BOISE

TRANSPORTATION ACTION PLAN

City of Boise

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A plan for a modern transportation system that puts people first

A street is much more than a street. It is where life happens.

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Introduction

(Where we're coming from)

What is the TAP? How did we get here? Boise Now

What is the Boise Transportation Action Plan?

A plan for a transportation system that puts people first.

The Boise Transportation Action Plan (TAP) is a road map to a modern, well-balanced transportation system that provides real mobility choices and creates great places. The TAP expresses the people's vision, values, and goals developed over the last seven years of planning work by the City and its transportation partners.

Real mobility choices means that all citizens have the option to bike, walk, ride, or drive in safety and comfort. To realize this vision, the TAP identifies a set of actions or 'Moves' that describe strategic objectives and provide a framework for prioritizing transportation projects within the City of Boise.
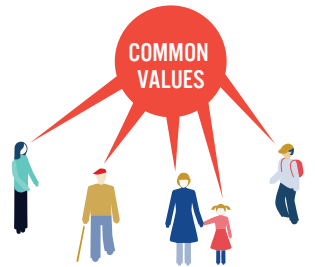
This plan provides a vision for what Boise's transportation system could be...
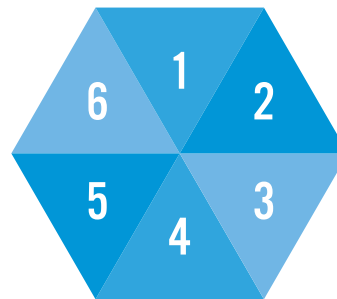
p.36

COMMON VALUES

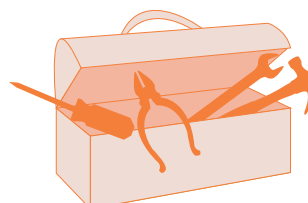...based on Boise's shared values for a high quality of life...

p.37

...focused into six catalytic moves or actions that prioritize the City's work ahead...

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...which will need tools and best practices to be realized. p.64

The TAP is not just about infrastructure — it's about livability.

Real mobility choice improves our health and connections to our neighbors, promotes economic prosperity through connecting people to goods, services, and jobs, and serves as the backbone for vibrant communities. To realize this potential, the TAP not only recommends targeted investments in transportation infrastructure, but also recommends actions and metrics for creating great places. Just as importantly, the TAP articulates and documents the economic, environmental, and quality of life benefits of a high-quality, multi-modal transportation system.

The TAP recommends actionable Moves that are tailored to Boise.

The TAP takes transportation best practices and tailors them to Boise's context, resulting in a vision of a well-balanced transportation system. The "action" aspect of the document distinguishes the TAP from traditional transportation plans. The goal of the TAP is not to reinvent the transportation-planning wheel, but to take the existing body of work, build on it, and reshape it to meet the needs of a vibrant and growing City.

The TAP looks towards the future of Boise.

The moves articulated in the TAP are about changing the way we think about and utilize the public right-of-way. With Boise's community and future growth in mind, the TAP's intended outcomes are:

1. A community that is energized by a collective vision for a modern transportation system and motivated to help implement it.

2. Streets and pathways designed and built for current and future generations of citizens.

3. A transparent prioritization framework that reflects the City's vision and values for transportation.

4. A cultural shift recognizing the automobile as just one mode choice, not the only or even the primary choice, amongst a range of options.

How did we get here?

The City of Boise, the Ada County Highway District, the Community Planning Association of Southwest Idaho, and Valley Regional Transit have conducted extensive planning efforts that set the stage for this document.

The TAP builds on the work that has been completed to date, so that these plans can be translated into meaningful and strategic action.

> "Boise has indicated a desire... for a connected Treasure Valley that provides safe and efficient facilities for pedestrians, bicycles, vehicles and transit."
>
> *- Blueprint Boise*
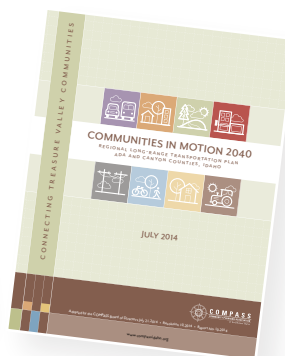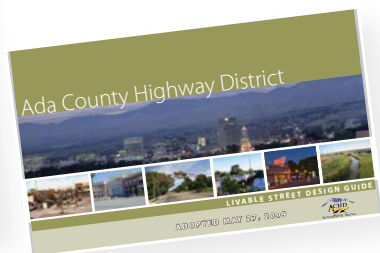
Blueprint Boise: Stable neighborhoods, vibrant centers, a connected community.

Blueprint Boise's top-level goals are for Boise to have **stable neighborhoods and vibrant mixed-use activity centers,** as well as be a **connected community,** with **"safe and efficient facilities for pedestrians, bicycles, vehicles, and transit."**

The TAP translates *Blueprint Boise's* vision of stable neighborhoods, vibrant mixed-use centers, and a range of quality transportation options into actionable strategies, and provides a framework for continued prioritization of transportation projects.

ACHD's *Livable Streets Design Guide and Complete Streets Policy:* Streets for all modes, ages, and abilities.

The Ada County Highway District (ACHD)'s design parameters for streets recognize that streets are built for people and communities. The recommended guidelines are specific to different built environments of Ada County. The guidelines respect the roles that different built environments play in the county, and accordingly support diverse patterns of travel appropriate to each place type. *The Complete Streets Policy* provide guides for streets that address and balance safe and quality for all users of the road.

Communities in Motion 2040 Vision: Supporting growth and quality of life.

Communities in Motion 2040 (CIM) is the long-range transportation plan for the region completed by COMPASS, the Metropolitan Planning Organization. The *Communities in Motion 2040* Vision accommodates growth while enhancing quality of life. In order to promote economic development, affordability, health, and well-being, CIM 2040 recommends clustering of housing, jobs, and services near transportation infrastructure, with a focus on transit corridors and major activity centers. In addition, the CIM vision aims to increase transportation choice and enhance multi-modal infrastructure throughout the region.

Valleyconnect: A comprehensive alternative transportation system.

The Valleyconnect Plan, created by Valley Regional Transit establishes a vision of the comprehensive alternative transportation system needed, given the growth projections for the Treasure Valley. It identifies transportation options, other than driving alone, that are currently in Ada and Canyon Counties, and provides an assessment to determine gaps between existing needs and services.

2
Boise Now

1 A City recognized for quality of life...

2 ...that is growing rapidly.

3 Business as usual is costly

4 Street design impacts neighborhoods

5 Boise chooses a transportation system that supports livability

6 One City, many Place Types

A City recognized for quality of life...

Boise has been recognized not only as a travel destination, but also as a great City for tech, culture, and raising a family. It's been recognized as one of the most physically active cities in the U.S., one of the best cities to move to, and one of the best places to live.

Boise is one of the most physically active cities in the U.S.

Whether cycling the greenbelt, hiking the foothills, kayaking whitewater, or enjoying Boise's extensive park network, recreational opportunities abound. A recent study found Boise to be the 5th most physically active major City in the US.[1]

The people of Boise incorporate physical activity into daily life.

Physical activity is more than a weekend activity in Boise; the City ranks 4th in the nation among 114 large US cities in its share of commuters who bike to work.[2] In Boise, alternative modes of transportation like walking and biking have been increasing since 2000. This could help explain why Ada County is ranked 6th in the state for overall health outcomes.[3]

Boise is a thriving cultural and technological center that people want to call home.

With its unique museums, strong university, and growing technological center, Boise has been recognized as one of the most promising places for investment and also one of the best places to live. This economic potential is balanced with Boise's incredible outdoor community, with an unspoiled natural environment and 26 miles of pathway along the Boise River, and 180 miles of trails in the foothills located immediately north of Downtown earning it the title of one of the best places to raise an active, healthy family.

1. Center for Disease Control
2. 2008-2012 American Community Survey, US Census Bureau
3. *County Health Rankings and Roadmaps*, Robert Wood Johnson Foundation, University of Wisconsin
4. livboise.org

Boise is recognized as one of the Top 10 Big Cities for Active Families.[4]

The people of Boise embrace active living, innovation, and vibrant communities.

Investments in real mobility choices can support this momentum.

...that is growing rapidly

Boise is a fast growing metropolitan area.

This growth is particularly pronounced in populations over 55 years old. Baby boomers and millennials are increasingly expressing a preference for a wider range of transportation options.

As the population in the metropolitan region continues to grow, so does the pressure on Boise's transportation system.

1990 / Canyon & Ada Counties

2013

2040 Projection
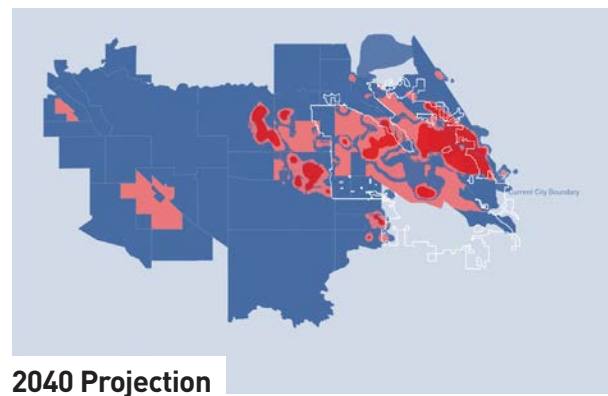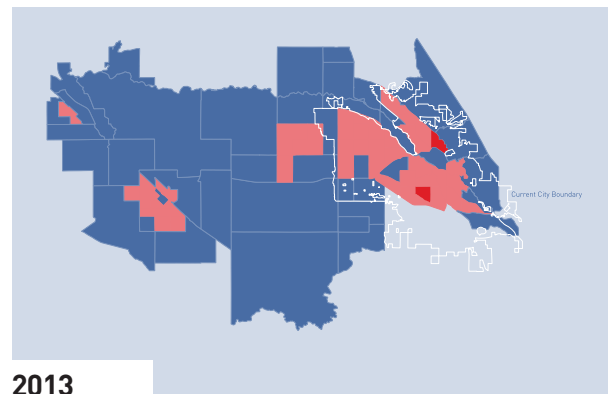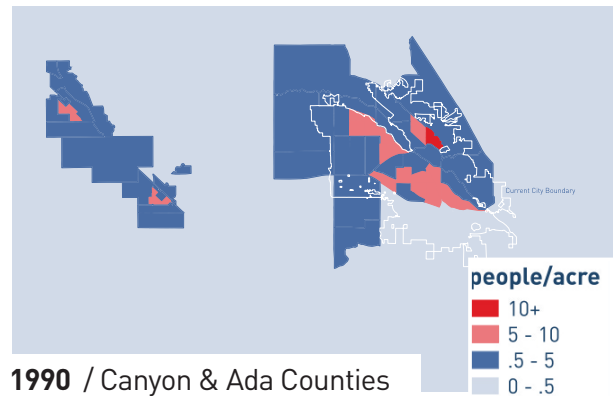
People are choosing Boise. Population growth means high pressure on the City's infrastructure.

Boise was number 20 in the 2010 Census' list of top 20 fastest-growing metro areas. Since 1970 the population of Boise has increased by 186%. This growth is not stopping anytime soon. By 2040, Boise's population will have increased by over a third, from 237,000 residents in 2010 to 317,000 in 2040.[1]

Jobs are growing faster than population. This places higher loads on transportation infrastructure, and the need to accommodate more people commuting into the City.

Boise's job pool is projected to increase even more dramatically than its population, by 66%.[1] More workers means more commuters, and more demand on existing infrastructure. These workers will require a transportation system that supports multiple transportation options.

Millennials and baby boomers, seek alternatives to private vehicles.

Over 40% of the population of Boise is under 30 years old.[2] This population has marked differences in travel preferences from previous generations. Many are choosing a car-optional lifestyle and prefer to live in neighborhoods that support a range of mobility options.[3]

Baby boomers, aged 55 to 70, are approximately 19% of the population,[2] and a significant part of the home-buying public. They express a desire for walkable neighborhoods where they can access services safely and conveniently. [4]

To meet these challenges, Boise must prioritize the mobility options that future residents will want and need, modernize its transportation system, and expand the range of transportation options.

1. COMPASS, CIM 2040
2. U.S. Census Bureau
3. U.S. Public Interest Research Group, "Millennials in Motion"
4. Transportation for America, "Aging in Place – Stuck without Options: Fixing the Mobility Crisis Facing the Baby Boom Generation"

Business as usual is costly

Continuing to allocate scarce transportation resources to costly roadway expansion projects is an inefficient use of funds, both today and in the future. Today, the expansion of roads and streets to accommodate more lanes of automobile traffic consumes a large portion of the regional transportation budget, taking money from investments that could be made on expanding mobility choices, and promoting neighborhood quality.

Excess Capacity
Building bigger roads does not solve congestion - in fact, it creates new problems for safety, livability...and more congestion.
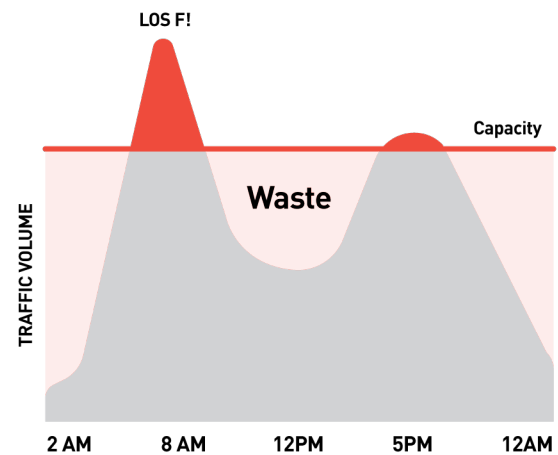
Think about the use of roads over 24 hours
Building for peak hour traffic means under utilized infrastructure during most of the day.

'Business as Usual' imposes high costs on society.

Roadway projects are typically much more expensive to develop and maintain in the long run than pedestrian and bicycle projects. These costs are not just economic, but environmental and social, too. Planning around the automobile results in increased emissions and air pollutants. In recent years Boise has been at risk of becoming a non-attainment[1] area due to persistent air quality problems. Auto-dependent communities also report worse health outcomes and a higher rate of social isolation.

Every dollar spent on expanding the road network is a dollar less that can be used to maintain or optimize existing roads.

Road network expansion requires a significant capital investment and increases backlog of maintenance expenses. Rather than expanding the network, resources should be allocated on critical maintenance needs, improving multi-modal connectivity, and serving all street users including pedestrians, cyclists and transit users. All of this can be achieved without expanding the road network and inducing more demand and strain upon it.
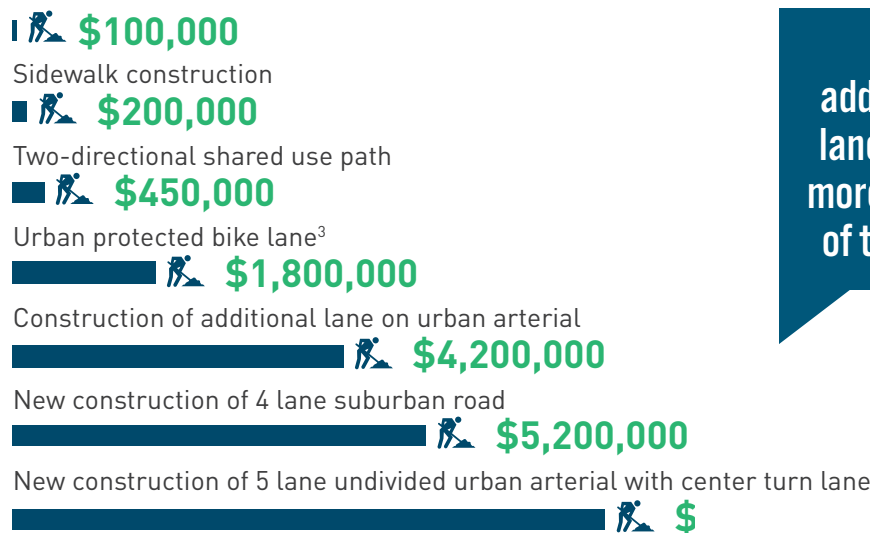
How much does it cost per mile?[2]

With careful design and planning, pedestrian and cycling infrastructure can safely and efficiently move large numbers of people and relieve the need to build more expensive roadways.

$100,000
Sidewalk construction

$200,000
Two-directional shared use path

$450,000
Urban protected bike lane[3]

$1,800,000
Construction of additional lane on urban arterial

$4,200,000
New construction of 4 lane suburban road

$5,200,000
New construction of 5 lane undivided urban arterial with center turn lane

$

Maintenance burden of sprawling roadways

Investment in transit and active mobility

> A mile of an additional vehicular lane costs 16 times more than a sidewalk of the same length.

1. Non-attainment area: In United States environmental law, a non-attainment area is an area considered to have air quality worse than the National Ambient Air Quality Standards as defined in the Clean Air Act.
2. Illustrative figures based on U.S. Generic Cost Per Mile Models, 2014
3. Andersen, M. – No, Protected Bike Lanes Are Probably Not Too Expensive For Your City to Build, 2014

To learn more read
Boise's TAP Whitepaper:
The High Cost of Business as Usual

Street design impacts neighborhoods

Street design has a direct and noticeable impact on the livability of Boise's communities. When streets are designed primarily for cars, they fail to provide a comfortable and welcoming environment for walking, biking, or staying. For many Boise residents, conventional road design has had a negative impact on their health, convenience and quality of life.

Streets designed for cars and speed fragment communities
Wide streets, designed to optimize vehicular throughput have a direct impact on residents health, quality of life, and home values. People who live along these streets are less likely to walk or participate in neighborhood life.

Balanced streets mean better neighborhoods
Streets designed to accommodate a range of modes, including walking, biking and riding transit are safer for all and contribute to the commercial vibrancy and character of Boise's communities.

Streets serve many important functions.

Streets serve more than just one function. Along with moving cars, they move transit, pedestrians, cyclists, and freight. They can serve as common spaces for relaxation, socializing, shopping and getting exercise. Moreover, beyond their transportation function, streets serve as critical elements of a City's environmental, cultural, and public utility infrastructure.

Street design impacts the health, social cohesion, and economic prosperity of neighborhoods.

Streets that do not offer real mobility choices impair public health. Even if a park is within walking distance, a dangerous or uncomfortable pedestrian experience will discourage walking to the park. Streets that do not provide comfortable alternatives to driving present a barrier to access for people, especially those who cannot drive, such as children, the elderly, people who are handicapped, and low-income.

People living on high-traffic streets report fewer relationships with their neighbors, and every minute spent driving reduces time spent on community affairs.[2] By contrast, walkable, compact neighborhoods foster stronger social ties.

Designing a network of streets that offer real mobility choices improves economic prosperity. Walkable neighborhoods with good access to transit are associated with higher property values, increased retail sales, and better economic resilience. The bottom line – designing and building walkable, bikeable streets is good for people, the environment and business.

1. Litman, T. Evaluation of Public Transportation Health Benefits, Victoria Transport Policy Institute (VTPI), 2015.
2. Ewing, Cervero, Travel and Built Environment: A Synthesis, Transportation Research Record, Vol. 1780, 2001.
3. US EPA, Smart Growth And Economic Success: Investing In Infill Development, 2014.

Street design and land use must be aligned to promote neighborhood quality.

Residents of low-density, neighborhoods similar to Boise's suburbs have higher rates of obesity, hypertension, diabetes, asthma, and other chronic medical conditions than residents in compact, walkable communities.[1]

For a community to be walkable, there needs to be the appropriate level of density and mix of uses so that people have destinations that are at convenient distance. The lack of proximity to goods and services leads to more automobile trips, less active lifestyles, and less convenience for residents. For the 30% of Boise residents without a driver's license, this lack of access becomes a true barrier to healthy living.

Only one third of suburban residents can conveniently walk to a grocery store.

To build and support vibrant neighborhoods, start with designing streets and encouraging land uses that support mobility choices, and offer people convenient access to amenities.

Boise chooses a transportation system that supports livability

The people of Boise choose quality of life over car-centric street designs. The City's Comprehensive Plan *Blueprint Boise* expresses a vision of a City where people can walk, bike and ride transit with safety and comfort.

Boise aspires to become the Most Livable City in the country. This vision is becoming a reality through a range of programs and collaborative initiatives that aim at creating lasting environments, cultivating innovative enterprises and building vibrant communities.

This Transportation Action Plan aligns with these efforts by promoting a modern and well-balanced transportation system that expands the choices of travel.

Most people in Boise have limited transportation options aside from private cars, but the tide is shifting.

In Boise, a large majority of trips are made by car and private cars are the only viable transportation option for many families. However, the past decade has seen a shift towards other modes.

Coincident with increases in walking, biking, and transit commutes, fewer residents of Boise are choosing to commute by car. Boise saw a decline in car commuting of 2.4% from 2006 to 2013, even with population increases.[1]

Boise ranked 4th among large cities for people commuting by bike.[2]

The Comprehensive Plan *Blueprint Boise* voices Boise's goals: being able to walk to the store, and have quality transportation options.

"Provide opportunities for residents to meet most daily needs within walking distance." This *Blueprint Boise* directive underscores the importance of distributed and accessible mixed-use-activity centers. In addition, the Blueprint states that each vibrant activity center should be served by a transit stop.

The people of Boise have also envisioned a community actively connected by a range of transportation options. To achieve this goal, *Blueprint* commits to:

1 **Expand alternatives to driving** by improving pedestrian and bicycle safety and comfort;

2 **Expand the transit system** by focusing on streets with dedicated space for transit, and high quality, pedestrian-accessible transit stops located at activity centers;

3 **Support safe routes to schools** focusing on transit, walking, and biking routes;

4 **Design streets to consider all travel modes**, focusing on safe, comfortable intersections and crossings for cyclists and pedestrians;

5 **Encourage connectivity** without widening existing streets or building new streets, by expanding transit, bicycling, and pedestrian service.

1. McKenzie Brian. 'Who Drives to Work? Commuting by Automobile in the United States: 2013. US. Census Bureau. August 2015
2. 2008-2012 American Community Survey, US Census Bureau

One City, many Place Types

Boise is far from being a homogeneous place. It is formed by neighborhoods that vary greatly in terms of urban form and building typologies, resulting on a range of attitudes and preferences about modes of travel.

Place Types

- **Downtown**
- **Mixed-use Corridor**
- **Compact Neighborhoods**
- **Suburban**
- **Parks & Open Space**
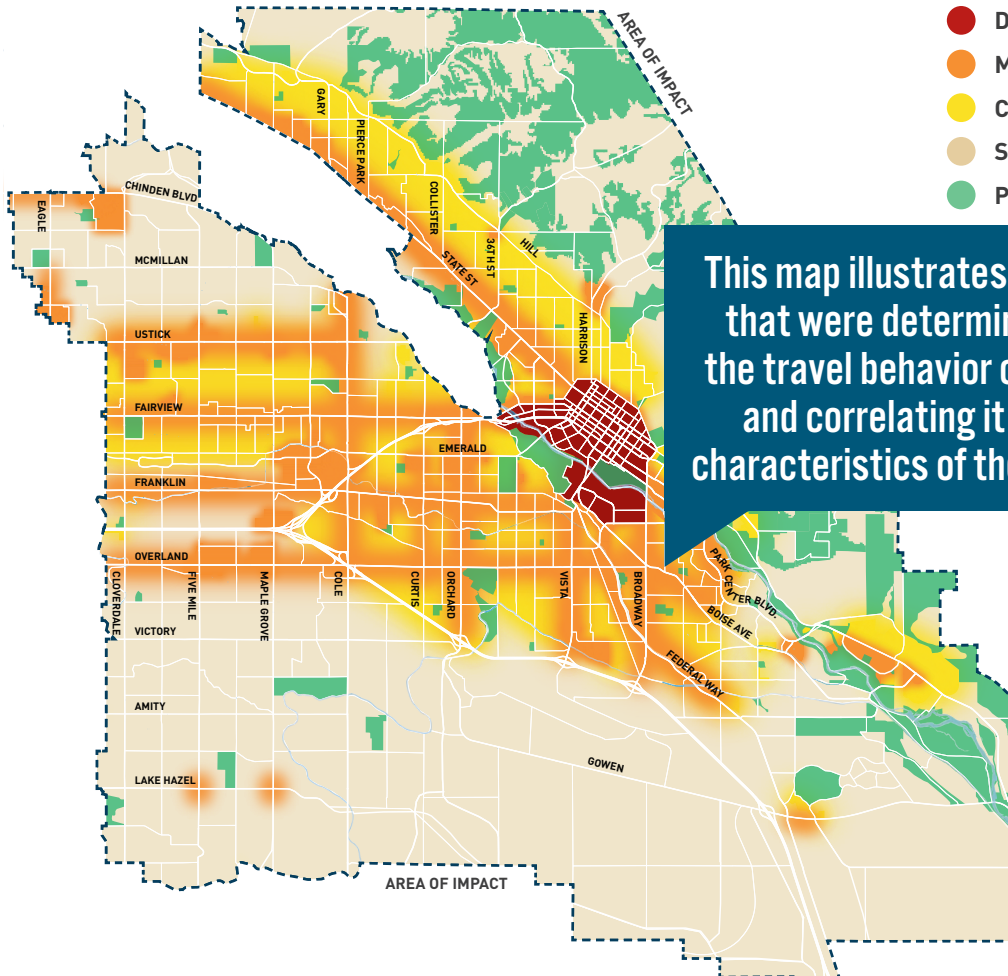
This map illustrates four Place Types, that were determined by analyzing the travel behavior of Boise residents and correlating it to the physical characteristics of their neighborhoods.

"There is no one-size-fits-all solution for Boise."

Different neighborhoods require different solutions Today, residents in Downtown, mixed-use corridors, and compact neighborhoods are at least six times more likely to walk or bike than residents in suburban areas. Understanding the challenges and opportunities of each Place Type is key to developing a transportation system that works for the City as a whole. The following page summarizes the characteristics of each Place Type and the focus of the strategy.

Downtown

With its historic buildings, mix of uses and vibrant diverse civic life, Boise's Downtown has the conditions to be Boise's most walkable sector. The high density of jobs and commuters, increases the need to prioritize alternatives to the automobile for trips within the Downtown.

Focus on walking and biking!

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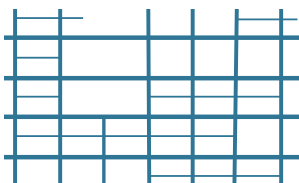
Avg. Block Size: **300' X 300'**

Avg. Street Width: **50'**

Connectivity: **Many Intersections, High Connectivity**

LIVING & WORKING

Households Per Acre: **1.91**

Jobs Per Acre: **47.03**

MODE SHARE

61% 🚗
24% 🚶
6% 🚴
other: 9%
🚌 0.1%

Walk: **24%**

Bike: **6%**

Bus: **0.1%**

Car: **61%**

Other: **9%**

Downtown

Potential focus for each mode of transport

Downtown's already good pedestrian environment can be fostered.

Most lines already serve Downtown. Transit can play a stronger role in placemaking.

Biking can continue to grow as one of the best ways to get to, and around, Downtown.

Downtown has the potential to be the least car-reliant part of Boise.

Residents Profile

-Jeff, 63
-Becky, 63

Live in: North End

"If I have to buy something I ask – Can I walk or bike there? It factors into how I make my purchase decisions."

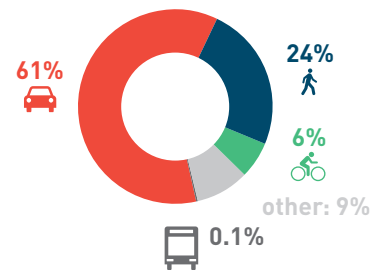*-Jeff, 63, Retiree*

"A major factor in our choice to move to Downtown Boise was to be able to do most of our transportation on foot and on bicycle. Since we've lived here, we've been able to accomplish that."

-Becky, 63, Retiree

How do you get around? Mostly we walk for everything we need. We love to bike in good weather and occasionally take the bus, but it doesn't run early or late enough to be used regularly. We also drive, but rarely – we had two cars, but sold one of them because it was unnecessary.

What changes would you like to see?
Improved bike infrastructure and public transportation.

Mixed-use corridors

Mixed-use corridors are characterized by frontages on commercial arterials with large parking lots separating the buildings from the street. Multiple driveways increase conflict points between cars, pedestrians, and bicycles, and high speeds decrease safety for all users. Opportunities exist for infill development within parking lots and the addition of dedicated transit lanes to the street.

Focus on transit-oriented development!
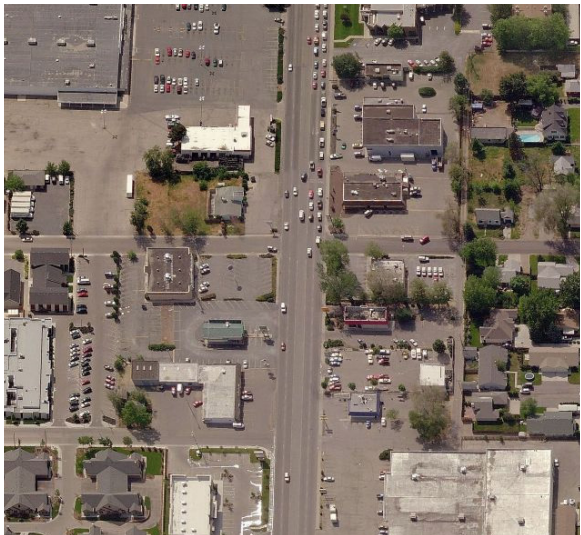
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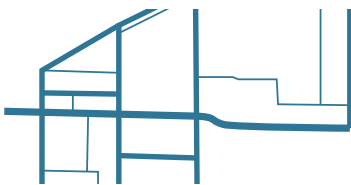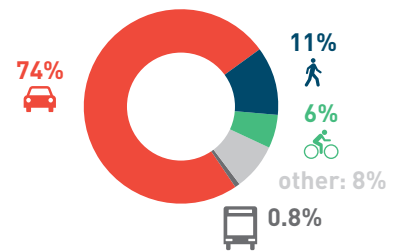
Avg. Block Size: **N/A**

Avg. Street Width: **60'**

Connectivity: **Few Intersections, Moderate Connectivity**

LIVING & WORKING

Households Per Acre: **1.52**

Jobs Per Acre: **8.29**

MODE SHARE

74%

11%

6%

other: 8%

0.8%

Walk: **11%**

Bike: **6%**

Bus: **0.8%**

Car: **74%**

Other: **8%**

Mixed-use corridors

Potential focus for each mode of transport

Walking can be made safer and more pleasant, starting with serving areas around parking.

Large improvements are possible to service and transit stop experience.

Biking can be made safer and more focused on daily needs like shopping.

Reliance on cars can be decreased over time as other modes become more viable.

Residents Profile

-Brock, 31
-Wife, 32
-Children, 8 & 2

Live in: Vista

"We chose this neighborhood to have access to multiple transportation modes. Our house is next to a bus stop and a few blocks from a major bikeway. We wanted flexibility and options for getting around."

-Brock, 31, Architect

How do you get around?
When the weather is decent, I prefer to bike. If it's raining, I'll take the bus. If I have appointments, meetings, or obligations, I'll take my car.

What changes would you like to see?
A more robust public transportation system, continuous sidewalks, and a more walkable neighborhood.
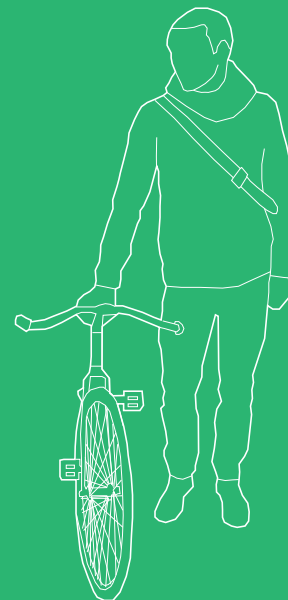
Compact neighborhoods

Compact neighborhoods have the highest residential density of all place types and typically, a walkable, human-scaled grid. However, many of the streets lack sidewalks and the wide lanes encourage faster driving. The focus for these areas is on calming traffic and creating the conditions for people of all ages to be safe on these streets.

Focus on safety and livability!
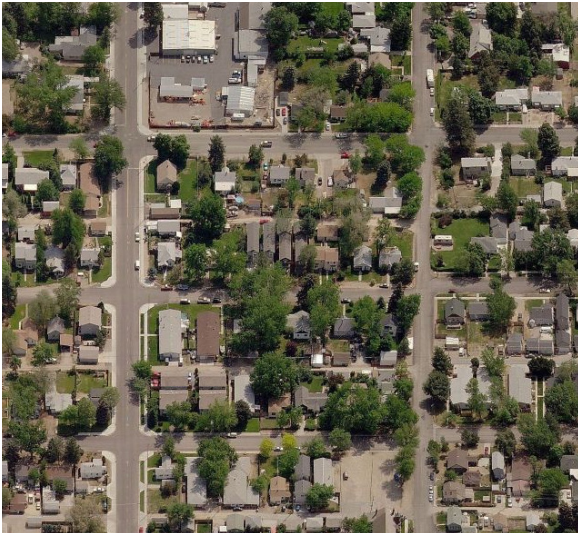
URBAN FORM
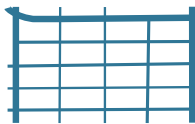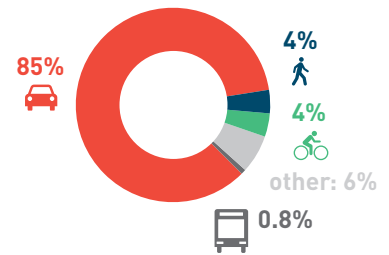
Avg. Block Size:	**300' X 150'**
Avg. Street Width:	**34'**
Connectivity:	**Many Intersections, Medium to High Connectivity**

LIVING & WORKING

Households Per Acre:	**3.17**
Jobs Per Acre:	**1.29**

MODE SHARE

85%
4%
4%
other: 6%
0.8%

Walk:	**4%**
Bike:	**4%**
Bus:	**0.8%**
Car:	**85%**
Other:	**6%**

Compact neighborhoods

Potential focus for each mode of transport

Already walkable, small improvements can address safety at crossings and comfort.

Depending on location, bus service may be improved, if done efficiently.

"Last mile" connections to the bike network will improve ridership.

Modest to large reductions in car dependence are possible.

Residents Profile

-Vanessa, 39
-Husband, 38
-Children, 6 & 4

Live in: North End

"Our neighborhood doesn't have sidewalks or bike lanes. When my kids were really little I didn't let them bike. Now, I bike with my kids to school. The 6-year-old I let bike in front of me, but the little one - I keep myself between her and the cars."

-Vanessa, 39, Researcher/Educator

How do you get around?
We walk around our neighborhood and to the park. If it's further away, we'll bike or drive there. As long as the weather is good, we bike more than we do anything else. My kids love biking to school!

What changes would you like to see?
Continuous sidewalks, traffic calming, separated and protected bike infrastructure, especially near schools.

Suburban neighborhoods

Low-density suburban neighborhoods usually do not offer multiple "real" mobility options: the only viable mode for most journeys is the automobile. However, there are opportunities to expand mobility options in these areas by increasing the connectivity of the pedestrian and bike networks within the neighborhoods, and, by developing a network of "All Ages" bike facilities that provide access to connect to local parks, schools, stores that link to the City's network.

Focus on supporting active mobility!

URBAN FORM
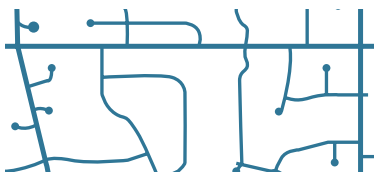
LIVING & WORKING

MODE SHARE

1%

2%

other: 8%

88%

0.7%
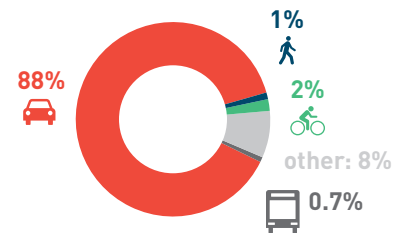
Avg. Block Size:	N/A
Avg. Street Width:	55'
Connectivity:	**Few Intersections, Low Connectivity**

| Households Per Acre: | 0.54 |
| Jobs Per Acre: | 0.26 |

Walk:	1%
Bike:	2%
Bus:	0.7%
Car:	88%
Other:	8%

Suburban neighborhoods

Potential focus for each mode of transport

Modest improvements are possible for pedestrians.

Low density limits efficiency, but modest transit improvements may be possible.

Modest improvements are possible for those biking.

Cars will continue to be important for suburban users, but ridesharing can increase.

Residents Profile:

-Anna, 32
-Husband, 30

Works in: Lake Hazel

How do you get around?
Primarily by car to get to work and run errands. Sometimes we walk for recreation or to a coffee shop that's near by.

What changes would you like to see? I wish there was better public transit, more continuous sidewalks, and bike lanes that are move connected and consistent.

"The focus of the improvements shouldn't just be Downtown, but also where most people live and work in Boise. These changes should allow people who can't drive to be able to get around, especially to their local library!"
-Anna, 32, Librarian
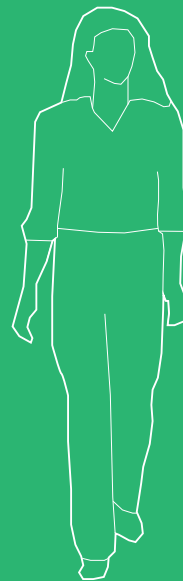
3
Vision for Mobility

(Where we want to go)
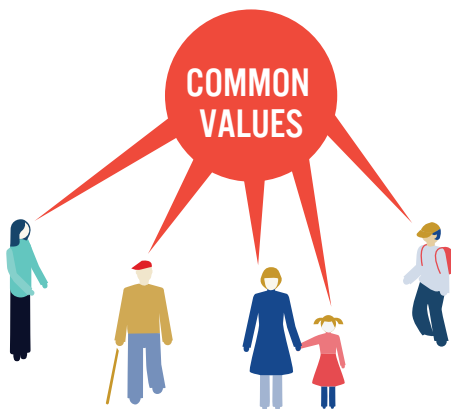
Mobility Values Illustrative Options

We envision a City where

all people

enjoy **real transportation choices**

that offer **safety,**

optimize infrastructure,

and support **vibrant neighborhoods.**

This is the vision for transportation in Boise.

These **mobility values** are the foundation for the ideas and objectives described in this *Transportation Action Plan.* This vision puts the people of Boise first by building on previous planning efforts including: *Blueprint Boise*, *Communities in Motion,* ACHD's *Complete Streets Policy* and *Livable Streets Design Guide,* and Valley Regional Transit's *ValleyConnect Regional Transit Plan.*

All people

All means all. Whether young, old, disabled, rich or poor - All Boise citizens deserve a transportation system that allows them to reach the places they want to go. This emphasis requires the City to think about the mobility needs of people who can't drive because they are too young, too old, or because they can't afford it.

Real transportation choices

Boise aspires to offer a range of options for how to move between home, work, school, and services. For those options to be "real" they need to be available, convenient, safe, and affordable. Boise will offer its citizens a range of mobility options that don't require sacrificing convenience or comfort.

Safety

Safety is fundamental to a livable City and Boise desires safe infrastructure for all people whether they are walking, biking, driving or using transit. The transportation system should be designed to enhance real safety as well as the perception of safety for by giving each mode space, protection and predictability.

Optimize infrastructure

Boise recognizes that it can no longer build its way out of congestion, nor can we afford to maintain an ever-expanding road network. Instead, we will utilize the existing infrastructure and new technologies to their greatest effect to build a system that is resilient and sustainable. A system that gets more value of the existing roads by accommodating more modes within the existing infrastructure.

Vibrant neighborhoods

Mobility investments should drive economic development, energize commercial districts, and produce quality neighborhoods that retain value through time. Creating prosperous and walkable neighborhoods that offer opportunities for people to meet and connect means thinking of streets as people places as much as vehicle spaces.

Illustrative Options

What might the streets of Boise look and feel like if they embodied these mobility values?

While the mobility values are applicable to the City as a whole, the implementation will look different in various parts of the City. Transportation projects must respond to the physical and social characteristics, challenges, and opportunities unique to their location. This section presents a series of illustrative examples that show how Boise could advance in these values, while respecting the needs of different parts of the City.

The following pages present "Sketches from the future" that show the look and feel possible in each of Boise's Place Types. These sketches are not prescriptive design standards. Rather, they represent a range of possible approaches and treatments to street design that put people first. Some of these ideas could be applied with today's standards, in other cases it may be necessary to update the City's zoning and street design standards.

///
Downtown

///
Compact Neighborhoods

///
Mixed-Use Corridors

///
Suburban Neighborhoods

"But what about cars?"

Cars are and will continue to be an essential part of the transportation system in Boise. Our City has an environment that is conducive to safe and comfortable driving, and we intend to keep it that way.

Increased traffic is a challenge that we need to tackle, but **we can't build our way out of congestion.** We can't afford it, and in the long run, it won't solve the issue.

The City and our partner agencies are working to address transportation and growth needs at the county and metropolitan levels. The City of Boise is complementing their work by focusing on what we need most at the local level: creating quality neighborhoods that offer safe and convenient options for people who choose to walk, bike or take transit.

Downtown

Gaps in the urban fabric

Wide, one-way streets with many lanes

Some storefronts are closed to view

Existing Conditions

Infill buildings create a continuous urban fabric

Trees provide comfort and continuity

Buildings feel open and address the street

Bus, bike, and pedestrian realms are well-integrated

High-quality bike lanes are comfortable for all

High quality streetscape with invitations to stay

Traffic is slow, two-way if possible, and easy to cross

Narrowed lanes

Vision for Downtown

Illustrative example for Downtown:

With its walkable street grid, historic buildings, and diverse street life, Boise's Downtown is already a vibrant center. This vision builds on the quality of Downtown by enhancing the pedestrian experience and balancing mode share.

ACTIVE STOREFRONTS
with windows, shade, and furniture

INFILL
vacant corners

SPEED LIMIT
25 mph max.

PROTECTED BIKE LANE
with parking lane

FURNISHING ZONE
for benches and bike racks

FAR-SIDE BOARDING ISLAND
with bus shelter in parking lane

PROTECTED BOARDING ISLAND ACCESS
on crosswalk

ADD TRAFFIC SIGNALS
where missing

CONTINUE BIKE LANES
through intersection with dashed borders

EXTENDED BIKE BOX
for left turns

BIKE SIGNALS
near and far sides

BIKE LANES
painted and buffered both sides

Mixed-Use Corridors

Buildings have little relationship with the street

No tree canopy

Slip lanes make walking and biking treacherous

Roadway design encourages high speed driving

Super long blocks and few places to cross

Wide lanes

Pedestrians are interrupted by potential conflict from driveways

Existing Conditions

Tree canopy creates comfort and scale

High-quality transit waiting experience

Active frontages face the sidewalks

Transit, pedestrian realm, and public facing commercial entrances are integrated

Infill commercial and limited driveways

Small public spaces/plazas break up long distances between intersections

Access consolidation

Narrowed lanes

Generous pedestrian realm

Vision for Mixed-Use Corridors

Illustrative example for Mixed-Use Corridors:

Commercial arterials serve an important function as the circulation spine of the City, but the emphasis in automobile travel has meant that these areas are often unsafe and uninviting for those on foot.

The wide lanes create an opportunity to enhance the comfort of transit users and cyclists. In certain sites, surface parking can be retrofitted with infill-mixed-use development so that these areas can become neighborhood activity centers offering a varied range of amenities to the people who live around them.

PEDESTRIAN CONNECTIONS
from streets to destinations

USE SURFACE LOTS
for Interim Design that activates the street frontage

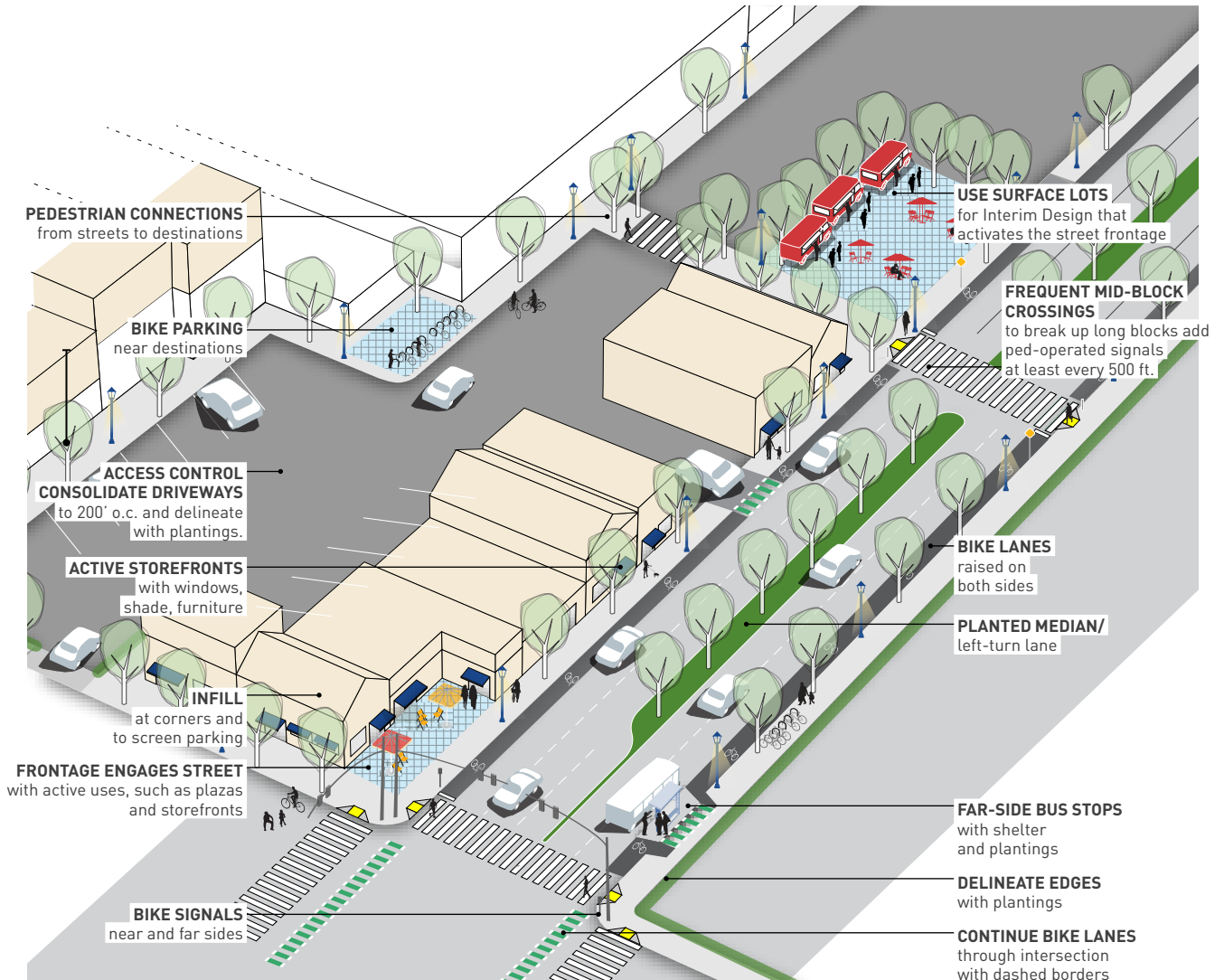**BIKE PARKING**
near destinations

FREQUENT MID-BLOCK CROSSINGS
to break up long blocks add ped-operated signals at least every 500 ft.

ACCESS CONTROL CONSOLIDATE DRIVEWAYS
to 200' o.c. and delineate with plantings.

BIKE LANES
raised on both sides

ACTIVE STOREFRONTS
with windows, shade, furniture

PLANTED MEDIAN/
left-turn lane

INFILL
at corners and to screen parking

FRONTAGE ENGAGES STREET
with active uses, such as plazas and storefronts

FAR-SIDE BUS STOPS
with shelter and plantings

DELINEATE EDGES
with plantings

BIKE SIGNALS
near and far sides

CONTINUE BIKE LANES
through intersection with dashed borders

Compact Neighborhoods

Existing Conditions

Streets often wider than needed

Large corner radii encourage speeding

Ecological infrastructure in unused space

Street geometry designed to slow traffic

Pedestrian crossings are shortened wherever possible

Signs and crosswalks acknowledge this is pedestrian priority space
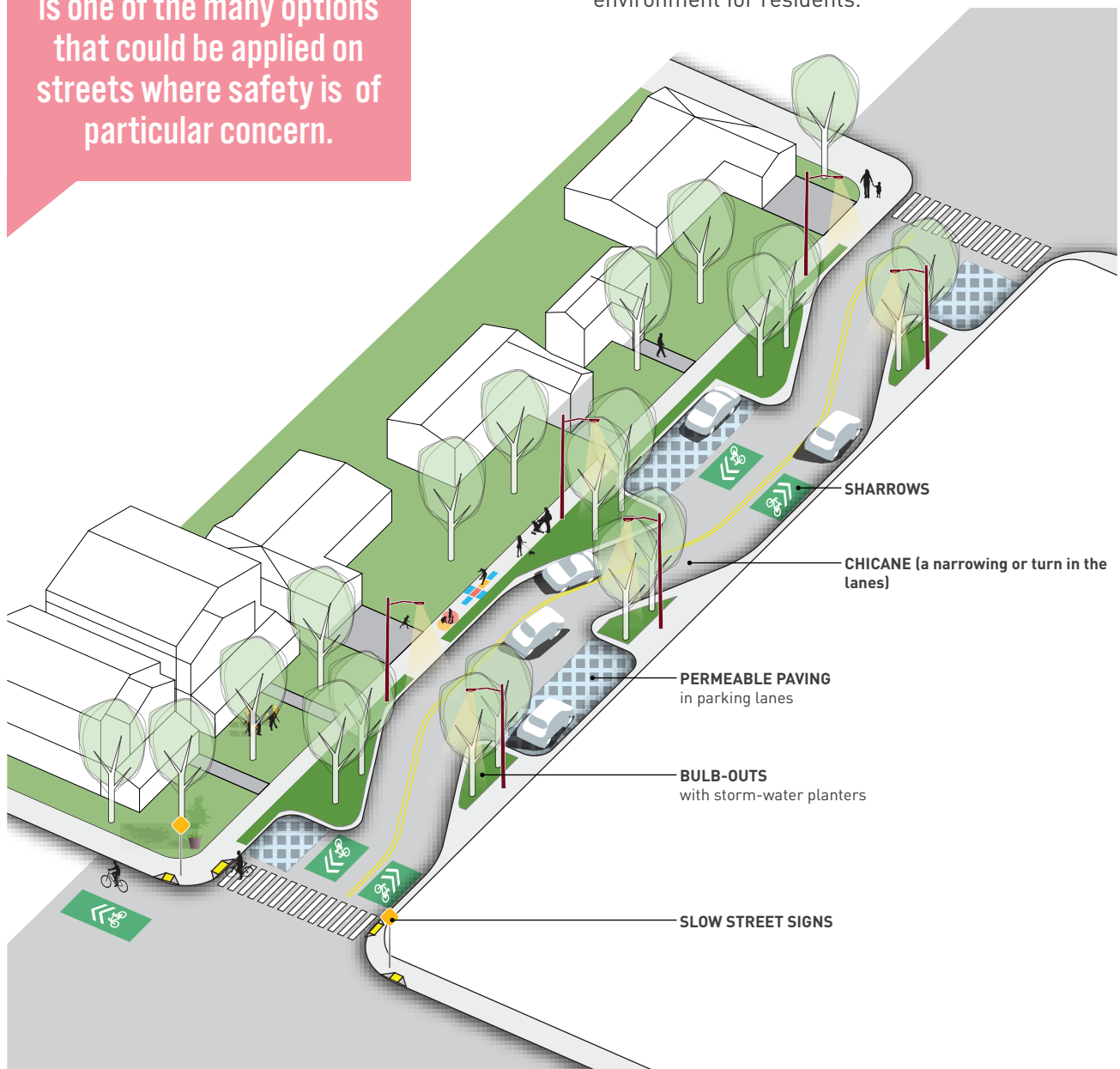
Vision for Compact Neighborhoods

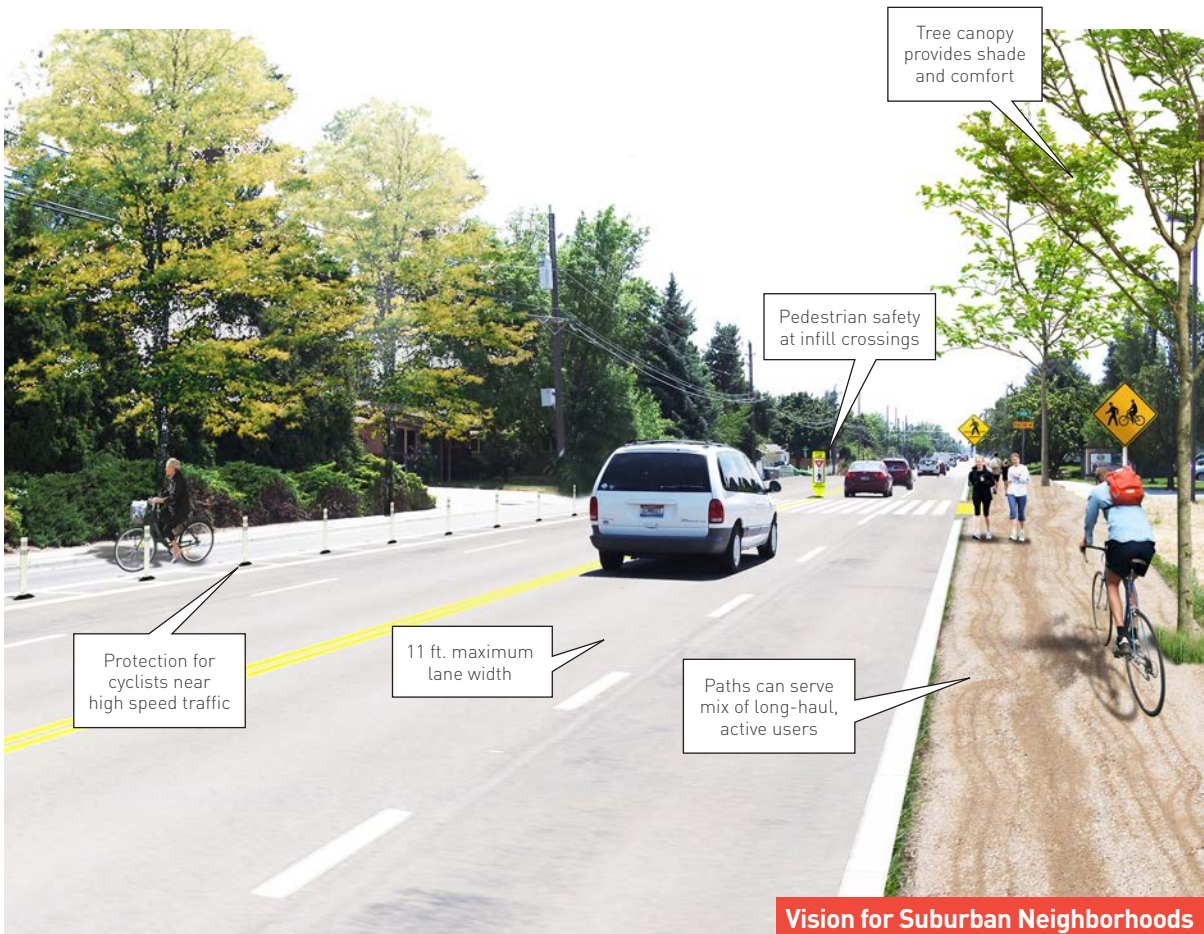# Illustrative example for Compact Neighborhoods:

Compact residential neighborhoods need streets that are safe enough for children to play and for the elderly to take a stroll. Quality residential streets green the neighborhood with trees and plants, providing opportunities for storm water infiltration.

The focus for these areas is on creating safer, greener residential streets by providing sidewalks and calming traffic to that they provide a better environment for residents.

Chicanes create extra turns, requiring drivers to slow down. This treatment is one of the many options that could be applied on streets where safety is of particular concern.

SHARROWS

CHICANE (a narrowing or turn in the lanes)

PERMEABLE PAVING
in parking lanes

BULB-OUTS
with storm-water planters

SLOW STREET SIGNS

Suburban Neighborhoods

Few points to cross safely for bikes and peds

High speed driving is encouraged by roadway design

Path of travel for peds and bikes is unclear, discontinuous

Existing Conditions

Tree canopy provides shade and comfort

Pedestrian safety at infill crossings

Protection for cyclists near high speed traffic

11 ft. maximum lane width

Paths can serve mix of long-haul, active users
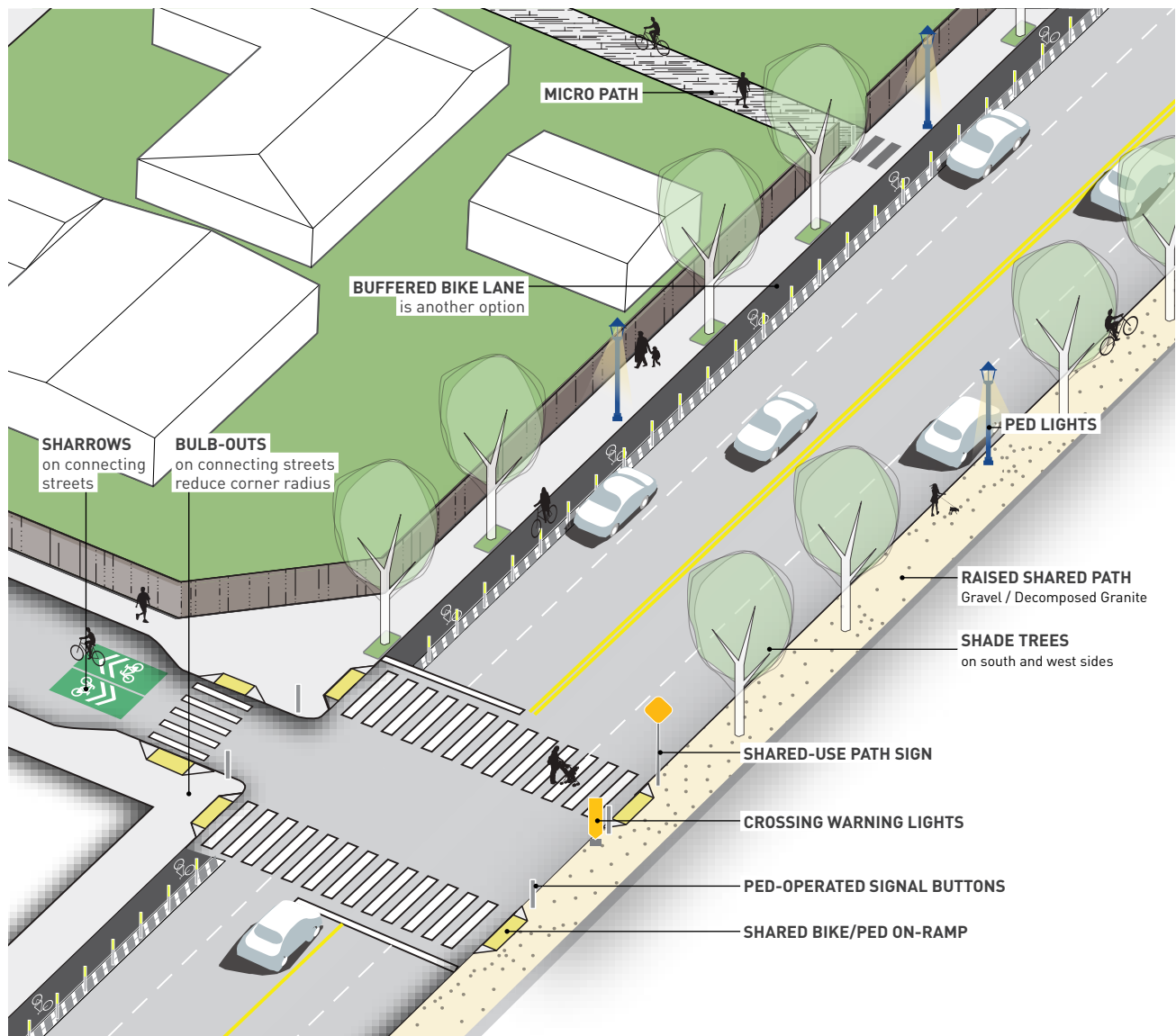
Vision for Suburban Neighborhoods

> **Buffered bike lanes or shared use paths are two potential treatments that would increase cyclist comfort on suburban arterial roads.**

Illustrative example for: Suburban Neighborhoods

While people in suburban neighborhoods are likely to depend on the automobile for most trips, there are opportunities to improve other modes. Arterial networks can be retrofitted with protected lanes or shared-use paths to make biking and walking and safe and viable option for certain journeys.
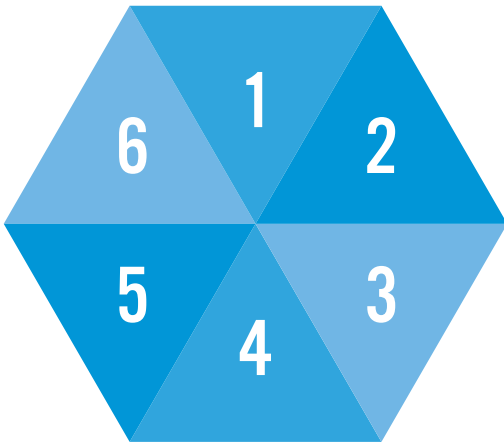
Improving connectivity by increasing the internal and external linkages within the neighborhood through road connections and micropaths can also enhance resident's access to parks, trails, stores and other amenities.

MICRO PATH

BUFFERED BIKE LANE
is another option

SHARROWS
on connecting streets

BULB-OUTS
on connecting streets reduce corner radius

PED LIGHTS

RAISED SHARED PATH
Gravel / Decomposed Granite

SHADE TREES
on south and west sides

SHARED-USE PATH SIGN

CROSSING WARNING LIGHTS

PED-OPERATED SIGNAL BUTTONS

SHARED BIKE/PED ON-RAMP

4

Actions

(How we get there)

The Mobility Moves

Move **1** Safety for All

Move **2** Walk and Bike to the Store

Move **3** All Ages Bike Network

Move **4** Active Routes to School

Move **5** Park Once

Move **6** Three Best-in-Class Transit Routes

The Mobility Moves

The Moves support initiatives already in course by the City and regional entities. There has already been good progress in many of these areas.

What is a Mobility Move?

The Mobility Moves are high-level initiatives that advance Boise's mobility values by listing specific infrastructure improvements, programs and areas that would most benefit from those actions. The six moves are based on the policy goals adopted in the City's comprehensive plan, *Blueprint Boise*. They were selected to represent the needs of different population groups, different locations within the City and different modes of travel.

When considered together, the Moves can help identify projects with synergistic outcomes. Projects that meet the goals of two or more of the Moves should be prioritized over projects that are not aligned with them.

Anatomy of a Move

Focus Map:
Illustrates the locations that should be the focus of the Actions of the Move.

Summary:
Describes main goals of the Move.

Actions:
Breaks down the Move into specific steps.

Metrics:
Quantifiable factors that measure progress towards goals of the Move.

Long Term Impact:
Overall objective of the Move. Describes how the Move achieves mobility principles and values.

❶ Safety for All

❷ Walk and Bike to the Store

❸ All Ages Bike Network

❹ Active Routes to School

❺ Park Once

❻ Three Best-In-Class Transit Routes

Move 1: Safety For All

All people in Boise should be safe walking, biking, taking transit, or driving. This Move identifies high injury locations and recommends infrastructure and programs that support a reduction in collisions.

Infrastructure

Focus Areas: Roads within the Pedestrian and Bicycle High-Injury Network (see map on facing page).

Add pedestrian safety improvements to dangerous intersections such as pedestrian bulb-outs, continental crosswalks, pedestrian scrambles, advance stop bars, Rapid Flashing Beacons, High-Intensity Activated Crosswalks (HAWK Signals) for suburban arterials. Change signal timing to give pedestrians enough time to cross

Add protected bike infrastructure based on recommendations for the Low Stress Bike Network (Move 3)**.**

Add bicycle intersection treatments such as signal timing, designated striping zones, turn lanes, bike boxes, or flashing lights that detect cyclists and warn motorists in advance.

Implement automobile lane width reduction, access management and traffic calming strategies such as low-speed zones and road diets. Where appropriate, implement speed bumps, chicanes, and diversions. Consolidate driveways. Convert one-way streets to two-way streets.

Programs

1. **Monitor, collect, and publish safety data** to track progress towards objectives.

2. **Produce a map of high-injury locations and use it to prioritize projects.**

3. **Evaluate the impact and safety for all modes** when considering increases to roadway capacity.

4. **Implement a document that provides safety design guidelines** including speed limits, average daily traffic targets,spacing of pedestrian crossings on arterial roads, etc.

5. **Establish a Safety for All Committee and inter-agency task force** with teams from Planning, Transportation, Public Works, first responders, and other stakeholders to engage the public and track progress in achieving TAP goals.

6. **Support enforcement programs** for police to target traffic violations that result in injury or death.

7. **Provide road safety training for all mode operators** (including bus drivers) on sharing the road. Provide education on the Idaho Stop Law as a part of safety education for divers and cyclists.

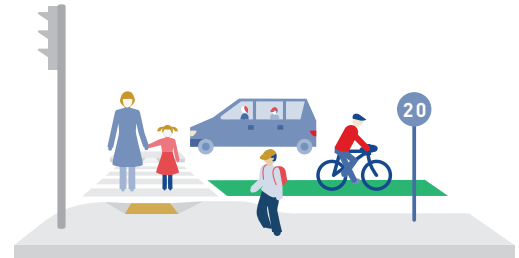8. **Adopt the Vision Zero Framework** to integrate efforts toward eliminating traffic-related deaths.
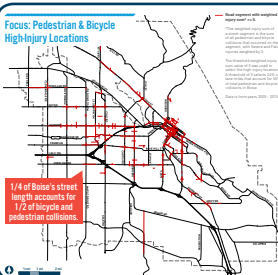
Focus: Pedestrian & Bicycle High-Injury Locations

— **Road segment with weighted injury sum* >= 5.**

*The weighted injury sum of a street segment is the sum of all pedestrian and bicycle collisions that occurred on the segment, with Severe and Fatal injuries weighted by 3.

The threshold weighted injury sum value of 5 was used to select the high-injury locations. A threshold of 5 selects 24% of lane miles that account for 55% of total pedestrian and bicycle collisions in Boise.

Data is from years 2005 - 2015.

1/4 of Boise's street length accounts for 1/2 of bicycle and pedestrian collisions.

½ mi   1 mi   2 mi

Metrics

How the streets change:

- 5% of high-injury intersections and corridors receive safety improvements by 2020.
- Increase in citations for key traffic violations.

How people's behavior changes:

- Zero traffic-related deaths;
- Reduced accident rates for all modes.

Long Term Impact
People generally feel that it is safe to walk or bike in all Boise streets. Safer roads lead to healthier and more connected communities.

Move 2: Walk and Bike to the Store

The City's comprehensive plan envisions that Boise residents will be able to walk to mixed-use activity centers in their own neighborhood.

This move supports that vision by prioritizing pedestrian safety improvements to the areas surrounding these Activity Centers.

Infrastructure

Focus Areas: Pedestrian improvements within 1/4-mile radius of activity centers; Improved bike infrastructure within one mile of activity centers.

Add pedestrian improvements within 1/4 mile of activity centers. Add safety features such as bulbouts and landscaping to the areas adjacent to activity centers to make the walk safe, interesting and enjoyable.

Create a pedestrian-friendly environment within activity centers. Build pedestrian plazas, pedestrian-only streets, shared streets, and paseos. Improve the pedestrian experience with street furniture, wayfinding, wide sidewalks, street trees, pedestrian lighting, etc.

Prioritize All Ages bike infrastructure (as recommended in Move 5) within one mile.

Provide secure bike parking at activity centers with U-racks at visible locations near active uses.

Implement traffic calming and access management within walk-sheds of activity centers. Consolidate driveways. Where needed, reduce speed limits and implement other vehicular traffic calming measures as described in Move 1.

Programs

1. **Monitor, collect, and publish data** about mode share on activity centers to track progress towards objectives.

2. **Encourage planning for mixed-use development of activity centers.** Meet design guidelines, target land uses, densities, street design, and zoning outlined for Community and Neighborhood Activity Centers (Sections 3-10 and 3-11, *Blueprint Boise*).

3. **Provide incentives for infill development and enforce compliance with** *Blueprint Boise* **and the** *Boise Citywide Design Standards*. Encourage buildings at block corners to screen surface parking. Uphold Citywide Design Standards related to Block Frontages, Site Design, and Building Design.

4. **Partner with property owners and tenants** to enhance the design and experience of activity centers. Work on placemaking initiatives to activate and enhance their character.

5. **Launch neighborhood walk/bike campaigns** that get people comfortable with walking and biking to their neighborhood center.

6. **Strengthen cultural programming** within activity centers by allowing flexible events such as markets, festivals, and neighborhood fairs.

Focus: Neighborhood & Community Activity Centers

Legend:

* *Blueprint Boise* **Neighborhood or Community Activity Center**
* **Arterials within pedestrian focus area** (1/4-mile radius)
* **Arterials within bike focus area** (1/2-mile radius)
* **Bikeable distance** (2-mile radius)
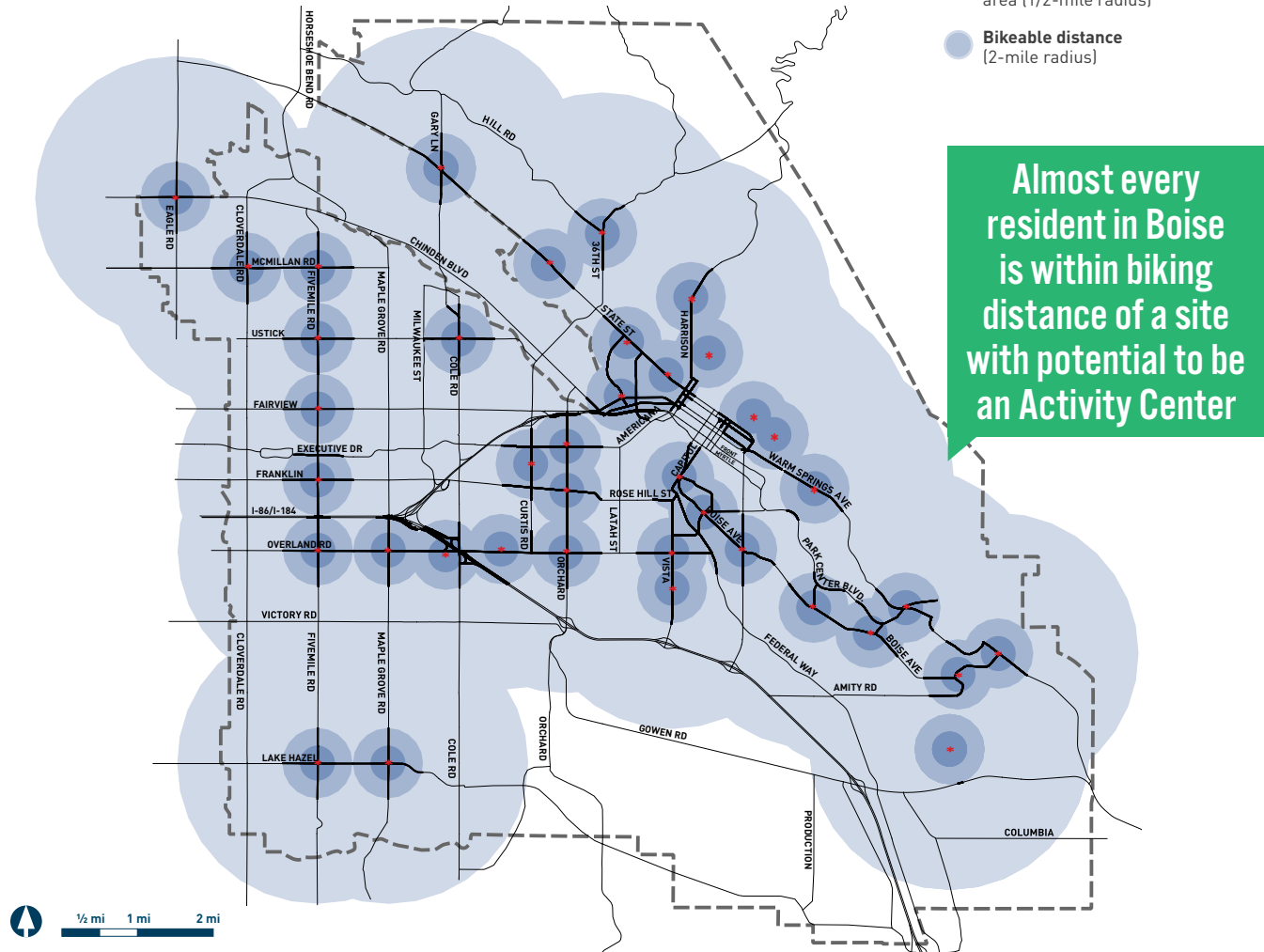
Almost every resident in Boise is within biking distance of a site with potential to be an Activity Center

½ mi 1 mi 2 mi

Metrics

How the streets change:

- Pedestrian and bicycle safety improvements to all intersections within 1/4 mile of activity centers.

How people's behavior changes:

- Increased percentage of customers that arrive by walking or biking.
- Increased retail sales for local stores.
- Decreased motor vehicle traffic volumes within walksheds of activity centers.

Long Term Impact

Economic viability at activity centers is boosted by more visits, as they become an increasingly vibrant destination within Boise's urban fabric.

Move 3: All Ages Bike Network

Boise has made great progress in building out a quality bicycle network. The next step is to close gaps and upgrade the current network to one that serves all ages and abilities by pairing appropriate bicycle infrastructure to vehicular traffic speeds and volumes. Closing gaps and upgrading high-stress/low-comfort points with higher quality bike infrastructure will invite all residents of Boise to bike comfortably and conveniently throughout the City.

Infrastructure

Focus Areas: High-stress/low-comfort points in the current bicycle network, gaps in the current network.

Construct new bicycle infrastructure to All Ages standards. Retrofit existing infrastructure to meet All Ages standards.

Create a network of traffic-calmed bicycle boulevards to prioritize bicyclists and to connect to the arterial bike lane network. Add bicyclist wayfinding throughout the network.

Improve intersection treatments for bicyclists to support an All Ages experience. Install bicycle signals at arterial crossings. Add two-stage turn boxes and/or bike boxes for bicyclists to and from key bike routes. Continue physical separation of bike lanes and automobile lanes up to intersection, as applicable.

Where there is a barrier, add bicycle bridges and retrofit existing bridges with protected bike lanes to create a continuous All Ages bike network. At-grade infrastructure is preferable, but bridges can be used to close gaps across barriers (e.g. highways, canals, or the river).

Programs

1. **Perform further Level of Traffic Stress (LTS) analysis** to determine high-stress/low-comfort points within the current network and use it to prioritize projects. Use this planning exercise to create a Bicycle Master Plan with All Ages routes identified.

2. **Perform regular bicyclist and pedestrian counts** at key locations and create citywide bicycle travel survey to repeat at regular intervals.

3. **Monitor, collect, and publish data** to track progress towards objectives.

4. **Develop a regular State of Good Repair maintenance program** for bicycle lanes and infrastructure. Sweep bike lanes regularly and as needed. Maintain bike paths clear from obstructions such as construction signs. Road repair projects should maintain All Ages standards when they impact bike lanes.

5. **Provide real-time information** to bicyclists about detours and road construction.

6. **Launch public awareness campaign** around bike infrastructure improvements and safe biking. Involve bicycle advocacy groups in identifying priorities.

Focus: All Ages Bike Infrastructure
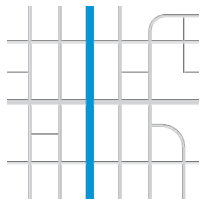
On commercial (and key) arterials:

- Protected bike lanes are standard
- Conflict points (e.g. driveways) are clearly marked with colored paint, and consolidated where possible
- Intersections have dedicated bike signals
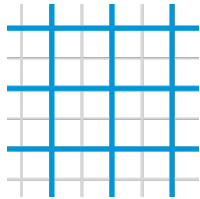
On Downtown commercial corridors:

- Protected bike lanes are standard
- Bike lanes are on the left-sides of one-way streets
- Bike parking corrals replace parking spaces for vehicles at most corners

On local residential streets:

- Enhanced sharrows designate priority bikeways
- Wayfinding signage links "bicycle boulevards" to the All Ages protected bike lane network
- Traffic calming elements encourage slower vehicle speeds
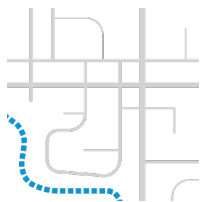
On off-street bike facilities:

- Bicyclists share space with pedestrians, joggers, and other non-vehicle users
- Intersections with the street network are clearly signed and, where appropriate, signalized
- Bicyclists access dedicated facilities to cross barriers (e.g. highways, rivers, etc.)

Metrics

How the streets change:

- Improved bike infrastructure on high-stress/low-comfort streets and gaps closed in the current network with All Ages facilities.
- 100% of Boise residents live within 1/2 mile of a protected bike lane and 1/4 mile of any All Ages bike facility (e.g. if not a protected bike lane, then a local neighborhood greenway or off-street trail).

How people's behavior changes:

- Increased ridership for women, children, and older adults.
- Increase in bicycle volumes and bicycle mode share.
- People come to expect bicyclists on the roadway as part of the daily traffic.

Long Term Impact

People of all ages and abilities feel comfortable and safe biking throughout Boise. More of daily life can be integrated with cycling.

Move 4: Active Routes to School

As much as 25% of the AM peak hour traffic are trips to school.

Boise has had success with the Safe Routes to School program, but more can be made to enable students and their parents to arrive to school by foot or bicycle. This move addresses this issue by focusing on one of the barriers to a safe trip to school: arterial crossings.
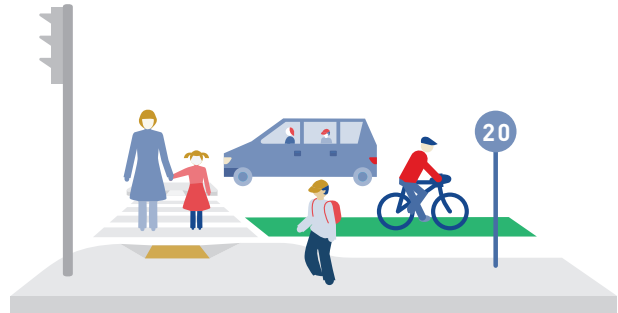
Infrastructure

Focus Areas: Arterial crossings within 1/2 mile walking distance from schools .

Improve crossings and intersections on arterials within 1/2 mile walking distance of schools. Add signalized intersections and priority pedestrian crosswalks.

Close gaps in sidewalks, provide adequate lighting and visibility, and improve wayfinding signage.

Prioritize All Ages bike infrastructure within school zones (as recommended in Move 5).

Improve intersection treatments for bicycles along bicycle paths within School Zones, including two-stage turn boxes and/or bike boxes.

Provide secure bike parking at schools.

Restrict right turns on red lights when pedestrians are present within a one-mile radius of schools.

Implement traffic calming and access management ACHD already implements 20 mph school zones. In locations with a high rate of pedestrian injuries within 1/2 mile of schools, consider reducing speed limits and implementing other vehicular traffic calming measures as described in Safety for All (see Move 1).

Programs

1. **Continue to support and expand the Safe Routes to School Programs** to improve safety within 1/4 mile of schools.

2. **Collect and publish data** about trips to school.

3. **Enforce traffic laws to support the safety of students.** Law enforcement officers should apply Active Speed Monitoring, Speed Trailers, Photo Enforcement, and Progressive Ticketing to reduce unsafe behaviors around schools.

4. **Add crossing guards** at arterial crossings in areas with high pedestrian traffic.

5. **Engage with students, parents, and drivers.** Through targeted outreach involve parents and older students in active route education. Listen to and understand parents' priorities. Collect feedback throughout implementation.

6. **Locate and design schools to be safe and pedestrian-friendly.** Take into account barriers to walking when determining the location for new schools.

Focus: Arterials Near Schools

Arterials within school focus area
(½-mile radius)

Existing safety improvements to arterial crossings

½ mi 1 mi 2 mi
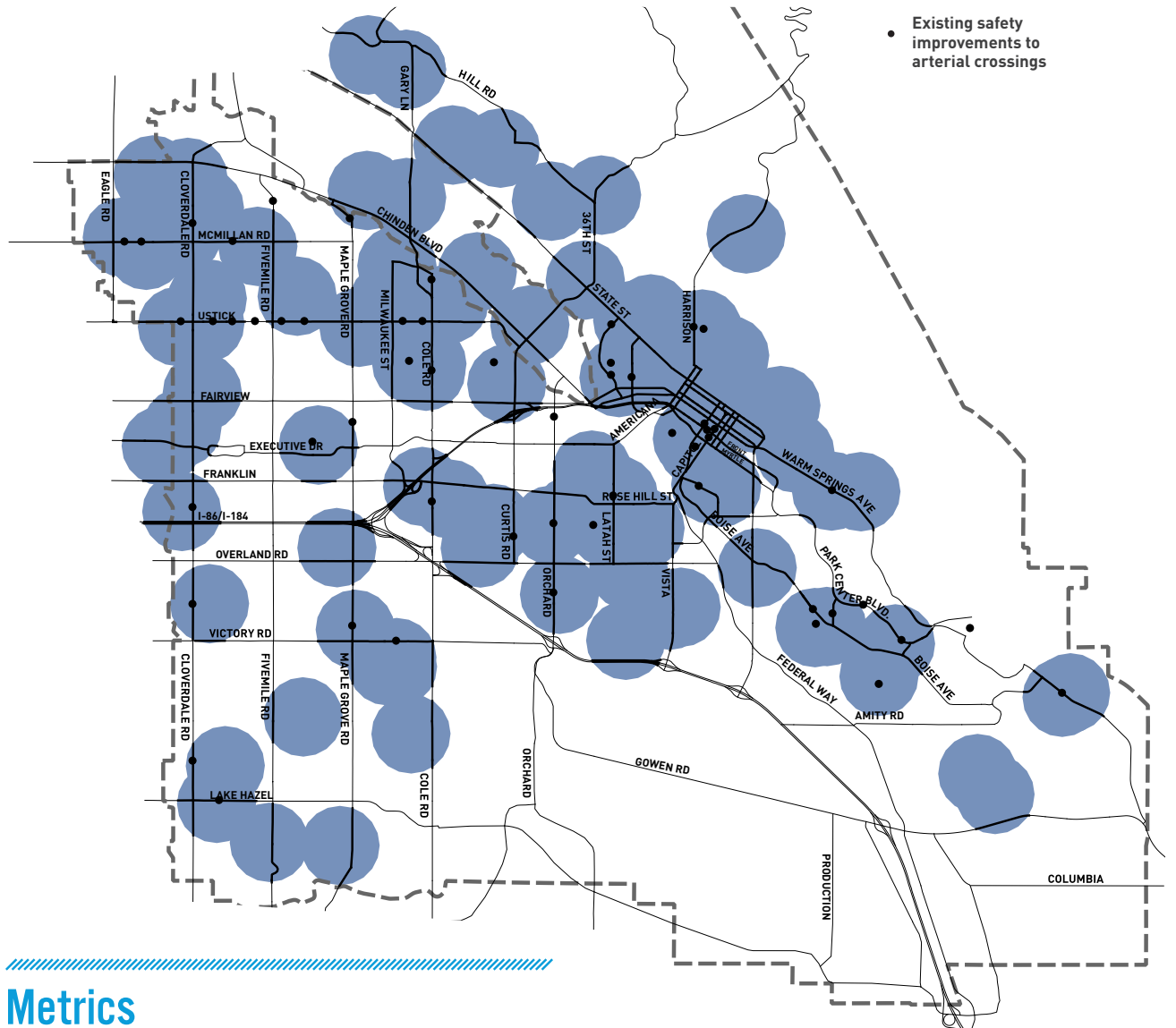
Metrics

How the streets change:

- Improved safety infrastructure for arterial crossings within walking and biking distances of schools.
- All ages bike infrastructure built on all arterials within 1/2 mile of schools (see Move 5).
- Lower AM traffic (since 25% of AM peak trips are to schools).

How people's behavior changes:

- Increased number of students walking and biking to school.
- Reduced peak hour traffic.

Long Term Impact

The health and wellbeing of students is improved because they can safely walk or bike to school.

Move 5: Park Once

Regional Activity Centers such as Downtown Boise and Boise Towne Square Mall have reach and influence beyond the immediate neighborhood. Today, visitors from the region drive to these centers and many use their cars to move within it. The goal of this move is to ensure that visitors don't need a car once they arrive at these destinations—it will be safe, comfortable, and enjoyable to walk , bike, or take transit within them.

Infrastructure

Focus Areas: Initially, this Move will apply to Downtown and Boise Towne Square Mall. Over time it could be extended to other activity centers

Create active streets and a pedestrian-friendly environment. Streets should prioritize pedestrian safety and provide visual interest. Build pedestrian plazas, ped-only streets, shared streets, and paseos. Add street furniture, wayfinding, wide sidewalks, street trees, pedestrian lighting, etc. (See Move 1)

Continue to support Boise Green Bike for trips within Downtown. Consider expanding the network of bike stations.

Provide All Ages bike infrastructure and secure bike parking with U-racks at visible locations near the main destinations.

Enhance transit service to Downtown and the mall providing park and ride lots, and exploring opportunities to provide express service.

Provide shuttles or a circulator that runs a fixed loop and connect main parking areas to key destinations within Park Once locations.

Programs

1 **Manage parking availability.** On-street parking should be priced and managed to be available for short-term users such as retail customers. Longer term parking can be provided on parking structures.

2 **Implement a Parking Benefit District** and use funds to finance sidewalk and circulation improvements.

3 **Provide incentives and enforce compliance with** *Blueprint Boise* **and the Boise Citywide Design Standards.** Encourage planning and zoning for diverse businesses, services, institutions, and neighborhood-scale retail.

4 **Partner with property owners, tenants and developers** to enhance the design and pedestrian experience.

5 **Encourage infill on existing parking lots** and reduce parking minimums.

Focus: Park Once Locations
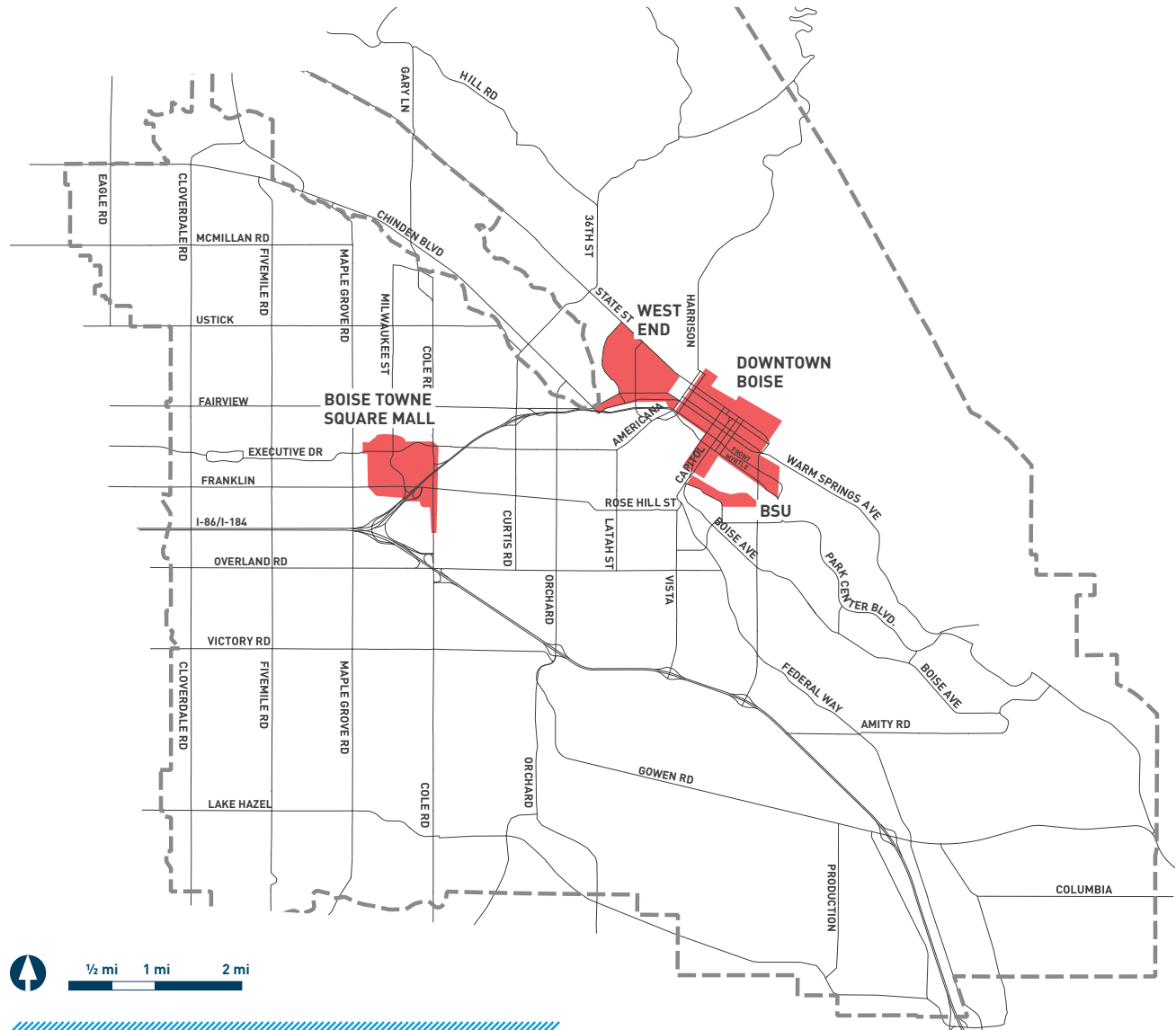
Metrics

How the streets change:

- Improved pedestrian crossings
- Percentage of sidewalks with active frontages
- Decreased surface parking area.

How people's behavior changes:
- Increased percentage of customers that arrive by walking or biking.
- Lower motor vehicle traffic volumes at key intersections.

Long Term Impact

Walkability stimulates the economy and generates economic and social benefits for Downtown Boise, Boise Towne Square Mall, and surrounding neighborhoods.

Move 6: Three Best-in-Class Transit Routes

With scarce resources, it's important to focus investment on improving the frequency and quality of a select number of model routes. Three best-in-class routes can be a catalyst to attract more choice riders, support future development of Valley Regional Transit (VRT), and demonstrate that the transit experience can be safe, convenient, and enjoyable.

Infrastructure

Focus Areas: Stops along 3 best-in-class transit routes.

Provide a comfortable and safe waiting experience. Position stops with active uses close by. Stops should be well-lit, visible, safe, furnished, and constructed to be durable and aesthetically pleasing.

Improve pedestrian access to bus stops. Ensure that there is continuous sidewalk access, safe crossings, and well-lit pedestrian routes. Apply pedestrian safety recommendations from Move 1 to bus stop locations.

Make it easy to bike and take transit. Provide bike parking near stops and bike racks on buses.

Move near-side stops to the far side of intersections to improve bus operations and pedestrian safety, when appropriate.

Add bus bulb-outs on streets with curbside parking to improve boarding speeds and provide space for bus stop amenities.

Explore opportunities to give transit preferential right-of-way. Use queue jumps for bus priority at congested intersections, designated bus lanes along key routes, carpool or HOV lanes on freeways. Add Transit Signal Priority.

Programs

1. **Monitor, collect, and publish data** to track progress towards objectives.

2. **Establish a policy requiring developers to improve transit stops** if their development is on one of these transit lines.

3. **Provide real-time transit information** should be available at transit stations and is already available on the web and smart phones.

4. **Increase hours of operation and decrease headway times between buses.**

5. **Give transit preferential right-of-way during commuting times** at congested locations.

6. **Increase awareness of and access to transit** through events such as transportation fairs at work places, or through community events. Promote bus rapid transit through branding and marketing.

7. **Allocate funding for travel trainer and ambassador programs** to provide one on one support, especially for students, seniors, non-English speakers, and people with disabilities.

8. **Optimize routing to serve key locations** (i.e. TOD, high density areas, commercial centers, services)

Focus: Premium Service Routes
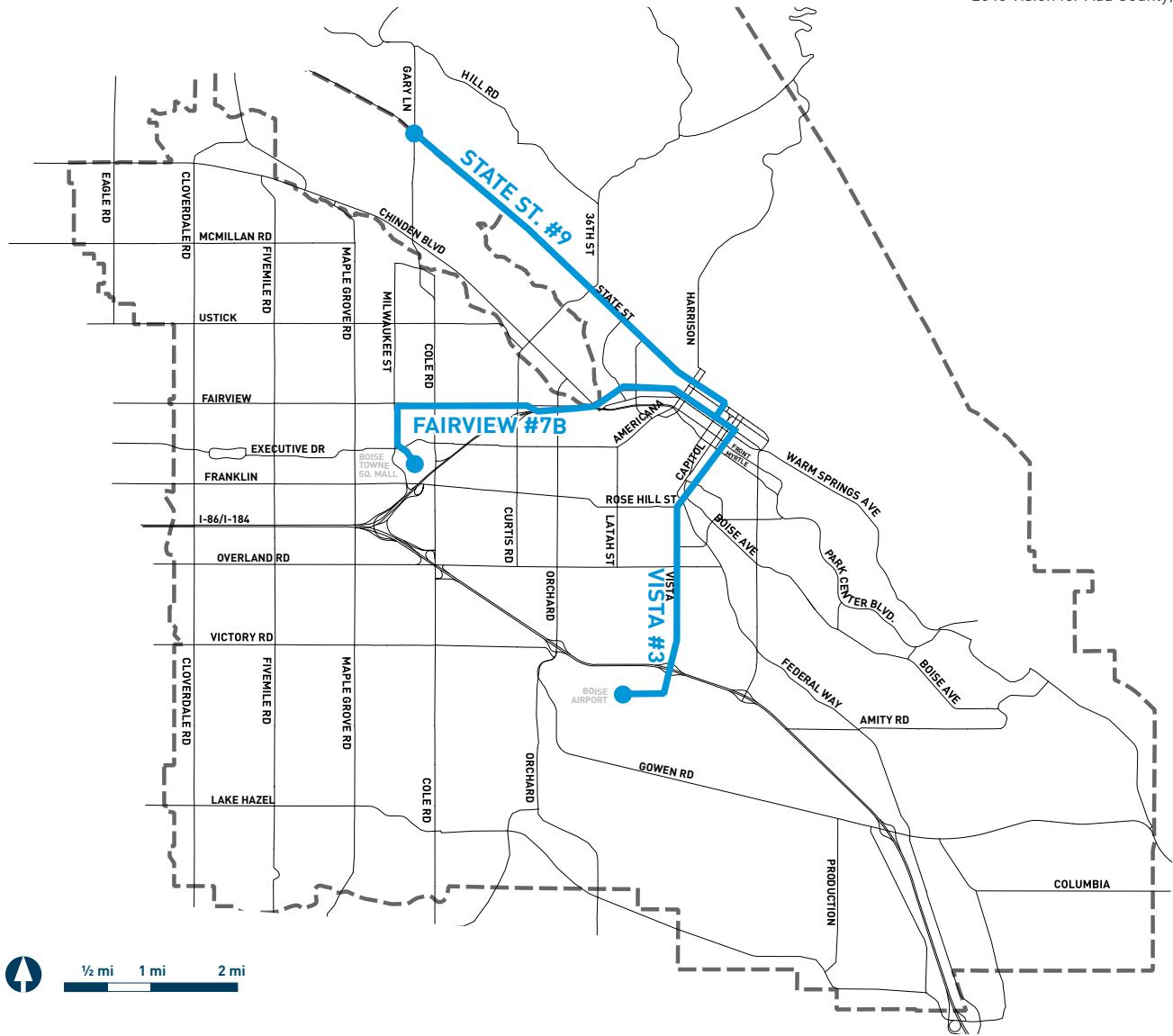
Metrics

How the streets change:

- Improved stops along the premium routes.
- Increased public presence and outreach.

How people's behavior changes:

- Increased ridership by 15% by 2020.
- Increased mode share for transit citywide.
- Increase the proportion of choice riders.

Long Term Impact

Three routes that attract choice riders, connect Boise's neighborhoods to the larger region, and provide a strong case for greater funding and expansion of VRT.

5
Mobility Toolbox

(Tools for moving forward)

1 Expand measures of street quality

2 Create great places

3 Expedite change with Interim Design

4 Increase mobility access

5 Apply current best practices in street design

6 Street design reference manuals

7 Adopt a Prioritization Framework

Expand measures of street quality

Streets do much more than move vehicles. They also move buses, pedestrians and cyclists. Streets house our utilities, storm-water, and urban forest. Streets are forums for placemaking; enabling economic, social, and civic vitality.

Vehicular Level of Service (LOS) is a commonly used measure for street quality. It is focused on vehicular traffic flow, and particularly vehicular delay. This leads to an incomplete view of a street's function that may undervalue vibrant streets that are highly walkable and enjoyable, and overvalue streets that do not support public life. In addition, LOS can lead to streets that are under capacity most of the time, and overemphasize speed at the expense of reliability.

By using only vehicular LOS, other aspects of a street are not being measured. **To holistically assess how a street is performing, vehicular LOS must be complemented by other measures that look at other aspects of a street's built form and the activities it supports.**

Streets serve many functions

URBAN FOREST

COMMERCE

Vehicular LOS only looks at one aspect of a street's functions.

VEHICLES

BICYCLISTS

PEDESTRIAN EXPERIENCE

ACCESSIBILITY

BIKE SAFETY

PEDESTRIAN SAFETY

STORM WATER MANAGEMENT

① LOS is a measure of vehicular delay

Vehicular Levels of Service refers to a standard measurement used by transportation officials which reflects the relative ease of traffic flow on a scale of A to F, with free-flow being rated LOS A and congested conditions rated as LOS F. Levels of Service are used to translate complex numerical performance results into a simple A-F system representative of the travelers' perceptions of the quality of service provided by a facility or service. The LOS letter result hides much of the complexity of facility performance to simplify decision-making about whether facility performance is generally acceptable and whether a change in this performance is likely to be perceived as significant by the general public.

② Peak-hour LOS leads to economically inefficient streets

Vehicular LOS tends to focus on a particular hour, or even a 15- or 30-minute window during which traffic volumes are at their highest, usually between 5-6 PM. During these times, LOS values may indicate a street is performing poorly, but during a large majority of the day the street may be much less congested. As a result, streets designed for peak traffic may fail to provide a safe and attractive environment for other modes during other portions of the day. Peak-hour LOS also leads to investments in economically inefficient streets that sit well below capacity for the remaining 20-22 non-peak hours in the day. One solution is to use a multiple-hour or 24-hour average of congestion instead of peak-hour values.

③ Reliability can be as important as speed

Average travel times is one measure of a street's ability to move vehicles, but not the only one. Travel time reliability, or the consistency in travel times is also a useful measure that provides benefits to drivers and other street users. While it is common for drivers to expect some congestion, they are typically less tolerant of unexpected delays. Research has shown that removing unpredictable elements that come from delays can reduce the stress typically associated with congestion.

④ Level of service ignores safety

Reducing lane width, or road diets, bring safety benefits not captured by LOS. A road diet can cause important benefits in safety over the life span of a road. Giving more weight to LOS over other measures of safety ignores the social cost of injuries and the benefit of lives saved.

Did you know?
Vehicular Level of Service (LOS) has its limitations.
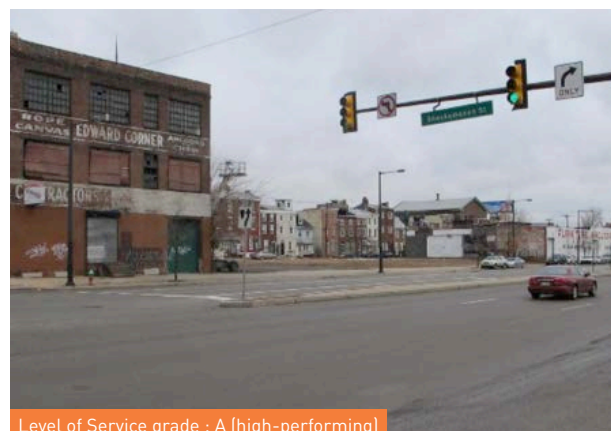
Level of Service grade : A (high-performing)
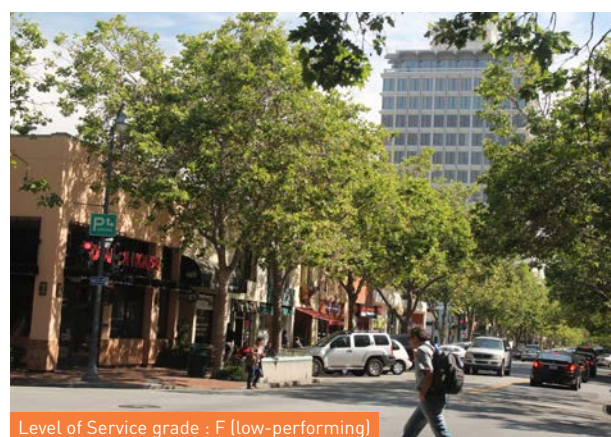
Level of Service grade : F (low-performing)

ABOVE: The contrast between traditional LOS A and LOS F is clear: open roads for drivers don't always equate to successful streets for people. Top photo: PlanPhilly.com. Bottom photo: virtualtourist.org

BELOW: A small improvement in average speed or travel times can hide a large improvement in reliability. Source: Federal Highway Administration

To bring the Mobility Values to action, LOS must be complemented with other metrics that take street's impact on the quality of life into account.

Connecting mobility values to metrics

Boise views mobility not simply as moving from one point to another, but as a key part of an individual's quality of life and a community's health. We need to think beyond traditional measures of congestion to capture aspects of mobility that relate to the quality of the travel experience and how it fits into a safe, optimized transportation network.

Context matters

Relying solely on one measure such as vehicular LOS makes it difficult to adapt streets to their context. Some streets have high potential to be vibrant main streets and benefit from lower speeds, even if it means a lower LOS.

There are trade-offs between metrics, especially between those that enhance speed and those that enhance vibrant neighborhoods. Metrics that look beyond LOS allow for the flexibility to weight mobility values appropriately for different contexts.

Rather than building more and wider streets, focus on optimizing a maturing network

Investment should be focused on optimizing the road network to extract the most value of the existing infrastructure. This means considering the many other functions and types of users that streets serve. Incorporating mobility values into the prioritization system that the City uses will help focus investment in the existing road system, increasing its quality for all modes, rather than continue to expand it.

Expanded metrics connect mobility to other long-term City goals

Boise's mobility values reflect a strong commitment to connect mobility to other long-term goals of the City. Metrics that go beyond LOS and are tied to Boise's mobility values will align with other goals of the City, including quality of life, economic development, equity, public health, and safety.
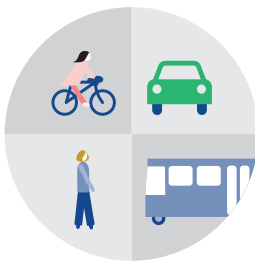
Examples of expanded metrics of street quality

All People: Access to mode choice for all

- Mode share by income level and age
- Percentage of bus riders that do it by choice (rather than need)
- Pedestrian counts by age and gender
- Bicycle counts by age and gender
- Percentage of students who walk or bike to school

Real Choices: Quality travel for all modes

- Counts of pedestrians, cyclists and vehicles on key streets
- Multi-modal intersection density
- Miles of All Ages bike lanes
- Travel time reliability for vehicles and buses
- Number of bus stops with shelters

Safety: Avoiding danger, real and perceived, for all modes

- Annual travel related fatalities for pedestrians, cyclists and drivers
- Collision rates for high injury intersections
- Perception of danger for each mode, based on user surveys
- Perception of danger at transit stops in the night time, based on user surveys.

Optimize Infrastructure: Maintaining and optimize existing roads

- Use multiple-hour vehicular LOS instead of peak-hour LOS
- Percent single-occupant vehicles
- Percent of sidewalk repair requests and potholes repaired promptly
- Four to three lanes reconfigurations
- Number of travelers moved per area of street surface

Vibrant Neighborhoods: Create great places

- Pedestrian counts
- Stationary activity counts
- Crime rates
- Changes in retail sales, property values
- Number and attendance at public programs such as street fairs, farmers markets, outdoor concerts, etc.

Create great places

People are more likely to walk, bike, and take transit in a place where these activities are comfortable, safe, and enjoyable. In turn, a place is enlivened by people contributing to active public life while they travel outside of personal vehicles. Of all the forms for travel, walking contributes the most to creating great places. If a place is walkable, it has the compactness, density of uses, and liveliness to encourage cycling and transit.

There are three factors to consider when creating great places that encourage walking: First, the place must offers a variety of activities that invite people of All Ages and backgrounds to walk and spend time. Second, it must provide a comfortable and safe pedestrian environment. Finally, the place should be framed by architecture that enlivens the street with beautiful and engaging facades.

Great Places

Real Choices
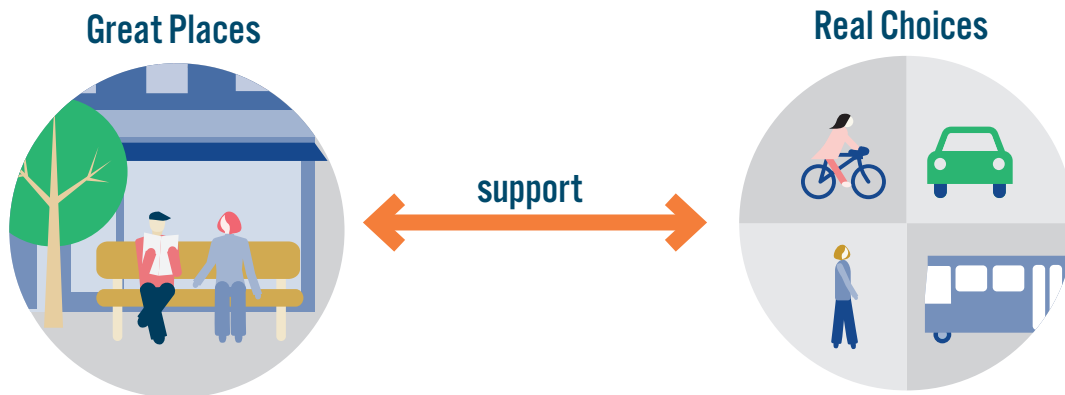
support

The factors that make great places also support walking, biking, and transit. For example, Downtown Boise has many elements of great places, such as engaging frontages and a walkable street grid. As a result, people will enjoy more travel choices, and therefore more people will choose to walk or bike to work.

All Boise neighborhoods deserve Activity Centers that are great places!

Invitations to walk and stay

1 A variety of activities and opportunities to meet and interact

Flexible programming invites people of All Ages and social groups to participate. In addition, great places have things to do and see on weekends, as well as weekdays. When creating plazas and other pedestrian open space, consider their ability to support a variety of different programs and activities for all ages and social groups, daily, and in all seasons. When a place offers a variety of things to do, for all types of people, on any given day, people are more likely to enjoy walking and spending time in public space.

2 Overlapping activities during the day and night, with nearby transit stops

When there are others out, people feel safer walking and spending time outside at night. Night-time activities can help increase people's feeling of safety and comfort. Transit stops should be placed near other activities to enhance the comfort of bus riders. This is particularly important for nighttime riders.

Placing buses on well lit areas, near restaurants or other businesses that have night-time activity can help provide a feeling of security at all hours.

3 Streets that are safe and comfortable for walking and biking

Wide roads with fast-moving traffic discourage people from choosing to walk, bike, and take transit. By calming traffic on wide mixed-use arterials, these streets can allow people to feel and be safe while walking.

People need to have a baseline feeling of comfort and security while walking on the sidewalk and crossing the street. Once this baseline is met, people feel more comfortable shopping, dining, people-watching, and socializing on the street, contributing to interesting and enjoyable street life that in turn encourages more people to walk.

Compact and comfortable

1 Streets and blocks at a human scale

Narrower streets and smaller blocks make walking much more comfortable and enjoyable. Streets should be a maximum of 40 ft. curb to curb - the maximum distance at which people can recognize faces. A block will feel walkable if you can get from corner to corner in one to three minutes. This works out to blocks that are between 300 ft. – 500 ft. long.

These are good rules of thumb for new developments. For existing places that have over-scaled streets and blocks, strategies such as sidewalk widening, bulb-outs, medians, and infill buildings can be used to make streets and crossing distances more human-scaled. Large blocks can be broken down into more walkable blocks by adding new pedestrian-friendly roads and alleys.

2 Off-street parking lots, parking removed from street frontage, minimal setbacks between buildings and sidewalks

In places where the sidewalk frontage mostly abuts surface parking lots, people are not likely to choose to walk 10 uninteresting blocks. Parking should be screened from the street, and hidden underneath, behind, or on top of active uses. One strategy is to screen large lots with infill buildings along the sidewalk edge.

This strategy goes hand in hand with reducing setbacks. Reduced setbacks bring pedestrians closer to buildings and destinations and support lively sidewalks that are pleasant to stroll. Minimal setbacks allow people to have a stronger connection to life inside buildings, and vice-versa, fostering safer streets and a more interesting walking experience. In these conditions, walking ten blocks is enjoyable, even an attraction to the area.

3 Shade, shelter, and comfortable places to sit

Shade and shelter from trees and architectural features, such as awnings, provide functional protection and also beauty for people walking. Trees should be placed above, south, and west of where people walk and stay. Trees can be incentivized on private property where the public can benefit. In addition to trees, architectural features such as awnings contribute shelter, shade, and a more inviting streetscape.

Street furniture offers places of rest, encouraging people to walk. Street furniture also serves as destinations for groups and individuals - a place to meet a new or old friend, or to read a book by yourself.

Architecture that enlivens the street in three dimensions

1 ## Horizontal diversity: Narrow units, many entrances, active ground-floor uses

Few people would choose to walk along blank walls and monotonous facades. Street frontages that provide a rhythm of small units and frequent entrances make streetscapes more visually and socially vibrant. It encourages a diversity of functions, activities, and things for people to see and possibly do while walking.

Horizontal diversity is not just about the physical building. Even the most inviting architecture with small units and multiple entrances can become more engaging for pedestrians, by placing active uses on the ground floor.

2 ## Vertical diversity: A mix of functions and uses from floor to floor encourages overlapping activities

Buildings that mix retail uses on the ground floor with residential and office uses above encourage activities that animate streets at all times of day. Overlapping functions provide things to do and see for residents, workers, and visitors, as well as increasing safety. In addition, mixing uses within buildings makes many trips shorter and walkable. Shorter trips combined with safe, lively streets makes it more convenient and enjoyable for people to walk, improving local business and inviting even more people to walk and stay.

3 ## Inside-outside connections: Windows engage people passing by

Great places offer visual connection within the sidewalk realm. Ground floor windows invite passersby to briefly interact with life inside buildings, and allow building inhabitants to keep eyes on the street, increasing comfort and safety.

For areas with ground-floor residences, treatments that encourage "eyes on the street," such as porches, stoops, and balconies, can also improve inside-outside connections.

Expedite Change with Interim Design

Interim Design refers to applying low-cost, incremental changes to help advance longer-term transformations. By implementing light versions of the desired changes, Interim Design allows for street design to evolve as the neighborhood provides feedback, and the City learns how the new feature is performing. For an interim project to be successful, it is essential to allow enough time for the community to adjust to the changes, employ the appropriate measures of success, and incorporate feedback from the appropriate set of stakeholders.

A palette of Interim Design projects

Traffic calming

Protected bike lane

Interim public plaza

Recommendations for successful interim redesign

1 **Embrace Interim Design as a City planning tool**

More cities are using Interim Design as a strategy to track data and communicate a designs efficacy. Interim Design has evolved beyond citizen-led projects, and is used to support City-led initiatives as an part of the development cycle. City planners should add Interim Street Design to their toolbox of strategies. Interim Design allows for controlled experimentation and valuable feedback that can lead not only to community buy-in, but also higher quality, more cost effective long-term investments.

2 **Use Interim Design when and where it is appropriate**

Not all neighborhoods, locations, and types of projects are suitable for an interim project. Interim design is especially effective when trying new and innovative treatments, when community support is mixed, or when project benefits can be delivered earlier through temporary improvements.

3 **Set clear expectations about timeframe and measures of success**

The goals, timeline, and feedback processes should be explicitly established from the outset and communicated with the community, so that there are clear expectations from the start. It is also helpful to make evaluation, tracking, and metrics publicly available and part of the decision making process.

4 **Partner with the community**

Certain types of interim projects like parklets and plazas can provide opportunities for partnerships with private sector or groups. The City should seek partnerships with local organizations and businesses not just in the design of interim projects, but particularly in their implementation and upkeep. Often, these partnerships can also help diversify funding sources for these projects.

Photo credit: chpn.net

Increase mobility access

Shared mobility is not only a proven strategy to reduce single-occupancy vehicle trips, it can also give people the freedom to choose a car-optional lifestyle. Transportation Network Companies (TNCs) such as Uber are only one aspect of shared mobility - there are many additional private and public programs the City can support. By supporting these programs with land use, developer incentives, and economic incentives to individuals and companies, shared mobility can close gaps in the existing system and support a diverse network.

Programs that can increase mobility access

1 Shared, privately-owned vehicles

Car-sharing
There are two main types of car-sharing: private fleet that members subscribe to use (such as Zipcar), and peer-to-peer car shares where members allow other members to use their personal vehicles. Developer incentives and land-use codes that provide parking spaces for car-shares can support both types. Additionally, parking incentives can be awarded to car-share vehicles in public space.

Transportation Network Companies (TNCs)
Ridesharing services are most commonly provided by companies such as Uber and Lyft, which allow multiple customers to split the cost of a shared ride. Ridesharing can be supported by designated docking stations, preferably in former parking spaces. Companies can be incentivized to connect people to public transit, and to operate in under served neighborhoods.

2 Make car commutes shorter or more efficient

Park and Rides
Park and Ride lots located near transit stops allow people who live outside of walking or biking distance to drive to a transit stop, park their car, and take transit for the rest of their commute. Single occupant car commutes can be significantly reduced in length by Park and Rides near key transit stops.

Ridesharing
Ridesharing makes car commutes more efficient and reduces traffic on the road during peak hours. They can be incentivized by allowing carpool and vanpool vehicles use of High Occupancy Vehicle lanes, and by promoting ACHD's rideshare platform www.mycommutercrew.com.

3 Public shuttles

Paratransit, services for elderly and disabled
The elderly and disabled are populations that depend on vehicles to connect them to transit, jobs, and activity centers. The City should continue to support its ACCESS Paratransit Services, and other services for the elderly and disabled. Initiatives include subsidized taxis, round trip shopping and market trips, group outings to cultural events, and using electronic payments for efficient data collection.

Shuttle services to transit stations or activity centers, circulating shuttles in activity centers
Shuttles can bring people from park and rides or from other accessible locations to transit stops, extending the reach of transit. Shuttles to activity centers support walking within activity centers. Circulating shuttles encourage people to park once within an activity center.

4 Public-private partnerships

Employer programs
Employer initiatives such as parking cashouts (where employees trade a free parking spot at their work for a cash value), transit commuter tax benefits, and vanpools or carpools all reduce commutes by single-occupant vehicles. Incentivize employers to offer a suite of programs to encourage more efficient commutes.

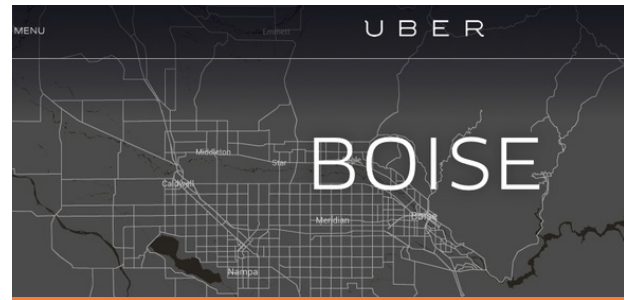**Integrated car-share and transit systems**
Private car-shares can be integrated with transit. Car-share companies can be incentivized to locate lots near transit stops. They can offer reduced rates for connections between transit and car-share driving.

① Shared, privately-owned vehicles

Car Sharing: Zipcar, peer-to-peer

Photo credit: wheels.blogs.nytimes.com

TNCs: Uber, Lyft, and other on-demand taxis

② Making car commutes shorter or more efficient

Paratransit, services for elderly and disabled

Photo credit: rtachicago.com

Shuttle services to transit stations or activity centers

③ Public shuttles

Park and Ride

Photo credit: ncsu.edu
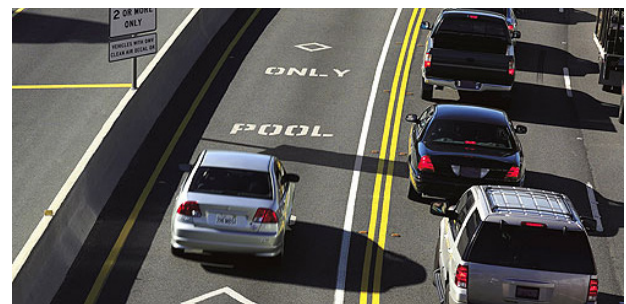
Carpooling

Photo credit: commuterconnections.org

④ Public-private partnerships

Employer programs: parking cash-outs, commuter benefits

Hourcar Partnership with Metro Transit

Announced in August 2015, Metro Transit to partner with Hourcar (local carsharing operator in the Twin Cities) to use Metro Transit passes to access carsharing vehicles

Integrated car-share and transit systems

Photo credit: slideshare.net
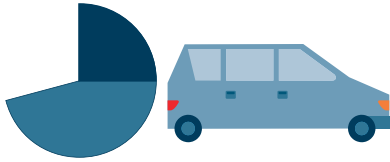
25% to 71% of car-share members say that car share allowed them to avoid purchasing a personal vehicle.[1]

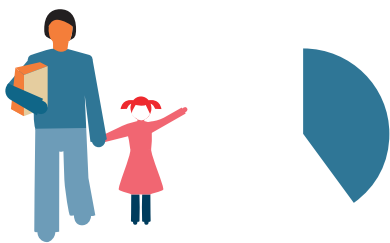Each car-share vehicle replaces **up to 20 cars** on the road.[2]

Of ride sharing members who gave up their personal vehicle, **40% report driving less.**[1]

1. Harnessing Shared Mobility for Compact, Sustainable Cities. (2015, August). Institute for Transportation and Development Policy.

2. Car Sharing. (2013). Sustainable Cities Institute. wwwsustainablecitiesinstitute.org

Benefits of shared mobility

It is easier for people to choose a car-optional lifestyle when they know they can reliably access a vehicle when they need it. When people choose not to own personal vehicles, or simply drive them less, parking requirements decrease, congestion decreases, vehicular miles traveled decrease, and the cars that are on the roads are used more optimally. Shared mobility programs can also act as a feeder system to mass-transit, contribute to denser developments, and serve the mobility needs of the elderly and disabled.

- Extends the reach of public transit and supports service expansion by bridging gaps in the system.
- Reduces single-occupancy trips, leading to a reduction in vehicle miles traveled, and a reduction in greenhouse gas emissions as well as air pollutants.
- Supports transit-oriented development by reducing space requirements for parking and personal vehicles.
- Encourages people to choose not to own personal vehicles, and make more efficient trips.
- Lower demand for on-street parking, especially during peak traffic levels.
- Provides mobility to the elderly and disabled.

Considerations for shared mobility programs

- It is important to integrate private sector car-shares, ride-shares, and shuttles into public space planning so that they best support increased mobility access for all.
- Private sector programs can be incentivized to support transit, share data, and expand service to lower-income neighborhoods.
- Shared mobility should be integrated into land-use planning and development codes, and can be used as a strategy to incentivize fewer parking spaces and connections to transit.

Recommendations for supporting shared mobility

Photo credit: latourist.com

① Integrate car-sharing and ridesharing into public space

- Designate docking stations for taxi passengers in former parking spaces.

- Providing lower-cost (or free) public parking spaces for car-share vehicles. Allow peer-to-peer car sharing to use shared-use parking spaces.

- Require companies to financially contribute to maintenance and repairs. This can be done through a surcharge per trip or paying for an agreement on parking fees.

- Create incentives for private companies to share data with the City.

Photo credit: wikipedia.org

② Use shared mobility to support transit

- Focus on providing shared vehicle programs as a feeder system to transit, enabling users to make a first or last mile connection to a transit station.

- Provide Park and Rides and shuttle services to connect areas under served by existing transit to activity centers

- Extend commuter tax breaks that cover public transit to include shared-use modes.

- Consider public/private partnerships with car-shares that offer convenience and incentives for encouraging use of carsharing to complement public transit.

Photo credit: silive.com

③ Plan for shared mobility

- Incorporate shared mobility into transportation and planning documents.

- Ensure that new developments with parking garages provide car-sharing spaces.

- Require new developments to reduce parking demand and single-occupancy vehicle travel, with car-sharing as one strategy.

- Modify the City's land use codes to incorporate carsharing.

- Incentivize car share companies to offer services to lower income neighborhoods and neighborhoods under served by transit.

- Provide a High Occupancy Vehicle lane (HOV) on highways and major arterials. Allow carpools, shuttles, and vans to use this lane.

Apply Current Best Practices in Street Design

Context matters. Street design needs to be approached case by case. Here are general recommendations to make our streets better.

American transportation engineers and planners are fundamentally rethinking how our streets are designed. No longer are vehicle capacity and flow the overriding considerations, particularly in urban areas. With a renewed focus on safety, economic vitality, and serving the needs of all street users, everything from overarching design guidance to specific criteria for appropriate lane widths have evolved rapidly in recent years. Using the street design concepts presented below - many of which have already been officially endorsed or supported by organizations such as FHWA, ITE, and AASHTO - Boise will be at the forefront of traffic engineering practice, creating great streets that provide multiple benefits and maximize return on investment.

When appropriate, apply the following best practices

1 Narrower lanes for safer roads
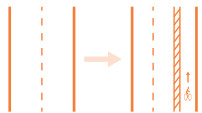
- On urban streets, lane widths of 10 to 10.5 feet have been shown to be safer than wider lanes, with no measurable decrease in traffic capacity and throughput.
- Narrower lanes create safety benefits by serving as traffic-calming elements that discourage speeding and decrease crashes.
- Narrower lanes also make space available for other uses, such as wider sidewalks and bike lanes, while reducing pedestrian crossing distances.
- Citywide, use a 10' width for travel lanes; on streets with frequent bus or truck traffic, use an 11' width for the outermost travel lane and 10' for inner travel lanes.

2 Design for a 20 mph or 25 mph target speed, not for a higher speed limit

SPEED LIMIT 20

- Urban streets should neither explicitly allow nor implicitly encourage excessive speeds.
- Design streets in Downtown, as well as local residential streets, with a target speed and speed limit of 20 mph.
- Where appropriate, design with a target speed and speed limit of 20 mph or 25 mph.
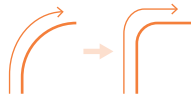
3 Manage turning conflicts through proactive, safe design

- Implement smaller corner radii to slow turning vehicles.
- Remove dedicated right-turn lanes (which increase pedestrian crossing distance and provide fewer benefits than left-turn lanes) unless absolutely necessary.
- Do not design streets with free-flow turn lanes (or "slip lanes") because they encourage fast turns, are detrimental to pedestrian safety, and are unfriendly to pedestrians.

4 Normalize intersections and minimize crossing distances

- Urban intersections should be designed for low speeds and walkable conditions.
- Design intersections to minimize the number of legs, "square" them so turns are as close to 90 degrees as possible, and minimize crossing distances through installation of sidewalk extensions and median islands.
- On all streets with a curbside parking lane, include curb extensions at corners and mid-block crossings.
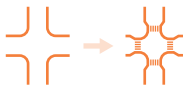
5 Provide high-quality pedestrian accommodation

- Provide marked pedestrian crossings at all intersection legs except where completely infeasible.
- Include raised medians or median islands at intersections on two-way streets with four or more moving lanes, wherever possible.
- Widen sidewalks where existing sidewalk width is generally too narrow (less than five feet) or unable to effectively serve existing pedestrian volumes in Downtown or commercial areas.

6 Design All Ages and high-comfort bicycle facilities

GREEN WAVE

SIGNALS SET FOR
13
M.P.H.

- Bike lane quality has a major impact on the actual (and perceived) safety of lanes and the ability to attract new riders.
- Provide physical protection and/or painted buffers to improve the bicycle experience on major arterials and collectors, rather than simply focusing on quantity of bike lane mileage.
- On local residential streets, apply enhanced sharrows and bicycle boulevard treatments to make connections to a core network of All Ages facilities.
- Implement a wayfaring strategy to direct riders to popular destinations and increase awareness of bicycle routes.
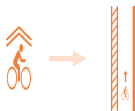
7 Make transit facilities convenient, safe, and accessible

BUS ONLY

- Install bus bulbs to reduce delay for buses pulling into and out of station stops.
- Implement dedicated bus lanes in areas with high congestion and/or bus volumes in order to make transit a more attractive option.
- Encourage ridership through high-quality bus stations with clear signage, shelter from weather elements, and adequate lighting to provide a comfortable waiting environment.
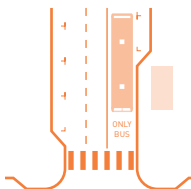
Street Design Reference Manuals

Many street design reference guides address the evolving nature of the practice, and yet align with existing guidance that is frequently referenced in Boise and elsewhere.

Existing references used for street design in Boise include national publications such as:

- AASHTO's *A Policy on Geometric Design of Highways and Streets* (2011)
- AASHTO's *Guide for the Planning, Design, and Operation of Pedestrian Facilities* (2004)
- ITE's *Designing Walkable Urban Thoroughfares: A Context Sensitive Approach* (2010)
- AASHTO's *Guide for the Development of Bicycle Facilities* (2012, update forthcoming)
- AASHTO's *Guide for Geometric Design of Transit Facilities on Highways and Streets* (2014)
- U.S. FHA *Manual on Uniform Traffic Control Devices*. (2015)

They also include regional and local references such as:

- ACHD's *Livable Street Design Guide* (2009)
- ITD's *Roadway Design Manual* (2013)
- ITD's *Practical Solutions for Highway Design* (2012)

Through the *Transportation Action Plan*, Boise recognizes the importance of formally adopting and supporting more recent guidance on street design that builds on the principles and flexibility of these prior sources. It endorses them as part of the standard design toolbox for Boise. These reference guides provide the tools to help Boise achieve many of the Values and Moves contained in the TAP. Some of the most practical and frequently used guides are listed on the facing page.

Guide Reference	Guide Details & Design Concepts
1 **NACTO:** *Urban Street Design Guide* (2013)	Comprehensive toolbox for street design, including sample cross sections and plans, definition of design strategies, and design controls. Supported by USDOT, as referenced in July 25, 2014, FHWA guidance on "Design Flexibility for Pedestrian and Bicycle Facilities."
2 **NACTO:** *Urban Bikeway Design Guide* (2014)	Toolbox of design options for on-street bicycle facilities including separated bike lanes (cycle tracks). Includes intersection treatments, signals, signs and markings guidance. Supported by USDOT, as referenced in August 20, 2013, FHWA guidance on "Bicycle and Pedestrian Facility Design Flexibility" memorandum.
3 **NACTO:** *Transit Street Design Guide* (2016)	Detailed guidance on the design of transit lanes and transit ways, stations and stops, intersections, and system-wide approaches to improving on-street transit performance, all in the context of the principle that urban transit streets are linear public spaces.
4 **FHWA:** *Separated Bike Lane Planning + Design Guide* (2015)	Comprehensive guide to separated bike lanes (cycle tracks) with design guidance on directional and width characteristics, forms of separation, midblock considerations, intersection design, and signs and markings. Includes lessons learned from case studies nationwide.
5 US Access Board: Proposed Guidelines for Pedestrian Facilities in the Public Right-of-Way (2011)	Accessibility guidelines for the design, construction, and alteration of pedestrian facilities in the public right-of-way. The guidelines ensure that sidewalks, pedestrian street crossings, pedestrian signals, and other facilities for pedestrian circulation are readily accessible to and usable by pedestrians with disabilities.
6 **Center for Active Design:** Active Design Guidelines (2010)	Urban design strategies for creating neighborhoods, streets, and outdoor spaces that encourage walking, bicycling, and active transportation and recreation.

To achieve the City of Boise's Vision and Moves contained in this Action Plan, and to support ACHD staff tasked with designing and implementing projects that support the Visions and the Moves, Boise officially endorses the referenced materials listed in the chart above.

Adopt a prioritization framework

There are a limited number of transportation projects that can be built. The City wants to ensure that the projects that get built are aligned with Boise's Mobility Vision and Values. To do so, the City has developed a project prioritization framework that packages the TAP Values and Moves into a transparent scorecard - one that clearly identifies the transportation investments that best serve the people of Boise.

Step 1: Identify Projects of Significant Capital Investment
The City will generate a list of possible projects based on: existing initiatives derived from past planning efforts, new projects generated from the TAP, and a call for projects to local and regional entities as well as community groups. From this larger pool of potential projects, the City will filter out 'state of good repair projects' (SOGR) and those that don't require significant capital investment (programmatic initiatives).

Step 2: Score Capital Projects based on Values, Moves, and Long-term vision for Boise
The remaining capital projects are given a score based on the TAP Values, TAP Moves, and Boise's long-term strategies. A capital project receives a performance assessment score based on metrics derived from the TAP Values. Projects receive additional points if they are located in a focus area of any of the TAP Moves. Finally, if a capital project has been identified in COMPASS *Communities in Motion*, or *Boise LIV*, it receives points for strategic alignment with the City's long-term land use and growth strategy. During this scoring process, the City can reflect context-dependent priorities by changing the relative weights of these scoring criteria.

Step 3: Rank based on score and cost-effectiveness
Individual capital projects are ranked according to their cumulative score. After this initial ranking, a cost-benefit analysis compares the top projects. Ranking is then adjusted to prioritize high-scoring projects that are also cost-effective.

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How Boise Prioritizes Transportation Projects

Funding is limited. This is how we prioritize projects.

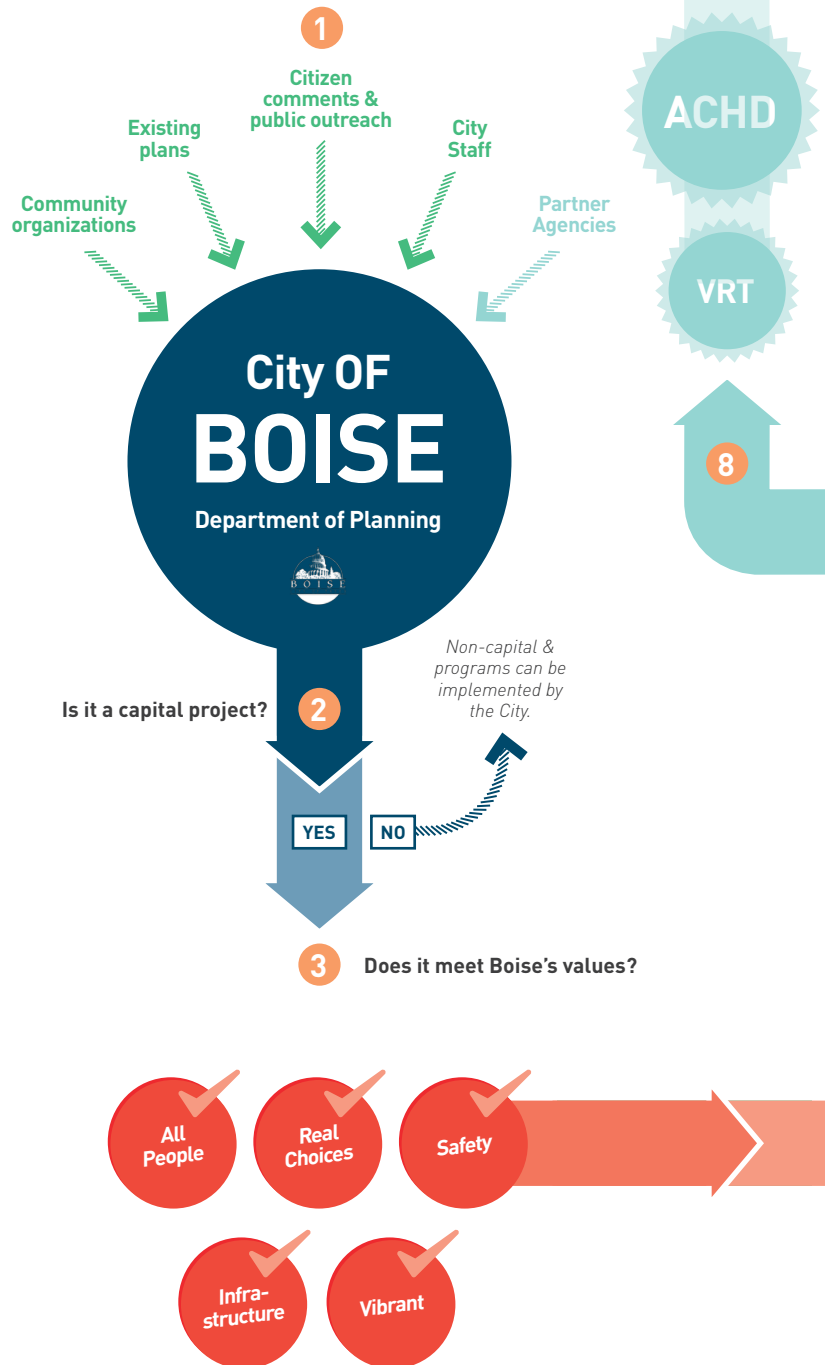**1 Transportation projects come from many sources.**
Project ideas can come from citizen input, recommendations by the Planning Department, or as part of realizing Boise's other planning frameworks. The Planning and Development Services Department collects all potential projects, briefly describes their scope, and holds them to be evaluated twice per year.
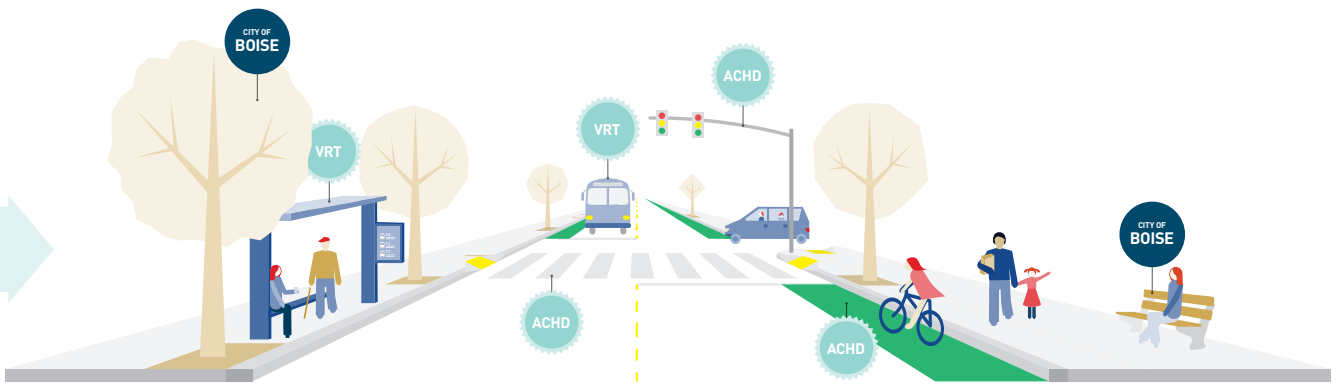
2 Is it a capital project? A pool of potential capital projects is kept by the City.
Because Boise's street network is built and maintained by Ada County Highway District, only capital (construction) projects are prioritized for referral to ACHD for implementation. Other programs can be administered directly by the City.

3 Does the project meet Boise's values?
The first stage of prioritization scores potential projects based on how well they meet Boise's mobility values as expressed in the TAP.

1

Community organizations
Existing plans
Citizen comments & public outreach
City Staff
Partner Agencies

ACHD

VRT

8

City OF BOISE
Department of Planning

Is it a capital project? **2**

Non-capital & programs can be implemented by the City.

YES | NO

3 Does it meet Boise's values?

All People
Real Choices
Safety
Infra-structure
Vibrant

8 City recommends its ranking to partner agencies for implementation.
The City provides its project rankings, scopes, and objectives to the implementing agency, usually Ada County Highway District, or Valley Regional Transit.

7 Rankings are adjusted by cost.
Projects are then re-ranked based on available budgets in the current funding cycle. Projects may be broken into phases, or combined to make them feasible, or delayed until funding is available.

6 Projects are ranked by merit.
An initial list ranks the "best" projects irrespective of cost. This allows the City to consider long range priorities, phasing, and fundraising possibilities.

High-scoring new models that are not aligned with existing plans could be considered to influence future planning.

NO **YES**

Is it aligned with Boise's planning frameworks?
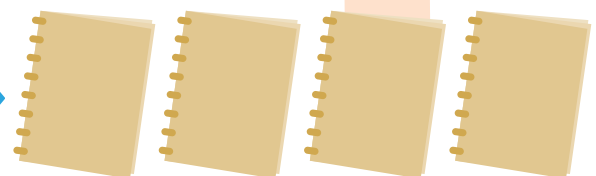
4 Does it support the moves?
Projects that have scored well on Boise's mobility values are tested to see if they also support one or more of the six Moves. Projects score higher if they fulfill multiple Moves.

5 Is it aligned with Boise's planning frameworks?
All projects that support Boise's mobility values, and fulfill one or more Moves, must also comply with the planning frameworks governing development in Boise. Only qualifying projects move to the final stage.

Scoring Example:
Emerald - Orchard St. to Americana

The project involves a road diet and addition of painted buffered bike lanes on both sides. It will fill gaps in the sidewalk network, provide Americans with Disabilities Act improvements, upgrade pedestrian crossings, upgrade traffic signals, and add continuous overhead lighting. The #5 VRT Route travels through mixed-use corridors and compact neighborhoods along this corridor. There are two schools within a 1/2 mile of the project.

45 / 100

Mobility Values   35 / 76

All People	✔✔
Real Choices	✔✔✔
Safety	✔✔
Optimize Infrastructure	✔
Vibrant Neighborhoods	✔

Why this score?
The project expands transportation options by providing an enhanced bike connection and improved sidewalks. The project increases mobility choices, and enhances safety while making use of the existing road infrastructure.

Mobility Moves   8 / 24

Safety for All	
Walk and Bike to the Store	YES
All Ages Bike Network	YES
Active Routes to School	YES
Park Once	
Three Best-In-Class Transit Routes	

Why this score?
The project contains bike infrastructure that meets All Ages standards within a 1/2 mile of schools and within 1/2 mile from an Activity Center. While the project includes safety measures, it did not get additional points under the Moves, because it is not located near a high-injury hotspot.

Scoring Example: Cloverdale - Fairview to Ustick

The project involves a road widening with non-buffered bike lanes on either side. Portions of the project have landscaped buffers between the sidewalk and the roadway. The closest transit is one mile away. There are no schools within a mile of the project.

12 / 100

Mobility Values **10 / 76**

All People	✓✓
Real Choices	✓
Safety	✓
Optimize Infrastructure	✗
Vibrant Neighborhoods	✓

Why this score?
The project provides mobility benefits to some people, and provides basic bike infrastructure. However, by widening the road, the project induces auto trips and increases the asset list for future maintenance.

Mobility Moves **0 / 24**

Safety for All	
Walk and Bike to the Store	
All Ages Bike Network	
Active Routes to School	
Park Once	
Three Best-In-Class Transit Routes	

Why this score?
The project is not aligned with any of the Moves.

BOISE
CITY OF TREES

Gehl
Studio San Francisco

Sam
Schwartz
Engineering
D.P.C.