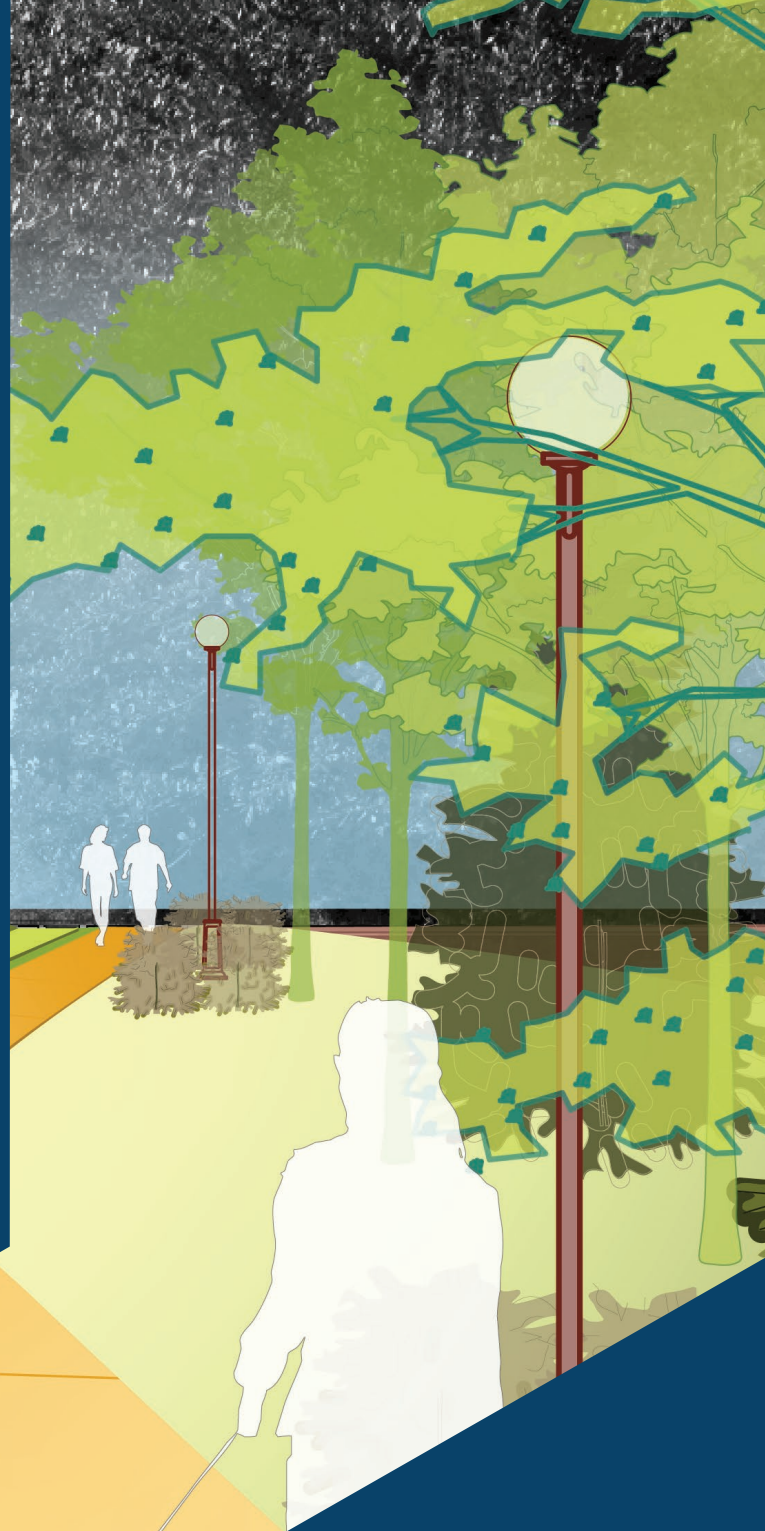


PLANNING AND
DEVELOPMENT

Wake BRT: Western Blvd Corridor Study

Urban Design - Report

DRAFT:
September, 2021



raleighnc.gov





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1 Executive Summary

Executive Summary

Background

The Western Boulevard corridor is reflective of the region’s post-WWII growth driven by key transportation investments. Since its initial phased construction that began in the early 1920s, the old Western Wake Highway has evolved into the well-traversed boulevard that most are familiar with today. The old Wake Highway played a crucial role in providing the first infrastructure link between downtown Cary and the old Method community in Raleigh. It offered both communities expanded opportunities for trade, commerce, neighborhoods, and leisure. The highway also paved the way for people to live in Cary and work in Raleigh, spurring regional growth that has remained constant. By the late 1990s, Western Boulevard expanded its limits and connected all the way to downtown Raleigh.

Over many decades, Western Boulevard has evolved in character and continues to serve as a key gateway and transportation link connecting downtown Raleigh and downtown Cary. The distinguishing feature of the corridor is its heavily auto-oriented design. It is mostly traversed by drivers that commute to and from the many popular destinations along the corridor. The Western Boulevard Corridor Study evolved from the need to better plan and shape the opportunities around the successful implementation of bus rapid transit (BRT). The City of Raleigh and Wake County have seen unprecedented growth over the last

few decades. As it has historically, transportation infrastructure continues to play a key role in shaping future growth, the economy, and development potential. Using a car as a primary mode of transportation is not a sustainable option in the face of fast-paced growth and climate change.

Planning for transit and walkable neighborhoods is critical in managing growth and balancing the quality of life that makes Raleigh and our region special. The Wake Transit Plan, adopted in 2016, lays the blueprint for major transit investments, including 20 miles of BRT, that will guide the region’s future growth and transportation needs. A Major Investment Study (MIS), completed in 2018, proposed one BRT route from downtown Raleigh along Western to a point near the Jones Franklin Street intersection. Three potential alternatives from that point on included Chapel Hill Road, East Chatham Street/Hillsborough Road, and Western Boulevard Extension/Walnut Street. The Western Boulevard Corridor Study also introduces an additional route option along Maynard Road for serving downtown Cary. This study intends to bridge the gap between prior high-level transit planning work accomplished under the MIS and future BRT design work for the Western Boulevard corridor.

The consultant team led by WSP conducted a detailed technical analysis that led to the selection of a Locally Preferred Alternative (LPA) to connect BRT between downtown Raleigh and Cary. The selected LPA connects downtown Raleigh and downtown Cary

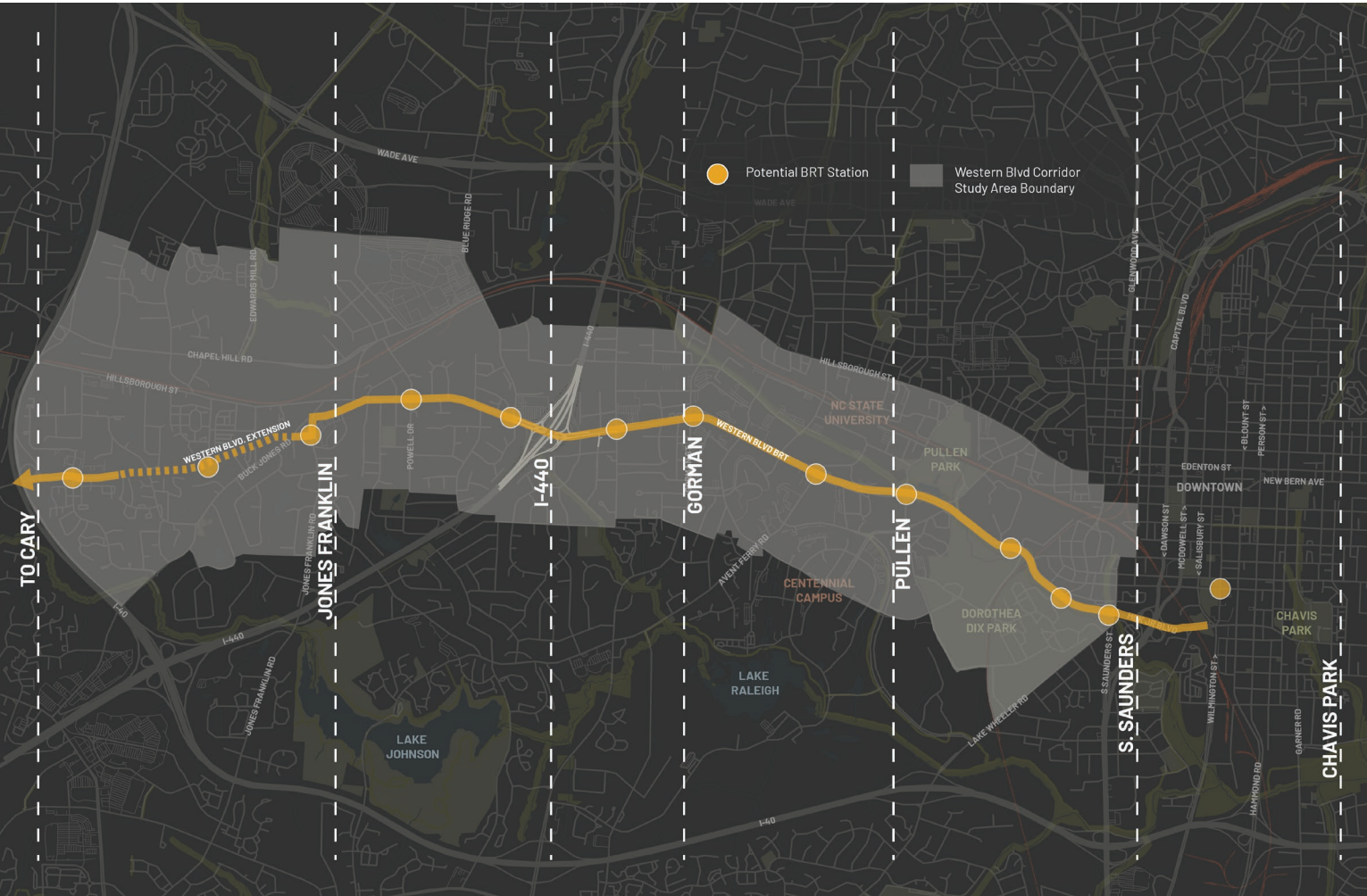
along the Western Boulevard/Cary Towne/ Maynard route. See map below. The study area for land use and urban design analysis includes **(See Map 1):**

- The Western Boulevard corridor segment between Wilmington Street in downtown Raleigh to the east.
- The I-440 edge of Raleigh’s jurisdictional limits to the west.

- All properties within a half-mile buffer of the BRT corridor.

The study seeks to apply urban design solutions to enhance the quality of the public realm for all BRT users. It also seeks to guide the transformation of the area into a safe, walkable, transit-oriented urban corridor.

MAP 1 WAKE BRT: WESTERN BLVD. CORRIDOR STUDY BOUNDARY



State of the Corridor

The Western Boulevard BRT corridor presents a great opportunity to create a safe, vibrant, mixed-use, and transit-oriented corridor that connects many popular destinations between downtown Raleigh and downtown Cary. It is the longest (approx. 9 miles) of the four key BRT corridors identified in the Wake Transit Plan. This new frequent, reliable transit service will provide service every 10 minutes in peak periods. It will also provide an elevated transit experience with level boarding, unique system branding, and off-board fare collection. With easy access to major highways, I-440 and I-40, Dix and Pullen parks, NCSU campuses, and downtowns, the corridor is well-positioned for significant physical and economic transformation spurred by the BRT investments.

Demographics

Census data shows that about 7% of Raleigh’s population lives on this corridor, with a higher percentage of college students living closer to North Carolina State University’s (NCSU) campuses. The corridor has a younger population with 44% in the 20-34 age group (see Figure 1). The corridor has seen higher than average growth closer to downtown and between I-440 and I-40 where transportation access is strong. The corridor connects several major employment centers (see Map 2) where a higher number of jobs are concentrated. Approximately 13%-15% of households closer to downtown do not own cars, while that figure reduces to 4% between I-440 and I-40. This indicates that reliable BRT service and targeted, mixed-use development of the corridor could decrease car dependency and increase

transit ridership. The Western Boulevard corridor shows robust potential for further growth and development around BRT service.

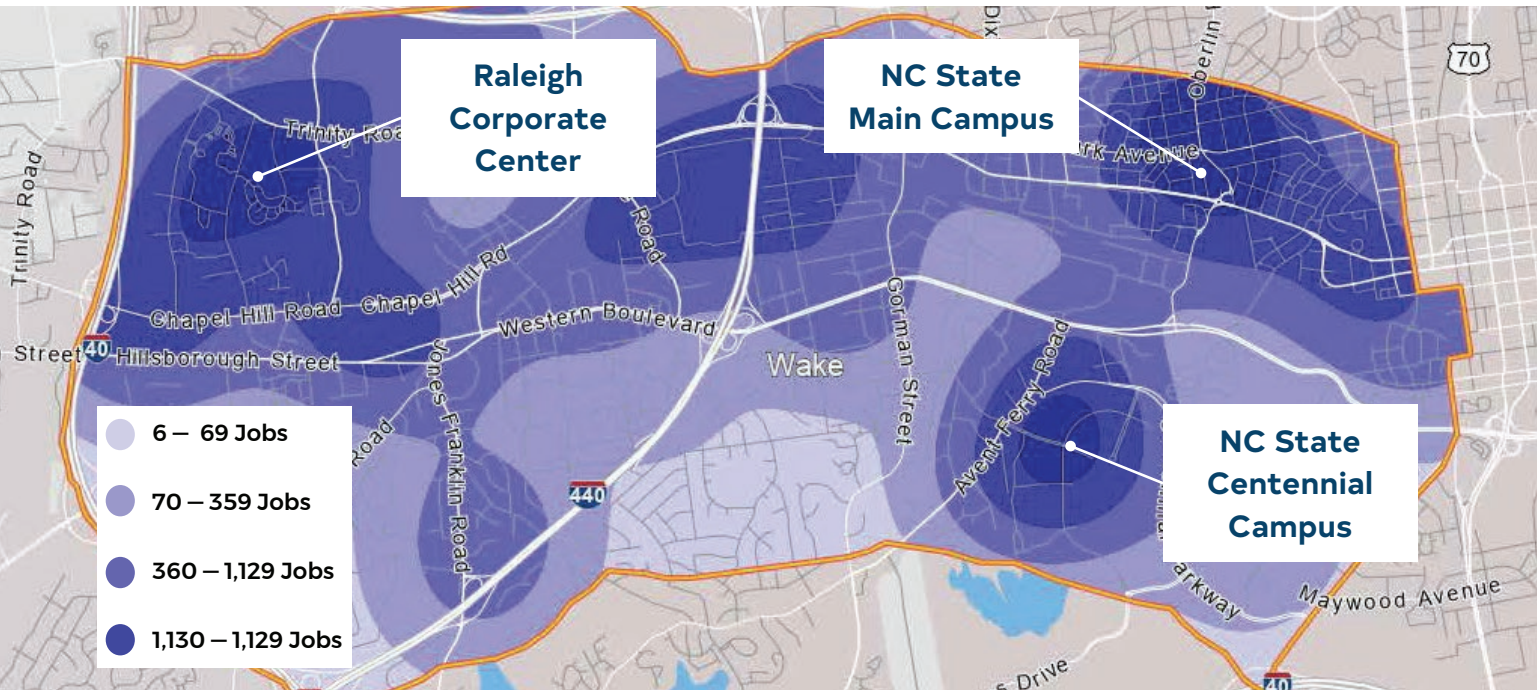
Key Challenges

The challenges and opportunities from BRT vary between the segments of the corridor based on the existing form and context.

Crash data for the corridor highlights critical intersections in need of improvements to better serve multimodal users. The NC rail line, I-440, and I-40 act as barriers posing further challenges to connectivity for bicyclists and pedestrians.

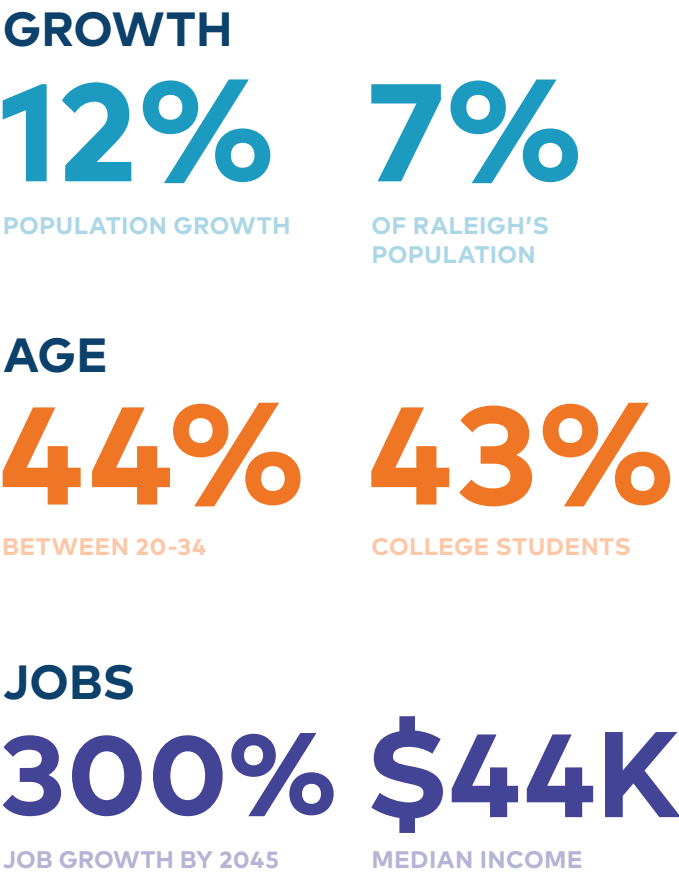
The corridor provides access to several established historic neighborhoods, ethnic businesses, and cultural/religious institutions. However, the gaps in street and sidewalk infrastructure pose challenges for connectivity creating isolated neighborhoods that further supports automobile dependency. While some level of transit service is provided by different agencies –such as GoRaleigh, Wolfline, and GoTriangle, there is need to better coordinate routes, stops, and transfers so greater efficiency can be achieved with the integration of the BRT service.

MAP 2 EMPLOYMENT NODES WITHIN 1 MILE OF CORRIDOR



Source: LEHD OnTheMap

FIGURE 1 DEMOGRAPHIC DATA



Land Use

The existing land uses transition from a more urban character near downtown Raleigh to a more suburban character moving west towards Cary. Along the way, it touches major campuses and destinations including NCSU and Dorothea Dix Park. Connectivity across and along the corridor to these destinations and the surrounding neighborhoods is limited. Overall, the corridor lacks adequate pedestrian and bicycle facilities, its design favoring automobiles over bicyclists and pedestrians.

Public Engagement

Over the last year and a half, in-person and virtual public meeting sessions engaged more than 1000 participants. Public input revealed general excitement around major transit investments and opportunities to transform the automobile focus of the corridor. Safety at crossings, improved pedestrian and bicycle facilities, enhanced overall connectivity, transit-oriented development of key catalytic sites, and green infrastructure were identified as key priorities to be addressed for Western Boulevard. The community supports a future Western Boulevard that is safe, walkable, and transit-oriented with strong connections to neighborhoods, parks, places of employment, and key destinations. Walkable station areas connected by multimodal networks could host higher densities, mixed-uses, quality public spaces, and a variety of placemaking elements.

Themes for the Corridor

Public feedback guided the development of the four themes for the corridor improvements: Multimodal Connectivity, Transit-Oriented Development (TOD), Public Realm Enhancements, and Environmental Sustainability.

Character Zones

The character and form of Western Boulevard varies significantly from a more urban zone near downtown to the more suburban residential zone along the western edge near Cary. Based on the predominant land use, character, and urban form, the Western corridor has been divided into six character zones for this planning and design analysis. Each character zone highlights the existing context, design challenges, and specific urban

design opportunities. The zone-specific opportunities identified will be incorporated as policies and actions in the area specific guidance section for the Western Boulevard corridor in the 2030 Comprehensive Plan. The implementation table lays out the action plan and identifies capital projects for which capital programming will be required **(See Chapter 5, Implementation.)**

Vision Statement

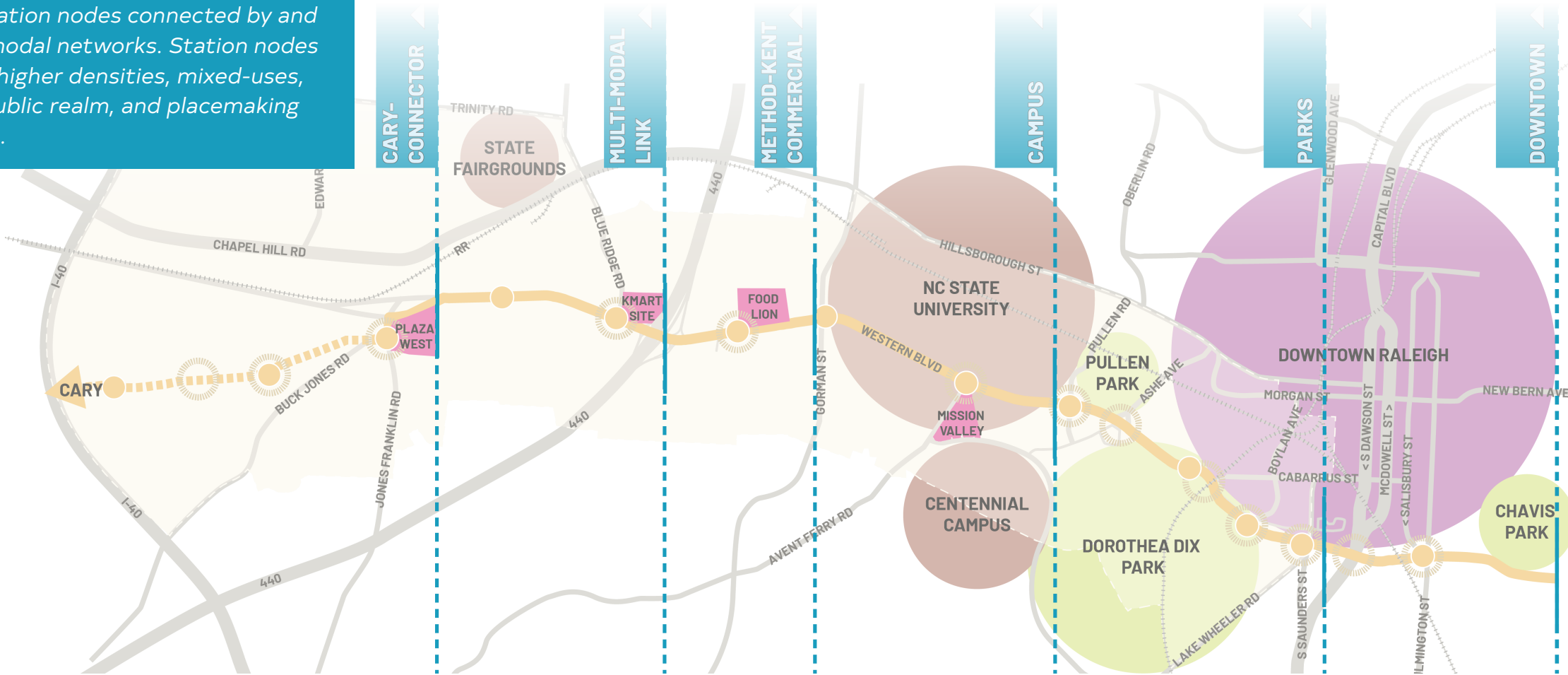
Western Boulevard will evolve into a safe, walkable, transit-oriented gateway with strong connections to neighborhoods, parks, places of employment, and key destinations. As a BRT corridor, it will include pedestrian-scaled station nodes connected by and to multimodal networks. Station nodes will host higher densities, mixed-uses, quality public realm, and placemaking elements.

Urban Design Analysis

The recommendations of this section capture the various design opportunities identified for different character zones under the overarching themes of connectivity, TOD, public-realm enhancements, and environmental sustainability. The recommendations seek to:

- Apply complete streets design principles to enhance comfort and safety for all users—transit riders, cyclists, and pedestrians.
- Promote Raleigh's Vision Zero goals to reduce traffic fatalities and provide safe and equitable mobility options.

- Encourage sustainable approaches to the design of BRT streets and TOD.
- Identify key gaps in connections critical to the pedestrian, bicycle, and greenway networks around the transit corridor.
- Highlight the importance of TOD opportunities to support the City's larger goals of affordability and sustainability.
- Promote urban design improvements in the public realm that will enhance user experience.



Recommendations Summary

Recommendations for the various character zones generally further the goals of these overarching themes.

Multimodal Connectivity:

Connectivity gaps were a key issue noted for the Western corridor. A network of connected streets, bicycle paths, and greenway trails bridging infrastructure gaps will increase access into the BRT corridor and encourage more walking/biking trips and transit usage. This not only provides alternative modes to move around without relying on driving, but also renders environmental and climatic benefits with less vehicle miles traveled (VMT). Recommendations in the report include proposed amendments to the 2030 Comprehensive Plan to add new connections to the street plan, bike facilities, and greenway maps that will help achieve this goal. (See Maps 3,4,and 5.)

Transit-Oriented Development:

Development in TOD sites offers many advantages when compared to vehicle-reliant sites including greater flexibility in mix of uses, more compact and walkable neighborhoods, higher densities, lesser parking needs, and positive environmental impacts.

A consultant-led land use analysis projected the development capacities associated with a TOD scenario, indicating that the corridor could accommodate 100% growth in retail and 50% growth in residential uses. Key catalytic sites recommended for potential TOD are: the Mission Valley site at Avent Ferry, the Food Lion Shopping Center near Method/Kent, the old Kmart site near I-440, and Park West plaza at Jones Franklin.

These sites are large, under single ownership, and offer the potential to serve as catalysts for TOD along Western Boulevard (See Map 3.)

Public Realm Enhancements:

The term Public Realm refers to public areas/open spaces that are accessible to all. These spaces include but are not limited to streets, sidewalks, parks, plazas, open spaces, and trails. The quality of the public realm around BRT corridors and stations significantly influences walkability and ridership rates of the transit system. Smaller public open spaces integrated into the streetscape design creates a scale that is more walkable and more inviting to pedestrians.

Recommendations of the report highlight the areas along Western Boulevard where excess right-of-way and public spaces offer urban design opportunities to enhance the pedestrian experience for transit users. Major capital projects are also identified such as the redesign of the Pullen Rd. bridge, Ashe Avenue realignment, and Rocky Branch restoration near Ashe Avenue (See Maps 3 and 6.)

Environmental Sustainability:

Certain areas along the corridor cross streams or intersect floodplains. These areas require an environmentally sensitive approach to development and infrastructure projects. In addition to sustainability and green stormwater goals already embraced by the City, greater effort in sustainable development is warranted in these areas. Green transit-oriented development (TOD) is a planning and urban design approach that prioritizes ecological and human health. With the higher densities and walkability of

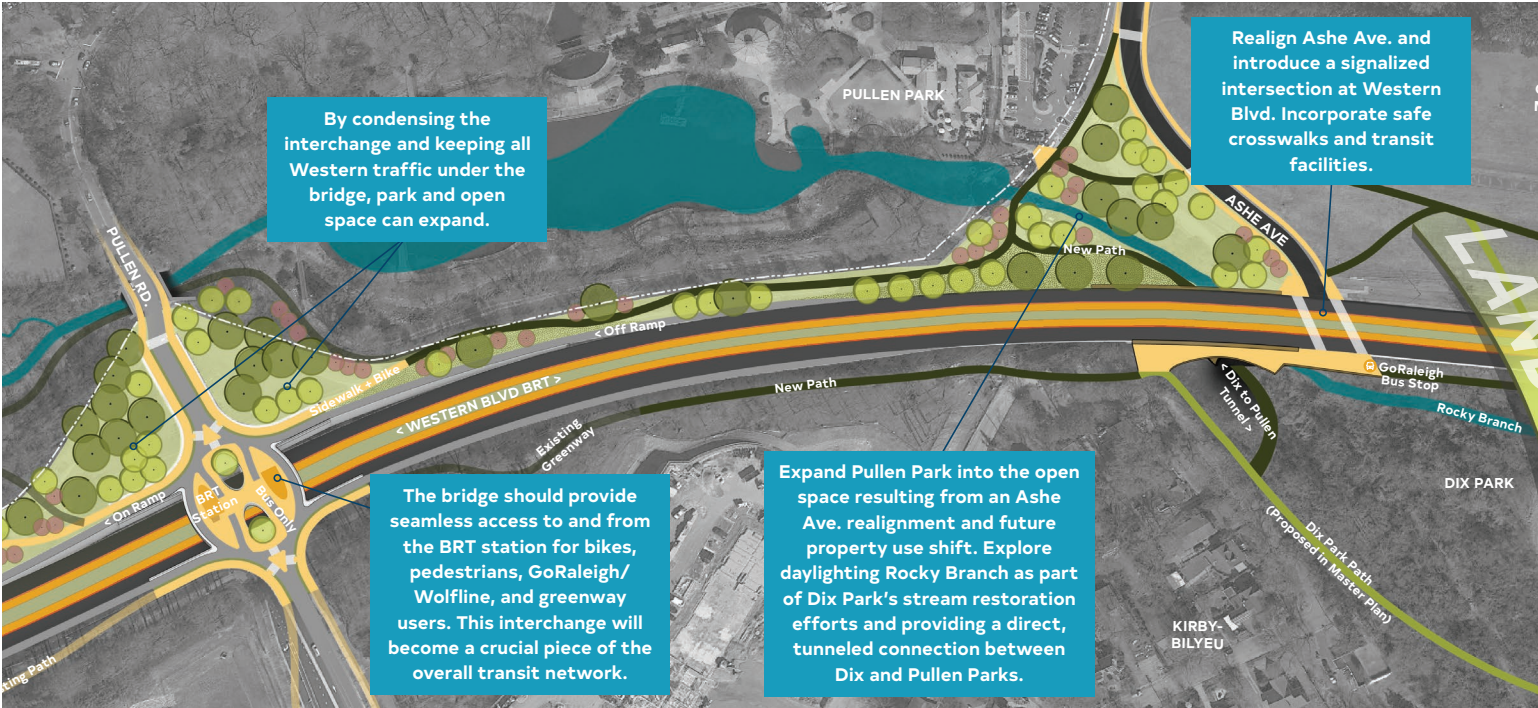
traditional TOD as a foundation, Green TOD could encourage and incentivize practices that support the following goals:

- Energy and water efficient buildings.
- Green stormwater infrastructure.
- Places for people rather than cars; interconnected green spaces.
- Habitat corridors and patches.
- Integrated waste management.

Recommendations in the report identify ecologically sensitive areas along the corridor that could benefit from further evaluation and application of a potential Green TOD pilot zone designation. This zone could be the testing ground to encourage and incentivize green elements in development projects that seek to bridge transit-oriented density and environmental sustainability goals. The study recommends further research and evaluation of the Green TOD concept and its potential pilot application in Raleigh's TOD context. (See Map 6.)

Implementation

A focus on implementation underlies all the recommendations of this report. The action plan in the implementation chapter lists all follow-up action items identified by this study that are non-budgetary in nature and can be coordinated by City staff. Some of these follow-up items would need to occur first before some of the capital projects can be implemented. The implementation matrix in the implementation chapter is a summary of all capital projects identified by the planning process that require budget allocations for implementation. These items are predominantly infrastructure improvements identified as critical to the successful transition of Western Boulevard into a transit corridor over time. The implementation items are categorized as quick fixes (0-2 years) and/or mid-long term (3-10+ years). Review implementation matrix for more details.

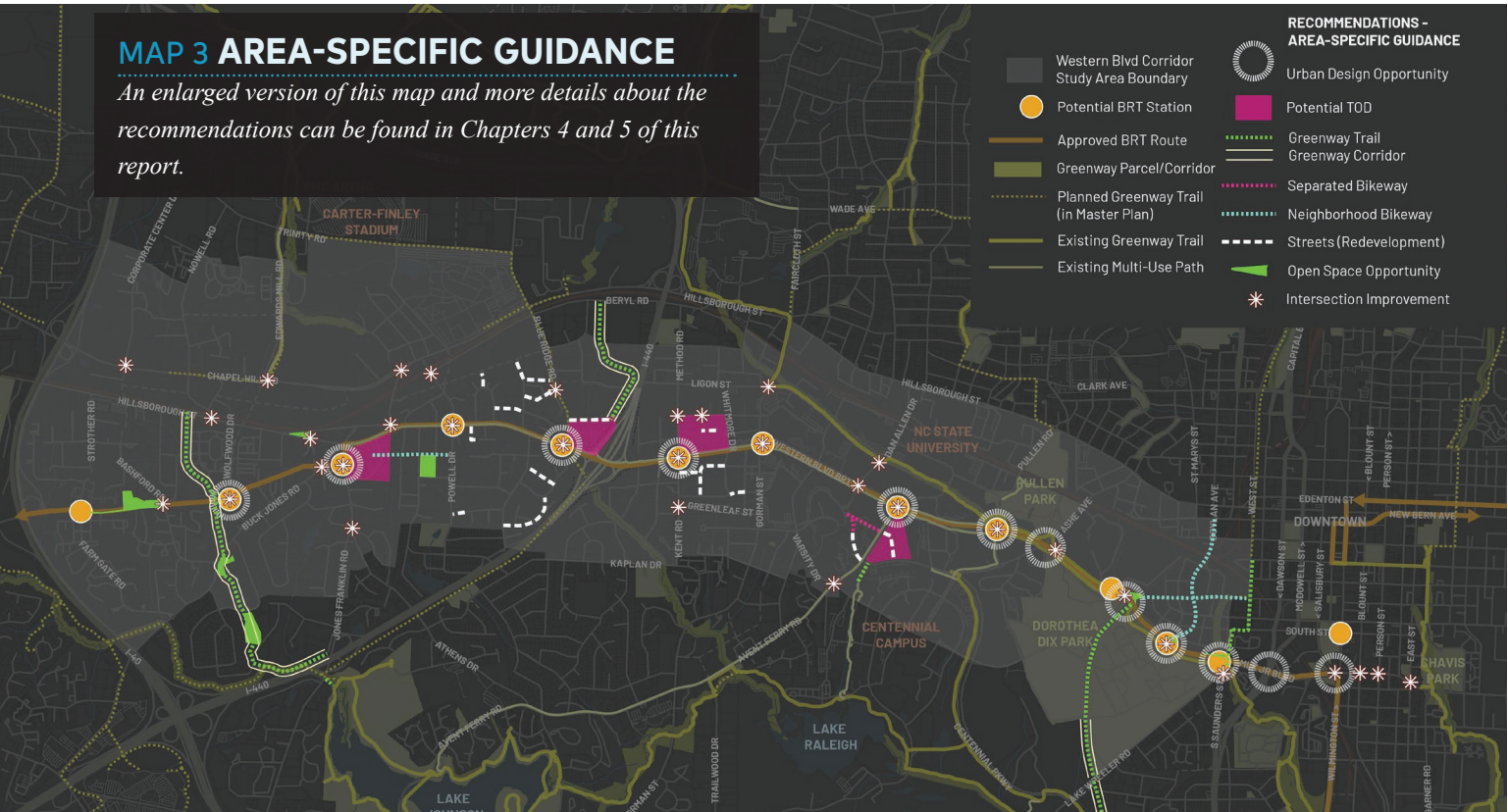


Proposed conditions vignette for Pullen Rd. and Ashe Ave. In Chapter 4, Urban Design Recommendations, proposals for each opportunity zone along the corridor are described in detail.

MAPS 3-6 SUMMARY OF OVERALL RECOMMENDATIONS

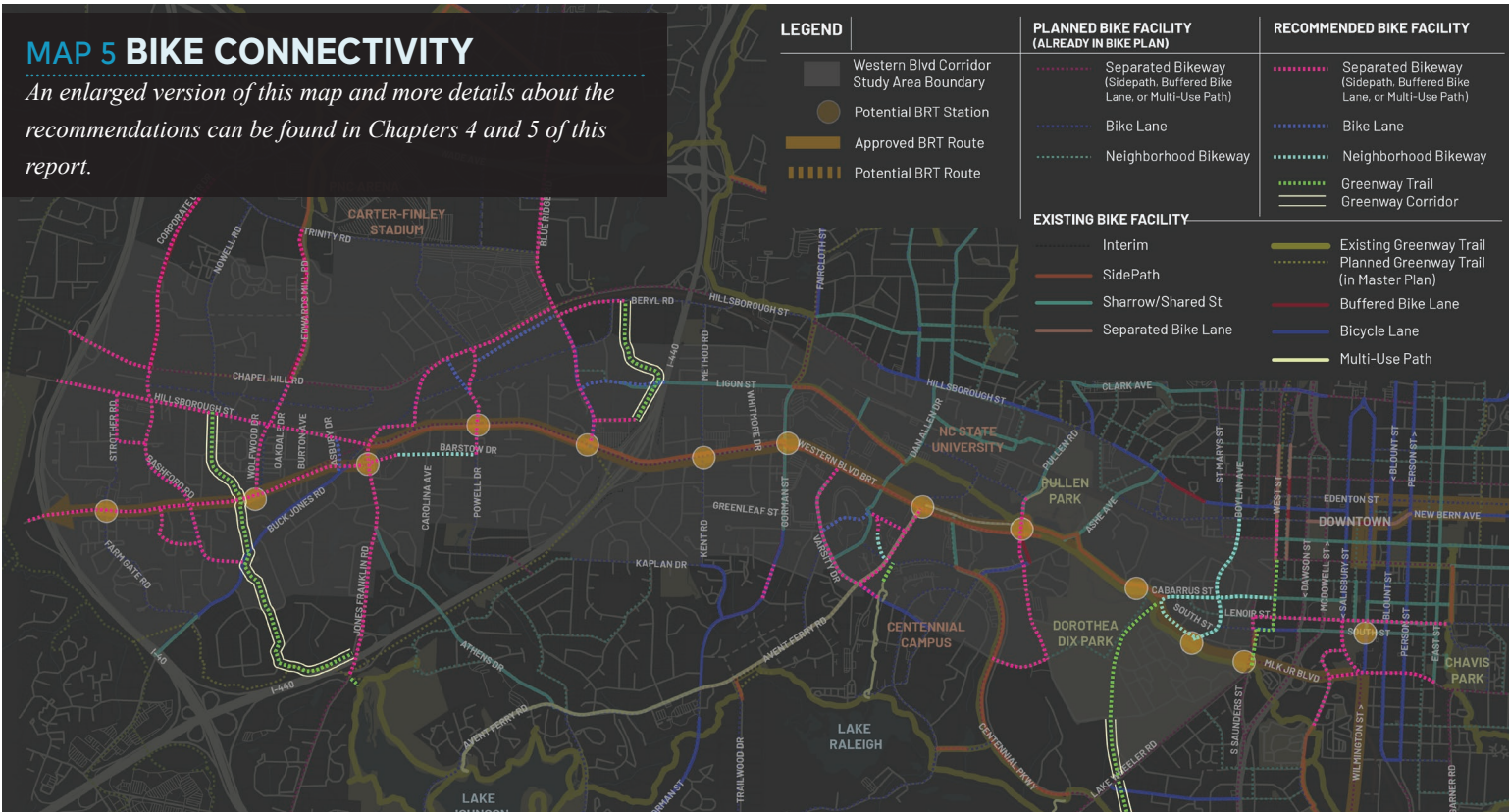
MAP 3 AREA-SPECIFIC GUIDANCE

An enlarged version of this map and more details about the recommendations can be found in Chapters 4 and 5 of this report.



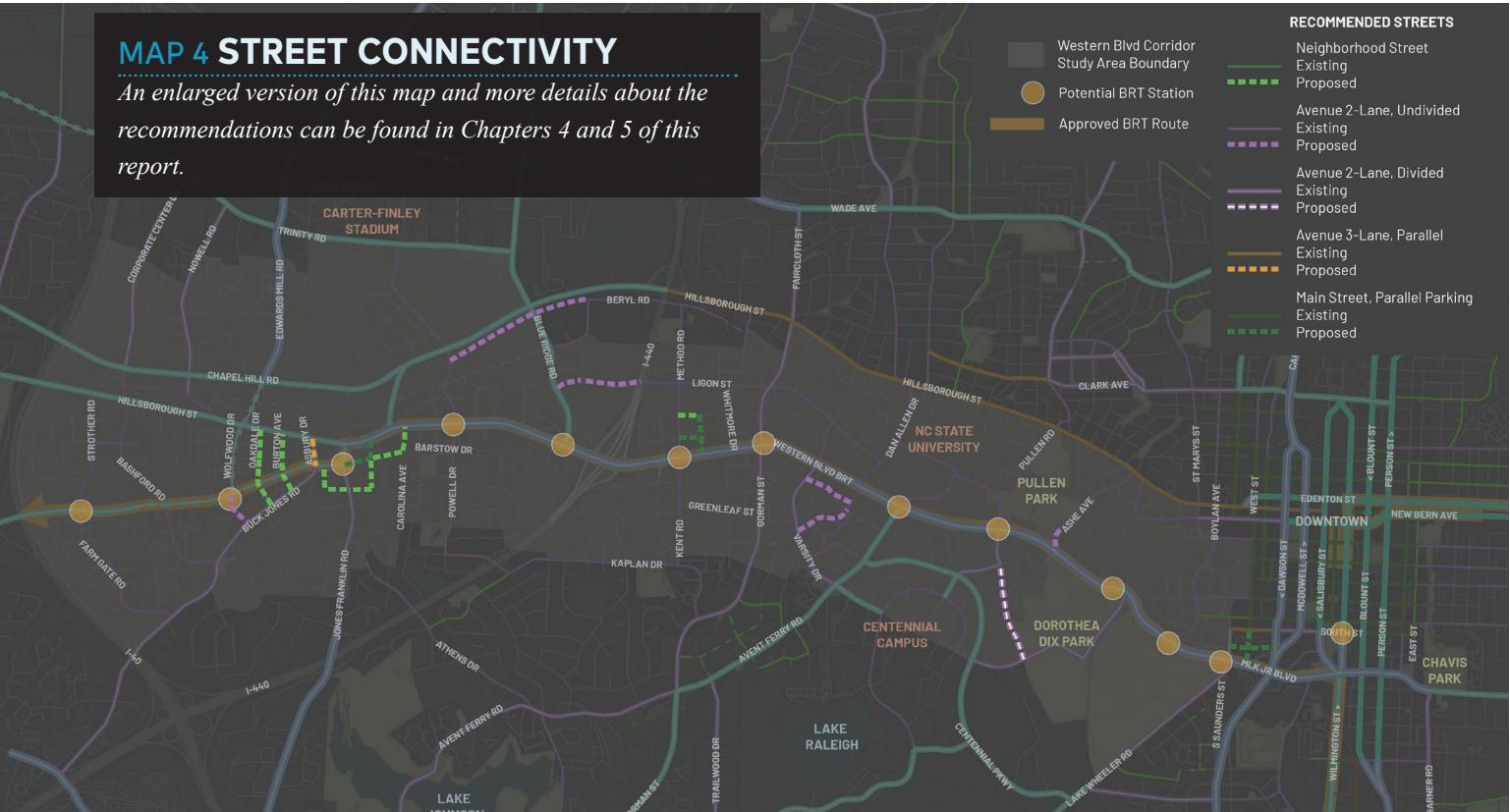
MAP 5 BIKE CONNECTIVITY

An enlarged version of this map and more details about the recommendations can be found in Chapters 4 and 5 of this report.



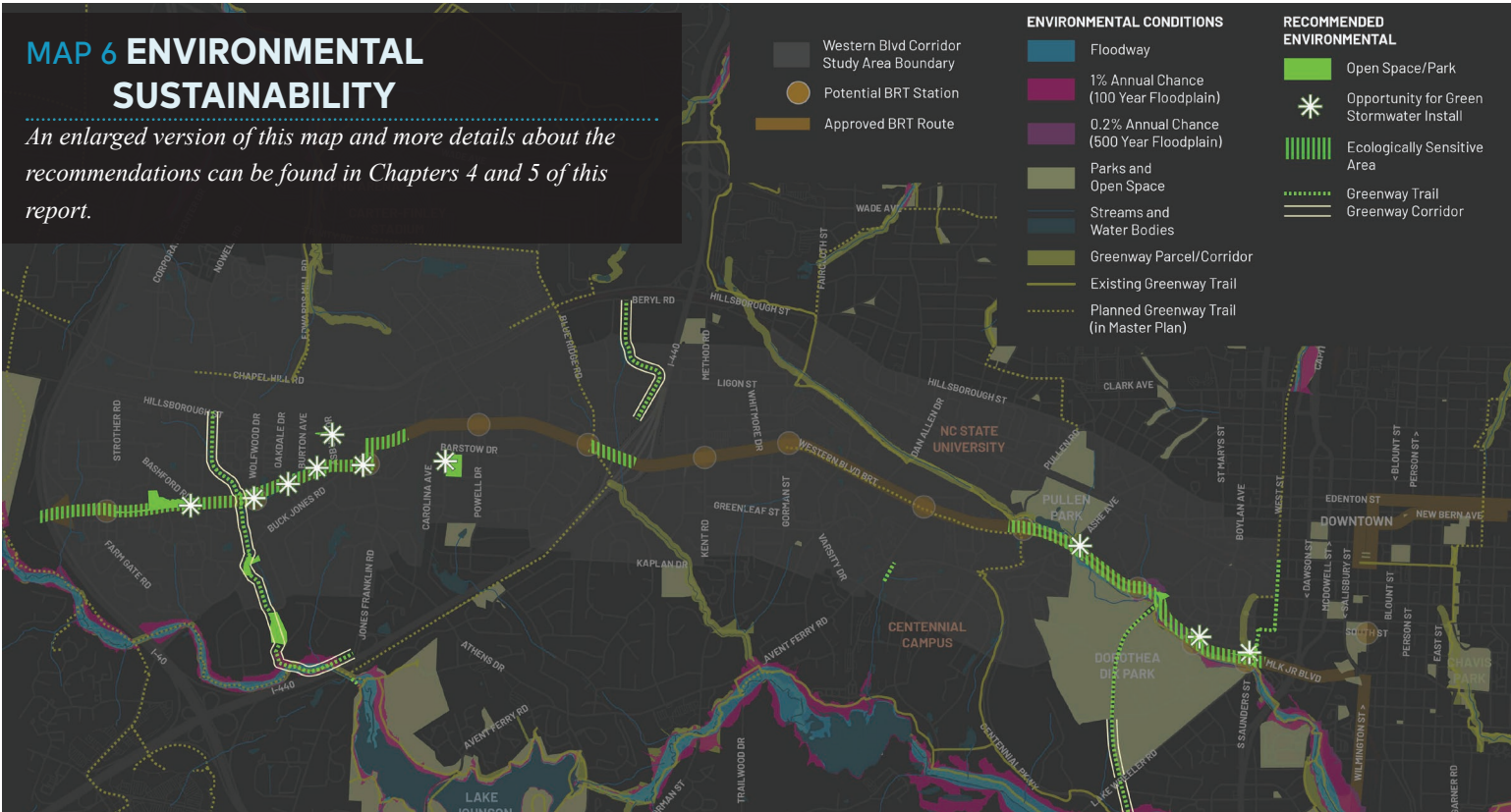
MAP 4 STREET CONNECTIVITY

An enlarged version of this map and more details about the recommendations can be found in Chapters 4 and 5 of this report.



MAP 6 ENVIRONMENTAL SUSTAINABILITY

An enlarged version of this map and more details about the recommendations can be found in Chapters 4 and 5 of this report.



2 Project Background

Introduction to Study Scope and Goals

In early 2019 the City of Raleigh’s Urban Design Center launched the Western Boulevard Corridor Study, in collaboration with the City’s Transit Division, intending to bridge the gap between prior transit planning work accomplished under a Major Investment Study (MIS), and future Project Development work (30% design and NEPA) for the Wake BRT: Western Boulevard corridor. The corridor study was funded by Wake Transit plan funds and City of Raleigh Transit funds. This study aims to leverage existing and recently adopted studies, conduct technical analysis around the land use capacity and urban form of the Western Boulevard Corridor to position this important transportation corridor in Raleigh for successful BRT implementation. The consultant team led by WSP conducted a detailed technical analysis that led to the selection of a Locally Preferred Alternative (LPA) to connect BRT between downtown Raleigh and Cary. A summary report of the technical analysis conducted by the consultant team is available for review and provides the framework for the recommendations included in this urban design report. This report is a summary of planning and urban design analysis for the Western Boulevard corridor conducted by the City’s Urban Design Center (UDC) team. The UDC team evaluated the entire Western BRT corridor to identify unique urban design opportunities in the public realm, streetscape and infrastructure

improvements, and connectivity gaps that could enhance the BRT experience for all users. This studay applies urban design solutions to enhance the quality of the public realm for all BRT users and to guide the transformation of the corridor into a safer, walkable, transit-oriented urban corridor.

The study area includes the Western Boulevard corridor segment between Wilmington Street in downtown Raleigh to the east and I-440 at the edge of Raleigh’s jurisdictional limits to the west, and all properties within a half-mile buffer of the BRT corridor **(See Map 7.)**

The Wake BRT: Western Boulevard Corridor Study efforts examined the following:

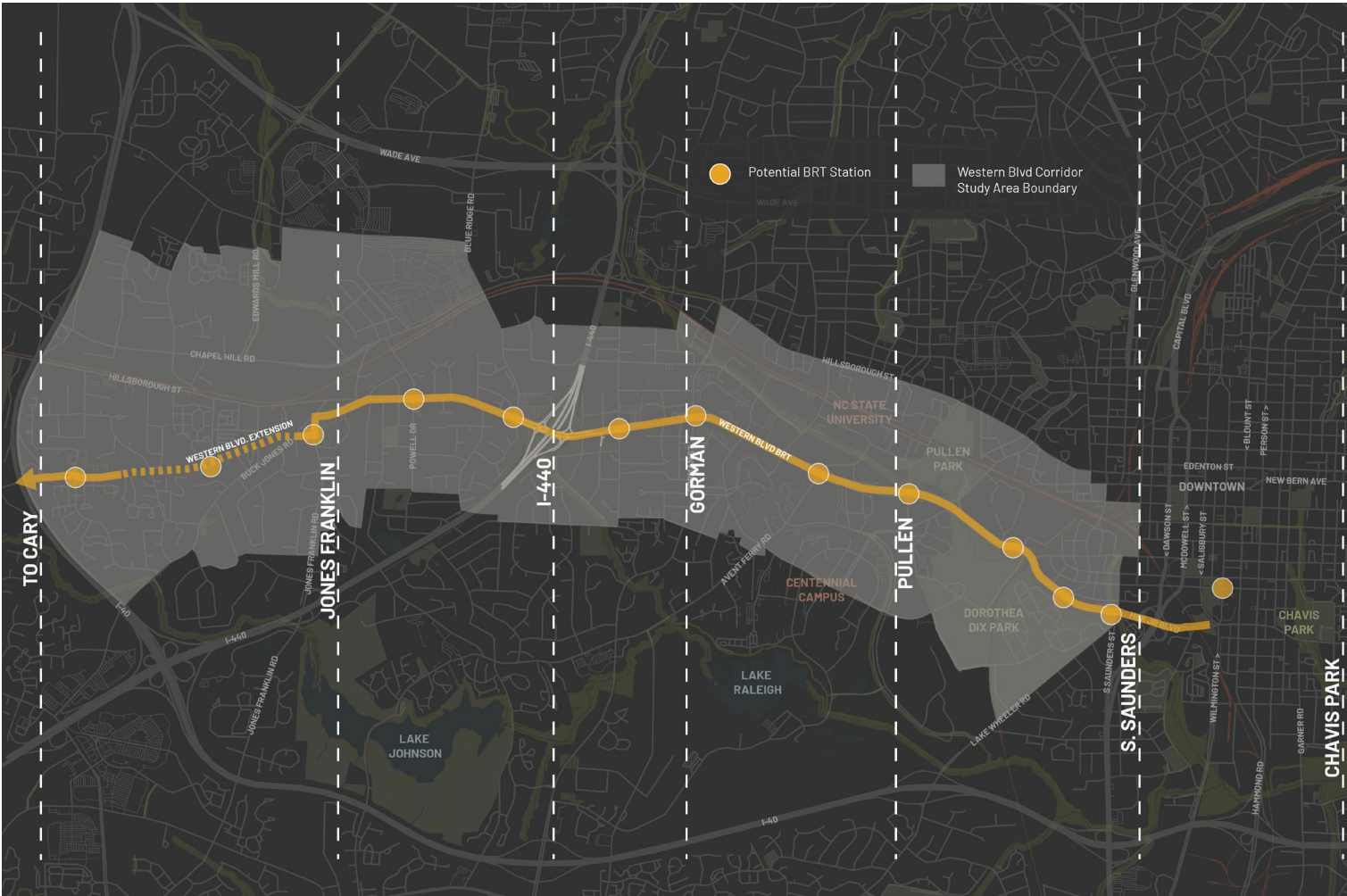
- Western Blvd. Bus Rapid Transit service route selection (connecting downtown Raleigh and downtown Cary).
- Infrastructure Improvement Opportunities (outlining redevelopment and public realm improvement potential along the corridor).

The Wake BRT: Western Boulevard Corridor Study report purpose:

- Creates a plan for Bus Rapid Transit (BRT) service connecting downtown Raleigh and downtown Cary.
- Leverages other studies to create a vibrant corridor with development opportunities.

- Highlights transit-oriented development opportunities for the corridor.
- Identifies key infrastructure improvement projects for the corridor to enhance pedestrian and bicycle safety and connections to the transit corridor.
- Highlights collaborative and partnership opportunities for public realm improvements around transit investments.
- Identifies unique opportunities for placemaking efforts that promote local identity for the transit corridor.
- Identifies sustainable approaches to the design of BRT streets and transit-oriented development.

MAP 7 WAKE BRT: WESTERN BLVD. CORRIDOR STUDY BOUNDARY

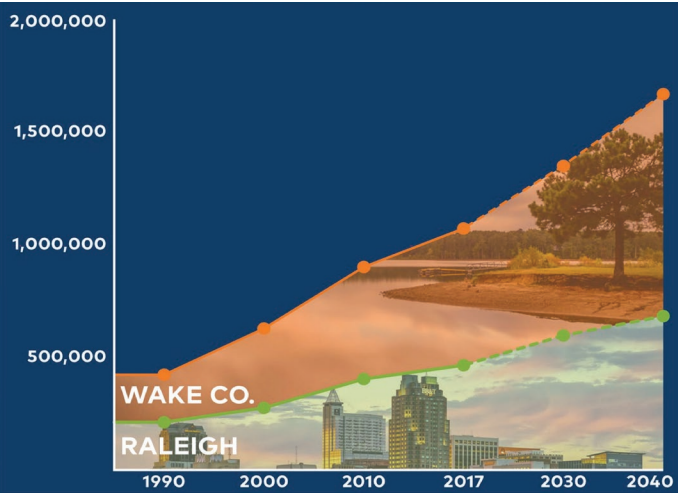


Regional Context

The capital of North Carolina, Raleigh is a fast-growing city located in the fastest-growing region of the state. With a current population of nearly 465,000, an increase of approximately 15% since 2010 and 110% since 1990, the city is expected to continue to grow to 600,000 by 2030 (see Figure 2.) Growth of this magnitude is not incidental – a strong and diverse economy in conjunction with a well rounded cultural, dining, and nightlife scene has made the region one of the most attractive in the country. Planning for the city's future must ensure that growth leverages existing and future assets such as transit and walkable neighborhoods without causing widespread displacement or compromising the city's unique character.

Intense growth has put a strain on the overall transportation system. By 2035, Raleigh's roadway network is projected to become even more congested. Vehicle miles traveled and vehicle hours traveled are projected to increase by over 50% from 2005 levels, as will the total number of trips on Raleigh's road network. To address these transportation-related challenges and meet the city and region's growing needs, Wake County voters approved a plan in November 2016 for focused investment in public transit, including building approximately 20 miles of bus rapid transit (BRT) lanes.

FIGURE 2 RALEIGH GROWTH CHART

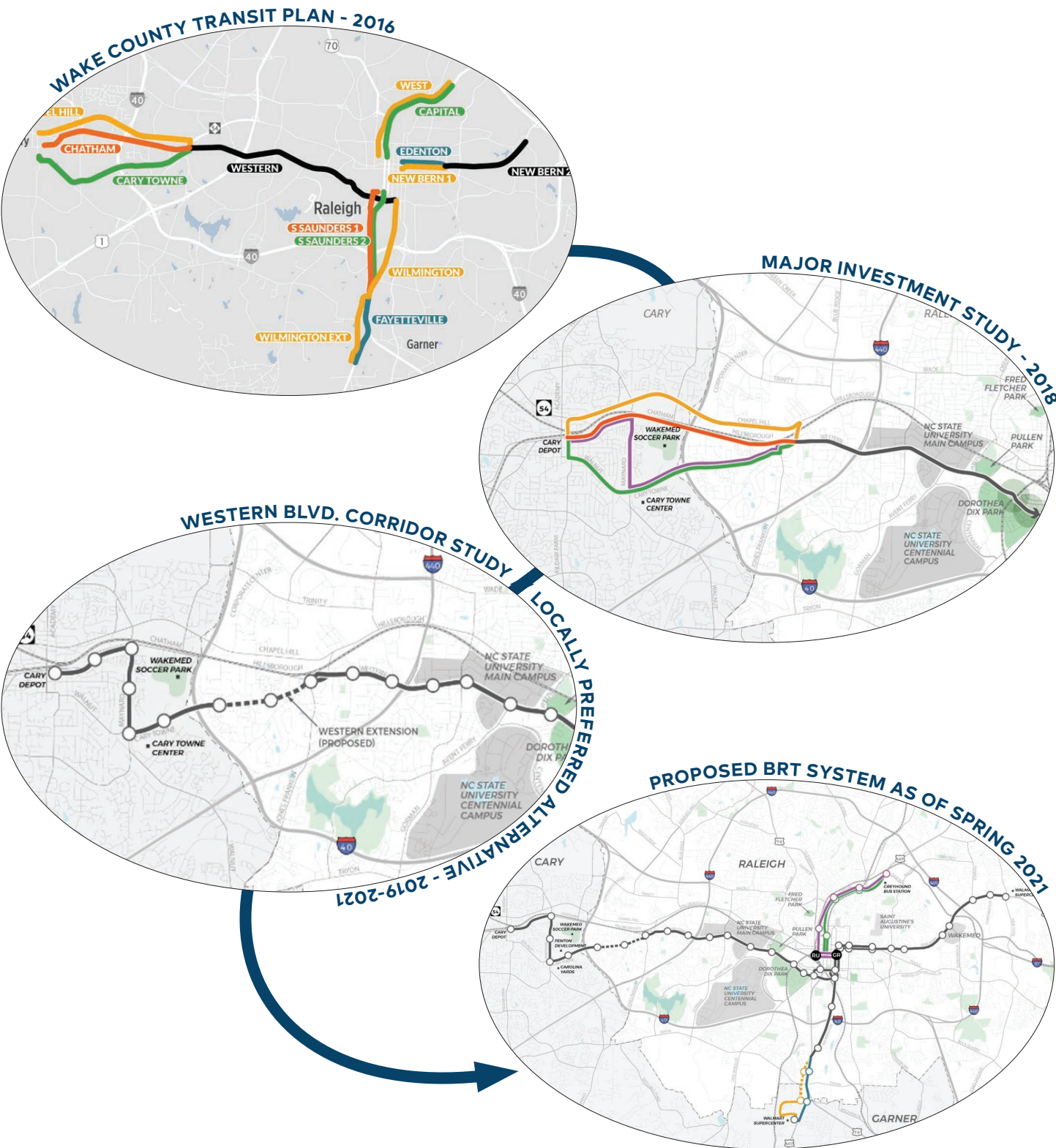


National and international examples of BRT implementation demonstrate a positive economic impact within a half mile of BRT alignments by spurring new development and attracting public and private investment. Unchecked development brings challenges such as rising rents and prices increasing the risk of displacement for existing residents. Equitable development and affordable housing policies implemented in tandem with the introduction of BRT reduces these risks.



Pictured above is the Raleigh Union Station Square development. The development will house GoTriangle's local/regional buses (RUSBus), public plazas, housing, dining and other commercial uses. The development adds its 40 stories to Raleigh's growing Warehouse District and will become a nexus of connectivity to downtown, BRT and the region. Rendering via Perkins Eastman.

FIGURE 3 WAKE BRT PROGRESS OVER TIME



Evolution of Wake BRT: Western Boulevard Corridor

The Wake County Transit Plan

Part of the Wake Transit Plan’s vision is to connect Wake County communities with 20 miles of new Bus Rapid Transit (BRT) service. One of the four new BRT corridors is the Wake BRT: Western Boulevard Corridor, connecting downtown Raleigh with downtown Cary. The Western Boulevard corridor is a major east-west connector that links downtown Raleigh to destinations such as Pullen Park, Dorothea Dix Park, the North Carolina State University (NCSU) campus, and downtown Cary. It is one of the longest Bus Rapid Transit (BRT) corridors identified in the Wake Transit Plan to provide frequent and reliable urban mobility.

Major Investment Study (MIS)

The Major Investment Study identified potential routes for future BRT for all four corridors. The study confirmed Western Blvd. as the preferred route to a point near the intersection with Jones Franklin Road. To complete the corridor into Cary, the study identified three alternatives including Chapel Hill Road, East Chatham Street/Hillsborough Road, and Western Boulevard Extension/ Walnut Street. Subsequently, the Feasibility Study for a downtown Cary Multimodal Center, led by the Town of Cary, identified a fourth alternative along the Western Boulevard Extension to Maynard Road to E. Chatham Street.

Locally Preferred Alternative

A priority for this corridor study was finalizing the route for the Western Blvd. BRT west of Jones Franklin Rd. This segment is referred to as the Locally Preferred Alternative (LPA).

Based on the detailed evaluation led by the consultants, the Cary Towne/Maynard Alternative was recommended as the most suitable alignment for BRT along the Wake BRT: Western Boulevard Corridor (see Figure 3). Both the Town of Cary Council and Raleigh City Council endorsed this route as the LPA for the Western BRT corridor, and it was adopted by the Capital Area Metropolitan Planning Organization (CAMPO) in November 2020. The urban design opportunities analysis presented in this report focused on the right-of-way opportunities along the selected LPA for the Western BRT route.

Next for Western Blvd.

Using the analysis and recommendations from this corridor study and other planning efforts, the preliminary design phase (0% to 30%) for implementing BRT on Western Corridor has begun. BRT along the corridor will operate in both dedicated transit lanes and mixed traffic between the GoRaleigh Station in downtown Raleigh, and the Cary Multimodal Center in downtown Cary. The locations and number of BRT stations along the corridor will be determined during the design phase.

Overlapping Planning and Development Efforts

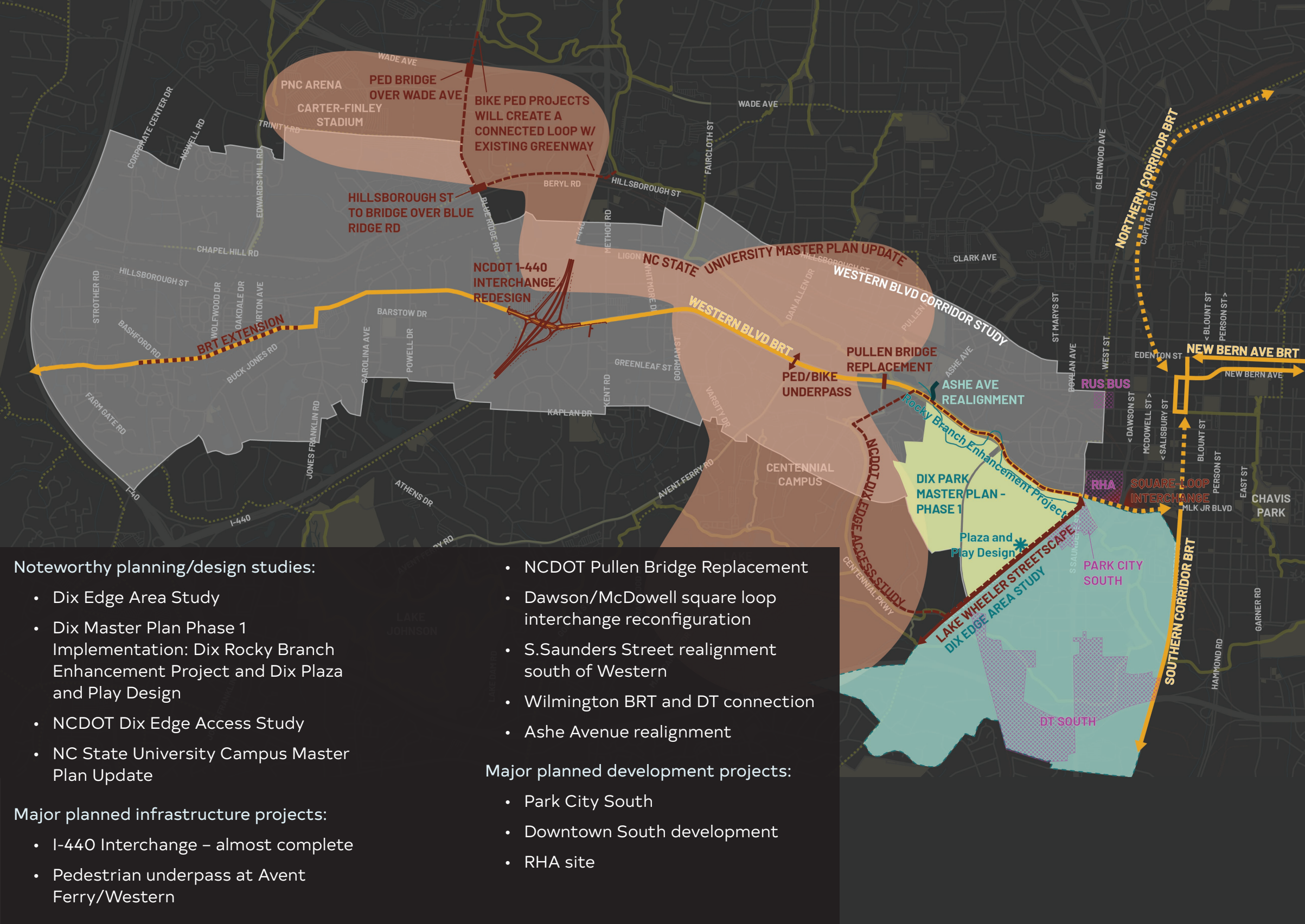
Equitable Development Around Transit (EDAT)

To achieve a future with greater freedom and choice of mobility than ever before, while ensuring that the benefits of new transit infrastructure are broadly shared, the City of Raleigh engaged consultants to produce the Equitable Development Around Transit (EDAT) Guidebook that was adopted by City Council in late 2020. The EDAT guidebook provides the policy framework for equitable development around transit by aligning transit investments with the preservation of affordability for housing and small businesses and by enhancing access for low-income residents. The Western Boulevard Corridor study builds further on the policy framework set by the EDAT Guidebook with specific focus on opportunities for the Western Boulevard BRT corridor.

Other Active Projects

There are several planning studies and major infrastructure projects underway and/or in the pipeline that will impact and overlap with the BRT implementation on the Western Boulevard Corridor (see Map 8.)

MAP 8 ACTIVE PROJECTS AND DEVELOPMENT



Existing Conditions

State of the Corridor

The **existing land use** along the corridor, transitions from more urban uses near downtown Raleigh to more suburban as it travels along toward Cary. It includes unique adjacencies with NCSU and Dorothea Dix Park along with several established neighborhoods. The mix of uses along the corridor can feel disjointed and there are several areas along the corridor that have suffered from lack of investment. The focus of the land use analysis of this corridor study projected the development capacities associated with a Transit-Oriented Development (TOD) scenario, which the City

of Raleigh can use to further bolster development along the corridor.

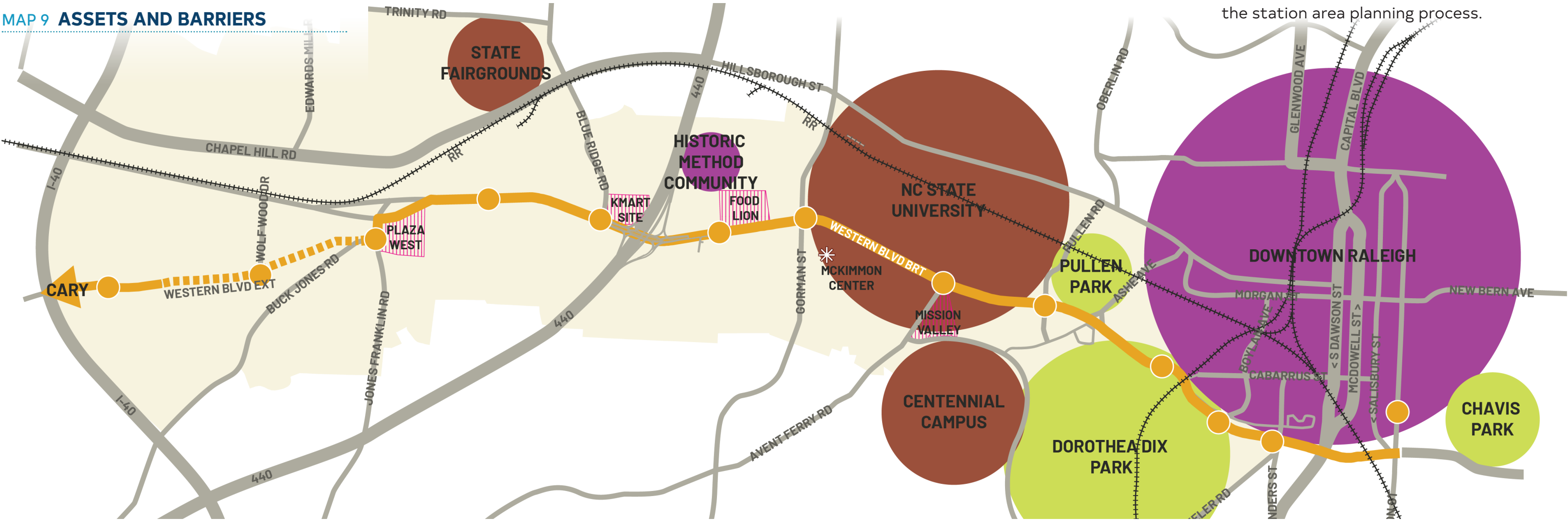
Assets include Dorothea Dix Park, which recently underwent a major planning and visioning study with the Dorothea Dix Park Master Plan (see Map 9). Phased city investment will launch this area into a major destination for citizens. Pullen Park was the first public park in North Carolina and includes an Arts and Community Center, play areas, and Theatre in the Park. Western Boulevard is one of the main thoroughfares to North Carolina State University, a leading public research university with more than 36,000 undergraduate and graduate students. Across Western Boulevard from NCSU's Main Campus is the Centennial

Campus, which serves as a global hub for education, innovation and public-private partnership, along with the McKimmon Center which is a conference and events center. Centennial Campus also hosts a large amount of student housing serving NCSU. Connecting Raleigh and Cary residents to these destinations and regional employment centers will be an important benefit of the new Western BRT service.

There are also **barriers** and areas with potential for improvement within the study area. Just north and parallel to Western Boulevard, the North Carolina Railroad rail line creates a barrier for movement and connectivity, particularly for pedestrian activity which is vital to TOD. Western

Boulevard, in general, lacks pedestrian and bicycle facilities, which makes traveling along and across the corridor difficult without the use of a personal vehicle. Traversing the I-440 interchange without a vehicle is particularly difficult. Several areas were identified as 'soft sites' for development. A soft site is an area that may have underutilized land uses or have the potential to be redeveloped. Soft sites with the most potential for redevelopment include: the Mission Valley site, the Food Lion shopping center, the old Kmart site, and the area around the intersection of Western Boulevard, Hillsborough Street, and Jones Franklin Road (known as Plaza West). These sites (outlined in pink in the map below) have been identified as potential 'catalytic' areas and will be studied in more detail in the station area planning process.

MAP 9 ASSETS AND BARRIERS





Western bridges over S. Saunders St.



The Boylan Ave. intersection.



Intersection of Ashe Ave. and Western Blvd.



Western Blvd. off-ramp to Pullen Rd. The Greenway veers to the right.



Looking toward the I-440 interchange - Empty Kmart site to the left.



The intersection of Western Blvd. and Jones Franklin Rd.

The existing conditions of the corridor greatly impact the strategy to implement Bus Rapid Transit. Consultants ran a thorough analysis of the characteristics of Western Blvd. looking at the following areas:

- Transit use
- Demographics
- Bicycle and pedestrian multimodal safety analysis
- Critical environmental issues
- Current land use patterns
- Zoning and regulatory conditions
- Market analysis
- Opportunity (catalytic) sites for transit-oriented development
- Defining and selecting the Locally Preferred Alternative route into downtown Cary

A detailed report on the existing conditions analysis has been produced by the consultant team. **See the Appendix document for more information.**

Environmental Conditions

The Western Corridor is the most rich in natural resources of the four BRT corridors (see Map 10 on the following page.) The corridor is home to large areas of open space and parks including Pullen Park and Dorothea Dix Park. The corridor also encompasses two major lakes and a rich diversity of riparian corridors, many of which cross under Western Blvd.

A particular environmental focus area for Western Blvd. is the area’s rich collection of waterways. Western Boulevard traverses five watersheds: Richland Creek, Simmons Branch, Walnut Creek, Brushy Creek, and Rocky Branch.



Existing right-of-way at the Boylan Ave. intersection that sees a lot of flooding. This area could benefit from GSI.



Stormwater is captured near the entrance to the Plaza West shopping center on Jones Franklin Rd. — an opportunity for GSI.

These six photos showcase existing conditions on Western Blvd. Development set away from the street, parking lots, narrow sidewalks and a lack of safe crosswalks are a common occurrence along the length of the corridor.

MAP 10

EXISTING ENVIRONMENTAL CONDITIONS



Public Process Overview

The project team hosted two rounds of official public meetings to engage, update, and solicit feedback from the community. (See Figure 4 for summary statistics.)

EDAT Engagement

Every BRT public event hosted by the City has provided updates on all BRT projects giving the community opportunities to engage through traditional in-person meetings and surveys to provide feedback prior to the onset of the pandemic.

Phase 1: Kickoff Meeting

The City of Raleigh held a community open house kickoff meeting on November 12, 2019, to introduce the project, share information on current conditions, relate potential BRT alignment options, and obtain initial community feedback. Staff also held 11 pop-up engagement events during the kickoff phase that engaged more than 300 participants.

Participants had multiple options to provide feedback and comment via a community comment wall, comment map, voluntary demographic survey, event exit survey, and online survey. Key questions asked during this meeting and in the online survey were:

- If BRT service were provided along Western Boulevard, where would you go using the service?
- Are there any other locations that you would use BRT to travel to along Western Boulevard between downtown Raleigh and Hillsborough Street that aren't listed on the map? If so, what are they?
- If BRT services were provided along Chapel Hill Road, E. Chatham, or Cary Towne

Boulevard, where would you go using this service?

- Are there any other locations along Chapel Hill Road, E. Chatham Street, or Cary Towne Boulevard you would like to go using the BRT service?

Phase 2: Virtual Public Engagement

As a part of Phase 2 of the Wake BRT: Western Boulevard Corridor Study, the City of Raleigh hosted a virtual engagement site. While originally planned to be an in-person public meeting, this phase of engagement was conducted virtually due to public health concerns arising from the COVID-19 pandemic. The virtual engagement site included information on the Western Boulevard BRT corridor project and opportunities for public engagement. The site launched on September 15, 2020 and online survey was open until October 19, 2020.

The virtual engagement site featured five pre-recorded videos explaining project concepts and opportunities. A GIS based Storymap feature provided information on the urban design work conducted by the Urban Design Center team. On September 30, the project team conducted a live question and answer session to address public questions and comments regarding the Wake BRT: Western Boulevard Corridor Study. This Q&A session, attended by 33 citizens, was recorded and posted on the virtual engagement site for viewers to watch afterwards. The website, survey links, and video links got many hits after the Q&A session. Participants were invited to share their input and visions for the TOD areas via an online survey.

A summary of public comments is illustrated in Map 11 on the following page.

FIGURE 4 PUBLIC ENGAGEMENT PARTICIPATION SUMMARY

Phase One: Kickoff Meeting

157
attendees

429
survey participants

Phase One: Pop Up Events

11
pop up events

344
attendees

Phase Two: Virtual Engagement

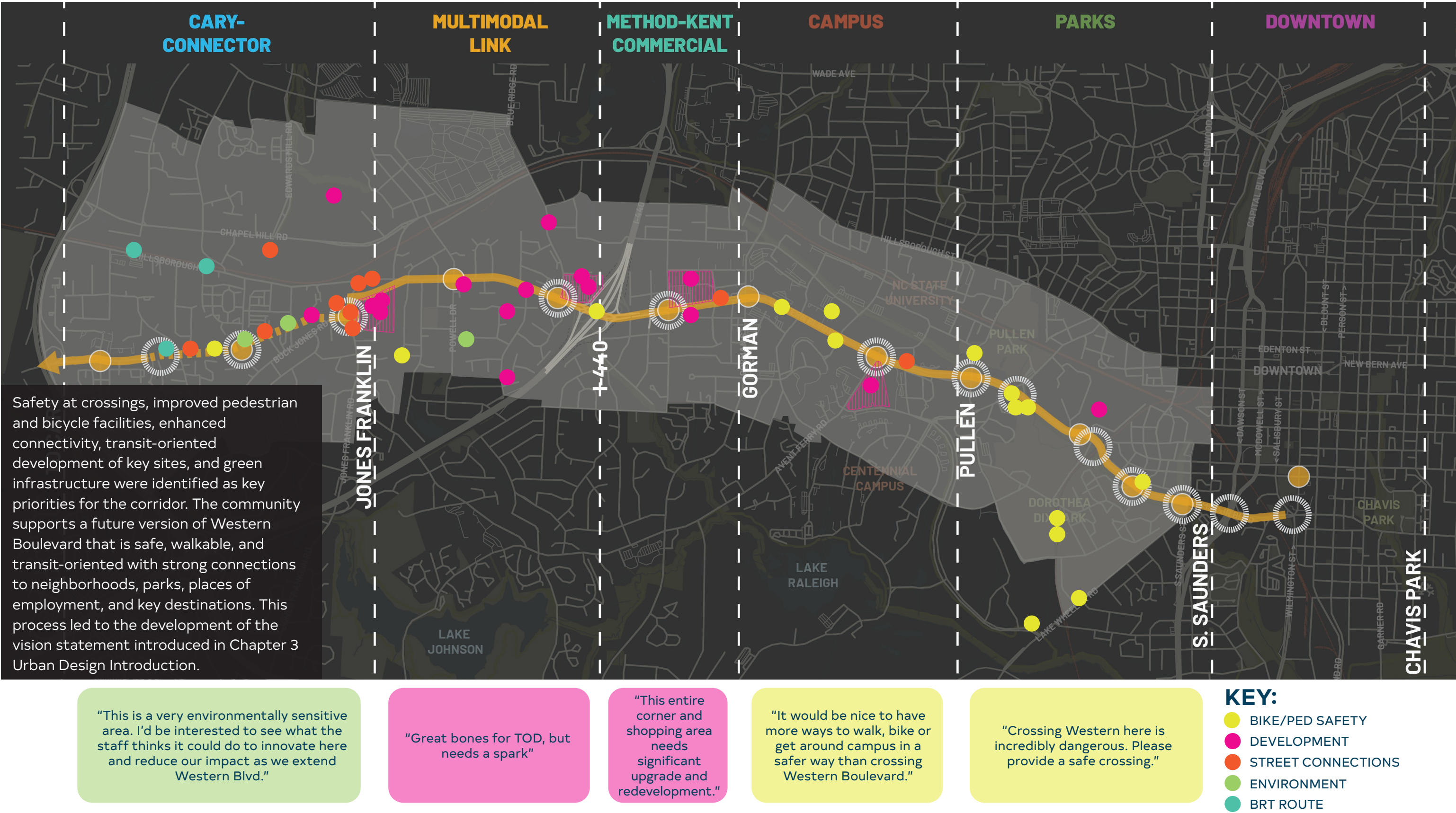
2075
site visits

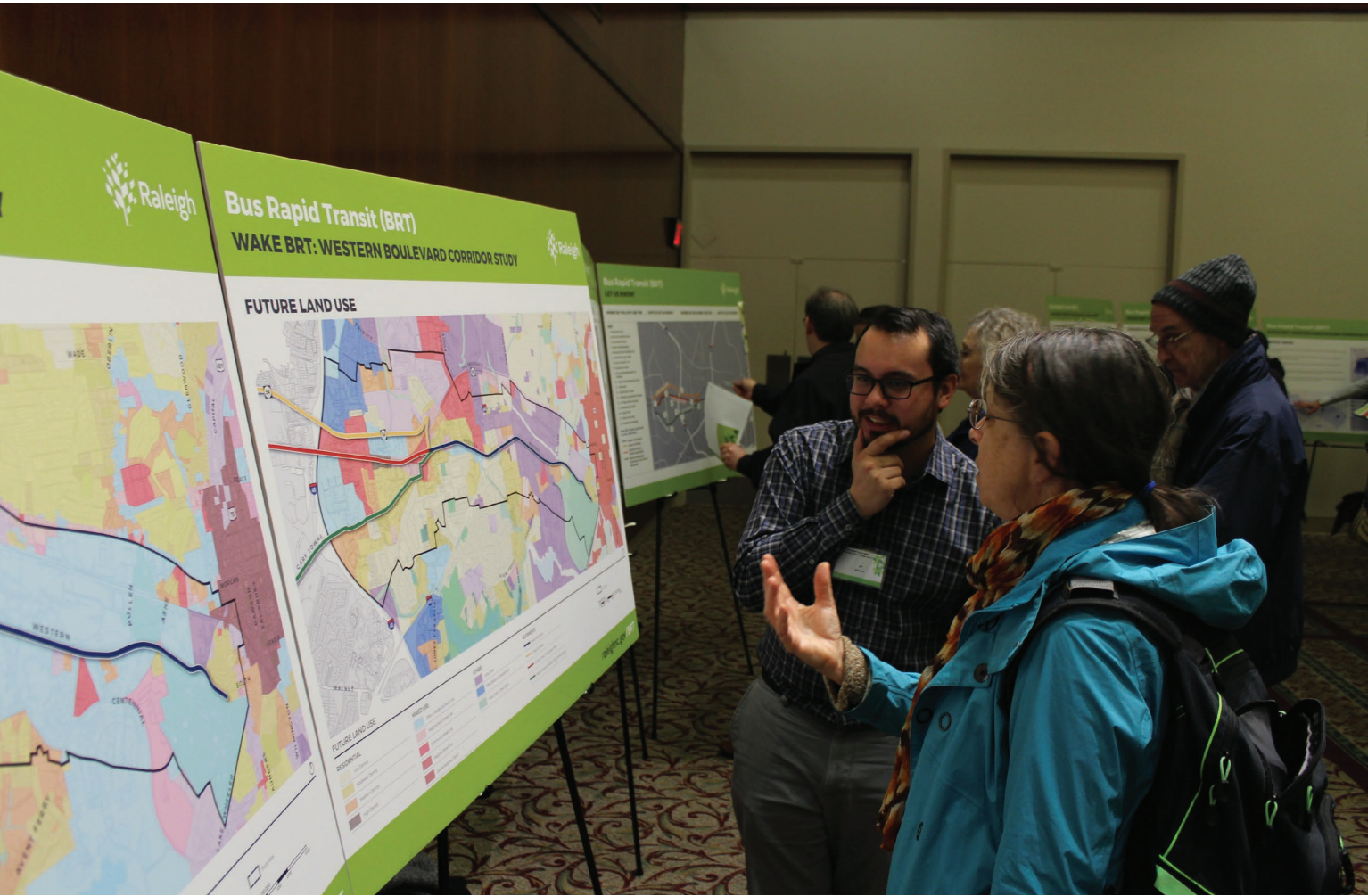
96
survey participants

46
project subscriptions

760
questions + comments

MAP 11 PUBLIC FEEDBACK SUMMARY





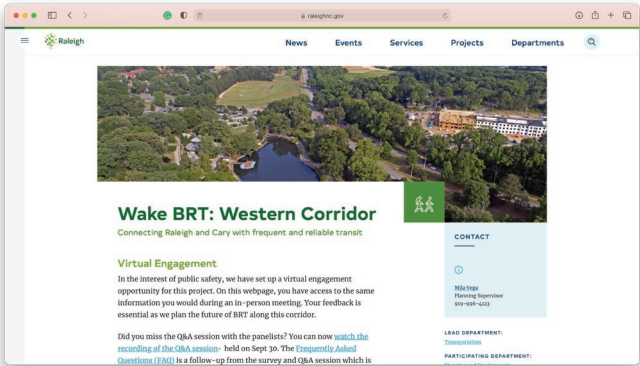
Citizens were encouraged to ask questions and give feedback on current and future land use along the corridor.



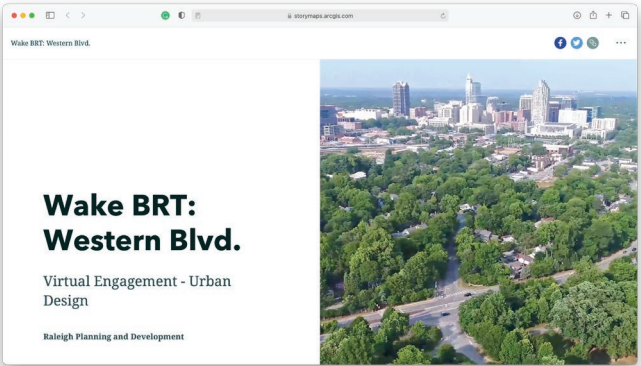
Posters highlight existing conditions, BRT information, and educational material on Transit-Oriented Development.



Citizens identify issues and opportunities along the corridor at the Wake BRT: Western Blvd. kickoff meeting.



the updated project homepage for virtual engagement.



Interactive StoryMaps platform used for virtual engagement



As part of engagement for the Equitable Development Around Transit (EDAT) study, citizens were asked to mark, using Legos, where growth should be centered.

3 Urban Design Introduction

Design Vision and Corridor Themes

Vision Statement

Western Boulevard will evolve into a safe, walkable, transit-oriented gateway with strong connections to neighborhoods, parks, places of employment, and key destinations. As a BRT corridor, it will include pedestrian-scaled station nodes connected by and to multimodal networks. Station nodes will host higher densities, mixed-uses, quality public realm, and placemaking elements.

Design Goals

- The key goals of the urban design analysis for Western Boulevard are to:
- Apply complete streets design principles to enhance comfort and safety for all users - transit, cyclists, and pedestrians.
 - Promote the City's Vision Zero goals to reduce traffic fatalities and provide safe and equitable mobility options.
 - Encourage sustainable approaches to the design of BRT streets and transit-oriented development.
 - Identify key gaps in connections critical to the pedestrian, bicycle, and greenway networks around the transit corridor.
 - Highlight the importance of transit-oriented development opportunities to support the City's larger goals of affordability and sustainability.
 - Promote urban design improvements in the public realm that will enhance user experience.

EDAT Principles

Raleigh recently released a guide called Equitable Development Around Transit (EDAT). In this guide, key design principles for TODs are identified that address development, connectivity, and the public realm. These design principles apply to the design of buildings, land use policies, open space, and infrastructure. Design principles recommended in the EDAT guide include the following:

- encourage a mix of uses
- concentrate density around transit
- support repurposing buildings and infill development
- complete streets for better transit
- manage parking effectively
- create engaging public realm

The Urban Design section of the report identifies challenges and opportunities along the Western Blvd. corridor that will help achieve the City's goals of Equitable Development Around Transit.

TOD brings people, activities, buildings, and public space together. You often see a mix of uses - housing, office space, and retail in TOD, all within easy walking distance of a transit station. Walkable neighborhoods in TOD reduce the need for driving. Activities not available in the neighborhood are accessible via transit. These elements come together to make development vibrant, sustainable, and accessible.

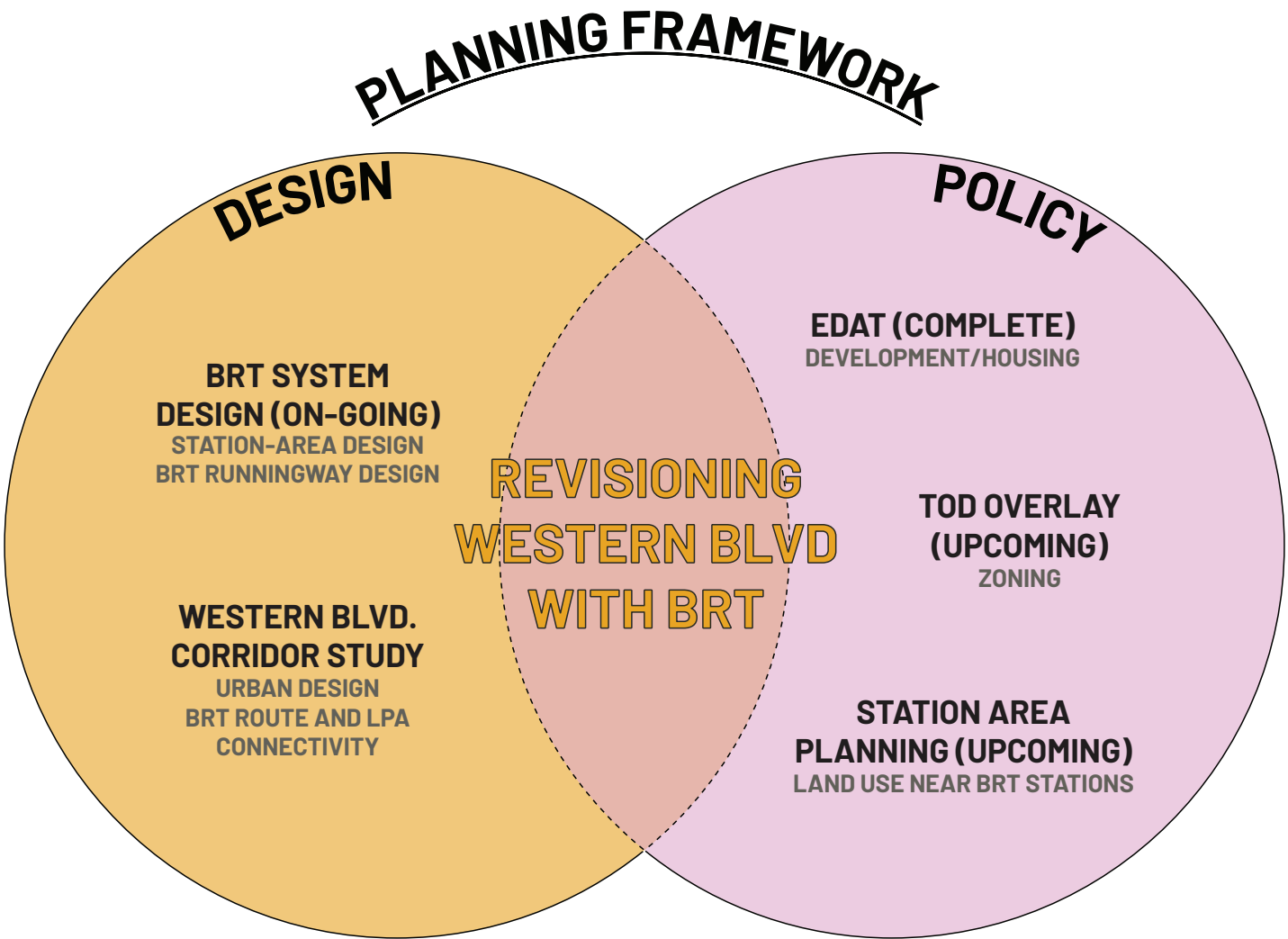
BRT Corridor Vision Themes

Based on the review of all public comments received, four key themes emerge that would be influential in the transformation of Western Boulevard into a successful BRT segment. The key themes identified for guiding the transformation of Western Boulevard into a transit-oriented corridor are:

- **Multimodal Connectivity**
- **Transit-Oriented Development**
- **Public Realm Enhancements**
- **Environmental Sustainability**

The themes build on the EDAT plan recommendations, with a call for development of additional environmental considerations in key areas. Development of a Green TOD concept offers the opportunity to leverage the natural resources and ecological conditions of specific sections of the corridor to fit into an urban TOD context.

The policy and action recommendations included in this study seek to achieve the goals of these overarching themes.





Theme: Multimodal Connectivity

The success of a BRT corridor is largely dependent on accessibility, mobility options, and connections it provides to surrounding areas. Major transit investments such as BRT should be coordinated with infrastructure improvements that focus on improving safety and mobility across a wide boulevard that primarily serves high-volume vehicular flow. A network of connected streets and bicycle networks bridging infrastructure gaps will increase access into the BRT corridor and encourage more walking/biking trips and increased transit usage. Pedestrian and bicyclist safety, comfort, and strong circulation networks should be prioritized throughout the transit corridor and around the BRT stations. Increased connections to greenways, trails, and multi-use paths would make them an integral part of the transportation network. Taken together, all of these strategies provide accessibility and will increase ridership.

Well-designed transit, bicycle, and pedestrian networks should co-exist with vehicles. Source: Queens Plaza / Marpillo Pollak

Theme: Transit-Oriented Development (TOD)

While TOD has been traditionally associated with rail transit, Bus Rapid Transit (BRT) is emerging as a leader in mass transit systems, primarily due to its relatively low cost-to-benefit ratio and ability to provide service at levels comparable to other fixed guideway systems. When planning for TOD around BRT stations, there are additional considerations that should be evaluated - mostly due to the zone of influence and perceptions of bus-based systems on market demand. A BRT station with similar context and market demand will generally support a comparable amount of development as a rail station. While many parcels will likely be developed already, access to high quality transit is a common catalyst for redevelopment at increased density and mixed uses.

Development in TOD sites offers many advantages when compared to sites not in proximity to transit service. These include strong market demand due to regional and

local access to community amenities, greater flexibility in mix of uses, more compact and walkable neighborhoods, higher densities, reduced parking needs, and reduced environmental impacts. TODs offer convenient access to daily activities, such as getting groceries, walking to school, and enjoying parks. Local destinations bring "location-efficient" value to the homes and jobs that are within walking distance. Walk-to conveniences add value and reduce use of private cars and average driving distance when they are used, in addition to providing health and environmental benefits from reduced vehicle emissions and miles traveled. TODs mix residential uses and employment with commercial conveniences, recreational open space, and other community amenities. TOD planning and design creates communities where many if not most activities take place close to home or work.



A transit-oriented development with dense, affordable housing in Philadelphia, PA. Source: CNU, Public Square

Theme: Public Realm Enhancements

The quality of the public realm around BRT corridors and stations has a significant impact on adoption of and long-term ridership of transit systems. The better the pedestrian experience along streets and paths, the more successful the TOD is in meeting the goals of walkable communities. Paths next to walls or parking lots can feel alienating, so parking should be placed behind or under buildings instead. Paths lined by storefronts or other active uses attract more activity and have windows that put “eyes on the street.” Smaller, public open spaces integrated into the streetscape design makes the street feel more human scale and comfortable while also providing an amenity to transit users. As part of this study, areas along Western Boulevard with excess right-of-way and public spaces offering urban design opportunities were identified to enhance the pedestrian experience for transit users. These improvements would require partnerships,

collaboration across other city departments, and capital programming for implementation. Some of the design concepts identified are recommended for further feasibility analysis.

Theme: Environmental Sustainability

Sustainability is at the core of Transit-Oriented Development as it creates dense, walkable communities around transit stations, enabling people to reduce their car dependency and further lower their carbon footprint. Well-designed TOD’s create an urban fabric that diversifies mobility options and provides greater accessibility to all users. Protection and/or enhancement of natural resources is a critical component of sustainable TODs.

Because Western Blvd. is a future BRT corridor, it offers a unique opportunity for applying sustainable solutions through construction of transit infrastructure and development of its TOD areas. The unbuilt extension of Western Blvd., in particular,

poses a unique opportunity to develop innovative and environmentally sound solutions that balance development and the environment.

Green TOD is a planning and urban design approach balances higher intensity development with ecological and human health through innovative design practices. With the higher densities and walkability of traditional TOD as a foundation, Green TOD incorporates additional strategies toward the following goals:

- Energy and water efficient buildings
- Green stormwater infrastructure (GSI)
- Pedestrian-oriented design
- Interconnected green spaces
- Habitat corridors and patches
- Integrated waste management

A resident of a Green TOD district should be able to walk or bike safely to and from a BRT station along streets and pedestrian paths

that embrace and highlight surrounding natural features. Buildings should be constructed with sustainable materials and should promote the health of the building user. Buildings should also be arranged to create comfortable micro-climates and reduce the urban heat island effect. In Green TODs, cars are not eliminated but are kept to the periphery, separate from the district’s primary human spaces.

A particular environmental focus area for Western Boulevard is the area’s rich collection of waterways. Western Boulevard traverses five watersheds: Richland Creek, Simmons Branch, Walnut Creek, Brushy Creek, and Rocky Branch. Sustainable approaches are necessary to support the continued restoration and protection of these vital natural resources. Development along the corridor should incorporate green stormwater infrastructure and other strategies that support ecological and human health.



Public open spaces that are well-connected and integrated with bicycle, pedestrian and transit networks encourage a mix of development types and diverse users. Source: Woodstock Community Park / TSW Design



Vallastaden is a sustainable district in Linköping, Sweden that incorporates Green TOD concepts. Buildings are sustainable, water is welcomed, and all spaces in the district are scaled for humans, not cars. Source: <https://medium.com/housing-innovations>

Introduction to the Character Zones

Western Boulevard is the longest of the four BRT corridors proposed in the Wake Transit Plan with a length of approximately 9 miles. The corridor serves as a primary western gateway, connecting downtown Raleigh to downtown Cary. Because Western Boulevard is so long, the character and context shifts dramatically as you travel

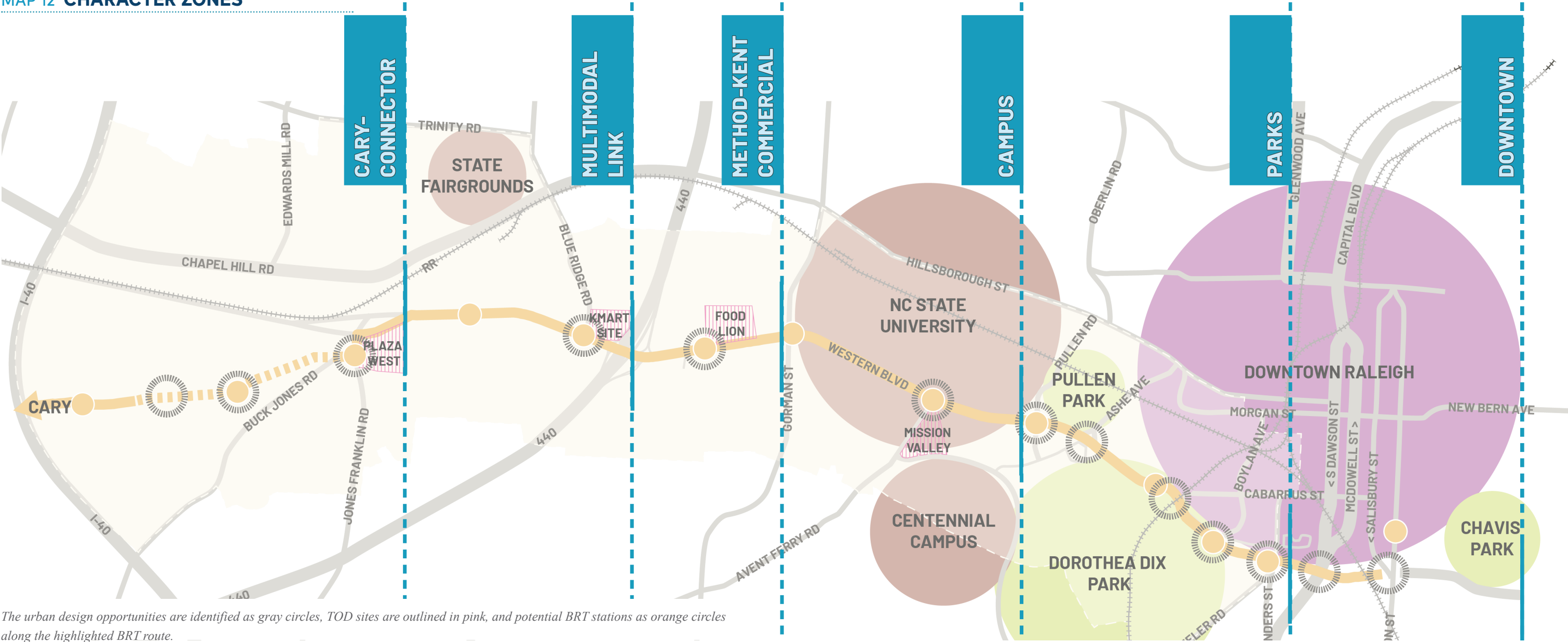
along the corridor. It intersects with urban areas, large parks, university buildings, commercial strip malls, and low-density residential areas. Infrastructure is primarily auto-oriented which defines the physical design of the corridor and development fabric. Parking lots and driveways occupy large amounts of land. Many areas are unsafe for walking and cycling and lack identity.

The corridor study addresses all character areas and extends a half mile out from the boulevard itself. Based on the predominant land use, character, and urban form — Western has been divided into six character zones (see Map 12.)

In Chapter 4, Urban Design Recommendations, each character zone is described based on its existing context, design challenges, and

specific urban design opportunities. Once this document is adopted by City Council, these zone-specific opportunities will be incorporated as policies and actions in the area-specific guidance section for the Western Boulevard Corridor in the 2030 Comprehensive Plan. The Implementation Table in Chapter 5 lays out all public improvements identified for the corridor that will need investments through capital programming.

MAP 12 CHARACTER ZONES



The urban design opportunities are identified as gray circles, TOD sites are outlined in pink, and potential BRT stations as orange circles along the highlighted BRT route.

4 Urban Design Recommendations

Downtown

Downtown is the epicenter of the Wake BRT system. Current planning proposes that BRT connect to the Raleigh Union Station bus facility. Downtown Raleigh has emerged as a vibrant urban center and is a major regional employment center. It is also home to a thriving creative culture, and urban lifestyle. There are a mix of uses and high quality infrastructure that form a compact, walkable urban environment.

This character zone starts at S. Wilmington St. and ends just before S. Saunders/Lake Wheeler.

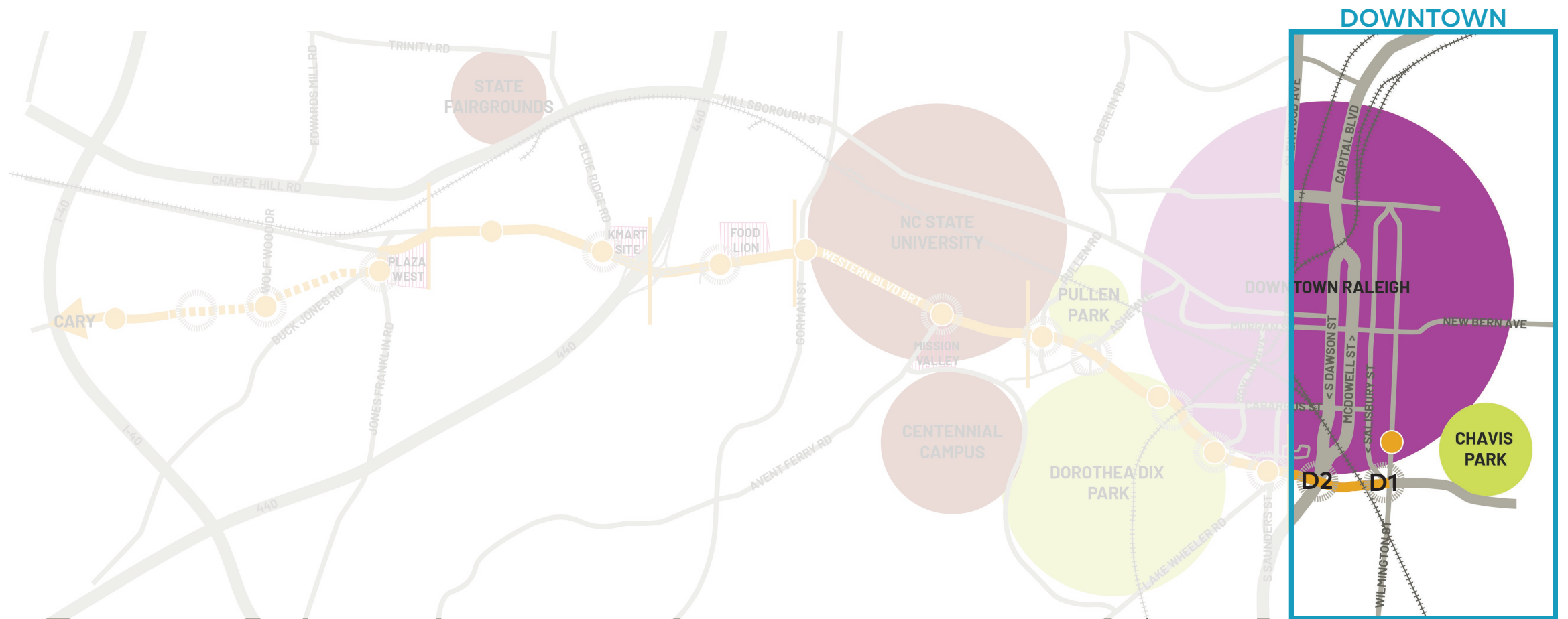
Connectivity to downtown and to Southeast Raleigh are key priorities in this area. The current interchange design and auto-focused streetscape of Western Blvd. make this stretch feel disconnected and unsafe.

A dedicated connection from Dix Park to Chavis Park that serves as a cultural corridor is an opportunity for further study.

There are two opportunity areas identified in this zone:

D1 - Wilmington St. and Salisbury St.

D2 - Dawson St. and McDowell St.



Early renderings of the Raleigh Union Station bus facility.
Source: Perkins Eastman



Raleigh is growing fast. Connectivity from the BRT to new development, like The Dillon pictured here, will become increasingly important.



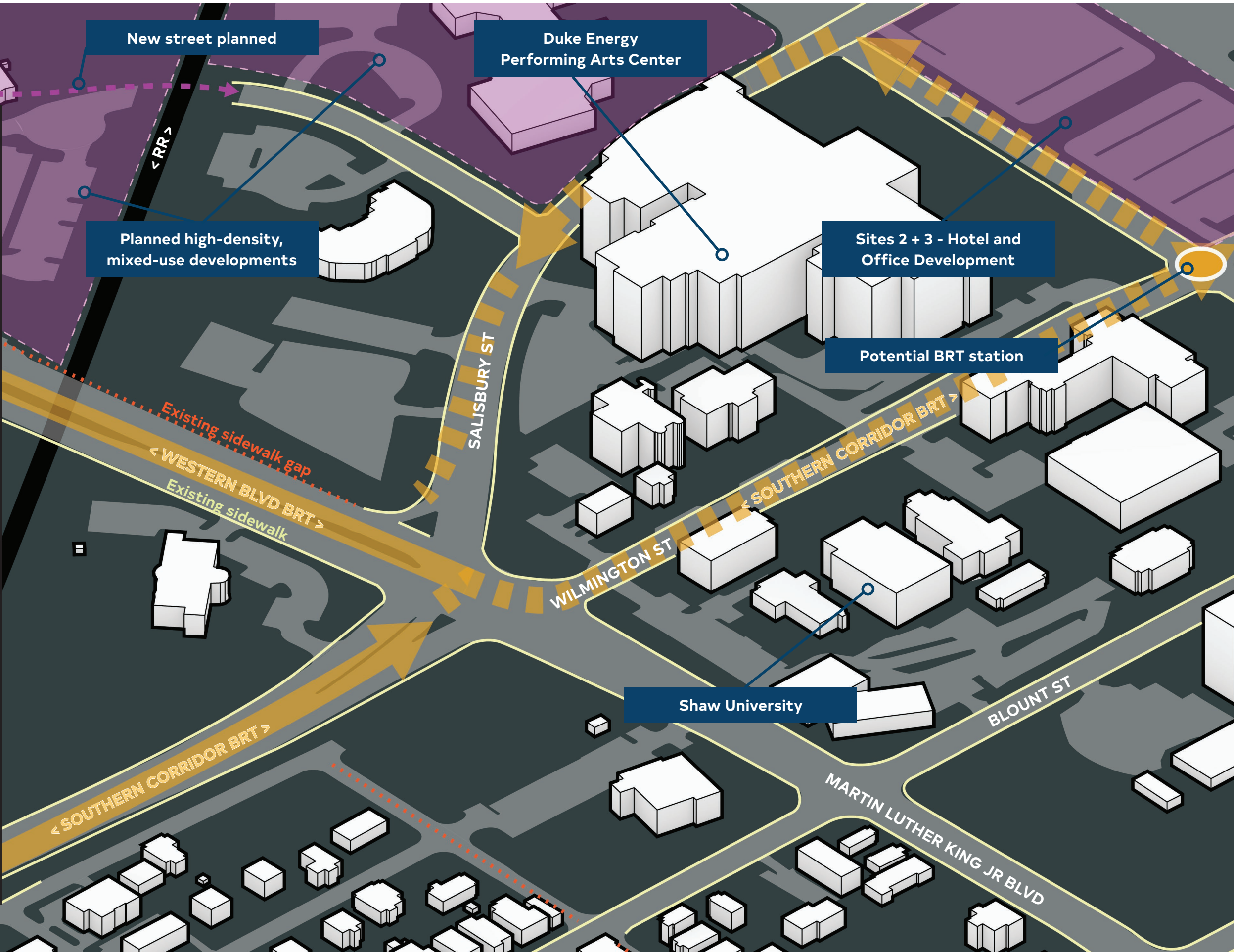
The Wilmington and Salisbury Streets intersection as it exists today. Source: Google Maps

Downtown

D1 - Wilmington Street and Salisbury Street

Existing Conditions

BRT alignment east of Dawson/McDowell and to the north and south of downtown is yet to be determined. Potentially, The Western and Southern Corridor BRTs will enter downtown Raleigh, traveling north on Wilmington St. There are several high-density developments planned along this section of Western Blvd. that will increase car, pedestrian, and bicycle traffic.



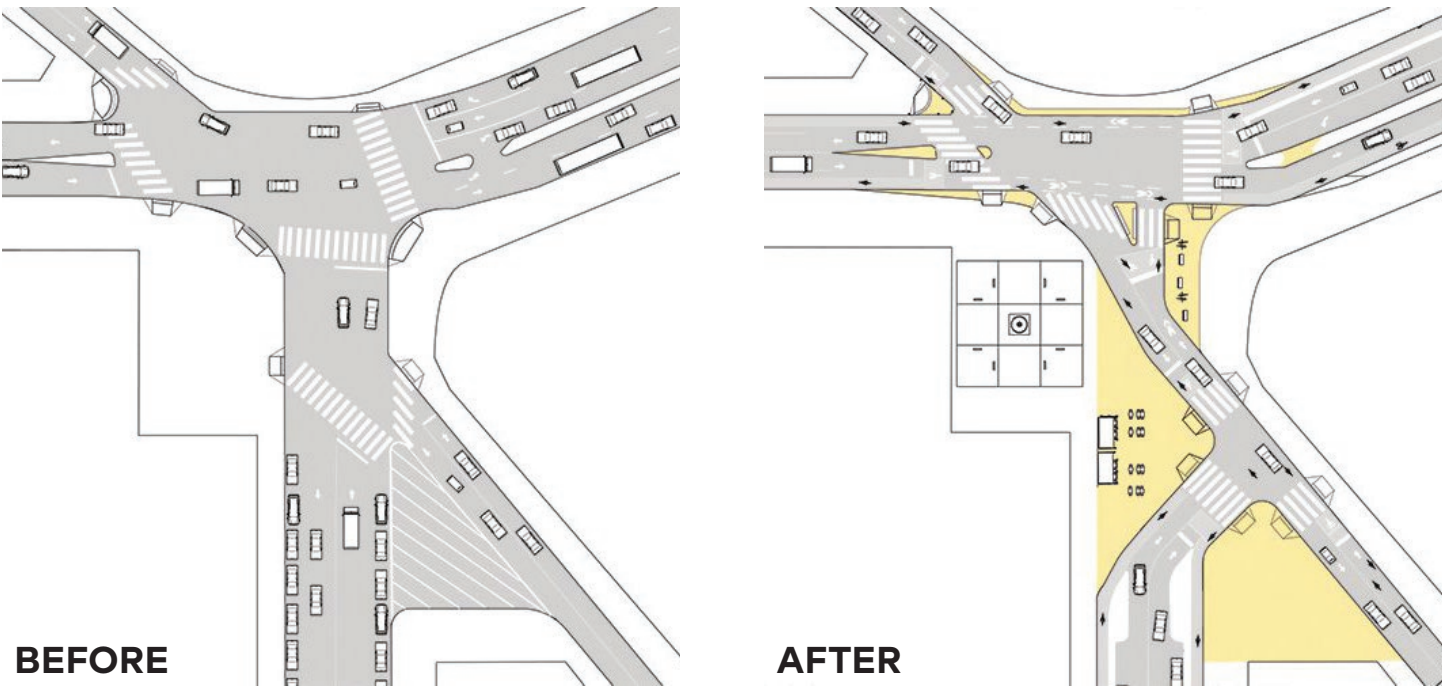
Downtown

D1 - Wilmington Street and Salisbury Street

The Vision

This area could transform by reclaiming unused space around the intersection to create places for gathering and increased pedestrian traffic that will result from development and the potential BRT station. The intersection is unique due to its

proximity to Shaw University. In collaboration with the University, the public realm could help announce the entry into campus. A realignment of Salisbury St. will help simplify the intersections for cars, bikes, and pedestrians. Medians and curb extensions should be considered to shorten crosswalks and provide safer passage for users of the BRT and pedestrians crossing Western from neighborhoods to the south.



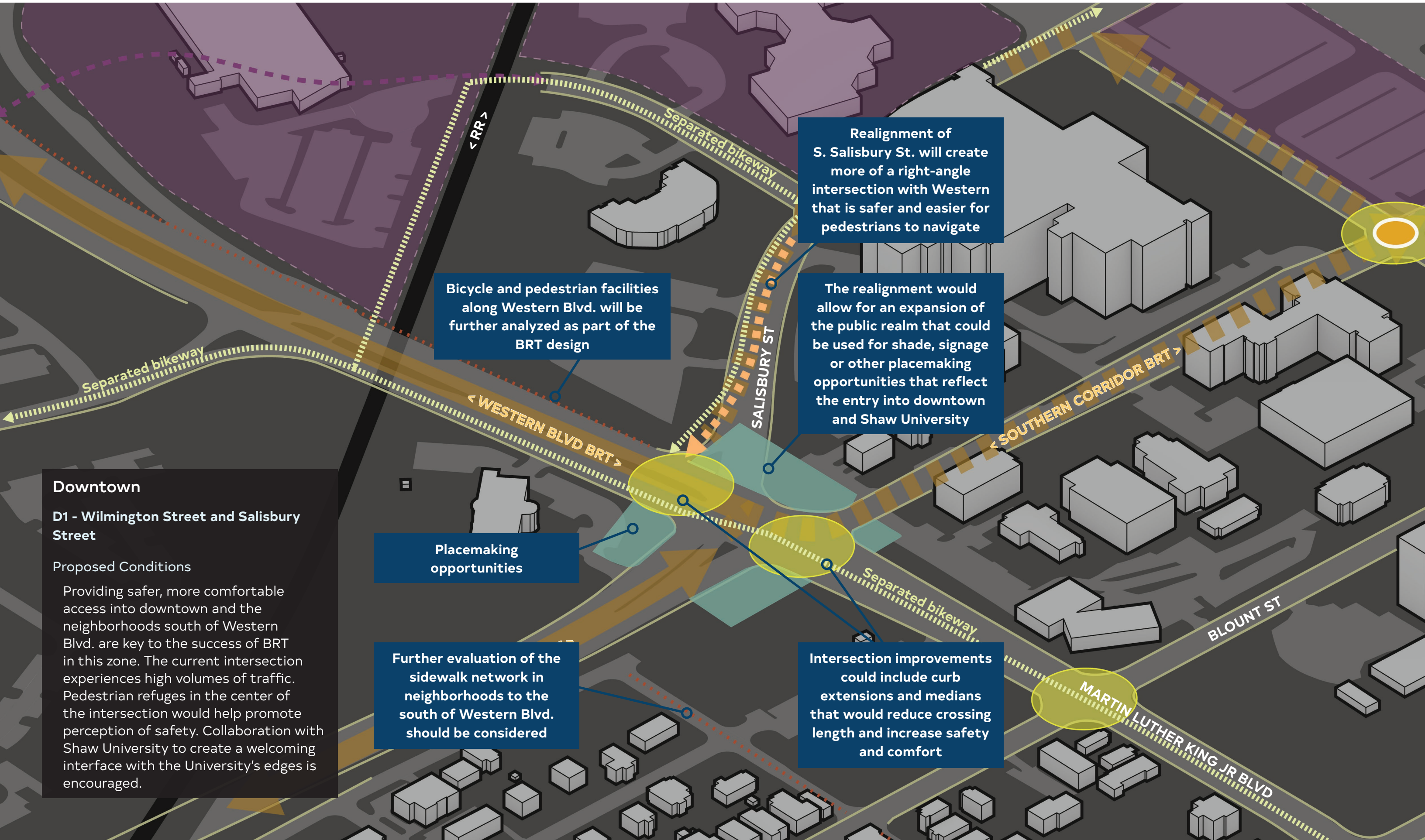
BEFORE **AFTER**

Complex intersections, like Wilmington and Salisbury Streets, should be realigned so they meet as close to a right angle as possible. Curb extensions and medians minimize crossing length. By holistically designing all available public realm (illustrated in yellow in this graphic), the pedestrian’s safety and experience is prioritized. Source: NACTO



Even at intersections formed by streets that carry a high volume of traffic, designs can cater to pedestrians, transit, and their surrounding context. Large, well-marked crosswalks, dedicated transit lanes, and activated corners can improve safety and comfort.

Source: Columbia School of Public Health / Placa de Pius XII, Barcelona / Vvovale/Getty Images



Bicycle and pedestrian facilities along Western Blvd. will be further analyzed as part of the BRT design

Realignment of S. Salisbury St. will create more of a right-angle intersection with Western that is safer and easier for pedestrians to navigate

The realignment would allow for an expansion of the public realm that could be used for shade, signage or other placemaking opportunities that reflect the entry into downtown and Shaw University

Placemaking opportunities

Further evaluation of the sidewalk network in neighborhoods to the south of Western Blvd. should be considered

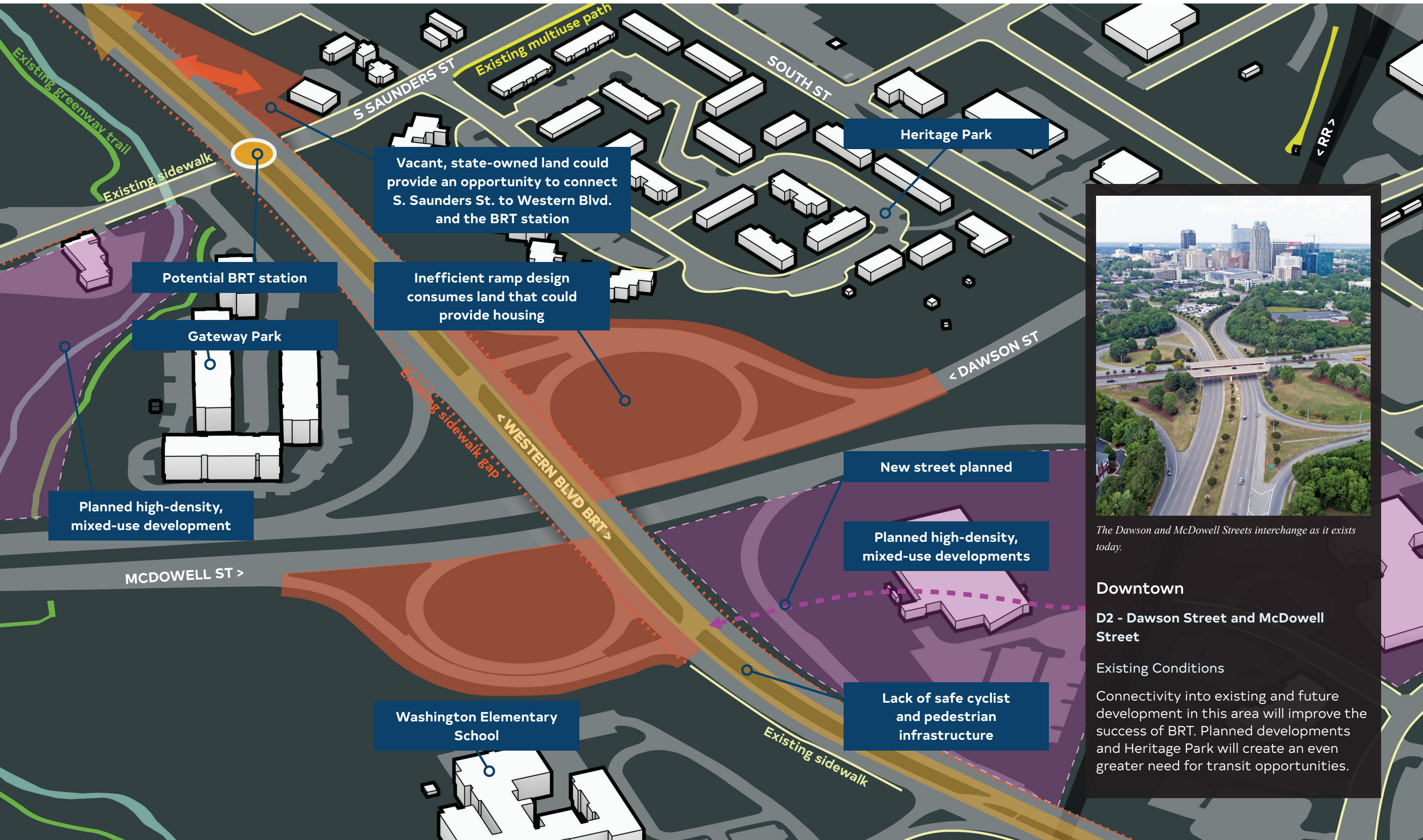
Intersection improvements could include curb extensions and medians that would reduce crossing length and increase safety and comfort

Downtown

D1 - Wilmington Street and Salisbury Street

Proposed Conditions

Providing safer, more comfortable access into downtown and the neighborhoods south of Western Blvd. are key to the success of BRT in this zone. The current intersection experiences high volumes of traffic. Pedestrian refuges in the center of the intersection would help promote perception of safety. Collaboration with Shaw University to create a welcoming interface with the University's edges is encouraged.



The Dawson and McDowell Streets interchange as it exists today.

Downtown

D2 - Dawson Street and McDowell Street

Existing Conditions

Connectivity into existing and future development in this area will improve the success of BRT. Planned developments and Heritage Park will create an even greater need for transit opportunities.

Downtown

D2 - Dawson Street and McDowell Street

The Vision

The examples shown here illustrate how a redesigned interchange could improve development potential at the Dawson and McDowell interchange. New streets become part of the urban grid and also become part of the interchange.

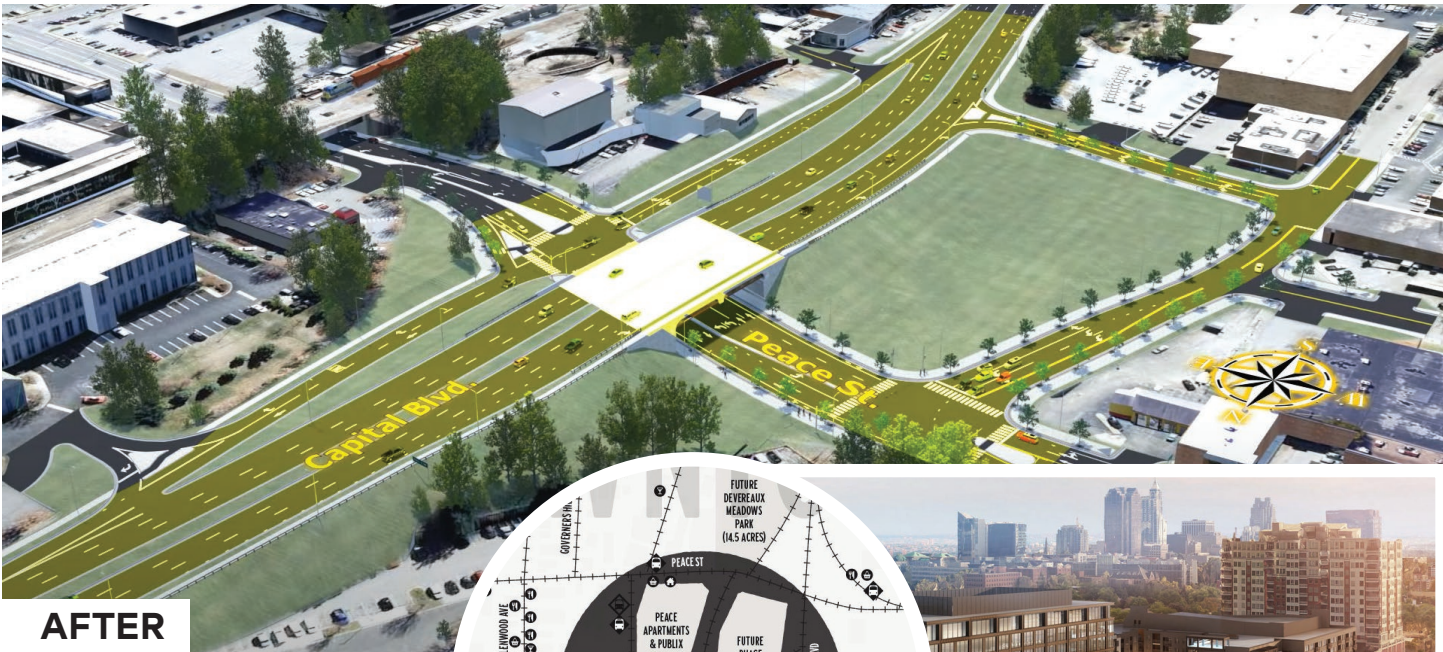


Above: The redesign of the interchange at I-71 and Martin Luther King Drive in Cincinnati improved access to previously divided communities, opened 670 acres of unusable land, and brought in new jobs and investments. This was achieved through new entry/exit ramps, improved bus stops, bridge rehab, and a new 14-foot multi-use path. Source: The Business Journal / Corrie Schaffeld/ Courier

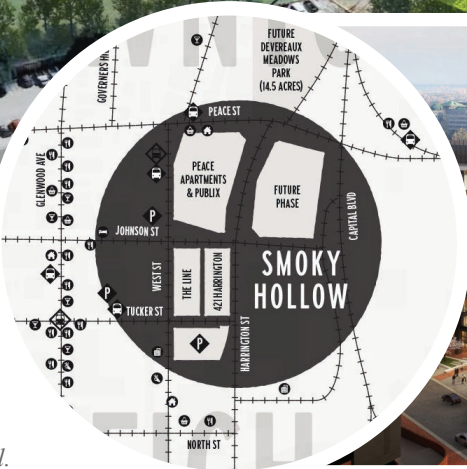
Left: New development is already underway at the redesigned interchange occupying space that was once undevelopable. The Node will eventually fill 20 acres with office, retail, housing, and hospitality. Source: Cincinnati Business Courier / MLK Investors/ BHDP Architecture

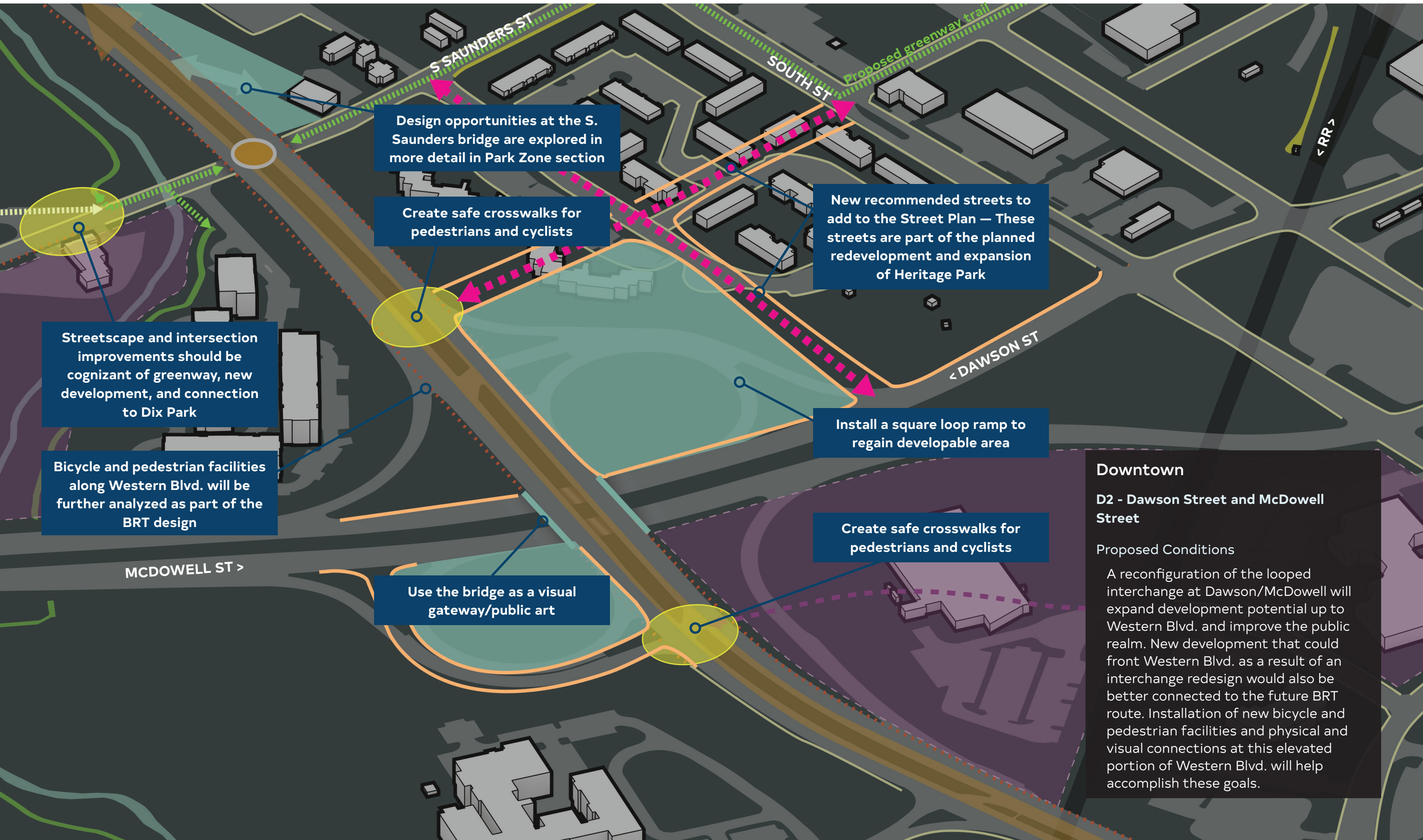


The square-loop, or quadrant roadway, interchange can be seen at Capital Blvd. and Peace St. in Raleigh. The design creates an urban street grid to replace what was once unusable space. New development and better pedestrian and bicycle connections result. Source: NCDOT



Right: The redesign of the Peace Street interchange allowed for new development to move in which includes Smoky Hollow - a multiphase, revitalized urban area in downtown Raleigh consisting of 3 phases. Plans include office space, parking, a pedestrian promenade, restaurants, and retail. Source: Smoky Hollow Raleigh / Kane Realty





Design opportunities at the S. Saunders bridge are explored in more detail in Park Zone section

Create safe crosswalks for pedestrians and cyclists

New recommended streets to add to the Street Plan — These streets are part of the planned redevelopment and expansion of Heritage Park

Streetscape and intersection improvements should be cognizant of greenway, new development, and connection to Dix Park

Bicycle and pedestrian facilities along Western Blvd. will be further analyzed as part of the BRT design

Install a square loop ramp to regain developable area

Use the bridge as a visual gateway/public art

Create safe crosswalks for pedestrians and cyclists

Downtown
D2 - Dawson Street and McDowell Street

Proposed Conditions

A reconfiguration of the looped interchange at Dawson/McDowell will expand development potential up to Western Blvd. and improve the public realm. New development that could front Western Blvd. as a result of an interchange redesign would also be better connected to the future BRT route. Installation of new bicycle and pedestrian facilities and physical and visual connections at this elevated portion of Western Blvd. will help accomplish these goals.

Parks

This zone is unique as it is home to two major city parks: Dorothea Dix Park and Pullen Park. The recently adopted Dix Park Master Plan is a key framework for implementing BRT in this area as a large segment faces Dix Park. Pullen Park, the first public park in North Carolina, also remains a major destination.

Opportunities identified here center around connecting the corridor, downtown, and surrounding neighborhoods with the parks. Connectivity could be achieved by bringing the design language of the parks into the corridor and by expanding the surrounding bicycle and pedestrian network. A redesign of Pullen Bridge is imminent. The bridge's design must accommodate all users seamlessly and incorporate a potential BRT station.

This zone also includes multiple places, such as the planned land bridge and Rocky Branch Enhancement Project, where collaboration and building off concepts from the Dix Park Master Plan will be important. Capital projects related to stormwater along the Dix Park - Western Blvd. edge should be coordinated with any ongoing projects within the park where appropriate.

The following five opportunity areas are included in this zone:

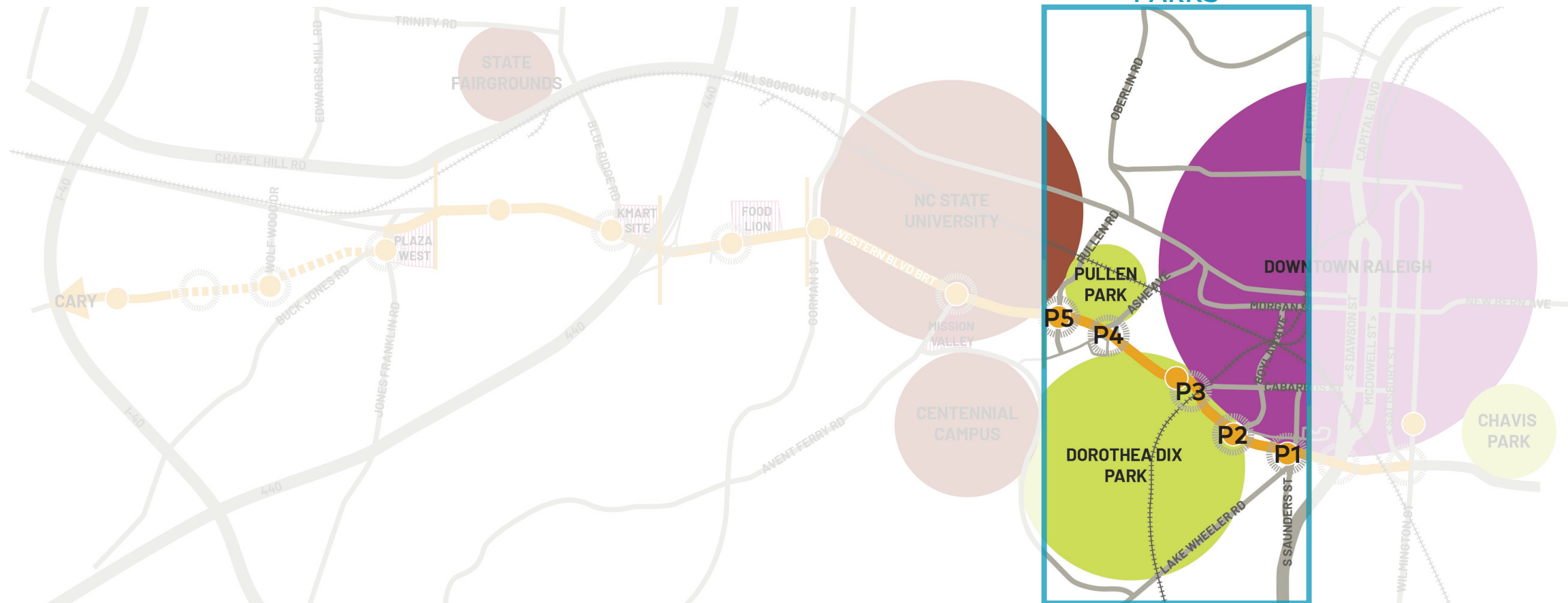
P1 - S. Saunders St. and Lake Wheeler Rd.

P2 - Boylan Ave.

P3 - Dorothea Drive and the RR Bridge

P4 - Ashe Ave.

P5 - Pullen Rd.



Rocky Branch culverts under Ashe Ave. behind a gas station



The greenway as it passes under the RR bridge off of Dorothea Dr.



A narrow sidewalk leads pedestrians to Western Blvd. from Ashe Ave. Pullen Park is on the left.

Parks

P1 - S. Saunders St. and Lake Wheeler Rd.

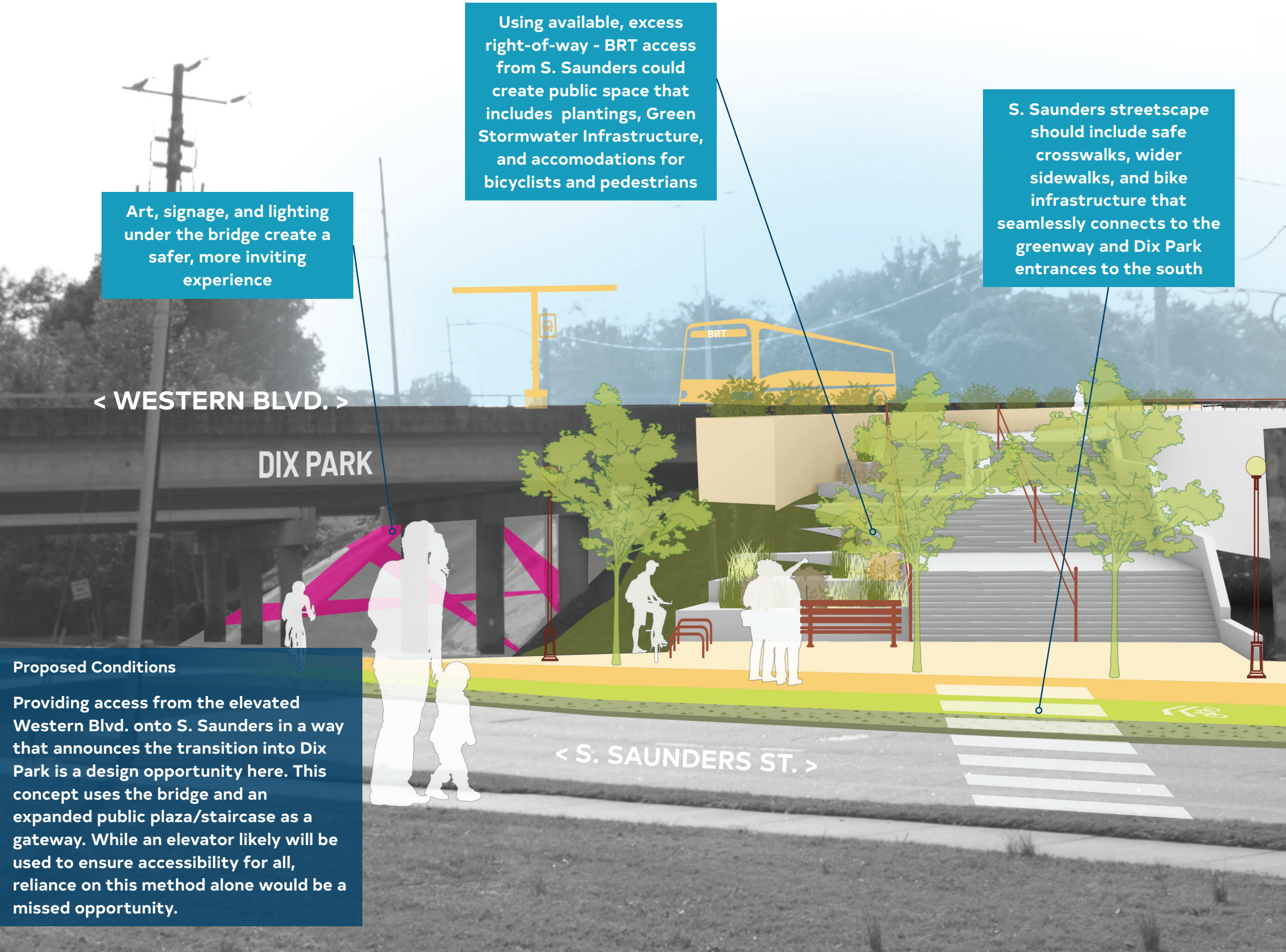
The primary entrance to Dix Park will be located along Lake Wheeler Rd. which branches off S. Saunders St. The location of the park entrance, along with a potential median-running BRT station on or near the S. Saunders bridge, provides opportunity for an improved public realm, better multimodal connections, and unique wayfinding into the park.

Existing Conditions

A 5-foot sidewalk is the only non-automobile infrastructure provided along this stretch of S. Saunders. Vegetation is overgrown and contributes to the hidden, dark atmosphere under and around the bridge. Steep topography will make it difficult to connect S. Saunders Street with Western and the potential station above.



Western bridges over S. Saunders St.



Proposed Conditions

Providing access from the elevated Western Blvd. onto S. Saunders in a way that announces the transition into Dix Park is a design opportunity here. This concept uses the bridge and an expanded public plaza/staircase as a gateway. While an elevator likely will be used to ensure accessibility for all, reliance on this method alone would be a missed opportunity.



The Spring Garden Connector is a pedestrian and vehicular underpass connecting a Philadelphia neighborhood with an emerging entertainment district. Inspired by the Spring Garden Greenway theme, the panels and lighting illuminate the entry to the transit station providing identity and welcome to the otherwise shadowy underpass. Source: SEGD.org

Parks

P1 - S. Saunders St. and Lake Wheeler Rd.

The Vision

There are numerous examples of ways to improve the environment for bikes and pedestrians traveling through an underpass. The images here showcase some of the elements and improvements that could benefit the S. Saunders bridge including: formalized plantings, clearing of overgrown

and invasive growth, colorful lighting and murals, bike lanes, wider sidewalks, and public gathering space for those getting on and off public transit.

The S. Saunders bridge acts as a gateway between downtown and Dix Park. This transition will become even more important as the Dix Park Master Plan takes shape over the coming years. Signage, murals, and materials that reference Dix Park should be used. This will help brand the area and inform users of the BRT, and others, that they are close to Dix Park and the greenway.



Connecting downtown Campbell, CA. with a popular shopping center, this modified bridge creates an aesthetically pleasing gateway that maintains safety for pedestrains and bicyclists. Source: Biggs Cardosa Associates, Inc.



Uptown Dallas Inc. commissioned local artists to capture the district's "upscale, trendy and chic vibe." Lighting was also added for safety and evening viewing. Source: Dallas Innovates / Uptown Dallas Inc.



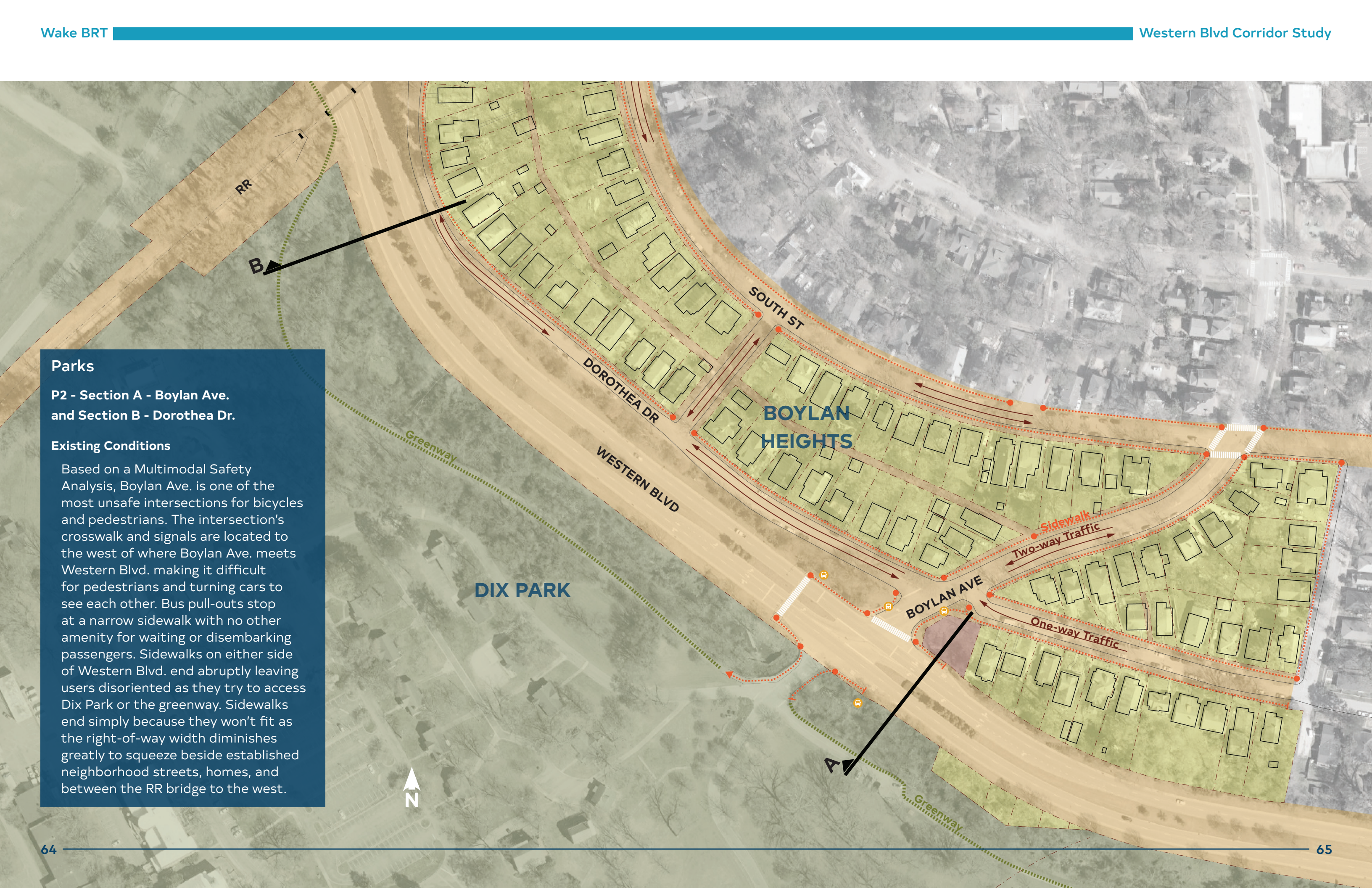
Payette joined forces with Lynn, Mass. and Beyond Walls, focusing on art in the public realm as a force for engagement and civic improvement. This I-93 underpass was brightened with colorful, LED lighting, improving safety and comfort. Source: Warren Jagger Photography / Payette

Parks

P2 - Section A - Boylan Ave. and Section B - Dorothea Dr.

Existing Conditions

Based on a Multimodal Safety Analysis, Boylan Ave. is one of the most unsafe intersections for bicycles and pedestrians. The intersection's crosswalk and signals are located to the west of where Boylan Ave. meets Western Blvd. making it difficult for pedestrians and turning cars to see each other. Bus pull-outs stop at a narrow sidewalk with no other amenity for waiting or disembarking passengers. Sidewalks on either side of Western Blvd. end abruptly leaving users disoriented as they try to access Dix Park or the greenway. Sidewalks end simply because they won't fit as the right-of-way width diminishes greatly to squeeze beside established neighborhood streets, homes, and between the RR bridge to the west.



Parks

P2 - Section A - Boylan Ave.

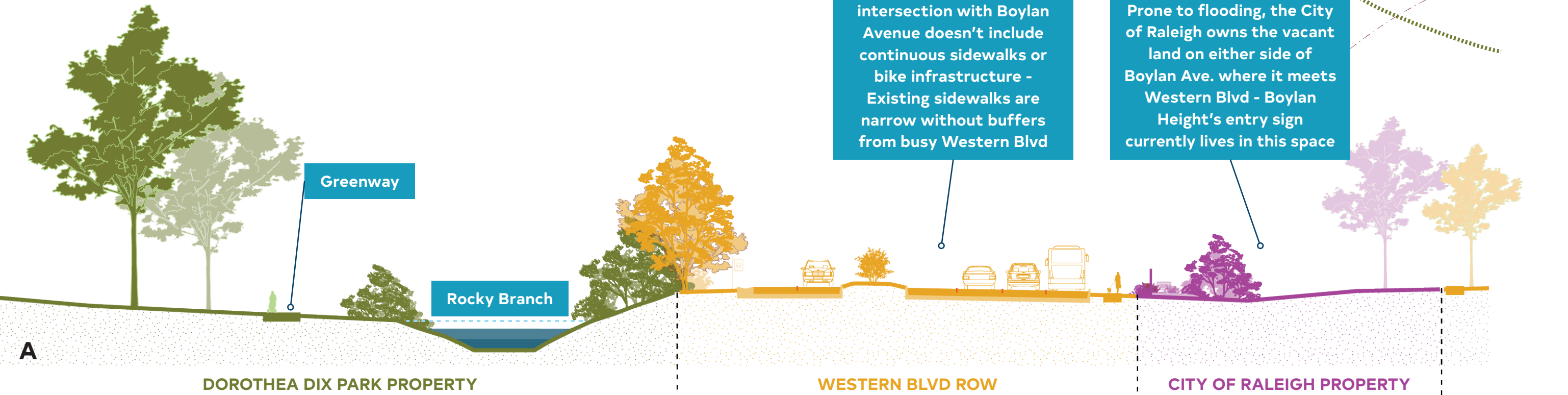
Existing Conditions

The design of this intersection in combination with traffic conditions creates an unsafe environment at a large neighborhood. This is also one of the primary entrances to the park from Western Blvd.

Existing infrastructure on the Boylan Heights side is threatened by nuisance flooding due to topography. Western Blvd. narrows west of Boylan Ave. which will make it difficult to continue bicycle and pedestrian infrastructure without alternate accommodations.



Drone imagery of the Boylan Ave. intersection looking east toward downtown Raleigh



Parks

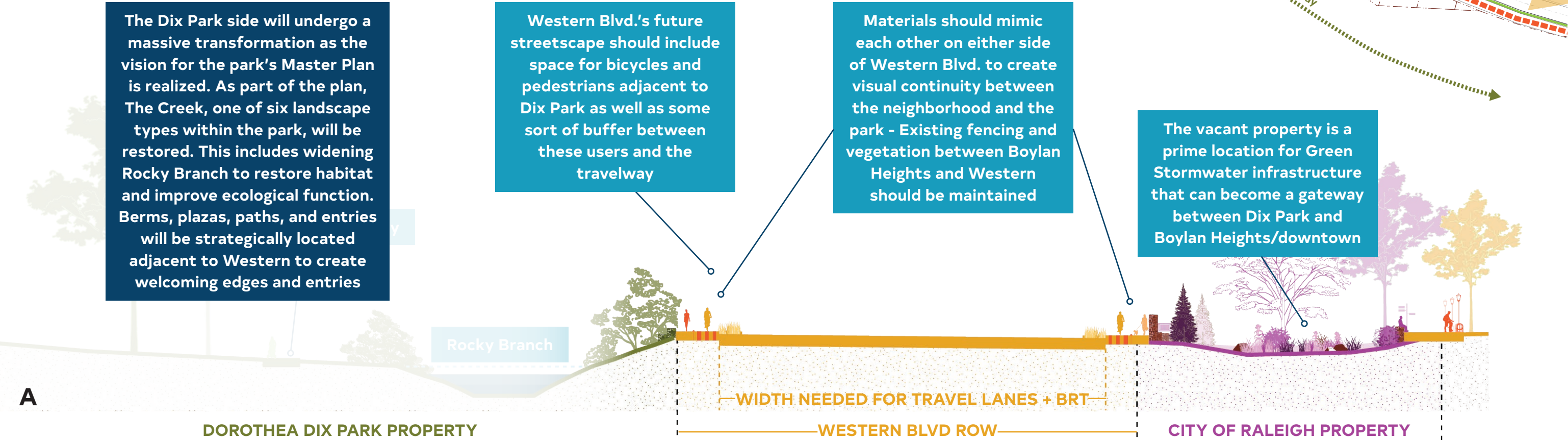
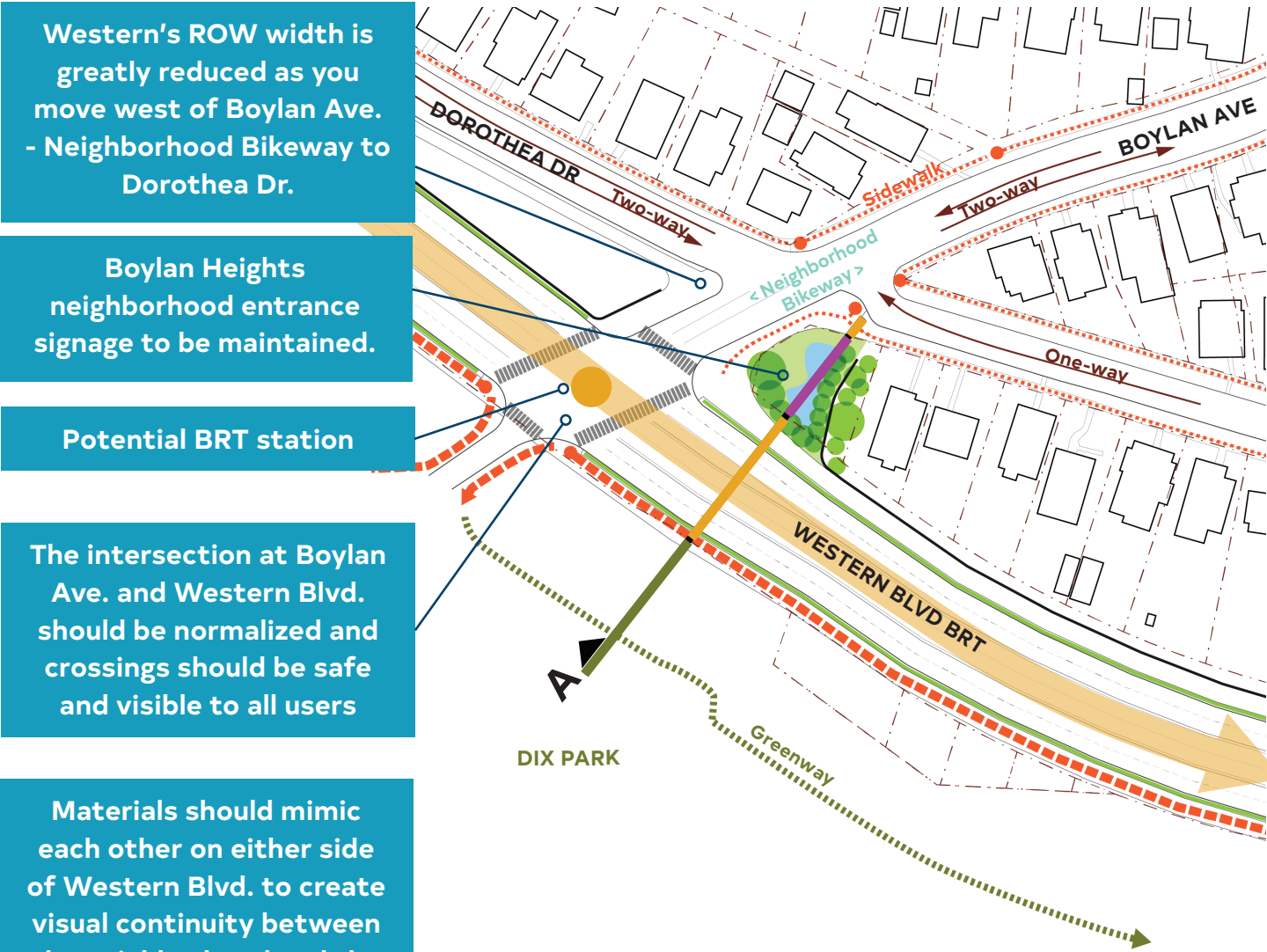
P2 - Section A - Boylan Ave.

Proposed Conditions

Redesigning the intersection and creating larger areas for pedestrians to queue and cross the street is a primary goal at this intersection, especially if this intersection ends up hosting a BRT station. Existing neighborhood open space, owned by the City of Raleigh, could provide an opportunity for installing Green Stormwater Infrastructure to help with flooding issues. Moving west-running bicycle and pedestrian infrastructure from Western Blvd. to Dorothea Dr. could help keep multimodal connections seamless.



Lexington, KY embarked on updating their Streetscape Master Plan with the goal of better connecting urban spaces with adjoining neighborhoods. As part of this effort, utilities were undergrounded, bike facilities and bus stops were introduced, sidewalks were widened - roadways reduced, and green infrastructure (picture to the left in image) was installed. Source: MKSK Studios



Parks

P2 - Section B - Dorothea Dr.

Existing Conditions

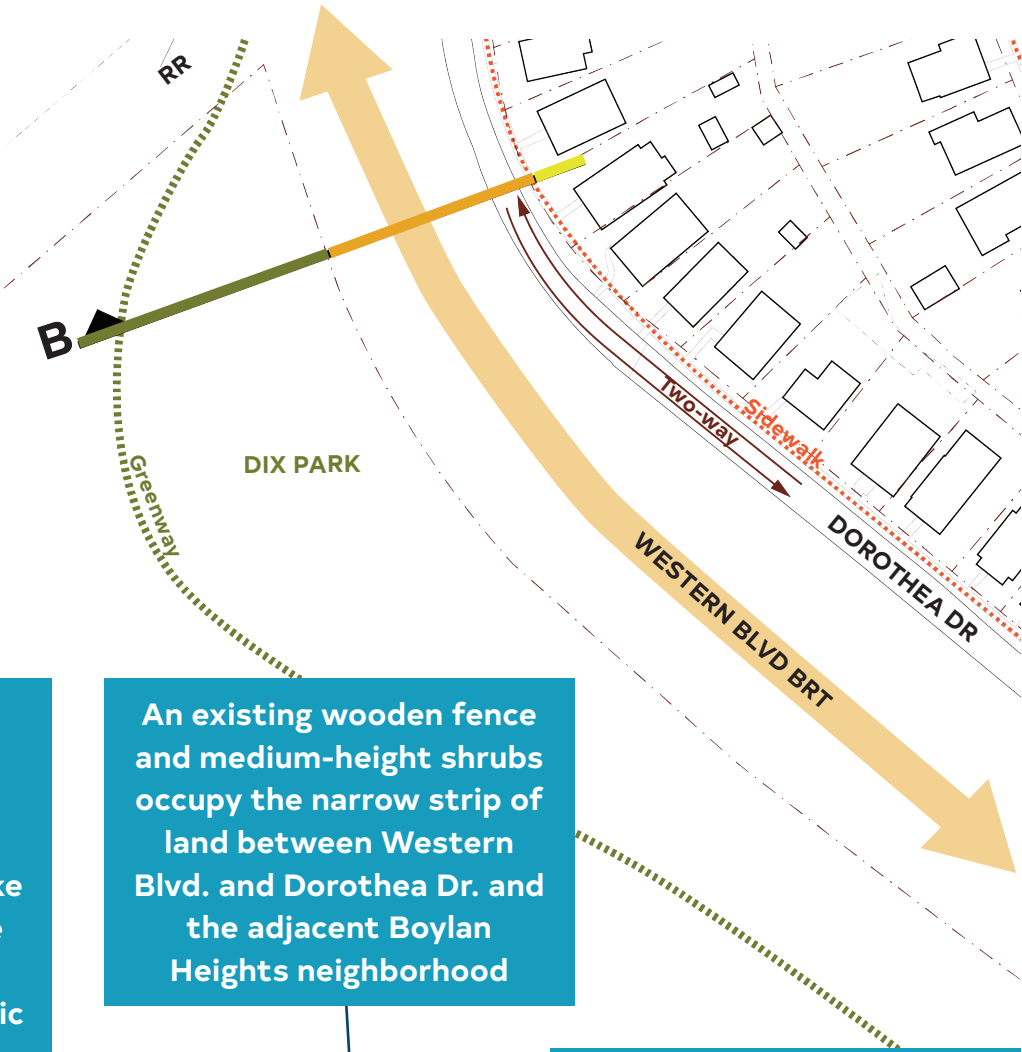
At this section of Western Blvd. there is very little space between the major corridor and the smaller neighborhood street, Dorothea Dr.

Dorothea Dr. is two-way and buffered from Western by a 6 foot wooden fence and some trees/shrubs. Adjacent to single family homes, there is a narrow sidewalk that is separated from Dorothea Dr. by a curb and planting strip.

There is very little room for Western Blvd. to expand to accomodate multimodal facilities on Western's northern side. However, there is a median and grassy shoulder that could be used to accomodate BRT lanes and ped/bike facilities on the Dix Park side.



Existing wooden fence and vegetation between Dorothea Drive and Western Blvd.



In this location, Rocky Branch Creek comes very close to Western Blvd.'s edge - Its banks are steep and overgrown with invasive plants making the creek inaccessible, visually and physically, to users of the greenway

This section of Western Blvd. narrows in anticipation of crossing under the RR bridge, Leaving little room for bike lanes or a sidewalk - The existing streetscape prioritizes space for traffic and underutilizes its vegetated shoulder and median

An existing wooden fence and medium-height shrubs occupy the narrow strip of land between Western Blvd. and Dorothea Dr. and the adjacent Boylan Heights neighborhood

Dorothea Dr. is currently a two-way street with varying amounts of ROW available - This section is at its most narrow



Parks

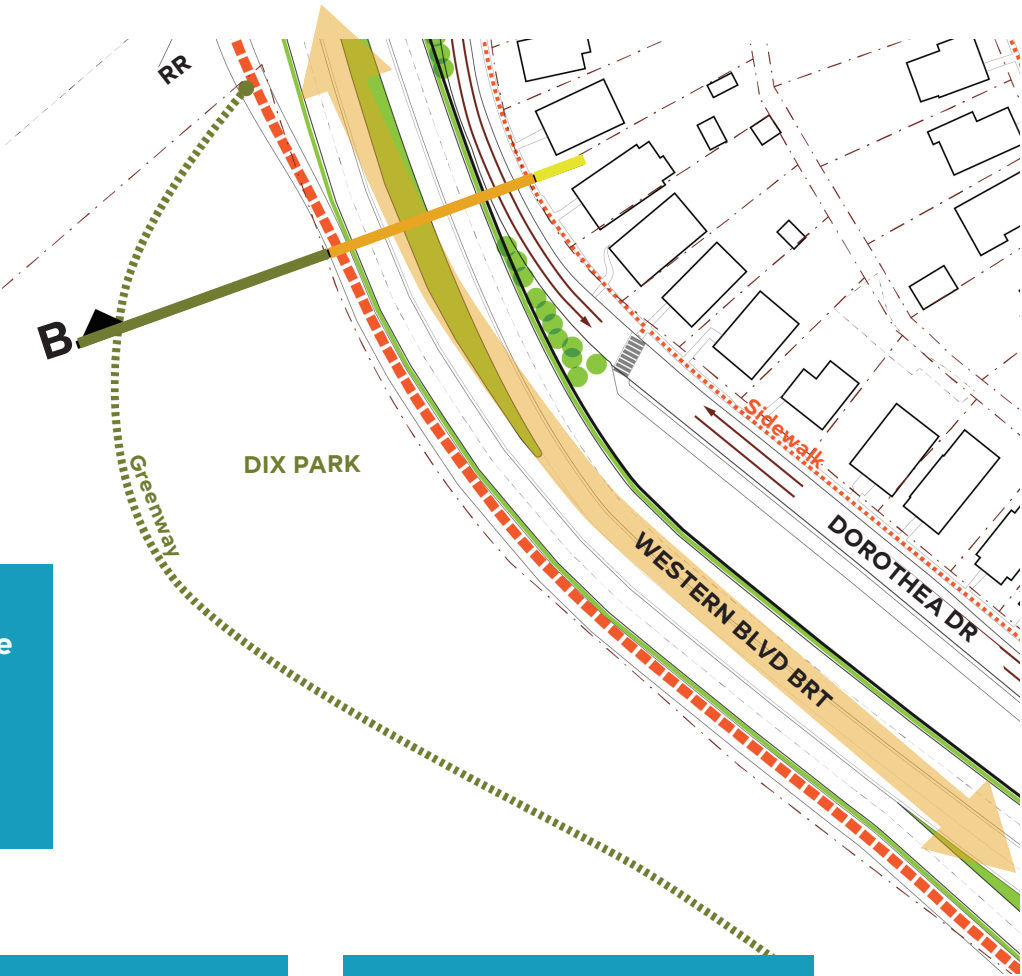
P2 - Section B - Dorothea Dr.

Proposed Conditions

Because of the space constraints at this section of Western Blvd., directing bicycles and pedestrians to Dorothea Dr. and converting it to one-way traffic is an alternative solution and ensuring connectivity for all users should be evaluated further. In this scenario, the bicycle facilities would move onto Dorothea Dr. at Boylan Ave. and stay on Dorothea until merging onto the existing multi-use path and greenway at the RR bridge.



An example of a one-way street with a bike lane moving through a residential area. Source: NACTO / City of Cambridge



As part of the Dix Park Master Plan - Rocky Branch will be realigned, its floodplain restored, and its banks planted with native vegetation. Physical and visual connections and buffers to Rocky Branch will be explored as the Master Plan unfolds

Greenway

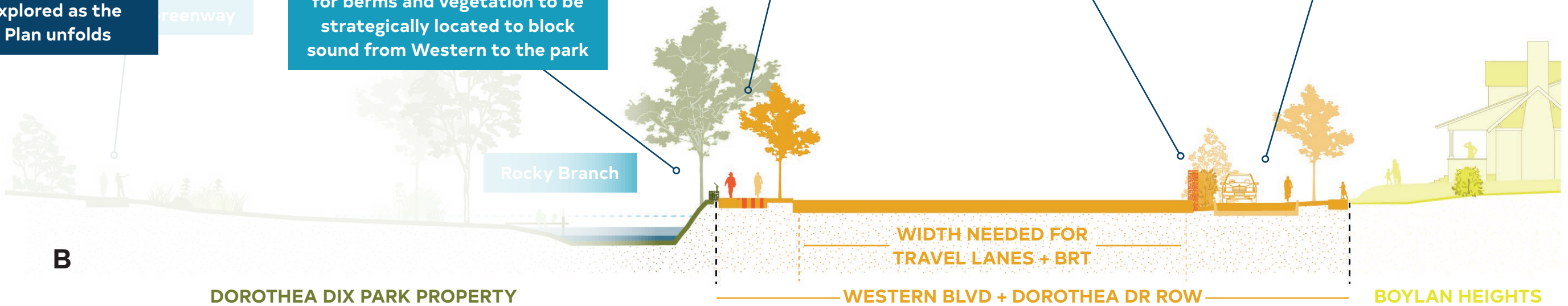
The Dix Park Master Plan calls for berms and vegetation to be strategically located to block sound from Western to the park

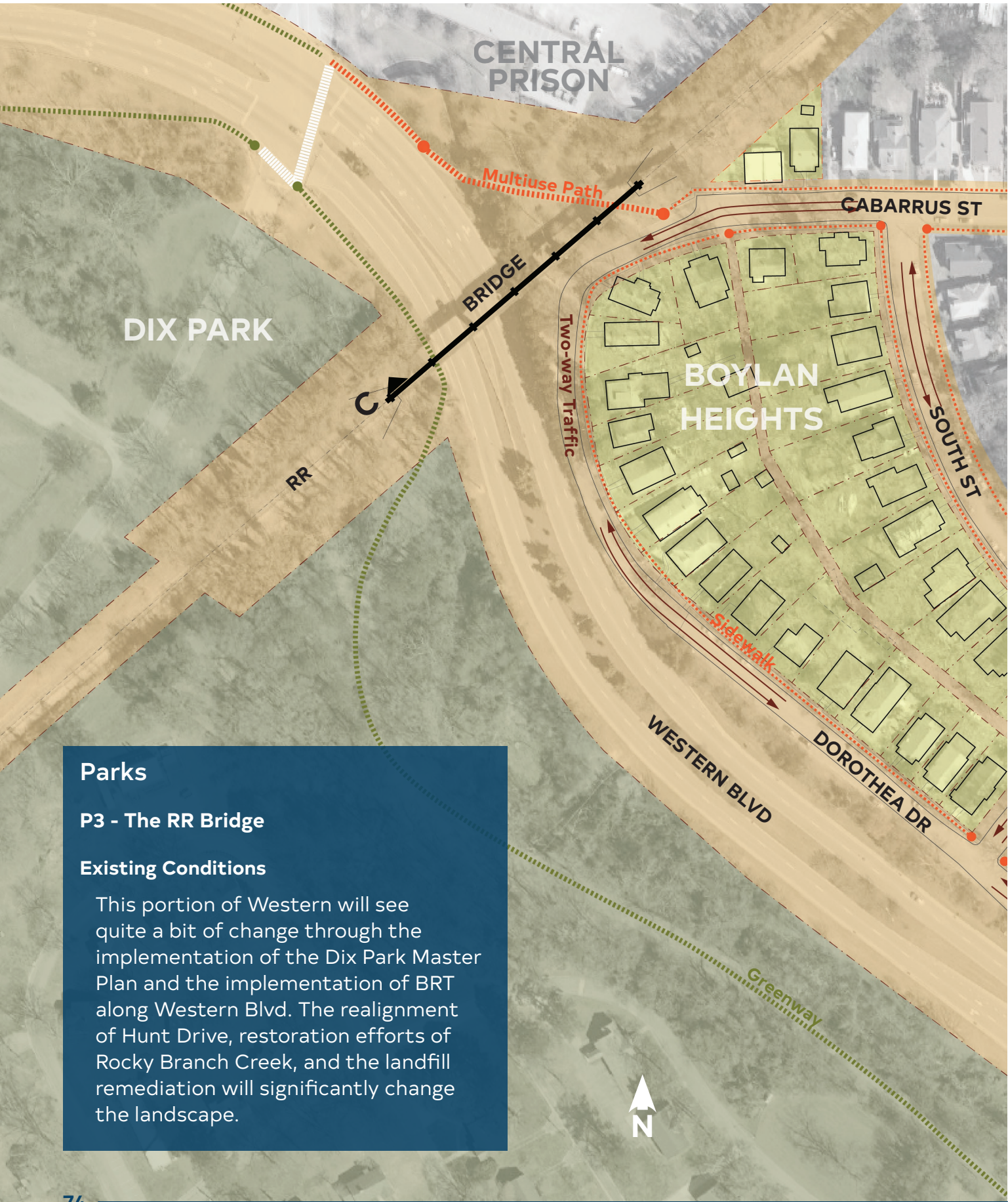
Rocky Branch

Include bicycle and pedestrian infrastructure on the south side of Western Blvd. that is buffered and separated from the travelway

Implementation of BRT should maintain the current fencing and vegetation between Western and Boylan Heights

Evaluate pedestrian and cyclist circulation and connectivity improvements along Dorothea Dr. as BRT design advances.





The supports for the RR bridge span across Western Blvd. leaving little room for anything other than travel lanes and a narrow median.
Source: Google Maps



Western Blvd.'s available right-of-way narrows to weave in-between the RR bridge supports.



A close-up look at the supports under the RR bridge. A multi-use path extends toward Western Blvd.



At the west end of Dorothea Drive, the roadway curves sharply making it difficult for vehicles to see bicyclists or pedestrians.

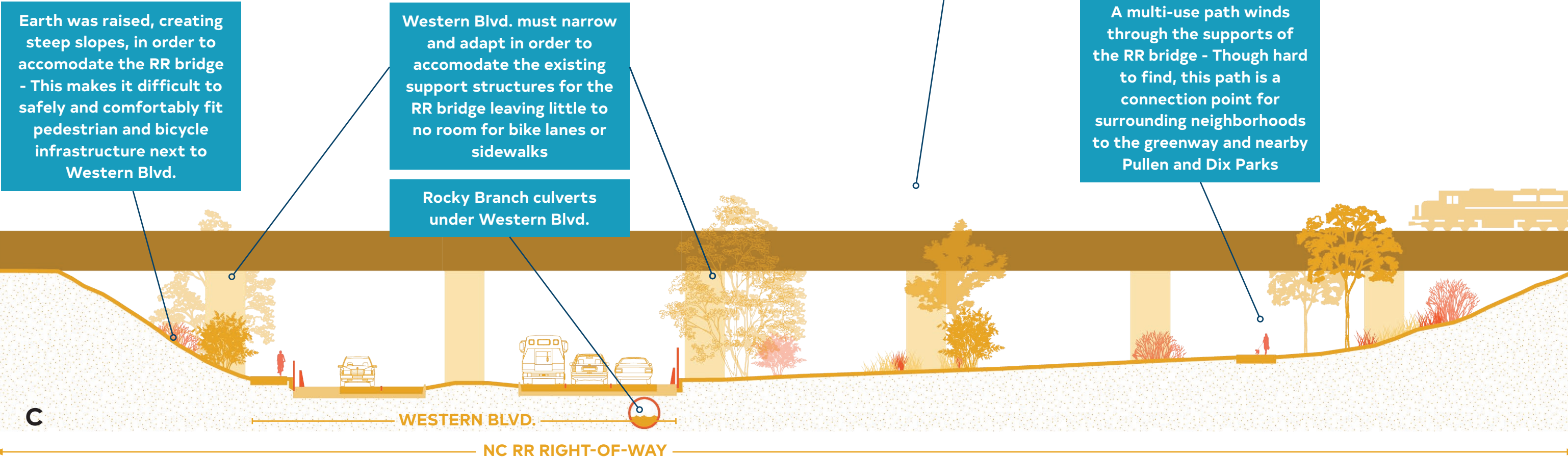
Parks

P3 - Section C - The RR Bridge

Existing Conditions



A path leads from Dorothea Drive, under the RR Bridge toward Western Blvd. No markings or signage designate the crossing at this sharp curve making it dangerous for pedestrians and bicycles.



Parks

P3 - Section C - The RR Bridge

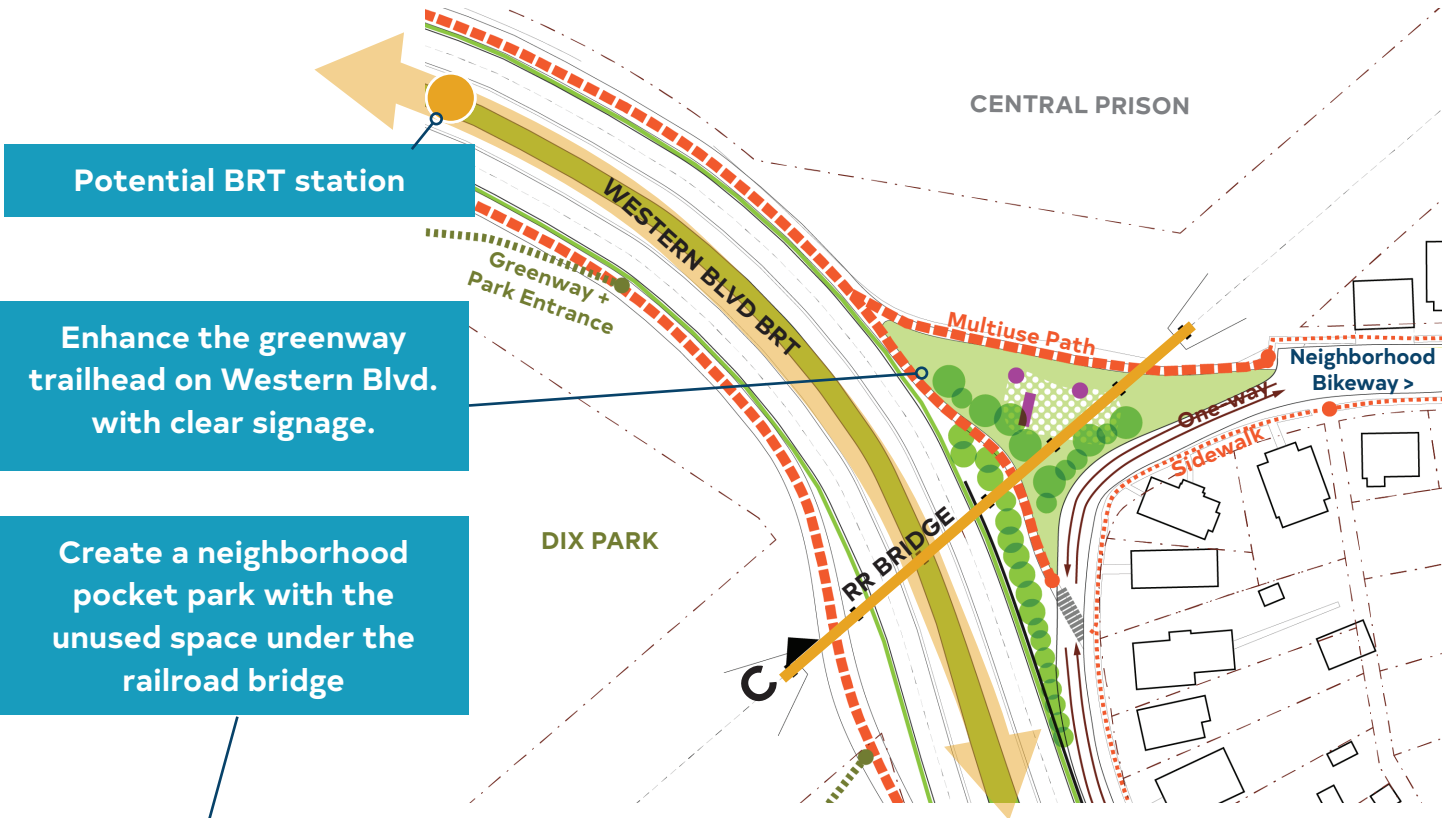
Proposed Conditions

The unused, vacant land beneath the RR is a unique opportunity for placemaking that could strengthen the connection between Boylan Heights and Western Blvd. Integrating pedestrian lighting, artwork/murals, and signage would enhance the visibility of this area as a connection point to the greenway and Dix Park. Painted crosswalks and designated bicycle and pedestrian paths would enhance safety.



Platform Park in Culver City, CA creates a gathering space under a bridge, close to a Metro Expo Line stop. Source: Homeospaces

The feasibility of widening the bike and pedestrian path and adding a more comfortable buffer between Western Blvd. should be explored. Materials, artwork, and lighting should reflect the design language used at the nearby park



The RR bridge provides a unique canvas for murals, wayfinding, and lighting which will help give definition and character to this area

The space should include pedestrian-scale elements and accommodations for bicyclists and pedestrians



Parks

P5 - Pullen Road

Existing Conditions

Future plans to reconstruct and better design the Pullen bridge are underway by NCDOT. Further collaboration between the City, NCDOT, and NC State University will be needed to install a BRT Station. The bridge will become an important interchange for passengers using BRT and frequent GoRaleigh and Wolfline bus services.



The Pullen Rd. bridge crosses over Western Blvd.

Parks

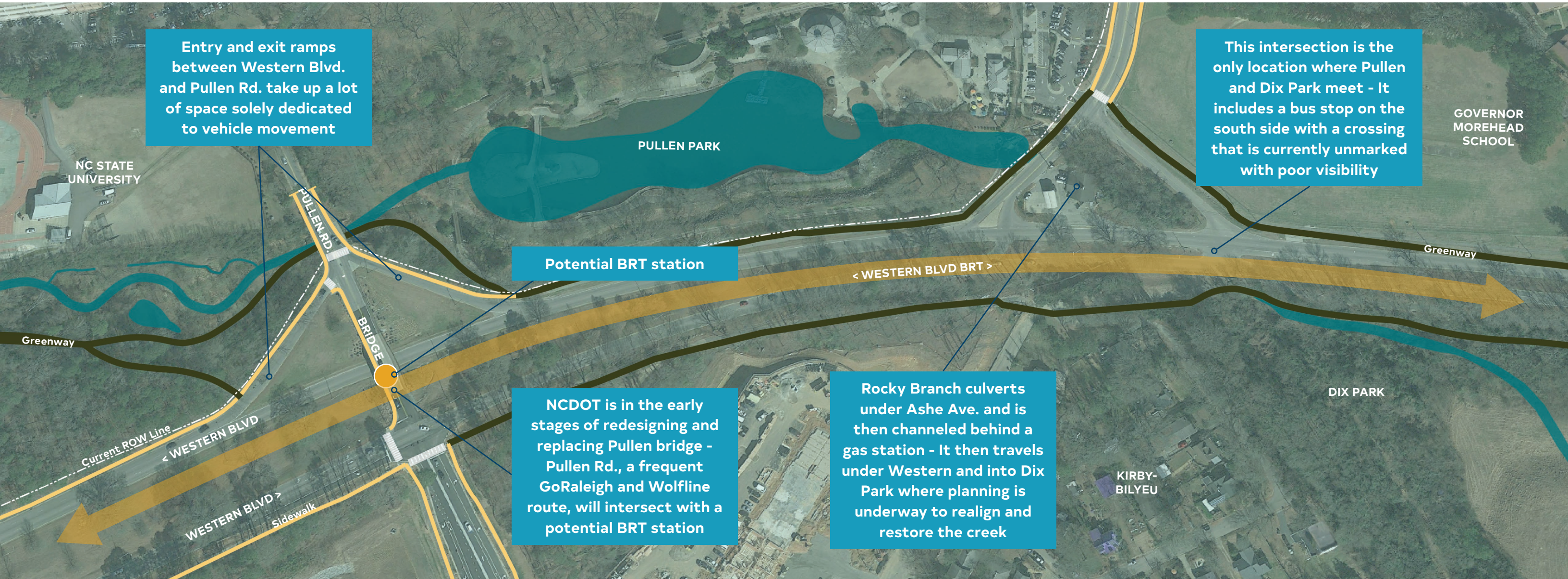
P4 - Ashe Avenue

Existing Conditions

This intersection is the primary entrance into Pullen Park. The current alignment of Ashe Ave. does not create a safe environment for drivers, pedestrians, cyclists, or transit users.



Ashe Ave. intersection.



Parks

P5 - Pullen Road

Proposed Conditions

A redesigned bridge and more compact interchange would help bring all users from Western Blvd. up onto Pullen Rd. more smoothly. A more compact interchange could provide opportunity to expand park space and create a better experience for park, university, and transit users.



The Atlanta BeltLine connects people throughout the city via trails and walkways that weave between parks, neighborhoods, and restaurants. Source: Discover Atlanta

Parks

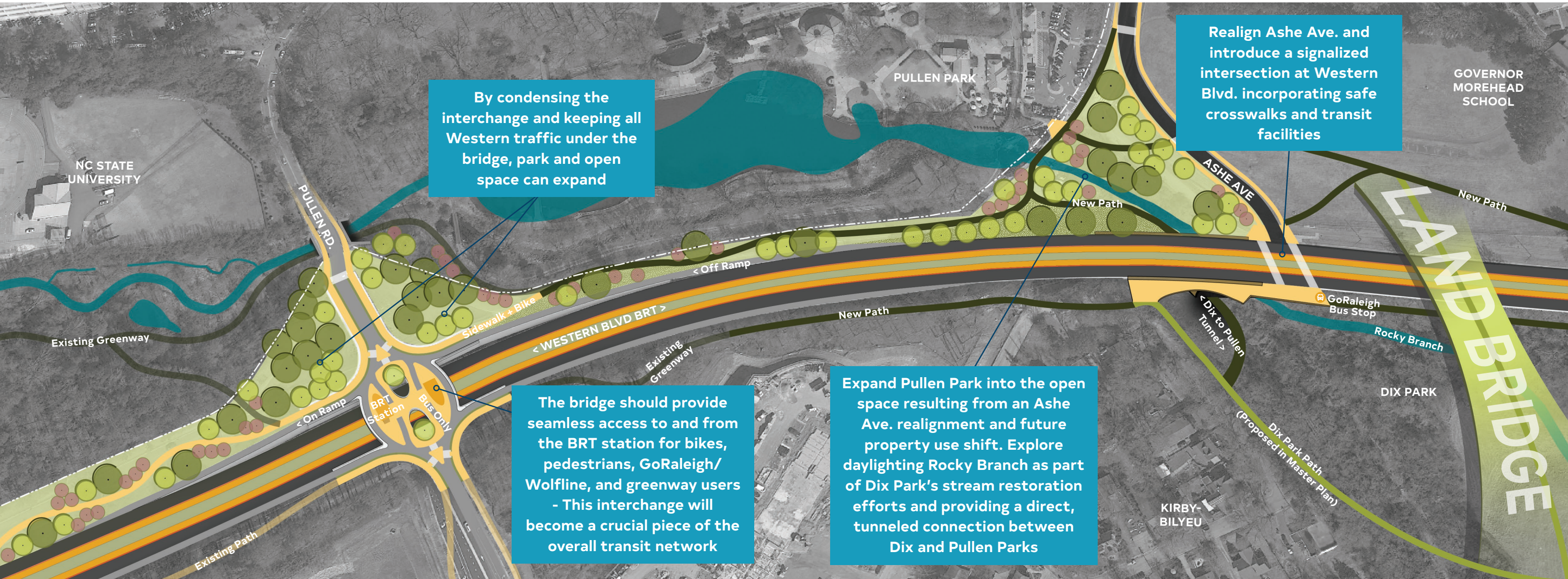
P4 - Ashe Avenue

Proposed Conditions

A redesign of this area should correct the alignment of Ashe Ave., provide connections to the future land bridge envisioned in the Dix Park Master Plan, and continue restoration efforts of Rocky Branch. The area should connect seamlessly to Dix Park and Pullen Park, acting as a gateway between the two amenities.



Before remediation efforts for Little Sugar Creek in Charlotte, NC the waterway was void of life and inaccessible. Now, it's flanked by greenway with flourishing banks. Source: Charlottenc.gov



Parks

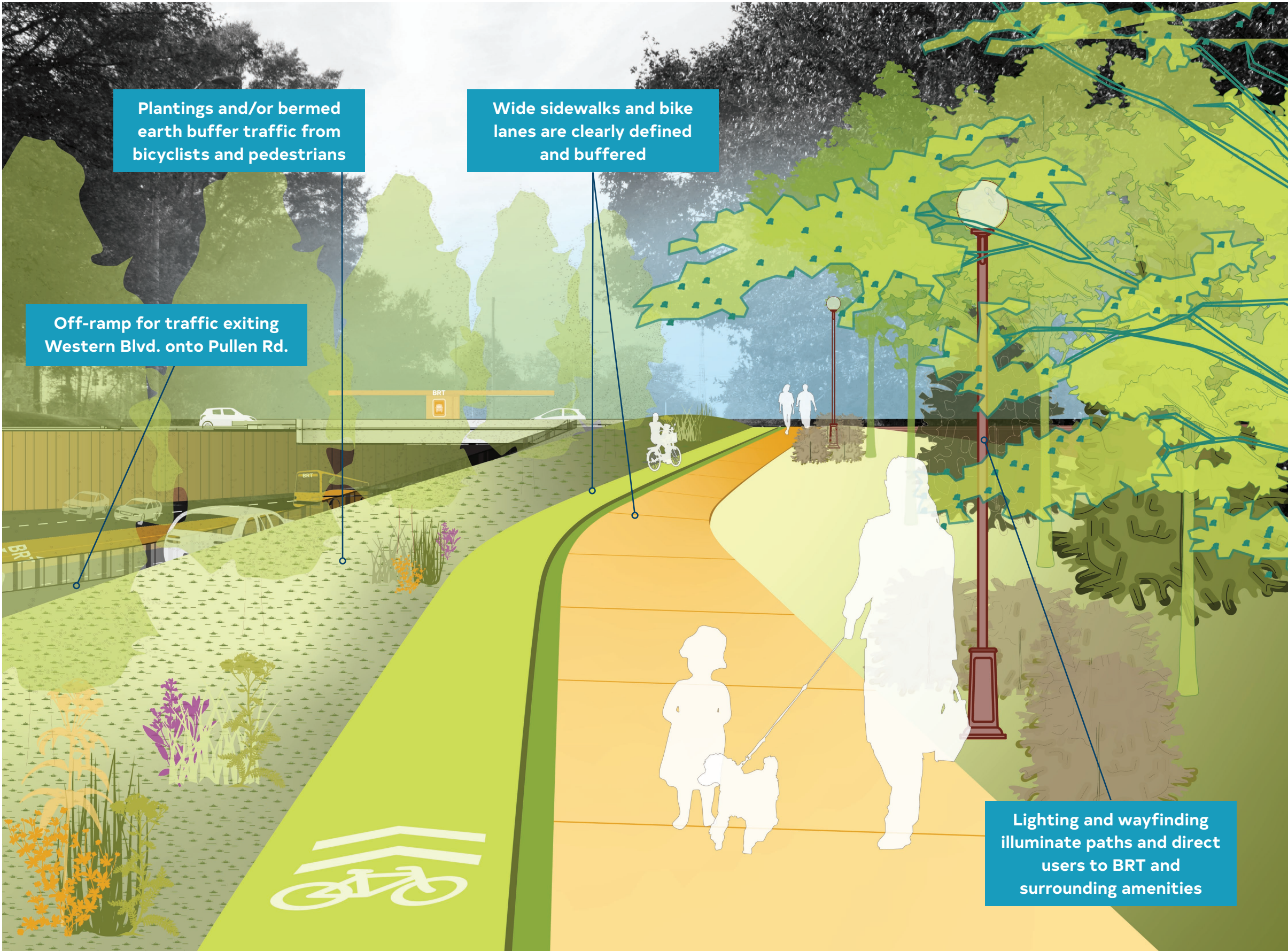
P4 - Pullen Road

Proposed Conditions

Pullen Road is near many amenities including Dix Park, Pullen Park, NC State University, and the greenway network. The experience of approaching and leaving the BRT station in this location should feel congruous with the experience of walking through campus or walking along a park's edge.



Existing conditions looking west toward the Pullen Rd. bridge from Western Blvd.



Campus

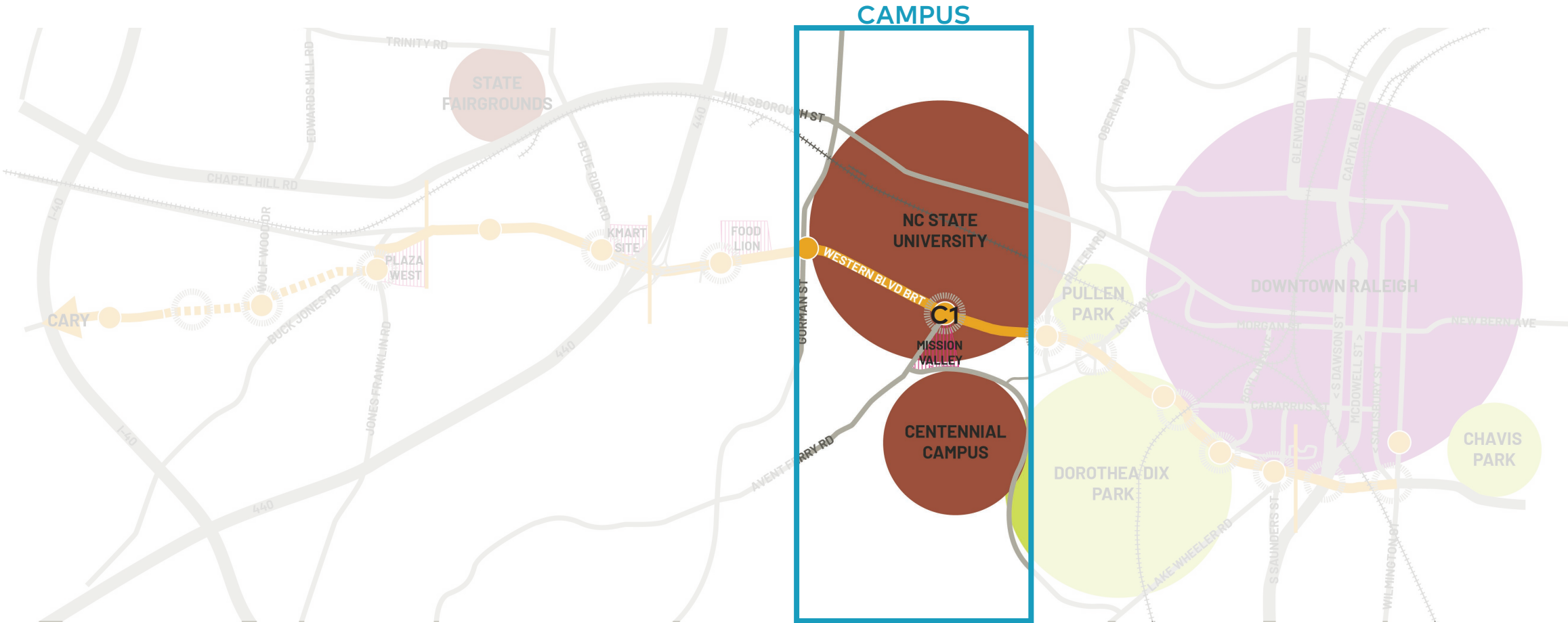
The segment of the corridor between Pullen Road and Gorman St. is primarily home to NC State property. The Mission Valley Shopping Center, however, has the potential to support transit-oriented development. NC State's Centennial Campus is a half-mile south of the corridor. Connections between the two campuses are prime opportunities for improving the corridor.

The campus zone stretches from Pullen Rd. to Gorman St.

This zone is predominantly occupied by publicly-owned land including the Federal Government and the State of North Carolina. Opportunities here outside of the right-of-way are limited but improvements within the right-of-way to cyclist and pedestrian infrastructure will greatly improve this zone. Mission Valley Shopping Center and the Capital Broadcasting Complex, two of the few privately-owned frontage properties offer significant opportunities for TOD that can also connect NC State's Main Campus with Centennial Campus. Redevelopment here would also close a significant greenway gap, connecting Walnut Creek Greenway with the Rocky Branch Greenway.

There is one opportunity area identified in this zone:

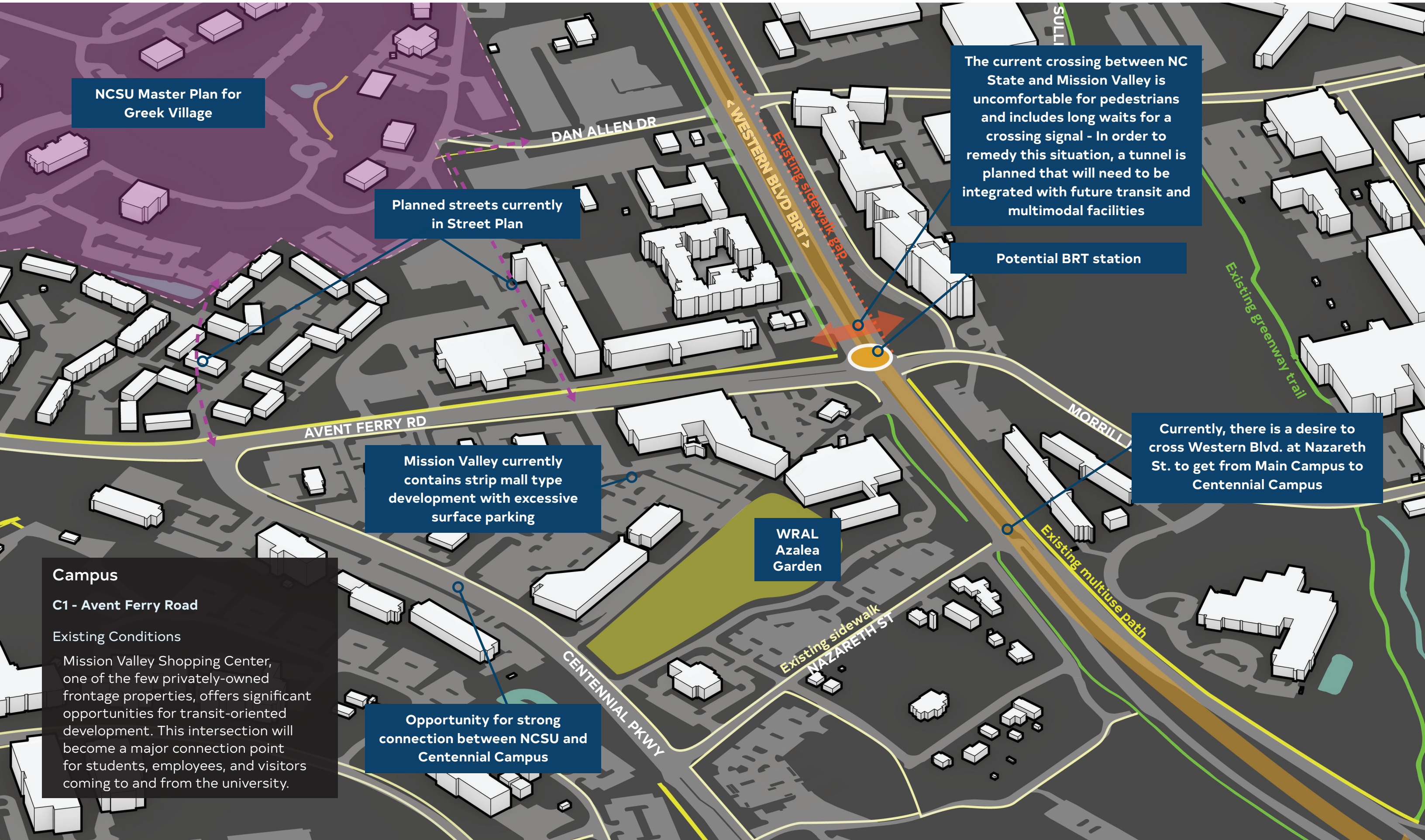
C1 - Avent Ferry Road, Mission Valley



The Mission Valley Shopping Center hosts restaurants, shops, a movie theater, and apartments. Source: Missionvalleysc.com



The Mission Valley shopping center occupies a large parcel to the southeast of the Western Blvd. and Avent Ferry Rd. intersection. At this intersection, plans are underway for a pedestrian tunnel under Western Blvd. as well as a BRT station.



The current crossing between NC State and Mission Valley is uncomfortable for pedestrians and includes long waits for a crossing signal - In order to remedy this situation, a tunnel is planned that will need to be integrated with future transit and multimodal facilities

Potential BRT station

Currently, there is a desire to cross Western Blvd. at Nazareth St. to get from Main Campus to Centennial Campus

Planned streets currently in Street Plan

Mission Valley currently contains strip mall type development with excessive surface parking

WRAL Azalea Garden

Opportunity for strong connection between NCSU and Centennial Campus

NCSU Master Plan for Greek Village

Campus
C1 - Avent Ferry Road
Existing Conditions

Mission Valley Shopping Center, one of the few privately-owned frontage properties, offers significant opportunities for transit-oriented development. This intersection will become a major connection point for students, employees, and visitors coming to and from the university.

Campus

C1 - Avent Ferry Road

The Vision

This stretch of Western Blvd. is unique in that most of its frontage touches NC State University. This node is sandwiched between main campus, Greek Village, and Centennial Campus and is already full of pedestrians

and activity. Add into the mix a planned BRT station, a pedestrian tunnel under Western Blvd., and any future redevelopment of Mission Valley, and this intersection will be bursting with activity. Its future design should be well-equipped to accomodate bicyclists and pedestrians.



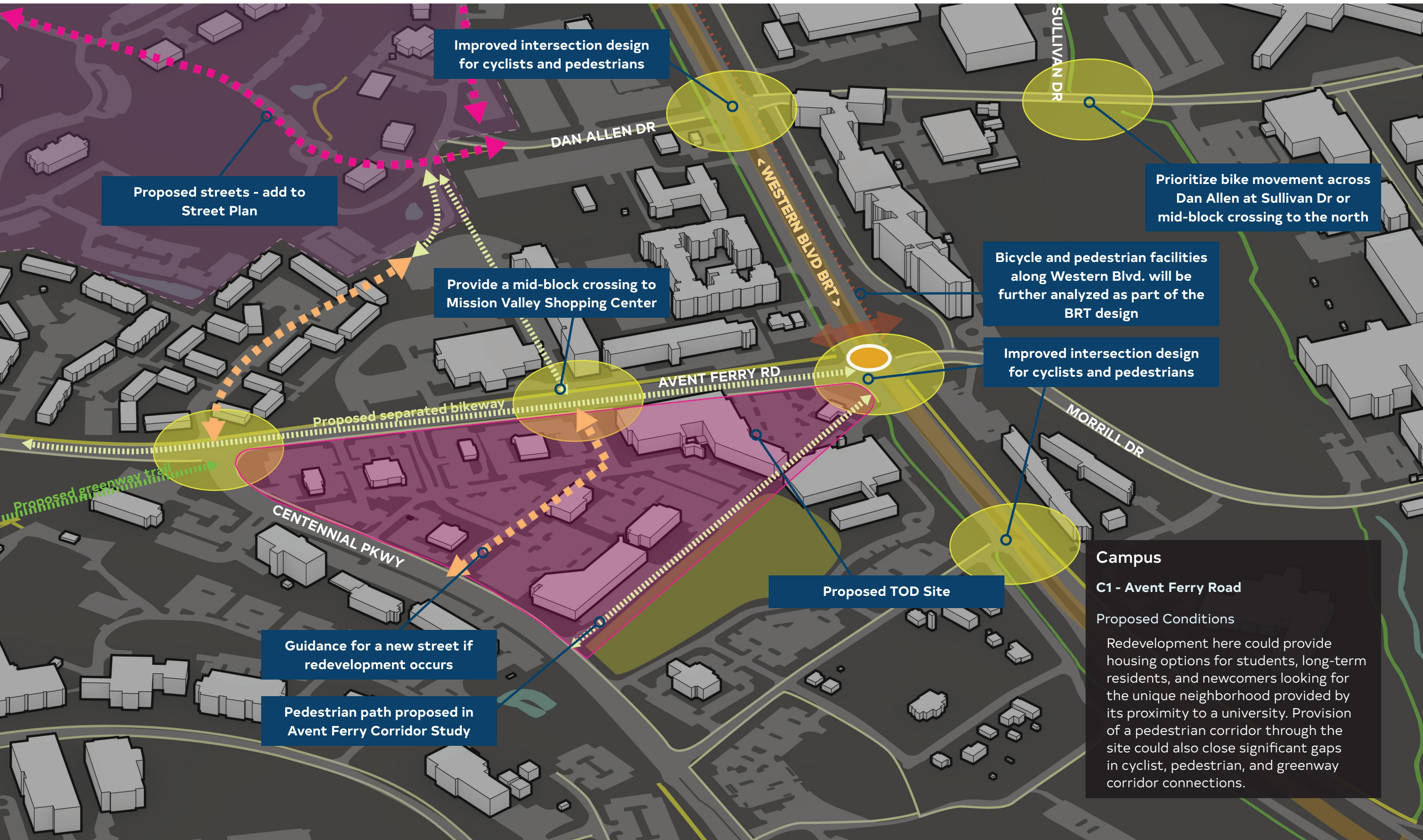
A pedestrian and bicycle tunnel in Amsterdam Central Station. The design by Benthem Crouwel Architects makes a clear division between the two modes of travel using materials and grade change. Source: Jannes Linders / Archdaily



BRT could propel Mission Valley into a more dense, walkable area similar to Silver Plaza in Silver Spring, MD. Source: CNU.org



This future BRT station location has the opportunity to collaborate with the university to create a unique experience advertising its proximity to campus. Colors, wayfinding, and materials could help reinforce this association. Left photo: The Guardian, Right photo: UNLV.edu



Improved intersection design for cyclists and pedestrians

Proposed streets - add to Street Plan

Provide a mid-block crossing to Mission Valley Shopping Center

Prioritize bike movement across Dan Allen at Sullivan Dr or mid-block crossing to the north

Bicycle and pedestrian facilities along Western Blvd. will be further analyzed as part of the BRT design

Improved intersection design for cyclists and pedestrians

Proposed TOD Site

Guidance for a new street if redevelopment occurs

Pedestrian path proposed in Avent Ferry Corridor Study

Campus

C1 - Avent Ferry Road

Proposed Conditions

Redevelopment here could provide housing options for students, long-term residents, and newcomers looking for the unique neighborhood provided by its proximity to a university. Provision of a pedestrian corridor through the site could also close significant gaps in cyclist, pedestrian, and greenway corridor connections.

Method-Kent Commercial

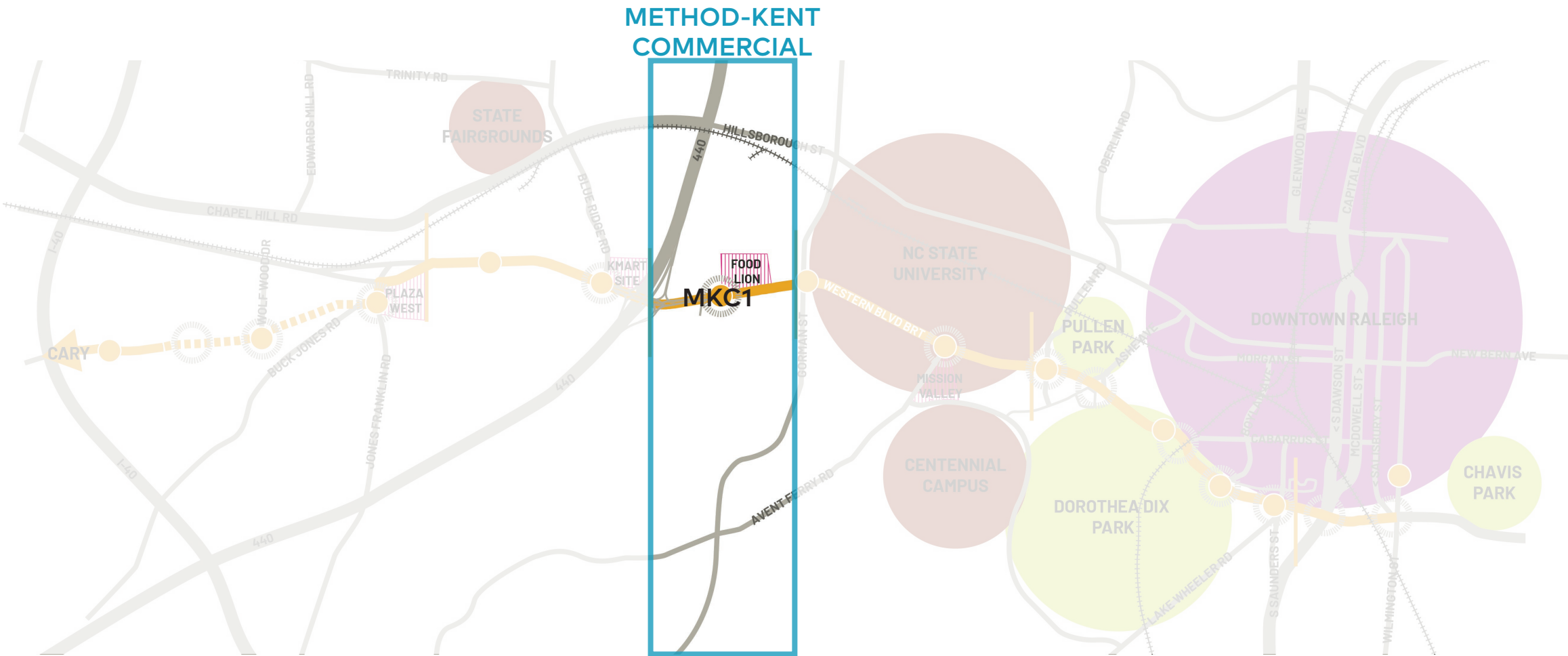
This segment between Gorman and Method is largely occupied by several low-density commercial uses. It's also home to neighborhoods with rich cultural histories in the city.

The Method-Kent Commercial zone starts just west of Gorman St. and ends at the I-440 interchange.

This zone is currently the commercial core of the corridor. The frontage properties are primarily commercial and attract residents who live nearby and students. This area has the largest potential for TOD that can also provide neighborhood amenities for the surrounding communities including the Method community.

There is one opportunity area identified in this zone:

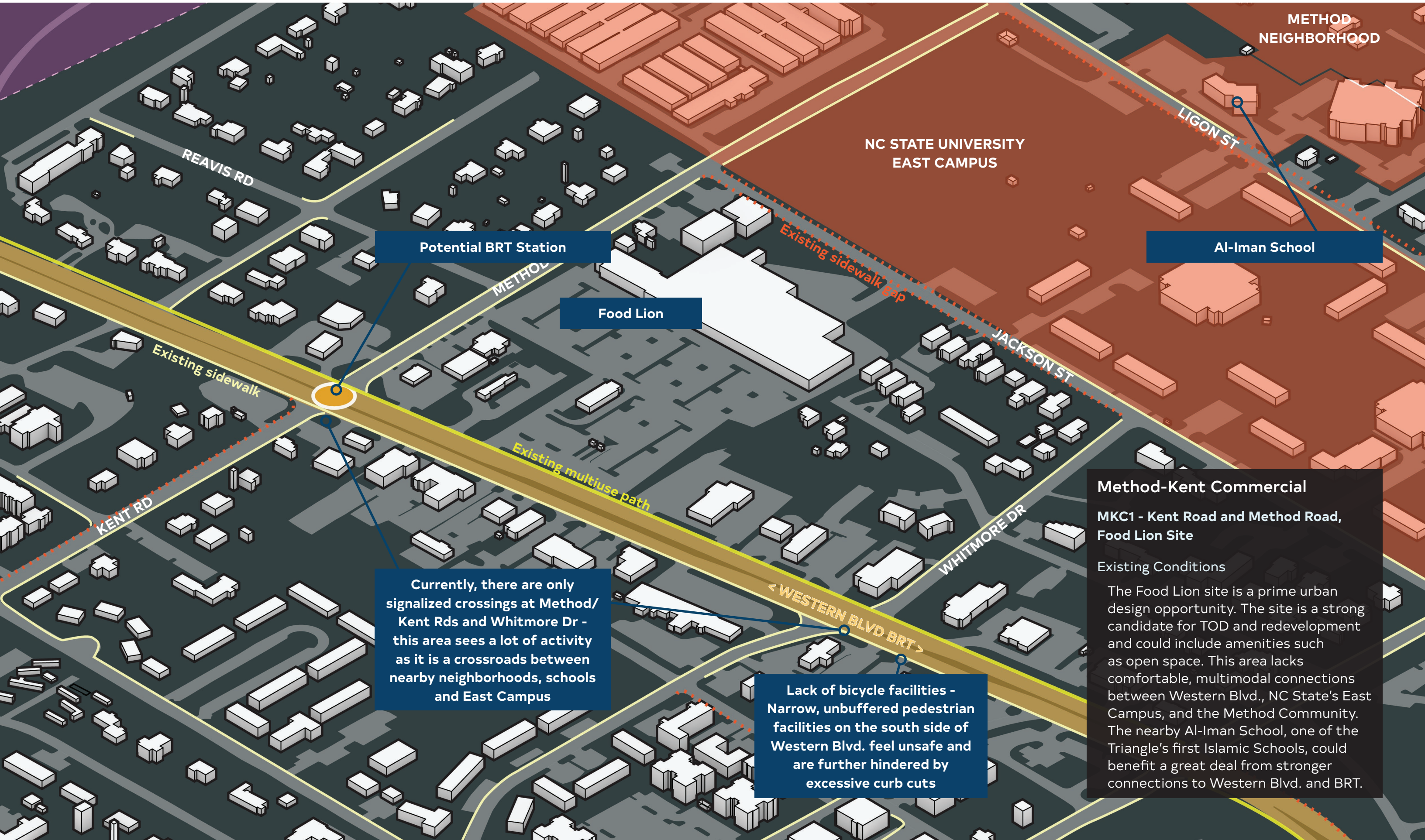
MKC1 - Kent Road and Method Road, Food Lion Site



Development is unfriendly with Back of House facing open spaces and places of gathering.



The Food Lion Shopping Center is the primary retail hub on this section of corridor



Potential BRT Station

Food Lion

Al-Iman School

Currently, there are only
signalized crossings at Method/
Kent Rds and Whitmore Dr -
this area sees a lot of activity
as it is a crossroads between
nearby neighborhoods, schools
and East Campus

Lack of bicycle facilities -
Narrow, unbuffered pedestrian
facilities on the south side of
Western Blvd. feel unsafe and
are further hindered by
excessive curb cuts

Method-Kent Commercial

**MKC1 - Kent Road and Method Road,
Food Lion Site**

Existing Conditions

The Food Lion site is a prime urban
design opportunity. The site is a strong
candidate for TOD and redevelopment
and could include amenities such
as open space. This area lacks
comfortable, multimodal connections
between Western Blvd., NC State's East
Campus, and the Method Community.
The nearby Al-Iman School, one of the
Triangle's first Islamic Schools, could
benefit a great deal from stronger
connections to Western Blvd. and BRT.

Method-Kent Commercial

MKC1 - Kent Road and Method Road,
Food Lion Site

The Vision

Redevelopment in this area should focus on expanding access to residents and NC State students. Basic amenities like a grocery store should be a part of any redevelopment. The development should have high quality open space and serve as a connector between the corridor, the Method neighborhood, and NC State’s Campus.



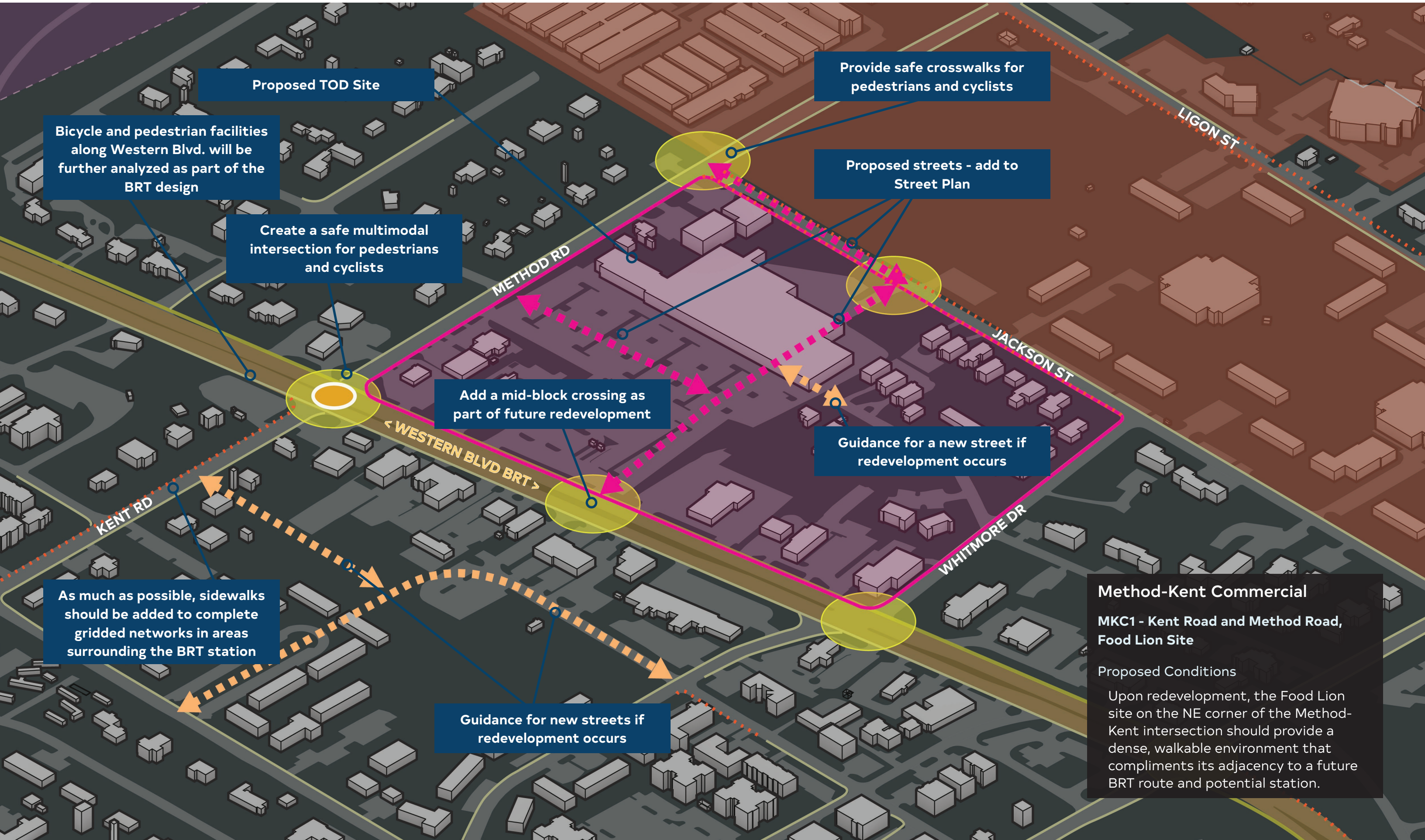
New development could draw students and residents with new friendly public spaces. Source: Center for New Urbanism



Papago Plaza - Scottsdale, AZ. Source: YourValley



Asheville Mall Redevelopment. Source: Citizen Times



Proposed TOD Site

Bicycle and pedestrian facilities along Western Blvd. will be further analyzed as part of the BRT design

Create a safe multimodal intersection for pedestrians and cyclists

Provide safe crosswalks for pedestrians and cyclists

Proposed streets - add to Street Plan

Add a mid-block crossing as part of future redevelopment

Guidance for a new street if redevelopment occurs

As much as possible, sidewalks should be added to complete gridded networks in areas surrounding the BRT station

Guidance for new streets if redevelopment occurs

Method-Kent Commercial

MKC1 - Kent Road and Method Road, Food Lion Site

Proposed Conditions

Upon redevelopment, the Food Lion site on the NE corner of the Method-Kent intersection should provide a dense, walkable environment that compliments its adjacency to a future BRT route and potential station.

Multimodal Link

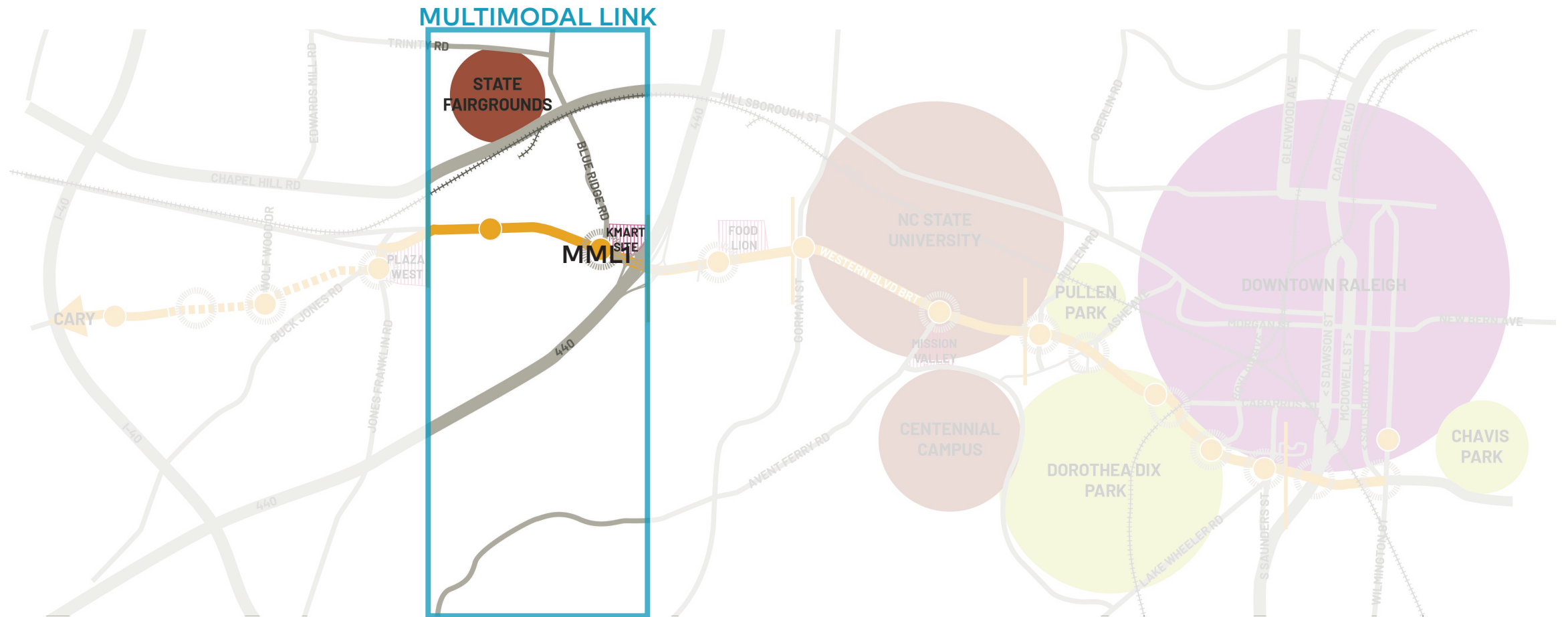
This segment has witnessed significant transformation in recent years in terms of redevelopment. Many properties in the area have seen new construction in the form of single-family homes. It also offers key opportunities for connections to high frequency transit networks and future commuter rail stops.

The multimodal link zone starts at the I-440 interchange and ends just before Jones Franklin Rd.

This zone is ripe for redevelopment, with some projects already underway. The zone is still, however, dominated by residential use with primarily single-family neighborhoods and multifamily complexes fronting Western Blvd. Expanding the sidewalk network and providing bike lanes will provide benefit to future development as well as current residents.

There is one opportunity area identified in this zone:

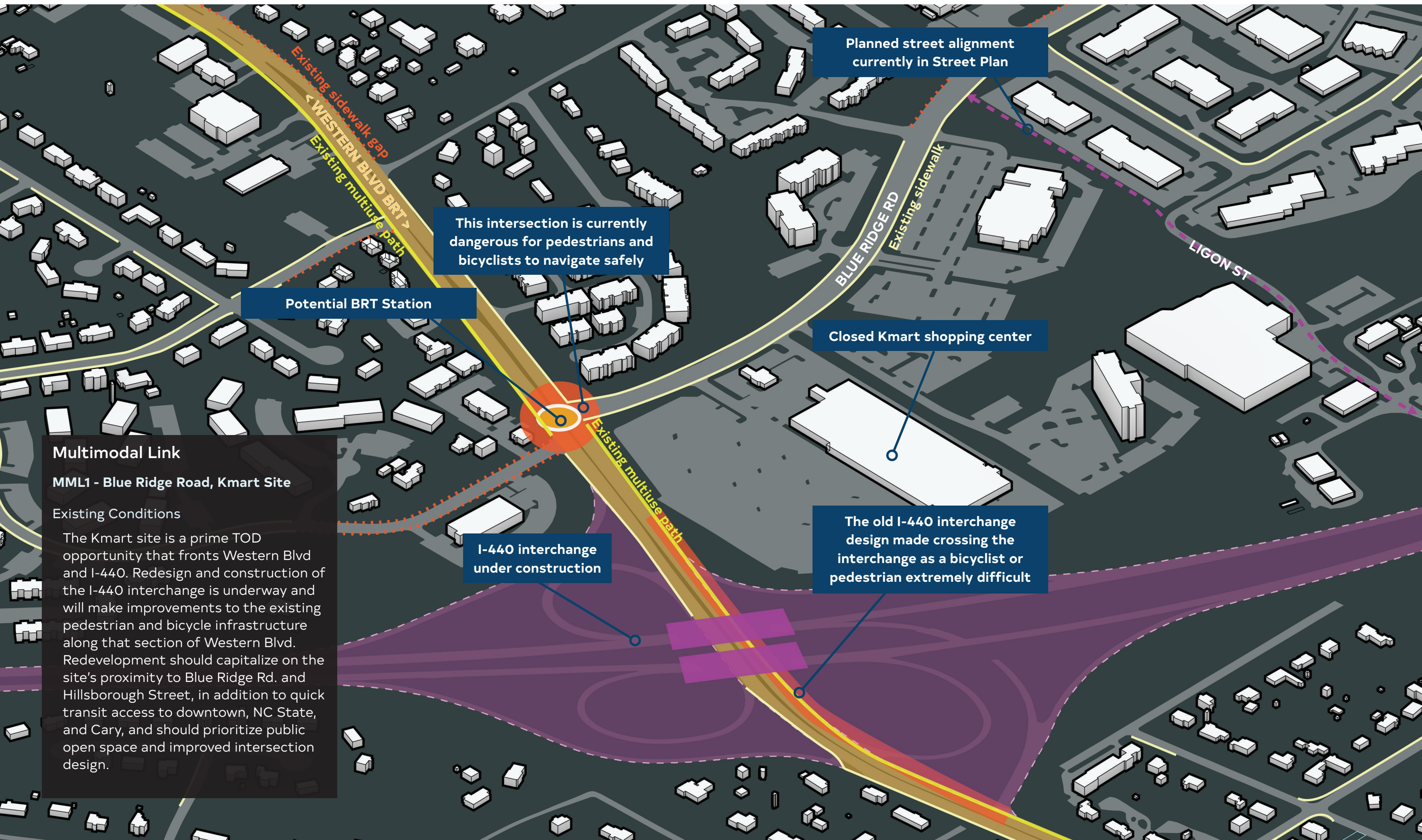
MML-1 - Blue Ridge Road, Kmart Site



Wide, high speed streets create a dangerous environment for non-drivers.



The largely abandoned Kmart site and a new diverging diamond interchange present opportunities for massive improvement.



Planned street alignment
currently in Street Plan

This intersection is currently
dangerous for pedestrians and
bicyclists to navigate safely

Potential BRT Station

Closed Kmart shopping center

I-440 interchange
under construction

The old I-440 interchange
design made crossing the
interchange as a bicyclist or
pedestrian extremely difficult

Multimodal Link

MML1 - Blue Ridge Road, Kmart Site

Existing Conditions

The Kmart site is a prime TOD opportunity that fronts Western Blvd and I-440. Redesign and construction of the I-440 interchange is underway and will make improvements to the existing pedestrian and bicycle infrastructure along that section of Western Blvd. Redevelopment should capitalize on the site's proximity to Blue Ridge Rd. and Hillsborough Street, in addition to quick transit access to downtown, NC State, and Cary, and should prioritize public open space and improved intersection design.

Multimodal Link

MML1 - Blue Ridge Road, Kmart Site

The Vision

Development in this area should meet the street and invite transit users, and local residents in. This site is uniquely positioned to be the first in a hub of development extending to Hillsborough St. Future transit expansion will make this area a critical development hub. As such, streets need to safely accomodate high volumes of pedestrian and cyclist traffic.



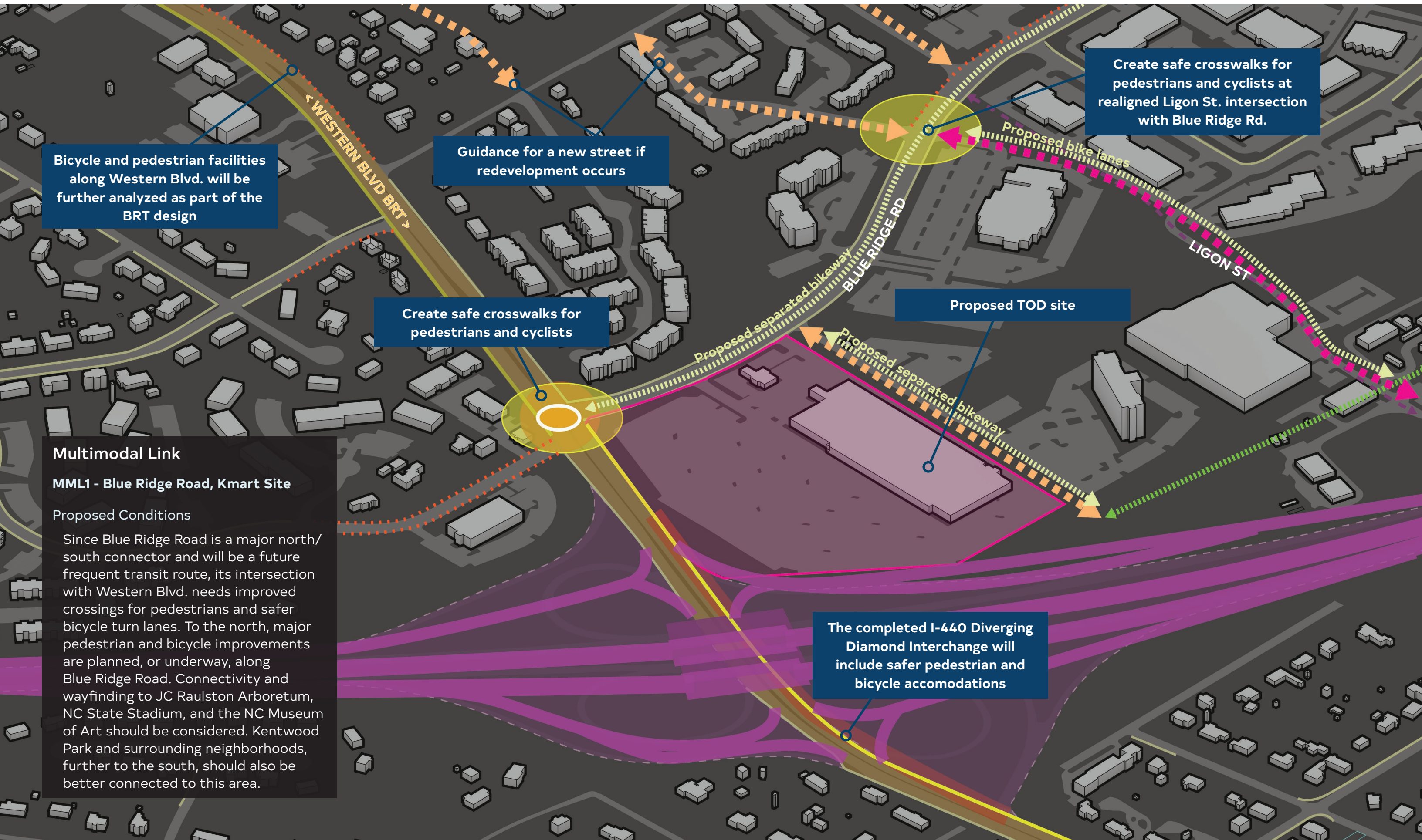
This site has the potential to be the gateway to a larger hub for development with access to multiple forms of transit. Source: Hines



Development should meet the street and activate edges. Source: Urbanize LA



Ample space should be given to cyclists both internal and external to the development. Source: Sydney Government Architect



Bicycle and pedestrian facilities along Western Blvd. will be further analyzed as part of the BRT design

Guidance for a new street if redevelopment occurs

Create safe crosswalks for pedestrians and cyclists at realigned Ligon St. intersection with Blue Ridge Rd.

Create safe crosswalks for pedestrians and cyclists

Proposed TOD site

Multimodal Link

MML1 - Blue Ridge Road, Kmart Site

Proposed Conditions

Since Blue Ridge Road is a major north/south connector and will be a future frequent transit route, its intersection with Western Blvd. needs improved crossings for pedestrians and safer bicycle turn lanes. To the north, major pedestrian and bicycle improvements are planned, or underway, along Blue Ridge Road. Connectivity and wayfinding to JC Raulston Arboretum, NC State Stadium, and the NC Museum of Art should be considered. Kentwood Park and surrounding neighborhoods, further to the south, should also be better connected to this area.

The completed I-440 Diverging Diamond Interchange will include safer pedestrian and bicycle accommodations

Cary Connector

This area includes the new Western Blvd. extension that connects to Cary Towne Blvd. The selection of this extension as the BRT route offers a new regional-gateway connection between Raleigh and Cary. Additionally, a future extension of Edwards Mill Road south to Western Boulevard will provide an additional north-south connection. This offers an opportunity to push traditional design in a direction that accommodates innovative, multimodal transit design.

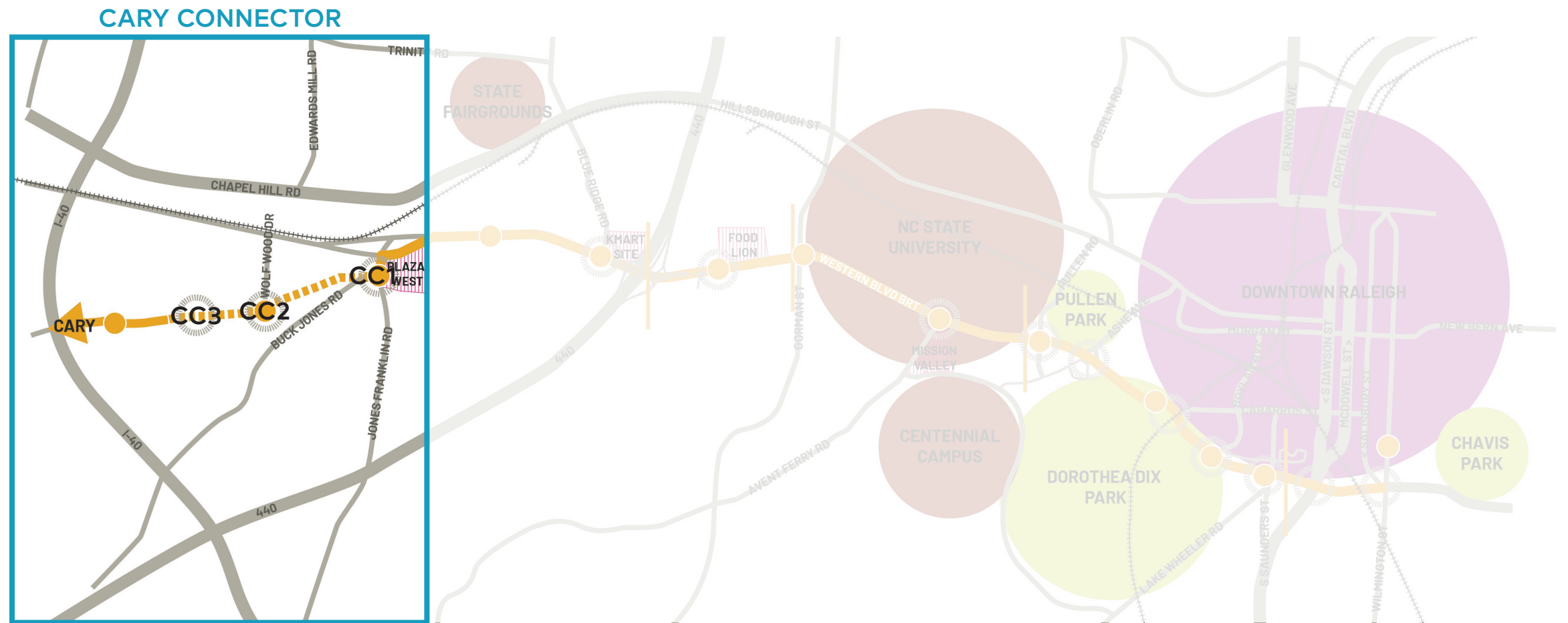
This zone, at the headwaters of Walnut Creek, has the potential to set a new standard for Green TOD. Elements of a Green TOD district are introduced under the environmental sustainability theme (pg. 55) and should be highlighted throughout the Cary Connector zone. Redevelopment here must prioritize watershed health through sustainable building design and reliance on progressive landscape and roadway designs that mitigate development impacts. Specific urban design opportunities include developing a new BRT streetscape that incorporates high quality pedestrian and cyclist infrastructure, green stormwater infrastructure, and connections to greenways and planned parks.

There are three opportunity areas identified in this zone:

CC1 - Jones Franklin Rd., Harris Teeter Site

CC2 - Wolfwood Dr.

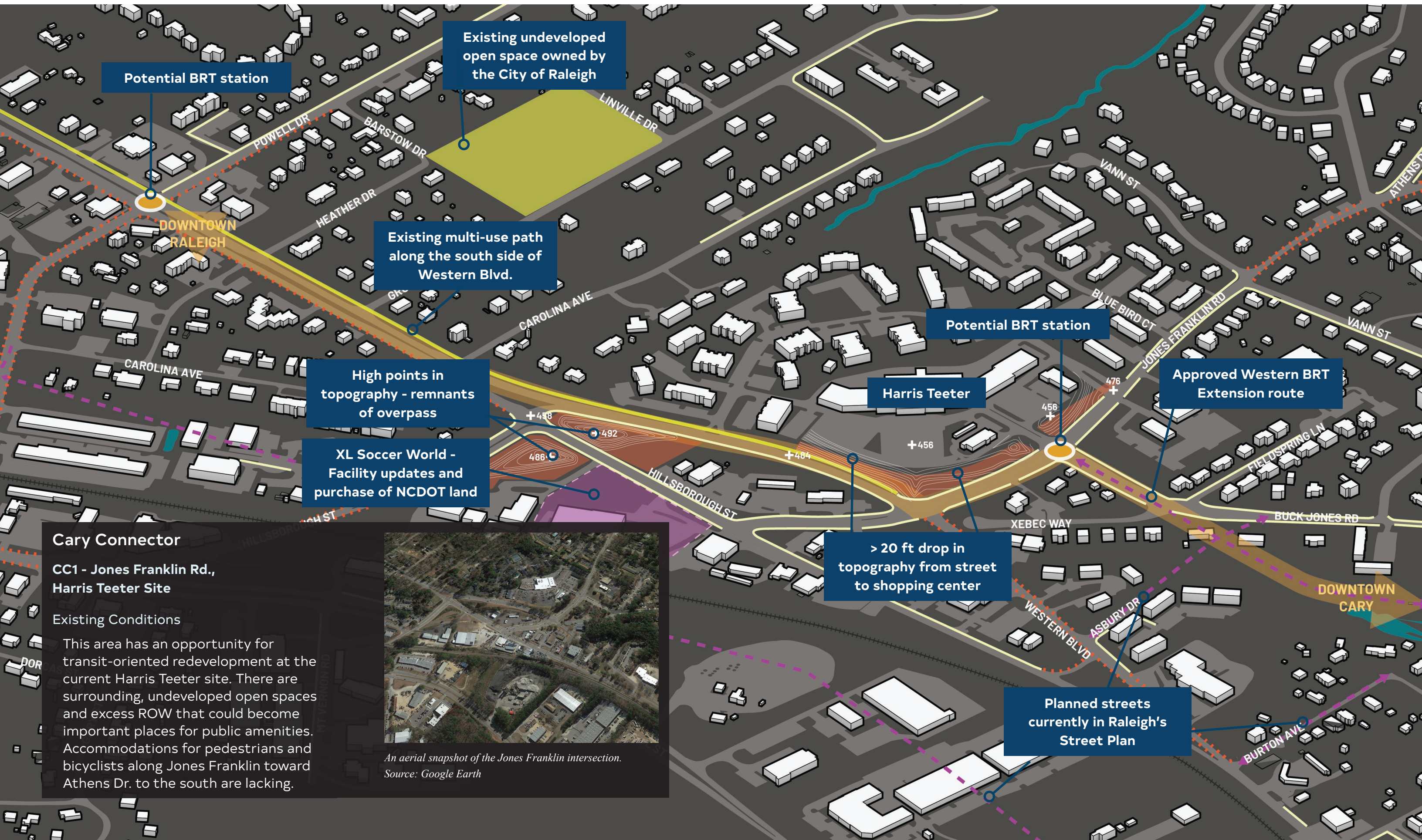
CC3 - Bashford Rd.



Wolfwood Drive today. The end of this street will intersect with the new Western Blvd. extension.



The Plaza West shopping center lies 20 feet below the elevation of Western Blvd. A rail protects users of the multi-use path from the drop while a curb is the only separation between the path and busy Western Blvd.



Cary Connector

CC1 - Jones Franklin Rd.,
Harris Teeter Site

The Vision

This intersection is the gateway between the existing, retrofitted portion of Western Blvd. BRT and the unbuilt extension which will feature a brand new BRT cross-section. The extension will move through sensitive, environmental areas and should take advantage of opportunities for green

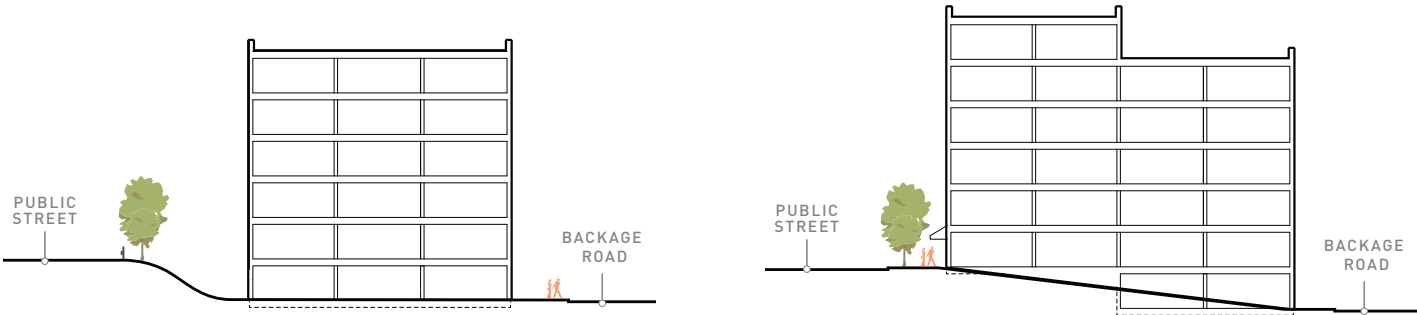
stormwater infrastructure. The concept of sustainability should be highlighted at this intersection with signage, transit/ multimodal facilities, gathering spaces, and green infrastructure. The grade change offers a challenge and an opportunity to better connect development at Plaza West with the surrounding streets and planned BRT station. This area has the potential to become a denser, more pedestrian-friendly hub by activating corners and taking advantage of unused right-of-way and other City-owned parcels.



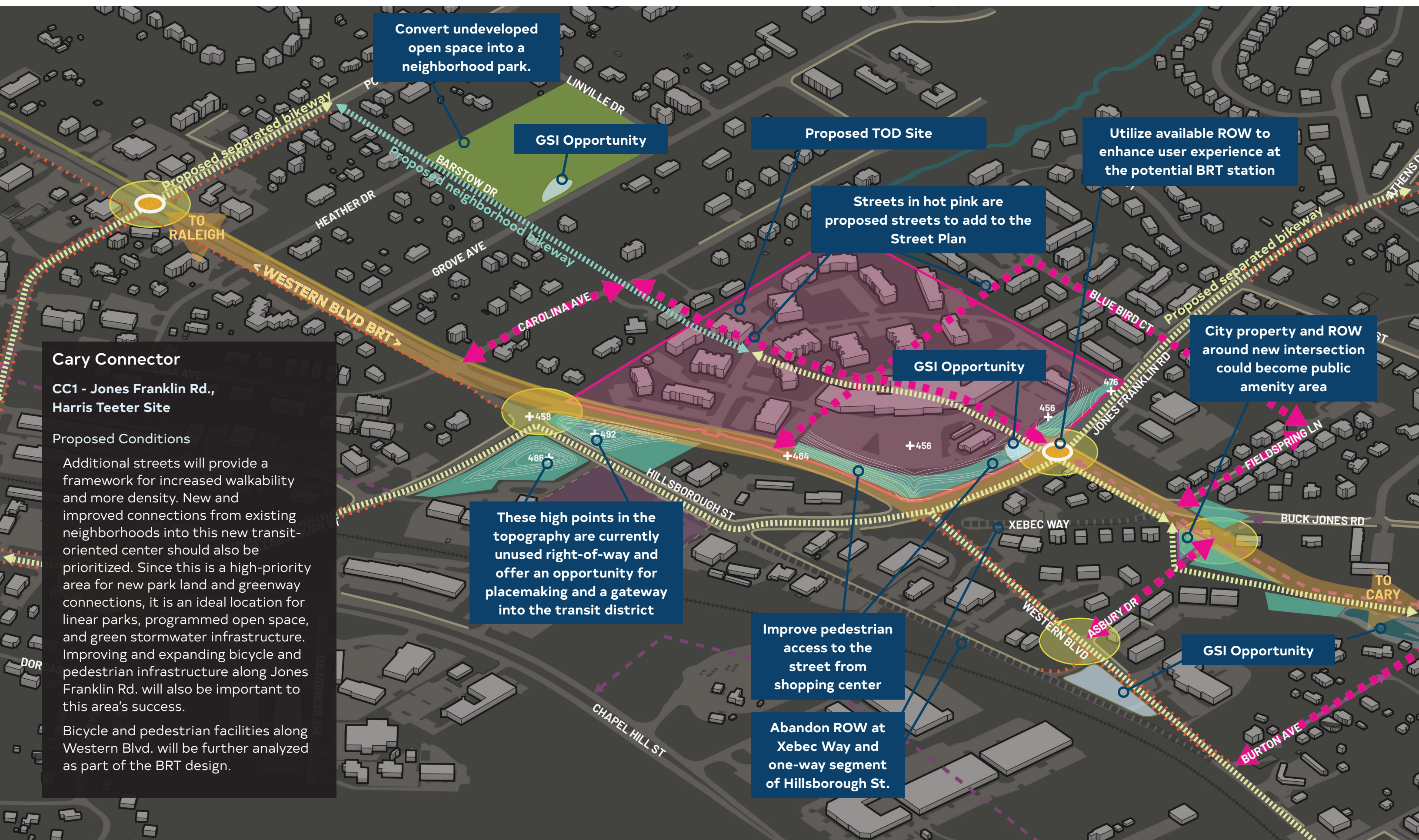
At one of the busiest intersections in Seattle, The Sound Transit/University of Washington Station offers seamless, grade-separated connections for multiple modes - including bikes, buses, pedestrians, and light rail. More than just a station, the project was designed to be a flexible civic gathering hub that pulls inspiration from its context. Source: LMN Architects



This bioretention facility took the place of an asphalt parking lot that routinely flooded. The install was part of Portland's Green Street Program. Source: Streetsblog San Francisco



These diagrams created for the City of Raleigh by Code Studio during the Hillside Development Study, illustrate the concept of a building using the slope to connect to a public street at a higher elevation. By stepping the building down, offices, retail, etc. are connected with the public street while also providing access for parking or back of house at the lower elevation.



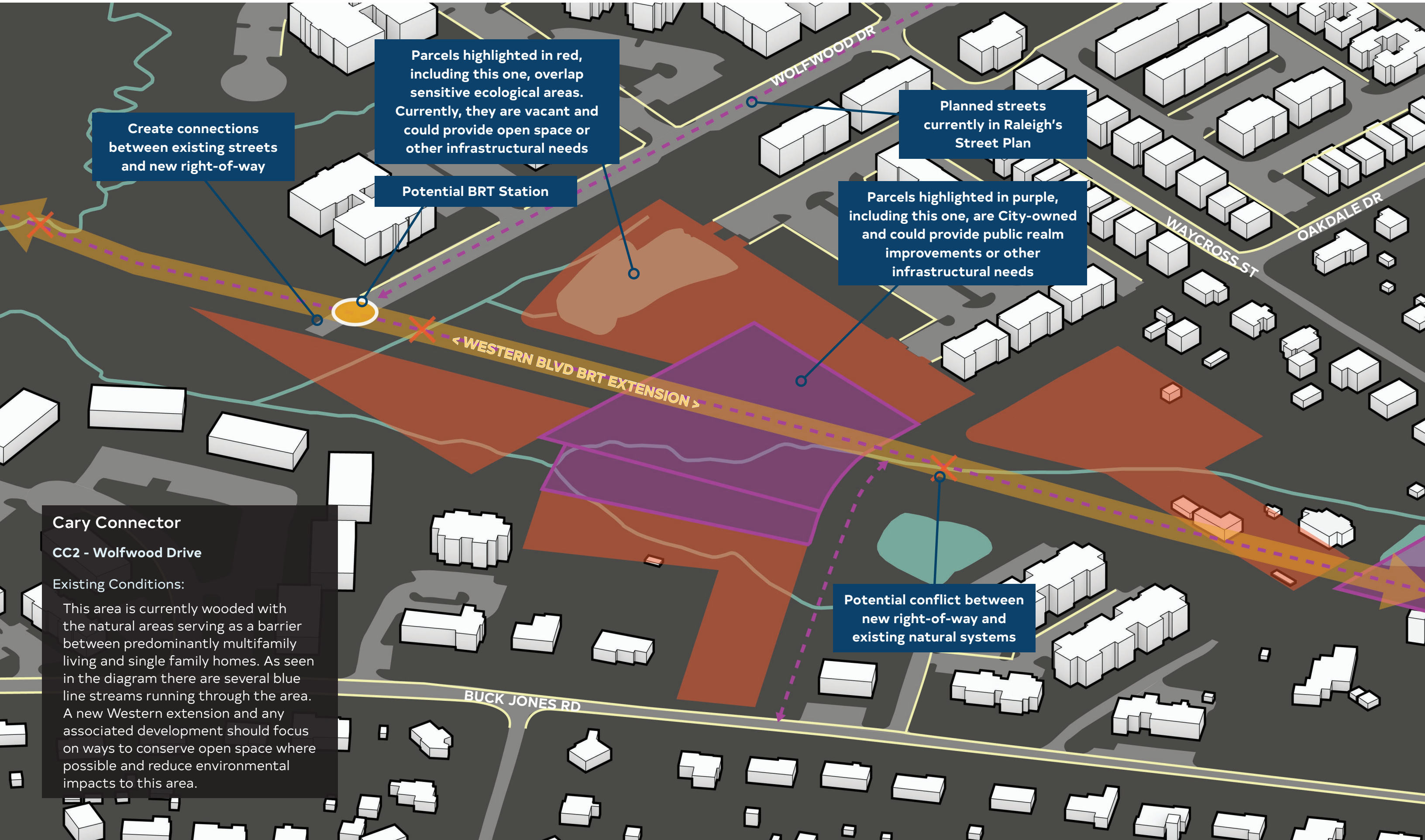
Cary Connector

CC1 - Jones Franklin Rd.,
Harris Teeter Site

Proposed Conditions

Additional streets will provide a framework for increased walkability and more density. New and improved connections from existing neighborhoods into this new transit-oriented center should also be prioritized. Since this is a high-priority area for new park land and greenway connections, it is an ideal location for linear parks, programmed open space, and green stormwater infrastructure. Improving and expanding bicycle and pedestrian infrastructure along Jones Franklin Rd. will also be important to this area's success.

Bicycle and pedestrian facilities along Western Blvd. will be further analyzed as part of the BRT design.



Create connections between existing streets and new right-of-way

Parcels highlighted in red, including this one, overlap sensitive ecological areas. Currently, they are vacant and could provide open space or other infrastructural needs

Potential BRT Station

Planned streets currently in Raleigh's Street Plan

Parcels highlighted in purple, including this one, are City-owned and could provide public realm improvements or other infrastructural needs

Cary Connector
CC2 - Wolfwood Drive
Existing Conditions:
This area is currently wooded with the natural areas serving as a barrier between predominantly multifamily living and single family homes. As seen in the diagram there are several blue line streams running through the area. A new Western extension and any associated development should focus on ways to conserve open space where possible and reduce environmental impacts to this area.

Potential conflict between new right-of-way and existing natural systems

Cary Connector

CC2 - Wolfwood Drive

The Vision

Improvements on this part of the corridor should prioritize minimizing the impact of development and new infrastructure on environmental systems and introducing innovative design strategies that improve environmental health.



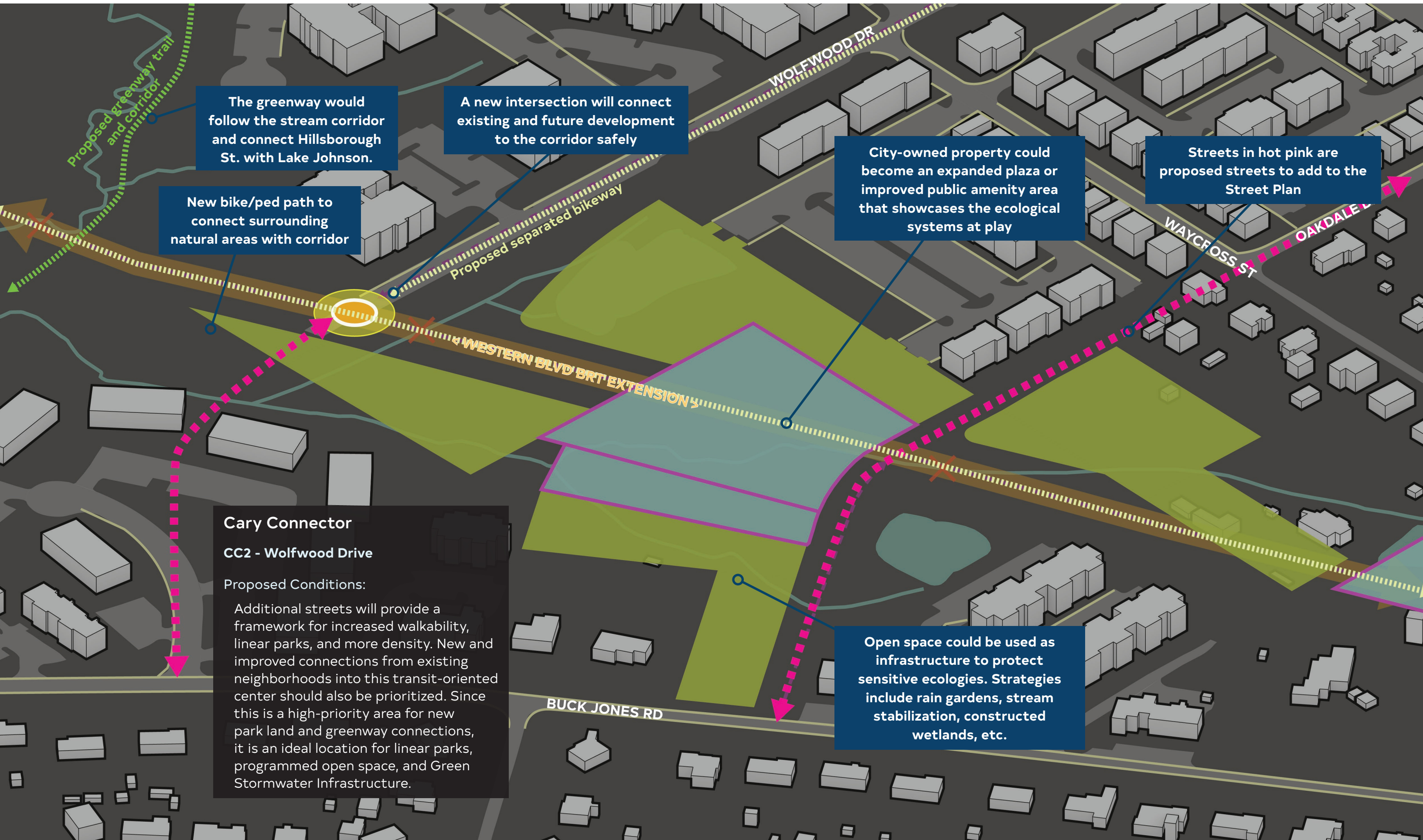
Infrastructure should blend with natural systems and serve as both accessible options and educational opportunities. Source: Turenscape



GSI should be used in placemaking or open space projects where possible. Source: Turenscape



Development should include ample, high-performing open space that can reduce environmental impacts. Source: The Portland Life / Capella Photography



The greenway would follow the stream corridor and connect Hillsborough St. with Lake Johnson.

New bike/ped path to connect surrounding natural areas with corridor

A new intersection will connect existing and future development to the corridor safely

City-owned property could become an expanded plaza or improved public amenity area that showcases the ecological systems at play

Streets in hot pink are proposed streets to add to the Street Plan

Cary Connector
CC2 - Wolfwood Drive
Proposed Conditions:
Additional streets will provide a framework for increased walkability, linear parks, and more density. New and improved connections from existing neighborhoods into this transit-oriented center should also be prioritized. Since this is a high-priority area for new park land and greenway connections, it is an ideal location for linear parks, programmed open space, and Green Stormwater Infrastructure.

Open space could be used as infrastructure to protect sensitive ecologies. Strategies include rain gardens, stream stabilization, constructed wetlands, etc.

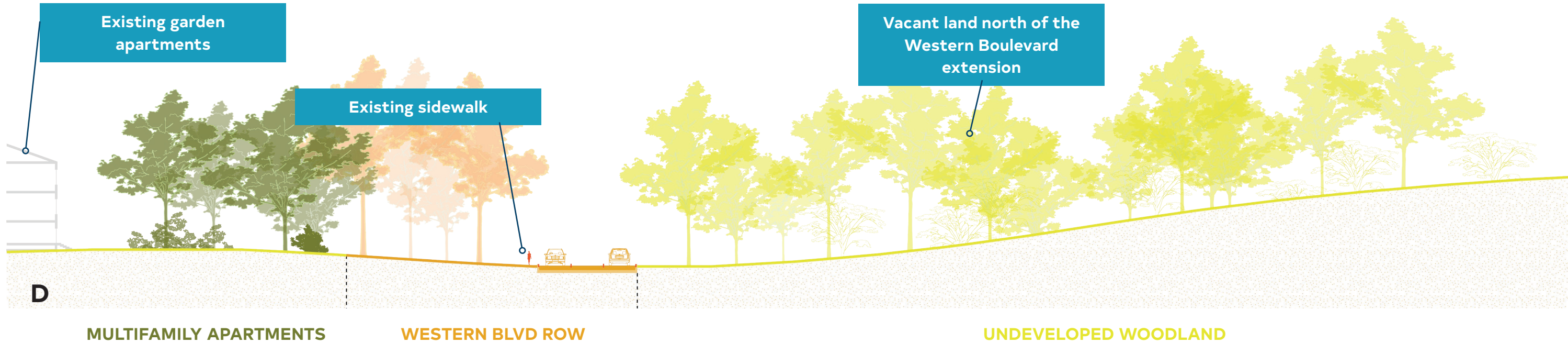
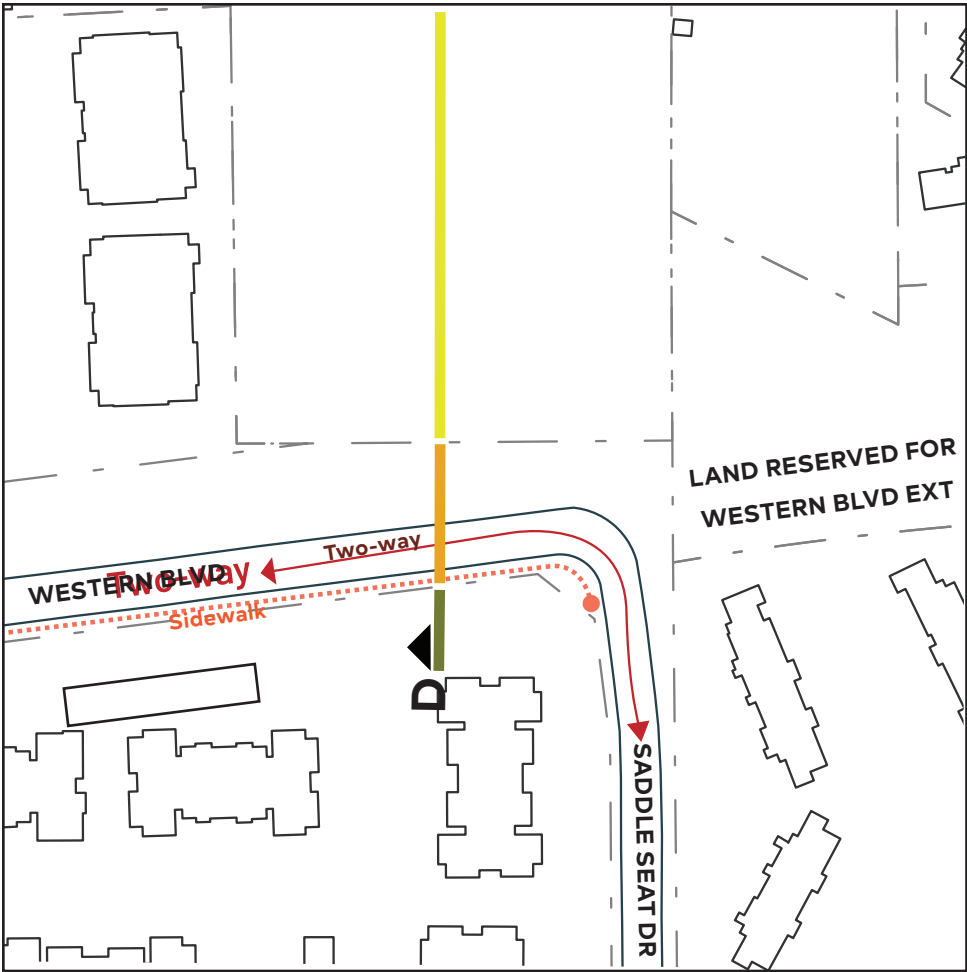
Cary Connector

CC3 - Section D - Bashford Road

Existing Conditions:

This intersection today provides access to Bashford Road and Buck Jones Road via Saddle Seat Drive. The extension of Western Boulevard to the east of this area will connect the intersection and the many apartments in its vicinity to points west and east on the BRT corridor.

The street today is a three-lane suburban connector lined with large trees separating the street from adjacent apartments. A sidewalk on the southern side of Western Boulevard provides some connectivity to Bashford Rd. and Buck Jones Rd., but numerous curb cuts and high traffic speeds make walking uncomfortable.



Cary Connector

CC3 - Bashford Road

The Vision

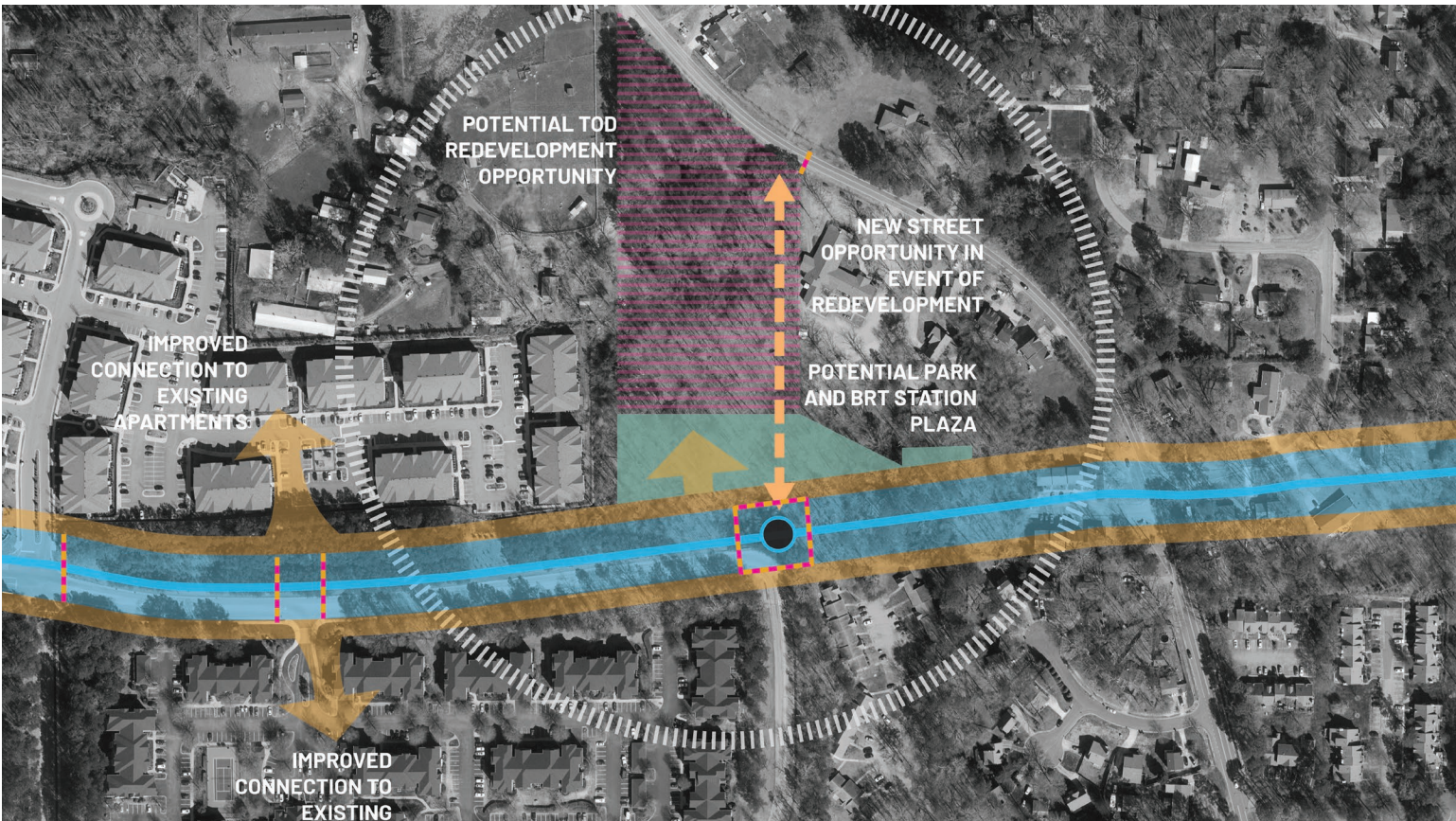
With existing apartments and land available for possible redevelopment, the Bashford Road area is an opportunity to use placemaking and the redesign of Western Boulevard to create a new residential district using Green TOD concepts. The Thornton Place development in Seattle, pictured below and on the following page, is an example of a formerly underutilized site that incorporated a stream restoration and mixed use development on a former surface parking lot.

Specific Thornton Place elements that are a model for Bashford Road include the following:

- Bus stop overlooking restored stream and GSI.
- Higher density development located beyond floodplain.
- Plaza and play spaces for development and transit users.



Thornton Place, in Seattle, WA, is an example of Green TOD located along a bus route. Source: svrdesign.com



Concept plan for the Bashford Road opportunity area.



Transit riders waiting for the bus can enjoy the development's rich ecological design approach. Source: svrdesign.com

Cary Connector

CC3 - Section D - Bashford Road

Proposed Conditions:

The Western Boulevard extension design should implement high-quality pedestrian and bicycle amenities to support this area’s multifamily residential character. Undeveloped land north of the future intersection provides an opportunity to integrate a small park and transit station in this area currently not well-served by City of Raleigh parks. Low-lying land and intermittent streams at the road’s edge are ideal GSI locations.



Corridorwide Recommendations

The maps on the following pages detail out recommendations that apply to overall corridor connectivity and function:

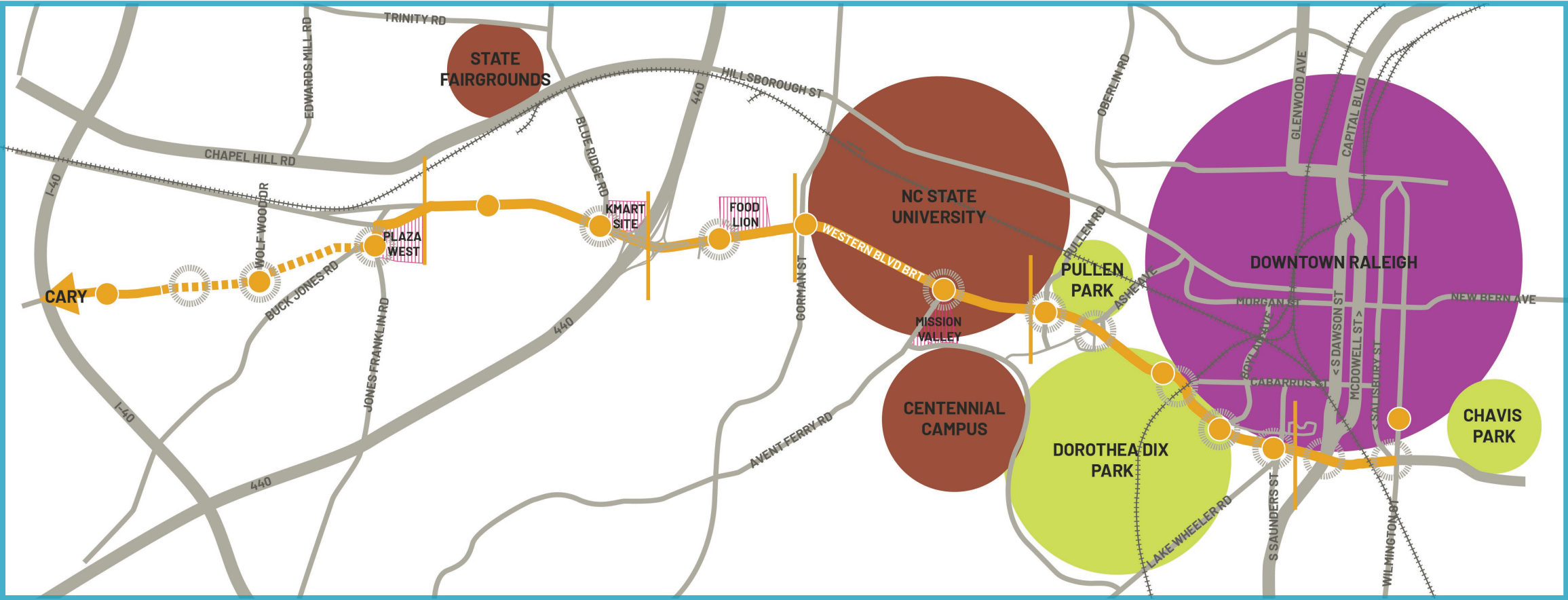
Area-Specific Guidance (Map 13)

- Greenways, neighborhood bikeways, open space opportunities, intersection improvements, and streets encouraged as part of redevelopment

Street Connectivity (Map 14)

Bike Connectivity (Map 15)

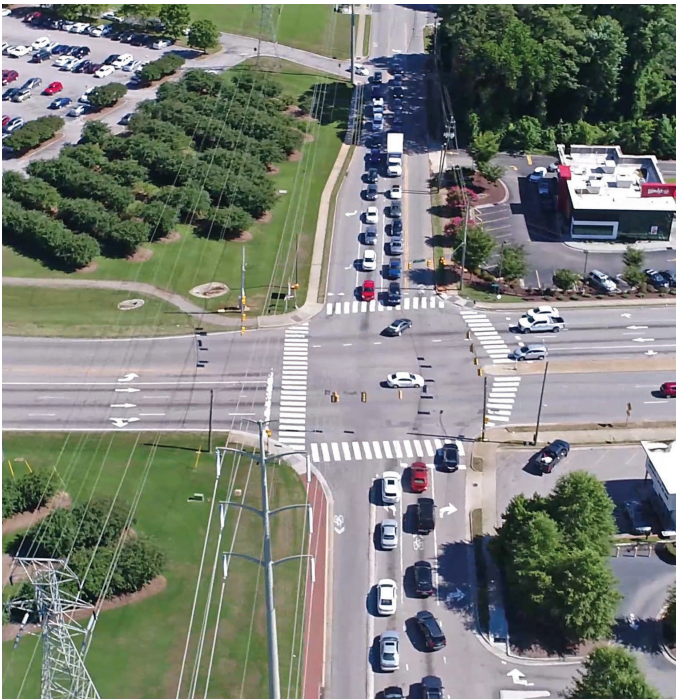
Environmental Sustainability (Map 16)



A bus stop near the intersection of Buck Jones and Jones Franklin Rds. The Plaza West shopping center is to the right.



Western Blvd. moves under the old I-440 Interchange.



The Western Blvd. and Gorman St. intersection.



Western Blvd. is bordered by the State Prison to the left and Dix Park to the right. The RR bridge crosses in the distance.

Corridorwide Recommendations

MAP 13
AREA-SPECIFIC GUIDANCE

Recommended: greenways, neighborhood bikeways, open space opportunities, intersection improvements, and streets encouraged as part of development

These recommendations reflect a holistic analysis of the corridor. Illustrated elements will become part of the area-specific guidance for the Western Blvd. Corridor Study. They help accomplish the corridor’s vision for multimodal connectivity, transit-oriented development, public-realm enhancements, and environmental sustainability.

- Western Blvd Corridor Study Area Boundary

Potential BRT Station

Approved BRT Route

Greenway Parcel/Corridor

Planned Greenway Trail (in Master Plan)

Existing Greenway Trail

Existing Multi-Use Path

Urban Design Opportunity

Potential TOD

Greenway Trail

Greenway Corridor

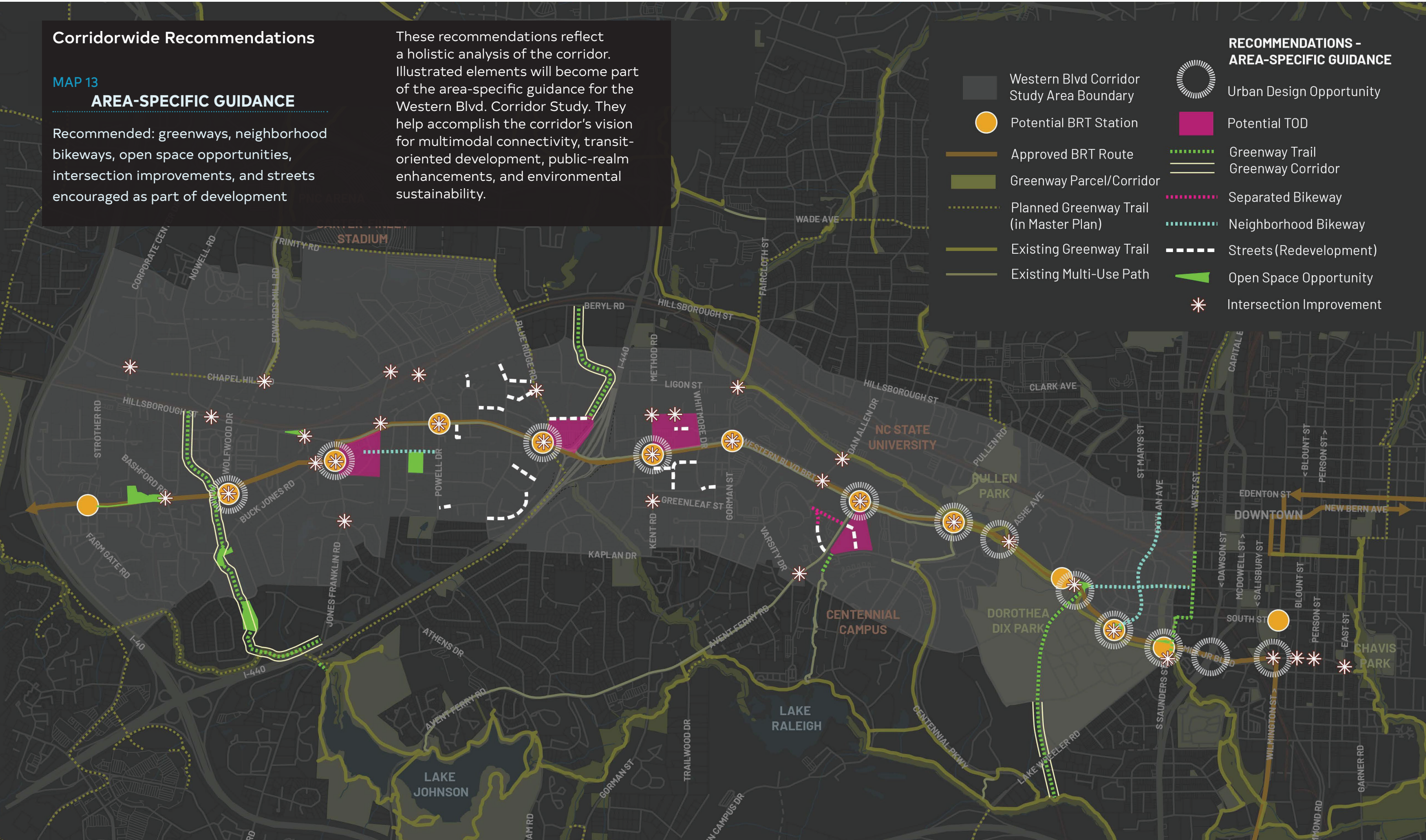
Separated Bikeway

Neighborhood Bikeway

Streets (Redevelopment)

Open Space Opportunity

Intersection Improvement



Corridorwide Recommendations

MAP 14
STREET CONNECTIVITY MAP

The streets identified in this map will be adopted into Map T1, part of Raleigh's Comprehensive Plan. Well-planned street grids encourage safe, walkable development. This is particularly important around areas designated as potential TOD areas.



Corridorwide Recommendations

MAP 15
BIKE CONNECTIVITY MAP

The recommended bike facilities will update Raleigh's Bike Plan. Separated bikeways (pink) and bike lanes (dark blue) will also be adopted into Map T3, part of Raleigh's Comprehensive Plan.

LEGEND

- Western Blvd Corridor Study Area Boundary
- Potential BRT Station
- Approved BRT Route
- Potential BRT Route

PLANNED BIKE FACILITY (ALREADY IN BIKE PLAN)

- Separated Bikeway (Sidepath, Buffered Bike Lane, or Multi-Use Path)
- Bike Lane
- Neighborhood Bikeway

RECOMMENDED BIKE FACILITY

- Separated Bikeway (Sidepath, Buffered Bike Lane, or Multi-Use Path)
- Bike Lane
- Neighborhood Bikeway
- Greenway Trail
- Greenway Corridor

EXISTING BIKE FACILITY

- Interim
- SidePath
- Sharrow/Shared St
- Separated Bike Lane
- Existing Greenway Trail
- Planned Greenway Trail (in Master Plan)
- Buffered Bike Lane
- Bicycle Lane
- Multi-Use Path



Corridorwide Recommendations

MAP 16
ENVIRONMENTAL
SUSTAINABILITY

This map identifies areas that the team identified, through high-level overview, as containing some sort of environmental opportunity. These opportunities include: greenway trails; green stormwater infrastructure;

open space aquisition, conservation or conversion; or needing additional study or consideration due to environmental factors. The ecologically sensitive areas include sections of Western that intersect streams and floodplains and could be considered for a Green TOD. More details on the type of open space recommended on this map are illustrated in the opportunity area diagrams and the implementation section.





Rendering of a redesigned Pullen Rd. intersection.

5 Implementation

Elements of Successful Implementation

This section outlines the implementation steps recommended by this study that will help transform Western Boulevard into a transit-oriented gateway corridor into downtown Raleigh. Identifying quick fixes and key capital projects were priorities listed by all participants of the study.

The key outcome anticipated of this planning and design study is to identify a set of policies and actionable strategies that would guide the transformation of the Western Boulevard Corridor into a walkable, transit-oriented urban corridor with the BRT implementation. The success of BRT implementation depends on a few key elements:

The Vision of the BRT Plan: The Vision for the Western corridor was initially framed by the Wake Transit Plan which identified Western Boulevard as one of the proposed BRT segments connecting downtown Raleigh and downtown Cary. The corridor planning process evolved around the need to better plan for, identify opportunities, leverage on assets, and guide the envisioned BRT implementation along Western Boulevard. The EDAT plan also laid the land use and policy framework for managing growth around all four BRT corridors. The Western corridor study leveraged on the EDAT framework with further focus on the opportunities and challenges unique to the Western Boulevard corridor. The public engagement process further assisted with identifying the prioritized list of key

destinations along the Western path and in eventually guiding the selection of the Locally Preferred Alternative (LPA).

Identifying TOD Potential: Since BRT is new to our region and the county, identifying the market and development opportunities that could be supported by these major transit investments will be important to analyze and leverage on. The consultant team conducted an in-depth analysis of the existing market conditions and made projections of development capacities for future TOD scenarios. The findings indicate that the corridor could accommodate twice the intensity of uses than what exists on the corridor currently. Key catalytic TOD sites are also identified along the corridor that would be instrumental in triggering economic development for the corridor. This capacity analysis sets the development framework for the upcoming Station Area Planning process through which land use and urban design details would be looked at in detail for each station node.

Phases for Implementation: The plan identifies several implementation items each listed as quick fix, recommended for near-term (0-2 years), and mid-long term, recommended for (3-10+ years) timeframe for implementation. The quick fixes, however, can potentially be implemented in the first 0-2 years, either as part of the available transit funding and/or as part of already programmed and funded capital projects. These quick projects could be prioritized to capitalize on the development momentum relating to transit opportunities in the market. Mid-long-term projects generally require additional study, design, and funding. Some of the design concepts introduced will require further study to understand the feasibility and cost estimations. Few other opportunities will

require ongoing partnerships between the city departments, landowners, developers, and design professionals.

Given the focus of this study on opportunities around the introduction of BRT, much of the improvements and capital projects recommendations focus on key infrastructure improvements aimed at enhanced mobility and accessibility to and from the transit corridor and greater connectivity to the surrounding neighborhoods and key destinations.

Framework for Station Area Planning: The recommendations of this study takes a holistic corridor level approach with focus on key infrastructure improvements and public investments needed to enhance the public realm. Parcel level detailed recommendations impacting private development are anticipated through the pending Station Area Planning process.



Intersection of Western Blvd. and Avent Ferry Rd.

Implementation Plan

For infrastructure improvements recommended by this plan, potential responsible parties and funding sources are identified in the Implementation Plan Table (Table 2) below. The responsible party and funding source vary based on the nature of the project. Many projects are identified as CIP items for the City’s Capital Improvements Program as public investments. However, there are also important projects that will be implemented by the private sector through development and redevelopment as land is subdivided or built to a higher intensity.

Also included in a separate Action Plan Table (See Table 1 below) that lists follow-up items that are non-budget items, that could be coordinated by city staff. These items are equally important to guide the successful implementation of BRT along this corridor.

Improvements through Private Redevelopment

Raleigh’s Unified Development Ordinance (UDO) provides regulatory tools to realize the city’s goals of connectivity and accessibility while also ensuring that development is accompanied by sufficient infrastructure to serve the development. Chapter 8 of the UDO are subdivision and site plan standards. This chapter includes rules about improvements to existing streets, the construction of new streets, and infrastructure sufficiency. The Western Boulevard Corridor Study is intended to work with these rules to ensure an orderly evolution of the corridor towards the vision of the plan.

TABLE 1 ACTION PLAN, PT1

ID	PROJECT	LIMITS	COMMENTS	AGENCY RESPONSIBLE	CHARACTER ZONE	IMPLEMENTATION PRIORITY	
						Quick Fix	Mid-Long term
ROW Adjustments + Reclaim							
1	Evaluate Wilmington int. redesign and reclaim extra ROW for placemaking and ped. scale transformation	Wilmington/ Western intersection	For placemaking efforts, create identity	Transporatation, Real Estate, Eng. Services	Downtown		x
2	Reclaim unused ROW north of Western, at S. Saunders bridge for plaza design	S.Saunders intersection	For placemaking, enhanced ped access to Western BRT stop	Transportation, Real Estate, Eng. Services, Transit, PlanDev	Downtown		x
3	Unused City Parcel at entrance of Boylan neighborhood for Placemaking / Green stormwater infrastructure	Boylan intersection, entrance to neighborhood	City owned parcel	Stormwater, Arts Office, Eng Services, RE	Parks		x
4	Pursue opp. With NCRR for placemaking / pocket park use at unused ROW @ north side of Western under RR bridge	Railroad bridge after Boylan	Potential open space/ placemaking project	NCRR, Transportation, Eng. Services, Arts Office	Park		x

TABLE 1 ACTION PLAN, PT2

ID	PROJECT	LIMITS	COMMENTS	AGENCY RESPONSIBLE	CHARACTER ZONE	IMPLEMENTATION PRIORITY	
						Quick Fix	Mid-Long term
5	Enhance greenway entrance at Western with visible trailhead and wayfinding	Greenway trail under Railroad Bridge at Western Blvd	Greenway improvements and placemaking project	NCRR, Parks, Transportation	Park		x
6	Re-align Ashe Avenue and reclaim the excess ROW	Ashe Avenue intersection	It is a more cost effective and environmentally impactful alternative to replace the deteriorating bridge.	Transportation, Eng. Services	Park		x
7	Evaluate stormwater/GSI strategy for the Dix edge area in coordination with Rocky Branch enhancement project	Western Blvd edge with Dix Park	Opportunities for consolidated design efforts and greater synergy	Parks, Stormwater	Park		x
8	Pursue conversation with Pullen/NCSU on expansion of park limits / greenway into reclaimed ROW and potential land swaps	Ashe Avenue intersection	Coordinate with Real Estate	Parks, Real Estate, Transportation, Pullen Heirs, NCSU	Park		x
9	Study repurposing unused or reclaimed ROW into plazas, parks, or placemaking opportunities	Jones Franklin intersection	Clean-up of complex intersection	Arts Office, Transportation, Eng. Services, Parks	Cary Connector		x
10	Abandon Xebec Way	Jones Franklin area	Streets plan amendment follow-up	Transportation, PlanDev	Cary Connector		x
11	Pursue reclaim of land by NCRR on Hillsborough	Jones Franklin area	Follow-up with NCRR	NCRR, Transportation, PlanDev	Cary Connector		x
12	Abandonment of Western btwn Jones west and Burton Ave.		NCRR follow-up	NCRR, Transportation, PlanDev	Cary Connector		x
13	Restriping and redesign of triangle block between Hills/ Western/Jones Franklin along with two-way conversion of Hillsborough Street			Transportation, Eng. Services, Planning	Cary Connector		x
14	With the above restriping, unused ROW could be turned to plaza/park			Arts Office, Transportation, Eng. Services,Parks	Cary Connector		x

TABLE 1 ACTION PLAN, PT3

ID	PROJECT	LIMITS	COMMENTS	AGENCY RESPONSIBLE	CHARACTER ZONE	IMPLEMENTATION PRIORITY	
						Quick Fix	Mid-Long term
Follow-up Actions + Feasibility Analysis							
1	Evaluate Pullen Bridge replacement with traffic circle design	Pullen Bridge intersection	Reconfigure interchange access to park, enhance connectivity; needs further feasibility analysis	NCDOT, Transportation, Eng. Services, PlanDev	Park		x
2	Follow-up with private property owners to implement new neighborhood streets recommended for redevelopment scenario			Transportation, Dev. Services, Private Developers, Property Owners	ALL		x
3	Follow-up with Parks Dept. to update the proposed greenway connections/ on-street connectors and to add more greenway access points to connect to Western corridor			Parks, Transportation	ALL		x
4	Evaluate micro-mobility options for each of the station areas along Western Blvd		Can be done as part of Station area planning	PlanDev, Transportation, Transit	ALL		x
5	Assess park and ride siting option near Town of Cary, western most edge of Western Boulevard			PlanDev, Parking, Transporatation, Transit, Town of Cary	Cary Connector		x
6	Coordinate with major employers of the corridor to incentivize alt. modes of transit for employees			PlanDev, EDI, Transit, Transporatation	ALL		x
7	Coordinate with GoRaleigh and other transit agencies to reevaluate bus routes to better connect and consolidate stops intersecting with BRT stations			PlanDev, GoRaleigh, Transit, GoTriangle, NCSU Wolfline, Cary Transit	ALL		x
8	Pursue partnership with owners of catalyst TOD sites to plan and implement the TOD vision and design principles			PlanDev, Transportation, Private property owners, developers	ALL		x

TABLE 1 ACTION PLAN, PT4

ID	PROJECT	LIMITS	COMMENTS	AGENCY RESPONSIBLE	CHARACTER ZONE	IMPLEMENTATION PRIORITY	
						Quick Fix	Mid-Long term
9	In urban context, work with property owners of small parcels for assemblage to support TOD vision			PlanDev, Dev Services, EDI, H&N	ALL		x
10	In suburban context, work with property owners to subdivide large tracts into smaller, walkable urban grids			PlanDev, Dev Services, EDI, H&N	ALL		x
11	Partner with property owners to incentivize TOD redevelopment			PlanDev, Dev Services, EDI, H&N	ALL		x
12	Work with Parks dept. to adopt realignment of Rosengarten Greenway along S.Saunders			Parks, Transportation, PlanDev	Downtown		x
13	Explore cultural trail connection between Dix and Chavis along Lenior Street			Parks, Dix Team, Transportation, PlanDev, Arts Office, DT Team, Eng. Services	Downtown		x
14	Study opportunities for direct pedestrian access from Pullen to Dix via creek/greenway extension underneathe Western	Ashe Avenue intersection	Needs feasibility study, and property purchase to happen first	Stormwater, Transportation, Parks, Eng. Services	Park		x
15	Urban forestry plan for reclaimed ROW at Ashe Ave	Ashe Avenue intersection	Coordinate with Parks; only after Ashe realignment	Parks, Transportation, Pullen heirs, NCSU	Park		x
16	Study direct connection from Western Station into Dix Park	Ashe Avenue intersection	Coordinate with Parks	Parks, Transporatation, Eng. Services, Transit	Park		x
17	Explore placemaking enhancements at Dix Boylan edge			Parks, Transportation, Boylan HOA, Eng. Services, Arts office	Park		x
18	Evaluate pedestrian and cyclist circulation along Dorothea Drive	Boylan neighborhood	Coordinate with Transportation, Eng Services	Transportation, Boylan HOA, Eng. Services	Park		x

TABLE 1 ACTION PLAN, PT5

ID	PROJECT	LIMITS	COMMENTS	AGENCY RESPONSIBLE	CHARACTER ZONE	IMPLEMENTATION PRIORITY	
						Quick Fix	Mid-Long term
19	Evaluate integration of ped tunnel with BRT	Mission Valley		NCDOT, Transportation, Transit, Eng. Services, NCSU	Campus		
20	Remove streets that don't align with master plan for Greek Village for CP amendment from what's currently showing in Streets plan. Reach out to NCSU to confirm;This project is complete by NCSU .	Mission Valley	Amend street plan Map T1	PlanDev, Transportation, NCSU	Campus	x	
21	GSI infrastructure in typ street section from Mission Valley to Gorman on Western	Mission Valley to Gorman		Stormwater, Transportation, Eng. Services, Transit	Campus		x
22	Barbour street alignment follow-up with NCSU	Dix/Centennial	Follow-up with NCSU	PlanDev, Transportation, NCSU	Campus	x	
23	Work with NCSU on Campus Master Plan updates to support TOD vision along Western		Campus master plan work has kicked off	PlanDev, Transportation, NCSU	Campus	x	
24	Work with Method community to integrate history/culture into BRT art	Method intersection	Coordinate with Method HOA	Arts Office, Transit, Transportation	Method-Kent		x
25	Study mid-block crossing at new street location	In front of food lion shopping center		Transporatation, Eng. Services	Method-Kent		x
26	Evaluate including a trailhead of new greenway	Blue Ridge intersection	Work with Greenways team	Parks, Transportation, Eng. Services	Inter-modal Link		x
27	Placemaking opportunities at unused or reclaimed ROW all along the corridor			Arts Office, Transportation, Eng. Services	ALL		x
28	Pursue opp. For Greenway connection to NCSU Arboretum	Near Blue Ridge intersection	Coordinate with NCSU	NCSU, Parks, Transportation	Inter-modal Link		x

TABLE 1 ACTION PLAN, PT6

ID	PROJECT	LIMITS	COMMENTS	AGENCY RESPONSIBLE	CHARACTER ZONE	IMPLEMENTATION PRIORITY	
						Quick Fix	Mid-Long term
29	Work with Blue Ridge Alliance for TOD opportunities along Blue Ridge Corridor			Blue Ridge Alliance, PlanDev, Tranportation, Transit, Private Developers	Inter-modal Link		x
30	Jackson Park evaluation near Jones Franklin station area		Coordinate with Parks	Parks, Transportation, Eng. Services	Inter-modal Link		x
31	Pursue placemaking opp. For high elevation ROW pts at Jones Franklin int.			Transportation, Eng. Services, Arts Office	Inter-modal Link		x
32	Explore mini park opportunity with Parks Dept	New Western extension area	This is in Parks search area	Parks, Real Estate	Cary Connector		x
33	Pursue partnership with other city depts to encourage Green corridor development along new Western Extn			Transportation, Transit, En. Services, Stormwater, Dev. Services, Private Developers, Property Owners	Cary Connector		x
34	open space ROW opps for GSI - constructed wetlands to maintain water quality	Western extension		Transportation, Transit, En. Services, Stormwater, Dev. Services, Private Developers, Property Owners	Cary Connector		x
35	Pursue further assessment of Green TOD District pilot for the area			PlanDev, Dev Services, Private Developers, Property Owners	Cary Connector		x
36	Research and evaluate the potential for utilizing the Green Space Factor (GSF) tool to improve the ecological sustainability of the built environment by increasing the green elements			PlanDev, Dev Services, Private Developers, Property Owners	Cary Connector		x
37	Acquire parcels adjacent to the Western Blvd. extension area for affordable housing and new public park spaces.			Real Estate, PlanDev, H&N,Parks	Cary Connector		x

TABLE 1 ACTION PLAN, PT7

ID	PROJECT	LIMITS	COMMENTS	AGENCY RESPONSIBLE	CHARACTER ZONE	IMPLEMENTATION PRIORITY	
						Quick Fix	Mid-Long term
38	Research and evaluate the potential for development of guidelines and policies that would create a new Green TOD District in Raleigh.			Planning, Stormwater, Transportation, Transit	Cary Connector		x
39	As part of the Station Area Planning Process produce an Environmental Sustainability Master Plan (ESMAP) that can more thoroughly identify environmental issues and provide appropriate design solutions.			Planning, Stormwater, Transportation, Transit	Cary Connector		x
40	Surveys will need to be completed and coordination held with USFWS during project development to determine the impact to threatened and endangered species and any other species of concern in the area.			Transportation, Transit	Cary Connector		x
41	Use sites along the Western Boulevard extension as pilot projects for the Green TOD District.			Planning, Stormwater, Transportation, Transit	Cary Connector		x

TABLE 2 IMPLEMENTATION PLAN - CAPITAL IMPROVEMENT PROJECTS, PT1

Abbreviation Key: Stormwater- SW, Neighborhood - NH, Redevelopment – REDEV, Development – DEV, Downtown - DT; Pedestrian – PED, P3 - Public Private partnership.

TYPE	PROJECT	FROM	TO	COMMENTS	STREET TYPE	FUNDING TYPE	AGENCY RESPONSIBLE	CONSTRAINTS	CHARACTER ZONE	QUICK FIX	MID-LONG TERM	EXTERNAL FUNDING
Downtown Character Zone												
PED	Martin Luther King Jr. Blvd Intersection Improvements	Salisbury Street	East Street	Eastern edge outside of study area, Salisbury/ Wilmington, Blount, Person, and East	NA	RDOT CIP	RDOT, Eng. Services		DT		x	
PED	Saunders Street and Lake Wheeler Realignment	South Saunders Street	Lake Wheeler Road		NA	RDOT CIP	RDOT, Eng. Services		DT		x	
PED	Davie/ West street extension at RR crossing			West street extension	NA	RDOT CIP	RDOT, Eng. Services		DT		x	
PED	sidewalk	S.Saunders	S. Wilmington	North side	NA	RDOT CIP	RDOT, Eng. Services		DT		x	
PED	sidewalk	S.Saunders	Fayetteville Rd	South side	NA	RDOT CIP	RDOT, Eng. Services		DT		x	
Greenway	West Street N-S Greenway Connector Ph. 5	Cabarrus	Lake Wheeler Road	Along West Street/South St./ & S.Saunders	Rosengarten Greenway realigned	Parks CIP, RDOT CIP	Parks, RDOT, Eng. Services		DT		x	
Urban Design	Saunders Bridge	S.Saunders bridge - north ROW	Western intersection	UD opp map - plaza placemaking opp.	NA	RDOT CIP	RDOT, Eng. Services		DT		x	x
Bicycle	Kindley-Fayetteville Connection	Kindley Street	Fayetteville Street	Non-motorized bridge recommended in Southern Gateway	Shared-Use Path	RDOT CIP	RDOT, Eng. Services		DT		x	
Bicycle	Fayetteville-Wilmington Shared-Use Path	Fayetteville Street	Wilmington Street	Shared Use Path along MLK Jr. Blvd.	Shared-Use Path	RDOT CIP	RDOT, Eng. Services		DT		x	
Bicycle	Dix-Chavis Connector	South Saunders Street	Chavis Park	Along Lenior Street	Separated Bikeway	RDOT CIP	RDOT, Eng. Services		DT		x	

TABLE 2 IMPLEMENTATION PLAN - CAPITAL IMPROVEMENT PROJECTS, PT2

TYPE	PROJECT	FROM	TO	COMMENTS	STREET TYPE	FUNDING TYPE	AGENCY RESPONSIBLE	CONSTRAINTS	CHARACTER ZONE	QUICK FIX	MID-LONG TERM	EXTERNAL FUNDING
Bicycle	S.Saunders bikeway south	Lenoir	Western Blvd	Along S. Saunders	Separated Bikeway	RDOT CIP	RDOT, Eng. Services		DT		x	
Signage	Gateway signage to Shaw, South Park	Wilmington		External funding possible	NA	RDOT CIP	Arts Office, RDOT		DT	x		
Street	Square loop interchange in northwest quadrant of Western and the Dawson-McDowell Connector	South and South Saunders	Western Blvd and Dawson	RHA approved this; include abandonment of excess ROW to RHA.	Main St Parallel Parking	RDOT CIP; Dev.	RDOT, Developer, RHA, H&N	RHA needs to approve	DT		x	
Bicycle	MLK bikeway	Fayetteville St.	East St.	On MLK	Separated Bikeway	RDOT CIP	RDOT, Eng. Services		DT		x	
Bicycle	Salisbury South Bikeway	Western Blvd.	Lenoir	On Salisbury	Separated Bikeway	RDOT CIP	RDOT, Eng. Services		DT		x	
Parks Character Zone												
PED	Boylan Avenue Intersection Improvements	Boylan Avenue	Western Blvd			RDOT CIP	RDOT, Eng. Services		Parks		x	
PED	Ashe Avenue Intersection Improvement	Ashe Ave	Western Blvd	Related to Ashe Avenue Realignment: create safe pedestrian crossing at Ashe Avenue.		RDOT CIP	RDOT, Eng. Services		Parks		x	
PED	Pullen Road Interchange Improvements	Pullen Road	Western Blvd			RDOT CIP	RDOT, Eng. Services		Parks		x	
PED	Pullen Rd bridge redesign	Pullen Road	Western Blvd			RDOT CIP, NCDOT funding, Transit funding	RDOT, NCDOT, Eng. Services, Transit		Campus		x	
Street	Barbour Drive Realignment	Barbour Drive	Pullen/ Bilyeu Roundabout	Related to Spring Hill development, adopt into T1	2 lane ave divided	Dev.	NCSU	driven by Spring Hill redev.	Parks		x	x

TABLE 2 IMPLEMENTATION PLAN - CAPITAL IMPROVEMENT PROJECTS, PT3

TYPE	PROJECT	FROM	TO	COMMENTS	STREET TYPE	FUNDING TYPE	AGENCY RESPONSIBLE	CONSTRAINTS	CHARACTER ZONE	QUICK FIX	MID-LONG TERM	EXTERNAL FUNDING
PED	Dorothea Drive alley extension	Dorothea Drive	S.Saunders	Ped access to BRT station using alley	NA	RDOT CIP	RDOT, Eng. services		Parks		x	
Street	Ashe Avenue Realignment	Ashe Avenue	Western Blvd	Shown in urban design opp. Work; less impactful and expensive way to address deteriorating bridge over Rocky Branch Creek. should include a signal at Western.	2 lane ave. undivided	RDOT CIP	RDOT, Eng. services	gas station impacts	Parks		x	
Real Estate	Purchase of property with Ashe realignment	Ashe Avenue	Western Blvd.	Coordinate with RE; shown in UD opp.	NA	Property acq. funds	Real Estate, RDOT, Parks, PlanDev		Parks		x	
Bicycle	Boylan Heights Neighborhood Bikeways	Entire NH	Entire NH	Implement neighborhood bikeways within Boylan Heights	NH Bikeway	RDOT CIP	RDOT, Eng. Services		Parks		x	
Bicycle	Dorothea Drive and Western Blvd Greenway Connector	Boylan Avenue	Rocky Branch Trail	Purpose is for cyclists/peds connection; safety is a priority; pinchpoint at RR	Neighborhood Bikeway	RDOT CIP, PRCR CIP	RDOT, Eng Services, Parks		Parks		x	Yes
Urban Design	Boylan Avenue GSI & placemaking	Boylan Avenue	NH entrance	Entrance; UD opp in report	NA	RDOT CIP, SW CIP	RDOT, Eng Services, SW, Arts Office	Boylan HOA	Parks		x	Yes
Urban Design	Hunt Drive-Cabarrus placemaking	Cabarrus	Hunt	Near NCRR space; needs RR approval	NA	RDOT CIP, PRCR CIP	RDOT, Eng Services, Parks, Arts Office, NCRR	NCRR	Parks		x	Yes
Greenway	Dix - Walnut Greenway connector	Western Blvd	Lake Wheeler Road	Through Dix Park	NA	RDOT CIP, PRCR CIP	RDOT, Eng Services, Parks	Dix conser-vancy	Parks		x	
Greenway	Greenway Corridor	Lake Wheeler	Walnut Creek Trail	Crossing Lake Wheeler Rd. and Maywood Ave.	NA	Dix Park and City	Parks, Eng. Services	NA	Parks, DT		x	

TABLE 2 IMPLEMENTATION PLAN - CAPITAL IMPROVEMENT PROJECTS, PT4

TYPE	PROJECT	FROM	TO	COMMENTS	STREET TYPE	FUNDING TYPE	AGENCY RESPONSIBLE	CONSTRAINTS	CHARACTER ZONE	QUICK FIX	MID-LONG TERM	EXTERNAL FUNDING
Campus Character Zone												
PED	Avent Ferry Intersection Improvements	Avent Ferry Road	Western Blvd			RDOT CIP	RDOT, Eng. services		Campus		x	
PED	Avent Ferry at Varsity Drive Intersection Improvements	Varsity Drive	Avent Ferry Road			RDOT CIP	RDOT, Eng. services		Campus		x	
PED	Dan Allen Drive Intersection Improvements	Dan Allen Drive	Western Blvd			RDOT CIP	RDOT, Eng. services		Campus		x	
PED	Gorman Street intersection improvements	Gorman Street	Western Blvd			RDOT CIP	RDOT, Eng. services		Campus		x	
PED	Gorman-Ligon Street intersection improvements	Gorman Street	Ligon Street			RDOT CIP	RDOT, Eng. services		Campus		x	
PED	Varsity-Dan Allen greenway intersection improvements	Varsity Drive	Dan Allen Drive	Near the greenway crossing		DEV	REDEV - private owner, NCSU		Campus		x	x
Bicycle	Centennial Campus Greenway Trail Extension	Centennial Campus Greenway Trail	Centennial Parkway	Extend on Campus Greenway to the intersection of Avent Ferry and Centennial Parkway.	Greenway Trail	DEV	REDEV - private owner, NCSU		Campus		x	x
Bicycle	Avent Ferry Complex Path	Avent Ferry Road	Dan Allen Drive		Shared-Use Path	DEV	NCSU	guided by NCSU Master plan	Campus		x	
Bicycle	Varsity Drive Separated Bikeway	Western Blvd	Main Campus Drive		Separated Bikeway	DEV, RDOT CIP	RDOT, Eng. Services, NCSU		Campus		x	
Bicycle	Avent Ferry bikeway	Western Blvd	Varsity		Separated Bikeway	DEV, RDOT CIP	RDOT, Eng. Services, NCSU		Campus		x	x
Bicycle	Gorman bikeway segment	Burt Drive	Conifer Drive		Separated Bikeway	DEV, RDOT CIP	RDOT, Eng. Services, NCSU		Campus		x	

TABLE 2 IMPLEMENTATION PLAN - CAPITAL IMPROVEMENT PROJECTS, PT5

TYPE	PROJECT	FROM	TO	COMMENTS	STREET TYPE	FUNDING TYPE	AGENCY RESPONSIBLE	CONSTRAINTS	CHARACTER ZONE	QUICK FIX	MID-LONG TERM	EXTERNAL FUNDING
Street	Mission Valley Street Grid	Centennial Parkway	Avent Ferry Road	Construct a new street with redevelopment of the shoping center into a TOD.	Area Specific Guidance	DEV	REDEV - private owner		Campus		x	
Street	Greek Village	Dan Allen		Discussed with NCSU	2 lane ave undivided	DEV	REDEV - private owner, NCSU	guided by NCSU Master plan	Campus		x	
Street	Greek Village	Greek Village Drive		Discussed with NCSU	2 lane ave undivided	DEV	NCSU	guided by NCSU Master plan	Campus		x	
Bicycle	Champion Ct. connection	Avent Ferry	Champion Ct. edge	On Champion Ct.	Neighborhood Bikeway - Area Specific Guidance	REDEV	Private Owner	On new street as part of REDEV	Campus		x	
Bicycle	Champion Ct. NCSU connection	Champion Ct.	Dan Allen	On NCSUp property	Separated Bikeway - Area Specific Guidance	REDEV	NCSU	NA	Campus		x	
Method-Kent Character Zone												
PED	Ligon Drive at Gorman Street Intersection Improvements	Ligon Drive	Gorman Street			RDOT CIP	RDOT, Eng. Services	RDOT, Eng. Services	Method-Kent		x	
PED	Method-Kent Area Intersection Improvements	Gorman Street	Method and Kent Roads	Improve all of the instersection in the 0.38 mile section		RDOT CIP	RDOT, Eng. Services	RDOT, Eng. Services	Method-Kent		x	
PED	Method Road at Jackson Street Intersection Improvements	Method Road	Jackson Street			RDOT CIP	RDOT, Eng. Services	RDOT, Eng. Services	Method-Kent		x	
PED	Greenleaf Street and Kent Rd	Greenleaf Street	Kent Road			RDOT CIP	RDOT, Eng. Services		Method-Kent		x	
Street	New North-South Main Street in Method-Kent	Western Blvd	Jackson Street	Comp plan T1 amendment	Main St Parallel Parking	DEV	REDEV - private owner	Key TOD site	Method-Kent		x	

TABLE 2 IMPLEMENTATION PLAN - CAPITAL IMPROVEMENT PROJECTS, PT6

TYPE	PROJECT	FROM	TO	COMMENTS	STREET TYPE	FUNDING TYPE	AGENCY RESPONSIBLE	CONSTRAINTS	CHARACTER ZONE	QUICK FIX	MID-LONG TERM	EXTERNAL FUNDING
Street	Reavis Road Extension	Method Rd	New North-South Main Street		Main St Parallel Parking	DEV	REDEV - private owner	Key TOD site	Method-Kent		x	
Street	Jackson Street Extension	Method Rd	New North-South Main Street		NH Street	DEV	REDEV - private owner	Key TOD site	Method-Kent		x	
Street	Neeley Street and Sherman Avenue Extensions	Gorman Street	Kent Road		Area Specific Guidance	DEV	REDEV - private owner	Key TOD site	Method-Kent		x	
Park	Build neighborhood Park at Grove Avenue	Grove Avenue	Linville Drive	Jackson Park	Area Specific Guidance	Parks CIP	Parks		Method-Kent		x	
Street	Lexington Drive Extension	Lexington Drive	New North-South Main Street		Area Specific Guidance	DEV	REDEV - private owner	Key TOD site	Method-Kent		x	
Multi-Modal Character Zone												
PED	Blue Ridge Road Intersection Improvements	Blue Ridge Road	Western Blvd			RDOT CIP	RDOT, Eng Services		Multi-modal		x	
PED	Faber Drive at Blue Ridge Road Intersection Improvements	Faber Drive	Blue Ridge Road			RDOT CIP	RDOT, Eng Services		Multi-modal		x	
PED	Powell Drive Intersection Improvements	Powell Drive	Western Blvd			RDOT CIP	RDOT, Eng Services		Multi-modal		x	
PED	Powell Drive at Beryl Road Intersection Improvements	Beryl Road	Powell Drive			RDOT CIP	RDOT, Eng Services		Multi-modal		x	
PED	Hillsborough Street Intersection Improvements	Hillsborough Street	Western Blvd			RDOT CIP	RDOT, Eng Services		Multi-modal		x	
PED	Hillsborough Street at Chapel Hill Road Intersection Improvements	Chapel Hill Road	Hillsborough Street			RDOT CIP	RDOT, Eng Services		Multi-modal		x	

TABLE 2 IMPLEMENTATION PLAN - CAPITAL IMPROVEMENT PROJECTS, PT7

TYPE	PROJECT	FROM	TO	COMMENTS	STREET TYPE	FUNDING TYPE	AGENCY RESPONSIBLE	CONSTRAINTS	CHARACTER ZONE	QUICK FIX	MID-LONG TERM	EXTERNAL FUNDING
PED	Jones Franklin Street at Buck Jones Road Intersection Improvements	Jones Franklin Street	Buck Jones Road			RDOT CIP	RDOT, Eng Services		Multi-modal		x	
PED	Jones Franklin at Athens Drive Intersection Improvements	Jones Franklin Street	Athens Drive			RDOT CIP	RDOT, Eng Services		Multi-modal		x	
Street	Ligon Street Extension and Improvements	I-440	Blue Ridge Rd	Existing - needs realignment and redesignation	2 lane undivided	RDOT CIP, DEV	REDEV - private owner, NCSU	Dev plan underway for the site	Multi-modal		x	
Street	Berly Road Improvements	Beryl-Road Connector	Powell/ Youth Center Connector	Make sure what we are mapping doesn't overlap with RR ROW	2 lane undivided	RDOT CIP, DEV	RDOT, Eng Services		Multi-modal		x	
Street	Barstow Drive Extension	Jones Franklin	Carolina Ave	Through TOD and connection to neighborhood	Main St Parallel Parking and NH Street	RDOT CIP, DEV	REDEV and CIP		Multi-modal		x	
Street	New North-South Street near Jones Franklin Station	Blue Bird Court	Western Blvd	Through TOD and connection to neighborhood	Main St Parallel Parking and NH Street	DEV	REDEV - private owner		Multi-modal		x	
Bicycle	Powell-Youth Center Bikeway	Western Blvd	Hillsborough Street	Alignment from RCRX	Separated Bikeway	RDOT CIP, DEV	REDEV - private owner, RDOT, Eng. Services		Multi-modal		x	
Street	Powell-Youth Center Connector	Powell Drive	Hillsborough Street	Alignment from RCRX	2 lane undivided	RDOT CIP, DEV	REDEV - private owner, RDOT, Eng. Services		Multi-modal		x	
Street	Carolina Avenue Improvements	Barstow Drive	Western Blvd		NH St	RDOT CIP, DEV	RDOT, Eng. Services		Multi-modal		x	
Street	Asbury Drive Extension and Improvements	Hillsborough Street	New Western Blvd Extension and Busway	Change to 3 lane ave parallel parking	3 lane avenue parallel parking	RDOT CIP, DEV	RDOT, Eng. Services		Multi-modal		x	

TABLE 2 IMPLEMENTATION PLAN - CAPITAL IMPROVEMENT PROJECTS, PT8

TYPE	PROJECT	FROM	TO	COMMENTS	STREET TYPE	FUNDING TYPE	AGENCY RESPONSIBLE	CONSTRAINTS	CHARACTER ZONE	QUICK FIX	MID-LONG TERM	EXTERNAL FUNDING
Street	Barstow Drive Construction	Carolina Avenue	Powell Drive	Within existing ROW or as required by development	Area Specific Guidance	DEV	REDEV - private owner		Multi-modal		x	
Street	Pepperton Drive Extension	Pepperton Drive	Powell Drive		Area Specific Guidance	DEV	REDEV - private owner		Multi-modal		x	
Street	Deboy Street Area Street Grid	Deboy Street	Schaub Drive	Various segments in area	Area Specific Guidance	DEV	REDEV - private owner		Multi-modal		x	
Street	Gannett Street Area Street Grid	Blue Ridge Road	Gannett Street		Area Specific Guidance	DEV	REDEV - private owner		Multi-modal		x	
Street	Centerbud Place Extension	Western Blvd	Centerbud Place		Area Specific Guidance	DEV	REDEV - private owner		Multi-modal		x	
Street	Pineland-Pylon Connector	Pineland Circle	Pylon Drive Extension		Area Specific Guidance	DEV	REDEV - private owner		Multi-modal		x	
Street	Trek Lane Extension	Trek Lane	Pineland Circle		Area Specific Guidance	DEV	REDEV - private owner		Multi-modal		x	
Street	Hillsborough Street Two-Way Conversion	Western Blvd	Hillsborough Street	Consolidate east- and west-bound traffic to same alignment	4-lane Divided Avenue	RDOT CIP	RDOT, Eng Services		Multi-modal		x	
Bicycle	Westgrove Street Bikeway	Blue Ridge Road	Ligon Street	Behind Kmart site - separated bike on new streets	Separated Bikeway (may require portion of other facility type on NCSU campus)	DEV	Private DEV; tied to street project		Multi-modal		x	No
Bicycle	Beryl Road Bikeway	Powell Drive	Blue Ridge Road	Add new ped/ bike path	NH Bikeway	RDOT CIP	Trans, Eng. Services		Multi-modal		x	Yes
Greenway	Arboretum Greenway Trail	Westgrove Street	Beryl Road	Add new ped/ bike path	Greenway Trail	NCSU	NCSU, Public partnership		Multi-modal		x	Yes

TABLE 2 IMPLEMENTATION PLAN - CAPITAL IMPROVEMENT PROJECTS, PT9

TYPE	PROJECT	FROM	TO	COMMENTS	STREET TYPE	FUNDING TYPE	AGENCY RESPONSIBLE	CONSTRAINTS	CHARACTER ZONE	QUICK FIX	MID-LONG TERM	EXTERNAL FUNDING
Bicycle	Ligon Street Bikeway	Gorman Street	Blue Ridge Road	New street and ped/bike path, portions under construction by NCDOT, others expected with development.	Bicycle Lane	DEV, NCSU	Trans, Eng. Services		Multi-modal		x	Yes
Bicycle	Jones Franklin bikeway	Hillsborough Street	Blue Ridge	Along Jones Franklin	Separated Bikeway	RDOT CIP	Trans, Eng. Services		Multi-modal		x	
Bicycle	Jones Franklin Road Bikeway	Western Blvd	I-440 and Walnut Creek Greenway Trail	Sep bikeway and complete sidewalk	Separated Bikeway	RDOT CIP, DEV	Trans, Eng. Services		Cary Connector		x	Yes
Bicycle	Jones Franklin TOD Bikeway	Western Blvd	Hillsborough Street	Install Separated Bikeway on current alignment of Jones Franklin and Hillsborough St that will be bypassed by most traffic volume when the one-way pair is eliminated	Separated Bikeway	RDOT CIP	Trans, Eng. Services		Cary Connector		x	
Bicycle	Blue Ridge bikeway	Western Blvd	District Drive	North south near I-40	Separated Bikeway	RDOT CIP	Trans, Eng. Services		Multi-modal		x	
Bicycle	Barstow Drive Bikeway (NH Section)	Powell Drive	New N/S Main Street	Barstow sidewalks	NH Bikeway	RDOT CIP, DEV	some by deve of TOD, Trans, Eng Services		Multi-modal		x	Yes
Bicycle	Barstow Drive Bikeway (TOD Section)	Jones Franklin	New N/S Main Street	New street and ped/bike path	Separated Bikeway	DEV	Private DEV - TOD		Multi-modal		x	Yes
Cary Connector Character Zone												
PED	Edwards Mill Road at Chapel Hill Rd Intersection Improvements	Edwards Mill Road	Chapel Hill Road			RDOT CIP	Trans, Eng. Services		Cary Connector		x	

TABLE 2 IMPLEMENTATION PLAN - CAPITAL IMPROVEMENT PROJECTS, PT10

TYPE	PROJECT	FROM	TO	COMMENTS	STREET TYPE	FUNDING TYPE	AGENCY RESPONSIBLE	CONSTRAINTS	CHARACTER ZONE	QUICK FIX	MID-LONG TERM	EXTERNAL FUNDING
PED	Corporate Center Drive at Chapel Hill Rd Intersection Improvements	Corporate Center Drive	Chapel Hill Road			RDOT CIP	Trans, Eng. Services		Cary Connector		x	
PED	Ashbury Dr and Hillsborough St Intersection Improvements	Hillsborough Street	Ashbury Drive			RDOT CIP	Trans, Eng. Services		Multi-modal		x	
PED	Ashbury Dr/ Buck Jones Rd/Western Blvd Extension Realignment	Buck Jones Road	New Western Blvd Extension and Busway			RDOT CIP	Trans, Eng. Services		Multi-modal		x	
PED	Nowell Road and Hillsborough Street Interim Intersection Improvements	Nowell Road	Hillsborough Street	This is interim because the comprehensive plan (via RCRX) is to close Nowell Road at the NCRR.		RDOT CIP	Trans, Eng. Services		Cary Connector		x	
PED	Bashford Road at Irelan Dr/ Western Blvd Extension Intersection Improvements	Bashford Road	New Western Blvd Extension			RDOT CIP	Trans, Eng. Services		Cary Connector		x	
PED	Wolfwood Dr Intersection Improvements	Wolfwood Drive	New Western Blvd Extension			RDOT CIP	Trans, Eng. Services		Cary Connector		x	
Street	Restriping and redesign of triangle block between Hills/ Western/ Jones Franklin along with two-way conversion of Hillsborough St	Jones Franklin/ Hillsborough area				RDOT CIP	Trans, Eng. Services		Cary Connector		x	
Street	Blue Bird Court Extension	Jones Franklin	Fieldspring Lane	New	NH St	DEV	Trans, Eng. Services		Cary Connector		x	
Street	Burton Ave Extension	Buck Jones	Waycross Street	New	NH St	DEV	Trans, Eng. Services		Cary Connector		x	
Street	Oakdale Drive Extension	Buck Jones	Waycross Street	New	NH St	DEV	Some by DEV of TOD, Trans, Eng. Services		Cary Connector		x	

TABLE 2 IMPLEMENTATION PLAN - CAPITAL IMPROVEMENT PROJECTS, PT11

TYPE	PROJECT	FROM	TO	COMMENTS	STREET TYPE	FUNDING TYPE	AGENCY RESPONSIBLE	CONSTRAINTS	CHARACTER ZONE	QUICK FIX	MID-LONG TERM	EXTERNAL FUNDING
Street	Edwards Mill Rd Extension	Chapel Hill Road	New Western Blvd Extension and Busway	Planned with RCRX	4 lane divided	RDOT CIP	Trans, Eng. Services		Cary Connector		x	
Street	Portree Place Extension	Portree Place	New Western Blvd Extension and Busway	Part existing realigned with new segment	2 lane undivided	RDOT CIP, DEV	P3		Cary Connector		x	
Bicycle	Hillsborough Street Bikeway	Blue Ridge Road	Town of Cary	Sep bikeway and complete sidewalk	Separated Bikeway	RDOT CIP, DEV	Trans, Eng Services		Cary Connector		x	Yes
Bicycle	Edwards Mill Road Bikeway	Trinity Road	Western Blvd Extension	Planned new street; add ped/bike path; T3 amendment for southern segment from bike lane to sep bikeway	Separated Bikeway	RDOT CIP, DEV	Trans, Eng Services		Cary Connector		x	Yes
Bicycle	Corporate Center-Bashford Connector	Trinity Road	Buck Jones Road		Separated Bikeway	RDOT CIP, DEV	Trans, Eng Services		Cary Connector		x	
Bicycle	Chapel Hill Road Bikeway	Hillsborough Street	Town of Cary	Add new ped/ bike path	Separated Bikeway	RDOT CIP, DEV	Trans, Eng Services		Cary Connector		x	Yes
Bicycle	Western Blvd Extension Bikeway	Jones Franklin Road	Town of Cary	Planned new street; add ped/bike path	Separated Bikeway	RDOT CIP	Trans, Eng Services, Transit		Cary Connector	x		Yes
Bicycle	Saddle Seat Drive Bikeway	Bashford Road	Western Blvd Extension	Add new ped/ bike path	Separated Bikeway	RDOT CIP	Trans, Eng Services		Cary Connector		x	Yes
Bicycle	Walnut Creek Greenway Trail Extension	Jones Franklin Road	Town of Cary	Add new ped/ bike path	Greenway Trail	RDOT CIP, PRCR CIP	Trans, Eng Services		Cary Connector		x	Yes
Greenway	Walnut Creek Greenway Tr Connector	Walnut Cr Greenway Trail	Hillsborough Street	Add new ped/ bike path	Greenway Trail	RDOT CIP, PRCR CIP	Trans, Eng Services		Cary Connector		x	Yes

Funding Tools

Tools recommended for funding transit-oriented development in key station nodes along Western Boulevard Corridor are listed below:

a. TOD Overlay

A key component of the TOD Overlay is a density bonus system. A density bonus allows developers to opt-in to the ability to build more floor area on each parcel provided the requirements of the overlay zone are met, which will be critical to supporting greater densities and the creation of affordable housing units. Applying the TOD overlay will enable developers to deliver sites zoned at higher densities in exchange for the creation of affordable housing units. With multiple sites zoned for residential or neighborhood mixed-use or community mixed-use, redevelopment containing dedicated affordable units will enable more low- and moderate-income residents the opportunity to live near transit and access the amenities offered by TOD. Encouraging this level of density, particularly in designated segments of the corridor will also be crucial to encouraging mixed-use development in line with the physical vision for TOD.

Removing parking minimum requirements will also ensure developers will only build as much parking as they and their financing partners believe is needed to fulfill market demand, rather than being required to build more parking than is necessary. With greater multifamily development, the City could also consider encouraging multifamily residential buildings to decouple the price for renting the apartment from the cost of renting a parking spot.

b. Affordable Housing Fund & Land Acquisition for Affordable Housing

Creating and/or preserving affordable housing will ensure lower-income Raleigh residents can live in close proximity to BRT and share the benefits of access to amenities and potential employment through the commercial development along the corridor. The City's Housing Fund currently offers low-interest loans for the preservation or development of affordable housing. The City's Equitable TOD Guidebook recommends expanding this fund to increase support for a variety of affordable housing programs, such as TOD site acquisition, low-income housing tax credit gap financing, homeowner rehabilitation, and down payment assistance. The City's recently approved Affordable Housing Bond sets aside money specifically for housing and public-private partnerships in TOD's. It would also support strategic TOD site acquisition of residential sites for affordable and/or mixed-income housing while maintaining a unified neighborhood character.

Given the concentration of residential properties and neighborhood mixed-use sites around Western Boulevard, the City may capitalize on the opportunity to assemble multiple sites to support the strategic development of affordable or mixed-income housing. The City can then strategically release this acquired land through a request for proposals process, seeking nonprofit affordable housing developers that can develop a project supporting the City's affordable housing objectives. By acquiring property for affordable housing and partnering with

non-profit housing developers, the City can set the tone for the development vision in the rest of the node, including mixed-use projects, ground floor retail, and affordable housing. As the number of available parcels along the corridor decreases through BRT-spurred redevelopment, the City can be proactive in establishing a bond or equity fund to acquire additional land specifically for affordable housing.

c. Tax Increment Financing/Equity Fund

Higher-density, mixed-use development in TOD sites will generate considerable real estate value. Under this program, a portion of incremental tax revenues on new and existing development will be diverted from the general fund to support economic development programs that catalyze transformations in the corridor to support the TOD vision. Funding from tax increment financing can contribute to streetscaping projects that establish a sense of place and enhance walkability. Capturing the value generated by TOD will also decrease reliance on the City's capital budget for implementing these improvements. In an area that is currently auto-oriented, these projects can include investing in high-quality sidewalks and safer pedestrian crosswalks along Western Boulevard and in the arterials leading to Western.

In particular, the catalytic TOD sites present an opportunity for high walkability and an improved pedestrian experience, as these areas will include ground floor retail and denser residential development. Given that the retail offerings in the area (bounded by Sherman Ave. and Lexington Drive) are

currently auto-oriented with strip-mall typologies and drive-thrus, pedestrian improvements such as sidewalks, wayfinding signage, and street furniture can catalyze a transformation of the corridor.



Western Blvd. crosses over Dawson and McDowell Streets.

d. Tax Increment Grant (TIG)

A TIG is a newer financing tool currently being evaluated by the City of Raleigh. TIG may be used to support public-private partnerships through private development investments that generate significant benefits to the public that would not occur but for the grant. The purpose of the TIG is to increase the tax base, advance economic growth in priority areas of the City where private investment has not otherwise historically occurred, encourage job creation, enhance the public realm, and/or gain additional public benefits from development projects. Through negotiation between the City and the developer/property owner on a TIG agreement, the City gains the opportunity to influence a proposed development to include needed public infrastructure, facilities for public use or benefit, and community benefits such as job creation, workforce development, community infrastructure, and affordable housing.

The elements of the project associated with TIG support must demonstrate benefit to City and to the general public. Qualifying TIG projects include building and funding of new public infrastructure such as transit and transportation infrastructure, public parking decks, parks and greenways, public realm enhancements, environmentally advanced stormwater systems, etc., or to influence how these improvements are designed or constructed. The projects should align with City priorities and goals, including, the City's Strategic Plan. The proposed project should represent a significant investment to the community and add adequate incremental property tax revenue to allow for the financial feasibility of the grant process.

Meeting all policy requirements does not guarantee TIG funding. All applications for TIG funding will be evaluated on a case-by-case basis and Council reserves the right to approve or deny any application for TIG funding at its sole discretion. With the BRT implementation underway, this tool could be considered for appropriate projects that would complement the BRT and help with redevelopment of key TOD catalytic sites and transit-supportive transformation of Western corridor.

e. Business Improvement District

To support the transformation of key TOD nodes into a vibrant mixed-use area, the City may consider creating a Business Improvement District (BID). The BID would represent the interests and priorities of local businesses, residents, and institutions such as NC State and provide services and programs to make the area more livable. These services may include cleaning, security, beautification, marketing and branding, and economic development projects to keep the area thriving. Creating a BID has the potential to ultimately transform this area of the corridor into the type of dense business and cultural thoroughfare exemplified by Hillsborough Street, which is also supported by a BID. Created in 2009 by the City of Raleigh in partnership with NC State University and other constituents on and around Hillsborough Street, the Hillsborough Street Community Services Corporation provides a range of services and programs to make the Hillsborough Street community a better place to live, work, play, and shop. While tax increment financing can fund capital investments in the corridor such as the

streetscaping and beautification projects referenced above, a BID for Western Boulevard can provide the ongoing programming, maintenance, and planning and advocacy to ensure the corridor continues to thrive and enhances the quality of life for all who live in, work in, or visit the area.

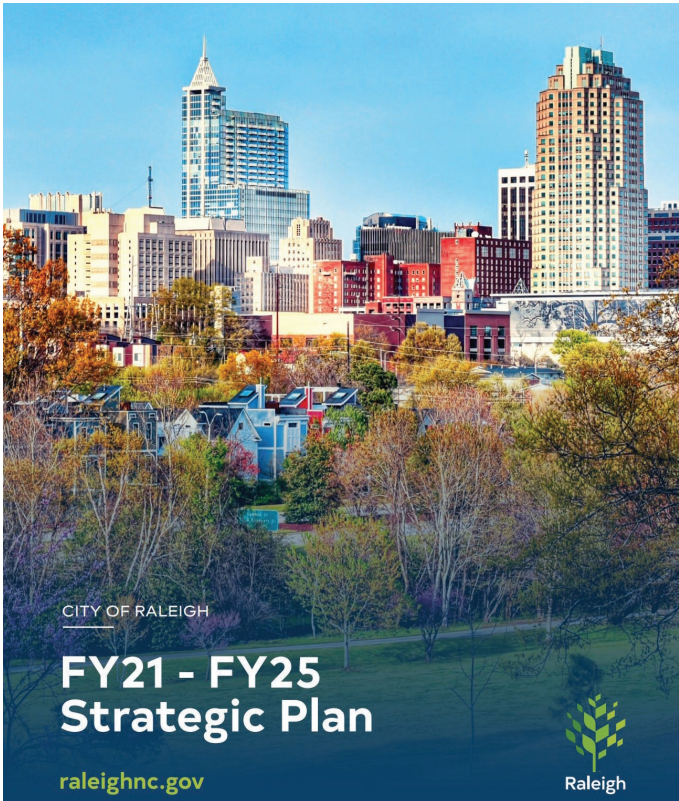
f. Small Business Assistance Fund

A small business assistance fund can be created to support small businesses along Western, both during BRT construction and afterward to promote long-term business health. By protecting the vitality of small businesses, the fund will also help diversify retail offerings in the corridor. Given the limits of these resources, the City may consider giving businesses in priority BRT growth nodes additional consideration in the awarding of grants. Prioritizing these growth nodes will ensure local businesses have a competitive advantage in maintaining their long-term operations, and this commercial activity can catalyze further growth and development.

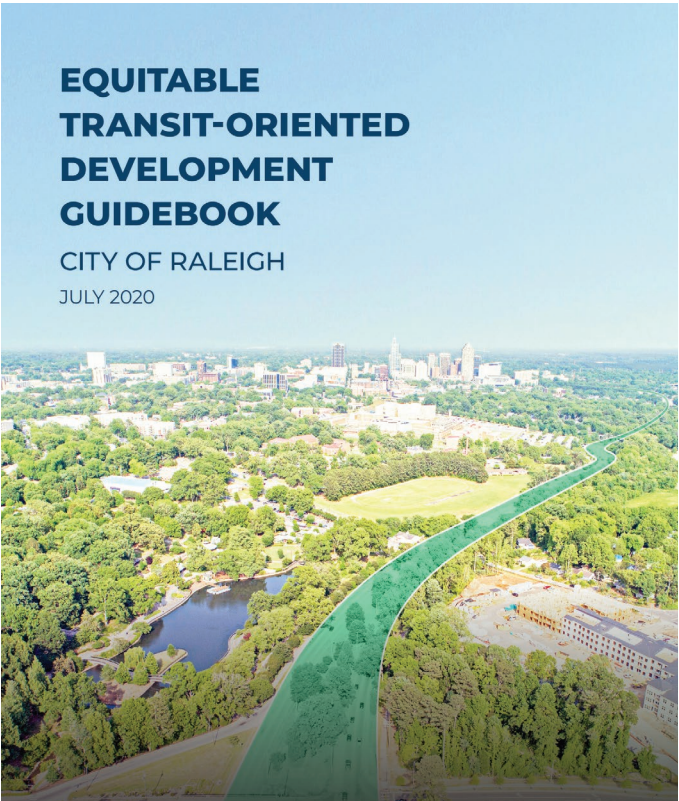
The fund can support the diverse needs of businesses along the corridor by offering both technical assistance and financial support. The City's Economic Development team can provide technical assistance by helping businesses relocate and providing marketing

and communications support. The City can identify and work with businesses that operate in stand-alone buildings along the corridor that may be lost to redevelopment, and assist with their relocation to a new space along the corridor in mixed-use station nodes. The City can also provide marketing and communications support to businesses throughout the construction and operation of BRT to strengthen their public presence.

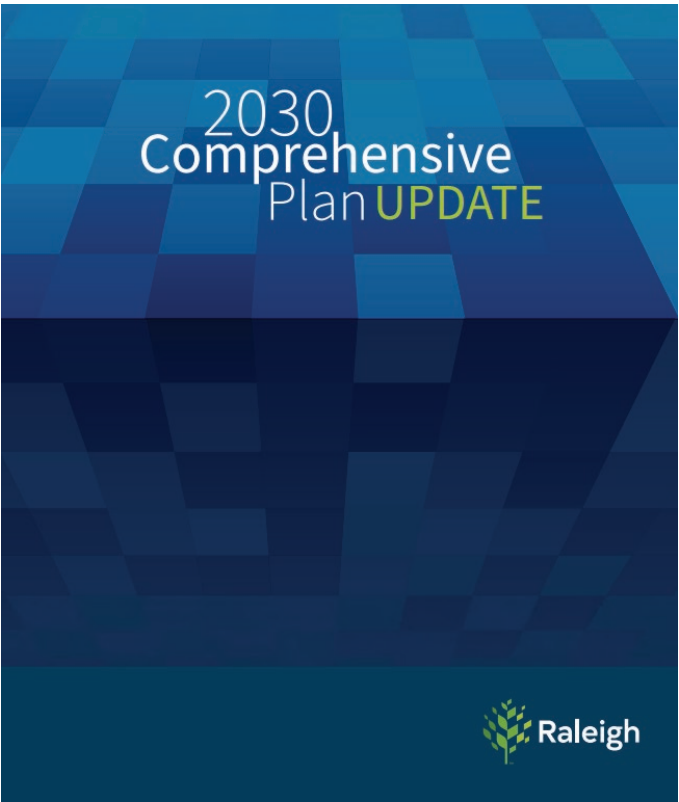
The City can also offer financing programs through the fund to help businesses relocate along the corridor and ensure access to working capital during and after BRT construction. Build-out grants can support businesses in their relocation efforts and support physical improvements. These grants will be particularly important to sustaining tenants that lack significant upfront capital. A revolving loan fund can mitigate the displacement of small businesses by providing business owners access to working capital to support the long-term maintenance, operations, and expansion of their businesses.



City of Raleigh's Strategic Plan



City of Raleigh's adopted ETOD Guidbook



The cover of Raleigh's 2030 Comprehensive Plan

Alignment with City Plans

The elements of the City's updated Strategic Plan, Equitable Development Around Transit Guidebook, and 2030 Comprehensive Plan which are supported by the corridor study recommendations are listed in **Tables 3 - 5**.

TABLE 3 CITY'S STRATEGIC PLAN ELEMENTS

AREA OF FOCUS	OBJECTIVE STATEMENT
Arts and Cultural Resources - Objective 3	Utilize parks, green spaces, and recreation facilities as cultural hubs, gathering spaces, and neighborhood resource centers to foster connection, creativity, and economic development.
Economic Development and Innovation - Objective 3	Develop strategies and tools that encourage and strengthen the development of businesses throughout the community.
Economic Development and Innovation - Objective 4	Maintain and develop amenities and infrastructure to support and encourage jobs and business development and expansion in all parts of the city that provides opportunity for all.
Growth and Natural Resources - Objective 1	Identify opportunities to refine and enhance policies and programs that protect and improve environmental resources to include the tree canopy, open space, and plant management policies and practices.
Growth and Natural Resources - Objective 2	Complete, adopt, and implement the Capital Area Greenway Master Plan to support a balance of environmental, multimodal transportation, and recreational uses.
Growth and Natural Resources - Objective 4	Pursue opportunities to advance adoption of comprehensive stewardship practices throughout the community, including efforts to reduce communitywide greenhouse gas emissions, address resiliency, and improve climate equity.
Safe, Vibrant and Healthy Community - Objective 3	Promote walkable, mixed-use, and mixed-income neighborhoods, including those near transit investments.
Transportation and Transit - Objective 1	Develop partnerships and implement a unified and coordinated transportation and land use vision.
Transportation and Transit - Objective 2	Enhance the multimodal transportation network to reduce reliance on single occupancy vehicle trips.
Transportation and Transit - Objective 3	Identify policies, partnerships, and programmatic opportunities to improve the safety of the City's transportation network, with a focus on pedestrians and bicyclists.
Transportation and Transit - Objective 5	Implement equitable transportation programs and service levels with a focus on promoting an inclusive and accessible transportation network.

TABLE 4 EDAT DESIGN PRINCIPLES, PT1

DESIGN PRINCIPLES	KEY STRATEGIES
2-1 ENCOURAGE MIX OF USES	Allow a mix of complementary uses in order to create a diverse and active environment within station areas.
	Create graceful transitions to lower-scale residential neighborhoods while creating commercial destinations near stations to reinforce the use of transit.
	Improve flexibility by mixing uses both horizontally and vertically, at different scales, and providing opportunities for sharing spaces at different times.
	Improve safety, walkability, and liveliness by promoting active uses on ground floors.
2-2 CONCENTRATE DENSITY AROUND TRANSIT	Encourage affordable housing options and include a mix of housing types, including senior housing.
	Allow for relatively higher densities in mixed-use areas near BRT stations. The density and building height of new developments should respect the existing neighborhood contexts.
	Require minimum building height and pedestrian-friendly street frontage for new developments around BRT stations to ensure a compact urban form and active uses, and create a strong identity for BRT stations.
	Transition building height and bulk downward from the station to connect with adjacent, lower density districts, and neighborhoods. Consider design strategies to mitigate the visual impact of higher density such as breaking down new buildings into contextually scaled massing and creating pleasing streetscapes as a buffer.
2-3 SUPPORT REPURPOSING BUILDINGS AND INFILL DEVELOPMENT	Prioritize vacant and underutilized land for contextually-sensitive infill development that provides complementary uses to the neighborhood.
	Encourage repurposing existing buildings to include active ground floor and mixed upper floor uses to maximize the value of the existing assets.
	Encourage redevelopment of under-used properties to accommodate increased demand in housing and services.
	Celebrate historic buildings, landmarks, and other places of community to enhance a sense of place.
2-4 COMPLETE STREETS FOR BETTER TRANSIT	Form a complete sidewalk network and a safe pedestrian experience. Provide pedestrian crossings and comfortable sidewalks along key streets to within 1/2 mile of BRT stations. Improve biking conditions. Create protected bike lanes along major routes within one mile of BRT stations and provide convenient and secure bicycle parking/storage facilities at stations.
	Utilize curb management strategies to support protected walkways and bike lanes, as well as promote micro mobility and shared mobility options, including scooters, bike share, and ride share facilities.
	Reduce traffic speeds to improve pedestrian safety.
	Identify safety issues and barriers to access. Add publicly accessible streets, alleys, through-block passages to improve pedestrian connections when possible.
	Promote streetscape improvements including lighting, street trees and landscape, street furniture, etc. to create an attractive walking environment.

TABLE 4 EDAT DESIGN PRINCIPLES, PT2

DESIGN PRINCIPLES	KEY STRATEGIES
2-5 MANAGE PARKING EFFECTIVELY	Eliminate minimum parking requirements for developments near BRT stations. Consider innovative parking management strategies and technologies when identifying parking needs.
	Locate parking behind or beside buildings and consolidate into shared areas to optimize pedestrian environment along main streets.
	Conceal parking lots with landscape elements. Parking spaces can be arranged to integrate planting, seating, and micro mobility stations, etc. to minimize the visual impact on streets.
	Integrate parking structures with higher-density development and require design considerations to improve the garage appearance when visible.
	Vehicular access to garages and parking lots should be from secondary streets and share driveway access if possible, to limit the number of curb cuts.
	Encourage on-street parking when the roadway and traffic condition appropriate. On-street parking can serve as a buffer between pedestrians and vehicles and help traffic calming.
	Provide car-sharing facilities in public parking structures.



Rendering of a redesigned interface between Western Blvd. and Lake Wheeler Rd.

TABLE 4 EDAT DESIGN PRINCIPLES, PT3

DESIGN PRINCIPLES	KEY STRATEGIES
2-6 CREATE ENGAGING PUBLIC SPACES	Public spaces should be utilized as organizing features and focal points for station area community planning and development.
	Encourage public-private partnerships for creation of high quality public spaces integrated with new developments with station areas.
	Manage building setbacks around public spaces to create compact, pedestrian-scaled, and safe walking environments.
	Incorporate retail services and active programs that welcome transit riders and serve community members.
	Public spaces should consider accommodation of bike and micro-mobility facilities to enhance multimodal connectivity and circulation.
	Emphasize sustainability in landscape design strategies to create environmentally friendly and low maintenance open spaces.
	Leverage public arts and cultural programs to enhance community identity and sense of place.

TABLE 5 2030 COMPREHENSIVE PLAN ELEMENTS

CHAPTER SECTION	POLICIES
Implementation	IM 4.1, 4.2
Land Use	LU 2.1, 2.2, 2.5, 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7, 4.9, 6.3, 7.1, 7.2, 7.6, 10.1
Transportation	T 1.2, 1.3, 1.4, 1.5, 2.1, 2.3, 2.5, 2.6, 2.17, 3.1, 3.2, 3.4, 4.1, 4.2, 4.3, 4.9, 4.10, 4.13, 4.14, 4.15, 4.16, 4.23, 5.1, 5.2, 5.3, 5.4, 5.6, 5.7, 5.9, 5.11, 5.13, 6.9, 7.1, 7.2
Environmental Protection	EP 1.1, 1.4, 1.7, 1.8, 2.1, 2.2, 2.3, 2.5, 2.6, 2.7, 3.1, 3.2, 3.4, 3.7, 3.8, 3.12, 3.18, 4.1, 4.8, 6.1, 6.3
Economic Development	ED 1.1, 1.2, 1.4, 5.3
Housing	H 1.1, 1.3
Parks, Recreation, and Open Space	PR 1.7, 1.8, 2.9, 3.3, 3.8, 3.10, 3.11, 3.13
Public Utilities	PU 3.10, 5.1
Urban Design	UD 1.6, 1.13, 2.2, 2.5, 3.1, 3.2, 4.2, 4.3, 4.10, 4.13, 5.3, 6.1, 6.2, 8.1, 8.4, 8.5, 8.7, 8.8
Arts and Culture	AC 1.1, 1.2, 2.3, 5.4
Regional & Interjurisdictional Coordination	RC 1.1, 1.2, 1.4, 1.5, 1.6, 2.3, 2.8
Downtown Raleigh	DT 1.17, 2.1



Western Blvd. along Dorothea Dix Park at its intersection with Boylan Ave.

Policies/Actions Recommendations Summary

The following section provides a general summary list of potential policies and actions identified through the planning process. This section should be further evaluated to identify policies and action items that meet the criteria to be adopted into the Comprehensive Plan under the area specific guidance chapter dedicated to Western Boulevard corridor plan.

Multimodal Connectivity

Policies

- Improve street connectivity and fix sidewalk gaps to connect surrounding neighborhoods to the BRT corridor.
- Provide greenway access points from key TOD sites to enhance connections to Rocky Branch trail and Walnut Creek trail.
- Plan for micro-mobility options to and from the BRT stations to enhance first-last mile connections.
- Explore Transportation Demand Management (TDM) working with employers to incentivize employees to opt for alternate modes of transportation.

Actions

- Pursue intersection improvements for key locations that will improve mobility and safety for pedestrians and bicyclists.
- Implement proposed key new streets and bike facilities to enhance connectivity to the BRT corridor.

- Pursue transit agency coordination to provide updated transit information on all services and coordinate routes and stops for maximum connectivity between different providers and routes.
- Evaluate current GoRaleigh routes and update to connect to Western Blvd. at key commercial nodes, employment centers, and mixed-use centers.

Transit-Oriented Development

Policies

- The ideal TOD site should have a connected grid of streets and walkable blocks. In suburban sites, larger parcels can be broken into smaller urban blocks, while in urban areas, smaller parcels can be assembled to attain minimum TOD size.
- The context of the site – uses, scale, street networks, location, and character of open space should influence the design of the TOD site.
- Encourage redevelopment of large surface parking lots along the corridor. In some instances, existing uses may continue while allowing for a portion of the site to develop for TOD.
- The Western Boulevard corridor offers a few key catalytic sites recommended for TOD designation. The redevelopment of these large single-ownership sites should apply key TOD principles and encourage higher density, mixed-uses, walkability, and enhanced public realm design. These catalytic TOD sites include: The Mission Valley site at Western/Avent Ferry, Food Lion shopping center site at Western/Method/Kent, Old Kmart site

at Western/Blue Ridge, and Plaza West shopping center at Western/Jones Franklin.

- Encourage partnerships between the City, transit agencies, developers, and landowners to acquire land, assemble small parcels, and make those sites available to achieve TOD vision through public-private joint development activities.
- Apply TOD Design Guidelines to manage the potential conflict between higher-density TODs and surrounding lower-density neighborhoods by diversifying the building types and tapering building heights.

Public Realm Enhancements

Policies

- The TOD corridors and station nodes should aim to provide well-connected public realm of streets, multi-use paths, greenway trails, parks, plazas, and other usable open spaces.
- Pursue partnership opportunities to plan for public realm improvements and placemaking all along the Western BRT corridor, where feasible. See Area Specific Guidance Map in Urban Design Recommendations chapter.
- Identify opportunities to encourage iconic architecture and gateway design elements at both edges of the Western BRT corridor.

Environmental Sustainability

Policies

- As BRT is integrated into existing streets and new streets are designed with a transit focus, there are opportunities to combine elements of a TOD with sustainable urbanism elements to promote an emerging concept of Green TOD. The types of sustainable elements included within a Green TOD should be encouraged in all sections of the Western Blvd. BRT corridor. They are especially important and should be pursued more intensely where natural resource protection, stream conservation, and ecological balance are a priority, as identified in the Environmental Sustainability Map. Recommended general list of principles to evaluate include:
 - Mixed use
 - Energy efficient buildings
 - Green stormwater infrastructure (GSI)
 - Places for people rather than cars
 - Interconnected green spaces
 - Habitat corridors and patches
 - Integrated waste management
 - Energy reduction measures – food waste management, low-energy construction.
- Development opportunities along the corridor should aim to integrate sustainability principles and plan for natural resource protection, ecological balance, stream conservation, and other measures where feasible. Stormwater projects along the BRT corridor should implement Green

Stormwater Infrastructure (GSI) solutions and integrate parks/open space, and/or greenway trails wherever feasible.

Actions

- Plan and design the new Western extension to be a safe, environmentally friendly, multimodal design that integrates infrastructure needs with natural resource protection in an economically viable and sustainable way. Protect natural resources and streams by minimizing impacts of the road, reducing carbon footprint, preserving trees, and protecting endangered species and animal habitats. Integrate parks and conservation areas into the BRT corridor design.
- Research and evaluate the potential for development of guidelines and policies that would create a new Green TOD district in Raleigh.
- As part of the Station Area Planning Process produce an Environmental Sustainability Master Plan (ESMP) that can more thoroughly identify environmental issues and provide appropriate design solutions. The ESMP would cover ecologically sensitive areas identified in this report and be adopted as part of the final Station Area Planning recommendations for the corridor.
- Research and evaluate the potential for utilizing the Green Space Factor (GSF) tool to improve the ecological sustainability of the built environment by increasing the green elements. The GSF tool produces a numeric value for the ratio between impervious surfaces and green areas within a selected site. Impervious surfaces such as surface parking will be discouraged to encourage more GSI integration. The

qualifying green elements could include a variety of options.

Downtown Zone

Actions

- Pursue opportunities to redesign the Wilmington St. intersection, aligned with BRT implementation, to enhance pedestrian and bicycle safety across Western Blvd. to better connect downtown to neighborhoods to the south.
- Pursue placemaking opportunities at the intersection of Western and Wilmington intersection to create an attractive and unique gateway entrance into downtown. Partnership with Shaw University is encouraged.
- Design the elevated S. Saunders BRT station at the S. Saunders bridge with emphasis on improving pedestrian access and experience under the S. Saunders bridge through pedestrian-scaled amenities. Use the bridge to announce transition from downtown to the Dix Park area. Use the excess right-of-way near the S. Saunders bridge area to enhance access from S. Saunders to the elevated BRT station on Western Blvd.
- Reconfigure the Western/Dawson/McDowell interchange into a square loop and position the reclaimed right-of-way for redevelopment opportunities. Install new bicycle and pedestrian facilities and include physical and visual connections at this elevated portion of Western Blvd. to facilitate better integration with the BRT corridor.
- Extend West Street further south to connect to Western Boulevard by adding a new signalized intersection.

- Realign the southern segment of Rosengarten greenway trail path to an on-street connection along S. Saunders street to allow for connection to the Rocky Branch trail to the south of Western Blvd.

The Parks Zone

Policies

- Dix Boylan edge: Expand the design language of the park into the transit corridor and surrounding neighborhoods to create a unique zone that is reflective of the character of a park. Provide for natural noise buffer treatments at the edge of Boylan neighborhood, that signifies a unique setting of a park without boundaries.
- Rocky Branch preservation: Any new construction including the BRT transit roadway design must assess impact on Rocky Branch Creek and seek to mitigate any negative impacts with the use of on-site GSI strategies.

Actions

- Connections to the land bridge: Provide for safe pedestrian and bicycle connectivity from the nearest BRT station on Western Blvd. to the proposed land bridge connecting the Dix Park and Pullen Park.
- Explore opportunity to extend greenway connection along Rocky Branch Creek between Pullen Park and Dix Park.
- Coordinate with NCDOT on the Pullen bridge replacement project at Western intersection to explore options for redesign that will enhance circulation, traffic management, BRT access, and safe pedestrian/bicycle connections across this key intersection.

- Realign and consolidate the Ashe Avenue merge at Western intersection to one alignment (eastern section) and reclaim the western segment into Pullen Park limits. Introduce a signalized intersection and add safe crossings for pedestrians and bicyclists to connect to the Dix Park edge.
- If/when opportunity arises, pursue acquisition/reuse of the property at the corner of Ashe Ave. and Western Blvd. for stream restoration efforts. This will allow for expansion of the Pullen Park boundary and offer the unique opportunity to remediate and restore Rocky Branch by daylighting this section of the stream and potentially connecting it to planned remediation efforts at Dix Park.
- Further evaluate the opportunity to create a tunneled greenway connection along the Rocky Branch, under Western Blvd. and into Dix Park.
- Hunt Drive area: Pursue further evaluation of the transit opportunities that come with realignment of Hunt Drive proposed by the Dix Master Plan.
- Redesign the Boylan intersection with the goal of improving pedestrian and bicycle safety at this key intersection connecting Dix Park to downtown and historic neighborhoods to the north.
- Create a celebrated gateway entrance along Western Blvd. at the historic Boylan neighborhood entryway by utilizing the existing neighborhood open space and right-of-way that could incorporate neighborhood identification signage, public art, landscape features and benches; incorporate green stormwater infrastructure to address persistent flooding issues noted in this zone.

- Pursue the opportunity to create a cultural trail connection between Dix Park and Chavis Park through Lenoir Street, integrating placemaking elements, public art, and programming elements.

The Campus Zone

Policies

- Coordinate the design and implementation of the planned capital projects in this area – NCDOT pedestrian tunnel, BRT station design, and Avent Ferry streetscape improvements with the goal of improving access and crossing safety for pedestrians and bicyclists to the BRT station and connecting the Centennial and Main Campus to the north. Encourage pedestrian corridor from the BRT stop to the Mission Valley site.

Actions

- Work with NC State University on their Physical Master Plan update process to better coordinate street grids connectivity, pedestrian and bicycle connections, and densification envisioned for the campus zone to leverage on future TOD opportunities along Western Boulevard and adjacent station areas.

The Method-Kent Commercial Zone

Policies

- The future redevelopment of the Food Lion shopping center TOD site and other infrastructure improvements at this intersection should aim to enhance access, walkability, and connectivity between the BRT station and the historic Method community, the Islamic school, and NC State campus to the north.
- Encourage the use of interpretive signage and placemaking elements to celebrate the historic and cultural significance of the diverse neighborhoods and institutions served by this BRT node.

Actions

- Coordinate pedestrian and bicycle circulation, access, and safe crossing of the renovated I-440 interchange to the BRT stations.

The Multimodal Link Zone

Policies

- Pursue opportunities to improve and transform Blue Ridge corridor into a main north-south, pedestrian-scaled connection into the BRT corridor. Redevelopment of properties in the area should encourage transit-supportive design and densities and provide safe pedestrian and bicycle networks. Pursue wayfinding and signage to mark access and connections to the J.C. Raulston Arboretum and NC Museum of Art to the north.

The Cary Connector Zone

Policies

- Jones Franklin intersection: The redesign of this complex intersection through the BRT implementation should look to improve pedestrian and bicycle infrastructure along Jones Franklin Road, while streamlining access and mobility. Convert excess right-of-way into GSI features, open space/plaza.
- The new Western extension should consider elements such as: Green Stormwater Infrastructure, linear parks and connected open spaces to better handle stormwater and improve water quality, greening streets with trees and plantings, slowing traffic, and creating safer places to walk and/or bike around the new transit corridor and stations.
- Encourage Green TOD principles for development in the area around the headwaters of Walnut Creek. Redevelopment here must prioritize watershed health through sustainable building design, green stormwater infrastructure integration, and reliance on innovative and context-sensitive landscape and roadway designs that mitigate development impacts. Improve the standard streetscape to incorporate high-quality pedestrian and cyclist infrastructure, Green Stormwater Infrastructure, and connections to greenways and planned parks.

- Western Blvd extension: High priority should be given to development, roadway, and landscape designs that protect and enhance the area's ecological character and importance within the Walnut Creek watershed. Incorporate landscape design features that specifically help reduce ecological stress given new impervious surfaces created by design and construction of Western Boulevard extension.
- Wolfwood Drive area: The stream corridor and undeveloped land provide the opportunity for a continuous linear system of public amenities and Green Stormwater Infrastructure (GSI). Pursue opportunities to implement a continuous network of greenway trail, multi-use path, linear parks, integrated with GSI.

Actions

- Use sites along the Western extension as pilot projects for a Green TOD district.
- Surveys will need to be completed and coordination held with US Fish and Wildlife during project development to determine the impact to threatened and endangered species and any other species of concern in the area. A mitigation plan should be developed that seeks to best address threats to these endangered species.
- Provide north-south bike connection from Hillsborough Street to Athens Drive.
- Acquire parcels adjacent to the Western Blvd. extension area for affordable housing and new public park spaces. Partner with the private sector for both funding and interim purchase opportunities before public money is secured.

PLANNING AND DEVELOPMENT

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