



I-77 South Express Lanes

STIP Project I-5718 | Mecklenburg County, NC

Purpose and Need Memo

October 2024



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I. Introduction

The North Carolina Department of Transportation (NCDOT) proposes to widen 11 miles of I-77 in Charlotte from the North Carolina/South Carolina State Line to I-277/NC 16 (Brookshire Freeway) as State Transportation Improvement Program (STIP) Project I-5718. Proposed improvements include the addition of express lanes, or general purpose and express lanes, reconstruction of interchanges and non-interchange bridges, and addition of access points and direct connectors to the express lanes. **Figure 1** shows the project location.

I-77 is the major north-south interstate in the region. Other interstates in the project vicinity include I-85, I-485, and I-277 and additional major highways include US 74 and US 29. Other assets to the regional transportation system include:

- Charlotte-Douglas International Airport – located approximately four miles west of the project study area
- Inland terminal operated by the North Carolina Ports Authority – located west of I-77, north of I-85 and east of I-485
- Norfolk Southern’s intermodal facility – located on N Tryon Street, north of Uptown Charlotte

I-77 from the North Carolina/South Carolina State Line to W. Morehead Street is a six-lane divided roadway with a posted speed limit of 55 miles per hour (mph). I-77 from W. Morehead Street to I-277/NC 16 (Brookshire Freeway) is an eight-lane divided roadway with a posted speed limit of 55 mph. Based on NCDOT’s 2018 traffic counts, daily traffic volumes along I-77 range from 116,000 vehicles per day (vpd) for the segment north of I-277 (Belk Freeway)/US 74 to 179,500 vpd for the segment north of Westinghouse Boulevard.

There are 13 interchanges, four grade separations (including one greenway crossing), and four railroad bridges on I-77 within the project limits (see **Figure 2**). **Table 1** describes the interchanges within the project study area. **Table 2** and **Table 3** list the grade separations and railroad bridges in the study area, respectively.

STIP Project I-5718 was introduced in the Charlotte Regional Transportation Planning Organization (CRTPO) 2040 Metropolitan Transportation Plan (MTP) (adopted April 2014) and first included in the NCDOT 2016-2025 STIP.

The proposed project is included in the CRTPO’s 2050 MTP (adopted March 2022) and is divided into two segments in the NCDOT 2024-2033 STIP (August 2024):

- I-5718A – South Carolina State Line to I-277/US 74 (Belk Freeway)
- I-5718B – I-277/US 74 (Belk Freeway) to I-277/NC 16 (Brookshire Freeway)

The I-5718A segment is funded for preliminary engineering only and the I-5718B segment is currently unfunded.



LEGEND

- Project Interchange
- I-5718 Project Limits
- Railroad
- ▭ Municipal Boundary
- ▭ County Boundary
- ▭ State Boundary

#	Interchange Name
1	Westinghouse Boulevard
2	I-485
3	Arrowood Road
4	Nations Ford Road
5	Tyvola Road
6	NC 49 (S Tryon Street)/Woodlawn Road
7	Clanton Road
8	Remount Road
9	NC 160 (West Boulevard)
10	I-277/US 74 (Belk Freeway)
11	US 29/NC 27 (W. Morehead Street)
12	W. 5th Street/W. Trade Street
13	I-277/NC 16 (Brookshire Freeway)

I-77 South Express Lanes
 Widen I-77 to include express lanes from the SC State Line to I-277/NC 16 (Brookshire Freeway)

STIP No. I-5718
WBS: 49020.1.1 **Division 10**



Figure 1
Project Vicinity Map
 July 2024

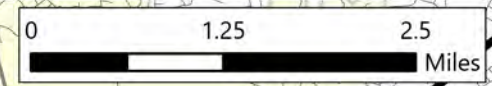


Table 1. Project Study Area Interchanges with I-77

Interchange	Type	2018 AADT (Vehicles per Day)*
1. Westinghouse Boulevard	Service	29,000-42,000
2. I-485	System	126,000-153,000
3. Arrowood Road	Service	27,500-30,000
4. Nations Ford Road	Service	15,500-18,500
5. Tyvola Road	Service	27,500-52,000
6. NC 49 (S. Tryon Street)/Woodlawn Road	Service	19,000-45,000
7. Clanton Road	Service	19,500
8. Remount Road	Partial Service	12,500-17,000
9. NC 160 (West Boulevard)	Partial Service	15,000-19,000
10. I-277/US 74 (Belk Freeway)	System	99,500 (east of I-77)
11. US 29/NC 27 (W. Morehead Street)	Partial Service	16,000-24,500
12. W. 5 th Street/W. Trade Street	Service	5,000-18,500
13. I-277/NC 16 (Brookshire Freeway)	System	133,000 (east of I-77)

*Source: NCDOT Annual Average Daily Traffic (AADT) segment shapefile (volume shown is for cross-street at interchange)

Table 2. Project Study Area Grade Separations along I-77

Grade Separation	Location
Pressley Road	North of Woodlawn Road
Irwin Creek (greenway) and P&N Rail Corridor	South of W. 4th Street
W. 4 th Street	South of W. Trade Street
Oaklawn Avenue	North of I-277/NC 16 (Brookshire Freeway)

Table 3. Project Study Area Railroad Bridges along I-77

Railroad Operator	Location
CSX Transportation	South of I-277/NC 16 (Brookshire Freeway)
Norfolk Southern	South of I-277/US 74 (Belk Freeway)
Norfolk Southern	South of Woodlawn Road
Norfolk Southern	South of Westinghouse Boulevard

Due to potential impacts to the human and natural environment, STIP Project I-5718 is anticipated to require an Environmental Assessment (EA) to satisfy the requirements of the National Environmental Policy Act (NEPA). The Federal Highway Administration (FHWA) is the anticipated lead federal agency. The current total project cost estimate¹ is \$2.8 billion for I-5718A and \$1.0 billion for I-5718B. These costs are subject to change and will be updated as the project progresses.

¹ Based on the I-5718 Conceptual Phase Cost Estimate Summary (June 2024), in current year dollars

A. Project Background

In 2007, CRTPO partnered with NCDOT, the South Carolina Department of Transportation (SCDOT), Charlotte Department of Transportation (CDOT), and other regional agencies to develop the [Charlotte Region Fast Lanes Study](#). The *Fast Lanes Study* analyzed existing and planned highways in ten counties to identify locations where High Occupancy Toll (HOT) lanes/High Occupancy Vehicle (HOV) lanes/truck-only facilities could help manage congestion. The initial findings (Phase I) identified I-77 from north of Gold Hill Road (in South Carolina) to I-277/US 74 (Belk Freeway) as one of several corridors for further study for managed lanes. In the study's second phase, CRTPO evaluated physical designs, operational requirements, revenues, and costs for the corridors that remained after the Phase I screening.

These corridors formed the basis for the Charlotte Regional Express Lanes Network, which includes portions of I-77, I-485, and US 74. Express lanes are toll lanes built within an existing highway corridor. They provide additional capacity to accommodate more traffic and offer drivers the option of more reliable travel times. Unlike traditional toll roads, drivers can choose to pay the toll and use the express lanes or continue to drive in the existing non-tolled general purpose lanes. Express lanes allow drivers to get to their destinations at more reliable, predictable times. Express lanes are currently under construction along I-485 in south Charlotte and in use along I-77 north of Charlotte (I-77 North Express Lanes). The neighboring states of Florida, Georgia, and Virginia, as well as nine other states also utilize express lanes.

The I-77 North Express Lanes from I-277/NC 16 (Brookshire Freeway) to NC 150 (Exit 36) in Iredell County opened in 2019. The express lanes on I-485 from I-77 to US 74 are anticipated to open in 2025 and planning and design efforts are in progress for express lanes on US 74 from I-277 to I-485.

B. Project Setting

As shown in **Figure 1**, the project is located within the City of Charlotte. Charlotte is the county seat of Mecklenburg County and the largest city in North Carolina. Additional information on population and employment is provided in [Section IV](#). According to [Consumer Affairs](#) (July 2024), Charlotte was the 7th fastest growing city in the United States by population between 2010 and 2020. Charlotte is part of the Charlotte-Concord-Gastonia Metropolitan Statistical Area (MSA) – the 5th fastest growing MSA in the nation between 2019 and 2020 (according to the [Charlotte Regional Business Alliance](#)).

I-77 is the primary north-south route in the Charlotte region, serving as the main gateway to Uptown Charlotte. It is also the third most utilized freight corridor in the state based on truck volumes. Based on 2018 traffic volume estimates, segments of I-77 already operate at or above capacity and traffic volumes are projected to continue to increase through the design year (2050). Additional information about traffic volumes and operations is provided in [Section III](#).

C. Previous Studies

In 2015, NCDOT completed a Feasibility Study for I-77 (FS-0810A) which analyzed the feasibility of adding general purpose and managed lanes from the North Carolina/South Carolina State Line to just north of I-277 (Brookshire Freeway) at La Salle Street/Atando Avenue.

Five typical section alternatives were analyzed for the I-77 mainline:

- 5-2-2-5 (five general purpose lanes in each direction, with two managed lanes in each direction in the median)
- 4-2-2-4 (four general purpose lanes in each direction, with two managed lanes in each direction in the median)
- 3-2-2-3 (three general purpose lanes in each direction, with two managed lanes in each direction in the median)
- 3-2-2-3 Collector-Distributor (C-D) System (three general purpose lanes in each direction, with two managed lanes in each direction in the median and two Collector-Distributor lanes in each direction between the two I-277 interchanges)
- 5-2-2-5 Elevated (five general purpose lanes in each direction, with two managed lanes in each direction on elevated structures in the median)

Traffic volumes presented in the Feasibility Study ranged from 102,000 to 163,600 vpd in 2009 No-Build Conditions² to 152,600 vpd to 196,600 vpd for the 2035 No-Build Conditions.³

Conceptual designs for the 2035 Build Conditions were created for the 5-2-2-5 alternative that included interchange configurations as well as ingress/egress for the managed lanes and direct connector (DC) locations. FS-0810A concluded that improvements to I-77 within the project study area would be challenging and would result in complex interchange configurations, closure and/or consolidation of existing interchanges, and potential reconfiguration of existing interchanges. There would also be potential impacts to historic/cultural, community, and environmental resources.

Specific recommendations from the Feasibility Study included:

- Perform system level analysis prior to preparing traffic forecasts for the next phase of the project
 - Confirm alternatives with a 3-2-2-3 typical section would not adequately meet the future travel demand
 - Evaluate the potential of existing interchange closures and/or consolidations as proposed in the conceptual designs
 - Using the conceptual designs, evaluate the potential for the 4-2-2-4 and 5-2-2-5 typical sections to meet the future travel demand
 - As a managed lane facility, locations of direct connects, T-ramps, and ingress/egress will need to be further evaluated and incorporated into the traffic forecast for use in the NEPA phase

² This scenario represents 2009 traffic volumes without the proposed improvements.

³ This scenario represents 2035 traffic volumes without the proposed improvements.

- Coordinate with the North Carolina Turnpike Authority
- Coordinate with FHWA to determine appropriate measures of effectiveness (MOEs) and analysis methodology for evaluation of alternatives during the NEPA phase and discuss appropriate project design years
- Implement an extensive and rigorous stakeholder involvement plan during the NEPA phase

D. Nearby STIP Projects

Multiple STIP projects are located in the vicinity of the I-5718 project including road widenings, interchange improvements, bridge replacements, and rail projects. **Figure 2** shows the location of nearby STIP projects in relation to I-5718⁴.

E. Project Schedule

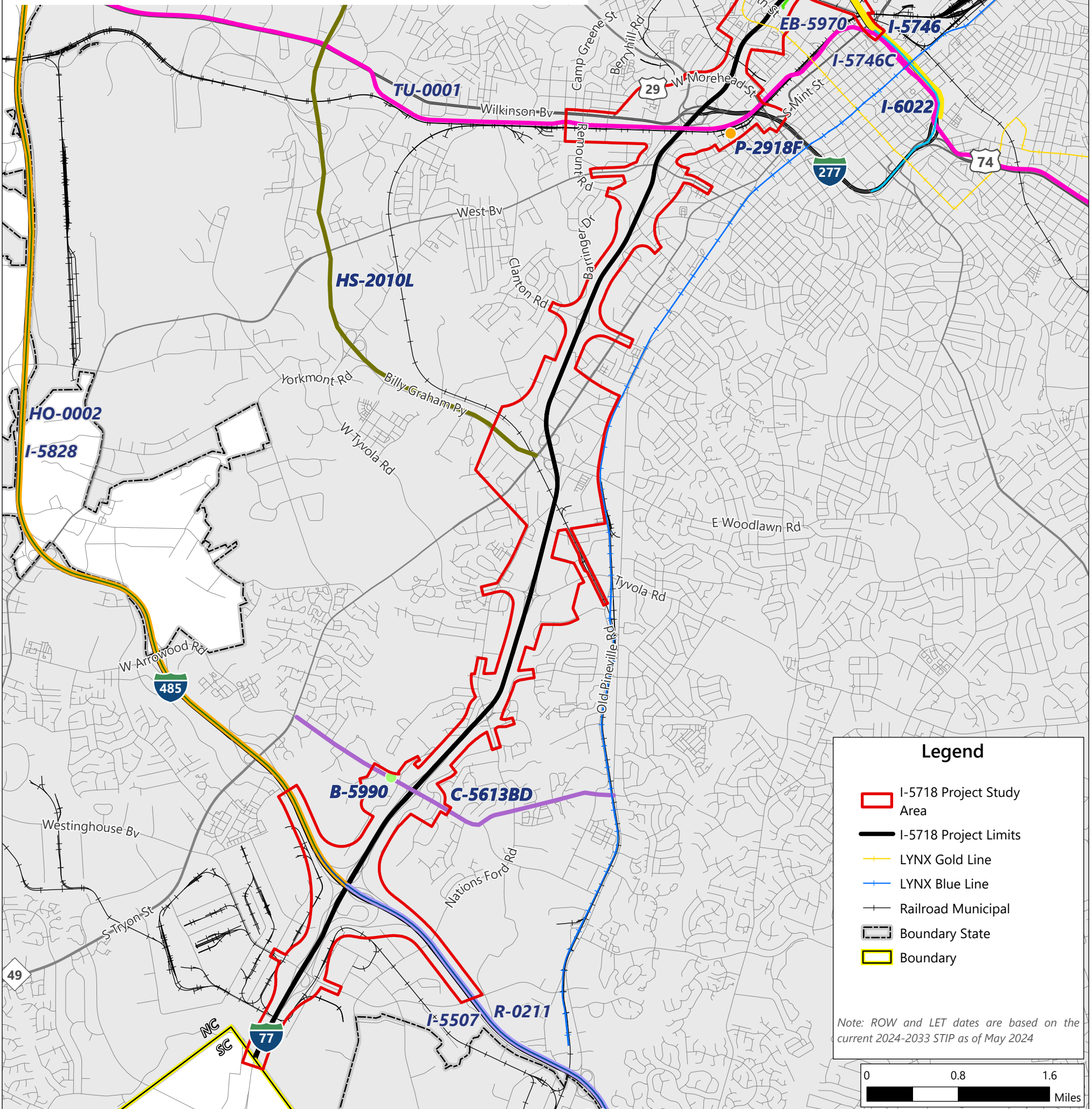
The tentative project schedule is shown below. Dates are preliminary and subject to change.

- | | |
|-----------------------------------|------|
| • NEPA Document Complete | 2025 |
| • Right-of-Way Acquisition Begins | TBD |
| • Construction Begins | TBD |

NCDOT's current 2024-2033 STIP (August 2024) shows funding for preliminary engineering only for I-5718A (I-77 from South Carolina State Line to I-277/US 74 (Belk Freeway)) while I-5718B (I-77 from I-277/US 74 (Belk Freeway) to I-277/NC 16 (Brookshire Freeway)) is shown as unfunded (to be funded in future years). NCDOT and CRTPO are in the process of evaluating funding and project delivery options for this project.

⁴ Figure shows nearby projects based on the 2024-2033 STIP as of May 2024.

Roadway Projects					
Symbol	TIP	Route	Description	Right of Way Year	Construction Year
	I-5718	I-77	South Carolina State Line to I-277/Brookshire Freeway. Widen Existing freeway to ten lanes by constructing managed lanes, reconstruct I-277 (Belk Freeway) interchange, and install ramp meters.		
	I-5507	I-485	I-485, I-77 South of Charlotte to US 74 (Independence Blvd). Add one express lane in each direction.		Under Construction
	I-5992	I-77	Mile marker 11 to mile marker 20 and mile marker 24.5 to mile marker 37. Rehabilitate pavement.		Under Construction
	U-6103	US 74 (Independence Blvd)	I-277 to just west of Idlewild Rd. Widen roadway to allow for two-way express lanes.	2025	2025
	I-6052	I-277 (Brookshire Freeway)	West of I-77 to East of I-77. Bridge Rehabilitation.		Under Construction
	I-5746/I-5746C	I-277	I-77 to East 10th Street. Resurfacing and bridge rehabilitation.		Under Construction
	I-6022	I-277	Kenilworth Avenue to Graham Street. Upgrade interchanges.		
	I-5828	I-485	I-77 to NC 49. Pavement rehabilitation.		2029
	R-0211	I-485 (Charlotte Southern Outer Loop)	West of I-77 to US 74. Multi-lane freeway on new location.		Under Construction
	B-5990	SR 1138 Westbound (Arrowood Rd)	Replace Bridge 590001 over Sugar Creek	2024	2026
Rail Projects					
Symbol	TIP	Route	Description	Right of Way Year	Construction Year
	P-2918F	Piedmont Corridor	Crisp Charlotte maintenance facility - track extension and shop building.		In Progress
	TU-0001	CATS	LYNX Silver Line light rail project.		
Bicycle/Pedestrian Projects					
Symbol	TIP	Route	Description	Right of Way Year	Construction Year
	EB-5781	Charlotte	Stewart Creek Greenway, State Street to Rozelles Ferry Road. Construct greenway.		Under Construction
	EB-5970	Charlotte	Existing Irwin Creek Greenway to Hamilton Street. Construct greenway.		2028
Other Projects					
Symbol	TIP	Route	Description	Right of Way Year	Construction Year
	HO-0002	US 74	I-40 in Asheville to I-40 in Wilmington. Implement broadband, ITS, and resiliency improvements.		
	HS-2010L	SR 5901 (Billy Graham Parkway)	NC 49 (Tryon Road) to I-85. Install guardrail.		2023
	C-5613BD	SR 1138 (Arrowood Road)	NC 48 (South Tryon) to South Boulevard. ITS upgrades.		Under Construction



II. Project Study Area

The project study area (shown on **Figure 8**) includes the I-77 corridor with a 500-foot buffer on either side of the centerline (1,000 feet total width) and generally extends one-quarter mile from ramp termini intersections with a minimum width of 400 feet along the cross streets. The study area was further expanded as needed at complex interchanges to ensure potential design options could be accommodated. The project study area is intentionally broad to allow for evaluation of a range of design alternatives and does not represent the actual impact area of the project. Evaluation of impacts of the design alternatives will be presented in the environmental document.

III. Purpose and Need

A. Need for Project

I-77 is a critical controlled-access interstate that traverses the City of Charlotte in the north-south direction. I-77 is a major travel corridor for central and western North Carolina and the southeastern United States for the movement of both people and goods. Locally, it serves as the main facility providing direct access to Uptown Charlotte for residents and businesses. With its current traffic demand, segments of I-77 are at or approaching capacity and I-77 is anticipated to operate over capacity through design year 2050. The primary needs for the proposed project are described in the following sections.

III.A.1 Existing and Future No-Build Traffic Volume Estimates⁵

Year 2018 AADT estimates along I-77 (including C-D roadways) in the project study area range from 116,000 vpd for the segment north of I-277/US 74 (Belk Freeway) to 179,500 vpd for the segment north of Westinghouse Boulevard. I-77 within the project study area is expected to experience significant growth through 2050 with volume estimates exceeding 200,000 vpd without any improvements to the corridor. **Table 4** presents the 2018 and 2050 No-Build traffic volume estimates along I-77 within the study area as well as the percent growth anticipated.

Table 4. Existing and Future No-Build Traffic Volumes, Growth Rates

Location	2018 AADT Estimate	2050 No-Build AADT Estimate	Overall Growth (2018-2050)
North of North Carolina/South Carolina State Line	161,000	195,000	21%
North of Westinghouse Boulevard	179,500	212,000	18%
North of I-485	156,000	185,000	19%
North of Arrowood Road	154,000	178,000	16%
North of Nations Ford Road	156,000	178,000	14%
North of Tyvola Road	157,000	181,000	15%
North of NC 49 (S. Tryon Street)/ Woodlawn Road	156,000	183,000	17%
North of Clanton Road	165,000	191,000	16%
North of NC 160 (West Boulevard)	174,000	202,000	16%
North of I-277/US 74 (Belk Freeway)	116,000	142,000	22%
North of US 29/NC 27 (W. Morehead Street)	134,000	170,000	27%
North of W. 5 th Street/W. Trade Street	138,000	177,000	28%
North of I-277/NC 16 (Brookshire Freeway)	171,000	260,000	52%

III.A.2 Existing and Future No-Build Traffic Conditions

As described above, congestion along I-77 within the study area is projected to worsen with future growth and development. No-Build AADT volumes are expected to increase between 14 percent and 52 percent for I-77 segments in the study area between 2018 and 2050. These increases in traffic volumes are expected to degrade traffic operations along I-77 in the future and further diminish Level of Service (LOS), as described in the following sections.

⁵ Initial traffic estimates for the I-77 project study area were completed using 2018 and 2050 data and are detailed in the *I-5718 – I-77 Widening from SC State Line to I-277/NC 16 (Brookshire Freeway) Mainline Traffic Screening Memo* (July 18, 2022). **These projections were preliminary estimates and intended to guide initial discussions and early concept development only.** The I-5718 Traffic Forecast is underway and will project traffic volumes for a 2022 Base Year and 2050 Future Year No-Build.

III.A.3 Poor Existing and Projected Traffic Operations

Heavy traffic conditions occur daily along I-77 within the project area, resulting in frequent congestion and delays that hinder north-south mobility within the City of Charlotte and the larger Charlotte region.

Level of Service

An initial review of existing traffic conditions indicates that seven of 13 segments along I-77 through the study area operate at or above capacity (LOS E or F) at least one hour of the day, with the I-77 segment north of Clanton Road operating at or above capacity for 11 hours of the day (which at nearly half the day is the most of any I-77 segment). Segments over capacity create additional congestion along adjacent segments of I-77 that is not reflected in these analysis results. **Table 5** presents the hourly LOS results for 2018 traffic volume estimates for each I-77 mainline segment.

Table 5. Level-of-Service (LOS) Results for 2018 Traffic Volume Estimates

Segment	Number of Hours at Each LOS			
	LOS C or Better (below capacity)	LOS D (approaching capacity)	LOS E (at capacity)	LOS F (above capacity)
North of State Line	17	7	0	0
North of Westinghouse Boulevard	24	0	0	0
North of I-485	24	0	0	0
North of Arrowood Road	14	8	2	0
North of Nations Ford Road	10	7	2	5
North of Tyvola Road	10	7	2	5
North of NC 49 (S. Tryon Street)/ Woodlawn Road	10	7	2	5
North of Clanton Road	10	3	2	9
North of NC 160 (West Boulevard)	10	10	3	1
North of I-277/ US 74 (Belk Freeway)	24	0	0	0
North of US 29/NC 27 (W. Morehead Street)	24	0	0	0
North of W. 5 th Street/W. Trade Street	23	1	0	0
North of I-277/ NC 16 (Brookshire Freeway)	13	10	1	0

Note: Bold indicates segments operating at or above capacity for at least one hour of the day.

With 2050 No-Build traffic volume estimates, nine of the 13 segments would operate at or above capacity (LOS E or F), with five of those segments operating over capacity at least 10 hours of the day. The segment north of Clanton Road would continue to have the highest number of hours operating at or above capacity, with 17 hours (increased from 11 hours in 2018). Segments over capacity create additional congestion along adjacent segments of I-77 that is not reflected in these analysis results. **Table 6** presents the hourly LOS results for 2050 No-Build traffic volume estimates for each I-77 mainline segment.

Table 6. Level-of-Service (LOS) Results for 2050 No-Build Traffic Volume Estimates

Segment	Number of Hours at Each LOS			
	LOS C or Better (below capacity)	LOS D (approaching capacity)	LOS E (at capacity)	LOS F (above capacity)
North of State Line	10	9	3	2
North of Westinghouse Boulevard	22	2	0	0
North of I-485	24	0	0	0
North of Arrowood Road	10	8	2	4
North of Nations Ford Road	9	0	0	15
North of Tyvola Road	9	0	0	15
North of NC 49 (S. Tryon Street)/Woodlawn Road	8	0	0	16
North of Clanton Road	7	0	0	17
North of NC 160 (West Boulevard)	10	2	2	10
North of I-277/ US 74 (Belk Freeway)	22	2	0	0
North of US 29/NC 27 (W. Morehead Street)	21	3	0	0
North of W. 5th Street/W. Trade Street	14	9	1	0
North of I-277/ NC 16 (Brookshire Freeway)	10	11	3	0

Note: Bold indicates segments operating at or above capacity for at least one hour of the day.

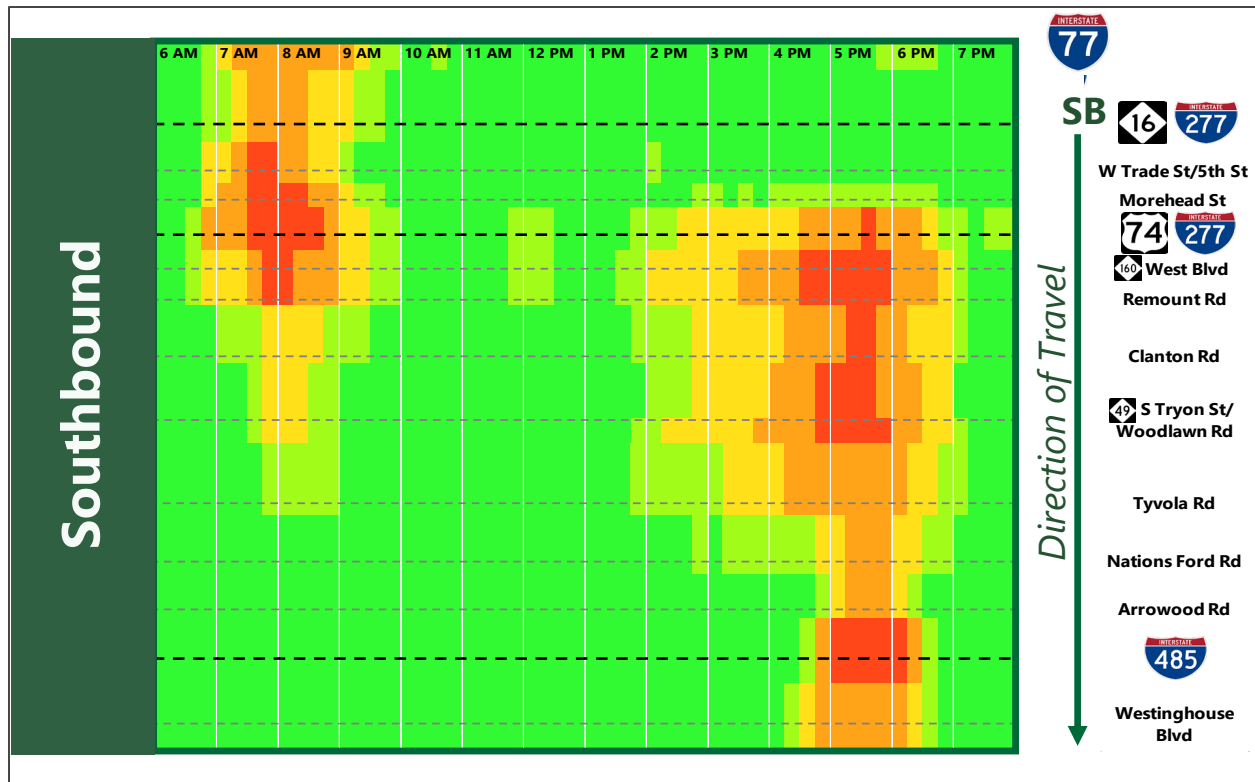
III.A.4 Lack of Travel Time Reliability

Existing travel speeds along the project corridor are well below the posted speed limit during at least one peak period of the day and often during additional hours as well. Trips take more than twice as long as they would under free flow conditions for multiple hours each day for both directions of travel, and trips take up to five and half times as long during peak hours.

Travel Speeds⁶

The majority of the I-77 network in the analysis area experiences travel speeds of less than 30 miles per hour (mph) during at least one of the peak periods, while the posted speed limit along I-77 is 55 mph. In addition, both directions of I-77 have sections of the corridor with average speeds below 30 mph for over five hours on the average weekday. Average weekday speeds in 2019 by segment for I-77 southbound and I-77 northbound are shown in **Figure 3** and **Figure 4**, respectively.

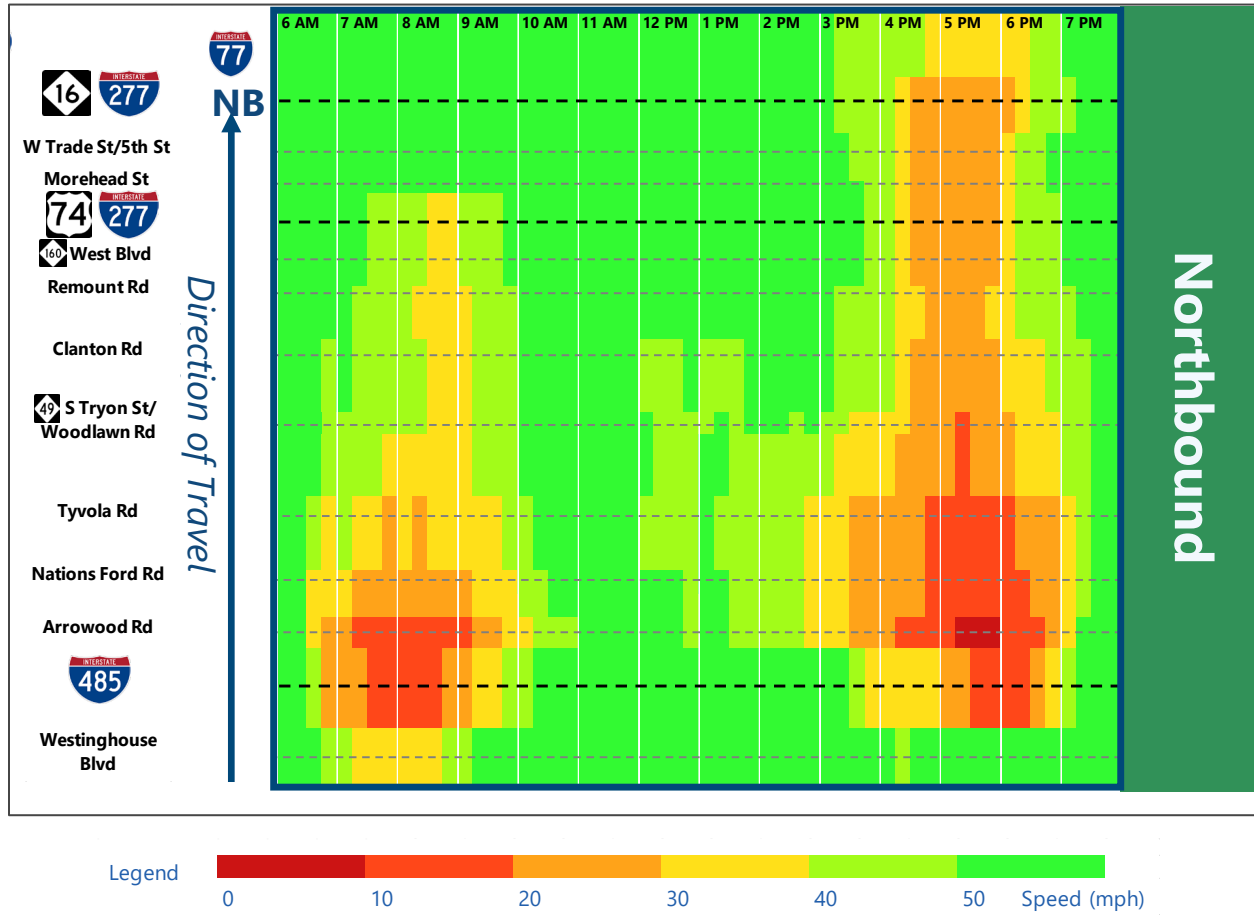
Figure 3. 2019 Average Weekday Speed Along I-77 (Southbound)



Source: Ritis.org Probe Data Analytics Suite. HERE Data for January 1 through December 31, 2019, for Tuesday, Wednesday, and Thursday. Accessed October 14, 2021. [Regional Integrated Transportation Information System \(Ritis\) website.](#)

⁶ Traffic speeds were obtained from HERE data gathered from January 1 to December 31, 2019. Data consists of all time periods from 6:00 AM to 8:00 PM on Tuesdays, Wednesdays, and Thursdays. Travel speed data was collected in 15-minute increments.

Figure 4. 2019 Average Weekday Speed Along I-77 (Northbound)



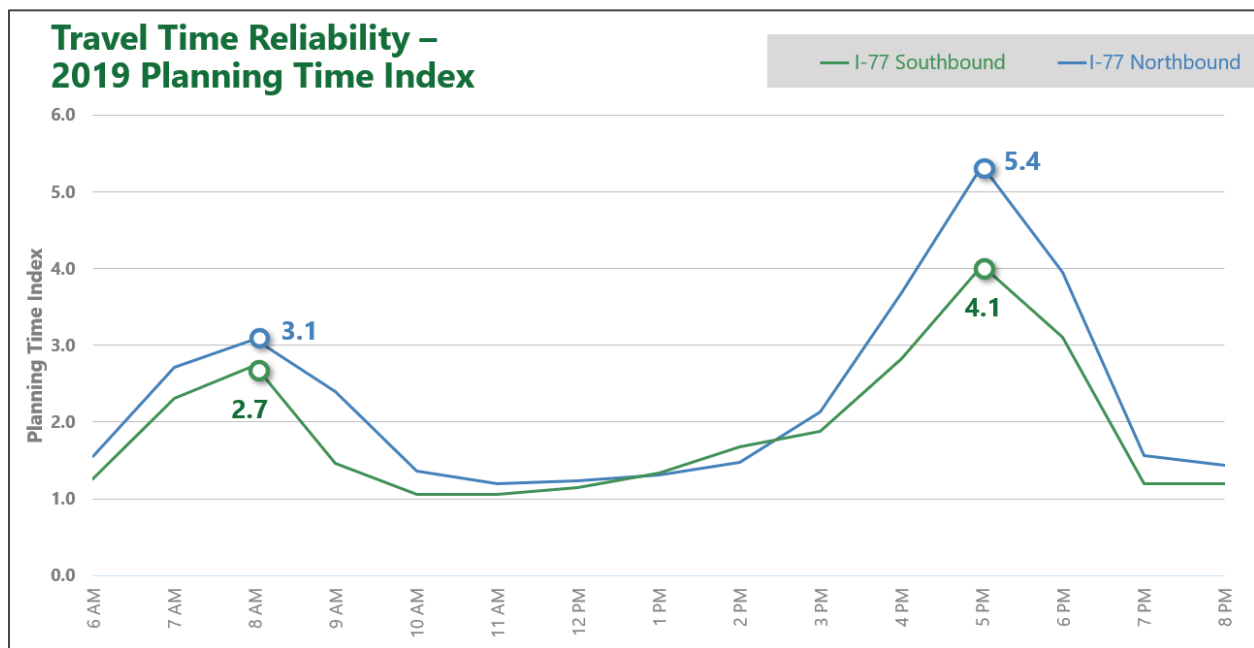
Source: Ritis.org Probe Data Analytics Suite. HERE Data for January 1 through December 31, 2019, for Tuesday, Wednesday, and Thursday. Accessed October 14, 2021. [Regional Integrated Transportation Information System \(Ritis\) website.](#)

Planning Time Index⁷

The Planning Time Index (PTI) is the total time needed to plan for an on-time arrival 95 percent of the time and is therefore an indication of travel time reliability. As shown on **Figure 5**, the overall corridor PTI in 2019 for both I-77 southbound and I-77 northbound is approximately 3.0 in the AM peak hour, meaning the total time that should be planned for the trip is three times longer than it would be under free flow conditions. Heavy congestion in the PM peak hour results in an overall corridor PTI of 4.1 for I-77 southbound and 5.4 for I-77 northbound.

When looking at all hours of the day, PTI for I-77 northbound exceeds 2.0 for seven hours of the day and PTI for I-77 southbound exceeds 2.0 for five hours of the day.

Figure 5. 2019 Planning Time Index for I-77 Northbound and Southbound



III.A.5 Inability to Serve High-Speed Regional Travel Consistent with the Designations and Goals of Federal, State, and Local Transportation Plans

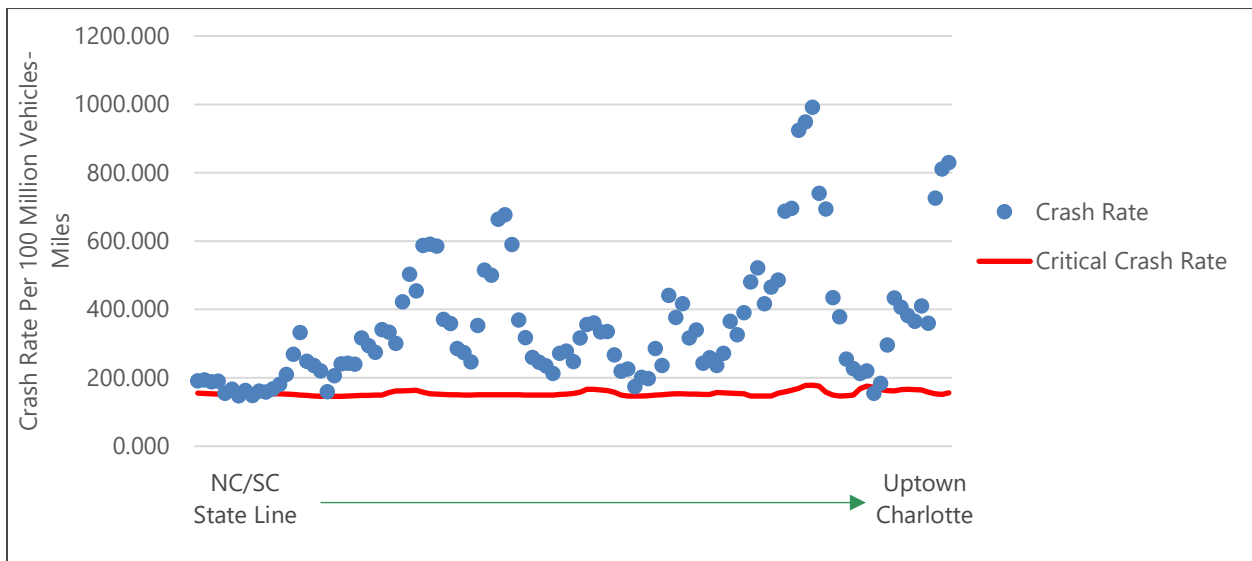
Congestion on I-77 inhibits regional travel and diminishes the ability of I-77 to function as part of a larger system of designated routes. Due to its national importance, I-77 has been identified by US Department of Transportation (USDOT) as a critical highway portion of the US freight system on the National Highway Freight Network (NHFN). The FHWA, in partnership with the Department of Defense, also designated I-77 as part of a system of roads necessary to support US military operations called the Strategic Highway Network (STRAHNET). Due to its statewide and regional importance, I-77 has been designated as a Strategic Transportation Corridor by NCDOT and is part of the North Carolina Intrastate System. Both designations call for this corridor to serve high-speed regional travel. Existing and projected poor LOS along the I-77 project study corridor diminish the roadway’s ability to function as part of these networks.

⁷ PTI data was collected in 1-hour increments.

III.A.6 Existing Crash Data

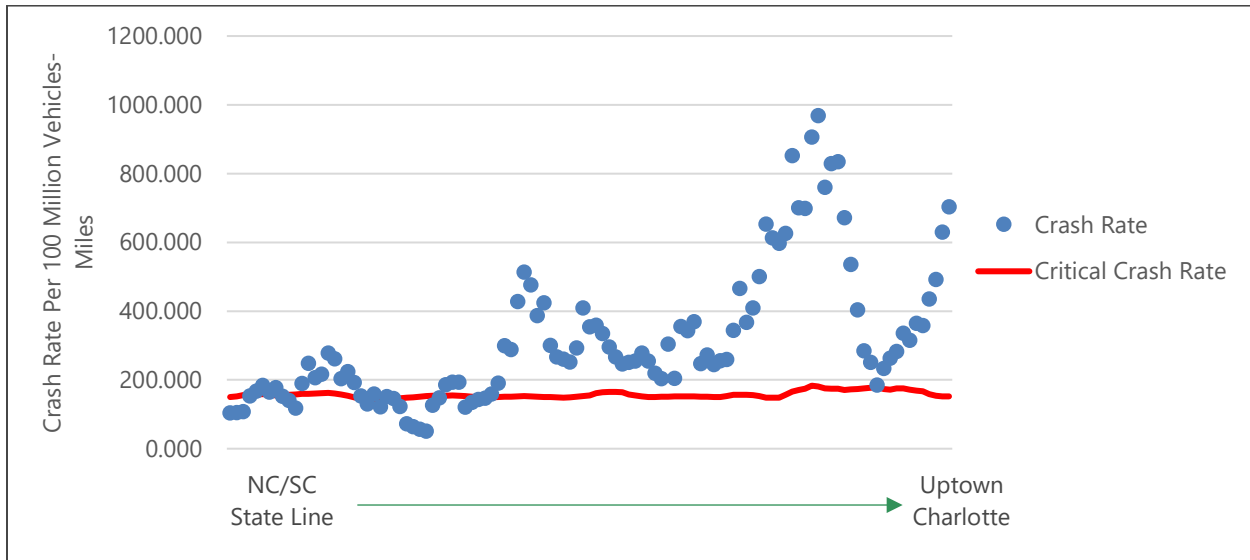
The following information is summarized from the *I-5718 Crash Data Analysis Memorandum* (April 2023). Based on five-year crash data provided by the NCDOT Traffic Safety Unit for November 2017 through October 2022, the crash rate for I-77 within the study area was approximately 340 crashes per 100 million vehicle miles traveled (MVMT). This is over two and a half times the statewide crash rate for urban interstates of 129 crashes per 100 MVMT. Over the same time period, the fatal crash rate within the study area was 0.47 fatal crashes per 100 MVMT, which is similar to the statewide fatal crash rate for urban interstates of 0.44 per 100 MVMT. Crash rates for the I-77 corridor for northbound and southbound directions can be seen in **Figure 6** and **Figure 7**, respectively⁸.

Figure 6. I-77 Northbound Crash Rates (November 2017 thru October 2022)



⁸ For additional information on crash data and Figures 6 and 7, see Figures 5 and 7, respectively, in the *I-5718 Crash Data Analysis Memorandum* (April 2023).

Figure 7. I-77 Southbound Crash Rates (November 2017 thru October 2022)



There were 9,765 reported crashes over the five-year period. As shown in **Table 7**, the majority of these crashes were rear end collisions. The most significant peak in crashes in the northbound direction was between the NC 160 (West Boulevard) and US 29/NC 27 (W. Morehead Street) interchanges, including the I-277/US 74 (Belk Freeway) interchange. The most significant peak in crashes in the southbound direction was around the W. Trade Street, W. 5th Street, and I-277/NC 16 (Brookshire Freeway) interchanges. It was noted that both of these peak areas correspond to the location of a work zone from approximately 2017 to 2019 that widened I-77 and added express lanes north of I-277/NC 16 (Brookshire Freeway).

Table 7. Directional Crash Type Summary

Direction	Ran Off Road ¹	Rear-End	Sideswipe	Frontal Impact ²	Pedestrian	Other ³	Total Crashes
I-77 Northbound	450	3,124	1,350	39	6	261	5,230
I-77 Southbound	414	2,556	1,295	27	5	238	4,535

November 2017 thru October 2022

¹Ran-off Road crashes include Ran-ff Road (right, left, or straight), Fixed Object, Overturn/Rollover, Sideswipe-Opposite Direction, Parked Vehicle, and Head-On

²Frontal Impact crashes include Angle, Left Turn (same or different roadways), and Right Turn (same or different roadways)

³Other types of crashes include Unknown, Jackknife, Other Non-Crashes, Animal, Movable Objects, Backing Up, and Other Crashes with Vehicle

B. Project Purpose

The purpose of the proposed project is to:

- Manage congestion by providing an option for reliable travel time along I-77 from the North Carolina/South Carolina state line to I-277/NC 16 (Brookshire Freeway)
- Implement managed lanes consistent with recommendations from the *Fast Lanes Study* and CRTPO's 2050 MTP
- Improve traffic operations by increasing travel speed and increasing throughput along I-77 from the North Carolina/South Carolina State Line to I-277/NC 16 (Brookshire Freeway)

Additional benefits of the proposed project include:

- Reduce congestion-related crashes
- Support planned economic growth
- Encourage transit usage to promote mode shift and improve air quality

IV. Project Area Conditions and Resources

A. Population, Employment, and Economic Data

IV.A.1 Population and Employment Trends and Projections

Mecklenburg County has experienced tremendous population growth in recent years. According to the NC Demographic Center, the Mecklenburg County population grew over 21 percent from 923,344 in 2010 (July estimate) to 1,118,182 in 2020 (July estimate). The population is expected to continue to grow by over 619,000 to 1,737,661 by 2050, an annualized growth rate of 1.59 percent. This is higher than the statewide annualized growth rate, estimated at close to 1 percent over the same time period.

According to the NC Department of Commerce, employment across all industries in the Charlotte Region (Southwest Prosperity Zone) is expected to increase from 1,214,029 in 2018 to 1,350,851 in 2028, an annualized growth rate of 1.1 percent.

Based on 2050 socio-economic data from the Metrolina Regional Model (MRM),⁹ the largest increases in population and employment along the corridor are projected to occur in traffic analysis zones (TAZs) east of the I-77 corridor in Uptown Charlotte and along the light rail corridor that parallels South Boulevard. Population in the TAZs that touch the project corridor is projected to increase by nearly 168 percent between 2018 and 2050 while the population in all TAZs within one mile of the project corridor is projected to increase by over 115 percent.

A 117 percent increase in employment is projected between 2018 and 2050 in the TAZs along the project corridor, while a 98 percent increase in employment is projected in the TAZs within one mile of the project corridor. Population and employment growth have increased the traffic

⁹ The MRM is the travel demand model for the Charlotte region. Version MRM22v1.0 was used for this analysis.

demand on I-77, creating high levels of congestion, unstable traffic operations resulting in increased crashes, and unreliable travel times along the corridor.

IV.A.2 Economic Data

The average median household income in Mecklenburg County was \$73,124 (2021 American Community Survey (ACS) 5-Year Estimate). Within Mecklenburg County, approximately 5.6 percent of households have zero vehicles (2021 ACS 5-Year Estimate).

Major employers within Mecklenburg County include, but are not limited to, Atrium Health, Wells Fargo, Bank of America, City of Charlotte, Amazon Fulfillment Services, American Airlines Inc., Charlotte-Mecklenburg Schools, Novant Medical Group Inc., Presbyterian Hospital, and Mecklenburg County. Many of these employers have headquarters in Uptown Charlotte that are accessed from I-77.

According to 2019 [US Census OnTheMap](#) data, approximately 51 percent of people who work in Mecklenburg County live outside the County. About 49 percent of people live and work in Mecklenburg County. Approximately 29 percent of people who live in Mecklenburg County are employed outside of the County.

Census data indicates a substantial number of minority populations surrounding the project corridor. Of the 48 Census Tract Block Groups surrounding the project study area, 33 of them meet the NCDOT threshold for having a notable environmental justice presence related to minority populations. The review also indicates a large number of low-income populations surrounding the project corridor with 30 Census Tract Block Groups meeting the NCDOT threshold for having a notable environmental justice presence related to low-income populations.

B. Resources in the Project Study Area

IV.B.1 Natural and Environmental Resources

Natural and environmental resources in the project study area include creeks/streams, waterbodies, wetlands, 100-year floodplain, impaired streams, underground storage tanks, potential geoenvironmental sites of concern, floodplain buyout program properties, and Mecklenburg Priority List (MPL) contamination sites.

Figure 8 shows the location of these resources within the project area. Additional field surveys and evaluation of potential impacts to these resources will be conducted during the project development process.

IV.B.2 Historic/Cultural Resources

An archaeological reconnaissance investigation and intensive archaeology survey of the project's area of potential effects (APE) was conducted between January 29 and February 20, 2024. As a result of the investigations, 10 new archaeological sites were recorded, including five cemeteries, and one previously recorded cemetery was revisited. The Elmwood/Pinewood Cemetery was previously determined eligible for the National Register of Historic Places (NRHP) and Dinkins Cemetery is recommended eligible based on a recent archaeological investigation conducted by NCDOT (April 2024). The remaining cemeteries were not determined eligible but should be preserved in place if possible. No other archaeological sites are recommended eligible for the



NRHP. A ground penetrating radar (GPR) investigation should be undertaken in areas of potential unmarked graves if disturbance to these areas is anticipated. If impacts to the cemeteries cannot be avoided, it is recommended that the graves be relocated. The NCDOT Archaeology Team has reviewed the project and determined there are no NRHP-listed archaeological sites within the projects APE (*No National Register of Historic Places Eligible or Listed Archaeological Sites Present Form* dated April 22, 2024).

Based on review of online mapping ([HPOWEB 2.0](#)) available from the NC State Historic Preservation Office (reviewed in May 2024), numerous historic properties and districts are located in the project study area, as listed in **Table 8**. Surveys for any additional historic architectural resources and evaluation of potential impacts to these resources as well as additional coordination with SHPO will occur during the project development process.

Table 8. Historic Properties/Districts

Status	Property/District	HPO Site ID
Potentially eligible for listing on the National Register of Historic Places	The Great Atlantic & Pacific Tea Company Warehouse	MK2256
	McCrorey Heights Historic District	MK3221
	Elmwood/Pinewood Cemetery	MK0072
	Seaboard Street Historic District	MK2658
	South Cedar-West First Street Industrial Historic District	MK2659
Determined eligible for listing on the National Register of Historic Places	Wilmore Local Historic District	MK3252
	Bryant Park	MK2920
	West Morehead Street Industrial Historic District	MK3209
	American Commercial Bank	MK2153
	Piedmont and Northern Railway Linear Historic District	MK3289
	Oaklawn Park Local Historic District	MK3220
	Johnson C. Smith Univ. Historic District	MK2499
	C.W. Kirkland Company	-
	Camp Greene Memorial	MK3179
	Dinkins Cemetery	31MK273
Charlotte Water Works/Vest Water Treatment Station	MK1815	
Listed on the National Register of Historic Places	Wesley Heights Local Historic District	MK1793
	Carolina School Supply Company Building	MK2655
	Carolina Transfer and Store Company Building	MK1852
	Charlotte Coca Cola Bottling Company Plant	MK1819
	Crane Company Building	MK2247
	Grinnell Company – General Fire Extinguisher Co. Complex	MK2643
	Union Storage and Warehouse Company Building	MK2657
	Southern Asbestos Company Mills	MK2715

IV.B.3 Community Resources

Community resources present in the project study area include parks, greenways, recreation centers, state-owned land, signed bike routes, on-road bike facilities, fire/EMS stations, places of worship, cemeteries, libraries, post offices, educational institutions, and hospitals.

Figure 8 shows the location of these resources within the project study area.

IV.B.4 Section 4(f) Resources

Section 4(f) of the USDOT Act of 1966 provides for consideration of park and recreation lands, wildlife and waterfowl refuges, and historic sites during transportation project development. Section 4(f) applies to projects that receive funding from or require approval by an agency of the USDOT. Potential Section 4(f) resources in the project study area include historic sites/districts and public parks/recreation areas. Public parks/recreation areas in the project study area are listed in **Table 9** and shown on **Figure 8**.

Table 9. Public Parks/Recreation Areas

Public Park/Recreation Area	General Location
Dr. Charles L. Sifford Golf Course/Revolution Park	West of I-77, between Remount Road and NC 160 (West Boulevard)
Abbott Park	East of I-77, south of NC 160 (West Boulevard)
Southside Park	East of I-77, south of Remount Road
Wilmore Park	East of I-77, south of S. Clarkson Street
Frazier Park	East of I-77, along both sides of W. 4 th Street Ext.
Third Ward Park	East of I-77, south of W. 4 th Street east of Frazier Park
Biddleville Park	West of I-77, south of I-277/NC 16 (Brookshire Freeway)
Bryant Park	West of I-77, off W. Morehead Street
Anita Stroud Park	East of I-77, north of Oaklawn Avenue and south of Atando Avenue
Double Oaks Park	East of I-77, south of Atando Avenue and north of Anita Stroud Park
Sugar Creek Greenway (proposed)	Arrowood Road
Irwin Creek Greenway	West of I-77, along Irwin Creek, between Clanton Road and West Boulevard; East of I-77, between W. Morehead Street and I-277/NC 16 (Brookshire Freeway)
Wesley Heights Greenway	West/East of I-77, between Stewart Creek Greenway and Cedar Street (traverses under I-77)
Ray's Splash Planet	East of I-77, north of W. 5 th Street

IV.B.5 Land and Water Conservation Fund Resources

Under the Land and Water Conservation Fund (LWCF) Act, it is prohibited to convert property acquired or developed with LWCF grant money to non-recreational purposes without approval from the National Park Service. The LWCF Act applies to all transportation projects involving possible conversions of property regardless of whether federal funding is being used.

One LWCF resource is located in the project study area. Ramblewood District Park, located in the northeast quadrant of the I-77 and I-485 interchange, received a LWCF grant for park development in 1981. Additional research and coordination will be conducted during project development to determine the boundary of the LWCF project and if there are potential impacts to this resource.

In North Carolina, the NC Parks and Recreation Trust Fund (PARTF) awards matching grants to local governments to acquire land and/or develop parks, public beach access, and improvements in state parks. When PARTF funding is used by a local government to acquire land, PARTF rules require the land to be used only for public recreation. North Carolina Parks and Recreation rules provide for the conversion of PARTF projects to uses other than public recreation provided certain requirements are met.

PARTF funding was used for rehabilitation of Frazier Park located along the east side of I-77 along W. 4th Street Ext. Additional coordination with NC Parks will be conducted during project development to determine potential impacts to this resource.

C. Transportation Plans

IV.C.1 Regional Transportation Plans

The [CRTPO 2050 MTP](#) (adopted in March 2022) is a multimodal plan that defines the transportation policies, programs, and projects to be implemented over the next 20-plus years in the CRTPO Planning Area (Iredell, Mecklenburg, and a portion of Union counties). The CRTPO 2050 MTP includes I-5718A (MTP ID 2050-E340) as a widening project in horizon year (HY) 2045 and I-5718B (MTP ID 2050-3078) as a widening project in HY 2050.

I-77 is also listed as *Needs Improvement* in the [CRTPO Comprehensive Transportation Plan](#) (CTP) (adopted in August 2020) from the South Carolina State Line to I-277/NC 16 (Brookshire Freeway). All interchanges within the project area are also listed as *Needs Improvement*.

The following cross streets are listed as *Needs Improvement* for on-road bicycle facilities in the CTP: Westinghouse Boulevard, Arrowood Road, Nations Ford Road, Tyvola Road, Woodlawn Road, S. Tryon Street, West Boulevard, W. Morehead Street east of I-77, and W. 5th Street east of I-77. The Big Sugar Creek Greenway north of the I-485 interchange and Irwin Creek Greenway are listed as *Recommended* multi-use paths in the CTP.

IV.C.2 County Transportation Plans

The following Mecklenburg County plans include recommendations within the project study area.

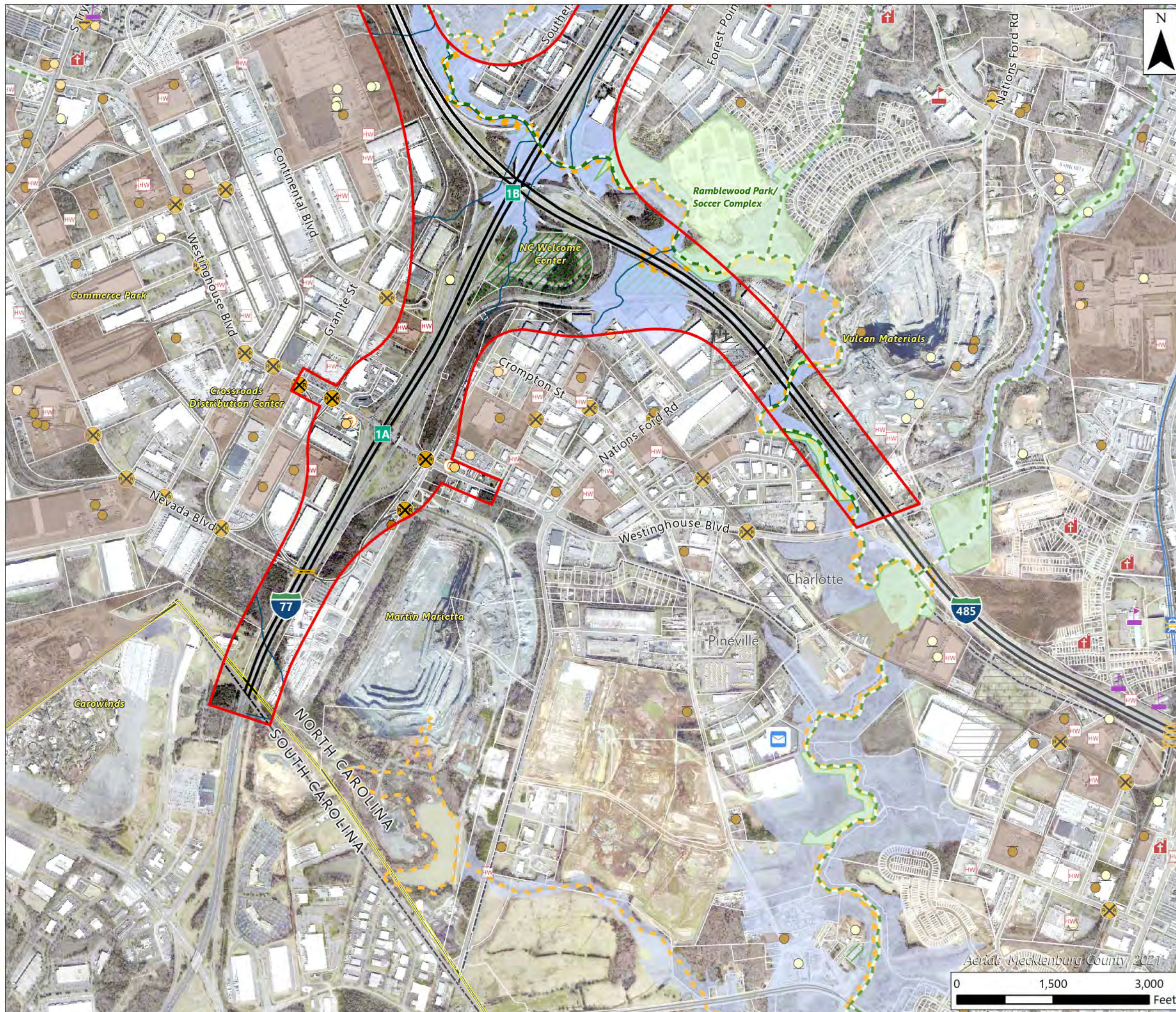
Meck Playbook

[Meck Playbook](#) (adopted in December 2021) is the Park and Recreation Master Plan for Mecklenburg County. The plan includes a list of top investment priorities for the County. There are several facilities with a high priority for reinvestment in proximity to the project area including the Sugar Creek and Irwin Creek greenways as well as Biddleville, Bryant, Wilmore, and Ramblewood parks. Additionally, some gaps in open space access are identified within the project area between I-485 and Woodlawn Road.

Greenway Master Plan

The [Greenway Master Plan](#) (adopted in September 2020, updated July 2023) is a map of existing/developed, funded, and future greenways in Mecklenburg County. Portions of the Irwin Creek Greenway and Wesley Heights Greenway are existing within the project area. Other portions of the Irwin Creek Greenway, as well as portions of the Sugar Creek Greenway, are identified as future greenways in the project area.

Figure 8 shows the location of existing and future greenways in the project area.



I-77 South Express Lanes
Widen I-77 to include express lanes from the SC State Line to I-277/NC 16 (Brookshire Freeway)

Legend

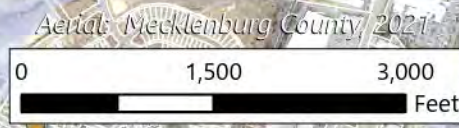
Project Study Area	Public Park
I-77 Exit No.	State Owned Land
Railroad Bridge	Existing Greenway
At-Grade Rail Crossing	Future/Proposed Greenway
Railroad	Signed Bike Route
Educational Institution	LYNX Blue Line Station
Child Care Facility	LYNX Blue Line
Place of Worship	FEMA Buyout Program
Library	Gas Station
Post Office	Geoenvironmental Site of Concern
Hospital	Above Ground Storage Tank Incident
Fire Station/EMS	Active Underground Storage Tank
Recreation Center	Underground Storage Tank Incident
Historic Property	303(d) Impaired Stream
Historic Property/District	Contamination Site
Cemetery	Creek/Stream/Waterbody*
Historic Cemetery	Wetland*
	100 Year Floodplain
	Parcel Boundary
	County Boundary
	State Boundary

* based on preliminary field visit verification

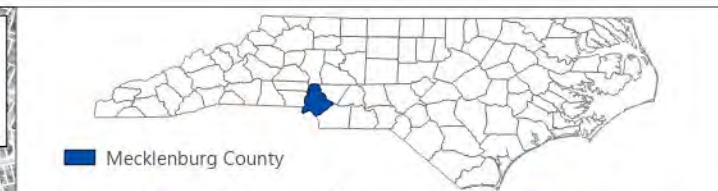
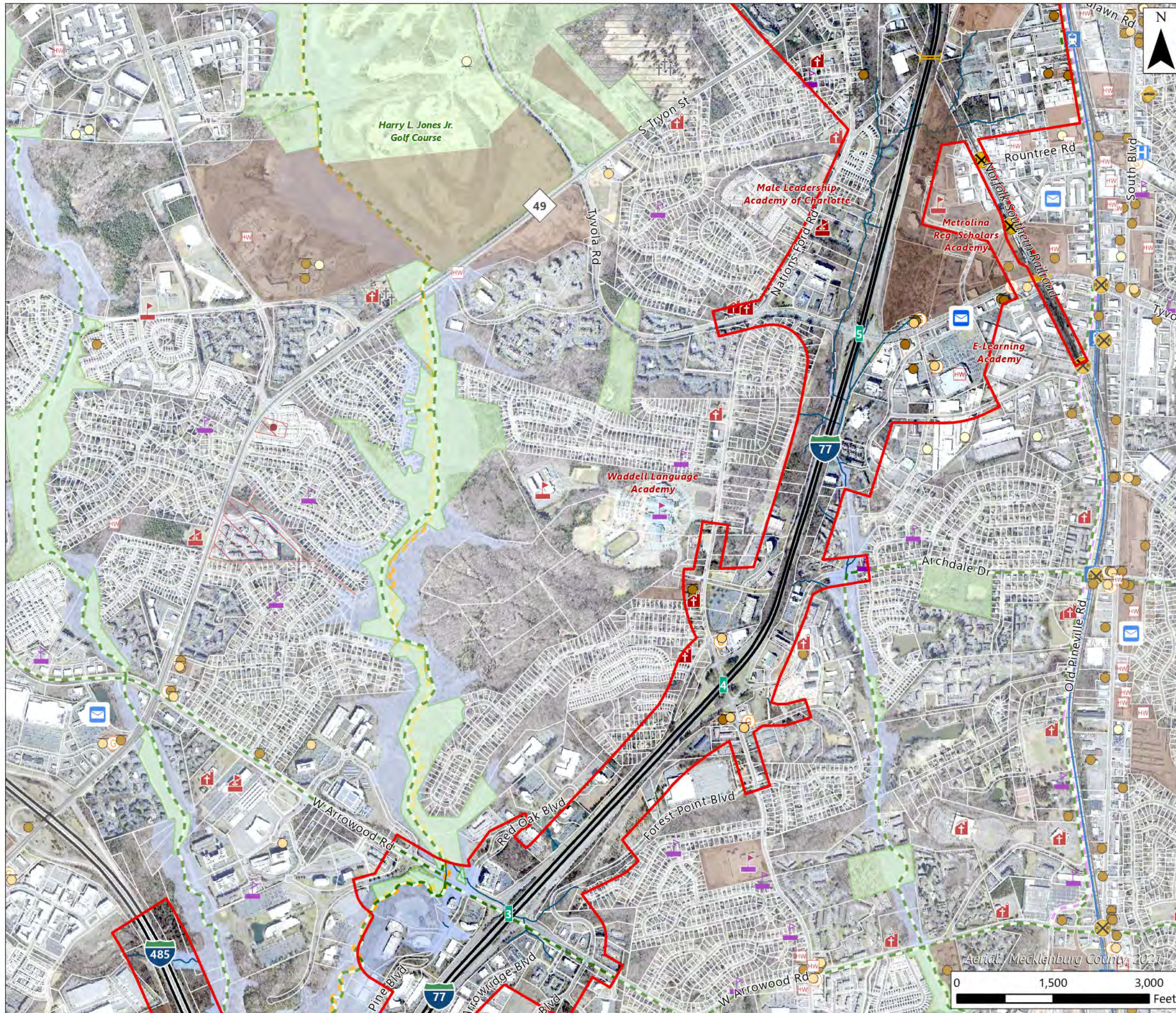
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Figure 8
Environmental Features Map
Sheet 1 of 4



Aerial: Mecklenburg County, 2021



I-77 South Express Lanes
Widen I-77 to include express lanes from the SC State Line to I-277/NC 16 (Brookshire Freeway)

Legend

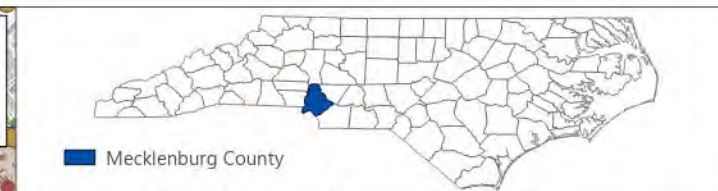
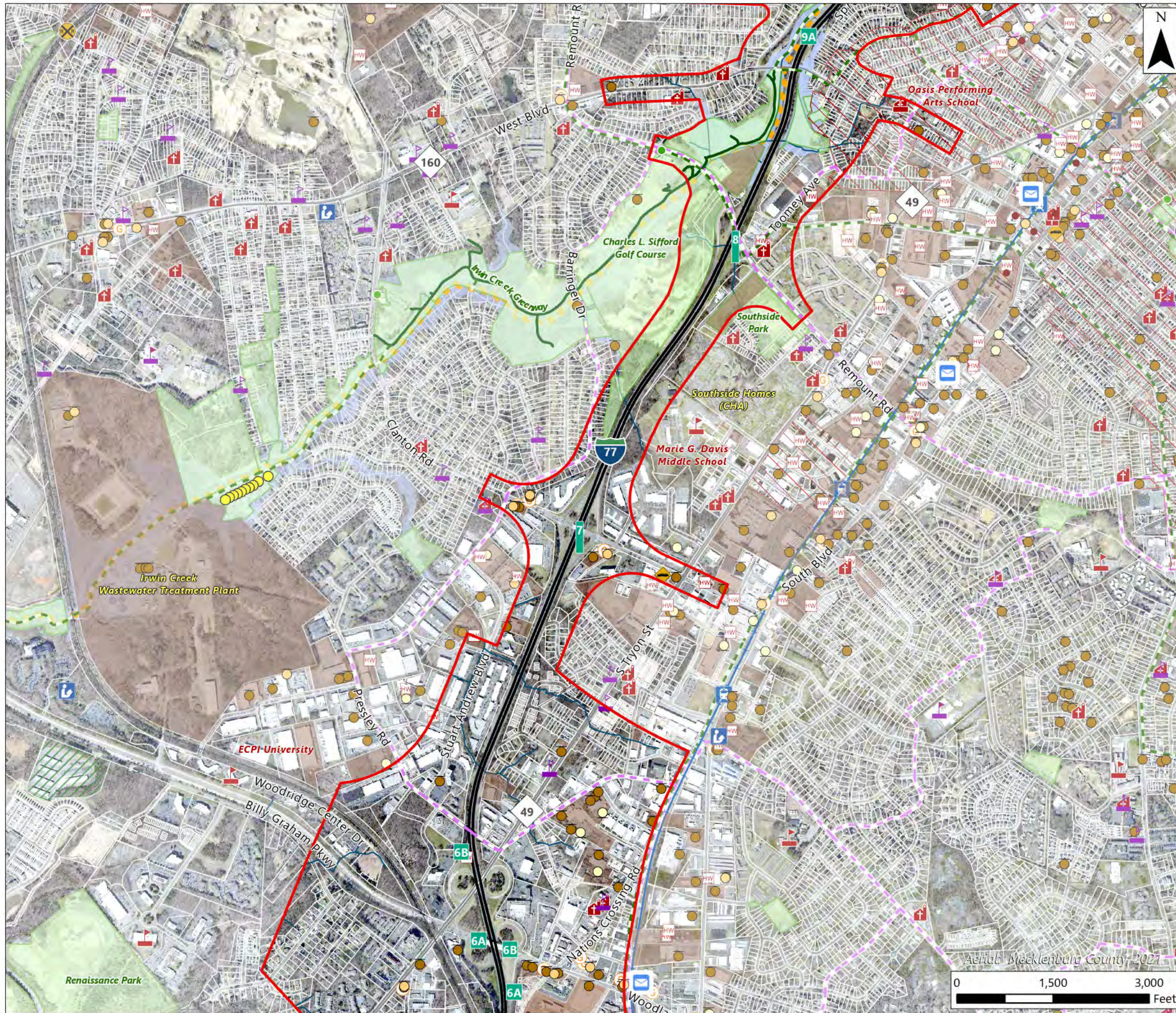
Project Study Area	Public Park
I-77 Exit No.	State Owned Land
Railroad Bridge	Existing Greenway
At-Grade Rail Crossing	Future/Proposed Greenway
Railroad	Signed Bike Route
Educational Institution	LYNX Blue Line Station
Child Care Facility	LYNX Blue Line
Place of Worship	FEMA Buyout Program
Library	Gas Station
Post Office	Geoenvironmental Site of Concern
Hospital	Above Ground Storage Tank Incident
Fire Station/EMS	Active Underground Storage Tank
Recreation Center	Underground Storage Tank Incident
Historic Property	303(d) Impaired Stream
Historic Property/District	Contamination Site
Cemetery	Creek/Stream/Waterbody*
Historic Cemetery	Wetland*
	100 Year Floodplain
	Parcel Boundary
	County Boundary
	State Boundary

* based on preliminary field visit verification

STIP: I-5718 WBS: 49020.1.1 Division: 10



Figure 8
Environmental Features Map
Sheet 2 of 4



I-77 South Express Lanes
 Widen I-77 to include express lanes from the SC State Line to I-277/NC 16 (Brookshire Freeway)

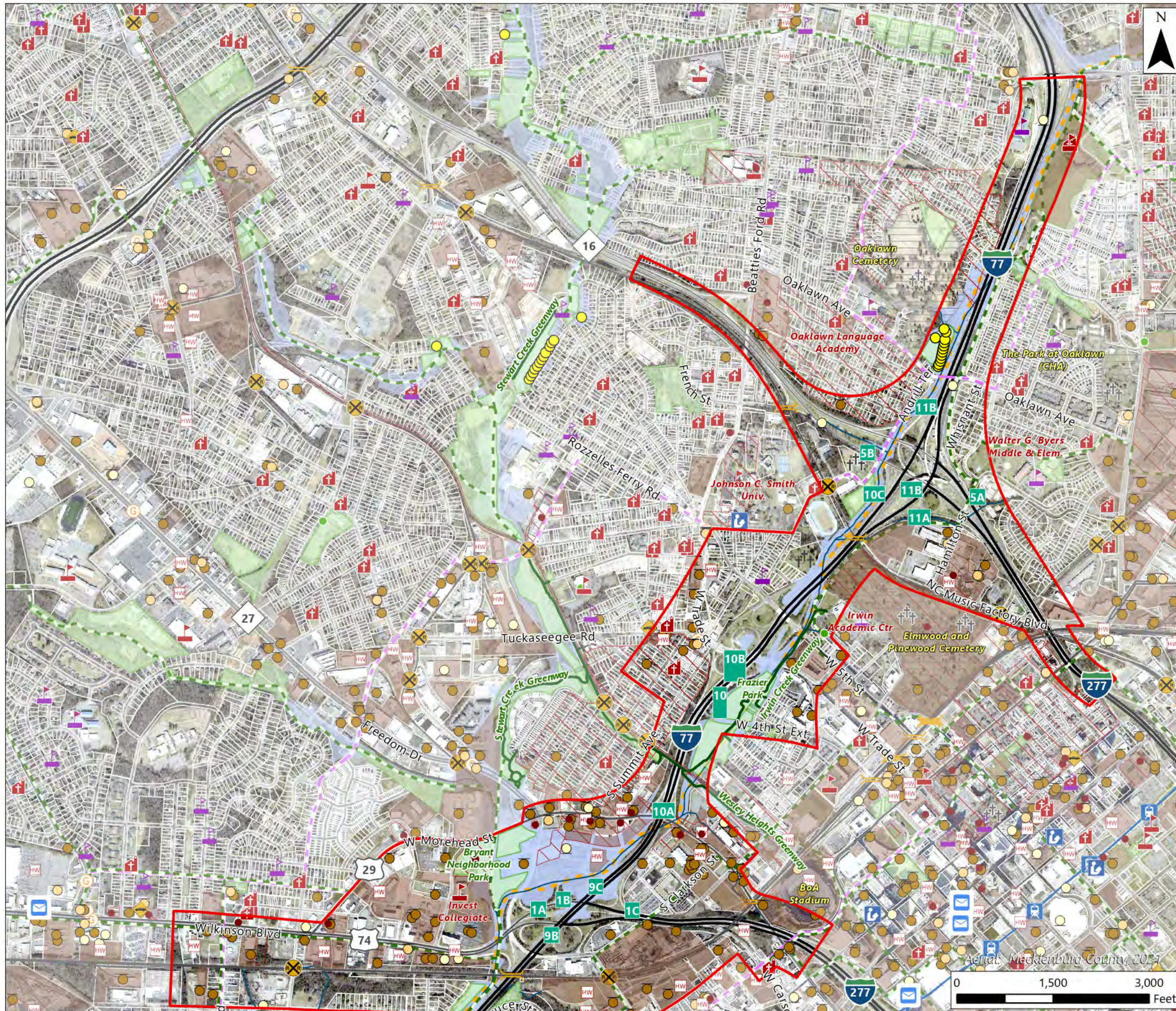
Legend	
Project Study Area	Public Park
I-77 Exit No.	State Owned Land
Railroad Bridge	Existing Greenway
At-Grade Rail Crossing	Future/Proposed Greenway
Railroad	Signed Bike Route
Educational Institution	LYNX Blue Line Station
Child Care Facility	LYNX Blue Line
Place of Worship	FEMA Buyout Program
Library	Gas Station
Post Office	Geoenvironmental Site of Concern
Hospital	Above Ground Storage Tank Incident
Fire Station/EMS	Under Ground Storage Tank Incident
Recreation Center	303(d) Impaired Stream
Historic Property	Contamination Site
Historic Property/District	Creek/Stream/Waterbody*
Cemetery	Wetland*
Historic Cemetery	100 Year Floodplain
	Parcel Boundary
	County Boundary
	State Boundary

* based on preliminary field visit verification

STIP: I-5718 WBS: 49020.1.1 Division: 10



Figure 8
Environmental Features Map
 Sheet 3 of 4



I-77 South Express Lanes
 Widen I-77 to include express lanes from the SC State Line to I-277/NC 16 (Brookshire Freeway)

Legend

Project Study Area	Public Park
I-77 Exit No.	State Owned Land
Railroad Bridge	Existing Greenway
At-Grade Rail Crossing	Future/Proposed Greenway
Railroad	Signed Bike Route
Educational Institution	LYNX Blue Line Station
Child Care Facility	LYNX Blue Line
Place of Worship	FEMA Buyout Program
Library	Gas Station
Post Office	Geoenvironmental Site of Concern
Hospital	Above Ground Storage Tank Incident
Fire Station/EMS	Active Underground Storage Tank
Recreation Center	Underground Storage Tank Incident
Historic Property	303(d) Impaired Stream
Historic Property/District	Contamination Site
Cemetery	Creek/Stream/Waterbody*
Historic Cemetery	Wetland*
	100 Year Floodplain
	Parcel Boundary
	County Boundary
	State Boundary

* based on preliminary field visit verification

STIP: I-5718 WBS: 49020.1.1 Division: 10



Figure 8
Environmental Features Map
 Sheet 4 of 4

IV.C.3 Local Transportation and Land Use Plans

The following local transportation and land use plans include recommendations within the project study area.

Charlotte Streets Map

The City developed the [Charlotte Streets Map](#) (adopted in August 2022) to implement the mobility policies outlined in the City's 2040 Comprehensive Plan. The *Charlotte Streets Map* is a map of Charlotte's street network, including limited access roadways, arterial streets, collector streets, and some specific local streets. It reflects adopted transportation policies for multimodal streets and includes the expected multimodal cross-section for each arterial street.

Table 10 shows the proposed typical section from the *Charlotte Streets Map* for each cross street in the study area (when different from the existing cross section).

Table 10. Charlotte Streets Map Proposed Typical Section for Cross Streets

Facility	Proposed Typical Section
<ul style="list-style-type: none"> Westinghouse Boulevard Tyvola Road 	6-lane boulevard with 8' planting strip and 12' shared use path
<ul style="list-style-type: none"> Arrowood Road 	4-lane boulevard with 8' planting strip and 12' shared use path
<ul style="list-style-type: none"> Woodlawn Road – S. Tryon Street to I-77 Billy Graham Parkway NC 49 (S. Tryon Street) – Clanton Road to I-77 	4-lane boulevard with buffered/separated bike lanes, 8' planting strip, and 6' sidewalk
<ul style="list-style-type: none"> Woodlawn Road – I-77 to Rockford Court NC 49 (S. Tryon Street) – I-77 to Woodlawn Road NC 160 (West Boulevard) W. Trade Street – Wesley Heights Way to I-77 	4-lane avenue with buffered/separated bike lanes, 8' planting strip, and 8' sidewalk
<ul style="list-style-type: none"> Nations Ford Road Clanton Road Remount Road W. Morehead Street – Freedom Drive to I-77 northbound on-ramp W. 4th Street – Tuckaseegee Road to I-77 W. 5th Street – W. Trade Street to I-77 	2-lane avenue with buffered/separated bike lanes, 8' planting strip, and 8' sidewalk

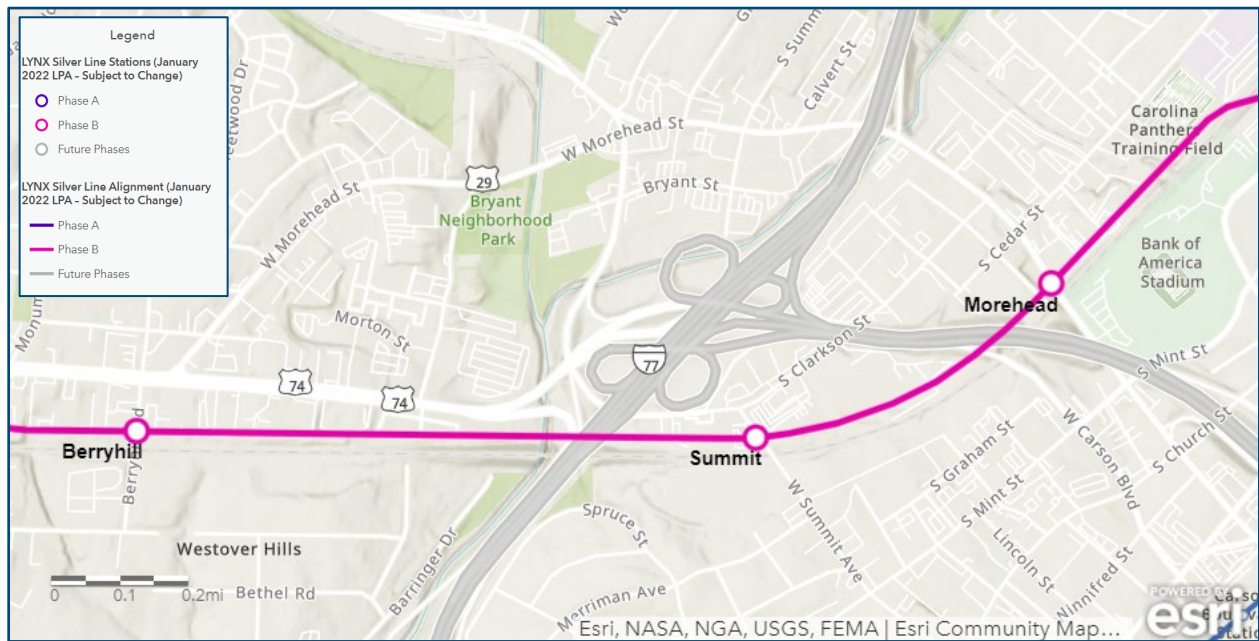
Signed Bicycle Routes

Pressley Road which crosses I-77 north of the S. Tryon Street interchange and Toomey Avenue east of the Remount Road interchange is part of the City of Charlotte Signed Bicycle Route 3. Andrill Terrace that runs parallel to I-77 in proximity to the I-277/NC 16 (Brookshire Freeway) interchange is part of the City of Charlotte Signed Bicycle Route 10.

LYNX Silver Line

In January 2022, the Charlotte Area Transit System’s (CATS) policy board, the Metropolitan Transit Commission (MTC), approved a locally preferred alternative (LPA) and phasing strategy for construction of the LYNX Silver Line. As shown on **Figure 9**, the LPA for the LYNX Silver Line proposes to run light rail on a new rail line near the Norfolk Southern Railroad between W. Morehead Street and W. 4th Street. It includes proposed stations west of I-77 at Berryhill Road and east of I-77 at Summit Avenue.

Figure 9. LYNX Silver Line Locally Preferred Alternative (January 2022)



Source: <https://charlottenc.gov/cats/transit-planning/silver-line/Pages/default.aspx>

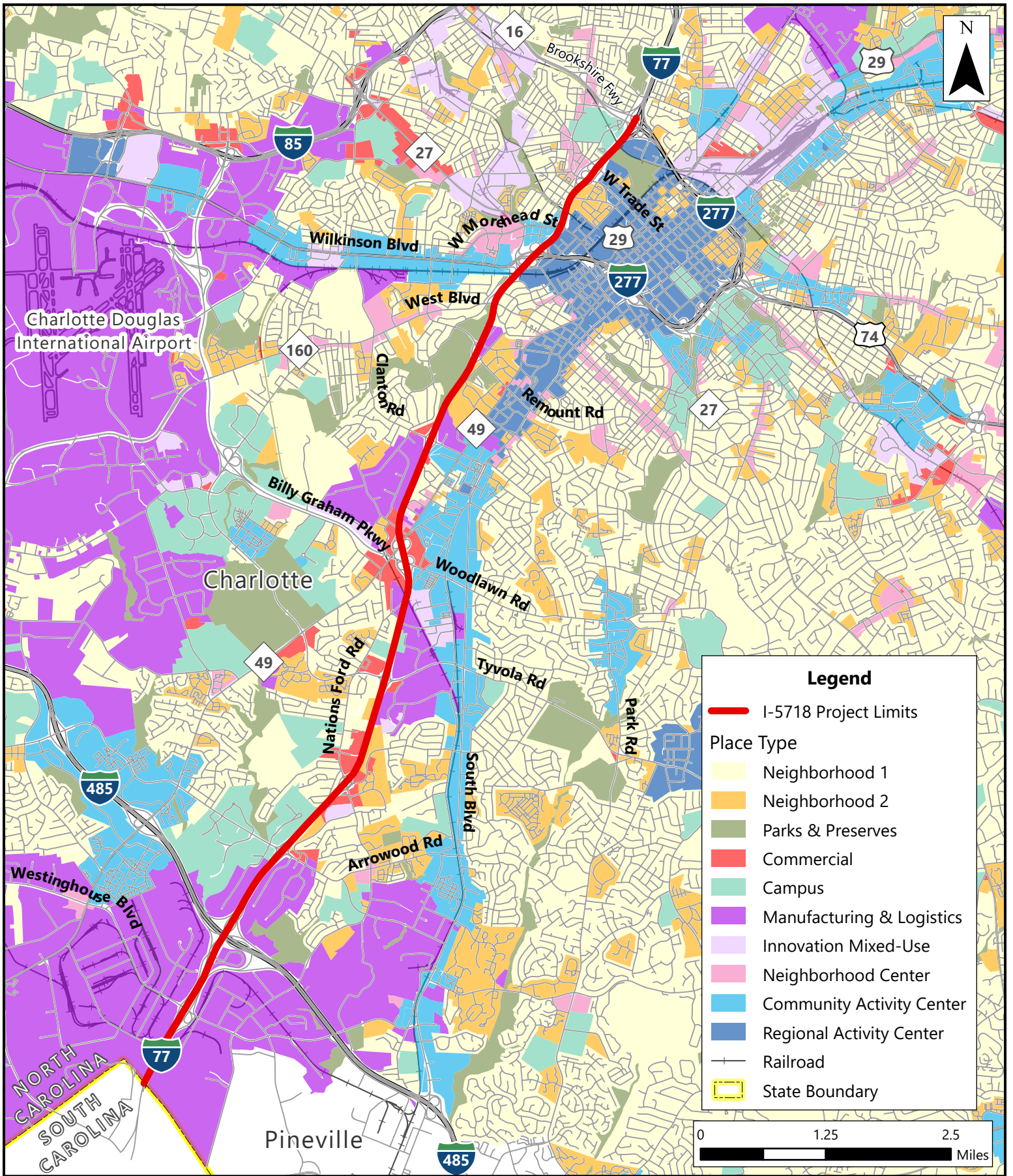
Charlotte 2040 Comprehensive Plan

The 2040 Comprehensive Plan, *Charlotte Future*, (adopted June 2021) is the City's shared, comprehensive vision to guide growth over the next 20 years. Existing land uses along the corridor are a mix of parks and open space, residential, retail/commercial, office, and industrial.

Charlotte Future uses Place Types which incorporate direction for transportation, layout, and design with land use. The 2040 Comprehensive Plan includes a total of ten distinct Place Types, all of which are recommended at some point along the corridor, as follows:

- **Neighborhood 1 and Neighborhood 2** Place Types, places with lower density and higher density housing areas, are recommended along the corridor between Arrowood Road and the I-277/NC 16 (Brookshire Freeway) interchange.
- **Parks & Preserves** Place Types are recommended around the Remount Road interchange and between W. Trade Street and the I-277/NC 16 (Brookshire Freeway) interchange.
- **Commercial** Place Types are recommended in the northeast quadrant of the Arrowood Road interchange, surrounding the Nations Ford Road and Woodlawn Road interchanges, in the southeast and northwest quadrants of the Tyvola Road interchange, and in the northwest quadrant of the Clanton Road interchange.
- **Campus** Place Types, relatively cohesive groups of buildings and public spaces that serve one institution such as a university, hospital, or office park, are recommended west of I-77 at the Arrowood Road interchange, along both sides of I-77 north of the Tyvola Road interchange, and in the southwest quadrant of the I-277/NC 16 (Brookshire Freeway) interchange.
- **Manufacturing & Logistics** Place Types are concentrated south of Arrowood Road, east of I-77 at the Tyvola Road interchange, west of I-77 and north of Billy Graham Parkway, in the northeast quadrant of the Clanton Road interchange, and east of I-77 at the Remount Road interchange.
- **Innovation Mixed-Use** Place Types, areas of mixed and employment in older urban areas, are recommended along the railroad in proximity to the Woodlawn Road interchange and east of I-77 between Arrowood Road and Tyvola Road.
- **Neighborhood Center** Place Types, or small, walkable, mixed-use areas, are recommended along W. Trade Street, W. Morehead Street, and NC 160 (West Boulevard) west of I-77 and generally along S. Tryon Street east of I-77.
- **Community Activity Center** Place Types, or mid-sized mixed-use areas, are recommended along W. Morehead Street west of I-77, along Wilkinson Boulevard, and along the LYNX Blue Line.
- **Regional Activity Center** Place Types, or large, high-density mixed-use areas, are concentrated within the I-277 loop and between S. Tryon Street and South Boulevard north of New Bern Street.

Figure 10 shows the recommended Place Types along the corridor.



I-77 South Express Lanes

Widen I-77 to include express lanes from the SC State Line to I-277/NC 16 (Brookshire Freeway)

Figure 10
Charlotte 2040
Place Types
Map

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