DIVISION CONNECTS

PEOPLE. PLACES. PROGRESS.

DivisionConnects Vision and Implementation Strategy

Phase 2 Report

Prepared for

Spokane Regional Transportation Council

July 2022

Prepared by

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ACRONYMS AND ABBREVIATIONS

BAT	business access and transit
BRT	bus rapid transit
City	City of Spokane
County	Spokane County
EmX	Emerald Express
HPT	high performance transit
LOS	level of service
LPA	locally preferred alternative
NSC	North Spokane Corridor
SRTC	Spokane Regional Transportation Council
STA	Spokane Transit Authority
Study	Division Street Corridor Study, also called DivisionConnects
Study area	Division Street Corridor study area
TOD	transit-oriented development
TSP	transit signal priority
US 2	US Highway 2
US 395	US Highway 395
VHD	vehicle hours of delay
VHT	vehicle hours of travel
VMT	vehicle miles traveled
WSDOT	Washington State Department of Transportation

Why DivisionConnects?

DivisionConnects was a collaborative 2-year transportation and land use study led by Spokane Regional Transportation Council (SRTC) and Spokane Transit Authority (STA) in partnership with the City of Spokane, Spokane County, and Washington State Department of Transportation (WSDOT). The study was focused on opportunities and challenges provided to Division Street that come with the planned completion of the North Spokane Corridor (NSC), which will offer a more desirable highway route for the through-traffic that uses Division Street today, and implementation of bus rapid transit (BRT) along Division by STA (see Figure ES-1). With these significant system investments, it is essential to plan for the future and understand potential options for all modes of transportation. DivisionConnects began the first of many community conversations about what the future may look like for the Division Street corridor.

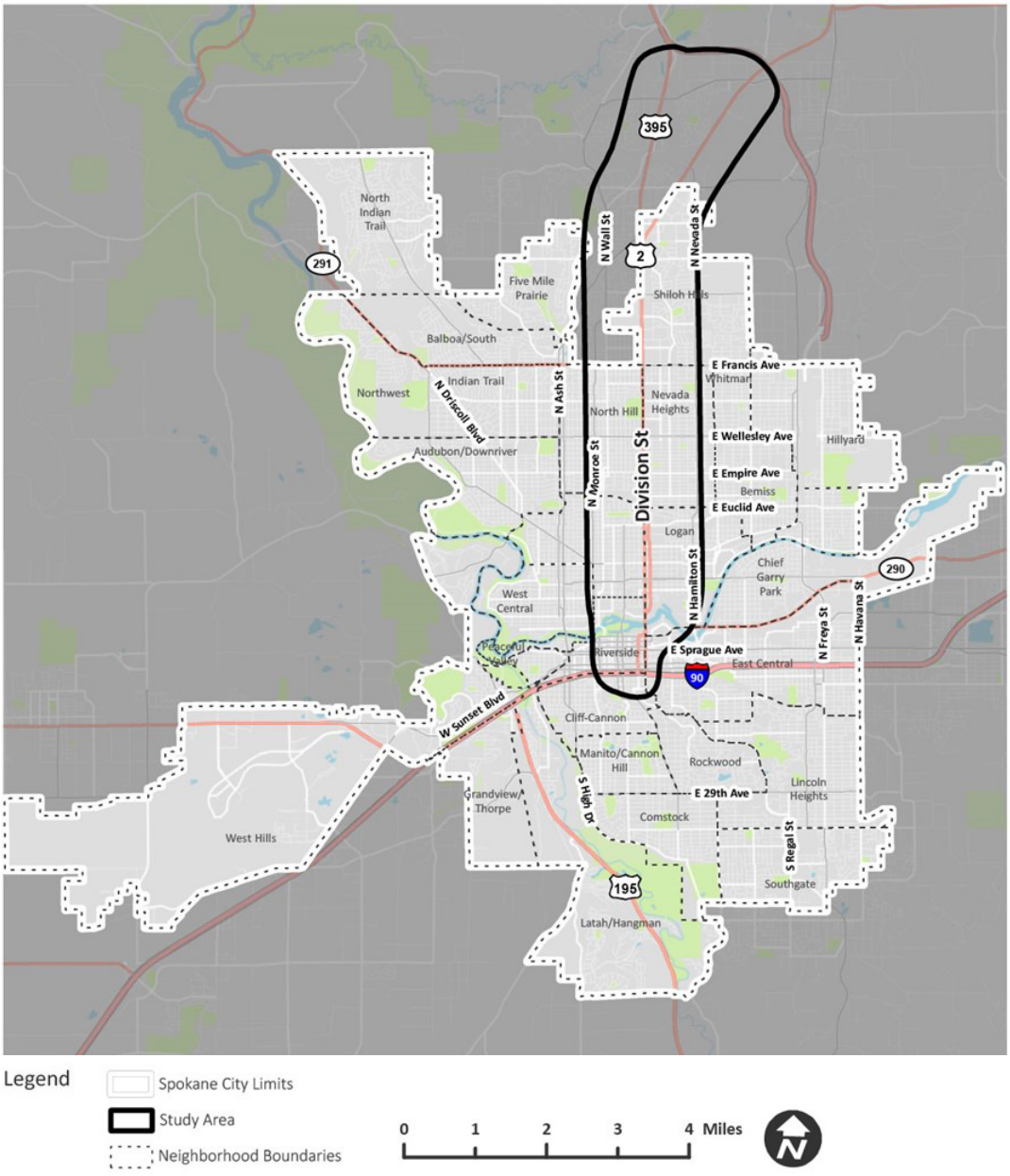


Figure ES-1. DivisionConnects Study Corridor

Current State of the Corridor

Today, the corridor serves local and regional traffic including freight, has the second highest ridership bus route in the system, and provides access from downtown to growing communities on the northern edge of the City of Spokane (City) and into unincorporated Spokane County (County). Within Washington, Division Street is a segment of the state highway system (U.S. Highway 2) that connects the western and eastern regions of the state. The study segment, shown in Figure ES-1, is also concurrent with U.S. Highway 395, which continues north to the Canadian border and south to California. The Division corridor is developed with a diverse mix of land uses, from a dense, urban pattern in the south to more auto-oriented retail in the northern end. The corridor provides access to several neighborhoods on both sides of the roadway, all of which have their own unique character. Although sidewalks are present along much of the corridor, the traffic speeds and volumes often contribute to an uncomfortable environment for people walking and people using scooters and similar devices. Bicycles are prohibited in much of the corridor, and the lack of dedicated bicycle facilities discourages cycling in other parts of the corridor.

A Comprehensive Vision for Improved Mobility

Connect Spokane, STA's vision and policy framework for evolution of the transit network, identifies Division Street as a future high performance transit (HPT) corridor, with specific assumptions for this corridor, including rubber-tired electric-powered vehicles. The first phase of DivisionConnects evaluated options for development of BRT service on Division Street. The conclusion of this effort in Spring 2021, summarized in the DivisionConnects Corridor Development Plan, was the selection of the future roadway cross-sections planned for the corridor, shown in Figure ES-2.

Phase 2 of the DivisionConnects study began in Summer 2021 and examined the opportunities to expand the anticipated benefits resulting from the BRT capital and service investments identified during Phase 1. This effort included evaluation of potential active transportation capital investments that would provide access to the Division corridor as well as areas along the corridor where land use changes might occur to create transit-oriented development (TOD).

What's Next?

This DivisionConnects Vision and Implementation Strategy describes the evaluation processes and findings associated with the land use and active transportation analysis undertaken during DivisionConnects Phase 2. It is meant to serve as a resource for the City of Spokane and Spokane County when evaluating future land use changes that might support the planned BRT service on Division Street. It can also be used by the City, County, STA and WSDOT to incorporate potential transit-supportive active transportation investments in their capital planning efforts, including design efforts for the BRT improvements. Finally, the findings could inform future efforts to secure grant funding for land use or transportation investments.

Mainline
looking north

Couplet: Division
looking north

Couplet: Ruby
looking north

Figure ES-2. Locally Preferred Alternative for Division BRT

1. INTRODUCTION

1.1 Project Purpose and Description

The Division Street Corridor Study (Study), undertaken from December 2019 to May 2022, evaluated the future of transportation along this important corridor in Spokane. The Study, known as DivisionConnects, was undertaken in two phases. Phase 1 focused on examining opportunities and identifying a preferred concept for rubber-tired high performance transit (HPT)[1] in the corridor as identified in the Spokane Transit Authority (STA) Transit Development Plan as bus rapid transit (BRT). Additionally, options for all modes of travel in the corridor were examined, and the project team engaged with the community to take their feedback regarding potential changes to the corridor. Comments received during this phase emphasized additional landscaping and interest in more walkable destinations as desired improvements along the corridor. Phase 2 built on the findings from Phase 1, examining potential land uses and active transportation investments that can support the future BRT service. This phase included evaluation of potential opportunities for transit-oriented development (TOD) along the corridor and the identification of active transportation capital projects that can provide access to the future BRT service, using the locally preferred alternative (LPA) as the foundation for analysis. Community engagement, including online crowd-sourced mapping, neighborhood and agency presentations, online questionnaires and steering committee involvement, was undertaken during Phase 2 to solicit public feedback about potential land use changes and active transportation investments.

> ***Transit-Oriented Development:***[2] *Transit-oriented development, or TOD, includes a mix of commercial, residential, office and entertainment centered around or located near a transit station. Dense, walkable, mixed-use development near transit attracts people and adds to vibrant, connected communities.*
>
> *Successful TOD depends on access and density around the transit station. Convenient access to transit fosters development, while density encourages people to use the transit system. Focusing growth around transit stations capitalizes on public investments in transit and provides many benefits, including:*
>
> - *increased ridership and associated revenue gains for transit systems*
> - *incorporation of public and private sector engagement and investment*
> - *revitalization of neighborhoods*
> - *a larger supply of affordable housing*
> - *economic returns to surrounding landowners and businesses*
> - *congestion relief and associated environmental benefits*
> - *improved safety for pedestrians and cyclists through non-motorized infrastructure*

[1] Connect Spokane, STA's comprehensive plan for public transportation, defines high performance transit as "a network of corridors providing all-day, two-way, reliable, and frequent service which offers competitive speeds to the private automobile and features improved amenities for passengers. The HPT Network defines a system of corridors for heightened and longterm operating and capital investments."

[2] https://www.transit.dot.gov/TOD

The Study was a coordinated effort between the Spokane Regional Transportation Council (SRTC), STA, the City of Spokane (City), Spokane County (County), and the Washington State Department of Transportation (WSDOT). STA, SRTC, and WSDOT provided funding for the project.

Today, the corridor serves local and regional traffic, has the second highest ridership bus route in the system, and provides access along a diverse mix of land uses, from urban downtown Spokane to auto-oriented retail and growing communities on the northern edge of Spokane. With the North Spokane Corridor (NSC) highway project scheduled for completion by 2029, agency partners, businesses, residents, and the broader community anticipate changes to travel patterns on Division Street and are looking to evaluate the future of the corridor. The capital investments that usually accompany the implementation of BRT service generally provide for increased bus travel speeds and greater service reliability. These improvements, paired with added service frequency, have consistently shown to contribute to increases in ridership in transit systems of all sizes. The financial investments that support BRT service also add a greater sense of permanence, as they send a message that the agency is investing in an area and that "bus service is here to stay," similar to how rail service might be viewed.

The direct BRT-related capital improvements can be leveraged to provide even greater ridership gains, expanded mobility options for traditionally transit dependent populations, and more convenient opportunities to use transit rather than single-occupancy vehicles. One way to do so is through the installation of infrastructure for people walking and rolling that provides additional and safer nonmotorized travel routes to access transit service. Increases to the housing, employment, and commercial densities along or near a BRT corridor often provide similar benefits because bus riders are able to access a higher number of goods and services using transit and/or live close to high-quality service.

Phase 2 of the DivisionConnects study examined the opportunities to expand the anticipated benefits resulting from BRT capital and service investments by evaluating potential active transportation capital investments that would provide access to the Division corridor as well as areas along the corridor where land use changes might occur in a TOD pattern.

> ***Active Transportation:***[3] *Active transportation is the use of a human-scale and often human-powered means of travel to get from one place to another; it includes walking, bicycling, using a mobility assistive or adaptive device such as a wheelchair or walker, and using micromobility devices such as electric-assisted e-bikes and e-foot scooters.*

This report summarizes the analysis, findings, and recommendations generated during Phase 2 of the Study. The DivisionConnects Corridor Development Plan, completed in May 2021, summarizes the efforts undertaken during Phase 1. It describes the evaluation process undertaken to identify the Locally Preferred Alternative (LPA) for development of future BRT service on Division Street and describes future steps required to realize the vision contained therein. It also contains an expanded description of the project background and existing conditions that contributed to the analysis for Phase 2. Additional details about existing conditions can be found in the State of the Corridor Report.

[3] Washington State Active Transportation Plan: 2020 and Beyond. Washington State Department of Transportation, 2021. https://wsdot.wa.gov/sites/default/files/2021-12/ATP-2020-and-Beyond.pdf

1.2 Purpose of This Report

This DivisionConnects Vision and Implementation Strategy – Phase 2 Report describes the evaluation processes and findings associated with the land use and active transportation analysis undertaken during DivisionConnects Phase 2. It is meant to serve as a resource for the City of Spokane and Spokane County when evaluating future land use changes that might support the planned BRT service on Division Street. It can also be used by the City, County, STA and WSDOT to incorporate potential transit supportive active transportation investments in their capital planning efforts, including design efforts for the BRT improvements. Finally, the findings could inform future efforts to secure grant funding for land use or transportation investments. Figure 1-1 shows planned partner agency efforts that will build on the findings from DivisionConnects.

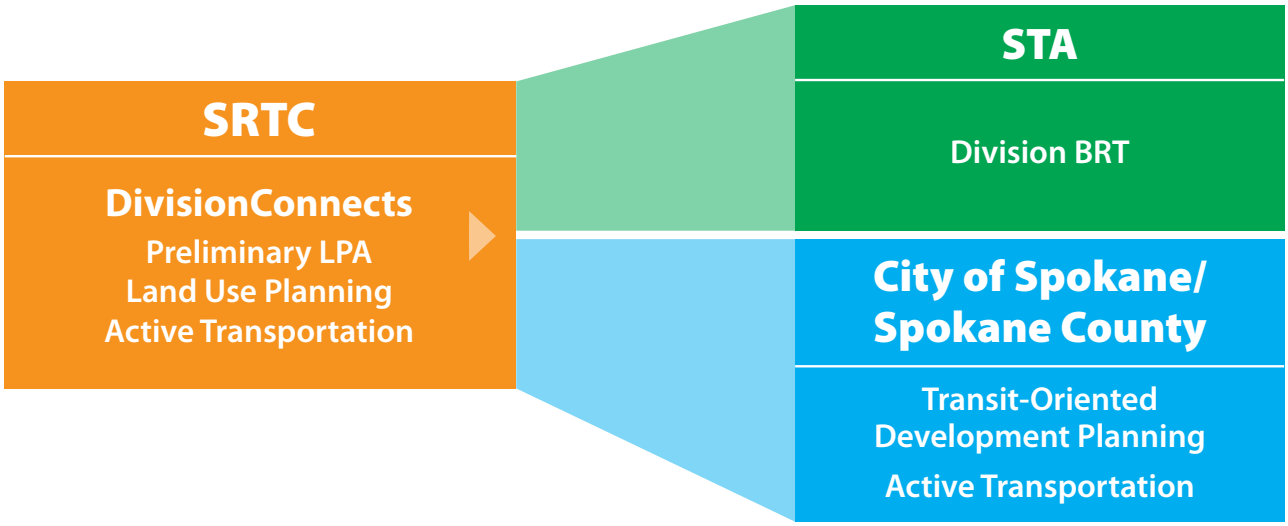


Figure 1-1. Future Agency Projects

2. PROJECT BACKGROUND

2.1 Study Corridor

The Division Street Corridor Study area (Study area) is located along Division Street/U.S. Highway 2 (US 2). It begins in north Spokane County at U.S. Highway 395 (US 395), continues south into the City of Spokane through the intersection of Division Street and Newport Highway (commonly referred to as the "Y"), and terminates in downtown Spokane. The study area roughly follows the current bus Route 25 alignment from the Hastings Park and Ride to the STA Plaza. The highway is a National Highway of Significance and a State Highway of Significance. It is a WSDOT-designated T-2 freight corridor (4 million to 10 million tons moved annually) from Interstate 90 to the Y and a T-3 freight corridor (300,000 to 4 million tons moved annually) north of the Y.

The study area, shown in Figure 2-1, includes the area within 0.75 mile of either side of Division Street, which encompasses Hamilton Street to the east and Monroe Street to the west. In the southern section of the study area, Division Street and Ruby Street are parallel, one-way streets forming a couplet from River Drive to Cleveland Avenue. The study area was defined to be purposely broad to understand the function, role, and interactions of adjacent streets, highways, land uses, and community character.

2.2 The North Spokane Corridor

The DivisionConnects study was initiated, in part, to address the anticipated changes to traffic on Division Street upon completion of the NSC. Located approximately 2.3 miles east of Division Street and scheduled for completion in 2029, the NSC will be a new WSDOT limited-access highway running approximately parallel to Division Street. Once completed, it will become the primary north-south route between north Spokane and Interstate 90. The study's technical analysis and travel demand modeling assumed future completion of the NSC.

2.3 Division BRT Locally Preferred Alternative

Upon completion of all public engagement efforts during Phase 1 of the study, a draft recommendation was formulated for an LPA for BRT in the Division Street corridor. It reflected the cross-sections shown in Figure 2-2 and includes the elements described in Table 2-1.

The draft LPA was presented to the STA Planning and Development Committee on March 3, 2021, and was subject to a public hearing before the STA Board of Directors on March 18, 2021. No members of the public testified at the public hearing; however, it was noted by project staff that public input received to date had been generally supportive of the project, and the draft LPA reflected the elements that were noted as favorable by the public. The STA Planning and Development Committee recommended adoption of the draft LPA as the final LPA by resolution on March 5, 2021, and was subsequently adopted by the STA Board of Directors on April 15, 2021.

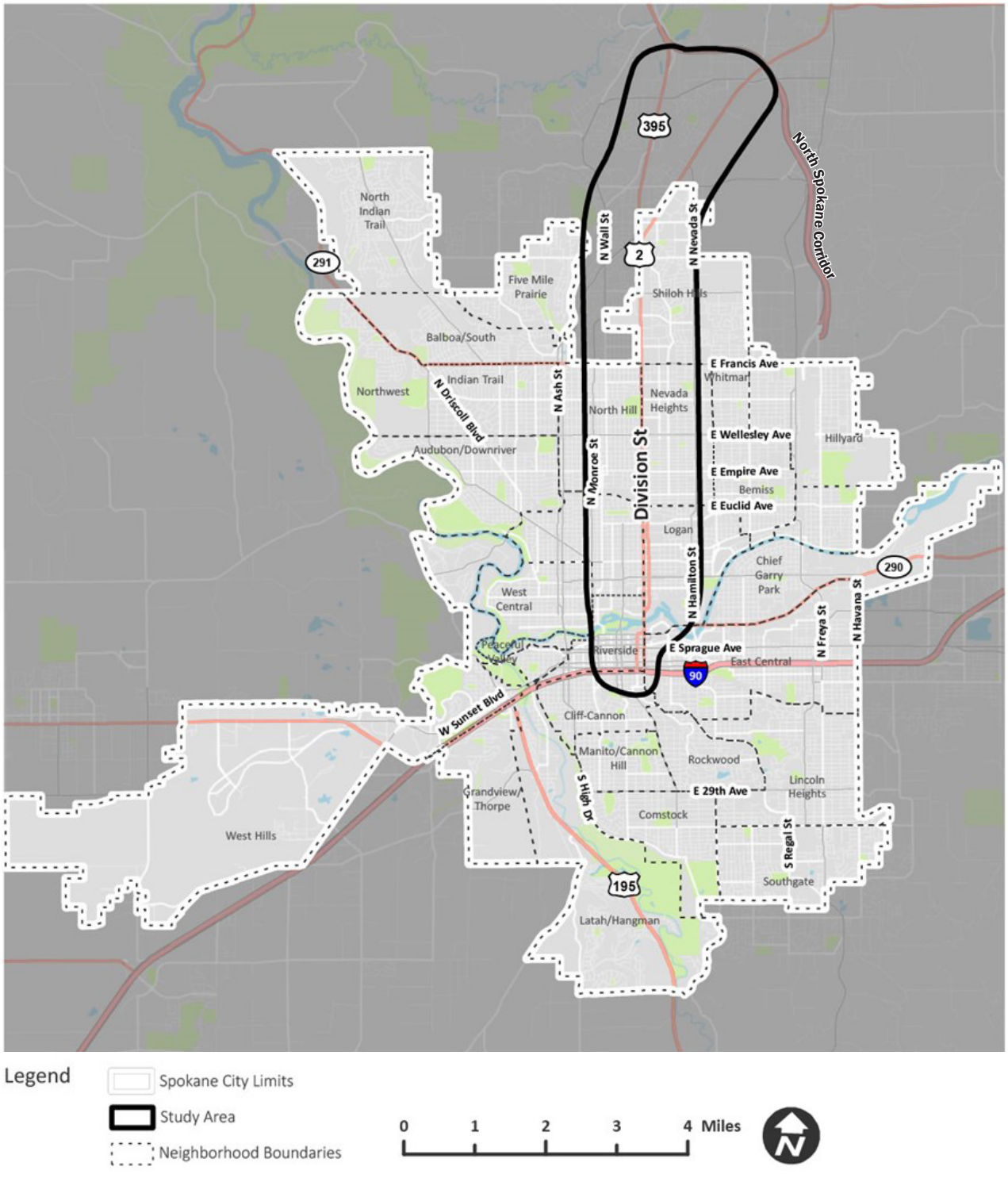
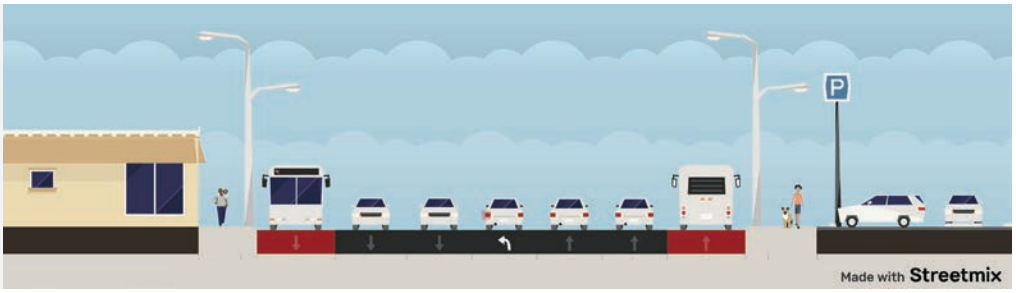


Figure 2-1. Division Street Corridor Study Area

Mainline
looking north



Couplet: Division
looking north

Couplet: Ruby
looking north

Figure 2-2. Locally Preferred Alternative for Division BRT

Table 2-1. Locally Preferred Alternative for the Division Street Corridor

ELEMENT	DESCRIPTION
Mode	Fixed guideway BRT using zero-emission 60' buses[a]
Service Level	Weekdays: 10-minute frequency or better Nights and Weekends: 15-minute frequency during most hours of the span
Northern Termini	Short-term: Current Route 25 to Hastings Park and Ride Long-term: New transit center at Farwell and US2
Southern Termini	Spokane Central Business District near the STA Plaza
Alignment	Downtown: To be refined in Preliminary Engineering Couplet: Right-side along Ruby Street and Division Street Mainline: Right-side along Division Street North of "Y:" Short- and long-term phased approach
Station Locations	Major intersections and destinations. All stations will meet ADA accessibility requirements
System Operations	Operating techniques for speed and reliability, such as Transit Signal Priority (TSP), all-door boarding, and near-level platforms
Lane Configuration	Side-running, dedicated BAT lanes for a majority of the alignment, primarily between North River Drive and the "Y"
Other Multimodal Treatments	Protected bicycle facilities, including cycle tracks where practicable, along Ruby Street with pedestrian, ADA, and bicycle improvements throughout the corridor

[a] As defined, the LPA is expected to qualify as a "fixed guideway BRT" under current federal law and FTA policy guidance. The current definition of fixed guideway BRT includes the following elements according to the Final Interim Policy Guidance for the FTA Capital Investment Grant Program, dated June 2016:

1. Over 50 percent of the route must operate in a separated right-of-way dedicated for transit use during peak periods. Other traffic can make turning movements through the separated right-of-way.
2. The route must have defined stations that are accessible for persons with disabilities, offer shelter from the weather, and provide information on schedules and routes.
3. The route must provide faster passenger travel times through congested intersections by using active signal priority in separated guideway, and either queue-jump lanes or active signal priority in non-separated guideway.
4. The route must provide short headway, bidirectional service for at least a fourteen-hour span of service on weekdays and a ten-hour span of service on weekends. Short headway service on weekdays consists of either (a) fifteen-minute maximum headways throughout the day, or (b) ten-minute maximum headways during peak periods and twenty-minute maximum headways at all other times. Short headway service on weekends consists of thirty-minute maximum headways for at least ten hours a day.
5. The provider must apply a separate and consistent brand identity to stations and vehicles.

2.4 Existing Conditions

2.4.1 Transit Service

STA provides frequent bus service in the study area with Route 25 Division (Route 25). Service is provided from 5:00 a.m. to midnight on weekdays and Saturdays and from 7:30 a.m. to 8:30 p.m. on Sundays.

Route 25 begins at the Hastings Park and Ride in the north and terminates in downtown Spokane at the STA Plaza in the south. This route is just over 9 miles long and intersects with several other bus routes along its length, including all frequent routes in STA's network. Key transfer locations to other bus services are located at:

- The Hastings Park and Ride (Routes 124/662)
- Hawthorne Road/Newport Highway (Route 28)
- Francis Avenue (Route 27)
- Wellesley Avenue (Route 33)
- Indiana Avenue (Route 27)
- Mission Avenue (Route 39)
- Spokane Falls Boulevard (Routes 26, 28, and 29)
- Downtown Spokane/The Plaza (multiple)

2.4.2 Active Transportation

This environment on Division Street is influenced by sidewalks directly adjacent to high traffic volumes, wide road widths, and high speeds creating a difficult environment for pedestrians to navigate. Generally, most of Division Street has sidewalks present. Sidewalks are present on at least one side of most other streets in the study area. The sidewalk network in the study area is largely complete within the City of Spokane, with more network gaps in unincorporated Spokane County. A majority of the corridor north of the Spokane River is characterized by frequent driveways and long distances between marked crosswalks, creating an uncomfortable environment for people walking. This environment on Division Street is influenced by high traffic volumes, high speeds, and the proximity of curbside sidewalks to traffic. Downtown Spokane is walkable, with wide sidewalks.

Bicycle lanes are not present on Division Street in any part of the study corridor. From the couplet to the Y, this portion of the state highway is closed to bicycles by WSDOT. People on bicycles must currently walk them on the Division Street sidewalks to access corridor destinations, experiencing the same sidewalk challenges discussed above. Parallel streets, such as Howard, Wall, and Addison, have bicycle lanes or shared roadway designations that provide north-south connections for people on bicycles in the Study area, though most of these are 0.33 to 0.5 mile away from Division Street. There are no bicycle facilities on the Division Street bridge crossing the Spokane River, and riders must use off-street bridges to the east or west or ride on the sidewalk of the bridge. Downtown Spokane has some dedicated cycling facilities.

There are several designated shared roadways in the corridor as well, including Empire Avenue, North Foothills Drive, and Mission Avenue, which provide east-west connections for people on bicycles. However, these roadways exhibit high traffic volumes and speeds and are not comfortable as a shared facility for people of all ages and abilities. Additionally, the lack of dedicated facilities on Division Street presents a challenge for east-west travel, as it can be a difficult street for people on bicycles to cross. North-south cycling routes parallel to Division Street are generally complete but are multiple blocks away, limiting comfortable and direct access to businesses, transit, and residences along the corridor. Figure 2-3 displays existing bicycle facilities along the Division Corridor.

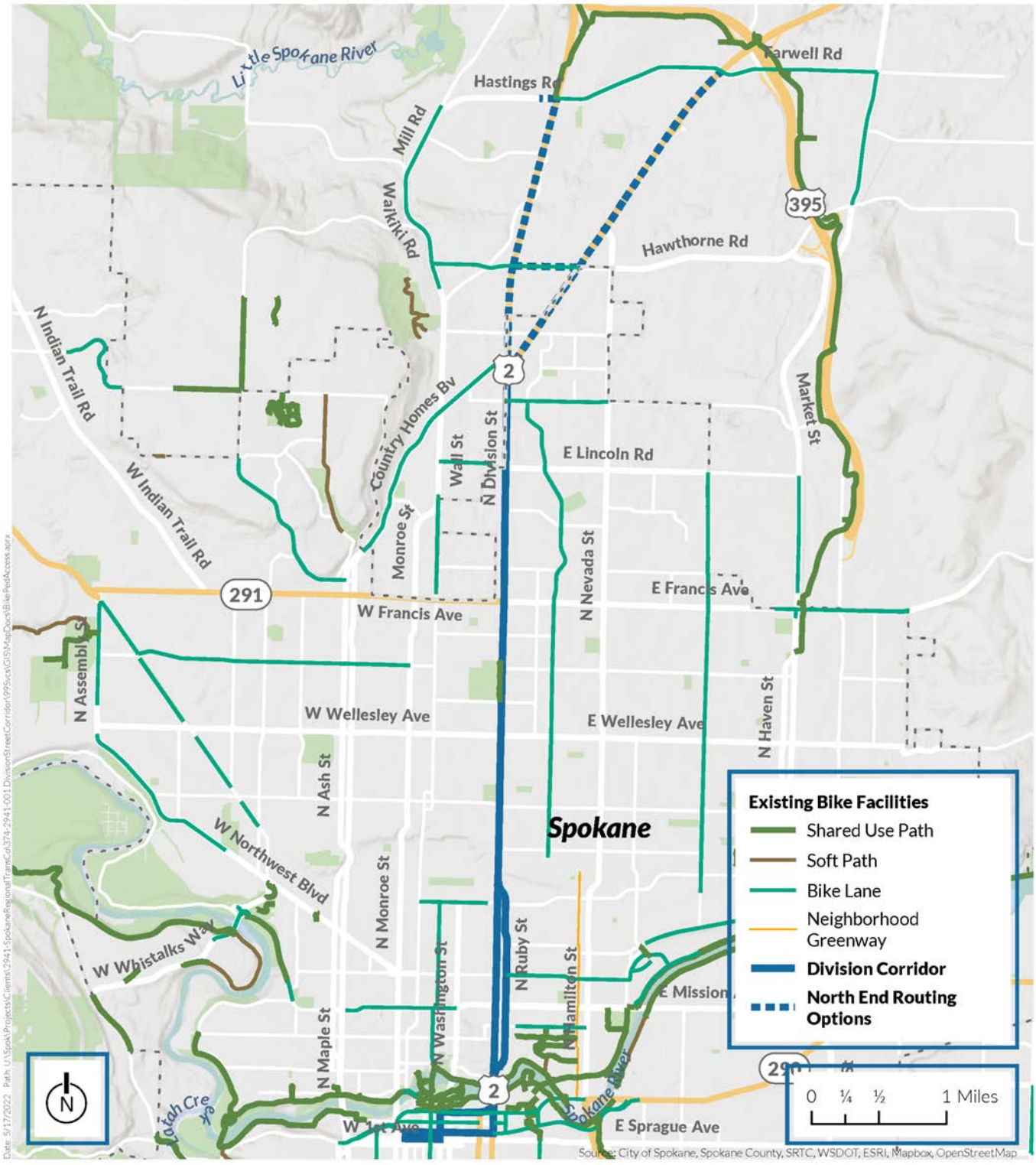


Figure 2-3. Existing Bicycle Facilities Along the Division Corridor

2.4.3 Safety

As with many principal arterials, crashes along the Division corridor frequently occur at intersections. Rear-end crashes, which tend to happen at intersections, comprised 38 percent of total crash types along the Division corridor[6] from 2017 to 2021. Crashes associated with vehicles entering at an angle, which can be from a driveway or intersection, are also frequent. With high speeds and volumes, these patterns are typical for a large urban principal arterial.

Between 2017 and 2021, there were more than 2,000 crashes recorded, of which 46 involved severe injuries or fatalities. Of those 46 crashes involving severe injuries or fatalities, 22 involved a person walking and 3 involved a person riding a bicycle. While crashes involving people walking and biking comprised only 6 percent of all crashes along the Division corridor, they made up over 54 percent of fatal and serious injury crashes. Figure 2-5 displays crash severity breakdowns for all crashes, crashes involving people walking, and crashes involving people riding bicycles.

The number of crashes per year remained relatively consistent over the period of 2017 to 2021, with the total number of crashes peaking in 2019 (461 crashes) and fatal and serious injury crashes peaking in 2021 (15 crashes).

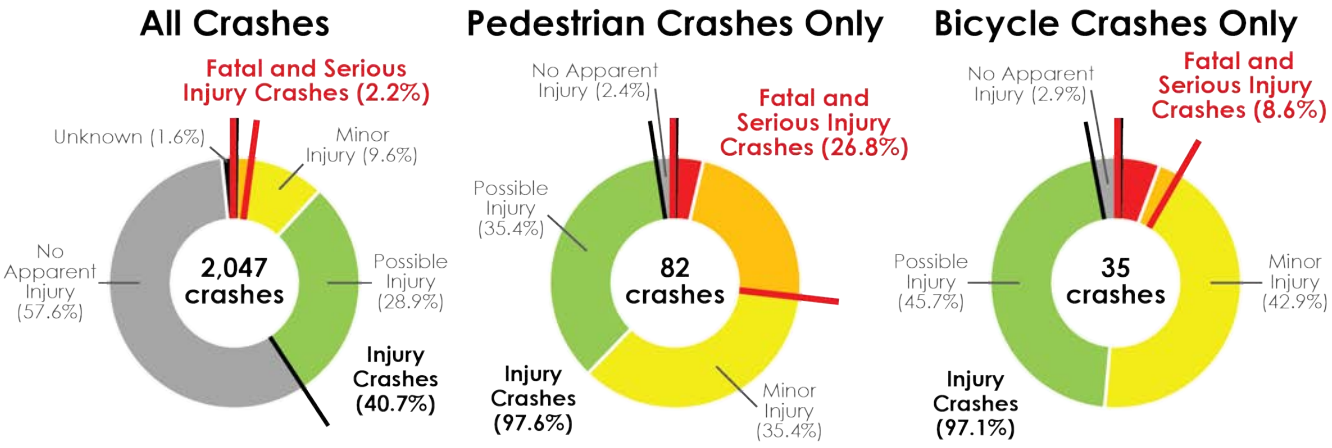


Figure 2-4. Division Street Crash Severity (2017–2021)

[6] For safety analysis purposes, the Division corridor includes N Division St (between the Spokane River and E Hastings Rd), N Newport Hwy (between N Division St and E Farwell Rd), E Hawthorne Rd (between N Division St and N Newport Hwy), and E Hastings Rd (between N Mayfair Rd and N Division St).

2.4.4 Land Use

Land uses in the Study area exhibit an urban to suburban to near-rural gradient from the southern end of the corridor in downtown Spokane north to the intersection with US 395 in unincorporated Spokane County. In general, the southern end of the study area is urban and characterized by a mix of land uses in downtown Spokane. North of the Spokane River, development transitions to more auto-oriented commercial uses. North of Indiana Avenue, Division Street is consistently lined with retail and commercial uses, with small lot single-family homes to the east and west of the corridor. North of Euclid Avenue, land use is characterized by more suburban development, including single-family residential, pockets of multifamily housing, big-box commercial, strip malls, and offices. There are two city parks abutting the west side of Division Street between Garland and Empire Avenues and Francis Avenue: B.A. Clark Park and the larger Franklin Park. Areas further north are characterized by strip malls and big-box retail, many large parking lots, frequent driveway accesses along arterials, and low-density land uses. Figure 2-5 summarizes existing land uses along the corridor.

Figure 2-5. Division Corridor Existing Land Uses

3. PUBLIC AND STAKEHOLDER ENGAGEMENT

Public engagement was undertaken with a variety of groups during various stages of the project. The process to solicit feedback was deliberately structured to ensure a broad cross-section of input from stakeholders of all types. Public involvement for the study pivoted to exclusive use of virtual strategies as social distancing was mandated for most of 2020 and 2021 because of the COVID-19 pandemic.

3.1 Advisory Committees

3.1.1 Steering Committee

A Steering Committee, composed of elected officials and leadership representing the project sponsors, was established at the beginning of the DivisionConnects study. The role of committee members was to identify areas of concern and provide insight and feedback as the study progressed. They were also responsible for providing recommendations on milestone decisions associated with the project and reporting back to their respective constituencies, including the STA and SRTC Boards. Membership on the committee included:

- Commissioner Al French – Spokane County
- Councilmember Kate Burke – City of Spokane (term ended prior to completion of the Study)
- Councilmember Candace Mumm – City of Spokane (term ended prior to completion of the Study)
- Councilmember Karen Stratton – City of Spokane (committee participation began in March 2022)
- Councilmember Tim Hattenburg – City of Spokane Valley
- E. Susan Meyer – CEO, STA
- Mike Gribner – Regional Administrator, WSDOT Eastern Region

3.1.2 Agency Team

An Agency Team was established to provide technical guidance to the SRTC and STA project managers and consultant team. Team members were tasked with providing feedback on study deliverables and public outreach strategies and helping to coordinate on the study process and schedule. The Agency Team was composed of technical staff from the project partners. The team as a whole typically met on the first Thursday of each month during the study process. A subset of agency team members participated in weekly check-in meetings throughout Phase 2 of the study. Representatives of the Agency Team included:

- Char Kay – WSDOT Eastern Region Planning and Strategic Community Partnerships Director
- Greg Figg – WSDOT Eastern Region Development Services Manager
- Bonnie Gow – WSDOT Eastern Region Senior Transportation Planning Specialist (retired prior to completion of the study)
- Louis Meuler – City of Spokane, Interim Director, Planning Services (left the City of Spokane February 2022)
- Spencer Gardner – City of Spokane, Director, Planning Services (joined the City of Spokane March 2022)
- Tirrell Black – City of Spokane, Principal Planner
- Kara Mowery-Frashefski – City of Spokane, Assistant Planner (left the City of Spokane May 2022)
- Amanda Beck, City of Spokane, Assistant Planner II
- Tyler Kimbrell, City of Spokane, Associate Planner
- Inga Note – City of Spokane Integrated Capital Management, Senior Traffic Planning Engineer
- Colin Quinn-Hurst – City of Spokane, Assistant Planner
- Kevin Picanco – City of Spokane Integrated Capital Management, Senior Engineer
- Shauna Harshman – City Council Manager of Neighborhood Connectivity Initiatives
- Barry Greene – Spokane County Public Works, Transportation/Development Services Engineer
- Jami Hayes – Spokane County Public Works, Senior Project Manager

3.2 Outreach and Engagement Activities

3.2.1 Project Website

At the study's onset, a website was established to be the primary portal for distributing online information about the project. Hosted by SRTC, the DivisionConnects.org website provided information, such as the purpose of the project, opportunities for public involvement, and links to online engagement activities. It included a link to the schedule, completed project documents, contact information for the project manager, and names of the study partners.

3.2.2 Land Use Questionnaire (Web Map Based)

The project team solicited public input regarding the land use analysis (see Chapter 5) via an interactive web map and survey. The web map described the project background and purpose and solicited public feedback associated with potential changes to land uses along the corridor. Participants were presented with 11 nodes and asked where they would most like to see land use changes over time. They were also asked to select the type of land use changes they would like to see, how they use the corridor, and where they live by zip code. Opened on October 26, 2021, the web map and survey closed on December 24, 2021, with 237 total respondents.

Key takeaways in response to direct survey questions included the following:

- Of the 11 nodes, Northtown, Foothills, Empire/Garland, and Ruby-North Bank were identified as the areas where survey participants most want to see land use changes.
- A more walkable/pedestrian friendly environment and more trees and landscaping were the most preferred types of corridor changes.
- Participants identified that they most used Division Street as a route to get other places, a location where they shop or dine out, or frequent services.
- About 20 percent of the respondents indicated they live in the study corridor.

In addition to the direct questions, participants were provided the opportunity to submit open-ended comments and express their opinions about the potential for land use changes in the study area. Feedback ranged across a variety of topics and concerns, including the following:

- The importance of making the area safe and friendly for all ages and abilities
- Awareness of the potential impacts of gentrification, as the area is currently affordable, provides access to services, and serves as a transition space between commercial and residential
- A desire for additional affordable housing and more mixed uses along the corridor
- A desire for no change and retention of existing neighborhoods as they are
- Recognition that TOD can present benefits for residents of new developments as well as existing residents who can patronize new services, contributing to an improvement to quality of life
- Concerns about changes to land uses and transportation infrastructure that will increase congestion
- Establishing mixed uses in the nodes is important, as this can contribute to affordability, environmental sustainability, and a greater sense of place
- Interest in increased landscaping, trees, art, street décor, and active public spaces
- A desire for more vibrancy and a greater sense of personal safety along the corridor, including when using transit
- Consideration of weather and climate when examining transportation infrastructure changes

- Removal or redevelopment of parking lots or a desire for no additional parking along the corridor
- Concerns about the viability of efficient transit use based on the City's layout

The feedback from the survey was used by the project team to refine the node boundaries and inform development of the land use node information sheets (See Section 5.3). The complete survey results are provided in Appendix A.

3.2.3 Active Transportation Questionnaire (Social Pinpoint)

Social Pinpoint, a web-based community engagement tool, was used by the project team to solicit input from community members regarding potential improvements for people walking and rolling in the study area. The site was active from November 24 through December 31, 2021. As with the land use survey, the website provided a description of the project background and purpose. It identified a set of potential active transportation projects for consideration and asked participants to identify their highest priority locations for improvements. Participants were also able to drop a "pin" on a map location and provide a comment associated with that pin. Approximately 50 people provided feedback, both in response to the projects identified as well as other suggestions. Comments received emphasized the importance of safety for all users, particularly people walking or on bicycles. Of the 35 projects presented to participants, the top 10 preferred improvements were focused on bicycle facilities and roadway crossings. These results are shown in Figure 3-1.

The project team used the feedback provided by participants to inform selection of the active transportation projects that were advanced for conceptual design (See Section 4.5).

Appendix B provides a summary of the responses received through the Active Transportation Social Pinpoint site.

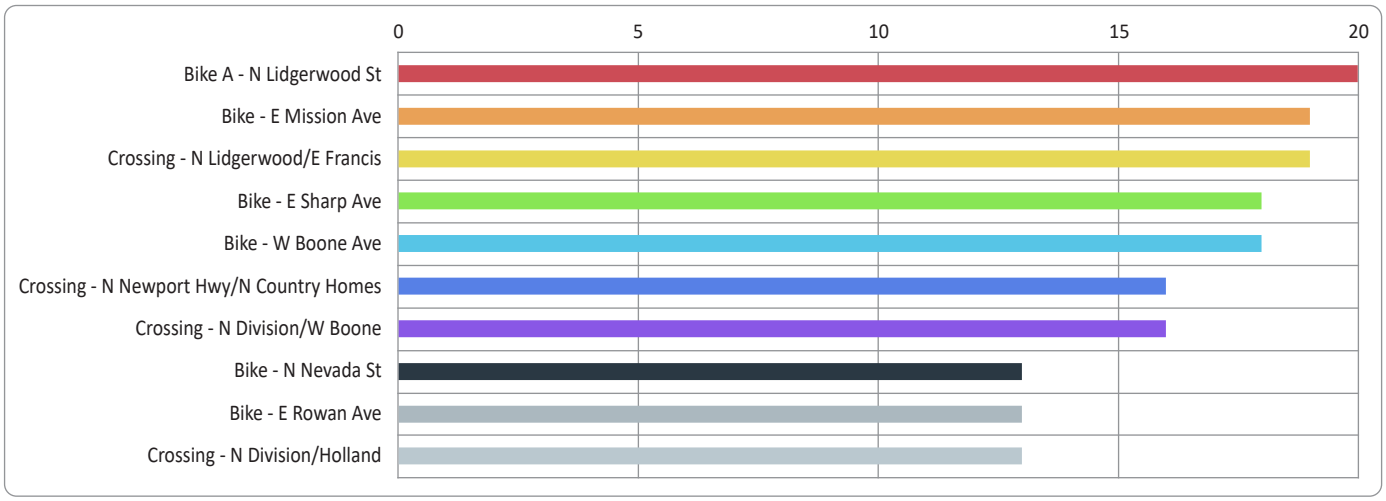


Figure 3-1. Ten Most Preferred Active Transportation Improvements

3.2.4 Additional Community Outreach

SRTC provided information about DivisionConnects Phase 2 at several community events including:

- The Spokane Bike Swap, June 2021 and April 2022
- Unity in the Community, August 2021
- Felts Field Neighbor Day, September 2021

Spokane Neighborhood Council outreach occurred a few times during Phase 2 via email and in-person updates. Information was distributed to the Community Assembly (monthly meeting of all the City of Spokane Neighborhood Councils) in November 2021.

Finally, the DivisionConnects questionnaire information was posted at STA bus stops along Division in December 2021.

3.3 Agency Presentations

3.3.1 City of Spokane Plan Commission

On January 12, 2022, SRTC staff provided a project update to the City of Spokane Plan Commission. The presentation described the study structure and steering committee composition and provided an overview of the project background and Phase 1 outcomes, including the LPA for Division BRT. It focused on the land use planning, transportation planning, and public engagement efforts that form the core of the Phase 2 work for the study.

3.3.2 City of Spokane Bicycle Advisory Board

On December 21, 2021, SRTC staff provided an update on the DivisionConnects study to the City of Spokane Bicycle Advisory Board (BAB). The presentation included an overview of the Phase 1 efforts, including identification of the LPA for Division BRT. Both the land use and active transportation surveys were underway at the time of the presentation. Staff described the feedback being solicited as well as the processes for participation. The BAB was provided with links to public engagement opportunities and additional Study information and a schedule for the project's completion. Staff revisited the BAB at their March 15, 2022 meeting and provided an update on active transportation project recommendations identified through the study process.

3.3.3 SRTC Board and Committees

Throughout the study process, updates were provided to the SRTC Board, Transportation Technical Committee, and Transportation Advisory Committee every few months.

3.4 Development Community and Property Owner Interviews

As part of the outreach and engagement effort, the project team solicited feedback from several persons who own, manage, and/or develop property along the corridor. Fifteen individuals were contacted and four responded and participated in one-on-one interviews. Participants were selected for interviews based on their participation during Phase 1 as well as through recommendations from Steering Committee members and other stakeholders.

At each interview, members of the project team presented an overview of the DivisionConnects study purpose, background, process, and preferred alternative for BRT. Participants were asked for their thoughts and perspectives associated with the benefits or drawbacks of providing BRT service on Division, the potential for BRT to influence future development, and the other factors that could contribute to creation of more TOD along the corridor. Key takeaways from these interviews included:

- The plan to develop BRT improvements was well received and is expected to have a positive impact on properties and development potential
- BAT lanes are perceived as a good option for traffic flow but access to businesses is a concern
- There are currently limited options for riders to access transit and better active transportation options are needed
- Bus service is seen as a benefit along the corridor but is not likely to be a driver that influences development decisions
- Retail uses along the corridor are expected to change over time in response to market forces, such as online shopping
- Some non-retail uses are likely to be developed along the corridor
- There is interest in seeing additional mixed-use development and higher density residential along Division or in the nearby vicinity
- Changes at Northtown Mall will be an influencing factor in that area

A complete summary of the developer community interviews is included in Appendix C.

3.5 Partner Agency Workshops

Three partner agency workshops were held to solicit detailed feedback associated with the land use and active transportation analyses. The first workshop, held on August 12, 2021, was dedicated to identifying the nodes that would be the focus of the land use analysis. Attendees discussed the size and location of nodes, their expected potential for change, and the degrees to which they might change based on existing uses, adopted policies and visions, and known development plans. Notes from this workshop can be found in Appendix D.

A second land use workshop was held on January 6, 2022, building on the direction provided the previous August. The primary objectives for this workshop were to identify nodes for which a more detailed analysis would be prepared and to discuss the assumptions that would be incorporated into the associated travel demand modeling and forecast that would help illustrate the impacts of the potential land use changes. At this workshop, attendees reviewed the public feedback submitted via the questionnaire and discussed unique considerations for each node. They agreed it would be most helpful to have a less detailed analysis for each identified node, rather than a deep evaluation of a subset of them, as this would illustrate the varying potential for change in different areas of the corridor.

The final workshop was held on February 3, 2022. Focused on active transportation, attendees were tasked with determining the active transportation projects for which the project team would prepare conceptual designs and cost estimates. The discussion began with a review of the public comments received from the Social Pinpoint questionnaire, including acknowledgement that a limited number of people provided feedback. Attendees reviewed the projects presented to the public as well as recommendations from the public and modifications to identified projects. Notes from this workshop can be found in Appendix E.

4. ACTIVE TRANSPORTATION PROJECTS

Phase 2 of the DivisionConnects study included an identification of All Ages and Abilities active transportation capital projects that can provide access to the future BRT service, using the Phase 1 LPA as the foundation for analysis. The LPA includes a protected bike facility on the Ruby side of the Division couplet. Phase 2 evaluated parallel and connecting routes for an active transportation network that is mostly off Division Street. Upon completion of the Study, the active transportation recommendations contained in this section will serve as a reference for the City of Spokane and Spokane County when evaluating future changes that might support the planned BRT service on Division Street as well as general mobility for active transportation modes. They can also be used by the City or County to incorporate potential transit supportive active transportation investments in their capital planning efforts. As part of their design efforts for the BRT improvements, STA will evaluate incorporation of active transportation projects into their suite of corridor investments.

4.1 Project Identification Methodology

Potential active transportation projects supporting the implementation of BRT on the Division corridor were first identified through an analysis of gaps in the existing walking and rolling network in the vicinity of the corridor (see Figure 4-1). Facilities comprising the existing walking and rolling network included sidewalks, shared-use paths, bicycle lanes, and neighborhood greenways, excluding roadways with shared-lane markings. The identification of active transportation projects included a further review of partner agency-funded and planned bicycle and pedestrian projects within the vicinity of the Division corridor. State, regional, county, and local plans reviewed included the following:

- State planning documents
  - WSDOT Active Transportation Plan 2020 and Beyond
- Regional planning documents
  - SRTC Horizon 2040 (2018)
  - STA Connect Spokane (2019)
  - STA Moving Forward (2020)
- County planning documents
  - Spokane County Regional Trails Plan (2014)
- City planning documents
  - Shaping Spokane (City of Spokane Comprehensive Plan) (2017)
  - City of Spokane Bicycle Master Plan (2017)
  - City of Spokane Pedestrian Master Plan (2015)
  - City of Spokane Six-Year Capital Improvement Plan (2021)
- Subarea planning documents
  - Mead-Mt. Spokane Transportation Area Plan (2019)
  - Spokane Downtown Plan (2021)
  - Emerson-Garfield Neighborhood Action Plan (2014)
  - Nevada Lidgerwood Neighborhood Plan (2012)
  - North Hill Neighborhood Action Plan (2015)

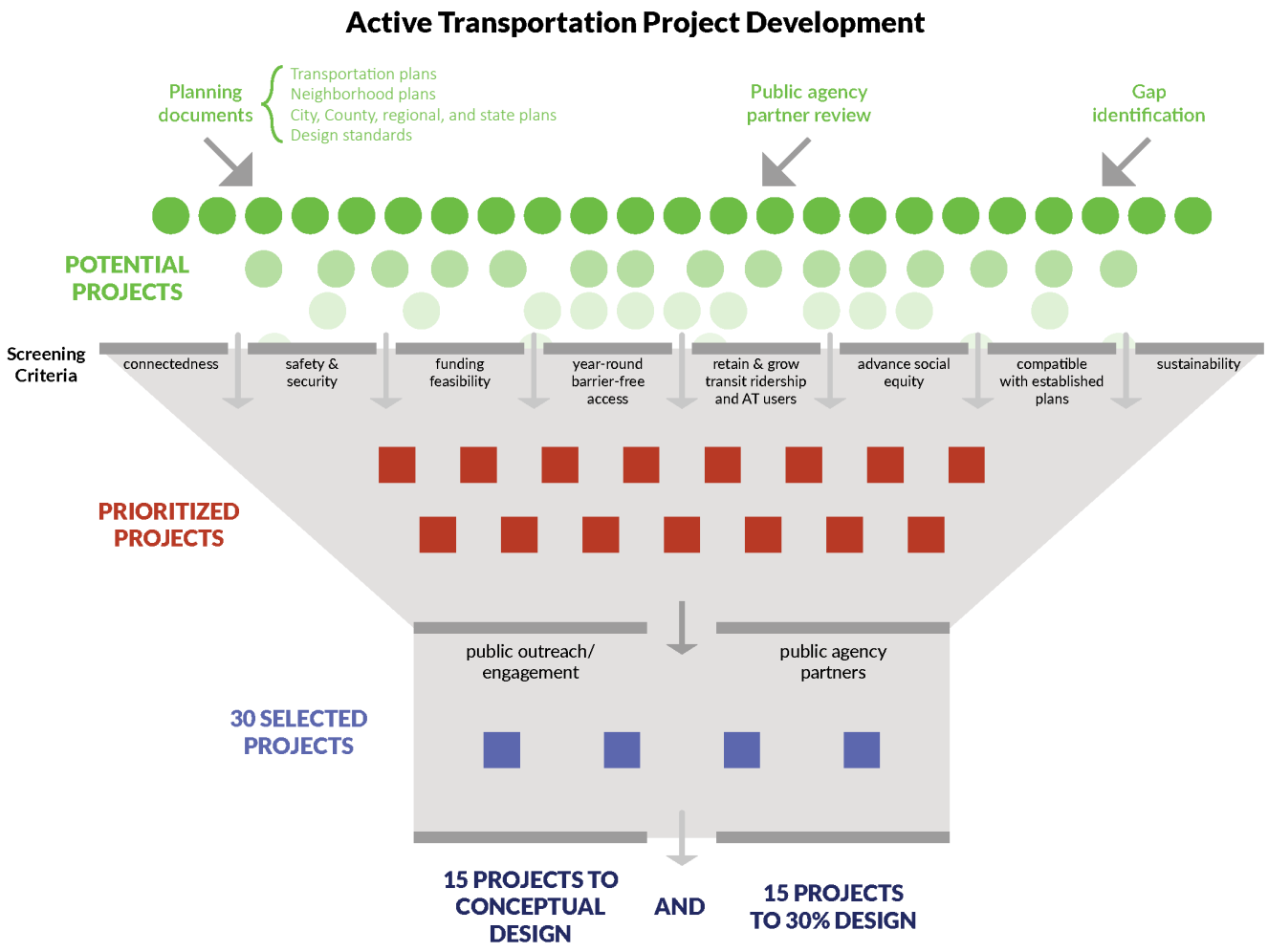


Figure 4-1. Active Transportation Project Development Process

To assist in identifying active transportation projects, the project team worked with the Agency Team to assign two potential nonmotorized routes intended to parallel the Division corridor to the east and west, as shown in Figure 4-2. These parallel nonmotorized route options, the Division BRT route and stations as included in the LPA, and the existing, planned, and funded walking and rolling networks acted as a framework upon which the potential active transportation projects were developed.

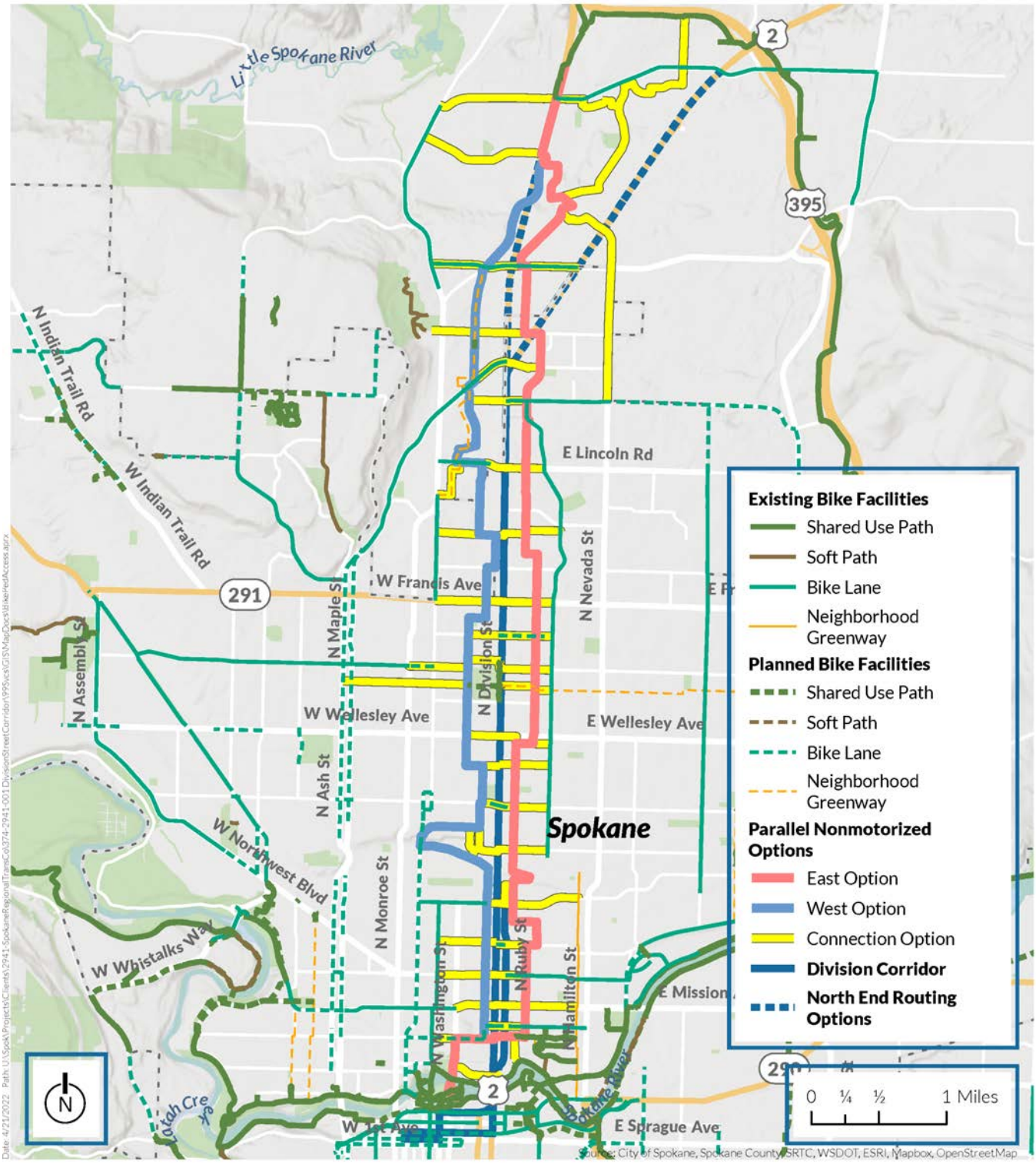


Figure 4-2. Nonmotorized Routes Parallel to the Division Corridor

All Ages and Abilities:[4] *All Ages and Abilities bicycle facilities are:*

- ***Safe***
  - *More people will bicycle when they have safe places to ride*
  - *Better bicycle facilities are directly correlated with increased safety for people walking and driving as well*
- ***Comfortable***
  - *Bikeways that provide comfortable, low-stress bicycling conditions can achieve widespread growth in mode share*
  - *Among adults in the U.S., only 6 to 10 percent of people generally feel comfortable riding in mixed traffic or painted bike lanes*
  - *Nearly two-thirds of the adult population may be interested in riding more often if given better places to ride*
  - *Bikeways that eliminate stress will attract traditionally underrepresented bicyclists, including women, children, and seniors*
- ***Equitable***
  - *High-quality bikeways expand opportunities to ride and encourage safe riding*
  - *Poor or inadequate infrastructure—which has disproportionately impacted low-income communities and communities of color—forces people bicycling to choose between feeling safe and following the rules of the road*
  - *Where street design provides safe places to ride and manages motor vehicle driver behavior, unsafe bicycling decisions decrease, making ordinary riding safer and legal and reaching more riders*

For all roadways and bike facilities, two of the biggest causes of stress are vehicular traffic speed and volume. These factors are inversely related to comfort and safety; even small increases in either factor can quickly increase stress and potentially increase injury risk.

- ***Speed***
  - *High motor vehicle speeds and speeding introduce significant risk to all road users, narrowing driver sight cones, increasing stopping distance, and increasing injury severity and likelihood of fatality when crashes occur (see Figure 2-4)*
  - *Most people are not comfortable riding a bicycle immediately next to motor vehicles driving at speeds over 25 mph*
  - *Conventional bicycle lanes are almost always inadequate to provide an All Ages and Abilities facility in such conditions*
- ***Volume***
  - *When vehicular volumes and speeds are low, most people feel comfortable bicycling in the shared roadway as they are able to maintain steady paths and riding speeds with limited pressure to move over for passing motor vehicles*
  - *As motor vehicle volume increases past 1,000 to 2,000 vehicles per day, most people will only feel comfortable if vehicle speeds are kept below 20 miles per hour*

Creating a network of high-comfort bicycle facilities that meet the All Ages and Abilities criteria requires leveraging the full suite of design, operational, and network strategies to transform streets. Refer to Appendix F for a list of All Ages and Abilities strategies.

[4] Designing for All Ages & Abilities: Contextual Guidance for High-Comfort Bicycle Facilities. National Association of City Transportation Officials, 2017. https://nacto.org/wp-content/uploads/2017/12/NACTO_Designing-for-All-Ages-Abilities.pdf

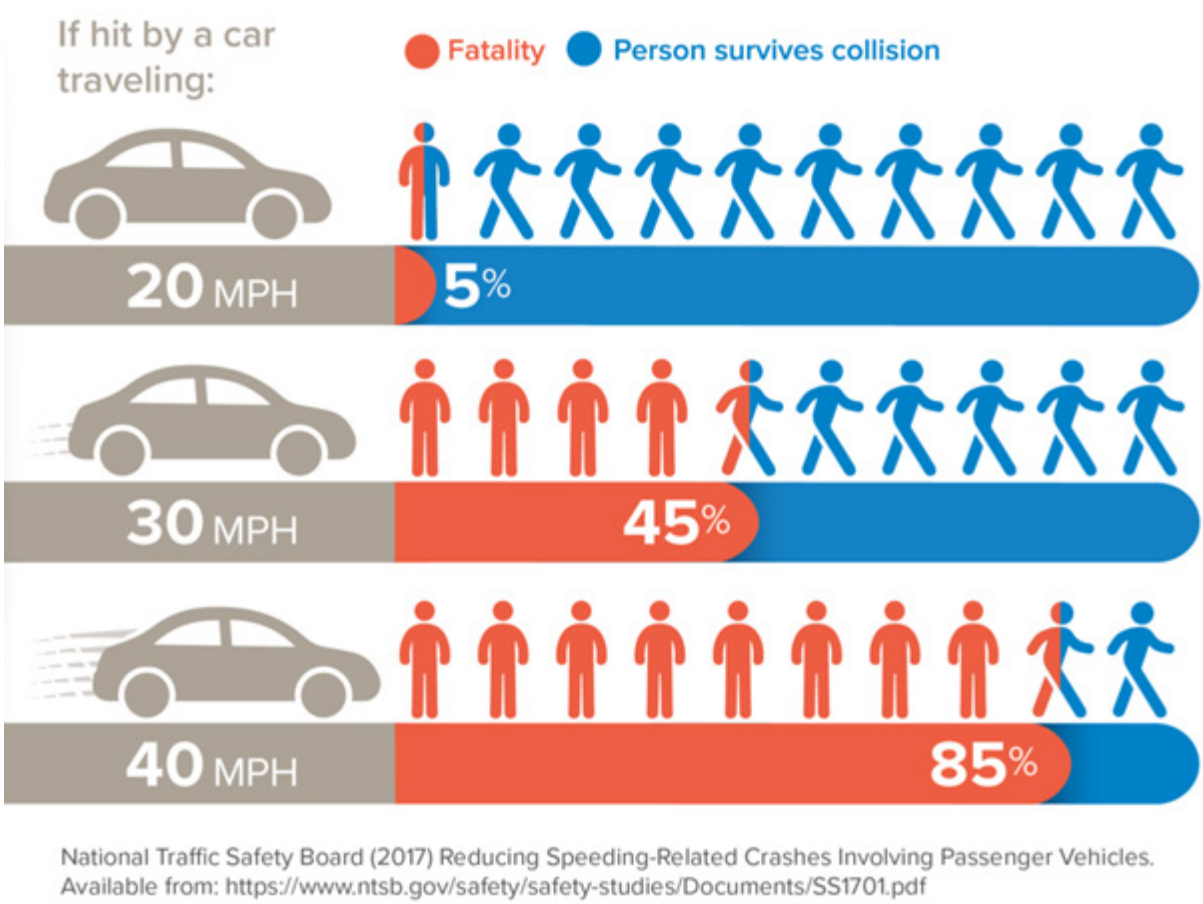


Figure 4-3. Vehicle Speed and Risk of Serious Injury for People Walking and Rolling[5]

[5] Vision Zero San Francisco Two-Year Action Strategy: Eliminating traffic deaths by 2024. Vision Zero San Francisco, 2015. https://viewer.joomag.com/vision-zero-san-francisco/0685197001423594455?short

Gaps in the existing walking and rolling network were placed into three categories using the following assignment criteria:

- Bicycle network gaps
  - Parallel nonmotorized route options along roadways where no bicycle facilities currently exist (excluding shared lane markings)
  - Roadway connections between parallel nonmotorized options, proposed stations included in the LPA, and existing, planned, and funded bicycle facilities

- Pedestrian network gaps
  - Parallel nonmotorized route options along roadways where no sidewalks currently exist
  - Roadway connections between parallel nonmotorized options, proposed stations included in the LPA, and existing, planned, and funded nonmotorized facilities (within 0.5 mile of the Division corridor) where no sidewalks currently exist
  - Roadways intersecting the Division corridor (within one block) where no sidewalks currently exist
  - Sidewalk gaps along the Division corridor LPA

- Roadway crossing gaps
  - Crossings along the Division corridor LPA where conditions could be improved for people walking and rolling
  - Potential locations of new crossings along the Division corridor LPA
  - Crossings along parallel nonmotorized route options where conditions could be improved
  - Crossings along roadway connections between parallel nonmotorized options, proposed stations, and existing, planned, and funded nonmotorized facilities where conditions could be improved
  - Potential locations of new crossings along parallel nonmotorized route options where conditions could be improved
  - Potential locations of new crossings along roadway connections between parallel nonmotorized options, proposed stations, and existing, planned, and funded nonmotorized facilities where conditions could be improved

The analysis of gaps in the walking and rolling network along the Division corridor resulted in the identification of 105 bicycle network gaps, 134 pedestrian network gaps, and 78 roadway crossing gaps. This list of gaps was then reviewed, edited, and confirmed by the Agency Team, culminating in the initial selection of 289 potential projects to be moved forward into further screening and prioritization. A full list of projects can be found in Appendix G.

4.2 Project Selection Criteria

The project team worked with the Agency Team to determine a set of selection criteria that would be used to screen and prioritize the list of projects resulting from the initial analysis of gaps in the Division corridor walking and rolling network. Overall, the selection criteria would focus on eight policy factors and associated outcomes:

- Connectedness
  - Outcome: Implement connected, designated active transportation networks and overcome major physical barriers to active travel
- Safety and Security
  - Outcome: Improve safety and security for active transportation users
- Sustainability
  - Outcome: Integrate economically and environmentally sustainable design practices
- Year-Round Barrier-Free Accessibility
  - Outcome: Expand active transportation access for all users throughout the year
- Retain Existing and Grow New Transit Ridership and Active Transportation Users
  - Outcome: Improve the active transportation environment for existing transit riders and to entice new riders
- Advance Social Equity
  - Outcome: Improve transportation access for riders who experience disproportionate burden in our mobility system and minimize negative impacts to underserved communities
- Compatibility with Established Plans
  - Outcome: Align with existing development and future land use and transportation visions
- Funding Feasibility
  - Outcome: Potential to leverage funding partnerships

Discussions with the Agency Team determined that the Safety and Security criterion was of high importance and would receive additional weighting in the screening process. Active transportation project screening criteria, evaluation measures, scoring methodologies, and data sources are shown in Table 4-1.

Table 4-1. Active Transportation Project Screening Criteria

Policy Factor	Outcome	Evaluation Measure	Scoring Methodology	Data Sources, Methods, References
1. Connectedness	Implement connected, designated active transportation networks and overcome major physical barriers to active travel	1.A. Intersects with other routes, trails, and active transportation facilities, including either north-south or east-west corridors	**Yes:** Project connects two existing walking and/or rolling facilities with a new connection or by upgrading an existing substandard facility **No:** Project does not connect two existing walking and/or rolling facilities	Data Sources: Local and regional existing active transportation facilities
		1.B. Is located near and connected with transit stops	**High:** Connects directly with a transit stop **Medium:** Project is within 0.25 mile walkshed/1.5 mile bikeshed **Low:** Project is within 0.25–0.5 mile walkshed/1.5–3 mile bikeshed	Data Sources: Local and regional existing active transportation facilities LPA identified stops
2. Safety and Security	Improve safety and security for active transportation users	2.A. Provides lower levels of Bicycle Level of Traffic Stress and/or Pedestrian Level of Stress[7]	**High:** Project improves an intersection or street segment with a history of a high number of crashes involving people walking and rolling resulting in serious injuries or fatalities and/or addresses a known or community-identified safety issue. **Medium:** Project improves an intersection or street segment with a history of a moderate number of crashes involving people walking and rolling resulting in serious injuries or fatalities and/or addresses a known or community-identified safety issue. **Low:** Project improves an intersection or street segment with a history of a low number of crashes involving people walking and rolling resulting in serious injuries or fatalities and/or addresses a known or community-identified safety issue. Scoring spectrum based on quantity and severity of crashes addressed by improvement compared to other candidate projects	Data Sources: Local collision data or WSDOT Crash Data Portal Local road safety plans
		2.B. Project is located in a Pedestrian Priority Zone[8]	**Yes:** Project is located in a Pedestrian Priority Zone **No:** Project is not located in a Pedestrian Priority Zone	Data Sources: Roadway characteristics

[7] Bicycle Level of Traffic Stress and Pedestrian Level of Service are ratings given to a road segment or crossing that indicates the level of stress a cyclist or user will experience while using that facility, based on characteristics such as level of separation, traffic volumes, and traffic speeds.

[8] As defined in the City of Spokane Pedestrian Master Plan and methodology applied to Spokane County.

Table 4-1. Active Transportation Project Screening Criteria (continued)

Policy Factor	Outcome	Evaluation Measure	Scoring Methodology	Data Sources, Methods, References
3. Sustainability	Integrate economically and environmentally sustainable design practices	3.A.[9] Has potential to improve environmental conditions through features such as reduced impervious surfaces or enhanced stormwater treatment	**High/Medium/Low:** Project has high/moderate/minimal or no potential to improve environmental conditions	Data Sources: Critical areas maps Project definition City of Spokane Design Standards Spokane County Road Standards Site visits
		3.B. Provides a connection to existing or planned TOD	**High/Medium/Low:** Project has high/moderate/low potential to connect to TOD	Data Sources: Adopted long-range land use plans (Comprehensive Plans, neighborhood plans) Known development projects
		3.C. Is expected to provide an economic return on the infrastructure investment, such as increased commercial activity	**High/Medium/Low:** Project has high/moderate/low potential to provide economic return based on connections to an identified node(s)	Data Sources: Nodes identified through land use analysis
4. Year-Round Barrier-Free Accessibility	Expand active transportation access for all users throughout the year	4.A. Avoids locations with steep grades	**High:** Project is located on a grade ranging from 0 to 5 percent **Medium:** Project is located on a grade ranging from 5 to 8 percent **Low:** Project is located on a grade that exceeds 8 percent	Data Sources: GIS topographic maps
		4.B. Addresses a substantial travel barrier, such as missing connection to transit, reducing distance between signalized crossings, sidewalk gaps, bicycle network gap, extending or improving the street grid, or reducing required travel distances	**High:** Addresses substantial barrier that allows for a new access opportunity **Medium:** Addresses a travel barrier that hinders access **Low:** Does not address substantial travel barrier	Data Sources: Local and regional existing active transportation facilities
5. Retain Existing and Grow New Transit Ridership and Active Transportation Users	Improve the active transportation environment for existing transit riders and to entice new riders	5.A. Connects stations and residential or employment centers and/or trip-generating land uses (schools, commercial centers, or major institutions)	**High:** Project connects to at least 10 businesses AND at least one business with over 100 employees **Medium:** Project connects to at least 10 businesses OR at least one business with over 100 employees **Low:** Project connects to fewer than 10 businesses AND no businesses with over 100 employees	Data Sources: U.S. Census data, local land use plans, or destinations Tax assessors' data
		5.B. Provides a new access opportunity to the station	**High:** Project provides new access opportunity for multiple modes **Medium:** Project provides new access opportunity for one mode **Low:** Project does not provide new access opportunity	Data Sources: Local and regional existing active transportation facilities

[9] Measure 3.A. was not used in the active transportation project evaluation because the projects are not yet defined at the level required by the methodology.

Table 4-1. Active Transportation Project Screening Criteria (continued)

Policy Factor	Outcome	Evaluation Measure	Scoring Methodology	Data Sources, Methods, References
6. Advance Social Equity	Improve transportation access for riders who experience disproportionate burden in our mobility system and minimize negative impacts to underserved communities	6.A. Improves access to residential locations and destinations serving populations who are historically underrepresented and underserved	**High/Medium/Low:** Project provides direct/some/limited or no access to social services or residential location(s) that serve underrepresented/ underserved people. Scoring spectrum based on quantity and directness of connections to destinations that serve historically underrepresented/underserved people compared to other candidate access improvements in the station area.	Data Sources: U.S. Census data, local land use plans, or destinations SRTC Social Equity Mapping tool Destination types include: - Grocery stores - Senior housing - Public schools - Low-income housing (e.g., Spokane Housing Authority properties) - Community centers and libraries - Social service providers/government offices (e.g., food bank, DSHS office, DOL, WorkSource) - Destinations that serve people with disabilities - Spiritual centers and faith communities
7. Compatibility with Established Plans	Align with existing development and future land use and transportation visions	7.A. Is consistent with existing zoning, plans, and policies including character or development plans of the station area	**High:** Project is compatible with plans/policies and development; has high potential to connect to TOD **Medium:** Project is compatible with either plans/policies or development **Low:** Project is incompatible with plans/policies and development	Data Sources: Existing zoning code Adopted long-range plans (Comprehensive Plans, neighborhood plans, transportation plans)
8. Funding Feasibility	Potential to leverage funding partnerships	8.A. Can be jointly funded by project partners	**High/Medium/Low:** Project has strong/moderate/low or no potential for funding partnerships/partnering with local jurisdiction, government agencies, and/or private partners	Data Sources: Current agency CIPs

4.3 Project Selection

The initial list of 289 active transportation projects was evaluated with the eight screening criteria, using 14 corresponding evaluation measures. Each project received a score of 1 to 3 based on its performance for each evaluation measure, allowing for a prioritized ranking in each category of bicycle projects, pedestrian projects, and crossing projects. Aggregated scores for each project ranged from 15 to 38, with projects receiving a score of 33 or greater being placed in a "prioritized projects" category and selected to move forward for further refinement (35 total projects). Figure 4-4 displays prioritized active transportation projects, while detailed project screening results can be found in Appendix H.

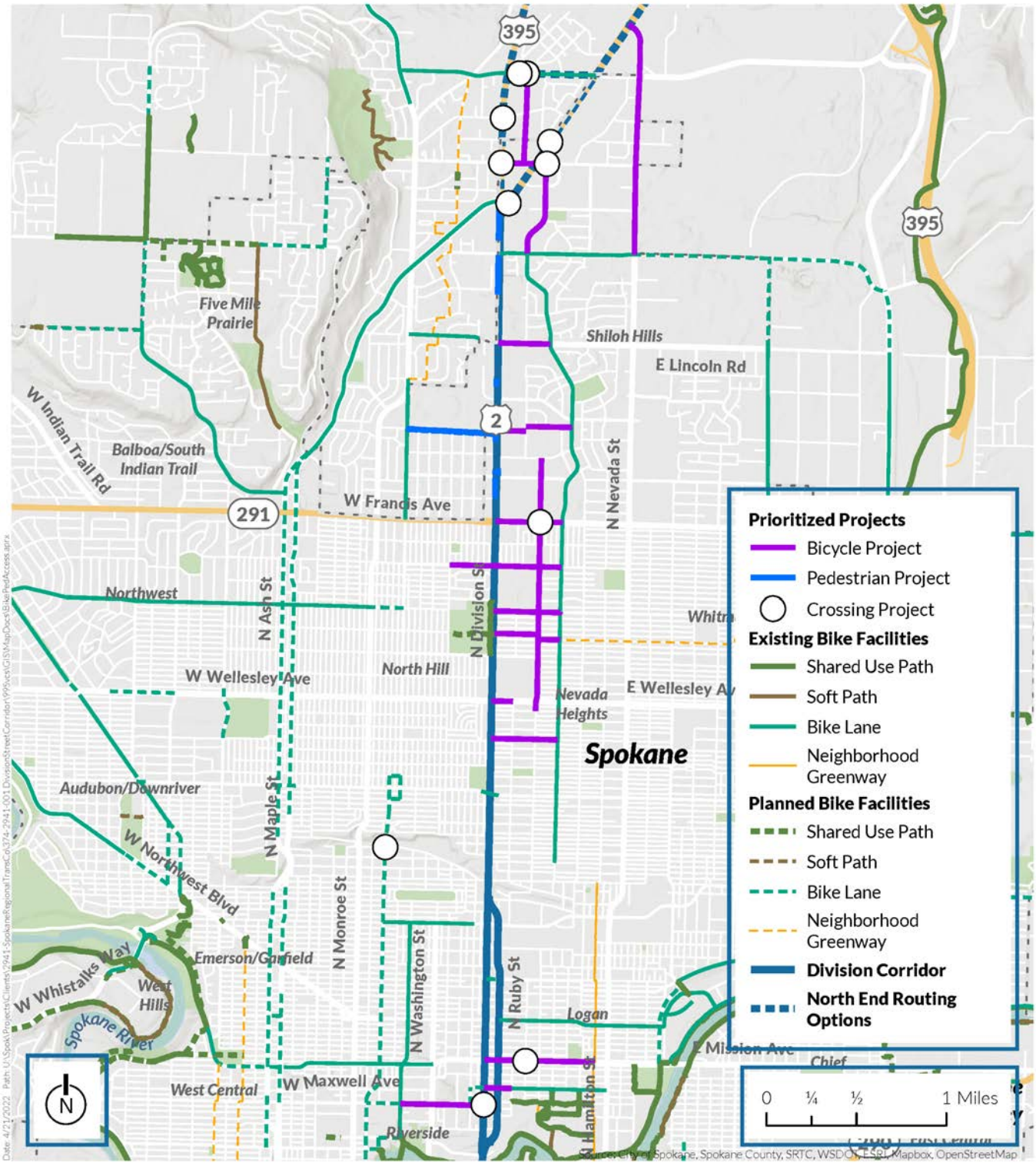


Figure 4-4. Prioritized Active Transportation Projects

4.4 Project Refinement

Prioritized active transportation projects were brought before members of the community in the form of a web map and embedded questionnaire. The questionnaire focused on an identification of community members' highest priority locations for improvements, as well as on general input about walking and rolling conditions and experiences in the Division corridor. See Section 3.2.3 for a description of the active transportation questionnaire and Appendix B for a summary of community responses.

Review of community input from the questionnaire by the Agency Team resulted in four projects being removed from the list, due either to upcoming studies and investments that will evaluate them separately or due to limited feasibility for implementation in the project timeframe. Another four projects were added and prioritized based on proximity to high densities of walking and biking destinations and based on potential for integration with transit investments. Several individual projects included in the prioritized list were merged in order to achieve a group of 30 projects to move forward into the conceptual design process. These projects are shown in Figure 4-5.

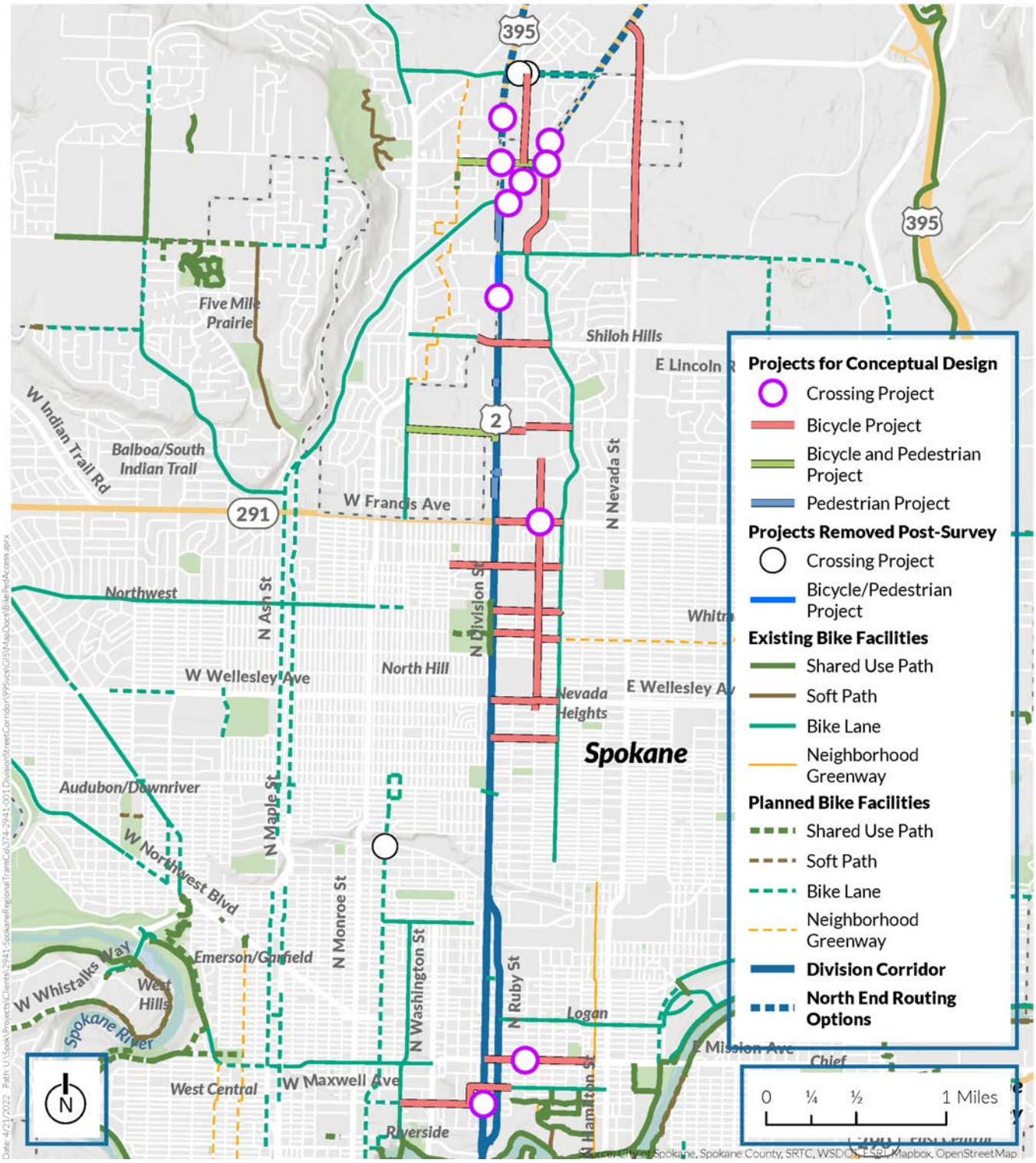


Figure 4-5. Active Transportation Projects for Conceptual Design

4.5 Conceptual Design

Among the 30 active transportation projects identified for conceptual design, 15 contained bicycle improvements, 3 had pedestrian improvements, 2 had both bicycle and pedestrian improvements, and 10 included roadway crossing improvements for people walking and rolling. All 30 projects received a conceptual-level design, while 15 projects were moved into 30 percent design. These 15 projects were identified through a determination of design feasibility by the project team and Agency Team.

Detailed results of the conceptual design process for the 30 projects were compiled in the form of project summary sheets. These active transportation project summaries, including project descriptions, diagrams, estimated costs, implementation considerations, and 30 percent design plan sets (where applicable), can be found in Appendix I.

5. LAND USE PLANNING

The land use analysis undertaken during Phase 2 of the Study comprised three primary tasks:

1. BRT Case Studies Review – This effort was focused on evaluation of the impacts, both positive and negative, of BRT investments along corridors comparable to Division Street in other jurisdictions across the country.
2. Planning Efforts Review – The project team analyzed adopted agency plans and highlighted existing policy direction that encourage or allow for transit supportive densities and uses along the corridor.
3. Land Use Node Analysis – In partnership with the City of Spokane and Spokane County, activity nodes were identified along the corridor and their potential for redevelopment with transit-oriented uses assessed.

5.1 BRT Case Studies Review

This BRT studies review evaluated the land use and economic development activities and impacts related to or resulting from implementation of the following BRT services:

- M.L. King, Jr. East Busway provided by the Port Authority of Allegheny County in Pittsburgh, Pennsylvania
- The Vine provided by C-TRAN in Vancouver, Washington
- Emerald Express (EmX) provided by the Lane Transit District in Eugene, Oregon
- HealthLine provided by the Greater Cleveland Regional Transit Authority in Cleveland, Ohio

The subject systems were selected based on their comparability to the City of Spokane and the Division corridor. However, the systems also reflect different characteristics ranging in their degree of branding, passenger amenities, service levels, and operating environments (e.g., center-running dedicated right-of-way, mixed with general purpose traffic, former rail corridor).

The evaluation included interviews with system staff as well as a literature review. It focused on three key questions, resulting in the following findings:

1. **What activities have occurred in the land use context that support successful implementation of BRT?**

   The evaluated systems relied upon thoughtful and comprehensive planning activities in advance of BRT implementation. This included not only transit infrastructure and operational planning, but also extensive land use planning. Common “lessons learned” included:

   - At the outset of system development, clearly articulate the goals the system is intended to accomplish, such as desired and direct benefits as well as broader community goals.
   - Establish plans and transit-supportive programs before or in conjunction with capital improvements, as this aids in accomplishing community goals.
   - Work closely with all affected agencies (transit, city, county, state, regional) and private institutions or businesses to realize a common vision.
   - Carefully consider elements of BRT service that can be effective in stimulating land use and economic development.
   - Conduct focused station area planning, implement regulatory changes, and prioritize infrastructure investments to leverage public dollars in the most effective manner possible.

- Use available financing tools, seek out public/private partnerships, and actively encourage private investment.

2. What are the land use or socioeconomic impacts experienced with implementation of BRT?

With the implementation of BRT, the evaluated systems realized intended and unintended shifts in land use patterns, including:

- Increased residential property values in many communities, and increased values over time as the system matures.
- Transit corridors saw a one-third increase in their share of new office space, and there was evidence of an office rent premium for locations within 0.5 mile of a BRT corridor.
- BRT station areas gained employment at a faster pace than outside these areas, even attracting job growth away from non-station areas.
- A shift to certain employment sectors was observed within 0.5 mile of BRT corridors, with an increase in jobs related to information, real estate, management, administration, education, health care, lodging/food, and other similar sectors. A drop was seen in sectors such as manufacturing, construction, warehousing, transportation, and others.
- BRT stations are also associated with the largest positive shift in upper wage jobs during the economic recovery, while the share of lower wage jobs within 0.5 mile of BRT station areas fell in comparison with the remainder of the metropolitan area. For example, between 2013 and 2018, the East Busway in Pittsburgh saw a 23 percent increase in median income in station areas
- BRT systems can also be effective in leveraging investments in TODs, particularly compared to the higher cost investment of fixed rail transit.

3. What kind of strategies have agencies employed to address negative side effects on land use associated with BRT?

Strategies to address the potential or anticipated negative land use changes associated with BRT development include the following:

- Proactive programs and policy updates that anticipate and address their desired land use and economic development outcomes. Active monitoring of development and periodic reporting of results provide early warning of potential negative impacts to allow for a more measured response.
- Addressing issues related to the adverse effects of gentrification that can come with public infrastructure and catalyst TOD development, such as the reduction of affordable housing near TOD stations and effects on business rentals.
- Closely cooperating between land use and transportation planning and development, particularly with focused station area planning on an ongoing basis. Development demand and activity should be monitored, and station area infrastructure investments should be prioritized in areas where the greatest benefits can be realized, where they are the most financially feasible, and where they have solid local support.

Other general findings included:

- The most important factor affecting successful implementation of BRT-related TOD is the level of government support in the form of robust TOD investment, public policy, and transit supportive zoning near transit.
- Another important factor leading to successful implementation of TOD along BRT corridors is the strength of the real estate market. Emerging markets simply require higher levels of government support to overcome market barriers. In emerging real estate markets, the effect of transit and infrastructure investment on economic development is the most apparent. Strong markets will develop no matter what; weak markets require greater assistance.
- A "sense of permanence" in BRT investment contributes to successful TODs, and it is important to prioritize features that impact the speed and reliability of service. However, while the quality of transit service is important, it is not as important as public policy and development (market) potential.
- The presence of institutions, such as hospitals or universities, along corridors can contribute to success.

Appendix J provides the complete BRT Case Studies: Land Use & Economic Development Memorandum.

5.2 Policy and Planning Efforts Review

The policy and planning efforts review provided an overview of 34 adopted City, County, regional, state, and special district (focused around Gonzaga and Whitworth Universities) plans and policy documents. Building on the findings in the BRT case studies review, lessons associated with the importance of clearly articulated goals and early implementation of land use policies and programs established the framework for the planning efforts review.

Policy documents reviewed included:

- Comprehensive plans and countywide planning policies
- Neighborhood, subarea, strategic, and master plans
- Transportation plans, including modal plans
- Park and recreation plans, including trail plans
- Capital facility plans

In addition to noting specific policies and programs, each document was rated in terms of degrees of change ranging from the most drastic ("Transform") to the least ("Maintain") for three topics:

- Goals or policies promoting transformation of existing land use patterns – 15 plans demonstrated the greatest support for the middle ground ("evolve"), with 6 expressing policy support for more drastic change ("Transform"). No plans were characterized as "Maintain."
- Goals or policies promoting transportation diversity through an emphasis on transit and/or nonmotorized forms of travel – Plans demonstrated a near-even split between "Evolve" and "Transform." No plans were characterized as "Maintain."
- Goals or policies promoting corridor design or transformation of key corridors – Similarly, plans were evenly split between "Evolve" and "Transform," with one characterized as "Maintain."

Additional topics assessed during the plan review included opportunities for mixed use, support for walkability, and potential for economic development.

The complete summary is provided in Appendix K - BRT Implementation: Policy Review Memorandum.

5.3 Land Use Node Analysis

5.3.1 Purpose

The DivisionConnects study examined the potential for land use changes along the corridor, including identifying areas where redevelopment might occur in response to the implementation of improved bus service. During the study, 12 nodes were identified along the corridor north of the Spokane River and their potential for change analyzed based on existing development, adopted plans and policies, and market factors. The nodes range in size from approximately 30 acres to almost 400 acres.

Figure 5-1 illustrates how the nodes line up along North Division Street and Highway 2, stretching from the north bank of the Spokane River to Farwell Road. Existing Division corridor transit stops were evaluated to determine potential future station locations based on fourteen criteria, including the 2022 STA network, existing stop spacing, demographics, land use, employment, and corridor destination elements. Stops with 2022 connecting bus routes were noted as transfer locations and proposed as Tier 1 station locations, regardless of analysis score. The analysis was used to designate Tier 2 and Tier 3 stations, with higher scores indicating priority. Stations designated as Tier 2 received higher analysis scores than those designated as Tier 3.

Appendix L includes 12 two-page information sheets, one for each node identified during the DivisionConnects study. They provide information about each of the nodes and their potential for transformation, describing each node's existing land use context, non-motorist accessibility, and zoning.

The information sheets can be used to advance conversations about the nodes and opportunities for land uses oriented to transit and supporting the planned BRT line along Division Street. Upcoming investments in BRT and associated improvements to the travel environment for people walking and biking will provide support for these potential changes. The information sheets can help to stimulate a broad imagining of what the opportunities may produce, and how the community can best respond to an exciting future.

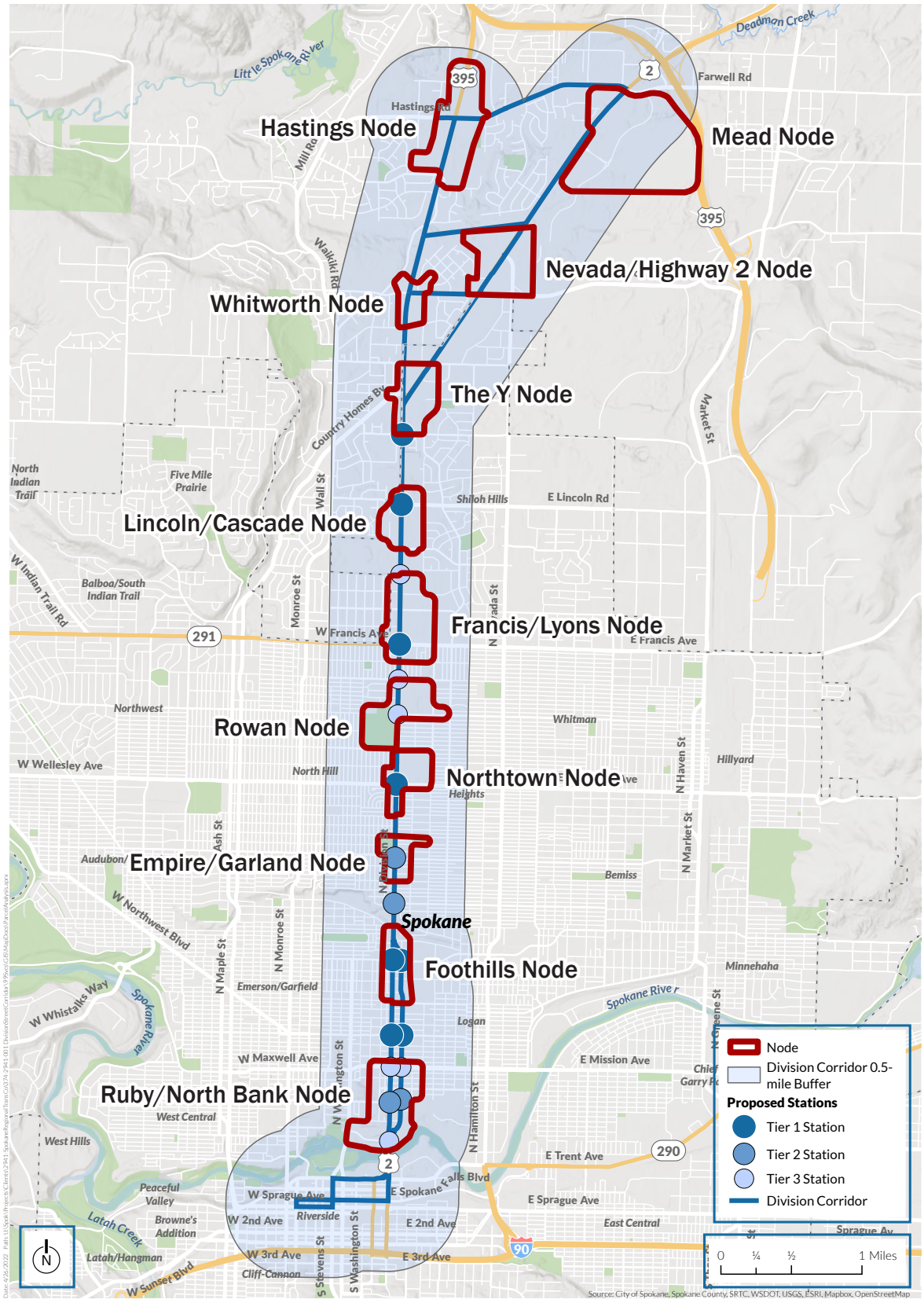


Figure 5-1. Land Use Nodes

5.3.2 Existing Land Uses and Potential for Change

The Division Street corridor has long been predominantly commercial, with shopping centers, small businesses, professional offices, and big-box retail catering to the driving public. However, case studies of transit systems throughout the country show BRT has the ability to transform land uses along their routes. With the implementation of new BRT service, commercial corridors often begin to introduce housing into the landscape, putting new residents within a convenient walk to new transit stations. This has the potential to create new housing, increase density, add land use diversity, and influence redevelopment where existing uses are near the end of their life cycle. Both the City and County anticipate this type of transformation as represented in their zoning and the information sheets describe how some of the mixed-use potential may be achieved. Future regulatory updates can further strengthen incentives and standards for encouraging this type of transit-supportive redevelopment.

The Appendix L information sheets describe existing land uses and general characteristics for each node. They speak to the existing transportation network, development character and intensity, and relationships to various amenities and institutions contributing to the nodes' function and attractiveness. Each node is unique, and the information sheets communicate the attributes that set one node apart from the next.

Part of the story for each node is the potential for transformation. While the information sheets describe existing land use and City and County zoning at each node, they primarily focus on each node's potential for future transformation that would support the BRT through land use changes, as well as walking and cycling improvements. These improvements, along with the increases in development intensity the zoning already permits, can position the nodes to support Division's BRT system and realize a TOD future.

To support the corridor's transformation, DivisionConnects included an analysis to identify parcels that may be ripe for development opportunities in the near term. Figure 5-2 through Figure 5-4 show parcels where the land value is more than twice the value of their built improvements. Development favors parcels with this land value/building value ratio, either for opportunities to build on available land or for complete redevelopment on parcels which are underutilized.

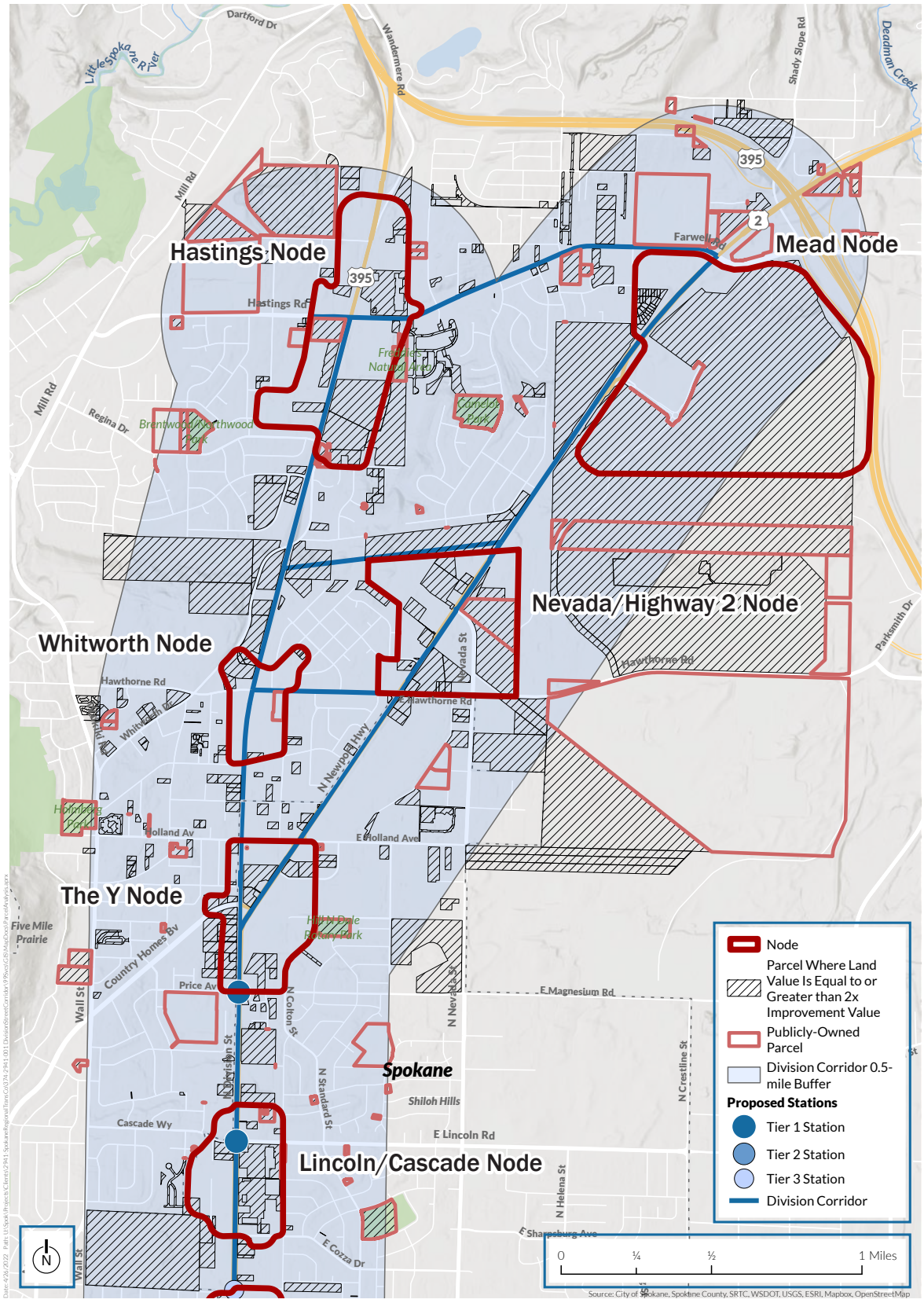


Figure 5-2. Parcels with a Land/Improvement Value Ratio of at least 2:1 – North Area

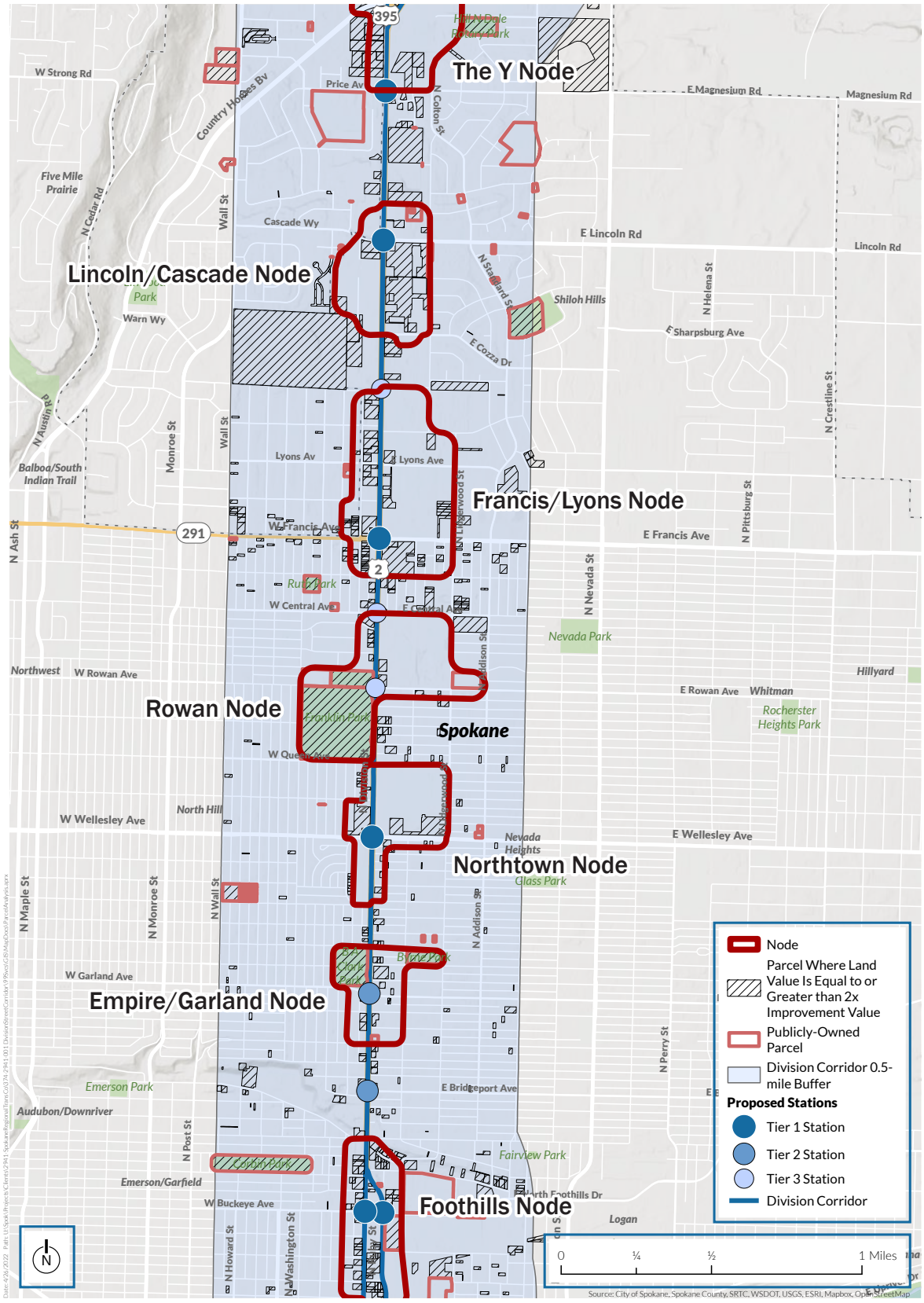


Figure 5-3. Parcels with a Land/Improvement Value Ratio of at least 2:1 – Middle Area

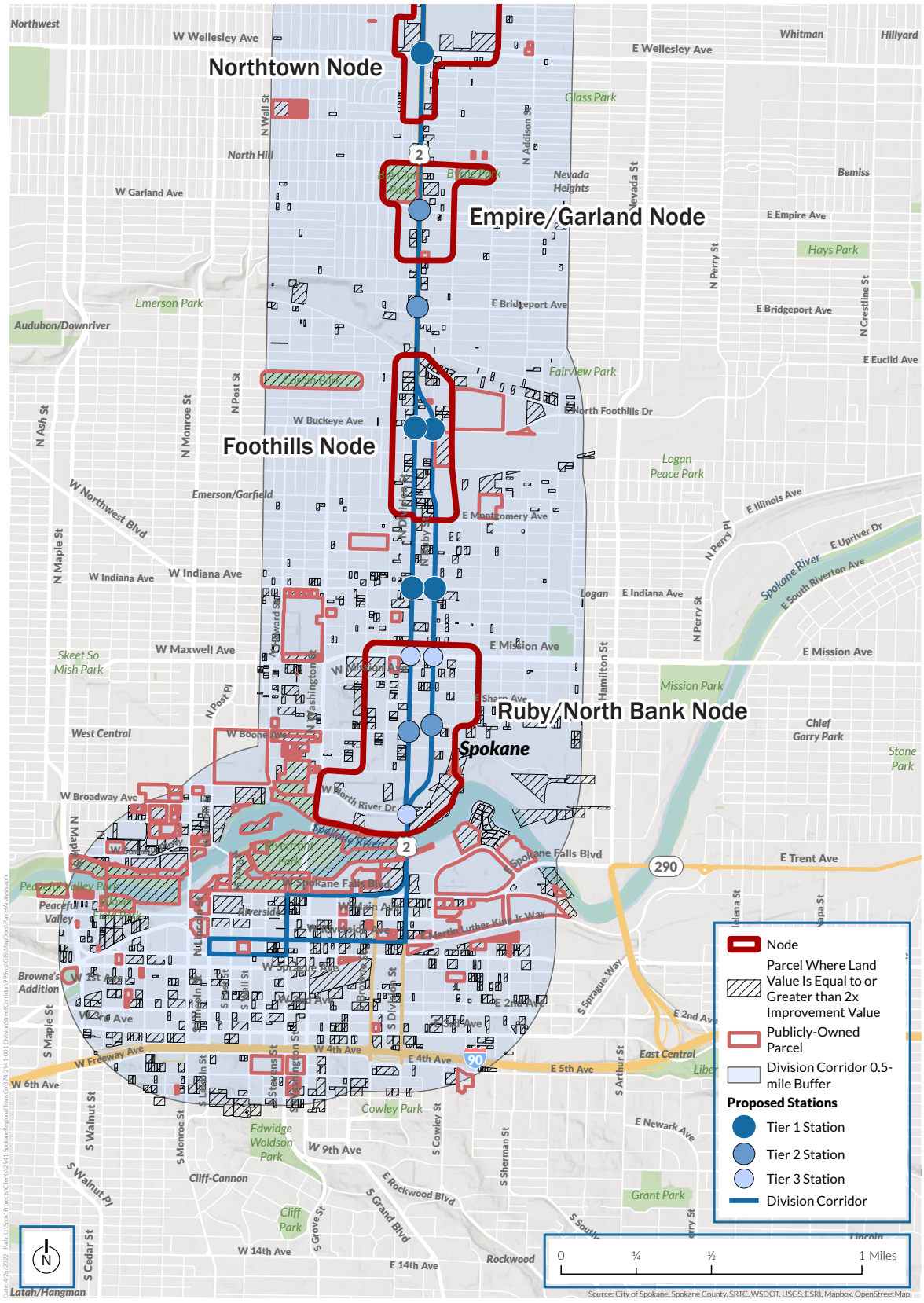


Figure 5-4. Parcels with a Land/Improvement Value Ratio of at least 2:1 – South Area

5.3.3 Vulnerability Index

Included as part of the planning efforts review, the City of Spokane's Housing Action Plan has several policies and strategies focused on increasing housing supply, which shares a nexus with TOD. The City of Spokane Housing Action Plan includes an assessment of housing displacement risk based on four factors included in the vulnerability index: socioeconomic status; household composition and disability; minority status and language; and housing type and transportation.[10] In addition to displacement risk, these factors are used to assess the environmental justice impacts of projects. Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.[11] Case studies reviewed as part of DivisionConnects indicate property values along BRT corridors do rise along with renewed development interest in more intense and more mixed uses near transit stops. This can have the impact of elevating residential and commercial rents, sometimes displacing those households or businesses who were there prior to the advent of BRT.

The City's Housing Action Plan prioritizes housing affordability and availability for all Spokane residents at all income levels. As a result, the City may consider strategies anticipating potential displacement risk designed to keep housing along the BRT corridor accessible to those who live there now. The housing economy is similar in the corridor's unincorporated areas, and the County may consider similar strategies as well.

[10] The vulnerability index is based on countywide data provided by the Centers for Disease Control and Agency for Toxic Substances and Disease Registry.

[11] https://www.epa.gov/environmentaljustice

5.3.4 Zoning

The City of Spokane and Spokane County share jurisdiction along the corridor, with the County's portion toward the north. Both jurisdictions generally anticipate continued commercial development along the corridor's length and have assigned zoning designations accordingly. However, the zoning districts they have assigned also permit a mix of residential uses, providing for an evolution, intensification and diversification of land uses consistent with typical BRT corridor development.

In some cases, particularly in the corridor's northern reaches, single-family zoning abuts the commercial designations, making an effective transition between the two land use types more challenging. In other places, however, the zoning adjacent to the commercial districts are for mixed uses or multi-family residential, facilitating a blending and interconnection between the more intense corridor-oriented commercial zones and the residential uses nearby.

The City and County can consider revisiting their zoning to achieve a mixed-use Division Street BRT corridor, optimizing and encouraging transit-oriented development opportunities. Station-area, neighborhood, or subarea planning will enable both jurisdictions and the local community to reassess policy and regulations, crafting an appropriate and community-supported response to the opportunity BRT presents. Policies and design standards that incentivize or require active street frontages, a mix of uses, and higher densities near station areas could aid in this transformation.

5.3.5 Vehicle Miles Traveled (VMT) and Greenhouse Gas

TOD generally results in a built form with more land use diversity, improved pedestrian and bicycle conditions, shorter distances between housing and services, and enhanced transit access. This makes travel on foot, by bike, or by bus more practical and more convenient, reducing an individual's reliance on a car to access daily needs or activities.

Level of service (LOS) assessments traditionally focus on traffic congestion, or the degree to which roadway capacity can handle expected traffic flows. In more urban conditions the traditional approach to managing congestion by expanding roadway capacity has limited success, as additional capacity does not address the need for a mix of land uses to reduce vehicle miles traveled. In place of a congestion-based LOS measure, these information sheets use vehicle miles traveled (VMT) to illustrate how a TOD approach at each node may reduce driving. The reduction in VMT correlates to reduced greenhouse gas emissions, a companion benefit to a more compact, more diverse TOD form.

5.4 Land Use Visual Sourcebook

A land use visual sourcebook was prepared as a companion to the information sheets. This visualization sourcebook identifies potential development types, linking them to different contexts along the corridor. For example, development in immediate proximity to the BRT stations is likely to be different than that found between stations or at arterial intersections where no station exists. Anticipating these emerging contexts, the City and County may engage in station area or neighborhood planning to identify which types are most appropriate and then consider if zoning changes are in order. Appendix M contains the Land Use Visual Sourcebook.

5.5 Potential Traffic Impacts Resulting from Redevelopment

To understand the potential traffic impacts associated with the changes envisioned for the land use nodes, the project team performed travel demand modeling. This effort used the current SRTC Travel Model as the primary tool for modeling. It forecast and compared traffic volumes and transit ridership on Division Street and adjacent throughways in the Division Street Corridor Study project area for five scenarios with the characteristics summarized in Table 5-1:

Table 5-1. Travel Demand Modeling Scenarios

Scenario Name	Land Use	Road Network	Public Transportation Network
2019 Existing	• Current	• Current network of roads	• Current public transportation network, including Route 25 on Division Street, using current routes and schedules
2045 No Build	• Planned land uses in 2045, as described in the Metropolitan Transportation Plan	• Planned network of roads in 2045, as described in the Metropolitan Transportation Plan	• Planned 2045 transit network, as described in the Metropolitan Transportation Plan, with Route 25 on Division Street using the current routing and schedule
2045 Build-Low	• Planned land uses in 2045, as described in the Metropolitan Transportation Plan	• Planned network of roads in 2045, as described in the Metropolitan Transportation Plan • Improvements on Division Street to support BRT service – conversion of one general-purpose lane to a BAT lane • Improvements of access to BRT stations by adding active transportation facilities	• Planned 2045 transit network, as described in the Metropolitan Transportation Plan • Route 25 BRT service levels[1] on Division Street • Route 25 current routes
2045 Build-Half TOD	• Planned land uses in 2045, as described in the Metropolitan Transportation Plan • 7 centers, or "nodes," that are fully developed with TOD	• Planned network of roads in 2045, as described in the Metropolitan Transportation Plan • Improvements on Division Street to support BRT service – conversion of one general-purpose lane to a BAT lane • Improvements of access to BRT stations by adding active transportation facilities	• Planned 2045 transit network, as described in the Metropolitan Transportation Plan • Route 25 BRT service levels[1] on Division Street • Route 25 current routes
2045 Build-Full TOD	• Planned land uses in 2045, as described in the Metropolitan Transportation Plan • 12 nodes that are fully developed with TOD	• Planned network of roads in 2045, as described in the Metropolitan Transportation Plan • Improvements on Division Street to support BRT service – conversion of one general-purpose lane to a BAT lane • Improvements of access to BRT stations by adding active transportation facilities	• Planned 2045 transit network, as described in the Metropolitan Transportation Plan • Route 25 BRT service levels[1] on Division Street • Route 25 current routes

Tables 5-2 and 5-3 summarize the assumed existing and forecast residential dwelling units and employment for each node, respectively.

[1] BRT service levels mean buses arrive every 7.5 minutes during the morning and evening periods, every 10 minutes midday, every 15 minutes in the evening, and every 30 minutes during the early morning and late evening.

Table 5-2. Existing and Forecast Residential Dwelling Units by Land Use Node

Node	2019 Existing		2045 No Build 2045 Build-Low		2045 Build-Half TOD		2045 Build-Full TOD	
	Single Family	Multi-Family	Single Family	Multi-Family	Single Family	Multi-Family	Single Family	Multi-Family
Node 1 - North Bank*	18	146	18	599	21	725	21	725
Node 2 - Foothills*	31	0	31	0	31	166	31	166
Node 3 - Empire/Garland*	132	19	134	19	134	137	134	137
Node 4 - Northtown	0	0	0	0	0	0	4	212
Node 5 - Rowan*	41	27	43	29	43	45	43	45
Node 6 - Francis/Lyons	42	358	45	369	44	364	45	594
Node 7 - Lincoln*	9	0	9	0	9	168	9	168
Node 8 - The Y	0	187	18	192	17	184	0	354
Node 9 - Whitworth	0	237	0	240	0	285	0	285
Node 10 - Mead*	0	0	0	0	141	350	141	350
Node 11 - Hastings*	0	0	0	0	0	0	40	358
Node 12 - Nevada Junction	0	0	0	0	0	0	0	478
Total	**273**	**973**	**298**	**1,446**	**440**	**2,424**	**468**	**3,872**

*Included in Half TOD scenario

Table 5-3. Existing and Forecast Employment by Land Use Node

Node	2019 Existing		2045 No Build 2045 Build-Low		2045 Build-Half TOD		2045 Build-Full TOD	
	Retail	Non-Retail	Retail	Non-Retail	Retail	Non-Retail	Retail	Non-Retail
Node 1 - North Bank*	741	2,983	741	3,215	881	3,996	881	3,996
Node 2 - Foothills*	439	15	592	16	621	110	621	110
Node 3 - Empire/Garland*	65	95	82	176	101	148	101	148
Node 4 - Northtown	1,673	290	1,736	398	1,812	362	1,764	440
Node 5 - Rowan*	318	2,015	318	2,561	334	2,631	334	2,631
Node 6 - Francis/Lyons	599	118	623	190	652	209	1,110	209
Node 7 - Lincoln*	515	295	585	512	944	539	944	539
Node 8 - The Y	1,087	470	1,163	512	1,253	496	1,146	594
Node 9 - Whitworth	166	152	200	200	201	252	201	252
Node 10 - Mead*	413	0	504	0	559	12	559	12
Node 11 - Hastings*	738	541	912	810	1,119	783	1,044	852
Node 12 - Nevada Junction	448	310	292	351	303	257	494	699
Total	**7,201**	**7,284**	**7,749**	**8,940**	**8,780**	**9,796**	**9,199**	**10,482**

*Included in Half TOD scenario

Data from the travel demand model informed a number of performance metrics including:

- Regional travel statistics
- Mode split
- Transit ridership
- Travel time and speed
- Screenline comparison
- Land use node travel statistics

5.5.1 Regional and Study Area Impacts

On a regional level, average weekday VMT, vehicle hours traveled (VHT), and vehicle hours of delay (VHD) are all forecast to increase over existing conditions. In the 2045 No Build scenario, VMT and VHT are both forecast to increase 24 percent and VHD is forecast to increase 7 percent. The 2045 Build scenarios do not result in a measurable change to average daily VMT, VHT, or VHD on a regional level.

Within the study area, average daily VMT, VHT, and VHD are forecast to increase by 6 to 7 percent over existing conditions for the 2045 No Build scenario. However, when the two 2045 Build scenarios are compared to the 2045 No Build scenario, VMT, VHT, and VHD all decrease between 2 to 8 percent. Table 5-4 summarizes forecast changes across the five scenarios.

Table 5-4. Regional Travel Statistics Comparison (Average Weekday)

Description	2019	2045			
	Existing	No Build	Build-Low	Build-Half TOD	Build-Full TOD
Spokane Region					
VMT	9,780,270	12,137,552	12,133,273	12,180,356	12,154,826
VHT	265,877	330,912	331,048	332,817	331,816
VHD	65,581	70,268	69,945	69,980	70,018
Change in VMT		24%	0%	0%	0%
Change in VHT		24%	0%	1%	0%
Change in VHD		7%	0%	0%	0%
Study Area[1]					
VMT	1,030,563	1,096,453	1,032,125	1,057,710	1,044,988
VHT	35,822	38,006	36,045	37,082	36,557
VHD	6,151	6,565	6,063	6,095	6,102
Change in VMT		6%	-6%	-4%	-5%
Change in VHT		6%	-5%	-2%	-4%
Change in VHD		7%	-8%	-7%	-7%

Note: The 2045 No Build scenario is compared to the 2019 Existing scenario, and the 2045 Build-LOW and 2045 Build-TOD scenarios are compared with the 2045 No Build.

[1] The study area statistical area includes the area within ¾ mile of either side of Division Street, which encompasses Hamilton Street to the east and Monroe Street to the west.

Other notable findings regarding forecast changes in the study area include:

- The reduction of vehicular capacity through the conversion of one general purpose lane to a BAT lane, coupled with enhancements to transit service, contributes to reductions to average daily VMT, VHT, and VHD within the study area.
- The 2045 Build-Low and Build-TOD scenarios all present similar congestion levels across the region as the 2045 No Build scenario, with minor additional congestion on parallel arterials west of Division Street. The 2045 Low and TOD show a slight increase in congestion on Division Street north of Lincoln Road. A potential reason for additional congestion on parallel arterials is directly related to the reduction in roadway capacity on Division Street, resulting in a redistribution of traffic onto parallel arterials.
- Transit mode split (the percentage of travelers using transit) is approximately 3 percent for each future year scenario, which is similar to the 2019 existing scenario. The non-motorized mode split remains constant through all scenarios except in the 2019 Existing scenario. This outcome generally indicates that the travel demand model is not the best tool to be used to analyze non-motorized travel.
- The 2045 No Build scenario, which reflects baseline transit service in the 2019 model, observes an increase in ridership of approximately 24 percent compared to 2019 existing conditions. The 2045 Build-Low and Build-TOD scenarios observe an increase in ridership of between 32 percent and 33 percent compared to the 2045 No Build scenario. Among the 2045 scenarios, the 2045 Build-TOD scenario has the greatest increase in ridership.
- The 2045 No Build average travel times for northbound AM, PM Peak Hour, and southbound AM Peak Hour are less than existing whereas southbound PM Peak Hour are greater than existing. The 2045 Build-Low and Build-TOD scenarios have a slightly longer travel time (less than one minute) than the No Build scenario. This result is supported by the background 2045 conditions including the NSC as a major north-south parallel arterial to Division Street.
- The 2045 No Build average travel speeds for the corridor are equal to or slightly greater than the 2019 existing speeds. Both 2045 Build-Low and 2045 Build-TOD travel speeds are very slightly less (less than 1 mile per hour) than the No Build travel speed, with the 2045 Build-TOD scenario operating at the slowest speeds overall. This equates to less than one additional minute of travel time if driving the corridor end-to-end.

5.5.2 Node Impacts

A screenline comparison measures the combined vehicular and person travel which crosses an identified point or line along the corridor. Four east-west screenlines, shown in Figure 5-5, were developed for this project to calculate total north-south regional travel.

The screenline analysis performed for this study helps to illustrate how people using the corridor might change their travel mode with the implementation of BRT service and increased land use densities. As summarized in Table 5-5, average daily vehicle trips in the 2045 Build scenarios are reduced by an average of 21 to 23 percent whereas the average daily person trips in these scenarios are only reduced by 15 to 17 percent. This comparison indicates that, under these scenarios, trips served on Division Street would shift away from vehicles and toward transit and active transportation modes.

At the node level, VMT was evaluated several ways:

- Daily VMT: Drive alone and shared ride automobile trips, multiplied by their trip length.
- Daily VMT per Service Population: This metric is calculated as the Daily VMT divided by the population within the zones. It shows how the average length of trips changes based on the changes in land use.
- Daily Home-Based VMT: Drive alone and shared ride automobile trips which begin or end at a home (meaning the trip starts at a home and ends at another location, such as a grocery store, or the trip begins somewhere other than a home and the home is the destination for that trip).
- Daily Home-Based VMT per Capita: This metric is calculated as the Daily Home-Based VMT divided by the population within the zones. It shows how trips with ends at a home are changing length based on the changes in land use.
- Daily Non-Home-Based VMT: Drive alone and shared ride automobile trips which do not begin or end at a home, multiplied by their trip length.
- Daily Non-Home-Based VMT per Employee: This metric is calculated as the Daily Non-Home-Based VMT divided by the employment within the zones. It shows how trips with no trip ends at a home are changing length based on the changes in land use.

Table 5-5. Average Daily Screenline Comparison (Person Trips)

Measure	2019	2045			
	Existing	No Build	Build-Low	Build-Half TOD	Build-Full TOD
Average Daily Vehicle Traffic (Division Street/Ruby Street Only) - (Excluding Parallel Arterials) - (Excluding NSC)					
Between Indiana Avenue and Maxwell Avenue	46,299	42,229	34,344	35,741	35,180
Between Wellesley Avenue and Garland Avenue	41,822	38,064	29,989	30,754	30,970
Between Lincoln Road and Francis Avenue	44,007	41,691	33,388	32,798	32,936
South of Hawthorne Road	24,095	23,665	23,075	23,345	24,045
Overall	156,223	145,649	120,796	122,638	123,131
Between Indiana Avenue and Maxwell Avenue		-9%	-26%	-23%	-24%
Between Wellesley Avenue and Garland Avenue		-9%	-28%	-26%	-26%
Between Lincoln Road and Francis Avenue		-5%	-24%	-25%	-25%
South of Hawthorne Road		-2%	-4%	-3%	0%
Overall	151,957	-7%	-23%	-21%	-21%
Daily Motorized Person Trips (Drive Alone, Shared Ride, Truck, Transit) (Division Street/Ruby Street Only) - (Excluding Parallel Arterials) - (Excluding NSC)					
Between Indiana Avenue and Maxwell Avenue	56,968	51,438	41,898	43,476	42,778
Between Wellesley Avenue and Garland Avenue	51,827	46,349	36,792	37,619	37,874
Between Lincoln Road and Francis Avenue	55,611	52,112	41,806	40,936	41,182
South of Hawthorne Road	31,291	30,518	29,580	29,927	30,706
Overall	195,697	180,416	150,076		152,539
Between Indiana Avenue and Maxwell Avenue		-10%	-19%	-15%	-17%
Between Wellesley Avenue and Garland Avenue		-11%	-21%	-19%	-18%
Between Lincoln Road and Francis Avenue		-6%	-20%	-21%	-21%
South of Hawthorne Road		-2%	-3%	-2%	1%
Overall		-8%	-17%	-16%	-15%

Note: The 2045 No Build scenario is compared to the 2019 Existing scenario, and the 2045 Build scenarios are compared with the 2045 No Build.

Table 5-6 summarizes how VMT changes in each node based on the various land use assumptions. Notable findings associated with the node analysis include:

- Daily VMT for each of the nodes increases greatly in the 2045 scenarios compared to the 2019 Existing scenario. This is directly related to the increase in housing and employment densities along the corridor, thus increasing trips in all modes, including vehicular trips.
- Daily VMT per service population for 2019 is similar to the 2045 No Build and Build scenarios resulting in lower VMT per service population. The combined average of VMT per Service Population is lower in the 2045 Build-Half TOD and 2045 Build-Full TOD scenarios than in the 2045 No Build and 2045 Build-Low scenarios by 3.5 to 5.1 miles (10 to 14.8 percent). The most likely reason for the lower VMT per service population in the 2045 TOD scenarios is the density of housing and employment in the 2045 TOD scenarios.
- Daily Home-Based VMT for each of the nodes increases greatly in the 2045 scenarios compared to the 2019 Existing scenario, and is the greatest in the 2045 TOD scenarios, with the 2045 Build-Full TOD scenario experiencing the greatest amount of daily home-based VMT. The reason for the greatest daily home-based VMT occurring in the 2045 TOD scenarios is directly related to the increase in housing and employment densities along the corridor, thus increasing trips in all modes, including vehicular trips.
- Daily Home-Based VMT per capita for the 2019 Existing scenario is higher than all Build scenarios, with the 2045 Build-Low scenario resulting in the lowest VMT per population. The likely reason for the reduction in home-based VMT per capita is that increasing housing and employment densities has the potential to decrease home-based vehicular trip length. It is also likely that the decrease in home-based vehicular trip length is associated with the mode shift away from automobile trips to transit and active transportation trips.
- Daily Non-Home Based-VMT for each of the nodes increases greatly in the 2045 scenarios compared to the 2019 Existing scenario and is the greatest in the 2045 TOD scenarios, with the 2045 Build-Full TOD scenario experiencing the greatest amount of daily non-home-based VMT. The likely reason for the greatest daily non-home-based VMT occurring in the 2045 TOD scenarios is directly related to the increase in housing and employment densities along the corridor, thus increasing trips in all modes, including vehicular trips.
- Daily Non-Home-Based VMT per employee in the 2019 Existing scenario is lower than the 2045 Build scenarios, with the 2045 Build scenarios slightly lower on average than the 2045 No Build scenario. The likely reason for the lower non-home-based VMT per employee in the 2045 TOD scenarios when compared with the 2045 No Build scenario is due to density of housing and employment.

Table 5-6. Average Daily Land Use Node Vehicle Miles Traveled

Metric	Land Use Node	2019	2045			
		Existing	No Build	Build-LOW	Build-Half TOD	Build-Full TOD
Daily VMT (Drive Alone + Shared Ride)	Node 1 - Ruby North Bank*	146,589	160,452	158,116	179,925	181,147
	Node 2 - Foothills*	23,173	30,419	30,011	33,953	34,657
	Node 3 - Empire/Garland*	9,133	11,913	11,826	13,618	14,431
	Node 4 - Northtown	89,579	108,581	107,254	102,756	104,539
	Node 5 - Rowan*	66,315	81,995	81,283	79,395	81,803
	Node 6 - Francis/Lyons	42,161	46,214	46,035	47,096	72,711
	Node 7 - Lincoln*	41,301	65,014	64,836	70,564	74,561
	Node 8 - The Y	73,217	81,049	80,444	89,166	84,455
	Node 9 - Whitworth*	18,489	22,220	22,158	24,618	24,858
	Node 10 - Mead*	32,018	41,933	41,820	57,112	65,517
	Node 11 - Hastings	67,124	85,568	85,223	98,691	109,173
	Node 12 - Nevada Junction	36,763	28,352	28,264	26,414	62,834
	Combined Average	**645,860**	**763,710**	**757,270**	**823,309**	**910,687**
Daily VMT per Service Population (Drive Alone + Shared Ride) (Population + Employment)	Node 1 - Ruby North Bank*	27.1	23.9	23.5	22.7	22.8
	Node 2 - Foothills*	44.1	44.7	44.1	28.8	29.4
	Node 3 - Empire/Garland*	18.0	19.6	19.5	15.7	16.6
	Node 4 - Northtown	48.3	53.8	53.1	49.8	40.9
	Node 5 - Rowan*	26.7	27.0	26.7	25.1	25.8
	Node 6 - Francis/Lyons	24.7	25.2	25.1	25.2	25.5
	Node 7 - Lincoln*	40.9	50.1	50.0	34.2	36.1
	Node 8 - The Y	36.9	37.6	37.3	40.3	33.2
	Node 9 - Whitworth*	21.5	23.4	23.4	22.3	22.5
	Node 10 - Mead*	77.5	83.2	83.0	33.8	38.8
	Node 11 - Hastings	52.4	49.7	49.5	51.9	38.9
	Node 12 - Nevada Junction	48.5	44.1	44.0	47.3	27.5
	Combined Average	**34.4**	**34.4**	**34.2**	**30.9**	**29.3**
Daily Home-Based VMT (Drive Alone + Shared Ride)	Node 1 - Ruby North Bank*	19,530	25,143	24,755	27,049	26,972
	Node 2 - Foothills*	432	418	415	2,818	2,866
	Node 3 - Empire/Garland*	2,308	2,286	2,272	3,986	4,044
	Node 4 - Northtown	0	0	0	0	1,078
	Node 5 - Rowan*	910	962	954	1,234	1,216
	Node 6 - Francis/Lyons	7,112	7,255	7,188	7,895	10,279
	Node 7 - Lincoln*	3,625	3,637	3,625	6,197	6,153
	Node 8 - The Y	2,872	3,342	3,304	3,183	5,746
	Node 9 - Whitworth*	4,116	4,455	4,432	5,187	5,218
	Node 10 - Mead*	0	0	0	13,013	12,844
	Node 11 - Hastings	0	0	0	0	12,073
	Node 12 - Nevada Junction	0	0	0	0	9,986
	Combined Average	**40,904**	**47,499**	**46,945**	**70,563**	**98,475**

*Included in Half TOD scenario

Table 5-6. Average Daily Land Use Node Vehicle Miles Traveled (continued)

Metric	Land Use Node	2019	2045			
		Existing	No Build	Build-LOW	Build-Half TOD	Build-Full TOD
Daily Home-Based VMT per Capita (Drive Alone + Shared Ride) (Population)	Node 1 - Ruby North Bank*	11.6	9.1	9.0	8.9	8.8
	Node 2 - Foothills*	6.1	5.9	5.8	6.3	6.4
	Node 3 - Empire/Garland*	6.7	6.5	6.5	6.4	6.5
	Node 4 - Northtown	0.0	0.0	0.0	0.0	2.2
	Node 5 - Rowan*	5.9	5.9	5.9	6.1	6.0
	Node 6 - Francis/Lyons	7.2	7.1	7.0	7.8	6.7
	Node 7 - Lincoln*	18.1	18.2	18.1	10.6	10.6
	Node 8 - The Y	6.7	7.0	6.9	6.9	7.1
	Node 9 - Whitworth*	7.6	8.1	8.1	8.0	8.0
	Node 10 - Mead*	0.0	0.0	0.0	11.6	11.5
	Node 11 - Hastings	0.0	0.0	0.0	0.0	13.3
	Node 12 - Nevada Junction	0.0	0.0	0.0	0.0	9.2
	Combined Average	**9.3**	**8.5**	**8.4**	**8.7**	**8.6**
Daily Non-Home-Based Vehicle VMT (Drive Alone + Shared Ride)	Node 1 - Ruby North Bank*	36,188	39,540	39,260	46,364	46,337
	Node 2 - Foothills*	12,156	16,408	16,320	17,636	18,106
	Node 3 - Empire/Garland*	2,834	3,737	3,721	4,332	4,486
	Node 4 - Northtown	45,402	54,866	54,388	53,465	52,997
	Node 5 - Rowan*	17,560	21,208	21,029	21,759	21,599
	Node 6 - Francis/Lyons	17,324	19,289	19,222	19,746	31,695
	Node 7 - Lincoln*	16,833	23,485	23,413	31,118	31,068
	Node 8 - The Y	29,113	33,393	33,041	34,312	33,198
	Node 9 - Whitworth*	5,650	7,337	7,304	7,450	7,784
	Node 10 - Mead*	15,550	21,671	21,583	26,518	26,561
	Node 11 - Hastings	30,678	38,910	38,701	44,349	44,185
	Node 12 - Nevada Junction	14,294	11,356	11,283	10,872	20,207
	Combined Average	**243,581**	**291,200**	**289,262**	**317,922**	**338,222**
Daily Non-Home-Based Vehicle VMT per Employee (Drive Alone + Shared Ride) (Employement)	Node 1 - Ruby North Bank*	9.7	10.0	9.9	9.5	9.5
	Node 2 - Foothills*	26.7	26.9	26.8	24.1	24.8
	Node 3 - Empire/Garland*	17.7	14.4	14.4	17.4	18.0
	Node 4 - Northtown	24.5	27.2	26.9	25.9	25.6
	Node 5 - Rowan*	7.5	7.4	7.3	7.3	7.3
	Node 6 - Francis/Lyons	24.2	23.7	23.6	22.9	24.0
	Node 7 - Lincoln*	20.8	21.4	21.3	21.0	20.9
	Node 8 - The Y	18.7	19.9	19.7	19.6	19.1
	Node 9 - Whitworth*	17.8	18.3	18.2	16.4	17.2
	Node 10 - Mead*	37.7	43.0	42.8	46.4	46.5
	Node 11 - Hastings	24.0	22.6	22.5	23.3	23.3
	Node 12 - Nevada Junction	18.9	17.7	17.5	19.4	16.9
	Combined Average	**16.9**	**17.6**	**17.4**	**17.2**	**17.3**

*Included in Half TOD scenario

Appendix N includes a detailed description of the travel demand modeling process. It describes the methods and land use assumptions used for developing the travel model forecasts, detailed performance metric information, forecast analysis for each of the performance metrics, and an analysis of each of the Phase 2 2045 land use scenarios compared to the No Build condition. Appendix O describes the land use assumptions for each node.

6. NEXT STEPS

With the completion of the DivisionConnects study, the information contained in this report highlighting the potential for TOD will serve as a reference for the City of Spokane and Spokane County when evaluating future land use changes that might support the planned BRT service on Division Street. The City or the County might undertake further planning for transit-supportive regulatory changes as part of a comprehensive plan amendment, subarea planning effort, and development code revisions.

The recommendations may also be used by the City, County, or WSDOT to incorporate potential transit supportive active transportation investments in their capital planning efforts. As part of their design efforts for the BRT improvements, STA will evaluate incorporation of active transportation projects into their suite of corridor investments. They will be reviewed by the City, County, and WSDOT as part of the collaborative effort to approve all investments that will be constructed with the Division BRT project.

Finally, the findings could be used by the City or County to secure grant funding for land use studies. They might also be similarly used by all partner agencies to secure grant funding for transportation investments.

9. APPENDICES

A. Land Use Survey Results
B. Active Transportation Social Pinpoint Site Responses
C. Development Community and Property Owner Interviews
D. Land Use Workshop #1 Notes
E. Active Transportation Workshop Notes
F. All Ages and Abilities Active Transportation Strategies
G. Initially Identified Active Transportation Projects
H. Active Transportation Projects Screening Results
I. Active Transportation Project Summaries
J. BRT Case Studies: Land Use & Economic Development Memorandum
K. BRT Implementation: Policy Review Memorandum
L. Land Use Node Information Sheets
M. Land Use Visual Sourcebook
N. Phase 2 Land Use Modeling Results and Analysis
O. Travel Demand Model Land Use Assumptions

APPENDIX A

Land Use Survey Results

APPENDIX B

Active Transportation Social Pinpoint Site Responses

APPENDIX C

Development Community and Property Owner Interviews

APPENDIX D

Land Use Workshop #1 Notes

APPENDIX E

Active Transportation Workshop Notes

APPENDIX F

All Ages and Abilities Active Transportation Strategies

APPENDIX G

Initially Identified Active Transportation Projects

APPENDIX H

Active Transportation Projects Screening Results

APPENDIX I

Active Transportation Project Summaries

APPENDIX J

BRT Case Studies: Land Use & Economic Development Memorandum

APPENDIX K

BRT Implementation: Policy Review Memorandum

APPENDIX L

Land Use Node Information Sheets

APPENDIX M

Land Use Visual Sourcebook

APPENDIX N

Phase 2 Land Use Modeling Results and Analysis

APPENDIX O

Travel Demand Model Land Use Assumptions