live/work balance and amenities.
- A city-sponsored master development plan now underway will help guide its emergence as a mixed-use, multimodal (residential and commercial) transit hub. The panel strongly supports this type of predevelopment planning for such an important site.

LYNX Blue Line

The LYNX Blue Line is currently the backbone of downtown transit, with an average weekday ridership of 11,000 in 2021 during the pandemic. Pre-pandemic, the average weekday ridership was around 30,000. The Blue Line Extension that stretches through Uptown is invaluable.

Access to convenient transportation helps facilitate mobility throughout a community with clear benefits to central city circulation, congestion, air quality, business access and support, economic viability, and housing and employment. It can be argued that the opening of the Blue Line in 2007 had a catalytic effect on an already burgeoning residential, commercial office, and retail market in the South End. Outside the city core, land use around stations is far more influenced by the amenity of a frequent-service transit station. Assuming station locations are suitable for development, similar benefits can be expected over time on the Silver Line.



DARRYL JONES

The Silver Line is likely to launch catalytic investments in residential, commercial office, and retail markets centered on station locations.

Charlotte Transportation Center

The Charlotte Transportation Center (CTC) bus depot offers an opportunity to enhance its presence as a mixed-use node in Uptown. As one of several transit activity nodes across the city, each with its own individual character and purpose, it should be envisioned with greater aspirations for providing transportation services for residents, employees, and visitors as a first phase.

Vertical, mixed-use development opportunities are currently underway as part of a recently awarded RAISE grant that incorporates a new CTC. The creation of a site development master plan would expedite the procurement process for key industry sectors.



11th Street Alignment: Strengths and Challenges

BY THEIR NATURE, aerial stations are a challenge to accessibility. A 20-foot-plus grade separation between the Ninth Street Station and the 11th Street grade requires stairs, elevators, and escalators. When there are maintenance issues, redundant elevator access complicates accessibility to the station. Equally important, aerial stations require great attention to design to address weather conditions and minimize loitering that can prompt safety concerns.

Planned 11th Street Station

The proposed 11th Street station is an aerial station site situated about one city block north of the Blue Line's Ninth Street Station. The station access is situated on 11th Street, in an automobile-dominated environment that demands more pedestrian-friendly infrastructure. The 11th Street station would be a designated multimodal mobility hub, the sole transfer point between the Silver Line and the Blue Line, and a bus transfer point. Yet the 11th Street station poses a challenge for accessibility: the station is separated both vertically and horizontally from the Blue Line Ninth Street Station, with a multistory grade differential of about 50 feet and another 300-foot walk to the Blue Line's Ninth Street Station.

Current plans would have three transit stations within three blocks of each other: the 11th Street station and First Ward

stations planned for the Silver Line, and the existing Ninth Street station on the Blue Line. The 11th Street and First Ward stations are envisioned as primary points of access for work trips to the downtown.

As planned, the 11th Street station must also provide seamless and convenient transfer access to the Blue Line Ninth Street Station. This is 50-plus feet below the grade of the 11th Street aerial station, and one block north of the platform.

The disconnect between the 11th Street and Ninth Street stations as currently planned poses a significant barrier—especially since estimated ridership figures show that nearly 40 percent of projected Silver Line riders are expected to transfer for jobs in Center City Charlotte via the Blue Line. Given the horizontal and vertical distance between the two

platforms, plus wait times to connect to the second train, this will clearly be a challenge to attract ridership, particularly during inclement weather. Ideas have been floated regarding creating a semi-enclosed environment connecting the two stations to accommodate customers making the transfer. Over time, such a space has the potential to become a security and maintenance issue.

From a customer perspective, a seamless rail-to-rail or rail-to-bus transfer is paramount when it comes to customer service. A challenging transfer will especially present obstacles to a choice rider—which in today’s COVID environment is an additional challenge to attracting new, or returning, transit riders.

The panel believes that this station connection is so critical to securing ridership on the Silver Line that if not exceptionally well designed and executed, it could put the viability of the entire project in question. Toward that effort, the panel suggests consideration of the following alternative station design options:

- Create an at-grade alignment that interlines the Silver Line and the Blue Line by bringing them together and consolidates the 11th Street and Ninth Street stations.
- Establish a major transfer hub by combining the Ninth Street Station on the Blue Line and the planned 11th Street and First Ward stations on the Silver Line.

Further detail on each of the options is described below.

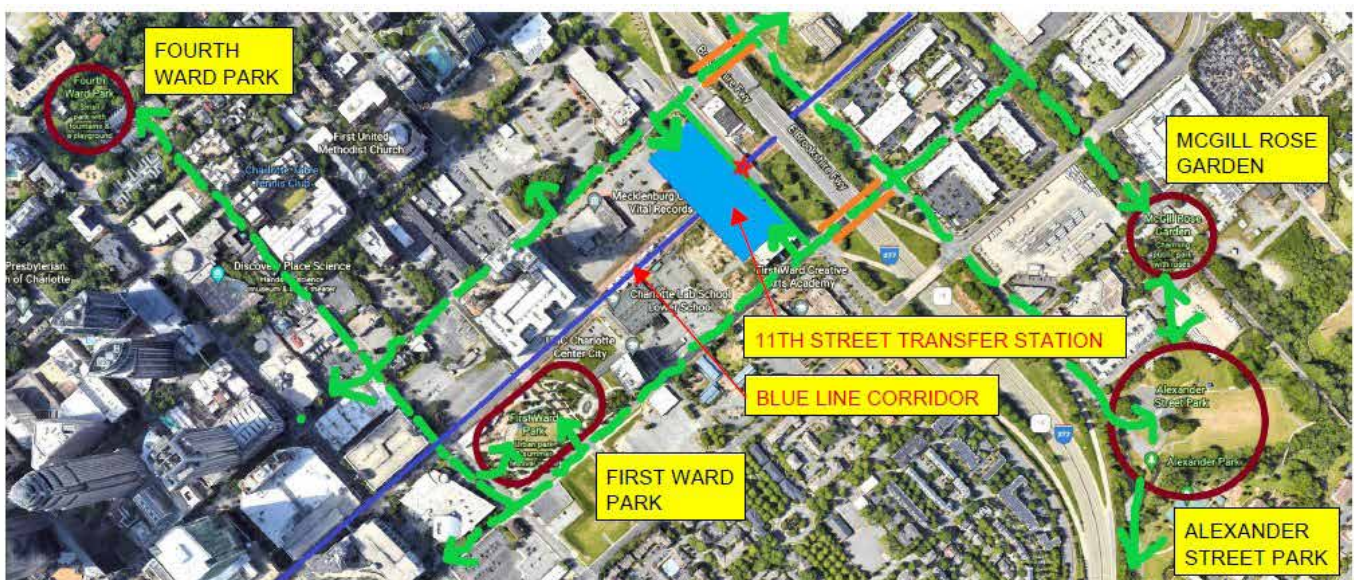
At-Grade Alignment to Interline the Silver and Blue Lines

The panel suggests exploring the feasibility of interlining the Silver Line and the Blue Line with an at-grade alignment in the ample street right-of-way between Interstate 277 and 12th Street to the north. An alternative location could be where a nonrevenue track is planned north of 11th Street. This at-grade configuration would serve the 11th Street station with the existing Ninth Street Station, where they would share a single platform. It would provide at-grade connectivity for a more seamless transfer for riders between the Silver Line and the Blue Line. As an at-grade station, the proposed First Ward Station could be maintained and still be a catalyst for future TOD.

At-grade stations provide seamless and convenient access for pedestrians, as well as users of bicycles and scooters integrating from trails and sidewalks. Although above- or below-grade separated stations can both be successful when thoughtfully designed, from a development perspective, at-grade stations on light-rail systems are more amenable to TOD.

Combining Three Stations to Establish a Major Transfer Hub

Given the physical proximity of the Blue Line Ninth Street Station and the planned Silver Line 11th Street and First Ward stations, another option to consider would be combining these three stations to create a major transfer hub. This



The city has been investing in new walking and biking infrastructure into and through Uptown to the Northside.

option maintains the current alignment, but combines station locations. The cost savings of the merged stations could be used to create this mobility hub/transfer center. While this station would admittedly be more complex and costly than any other on the line, given its strategic importance to the line, it would be well worth the investment to improve transit customers' experience.

The steps to create this major transfer hub involve the following:

1. Relocate the Ninth Street Station by moving it north one block to 10th Street and directly underneath the 11th Street station. The Ninth Street Station would remain below grade, but this relocation would provide more direct access to the 11th Street platform.
2. Combine the 11th Street station and First Ward aerial station platforms to shorten the horizontal distance between stations. Provide direct access to the relocated Ninth Street Station at the western end of the platform.
3. Provide direct aerial connectivity to the 11th Street platform with high-quality elevator/escalator access.
4. Establish a bus transfer hub as part of the station to encourage additional activity. Add an open-air structure under the 11th Street platform to provide an environment that is perceived to be safe for transfer access to bus and alternative modes.

Developing a Public/Private Partnership for TOD

No matter which station design option is selected, making the 11th Street station part of a vibrant mixed-use destination offers a much higher probability of attracting riders. Ideally, the panel would like to see the station design and operation take the form of a public/private partnership integrating transit services with private development on adjacent land parcels.

This public/private partnership could also help unleash the plethora of potential TOD opportunities within a quarter-mile walk of the current and planned stations. There is a successful mixed-use TOD site immediately southwest of the Ninth Street Station. In addition, to the northeast of the Ninth Street Station is a partially completed 1,400-space parking garage that has been sitting vacant for several years. The garage is the result of a prematurely conceived lower-density multifamily wrap concept that began with the initial construction of the garage and has been on hold for some time. The site is reportedly being reimagined as higher-density multifamily TOD.



To the northeast of the Ninth Street Station is a partially completed 1,400-space parking garage that has been vacant for several years.

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Without development on the garage site, the potential for this zone to be stigmatized by an abandoned building could overshadow any other TOD development opportunities and negatively affect the county's ability to have a successful request for proposals on its property known as the Hal Marshall site, which sits across the Blue Line to the northwest. A public/private partnership would particularly foster the opportunity to establish a prime transit-oriented development site around the partially developed parking garage.

In the area around this station, the limited number of large landholders minimizes the painstaking land assembly that usually must take place with TODs. All property owners would be expected to have a shared interest in the future location of the stations as a catalyst for TOD investment. CATS, the city, and the county could pursue a master plan for the Blue Line/Silver Line station vicinity to plan for growth and density, maximize community benefits, and enhance mobility and sustainable use of the land. The private sector can play a leading role in creating livable, rail-oriented communities adjacent to the stations. A variety of residential housing types and tenures representing a mix of price points can also support new development and ridership as well as creating a complete neighborhood.

A public/private partnership has several upsides, including improved accessibility, moving a stalled project forward, partnering development opportunities with the developers and the county, and timing for a commitment to implementing the 10th Street extension. CATS and other city partners should maintain communications with the property owners to catalyze the potential for TOD.

Strengthening Neighborhood Connectivity: Links to the Northside

It is no secret that Interstate 277 is a barrier to neighborhood connectivity and access between Uptown and the Northside. The panel strongly encourages prioritizing strong, direct links to knit neighborhoods together and provide better connections, regardless of the ultimate Silver Line alignment.

Strong links that remove physical barriers and expand opportunities will have far more influence on the development of this site than a transit stop. Access and circulation are key to ensuring development sites are viable to provide community amenities.

Prospects to build these connections include the following:

- A bicycle/pedestrian bridge traversing the I-277 freeway. This bridge would be comparable to the planned Rail Trail Bridge connecting Uptown and South End over I-277 from the CATS Blue Line Stonewall Station to the terminus of the existing Rail Trail under the East Morehead Street bridge.
- A proposed freeway “cap” over I-277 between 11th and 12th streets as part of the recently completed Silver Line TOD study. This concept has also been proposed in a variety of Charlotte’s previous planning initiatives over the decades. To make the larger station area a destination, this cap could also be expanded westward between College and Ninth streets, and north of the First Ward station to 12th Street.

Design Strategy for an Essential Link: The 11th Street Station

The city of Charlotte and CATS have committed cohesive station and streetscape design standards as part of the Silver Line planning documents. The panel recommends formulating an urban design strategy that clearly responds to the city’s land use and economic goals and identifies specific options for Silver Line station sites and surrounding streetscape.

The following suggested design strategies can help deliver high-quality urban spaces that promote transit use and integrate stations within the urban fabric.

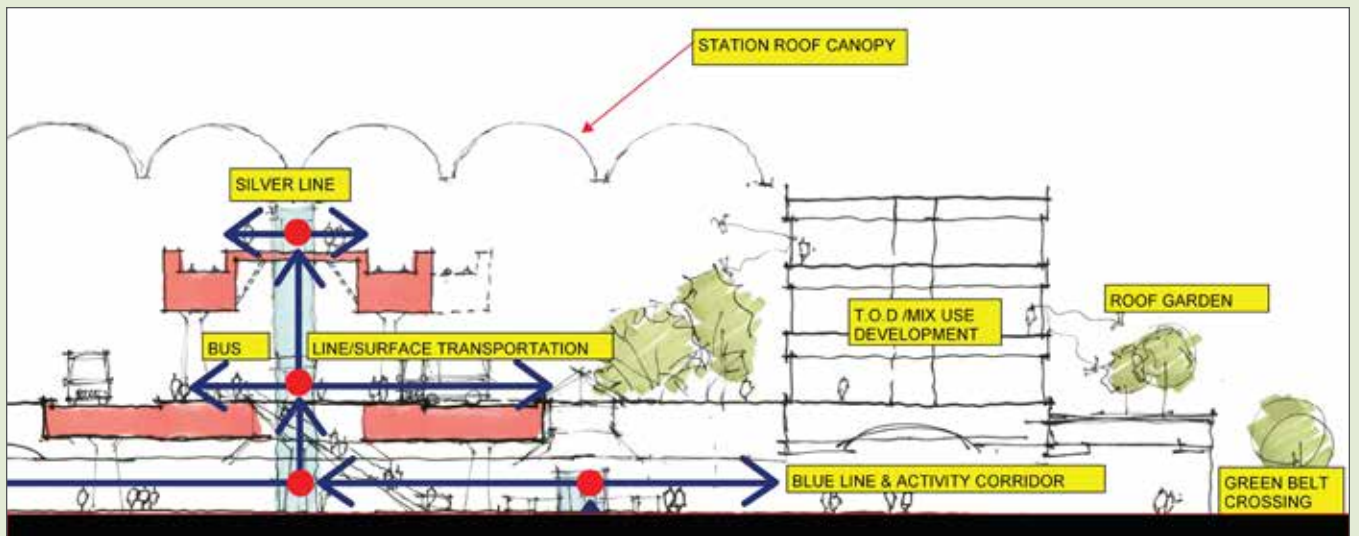
A Sense of Place: Use placemaking to strengthen the role of the Silver Line train stations as symbolic centers of the city and nearby communities. Think of stations as active and economically viable transportation hubs with character and a sense of place.

- Implement a practical, yet a memorable station placemaking that responds to the integrated area planning for the First and Fourth wards.
- Give prominence and visibility to the site, but also be a good neighbor to adjacent sites.
- Celebrate Charlotte as a conglomerate of different ethnic, cultural, and architecturally diverse neighborhoods.



The Silver Line offers opportunities for memorable station placemaking that responds to the integrated area planning for the First and Fourth wards.

GUILLERMO AGUILAR



Combining the Blue Line Ninth Street Station and the planned Silver Line 11th Street and First Ward stations to create a major transfer hub would be well worth the investment to improve transit customers' experience.

GUILLERMO AGUILAR

Architectural Features: Develop specific guidelines that address architectural issues such as building details, materials, color palette, windows and storefront, signs and graphics, and so on, that will be compatible with the existing fabric and architectural character of the area.

- Avoid blank facades that are uninteresting, alienate pedestrians, and cause security issues.
- Create signage, paving patterns, and landscape design features that guide and direct people to the site.
- Design graphics and text with illustrations that depict “encouraged” or desirable elements and “discouraged” or undesirable elements.
- Use design features to define the street edge and mitigate the impacts of vehicular traffic.

Inviting Pedestrian Environments: Buildings near the transit stations should be designed with architectural features that are inviting to pedestrians. Building facades that exhibit variations in form and texture contribute to a human scale of experience that relates well to the pedestrian perspective.

- Prioritize planning for the access and mobility needs of seniors and people with disabilities.
- Enhance safety with environmental design features that activate the site and increase passive surveillance.

- Provide easy access to platforms, elevators, escalators, etc.
- Design for open floor plans with visible escalators and stairs. Consider glass elevators.
- Design streets in the vicinity of stations for safe and efficient mobility of transit users, cyclists, and pedestrians while also providing for smooth vehicular flow.
- Avoid further widening of streets and provide a continuous network of sidewalks and pathways.

Transit-Oriented Development: Design station facilities to create a welcoming environment for the users and encourage them to spend time in the area. Creatively designed plazas, street environments, and outdoor structures; provision of restrooms and seating areas; safe and comfortable rail/bus shelter interface; parking areas and accessible facilities will help create a more inviting environment in and around the station sites.

- Encourage design guidelines and development principles appropriate to each site and context that can be incorporated into future development agreements such as transit development agreements.



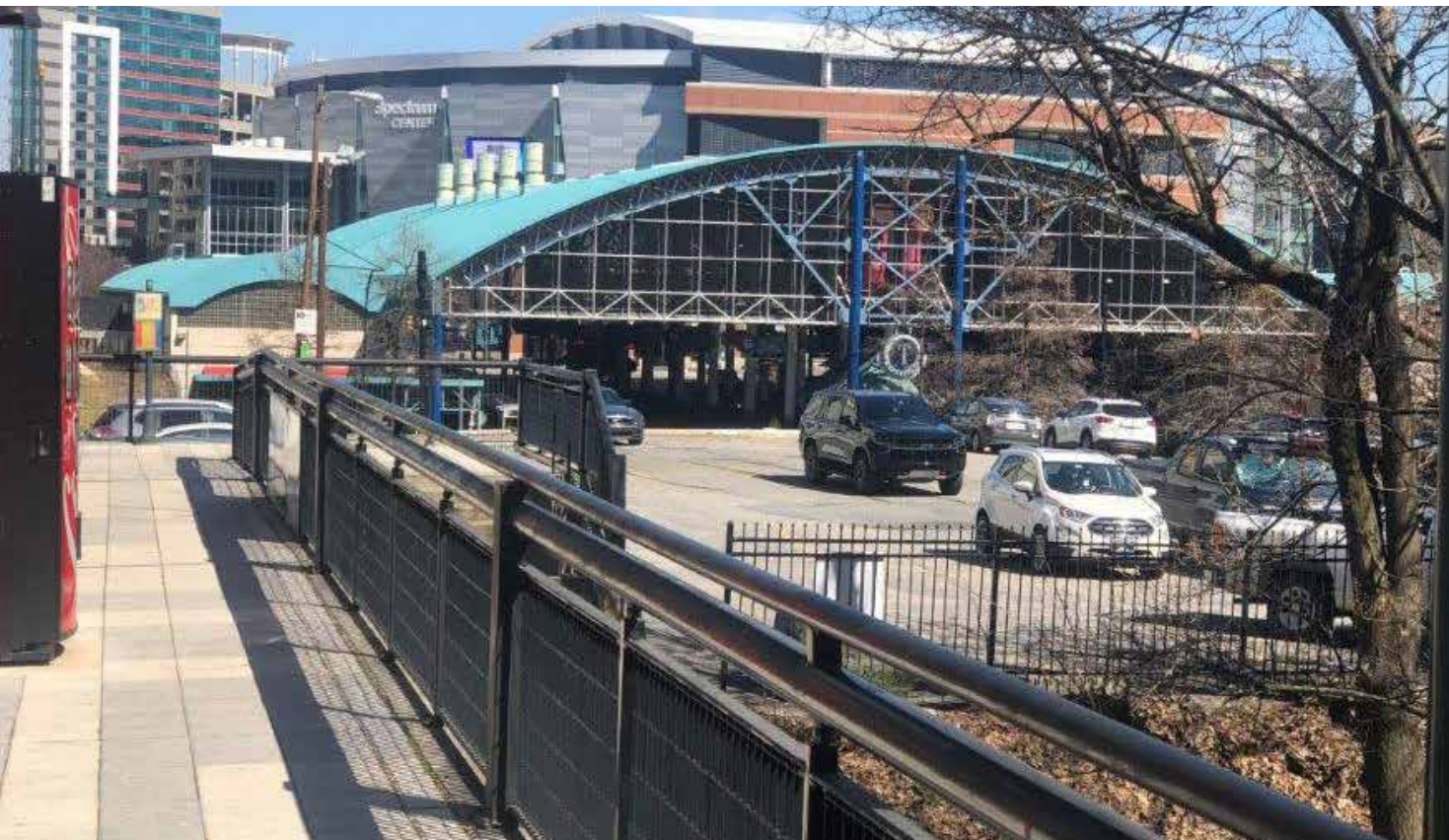
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Transit stations should be designed with architectural features that are inviting to pedestrians.

- Evaluate on-site as well as contiguous off-site conditions with respect to streets and block patterns, view corridors, building setbacks and relationships to adjacent properties, streetscape elements, landmarks, and pedestrian movements.
- Promote the local economy with fun and inviting activities such as walking/riding tours at specific stations.
- Promote land uses such as unique tourist boutiques, restaurants and cafés, art galleries, and the like. Also consider such land uses as community theaters and music clubs to attract visitors and create after-work activities.
- Develop a pedestrian/bicycle linkage system to help define the area in and around the 11th Street station with entry treatments, pavement textures, and landscape elements. Integrate existing nearby parks in an 11th Street Station Area Master Plan.
- Engage the city and nonprofits in arts programs and funding to enhance the stations.
- Install plantings indigenous to the area to attract certain species of birds and other urban wildlife.
- Use plant materials high in oxygen output to provide visual and sound buffers.

Landscape Architecture: Address streetscaping as an integral part of any multimodal transportation plan for the transfer station. Incorporate foliage, art, and aesthetic experiences using landscaping, lighting, art, and signage.

Sustainability: Seek opportunities to address sustainable design, such as stormwater management, energy efficiency, water efficiency and conservation, and resource efficiency.



Alignment Alternatives: Silver, Blue, and Gold

IN CONSIDERING 11TH STREET versus other potential alignments, the panel took a practical approach. Funding is critical to move the Silver Line forward. While much of the current focus is the referendum that will be required to provide the local funding contribution (discussed in the next section of this report), it is important not to lose sight of the upcoming hurdle to obtain the necessary federal funding.

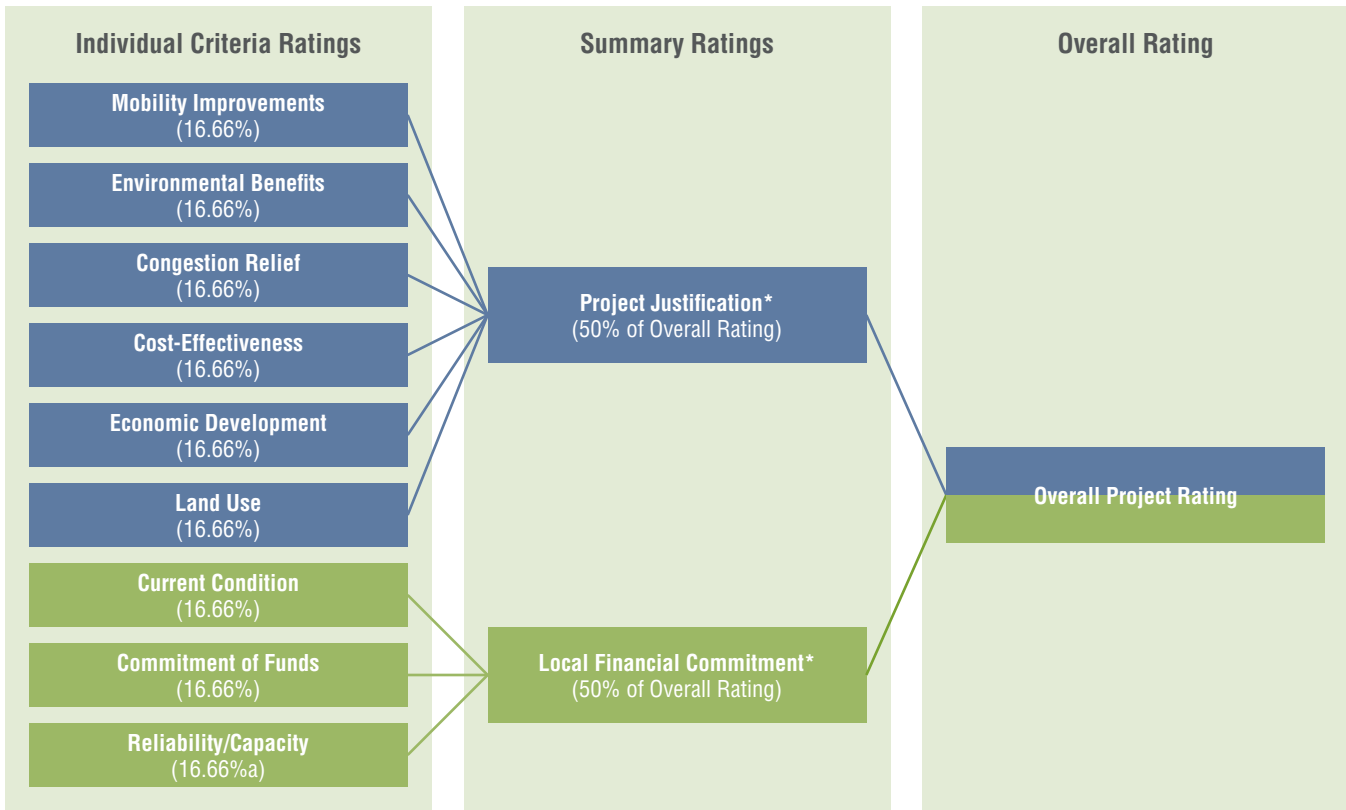
The Silver Line project is proposed to be funded by local sales tax and the Federal Transit Administration (FTA) New Starts Capital Investment Grant Program. New Starts is a very competitive FTA program, with many more projects seeking funding than available funds. To select projects that will receive New Starts funding, the FTA rates projects on a series of evaluation criteria, including six project justification criteria. Several of these criteria relate to ridership, such as mobility improvements, congestion relief, and cost-effectiveness. Although several evaluation criteria can be improved in various ways, the most critical test for the Silver Line is cost-effectiveness.

Many times, projects struggle with the cost-effectiveness evaluation, which is calculated as cost (capital plus operating) divided by ridership. Cost estimates must be very detailed and are closely reviewed, and ridership estimates must be

performed using the “STOPS” model, a specific forecasting tool developed by the FTA. FTA requires at least a “medium” rating on both project justification and local financial commitment to obtain a medium or better rating overall.

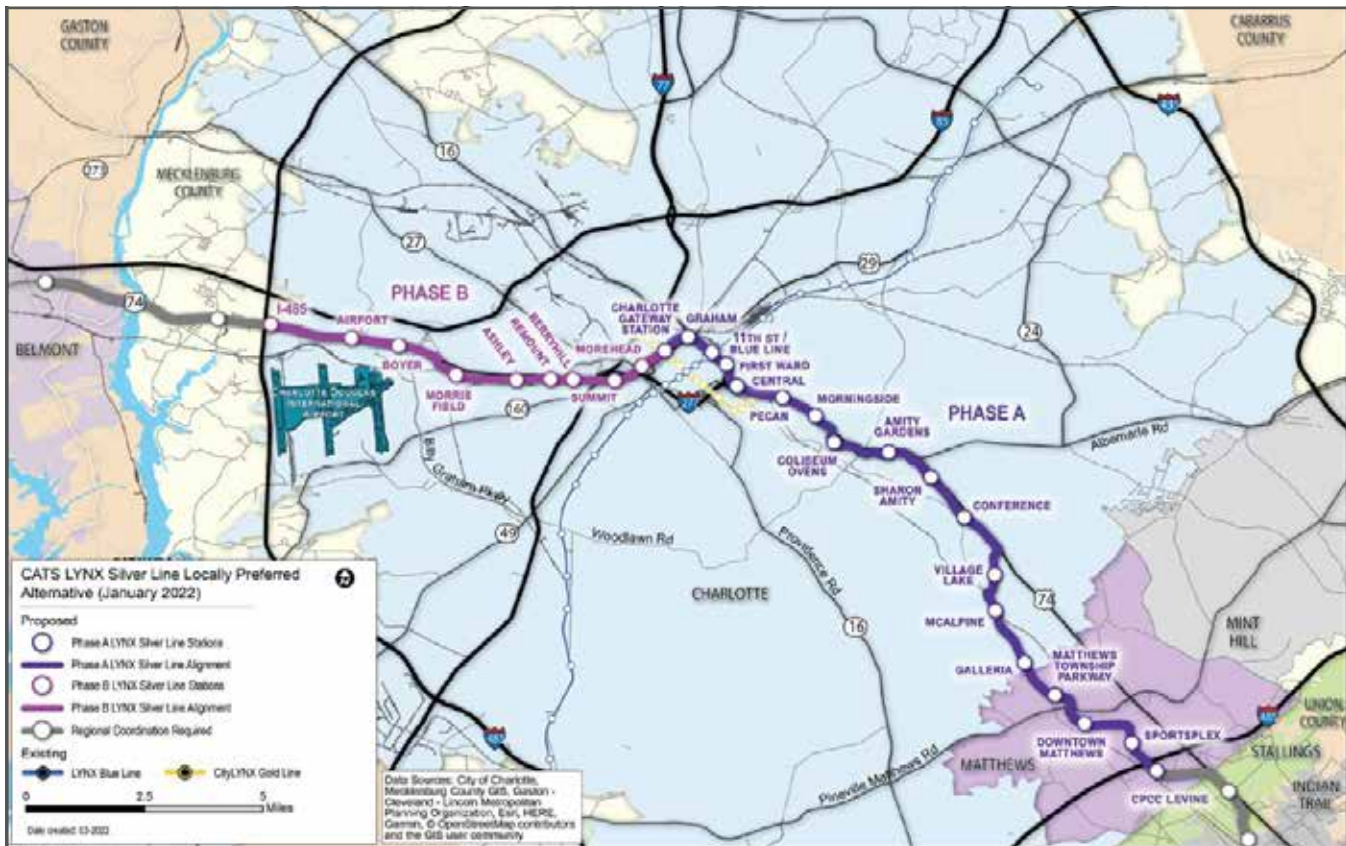
Phase A of the Silver Line, currently proposed from Uptown Charlotte to the southeast (town of Matthews), will be rated by the FTA as a stand-alone project. This southeast alignment is similar in character to the Blue Line south of Uptown and is expected to attract similar ridership. However, the preliminary capital costs of Silver Line Phase A appear to be many times greater than the Blue Line.

The panel is concerned that the Silver Line Phase A Locally Preferred Alternative (LPA) along the 11th Street alignment may not receive an overall FTA medium rating and therefore would not be able to move forward as planned.



FEDERAL TRANSIT ADMINISTRATION

*Must be at least "Medium" for project to get "Medium" or better Overall Rating.



CATS

The implementation strategy for the LYNX Silver Line will deliver the light rail in phases. Phase A is proposed to be constructed first.

To improve the cost-effectiveness of the project, CATS should consider modifications to the LPA that would increase ridership and/or reduce costs. Steps to reach this goal are as follows:

1. Perform STOPS ridership forecasts for various alignment options.
2. Perform capital cost and operating cost estimates to calculate cost-effectiveness ratings for each alignment option.
3. Continue modifying and testing the performance of alternatives to improve cost-effectiveness, balancing that evaluation with the other FTA criteria ratings.
4. Share the findings with stakeholders and the community through an effective public communications campaign.
5. Obtain consensus before recommending an LPA or phasing.

Considerations to Increase Ridership and Lower Costs on the Silver Line

The *Center City Refined Definition* final report prepared by CATS in April 2019 was a thorough, thoughtful, and qualitative assessment that started with a wide range of options and narrowed down to what appear to be the four best options:

- North End Connection (current alignment);
- Interline with Blue Line;

- Interline with Gold Line; and
- Tunnel under Gold Line.

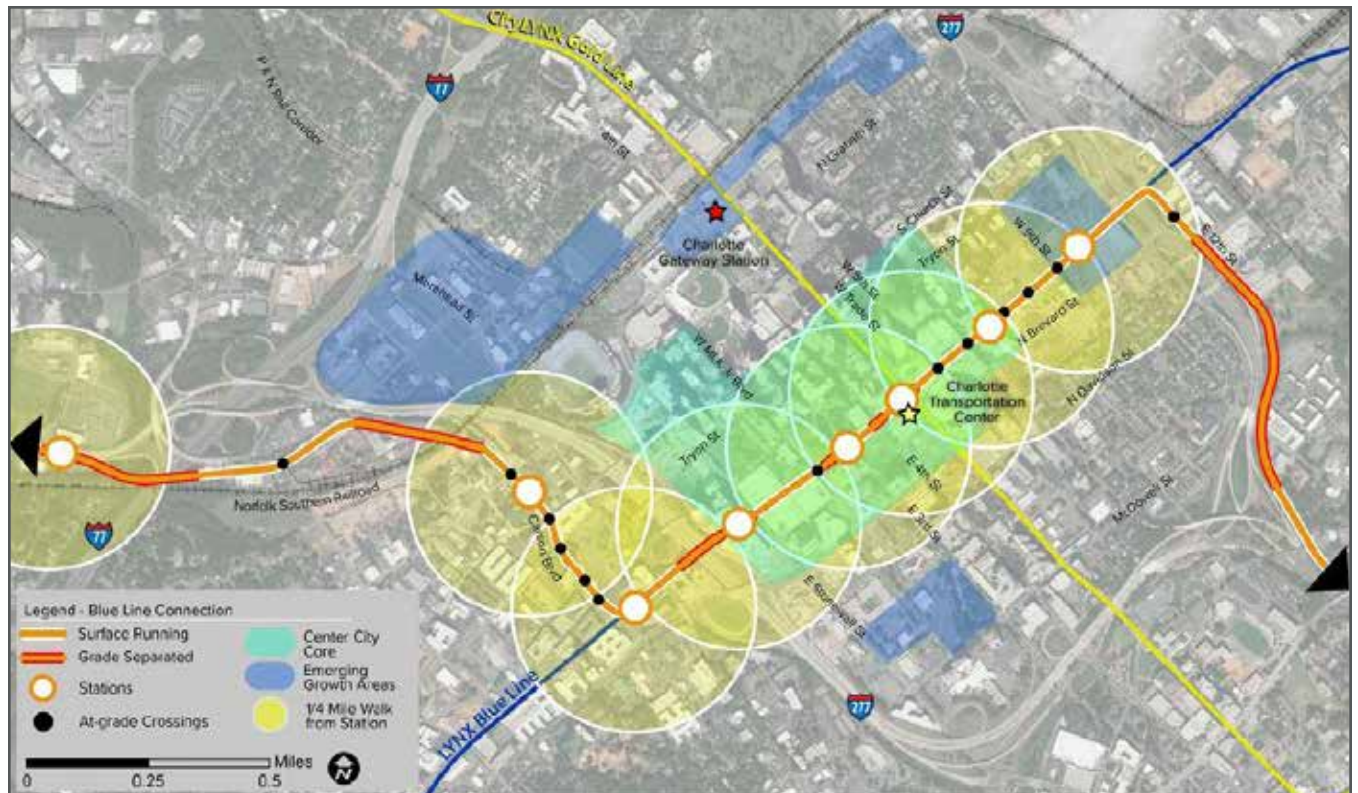
However, the report did not include cost, ridership, or estimate the FTA rating for these alignment options. The Purpose and Need Statement for the Silver Line (i.e., the goals of the project) includes:

- Providing a competitive alternative to automobiles; and
- Providing a transit system that is financially sustainable to build, operate, and maintain.

Transit ridership is the best measure of whether or not the service is successfully competing with automobiles. There are limits to the available funding, and public monies should get the best possible return for investment. However, it does not appear that cost or ridership estimates were performed before selecting the Silver Line alignment through Uptown. Additional considerations to increase ridership and reduce costs are described below.

Interlining the Silver Line with the Blue Line

A Silver Line/Blue Line Interline option through Uptown stands to improve cost and ridership substantially for a competitive FTA rating.



A Blue Line Connection alignment has the advantage of a comparatively low cost due to use of existing infrastructure.

The current Silver Line LPA connects the west corridor with the southeast corridor in Uptown. Instead of running through the center of Uptown, the Silver Line follows the outside ring of Uptown along the northwest boundary (the Norfolk Southern Railroad) and the northeast boundary (the I-277 Brookshire Freeway). This alignment, referred to as “the North End Connection,” is depicted on the accompanying figure. For much of this alignment, the LPA is aerial, which is expensive and further reinforces these boundaries.

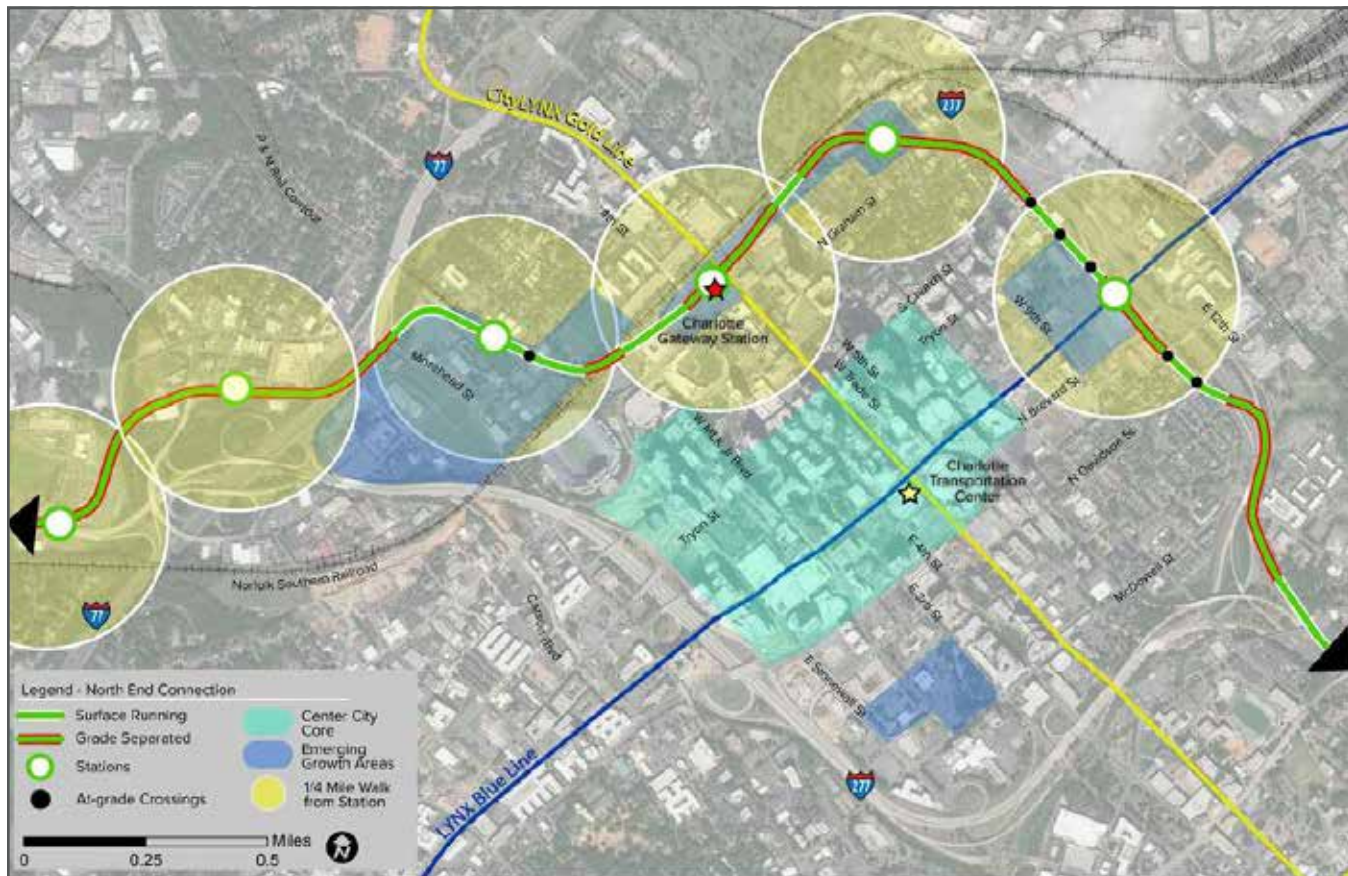
Stations along the edge of Uptown, as well as between Uptown and the surrounding communities, will be aerial, which makes them expensive, difficult to access, difficult to secure, dependent on elevators and escalators that are expensive to maintain and disruptive when out of service, and adjacent to the freeway, thus very noisy (i.e., not a convenient or comfortable environment to wait for the train). The barriers next to these stations will also affect potential development.

The Blue Line serves Uptown effectively with five existing stations (Ninth Street, Seventh Street, Charlotte Transportation Center, Third Street/Convention Center, and Stonewall). The

Blue Line is in a straight, exclusive guideway with gated crossings. The advantage of gated crossings is that the train has priority over vehicular traffic. Unlike the Gold Line, which has to wait at traffic signals just as any other car, the Blue Line is not held up by vehicular traffic. The Blue Line is currently restricted to a 7.5-minute minimum headway (a 15-minute headway on the Blue Line interlined with a 15-minute headway on the Silver Line) because of the current traction power system. The traction power system could be upgraded to accommodate reduced headways. Third and Fourth streets would be most affected by crossing gates coming down twice as often as they are today, but this does not appear to be a fatal flaw.

The following are primary advantages of interlining the Silver Line with the existing Blue Line to serve Uptown:

- The infrastructure (track, protected roadway crossings, and five stations) is already built—no additional capital cost and no further construction (and construction impacts) would be required.



The North End Connection alignment creates potential additional capacity for future rail expansion, but also has a high cost associated with significant structures and right-of-way acquisition.

Which Systems Interline? Which Do Not?

In fact, all of these major transit systems interline. The panel suggests exploring the feasibility of interlining the Silver Line and the Blue Line to create a more seamless transfer for riders and boost ridership.



- Commuters from outlying communities and from the airport would have direct access to five existing stations in the center of Uptown (the most intensive trip generation in the region).

The primary disadvantage of using the existing Blue Line:

- The Silver Line would not directly connect to Gateway Center, the Panthers Stadium, and the Pipe and Foundry development site.

Interlining the Gold Line (Trade Street) with the Silver Line through Uptown is another possibility that was studied extensively in the *Center City Refined Definition* final report. However, this does not seem to be a viable alternative. As CATS has determined in its assessment, the Gold Line's infrastructure could not support the Silver Line's requirements for speed and reliability without significant rearrangement of Trade Street traffic and Gold Line operations, which would negatively impact ridership. CATS has also noted that a Silver Line tunnel introduces significant cost and schedule risks and has construction impacts to Uptown and the Gold Line, that the tunnel portals would add barriers to Uptown, and that the tunnel would significantly increase cost.

Considerations for Where to Connect the Silver Line to the Blue Line

Connections will be needed north and south of Uptown. The *Center City Refined Definition* final report included a Silver Line alignment using the Blue Line through Uptown and identified feasible connections on either side of Uptown. Given recent development and development opportunities north of Uptown, it would be good to investigate whether an alignment further from I-277 might better serve this area.

The panel heard that the Blue Line connection shown in the *Center City Refined Definition* final report in South End may have already been impacted by development. The rapid pace of development in Charlotte is another reason why it is important to make refinements to the LPA sooner, rather than later—so that selected alignments can be protected.

Airport Connection

Charlotte Douglas International Airport is a major economic driver in the region. The airport itself is a key employment center. It is growing and already the sixth busiest in the nation, with over 27 million passengers flying annually.

One of the most powerful opportunities the Silver Line offers the region is linking the airport as conveniently as possible to the other economic center of the region, Uptown. A direct transit connection between the airport terminal and the front door of city center businesses attracts both national and international business, critical to the long-term continued vitality of the city.

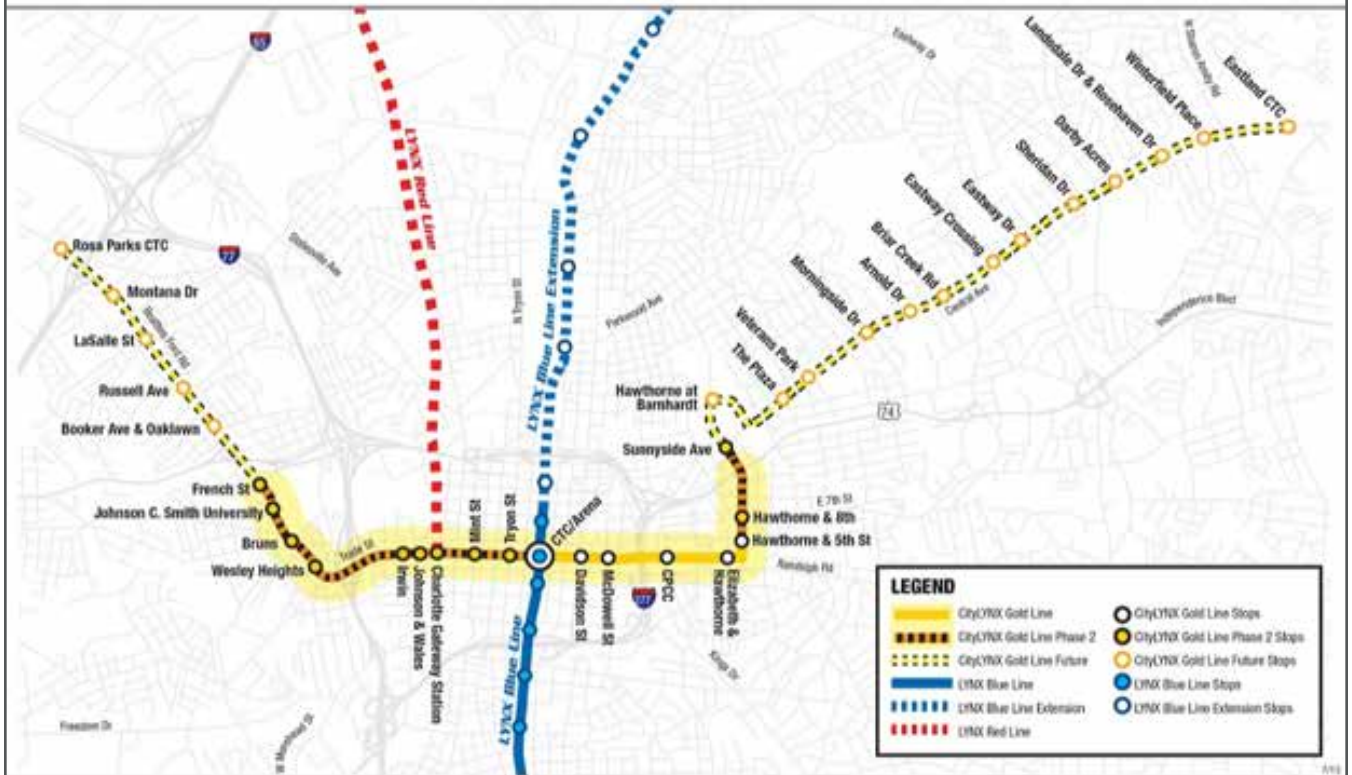
The airport has ambitious plans to expand and bring greater travel options for business and leisure travelers within Charlotte, as well as visitors and tourists. In support of this, the panel strongly urges CATS to reprioritize design and service of the airport link. Although cost and design challenges exist, the economics of airports plus their outsize impact on the local economy make it well worth the investment. The key is to put rail as physically close to terminal entrance as possible to minimize passenger walking distances, eliminate or minimize transfers, and offer superb service levels.

Reconsider adding the airport to Phase A. Including the Charlotte Douglas International Airport as a key destination served by the Silver Line Project could make the difference in obtaining an FTA New Starts grant. The decision to defer the airport connection to a later project phase could make achieving an overall medium FTA project justification rating difficult. It may also be very politically popular in a referendum to provide light-rail transit service to the communities west of Uptown as part of the initial phase.

Charlotte's rail plan is a series of spokes radiating from its strong center city. The Silver Line will operate as a regional commuter service from the outlying areas to the center. The Silver Line connects the west spoke with the southeast spoke.

Reconsider alignment options to directly serve the highest trip generators and avoid transfers to maximize ridership. The connection between Uptown, the Airport, and the surrounding communities will make Silver Line a strong performer.

The CATS May 2021 Silver Line fact brief "Connecting to Charlotte-Douglas International Airport" favors an automated people mover to connect Silver Line travelers to the airport, rather than a light-rail station at the main terminal. However, the panel recommends that CATS invest time to prepare detailed cost and ridership estimates for both potential options and then evaluate the LPA based on these findings.



CATS

The Gold Line is a great route for east–west mobility within and beyond Uptown.

The panel has the following recommendations for an airport connection:

- Reconsider the decision to make the Silver Line west of Uptown and to the airport the project’s second phase.
- Reconsider the Silver Line Airport Station on Wilkinson Boulevard with the required transfer to a separate people mover to the airport terminals. Any consideration of bringing the Silver Line directly into the airport terminal needs to be weighed with the ability for the Silver Line to continue to the west serving I-485 and Gaston County.
- Further investigate options to bring the Silver Line connection directly to the terminal, with an adjacent transfer station to allow the line to service riders traveling south.
- Work with the Federal Aviation Administration to address applicable Silver Line access/connections.

- Coordinate with airport operations and security staff on light-rail line access.
- Develop a funding and implementation strategy.

The Gold Line

The Gold Line is a great route for east–west mobility, connecting strong and important trip generators within and beyond Uptown. It has excellent siting and proximity with its routing in the Trade Street alignment.

What is lacking? Reliable, frequent, and fast service—and therefore, ridership. Adjustments must be made to improve daily ridership from the current 400 riders per day. The following quote that the panel heard resonated: “Who has the time to ride the Gold Line?”

People are busy and are making decisions throughout the day on how to best make use of their available time. On a

streetcar, average distances traveled are short. The Gold Line is not only competing against the car, but also competing against walking, biking, shared mobility devices, and ride-hail services such as Uber and Lyft.

Given the community's significant investment in this asset, the Gold Line should be made a priority, with dedicated street space, signal priority, and frequent service. Additional streetcars need to be put into service, and they need to move faster. Speeding up service on the Gold Line not only directly benefits the riders, but it also means that fewer streetcars need to be in service to achieve a given headway. Dependable service with extended hours would accommodate downtown third-shift workers.

Improving the performance of the overall service level and efficiency on the Gold Line is also a necessary building block to restoring trust in CATS to deliver.

Recommendations to increase ridership on the Gold Line:

1. Provide traffic signal priority over cars on the cross streets to shorten travel times and make it more efficient.
2. Make adjustments to improve run-time and schedule reliability.
3. Put more streetcars into service to provide 10-minute headways or better.
4. Extend service hours to accommodate downtown third-shift workers.
5. Extend the Gold Line to CATS's busiest bus route.
6. Publicize the changes to encourage ridership.



Next Steps: Positioning for a Successful Referendum

THE FOCUSED STUDY AREA for the panel is in the city of Charlotte, and the LYNX Silver Line would cross regionally through three counties. However, it is Mecklenburg County voters who will consider the referendum to support the CATS 2030 Transit System Plan.

A proposed new one-cent sales tax, approved through a voter referendum, is a planned revenue source for the Silver Line, bus service improvements, and transit expansions. This new sales tax would be over and above the initial half-cent sales tax approved by voters in 1998. The result: a cumulative one-and-a-half-cent sales tax for transit in Mecklenburg County, with no sunset date. This increase in the local sales tax, from 7.25 to 8.25 percent, is expected to yield about \$6 billion over 30 years.

Mecklenburg County has enjoyed success with past referendums. In 1998, county voters passed by a 58 to 42 percent margin an initial referendum to support transit funding with a one-half percent sales tax. Nearly a decade later, in 2007, county voters confirmed a challenge to the sales tax on an appeal by a 70 percent margin.

Nevertheless, the outcome for any referendum is always challenging to gauge. Elements outside a community's control can affect the outcome. Broader economic conditions such as any or all of supply chain concerns and the resulting inflation, national and global political events, unemployment, or the price of gasoline can influence voters. Direct financial impact for families can also swing voters one way or another.

Successful referendums have some fundamental ingredients:

- A package of projects that have been vetted across the community;
- A community benefit and clear value proposition;
- Backing by strong and diverse coalitions made up of business leaders, civic activists, and a broad range of interest groups;

- Broad-reaching and disciplined engagement and communications; and
- A foundation of trust and transparency.

Because of these outside influences, local factors—those that are within Charlotte’s sphere of influence—must be solidly grounded for a positive outcome. Voter approval of a referendum can be achieved again, but a reset is important to ensure success.

Three key steps will help advance a successful referendum:

1. Secure authorization from the state to proceed.
2. Craft communications carefully to promote the referendum.
3. Implement equitable outreach to build support.

Be aware that asking voters to approve a one-cent sales tax—on top of the existing half-cent tax—is a heavy lift, especially for the lower-income communities of Mecklenburg County. An additional one-cent sales tax would raise the total sales tax burden in Charlotte to 8.25 percent. It will be important to structure the ask in a balanced way—and to match the ask to the community’s appetite for support. An incremental approach, with sunset time frames to demonstrate timely accountability, is important to consider.

Secure Authorization from the State to Proceed

The initial key step to get the referendum on the ballot is to obtain authorization from the state of North Carolina legislature. Approval from the state legislature requires both support from the regional delegation and buy-in from the region.

Once the North Carolina General Assembly authorizes Mecklenburg County to hold a referendum, developing a robust public engagement plan for widespread support will be important.

Craft Communications Carefully

A carefully crafted message that reflects voter priorities will be essential for the referendum on the 2030 Transit System Plan. In the stakeholder interviews, the panel heard about many experiences that could impact a future referendum.

In 2020–2022, CATS undertook extensive public engagement throughout the region for the LYNX Silver Line Project as part of the 2030 Transit System Plan, with outreach to thousands

of people through numerous virtual and in-person meetings, surveys, and workshops. Yet the panel heard from many interviewees, as well as in public statements from the Black Political Caucus, that trust in the city’s ability to manage transit has eroded significantly in recent years.

The current referendum proposal would support implementation of the entire 2030 Transit Plan—including the Red Line, Silver Line, Blue Line Extension, and Gold Line, plus sidewalks, bike lanes, greenways, and roadways. The case for the referendum must make explicit connections to the broader community vision and goals. Doing so demonstrates alignment with community values, inspires leadership, and cultivates widespread support.

Communication about the referendum to support the 2030 Transit Plan should describe a package of financially feasible and community-supported projects. Messaging should demonstrate value—including service to underserved communities, economic development opportunities, environmental improvements, and service enhancements.

Specific items to consider when developing communications to promote the referendum, based on what the panel heard in the stakeholder interviews, include the following:

Be direct and transparent about the future of the Red Line.

The Red Line, serving communities to the north, was contemplated in the initial referendum 25 years ago. It has not been constructed because Norfolk Southern still controls the property. Mecklenburg County leaders have attempted to negotiate with the private rail company for decades and have recently renewed talks.

Discuss how to implement excellent transit service on the Gold Line. Consider options such as removing or limiting cars on the street to reduce the obstacles.

Be intentional and clear about the future service of the Gold Line extension. The extension of the Gold Line along Central Avenue would provide service to communities where many essential workers live that travel into downtown each day. This is an equity issue that should be addressed head-on.

Set the Silver Line up for success. Strong Silver Line support is needed in the community, for both the referendum and for subsequent FTA approval. Despite recent broad and extensive public engagement efforts, CATS needs to ensure that stakeholders support the value that the Silver Line brings to the community.

Implement Equitable Outreach

With deliberate messaging in place for the referendum, implementation should be disciplined and focus on equitable outreach throughout the community.

Implementation must start with strategic engagement by developing strong partnerships with the business community and community leaders. Business leaders are a key constituency to bring to the table for the referendum, provide financial support for a referendum campaign, and share a network of business insights.

Community buy-in is critical for the referendum, especially a granular level of engagement from activists, the creative community, neighboring businesses and institutions, and representatives of ethnic and racial groups.

Key elements for referendum outreach are as follows:

An intense and robust engagement program. Reengage with business leaders; bring civic and community leaders to the

table. Reach out to cities, communities, and elected officials throughout Mecklenburg County. Consider the following:

- A diverse leadership steering committee to advise on project prioritization, potential development opportunities, and equity concerns and to provide a network of eyes and ears on community input. Include representatives from the arts community and diverse ethnic and racial representation.
- A speaker series to reach out to churches, nonprofits, and neighborhood associations.

Outreach via broadened community engagement and social media. Clearly articulate the value of the 2030 Transit Plan and the appropriate level of funding. Mecklenburg County, like many other communities, has multiple transportation agencies. Make certain that all the agencies are on board with the same message. Messaging is critical so that different constituencies understand the value proposition. Consider hiring outside experts to direct this initiative.



Conclusion

THE SILVER LINE is important to the future of the city of Charlotte, Mecklenburg County, and the region, offering a 29-mile opportunity to integrate equity in Charlotte. With major job growth expected in the southeast corridor over the next 30 years, the strategic development of the Silver Line will reduce need to build and maintain new highways and save billions of future dollars in the economy.

CATS must prioritize a Silver Line alignment that can attract ridership at a level that justifies the cost. The residential potential along the corridor exists. However, a strategy is needed to draw people to choose transit, getting them into the stations and onto the trains.

The city of Charlotte must also prime Uptown to thrive as the region grows. Developing Uptown as its own desirable neighborhood and remaining the regional center is a key goal.

The panel recommends that Charlotte pursue a deliberate, disciplined, and equitable transit strategy. This includes addressing equity and anti-displacement priorities, maximizing ridership, streamlining costs, and strategizing for local and

federal funding sources to support the construction of the Silver Line are among the key considerations. In addition, Silver Line stations offer important potential for reinvestment and transit-oriented development.

Perhaps most important, Charlotte must reengage with the community on the city's transit future with a foundation of trust and transparency. These efforts will pay off exponentially for residents for decades to come.

Getting the Uptown Silver Line alignment and access points right—while providing vigorous multimodal mobility circulation—will be critical to Charlotte's future.

About the Panel

Marilee Utter

Panel Chair
Denver, Colorado

President of Citiventure Associates LLC, Utter has been developing executable solutions for tough land use problems for over 25 years. She has worked in more than 40 cities across the United States and globally, bringing best practices and innovation to urban projects.

Utter is well positioned to advise regionally, nationally, and globally in real estate matters, having recently served as the executive vice president for district/national councils at the Urban Land Institute, based in Washington, D.C. For five years she managed ULI's offices in 75 cities around the world, including in Europe, Asia, and the Americas. In this role, she advised and worked with key ULI staff, government officials, economic development directors, economists, financial resources, developers, academics, urban planners, transportation directors, and other high-level professionals to encourage best practices in smart, resilient, and healthy urban growth.

Her work in the Denver region spans multiple disciplines and roles. She has served as regional vice president for the Trillium Corporation, a real estate development company; director of asset management for the city and county of Denver; vice president of Wells Fargo Bank; and TOD specialist for RTD, the Regional Transportation District.

Utter earned a BA in mathematics and French from Colorado Women's College, an MBA from UCLA's Anderson School, and a Certificate in State and Local Public Policy from Harvard's Kennedy School.

Professional affiliations include the Counselors of Real Estate designation, the Fellow of Royal Institute of Chartered Surveyors designation, member of the Urban Land Institute, and member of the International Women's Forum.

David B. Abraham

Houston, Texas

Abraham is a scholar of environmental planning and policy, specializing in sustainability planning and performance measurement. His research interests focus on developing sustainability strategies for the enhancement of living places. His research and professional experience includes transportation planning; health and well-being impact assessments from the built environment; urban forestry sustainability strategies; resiliency and revitalization community planning; and community performance metrics. He has also had experience with developing consensus-building techniques for public participation/community engagement support for the identification and delineation of planning objectives.

Abraham leads strategic planning for the Harris County Toll Road Authority. He also lectures in the Professional Science Master's program at Rice University. His work provides hands-on learning opportunities for students in various academic units at Rice University, including the Health Sciences Program, Department of Statistics, the Professional Science Master's Program, the Global Affairs Master's Program, and the Jones School of Business.

His research has been featured at workshops, keynote agendas, and conference proceedings throughout the United States and internationally in Ireland, Barbados, Brazil, Canada, and Portugal. His latest book is an edited volume titled *Best Practices for Promoting the Sustainable Development Goals in US Cities*.

Abraham is a senior fellow with the American Leadership Forum. He also serves on the city of Houston Planning Commission and Airport Commission.

Guillermo Aguilar

Dana Point, California

Aguilar has more than 35 years of experience as an architect and urban designer. He has provided architectural designs, urban master plans, transportation-related urban design, and real estate development for construction projects totaling over \$3 billion.

He has proven his knowledge, professionalism, and ability to work in various areas of architecture and the planning fields with many types of private and public institutions, including the Irvine Co., Walt Disney Co., County of Los Angeles METRO, and San Diego Association of Governments (SANDAG).

A registered architect in California, most recently, Aguilar was the chief executive officer of transitworks, a joint-venture company of GPO from Barcelona, Spain, and gkkworks from California, providing transportation design services internationally. Aguilar's own firm, Aguilar Architects Inc., is a SANDAG Planning and Architecture Bench Firm.

Aguilar is a member of the American Institute of Architects, the Urban Land Institute, and has been a senior adviser to the ULI's Young Leaders Program in Orange County. His work has been published in ULI publications, the *Los Angeles Times*, CBS San Diego, and *California Architects*. He received a bachelor of architecture from the UNAM, a master of architecture from Tulane University, and a master of landscape architecture from Harvard University.

Christopher Forinash

Washington, D.C.

Forinash connects people to the places they love by making the ways they get around easier, healthier, and more sustainable. He has worked to improve urban transportation and development for more than 25 years.

Starting from a technical base of forecasting the demand for regional transportation investments, he has focused on the policies that ensure transportation systems support sustainable, equitable community-building. He contributed to early work on recognizing the environmental benefits of smart growth, changing parking policy, and reforming federal transportation funding. He is renowned for interpreting technical results legibly for policymakers and the public.

Forinash approaches all of his work by engaging with the community, analyzing their needs and options, and recommending innovative and practical changes. He has led multimodal plans and designs at the site, neighborhood, city, and regional scale. He has led teams including more than 50 individuals and a dozen partner organizations, helping leaders

from over 150 governments and private clients create and implement ambitious transportation, economic development, and environmental plans and projects, driven by the priorities of their communities. He served as chair of the Arlington County (Virginia) Planning Commission as it accelerated a successful transition from stagnant suburb to vibrant urban community.

He has a master of science in civil engineering and transportation from Northwestern University and a bachelor of science in engineering from Duke University.

Lucia E. Garsys

Tampa, Florida

During her more than 35 years' experience, Garsys has focused on the intersection of land use and transportation, and infrastructure. Her key strength is understanding the technical underpinnings of a topic and its implication on public policy, finances, and the political realm. She routinely brings parties of diverse positions to find common solutions.

Garsys currently serves as senior adviser on community partnerships in Hillsborough County, Florida, leveraging institutional interests to build emerging innovation districts. In the past decade, she served as the executive directing the county's land planning and development activity as well as its cradle-to-grave capital operations and programs. She directed 2,000 employees with a \$500 million operating budget and a \$1 billion capital portfolio. Her prior consulting experience includes land use and comprehensive planning; downtown revitalization with tax increment financing; developer recruitment; and fiscal impact analysis in the Chicago Metro area and Fairfax, Virginia. She consulted on economic development initiatives with communities throughout the United States. Garsys advised emerging democracies in Eastern Europe on transparent and open land development and planning processes.

She is currently the governance chair for ULI Tampa Bay and past chair of its Management Committee. She is engaged with ULI at the national level on topics of infrastructure and affordable housing. In her role in Hillsborough County, she hosted two ULI Advisory Services panels and separately has

served as a panelist on a half dozen others, as well as on local technical advisory panels in Tampa Bay. She has served as a juror for AICP's Student Awards and as a board member on and adviser to the board on the built environment of the National Research Council. She serves on the advisory board for the planning program at the University of South Florida and routinely mentors students and women in the real estate and kindred fields.

Garsys holds a BS in city and regional planning from the Illinois Institute of Technology and a master's in urban and regional planning from the University of Illinois at Urbana-Champaign. She is a fellow of the American Institute of Certified Planners.

Jim Hecht

San Diego, California

Hecht is a registered civil engineer in California with over 30 years of experience working in all facets of delivering transportation projects, primarily fixed guideway transit, and primarily light rail and streetcar. He has had key roles on early planning studies, alternatives analyses, environmental documents, preliminary engineering, final design, construction, and startup as both a consultant and as a transit agency employee.

Hecht believes that high-quality transit is essential to sustainable and healthy communities, and he gets great satisfaction in seeing his efforts result in completed projects, including the Green Line to the River District and Blue Line to Cosumnes River College LRT Extensions in Sacramento, the Arrow DMU from San Bernardino to Redlands, the OC Streetcar from Santa Ana to Garden Grove, the Ogden/Weber State University BRT Project in Utah, the Blue and Green Line LRT Projects in Los Angeles, and the Old Town, Mission Valley West, Mission Valley East, and MidCoast LRT Extensions in his hometown of San Diego.

He has a master's degree from the Institute of Transportation Studies at the University of California in Berkeley.

Darryl Jones

Lone Tree, Colorado

Jones has dedicated 30-plus years to development planning and design as well as real estate investment strategy and currently serves as senior vice president at Coventry Development Corporation where he is responsible for the overall management of portfolio assets involving land and development transactions, public relations, transportation systems coordination, marketing, project and site design review, and infrastructure management and facilitation.

Before rejoining Coventry in 2021, he was named chief real estate officer and executive vice president of Denver International Airport in June 2016 and was responsible for the continued development and economic expansion of the airport's real estate program on 16,000 developable acres. The program includes the transit-oriented communities at three on-airport, commuter-rail stations, and the 1,500-acre commercial use pilot program, ratified by voters in November 2015.

Jones was previously vice president and development manager at Coventry Development Corporation for 12 years, where he managed the design review process, infrastructure implementation coordination and government relations, and planning and development in Colorado as well a project implementation in Colorado, Florida, and Texas.

Jones has also served as the director of planning and government affairs for Oakwood Homes and as planning manager for the Community Development Department of the city of Greenwood Village, Colorado. He was also responsible for development regulation in several cities in the Northern California region.

He holds a master of city planning from the Massachusetts Institute of Technology and a bachelor of arts in landscape architecture from the University of California, Berkeley. He is a former member of the Greenwood Village City Council.

Jack Wierzenski

Dallas, Texas

Wierzenski has worked for Dallas Area Rapid Transit (DART) since 1991. He is responsible for developing and implementing strategies to capture the economic development opportunities and benefits around DART's transit system. He serves as the DART's primary point of contact to the development community and its 13 member cities to facilitate and implement transit supportive development initiatives.

Before coming to DART, he served as chief of transportation planning in Prince William County, Virginia, and worked for the cities of Austin and Galveston, Texas.

Wierzenski has served on the National Railvolution Conference Steering Committee since 1997 and is a member of the Urban Land Institute and has participated in several Advisory Services panels, as well as the creation of ULI North Texas. Wierzenski is a member of the American Institute of Certified Planners and the American Planning Association.

He received his master's degree in urban and regional planning from Texas A&M University and a bachelor of arts degree in geography and political science from the University of Minnesota.



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