

BACKGROUND



This section provides a description of the existing and future conditions along the State Street corridor. The existing conditions analysis identifies the current conditions of the transportation facilities and land uses along the corridor. The future analysis describes the expected roadway, transit, and land use conditions in the horizon year 2035. The future conditions described in this section were used to evaluate the range of transportation and land use improvements for the corridor. This section also provides a description of transit lanes, HOV lanes, and bus rapid transit (BRT), which are critical components of the alternatives considered for the corridor.

## Existing Conditions

The existing State Street/SH 44 corridor is a two-to-six lane facility between 9<sup>th</sup> Street and SH 16. The existing (year 2010) corridor average daily volume ranges between 12,000 (near SH 16) and 39,000 (Veterans Memorial Parkway) vehicles. Traffic volumes are highest at the river crossing

locations of Linder Road, Eagle Road, Glenwood Street, and Veterans Memorial Parkway. The auto travel time is currently 28 minutes from SH 16 to Downtown Boise in the morning peak time period and 30 minutes from Downtown Boise to SH 16 during the evening peak time period.

### Existing Traffic Volumes at State Street/17<sup>th</sup> Street



Three major ValleyRide bus routes, Routes 9, 9X, and 44, have scheduled stops along the State Street corridor. Route 9 operates with 30 minute frequency and has an average daily ridership of approximately 700. Route 9 is the highest ridership route on the ValleyRide system. Route 9X was implemented in 2010 and travels along the same route as Route 9 with two limited-stop express runs in both the morning and

afternoon (40-minute frequency). Route 44 operates with a 24-hour frequency (one bus per day in each direction between Caldwell and Boise) and has an average daily ridership of approximately 30.

### Route 9 Bus Stop at State Street/Collister Drive



In addition to the major State Street routes, Route 10 travels on State Street from 8<sup>th</sup> Street to 28<sup>th</sup> Street and has an average daily ridership of 355. Route 14 utilizes a few Route 9 bus stops when it crosses State Street in downtown Boise.

ACHD Commuteride has existing Park & Ride lots at the intersections of SH 44/Ballantyne Lane and SH 44/Edgewood Road, but only the Edgewood Road Park & Ride lot is served by Route 44.

Good sidewalk connectivity exists in and around Downtown Boise between Veterans Memorial Parkway and 9<sup>th</sup> Street. Gaps in the sidewalk system occur in western Boise and between Eagle and Star. A multi-use path exists along the south side of SH 44 between Edgewood Road and Ballantyne Lane.

Bike lanes are provided at limited locations on the corridor between Downtown Boise and Glenwood Street. Most of the corridor has paved shoulders of varying widths that are sometimes used by bicyclists. Parallel bicycle facilities exist via Floating Feather Road, Hill Road, and the Greenbelt (along most of the corridor between Eagle and Boise). Figure 5 shows the existing roadway, transit, pedestrian, and bicycle conditions along the State Street corridor.

SH 44 (between SH 16 and Glenwood Street) is mostly rural with higher speeds and limited commercial development. Conversely, State Street (between Glenwood Street and downtown Boise) has a more urban character, with much more access to businesses and residential areas.

Figure 6 shows the existing land uses and points of interest along the State Street corridor (Technical Memorandum #2).

**Rural Section of SH 44 near SH 16**



**Urban Section of State Street near Willow Lane**

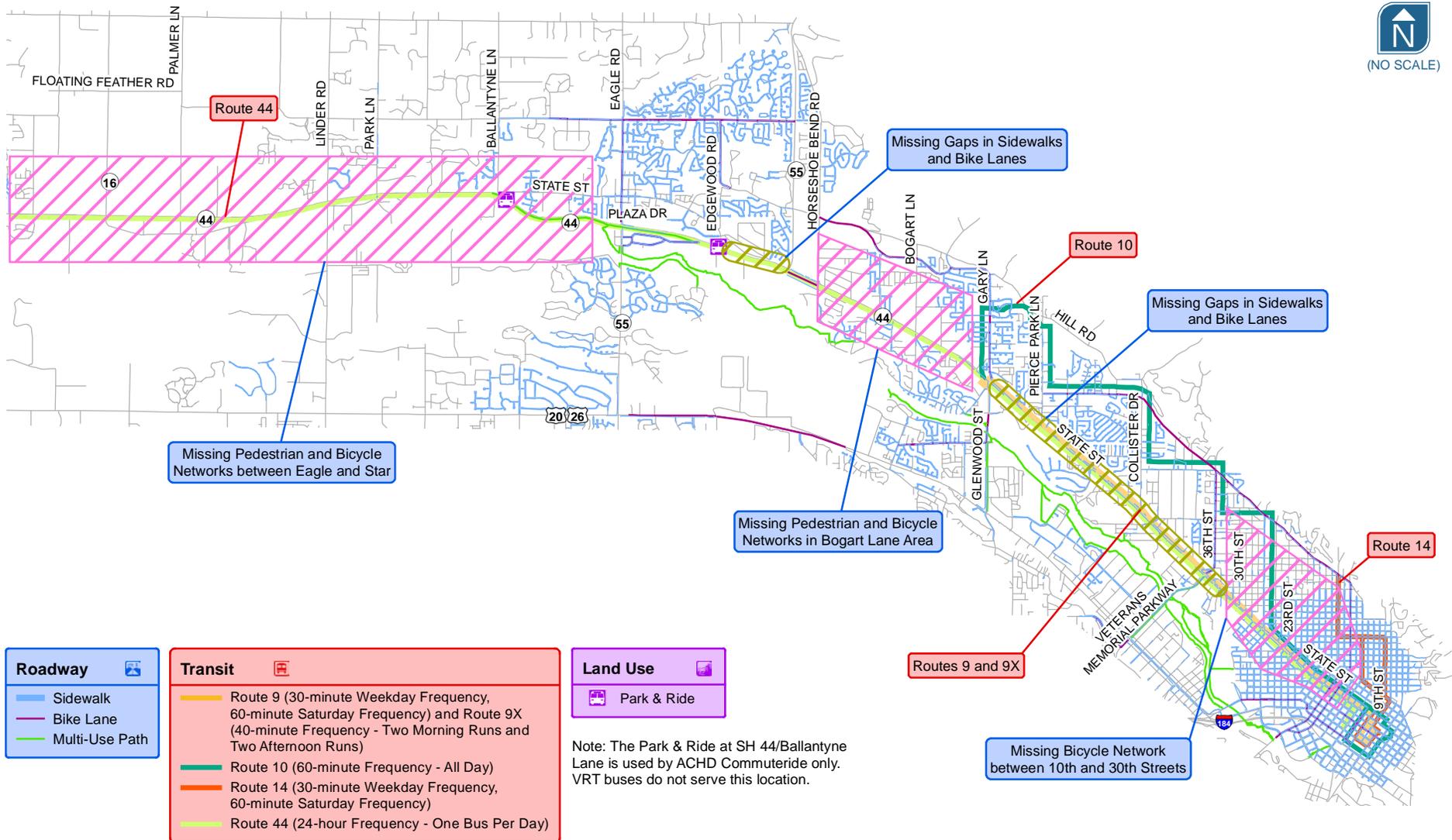


## **Future Year 2035 Conditions**

The future year 2035 conditions were analyzed to understand the projected traffic and transit conditions for the

alternatives evaluation. This section describes the funded roadway improvements network and the modeling scenarios developed to evaluate the future roadway configurations, transit, and land use options. Traffic projections were analyzed with various future roadway configurations to determine constraints on the network. Through the future conditions analysis, improvements were identified to improve auto and transit travel times and increase transit ridership on the corridor. These improvements include transit and HOV lanes, and BRT, which are described in the next section.

The COMPASS regional travel demand forecasting model was used in developing traffic volumes, auto and transit travel times, and transit ridership for the future scenarios in this study. Ten model scenarios were analyzed that included variations of roadway, transit, and land use improvements. Details about the roadway, transit, and land use model assumptions and projected traffic and transit conditions are provided in the following sections.

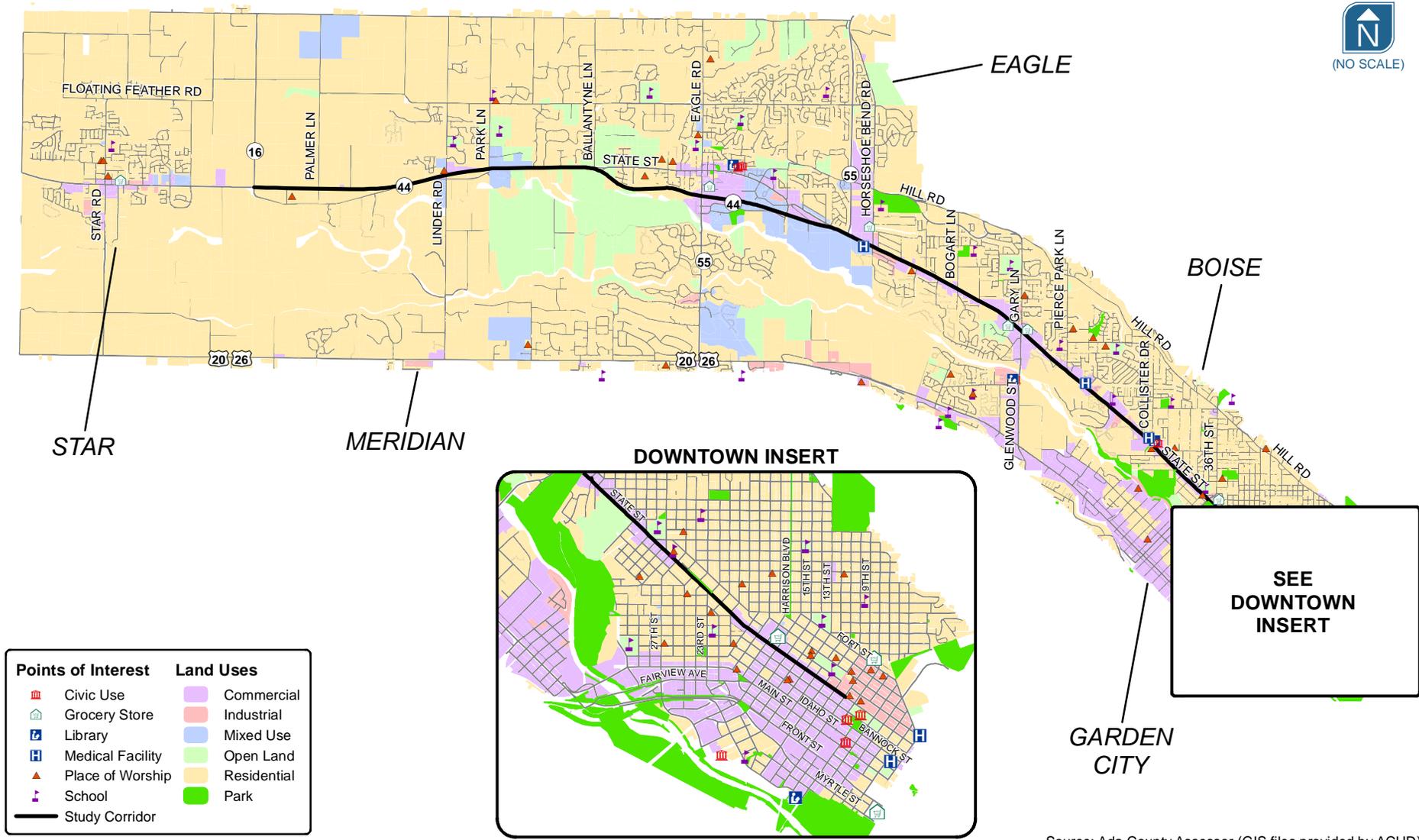


Source: ACHD Roadways to Bikeways Plan



EXISTING TRANSPORTATION CONDITIONS  
ADA COUNTY, IDAHO

FIGURE 5



Source: Ada County Assessor (GIS files provided by ACHD)



EXISTING LAND USES  
ADA COUNTY, IDAHO

FIGURE 6

## TRANSPORTATION AND LAND USE ASSUMPTIONS

In developing the ten modeling scenarios, several assumptions were made about the roadway, transit, and land use components of the travel demand model to compare the modeling scenarios. These roadway, transit, and land use assumptions are described in this section.



### ROADWAY

The base roadway network assumed in the travel demand model was the 2035 funded network, which includes the following key roadway improvements:

- SH 16 extension from SH 44 to US 20/26
- State Street widening to seven lanes (one additional through lane in each direction) between Glenwood Street and 23<sup>rd</sup> Street

- 30<sup>th</sup> Street Extension between State Street/Rose Street and Fairview Avenue/30<sup>th</sup> Street
- Widening the intersections of SH 44/SH 16 and SH 44/Linder Road
- Signalization of SH 44/Ballantyne Lane and SH 44/Bogart Lane

The funded network does not include the Three Cities River Crossing, widening of US 20/26, or widening of SH 44.

Modeling scenarios were used to test the effects of additional projects beyond the funded network on future traffic conditions. The ten modeling scenarios were based on four unique roadway networks as follows:

#### *ROADWAY NETWORK FOR SCENARIO 1 – FUNDED ROADWAY NETWORK*

The funded roadway network includes the existing roadway network with the segment of State Street between Glenwood Street and 23<sup>rd</sup> Street widened to seven lanes (assumed to be mixed

traffic). SH 44 is not widened in this scenario.

#### *ROADWAY NETWORK FOR SCENARIO 2 – SH 44 CORRIDOR STUDY NETWORK*

The SH 44 Corridor Study network is the funded roadway network with the segment of SH 44 between SH 16 and Ballantyne Lane widened to four lanes.

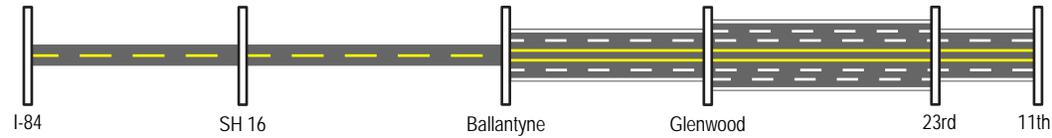
#### *ROADWAY NETWORK FOR SCENARIO 3 – FIVE MIXED TRAFFIC LANES AND TWO TRANSIT LANES*

This scenario includes a seven-lane cross-section with two exclusive transit lanes (i.e., median or curbside) between SH 16 and 23<sup>rd</sup> Street.

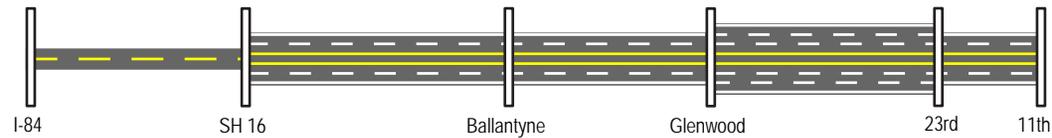
#### *ROADWAY NETWORK FOR SCENARIO 4 – SEVEN MIXED TRAFFIC LANES*

This scenario includes seven lanes of mixed traffic between SH 16 and 23<sup>rd</sup> Street.

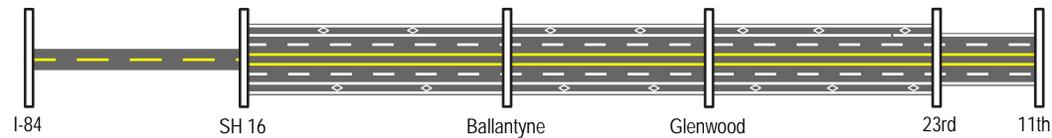
**Roadway Network for Scenario 1 - Funded Roadway System**



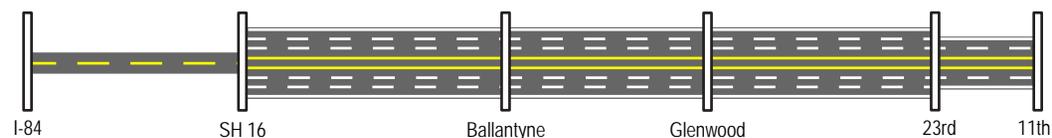
**Roadway Network for Scenario 2 - SH 44 Corridor Study System**



**Roadway Network for Scenario 3 - Five Mixed Traffic Lanes and Two Exclusive Transit Lanes**



**Roadway Network for Scenario 4 - Seven Mixed Traffic Lanes**



ROADWAY NETWORKS FOR YEAR 2035 MODELING SCENARIOS  
ADA COUNTY, IDAHO

FIGURE 7



## TRANSIT

The modeling used for the future scenarios in this study assumed either a Low Transit Network or a High Transit Network. The Low Transit Network is the funded transit network included in the 2035 Communities in Motion plan. Figure 8 shows the Low Transit Network, which is essentially the same as the existing transit service. Scenario 1a uses the Low Transit Network.

The High Transit Network was developed to be consistent with Treasure Valley in Transit, VRT's comprehensive plan to expand transit service in the Treasure Valley. The High Transit Network assumes additional revenue would be available to support a significant growth in transit service in the valley. Figure 9 shows the High Transit Network. As shown in Figure 9, the 2035 High Transit Network includes many new and modified bus routes, higher bus frequency, and a light rail operating between Caldwell and Downtown Boise

along the Boise Cutoff railroad corridor (Transit Operations Plan).

For modeling Scenarios 1b, 2, 3 and 4, the High Transit Network was assumed in the 2035 travel demand model. The Low Transit Network (Scenario 1) was modeled to establish a base performance and compare among the High Transit Network Scenarios 1b, 2, 3, and 4. Within the High Transit Network scenarios, general assumptions were made in the modeling of transit service on State Street. These assumptions included BRT, transit signal priority, queue jump lanes, consolidated stops, and the specific transit running way (mixed traffic or exclusive transit lanes).



## LAND USE

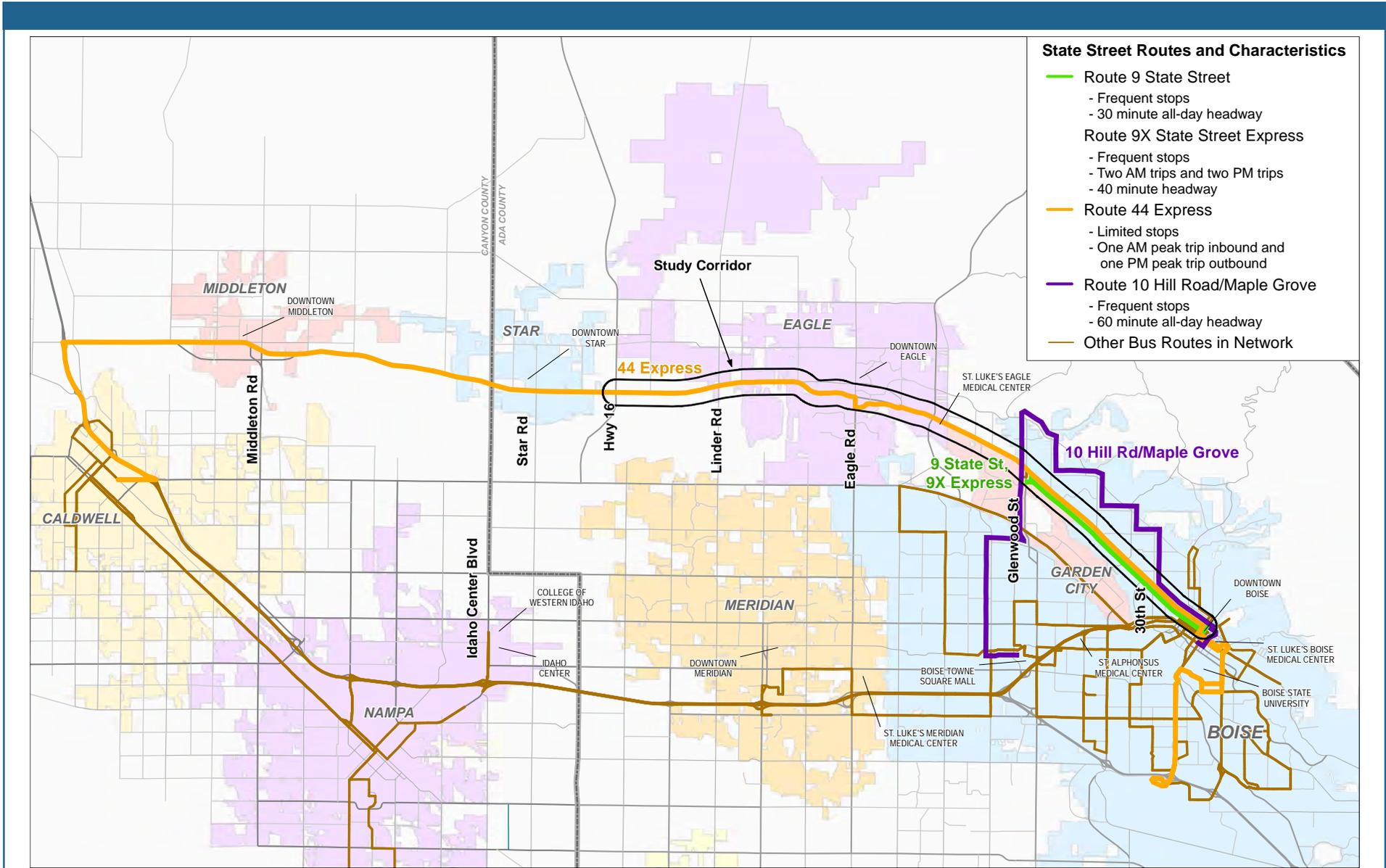
All of the modeling scenarios used the 2035 TAZ-level population and employment forecast and allocation that were approved by the COMPASS Demographic Advisory Committee (DAC) on February 4, 2010.

The 2035 forecast projects substantial population (93%) and employment (118%) growth along the corridor. Specific high growth areas identified from the forecast include areas in Downtown Boise, Eagle, and the Northwest Foothills. Additionally, a modeling scenario was developed for an increase in TOD on the corridor. A description of TOD and locations identified on the corridor is provided below.

### TRANSIT-ORIENTED DEVELOPMENT

TOD is higher density mixed-use development within walking distance (about a half mile) of transit stations. TODs are attractive, walkable, sustainable communities that allow residents to have housing and transportation choices. TOD can range by the character, land use, and density of development.

The selection criteria for TOD locations on State Street included size, vacant/underutilized property, developer interest, market outlook, public leverage, adjacent uses, and connectivity and visibility.



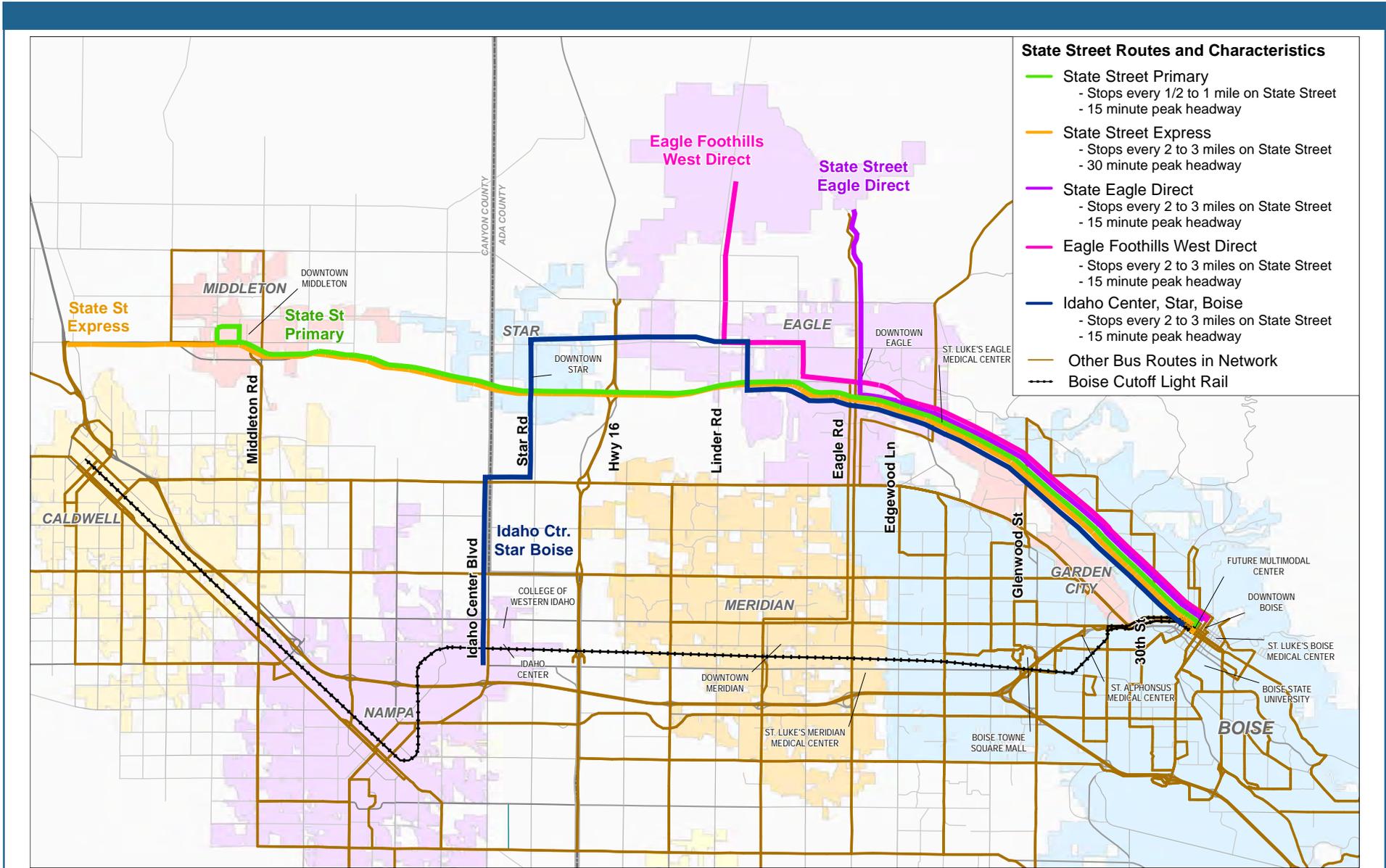
**State Street Routes and Characteristics**

- Route 9 State Street
  - Frequent stops
  - 30 minute all-day headway
- Route 9X State Street Express
  - Frequent stops
  - Two AM trips and two PM trips
  - 40 minute headway
- Route 44 Express
  - Limited stops
  - One AM peak trip inbound and one PM peak trip outbound
- Route 10 Hill Road/Maple Grove
  - Frequent stops
  - 60 minute all-day headway
- Other Bus Routes in Network



2035 LOW TRANSIT NETWORK  
ADA COUNTY AND CANYON COUNTY, IDAHO

FIGURE 8



**State Street Routes and Characteristics**

- State Street Primary
  - Stops every 1/2 to 1 mile on State Street
  - 15 minute peak headway
- State Street Express
  - Stops every 2 to 3 miles on State Street
  - 30 minute peak headway
- State Eagle Direct
  - Stops every 2 to 3 miles on State Street
  - 15 minute peak headway
- Eagle Foothills West Direct
  - Stops every 2 to 3 miles on State Street
  - 15 minute peak headway
- Idaho Center, Star, Boise
  - Stops every 2 to 3 miles on State Street
  - 15 minute peak headway
- Other Bus Routes in Network
- - - Boise Cutoff Light Rail



2035 HIGH TRANSIT NETWORK  
 ADA COUNTY AND CANYON COUNTY, IDAHO

FIGURE 9

Figure 10 shows the recommended and priority TOD locations. These TOD locations would include a station area for access to the proposed high capacity transit service on the corridor.

The recommended TOD locations were characterized based on size, land use, and density of development into the following five TOD typologies: Transit Employment Center, Neighborhood Transit Zone, Urban Town Center, Urban Neighborhood Center, and Enhanced Bus Rapid Transit Station.

**Example of Urban Neighborhood Center TOD**



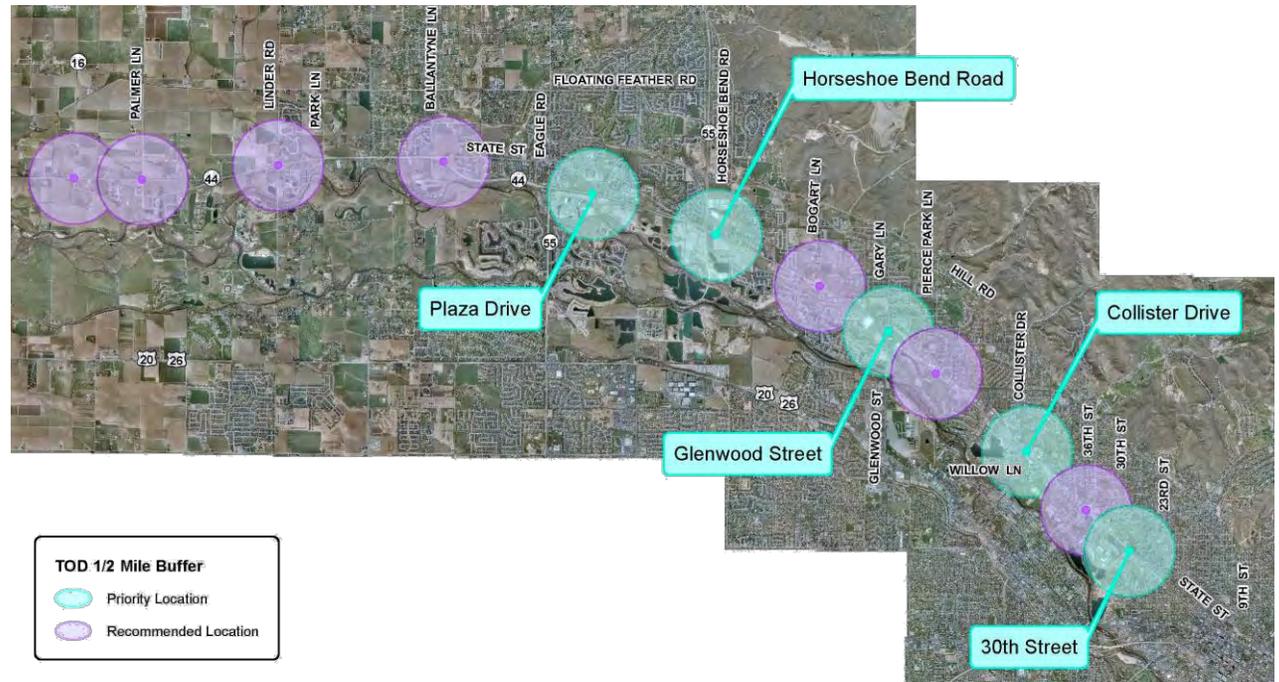
Priority locations were identified based on a variety of factors, including, but not limited to, a positive market outlook, strong public and/or private leverage,

community support for TOD, and developer interest. Priority locations, which encompass sites where TOD is likely to occur during the next ten years, were identified at 30<sup>th</sup> Street, Collister Drive, Glenwood Street, SH 55/Horseshoe Bend Road, and Plaza Drive.

The seven secondary locations on the corridor are anticipated to develop in the longer term.

All of the TOD locations have unique site characteristics that will require multi-agency approval. The Plaza Drive site currently has access limitations that differ from the other TOD sites, since ITD has purchased all access rights for the Eagle Alternate Route in 1995. The City of Eagle must work cooperatively with ITD and FHWA to determine if access may be granted to State Highway 44 at this location.

**Figure 10 Recommended TOD Locations**



The TOD locations were included in the modeling scenarios to assess land use changes on trip generation and travel times for buses and autos.

A coordinated program of policies, actions, and tools to encourage TOD and shape market opportunities is essential for achieving TOD on State Street. Some of the current challenges to TOD include low land prices, inexpensive and plentiful parking in Downtown Boise, and the geography surrounding the State Street corridor. Although there are challenges, several trends make TOD more likely to be successful in the future. These trends include changing consumer preferences, demographic trends, fuel costs, and increased congestion.

Several actions, programs, and tools can be utilized to encourage TOD along this corridor. These implementation tactics include:

- Streamlined zoning and entitlement
- Flexibility of long-range plans
- Supportive parking policies

- Creative urban design
- Public-private partnerships
- Public funding

However, the most important ingredient above all other implementation tools is strong leadership and champions at all public and private levels:

- Community members
- Elected officials
- Business leaders
- Supportive neighborhoods
- Human service and housing advocates
- Environmental/sustainability groups
- Business associations
- Developers
- Supportive media

When all of these public and private partners are working collaboratively in support of TOD, implementation is accelerated by creating a more certain and economically viable investment environment (TOD Site Selection and Prioritization Report).

In some places where there has been significant investment in transit infrastructure and related streetscape improvements, there have been positive development effects. Examples of these include Cleveland, Boston, Eugene, Pittsburgh, Portland, Ottawa, and York. In the York region of Ontario, the VIVA BRT route has experienced the development of employment and neighborhood centers. The Lane Transit District (Eugene, Oregon) implemented the EmX BRT route in 2007. This corridor has seen some redevelopment and a joint development at one of the stations. Generally, early indications are that BRT systems can attract TOD, but revolve around good market conditions, land use policies, and local champions for the area.

## YEAR 2035 TRAFFIC AND TRANSIT CONDITIONS

Future traffic and transit conditions were projected using the travel demand model.

## YEAR 2035 TRAFFIC CONDITIONS

Figure 11 shows the year 2035 traffic volumes for the four scenarios. As shown in Figure 11, the future corridor daily traffic volumes range between approximately 20,000 and 72,000. The annual future growth rate on the corridor is 3 percent.

Figure 11 also shows that, in the sections of State Street west of Veterans Memorial Parkway, widening the roadway to seven lanes will not accommodate the latent travel demand. In these scenarios, drivers must reroute and use parallel routes, such as Hill Road, Floating Feather Road, and Chinden Boulevard (US 20/26). Drivers may also need to change their commuting patterns, particularly if the alternate routes are over capacity in 2035.

Traffic conditions on the corridor are projected to be near or overcapacity in year 2035, even with widening the roadway to five or seven lanes. Figure 12 shows the future 2035 segment capacity along the corridor. The volume-to-

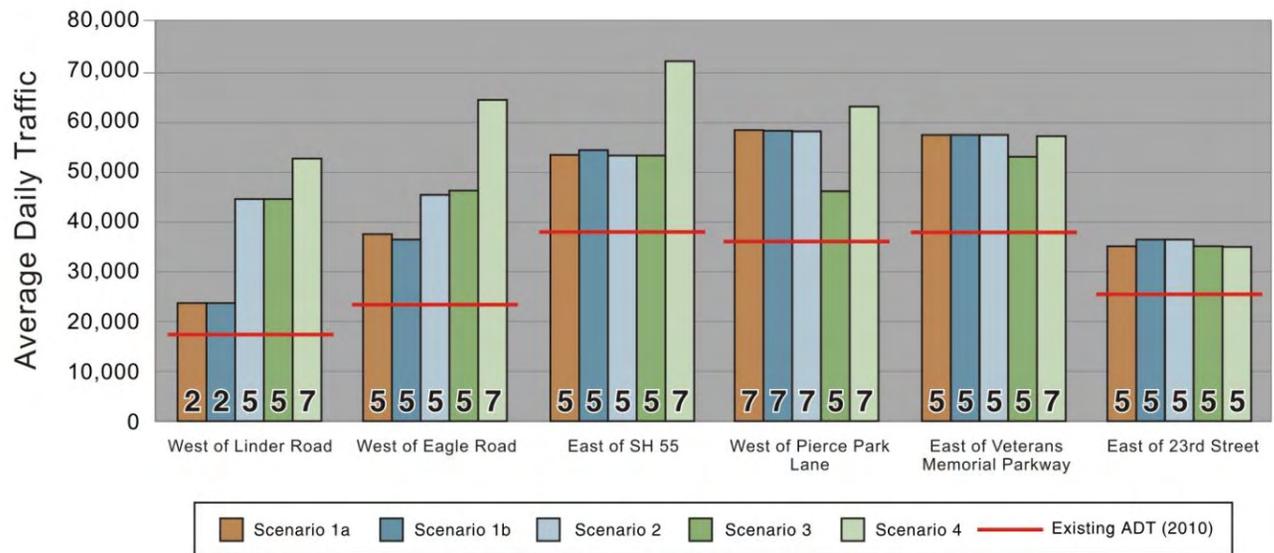
capacity (V/C) ratio and level of service (LOS) vary slightly by scenario, but Figure 12 shows the approximate conditions for all of the future 2035 scenarios.

Extensive widening (between seven and nine lanes) with multiple large intersections was investigated for State

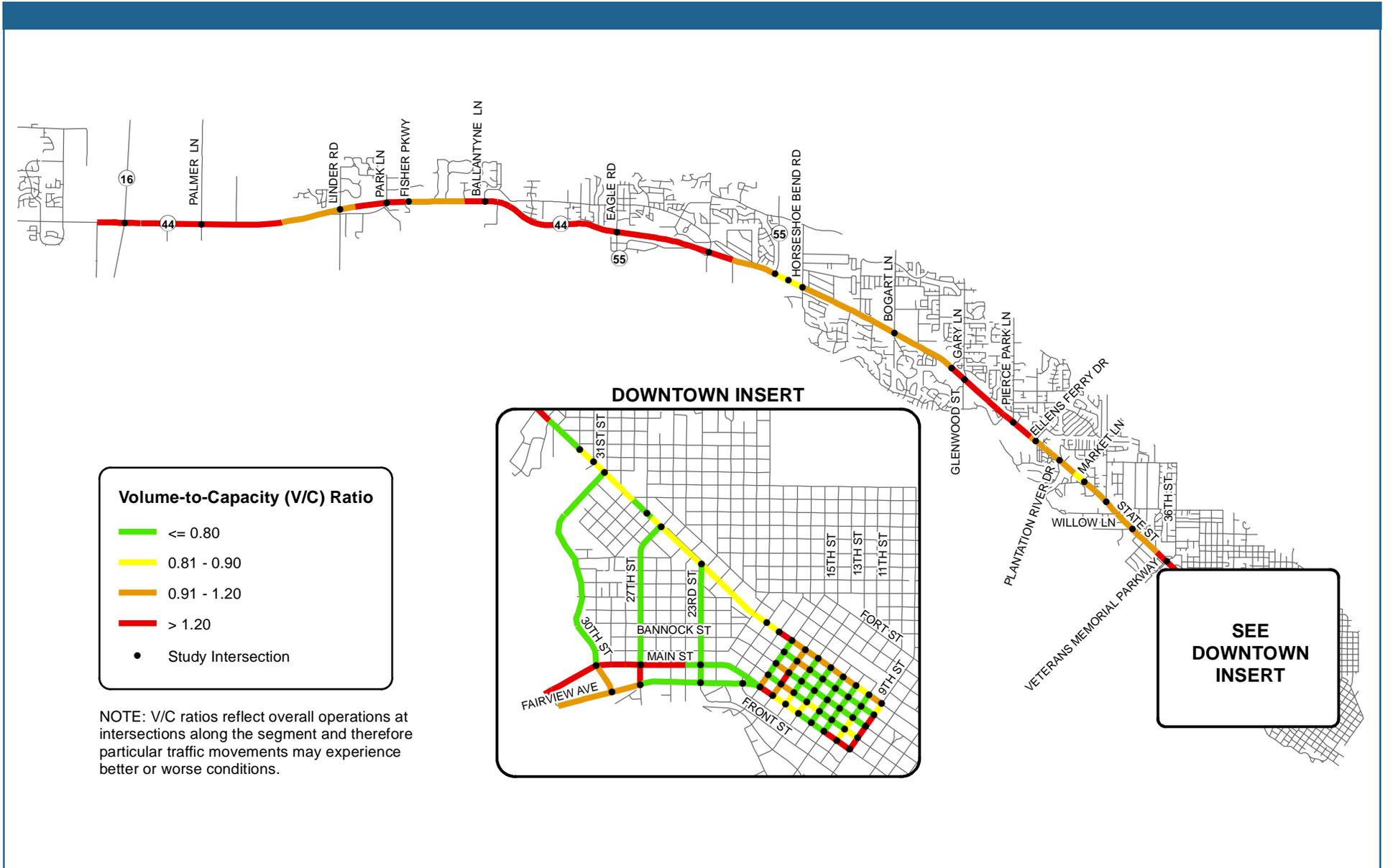
Street to meet the current V/C ratio and LOS standards. These types of improvements would enhance the

intersection and corridor operations but have significant costs and right-of-way impacts. Overall, a major roadway widening option greater than seven lanes is not feasible for the corridor or consistent with the 2004 State Street Corridor Strategic Plan Study. To provide under-capacity operations or meet LOS standards without this level of roadway widening,

Figure 11 Year 2035 Average Daily Traffic Volumes



NOTE: Value at base of bar indicates number of mixed-use traffic lanes.



YEAR 2035 SEGMENT LEVEL OF SERVICE  
ADA COUNTY, IDAHO

FIGURE 12

several of the major intersections (i.e., SH 44/SH 16, SH 44/Eagle Road, State Street/Glenwood Street, and State Street/Veterans Memorial Parkway) would need to be improved to high-capacity or grade-separated intersections to meet the projected 2035 traffic demand. These types of intersection treatments are also very costly and unlikely to be feasible at some of the intersection locations (Technical Memorandum #3).

### YEAR 2035 TRANSIT CONDITIONS

The travel demand model was used to analyze future transit conditions by modeling scenarios with different transit networks (Low Transit Network or High Transit Network), capital improvements, and running ways (mixed traffic or exclusive transit). The outputs of the travel demand model scenarios include expected total transit boardings, transit travel times, and daily ridership on the corridor.

Figure 13 illustrates the increases in transit boardings along State Street forecast with

each of the transit capital improvement scenarios (Scenarios 2 through 4). Additionally, the implementation of TOD sites along State Street increases the transit boardings on the State Street routes. A Curbside Running Way with HOV scenario was not specifically modeled in the travel demand model. However, as described in alternatives section, a Curbside Running Way with HOV was one of the alternatives included in the evaluation. It was assumed that the daily boardings for the HOV alternative would be between the daily boardings for Scenarios 3 and 4.

As shown in Figure 13, the highest transit boardings resulted from providing an exclusive transit lane and land use changes that would increase densities near transit stations along State Street. Signal priority treatments would improve transit travel time for buses operating in mixed traffic, but they would still be subject to congestion and would be less reliable than buses in an exclusive transit lane.

Figure 13 2008 and 2035 Daily Boardings Along State Street

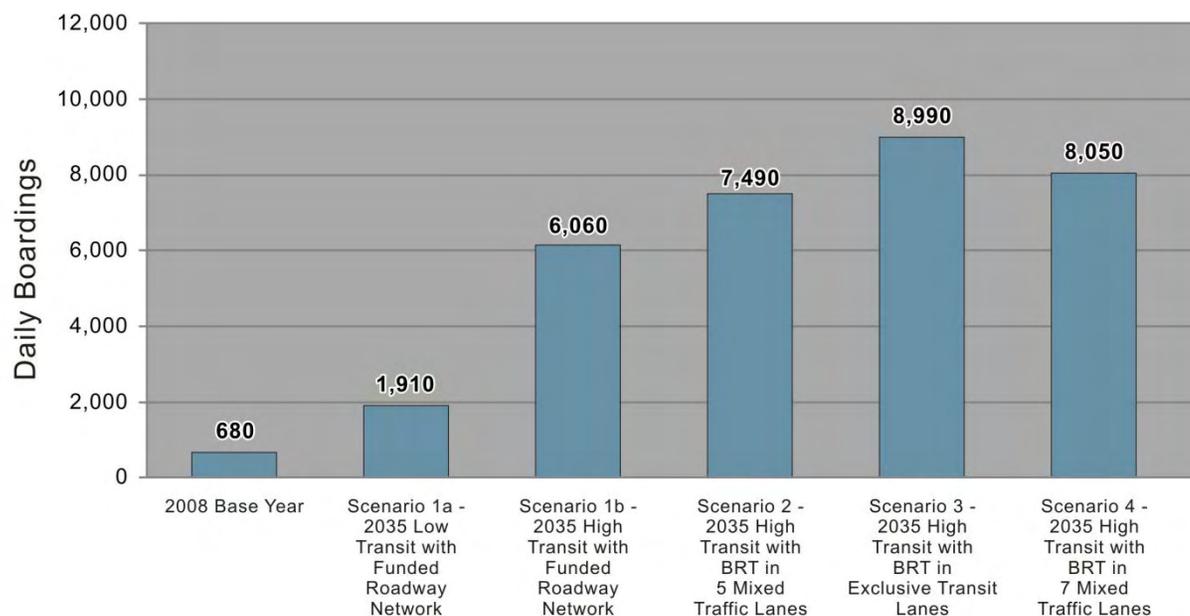


Figure 14 illustrates the projected auto and transit in-vehicle travel times by scenario between SH 16 and 23<sup>rd</sup> Street. The scenarios include the four unique roadway networks, as well as the Low and High Transit Network variations. The travel times shown in Figure 14 provide both total corridor (SH 16 to 23<sup>rd</sup>) and segment travel times for the different scenarios. The segments are illustrated by the light to dark shadings for each column.

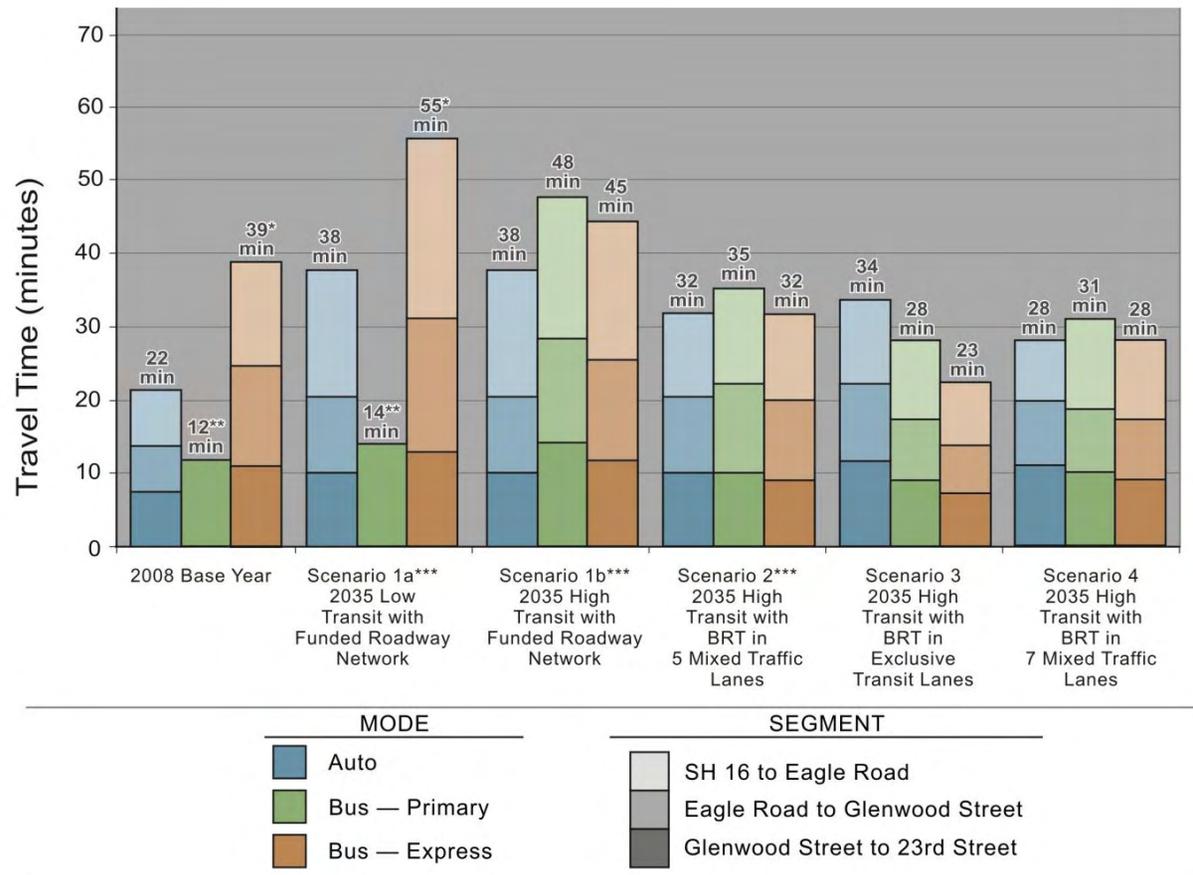
The current transit travel time for Route 44 is approximately 54 minutes between SH 16 and 23<sup>rd</sup> Street. As shown in Figure 14, implementing bus preferential treatments (i.e., transit signal priority, queue jump lanes) and exclusive transit lanes provide substantial improvements to the transit travel time on the corridor. The transit travel times for the HOV alternative were assumed to be between the travel times for Scenarios 3 and 4.

Widening State Street (Scenarios 2 through 4) beyond the funded roadway network results in travel time savings for both auto and transit. However, widening State Street

to five or seven lanes results in minimal auto travel time reductions due to the additional traffic demand on the corridor. The in-vehicle travel times for auto and transit are similar with a mixed traffic

running way (Scenarios 2 and 4), while the transit travel times are less than the auto travel times with an exclusive transit lane (Scenario 3).

**Figure 14 Year 2008 and 2035 Travel Times**



\* Travel time estimated based on scheduled time and growth rates  
 \*\* Route segment (23rd Street to Glenwood Street) since no service west of Glenwood Street  
 \*\*\* Scenario includes 7-lane segment between Glenwood Street and 23rd Street as part of funded roadway network

**NOTE: Refer to Figure 7 for detailed roadway network configurations**



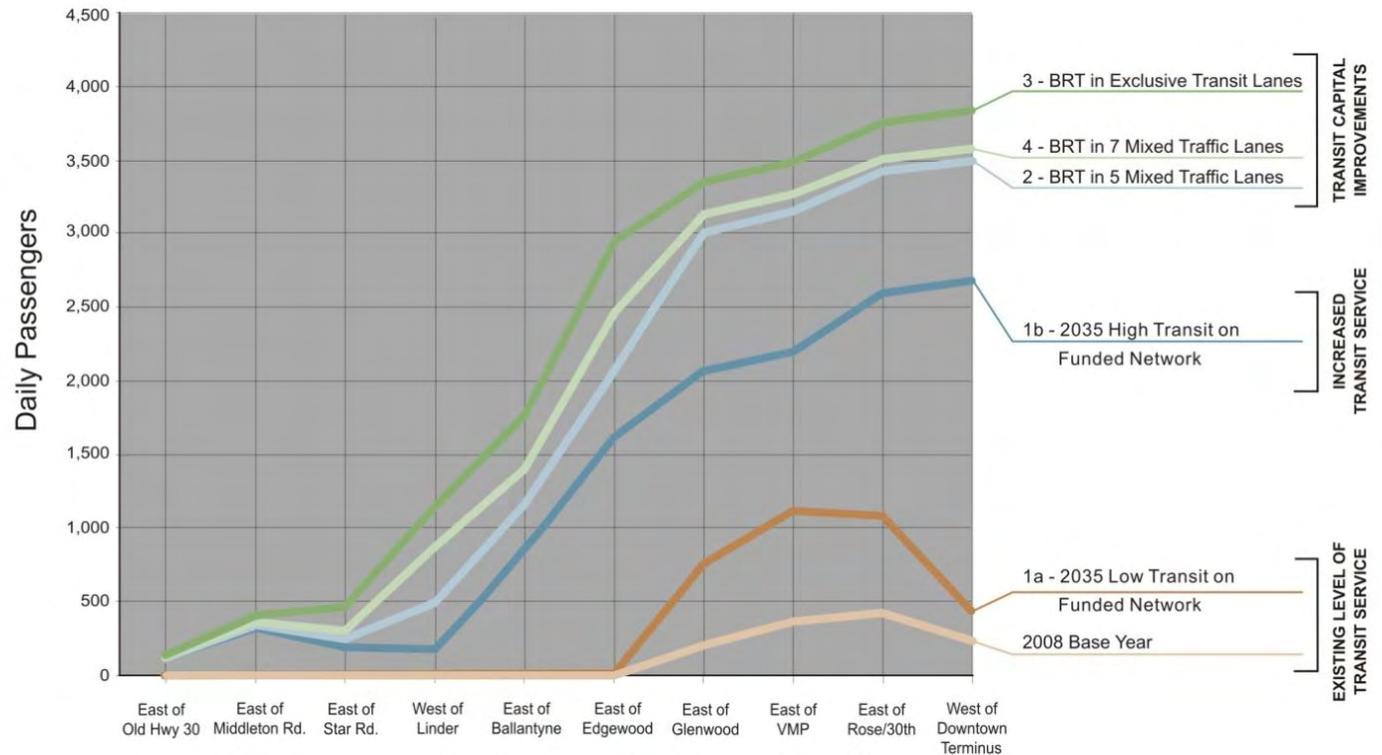
In addition to the transit boardings and travel times, expected ridership was analyzed using the future model scenarios. Figure 15 shows the total daily passengers on-board State Street routes for the modeling scenarios.

As shown in Figure 15, increasing the transit service to the High Transit Network without any capital improvements results in a significant ridership increase compared to the funded Low Transit Network. Ridership increases further when implementing a BRT system in mixed traffic or an exclusive lane.

The following key findings were identified from the future transit conditions analysis:

- Increased transit coverage and frequency can significantly increase transit ridership on the corridor.
- Making an investment in a High Transit Network for the region

**Figure 15 Year 2035 Total Daily Passengers On-Board State Street Routes**



provides a substantial increase in transit boardings on State Street.

- Transit capital improvements could significantly reduce transit travel times on State Street.
- An exclusive transit lane between 23<sup>rd</sup> Street and SH 16 would maximize

transit travel time reductions, create an opportunity for higher ridership, and provide the opportunity for in-vehicle transit travel times to be less than in-vehicle auto travel times (Transit Operations Plan).

## Transit and High Occupancy Vehicle (HOV) Lanes

Transit and HOV lanes were included in the alternatives evaluation for this study. Transit lanes only allow transit vehicles to utilize the lane, while HOV lanes allow transit vehicles and limited use by passenger vehicles and other special users. Both options can provide users with improved reliability and travel times and can be implemented in an incremental process at a typically lower cost than LRT.

Both types of lanes can also work together when implemented on the same corridor to provide the benefits of a higher person usage in the exclusive lane, improved air quality, and shared costs between roadway and transit agencies.

This section describes both types of lanes and the specific benefits that they can provide for the State Street corridor.

## TRANSIT LANES

The transit operations for this study were defined by transit traveling in an exclusive running way or a mixed traffic running way. A running way is the facility or environment in which transit operates and is indicated by signs, pavement markings, and sometimes a physical barrier. Three types of running ways (median, curbside, and mixed traffic) were evaluated in this study and are described below.

### *MEDIAN RUNNING WAY*

A median running way is located in the median of the roadway and is typically separated by a raised curb, delineators, or markings to prevent other vehicular traffic from using the lane. Several cities, including Cleveland, Ohio; Eugene, Oregon; Las Vegas, Nevada; and West Valley City, Utah have implemented a median running way for segments of their BRT systems, as depicted in the photo.

With a median running way, restrictions to business driveways and public

**Median Running Way – Eugene, Oregon**



intersections usually occur due to the raised separation between the median running way and the mixed traffic lanes. Additionally, pedestrians must access the stations by crossing half of the intersection and waiting on the station platform in the median.

This type of running way limits the ability to operate both transit vehicles and HOV due to the complexity of managing HOV automobiles that make a left-turn or right-turn maneuver at a signalized intersection. Additionally, passing capabilities for HOV users and buses must be provided within the median running way at stations, increasing the footprint of this option.

### ***CURBSIDE RUNNING WAY***

A curbside running way is a transit lane located adjacent to the outside curb. This type of running way is not separated from general purpose lanes by a curb because right-turning vehicles need to use the lane for accessing driveways along the corridor and making a right-turn at intersections. However, pavement markings and/or pavement color can be used to provide guidance to motorists about the lane use.

**Curbside Running Way – Kansas City, Missouri**



Curbside running ways have been implemented in Boston, Massachusetts; Kansas City, Missouri; and Las Vegas,

Nevada but have not been as widely implemented as median or mixed traffic running ways on arterials in the U.S. This type of running way allows the ability to accommodate both transit vehicles and HOV in the exclusive lane.

### ***MIXED TRAFFIC RUNNING WAY***

A mixed traffic running way has transit operating in mixed traffic lanes on the corridor. For example, ValleyRide Routes 9, 9X, and 44 operate in a mixed traffic running way on State Street. In mixed traffic, transit can take advantage of preferential treatments, such as transit signal priority or queue jump lanes; however, transit is still subject to congestion and will not see the same travel time reductions as in an exclusive transit lane.

Bus bays can be provided at stations to provide passing opportunities for vehicles and buses. With the installation of bus bays, some agencies in California, Colorado, Florida, Montana, and Oregon have established a “yield to bus” policy

that requires motorists to yield to buses when the buses are pulling out of a bus bay. The “yield to bus” policy is a critical component of a transit system with bus bays to ensure on-schedule performance and reliability from the transit service.

**Yield to Bus Sign – Bend, Oregon**



**Yield to Bus Sign and Light – Denver, Colorado**



Lastly, most BRT systems in the U.S. and Canada include segments where the transit operates in a mixed traffic running way, or initially develop the system in mixed traffic with future plans to transition to a curbside or median running way when service and ridership numbers have been established.

**Mixed Traffic Running Way – Kansas City, Missouri**



**HIGH OCCUPANCY VEHICLE (HOV) LANES**

HOV lanes are typically dedicated for buses, carpools (two or more occupants), vanpools, motorcycles, right-turning vehicles, and emergency vehicles.

HOV lanes are used in many areas to address concerns related to traffic

congestion, mobility, and air quality. HOV projects can increase the person-movement efficiency of a roadway and enhance the mobility of area residents.

Arterial HOV lanes have been implemented for over 30 years in the U.S. and Canada. Most arterial HOV lanes operate in a curbside lane with bus bays. The operations of the HOV facility work well when the maximum HOV volume is between 200 and 400 vehicles per hour per lane, as the lane provides adequate capacity for maintaining a reliable travel time and limits the number of conflicts with buses and right-turning vehicles.

The design of the HOV lane should include markings and signing to manage the merging and weaving maneuvers of the facility, including the areas for bus bays and driveways. An education and enforcement program is a critical component for monitoring the HOV lane and reducing the number of violations in the lane.



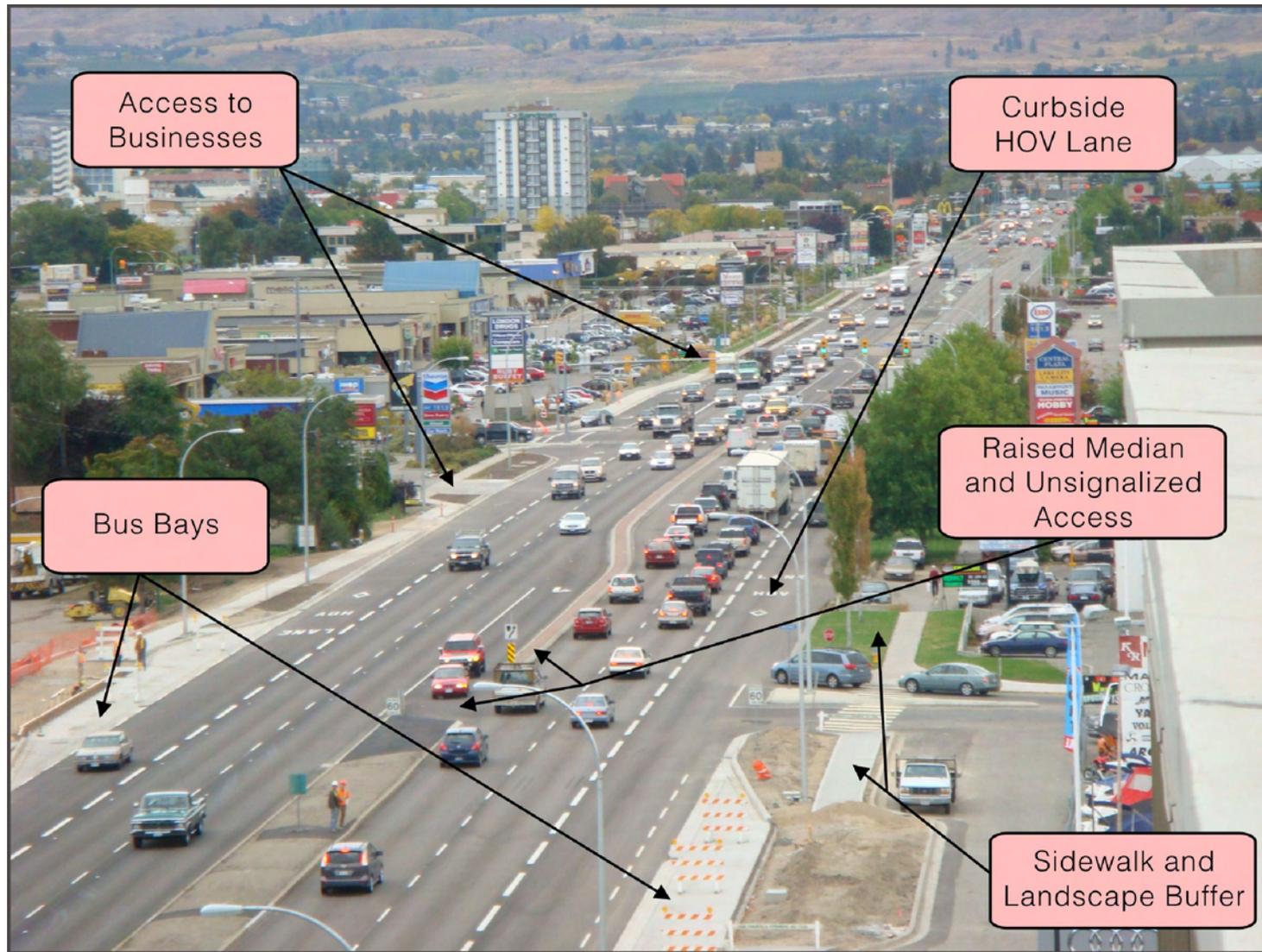
WSDOT's HERO program is a nationally recognized self-enforcement program that educates HOV lane violators on the purpose, rules, and benefits of these HOV

lanes. The program was established in 1984 as a way to encourage drivers to self-enforce HOV lane rules.

Existing arterials with HOV lanes include SR 99 in Federal Way and Kent, Washington and Highway 97 in Kelowna, British Columbia. SR 99 was a phased-project on a 14-mile long corridor with many

characteristics similar to the State Street corridor. In particular, many jurisdictions (cities and state agencies) have been involved over the last 25 years to develop and build the HOV corridor.

Highway 97 is a four-mile long corridor with a future BRT system. The traffic volumes and businesses along Highway 97 are similar to those on State Street (Technical Memorandum #5). Figure 16 demonstrates several of the key components of the Highway 97 HOV lanes.



Source: B.C. Ministry of Transportation and Infrastructure



KEY ELEMENTS OF HIGHWAY 97 HOV LANES  
KELOWNA, BRITISH COLUMBIA

FIGURE 16

## Bus Rapid Transit (BRT)

BRT is a high-capacity bus service that combines running ways, vehicles, branding, stations, and ITS technologies to improve speed, reliability, capacity, and attractiveness of the system.

- **Running ways** include mixed traffic and exclusive transit lanes. Transit lanes improve travel time and can be located in a median or curbside lane.
- **Vehicles** range from conventional buses to modern-looking vehicles with amenities designed to provide a “light rail-like” riding experience. The quality and attractiveness of the service can be improved with high-capacity, low-floor vehicles.
- **Branding**, the creation of an identity for BRT service separate from that of the local service, helps attract riders.
- **Stations** range from basic bus stops to rail-like stations with pre-boarding fare payment, real-time bus arrival information, and level boarding.

- **ITS technologies**, such as transit signal priority, automatic vehicle location systems, and real-time traveler information, can enhance the transit operations and passenger experience (Transit Operations Plan, Technical Memorandum #4).

BRT was evaluated on the State Street corridor for several reasons, which include:

- State Street has the highest existing ridership in the ValleyRide system.
- Future corridor operations are projected to be over capacity. BRT could provide a competitive alternative to the automobile.
- BRT provides the opportunity to phase transit and roadway improvements.
- BRT has the flexibility to be implemented as part of an HOV system (Technical Memorandum #3).

BRT Vehicle – Eugene, Oregon



BRT Vehicle in Curbside Running Way – Las Vegas, Nevada



BRT Vehicle in Median Running Way – Las Vegas, Nevada



BRT Station – Las Vegas, Nevada

