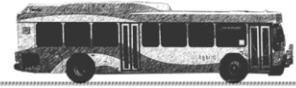


I-90/Valley High Performance Transit Corridor

Corridor Development Plan

September 28, 2022 | Final



Corridor Development Plan

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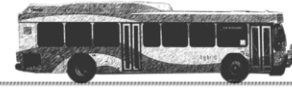
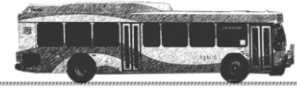
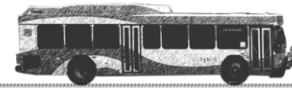


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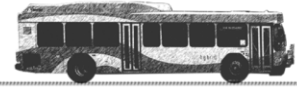


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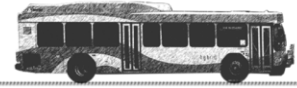


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Executive Summary

The Corridor Development Plan (CDP) recommends a refined scope and definition of the I-90/Valley High Performance Transit (HPT) Corridor (the Project) to be implemented as part of the *STA Moving Forward* plan, while charting a long-range framework for service architecture and infrastructure investments. The CDP also documents the analyses and outreach conducted as part of the planning process that were fundamental to developing the plan and itemizes key next steps for the implementation process.

CORE RECOMMENDATIONS

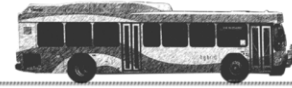
As is described in more detail in the foregoing summary and chapters, the CDP recommends the following actions and investments to implement the project.

- Revise Route 74 Mirabeau/Liberty Lake to HPT Route 7 as the primary HPT corridor, extending from the West Plains and Spokane Airport to Spokane Valley and Liberty Lake, operating seven days a week for improved regional mobility.
- Make modifications to the existing Mirabeau Point Park and Ride to upgrade it to a transit center, increasing its capacity for bus staging and customer parking, and providing enhanced passenger amenities.
- Construct a new Appleway Station Park and Ride north of Appleway Avenue to deliver on commitments in *STA Moving Forward* and position the transit network to support continued population and ridership growth.
- Revise and expand express service between Spokane and Liberty Lake, by increasing peak service to every 15 minutes and connecting to the future Appleway Station Park and Ride, as well as extending access to the North Bank of downtown Spokane.
- Subject to additional grant funding, construct Argonne Station Park and Ride along Route 7 to increase access and system effectiveness.
- Implement a route between Mirabeau Transit Center and Coeur d'Alene to provide popular new connections on a two-year pilot basis, and in partnership with Kootenai County.
- Partner with the Washington State Department of Transportation (WSDOT) to seek priority pathways for transit and advance the long-range vision presented in this plan.

PROJECT BACKGROUND

STA's comprehensive plan, *Connect Spokane*, envisions a network of High Performance Transit corridors where investments in speed and reliability, frequency, hours of service, and passenger amenities are made. One of these corridors is envisioned along Interstate 90, stretching from the Spokane International Airport to Coeur d'Alene, Idaho.

Between 2012 to 2014, STA engaged community members and customers in preparing a ten-year plan for strategic investments in transit. Amended in 2016 and 2020, the *STA Moving Forward* (STAMF) plan identified



six of the High Performance Transit corridors identified in *Connect Spokane* for varying levels of investment in additional frequency, passenger amenities and other infrastructure. Voters approved local funding for the plan in November 2016. The plan aims to connect people to services, jobs, education and enhance economic development by providing regional connections. Specific I-90/Valley corridor improvements identified in STAMF include:

- Expanded/New Park-and-Ride in East Valley (east of Sullivan Road)
- Expanded/New Transit Center in Central Valley (Mirabeau Transit Center)
- Expanded Night and Weekend Service
- Direct, non-stop peak hour service between Liberty Lake and Spokane
- A two-year Pilot Service to/from Post Falls and Coeur d'Alene, ID subject to a cross-state partnership

In addition to voter-approved sales tax, STAMF sought to obtain funding from competitive state and federal grants and increased revenues from ridership growth and planned fare increases.

The I-90/Valley corridor as defined in *Connect Spokane* spans jurisdictional boundaries, including the City of Spokane, Spokane County, City of Spokane Valley, City of Millwood, City of Liberty Lake, Kootenai County, City of Post Falls, and City of Coeur d'Alene. Transit solutions developed and analyzed in the Corridor Development Plan (CDP) can provide benefits across the Spokane–Coeur d'Alene combined statistical area. As such, objectives for the CDP were derived to align closely with regional transportation plans and have been vetted by the agency partners throughout the corridor and serve as the basis for developing, analyzing and evaluating transit-related solutions for the I-90/Valley corridor. The CDP objectives are:

1. Support **economic vitality** and growth by improving mobility and reliability on the busiest urban corridor in the Spokane/Coeur d'Alene Region
2. Advance **transportation equity** by improving access to jobs, education, health care, recreation, healthy food, childcare and other facilities
3. Promote integrated solutions that support **safe and healthy transportation options** for all ages and abilities
4. **Engage our community** agencies, businesses, and diverse community members to envision, enhance, craft, validate, and support service and facility improvements
5. Serve as a model for the community benefits of **regional and interstate cooperation**
6. Advance service and supporting infrastructure improvements that are safe, cost-conscious, high-performing, resilient, and reflect and **enhance community identity and environment**.

I-90 CORRIDOR – EXISTING AND FORECAST CONDITIONS

The I-90/Spokane Valley Corridor Study area (see **Figure ES-1**) is generally within a mile on either side of I-90, from the West Plains to the Washington/Idaho Border. However, for purposes of the planning process, that has been expanded to include the Sprague and Trent corridors.

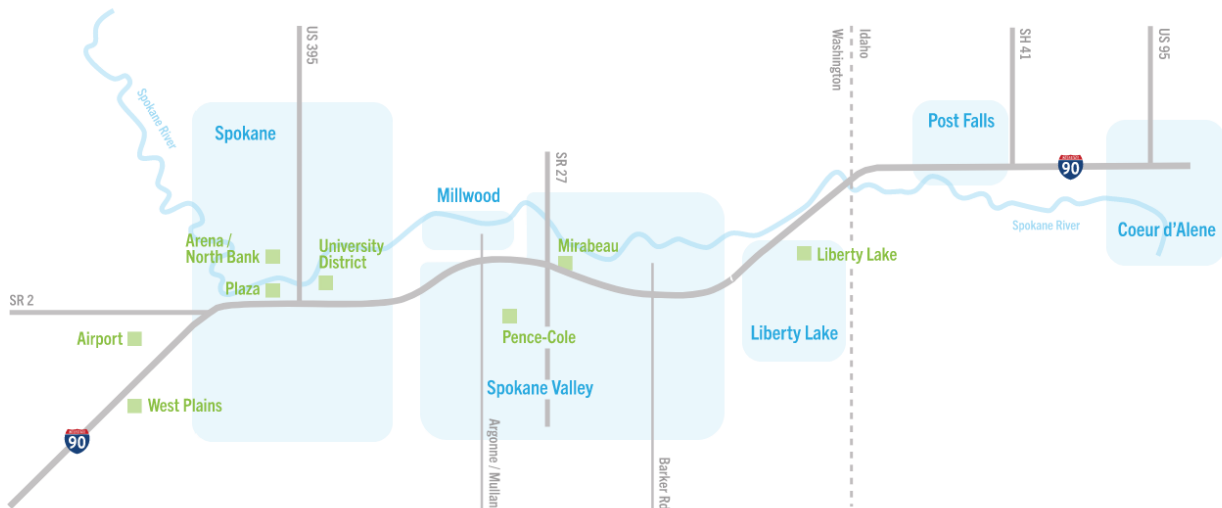
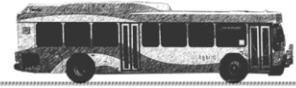


Figure ES-1: I-90 Corridor

HOUSEHOLD, EMPLOYMENT AND TRAFFIC GROWTH

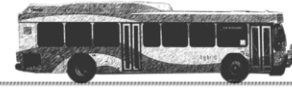
The I-90/Valley Corridor is the Spokane Region's most congested corridor. Between 2015 and 2040, double-digit household and employment growth is anticipated in the Spokane Regional Transportation Council's (SRTC's) travel demand model. This growth will impact congestion in the corridor.

Current PM peak traffic volumes range from 8,700 vehicles/hour near Downtown Spokane to 10,100 vehicles/hour west of Spokane Valley, and 4,600 vehicles/hour near the State Line. Congestion occurs on several segments of the corridor, in both directions as well as some of the interchanges during peak morning and evening traffic. By 2040, the travel demand model expects 10 – 20% growth in traffic between downtown Spokane and the State Line, resulting in moderate to high congestion along most of the corridor as well as the Division Street, Pines Road, and Harvard Road interchanges.

The greater metropolitan area is growing rapidly between Spokane and Coeur d'Alene Idaho. There are a substantial number of commuters crossing the State Line to/from work each day. The U.S. Census Bureau's Longitudinal Employer-Household Dynamics (LEHD) 2018 data suggests that 5% of people working in Kootenai County are from Spokane County (about 2,800 people). About 13% of people living between the State Line and Coeur d'Alene are commuting to Spokane County (about 6,900 people). Spokane Regional Transportation Council's (SRTC) regional demand modelling identifies 20% growth in border crossings in the next 25 years.

BUS SERVICE AND RIDERSHIP

The global pandemic greatly impacted transit ridership in the corridor in the past two years (2019/2020), with ridership dropping roughly 50-80% of pre-pandemic levels. The pandemic affected ridership patterns as well, with a more even distribution of riders commuting west and east-bound, rather than a majority of riders commuting west to Downtown Spokane. This shift suggests that jobs east of downtown Spokane are more likely to be location-required or 'essential' jobs compared to downtown Spokane.



Ridership is recovering as the pandemic is requiring fewer restrictions. It is unclear how the ridership volumes and distribution will recover, but there remains a clear need to bring high performance transit to the corridor, including new capital facilities.

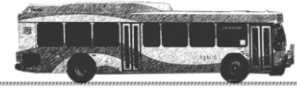
There are two key existing transit facilities in the corridor east of downtown. Mirabeau Point park-and-ride is the central valley facility, located between Pines Road and Evergreen Road on Indiana Avenue. The Liberty Lake Park-and-Ride is the east valley facility, located on Mission Avenue, just north of Country Vista Drive. Both facilities are used by multiple fixed routes and, leading up to the pandemic, were experiencing capacity issues. Current and forecast central and east valley park-and-ride capacity needs are summarized in **Table ES-1**, supporting the STAMF objectives to expand and/or relocate these facilities to meet anticipated needs.

Table ES-1: Central and East Valley Park-and-Ride Capacity Availability and Needs

Year	Number of Routes	Required Bay/Layover Spaces	Total Existing/Projected Need for Parking Capacity
Mirabeau Point / Central Valley Park-and-Ride			
Current	4	4	198
2025 – opening	5	6	220 to 350
2040 – horizon	5 to 7	6 to 9	300 to 450
Liberty Lake / East Valley Park-and-Ride			
Current	3	3	165
2025 – opening	4	5	200 to 340
2040 – horizon	4 to 7	5 to 9	300 to 475

TRANSIT SERVICE AND FACILITY ANALYSIS

Using STA’s service design guidelines for High Performance Transit, a total of fourteen transit service scenarios (including a “no-build” scenario), were developed. The scenarios were highly unique, each with its own specific termini, destinations, levels of investment required and routing. The fourteen scenarios were evaluated and five scenarios rose to the top. The top scenario (Scenario 14 – Three Route Harmony), features a high frequency route from West Plains Transit Center along I-90 to the east valley park-and-ride. This route is complimented with a route from Liberty Lake Park-and-Ride (with future expansion to State Line) to the north bank of the Spokane River, in downtown Spokane, and a route from Barker Road via Sprague Ave with service to the University District and connection to the City Line.



In parallel with the service scenario analysis, a transit facility siting analysis was conducted. Approximately 50 different sites are located along the corridor were reviewed. Sites needed to be within ½-mile of I-90, and a minimum of 2 acres in size. The sites were evaluated in a two-step process against criteria developed specific to project objectives to first assess site feasibility and then to address more specific merits of top sites. Four unique sites rose to the top.

Figure ES-2 shows two central valley sites that allow for the expansion of the existing Mirabeau Point Park-and-Ride, one to the north (directly across the UPRR tracks (site M2) and one to the south of I-90 on E. Mission Avenue (site M7), west of Evergreen Road. **Figure ES-3** illustrates two east valley sites include one on Harvard Road and East Mission Ave in Liberty Lake (L3) and one on East Appleway Avenue adjacent to the Greenacres Interchange (L13) (inset below). Of the east valley sites, L13 was favored due to size, access, and visibility from the corridor.

The top-ranking transit service scenario was carried forward and evaluated with top facility sites for the central and east valley facilities. Three alternatives were evaluated

using a multiple account evaluation (MAE) process, whereby multiple criteria reflective of the project objectives were established to evaluate each account (category).

The results of the MAE validate the preferred architecture, including the connectivity to the West Plains Transit Center. A park-and-ride investment for east valley performs better nearer to Barker Road, than to Harvard Road. A potential connection at Argonne Road with integrated service to NE Spokane Valley along the Mission Corridor between Evergreen and Pines is promising in terms of ridership response. The draft Preferred Scenario for HPT Architecture is shown in **Figure ES-4**.



Figure ES-2: Preferred Transit Facility Sites – Central Valley Area



Figure ES-3: Preferred Transit Facility Sites – East Valley Area

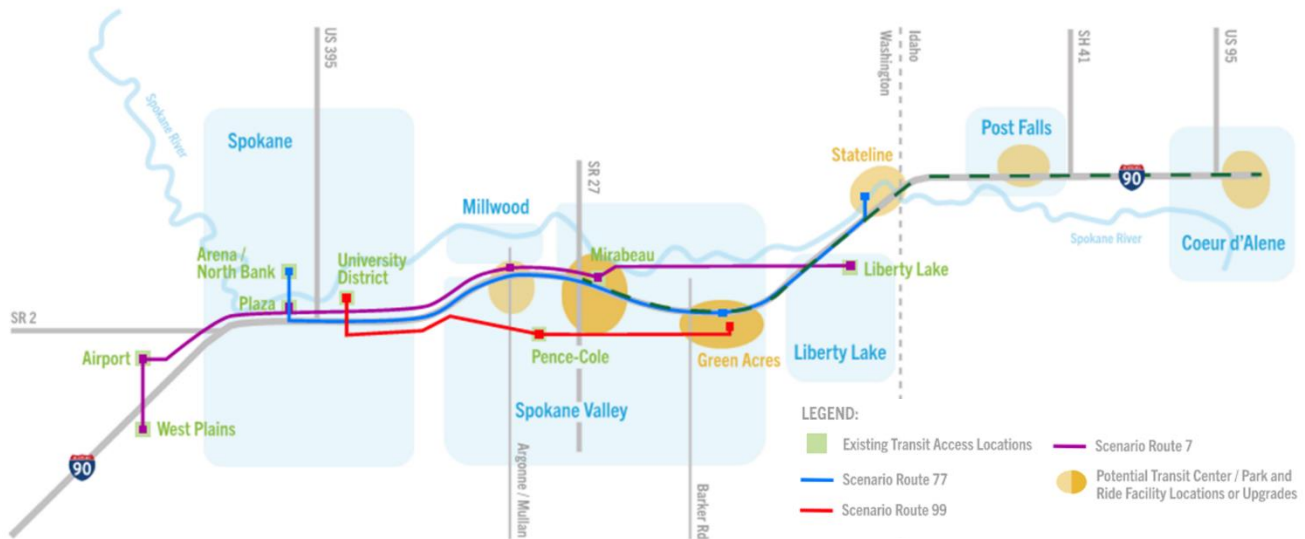
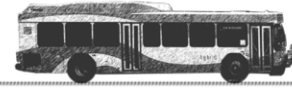


Figure ES-4: Draft Preferred Service and Infrastructure Scenario

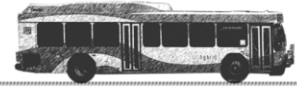
PUBLIC INPUT ON PREFERRED SCENARIO

The DRAFT preferred Service and Infrastructure scenario was presented to our Technical Advisory Committee (TAC), consisting of each of the jurisdictions along the corridor (Spokane, Spokane Valley, Millwood, Spokane Valley, Liberty Lake), and including SRTC and the Washington State Department of Transportation. The TAC supports the transit improvements as they will provide transportation alternatives, support growth and economic development, and help to alleviate congestion. The DRAFT scenario was also presented to the public in a virtual community meeting. A public survey was conducted that garnered over 450 individual responses. The community is supportive of transit investments and sees value, particularly with:

- Night and weekend service and improved frequency of service lead by a wide margin as the most desirable improvements
- Connectivity to Northern Idaho (77% Spokane County responders support, and 41% Kootenai County responders support)
- Favored park-and-ride locations – State Line, Sprague, and Argonne

This input helped to shape the near and long-term development plan for the corridor. The DRAFT Corridor Development Plan (CDP) was presented to the TAC and presented to the public in a 2nd virtual community meeting. The TAC provided support for the investments and the thorough study process. Mirabeau expansion and a Greenacres site concepts were shared directly with the stakeholders. They support the investments at the Greenacres (including the direct access to I-90) and Mirabeau sites.

A 2nd public survey was conducted to review the DRAFT plan. The community believes I-90 congestion is serious and is supportive of the investments identified. Top service improvements as recommended by the respondents included:



- More night and weekend service
- Peak express service to Liberty Lake and Greenacres Park-and-Ride
- Pilot extension of services to Coeur d'Alene

Top investments as recommended by the respondents included:

- All the services on routes along I-90
- Developing transit priority pathways in the corridor
- Future park-and-ride facility at Stateline

I-90/VALLEY CORRIDOR RECOMMENDATIONS

The investment and implementation recommendations of the CDP are detailed below and provides for near-term and planned service and transit facility infrastructure improvements to support planned growth and meet the project objectives. Beyond the primary HPT Route 7, route numbers presented here are subject to revision prior to service launch.

IMPLEMENT MAINLINE I-90/VALLEY HPT LINE

Revise Route 74 Mirabeau/Liberty Lake to HPT Route 7 as the primary HPT corridor, extending from the West Plains and Spokane Airport to Spokane Valley and Liberty Lake, operating seven days a week for improved regional mobility. Future Route 7 is envisioned to commence in 2025 and will be the primary all-day HPT service investment along the I-90/Valley corridor. It will effectively join existing Route 74 Mirabeau/Liberty Lake with service extending from downtown to the Spokane Airport and ultimately the West Plains Transit Center. Notably, the new Route 7 mainline will introduce night and weekend service along I-90 in Spokane Valley and Liberty Lake. There will be an overlay route operating between downtown and Mirabeau to provide 15-minute service in this portion of the route, similar to Route 771, which began service August 2022. HPT stop and station investments along Route 7 will need to be developed in a future planning effort and approved as a future supplement to this CDP.

UPGRADE MIRABEAU TRANSIT CENTER

Make modifications to the existing Mirabeau Point Park and Ride to upgrade it to a transit center, increasing its capacity for bus staging and customer parking, and providing enhanced passenger amenities. Mirabeau Point Park and Ride is now 20 years old and warrants upgrades. In addition to being a popular park and ride location, the park and ride facility has functioned as an important connection and layover location. Recommended upgrades include additional bus bays for a total of six, commuter parking, improved passenger and operator amenities and an extension of the sidewalk to the west along Indiana Avenue to connect to the existing sidewalk network to the west. STA aims to complete the improvements in 2025.

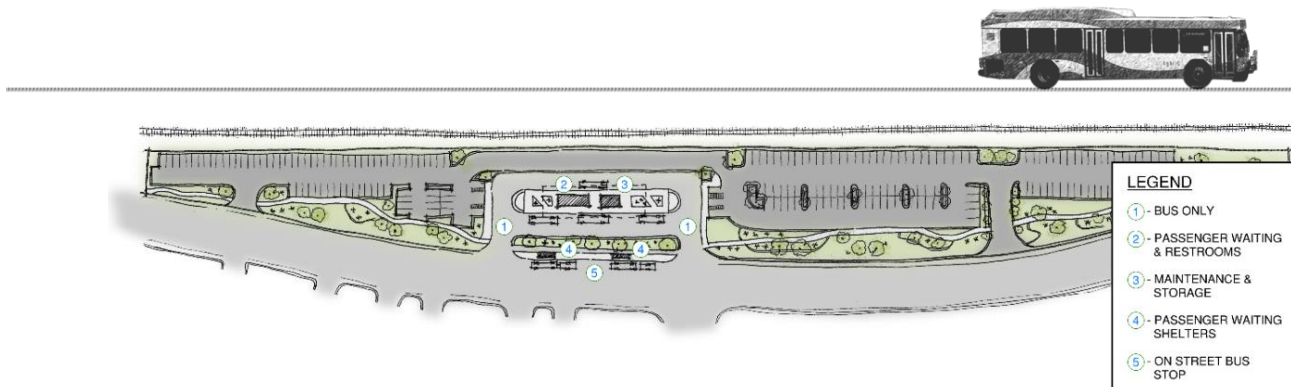


Figure ES-5: Mirabeau Point Park-and-Ride Expansion Concept (Near-Term)

CONSTRUCT APPLEWAY STATION PARK AND RIDE

Construct a new Appleyway Station Park and Ride north of Appleyway Avenue to deliver on commitments to *STA Moving Forward* and position the transit network to support continued population and ridership growth. The preferred site identified in the plan (Site L-13) could accommodate over 400 car parks, in addition to a robust passenger and bus staging area. Initial plans would be focused on providing a 135 car parks (Figure ES-6), in line with the net increase committed to *STA Moving Forward* for park and ride capacity east of Sullivan Road. The site could accommodate more parking or allow for a more integrated transit oriented development. Additionally, its adjacency to Spokane County-owned right of way that has been preserved for future High Capacity Transit allows the site play a pivotal role over the coming decades in the provision of transit to our region.

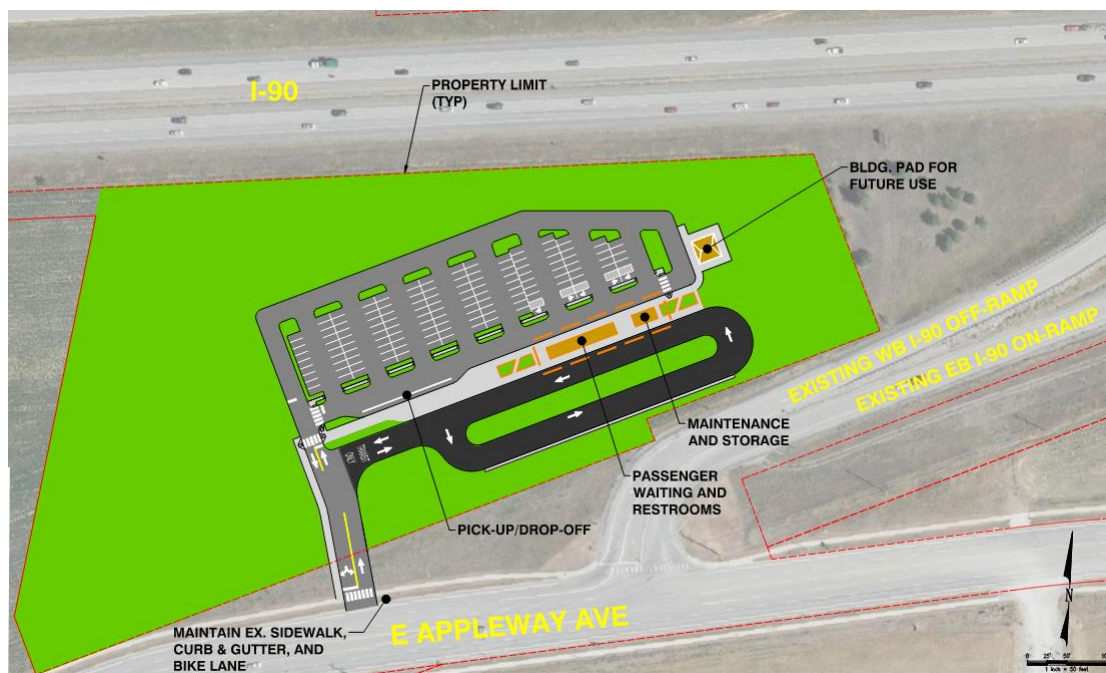
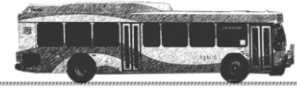


Figure ES-6: Appleyway Station Park-and-Ride Concept (Near-Term)

Subject to additional grant funding, construct exclusive transit ingress from I-90 to the new station and design the project in a way to accommodate future priority measures, which could include future use of the existing Spokane County-owned right-of-way adjacent to the preferred site. STA aims to complete the park and ride in 2025, with improved ingress and other enhancements happening in later years.



EXPAND LIBERTY LAKE EXPRESS SERVICE

Revise and expand express service between Spokane and Liberty Lake, by increasing peak service to every 15 minutes and connecting to the future Appleway Station Park and Ride, as well as extending access to the North Bank of downtown Spokane. Today, Routes 172 and 724 provide express service between Liberty Lake and downtown Spokane. 724 aims to support workers commuting to Liberty Lake, while the 172 supports commuters heading to Spokane for employment and education. Appleway Station Park and Ride will create an opportunity for the 172 in particular to be accessible to more residents, including those accessing I-90 outside of Liberty Lake. Additionally, express service is envisioned to establish the service pattern expressed in the Preferred Service and Infrastructure Scenario as Route 77, by extending across the Monroe Street Bridge to downtown Spokane's North Bank, providing direct access for commuters to jobs in Kendall Yards and the Spokane County Campus. The route pattern may also be deployed for special events

CONSTRUCT ARGONNE STATION PARK AND RIDE

Subject to additional grant funding, construct Argonne Station Park and Ride along Route 7 to increase access and system effectiveness. Through the course of the corridor planning effort, transit access at Argonne Road and I-90 surfaced as an important driver of ridership growth, providing improved mobility and a more logical system of connections. Earlier in 2022, the STA Board of Directors approved the submittal of a WSDOT Regional Mobility Grant application for this project. Matching funds are included in the Capital Improvement Program as adopted as a part of the 2023-2028 Transit Development Plan.

Argonne Station will include one flyer stop, an off-street bus and passenger staging area, up to 67 car parks, and transit priority measures on the eastbound on-ramp (Figure ES-7). This facility will enable further network revisions in Spokane Valley to provide better connectivity from the Valley Transit Center to Spokane by consolidating express service along Sprague Avenue rather than splitting it between Sprague Avenue and Mission Avenue via the Argonne Interchange. This express service could extend to the University District, providing connectivity to the City Line and operate as an expression of Route 99 included in the Preferred Service and Infrastructure Scenario, and could be interlined with Route 98 Sprague extending to Liberty Lake along Sprague and Appleway avenues. Argonne Station, if funded, is envisioned to be in service in 2027.

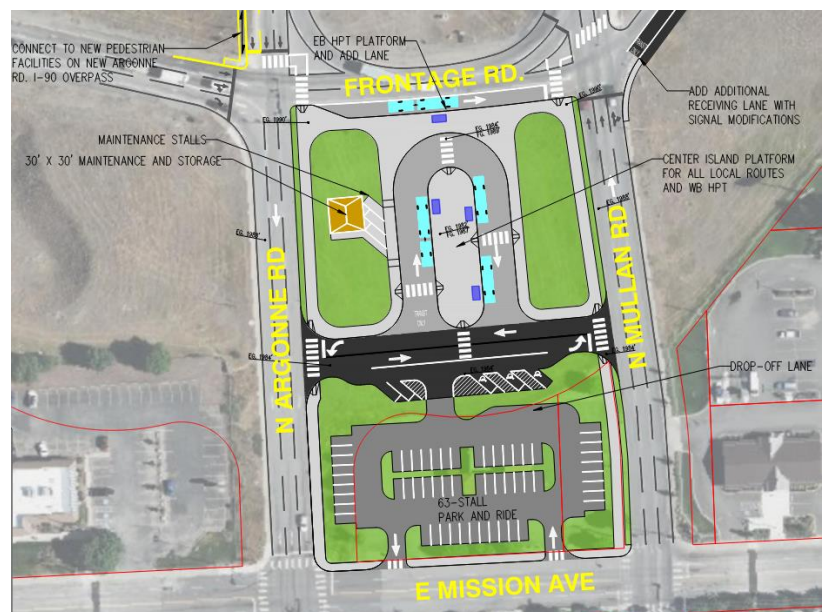
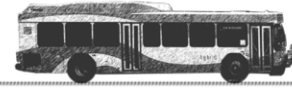


Figure ES-7: Argonne Station Park-and-Ride Concept



PILOT SERVICE TO NORTH IDAHO

Implement a route between Mirabeau Transit Center and Coeur d'Alene to provide popular new connections on a two-year pilot basis, and in partnership with Kootenai County. In 2026 and still as part of STA Moving Forward, a pilot service will be introduced. The ability to introduce this pilot service is directly dependent on the availability of new and revised transit facilities and so must follow their development and inter-state partnership. The pilot service would operate to Coeur d'Alene and Post Falls connecting to Appleyway Station Park-and-Ride and Mirabeau Transit Center. This service is intended to be two-way with the initial goal of providing transit access for Spokane County residents to reach work locations in Kootenai County. As a pilot, the service will be of 2-year duration and will have specific objectives established to monitor progress against those intended objectives. Before the end of the pilot, the service will be evaluated to determine the longer-term feasibility of continuing the service.

PARTNER TO ADVANCE TRANSIT PRIORITY

Partner with the Washington State Department of Transportation (WSDOT) to seek priority pathways for transit and advance the long-range vision presented in this plan. Transit priority on I-90 will be critical as traffic volumes and congestion continue to grow. STA will take a proactive role with WSDOT to evaluate options to give priority to transit at high-priority interchanges, and potentially on the mainline. For instance, STA is supportive of WSDOT's interest in reserving the Stateline Interchange as a future park and ride location, to ensure transit is position to play an important role in providing person throughput across I-90 for decades to come.

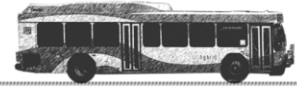
Similarly, STA will work with local agencies to create transit priority pathways from the new fixed passenger transit facilities to on and off ramps or to take advantage of historic railroad corridors or other available rights-of-way to prioritize transit east-west movements.

COST ESTIMATES AND CONSIDERATIONS

The following table identifies capital cost estimates for each recommended investment. Notably, the planning study did not explore cost estimates for HPT stop and station improvements outside major facilities. As such, no cost estimate is currently available for the Implement Mainline I-90/Valley HPT Service recommendation. Cost estimates do not include operating or rolling stock costs. All service investments are captured in the assumptions in the 2023-2028 Transit Development Plan based on the latest iterations of service design assumptions.

Table ES-2: Capital Cost Estimate Summary for Recommended Investments Availability and Needs

Recommended Investment	Capital Cost Estimate (\$2022)	Notes
Implement Mainline I-90/Valley	TBD	Cost estimates for bus stop improvements along arterial segments of the corridor will be developed through a CDP supplemental planning effort in 2023.
Upgrade and Expand Mirabeau Transit Center	\$6 million	
Construct Appleyway Station (135 Stalls)	\$ 17 Million	Note: An additional \$6 million is estimated for expanding to 300 car stalls and added elements including exclusive transit off-ramp (eastbound).



Recommended Investment	Capital Cost Estimate (\$2022)	Notes
Expand Liberty Lake Express Service	N/A	Capital costs for stop improvement are captured in other projects.
Construct Argonne Station	\$13 million	
Pilot Service to North Idaho	N/A	
Partner to Advance Transit Priority	TBD	Cost estimates are beyond the scope of the CDP
TOTAL	\$36 million	As noted above, does not include capital costs for "Implement Mainline I-90/Valley."

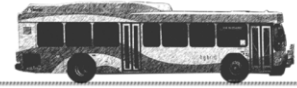
The cost estimates above will necessitate revisions to STA's Capital Improvement Program (CIP). Savings in the Mirabeau Transit Center project relative to earlier cost estimates will yield approximately \$2.5 million in offset in addressing the higher cost for the Appleway Station Park and Ride compared to what is included in the current CIP and based on a 2013 conceptual study. Both the escalation in land values and construction costs result in a net increase of \$9 million. This amount would be incorporated into the preparation of the 2024-2029 CIP and would be derived from local tax revenues. This additional investment could be used as match toward augmenting the project, seeking \$6 million in grant funds to provide for other station enhancements, particularly direct I-90 access for transit.

NEXT STEPS

The adoption of the I-90/Valley Corridor Development Plan will mark an important milestone in the project. Key next steps include the following:

- Begin design of the Mirabeau Transit Center.
- Develop the HPT stop and station plan as a future supplement to the CDP.
- Begin due diligence on property acquisitions for Appleway Station Park and Ride and Argonne Station Park and Ride.
- Seek additional funding to enhance Appleway Station Park and Ride.

The foregoing plan identifies transit investment opportunities beyond the scope of the investments and actions in the core recommendation. Together, these should be considered a helpful blueprint to consult, rather than specific investment recommendations for implementation.



1. Introduction

The I-90/Valley corridor is one of the six High Performance Transit corridors identified in STA's Comprehensive Plan (Connect Spokane¹). High Performance Transit (HPT) allows for spontaneous travel with a relatively higher frequency. High Performance Transit corridors are STA's highest ridership corridors where investments in speed and reliability, frequency, hours of service, and passenger amenities are made.

2016 voter-approved STA Moving Forward (STAMF) is a 10-year plan that, amongst other transit improvements, identifies key transit corridors for which fixed-route bus service will be improved to include higher frequency service, extended hours/days for frequent routes and route enhancements to connect people to services, jobs, education and enhance economic development by providing regional connections. Specific I-90 corridor improvements identified in STAMF include:

- Expand commuter parking capacity east of Sullivan Road
- Construct a new Mirabeau Transit Center
- Introduce more nights and weekend service along I-90 between Spokane and Liberty Lake
- Pilot Service to/from Post Falls and Coeur d'Alene, ID (subject to collaboration with partners in Kootenai County)
- Direct, non-stop peak hour service between Liberty Lake and Spokane

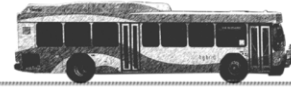
STAMF provides local funding to these projects, and additional funding is obtained from competitive state and local grants and increased revenues from ridership growth.

PURPOSE AND OBJECTIVES

The I-90 corridor spans jurisdictional boundaries, including the City of Spokane, Spokane County, City of Spokane Valley, City of Millwood, City of Liberty Lake, Kootenai County, City of Post Falls, and City of Coeur d'Alene. Transit solutions developed and analyzed in the CDP have the opportunity to provide benefits across this greater metropolitan area. As such, objectives for the CDP were derived to align closely with regional transportation planning documents, including:

- **Connect Spokane – A Comprehensive Plan for Public Transportation**, 2015, STA
- **STA Moving Forward**, 2016, STA
- **Horizon 2040: The Spokane Regional Metropolitan Transportation Plan (including Horizon 2045 household and employment forecast updates)**, 2018, Spokane Regional Transportation Council
- **Kootenai County Metropolitan Transportation Plan**, 2010-2035, 2020, Kootenai Metropolitan Planning Organization
- **Public Transportation Plan Update**, 2012, Kootenai Metropolitan Planning Organization

¹ Connect Spokane – A Comprehensive Plan for Public Transportation, Spokane Transit Authority, 2015 Revision

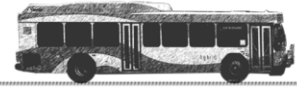


The CDP objectives have been vetted by the agency partners throughout the corridor and serve as the basis for developing, analyzing and evaluating transit-related solutions for the I-90 corridor. The CDP objectives are:

1. Support **economic vitality** and growth by improving mobility and reliability on the busiest urban corridor in the Spokane/Coeur d'Alene Region
2. Advance **transportation equity** by improving access to jobs, education, health care, recreation, healthy food, childcare and other facilities
3. Promote integrated solutions that support **safe and healthy transportation options** for all ages and abilities
4. **Engage our community** agencies, businesses, and diverse community members to envision, enhance, craft, validate, and support service and facility improvements
5. Serve as a model for the community benefits of **regional and interstate cooperation**
6. Advance service and supporting infrastructure improvements that are safe, cost-conscious, high-performing, resilient, and reflect and **enhance community identity and environment**.

CDP PURPOSE AND USE

This Corridor Development Plan (CDP) summarizes the planning process accomplished to identify, conceptualize, evaluate and coordinate transit service and facility improvements that may be implemented over time to best meet the CDP objectives. Furthermore, the CDP defines these transit improvements in enough detail to serve as a resource for pursuing grants for project funding and for the next steps in the implementation process, including property acquisition, permitting and preliminary design and engineering. Lastly, the CDP includes supportive and complimentary transportation capital projects that agency partners may consider implementing to bolster the performance of the overall transportation network.

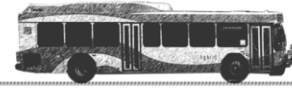


2. Background

As a part of the 2016 STA Moving Forward voter-approved sales tax initiative, Spokane Transit Authority (STA) envisions a network of High Performance Transit (HPT) corridors providing all-day, two-way frequent service which offers competitive speeds to the private automobile, features improved amenities for passengers, and is more attractive and effective than basic-fixed-route service. One of these corridors is referred to as the I-90/Valley corridor, eventually extending between Downtown Spokane and Coeur d'Alene and connecting Spokane Valley, Liberty Lake and Post Falls. STA Moving Forward calls for core program infrastructure and service improvements between Spokane and Liberty Lake, including a new transit center, additional park-and-ride capacity and improved peak and off-peak hour service. A pilot program is also identified in the STA Moving Forward plan: a two-year pilot service extension to Coeur d'Alene that is dependent on collaboration with partners in Kootenai County. Two existing park-and-ride facilities along the I-90 corridor have been identified for potential relocation, expansion, or improvements to accommodate the HPT service: the Mirabeau Point Park-and-Ride and the Liberty Lake Park-and-Ride.

The East Valley area of Spokane County including Spokane Valley, Millwood, and Liberty Lake and the west plains of Idaho including Post Falls, Rathdrum, and Coeur d'Alene is a rapidly expanding area that displays equally fast development of traffic volumes. While this area might have been hit by reductions in travel caused by the COVID-19 pandemic, a year later, none of that is in evidence. In fact, available data suggests this area has sprung back faster with accelerated growth as the pandemic started to ease, even in the fall of 2020. The growth has been ubiquitous and includes land use growth, residential, retail, and commercial as well as accompanying growth in travel.

The part of the travel market that has not seen significant growth is transit. However, this is largely due to the influence of the pandemic. Ridership losses on the I-90-based routes have not been significantly different than routes with similar characteristics from all over the US. It is notable, however, that ridership on the all-day route (Route 74) has declined less, on a percentage basis, than the routes that are directed toward the regular commute period. This suggests the possibility that there are essential trips occurring on the all-day routes outside of what would normally be considered commute periods. Longer term, it is very likely the ridership will return to normal and will also exhibit the type of growth seen in general purpose traffic over the next few years. However, the time-of-day patterns and the predominant direction of travel may shift. In fact, if mid-2021 conditions persist over the next few years, the transit demand for people headed into the Valley for work, may be as strong as the transit demand for people headed into downtown Spokane from the Valley.



STUDY CORRIDOR

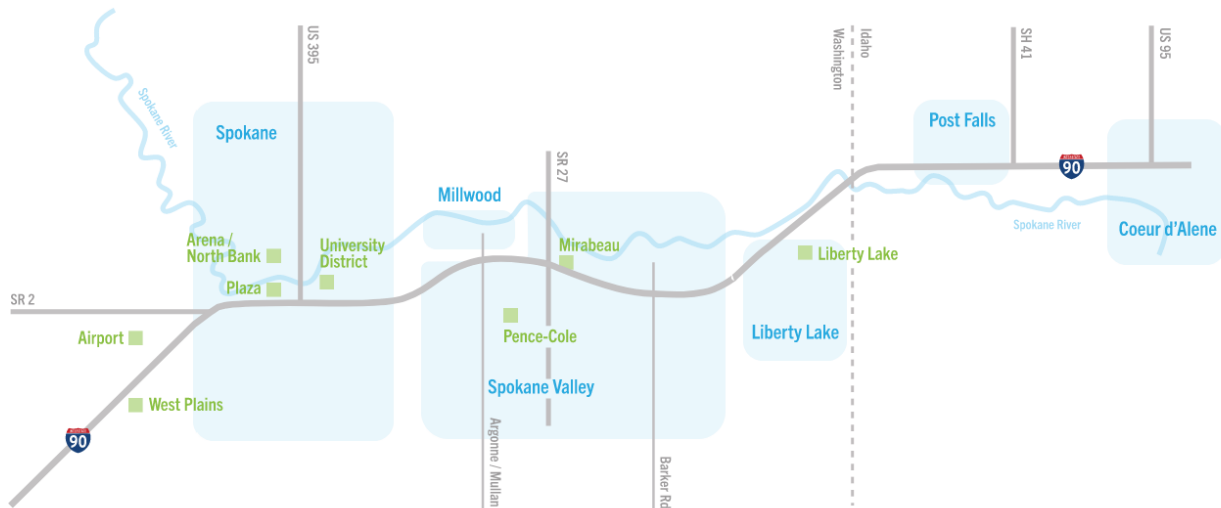


Figure 2-1: I-90/Spokane Valley Corridor

Over the course of the project the “corridor” has taken on a broader dimension. While infrastructure investments continue to be focused in the I-90 East corridor, the potential service investment definition has expanded to include consideration of service stretching from the West Plains to Coeur d’Alene. Generally, the “corridor” definition utilized in this study is within a mile on either side of the alignment I-90. However, that has been stretched to include the Sprague and Trent corridors, which due to area geography are, at some locations, more than a mile from the I-90 alignment.

BASELINE EXISTING AND FUTURE CONDITIONS

HOUSING AND JOB GROWTH

The 2015 existing and 2040 forecasted household and employment totals were extracted from the Spokane Regional Transportation Council (SRTC) travel demand model. **Table 2-1** highlights the three main areas approximate to the I-90 HPT transit line service areas: Downtown Spokane Area, Spokane Valley Area, and Liberty Lake Area. Between 2015 and 2040, there is an expected 36 percent increase in households and 16 percent increase in employment in Downtown Spokane. Spokane Valley area would experience a 21 to 30 percent increase in household and employment. The Liberty Lake area would experience a 42 percent growth in households and 71 percent growth in employment (however this large percent increase is a result of a lower starting total compared to Spokane Valley and Downtown Spokane areas).

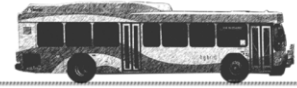
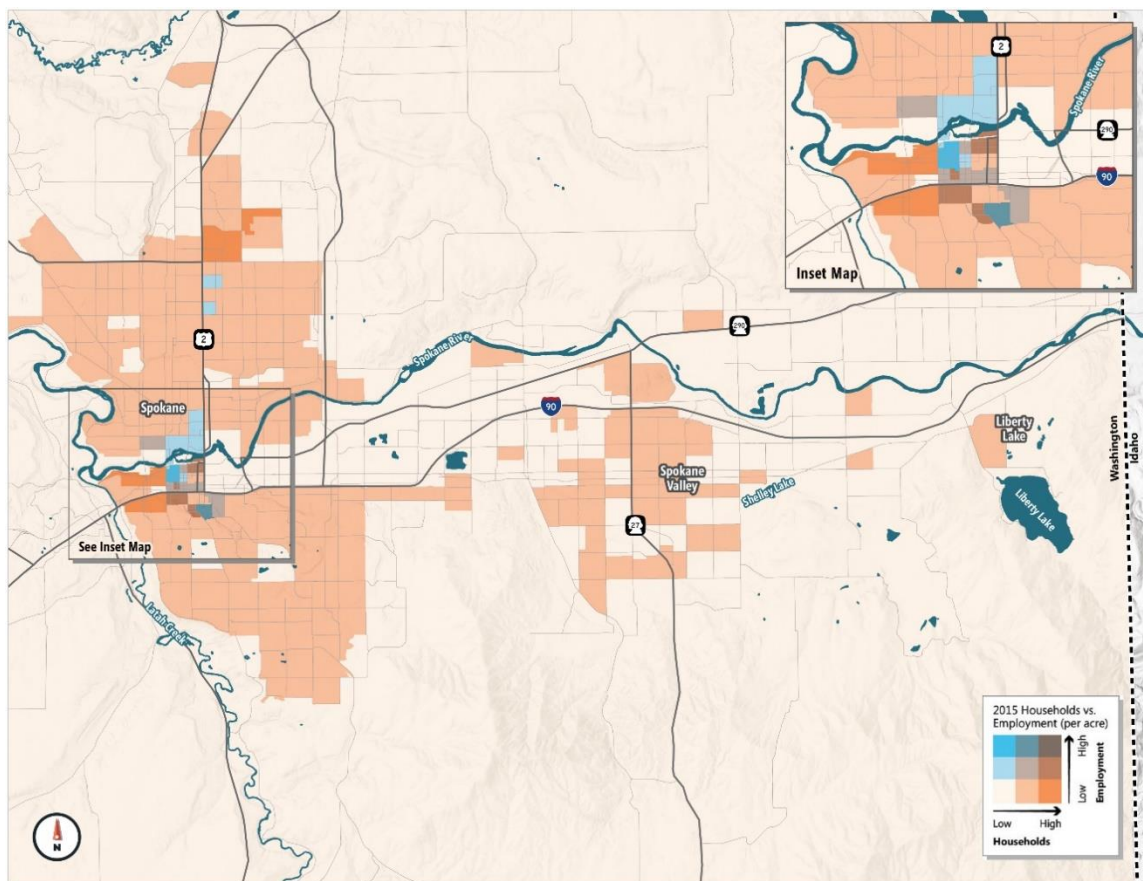


Table 2-1: 2015 and Forecasted 2040 Land Use in the Study Area

Area	2015 Household	2015 Jobs	2040 Household	2040 Jobs	Household Growth	Job Growth	Household % Growth	Job % Growth
Downtown Spokane Area	40,100	83,200	54,600	96,400	14,500	13,200	36%	16%
Spokane Valley Area	31,600	37,600	38,200	49,100	6,700	11,500	21%	31%
Liberty Lake Area	12,200	9,400	17,400	16,000	5,200	6,600	42%	71%

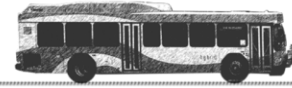
Source: 2015 and 2040 STRC travel demand model; Fehr & Peers, 2021

The 2015 existing and 2040 land use density (household per acre and jobs per acre) by model traffic analysis zones (TAZ) are mapped in **Figures 2-2 through 2-5**. Under existing conditions, the higher density of employment and households along the corridor are in Downtown Spokane, Spokane Valley, and Liberty Lake areas. Under future conditions, larger increases in land use density are expected along Sprague Avenue, Argonne Road, and near the Spokane Business & Industrial Park in Spokane Valley. Additional growth is also expected in Liberty Lake at the Meadowood Technology Campus and the areas just west of Harvard Road.

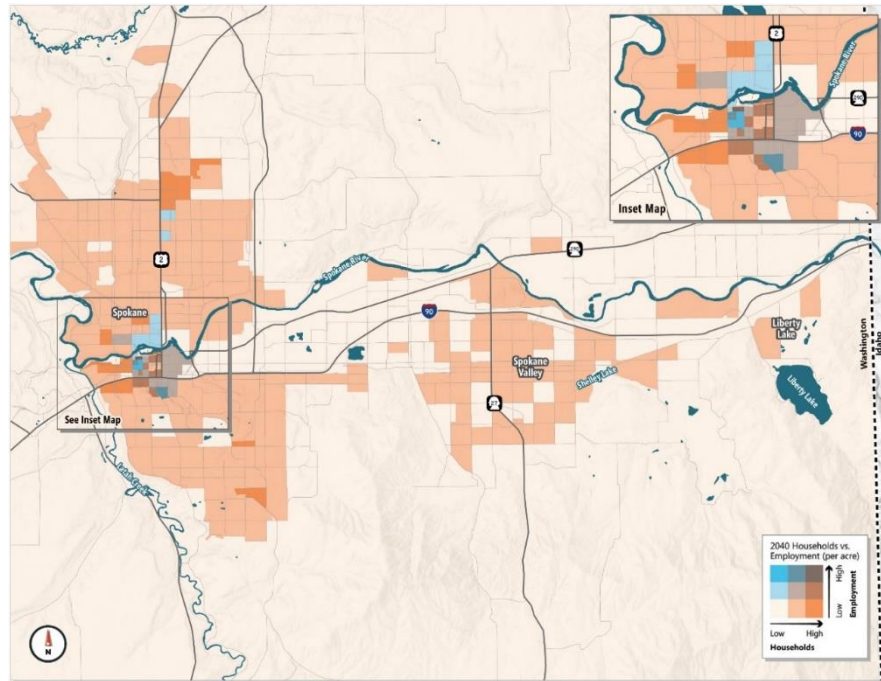


Source: 2015 and 2040 STRC travel demand model; Fehr & Peers, 2021

Figure 2-2: Existing Household and Employment Density

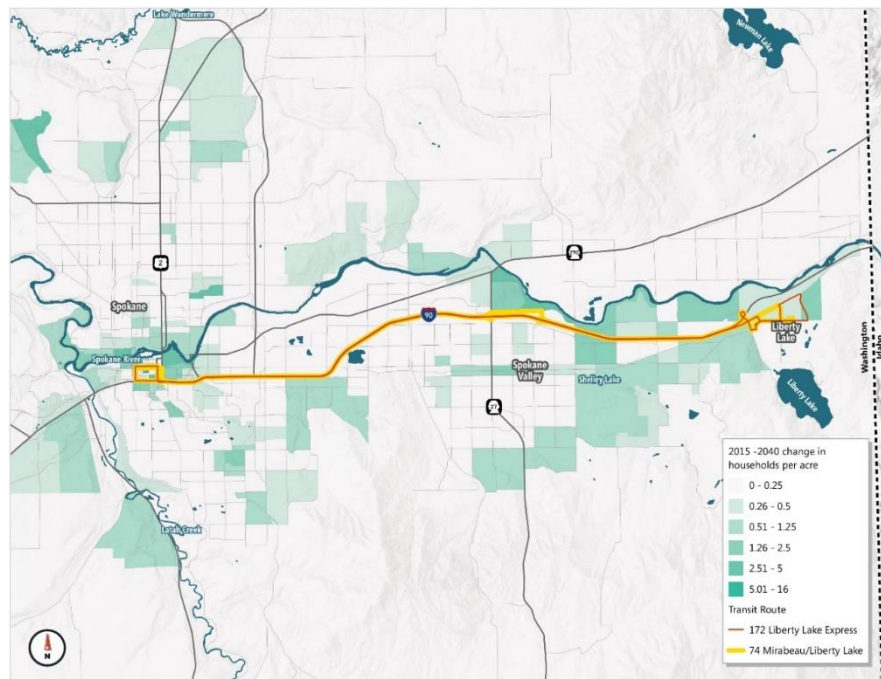


SRTC is in the process of updating its land use forecasts for the region, however it has not been formally adopted. The region's land use forecasts may change slightly as the project progresses.



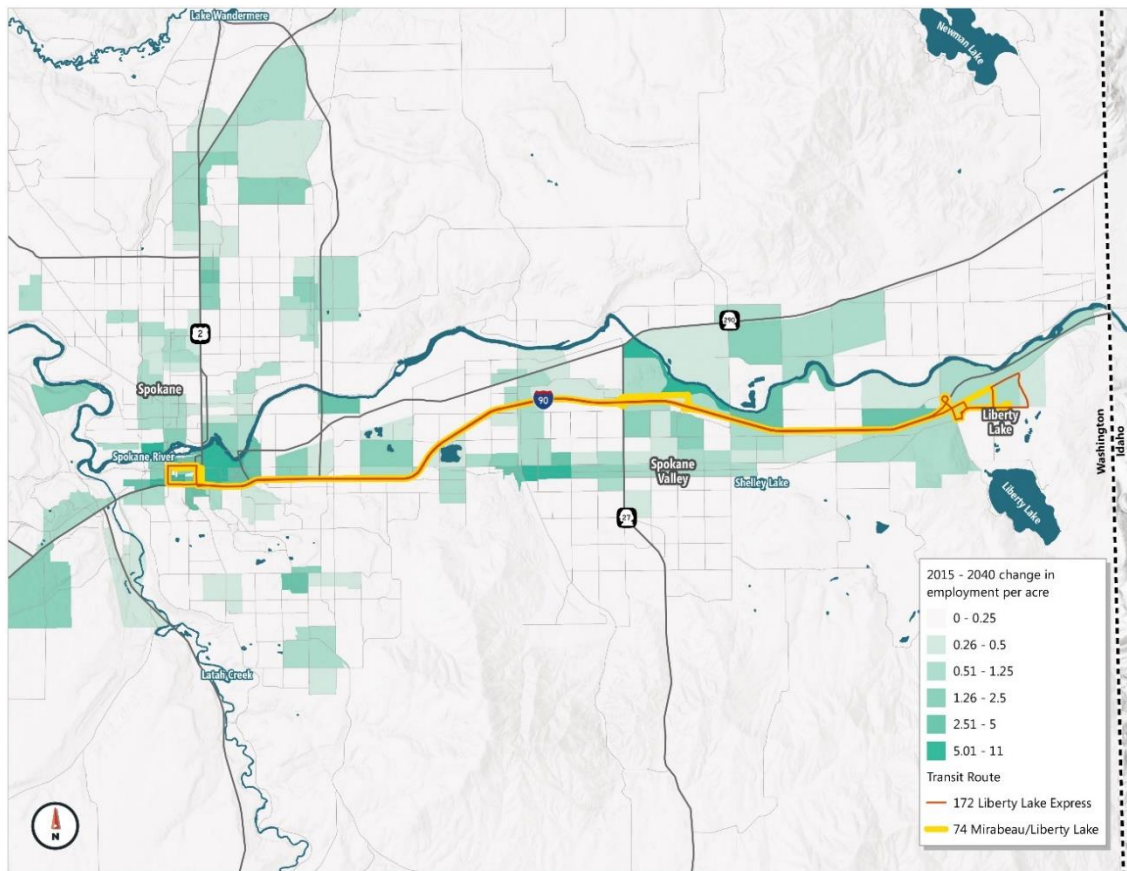
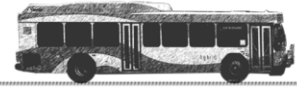
Source: 2015 and 2040 STRC travel demand model; Fehr & Peers, 2021

Figure 2-3: 2040 Household and Employment Density



Source: 2015 and 2040 STRC travel demand model; Fehr & Peers, 2021

Figure 2-4: Change in Household Density (Existing to 2040)



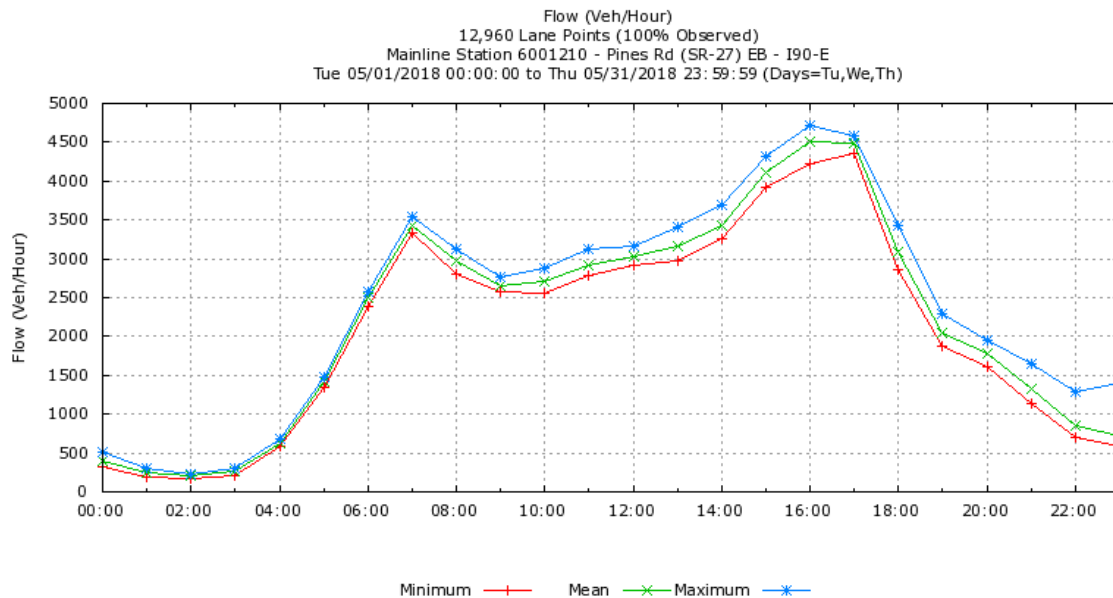
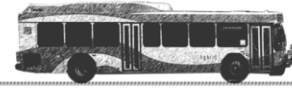
Source: 2015 and 2040 STRC travel demand model; Fehr & Peers, 2021

Figure 2-5: Change in Employment Density (Existing to 2040)

VEHICLE TRAFFIC

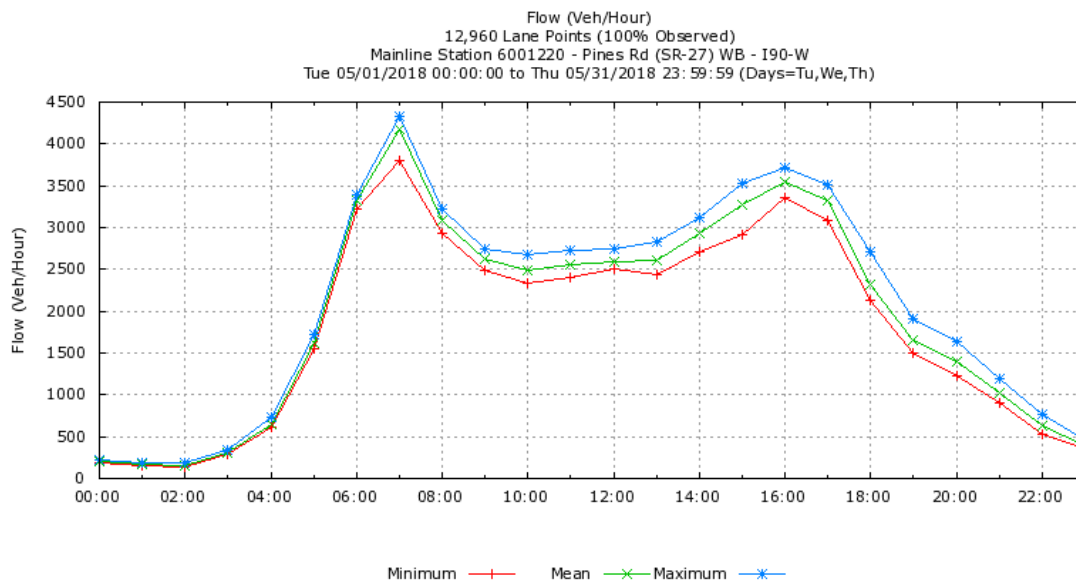
Existing Traffic Operations. Under current conditions, I-90 experiences the most congestion in the PM peak hour with higher traffic demand in the eastbound direction as vehicles leave the Downtown Spokane employment center. Congestion and slower speeds usually occur between Downtown Spokane to Broadway Avenue, and between Sullivan Road in Spokane Valley to Liberty Lake. I-90 PM peak hour traffic volumes in both directions range from 8,700 vehicles per hour near Downtown Spokane to 10,100 vehicles per hour west of Spokane Valley. **Figures 2-6 and 2-7** show the average hourly traffic flow on I-90 at Pines Road (roughly the midpoint between Downtown Spokane and the state border) in the eastbound and westbound direction. The AM peak hour begins at about 7 AM with higher volumes traveling westbound towards Downtown Spokane, and the PM peak hour begins at about 4 PM with higher volumes traveling in the eastbound direction. Closer to the Washington-Idaho state border, traffic volumes decrease to 4,600 vehicles per hour.

Local street traffic data available to the project team shows peak hour congestion is concentrated approaching the I-90 ramps. In particular, the delays at the I-90 ramp intersections at Pines Road/SR 27 may affect transit operations to and from the Mirabeau Park & Ride to the east. In Liberty Lake, peak hour congestion can occur on E Appleway Avenue which may affect transit exiting I-90 to serve local stops and the Liberty Lake Park & Ride. The existing PM peak hour traffic congestion levels in the study area are mapped in **Figure 2-8**.



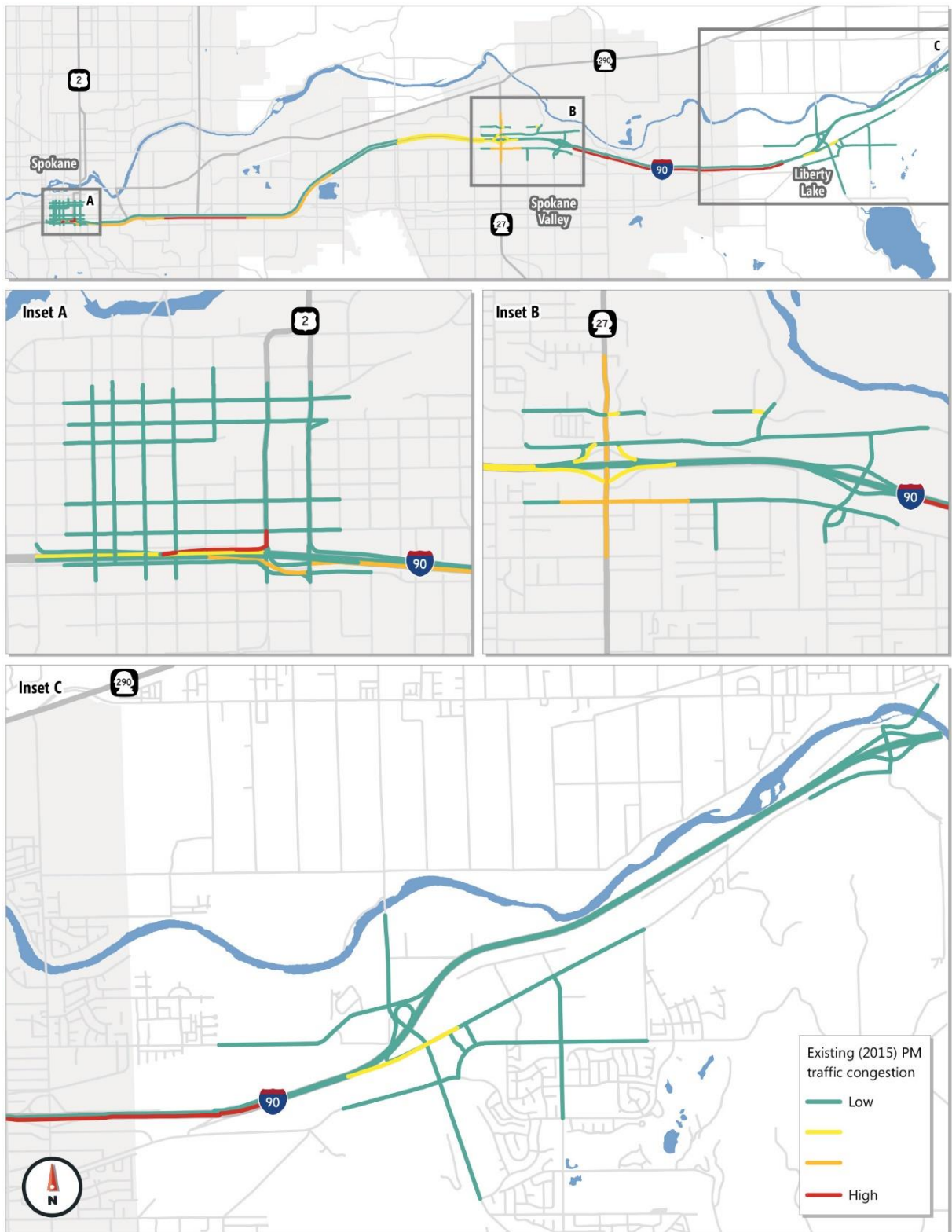
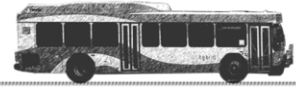
Source: WSDOT PeMS Data (Average Tue-Thur for May 2018); Fehr & Peers, 2021

Figure 2-6: I-90 Hourly Traffic Volume by Hour at Pines Road by Direction Eastbound



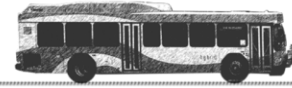
Source: WSDOT PeMS Data (Average Tue-Thur for May 2018); Fehr & Peers, 2021

Figure 2-7: I-90 Hourly Traffic Volume by Hour at Pines Road by Direction Westbound



Source: SRTC travel demand model; Fehr & Peers, 2021

Figure 2-8: Study Area – Existing PM Peak Traffic Congestion



2040 Traffic Operations. Under 2040 conditions, the SRTC travel demand model assumes the following projects to be constructed that may affect operations near or along I-90:

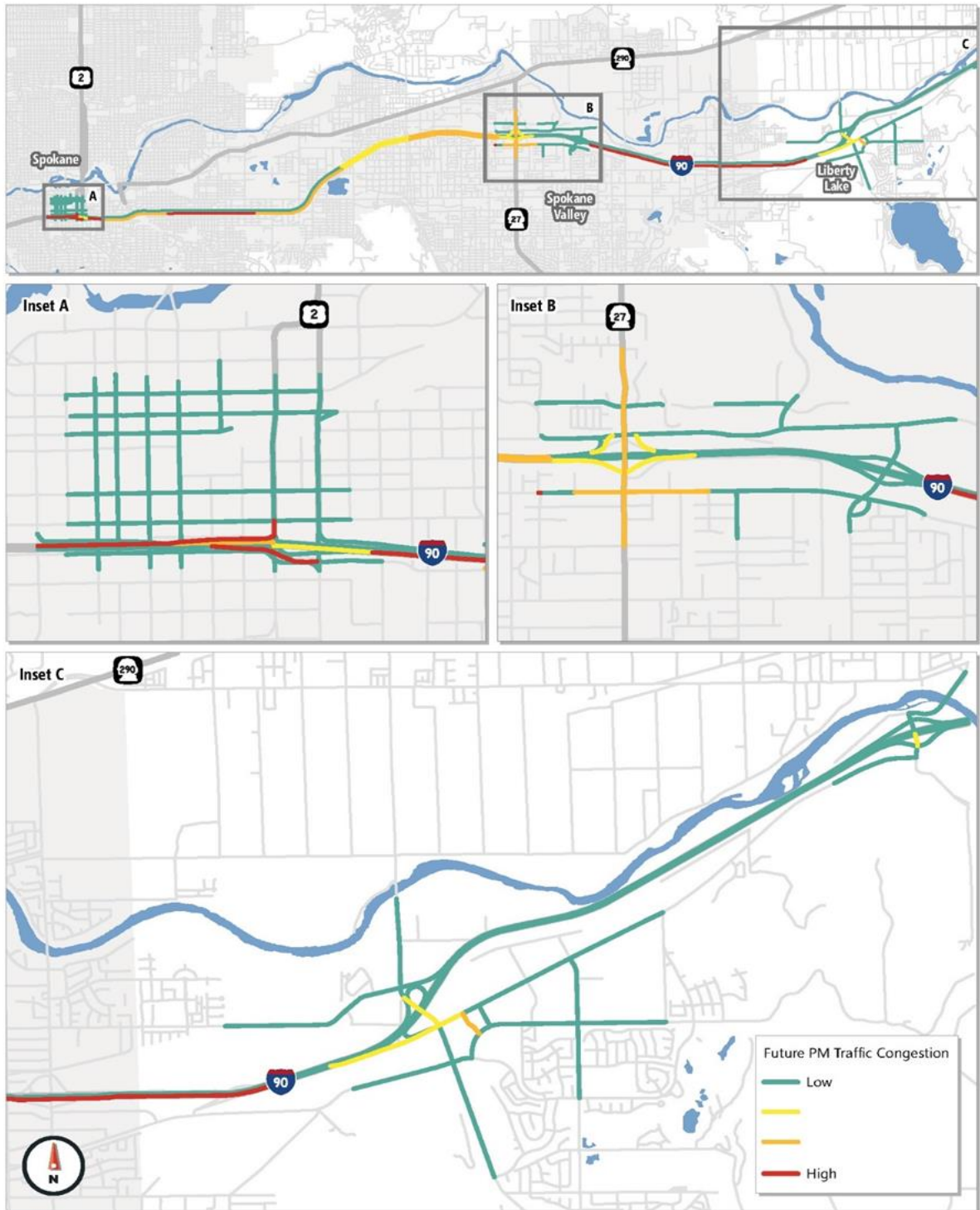
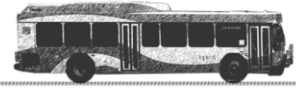
- N Argonne Road & I-90 Bridge Improvement – southbound widened to 3 travel lanes
- Barker Rd. – E Mission Avenue to E Appleway Avenue– widen to 5 travel lanes
- Harvard Bridge over I-90 – widen to three lanes

The 2040 model expects I-90 traffic volumes to increase by about 10 percent between Downtown Spokane and Pines Road. Closer to the Washington-Idaho state border, traffic volumes may increase by 15 to 20 percent. The forecasted PM peak hour congestion for the study area is mapped in **Figure 2-9**. Higher traffic volumes and increased congestion are shown in the eastbound direction on I-90 near Downtown Spokane. Additional delays are expected on local streets in the Liberty Lake area as well.

Traffic Considerations for Transit Alternatives for I-90 HPT. The planned land use growth in Spokane Valley and Liberty Lake will result in increased peak hour traffic congestion on local streets as well as at I-90 on and off ramps. This may affect future transit speed and reliability. Some solutions to consider include operating bus-on-shoulder on congested segments of I-90, constructing freeway flyer stops to avoid traveling through congested local streets (if appropriate non-motorized connections are provided), relocating stops to less congested areas of the cities, or installing transit signal priority or bus queue jumps at congested intersections in Spokane Valley and Liberty Lake.

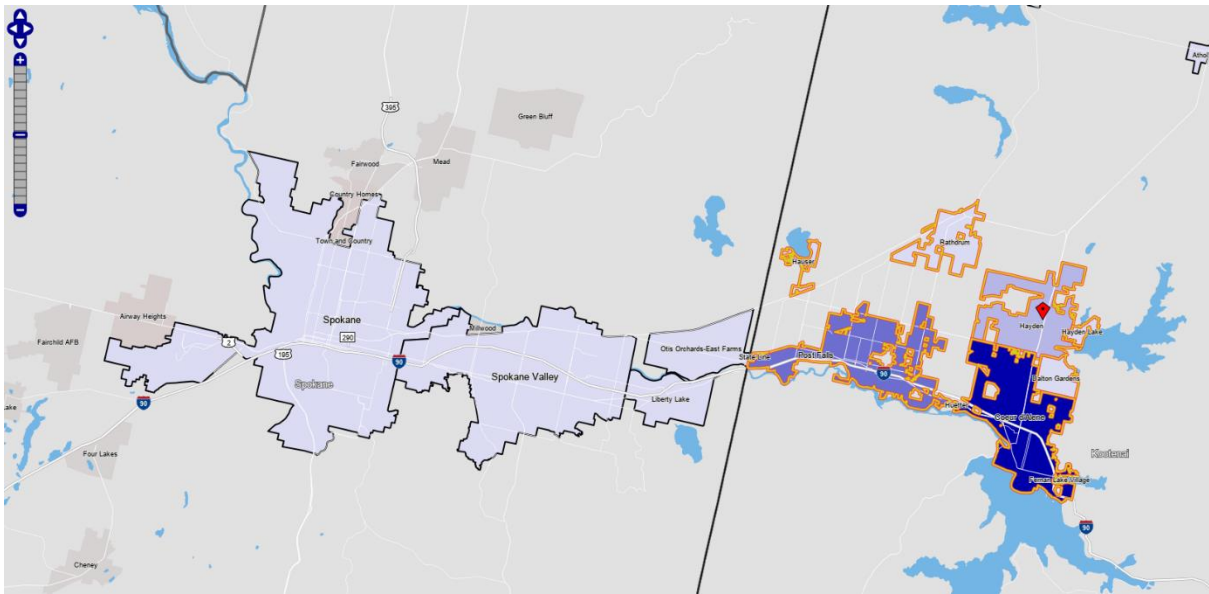
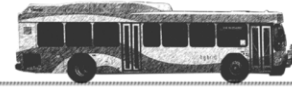
WASHINGTON/IDAHO BORDER CROSSINGS

Phase 2 of the I-90 HPT line would extend transit east across the Washington-Idaho state border and terminate in Coeur d'Alene, with a potential intermediate stop in Post Falls. This would serve the people who commute daily across the Washington-Idaho state border. A 2018 LEHD analysis found that approximately 5 percent of people working in Kootenai County between the state border and Coeur d'Alene are from Spokane Valley, Spokane, or Liberty Lake (about 2,800 people). For people living in Spokane County between the state border and Coeur d'Alene, approximately 13 percent commute to Spokane, Spokane Valley, or Liberty Lake in Washington (about 6,900 people). See example analysis in **Figure 2-10**. Potentially the cross-state border activity has increased in recent years based on the anecdotal increase in traffic congestion and growth on both sides of the state border. Forecasts show the I-90 traffic volumes are expected to increase by up to 20 percent just west of the Idaho state border over the next 25 years.



Source: SRTC travel demand model; Fehr & Peers, 2021

Figure 2-9: Study Area – Forecast 2040 PM Peak Traffic Congestion



Source: LEHD OnTheMap 2018 Census data; Fehr & Peers, 2021

Figure 2-10: Example LEHD Analysis of Where People Living Between the State Border and Coeur d'Alene Commute to Work (2018)

BUS SERVICE AND RIDERSHIP

Existing Transit Service. Transit service in the I-90 East Corridor is provided by four routes all of which operate for varying distances along the corridor at varying times of day, but all of which originate at the STA Plaza in downtown Spokane. These routes are, in numerical order:

Route 74 Mirabeau/Liberty Lake

Route 172 Liberty Lake Express

Route 173 Valley Transit Center Express

Route 190 Valley Express

663 EWU VTC Express

Figure 2-11 illustrates these I-90 east corridor bus routes in green. **Table 2-2** summarizes the service levels for these routes, including the peak frequency, operating periods (days of the week), as well as the number of hourly and daily trips available to riders.

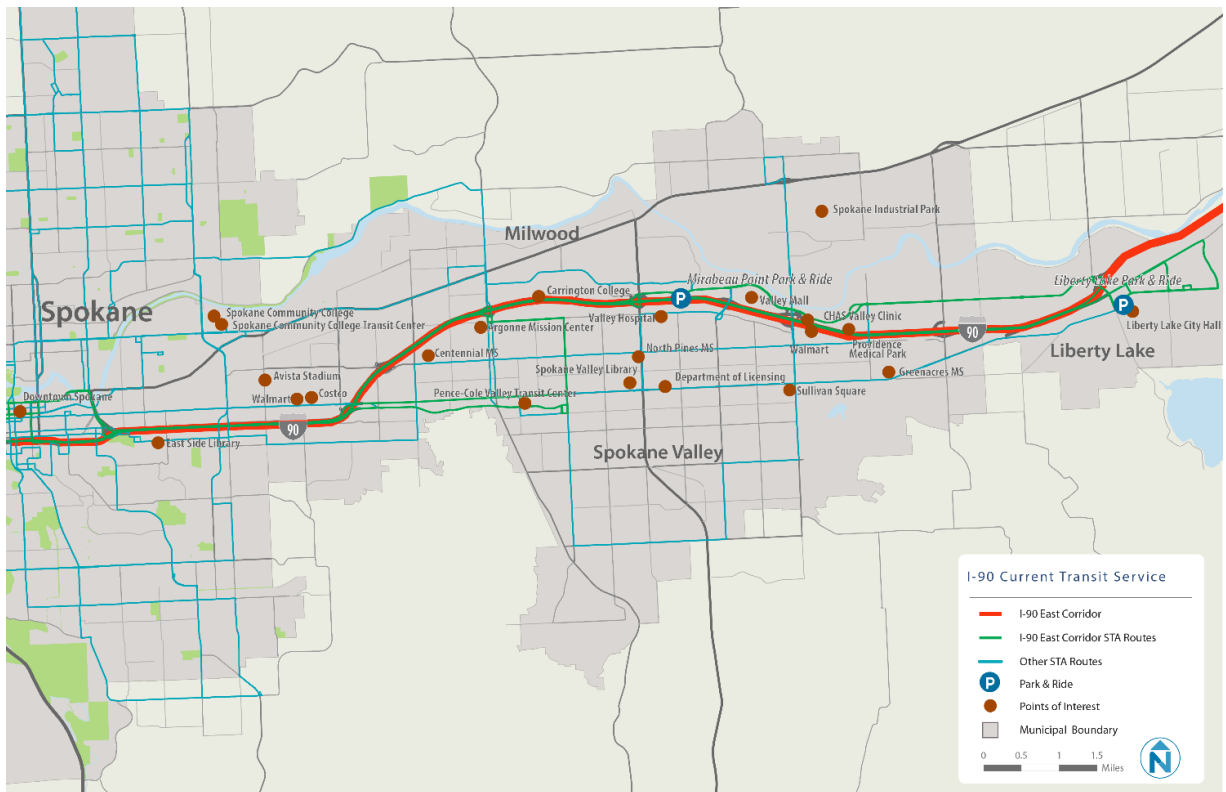
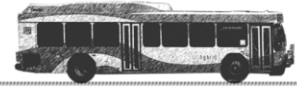


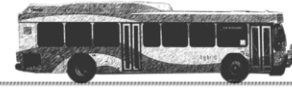
Figure 2-11: I-90 Existing Transit Service

Table 2-2: Summer 2021 Service Levels

Route	Peak Frequency	Trips/Hour (1-Way)	Operating Periods	Daily Trips	Notes
74	15 to 20	3	Weekday – All day	71	
172	30	2	Weekday Peak Only	4	
173	30	2	All Day	27	Operates jointly with 190
190	30	2	All Day	9	Operates jointly with 173
TOTAL	5 to 7	9		111	At I-90 screenline just west of Sprague on-ramp ²

Existing Transit Ridership. Routes operating in the I-90 East Corridor have experienced a substantial loss in ridership between 2019 and the COVID period of 2020. In the latter half of 2019 routes in the corridor were operating with a total of about 1,360 riders per day. In the latter half of 2020, during the same overall time period, ridership was 380 boardings per day, or a 72 percent loss in ridership. It is critical to the long-term development of service in this corridor to recognize the ridership changes have not been uniform. For example, during the morning peak ridership in the

² Route 663 Does not operate in the summer months, if the snapshot of service was Fall 2021 there would be two additional daily trips added to this total to account for Route 663.



traditional “off peak” direction, that is riders headed eastbound, declined by 58 percent, while ridership in the westbound, or traditional “peak direction,” declined by 81 percent. As a result of COVID changes in travel, transit ridership patterns are closer to balanced eastbound and westbound now than before the pandemic. It is not known exactly why these patterns are changing, but the ridership pattern suggests that jobs in the Valley area are more likely to be location-required or essential jobs compared to jobs in downtown Spokane. This is important as it is quite possible future ridership changes will evolve based on patterns that are different than those historically experienced in the corridor.

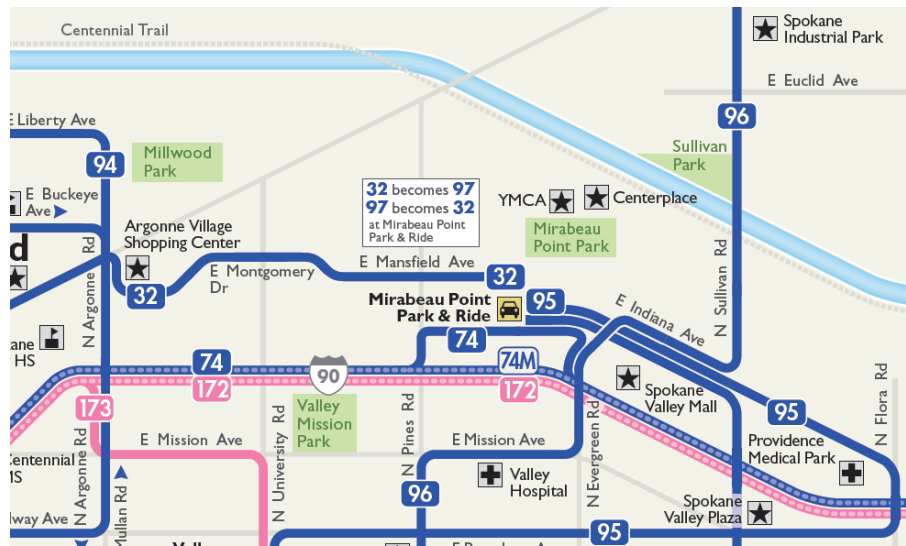
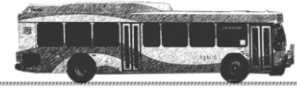
TRANSIT FACILITIES

The post-COVID travel market in the greater Spokane area is only beginning to come into focus. However, one very clear outcome of the pandemic impact is the need to re-examine major long-range transit capital projects in light of a rapidly evolving travel market. The greater Spokane region seems to be recovering from the pandemic adroitly. Even so, many previous trends in travel have shifted implying a need for careful evaluation of major investments. There remains a clear need to bring high performance transit into the I-90/Valley corridor, including new capital facilities. However, the location and magnitude of those improvements need additional review. From review to date, it is clear that additional park-and-ride and transit capacity is needed. The geographic focus of that need, however, may have shifted as a result of emerging trends. It is also clear that significant residential development and densification are driving the need for transportation options (including transit) in this corridor. New facilities and new services need a firm connection that does not rely on personal auto accessibility. Rather care needs to be given to ensure new facilities are first accessible by non-auto transportation modes and that auto accessibility does not endanger nor discourage access by active modes, such as walking and bicycling.

Central Valley – Mirabeau Point Park-and-Ride. Since its original construction along Indiana Avenue immediately west of Mirabeau Parkway, the Mirabeau Point Park-and-Ride has become more than a basic park-and-ride lot. It has become a focal point for transit transfer activity in Spokane Valley as routes from the east, west, and south converge. To meet growing needs, this transit center needs to be relocated and potentially expanded. The potential also exists that this park-and-ride would remain where it is and improved with HPT amenities, but with parking capacity supplemented by another location. This expansion, with a planned opening in 2025, will offer more capacity for transit vehicles, better connectivity with the surrounding area, and, possibly, more parking spaces for customers.

Existing Conditions. The facility currently has 198 parking spaces. Utilization for the park-and-ride varies by month and was generally between 50% and 85% occupied on average during 2019. The Mirabeau Point Park-and-Ride is served by four fixed-routes averaging over 200 boardings per weekday, see **Figure 2-12**. Route 74, the I-90 mainline connector to the East and West, operates every 7-15 minutes in the peak period, while Routes 32, 95, and 97 are local routes that operate every 30 minutes during the peak period.

During the peak period, Mirabeau Point Park-and-Ride requires space for four vehicles. Route 95 is the only route that truly terminates with layover at this facility. Route 74 operates through the park-and-ride in both directions, and Routes 32 and 97 interline at the facility. Routes 32 and 97 each have five minutes of scheduled recovery time at the facility before interlining. The transit facility, as designed, has a capacity of four passenger loading spaces. Current capacity needs are summarized in **Table 2-3**.



Source: Spokane Transit Authority System Map

Figure 2-12: Routes Currently Serving Mirabeau Point Park-and-Ride

Table 2-3: Current Mirabeau Point Park-and-Ride Capacity Needs

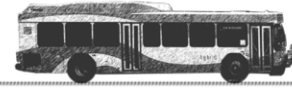
Route	Terminus or Thru	Peak Frequency	Trips/Hour (1-Way)	Recovery Time (Min)	% Recovery at Mirabeau	Required Bay/Layover Spaces
32	Terminus	30	4	5	100%	1
74	Thru	7-15	10	9	0%	1 ³
95	Terminus	30	4	7	100%	1
97	Terminus	30	4	5	100%	1
TOTAL						4

Future Service Needs. While the exact location of the future Mirabeau Point Park-and-Ride is still uncertain, the capacity requirements for the opening year of 2025 and horizon year of 2040 can be projected. The exact routing, frequency, and scheduling for future service is currently unknown. However, the number of routes, required layover space, and parking capacity can be projected based on current travel patterns and STA internal long-range service planning priorities. The anticipated future service for the Mirabeau Point Park-and-Ride is shown in **Table 2-4**.

Table 2-4: Projected Central Valley Park-and-Ride Capacity Needs

Year	Number of Routes	Required Bay/Layover Spaces	Total Projected Need for Parking Capacity
2025 – opening	5	6	220 to 350
2040 – horizon	5 to 7	6 to 9	300 to 450

³ There are occasions currently when eastbound and westbound bus arrivals and departures overlap. While the present facility is handling the situation, due to the bi-directional nature of route 74, there should be an eastbound bay and a westbound bay.



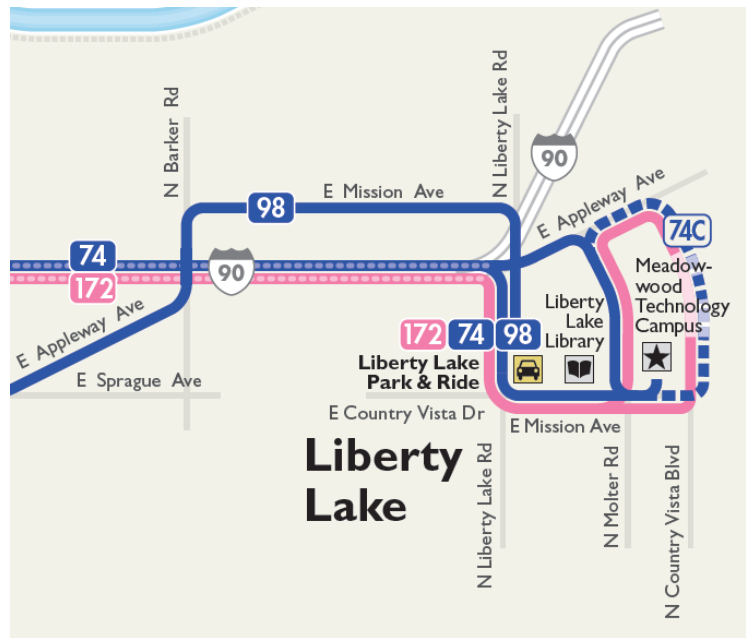
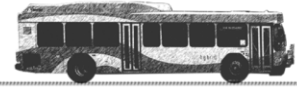
The 2025 forecast includes one additional bay to resolve the eastbound/westbound conflict on route 74 and the addition of one new commuter route (one bay). The 2040 forecast includes the 2025 assumptions plus one new local or commuter route (one bay), and one new eastbound/westbound route with the park-and-ride as a midpoint stop (two bays).

The park-and-ride capacity has a large number of variables in forecasting demand, therefore, the target capacity is stated as a range rather than a singular number. The two most influential characteristics that create the variability is the number of assumed transit routes and their respective levels of service and the influence of rideshare (carpool and vanpool) operations on demand. The total projected need is inclusive of current capacity. If the present Mirabeau Park-and-ride were retained, the additional capacity for 2025 would be from a low of 22 to a high of 152 new parking spaces.

East Valley – Liberty Lake Park-and-Ride. The existing Liberty Lake Park-and-Ride often overflows on peak days (pre-pandemic) as there are not enough parking spaces to accommodate demand. The current plan is to either supplement the current facility with a new site, replace the facility, or enhance the present facility with High performance transit network infrastructure. The current site has the advantage of location in the core of Liberty Lake. This allows for local access and local transit access that does not depend on park-and-ride capacity. At the same time, the current site is very popular with commuters whose homes are located in Idaho. This means the current location tends to increase auto traffic that is unrelated to the economic well-being of Liberty Lake in what is already one of the busiest intersections in the East Valley area. Design criteria for this site will be developed further as the transit network and service plan and sites for the park-and-ride enhancement are identified and narrowed. The Liberty Lake Park-and-Ride improvement is planned for 2025.

Existing Conditions. The facility currently has 165 parking spaces. Utilization for the park-and-ride varies by month and was generally between 55% and 97% occupied on average during 2019. The Liberty Lake Park-and-Ride is served by three fixed-routes (**Figure 2-13**), averaging 169 boardings per weekday. In the peak period, Route 74, the main I-90 connector route operates every 7-15 minute3s, Route 98 operates every 30 minutes, and Route 172 provides three round trips per day, at peak times directly to downtown Spokane, providing a faster trip than route 74 as there is no stop at Mirabeau.

The Liberty Lake Park-and-Ride currently requires space for three vehicles during the peak period (**Table 2-5**). Route 74 and Route 98 are the only routes with scheduled recovery time at the facility. Route 172 deadheads to the facility before beginning revenue service. The transit facility, as designed, has a capacity of five passenger loading bays.



Source: Spokane Transit Authority System Map

Figure 2-13: Routes Currently Serving Liberty Lake Park-and-Ride

Table 2-5: Current Liberty Lake Park-and-Ride Capacity Needs

Route	Terminus or Thru	Peak Frequency	Trips/Hour (1-Way)	Recovery Time (Min)	% Recovery at Liberty Lake	Required Bay/Layover Spaces
74	Terminus	7-15	10	9	100%	1 ⁴
98	Terminus	30	4	12	100%	1
172	Terminus	3 trips per day	2	--	0%	1
TOTAL						3

Future Service Needs. While the exact improvements planned for the future Liberty Lake Park-and-Ride remain uncertain, the capacity requirements for the opening year of 2025 and horizon year of 2040 can be projected. The exact routing, frequency, and scheduling for future service is currently unknown. However, the number of routes, required layover space, and parking capacity can be projected based on current travel patterns and STA internal long-range service planning priorities. The anticipated future service for the East Valley Park-and-ride is shown in **Table 2-6**.

⁴ As with Mirabeau, there are times when the arriving bus on route 74 arrives before the departing bus is gone. This is presently being handled but is an operating condition that should not remain for the long term and may require 2 bays dedicated to route 74. However, that is within the current capacity of the facility.

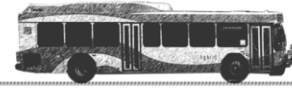
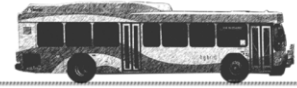


Table 2-6: Projected East Valley Park-and-Ride Capacity Needs

Year	Number of Routes	Required Bay/Layover Spaces	Parking Capacity
2025 – opening	4	5	200 to 340
2040 – horizon	4 to 7	5 to 9	300 to 475

The 2025 transit operations forecast includes one new bay to resolve the conflict between arriving and departing route 74 buses, in essence, a layover bay, and one new bay to support one new commuter route. This will mean the current facility is at design capacity. The 2040 forecast includes one additional local route (one bay), one additional eastbound/westbound route (two bays) and one new commuter route (one bay).

The park-and-ride capacity has a large number of variables in forecasting demand, therefore the target capacity is stated as a range rather than a singular number. The three most influential characteristics that create the variability is the number of assumed transit routes, their respective levels of service and the influence of rideshare (carpool and vanpool) operations on demand. The total projected need is inclusive of current capacity. If the present Liberty Lake Park-and-ride is included retained, the additional capacity for 2025 would be from a low of 35 to a high of 175 new parking spaces. One of the variables to be investigated further is the interaction between the Liberty Lake site and sites in the Central Valley area. For example, is it possible that some of the demand from Idaho could be accommodated in the Central Valley area by tailoring the service plan in a way that becomes more attractive.



3. Transit Service Scenarios

The planning process involved creation and evaluation of a series of service scenarios. The scenarios included a “no-build” scenario so that there would be a basis of comparison to current conditions. The other 13 scenarios constructed represent a broad range of infrastructure and service investments. One of the essential element of these scenarios was to test the importance of infrastructure as well as to test the degree to which service expansion is necessary or warranted. The horizon year for the scenarios was 2040. It is equally important to point out that STA Moving Forward envisions delivering only the first series of improvements in 2025 and not the ultimate scenario. Staging or scaling the scenario is discussed as part of the preferred scenario.

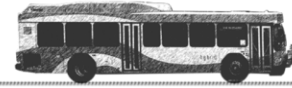
HIGH PERFORMANCE TRANSIT GUIDELINES AND STANDARDS

Each scenario followed STA’s service design guidelines as established in the Connect Spokane, STA’s Long Range Plan, last updated in 2019.

HIGH-PERFORMANCE TRANSIT

The High Performance Transit Network (HPTN) is 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 HPTN defines a system of corridors for heightened and long-term operating and capital investments. The HPTN follows a series of transit design principles.

1. **Pedestrian Support.** HPT extends the range of the pedestrian. As the number of destinations within a mile increases, people are likely to increase the proportion of trips executed by walking. Rather than competing with short walking trips, transit can support greater mobility without dependence on the private automobile. The HPTN, in particular, with its emphasis on all-day, two-way connectivity at reasonable levels of frequency, supports the pedestrian’s mobility beyond normal walking ranges.
2. **Ubiquity.** HPT service should attempt to serve the greatest number of people possible and the greatest number of destinations possible.
3. **Activity Centers.** HPT should connect the region’s cities and centers of population and jobs as much as possible.
4. **System Effectiveness.** The HPTN should improve the effectiveness of the transportation system. While often misunderstood to be simply about moving traffic, the regional transportation system is successful when it provides mobility for people and goods.
5. **Appropriate Scale.** The HPTN should be fiscally responsible and scaled appropriately to the region’s current and long-term needs given competing demands for scarce public resources.
6. **Mode Neutrality.** STA has determined the I-90 Corridor over the next 20 years shall be a bus corridor with combinations of differing sub-modes, such as BRT, Freeway Express Buses, and Freeway BRT.
7. **Permanence.** HPT features the permanence of investments. Regardless of mode, HPT should express to the customer through wayfinding, tactile enhancements at stations, or alignments that it will be available in the future.



8. **Integration.** HPT should integrate and provide connections with other modes and transport services.
9. **Competitive.** HPT should make desired connections better than competing modes whenever possible.

SERVICE DESIGN STANDARDS FROM CONNECT SPOKANE

Whenever operationally feasible, STA shall provide an HPTN span of service greater than that of the Basic System.

Day	Span
Weekdays	5 am to 12 am
Saturdays	6 am to 12 am
Sundays/Holidays	7 am to 9 pm

Headways for HPT Service/ Basic Service. STA shall adhere to maximum headway standards when determining a route's frequency. The following headways are maximum intervals considered acceptable for the various HPT fixed-route service types. The definition of Peak, Base and Sub-Base periods are relative to the travel demand, but generally:

- Peak is between 6:30 am and 8:30 am and 4:00 pm and 6:30 pm on weekdays.
- The base is the period between weekday peaks as well as the outside shoulders of Peak travel times
- Sub-Base is late-nights and weekends

Table 3-1: HPT Service Maximum Headways (Minutes)

Service	Span	Peak	Base	Sub-Base
HPT - Frequent	Extended	7-10	12-15	15-30
HPT - Express	Extended	15	30	60

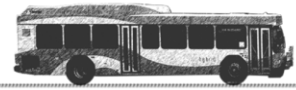
Note: I-90 HPT Corridors are generally Express but some portions may be Frequent

Stop Spacing and Placement. STA shall balance customer access, service reliability, and system performance when determining the spacing and placement of bus stops.

Table 3-2: HPT Stop Spacing

Service	Average Stop Spacing (mi.)	Minimum Stop Spacing (ft.)	Maximum Stop Spacing (ft.)
HPT - Frequent	1/4 to 1/2	800-1300'	1500 - 3000'
HPT-Blue	2 1/2	1300'	N/A

Note: I-90 HPT Corridors are generally Express but some portions may be Frequent





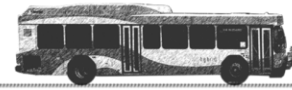
INITIAL SCENARIOS



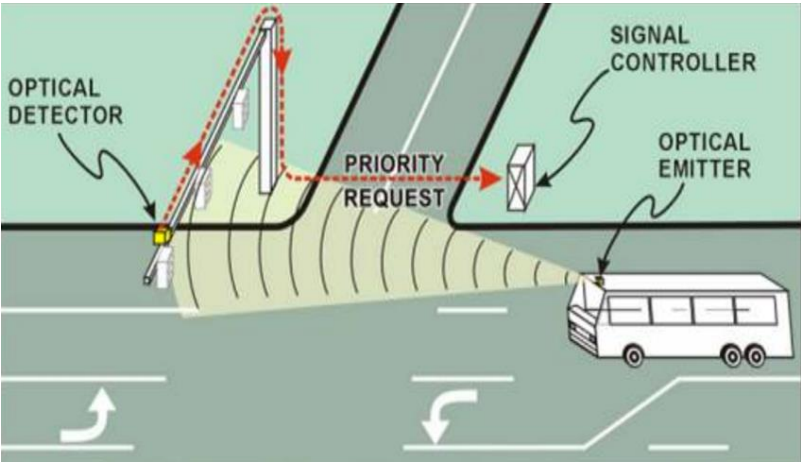
BUILDING BLOCKS

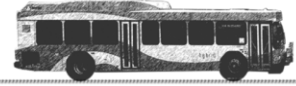
Fourteen initial scenarios were constructed using a collaborative process between STA staff and the consulting team. Scenarios were constructed to test varying levels of service and infrastructure investment. At this point there are no right, or wrong, answers. Instead, the scenarios were built using various “building blocks.” A freeway-running High Performance Transit system requires special treatments to assure that buses are able to efficiently navigate the highway regardless of congestion levels. These treatments become the building blocks of the I-90/Valley HPT architecture. In this case, from existing conditions, it was noted that much of the current congestion on i-90 is focused on off-ramps. Therefore, some of the building blocks are more applicable to ramp termini or arterials. The building blocks are illustrated in **Table 3-3**.

Table 3-3: Transit Scenario Building Blocks

Building Block	Visual Example
<p>Shoulder-Running or Managed Lanes</p>	
<p>Bus-Only Lanes</p> <p>May be used in locations where there are no alternatives, or a new access point is desired.</p>	



Building Block	Visual Example
<p>High Occupancy Vehicle (HOV) lanes</p>	
<p>Flyer Stations</p> <p>Direct on/off freeway facilities that minimize off-freeway time, but allow system access</p>	
<p>Transit Signal Priority</p> <p>Allows traffic signal preemption to prioritize transit</p>	

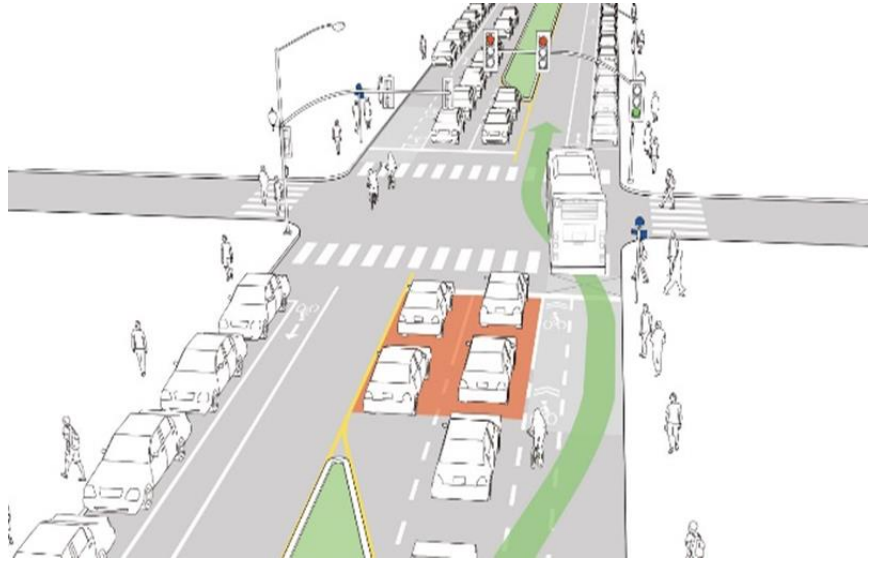


Building Block

Visual Example

Queue Jumps

Transit signal turns green ahead of general traffic to prioritize transit in busy corridors



Service Frequency

One of the major determinates of transit usability

Southbound

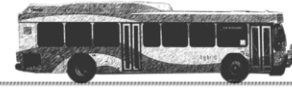
4 To Downtown Weekday


1	2	3	4	5	6	7	8	9	10
Leave P&R	Monroe	Wellesley	Montgomery	Monroe	Zone	Arrive Plaza	Leave Plaza	Sacred Heart Medical Center	29th & Grand
5:26	5:31	5:36	5:40	5:45	5:53	5:57	6:02	6:07	6:10
6:16	6:23	6:28	6:32	6:37	6:39	6:43	6:48	6:53	6:56
6:33	6:38	6:43	6:47	6:52	6:54	6:58	7:03	7:08	7:11
7:03	7:08	7:13	7:17	7:22	7:24	7:28	7:33	7:38	7:41
7:16	7:23	7:28	7:32	7:37	7:39	7:43	7:48	7:53	7:56
7:33	7:38	7:43	7:47	7:52	7:54	7:58	8:03	8:08	8:11
7:48	7:53	7:58	8:02	8:07	8:09	8:13	8:18	8:23	8:26
8:03	8:08	8:13	8:17	8:22	8:24	8:28	8:33	8:38	8:41
8:16	8:23	8:28	8:32	8:37	8:39	8:43	8:48	8:53	8:56
8:33	8:38	8:43	8:47	8:52	8:54	8:58	9:03	9:08	9:11
8:48	8:53	8:58	9:02	9:07	9:09	9:13	9:18	9:23	9:26
9:03	9:08	9:13	9:17	9:22	9:24	9:28	9:33	9:38	9:41
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9:48	9:53	9:58	10:02	10:07	10:09	10:13	10:18	10:23	10:26
10:03	10:08	10:13	10:17	10:22	10:24	10:28	10:33	10:38	10:41
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2:17	2:22	2:27	2:31	2:37	2:39	2:43	2:48	2:53	2:56
2:32	2:37	2:42	2:46	2:52	2:54	2:58	3:03	3:10	3:13

Northbound

4 To Downtown Weekday

1	2	3	4	5	6	7	8	9	10
Leave P&R	Monroe	Wellesley	Montgomery	Monroe	Zone	Arrive Plaza	Leave Plaza	Sacred Heart Medical Center	29th & Grand
5:21	5:26	5:32	5:36	5:41	5:46	5:50	5:53	5:56	6:01
5:46	5:50	5:57	6:01	6:06	6:11	6:13	6:16	6:19	6:24
5:58	6:02	6:09	6:13	6:18	6:23	6:27	6:30	6:33	6:38
6:13	6:17	6:24	6:28	6:33	6:38	6:42	6:45	6:48	6:53
6:28	6:32	6:39	6:43	6:48	6:53	6:57	7:00	7:03	7:08
6:43	6:47	6:54	6:58	7:03	7:08	7:12	7:15	7:18	7:23
6:58	7:02	7:09	7:13	7:18	7:23	7:27	7:30	7:33	7:38
7:13	7:17	7:24	7:28	7:33	7:38	7:42	7:45	7:48	7:53
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7:58	8:02	8:09	8:13	8:18	8:23	8:27	8:30	8:33	8:38
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8:43	8:47	8:54	8:58	9:03	9:08	9:12	9:15	9:18	9:23
8:58	9:02	9:09	9:13	9:18	9:23	9:27	9:30	9:33	9:38
9:13	9:17	9:24	9:28	9:33	9:38	9:42	9:45	9:48	9:53
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2:28	2:32	2:39	2:43	2:48	2:53	2:57	3:00	3:03	3:08
2:43	2:47	2:54	2:58	3:03	3:08	3:12	3:15	3:18	3:23
2:58	3:02	3:09	3:13	3:18	3:23	3:27	3:30	3:33	3:38
3:13	3:17	3:24	3:28	3:33	3:38	3:42	3:45	3:48	3:53
3:28	3:32	3:39	3:43	3:48	3:53	3:57	4:00	4:03	4:08
3:43	3:47	3:54	3:58	4:03	4:08	4:12	4:15	4:18	4:23

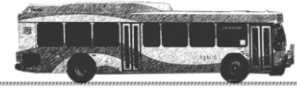


Building Block	Visual Example
<p>Additional and/or Improved Transit Centers</p> <p>Provide attractive places for riders to access services and may also include:</p> <ul style="list-style-type: none"> • Service Connections – freeway system integrates with local services • Level Boarding – speeds boarding and alighting and is more rider-friendly • Pre-board fare payment– speeds the boarding process as fares are collected before the boarding process 	

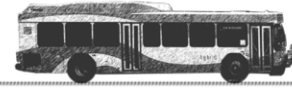
SCENARIOS

The fourteen scenarios devised are listed below with a description of the content of each scenario. A more detailed version of the content of each scenario is located in **Appendix A, Initial Transit Scenarios**.

1. **BASIC** - A basic plan that features two fairly minimal service level routes. Weekday only 30-minute headways, potentially limited 15-minute headways at peak. This is primarily to act as a point of comparison.
2. **BASIC, Higher Intensity** - A more intense version of Scenario 1 with higher service levels and greater investment in freeway-based facilities. Services would be 7 days a week, with minimum 30-minute headways, 15-minute peak headways.
3. **INTENSE** - A high-intensity service and facility plan that expands to three routes. In this case, the East and Central Valley are connected to the U-District and downtown. Service levels would feature seven days per week 15-minute all day, 10-minute peak headways, with maximum headway of 20 minutes.
4. **MORE DESTINATIONS** - A moderate to high-level intensity scenario that stretches service to West Plains and does not use the STA Plaza. Also note this includes the idea that the Central and East Valley services join in Greenacres as well as at Sprague/Fancher. Service levels would be 7 days per week maximum 30 minute headways, with weekday midday and peaks at 15 minute service.



5. **HEAVY INFRASTRUCTURE** - A moderate service/high facility intensity scenario with four different routes. There is one join point between the two service areas at a conceptual Freya/Thor flyer stop/transfer facility. Some services terminate in the U-District. Service levels would be 7 days per week maximum 30 minute headways, with weekday midday and peaks at 15 minute service.
6. **HIGH INTENSITY SERVICE AND INFRASTRUCTURE** - A high intensity scenario that does not use the Plaza and has all the Central Valley services joined to the East Valley services at Greenacres. Also joins downtown to West Plains for both Central and East Valley services and offers join points at both Freya/Thor and Sprague/Fancher, but on different route combinations. The idea is to allow maximum connectivity (service levels are fairly intense) without adding in too many intermediate stops. Service levels would feature seven days per week 15 minute all day, 10 minute peak headways, with maximum headway of 20 minutes.
7. **HIGH INTENSITY, HOV LANE-CENTRIC** - Similar to scenario 6, but does not extend to West Plains and is also a little less facility intensive, depending mostly on HOV lanes on I-90. Service levels would feature seven days per week 15 minute all day, 10 minute peak headways, with maximum headway of 20 minutes.
8. **ONE ROUTE** - One very intense route that attempts to put all the major nodes into one route. Freeway running would be more de-emphasized with links only between Liberty Lake and Greenacres and a transit way from Sprague/Fancher into downtown. The intent is to test the idea that there is one major route that operates all the time, that is supplemented in weekday periods with routes intended to supplement capacity and provide a faster point-to-point route. Main route seven days a week, peak headway 7 to 10 minutes, midday 15 minutes, nights and weekends 20 minutes. Two supporting routes weekday peak only 15-minute headways.
9. **EMPHASIS on CENTRAL VALLEY** - A fairly intense service that does not include a new facility in the Greenacres area. A test case to see if we can determine the level of importance of a Greenacres facility compared to developing a facility at Evergreen and a more minor one at Argonne/Mullen. Includes the option to join West Plains. Service levels would be 7 days per week with maximum 30-minute headways, with weekday midday and peaks at 15-minute service.
10. **SEPTEMBER 2022** – Intended to replicate the service plan STA has established for implementation in September 2022. Essentially, there is one major all-day service and a group of supporting services. The scenario only uses existing infrastructure and does not include the development of any new freeway-based transit-only infrastructure. This is included to act as a point of comparison to the status quo, although this route structure is not what is in place today. Service levels of the major route are seven days a week, 15-minute peak, 30-minute other times, supporting routes maximum 15-minute weekday peak service, but Central Valley routes would pair at 30 minutes headway to provide all-day connection.
11. **MIRABEAU ANSWER?** - Find a way to productively use Mirabeau - Open to using either I-90 or surface streets Greenacres to Mirabeau, uses Sprague/Fancher as interface point, two routes stop in U-District, one continues to West Plains, two routes into Plaza, service levels are 15-minute all-day weekdays, seven days per week service min., 30-minute weekend service.
12. **TRENT CORRIDOR DEVELOPMENT** - Uses Mirabeau as the anchor with N Pines (2025-2027 RR crossing), Trent, Argonne PnR (Park and Ride), I-90, U-District, West Plains, other routes similar to Scenario 10, 15-minute peak times, 30-minute midday on most services, Liberty Lake and Valley Transit Center peak only service at 15-minute.
13. **TRENT CORRIDOR 2** – Similar to scenario 12, but runs all of Trent corridor, Pines to Mission, assumes Mission grade separation, uses City Line stops from Spokane Community College



through U-District, I-90 at Hamilton. 15-minute peak, 30-minute midday on 3 major services, Liberty Lake and Pence-Cole peak only service at 15 minutes

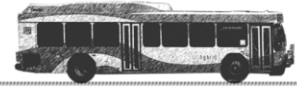
14. **THREE ROUTE HARMONY** - The concept features a somewhat modified version of route 74 that ends in West Plains (via Downtown Spokane and the Spokane Airport), this is supported with another route that is more direct from State Line, through Liberty Lake and Greenacres, then I-90 into a new downtown tail that uses Lincoln/Monroe and terminates in North Downtown up by the arena at Howard and Boone. The third route is less intense, but connects Greenacres to Pence-Cole and then Sprague to the U-District, two routes operate 15-minute peak hours, 30 minute midday. The last route operates 30-minute peak hours and 30-minute midday.

SCENARIO EVALUATION

The fourteen scenarios were subjected to an evaluation process to determine which scenarios would move forward to further development and refinement and which would remain as good ideas. The criteria used to evaluate the scenarios included the factors in **Table 3-4**.

Table 3-4: Transit Scenario Evaluation Criteria

Criterion	Description
Access to and from East Valley	Compared to September 2022 this scenario provides better or worse access to more destinations for East Valley residents, generally east of Sullivan
Access to and from Central Valley	Compared to September 2022 this scenario provides better or worse access to more destinations for Central Valley residents, generally between University and Sullivan, Sprague and Trent.
Connectivity with City Line	Compared to September 2022 this scenario provides better or worse opportunities to leverage connections with the City Line
Expansion into ID, Spokane to Kootenai	This scenario provides opportunities to expand service for Spokane County residents commuting into Kootenai County
Expansion into ID, Kootenai to Spokane	This scenario provides opportunities to expand service for Kootenai County residents commuting into Spokane County
Simplicity	How simple is it for a rider to understand their options and opportunities? Typically, fewer routes are better, if there are more route variations by time of day, service is less appealing.
Scalability	Can this scenario start from September 2022 and expand, or does it require "C" changes to progress to the full scenario design?
Scale of Service Investment	Relative to the current service, how much more will it take to operate this scenario?
Capital required for start-up	Relative to current investment, how much investment is necessary to start this scenario?



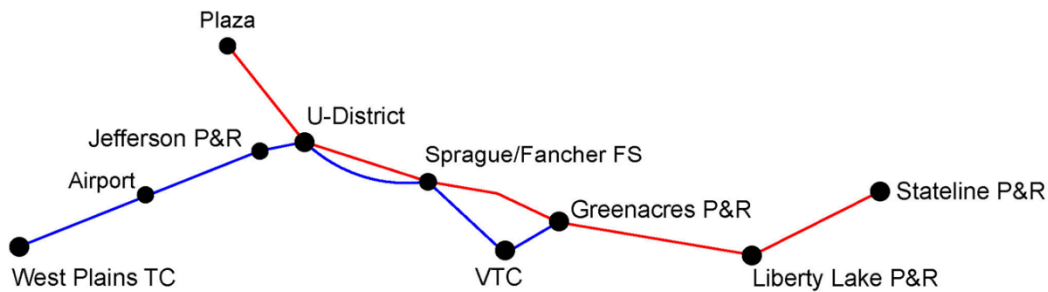
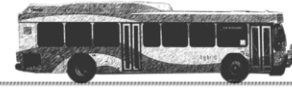
Criterion	Description
Addresses lack of facilities in Downtown Spokane	By the way this scenario is constructed, does it make the present lack of terminal and layover facilities in Downtown Spokane better or worse?
Level of WSDOT Collaboration required	All assume a level of collaboration with WSDOT is required. The more complex the collaboration and the more previously unconsidered ideas complicate and lengthen the collaboration, make it less likely to occur on the planning horizon
Dependence on third-party actions	Mostly equal except for scenarios involving Trent which require the City of Spokane Valley to complete the Pines/Trent grade separation in two scenarios and the City of Spokane to complete Rebecca/Mission grade separation in another
Adherence to HPT policies of Connect Spokane	Assessment of how well each scenario adheres to the principles and policies of Connect Spokane

Each scenario was evaluated and the highest scoring scenarios were carried forward for further evaluation. A table describing the scoring and the results are shown in **Figure 3-1**.

Scenario Number	Scenario Name	Access to and from EV	Access to and from CV	Connectivity with City Line	Expansion into ID, Spokane Co	Expansion into ID, Kootenai Co	Co	Simplicity	Scalability	Scale of service investment	Capital req'd for initial start	addresses lack of facilities in CBD	Level of WSDOT collaboration required	Dependence on third party actions	Adherence to HPT Policies	Unweighted Average Score
14	Three route harmony	3	4	5	5	3	5	4	4	4	4	5	2	3	4	3.92
10	SEPTEMBER 2022	3	4	3	4	3	2	4	5	5	5	1	4	5	3	3.54
6	HIGH INTENSITY SERVICE AND INFRASTRUCTURE	5	5	4	4	2	3	2	3	1	5	1	5	4	4	3.38
13	Trent Corridor 2	4	5	5	5	3	2	3	3	2	2	2	2	2	5	3.31
4	MORE DESTINATIONS	3	4	3	4	1	5	5	2	2	5	1	5	3	3	3.31
12	Trent Corridor Development	4	5	4	4	3	3	4	3	2	2	2	3	3	3	3.23
11	Mirabeau Answer?	4	4	4	4	2	3	4	3	2	2	2	5	2	2	3.15
1	BASIC	3	2	2	3	1	5	5	5	3	1	2	5	2	2	3.00
5	HEAVY INFRASTRUCTURE	4	4	4	4	2	3	4	2	1	2	1	5	3	3	3.00
2	BASIC, Higher Intensity	4	2	2	3	1	5	5	3	3	1	2	5	2	2	2.92
7	HIGH INTENSITY, HOV LANE-CENTRIC	3	4	4	4	2	2	2	3	2	1	2	5	4	2	2.92
8	ONE ROUTE	4	4	3	3	1	4	4	2	3	1	3	5	1	1	2.92
3	INTENSE	4	4	3	4	1	4	4	1	2	1	1	5	3	3	2.85
9	EMPHASIS on CENTRAL VALLEY	4	4	3	3	2	2	3	2	2	1	2	5	3	3	2.77

Figure 3-1: Transit Scenario Evaluation Results

The top five scenarios were then evaluated further to refine the proposal and sharpen the evaluation. The five scenarios that were shortlisted were converted to a schematic route diagram to assist with evaluation. Those are shown below.



Scenario 4 (More Destinations)

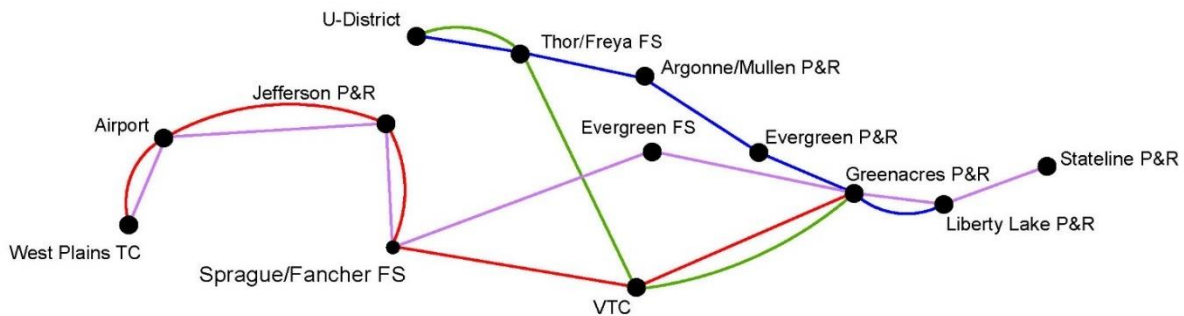
A moderate to high-level intensity scenario that stretches service to the West Plains Transit Center and does not use the STA Plaza. Also note this includes the idea that the Central and East Valley services join in Greenacres as well as at Sprague/Fancher.

Route ID

1020

2110

Figure 3-2: Schematic Diagram – Scenario 4 (More Destinations)



Scenario 6 (High-Intensity Service & Infrastructure)

A high intensity scenario that has all the Central Valley services joined to the East Valley services at Greenacres. This scenario also joins downtown to West Plains for both Central and East Valley services and offers join points at both Freya/Thor and Sprague/Fancher, but on different route combinations, two routes pair at Freya/Thor, the other at Sprague/Fancher.

Route ID

1025

1015

2020

2025

Figure 3-3: Schematic Diagram – Scenario 6 (High-Intensity Service & Infrastructure)

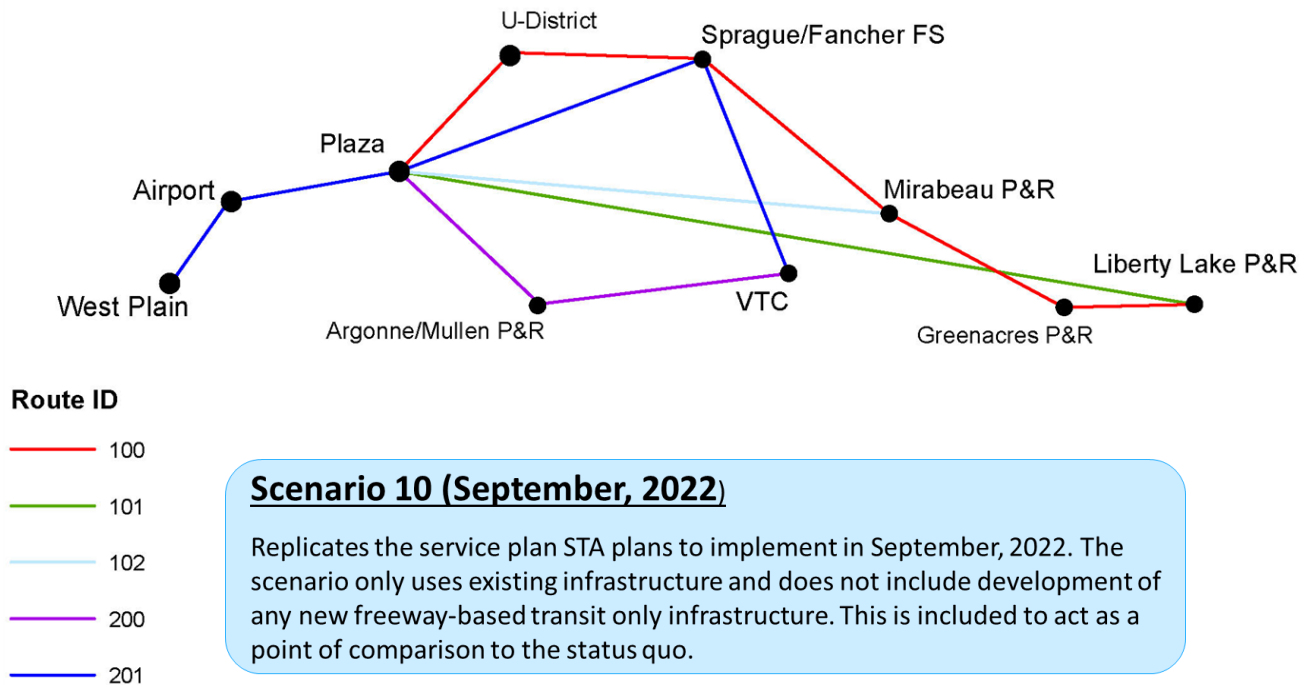
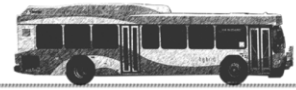


Figure 3-4: Schematic Diagram – Scenario 10 (September, 2022)

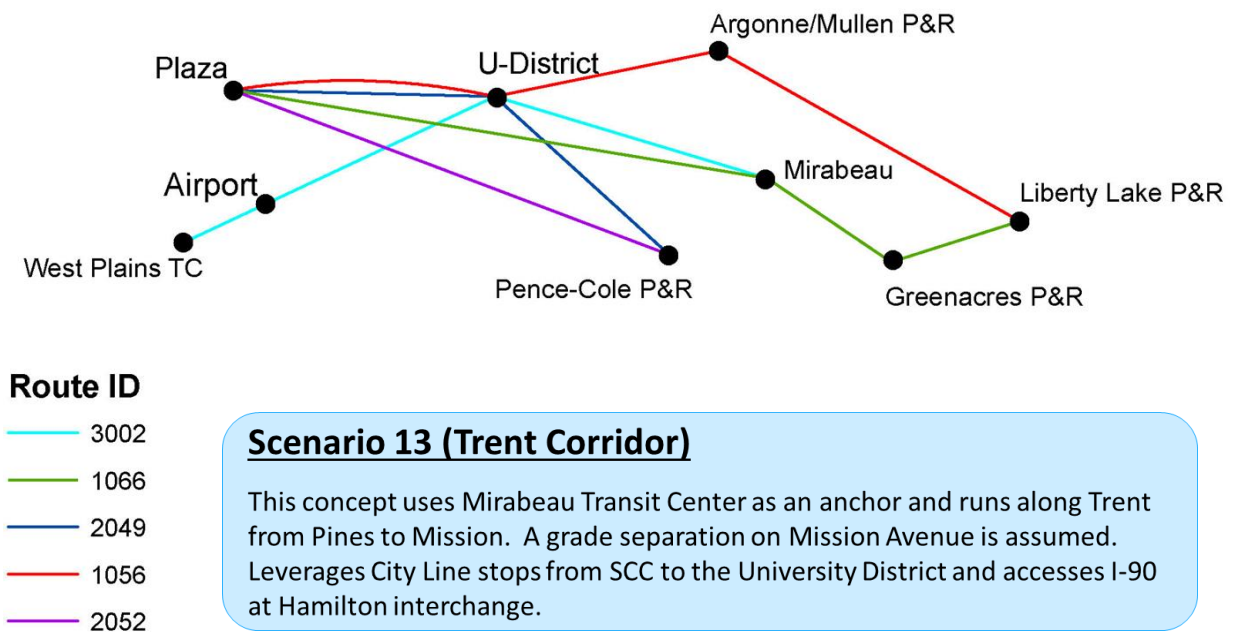


Figure 3-5: Schematic Diagram – Scenario 13 (Trent Corridor)

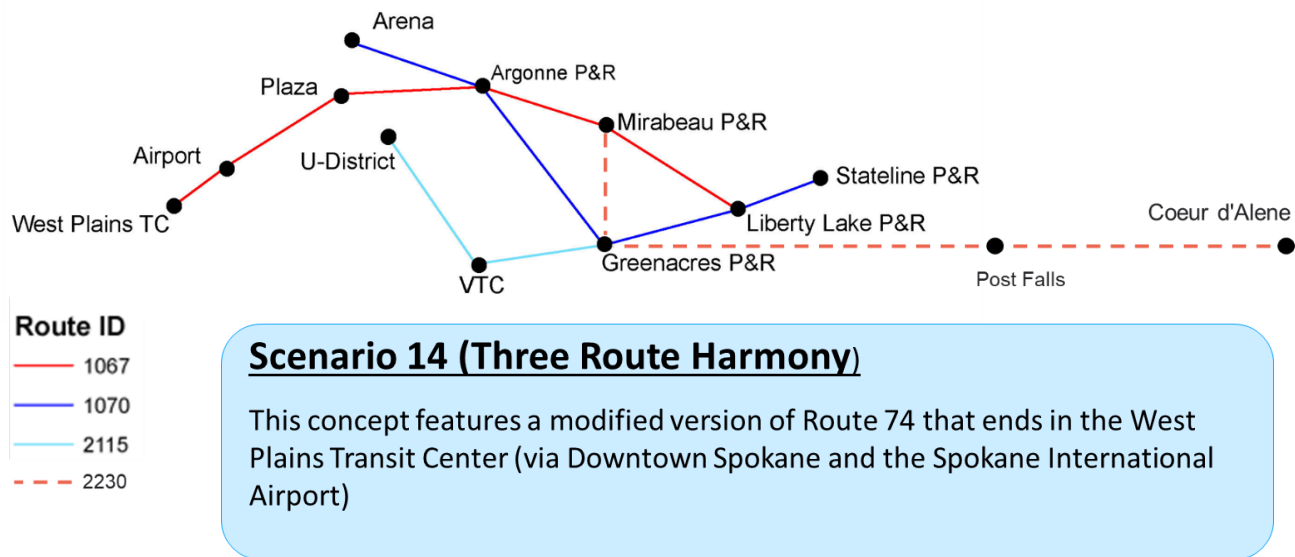
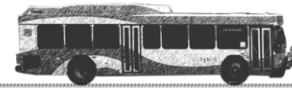


Figure 3-6: Schematic Diagram – Scenario 14 (Three Route Harmony)

It was at this point in the project where the facilities siting (see Section 4) and the service scenarios began to come together. The result was the potential creation of a very large number of combinations of service scenarios and site selections, too large to easily evaluate with the very detailed Multiple Account Evaluation and specific metrics that require a full detailed definition of each service network, including stops and each specific site alternative. A decision was reached to focus the analysis on a single service scenario. The scenario selected was Scenario 14, Three Route Harmony for more detailed evaluation. This decision was made based on the fact that Scenario 14 had, by far, the most statistically consistent score in the initial evaluation and that the service scenario was compatible with all of the potential high ranked facility sites. If, significant flaws were reached or other issues were uncovered in the detailed evaluation, the team would have returned to the list and picked the next ranked service scenario. However, that eventuality did not arise.

The concept behind Scenario 14 was combined with the top four ranking sites for facility development as shown in **Figure 3-7** below. A fully detailed transit network with facilities and stops was then constructed for each variation which were given the title Alternative. In addition, a baseline alternative, essentially Scenario 10 was also maintained to provide a no-build alternative as that plan utilizes no new facilities, only a different service network plan.

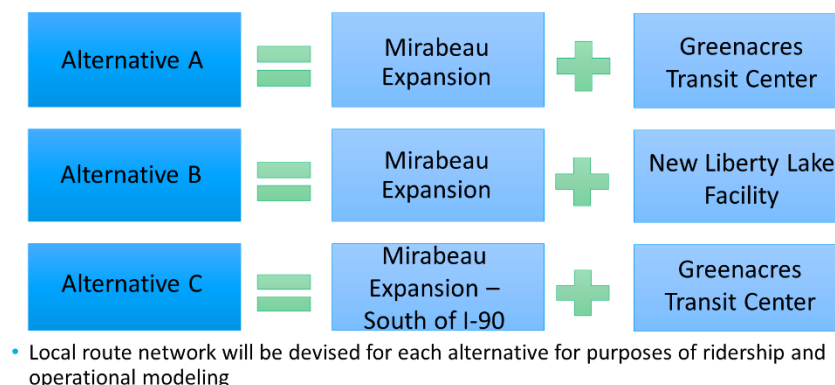
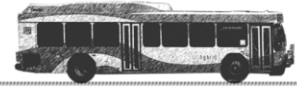


Figure 3-7: Preferred Scenario Facility Alternatives



I-90/Valley High Performance Transit Corridor: Corridor Development Plan



4. Transit Facilities and Sites

The purpose of the transit infrastructure and site evaluation study effort is to determine potential and realistic transit and park-and-ride sites and associated infrastructure that supports and accommodates for expanded transit service identified within the framework of the Corridor Development Plan. STA along with the Consultant team reviewed available sites along the I-90/Valley HPT Corridor to determine which sites had enough merit to consider as potential transit facilities.

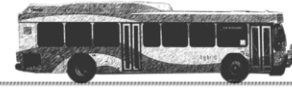
Transit facility sites were assessed through a series of evaluative steps and assessments in which screening criteria developed and then applied to organize, rank, and determine which of these sites should be carried forward for further consideration. A myriad of potential sites throughout the HPT corridor were assembled a starting point for consideration. These sites were further discussed through a series of meetings and discussions to confirm suitability with program requirements. Sites which met the corridor development plan objectives, such as proximity to I-90 freeway corridor and ability to integrate with various transit service scenarios, and exhibited some degree of reasonability such as accessibility and ease of development were advanced into a Level 1 and Level 2 Site Evaluation process. The outcome of this process then provided a ranking to assist in determining which of the sites had merit to carry forward for additional consideration and conceptual design analysis.

Through ongoing analysis and evaluations made throughout the CDP process, STA and the Consultant team determined that a transit center park and ride facility to be located at the I-90 and Argonne Road freeway interchange would have a favorable response for increasing HPT ridership. The site initially identified as A6 or known as the Argonne Station Park and Ride was further developed in parallel with evaluations performed relative to the identification of preferred sites.

INITIAL FACILITY SITES

Study work from earlier project activity in support of the STA's park-and-ride grant acquisition process was utilized as a starting point for analyzing available sites. Updated input was received from the team's property specialist to understand which parcels were or could potentially be available for acquisition by STA in support of the corridor development plan. Along with these potentially available sites, public agency or jurisdictional owned sites including WSDOT, County, City, and STA owned sites were included for the evaluative process. Mapping was prepared depicting available sites relative to the I-90 corridor study area and proposed service scenario alignments to assist in determining feasibility and viability. See **Appendix B, Property Assessment and Corridor Alignment Maps**, for this property information.

Existing and future sites were located throughout the corridor and specific areas were identified for to conduct a comparative siting assessment and feasibility review. Sites were categorized in proximity to the Argonne, Mirabeau, Greenacres, and Liberty Lake locations. STA and the Consultant team determined that the sites needed to be within a ½-mile of the I-90 freeway corridor for improved utilization during this initial look. Sites should also be a minimum size of 2 acres to support a transit center only function and upwards of 7 acres to integrate park-and-ride functionality.



Due to ongoing considerations with HPT service extension into Coeur d'Alene and routing configuration, potential sites near Stateline were reviewed and confirmed to be available but were not studied in detail or advanced due to present unknowns as to when service will be implemented.

Approximately 50 different sites located the I-90 freeway corridor in the Argonne, Mirabeau, Greenacres, and Liberty Lake vicinities were identified as potential transit center and park-and-ride facility sites. These sites were advanced forward into evaluative screening process to further aid in determining which of the sites would have the most merit for advancement towards a preferred site or series of sites.

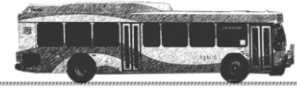
Level 1 and Level 2 screening criteria were developed specific to the project needs in order to rank each of the various sites and identify which sites were practical for supporting high-performance and local transit service and associated route scenario development. Specific objectives and criteria were formulated and a ranking was then applied to confirm which of the sites had the most merit for supporting the overall Corridor Development Plan.

LEVEL 1 SITE EVALUATION

A Level 1 Site Evaluation was conducted to screen the various sites identified in the initial site assessment for further consideration. STA and the Consultant team identified the following Level 1 criteria in **Table 4-1** below for qualitatively ranking each of the sites identified during the initial facility site review process.

Table 4-1: Level 1 Site Evaluation Criteria

Objective	Evaluation Criteria
1. Operational Efficiency	1A. Does the site location minimize out of direction travel to I90 corridor?
	1B. Does the site location minimize transit out of direction travel to one of scenario alignments?
	1C. Does the site location fit with the current bus service, the ability to adapt? Will the location add fewer than 5 minutes of drive time per direction for worker-driver buses?
	1D. Is the site served by an existing or planned bus route?
2. Potential for Expansion	2A. Would the soils or other on-site conditions such as adjacent land-use/occupancy support future expansion of the park-and-ride, including the construction of a structure(s)?
3. Ease of Development/ Acquisition	3A. Is the site free of steep slopes and wetlands that would require enhancement or mitigation?
	3B. Is the site vacant or underdeveloped in a manner that could result in acquisition negotiations that are less complicated than those for developed properties (e.g. residential or business relocation is not required)? Relocation assistance? Public agency-owned differentiator? i.e., DNR, WSDOT, Spokane County, City of Liberty Lake, Utility ROWs (Avista)
	3C. Is the site zoned consistent with the construction of a new transit center, park-and-ride lot?
4. Forecast Utility	4A. Does the site accommodate the demand for park-and-ride facilities that is not met at existing facilities? Does it complement the existing facility?
	4B. Does the site have the potential for utilization by park and pool users?
	4C. Is the site in a location that facilitates connections to activity centers, such as downtown Spokane, Spokane Valley, Liberty Lake, and Coeur d' Alene.



Objective	Evaluation Criteria	
5. Multi-modal Access	5A.	Is the site accessible by cyclists and pedestrians via dedicated non-motorized facilities (e.g. sidewalks, trails, bicycle lanes)?
6. Transit Supportive Development	6A.	Do the surrounding uses encourage or support future transit-oriented development?

The Consultant team with input from STA ranked the various sites and applied a score of 0 through 2 for each of the Evaluation Criteria listed for each of the sites. An aggregate ranking was compiled and then averaged to provide for a total ranking for each site. The summary results of this ranking are found in **Appendix C, STA HPT Site Selection Level 1 Screening Summary**.

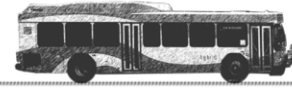
Based on additional discussions between STA, various jurisdictional agency partners and the Consultant team, approximately 13 sites were carried forward from the Level 1 Site Evaluation into the Level 2 Site Evaluation for further assessment.

LEVEL 2 SITE EVALUATION

A Level 2 Site Evaluation was conducted to further refine and determine a set of preferred sites. STA and the Consultant team identified the criteria in **Table 4-2** below in order to further rank quantitatively each of the sites for final confirmation of a preferred site or sites to consider.

Table 4-2: Level 2 Site Evaluation Criteria

Objective	Evaluation Criteria	
1. Minimize Impacts from Critical Area Constraints	1A.	Is the site free of challenging topography or other critical areas that would increase construction costs on the site (e.g., there are no steep slopes or no retaining walls/other infrastructure is required)?
2. Safety	2A.	What is the public perception of safety (personal and property) at the site based on the surrounding land uses/developments?
3. Minimize Impacts to Traffic and Transit Operations	3A.	Can existing or planned traffic signals and/or other Intelligent Transportation Systems (ITS) and infrastructure in help minimize traffic impacts and improve transit and vehicular access to/from the site?
	3B.	Are there planned improvements such as roadway widening, two left turns lanes, overpass, etc. that would improve access?
	3C.	Is there an opportunity to add improvements nearby to improve site access, such as transit only lanes?
4. Transit Operations	4A.	What are adjacent roadway conditions at peak?
	4B.	How vulnerable is the site to delay?
	4C.	Is there potential for the site to be accessed from more than one roadway?
	4D.	Is there potential to segregate transit operations from general purpose traffic with respect to site access?
	4E.	How much time will it take to reach the site from the adjacent roadway?
	4F.	How much time will be added to deviate a current route to the site?
	4G.	How well does the site facilitate connections to local transit network?
	4H.	How well does the site location minimize the need for transfers?
5. Site Accessibility and Functionality	5A.	How accessible and functional is the site for transit riders? (e.g., Does the site location minimize the travel distance for riders?)
	5B.	Are transit and riders able to make a left in and left out of the site?



Objective		Evaluation Criteria
6. Potential to Develop Non-Motorized Facilities	5C.	What is the capture ability of this site to intercept local drivers?
	5D.	What is the ease of navigation from I-90 (e.g. visibility)?
	6A.	Is right-of-way available to develop sidewalks and/or bicycle facilities?
7. Transit Supportive Development	7A.	Do the surrounding uses encourage or support future transit oriented development?

The Consultant team with input from STA ranked the various sites and gave a score of 0 through 5 for each of the Evaluation Criteria listed for each of the sites, with 1 representing low performance and 5 representing high performance. An aggregate ranking was compiled and then averaged to provide for a total ranking for each site. The results of this ranking are found in **Appendix D, STA HPT Site Selection Level 2 Screening Summary**.

Additional coordination between STA, jurisdictional agency partners, and the Consultant team occurred upon completion of the Level 2 Site evaluation process to confirm understanding of site accessibility relative to existing and proposed conditions, ease of development, and other potential fatal flaw considerations. STA and the Consultant team determined that the Central and East Valley areas should be prioritized for consideration of new or expanded transit center and park-and-ride facilities and that a facility at Argonne could be included in a future plan.

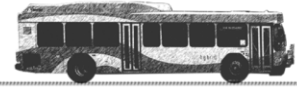
Ultimately, 7 sites were advanced out of the Level 2 Site Evaluation process for further study and concept development as top facility site candidates. 3 sites in Mirabeau (M2, M4, & M7), 1 site in Greenacres (G4) and 3 sites in Liberty Lake (L3, L11, & L13) were confirmed to be most conducive for supporting the preferred route scenario studied under the Corridor Development Plan.

A future Argonne Station Park and Ride facility (A6) will be located on WSDOT property between Argonne Road and Mullan Road, and between Mission Avenue and I-90.

TOP FACILITY SITE CANDIDATES

The top facility sites advanced out of the Level 1 and 2 Site Evaluation process were analyzed to test fit and confirm suitability with programmatic elements for functional transit center and park-and-ride facility to confirm spatial requirements for transit and vehicular circulation, ease of access from traffic and active transportation facilities, ability to integrate with corridor route scenarios studied, and safety and visibility from the roadway frontage.

Sites M2, M7, L3, and Appleway Station (L13) were determined to be the top facility site candidates with the most potential to support implementation of the Corridor Development Plan ultimate build-out. As route scenario development was further evaluated, STA and the Consultant team confirmed that sites M2 and Appleway Station (L13) are the most preferred and advantageous sites for supporting the preferred route scenario. The Appleway Station site is also identified to have a future Light Rail Transit station as found under the *Draft Environmental Impact Statement, South Valley Corridor Project, Spokane County, Washington, December 2005*. The Appleway Station Park and Ride facility would be complimentary and integrate well with future light rail transit in this vicinity.



SITE M2 AND MIRABEAU RETROFIT

Site M2 is located in Spokane Valley and is approximately 6.6 acres in size. The concept is to redevelop a vacant lot for an expansion of the existing Mirabeau Point Park-and-Ride facility. The site allows for a new transit center loop and park-and-ride lot to improve capacity and functionality for this station area. Local transit service and general purpose vehicles would access the site from East Mansfield Avenue. The concept would require a crossing of the existing Union Pacific Railroad railway and right-of-way bisecting the existing and proposed site to connect with HPT service that would connect at the existing Mirabeau Point Park-and-Ride facility site under this concept.

Currently, STA has elected to defer full development of Site M2 due to cost analysis considerations and additional coordination that will be required with Union Pacific in order to connect either an underpass or overpass crossing into the existing Mirabeau Park-and-Ride facility. STA for the interim is evaluating opportunities to implement improvements at the existing Mirabeau Point Park-and-Ride facility that will provide for an enhanced experience, increase active and layover space for transit, increase parking and improve access, and provide for efficient HPT service to be located along the transit facility frontage on Indiana Avenue. This concept has been identified as the Mirabeau Retrofit option.

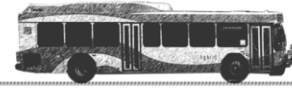
Planning-level cost estimates have been prepared and may be found in **Appendix E, Planning-Level Cost Estimates**. The planning-level cost estimate for the Mirabeau Retrofit option is approximately \$6 million (2022 dollars), and includes applicable contingencies, design, administration, permitting and construction management. No real-estate costs are anticipated in this option.

APPLEWAY STATION (L13)

Appleway Station (L13) site is located in Liberty Lake and is approximately 10.3 acres in size. The concept is to redevelop a vacant lot for a new transit and park-and-ride facility to be located adjacent to I-90 and East Appleway Avenue. Direct access for HPT service access could be accommodated for from the I-90 freeway corridor but will require further coordination with WSDOT and Liberty Lake to confirm parameters for acquiring access relative to the existing ramps and connections into the interstate mainline. Local transit service and general-purpose vehicles would access the site from East Appleway Avenue.

Planning-level cost estimates have been prepared and may be found in **Appendix E, Planning-Level Cost Estimates**. The planning-level cost estimate for the Appleway Station Site (L13) is provided to show phased implementation over time:

- **Initial Buildout** (135 stall park-and-ride, 5 bus bays, 3 layover bays): \$9.8 million for construction, \$6.3 million for property acquisition for a total of ~\$17 million.
- **Expansion** (300 stall park-and-ride, 5 bus bays, 3 layover bays, eastbound transit only exit ramp from I-90): \$6 million for construction.
- **Full Buildout** (424 stall park-and-ride, 5 bus bays, 3 layover bays, eastbound transit-only exit ramp) from I-90, covered passenger facilities): \$26.5 million for construction, \$6.3 million for property acquisition for a total of ~\$33 million. Note this is not an incremental cost above the initial buildout, rather a complete cost to build the 424 stall park-and ride.



- **Westbound I-90 Direct Transit Access Overpass:** \$26.3 million for construction, \$0.4 million for property acquisition for a total of ~\$27 million. Note this is a stand-alone cost for providing direct access to westbound I-90 from the site.

All costs are represented in 2022 dollars, and includes applicable contingencies, design, administration, permitting and construction management.

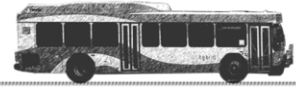
A desktop environmental analysis was conducted for the Appleway Station site (L13) to ascertain any known conditions within the site. **Table 4-3** provides a summary of findings. The L13 site environmental analysis memorandum may be found in **Appendix F, Site L13 Environmental Baseline Memo**.

Table 4-3: Appleway Station (L13) Site Environmental Baseline Conditions Summary

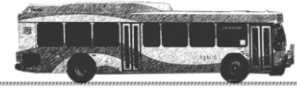
Resource	Findings
Critical Areas Includes wetlands, fish and wildlife habitat conservation areas, geologically hazardous areas, and critical aquifer recharge areas	<ul style="list-style-type: none"> • Site is within a well-head protection area. • No identified surface waters or wetlands. • Site is not within a shoreline buffer. • No identified critical habitats. • Eastside Steppe habitat feature is located along the southeastern boundary of the parcel. • No geological hazards or erodible soils.
Contaminated Areas	<ul style="list-style-type: none"> • No contamination or cleanups are mapped on the parcel. • Identified Sites within 0.5 miles of the parcel.
Noise Sensitive Areas	Noise sensitive receptors nearest to the parcel include: <ul style="list-style-type: none"> • Residences along E. Laberry Dr., Approx 1,250 feet west • Country Vista Apartments, Approx. 1 mile east • Selkirk Middle School, Approx. 0.4 mile northeast • Ridgeline High School, Approx. 1,250 feet south
Cultural Resources	<ul style="list-style-type: none"> • Moderate risk for containing archaeological resources • No known villages or named places. • Cultural Resources Assessment is likely required
Demographics	<ul style="list-style-type: none"> • Lower percentages of people of color, population speaking non-English languages and linguistically-isolated households as compared to Spokane County. • No non-English individual languages spoken by 5% or more of households • Fewer ratio of household income to poverty level less than 2 as compared to Spokane County

Sites M2, M7, L3, Appleway Station (L13), and the Mirabeau Retrofit concepts can be found in **Appendix G, Site Concepts**.

Future Argonne Station (A6) The future Argonne Station Park and Ride (A6) site is located in Spokane Valley and is approximately 2.5 acres in size. This site provides an ideal location for a freeway flyer stop that provides quick access for I-90 HPT routes and allows for transfers to local routes on Argonne and Mullan. It is anticipated that much of the transit operations of the facility may be placed on



WSDOT right-of-way, and that the adjacent private property may be leased and/or purchased as needed to provide additional park-and-ride capacity. The study and supporting documentation of this facility that was conducted in parallel with the other overall screening process and site assessments can be found in **Appendix H, Argonne Station Concept and Planning-Level Cost Estimates**.



5. Transit Service And Facilities Evaluation

MULTIPLE ACCOUNT EVALUATION

The baseline and three alternatives were evaluated using the multiple account evaluation technique. In each account, two to eight metrics were established to evaluate each account. The six accounts and metrics are summarized in **Figure 5-1**.

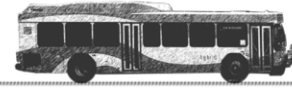


Figure 5-1: MAE Accounts and Metrics

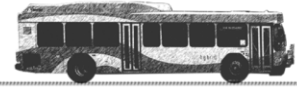
A full description of the final criteria and the method used to evaluate them is shown in **Table 5-1** below.

Table 5-1: MAE Criteria

Evaluation Accounts and Criteria	Data Source	Description
Transportation		
Transit ridership	Quantitative from model	Projected weekday daily ridership for each alternative, based on existing and future (2019 and 2045) modeled ridership.
Transit travel time	Quantitative – GIS Analysis	Travel time for each transit alternative, on selected corridor trips, PM Peak (2019 and 2040)
Transit capacity	Quantitative from model	Passengers per hour per direction, based on the capacity of each vehicle type and proposed frequency of service.
Total person throughput	Quantitative from model	People in autos and on transit during the peak hour on I-90, based on existing and modeled data, at least two specific screenlines along the corridor. Auto volumes are converted to persons based on average vehicle occupancy.



Evaluation Accounts and Criteria	Data Source	Description
Reliability	Combination of qualitative design review and quantitative	Estimated percentage of service delivered on time based on the level of separation of transit from general traffic, the relative delay from signals, and typical reliability for each mode given right-of-way characteristics.
Economic Development		
Connectivity to employment	Quantitative–GIS Analysis	Number of jobs within ½ mile of major transit stops (using work locations in U.S. Census Bureau's Longitudinal Employer-Household Dynamics (LEHD) 2019)
Connectivity to activity centers	Quantitative–GIS Analysis	Number of activity centers within ½ mile of transit stops
Investment potential	Qualitative	Potential for transit infrastructure to attract private investment and development
Access to jobs – all population	Quantitative – GIS Analysis	Number of jobs available to residents east of Fancher within a 60-minute transit trip
Access to jobs – equity-focused population	Quantitative – GIS Analysis	Number of jobs available to equity-focused residents east of Fancher within a 60-minute transit trip
Social + Community		
Connectivity to population	Quantitative–GIS Analysis	Number of residents within ½ mile of transit stops
Connectivity to Equity-focused population	Quantitative–GIS Analysis	Number of equity-focused residents within ½ mile of transit stops, % of all STA service area equity-focused population
Connectivity to education – all pop	Quantitative – GIS Analysis	Number of people living east of Fancher within a 60-minute transit trip to a post-secondary education opportunity
Connectivity to education – equity-focused pop.	Quantitative-GIS Analysis	Number of equity-focused people living east of Fancher within a 60-minute transit trip to a post-secondary education opportunity
Connectivity to Medical Treatment – all pop	Quantitative-GIS Analysis	Number of people living east of Fancher within a 60-minute transit trip to a hospital
ADDED: Connectivity to Medical Treatment – equity focused pop	Quantitative-GIS Analysis	Number of equity-focused people living east of Fancher within a 60-minute transit trip to a hospital
Impacts on traffic	Quantitative from model	Impacts to automobile traffic and vehicle kilometers traveled (VMT)
Environment		
GhG impacts	Quantitative based on model	Greenhouse gas (GhG) emissions based on fuel type and miles traveled for each mode alternative.
Environmental health	Qualitative	Relative impacts to environmental health factors including air, water quality, and noise, both during construction and ongoing operations



Evaluation Accounts and Criteria	Data Source	Description
Financial		
Capital costs	Quantitative	The estimated cost to implement the project, including allowances/contingencies for O&M facilities (if required) and major cost elements (e.g., bridges)
Operating costs	Quantitative	The estimated cost to operate the service, based on existing unit costs
Property impact	Qualitative	Assessment of potential impacts (value or ability to develop) on adjacent properties
Deliverability		
Transit integration	Qualitative	Connectivity to other local and regional transportation services
Scalability/Phasing	Qualitative	Ability to phase the construction and scale implementation of the project.
Project risk / ease-of-implementation	Qualitative	Ease of advancing the project (property acquisition, permitting, construction) and acquiring funding

A summary of the results of the MAE is presented in **Figure 5-2**. The full results including the numeric values obtained from the evaluation are located in **Appendix I, MAE Matrix**.

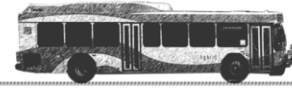
Account	Baseline Scenario	Greenacres + Mirabeau Expansion	Liberty Lake + Mirabeau Expansion	Greenacres + Mirabeau Expansion South*
		Alternative A	Alternative B	Alternative C
Transportation				
Economic Development				
Social + Community				
Environment				
Financial				
Deliverability	N/A			

	Higher Performing
	Moderate Performing
	Lower Performing

Figure 5-2: MAE Results Summary

In summary:

- All alternatives appear to result in a multi-fold increase in ridership in the corridor compared to the 2045 baseline.
- Service frequency and improved access are key elements of these outcomes.
- The results validate the preferred architecture, including connectivity to West Plains.



- The STA Moving Forward park-and-ride investment east of Sullivan Road performs better closer to Barker Road than to Harvard Road.
- Mirabeau Park-and-Ride facility continues to provide value for connectivity and park-and-ride demand.
- There are opportunities to explore ways to improve the Mirabeau facility for passengers and buses.
- New connectivity at Argonne Road and integrated service to northeast Spokane Valley along the Mission Corridor between Evergreen and Pines appear promising in terms of ridership response, improved travel times for residents, and improved residential access to the medical facilities along Mission.

A note regarding Alternative C and why it appears to perform poorly in the Economic Development and Social and Community accounts. Alternatives A and B contain a new local route that connects to the new I-90 services at two locations. The evaluation is conducted at a network level, so any significant differences in the network do show in the evaluation. The new local route covers new territory that is uncovered in the Baseline and Alternative C. As it turns out, this new local route is a key to improving access to previously uncovered neighborhoods and that access is accentuated by the ability to interconnect with the new freeway-based services. Had this new route been included in Alternative C, it would have performed equal to, or better than, Alternatives A and B. That is why the last finding in the MAE results lists the Mission corridor between Evergreen and Pines as having a high potential for improving local and regional access.

DRAFT PREFERRED SERVICE AND INFRASTRUCTURE SOLUTION

A map depicting the Draft Preferred Scenario is shown in **Figure 5-3**.

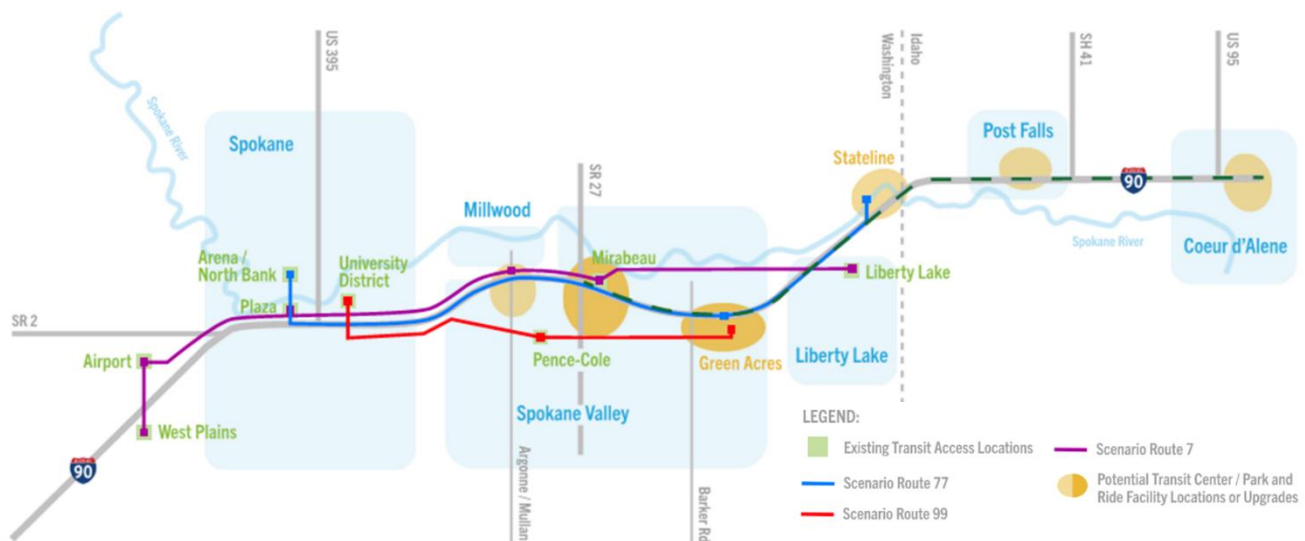
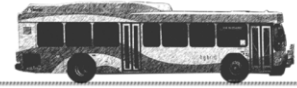


Figure 5-3: Draft Preferred Service and Infrastructure Scenario



FINAL PREFERRED SOLUTION

The 20-year vision for this corridor embraces the following elements:

SERVICE

Route 74 becomes HPT Route 7 mainline with 7-day a week service

- Peak overlay from Mirabeau for 15-minute service
- When the facility is completed the route will serve the new station at the Argonne/Mullen interchange.
- Extends to West Plains Transit Center via Spokane Airport

Liberty Lake Express Route (Route 77) begins in the vicinity of Stateline. The route will serve the tech park in east Liberty Lake, the present Liberty Lake Park and Ride then enter the freeway after serving the new Appleway Station (Site L13) with 15-minute service. The route will serve Downtown Spokane and then extend across the Monroe Bridge to the North Bank.

A route will interline with route 98 Sprague and will start at the Appleway Station (Site L13) site with service to U District. The service will be revised on at Sprague and off at Hamilton, and will connect to the City Line in the U-District in lieu of continuation to the Plaza.

Introduce a pilot service to Coeur d'Alene and Post Falls connecting to Appleway Station and Mirabeau Transit Center.

Explore the potential for a new service to connect the new Appleway Station (Site L13) along I-90 to Evergreen, then service Mission Avenue to Pines continuing to downtown, the airport and West Plains Transit Center. This possibility is not part of the ten year corridor development plan.

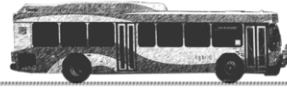
The initial service levels and span of service will be improved based on ridership response to the initial service levels described above.

FACILITIES

Improved transit center at Mirabeau, consider opportunities to provide direct north/south pedestrian access over, or under, the Union Pacific tracks to facilitate improved connections to the neighborhood north of the tracks. The transit facility should provide six bays and opportunities for layover.

Appleway Station - develop as a park-and-ride site with the ability to develop a full transit center within the 20-year planning horizon. The new facility would include:

- Passenger facilities
- Bus bays for up to six buses
- A freeway direct off-ramp from eastbound I-90
- A freeway direct overpass and on-ramp to westbound I-90
- Construction of a roundabout at the intersection of the present westbound off-ramp and Apple Way

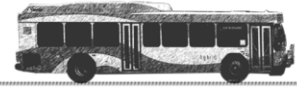


- Exploration of opportunities to tie into and improve non-motorized modes in the vicinity of the park-and-ride. This may include providing access to over the freeway with a shared-use overpass.

State Line – Work with WSDOT to secure a future option to develop a transit node and potential park-and-ride facilities on present WSDOT right of way in the vicinity of State Line.

Mission Avenue at Blake Rd. – Explore opportunities for development of a transit hub, potentially a small park-and-ride, but also to explore opportunities for joint development in the vicinity of the transit hub that could include transit-oriented development with the possibility of developing affordable housing. This possibility is not part of the ten year corridor development plan.

Argonne and Mullen at I-90 – Develop a station/ transit node at this interchange to offer improved access for residents in the area to freeway-based services. This development will include park-and-ride development, as well.



6. Community Engagement

The nature of public transit facilities operating for the use of the regional population within public facilities suggests the need to engage the public to guide the development of the I-90 high performance corridor. This study included elements of engaging the general public along with the corridor's stakeholders, which include designees from city, county, and state agencies and other appropriate interest groups.

Where this study was also meant to explore interest in connecting across the state line into Idaho, stakeholders east of that border were also identified. The basis of funding for STA being held strictly within the state of Washington, however, places the basis of service within the political boundaries wherein the funding originates. Thus the exploration of connecting across the state border at this stage remains an effort of gaging interest in political partnership for facilitating a connection between states, regions, counties, and cities. Travel data clearly shows an existing and growing need for travel options between Kootenai and Spokane counties, and an open dialogue about potential mutual benefits between the two states is encouraged.

ENGAGEMENT PLAN

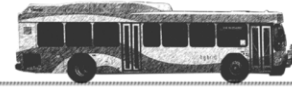
At the outset of this study a Community Involvement Plan was approved. The goal was to establish timely, transparent, understandable, and objective communications and create appropriate opportunities for stakeholder and public engagement during the alternatives analysis period. The plan included first engaging owner agencies to explore possibilities for enhancing transit functionality within existing public facilities. Engagements were envisioned on three levels: 1. Focus meetings with individual stakeholders; 2. Stakeholder technical advisory committee (TAC) meetings; and 3. General public engagement. Additionally, engagement with elected officials of the local agencies enhanced the reach of this study.

EARLY PROJECT ENGAGEMENT – FOCUS MEETINGS

Owner agencies were engaged individually in “focus meetings” to kick off this transit study. The purpose of each focus meeting was to introduce the study objectives, gather feedback on the objectives, including voicing possible mutual benefits, and then discussing focal points within each agency that highlighted target development areas, short-term and long-term economic hot spots, challenging transportation facilities, and planned capital transportation investments.

Focus meetings were held between May 26 and July 7, 2021, with the following stakeholders:

- City of Spokane Valley
- City of Liberty Lake
- Washington State Department of Transportation
- Spokane Regional Transportation Council
- City of Spokane
- City of Millwood
- Spokane County



The focus meetings each included two common goals. The first goal was to share the study background, objectives, and schedule and gather feedback regarding the objectives and potential opportunities and challenges. The second goal was to invite each agency to commit participants to join a Technical Advisory Committee. In each case the goals were accomplished.

Within each meeting the project background and draft project objectives were shared. Feedback from each agency honed the objectives to better fit the regional opportunities and needs. Expanding on the objectives led, in each meeting, to a discussion of opportunities and challenges that could affect the outcomes and direction of the CDP. Common opportunities included overlapping transit infrastructure enhancements with capital project planning, siting new transit center facilities to suitably serve urban growth in the areas expected to develop within the planning horizon, and promote urban infill by increasing the reliability of transit services along the I-90 corridor. Challenges commonly included physical barriers or traffic congestion issues, political concern for extending across state boundaries vs. focusing on improvements locally, and best aligning the HPT improvements with the ever-shifting development and growth patterns.

TECHNICAL ADVISORY COMMITTEE

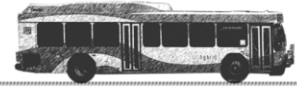
The Technical Advisory Committee consists of the agency representatives contacted during early project engagement. Three TAC meetings were held during the study, the first early in the concept development phase, the second after completing an initial analysis and selecting the preliminary preferred concept, and the third after developing the preferred concept into a draft corridor development plan. Each of these meetings included the presentation of content to the TAC, and then gathering feedback regarding the content.

TAC MEETING #1

The first TAC meeting was held in July of 2021. The meeting was attended in person and virtually, by representatives for each stakeholder agency. STA and the consultant team presented the background for the I-90 Valley HPT project, validated the final study objectives, defined the study process, and then led a discussion regarding the potential opportunities to create new nodes and routes that would serve the corridor as the future deliverable of High Performance Transit along I-90 in Washington, and eventually connecting transit options into Idaho as well.

A Corridor Development Plan - the ultimate objective of this study – was loosely defined as a roadmap for service and infrastructure-related improvements to support HPT in the greater metro area and across state lines. A discussion was led regarding the study objectives to better understand how these objectives might align, compliment, and support jurisdictional goals. Upon review of the objectives the following points were made:

- Safety is in all aspects of transportation planning and design. Promoting integrated solutions that support safe and healthy transportation is a strong theme within transit.
- Integration with local agency infrastructure planning is important.
- Adding transportation options is going to enhance the functionality of I-90 into the future. Recent Idaho actions and press regarding the future plans for I-90 that clearly leave transportation options out of the plan are challenging the efficacy of methods to serve across the state line. There remains the potential to provide transit service all the way to the state line, offering choices within Washington that serve users of I-90 that can grow in the future.



- Engagement of the community is important. Businesses, schools, and the public will be engaged to assure that services provide for differences in culture, community, and politics.

Baseline traffic and transit trends both pre- and post-pandemic were illustrated to the committee. A recent spike in traffic during commute hours is concerning. There are relatively small adjustments in the works with WSDOT, focusing around the Pines Corridor, but not on a level that will create long-term results. The north-south freeway corridor will facilitate shifts in traffic, but generally destinations related to housing and employment remain the point of data analysis. Outside of the Spokane Valley proper, the next largest group connects from Northeast Spokane to the Spokane Valley industrial area.

This study will strive to fit frequent service corridors to serve the present and emergent needs. Employment shift timing also must be taken into account, where the trend is for more fluidity in shift start times, which is spreading out the commute timeframe requiring reflected transit service adjustments.

The committee was guided through a mapping exercise to discuss potential integration points between agency transportation plans, development expectations, and optional HPT building blocks. A few key points were discussed:

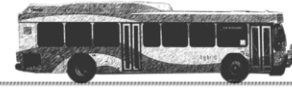
- WSDOT's North Spokane Corridor connection to I-90 was being re-evaluated to consider alternatives that were more fitting to the time of completion need. With the simplified trumpet alternative there may be possibilities to better connect Spokane Community College transit center to I-90 routes. Cost would be a driving factor.
- The Argonne/Mullan interchange could be an opportune location for a flyer station.
- Improvements at Pines/Mirabeau are a possibility, depending on how connections line up in the area.
- Greenacres area holds the potential to match up with future developments. Open land near the freeway, and the need to update the Greenacres interchange bridge suggest a possible confluence of opportunity.

At the conclusion of TAC #1, participants were asked to fill out an anonymous survey to gauge the level of acceptance and value each agency would place on an I-90 corridor HPT system, as had been defined to this point. Responses gathered generally communicate value and acceptance of the subject improvements for economic viability and enhancement of the surrounding community. Participants also indicated a willingness to integrate HPT infrastructure updates with transportation system updates.

TAC MEETING #2

The second TAC meeting was held in February of 2022. The meeting was again attended by representatives of most Stakeholders. The purpose of this engagement included gathering feedback on three elements: vetting preliminary service scenario analysis and outcomes; potential transit center site screening; and the preliminary preferred scenario was defined.

The process of scenario development and evaluation was demonstrated to the committee. Original brainstorming of prior meetings, along with the assessment of present traffic and economic conditions led to an initial list of 14 potential service scenarios. An evaluation process applied criteria to narrow this list to the top five scenarios. Some key points learned during this process were:



- No single bus route would provide the level of access and efficiency/speed that would benefit transit users in the corridor.
- Multiple routes in each scenario were developed to provide connections over shorter distances, including consideration of routes parallel to I-90.
- One scenario – “Three Route Harmony” – ranked higher than the others, providing great connectivity north and south of I-90, trunk service from Liberty Lake to West Plains, and compatibility to provide effective pilot service into Idaho.

The service scenarios ultimately would depend on physical siting of facilities, and the consultant team shared the process of reviewing 43 potential land parcels for suitability. As described in this report, those sites were narrowed by a series of analyses and evaluation to a set of 7 sites that could readily serve the top three scenario alternatives.

The “Three Route Harmony” service architecture scenario was defined for the committee. This preferred scenario could be developed in three alternative combinations of transit center site locations. The next steps for determining the most preferable alternative included a multiple account evaluation using transportation and transit modelling to find the effectiveness of each alternative delivering each of 6 target (account) outcomes.

The committee was asked to offer impressions of the evaluation and analysis process. Some key notes included:

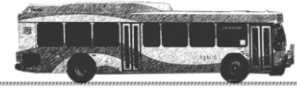
- The process is thorough and sound with no surprises.
- WSDOT owns property along I-90 that could offer great siting options to serve the suggested alternatives.
- Multiple, shorter, more efficient routes will be appreciated for their reliability and connectivity. The ability to directly connect to regional hot-spots, and avoid route transfers will make transit use more attractive.

A roundtable discussion ensued. Interest was expressed by committee members to learn more about the facility’s siting locations. The site locations were not yet made public, as to cautiously prepare for and follow appropriate real estate transaction processes. However, the general areas of interest were shown, and direct outreach was to follow this meeting to consider zoning and access needs for the potential sites.

TAC MEETING #3

The third and final TAC meeting was held in May of 2022. The meeting was again attended by representatives of most Stakeholders, and shared directly with stakeholders who were unable to attend the official meeting. The purpose of this engagement was to share the outcomes of the multiple account evaluation in the selection of a preferred alternative, to share the further development of associated site facilities, and to outline the outcomes of the corridor development plan.

As in other meetings, the past progress was reviewed, followed by sharing of new study developments. Additionally, the outcomes of the public open house and survey were presented. The public open house and survey results are summarized in the next section of this report.



The findings of the MAE were summarized, while the greater detailed results were distributed to participants prior to the meeting. The three alternatives and the baseline (no-build scenario) were graded as either high, moderate, or lower performers in each of the six evaluation accounts. These outcomes show the highest performer is Alternative A, which includes facility enhancement of the Mirabeau Park-and-ride and a new facility in the Greenacres area east of the Barker interchange. Feedback from committee members included:

- Some surprise regarding the lower outcomes of Alternative C. The reasoning for this outcome was apparent within the model.
- The model results were positive, and were not numerated in reporting, due to the nature of modeling future outcomes. This was appreciated by committee members

The Corridor Development Plan was described in basic detail as well. The CDP includes short-term and long-term facility and service changes to establish the HPT outcomes projected as Alternative A of the preferred scenario. The plan will require fiscal constraints and feasible development over time as part of STA Moving Forward and future grant possibilities.

The site facility layouts reflective of Alternative A (Mirabeau and Greenacres) were shared with the committee. Site facility development required supplemental one-on-one stakeholder meetings held between TAC meetings. These meetings engaged stakeholders to gather input regarding the functionality of possible new facilities to effectively interact with the surrounding infrastructure. This was clarified as the site layouts were shared. The following comments were received from stakeholders:

- The Greenacres site, requiring a bus-only interchange with I-90 would require development review with WSDOT, although the layout, as previously discussed one-on-one is not fatally flawed.
- The Greenacres site represents a potential layout in a certain vicinity, but is real-estate dependent, and the plan can use another nearby site, as needed.

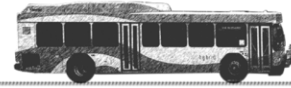
The TAC was thanked for their input in this study process. The next steps for completion of the CDP will require their feedback on the draft write-up. The schedule for completion was shared to wrap up the meeting.

Complete notes from the three TAC Meetings are included in **Appendix J, TAC Meeting Notes**.

VIRTUAL PUBLIC OPEN HOUSE #1

A public open house was held via web meeting in March, 2022. The meeting was recorded and posted for review by the public on STA's project web site, and was accompanied with an online survey to gauge interest and approval of the project as well as inquire about preferences. The purpose of this meeting was to share the advancement of *STA Moving Forward* through the development of I-90 Corridor HPT facilities, and to gather feedback from the public regarding transit opportunities on I-90.

The meeting content included a full project overview. The project timeline, goals and objectives were identified. The study program was illustrated, and the preferred scenario concept was displayed. Building blocks and site focus areas were discussed. A question and answer panel wrapped up the live meeting with questions drawn in through the chat feature of the web meeting platform. Questions from the public generally focused on



potential methods of improvement such as bus-only lanes on I-90 or flyer stops. Also, comments pointed to locations of interest for siting new transit facilities.

The meeting concluded with an invitation for all attendees or viewers to participate in the online community survey. A recording of the meeting is available on the [project website](#).

COMMUNITY SURVEY #1

The community survey that followed the public open house was available for input from March 2nd through 31st. Promotion for the community survey included a multi-pronged approach. This began with advertising the public open house through news print ads in the Spokesman Review and Valley Voice, announcing the event in the STA E-news, posting a press release for the event, posting of a social media event on Facebook, posting of flyers in buses and transit shelters, and broadcasting email invitations through partner agencies and active transportation advocacy groups. Following the open house meeting, the community survey continued to be promoted through social media ads, a newspaper interview, and again broadcast via email through partner agencies and active transportation advocacy groups. Additionally, STA staff visited the Kiwanis club meeting to present the study goals and objectives and further promote participation in the survey.

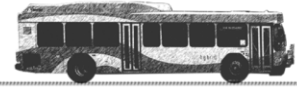
The self-selected survey garnered over 450 individual responses, including answers to the posed questions as well as open comments regarding the project. Participants included residents of Spokane County (Washington) and Kootenai County (Idaho). A few highlights from the survey stood out:

- The majority of respondents (52%) were not transit users.
- Among transit users, the top reasons for transit use were shopping/errands, commuting to work, and medical appointments.
- There was general support for the additional transit investments.
- The top methods for improving Bus Reliability included use of HOV lanes, flyer stops, and bus on the shoulder lanes.
- The most desired service improvements were night and weekend service and improved frequency of service.
- A greater percentage of Spokane County residents (77%) support connecting bus service into Idaho than Idaho residents (41%).
- Among a selection of possible new park-and-ride locations, Stateline, Sprague, and Argonne were identified as the top preferences.
- The majority of respondents (74%) ranked connecting transit into Idaho as an important effort.

A graphical summary of the survey responses is provided in **Appendix J, Public Survey Results**.

VIRTUAL PUBLIC OPEN HOUSE #2

A second public open house was held June 14th, 2022. This event was hosted and promoted in partnership with the City of Spokane Valley and the Greater Spokane Valley Chamber of Commerce as a “lunch-and-learn” meeting over the noon hour. The objective of this event was to share the study outcomes and gather feedback regarding the draft CDP.



The meeting content included a project overview. The project timeline, goals and objectives were identified. The study program was illustrated, and the preferred scenario concept was displayed. Building blocks and site focus areas and draft layouts were discussed. A question and answer panel wrapped up the live meeting with questions drawn in through the chat feature of the web meeting platform. Questions generally focused on economic potential and opportunities that a more efficient and effective I-90 transit platform would facilitate.

The meeting concluded with an invitation for all attendees or viewers to participate in the 2nd online community survey.

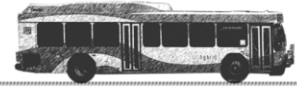
COMMUNITY SURVEY #2

In coordination with this second public open house, an online community survey was open June 5 through June 27. The survey objectives were to gather input on transit use and impressions of the I-90/Valley HPT project. Questions also gathered sociodemographic and locational information about respondents.

The survey was advertised on the project web site, on flyers on buses and through social media channels. There were 58 self-select respondents to this survey, all residents of Washington. A few highlights from the survey follow:

- Over 50% of the respondents ride the bus weekly or more frequently, and around 50% of them commute to work by bus.
- A high majority of the respondents (93%) believe that the problem of traffic congestion on the I-90/Valley corridor is serious.
- The highest rate of satisfaction with the STA routes along I-90 is “schedule and transit times”. While “adherence to the schedule” is the issue with the lowest rate of satisfaction.
- “More night and weekend services” is the most important element of the STAMF plan for the I-90 corridor. “Peak express services to Liberty Lake and the new Park-and-Ride facility in Greenacres” and “a pilot extension of the services to Coeur d’Alene” round out the top three responses.
- Among the investments along I-90 recommended in the CDP, “all the services on routes along I-90” is the most preferred followed by “developing transit priority pathways in the corridor” and “future park-and-ride facility at Stateline”.
- Two zip codes in East Spokane Valley have the highest rate of respondents’ homes while the zip code related to Downtown Spokane has the highest number of respondents’ job locations.

A graphical summary of the survey responses is provided in **Appendix K, Public Survey Results**.



7. Corridor Development Plan

The corridor development plan forms an essential roadmap to how STA intends to move from the present situation on the I-90 corridor to the full plan as described in the immediately preceding chapter. Service and project development are directly related to three key factors, the readiness of the corridor for service investment, availability of funds, and time to deliver completed infrastructure projects including environmental analysis, land acquisition, permitting, design and construction.

The first stages of the project are funded by STA moving forward and are intended to occur between the adoption of the corridor plan and 2025. Similar to the full plan, each time period features a list of intended service improvements and facility improvements.

CURRENT TO 2027 IMPROVEMENTS

SERVICE IMPROVEMENTS

Route 7:

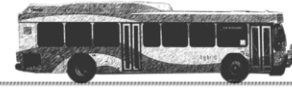
Route 74 becomes HPT Route 7 mainline with 7-day a week service

- Peak overlay from Mirabeau for 15-minute service
- Extends to West Plains Transit Center via Spokane Airport
- Initial implementation planned for 2025 when initial phase of Appleway Station is complete
- There will be a development effort in 2023-2025 to identify and detail improvements to other HPT station locations for Route 7.
- The route will serve the new station at the Argonne/Mullen interchange, targeted for implementation in 2027.

Route 77: Liberty Lake Express Route (Route 77) will begin in the vicinity of Knox and Molter roads in Liberty Lake. The route will serve the Tech Park in east Liberty Lake, the present Liberty Lake Park and Ride then enter freeway after serving new Appleway Station (Site L13) with 15-minute service. The route will serve Downtown Spokane then extend across the Monroe Street Bridge to the North Bank/Arena. This route may not be implemented on the same timelines as route 7 due to the need to expand STA's bus fleet and operator workforce. The precise date for implementation will be determined at a later time, but still within the early implementation.

Route 99: A route will interline with route 98 Sprague and will start at the Appleway Station (Site L13) site with service to the U-District with a stop in Valley Transit Center. The service will be revised to join I-90 at Sprague and leave I-90 at Hamilton. The route will connect to the City Line in the U-District in lieu of continuing to the Plaza.

Pilot Service to North Idaho. In 2026, as part of STA Moving Forward, a pilot service will be introduced. The ability to introduce this pilot service is directly dependent on the availability of new and



revised transit facilities and so must follow their development. The pilot service would operate to Coeur d'Alene and Post Falls connecting to Appleway Station and Mirabeau Transit Center. This service is intended to be two-way with the initial goal of providing transit access for Spokane County residents to reach work locations in Kootenai County. As a pilot, the service will be a two year duration and will have specific objectives established to monitor progress. Before the end of the pilot the service will be evaluated to determine the longer-term feasibility of continuing the service.

TRANSIT FACILITY IMPROVEMENTS

An improved transit center at Mirabeau. At the time of project development options will be considered to provide direct north/south pedestrian access over, or under, the Union Pacific tracks to facilitate improved connections to the neighborhood north of the tracks. However, it is unlikely that these options will be delivered as part of the first phase of development due to their costs and the availability of funds through STA Moving Forward. An extended pedestrian connection along Indiana to Pines will be considered for the early development phase of this project. The transit facility should provide six bays and opportunities for layover.

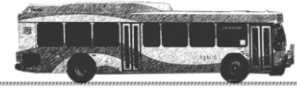
Appleway Station (Site L13) would be developed as a park-and-ride site. The new facility would include:

- Passenger shelter
- Bus bays for up to six buses
- A freeway direct off-ramp from eastbound I-90
- Exploration of opportunities to tie into and improve non-motorized modes in the vicinity of the park-and-ride.

Table 7-1 illustrates a timeline for the near-term improvements.

Table 7-1: Timeline for Initial Investments

Project	Planning	Property Acquisition	Design and Permitting	Construction	Service Implementation	Evaluation
Expand Mirabeau Transit Center	2021-22		2022-23	2024		
Appleway Station Park & Ride – Initial Buildout	2021-22	2023	2023-24	2024-25		
Appleway Station Park & Ride – Expansion to 300 stalls plus I-90 exclusive ingress	2021-22		2023-24	2025-26		
HPT Route 7 Stations/Stops	2023		2023-24	2025-26		
HPT Route 7 & Liberty Lake Express Service	2024				2025	



Project	Planning	Property Acquisition	Design and Permitting	Construction	Service Implementation	Evaluation
Argonne Station Park & Ride	2021-22	2023-24	2024-25	2025-27		
Argonne HPT Service	2026				2027	
North Idaho Pilot Service	2024-25				2026	2028

Table 7-2 provides a comparison of this Corridor Development Plan (CDP) to the projects envisioned within STA Moving Forward.

Table 7-2: CDP Comparison to STA Moving Forward Plan

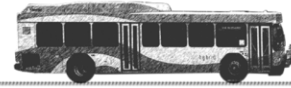
STA Moving Forward Project	CDP Response
Introduce more nights and weekend service along I-90 between Spokane and Liberty Lake	Existing Route 74 will be renumbered Route 7 and will be the primary route in the corridor and will have night and weekend service
Expand commuter parking capacity east of Sullivan Road	Preferred location at Appleway Station in Liberty Lake
Direct, non-stop peak hour service between Liberty Lake and Spokane	Route 77 will serve Liberty Lake and a new park-and-ride at Appleway Station before traveling express on I-90
Construct a new Mirabeau Transit Center	Mirabeau Park-and-Ride will be expanded in capacity to serve as a transit center
As a cross-state partnership, create an extension of HPT: I-90/Valley to Post Falls and Coeur d'Alene on a two-year pilot basis	The preferred architecture accommodates the pilot with service between Mirabeau Transit Center and Coeur d'Alene

PLANNED IMPROVEMENTS – 2027 TO 2040

The projects listed in this portion of the corridor development plan will depend on progress of the initial improvements in terms of attracting ridership and completion as well as the availability of additional funding to move these projects into development. This could be grant funding, or could be a local initiative to further fund transit development in the Spokane region, or some combination of the two. The projects may not necessarily be developed in the order presented depending on these factors.

SERVICE IMPROVEMENTS

Add new express service from Appleway Station to Mission between Evergreen and Pines with the extension either into the U-District, Downtown, North Bank, or the medical services area. The terminus point should be based on the most common destinations from the area at the time the service is developed. Important to note is that this service may also provide access into developing employment areas to the east of Evergreen and so should not be thought of as purely a service moving people toward the regional center, but may well offer access to important locations to the north and east.



Extend Route 77 to Stateline from Liberty Lake. This extension will require the development of a transit stop and turnaround, at a minimum, but more importantly, also offers an opportunity to develop park-and-ride options for cross-state travel.

Service to Argonne Station would be available once a transit facility is completed in the area, estimated to occur in 2027. This area also has significant ties and activity that is focused to the east and should, at minimum, include consideration for providing all time of day access from this part of Spokane Valley to the more eastern and northern portions of the region. Care must also be taken to not reduce the attractiveness of markets by designing service that happens to be using I-90 to stop at this location. Travel time competitiveness with auto alternatives will be an important consideration throughout this corridor for the foreseeable future. If riders with origins or destinations further east experience significant time delays to leave the freeway, service a stop, and rejoin the freeway it will be a major deterrent to the level of service, as well as the attractiveness of the service. This factor requires careful consideration about how this stop is integrated into the I-90 service structure.

Routes 7, 77 and 99 will continue to grow and develop. Service frequencies and span of service should be improved and extended based on demonstrated demand.

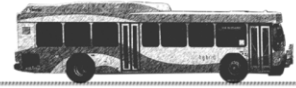
TRANSIT FACILITY IMPROVEMENTS

Continued development of Appleway Station. The initial facility would be improved with new additions such as;

- Full transit center potentially with indoor waiting areas and expanded bus capacity.
- A freeway direct overpass and on-ramp to westbound I-90
- Construction of a roundabout at the intersection of the present I-90 westbound off-ramp and Appleway
- Exploration of opportunities to tie into and improve non-motorized modes in the vicinity of the park-and-ride. This may include providing access across the freeway with a shared-use overpass.
- Investigate the potential for shared development or transit-oriented development on or adjacent to STA property. This site is immediately adjacent to a rapidly growing and developing area of the region. The facility should feel integrated into the community as it develops as opposed to being isolated away from the community.

Mirabeau Transit Center: The area has potential for joint development particularly north of the Union Pacific tracks, however, an easy way for people to traverse the tracks needs to be in place to tie together the present site and development to the north. Property acquisition as an STA initiative, or as a cooperative initiative with other property owners should be considered for the development of either a pedestrian under-crossing or over-crossing of the railroad tracks.

Argonne Station: As reflected earlier the initial development for this site has been identified and will proceed depending on availability of funding early in the corridor development process.. The concepts respond to community input prioritizing this site for transit access, as well as positive ridership model response to including stops in this location. They provide a transit node where riders from the area can make connections to freeway-based services going both directions. Due to the highly motorized



character of the area, extra care must be given to ensure active transportation access is safe and feels secure to potential riders. This is not a small task and must be a major design element of the facility or its usefulness as an access point will be diminished substantially.

Mission and Blake Transit Hub: Explore opportunities for development of a transit hub that potentially includes a small park-and-ride. Also explore opportunities for joint development in the vicinity of the transit hub that could include transit-oriented development with the possibility of developing affordable housing.

State Line Transit Hub: Collaborate with WSDOT to reserve current WSDOT right of way to build a transit hub that may include a layover area and operator rest station, as well as park-and-ride capacity.

COORDINATED POLICY FOR TRANSIT PRIORITY

I-90 Transit Priority: It appears, based on today's conditions and trajectory of traffic volumes that congestion will continue to build on I-90. STA will take a proactive role with WSDOT on evaluating alternatives to give transit priority to avoid this congestion as there are currently no plans to expand freeway capacity in the I-90 east portion within Washington State. This collaboration may result in a different set of priorities, however, all indications show that the most serious congestion occurs in the vicinity of freeway on- and off-ramps. The strategy will be to evaluate those ramps utilized heavily by transit to assess and potentially devise various methods of providing transit priority at these locations. This may include a variety of tactics. The importance will be to identify the highest priority locations and focus development effort on those first. The next tier of consideration will be transit priority on the mainline, given the present direction to not the expand capacity of I-90, this would likely take the form of shoulder running priority in some locations. The overall importance of this strategy is not to land on specific projects but to open an on-going dialogue with WSDOT about the importance of providing a competitive edge for transit operations to enhance usage and improve the person-carrying capacity of the I-90 corridor.

Transit Priority Pathways: In a similar manner, STA will need to work with jurisdictional partners in Spokane Valley, Liberty Lake, the City of Spokane, and Spokane County to create transit priority pathways from the new fixed passenger facilities to on and off-ramps, as well as along specific portions of the corridor that are hosted on arterials rather than the freeway. Similar to the strategy with WSDOT, the emphasis will be first on identifying and prioritizing operational "hot spots" and then working together to devise potential solutions that will enhance transit's speed and reliability in the corridor overall.

Finally, a key area will be transit priority approaches to the regional core which may involve multiple partners to assemble a workable solution. The concept is to create a transit priority pathway along the corridor between downtown and east to somewhere between the Freya and Sprague interchanges.