1 INTRODUCTION

A foundational step in the Alternatives Analysis process is the Existing Conditions Report, which provides a detailed assessment of Charleston Boulevard's current transportation, land use, environmental, and socioeconomic conditions. This report compiles both qualitative and quantitative data to identify key challenges and opportunities that will shape the development of High-Capacity Transit alternatives. By establishing a clear understanding of existing conditions, this analysis ensures that proposed transit improvements are responsive to corridor needs and aligned with broader regional goals. The findings will directly inform the evaluation of alternatives and guide the selection of a Locally Preferred Alternative (LPA) that best serves Charleston Boulevard and the communities along it.

PROJECT CONTEXT

The Charleston Boulevard Alternatives Analysis (Charleston AA) is a critical step in advancing High-Capacity Transit (HCT) in the Las Vegas Valley. Led by the Regional Transportation Commission of Southern Nevada (RTC) in partnership with the City of Las Vegas, this study will determine the most effective way to develop HCT along Charleston Boulevard—one of RTC's highest ridership corridors and a key east-west connection in the region.

Charleston Boulevard today is a major arterial designed primarily for vehicle travel, with six travel lanes that convey vehicles but can create barriers for pedestrians, cyclists, and transit users. The corridor experiences a relatively high rate of crashes, and its current transit service—Route 206—operates at an average speed of just 12.4 mph. Despite these challenges, Charleston Boulevard has strong existing transit demand and a land use mix that supports transit-oriented development (TOD). The Charleston AA will evaluate various alternatives for implementing HCT, ultimately identifying a Locally Preferred Alternative (LPA) that will move forward into environmental review, preliminary engineering, and funding requests. The goal is to create a safer, more efficient corridor that improves mobility, enhances transit reliability, and supports economic development.

Over the past decade, multiple regional transportation studies have recommended upgrading transit service along Charleston Boulevard to HCT. The RTC's 2020 On Board Mobility Plan identified HCT as a key strategy for accommodating the growth in the region, improving transit speeds and reliability, catalyzing development, and improving corridor safety. One of the plan's eight "Big Moves" specifically called for an expanded HCT system, highlighting Charleston Boulevard as one of the region's highest-priority corridors for light rail or Bus Rapid Transit (BRT).

As RTC refines its implementation strategy to reflect post-pandemic conditions and potential funding availability, HCT remains the top priority for investment, with Charleston Boulevard continuing to be one of the region's most promising corridors. The Charleston AA builds on this foundation, advancing a vision for enhanced transit and multimodal improvements that will benefit residents, businesses, and visitors alike.

REPORT OUTLINE

This report is comprised of eight chapters:

Chapter 1 – Introduction: Introduces report context, the purpose of the report, and describes the study area.

Chapter 2 – Plan and Policy Review: Key findings from existing transportation and land use plans, upcoming projects, transportation policies, and other studies which inform potential future rapid transit in the study area.

Chapter 3 – Land-Use Assessment: Assesses current and future land uses in the study area, with a special focus on transit-oriented development.

Chapter 4 – Real Estate Market Analysis: Highlights relevant aspects of the real estate market and potential for development of different product types in the study area.

Chapter 5 – Transit Network Analysis: Highlights relevant aspects of the transit network and transit performance in the study area.

Chapter 6 – Roadway Conditions: Describes existing relevant right-of-way characteristics, such as roadway widths, access management, and constraints.

Chapter 7 – Transit Market Profile: Describes the underlying demand for transit in the study area.

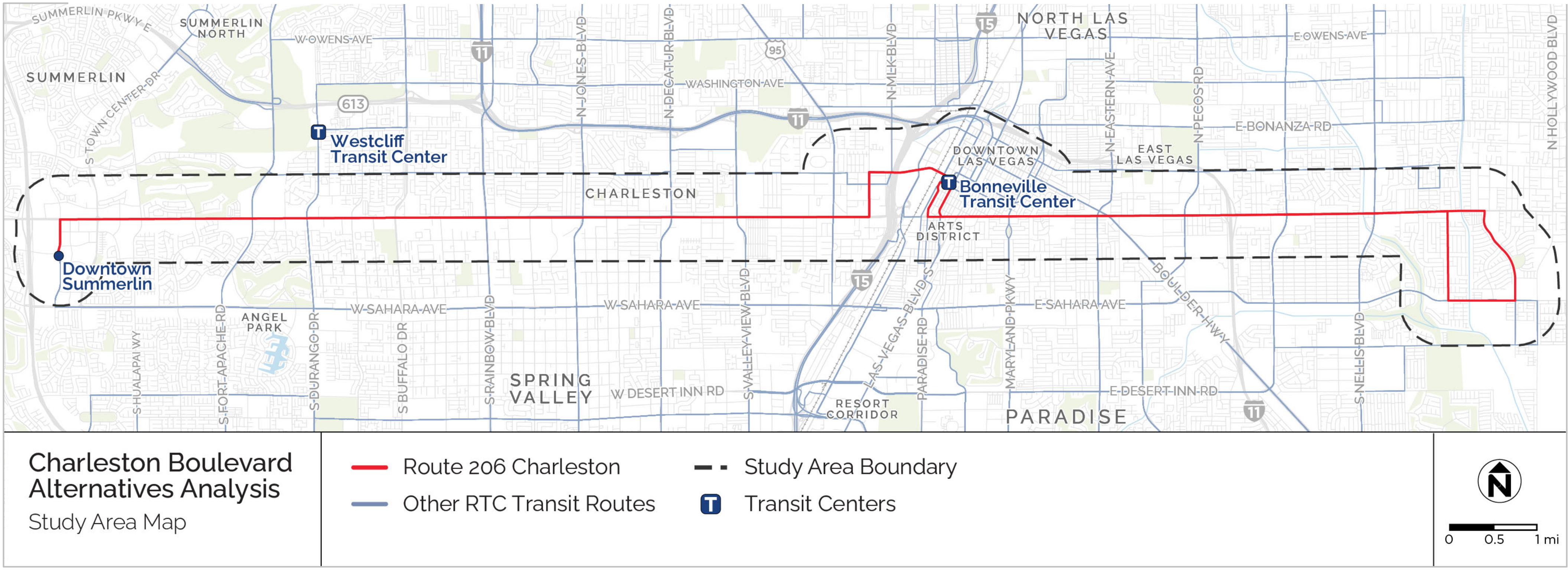
Chapter 8 – Environmental Analysis: Identifies the major environmental features in the study area that should be considered as part of the AA, with an emphasis on sensitive especially those in the built environment (e.g., heat islands, Environmental Justice (EJ) screening results, health indicators, etc.) that could be mitigated by the project. environmental features that will serve as a constraint to the AA and existing and problematic conditions in the study area,

STUDY AREA

Charleston Boulevard is a major arterial roadway in Las Vegas, Nevada, stretching from the western suburbs through the city's core and into its eastern neighborhoods. The corridor features a diverse mix of land uses, including retail centers, restaurants, entertainment venues, and multifamily residential developments. It serves as a key east-west connection for both residents and visitors, providing access to major destinations such as Downtown Las Vegas and the northern end of the Las Vegas Strip. The Study Area is anchored by the frequent, 24-hour Route 206 Charleston which is RTC's third highest ridership route. The Study Area is also served by five other 24-hour routes with frequent service and an additional four routes with 24-hour service. Most routes serve RTC's central Bonneville Transit Center, the agency's largest.

The study area for the Charleston Boulevard Alternatives Analysis spans from Tree Line Drive in the east to Downtown Summerlin in the west. It includes a half-mile buffer around RTC's existing Route 206 and extends to incorporate a half-mile buffer of the planned Maryland Parkway BRT service north of Charleston Boulevard. Figure 1 shows a map of the study area.

Figure 1 Charleston Boulevard AA Study Area



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KEY FINDINGS

The Charleston Boulevard Alternatives Analysis study area presents a strong case for investment in high-capacity transit (HCT), supported by robust all-day transit demand, a favorable land use and policy environment, and numerous opportunities to improve safety, accessibility, and multimodal connectivity. Charleston Boulevard already serves as one of RTC's highest-ridership corridors, anchored by the 24-hour Route 206 and intersecting with several frequent and express routes. Ridership is strong throughout the day and week, including in off-peak periods, indicating consistent demand for improved service.

Planning documents across the region—including the Access 2050 and On Board Mobility Plan—identify Charleston Boulevard as a priority corridor for HCT. These plans also call for Complete Streets improvements, transit-oriented development (TOD), and supportive land use changes along the corridor. The study area includes a variety of land uses and housing types, with many essential destinations-- grocery stores, medical facilities, educational institutions, and employment centers—located directly on or near Charleston Boulevard. TOD is not only permitted but actively encouraged through updated zoning regulations, with higher-density housing allowed in many areas, particularly near the Medical District and between Decatur and Valley View Road.

Charleston Boulevard is also a corridor with high equity need. Nearly half of all households in the study area are low-income, with concentrations of zero-vehicle households and high transit propensity on the eastern end and around Downtown. These areas are more likely to depend on reliable, frequent transit and stand to benefit significantly from a well-designed HCT investment. At the same time, the corridor includes areas of strong market demand, especially on the west side, where new development is likely to follow improved transit service. Across the corridor, low vacancy rates indicate there is unmet demand for both residential and commercial space.

Physically, the corridor provides a strong foundation for transit investment. Charleston's existing 100-foot right-of-way allows for dedicated transit lanes and improved pedestrian infrastructure while preserving general vehicle travel lanes. The presence of a continuous median opens the door for center-running HCT options. However, existing infrastructure poses significant challenges for non-motorized users: many intersections have high rates of pedestrian-involved crashes, sidewalks lack ADA accessibility, and safe bicycle facilities are limited or nonexistent. The corridor's 70 signalized intersections also underscore the need for signal coordination and transit priority to ensure competitive travel times for HCT.

The corridor also includes key regional destinations such as the Las Vegas Medical District, College of Southern Nevada, Downtown Summerlin, and Downtown Las Vegas. Several of these destinations will soon be served by the Maryland Parkway BRT, creating an opportunity to integrate HCT corridors and maximize network connectivity.

Environmental conditions along the corridor are generally favorable for HCT development. The corridor is largely built out, reducing the likelihood of major environmental impacts. However, key considerations such as extreme heat, equitable access to stations, potential flooding in the eastern segment, and proximity to sensitive community facilities (schools, parks, healthcare) will be important to study further.

In summary, the Charleston Boulevard corridor demonstrates strong potential for high-capacity transit, with existing demand, favorable land use, and policy momentum all aligning to support investment. Addressing infrastructure gaps, improving safety and comfort, and thoughtfully integrating HCT with existing and planned transit services will be key to ensuring a successful, equitable, and transformative outcome for the corridor and the communities it serves.