State Street Transit and Traffic Operational Plan

Implementation Plan

Ada County, Idaho

June 14, 2011

ACHD Committed to Service

BOISE CITY OF TREES

VRT VALLEY REGIONAL TRANSIT

State Street Transit and Traffic Operational Plan

Implementation Plan

Ada County, Idaho

Prepared For:
Ada County Highway District
City of Boise
Valley Regional Transit

Prepared By:
Kittelson & Associates, Inc.
101 South Capitol Boulevard, Suite 301
Boise, Idaho 83702
(208) 338-2683

Project No. 9260

June 14, 2011

Thank you to the following people and organizations for their involvement and input into the State Street Transit and Traffic Operational Plan.

Community Advisory Committee

Sally Goodell, Ada County Highway District
Jeff Lowe, Ada County Highway District
George Knight, Ada County Highway District Bike Advisory Committee
John Franden, Ada County Highway District Commission
Wendie Slater, Alliance Title
Vasile Benjenarim, AmeriCorps
Chris Hendrickson, Bike commuter
Deanna Watson, Boise City/Ada County Housing Authority
John Gardner, Boise State University
Mandar Khanal, Boise State University
Susan Mason, Boise State University
Jay Walker, Brighton Corporation
Jon Cecil, Capital City Development Corporation
Mike Hall, Capital City Development Corporation
Rob Howarth, Central District Health
Lou Landry, Citizen
Elaine Clegg, City of Boise Council
David Eberle, City of Boise Council
Jim Birdsall, City of Boise Housing
Andrea Tunning, City of Boise Planning
David Moser, City of Boise Planning
Anne Barker, City of Boise Planning and Zoning
Lauren McLean, City of Boise Planning and Zoning
Sgt. Kyle Christensen, City of Boise Police Department
Jillian Subach, City of Boise Public Library
Jim Ross, City of Eagle
Norm Semanko, City of Eagle Council
George Illiff, Colliers International
Ester Ceja, Collister Neighborhood Association
Julie Klocke, Collister Neighborhood Association
Leslie Felton-Jue, Collister Neighborhood Association
Don Matson, Community Planning Association of Southwest Idaho
Brooke Green, Community Transportation Association of Idaho
Jerry Nielson, Garden City
Jeanne Barker, Garden City Planning and Zoning
Jim Neill, Garden City Planning and Zoning
L. Kent Brown, Garden City Planning and Zoning
Blair Brannan, Garden City Police Department
Joel Ellsworth, Garden City Police Department
Josh Thorndyke, Garden City Police Department
Gary Allen, Givens Pursley
Brian Huffaker, Hawkins Company
Jeff Hess, Hawkins Company
Chris Hansen, House of Brokers
Vicky Ann Smith, Hewlett-Packard
Ellen Albus, International Rescue Committee
Jane Wright, Idaho Department of Lands
Nancy Merrill, Idaho Department of Parks and Recreation
Dave Angell, Idaho Power
Rachel Winer, Idaho Smart Growth
Maureen Gresham, Idaho Transportation Department Bicycle and Pedestrian Program
Dave Jones, Idaho Transportation Department District 3
Mark Wasdahl, Idaho Transportation Department District 3
Randy Kyrias, Idaho Transportation Department Planning
Jo O'Connor, Idaho Transportation Department Safe Routes to School
Daren Fluke, JUB Engineers, Inc.
Sheri Freemuth, National Trust for Historic Preservation
Dana Zuckerman, Resident
Eric Davis, Retail West
David Greene, Riverglen Junior High
Lindsay Klein, Salvation Army
Monique Johns, State Independent Living Council
Brett Smith, Smith Properties – Waterfront Building
David Moser, St. Seraphim Orthodox Church
Grant Burgoyne, State of Idaho – Representative
John Andreason, State of Idaho – Senator
Sherry McKibben, University of Idaho
Jerry Royster, US Department of Housing and Urban Development
Charlie Rountree, Valley Regional Transit Board
Mike Wardle, Wardle Group
Janelle Zuckerman, YMCA
Lawrence Rincover

Project Management Team

Sabrina Anderson, Ada County Highway District
Ryan Head, Ada County Highway District
Kathleen Lacey, City of Boise
Fred Kitchener, State Street Program Coordinator/McFarland Management
Kelli Fairless, Valley Regional Transit

Technical Advisory Committee

Jim Larsen, Ada County Highway District
Jeff Lowe, Ada County Highway District
Shawn Martin, Ada County Highway District
Don Matson, Community Planning Association of Southwest Idaho
MaryAnn Waldinger, Community Planning Association of Southwest Idaho
Nichoel Baird, City of Eagle
Jenah Thornborrow, Garden City
Kevin Sablan, Idaho Transportation Department
Mark Wasdahl, Idaho Transportation Department
Ed Keener, Northside Neighborhood Transportation Committee
Mary Barker, Valley Regional Transit

A final thank you to any other person, individual, group, agency, and participating member of the public that provided information, comments, suggestions, and their valuable time during this planning process.

Table of Contents

Introduction **1**

History 3

Why State Street/State Highway 44? 4

Plan Purpose 5

Study Area 5

Goals and Objectives 6

Integrated Corridor 7

Plan Process 8

Supporting Documentation 9

Background **11**

Existing Conditions 13

Future Year 2035 Conditions 14

Transit and High Occupancy Vehicle (HOV) Lanes 29

Bus Rapid Transit (BRT) 33

Alternatives Evaluation 35

Tiered Evaluation Process 37

Overview of Alternatives 38

Evaluation Criteria 38

Technical Evaluation of Alternatives 40

Development of Recommended Alternative 41

Public Involvement 43

Community Advisory Committee (CAC) 45

Technical Advisory Committee (TAC) 49

Public Open House 49

Implementation Strategy 51

Phasing Strategy 53

Near-Term Improvements 53

Medium-Term Improvements 56

Long-Term Improvements 60

Implementation Tables 63

Financial Strategy 73

Funded and Unfunded Activities 75

Tools for Funding Roadway, Transit, and Land Use Activities 78

Conclusion and Recommendations 89

Appendix 93

List of Acronyms 95

Glossary of Terms 96

List of Figures

Figure 1 Timeline of State Street Studies 3

Figure 2 Study Area 6

Figure 3 Integrated Corridor for State Street 7

Figure 4 Plan Process 8
Figure 5 Existing Transportation Conditions 15
Figure 6 Existing Land Use 16
Figure 7 Roadway Networks for Year 2035 Modeling Scenarios 18
Figure 8 2035 Low Transit Network 20
Figure 9 2035 High Transit Network 21
Figure 10 Recommended TOD Locations 22
Figure 11 Year 2035 Average Daily Traffic Volumes 24
Figure 12 Year 2035 Segment Level of Service 25
Figure 13 2008 and 2035 Daily Boardings Along State Street 26
Figure 14 Year 2008 and 2035 Travel Times 27
Figure 15 Year 2035 Total Daily Passengers On-Board State Street Routes 28
Figure 16 Key Elements of Highway 97 HOV Lanes 32
Figure 17 Evaluation Methodology 37
Figure 18 Alternatives Considered for Year 2035 39
Figure 19 Evaluation of Long-Term Improvements 42

Figure 20 Results of CAC Survey....46

Figure 21 State Street TTOP Website....50

Figure 22 Key Recommended Near-Term Improvements....55

Figure 23 Key Recommended Medium-Term Improvements....57

Figure 24 Recommended Cross Sections for State Street and SH 44....59

Figure 25 Key Recommended Long-Term Improvements....61

Figure 26 Total Cost (in millions) of Near-Term Improvements....76

Figure 27 Funded and Unfunded (in millions) Near-Term Improvements....76

Figure 28 Total Cost (in millions) of Medium-Term Improvements....76

Figure 29 Funded and Unfunded (in millions) Medium-Term Improvements....76

Figure 30 Total Cost (in millions) of Long-Term Improvements....77

Figure 31 Operating Cost per Capita in the Treasure Valley and Western and Mountain State Cities....81

List of Tables

Table 1 Implementation Plan for Near-Term Corridor Improvements....65

Table 2 Implementation Plan for Medium-Term Corridor Improvements....69

Table 3 Implementation Plan for Long-Term Corridor Improvements....71

INTRODUCTION

The State Street Transit and Traffic Operational Plan (TTOP) is an integrated transportation and land use plan that identifies near-, medium-, and long-term improvements for implementing the roadway, transit, and land use vision for the State Street corridor. The TTOP is organized into the following sections:

- Introduction
- Background
- Alternatives Evaluation
- Public Involvement
- Implementation Strategy
- Financial Strategy
- Conclusion and Recommendations

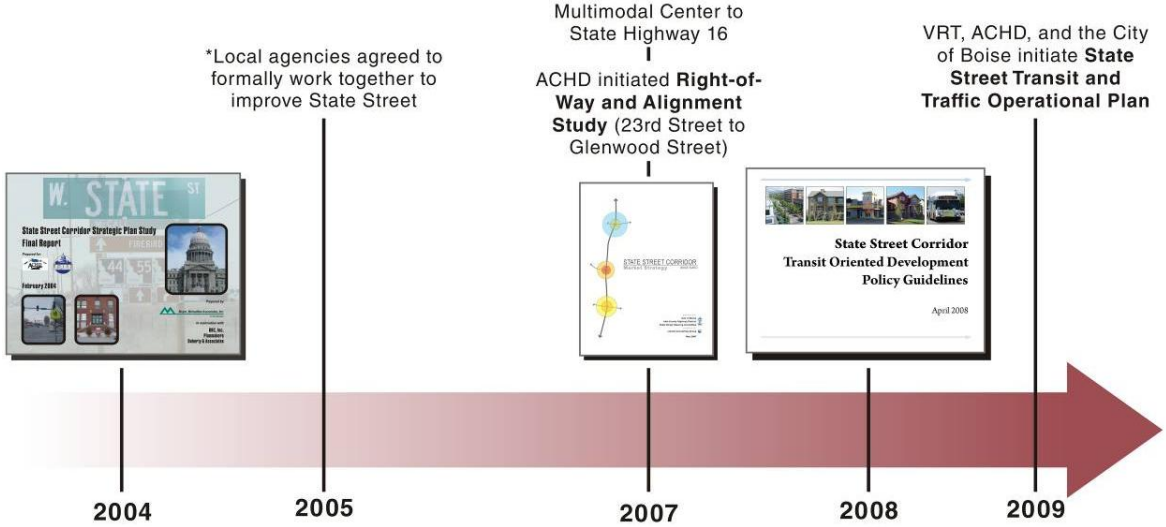
Key items discussed in this section include the State Street corridor history, reasons for studying the corridor, purpose and goals of the plan, and study process.

History

The State Street/State Highway (SH) 44 corridor has historically operated as a critical east/west transportation link that moves people across the Treasure Valley. This corridor has provided a range of transportation options, including streetcar in the early 1900s and a mix of buses, automobiles, pedestrians, and bicyclists today. Today, the corridor accommodates peak hour commuter traffic from the communities to the west of Downtown Boise, experiences high traffic volumes, provides access to many businesses and residential neighborhoods, and continues to serve as the northernmost major transportation corridor for Ada and Canyon Counties.

Local agencies have been working together to improve the State Street corridor for the past six years because of the regional importance of the corridor, current high transit use, and potential for significant land use changes. Figure 1 shows some of the previous work that has been done on the corridor leading up to the State Street TTOP.

Figure 1 Timeline of State Street Studies



Note: The plans can be found on the project website at www.kittelson.com/statestreetcorridorstudy.

*Local Agencies: Throughout the last six years, ACHD; ITD; Ada County; Cities of Boise, Eagle, Garden City; COMPASS; and Valley Regional Transit have supported efforts on State Street/State Highway 44.

From the State Street Corridor Strategic Plan Study and resulting Memorandum of Understanding (MOU) among the public agency stakeholders, the following vision was established for the corridor between SH 55 and 23rd Street:

A long-term vision for the corridor that includes State Street as a heavily emphasized "transit" corridor with dedicated lanes in a seven-lane cross section; and land use policy changes and transit-oriented development within the corridor to support the high capacity transit (State Street MOU 2005-2010).

The State Street TTOP was initiated in 2009 by Valley Regional Transit (VRT), Ada County Highway District (ACHD), and the City of Boise.

Recently, the partnering agencies and organizations of the original MOU (ACHD, City of Boise, Garden City, Community Planning Association of Southwest Idaho (COMPASS), and VRT) developed a second MOU (2011-2016) that brings together additional partners (i.e., Ada County, Capital City Development Corporation (CCDC), City of Eagle, and ITD) to move forward with implementation activities on the State Street/SH 44 corridor. This second MOU is an important component in the success of this corridor (State Street MOU 2011-2016).

Why State Street/State Highway 44?

State Street/State Highway (SH) 44 is the only east/west connection north of the Boise River that links communities in Canyon and Ada Counties. The corridor provides the only continuous connection between the cities of Boise, Garden City, Eagle, and Star. In addition, previous studies, such as Communities In Motion (CIM), the long-rang transportation plan for the area, have identified the corridor as a major multimodal connection due to the multitude of different land uses that exist today and are planned for the future along State Street/SH 44.

The local transportation and land use agencies are working together to improve the corridor due to its regional importance and the following key roadway, transit, and land use characteristics.

- **Roadway:** Heavy commuter route with congested conditions today (12,000 daily vehicles near SH 16 to 39,000 daily vehicles near Veterans Memorial Parkway) and projected high traffic volume growth by 2035 (20,000 to 70,000 daily vehicles, same locations as above) (CIM Update 2010).

- **Transit:** Highest ridership route (200,000 annual riders) of the regional transit system (accounts for 14 percent of the total regional ridership) (ValleyRide 2009).

- **Land Use:** Need for balancing the projected year 2035 population and employment growth on the corridor (approximately 93% and 118%, respectively, and an annual population growth of 3.5% and large growth projections for the western part of the corridor) with the preservation of existing neighborhoods on the corridor (CIM Update 2010).

Many transit and regional transportation agencies in the U.S. and Canada have implemented high capacity transit service on corridors with high daily traffic volumes, existing high ridership, , and the potential for redevelopment opportunities, similar to the State Street/SH 44 corridor. For example, the Regional Transit Commission (RTC) of Southern Nevada implemented both MAX (2004) and ACE (2010) bus rapid transit routes on two corridors with existing high ridership (7,000 for MAX) and daily traffic volumes between 30,000 and 70,000 vehicles to offer better service, increase transit ridership, and seek redevelopment opportunities. Both BRT routes have increased the ridership and provided early signs of transportation improvements and redevelopment on the corridors.

Plan Purpose

The State Street TTOP identifies and prioritizes roadway, transit, and land use improvements on the State Street/SH 44 corridor, between the future Downtown Boise Multimodal Center and SH 16. These improvements are aimed at evolving State Street/SH 44 into an integrated multimodal corridor, focused on moving people with auto, transit, bicycle, and walking opportunities.

The purpose of the State Street TTOP is to identify, evaluate, and recommend the following:

- **Transit System:** A transit route, transit running way location, and service plan between the future Downtown Boise Multimodal Center and SH 16.
- **Transit-Supportive Land use Concepts:** Location of potential transit-oriented development (TOD) nodes on the corridor.
- **Corridor Improvements:** Improvements to enhance the traffic operations, multimodal accessibility, and access to businesses for the corridor.
- **Implementation Plan:** Projects and financing strategy through the year 2035 (Technical Memorandum #1).

This plan is meant for local decision making purposes and is a precursor to a future federal environmental analysis for the State Street/SH 44 corridor.

Study Area

The project focuses on the State Street/SH 44 corridor between the future Downtown Boise Multimodal Center and SH 16 through the communities of Boise, Garden City, and Eagle. The roadway is referred to as State Street between Glenwood Street and Downtown Boise and as SH 44 between SH 16 and Glenwood Street. The study area is also known as the State Street corridor. Figure 2 illustrates the study area.

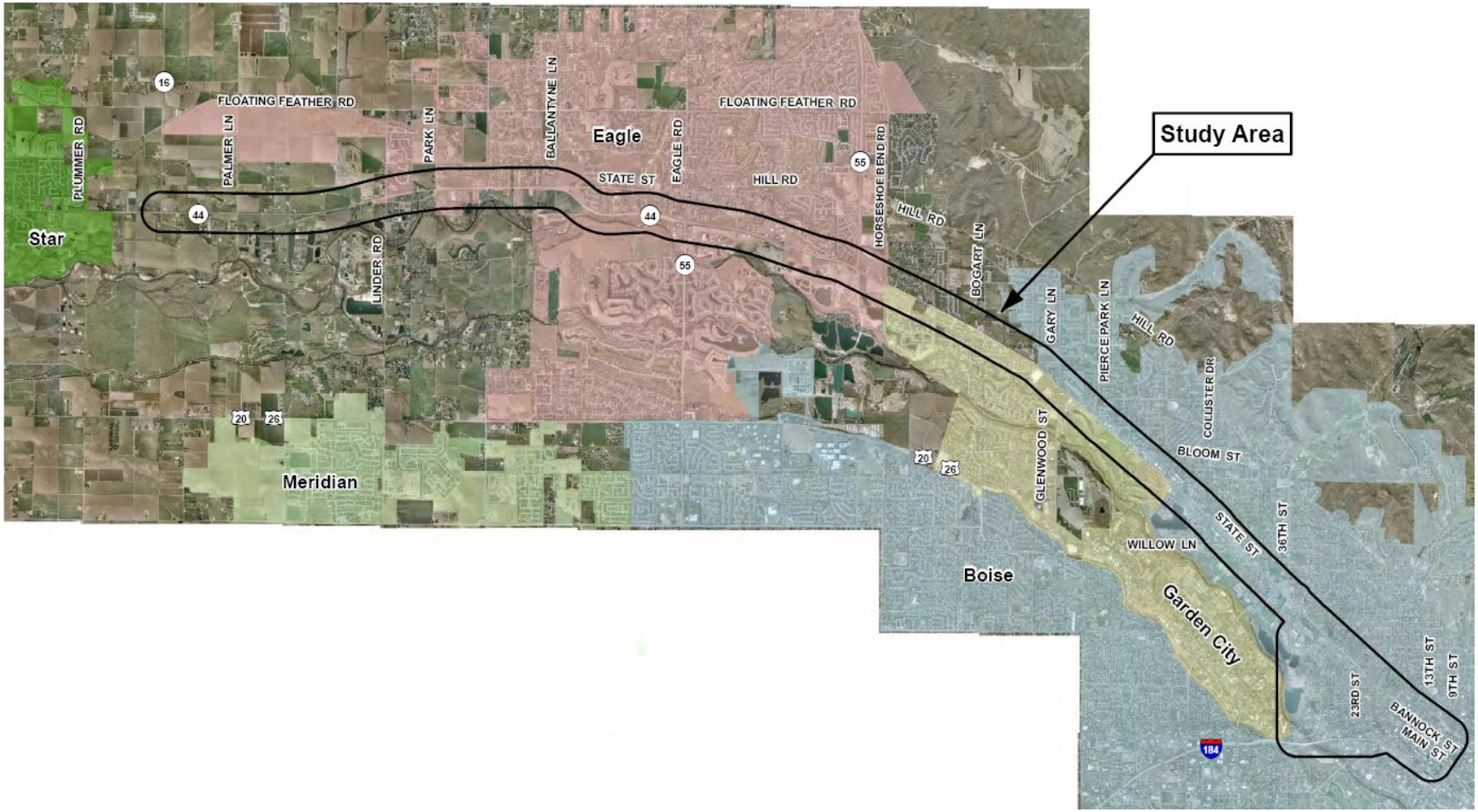
Land uses in the study area consist of a mix of residential, office, and retail. More than 30 signalized intersections and 500 unsignalized access points (average of 35 access points per mile) serve businesses and residential areas along the study corridor. Four river crossings in the study area (Linder Road, Eagle Road, Glenwood Street, and Veterans Memorial Parkway) provide vital regional connections

between population and employment areas to the north and south of State Street, causing higher traffic volumes at these intersections.

Goals and Objectives

As part of the goals and objectives development for this plan, the project team gathered and reviewed existing studies and plans for the area, interviewed stakeholders about the project, and discussed this information with the 70-member Community Advisory Committee (CAC) and 15-member Technical Advisory Committee (TAC). The following goals were developed for this study:

Figure 2 Study Area



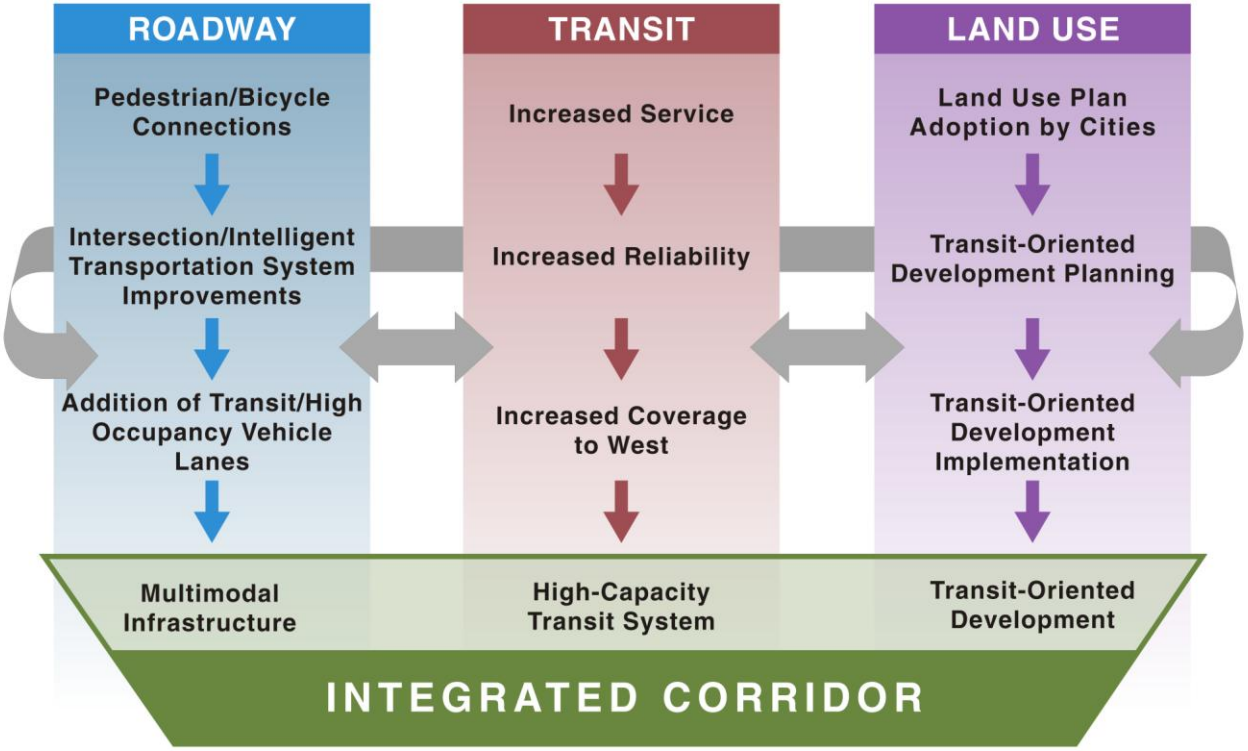
- **Goal 1.** Move people rapidly along State Street utilizing an appropriate high capacity transit system to and from the future Downtown Boise Multimodal Center and communities to the west.
- **Goal 2.** Support local growth objectives and link activity centers along corridor.
- **Goal 3.** Utilize existing plans for transit growth and support future transit expansion.
- **Goal 4.** Engage the community and identify champions for land use and a complete street concept along the State Street corridor.
- **Goal 5.** Create an implementation and financial plan for furthering transit and land use growth (Technical Memorandum #1).

Integrated Corridor

Based on the goals for this plan, the Project Management Team (PMT) and committee members developed an integrated corridor concept to outline the combination of the roadway, transit, and land use components of the State Street corridor. An integrated corridor incorporates multimodal infrastructure, a high-capacity transit system, and transit-oriented development. Figure 3 shows the integrated corridor components and interactions for the State Street corridor.

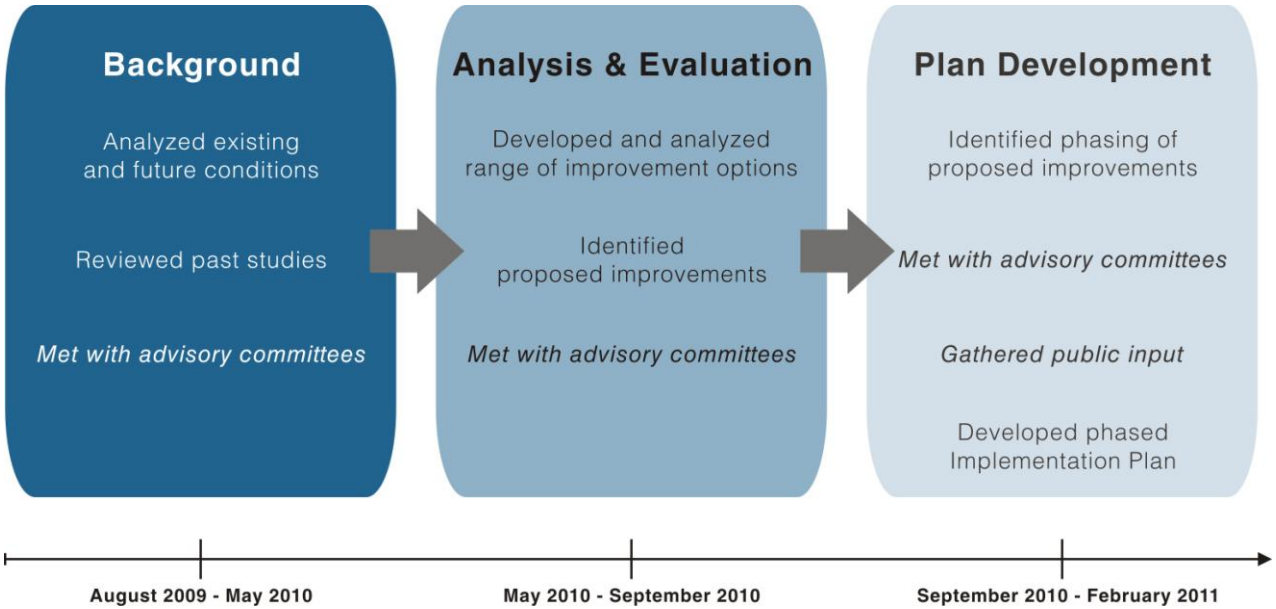
As shown in Figure 3, specific roadway, transit, and land use improvements are required to achieve an integrated corridor. Some of the improvements can be completed independently, but many of the projects and activities relate to each other and need to occur together. All of the improvements are necessary to achieve a successful implementation of the State Street vision.

Figure 3 Integrated Corridor for State Street



In other locations across the country (i.e., EmX BRT in Eugene, Oregon; MAX LRT in Portland, Oregon; MAX BRT in West Valley City, Utah), agencies have completed corridor plans where the transit service or TOD infrastructure was already in place as they moved toward an integrated corridor. The State Street TTOP project is unique in that the Implementation Plan includes roadway enhancements, transit improvements, and land use changes over the same time horizon. Implementing all three components concurrently on State Street presents unique challenges that can be overcome by close collaboration among agencies.

Figure 4 Plan Process



Plan Process

The plan was initiated in August 2009 and planned for adoption in Spring 2011.

Figure 4 shows the process used to develop the Implementation Plan. The plan process was guided by a Project Management Team (PMT). The PMT consisted of staff from ACHD, City of Boise, and VRT as well as the State Street Program Coordinator (refer to page iv for a list of PMT members). These agencies are the funding partners for the plan. The PMT met at least monthly to work through the details of the plan and provided updates to their elected officials at key milestones of the project.

In addition, two advisory committees (CAC and TAC) provided input and guidance throughout the process. The CAC was formed in early 2010 to provide input and guidance during the plan process. The CAC included residents and members from over 70 agencies, organizations, and businesses interested in improving this corridor (refer to page iii for a list of CAC members).

A TAC was formed in early 2010 to provide technical input and guidance during the plan process. The committee included staff members from ACHD; the Cities of Boise, Eagle, and Garden City; COMPASS; ITD; Northside Neighborhood Transportation Committee; VRT; and the State Street

Studies Coordinator (refer to page iv for a list of TAC members).

The project team met three times with the CAC and four times with the TAC, and gathered public input through an open house before developing the Implementation Plan.

Supporting Documentation

As part of the plan process, several documents and reports were prepared to support the development of this Implementation Plan. Data and information from these documents are referenced throughout the Implementation Plan. This section includes a list of the documents and reports with a brief description of each item. All materials are available at www.kittelson.com/statestreetcorridorstudy. Each heading listed on this page includes a hyperlink to the project website or directly to the document for more information.

Technical Memorandum #1: Purpose, Goals, Objectives, and Existing Studies Review

- Identifies the purpose, goals, objectives, and studies list reviewed for this plan.

Technical Memorandum #2: Data Collection and Existing Conditions Analysis

- Presents a summary of the data collection efforts and existing roadway, transit, and land use conditions on the corridor.

Technical Memorandum #3: Future Traffic Volumes and Analysis

- Summarizes the future 2035 traffic volumes and operations and evaluation of the modeling scenarios.

Technical Memorandum #4: ITS Assessment and Recommendations

- Provides an assessment of existing, planned, funded, and new Intelligent Transportation System (ITS) traffic and transit technologies.

Technical Memorandum #5: Future Alternatives Analysis and Evaluation

- Integrates the traffic and transit operations and evaluates the five alternatives for the corridor.

Transit Oriented Development (TOD) Site Selection and Prioritization Report

- Includes an evaluation of TOD opportunities and guidance to local agencies for developing supportive land use polices and implementation strategies.

Transit Operations Plan

- Describes transit routing and operating concepts evaluated for this plan and an implementation strategy for transit service improvements on the corridor.

Technical Advisory Committee Meetings #1, #2, and #3 Minutes

- Each meeting minutes includes attendees, agenda and supporting materials, discussion topics, and TAC questions and comments.

Community Advisory Committee Meetings #1, #2, and #3 Summary

- Each meeting summary includes attendees, agenda and supporting materials, discussion topics, and CAC questions and comments.

Public Open House Summary

- Outlines the planning and detailed outcomes of the open house.

Visualization Videos

- Shows five visualization videos that address technical topics of the plan. Two of the videos present the study area and a summary of different high capacity transit options that exist or are in the planning stages throughout the U.S. Three of the videos show the transit and traffic operations of the median running way, curbside running way, and curbside running way with HOV alternatives between 23rd Street and Collister Drive.

Memorandum of Understanding, 2011-2016

- Demonstrates the commitment of numerous agencies and organizations along State Street to work cooperatively on specific responsibilities to implement projects on the corridor. The following agencies are participating in this MOU:
    - Ada County
    - Ada County Highway District
    - Capital City Development Corporation
    - City of Boise
    - City of Eagle
    - City of Garden City
    - COMPASS
    - Idaho Transportation Department
    - Valley Regional Transit

These documents are located on the project website, but also can be found on the project DVD with each agency.

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 9th 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/17th 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 8th Street to 28th 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 9th 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).

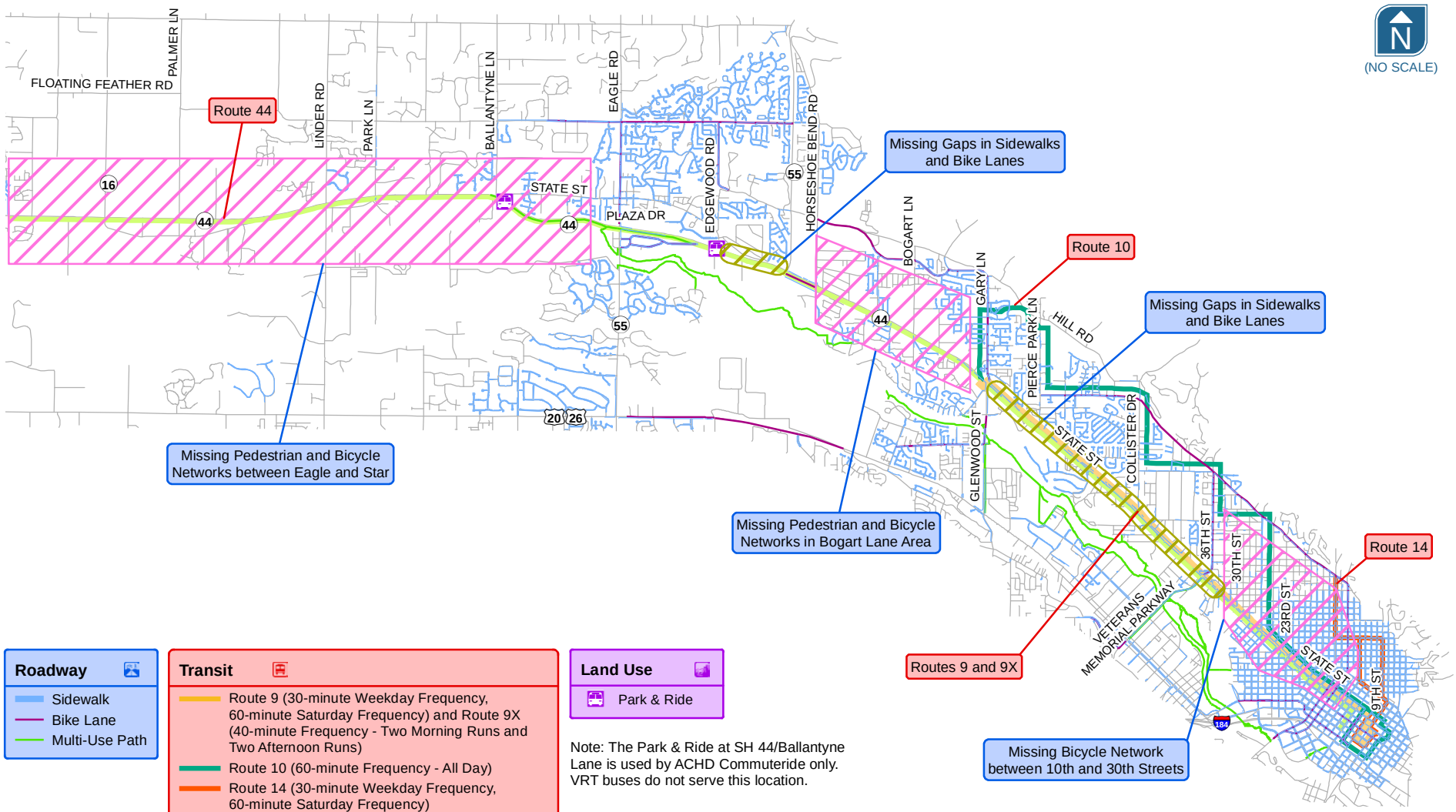
Rural Section of SH 44 near SH 16

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.



Roadway
- Sidewalk
- Bike Lane
- Multi-Use Path

Transit
- Route 9 (30-minute Weekday Frequency, 60-minute Saturday Frequency) and Route 9X (40-minute Frequency - Two Morning Runs and Two Afternoon Runs)
- Route 10 (60-minute Frequency - All Day)
- Route 14 (30-minute Weekday Frequency, 60-minute Saturday Frequency)
- Route 44 (24-hour Frequency - One Bus Per Day)

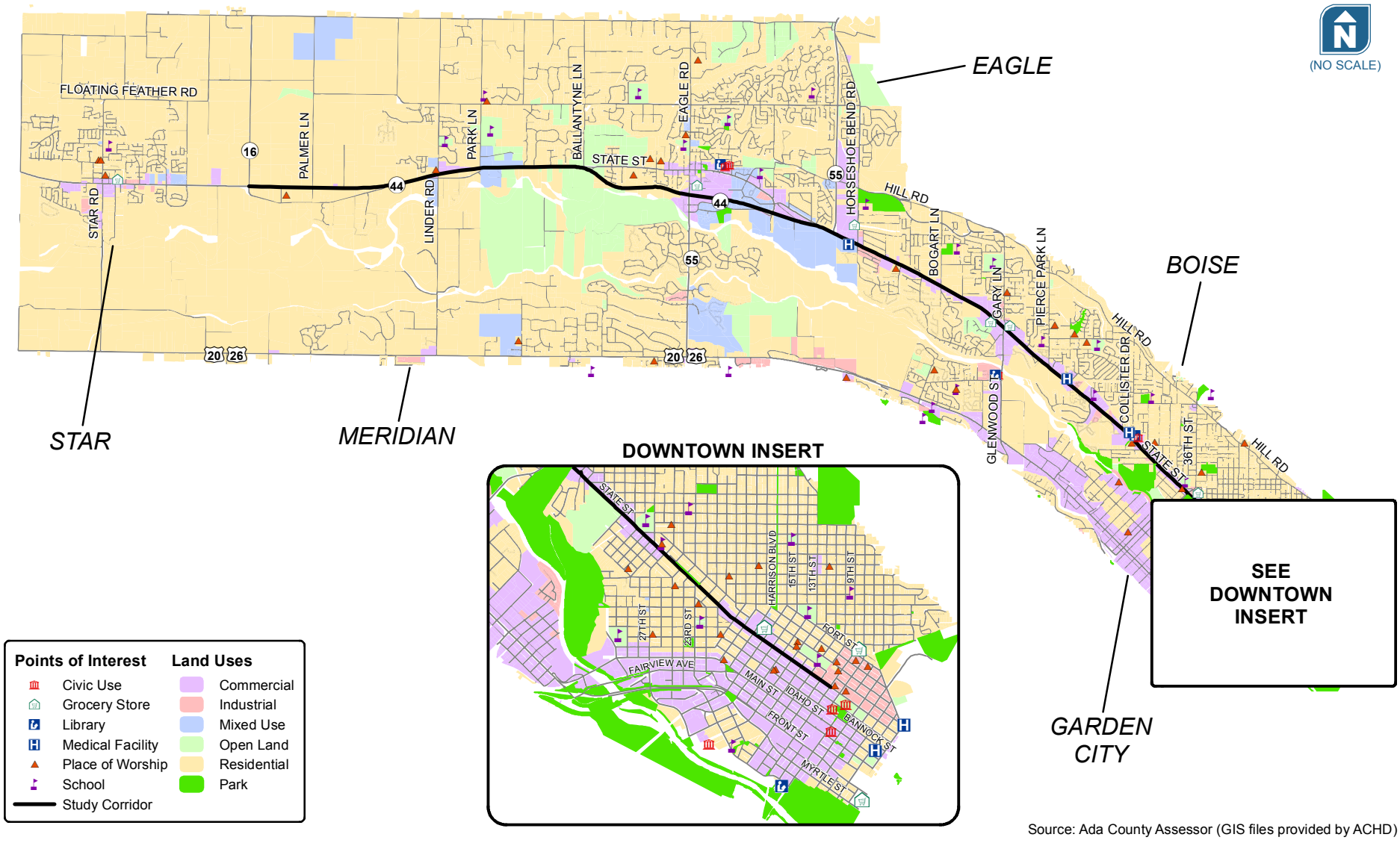
Land Use
- Park & Ride

Note: The Park & Ride at SH 44/Ballantyne Lane is used by ACHD Commuteride only. VRT buses do not serve this location.

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 23rd Street
- 30th Street Extension between State Street/Rose Street and Fairview Avenue/30th 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 23rd 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.

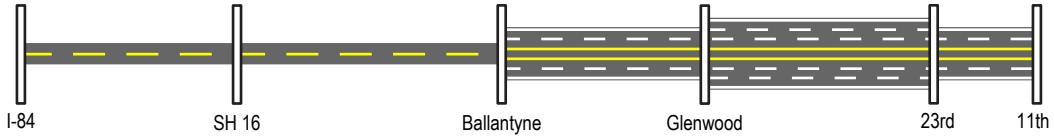
ROADWAY NETWORK FOR SCENARIO 3 – FIVE MIXED TRAFFIC LANES AND TWO TRANSIT LANES

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

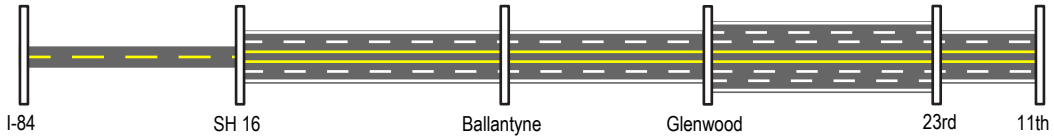
ROADWAY NETWORK FOR SCENARIO 4 – SEVEN MIXED TRAFFIC LANES

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

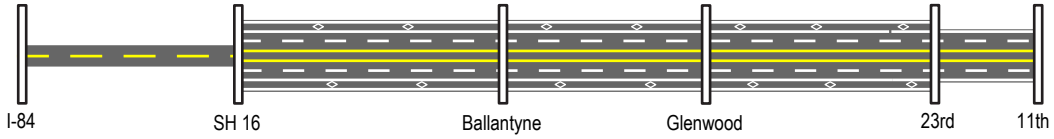
Roadway Network for Scenario 1 - Funded Roadway System



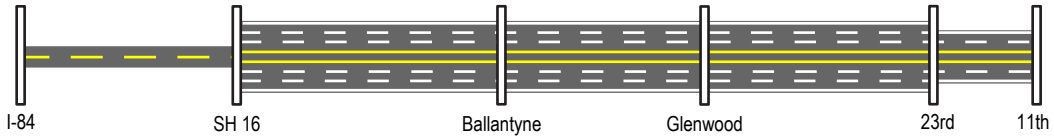
Roadway Network for Scenario 2 - SH 44 Corridor Study System



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

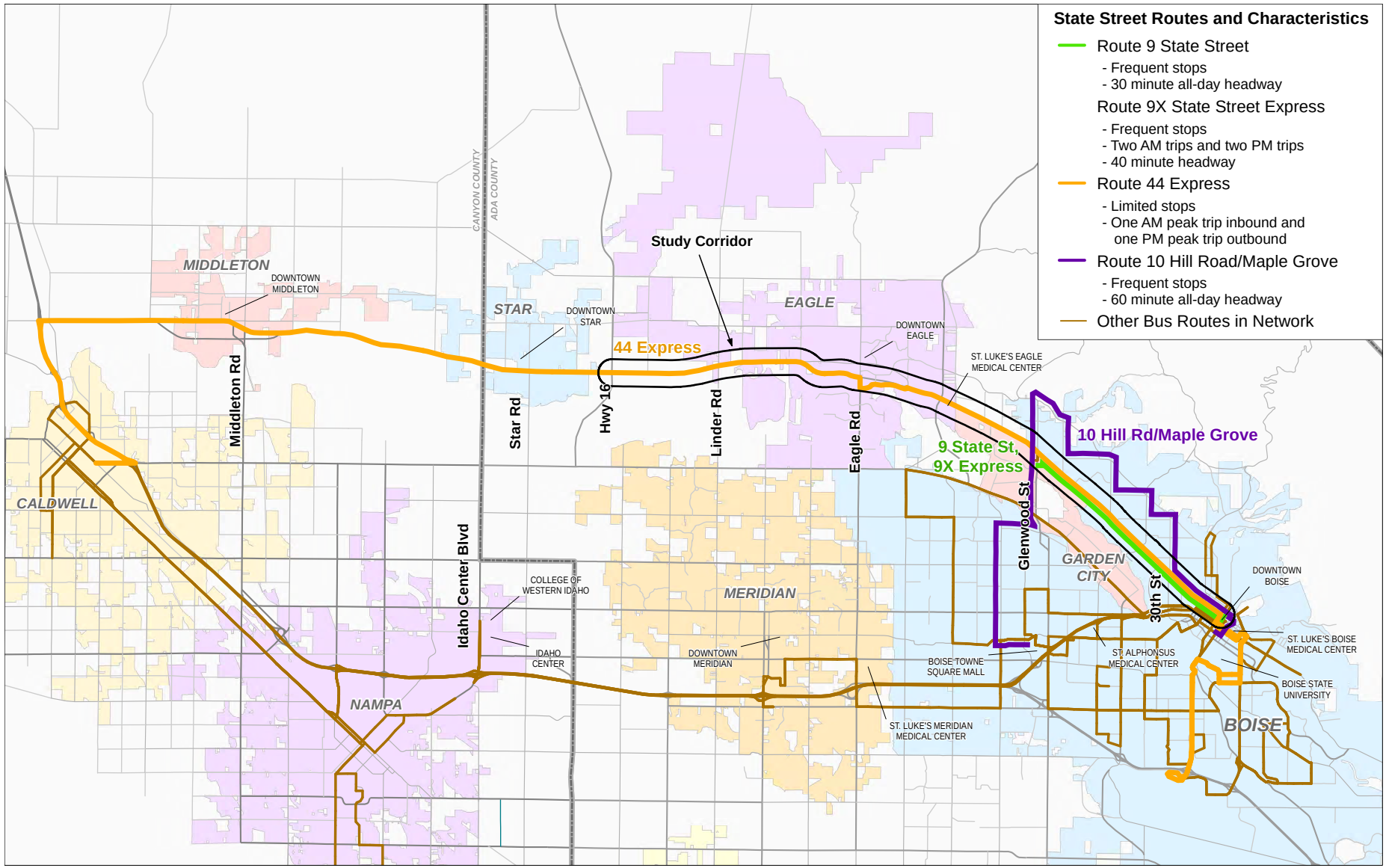
All of the modeling scenarios used the 2035 TAZ-level population and employment forecast and allocation that were approved by the COMPASS Demographic Advisory Committee (DAC) on February 4, 2010.

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

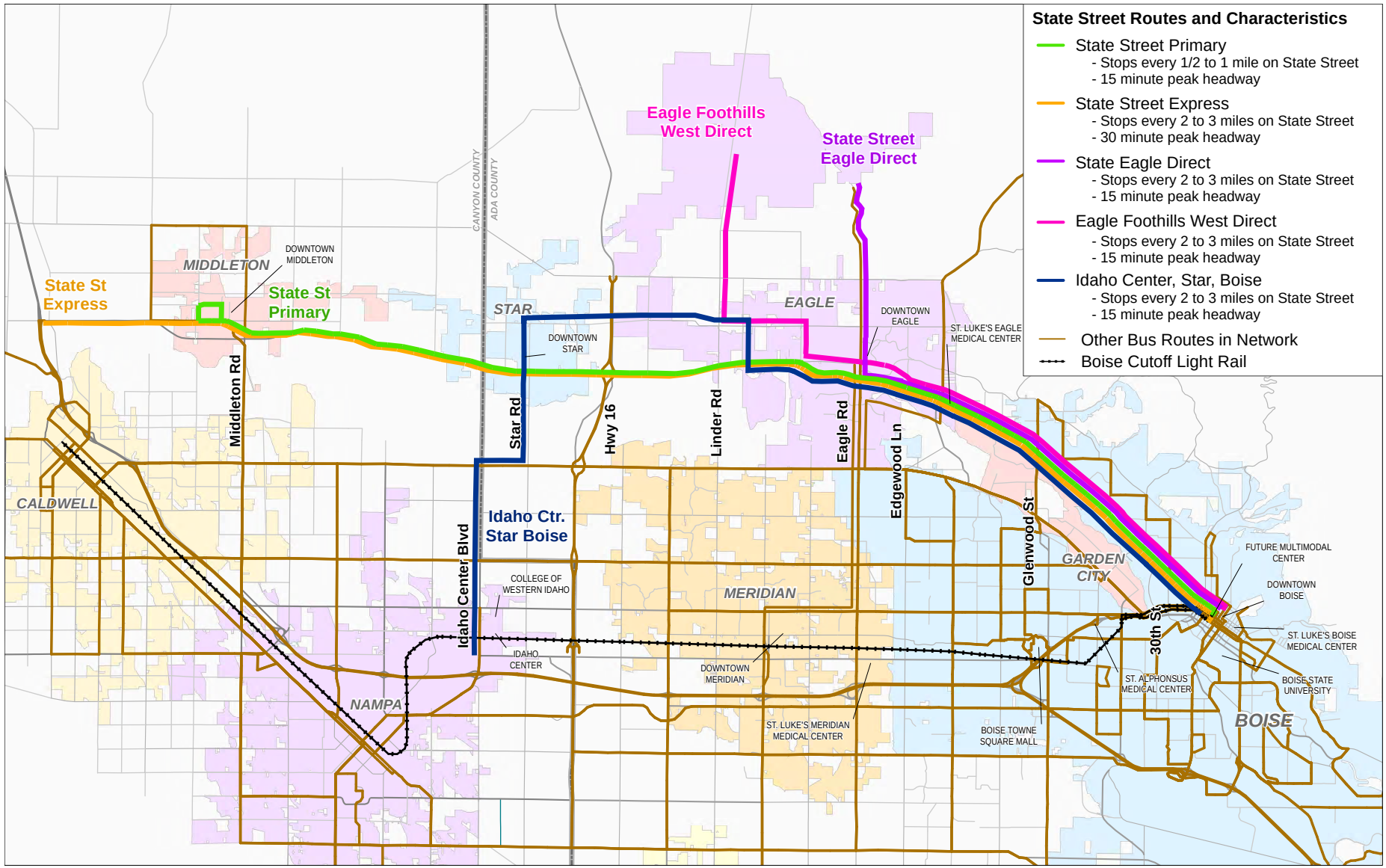
TOD is higher density mixed-use development within walking distance (about a half mile) of transit stations. TODs are attractive, walkable, sustainable communities that allow residents to have housing and transportation choices. TOD can range by the character, land use, and density of development.

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.



2035 LOW TRANSIT NETWORK
ADA COUNTY AND CANYON COUNTY, IDAHO

FIGURE 8



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.

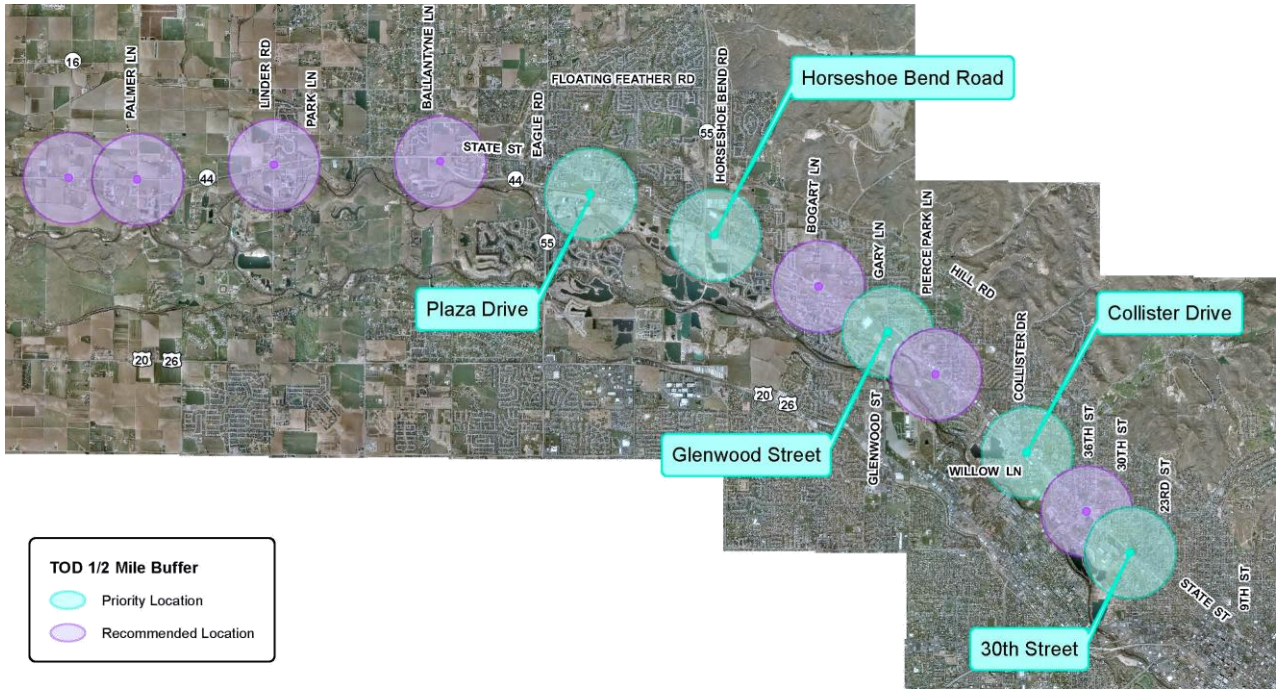
Example of Urban Neighborhood Center TOD

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 30th 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

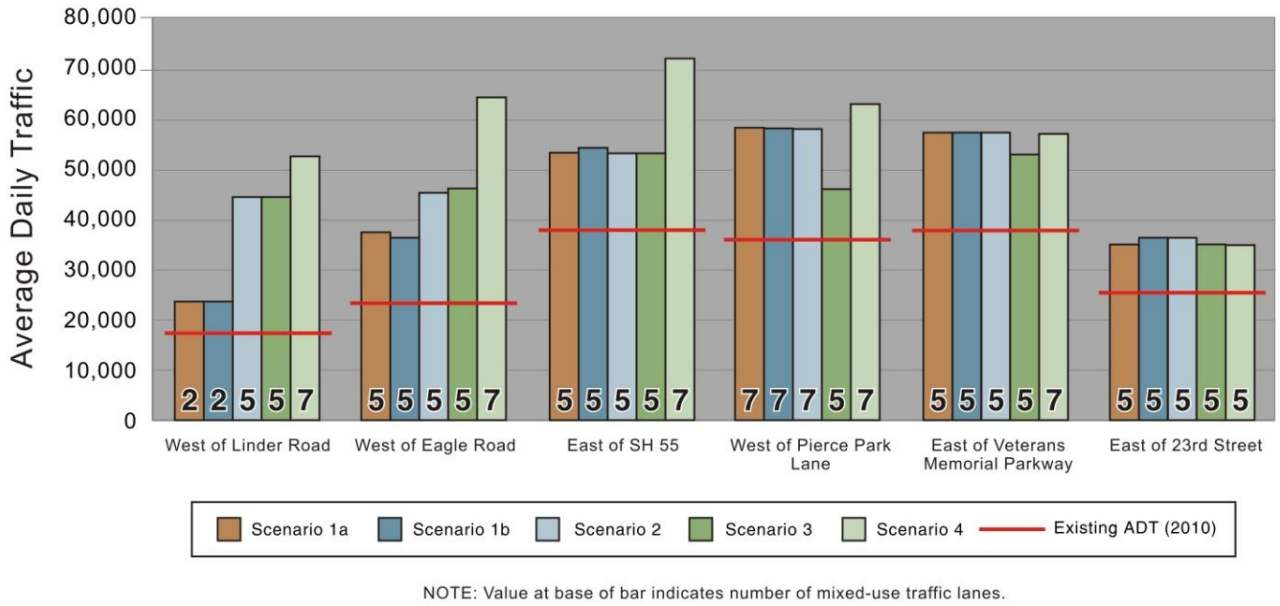
Figure 11 shows the year 2035 traffic volumes for the four scenarios. As shown in Figure 11, the future corridor daily traffic volumes range between approximately 20,000 and 72,000. The annual future growth rate on the corridor is 3 percent.

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.

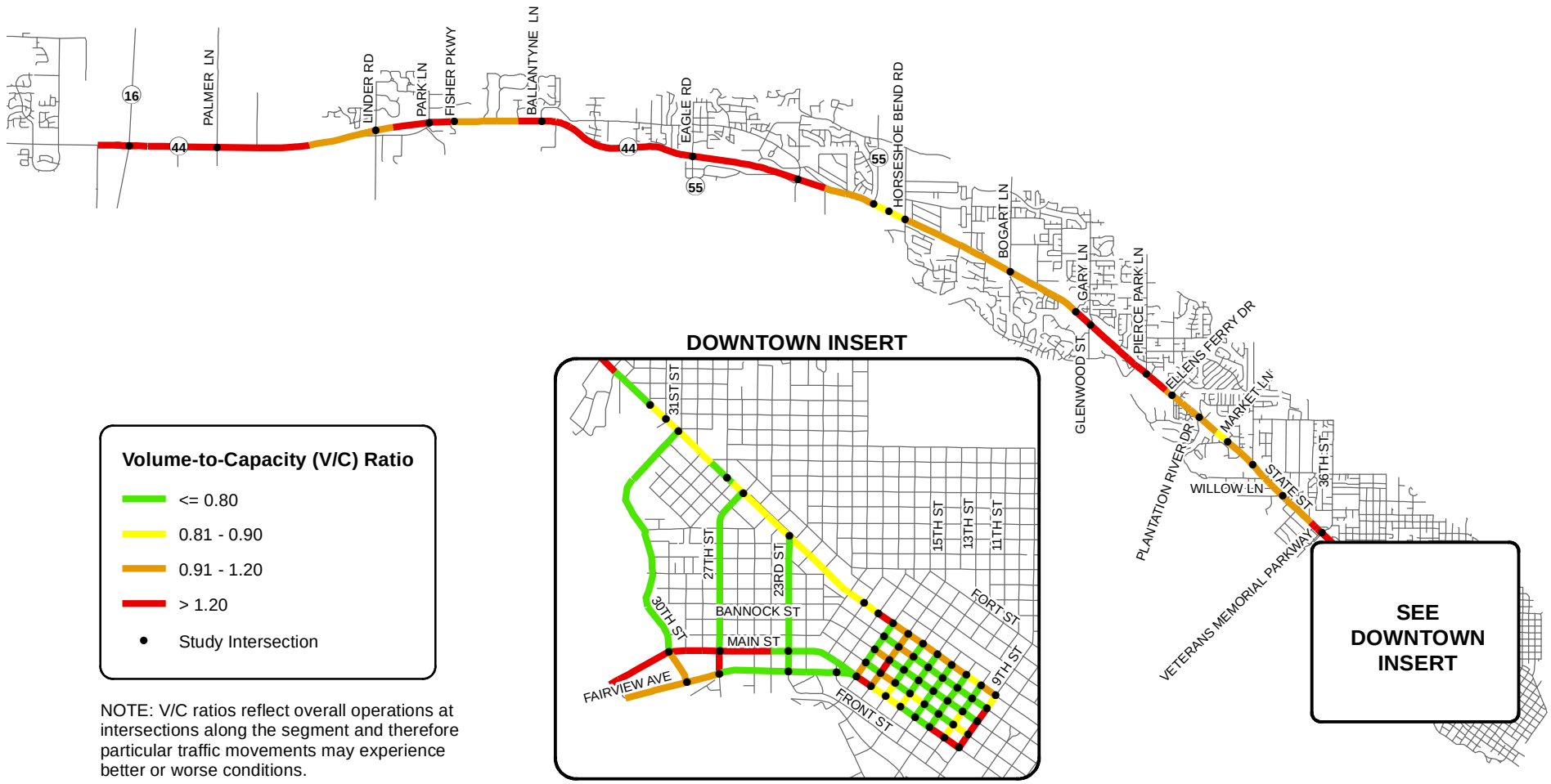
Traffic conditions on the corridor are projected to be near or overcapacity in year 2035, even with widening the roadway to five or seven lanes. Figure 12 shows the future 2035 segment capacity along the corridor. The volume-to-capacity (V/C) ratio and level of service (LOS) vary slightly by scenario, 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.



Volume-to-Capacity (V/C) Ratio

- <= 0.80
- 0.81 - 0.90
- 0.91 - 1.20
- > 1.20
- Study Intersection

NOTE: V/C ratios reflect overall operations at intersections along the segment and therefore particular traffic movements may experience better or worse conditions.

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

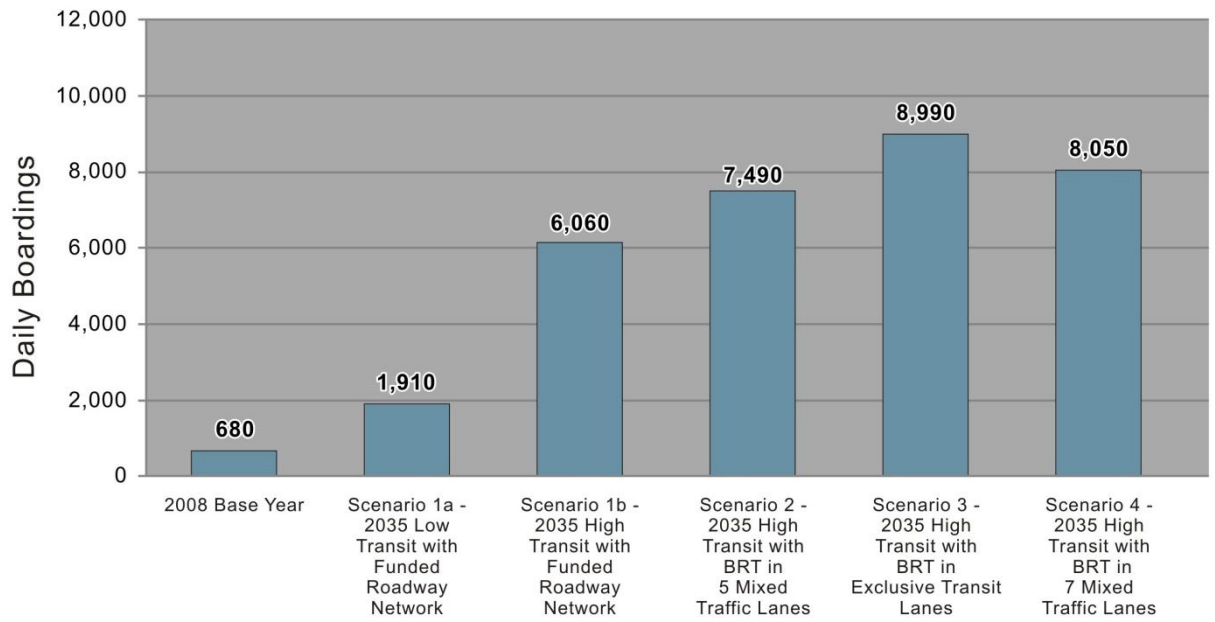
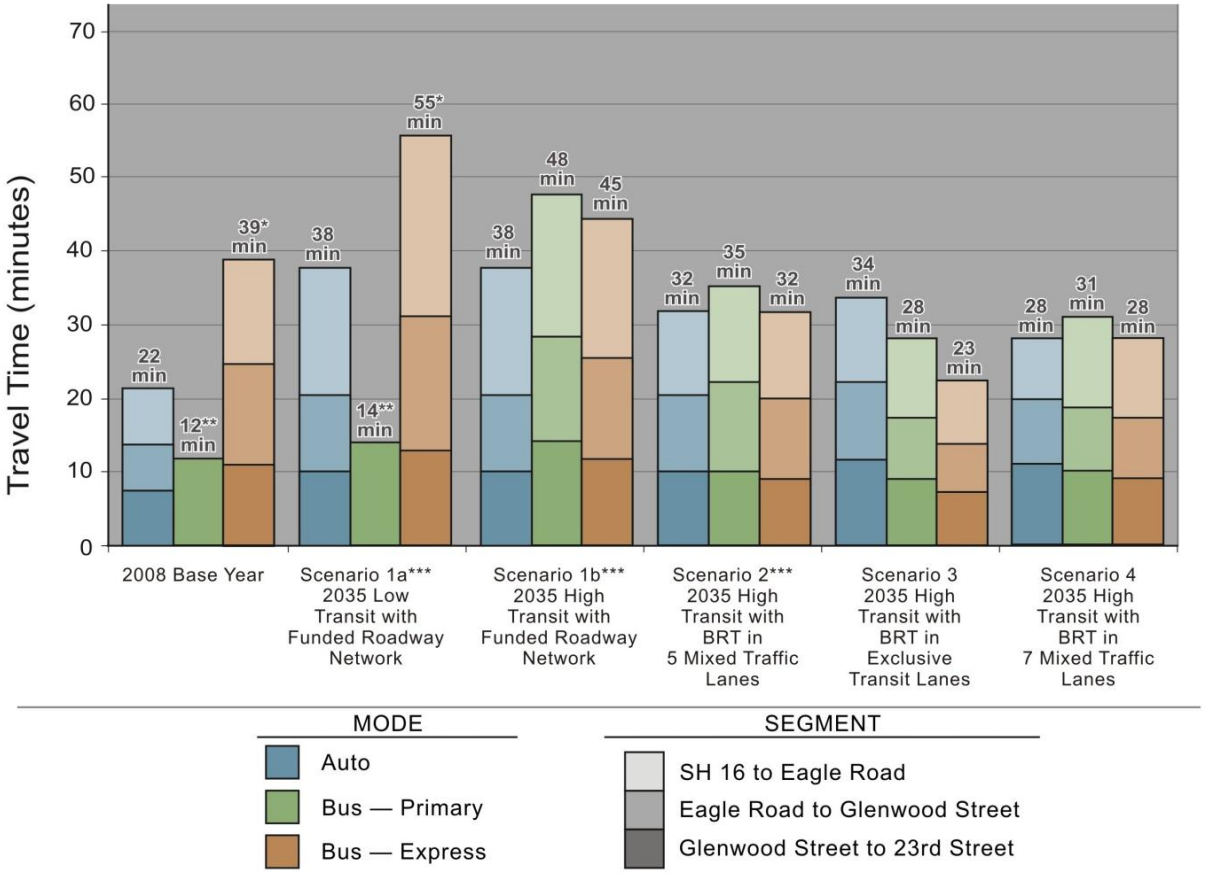


Figure 14 illustrates the projected auto and transit in-vehicle travel times by scenario between SH 16 and 23rd Street. The scenarios include the four unique roadway networks, as well as the Low and High Transit Network variations. The travel times shown in Figure 14 provide both total corridor (SH 16 to 23rd) 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 23rd 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

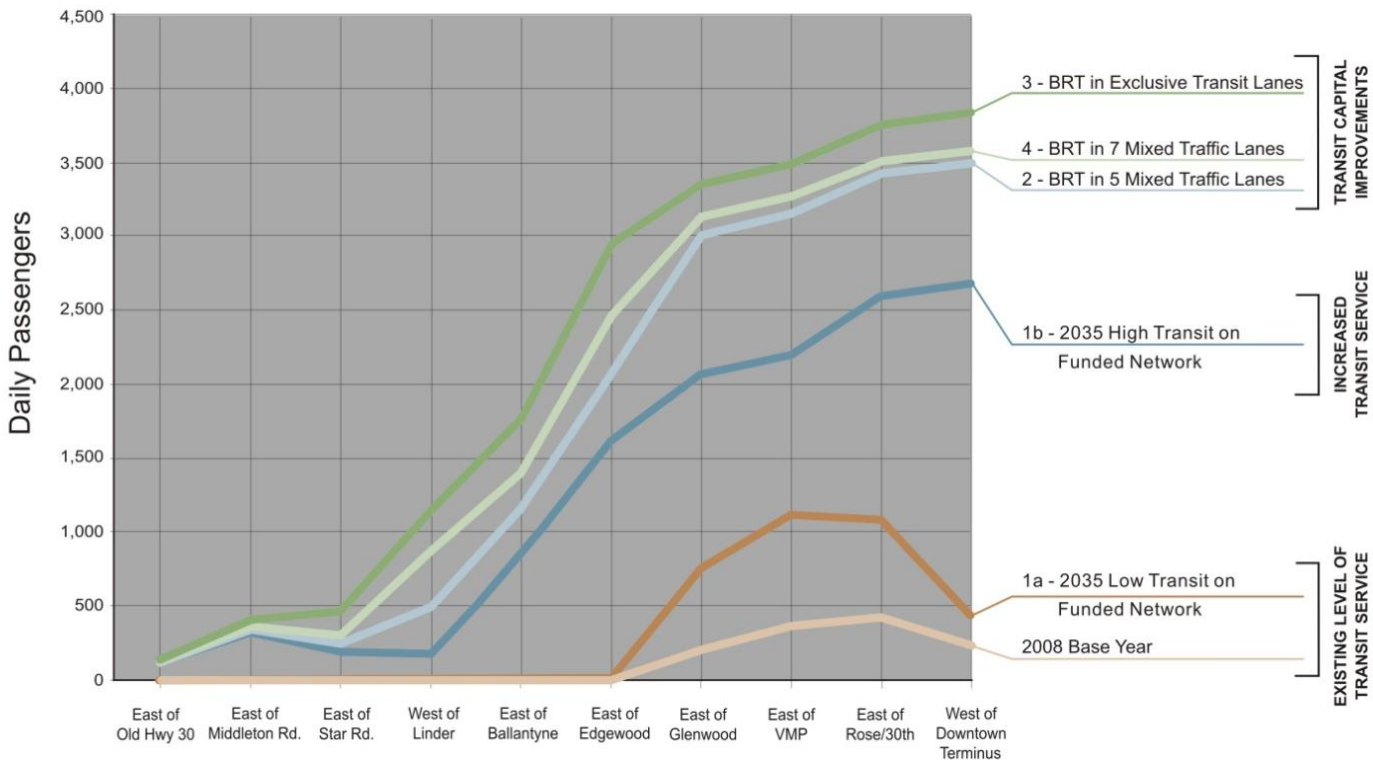
*** Scenario includes 7-lane segment between Glenwood Street and 23rd Street as part of funded roadway network

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.

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



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 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 23rd 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

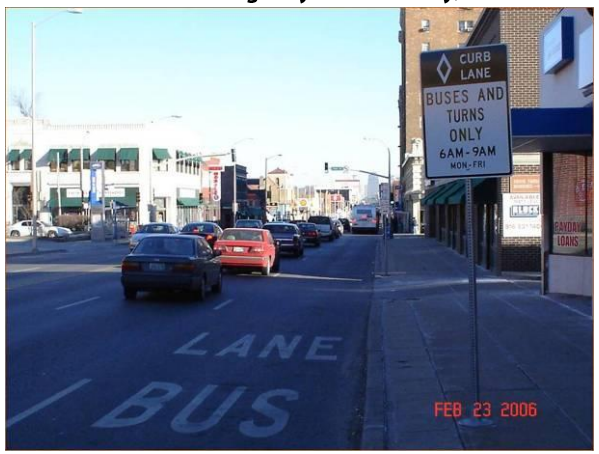
intersections usually occur due to the raised separation between the median running way and the mixed traffic lanes. Additionally, pedestrians must access the stations by crossing half of the intersection and waiting on the station platform in the median.

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.

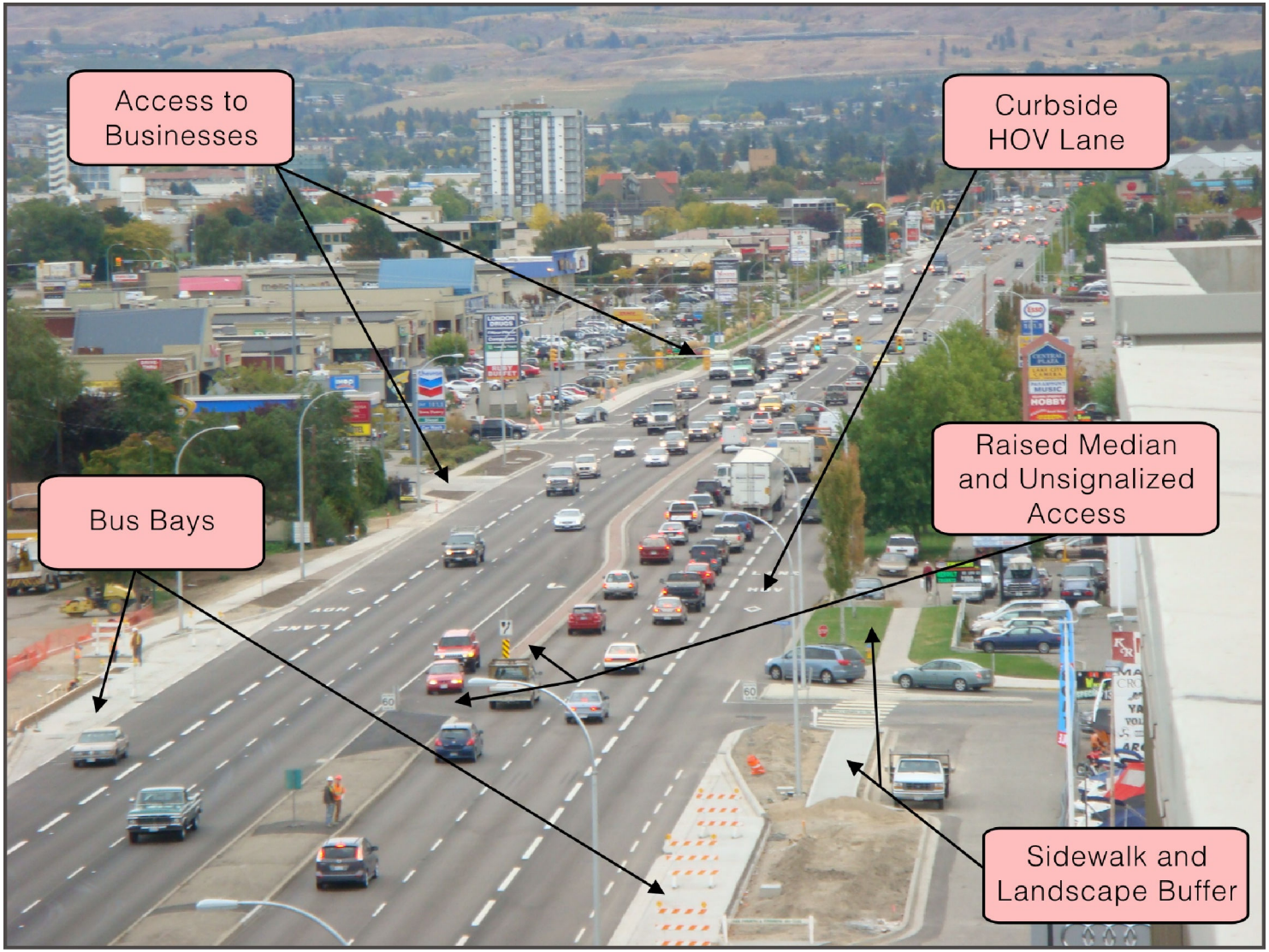
Arterial HOV lanes have been implemented for over 30 years in the U.S. and Canada. Most arterial HOV lanes operate in a curbside lane with bus bays. The operations of the HOV facility work well when the maximum HOV volume is between 200 and 400 vehicles per hour per lane, as the lane provides adequate 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

ALTERNATIVES EVALUATION

This section describes the tiered evaluation process, alternatives, and the results of the evaluation.

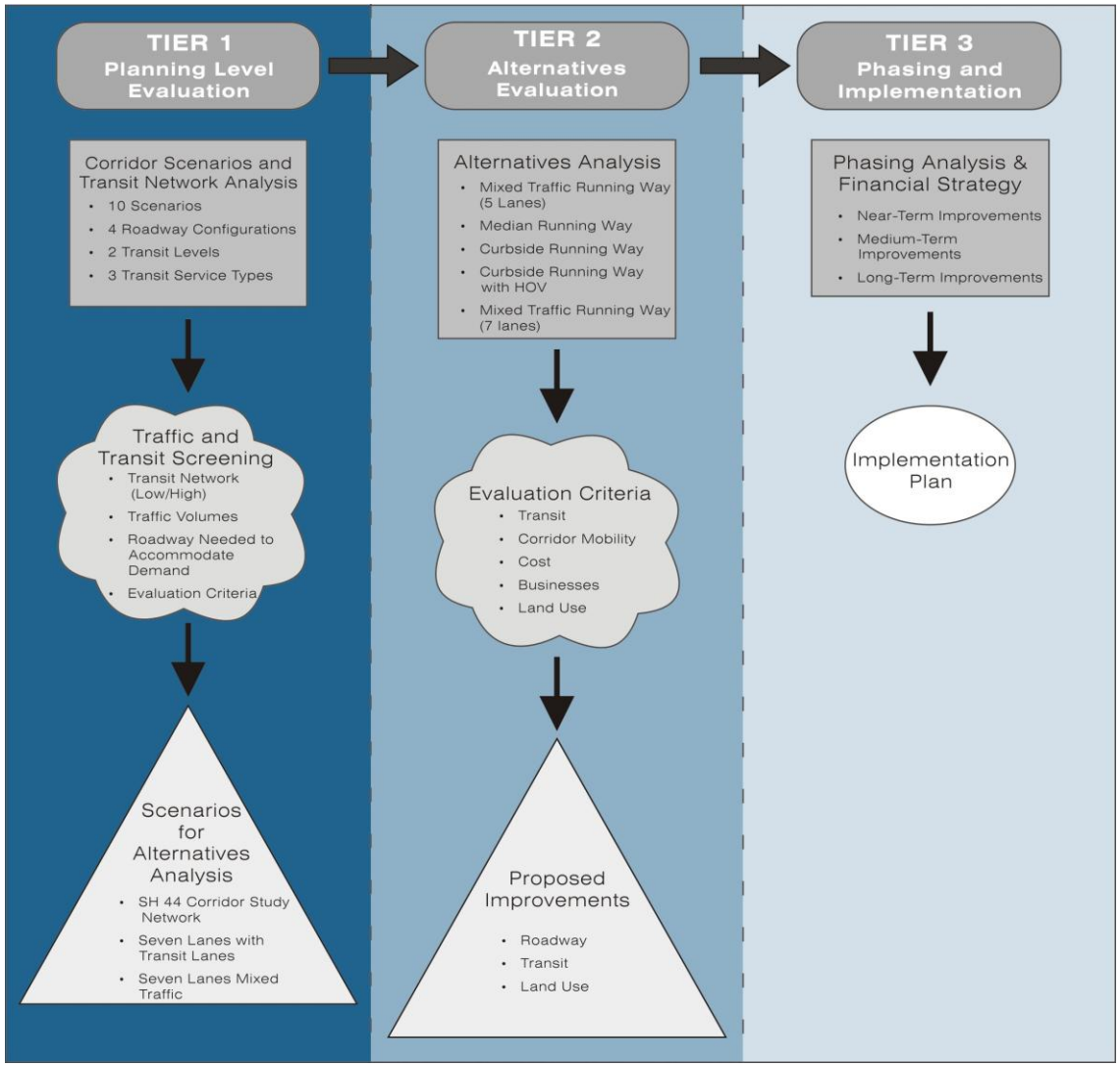
Tiered Evaluation Process

A three-tiered process was developed to evaluate the model scenarios and perform the alternatives evaluation (Technical Memorandum #5). Figure 17 illustrates the methodology of this tiered approach.

In Tier One, a high-level traffic and transit screening evaluation was performed on the ten travel demand model scenarios to narrow the scenarios for the alternatives analysis. The scenarios identified in Tier One were evaluated further in Tier Two.

Tier Two included the development of five alternatives and a detailed evaluation of these alternatives based on criteria developed as part of the project goals and objectives (Technical Memorandum #1). The Tier Two evaluation integrated the roadway, transit, and land use components of the corridor analysis. Tier Three incorporated the findings from the alternatives evaluation and developed a phasing plan to implement the long-term improvements. Tiers Two and Three are addressed in this section of the plan.

Figure 17 Evaluation Methodology



Overview of Alternatives

The following five alternatives, as shown in Figure 18, were developed for the corridor:

- Mixed-Traffic Running Way (5-lanes)
- Median Running Way (7-lanes)
- Curbside Running Way (7-lanes)
- Curbside Running Way with HOV (7-lanes)
- Mixed-Traffic Running Way (7-lanes)

The alternatives vary primarily by roadway cross-section and transit running way. The number of lanes listed above indicates the roadway width between SH 16 and 23rd Street. Given the built environment, no roadway modifications were assumed for the segment between 23rd Street and the future Downtown Boise Multimodal Center (Technical Memorandum #5).

The corridor was divided into four segments for the alternatives analysis due to differences in traffic volumes, land uses, and jurisdictions along the corridor. The segments are listed below:

- SH 16 to Eagle Road
- Eagle Road to Glenwood Street
- Glenwood Street to 23rd Street
- 23rd Street to Downtown Boise Multimodal Center

Evaluation Criteria

The five alternatives for each segment were scored using evaluation criteria grouped into five categories (transit, corridor mobility, cost, businesses, and land use). The criteria were developed through discussions and input from the PMT, CAC, and TAC, and are listed below.

TRANSIT

- Provision of dedicated transit lane
- Transit travel time
- Potential ridership
- Image
- Expansion of the transit system

CORRIDOR MOBILITY

- Accommodation of traffic demand
- Automobile travel time
- Conflicts between automobile and transit
- Person trips
- Pedestrian and bicycle conflicts

COST

- Ability for joint agency project
- Capital costs
- Operating costs
- Phasing adaptability

BUSINESSES

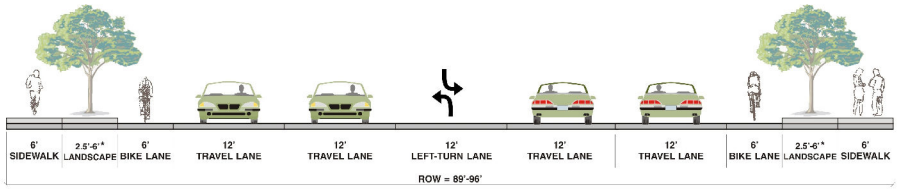
- Right-of-way impacts
- Impacts to existing businesses

LAND USE

- Consistency with corridor plans
- Consistency with land use plans
- Supportive of TOD

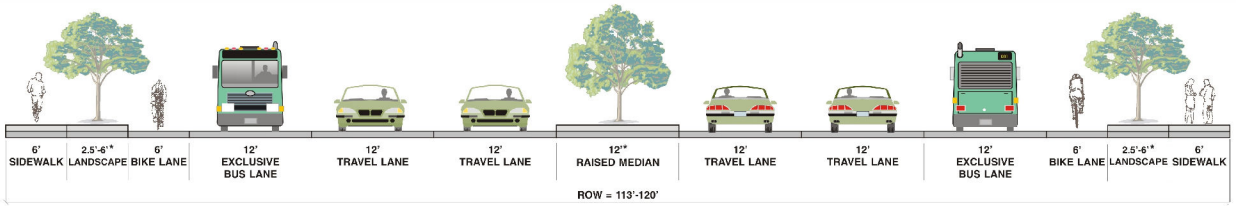
Each alternative was evaluated and scored based on these criteria.

Mixed Traffic Running Way (Five Lanes)

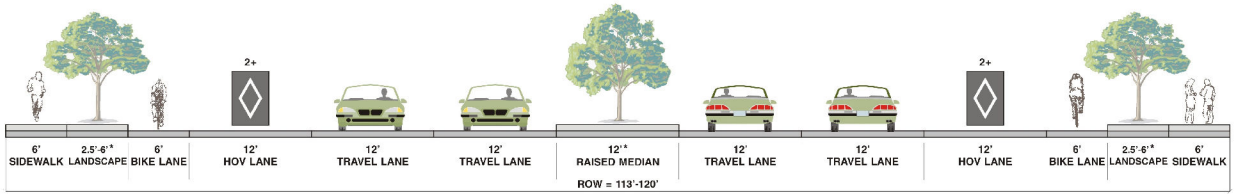


Median Running Way

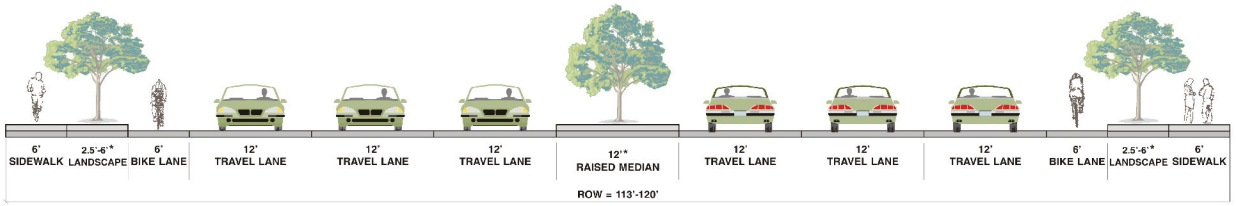
Curbside Running Way



Curbside Running Way with HOV



Mixed Traffic Running Way (Seven Lanes)



Note: The widths and landscape features shown above may change during the design phase of this capital project.

*** Landscaping for buffer and median could be provided on a case-by-case basis if funded and maintained by a developer or local jurisdiction.**

ALTERNATIVES CONSIDERED FOR YEAR 2035
ADA COUNTY, IDAHO

FIGURE 18

Technical Evaluation of Alternatives

The technical evaluation of the alternatives was performed by roadway segment due to the varying environment along the corridor.

SEGMENT 1 - SH 16 TO EAGLE ROAD

On the segment between SH 16 and Eagle Road, the Curbside Running Way with HOV alternative scored the highest with above average scores in all of the categories. This alternative balances the tradeoff between transit and corridor mobility, resulting in a higher score than the other alternatives.

SEGMENT 2 - EAGLE ROAD TO GLENWOOD STREET

The segment between Eagle Road and Glenwood Street has a great opportunity to provide a higher level of transit preferential treatment. The alternatives with the Median, Curbside, or Curbside with HOV Running Ways scored the highest over the two mixed traffic running way alternatives. All of these transit lane alternatives maintained a higher performance in transit, corridor mobility, and land use while balancing cost and impacts to businesses.

SEGMENT 3 - GLENWOOD STREET TO 23RD STREET

The segment from Glenwood Street to 23rd Street presents many challenges including congested traffic conditions and the generally built environment. The Curbside Running Way with HOV alternative scored the highest out of the five alternatives with above average performance in all of the categories. The HOV alternative scored higher in corridor mobility and cost (i.e., ability for joint agency project) than the other exclusive lane alternatives.

SEGMENT 4 - 23RD STREET TO DOWNTOWN BOISE MULTIMODAL CENTER

The segment between 23rd Street and the future Downtown Boise Multimodal Center was assumed to be a Mixed Traffic Running Way for year 2035 given the built environment. Future consideration of using routes parallel to State Street and/or contraflow lanes on State Street could be explored in future planning efforts. Improvements on this segment should be determined in coordination with CCDC's State Street streetscape standards.

ADDITIONAL TECHNICAL REVIEW

After the technical ranking of alternatives using the evaluation criteria, additional technical review was completed for the three transit lane alternatives and their application to State Street. The additional review compared the recommended alternatives to the general transit-usage criteria for transit lanes to determine if the

recommended configuration matched the expected transit usage by 2035.

Thresholds of use for certain types of transit lanes are important because they ensure adequate transit service is available. These thresholds can be used to identify when a transit lane may not be adequately utilized. Implementing an underutilized transit lane can cause public perception problems.

The planning thresholds for transit lanes (per hour per direction) are 20 to 30 buses for a curbside transit lane or HOV lane and 30 to 60 buses for a median running way. The planned year 2035 transit service for State Street is 18 buses per hour per direction between Eagle and Downtown Boise, which is comparable to the curbside transit lane or HOV lane criteria but significantly lower than the threshold for a median running way.

West of Eagle Road, the planned transit service is 6 to 10 buses per hour per direction, so a dedicated transit lane would appear unused. For this segment, a mixed traffic running way would be more applicable based on the 2035 horizon year.

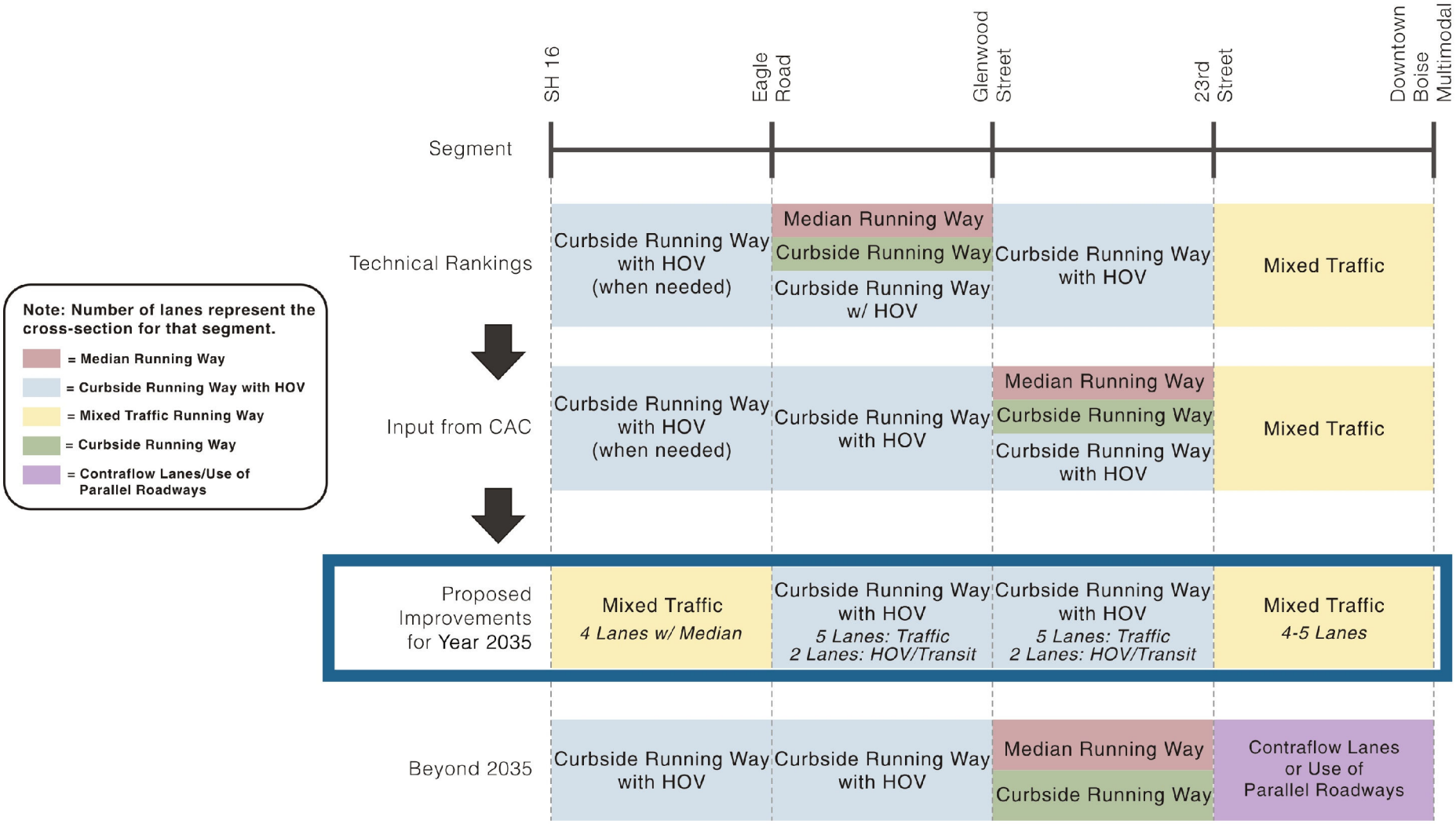
Development of Recommended Alternative

The technical rankings and additional technical review were presented to the TAC and CAC in October and November 2010 and to the public in December 2010. Figure 19 shows the development of the recommended alternative by segment based on input from the advisory committees.

Overall, the Curbside Running Way with HOV was supported for the corridor by the advisory committees and the public. Discussion occurred regarding a median running way (transit only) for the segment between 23rd Street and Glenwood Street. The technical analysis for this segment does not warrant a median running way given the projected transit levels for year 2035.

As shown in Figure 19, the recommended improvements include a Curbside Running Way with HOV between 23rd Street and Eagle Road and, when needed, a Curbside Running Way with HOV between Eagle Road and SH 16. These improvements include seven travel lanes with the HOV lane located in the outer (curbside) lanes, bike lanes, sidewalks, and a raised median.

Beyond 2035, several improvements were identified for consideration as the transit investment increases on the corridor, such as a Median Running Way or Curbside Running Way (refer to Figure 19 for improvements beyond 2035).



EVALUATION OF LONG-TERM IMPROVEMENTS
ADA COUNTY, IDAHO

FIGURE 19

PUBLIC INVOLVEMENT

A Public Involvement Plan (PIP) was developed that identified the following goals:

- Build understanding among the public and key leaders regarding the roles of TOD, traffic and transit improvements, and land use in creating a State Street transit corridor that functions well over the long term.
- Develop long-term advocates and funding proponents for the State Street vision within the community.
- Gather valuable input that will give VRT, ACHD, the Cities of Eagle, Boise, and Garden City, ITD, and COMPASS a sense of community priorities and goals for roadway, transit, and land use along State Street.

The specialized public involvement process included a Community Advisory Commitment (CAC), Technical Advisory Committee (TAC), and Public Open House. Information was provided via mailings, email, newspapers, and the project website.

Community Advisory Committee (CAC)

The CAC was formed in early 2010 to provide input and guidance during the plan process. The CAC included residents and members from over 70 agencies, organizations, residents, and businesses interested in improving this corridor (refer to page iii for a list of CAC members).

The CAC members met three times with the project team at the Northgate Shopping Center (twice) and Riverglen Junior High School (once). Each meeting lasted approximately 4½ hours and included presentations and break-out sessions with the CAC to obtain feedback on the following topics:

- Vision for State Street
- Types of development preferred along the corridor
- Alternatives being evaluated
- Proposed roadway, transit, and land use improvements

MEETING #1

Sixty-nine people attended the first CAC meeting in May 2010. The purpose of the meeting was to present the study purpose and vision, discuss the importance of leadership in implementing the vision, present and gather input regarding current and future transit and traffic conditions, and generate support for a multimodal corridor. After a presentation of the materials, a dinner discussion was held with the CAC in groups of 8 to 10 persons on the above topics.

CAC Meeting #1

The CAC dinner discussion and comments supported the vision for State Street and

identified many roadway, pedestrian, bicycle, transit, and land use changes needed to develop an integrated, multimodal corridor.

Participants wanted to see development types that include:

- Livable, walkable, and bikeable neighborhoods.
- Connected and integrated neighborhoods.
- Live and work opportunities in the same neighborhood.
- Sense of community and ownership within TOD nodes.
- Accessible neighborhood services.
- Variety of housing options.

Frequent responses for improvements to the corridor included adding sidewalks and bike lanes, improving the bicycle and pedestrian connections to the Greenbelt, improving the bus loading and bus bays, and expanding the transit frequency and options (CAC Meeting #1 Summary).

MEETING #2

Forty-five people attended the second meeting in September 2010. The purpose of the meeting was to present and gather input on the evaluation criteria and the proposed alternatives for the corridor.

In August 2010, 42 CAC members completed an online survey to provide the project team with input on the evaluation criteria. Figure 20 summarizes the online survey responses.

As shown in Figure 20, the majority of criteria were weighted for the evaluation of alternatives.

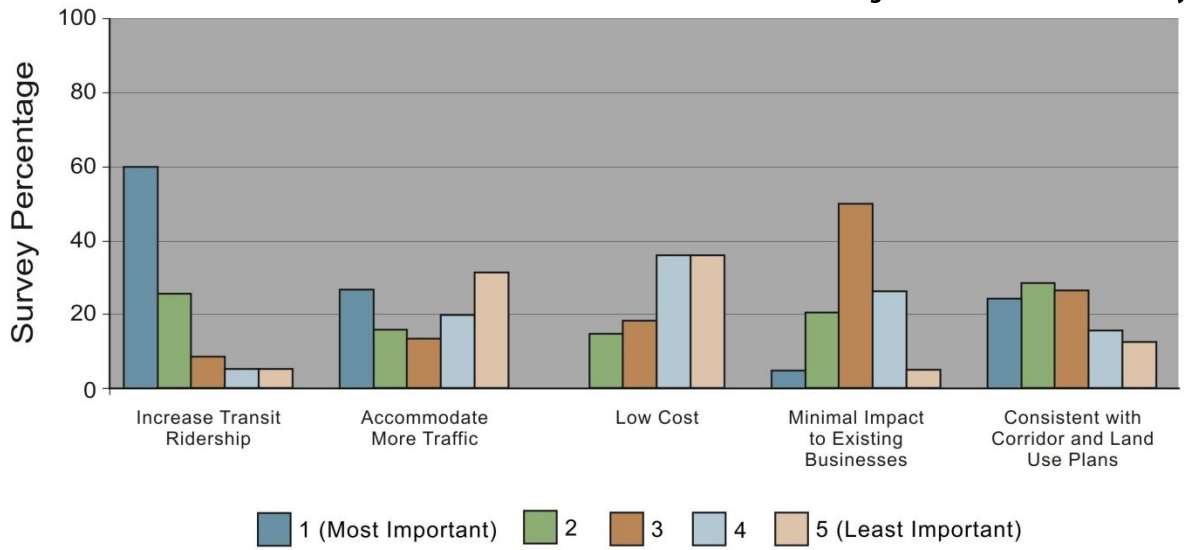
At Meeting #2, the CAC was separated into three groups and participated in break-out sessions about the corridor alternatives.

The CAC provided the following input on the alternatives by corridor segment.

Segment 1 – SH 16 to Eagle Road

The majority of participants supported the Curbside Running Way with HOV alternative with minor modifications and

Figure 20 Results of CAC Survey



- Provide bike lanes and sidewalks on both sides of the roadway
- Need landscaping

CAC Meeting #2

Segment 2 - Eagle Road to Glenwood Street

Most participants supported the Curbside Running Way with HOV alternative with minor modifications, including:

- Match this segment to Segment 1
- Start with a concept that will transition the community to rapid transit
- Consider curb, gutter, sidewalks, and separated pathways for bikes
- Consider trees and landscaped medians
- Allow for transitioning to an exclusive bus lane

Segment 3 - Glenwood Street to 23rd Street

The majority of participants supported one of the Median Running Way, Curbside Running Way, or Curbside Running Way with HOV alternatives with minor modifications, including:

- Add more landscaping
- Provide easy U-turns at intersections
- Add separated bike paths
- Increase transit
- Add raised median for less accidents, however raised medians are a bad idea for emergency response
- Use of outside lane should evolve on its own
- Need to have more flexibility with the selected alternative

Segment 4 - 23rd Street to Downtown Boise Multimodal Center

Participants supported having transit travel in a Mixed Traffic Running Way, but identified the following future considerations for this segment:

- Contraflow option from 23rd Street to the Downtown Boise Multimodal Center or use of Jefferson Street as an alternate route to Downtown Boise Multimodal Center
- Dedicated transit lanes on Bannock and Idaho Streets to 23rd or 27th Street
- Implications to one-way/two-way street conversions (CAC Meeting #2 Summary)

MEETING #3

Forty-one people attended the third meeting in November 2010. The purpose of the meeting was to present and gather input on the following items:

- The near-, medium-, and long-term recommended improvements for the State Street corridor
- The plan for implementing the recommended improvements
- The December open house

At Meeting #3, the CAC was separated into three groups and participated in break-out sessions to discuss the near-term, medium-term, and long-term improvements for the corridor.

Overall, attendees generally supported the plan.

CAC Meeting #3

- Attendees saw a need for coordination between the elements of the plan.
    - TOD nodes should be located with Park & Rides.
    - Land use and future developments should be considered.
    - Public and private sectors should work together.
- Improvements should make it easier for pedestrians, bicyclists, and elderly or disabled patrons to use transit (i.e., bike lockers, bike lanes, bike racks on buses, sidewalks, pavement, proximity of bus stops to shopping, transfer times, etc.).
- Transit should include more feeder routes and north/south routes.
- School buses should not stop on State Street.
- Some wanted more information about specific timelines, funding, and the extent and location of pedestrian improvements.
- Some felt the plan was not ambitious enough for the planning horizon, and transit improvements should be constructed sooner (CAC Meeting #3 Summary).

SUMMARY

In summary, the CAC contributed greatly to the development of this Implementation Plan. The following comments are just a snapshot of the overall input received from the CAC.

- Support the vision for State Street
- Support bike lanes and pedestrian facilities on both sides of the roadway along the entire corridor
- Support expanding transit service and increasing frequency along the corridor
- Support a dedicated transit lane alternative between SH 16 and 23rd Street, although the specific running way (median, curbside, or curbside with HOV) and timing of

implementing a dedicated transit lane varied by segment

- Support the TOD sites and opportunities to connect and integrate neighborhoods
- Support the proposed improvements with concern about securing funding and a need for coordination between the elements of the plan

Technical Advisory Committee (TAC)

A TAC was formed in early 2010 to provide technical input and guidance during the plan process. The committee met three times at the ACHD auditorium (3-hour meetings) and one time at COMPASS, and included staff members from ACHD; the Cities of Boise, Eagle, and Garden City; COMPASS; ITD; Northside Neighborhood Transportation Committee; VRT; and the State Street Program Coordinator (Refer to page iv for a list of TAC members).

The TAC members discussed and provided input on the following key topics:

- Consistency of State Street TTOP findings and recommendations with past and ongoing studies
- Traffic volume projections and operations on the corridor
- Locations of TOD
- Evaluation criteria
- Range of alternatives evaluated
- Elements of BRT and other high capacity transit systems including station locations and interaction with other modes
- Elements of HOV systems including education and enforcement
- Accommodation of pedestrian and bike facilities
- Access management issues and plans along the corridor

Public Open House

The agencies along the corridor hosted a State Street TTOP Public Open House on Thursday, December 2, 2010. The open house was held from 5:00 to 8:00 p.m. at Riverglen Junior High School.

A separate businesses open house was held from 4:00 to 5:00 p.m. to give business representatives one-on-one time with staff.

The purpose of the open house was to present and gather comments on the proposed improvements to State Street between the future Downtown Boise Multimodal Center and SH 16. Approximately 120 people attended, including over 25 businesses/proprietors, and 42 people provided written comments.

Public Open House

The key conclusions based on comments received from the public include:

- Attendees **supported** the overall plan.
- The **three most important issues** for participants were:
  - Expanding transit service,
  - Improving traffic flow, and
  - Improving safety.
- Attendees **supported** the proposed improvements for transit, roadway, bicycle/pedestrian, and land use.
- Attendees **supported** HOV lanes and the TOD locations in the plan.
- Attendees provided a variety of suggestions about funding the plan, including different types of new taxes/fees and waiting on new taxes because of the current economy (Public Open House Summary).

Public Open House

Information about the project was also provided to the public through a website, shown in Figure 21. All project materials are posted at www.kittelson.com/statestreetcorridorstudy.

Figure 21 State Street TTOP Website

VRT VALLEY REGIONAL TRANSIT

HOME OVERSIGHT PROJECTS/STUDIES THE NEWS PROCUREMENTS ABOUT VRT Web Site Search

Monday, December 06, 2010 ..:: PROJECTS/STUDIES » STATE STREET CORRIDOR STUDY » TRANSIT AND TRAFFIC OPERATIONAL PLAN ::.. Login

State Street Transit and Traffic Operational Plan

ABOUT THIS PROJECT
PROJECT OUTCOMES
SCHEDULE AND ACTIVITIES
PUBLIC INVOLVEMENT

ABOUT THIS PROJECT

State Street is the only Treasure Valley roadway that connects the communities of Star, Eagle and Boise. As the population of the Treasure Valley grows, State Street will require improvements to accommodate increased traffic along the corridor.

This project will identify and prioritize specific transit and traffic improvements that will develop State Street into a premier transit corridor in the Treasure Valley. This 15-month study builds upon the transit vision established during the State Street Corridor Strategic Plan Study in 2004.

The **2002-2004 State Street Corridor Strategic Plan** concluded that the most effective strategy for future transit would be to plan dedicated lanes that could accommodate high capacity transit operations, such a high-speed bus or light rail system. The study also found that implementing a high capacity transit system would require more than enhancing transit and traffic conditions; for this strategy to be successful, future development along State Street must be planned to support high capacity transit.

After completion of the above plan, a memorandum of understanding was developed and agreed upon by the partnering agencies to identify the roles and responsibilities of each agency in implementing this vision.

As part of this implementation, the **State Street Corridor Market Strategy** and **State Street Transit Oriented Development Guidelines** were completed to assist with identifying the market perspective on State Street and the guidelines for transforming State Street into a regional transit priority corridor. The State Street Alignment and Right-of-Way study is currently ongoing project by ACHD to locate the preferred centerline of the proposed seven-lane section and identify the needed right-of-way on State Street from Glenwood Street to 23rd Street.

PROJECT OUTCOMES

The State Street Transit and Traffic Operational Plan (TTOP) will make recommendations regarding:

- Traffic and transit improvements between downtown Boise and State Highway 16
- Land uses and how they might develop
- Alternate routes through Eagle and to downtown Boise
- An implementation plan and financial strategy for the identified improvements

STUDY AREA MAP

Back to Top

ADDITIONAL RESOURCE MATERIALS

- Technical Advisory Committee Meetings
- Maps
- Project Deliverables
- Learn More About Transit Options
- Library of Related Studies and Documents

CLICK BELOW FOR:

Terminology List
Acronym List

STUDY AREA MAP

IMPLEMENTATION STRATEGY

This section describes the phased implementation strategy for achieving an integrated State Street corridor. The implementation is divided into three phases of improvements: near term, medium term, and long term. The sequential phases are not associated with specific years, but instead they are dependent on thresholds for roadway, transit, and land use that indicate when each phase should begin. The improvements in each phase are characterized as roadway, transit, or land use projects. Details about each recommended project are provided in tables that identify the lead agency and anticipated cost for each project.

This Implementation Plan is unique because it includes roadway, transit, and land use improvements over the same planning horizon. In other locations across the country, corridor planning has occurred when at least one of the key components of an integrated corridor had been achieved. For example, Salt Lake City, Utah had developed a robust, regional transit system in the early 1980s. This system provided a solid base to begin implementing high capacity transit service on key corridors, since bus frequency and ridership had already been established at a high level. The solid transit base supported new development, as well as moving toward implementation of light rail transit, BRT, and commuter rail to continue to build this regional transit system. The region has major plans to implement over ten BRT routes to support improved transit service and TOD development.

The future of the State Street corridor relies on the shared roles of the roadway, transit, and land use agencies to lead the projects and collaborate with each other to achieve an integrated corridor.

Phasing Strategy

The Implementation Plan has been developed around a future year 2035 planning horizon, but most of the phased near-term, medium-term, and long-term improvements are not tied to specific years. The improvements are organized into phases with corresponding triggers for each phase. The triggers are thresholds based on traffic volumes or HOV lane use, transit ridership, and land use conditions that indicate when the given phase should begin. Individual activities within each phase may also have prerequisites that must be completed before that specific activity can be started.

Within each phase, the implementation activities are organized by milestones. The milestones are key steps in the implementation process that are achieved once the supporting activities for each milestone have been completed. The milestones provide the chronological framework for a successful implementation, but individual activities can be started before previous milestones have been achieved.

Near-Term Improvements

The purpose of the near-term improvements is to grow the existing

transportation system and develop a Land Use Master Plan for the State Street corridor. The near-term improvements can begin immediately and include increasing service of the existing transit routes, filling in gaps in the pedestrian and bicycle facilities, and implementing ITS technologies to move people more efficiently. The near-term improvements are divided into the following milestones:

- Milestone #1 – Upfront Corridor Improvements
- Milestone #2 – Expand Existing Transit Service and Park & Ride Lots
- Milestone #3 – Prepare for Medium-Term Improvements

Figure 22 shows the key recommended roadway, transit, and land use improvements for the near term. Descriptions of the key near-term improvements are provided in the following sections. Detailed information on these improvements can be found in Table 1 in the Implementation Tables section.

A major activity included in the near-term is for the agencies to develop a Programming and Finance Plan of the State Street TTOP Implementation Plan. This activity will include a specific funding plan identifying/describing how the roadway, transit, and land use activities will be funded through the planning horizon.

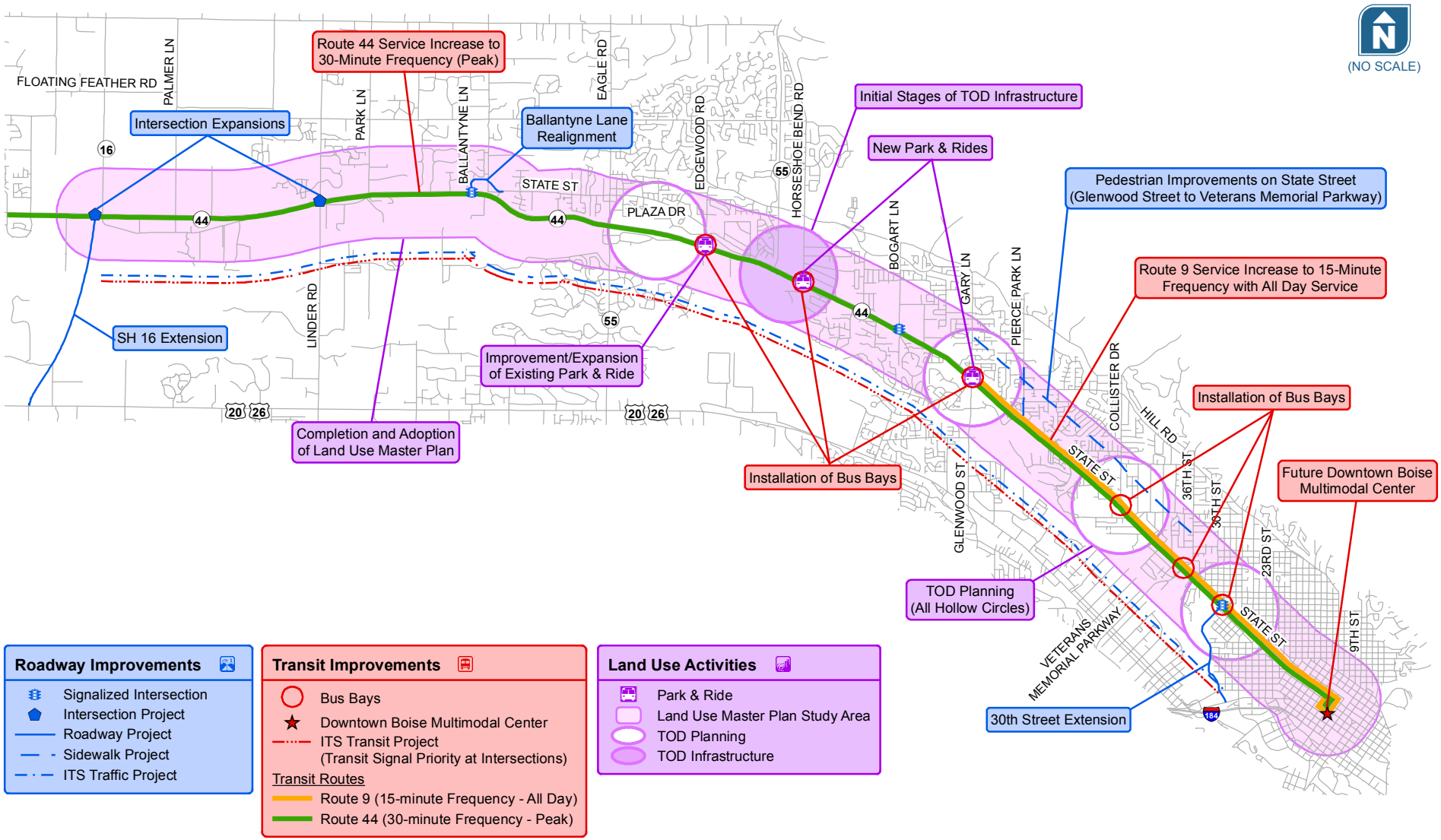
ROADWAY

As part of the near-term goal of growing the existing transportation system on State Street, the recommended near-term roadway improvements include enhancements to the pedestrian facilities between Glenwood Street and Veterans Memorial Parkway and automobile facilities without widening the roadway, such as the implementation of ITS infrastructure. The ITS infrastructure includes signal controller upgrades, fiber optic communications, dynamic message signs, signal timing, and transit signal priority. The SH 16 and 30th Street extension projects are identified in the near-term as supportive improvements to State Street corridor.

An Access Management Plan, coordinated between ACHD and the land use agencies, should be prepared between Glenwood Street and 23rd Street. This plan should be prepared in conjunction with the Land Use Master Plan.

TRANSIT

The recommended near-term transit improvements include increasing the frequency and span of service of the existing Routes 9, 9X, and 44. Based on the future conditions analysis, a significant increase in ridership is expected by increasing the transit service along the corridor. Other near-term transit improvements include bus stop improvements, a bus bay location plan and improvements, and transit signal priority on the corridor.



KEY RECOMMENDED NEAR-TERM IMPROVEMENTS
ADA COUNTY, IDAHO

FIGURE 22

LAND USE

The near-term land use activities are focused on constructing Park & Ride lots to support the transit expansion and completing a Land Use Master Plan for the corridor. Many of the recommended land use improvements depend on the completion and adoption of a Land Use Master Plan. The Master Plan will be used as a roadmap to guide housing investments, land development, transportation, and economic development over the next 20 years.

The land use agencies must work with businesses and downtown communities to encourage more transit use through employer incentives, reduced fees for transit passes, and adjusting downtown parking fees. Planning for TOD site development at 30th Street, Collister Drive, Glenwood Street, and Plaza Drive and a regional Park & Ride system should also begin in the near term.

In addition, the initial stages of TOD infrastructure should continue to occur at the Horseshoe Bend Road-SH 55 site. Infrastructure at this site was identified in the near term because of the TOD-supportive policy decisions currently being made by the Cities of Eagle and Garden City.

Medium-Term Improvements

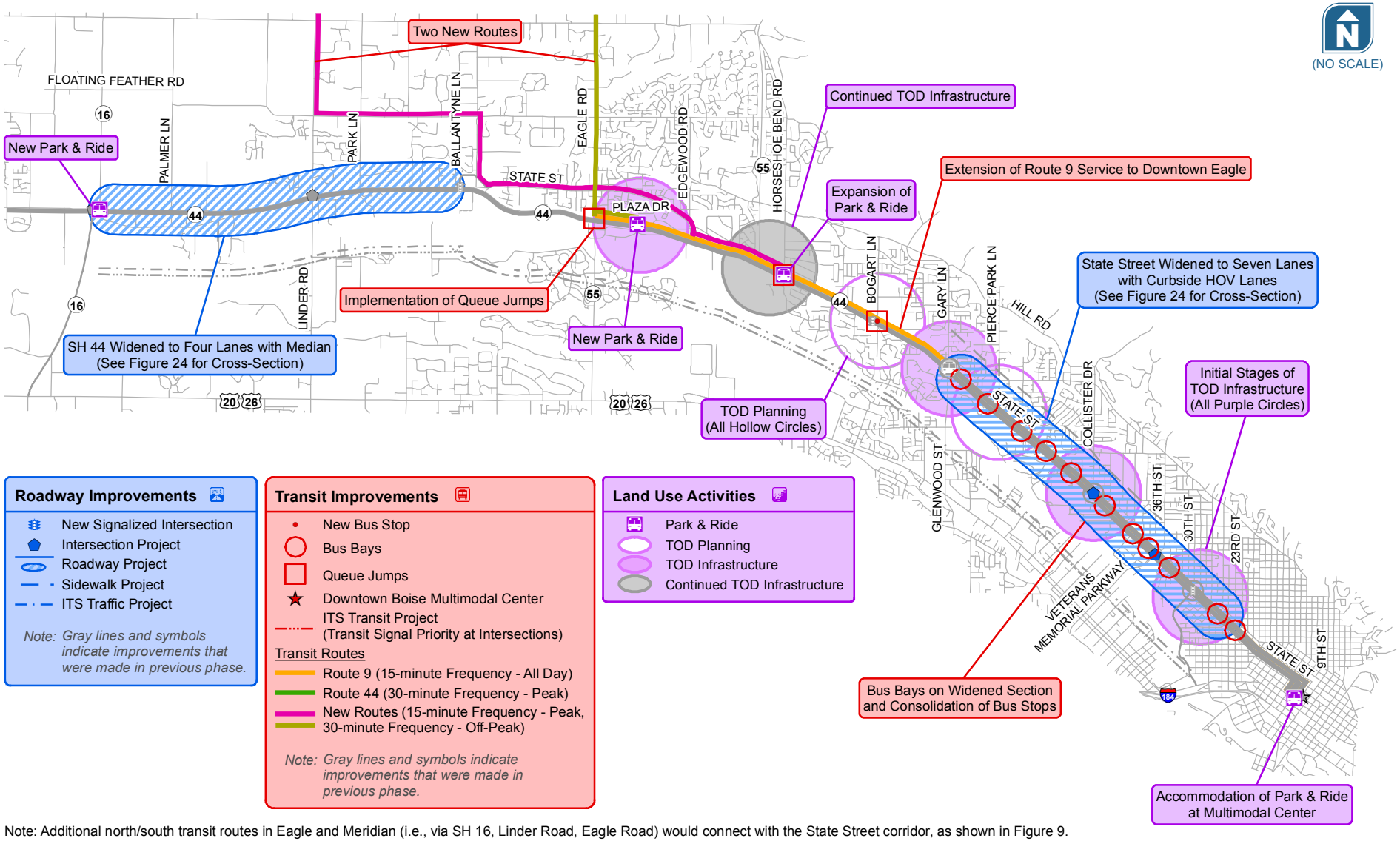
The purpose of the medium-term improvements is to create the multimodal connections and prepare the components of an integrated corridor. The medium-term improvements should begin when the following triggers have been met:

- Traffic: Average Daily Traffic Volume (ADT) > 43,000 east of Glenwood Street
- Transit: 1,500 riders per day
- Land use: Completion of the Land Use Master Plan; Park & Rides at Glenwood Street, Horseshoe Bend Road-SH 55, and Plaza Drive; initial TOD site development at Horseshoe Bend Road-SH 55; and TOD site plans for 30th Street, Collister Drive, Glenwood Street, and Plaza Drive

The medium-term improvements focus on expanding the transit service, providing additional roadway capacity, and increasing TOD and Park & Ride lots along the corridor. The medium-term improvements are divided into the following milestones:

- Milestone #4 – Pre-HOV Development
- Milestone #5 – Initial Land Development Changes
- Milestone #6 – Roadway Expansion

Figure 23 shows the key recommended roadway, transit, and land use improvements for the medium term. Discussion of the key medium-term improvements are provided in the following sections. Detailed information on these improvements can be found in Table 2 in the Implementation Tables section.



Note: Additional north/south transit routes in Eagle and Meridian (i.e., via SH 16, Linder Road, Eagle Road) would connect with the State Street corridor, as shown in Figure 9.

KEY RECOMMENDED MEDIUM-TERM IMPROVEMENTS
ADA COUNTY, IDAHO

FIGURE 23

ROADWAY

An Access Management Plan led by ITD should be prepared between Glenwood Street and Eagle Road. This plan is contingent on the development and implementation of the Land Use Master Plan.

The recommended medium-term roadway improvements include intersection enhancements and widening segments of SH 44 and State Street to accommodate additional traffic demand and provide multimodal connections. Intersection improvements are identified for Glenwood Street and Veterans Memorial Parkway.

The cross-sections for widening State Street and SH 44 are shown in Figure 24. The roadway project on State Street includes constructing a curbside HOV lane for carpools, vanpools, buses, and right-turning vehicles between 23rd Street and Glenwood Street. This project also includes the addition of bike lanes and completing the pedestrian connections in this segment.

The widening of State Street for HOV lanes should occur at the end of the medium term based on the timing of other medium-term improvements.

TRANSIT

The recommended medium-term transit improvements include expanding the service along the State Street corridor to serve Eagle and the addition of two north/south feeder routes in Eagle that connect to State Street. Additionally, queue jump lanes and bus bays are identified at key locations on the corridor.

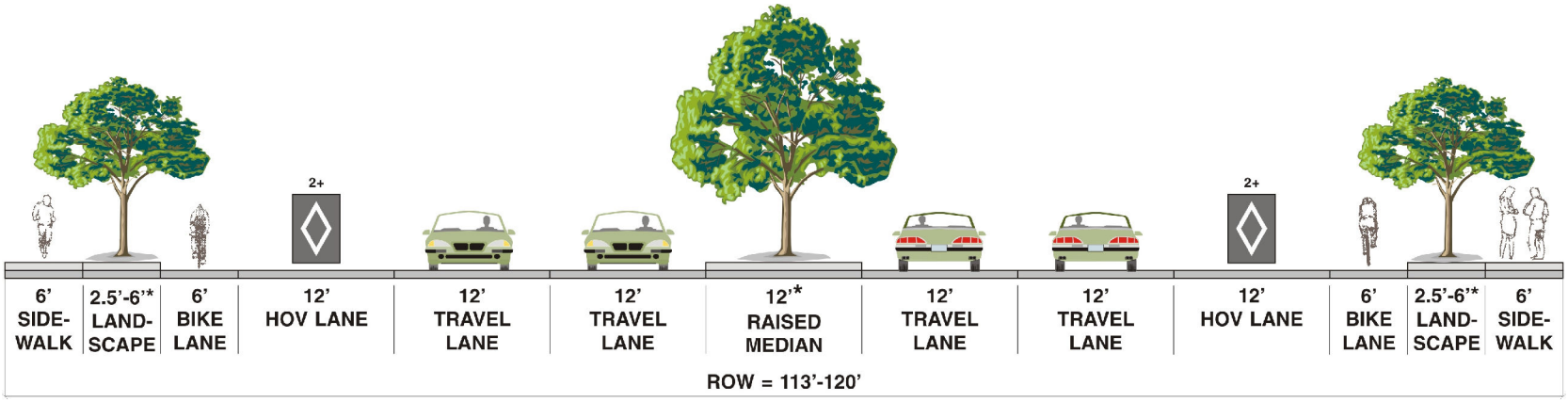
LAND USE

The recommended medium-term land use improvements build on the planning and TOD development work in the near term by continuing TOD site development and Park & Ride construction and expansions, including new Park & Ride lots at SH 16 and Plaza Drive.

The photo simulations shown to the right and on page 60 illustrate what each TOD area may look like with the recommended medium-term improvements at 30th Street, Glenwood Street, and Plaza Drive. The medium-term improvements identify a combination of multimodal improvements with some activity toward TOD. The photo simulations are for visualization only in illustrating the recommendations. The final TOD site and access details would be determined through a planning and design process with the respective agencies.

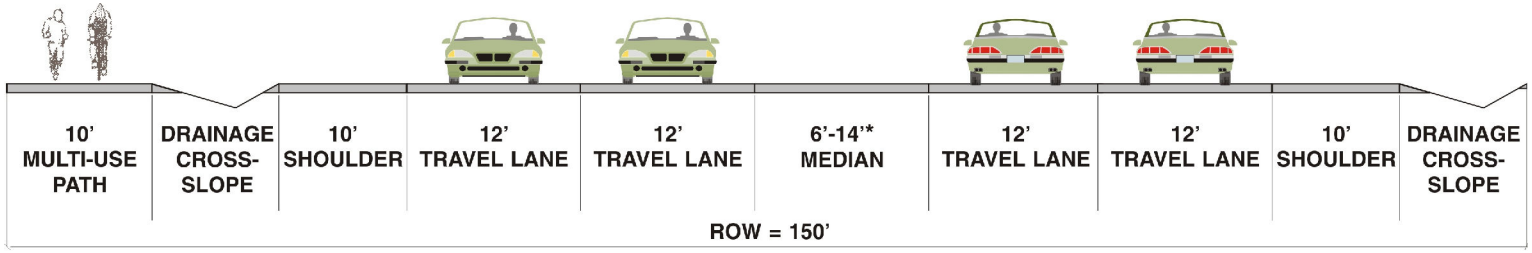
State Street/30th Street in Medium Term

STATE STREET WIDENED TO SEVEN LANES WITH CURBSIDE HOV LANES (23RD STREET TO GLENWOOD STREET)



Note: The widths and landscape features shown above may change during the design phase of this capital project.
**Landscaping for buffer and median could be provided on a case-by-case basis if funded and maintained by a developer or local jurisdiction.*

SH 44 WIDENED TO FOUR LANES WITH MEDIAN (BALLANTYNE LANE TO SH 16)



Note: The draft SH 44 Corridor Study includes the above draft cross-section and has not yet been approved.
**Varies 6'-14' based on access control*

RECOMMENDED CROSS-SECTIONS FOR STATE STREET AND SH 44
ADA COUNTY, IDAHO

FIGURE 24

State Street/Glenwood Street in Medium Term

SH 44 at Plaza Drive in Medium Term

Long-Term Improvements

The purpose of the long-term improvements is to achieve the vision of an integrated corridor on State Street. The long-term improvements should begin when the following triggers are met:

- Traffic: ADT >43,000 west of Glenwood Street and peak hour HOV lane usage >200 vph east of Glenwood Street
- Transit: 3,000 riders per day
- Land Use: Continued TOD site development at 30th Street, Collister Drive, Glenwood Street, Horseshoe Bend Road-SH 55, and Plaza Drive; and Park & Ride at SH 16

The long-term improvements continue to focus on providing additional roadway capacity, expanding the transit service, and increasing TOD along the corridor. The long-term improvements are divided into the following milestones:

- Milestone #7 – Land Development is Ready
- Milestone #8 – High Capacity Transit Corridor

Figure 25 shows the key recommended roadway, transit, and land use improvements for the long term.

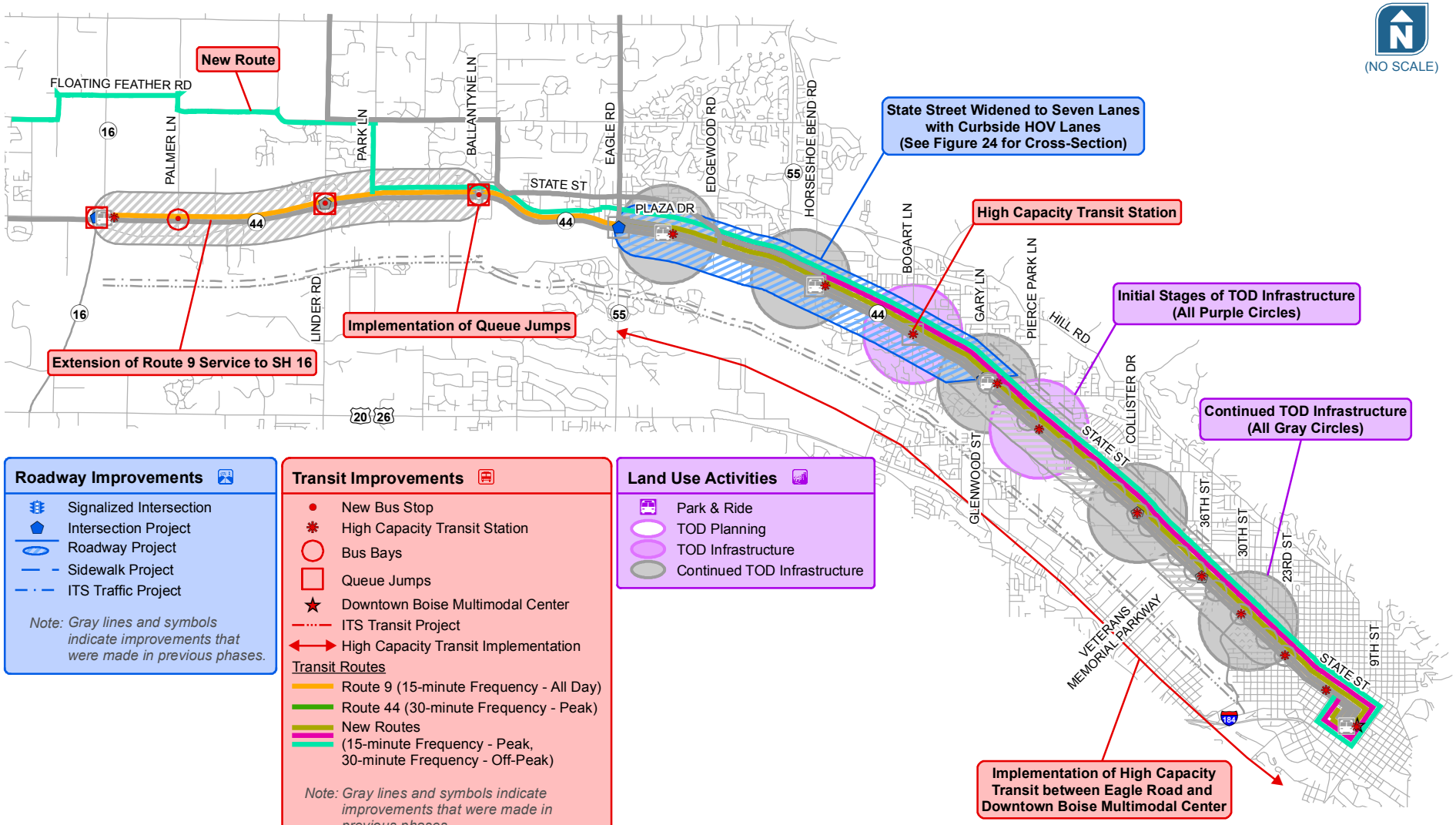
Descriptions of the key improvements are provided in the following sections. Detailed information on these improvements can be found in Table 3 in the Implementation Tables section.

ROADWAY

The recommended long-term roadway improvements include continuing to increase capacity on the corridor through widening SH 44 between Eagle Road and Glenwood Street (with the HOV cross-section shown in Figure 24) and constructing intersection improvements at SH 44/SH 16 (future interchange), SH 44/Eagle Road (high-capacity intersection), and State Street/Glenwood Street (high-capacity intersection).

TRANSIT

The recommended long-term transit improvements focus on expanding and improving the quality of the transit service along the State Street corridor. This



Note: Additional north/south transit routes in Eagle and Meridian (i.e., via SH 16, Linder Road, Eagle Road) would connect with the State Street corridor, as shown in Figure 9.

KEY RECOMMENDED LONG-TERM IMPROVEMENTS
ADA COUNTY, IDAHO

FIGURE 25

includes expanding the service along the State Street corridor to SH 16, the addition of a third north/south feeder route that connects to State Street, and potentially extending the feeder routes to the Downtown Boise Multimodal Center .

One of the major activities during the long term is preparing a National Environmental Protection Act (NEPA) and Federal Transit Administration (FTA) application for a high-capacity transit service for the corridor. This application is an alternatives study to meet federal requirements and move toward implementing a high-capacity transit service between the Downtown Boise Multimodal Center and Eagle Road. Additionally, the long-term improvements include ITS transit technologies at stations, such as off-board fare collections and traveler information systems, to support the high-capacity transit service.

LAND USE

The recommended long-term land use improvements focus on continuing to increase TOD on the corridor. The long-term improvements include continued development at sites that were planned during the near- and medium-terms as well as TOD planning and initial stages of development at two new sites (Pierce Park Lane and Bogart Lane) along the corridor.

The photo simulations shown on this page illustrate the increased intensity of TOD development that could be expected to occur with the recommended long-term improvements. The photo simulations are for visualization only in illustrating the recommendations. The final TOD site and access details would be determined through a planning and design process with the respective agencies.

State Street/30th Street in Long Term

State Street/Glenwood Street in Long Term

SH 44 at Plaza Drive in Long Term

Implementation Tables

The near-term, medium-term, and long-term activities prepare the corridor for implementation of multimodal infrastructure, a high-capacity transit option, and TOD to realize an integrated corridor in the long-term planning horizon.

Tables 1, 2, and 3 summarize the specific activities that support implementation of the near-term, medium-term, and long-term phases, respectively. These activities are described in each table by identification number, lead agency, cost, and project status where applicable.

Planning-level cost estimates of each activity are provided in the tables. The cost estimates were developed based on several sources:

- ITD Statewide Transportation Improvement Plan,
- ACHD 5-Year Work Plan,
- Review of past studies, and
- Input from various agency staff.

Additionally, many activities identified in the Implementation Plan are "new" projects, so planning-level cost estimates (2010 dollars) were developed based on information included in the Transit Operations Plan and typical costs for these types of projects. Cost estimates are omitted for some activities due to the following:

- Costs for that activity are being developed as part of another ongoing study.
- Costs for right-of-way associated with the State Street improvements should be updated with the future costs estimates from the ACHD Right-of-Way and Alignment Study.
- Some activities are associated with land development (i.e., TOD), which would typically be led through the private sector.
- Some activities include mostly agency administrative or staff time.

The costs and funding strategies for the funded, unfunded, and new projects are discussed in the Financial Strategy section.

Several abbreviations and references are included in the three tables and described below. Each table includes blue, red, and purple shading which corresponds to the roadway, transit, and land use activities, respectively. Additionally, white shading is provided for some activities, as the activity type falls under a more general category and can be led by various agencies.

Color Key in Tables

Activity Type	Color
Roadway	
Transit	
Land Use	
Combination	

ID # and Prerequisites

- N: Near-term
- M: Medium-term
- L: Long-term

Activity

- Description and location provided for the study, plan, capital project, or policy.

Lead Agency

- The lead agency or agencies identified for each activity. The activity costs may be the burden of one agency or a shared cost between multiple agencies.

Cost

- F: Funded
- UF: Unfunded
- N/A: Not applicable
- VRF: Vehicle Registration Fee
- ACHD 5-YR: ACHD 5-Year Work Plan
- Note: All costs are based on 2010 dollars.

Status

- Ongoing: Activity is currently underway by the agency.
- New: Activity is not identified on a plan and is new to State Street or the region.
- Year: Activity is programmed for that year in a plan.
- PD: Preliminary Development (PD) project that currently has no funding year committed but is identified as a need.

Table 1 Implementation Plan for Near-Term Corridor Improvements

ID #	Prerequisites	Activity	Lead Agency	Cost	Status
Milestone #1 – Upfront Corridor Improvements					
N-1	None	*Programming and Finance Plan:* Develop a funding plan for the range of roadway, transit and land use improvements on the corridor. The plan needs to include a specific funding plan for the near-, medium-, and long-term phases of the corridor and should be updated under each phase.	VRT, Boise, Eagle, Garden City, COMPASS, ITD, ACHD	N/A	New
N-2	None	*State Street Right-of-Way and Alignment Study (23rd Street to Glenwood Street)*: Complete and adopt this study.	ACHD	$63K (F)	Ongoing
N-3	None	*Corridor-wide Land Use Master Plan:* Prepare and adopt a Master Plan that will be used as a roadmap to guide housing and employment investments, land development, transportation, and economic development over the next 20 years. This plan should be completed in conjunction with the Access Management Plan between 23rd Street and Glenwood Street.	Boise, Eagle, Garden City	$700K (UF)	New
N-4	N-3	*Comprehensive Land Use Plan Changes:* Update comprehensive plans based on the adopted Master Plan.	Boise, Eagle, Garden City	N/A	New
N-5	None	*Access Management Plan (23rd Street to Glenwood Street)*: Develop and adopt an Access Management Plan. This plan should be completed in conjunction with the *Land Use Master Plan.*	ACHD	$200-250K (UF)	New
N-6	None	*SH 44 Corridor Preservation Study (Ballantyne Lane to I-84):* Complete and adopt a corridor plan that identifies future right-of-way needs, proposed lane configurations, environmental document, and an access management plan.	ITD	$400K (F)	Ongoing
N-7	None	*State Street Corridor Website:* Develop and maintain a corridor-wide website for communicating to the public.	COMPASS, VRT	$10K / yr (UF)	New
N-8	None	*State Street Steering Committee:* Continue to utilize the steering committee as a resource for coordinating the implementation plan activities.	COMPASS	N/A	Ongoing
N-9	None	*Community Advisory Committee:* Identify opportunities to bring together this group for continued implementation of this plan, as well as informing them of projects, meetings, and public open houses occurring on the corridor.	COMPASS	N/A	Ongoing
N-10	None	*Idaho 16, I-84 to Idaho 44 Environmental Study:* Complete and adopt preliminary engineering, environmental documentation, and a preferred alternative for a potential new roadway between I-84 and Idaho 44.	ITD	$7 million (F)	Ongoing
N-11	None	*Idaho 16, U.S. 20/26 to Idaho 44 Improvements:* The ultimate design for SH 44/SH 16 is a grade-separated interchange. The interim design is a 7-lane at-grade intersection to the west of the existing intersection. This project would construct the improvements at the intersection and provide the connection between US 20/26 and Idaho 44.	ITD	$116 million (GARVEE)	Ongoing
N-12	None	*Bus Stop Improvements (Glenwood Street to Downtown Boise Multimodal Center):* 12 bus stop locations are being improved with ADA Enhancements and location specific improvements to maximize the safe and efficient flow of traffic and facilitate passenger access. *Cost estimates are being developed by VRT for the State Street bus stops (Refer to ADA improvements project)*	VRT	$30K (F)	Ongoing
N-13	None	*Downtown Boise Multimodal Center:* A multimodal center would be built to consolidate local and regional transit	VRT	$12 million	2012

ID #	Prerequisites	Activity	Lead Agency	Cost	Status
		services in downtown Boise.		(Earmarked)	
N-14	None	*Pedestrian Improvements (Veterans Memorial Parkway to Collister Drive):* Construct a pedestrian walkway on the north side of State Street between Collister Drive and Veteran's Memorial Parkway.	ACHD	$537K (ACHD VRF)	2012
N-15	None	*SH 44 / State Street / Ballantyne Lane Realignment Intersection Improvements:* Realign State Street and Ballantyne Lane to connect to SH 44 west of the current State Street intersection and signalize the intersection.	ACHD	$2.25 million (ACHD 5-YR)	2012
N-16	None	*Pedestrian Improvements (Glenwood Street to Collister Drive):* This two-phased project would ultimately complete concept, design, right of way, and construction of pedestrian facilities for both sides of State Street in this 2 mile segment. Phase I will be from Collister Drive to Ellens Ferry Drive (1 Mile).	ACHD	$1.5 million (COMPASS Special Project)	2016
N-17	None	*State Street ITS Upgrade:* Implement CCTVs, speed detectors, dynamic message signs, and traffic signal upgrades.	ACHD	$1 million (ACHD 5-YR)	2012
N-18	None	*State Street Signal Timing* (Saxton Road to SH 16)*:* Develop and implement coordinated signal timing plans.	ACHD	$50K (Stimulus)	2011
N-19	None	*Pierce Park Lane Pedestrian Improvements:* Construct curb, gutter, and sidewalk between State Street and Parapet Drive and construct an asphalt path with extruded curb between Parapet Drive and Tobi Drive on the west side; Construct curb, gutter and sidewalk between State Street and Filly Street on the east side; and Add two crosswalks.	ACHD	$1.6 million (ACHD VRF)	2013
N-20	None	*30th Street Extension, Fairview Avenue to State Street*: Construct a new 5-lane (or 4 lanes where there are medians) roadway with curb, gutter, sidewalks, and bike lanes between State Street and Fairview Avenue/Main Street.	ACHD	$8.11 million (ACHD 5-YR)	2013
N-21	None	*SH 44 / State Street and Linder Road Intersection Improvements:* Widen intersection to 6 lanes on the north and south approaches, 7 lanes on the east and west approaches, and modify the traffic signal.	ACHD, ITD	$7 million (ACHD 5-YR)	PD
N-22	N-2, N-4	*State Street and Veterans Memorial Parkway Intersection Improvements:* Widen approaches and modify the intersection to a high capacity intersection (HCI). Currently, funding is only for additional concept work (2012); design, right-of-way, and construction are unfunded.	ACHD	$5.8 million (ACHD 5-YR)	2012 (concept)
N-23	N-2, N-4	*State Street and Collister Drive Intersection Improvements:* Widen north leg approach to 3 lanes. This project may be programmed concurrently with a State Street widening project.	ACHD	$1.68 million (ACHD 5-YR)	PD
N-24	None	*SH 44 and Bogart Lane Intersection Improvements:* Install signal, re-build intersection, and install sidewalk. Installation of signal dependent upon ITD approval.	ACHD	$510K (ACHD 5-YR)	PD
Milestone #2 – Expand Existing Transit Service					
N-25	None	*Yield to Bus Policy:* Develop a regional "yield to bus" policy with accompanying ordinances and/or statutes.	VRT, Boise, Eagle, Garden City, COMPASS, ACHD	N/A	New
N-26	None	*Bus Bays Plan (Downtown Boise Multimodal Center to SH 16):* Develop a plan that identifies the locations to implement bus bays on the corridor based on the bus stop locations, ridership, and service today and in the future.	VRT	$50K (UF)	New
N-27	N-25, N-26	*Corridor-wide Bus Bay Improvements:* Install bus bays/pull-outs (with support from ACHD) at locations with high	VRT	$140-350K (UF)	New

ID #	Prerequisites	Activity	Lead Agency	Cost	Status
		ridership, heavy traffic volumes, and future TOD locations on the corridor, such as 30th Street, Veterans Memorial Parkway, Collister Drive, Glenwood Street-Gary Street, Bogart Lane, Horseshoe Bend Road-SH 55, and Edgewood Road (seven locations on both sides).			
N-28	None	*Regional Park & Ride Study:* Prepare and adopt a study that develops a comprehensive evaluation of a Park & Ride system plan for the region and supports development of Park & Ride sites on State Street.	VRT, COMPASS, ACHD	$100K (UF)	2011
N-29	None	*Glenwood Street Park & Ride Lot:* Develop a Park & Ride lot in the area of Glenwood Street and State Street to accommodate Routes 9 and 44. (lease 50 spaces from an existing center)	VRT, Boise, ACHD	$50K (UF)	New
N-30	N-3, N-4, N-28	*Edgewood Road Park & Ride Lot:* Redevelop and expand the Park & Ride lot at the intersection of Edgewood Road and SH 44 to accommodate Route 44 or relocate lot at Plaza Drive (future location). (approximately 50 spaces)	VRT, Eagle, ACHD	$300K (UF)	New
N-31	N-3, N-4, N-28	*Horseshoe Bend Road-SH 55 Park & Ride Lot:* Work with property owners in the vicinity of the Horseshoe Bend Road-SH 55 and SH 44 intersection to share or acquire property for a Park & Ride lot. Develop a Park & Ride lot in this area either through leasing spaces or constructing a surface lot. (approximately 50 spaces)	VRT, Eagle, Garden City, ACHD	$50-$300K (UF)	New
N-32	N-1	*Route 9 Transit Service (Downtown Boise Multimodal Center to Glenwood Street):* Implement 15-minute headways and all-day service on Route 9, implement increased frequency on Route 9X, and update regional schedule.	VRT	$300-500K / yr (UF)	New
N-33	N-1, N-32	*Route 9 Transit Service (Downtown Boise Multimodal Center to Glenwood Street):* Expand the service to late evenings and weekends and update regional schedule.	VRT	$250-400K / yr (UF)	New
N-34	N-1	*Route 44 Transit Service (Downtown Boise Multimodal Center to SH 16):* Implement 30-minute peak service for Route 44 and update regional schedule.	VRT	$200-400K / yr (UF)	New
N-35	None	*Corridor-wide Transit Supportive Policies:* Coordinate between the agencies to adopt transit supportive policies (i.e., parking, transit incentives, commuter options, etc.) within the downtown areas.	Boise, CCDC, Eagle, Garden City, VRT	N/A	New
N-36	None	*Pedestrian Improvements (23rd Street to Glenwood Street):* Conduct pedestrian facility design to fill in sidewalk gaps.	ACHD	Varies (UF)	New
Milestone #3 - Prepare for Medium-Term Improvements					
N-37	None	*Regional Technology Investments Development Plan:* Develop the short-term investments to set up a system that can be the foundation for future transit ITS. The investments identified will be focused on the next 5 years.	VRT	$50K (F)	2011
N-38	N-37	*Regional Transit Automatic Vehicle Location (AVL) System:* Procure and install a transit AVL system. (48-bus fleet)	VRT	$150-500K (UF)	New
N-39	N-37, N-38	*Corridor-wide Transit Signal Priority (TSP) Evaluation and Operations Report:* Procure and test a TSP algorithm for the Naztec traffic signal controllers and develop a concept of operations report (i.e., operational parameters for TSP).	VRT, ACHD	$100-200K (UF)	New
N-40	N-39	*Transit Signal Priority (Downtown Boise Multimodal Center to SH 16):* Implement TSP on the corridor.	VRT, ACHD	$100-500K (UF)	New
N-41	N-4	*State Street TOD Adoption (Downtown Boise Multimodal Center to Glenwood Street):* Adopt specific land use changes for the TOD locations at 30th Street, Collister Drive, Pierce Park Lane, and Glenwood Street.	Boise, CCDC, Garden City	N/A	New

ID #	Prerequisites	Activity	Lead Agency	Cost	Status
N-42	N-4	*SH 44 TOD Adoption (Glenwood Street to SH 16):* Adopt specific land use changes for the TOD locations at Bogart Lane, Horseshoe Bend Road-SH 55, Plaza Drive, Ballantyne Lane, Linder Road, Palmer Lane, and SH 16.	Boise, Eagle, Garden City	N/A	New
N-43	N-4, N-42	*Horseshoe Bend Road-SH 55 TOD Plan:* Develop and adopt detailed site development, implementation, and finance plans of a TOD at this location.	Eagle, Garden City	Varies (Private)	Ongoing
N-44	N-43	*Horseshoe Bend Road-SH 55 TOD Implementation:* Implement beginning stages of site development for this TOD.	Eagle, Garden City	Varies (Private)	Ongoing
N-45	N-5, N-41	*ROW Acquisition (23rd Street to Glenwood Street)*: Initiate right-of-way acquisition for this segment of the corridor. *Cost estimates are being developed as part of ROW and Alignment Study (Refer to study).*	ACHD, Boise, Garden City	TBD from ROW Study	New
N-46	None	*Interagency Regional Coordination:* Expand the region-wide ITS Coordination group to include VRT.	VRT	N/A	New
N-47	None	*Treasure Valley High Capacity Transit System Study:* The High Capacity Transit System Study is an opportunity to identify the types and travel paths of HCT through the region. HCT options, such as BRT, LRT, streetcars, heavy rail rapid transit, commuter rail, etc. would be evaluated and prioritized for the region.	VRT, COMPASS	$2 million (UF)	New
N-48	None	*Review and Update Implementation Plan:* A review and update of the plan under each implementation phase.	All Agencies	N/A	New

Table 2 Implementation Plan for Medium-Term Corridor Improvements

ID #	Prerequisites	Activity	Lead Agency	Cost	Status
Milestone #4 - Pre-HOV Development					
M-1	N-6	*SH 44 Widening Project (Ballantyne Lane to SH 16)*: Widen SH 44 to four lanes with a median, pedestrian, and bicycle facilities. Final determination of pedestrian and bicycle facilities from the SH 44 Corridor Preservation Study.	ITD	$19 million (UF)	New
M-2	N-3	*SH 44 Access Management Plan (Glenwood Street to Eagle Road):* Complete and adopt an Access Management Plan.	ITD	$100-300K (UF)	New
M-3	N-1	*Update Funding Plan and Review Implementation Plan:* Update funding plan and review implementation plan for the corridor.	VRT, Boise, Eagle, Garden City, COMPASS, ITD, ACHD	N/A	New
M-4	N-32, N-33, N-34, N-38, N-40	*Corridor-wide Preferential Treatment Study:* Confirm locations and develop concept plans for queue jump and bypass lanes on the corridor based on identified locations from the TTOP study and transit data from the AVL system.	VRT	$50-100K (UF)	New
M-5	None	*Corridor-wide HOV Lane Use Study*: Conduct a HOV lane use study every 5 years to identify the potential and recorded usage of the HOV lane, need to expand the HOV lane to Eagle, need to convert the HOV usage to 3-plus vehicles, and need to convert the HOV lane to an exclusive transit lane. **Initial study would identify potential usage on the corridor between SH 16 and 23rd Street for implementation of HOV lane between 23rd Street and Glenwood Street.**	ACHD, ITD, VRT	$50K per study (UF)	New
M-6	None	*Regional HOV Lane Use Policy:* Develop a regional "HOV lane use" policy with accompanying ordinances and statutes.	COMPASS, VRT, ACHD, ITD	N/A	New
M-7	N-25, N-26, N-27, N-32, N-33, N-34	*Corridor-wide Bus Bay Improvements:* Install bus bays/pull-outs (with support from ACHD) at additional stop locations or high ridership locations for the Route 9 (i.e., Plaza Drive) and Route 44 (i.e., Linder Road, SH 16) (10 to 15 locations on both sides).	VRT	$200-900K (UF)	New
M-8	M-4	*Queue Jump Lanes/Bypass Lanes (Glenwood Street to Eagle Road):* Implement queue jump and/or bypass lanes at locations, such as Eagle Road, Horseshoe Bend Road, and Bogart Lane that will not be widened within the next 10 years for an exclusive HOV or transit lane. (3 locations)	VRT, ITD	$300K-1.2 million (UF)	New
M-9	N-3, N-16, M-2	*Pedestrian Facilities (Glenwood Street to Eagle Road):* Conduct pedestrian facility design to fill in sidewalk gaps on both sides of this SH 44 segment.	Eagle, Boise, Garden City, ITD	Varies (UF)	New
M-10	N-31, N-44	*Horseshoe Bend Road-SH 55 Park & Ride Lot Expansion:* Expand the Park & Ride lot at Horseshoe Bend Road-SH 55 (expand to 100 -200 spaces)	Eagle, VRT	$150-450K (UF)	New
M-11	N-28, N-41	*Plaza Drive Park & Ride Lot:* Develop a Park & Ride lot at Plaza Drive with a pedestrian overcrossing to provide connectivity to the bus stops and destination areas of Eagle. This location is anticipated to replace the Park & Ride lot at Edgewood Drive. (100-200 spaces)	Eagle, VRT	$300-600K (no land costs) (UF)	New
M-12	N-28, N-42	*SH 16 Park & Ride Lot:* Develop a Park & Ride lot at the intersection of SH 16 and SH 44. (200-300 spaces)	Eagle, VRT	$600-900K (no land costs) (UF)	New

ID #	Prerequisites	Activity	Lead Agency	Cost	Status
M-13	N-32, N-33, M-3	*Route 9 Transit Service (Glenwood Street to Eagle Road)*: Extend Route 9 with 15-minute service to Eagle and update regional schedule.	VRT	$300-600K / yr (UF)	New
M-14	N-32, N-33, N-34, M-3	*Feeder Route Transit Service (Glenwood Street to SH 16)*: Implement two feeder routes in Eagle and Boise and update regional schedule.	VRT	$1.2-1.5 million / yr / rte (UF)	New
Milestone #5 - Initial Land Development Changes					
M-15	N-41	*30th Street TOD Plan:* Develop and adopt detailed site development, implementation, and finance plans of a TOD.	Boise, CCDC	$200-500K (UF)	New
M-16	N-41	*Collister Drive TOD Plan:* Develop and adopt detailed site development, implementation, and finance plans of a TOD.	Boise	$200-500K (UF)	New
M-17	N-41	*Glenwood Street TOD Plan:* Develop and adopt detailed site development, implementation, and finance plans of a TOD.	Boise, Garden City	$200-500K (UF)	New
M-18	N-41, N-42	*Plaza Drive TOD Plan:* Develop and adopt detailed site development, implementation, and finance plans of a TOD, including validation for this site location given the ITD access control of this location.	Eagle	$200-500K (UF)	New
M-19	M-15	*30th Street TOD Implementation:* Initiate implementation of beginning stages of site development for this TOD.	Boise, CCDC	Varies (Private)	New
M-20	M-16	*Collister Drive TOD Implementation:* Initiate implementation of beginning stages of site development for this TOD.	Boise	Varies (Private)	New
M-21	M-17	*Glenwood Street TOD Implementation:* Initiate implementation of beginning stages of site development for this TOD.	Boise, Garden City	Varies (Private)	New
M-22	M-18	*Plaza Drive TOD Implementation:* Initiate implementation of beginning stages of site development for this TOD.	Eagle	Varies (Private)	New
Milestone #6 – Roadway Expansion					
M-23	N-5, N-32, N-33, N-45, M-5, M-6	*Curbside Running Way with HOV Implementation (23rd Street to Glenwood Street):* Design and implement a curbside running way with HOV lane as a 7-lane cross-section with raised median, curb, gutter, sidewalks, and bike lanes. *Currently, a widening project is identified in ACHD's 5-year work plan to widen the roadway to 7-lanes. The HOV lane is not specifically identified in the 5-year work plan. Cost estimates for ROW are based on the CIP. These costs estimates are anticipated to increase after the completion of the ROW and Alignment Study for this roadway segment.*	ACHD	$35-40 million (ACHD 5-YR – See italics note)	New

Table 3 Implementation Plan for Long-Term Corridor Improvements

ID #	Prerequisites	Activity	Lead Agency	Cost	Status
Milestone #7 – Land Development is Ready					
L-1	M-3	*Update Funding Plan and Review Implementation Plan:* Update funding plan and review implementation plan for the corridor.	VRT, Boise, Eagle, Garden City, COMPASS, ITD, ACHD	N/A	New
L-2	M-7, M-13, M-14	*Corridor-wide Bus Bay Improvements:* Install bus bays/pull-outs (with support from ACHD) at additional stop locations for the Route 9 and Route 44 (5 locations on both sides).	VRT	$100-300K (UF)	New
L-3	N-34, M-7, M-13, M-14	*Queue Jump Lanes/Bypass Lanes (Eagle Road to SH 16):* Implement queue jump and/or bypass lanes at locations, such as Ballantyne Lane, Linder Road, and SH 16 that will not be widened within the next 10 years for an exclusive HOV or transit lane. (3 locations)	VRT, ITD	$300K-1.2 million (UF)	New
L-4	L-1, M-13, M-14	*Route 9 Transit Service (Eagle Road to SH 16)*: Extend Route 9 with 15-minute service from Eagle to SH 16 and update regional schedule.	VRT	$350-800K / yr (UF)	New
L-5	L-1, M-13, M-14	*Feeder Route Transit Service (Glenwood Street to SH 16)*: Implement an additional feeder route in Eagle and Boise and update regional schedule.	VRT	$1.2-1.5 million / yr (feeder rt) (UF)	New
L-6	L-1, L-4, L-5	*Extend Feeder Route Transit Service (Corridor-wide):* Evaluate feeder route service and ridership to see if any of these routes should be extended from the Eagle area to the Downtown Boise Multimodal Center.	VRT	$1.2-1.5 million / yr / rte (UF)	New
L-7	M-2, M-23, L-4, L-5, L-6	*Curbside Running Way with HOV Implementation (Glenwood Street to Eagle Road):* Design and implement a curbside running way with HOV lane between Glenwood Street and Eagle Road, including a seven-lane cross-section with raised median, curb, gutter, sidewalks, and bike lanes. An environmental document would need to be completed for this segment (if federal funds were used).	ITD	$45-60 million (UF)	New
L-8	M-19	*30th Street TOD Implementation (cntd.):* Continue to implement TOD development at this location.	Boise, CCDC	Varies (Private)	New
L-9	M-20	*Collister Drive TOD Implementation:* Continue to implement TOD development at this location.	Boise	Varies (Private)	New
L-10	M-21	*Glenwood Drive TOD Implementation (cntd.):* Continue to implement TOD development at this location.	Boise, Garden City	Varies (Private)	New
L-11	M-22	*Plaza Drive TOD Implementation (cntd.):* Continue to implement TOD development at this location.	Eagle	Varies (Private)	New
L-12	N-41	*Pierce Park Lane TOD Plan:* Develop and adopt detailed site development, implementation, and finance plans of a TOD.	Boise, Garden City	$200-500K (UF)	New
L-13	N-42	*Bogart Lane TOD Plan:* Develop and adopt detailed site development, implementation, and finance plans of a TOD.	Boise, Garden City	$200-500K (UF)	New
L-14	L-12	*Pierce Park Lane TOD Implementation:* Initiate implementation of beginning stages of site development for this TOD.	Boise, Garden City	Varies (Private)	New
L-15	L-13	*Bogart Lane TOD Implementation:* Initiate implementation of beginning stages of site development for this TOD.	Boise, Garden City	Varies (Private)	New

ID #	Prerequisites	Activity	Lead Agency	Cost	Status
Milestone #8 – High Capacity Transit Corridor					
L-16	N-41,N-42, N-47, M-13, M-14, M-23, L-4, L-5, L-6, L-7	*State Street/SH 44 Corridor High Capacity Transit Alternatives Study (Downtown Boise Multimodal Center to SH 16):* Once ridership has been increased on the corridor through transit service enhancements, prepare a NEPA and FTA application for a high-capacity transit alternatives study for the State Street/SH 44 corridor.	VRT, COMPASS	$1-2 million (UF)	New
L-17	L-16	*Application for Transit Capital Improvements (Downtown Boise Multimodal Center to SH 16):* Explore the FTA Small Starts program for funding of an exclusive lane and development of a BRT service.	VRT	N/A	New
L-18	L-1, L-16, L-17	*BRT Improvements (Downtown Boise Multimodal Center to Eagle Road):* Develop and implement a BRT-style bus service for the Route 9. This service could include a branded image, real-time passenger information, rail-like stations, stops at approximately ½ mile spacing, and off-board fare collection.	VRT	$20-60 million (UF)	New

FINANCIAL STRATEGY

This section describes the financial strategy for funding the activities in the Implementation Plan to achieve the vision on State Street. The financial strategy addresses the following questions related to the State Street corridor:

- What activities are currently funded?
- What activities are currently unfunded?
- What tools are available to fund the roadway, transit, and land use activities?

The financial strategy is primarily focused on funding for public agency improvements to the roadway and transit systems. While some land use activities are funded by public agencies, a majority of the land use investments on the corridor will ultimately be the responsibility of the private sector.

Funded and Unfunded Activities

As identified in the implementation tables, several activities are currently funded on the State Street corridor. For the purpose of this financial strategy, all of the activities, including planning, project development, and construction of projects, are treated similarly and referred to as "improvements." This section summarizes the total costs of the near-term, medium-term, and long-term improvements by roadway, transit, and land use categories. These costs are summarized in millions of dollars (year 2010 dollars) and represent the estimated project costs for improvements to the State Street/SH 44 corridor. Additionally, the funded and unfunded improvements are identified in this section.

Overall, the total cost of all improvements is estimated at approximately $475 million, of which 43-percent of the improvements are currently funded by ACHD, ITD, and VRT.

NEAR-TERM IMPROVEMENTS

Figure 26 illustrates the total cost of the near-term improvements divided into the roadway, transit, and land use categories. As shown in Figure 26, over 78-percent of the near-term improvements are associated with roadway activities on the corridor, such as the SH 16 extension to US 20/26, 30th Street extension, and pedestrian and ITS improvements.

Figure 27 illustrates the relative costs of the funded and unfunded near-term improvements. As shown in Figure 27, over 84-percent of the near-term improvements are currently funded. The transit and land use activities make up the major components of the unfunded near-term activities. These activities are critical to increasing transit service and ridership and moving forward with right-of-way acquisition for the medium-term improvements.

Figure 26 Total Cost (in millions) of Near-Term Improvements

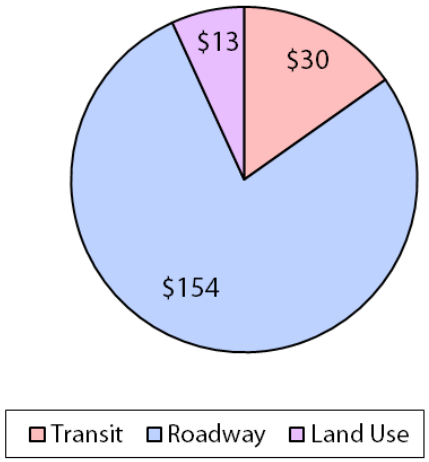
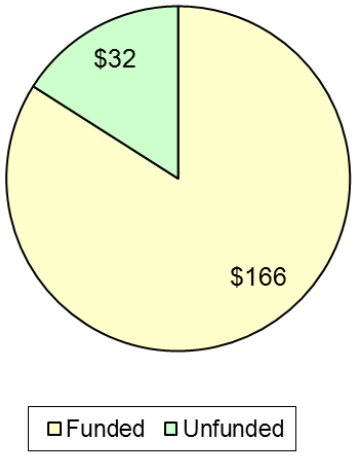


Figure 27 Funded and Unfunded (in millions) Near-Term Improvements



MEDIUM-TERM IMPROVEMENTS

Figure 28 illustrates the total cost of the medium-term improvements divided into the roadway, transit, and land use categories. As shown in Figure 28, approximately 50-percent of the medium-term improvements are associated with roadway activities. The most significant improvement is the widening of State Street between 23rd Street and Glenwood Street to accommodate curbside HOV lanes.

Figure 29 illustrates the relative costs of the funded an d unfunded medium-term improvements. As shown in Figure 29, over 33-percen t of the medium-term improvements are currently funded. Transit and land use activities continue to make up the major components of unfunded medium-term activities. These activities are critical in increasing the transit service, ridership, and TOD and preparing the corridor for a high-capacity transit service.

Figure 28 Total Cost (in millions) of Medium-Term Improvements

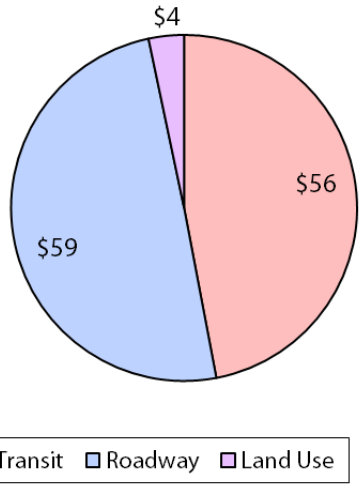
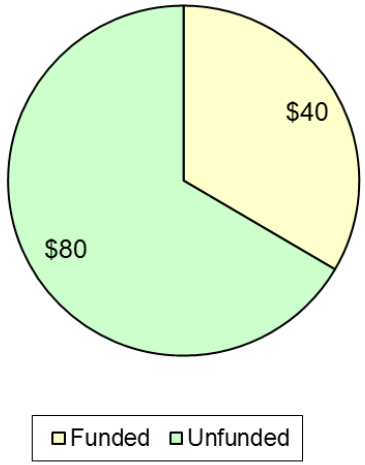


Figure 29 Funded and Unfunded (in millions) Medium-Term Improvements

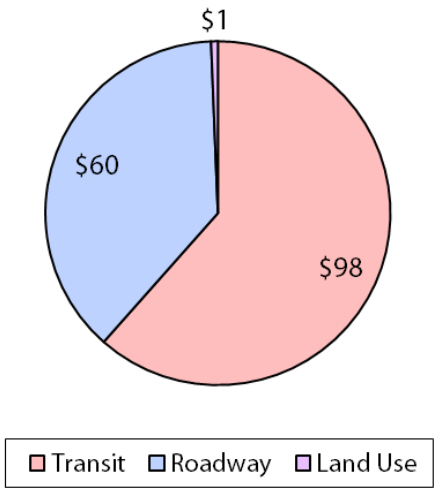


LONG-TERM IMPROVEMENTS

Figure 30 illustrates the total cost of the long-term improvements divided into the roadway, transit, and land use categories. As shown in Figure 30, approximately 62-pecent of the long-term improvements are associated with transit activities on the corridor.

100-percent of the long-term improvements are currently unfunded. The roadway and transit activities make up the major components of unfunded long-term activities. These activities are critical in achieving the long-term vision for the corridor. TOD site development is not included in the cost estimates for this corridor as those activities are typically implemented through private development. Potential public agency costs could occur due to public policy changes or incentives but none were included in the cost estimates.

Figure 30 Total Cost (in millions) of Long-Term Improvements



TRANSIT AND LAND USE ASSUMPTIONS FOR COST ESTIMATES

A few assumptions were made in developing the cost estimates for the near-term, medium-term, and long-term improvements.

The costs associated with transit improvements are primarily annual operating costs for the buses and drivers. Therefore, to account for the total operating costs, a timeframe was assumed for how long a new transit route would operate between the near-term, medium-term, and long-term phases and year 2035.

For example, Project ID N-32 (implementing 15-minute headways and all-day service for Route 9) is estimated to cost $300,000 to $500,000 annually to operate. It was assumed that this project would be implemented in the next 5 years and operates for 20 years by the year 2035. Once implemented, all near-term transit routes were assumed to operate for 20 years, medium-term were assumed to operate for 15 years, and long-term were assumed to operate for 5 years for the purpose of calculating a total transit cost over the planning horizon.

Land use projects, such as purchasing land for Park & Ride lots, development of TOD sites, and acquisition of right-of-way were not included in the overall cost estimates due to the various options available for implementing these changes and the likelihood these would be implemented in

partnership with the private sector. Therefore, actual costs associated with this project will be higher due to the cost associated with developing the TODs.

TOTAL COST SUMMARY

Overall, the total cost of all improvements is estimated at approximately $475 million, of which approximately 43-percent are currently funded by ACHD, ITD, and VRT.

Based on the cost summary and funding shortfall of $270 million, a funding strategy has been prepared that identifies potential sources and opportunities for funding the various roadway, transit, and land use activities.

Tools for Funding Roadway, Transit, and Land Use Activities

ROADWAY

The existing funding sources and future funding tools for roadway activities used by ACHD and ITD are described in this section.

EXISTING ROADWAY FUNDING

A large number of the roadway activities identified on the corridor are currently funded through a variety of sources, including:

- **Local/State Funding**: gas tax, property tax, vehicle registration, and impact fees
- **Federal:** Highway Trust Fund (gas tax), grants, and earmarks

The current funded roadway projects are estimated at approximately $194 million on the corridor. This cost estimate includes ITD's SH 16 project at a cost of $123 million.

ACHD has several revenue sources for planning, designing, constructing, and maintaining roadway projects.

Property Tax: Property taxes are the single largest General Fund revenue of ACHD. This revenue is limited to a 3-percent increase per year by Idaho Statute. In 2010, this revenue was $31.7 million, which is approximately 40-percent of the total ACHD budget.

Highway User's Fund (HUF): This fund is limited by Idaho Statute and is tied directly to gasoline tax and vehicle registration. The fuel tax collected provides funding for building and maintaining Idaho roads, bridges, and recreational areas. This revenue was $20.2 million in 2010.

Ada County Registration Fees: Registration fees are collected by ITD for vehicle registrations in Ada County. The revenue is then apportioned to various entities, with ACHD receiving a statutory

amount. Additionally, in 2009, voters approved an increase in registration fees that now provides funding for congestion mitigation and community projects, such as Safe Routes to School. This revenue was $8.0 million in 2010.

Development Impact Fees: Impact fee revenue is collected from developers to pay for their proportionate share of system improvement costs. This revenue was $6.0 million in 2010, although it is not considered a stable income source due to the fluctuation in development activity.

Cost Sharing: Cost sharing agreements with other entities to construct sewer, utilities, and roadways help reduce the project costs. This revenue varies greatly depending upon projects, participants, and the project phase.

Other sources include state sales tax, federal grants, interest, and Commuteride. ACHD's total revenue was $78.7 million in 2010 with the property tax, HUF, registration fees, and development impact fees accounting for over 83-percent of the total revenue. The estimated revenue is $84 million for 2011 (ACHD's Budget).

In addition to the ACHD sources, a number of funding sources are considered flexible and are secured through regional priorities. These sources include Surface Transportation Program-Transportation Management Area (STP-TMA), Congestion Mitigation and Air Quality (CMAQ), FTA 5307, and FTA 5309 funds. The funds can be used for a variety of transportation projects but are allocated through a competitive process.

FUTURE ROADWAY FUNDING TOOLS

The major roadway activities identified in the Implementation Plan that are unfunded are:

- Studies, such as the Access Management Plan and HOV Lane Use Study
- Projects to fill in gaps in the pedestrian facility network
- SH 44 widening project between Ballantyne Lane and SH 16
- Curbside running way with HOV between Glenwood Street and Eagle Road

It is estimated that an additional $80 million of funding is needed to achieve the roadway vision for the State Street/SH 44 corridor. In addition to the sources used today to fund roadway projects, the following options are identified for funding future roadway improvements:

Surface Transportation Program (STP) Funds: These are federal flexible funds distributed through the COMPASS Transportation Improvement Program. The STP-TMA program was used recently to fund the Franklin Road widening between Touchmark Way and Five Mile Road, the State Street ITS project, and some maintenance projects. This program could be used to fund these types of future roadway projects on State Street:

- Widening of State Street between Glenwood Street and 23rd Street;

- Adding an HOV lane, bus stops, and shelters;
- Adding and improving pedestrian facilities; and
- Improving intersections.

Congestion Mitigation and Air Quality (CMAQ) Funds: ITD oversees the distribution of CMAQ funds in Idaho. Grants are provided for projects that demonstrate air quality benefit in air pollution problem areas. The CMAQ program could be used to fund these types of future projects on State Street:

- Bicycle and pedestrian facilities
- Bus facilities and buses
- Park & Ride lots

CMAQ funds were recently (when they were last available) used for purchasing buses and Commuteride vans.

Community Programs (ACHD): The pedestrian facility projects to fill in gaps on the corridor could be funded through this program. This program is currently funding some of the other pedestrian improvement projects on State Street between Veterans Memorial Parkway and Glenwood Street.

Cost sharing with other agencies and/or private developers: Cooperative agreements could be established between agencies and/or private developers to share the costs of certain roadway, streetscape (ACHD, by statute, cannot fund installation or maintenance of landscaping), and/or pedestrian improvements. For example, the ITS improvements for traffic and transit could be funded through a possible cost-sharing agreement between ACHD and VRT.

Grant Anticipation Revenue Vehicle (GARVEE): The GARVEE Transportation Program is a funding program that allows Idaho to plan, design, and build more highway projects in less time than through traditional transportation funding methods. It uses GARVEE bonds to fund critical improvements in six transportation corridors throughout the state. Depending upon spending authority granted by the current legislature, GARVEE could be fully obligated to the spending limit specified in the current version of the GARVEE legislation. This type of program could be used in the future to fund roadway improvements on the SH 44 corridor between Glenwood Street and SH 16.

Idaho Sales Tax Anticipation Revenue Act (STAR): The Idaho Sales Tax Anticipation Revenue Act allows private parties to pay upfront costs in excess of $6 million for transportation improvements associated with a retail and/or commercial development. The developer receives a rebate of the sales tax for reimbursement of the transportation improvements. This type of funding tool can work with retail/commercial development of a minimum size of 300,000 square-feet and building cost of over $4 million.

TRANSIT

The existing funding sources and future funding tools for transit activities are described in this section (Transit Operations Plan).

EXISTING TRANSIT FUNDING

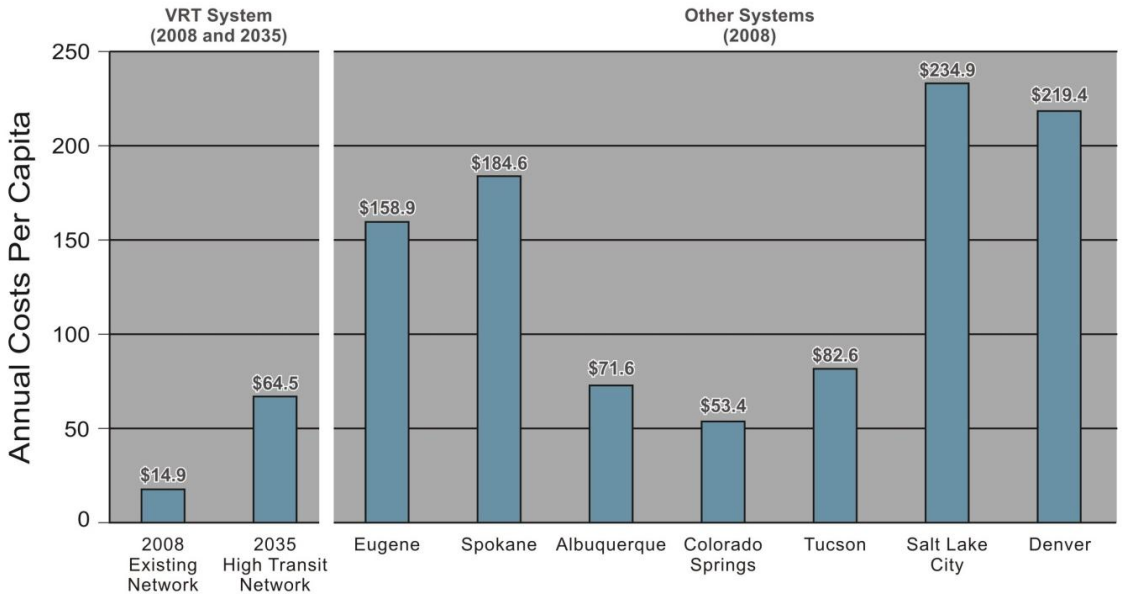
Operating Costs: Transit funding for ValleyRide comes from the following key sources:

- Fare box revenue
- Voluntary contributions from local agencies
- Federal funding

Fare box revenue accounts for approximately 10-12 percent of the annual transit budget. Ada and Canyon counties and the Cities of Boise, Garden City, Eagle, Meridian, Nampa, and Caldwell provide voluntary contributions, which is the major funding source.

Federal operating funds are used to augment local funding. Federal funds are not used for service in the City of Boise or, in the new census, for Canyon County. The total operating revenues for the full agency in FY 2010 were approximately $10 million, with about 30-percent provided by federal funds.

Figure 31 Operating Cost per Capita in the Treasure Valley and Western and Mountain State Cities



In order to determine how the funding for transit in the Treasure Valley compares with other similar regions, data on the amount of service provided by VRT and the associated operating costs per-capita were compared with other peer cities and systems in the Western and Mountain States. Figure 31 illustrates this annual operating cost comparison.

The Treasure Valley spends the lowest amount per capita compared to other transit systems in the west. Even after making the increased investment in a future High Transit Network (discussed in Background), the region would still be within the lower end of transit investment per capita compared with other western cities.

Capital Costs: Federal funds typically cover approximately 80-percent of the capital expenditures for VRT. Current capital projects include bus and equipment purchases, right-of-way purchases, ADA bus stop improvements, and the design and construction of the

future Downtown Boise Multimodal Center.

FUTURE TRANSIT FUNDING TOOLS

The major transit activities identified in the Implementation Plan are:

- Increasing transit service on the corridor
- Capital expenses for increased service
- Installing bus bays/pull outs and queue jump lanes
- Installing ITS infrastructure for the transit system (i.e., Automatic Vehicle Location (AVL) system, transit signal priority)
- Implementing a high capacity transit service (i.e., bus rapid transit) between the Downtown Boise Multimodal Center and Eagle

To achieve the transit vision for the State Street corridor, approximately $70 million of capital costs and $3-5 million in annual operating costs are needed on the corridor. Some potential funding tools are addressed below.

Operating Costs: The current funding mechanisms, while adequate today, do not provide significant opportunity to increase in the future. In order to develop a comprehensive transit system and implement operations on corridors such as State Street some type of stable, non-voluntary funding source is required. Implementing high capacity transit-style improvements on State Street would require VRT to increase their operating budget significantly, bringing it more in line with Albuquerque, Colorado Springs, and Tucson. This level of investment in transit operations would be consistent with Treasure Valley in Transit and could provide an adequate foundation for considering the implementation of high-capacity transit capital improvements.

Recently, the Public Transportation Subcommittee of the Governor's Task Force on Modernizing Transportation Funding identified and ranked potential funding sources that could be used for transit operations. The rankings are shown below from highest to lowest.

- User fees and fares (highest ranked option)
- Local option sales tax
- Local option resort tax
- Local option real property tax

While user fees are ranked the highest, they do not have the potential to cover the operating costs of ValleyRide. On average, user fees can account for up to 30 percent based on average data from the FTA. Currently, VRT's user fees generate about 10-12 percent of the sources to fund the operating costs, which could potentially increase if a higher level of transit service was provided throughout the region. However, in either case, some type of tax would still be required.

In recent legislative sessions, a proposal has been developed to provide local areas with the authority to ask voters to consider a local option sales tax with the ability to fund transit, but the proposal has not had success. If a local option sales tax for transit

is included as part of the overall package of funding modernization that comes out of the recommendations adopted by the Governor's Task Force, it may significantly improve chances of passing in the legislature.

Past efforts to provide local jurisdictions with this local option have had strong support within the Treasure Valley region but have failed to garner enough support from other parts of the state. If the legislature were to provide the authority to ask local voters to assess additional sales tax, the region would need to develop a package of transportation improvements (either transit-only or transit plus roadway) and ask the voters for their support to impose a tax in order to fund the improvements.

Capital Costs: The capital elements for a State Street high capacity transit service would likely include some of the following elements:

- Stations with shelters
- Exclusive or semi-exclusive travel lanes (including HOV lanes)
- Special branded vehicles
- Advanced signaling systems (i.e., transit signal priority)
- Real-time traveler information
- Off-board payment machines
- Signage and striping
- Limited amounts of additional right-of-way
- Bus bays or pull outs

The current federal transportation authorization, Safe Accountable Flexible Efficient Transportation Equity Act, a Legacy for Users (SAFETEA-LU), passed Congress in 2005 and has been extended through 2010. The following discussion of potential federal capital funding sources is based on sources available through SAFETEA-LU.

Federal funding for BRT or other high capacity transit improvements can come from a variety of sources including 5307 formula funds, 5340 formula funds, CMAQ funds, Surface Transportation Program (i.e. "Flexible") funds, and Section 5309 grant programs (including the New Starts and Small Starts programs). The following describes these funding sources and potential issues related to their use for transit capital improvements on State Street.

- **5307 and 5340 Formula Funds:** These funds are available on a population-based formula and can be used for planning, construction, and (in some cases) operations. BRT capital elements that could be covered with 5307 funding include bus purchase, passenger facilities, and traffic signals.
- **CMAQ Funds:** ITD oversees the distribution of CMAQ funds in Idaho. Grants are provided for projects to demonstrate air quality benefit in air pollution problem areas. Northern Ada County is currently classified as a Maintenance Area for carbon monoxide (CO) and particulates. A case could be made that BRT capital improvements on State Street would have an air quality benefit for Ada

County by improving the transit mode share and reducing the number of motor vehicles on the corridor.

- **Surface Transportation Program (STP) Funds:** These are federal flexible funds distributed through the COMPASS Transportation Improvement Program. STP funds have been used in many regions as a substantial funding source for major transit improvements. Determining the priority for use of STP funds for a major transit investment on State Street could require modification of COMPASS's project ranking methods by the COMPASS Board.
- **New Starts/Small Starts Grants**: The largest potential source for transit capital improvements on State Street would be through FTA's New Starts Program, also known as the Section 5309 Capital Investment Grant Program. The New Starts Program is a discretionary and competitive grant program that typically provides 50-to 60-percent of capital funding for high-capacity transit capital improvements. There are currently three categories of projects that are considered:
  - Very Small Starts – These projects include a total capital cost of less than $50 million and less than $3 million per mile (excluding vehicles). A corridor must have existing transit ridership of 3,000 per day in order to qualify for Very Small Starts funding.
  - Small Starts – These are projects with a total capital cost of less than $250 million with no greater than $75 million requested in federal 5309 funding. Small Starts must have at least 50 percent of the project length in a fixed guideway or be a corridor BRT project with substantial stations, signal priority, low-floor vehicles, 10-minute peak frequency, and at least 14 hours of service per day.
  - New Starts – These projects include a total capital cost of more than $250 million. (Note: the term "New Starts" refers to this specific funding category but it is also used to refer to the overall Section 5309 Capital Investment Grant Program).

A successful application for New Starts/Small Starts funding requires a corridor with a strong base of existing transit ridership and forecast growth and a project that can provide significant improvement in transit travel time and attract new riders. In order to prepare a successful New Starts/Small Starts project for the State Street corridor, it will be necessary to build up the level of transit service, maintain that built-up level of service, and then allow the increased service to operate for several years in order to attract additional riders. It will also require developing a project that can achieve significant travel time savings for transit and potentially compete with other projects nationally.

As part of the long-term improvements, an application for the Very Small Starts projects may be applicable as the transit service is increased and higher ridership

numbers are achieved on the State Street corridor.

LAND USE

The land use activities identified in the Implementation Plan can be separated into three categories:

- Category #1 – Studies and site planning
- Category #2 – Land acquisition
- Category #3 – Site development of multimodal centers, TOD, and Park & Ride lots

To achieve the land use vision for the State Street corridor, approximately $6 million is needed for the funding of studies, site planning, and development of Park & Ride lots. Additional funding is needed for land acquisition and development of the TOD sites, which are not included in the planning-level cost estimates.

Some tools to consider for funding are addressed below. A majority of the land use tools are taken from the *Transit Oriented Development Site Selection and Prioritization Report.*

IMPLEMENTATION AND FUNDING TOOLS

This section describes several actions, programs, and tools that can be utilized to encourage TOD along corridors. A majority of the TOD will occur through private-sector investment and development, but there are many tools that can be implemented by the public sector to encourage this development type.

- **Studies and plans:** The local cities of Boise, Eagle, and Garden City will need to work out a plan to allocate funds from their General Fund to conduct the corridor-wide Land Use Master Plan. Additionally, each city will have different levels of need for the plan, which should be identified as they develop the scope of work and funding needs for the Land Use Master Plan.
- **Streamlined zoning & entitlement:** In development, more than in virtually any other industry, time is money. Development of TOD along State Street should ideally be the easiest type of development to apply for in the region. Streamlining regulations and entitlement processes, including having a plan in place provides an opportunity for developers to accelerate the development schedule. This would be a significant incentive for developers.
- **No parking minimums:** Parking is one of the most expensive development costs in a project. Reducing minimum parking standards in Central Business Districts and TOD areas would allow developers to only build as much parking as required by tenants, helping to make projects more affordable and creating a more pedestrian-oriented landscape.
- **Shadow platting:** Shadow platting is the laying out of a site to accommodate infill and redevelopment in the future. For

example, a surface parking lot at a shopping center, built to meet today's market, could be designed with full-width streets and block sizes so that it could be redeveloped into an urban grid of buildings in the future, when the market for such development emerges.

- **Shared parking:** For development projects, implementing shared parking can reduce the project costs for the developer. As part of the planning process, agencies should plan for the development of adjacent complementary uses so that they can share a parking lot.
- **Public-private partnerships**: The complexity of TOD and the need to "encourage" the market will require a close coordination of public and private development efforts, including joint ventures or leasing/ownership opportunities. Public-private partnerships can provide the context that ensures that the whole is greater than the sum of its parts.
- **FTA 5307 and 5309 funds**: These programs were described earlier and could be used to fund Park & Ride lots. Recently, the 5309 funds were used for buses, Commuteride vans, pedestrian facilities on Catalpa Drive, and a Park & Ride lot in Kuna.
- **Public funding:** For some, but not all TOD, public funding will be the tool that makes an uneconomic project feasible. Tools such as tax increment financing, tax credits, low-interest loans, grants, and other programs should be made available for projects that meet the TOD vision.

DISCRETIONARY GRANT PROGRAMS

In addition to the funding sources described above, several discretionary grant programs have recently been made available for funding various roadway, transit, and land use projects. Some examples include:

- **Sustainable Communities Regional Planning Grant (HUD Led):** This grant provides funding for Regional Plans for Sustainable Development (RPSD) and implementation efforts as part of those plans. For example, COMPASS submitted a grant request for expansion of Communities in Motion into a RPSD.
- **Community Challenge Planning Grant (HUD Led):** This grant provides funding to planning efforts for local sustainability projects and could be partnered with a TIGER II planning grant.
- **TIGER II Planning Grants (DOT Led)**: This grant provides funding to planning, concept, and design work of transportation facilities. Projects need to focus on active modes of transportation, and some projects could be partnered with the Community Challenge Planning Grants. For example, COMPASS submitted a Community Challenge/TIGER II Planning Grant application for completion of the Land

Use Master Plan, design work on pedestrian facilities, and concept design for intersections along State Street/SH 44 out to Middleton.

- **TIGER II Capital Grant (DOT Led):** This grant provides funding for capital infrastructure with projects ranging from $10 to $200 million and a focus on multimodal projects. For example, ITD submitted a grant request for the Meridian Road Interchange.
- **TIGGER II (DOT Led):** The Transportation Investments in Greenhouse Gas and Energy Reduction (TIGGER) focuses on bus fleet investments that will reduce greenhouse gas emissions and reduce fuel consumption.
- **Bus and Bus Facilities/State of Good Repair (DOT Led):** This program is funded by unused FTA 5309 funds from previous appropriations and has the same focus as regular 5309 funding. For example, VRT submitted an application for buses and Park & Ride facilities.
- **Brownfield Reinvestment Grants (EPA Led):** This is an ongoing annual grant program that focuses on site cleanup and redevelopment of Brownfield sites.
- **Reauthorization and Appropriations**: Earmark requests funded by Congress during the annual budgeting process or through the reauthorization of the federal transportation bill. For example, regional applications have been submitted for ITS improvements and the Downtown Boise Multimodal Center. However, it is unknown how earmarks will be included as part of future budgets and administrations.

For a successful grant application, coordination among the local agencies needs to occur to leverage resources, identify priorities, and have projects ready for planning and development stages in order to secure these competitive funding sources.

SUMMARY

Overall, a number of programs exist currently that local agencies can use to fund the various implementation activities in the plan. Most importantly, the land use agencies will need to work together and identify a cost-sharing agreement for completing the corridor-wide Land Use Master Plan in the near-term phase. VRT will need to seek a dedicated funding source for operating costs of the increased service on the corridor. These two items are critical in establishing the next steps of moving toward an integrated, multimodal corridor.

Additionally, an overall joint Programming and Finance Plan needs to be developed for the corridor that establishes a framework for the funding sources, grant timelines, and next steps to ensure funding of the Implementation Plan. This plan is identified as a critical activity in the near-term.

CONCLUSION AND RECOMMENDATIONS

The State Street corridor was identified in 2002 as one of the primary multimodal corridors in the Treasure Valley. From a regional perspective, it serves multiple cities, both rural and urban land use types, and is the highest utilized transit route.

Since 2002, the local agencies have invested over $5 million on the State Street Corridor Strategic Plan Study, State Street Market Strategy, State Street TOD Policy Guidelines, SH 44 Corridor Preservation Study, and the State Street Right of Way and Alignment study. In addition, transit service has been expanded along the corridor. This overall investment has laid the groundwork for developing the recommended improvements in the Implementation Plan.

The purpose of this plan is to confirm the recommendations in the State Street Corridor Strategic Plan and develop an implementation plan for achieving the future vision for the corridor. Through significant evaluation of alternatives and input from the public and stakeholders, the ultimate solution for the corridor was confirmed to be development of an integrated corridor that provides transportation options to all users and enhances all modes of transportation. This is due to many factors including:

- Widening the corridor will not significantly improve travel times or mobility in the long-term.
- Transit ridership on the corridor is already reaching the capacity of the current system and the potential for future growth in ridership is significant.
- The public and stakeholder agencies continue to support providing transportation options and a transit-supportive development pattern along the corridor.

The Implementation Plan provides a framework for roadway, transit, and land use improvements to occur over the next 25 years. The successful public involvement process demonstrated that the community supports the transit vision and would like to move toward implementing an integrated, multimodal corridor.

This framework sets the stage for the ACHD, Ada County, CCDC, Cities of Boise, Eagle, and Garden City, COMPASS, ITD, and VRT to achieve an integrated, multimodal corridor on the State Street/SH 44 corridor. Key elements of the integrated corridor include the addition of new HOV lanes between 23rd Street and Eagle Road, a high-capacity transit service between Downtown Boise and Eagle, an increase in transit service west of Eagle, bicycle and pedestrian facilities on the corridor, and transit-oriented development supporting and being supported by the transportation system. Lead agencies are identified for each improvement, but the steps to implementation must be part of a collaborated effort for the corridor.

To fulfill this vision, the agencies should continue their collaboration on projects and look for opportunities to share the costs of studies and improvements. The new Memorandum of Understanding (MOU, 2011-2016) established for this

corridor provides a great framework to foster the various agency efforts on this corridor. Most importantly, the Cities of Boise, Eagle, and Garden City and VRT must establish dedicated funding to complete the corridor-wide Land Use Master Plan and develop a stable transit funding source to fund the transit operating costs associated with the substantial increase in transit service on the corridor. The transit funding will likely require legislative action as well as voter approval, which may be a challenge but is critical to the success of the State Street corridor.

Agencies adopting the plan will leverage the momentum and support established through this project and the MOU (2011-2016) to move ahead with the near-term improvements of the Implementation Plan. The project team recommends the agencies begin the following action items immediately:

- Secure funding for the development of the corridor-wide Land Use Master Plan
- Complete the Access Management Plan (23rd Street to Glenwood Street) and corridor-wide Land Use Master Plan
- Implement the ITS technologies (i.e., CCTVs, speed detectors, dynamic message signs, and traffic signal upgrades)
- Establish a stable transit funding source to fund the transit operating costs with the increase in transit service
- Increase the transit service for Routes 9, 9X, and 44
- Develop yield to bus, transit-supportive (parking, transit incentives, and commuter options), and HOV policies to support roadway, transit, and land use activities
- Begin to implement Park & Ride lots on the corridor
- Develop a Programming and Finance Plan for the near-term, medium-term, and long-term phases of the implementation
- Continue to collaborate and work together through the established MOU 2011-2016

Through these near-term efforts and the planned medium- and long-term activities, the State Street/SH 44 corridor has the potential to result in the following:

- a roadway system that balances the traffic demand with the needs of the other transportation users (i.e., transit, bicyclists, and pedestrians),
- a continuous and connected pedestrian and bicycle system that services long and short trips,
- an ITS infrastructure for the corridor that improves travel time reliability and communication to the public,
- a high capacity transit service that has in-corridor travel times comparable to auto travel times, and
- a transit-supportive development pattern with Park & Rides and a range of TODs that reflect the unique attributes of the surrounding area and the community's broader vision.

APPENDIX

List of Acronyms

ACHD – Ada County Highway District

ADA – Americans with Disabilities Act

ADT – Average Daily Traffic

AVL – Automatic Vehicle Location

BRT – Bus Rapid Transit

CAC – Community Advisory Committee

CBD – Central Business District

CCDC – Capital City Development Corporation

CIM – Communities in Motion

CMAQ – Congestion Mitigation and Air Quality

COMPASS – Community Planning Association of Southwest Idaho

DAC – Demographic Advisory Committee

DOT – Department of Transportation

EPA – Environmental Protection Agency

FTA – Federal Transit Administration

GARVEE – Grant Anticipation Revenue Vehicle

HCT – High Capacity Transit

HOV – High Occupancy Vehicle

HUD – Housing and Urban Development

HUF – Highway User's Fund

ITD – Idaho Transportation Department

ITS – Intelligent Transportation System

LOS – Level of Service

LRT – Light Rail Transit

MOU – Memorandum of Understanding

NEPA – National Environmental Protection Act

PD – Preliminary Development

PIP – Public Involvement Plan

PMT – Project Management Team

ROW – Right-of-Way

RPSD – Regional Plans for Sustainable Development

SAFETEA-LU – Safe Accountable Flexible Efficient Transportation Equity Act, a Legacy for Users

SH – State Highway

SR – State Route

STAR – Sales Tax Anticipation Revenue

STP – Surface Transportation Program

TAC – Technical Advisory Committee

TAZ – Traffic Analysis Zone

TIGGER – Transportation Investments in Greenhouse Gas and Energy

TMA – Transportation Management Area

TOD – Transit-Oriented Development

TTOP – Transit and Traffic Operational Plan

V/C – Volume-to-Capacity

VRF – Vehicle Registration Fee

VRT – Valley Regional Transit

Glossary of Terms

AUTOMATIC VEHICLE LOCATION (AVL)

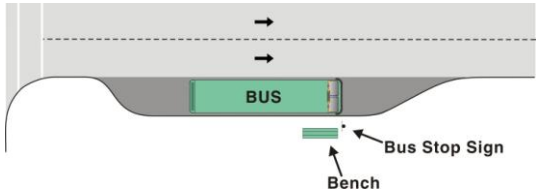
AVL systems for transit allow dispatchers to know the location of each bus at any given time. A global positioning system (GPS) receiver and tracking device is installed on each bus with a graphic display located in the dispatch center that allows the dispatcher to see and read the location of each bus on a geo-coded map display. AVL is a key technology that ties many of the typical ITS elements, including the scheduling software system, transit signal priority, real-time passenger information, and fare collection systems.

AVERAGE DAILY TRAFFIC (ADT) VOLUMES

The average number of vehicles traveling on a segment in both directions during the 24 hours of a day.

BUS BAY

A designated area located to the side of the main roadway for buses to stop and pick up and drop off passengers without interrupting traffic.



CURBSIDE RUNNING WAY

A transit lane located near the outside curb and used by transit vehicles and right-turning vehicles.

Curbside Running Way – Las Vegas, Nevada

DOWNTOWN BOISE MULTIMODAL CENTER

A future transit station in Downtown Boise where passengers can transfer between different modes of transportation (i.e., bus, light rail, cars, bicycles, walking).

FREQUENCY

The interval of time scheduled between the arrivals of two consecutive buses at the same stop. For example, the existing Route 9 on State Street operates at 30 minute frequency.

HIGH CAPACITY TRANSIT

A transit system that includes one of many bus or rail technologies, such as bus rapid transit, light rail or heavy rail, designed to provide frequent service along heavily traveled corridors.

Heavy Rail - Salt Lake City, Utah

Bus Rapid Transit - Eugene, Oregon

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.

INTELLIGENT TRANSPORTATION SYSTEMS (ITS)

Technology-based applications for improving the safety and performance of roadway and transit systems, such as timed signals, dynamic message signs, and transit signal priority.

IN-VEHICLE TRAVEL TIME

The time it takes a transit vehicle or automobile to travel from point to point along a given roadway segment. An example would be the time it takes a bus to travel between the intersection of State Highway 44/Eagle Road and the future Downtown Boise Multimodal Center at 11th and Bannock.

MULTIMODAL

Pertaining to more than one mode of transportation (i.e., automobile, bus, light rail, bicycle, walking). For example, a multimodal corridor would accommodate other modes in addition to the automobile.

LAND USE MASTER PLAN

A long-range land use plan for State Street that will identify development opportunities, TOD sites, design principles, zoning code changes, and pedestrian/bicycle plans.

LEVEL OF SERVICE (LOS)

A measure used to characterize traffic flow conditions along a specific roadway/route segment as a function of the average control delay. Level of Service is described using the letters A through F, with A being better performance (*City of Boise State Street TOD Policy Guidelines*).

MEDIAN RUNNING WAY

A transit lane located in the center of the roadway and used only by transit vehicles.

Median Running Way – Las Vegas, Nevada

MIXED TRAFFIC RUNNING WAY

In a mixed traffic running way, transit operates in mixed traffic lanes with all other vehicles on the corridor. For example, ValleyRide Routes 9, 9X, and 44 operate in a mixed traffic running way on State Street.

Mixed Traffic Running Way – Boulder, Colorado

PARK & RIDE

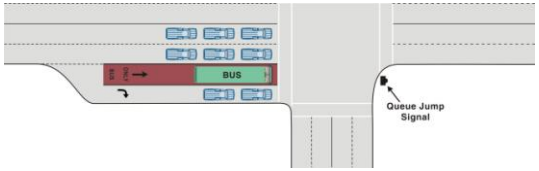
A facility for transit passengers to park their vehicles while riding transit.

Park & Ride at State Highway 44/Edgewood Lane – Eagle, Idaho

Park & Ride – Boulder, Colorado

QUEUE JUMP LANE

Right-turn lanes or separate designated bus lanes where transit vehicles are not required to turn right, gaining the ability to travel through an intersection without waiting in a queue of through vehicles. Queue jump lanes typically operate in conjunction with transit signal priority at certain intersections.



Queue Jump Lane – San Diego, California

RIGHT-OF-WAY (ROW)

Right-of-way is a strip of land that is reserved for public use. Examples could be a street, road, bus lane, rail alignment, sidewalk, or path.

RUNNING WAY

The facility or environment in which transit operates. Mixed traffic, median, and curbside running ways were evaluated on State Street.

TRANSIT SIGNAL PRIORITY

An operational strategy that moves transit vehicles through an intersection by modifying the traffic signal. For example, buses could get a green light before the rest of the traffic.

TRANSIT-ORIENTED DEVELOPMENT (TOD)

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.

In this study, each TOD was classified as a Transit Employment Center, Neighborhood Transit Zone, Urban Town Center, Urban Neighborhood Center, or Enhanced Bus Rapid Transit Station.

Example Urban Town Center TOD

TRAVEL DEMAND MODEL

A computer program that provides a forecast of average weekday traffic (ADT) for each link of a given transportation network (i.e., roadway and transit) and demographic (i.e., population and employment) data set. The model is regularly maintained and updated to include all completed roadway projects.

Future year model networks include funded roadway and transit projects and land use projections (*ACHD Transportation and Land Use Integration Plan Livable Street Design Guide*). For example, COMPASS maintains the travel demand model for Ada and Canyon Counties.

VOLUME-TO-CAPACITY (V/C) RATIO

Value used to measure the level of traffic congestion at an intersection or a roadway segment.

YIELD-TO-BUS POLICY

A law requiring automobiles in travel lanes to yield to buses entering the travel lane. This law enables the use of bus pull outs since the transit vehicles do not need to find a gap in traffic in order to reenter the travel lane. Yield-to-bus laws currently exist in states such as Florida, Oregon, and Washington. At a local level, the City of Missoula recently passed a Yield-to-Bus Ordinance.