East Boise Neighborhood Bicycle and Pedestrian Plan

Final Plan

Ada County Highway District

Adopted on December 13, 2017

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Acronyms and Abbreviations

AADT	Annual average daily traffic volume
ACHD	Ada County Highway District
ADA	Americans with Disabilities
HAWK	high-intensity activated crosswalk
MPH	miles per hour
PHB	pedestrian hybrid beacon
RRFB	rectangular rapid flashing beacon

Acknowledgments

Ada County Highway District

Brooke Green, MBA, PCED, Project Manager
Ryan Head, AICP, CPT, Planning Supervisor
Christy Foltz-Alrichs, Public Involvement
Tim Curns, PE, Traffic Specialist

City of Boise

Karen Gallagher, Transportation Planner
Zach Piepmeyer, PE, Transportation Planner

Boise School District

Lanette Daw

CH2M Consultant Team

Betsy Roberts, PE, Project Manager
Sumi Malik, AICP, Senior Technical Advisor
Eddie Montejo, Transportation Planner
Madison Levy, Geographic Information Systems Specialist
Amy Norred, Graphic Designer
Jennifer Moore, Editor
Meagan Thompson, Document Publisher

SECTION 1

Introduction

This *East Boise Neighborhood Bicycle and Pedestrian Plan* has been created to provide direction for the Ada County Highway District (ACHD) regarding prioritizing and developing future bicycle and pedestrian improvement projects. The plan was developed through a collaborative public process that sought to understand existing limitations or barriers to bicycle and pedestrian access throughout the East Boise Neighborhood planning area. The technical review team comprised representatives from both the City of Boise and Boise School District.

1.1 Plan Development

The Plan was developed based on the following steps:

- Researching existing documents and conditions
- Identifying walking and biking destinations and travel demands
- Initiating a multi-pronged public outreach process
- Conducting a technical site review of the plan area
- Integrating public comments and technical review team input to draft a plan

1.2 Desired Plan Outcome

The critical outcome of this plan: ***To produce a prioritized list of implementable bicycle and pedestrian improvement projects.***

The projects identified in this plan will include gaps in the sidewalk network and incorporate Americans with Disabilities Act (ADA) requirements. The bicycle projects will be based on the needs of the community that have generally been found to fall into four categories of users (Figure 1-1).

Figure 1-1. Four Types of Cyclists
Source: Geller (2006)

While these numbers may have changed slightly over the years, as more detailed studies have been conducted, they remain fundamentally the same. Comments provided by the public continue to support this typology. Successfully achieving the neighborhood-friendly aspect of this plan means identifying bicycle infrastructure improvements that are appealing to the 60 percent or so of "interested but concerned" cyclists. Creating bicycle friendly streets that are low stress and alleviate cyclists concern for safety, may not be directly correlated to recordable vehicle volumes or speed, but rather the rider's feeling of that volume or speed.

1.3 Project Study Area

The project study area is generally bounded to the north by the Military Reserve Park and Shaw Mountain Road, to the south by the Boise River, the west by Broadway Avenue and 3rd Street, and the east by a portion of Warm Springs Avenue and the Mesa Reserve space (Figure 1-2). This area contains only the East End Neighborhood Association.

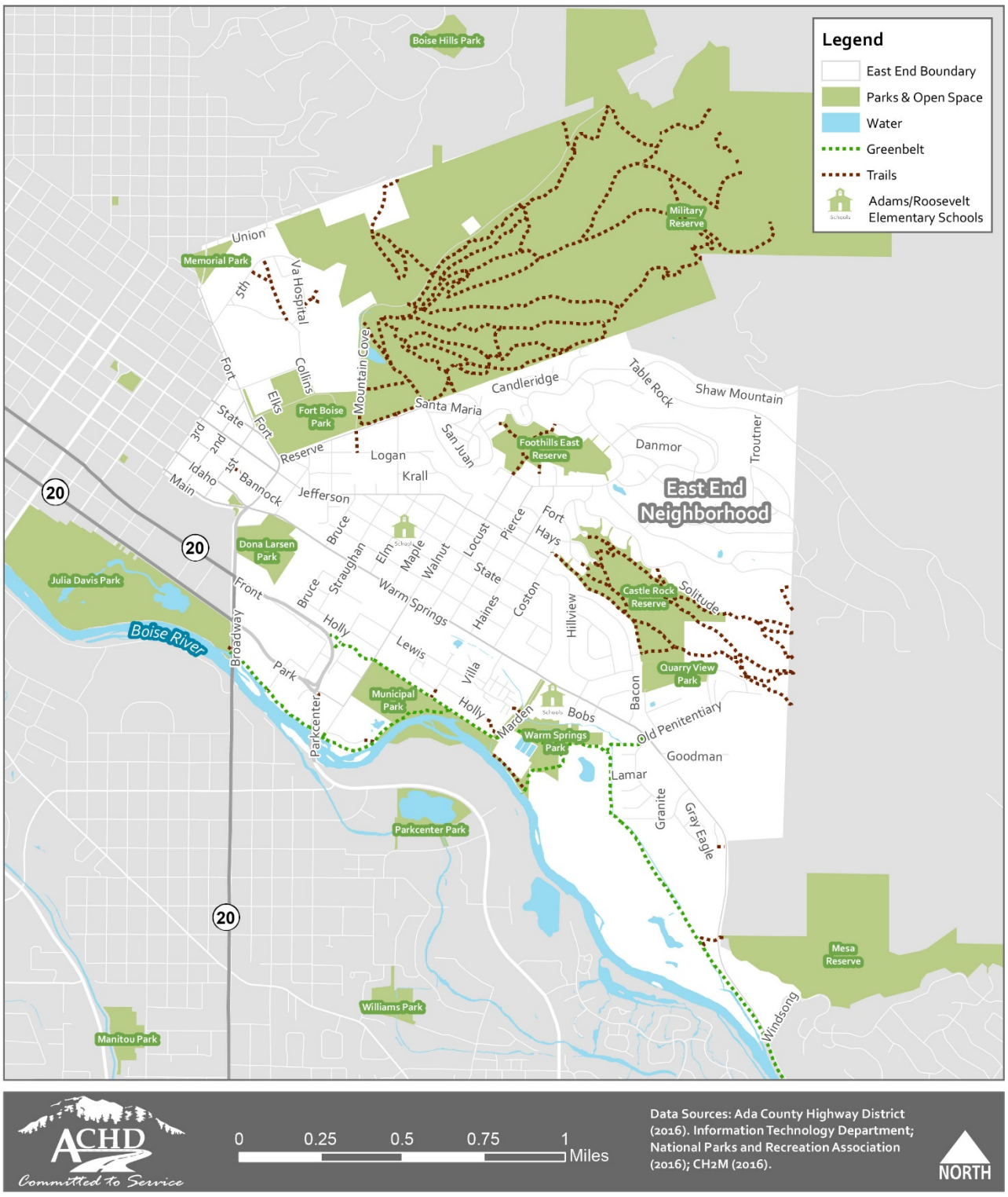


Figure 1-2. Project Study Area

The area is primarily residential with little commercial or business space. However, several public amenities are within the planning area:

Adams Elementary
Roosevelt Elementary

Fort Boise, Dona Larsen, Kristen Armstrong Municipal, Warm Springs, Quarry, and Memorial

Military, Foothills East, and Castle Rock

Public golf course, nature center, public natatorium, paved greenbelt, sports fields, trails

Boise Fire Station No. 1, the Pioneer Cemetery, and the Veteran's Administration campus and hospital, and the St. Luke's Hospital

Flat land, steep terrain, Boise Foothills

One challenge facing this neighborhood is the variation in topography descried above. The neighborhood includes both flat land at the base of the Boise Foothills and steep terrain associated with the foothills. Because of these variations in terrain—and as a result of development trends over time—the street pattern includes both a grid pattern and much more circuitous pattern based on topography needs. The shape and location of the original Fort Boise military area, now generally referred to as Fort Boise or Military Reserve Park, also contributed to a lack of connectivity. Property ownership and differences in street pattern have led to some lack of connectivity within the street pattern.

1.4 How Citizens Can Use This Plan

This plan intends to concisely represent the East Boise Neighborhood's voice regarding bicycle and pedestrian connectivity in their neighborhood. This plan provides direction to the ACHD and City of Boise as they create policy and set budgets for future projects.

1.5 Plan and Policy Review

Existing plans and policy were reviewed as a step in plan development. A full discussion of that review is located in Appendix A.

SECTION 2

Existing Conditions

The first step in developing this plan was to gain an understanding of existing conditions within the project study area. Several factors were considered, including the existing road network; bicycle and pedestrian infrastructure; current demographic profile of the community; implications and impacts of existing plans and projects; and direction provided through federal, state, and local policies and requirements. This community-level assessment of the existing plan, policy, and infrastructural framework provides a foundation understanding needs within the study area. The following sections summarize existing conditions.

2.1 Demographics

The demographic profile of the East Boise Neighborhood area was assessed using the latest available U.S. Census Bureau (2015) information.[1] Key demographic factors are graphically summarized in Figure 2-1.

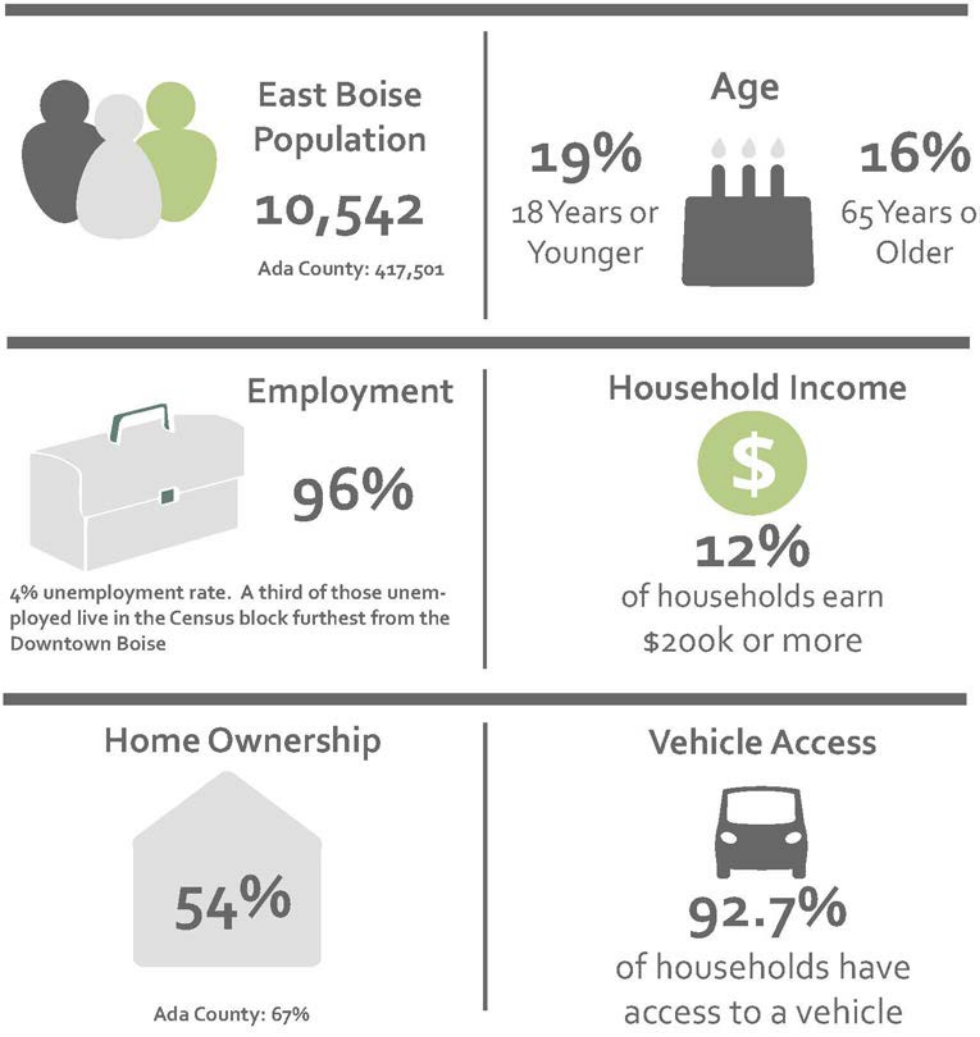


Figure 2-1. East Boise Neighborhood Demographic Summary

[1] Demographic findings reference U.S. Census Bureau (2015) using all block groups within the study area boundary.

2.2 Roadway Network

A fundamental task in developing a neighborhood bicycle and pedestrian plan was to assess the existing roadway network. The topographically level and lower portion of the neighborhood features a gridded street network mostly comprising local and collector streets (Table 2-1). Figure 2-2 displays the functional road classifications within the project study area.

Table 2-1. Road Network—Total Miles by Functional Classification

Functional Classification	Miles	Percent of Road Network
Principal Arterial	1.7	4.3
Minor Arterial	2.8	7.0
Collector	4.9	12.3
Local	30.5	76.3
Grand Total	40.0	100

Note: Driveways and park streets omitted.

2.3 Traffic Volumes and Speeds

Traffic volumes and speeds are major factors that influence both the perceived comfort, as well as the actual safety of bicyclists and pedestrians using the transportation system. Most streets within the project study area have posted speeds of 20 miles per hour (MPH). Less than 15 percent of all streets have posted speeds of more than 25 MPH, making the neighborhood a good candidate for implementing neighborhood bikeways, trails, and walking facilities. Principal and minor arterial roads have posted speeds of 30 to 35 MPH (Table 2-2). Figure 2-3 displays posted speeds within the project study area.

Table 2-2. Posted Speeds, Miles Per Hour (MPH) by Functional Classification

Functional Classification	15 MPH	20 MPH	25 MPH	30 MPH	35 MPH
	(percent)				
Principal arterial	--	--	--	--	100
Minor arterial	--	--	--	100	--
Collector	--	49.8	19.6	10.7	19.9
Local	2.3	90.0	7.6	--	--
Grand Total	3.7	73.4	8.1	8.2	6.6

Traffic volumes within the study area range considerably, with most volumes between 2,000 and 10,000 vehicles per day. The highest annual average daily traffic (AADT) values were on East Warm Springs Avenue, South Broadway Avenue/East Fort Street, East Park Boulevard, and East Front Street, with values generally exceeding 20,000 vehicles per day. South Broadway Avenue/East Fort Street had the highest AADT values within the study area, with the segment between East Front Street and East Warm Springs Avenue in excess of 30,000 vehicles per day. In general, AADT values along collector roads ranged between 2,000 and 6,000 vehicles per day (Figure 2-4).

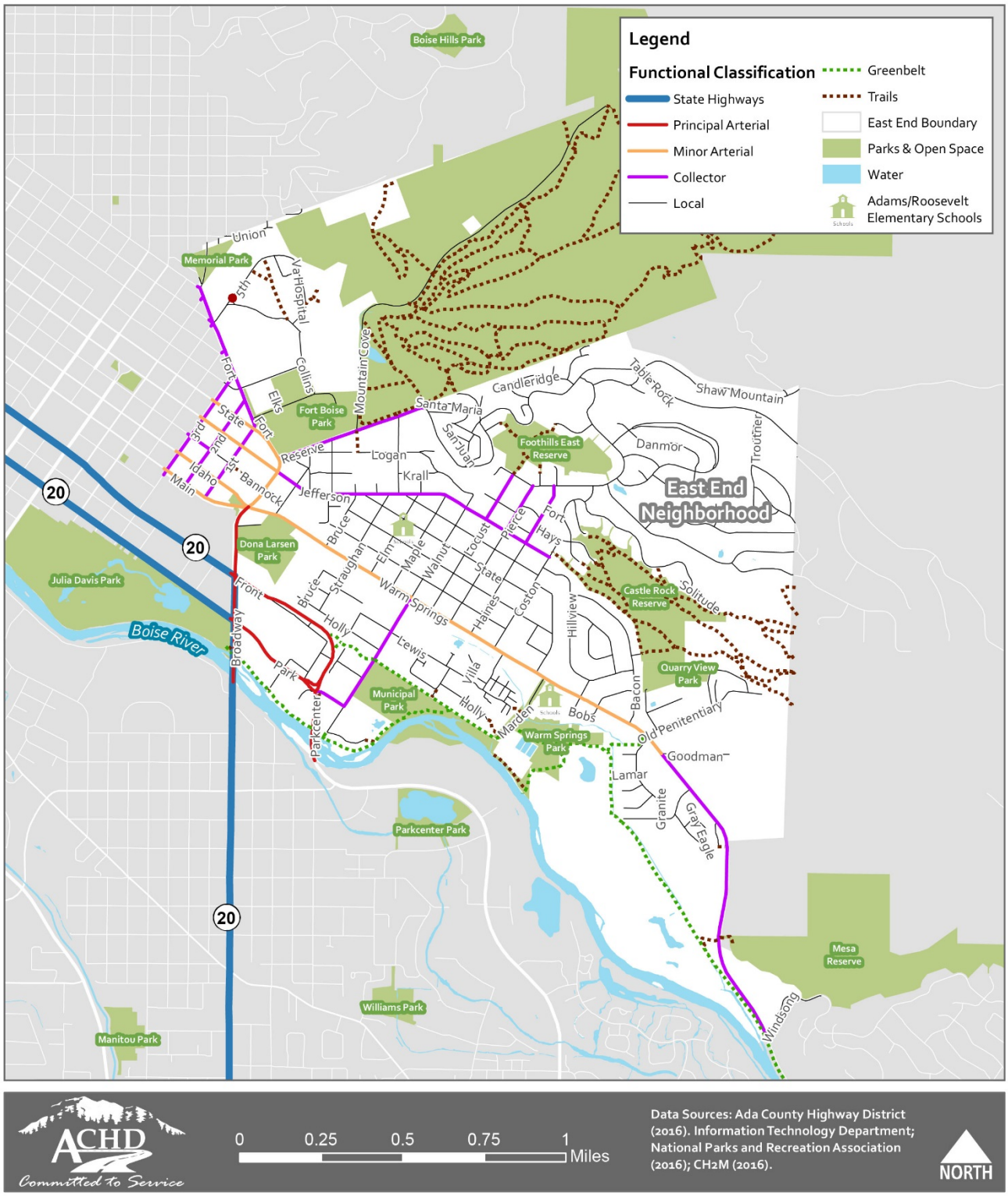


Figure 2-2. East Boise Functional Road Classifications

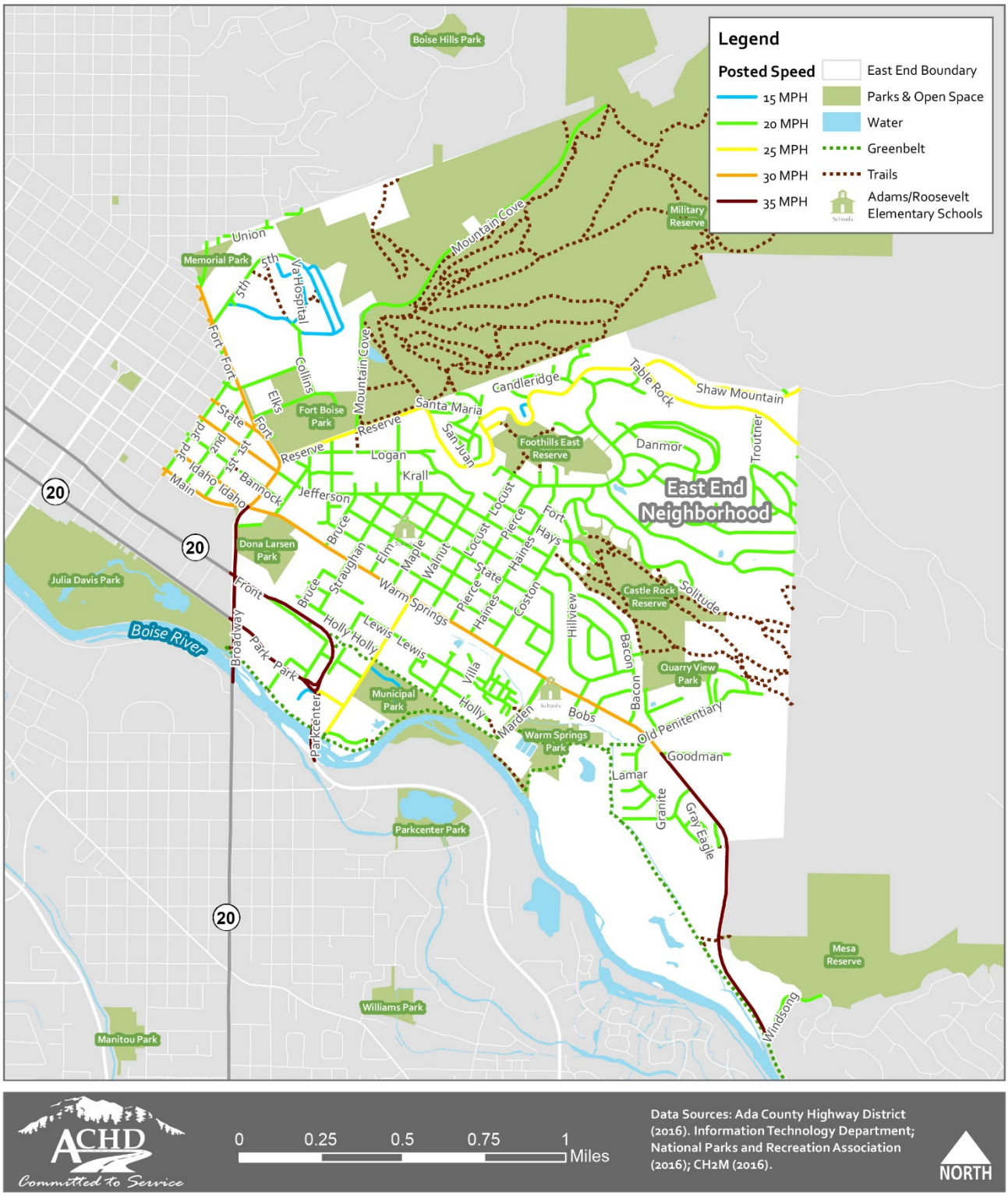


Figure 2-3. Boise Posted Speeds

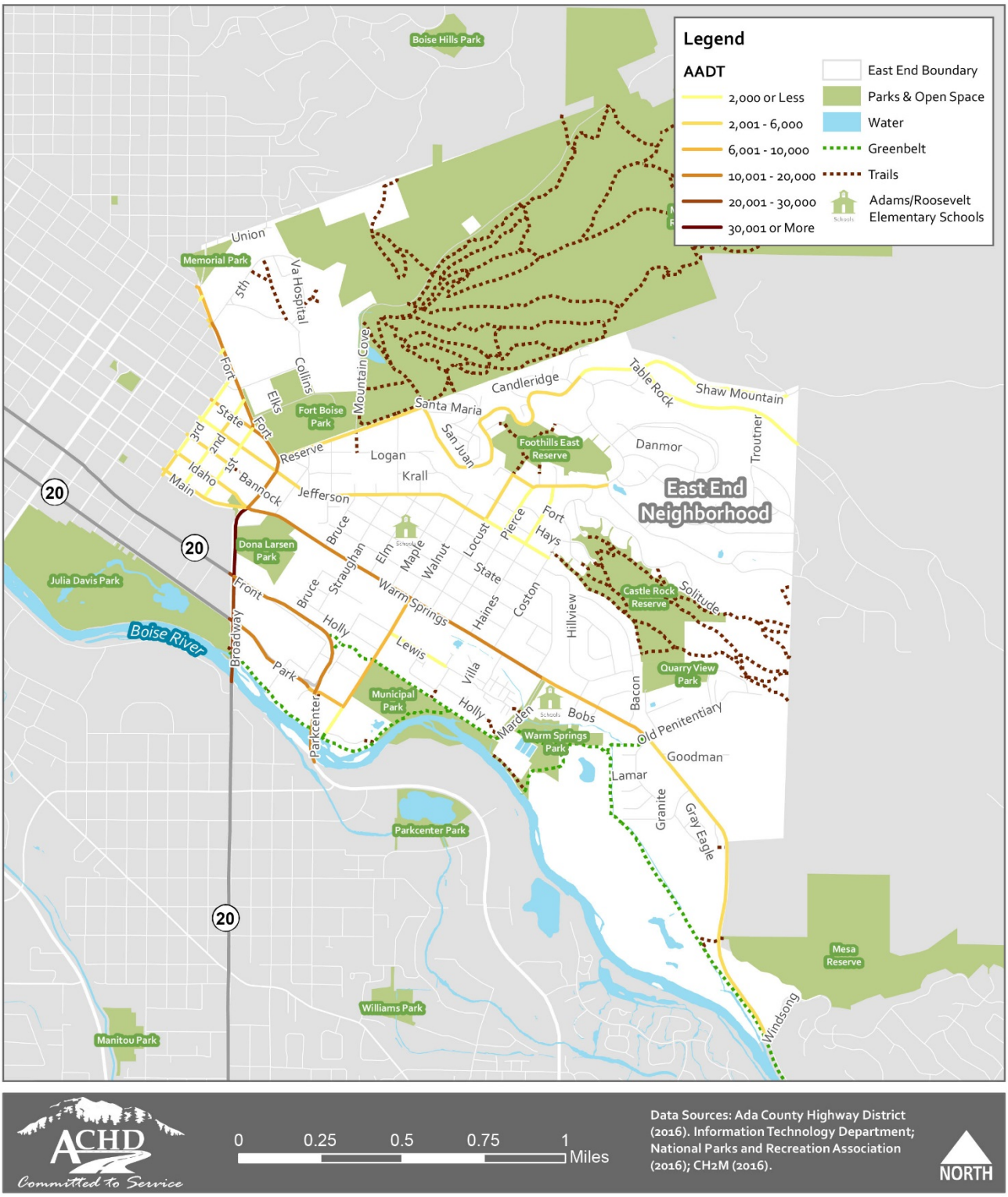


Figure 2-4. East Boise Average Annual Daily Traffic

2.4 Sidewalk Network

In 2005, the ACHD created the *Pedestrian-Bicycle Transition Plan*. Part of developing this plan involved identifying all sidewalk segments throughout the county. Figure 2-5 displays the approximately 44 miles of existing sidewalk facilities within the project study area. For this process, the project team also calculated the miles of "gaps" within the study area, which refers to street segments that currently do not feature sidewalks or grade-separated walking facilities. It was determined that approximately 12 miles of "gap" locations are located throughout the project study area. Areas where sidewalk does not currently exist are typically located in topographically challenging areas, such as steep hillsides. In other areas, right-of-way constraints have limited the completion of the sidewalk network.

2.5 Bicycle Facilities, Trails, and Pathways

Approximately 9 miles of on-street bicycle facilities are located within the project study area, of which nearly half are conventional bicycle lanes (Table 2-3). Shared bike routes comprise the majority of remaining bicycle facilities within the project study area, which refer to routes on neighborhood streets where traffic volumes and speeds are low, and conditions are such that bicyclists of all skill levels would be generally comfortable riding in the street. Shared bike routes will generally feature shared-lane markings, also known as "sharrows," which indicate the appropriate positioning for bicyclists in the lane, outside the "door zone" where there is street parking.

In addition to on-street bicycling facilities, the City of Boise maintains an impressive foothills trail system for both biking and walking. Within the project study area, more than 14 miles of trails and an additional 3.4 miles of the Boise Greenbelt are available (Table 2-4).

A significant portion of this system resides within the boundary of the East Boise Plan, and numerous access points are available from the neighborhood to the trails. Besides the trail area that is part of Ridge to Rivers, the Foothills Reserve East was created as a part of the development of the neighborhood. This reserve area is totally surrounded by neighborhood. Pathways that cross the Reserve can be used by pedestrians or cyclists. Figure 2-6 shows the on-street bike facilities as well as the trail facilities.

Table 2-3. Bike Facilities—Lane Miles by Facility Type

Facility Type	Miles	Lane Miles	Percent of Bike Facilities
Bike Lane	2.55	4.25	47.7
Difficult Bike Route	0.16	0.33	3.7
Neighborhood Bike Route	0.32	0.64	7.2
Shared Bike Route	1.85	3.69	41.4
Grand Total	4.88	8.91	100.0

Table 2-4. Trail Network—Total Miles by Trail Type

Trail Type	Total Miles	Percent of Total Miles
Boise Greenbelt	3.4	19.4
Trails	14.1	80.6
Grand Total	17.5	100.0

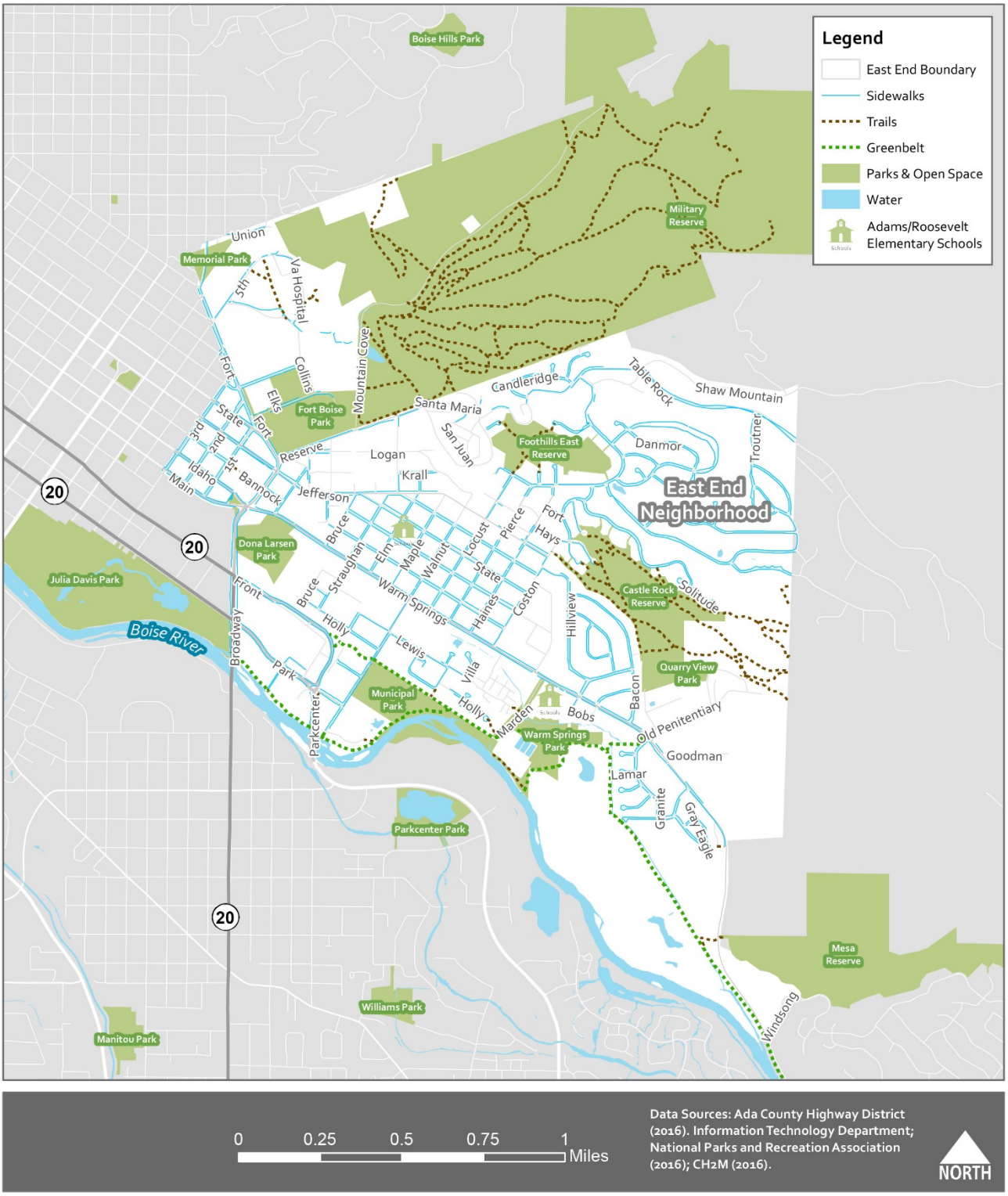


Figure 2-5. Existing Sidewalk Network

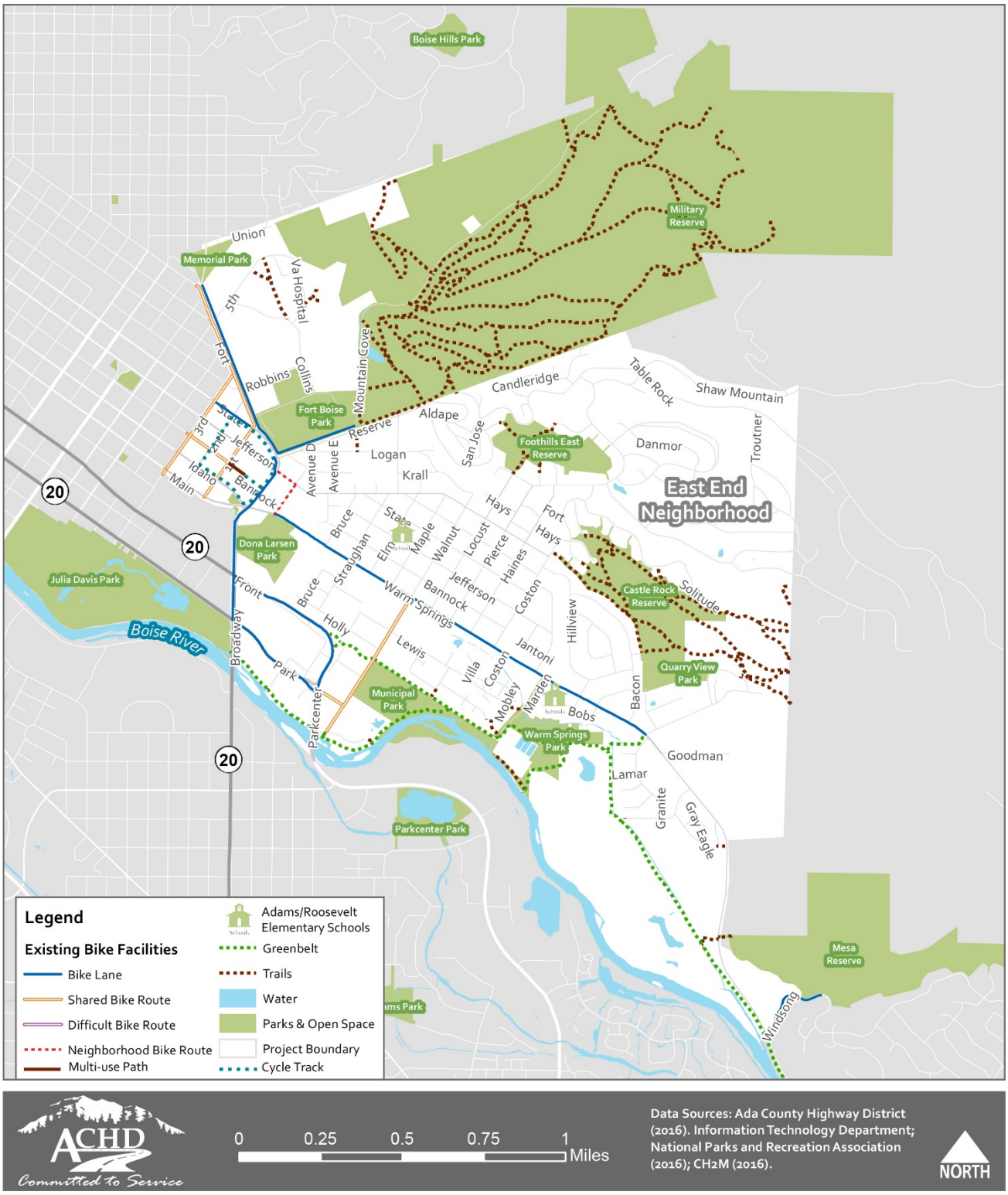


Figure 2-6. Existing Bicycle, Sidewalk, and Trail Facilities

2.6 Crosswalks

A small number of enhanced pedestrian crossings are located throughout the project study area. In this plan, "enhanced crosswalks" generally refer to high-visibility, marked crosswalks aided by pedestrian-activated flashers or signals, such as rectangular rapid-flashing beacons (RRFBs) or pedestrian hybrid beacons (PHBs), also known as high-intensity activated crosswalks (HAWKs). All RRFBs are currently located along East Warm Springs Avenue, which experiences traffic volumes of over 10,000 in most sections.

Table 2-5. Existing Crosswalks and Average Annual Daily Traffic

Location	Type of Crossing	Annual Average Daily Traffic
Warm Springs Avenue at Walnut Street	RRFB with pavement marking	12,000 on Warm Springs Avenue
Warm Springs Avenue at Adams Elementary	Signal with pavement marking	8,700 on Warm Springs Avenue
Walnut Street at Municipal Park (Greenbelt)	Pavement marking	12,500 on Walnut Street

2.7 Topography

Steep slope traveling north along Shenandoah Drive

Steep and uneven topography create considerable challenges for walking and biking in part of the East Boise Neighborhood. The neighborhood experiences a significant northwest-southeast topographical change, roughly bisected by East Franklin Street. South of East Franklin Street, the neighborhood generally rests on the valley floor, while to the north, the land rises quickly as part of the leading edge of the Boise Front. An elevation gain of nearly 1,000 feet is experienced between the lower neighborhood and newer homes below Table Rock. Steep hills and rock cliffs contribute to the challenges of walking and biking in the plan area. Climbing hills up Shenandoah Drive and Shaw Mountain Road is a slow process for most cyclists. Conversely, the downhill run for both cyclists and vehicles can be very rapid, and neighbors complain that posted speeds are often surpassed. Additionally, steep cliffs along Shaw Mountain Road leave little room for bicycle or pedestrian facilities.

2.8 Currently Planned Projects

Two significantly large projects are already planned for the project area: St. Luke's Downtown Campus Expansion and the Warm Springs and Broadway Avenues intersection. The St. Luke's project extended from 2nd Street on the west, Idaho Street on the south, Avenue C on the east, and Fort Street on the north. This project has been through the public process and approved by both ACHD and the City of Boise. As of 2017, transportation improvements including bicycle and pedestrian improvements were under construction. The Broadway-Warm Springs Avenue intersection was also planned, but no date for construction has been developed.

The Broadway Avenue and Dona Larsen Park concept was adopted by the ACHD Commission in 2016. Improvements will create a safer, more walkable and bikeable intersection. The full concept study can be found on the ACHD website. The ACHD Commission directed staff to begin designing the construction after the hospital expansion is completed. The recommended project maps as part of this plan display the pathway.

In addition, several projects are currently identified in the *Integrated Five-Year Work Plan* (ACHD, 2016). Table 2-6 lists all planned projects, and all projects were considered when developing this plan.

Table 2-6. Currently Planned Projects

Project Name	Description	Planned Timeframe
Broadway Avenue and Dona Larsen Park	Pathway through Dona Larsen Park and enhanced crossing at Broadway Avenue	To be determined
Warm Springs Avenue and Avenue C	RRFB and pavement marking	To be determined
Warm Springs Avenue at Straughan Avenue	RRFB with pavement marking	To be determined
Penitentiary and Warm Springs Avenue Intersection Improvements	Intersection and crossing improvements needed; final solutions not yet identified	To be determined
St. Luke's Downtown	Campus expansion stretches to Avenue C on the east, includes Fort/Reserve Streets intersection, Fort Street on the north, 3rd Street on the west, and Idaho Street on the south	Currently under construction
Warm Springs and Broadway Avenues Intersection	Improvements to intersection functioning and safety	Planned but no established date for final design, right-of-way, or construction
Pierce Street Sidewalks	Sidewalk improvements from Washington Street to Shenandoah Drive	Construction in 2021
Franklin Street Sidewalks	Sidewalk on north side of Franklin Street from McKinley to Pierce Streets	Construction in 2021

SECTION 3

Needs Analysis

Key components of the needs analysis include conducting a technical site visit, analyzing traffic volumes and speeds, and analyzing sidewalk gaps, which involved assessing the existing sidewalk network to identify street segments currently lacking pedestrian facilities. The most substantial component of the needs analysis was a robust public involvement process that included a variety of engagement methods for obtaining feedback about bicycling and walking needs in the neighborhood. The following section summarizes the public involvement process.

3.1 Public Involvement Process

The public involvement process included an online public comment map (available from April through May 2017), citizen input meeting, online public survey, a student input meeting, and small group, "pop-up events." The project team developed an online public comment map allowing neighbors to provide feedback interactively using a web-based mapping application. The online public comment map was published on the project website and advertised on social media and conventional public information channels. After the public comment period, web-map responses were collected and analyzed to create summary-level findings to inform the development of preliminary project recommendations.

- **Most popular places to bike and walk—**Roosevelt Elementary School, Foothills East Reserve, Fort Boise Park, and Warm Springs Park.
- **Walking and biking barriers—**Areas currently lacking sidewalk facilities, such as along Shaw Mountain Road from Reserve Street to San Jose Way. Intersections, such as the intersection of Warm Springs Avenue and Walnut Street, and Warm Springs Avenue intersections between Dona Larsen Park and Broadway Avenue.

3.1.1 East End Neighborhood Citizen Input Meeting

In tandem with the launch of the online public comment map, the project team also held an East End Neighborhood citizen input meeting on April 25, 2017, at Roosevelt Elementary School to gather early feedback about walking and bicycling needs within the plan boundary. The meeting focused on gathering feedback from the community around roadway, traffic, and speeding conditions, as well as areas with high concentrations of barriers to walking and biking. East Warm Springs Avenue was identified by participants as the most important road to consider throughout the planning process. East Warm Springs Avenue was reported to have the highest incidence of speeding, traffic, and barriers to walking as biking, and was also identified as the street that most people would like to walk or bike to. Table 3-1 summarizes community feedback on streets with the greatest roadway, speed, and traffic barriers to walking and/or biking.

Table 3-1. Streets with the Greatest Roadway, Speed, and Traffic Barriers to Walking and/or Biking

Street	Percent of Comments
East Warm Springs Avenue	11.3
East Jefferson Street	7.17
Grand East Shaw Mountain Road	6.55
East Reserve Street	4.16
North Avenue B	4.05
North Avenue C	3.53
North First Street	2.91
South Walnut Street	2.91
North Coston Street	2.81
East Franklin Street	2.70

3.1.2 Online Public Survey

An online survey (focused on bicycling and walking needs throughout the community was developed and posted along with an interactive mapping tool to capture public feedback; see Figures 3-1 through 3-5). The survey asked how frequently participants walked or biked, for what reasons, and for input on walking and bicycling-related challenges and opportunities near the East End Neighborhood. Most of the 358 survey participants (98 percent) said they currently live, work, shop, or recreate in the East Boise area. There is a considerable demand for better walking and biking facilities in and around the East Boise area, as more than half of survey participants (61 percent) reported they walk for recreation or to get to work, school, or to shop. Figure 3-1 and Figure 3-2 show survey results.

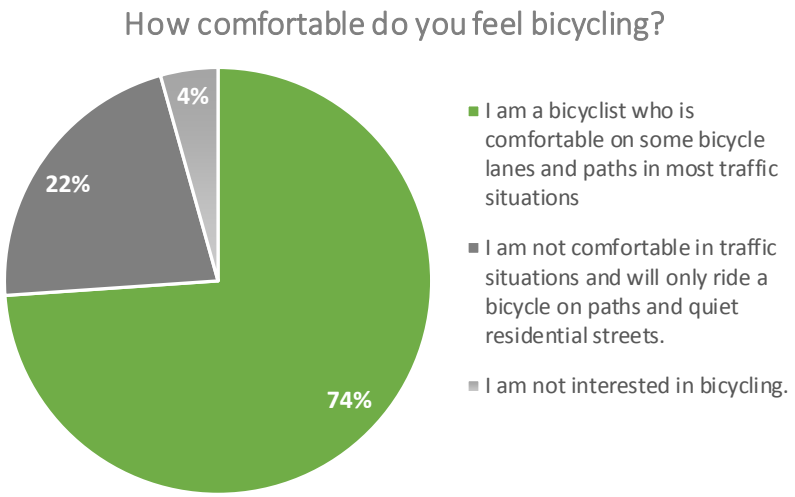


Figure 3-1. Online Public Survey Results: How comfortable do you feel bicycling?

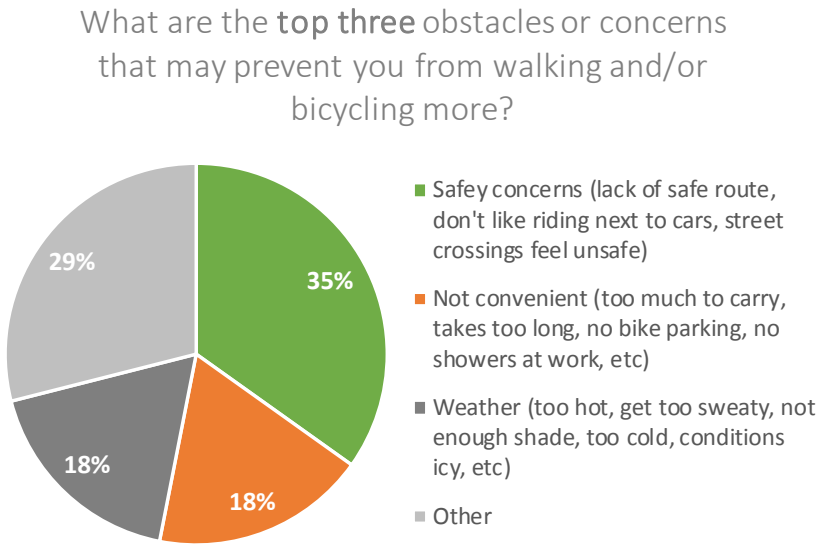


Figure 3-2. Online Public Survey Results: What are the top three obstacles or concerns that may prevent you from walking and/or bicycling more?

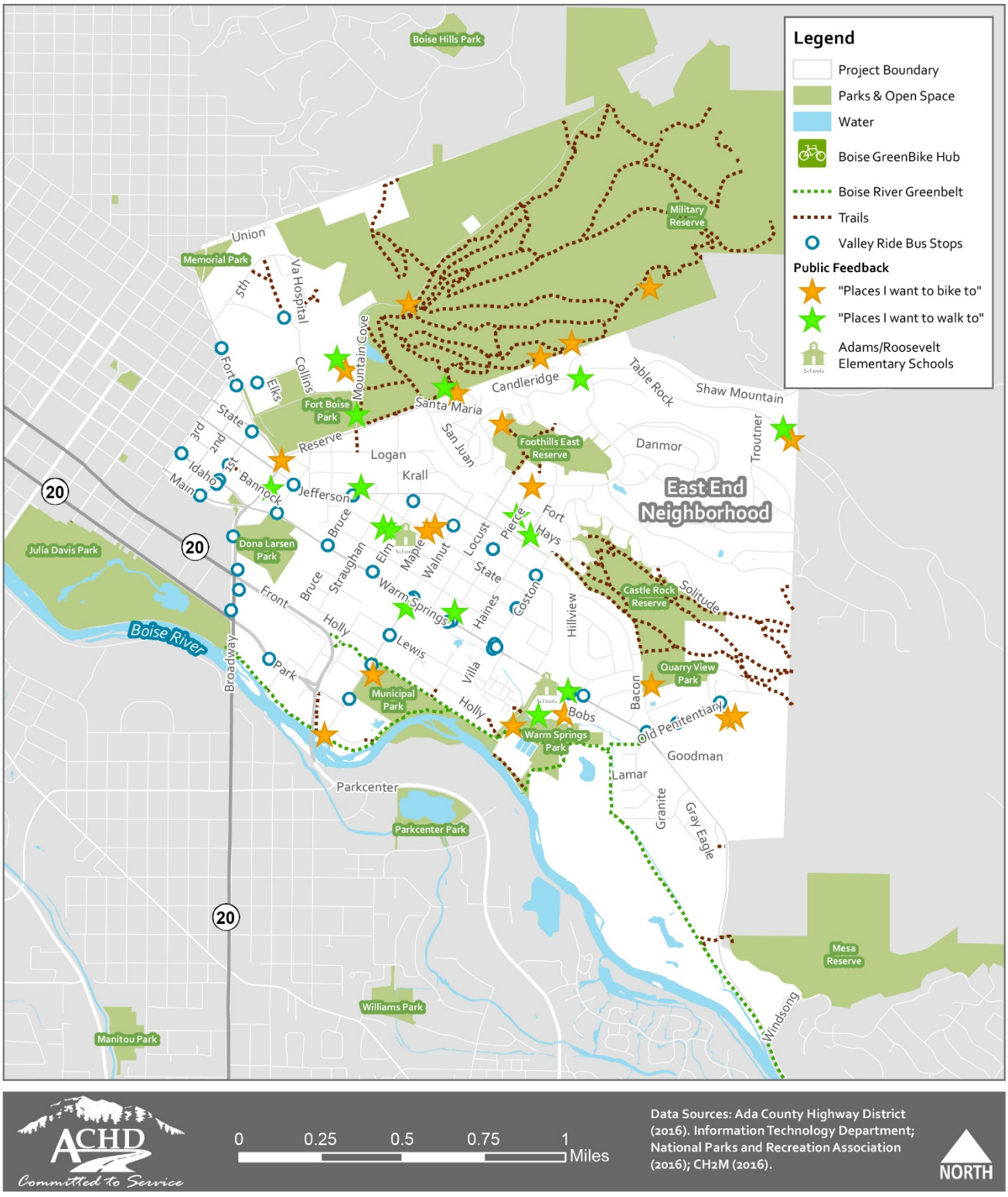


Figure 3-3. Needs Analysis Online Mapping Results: Community Destinations and Walking and Biking Generators

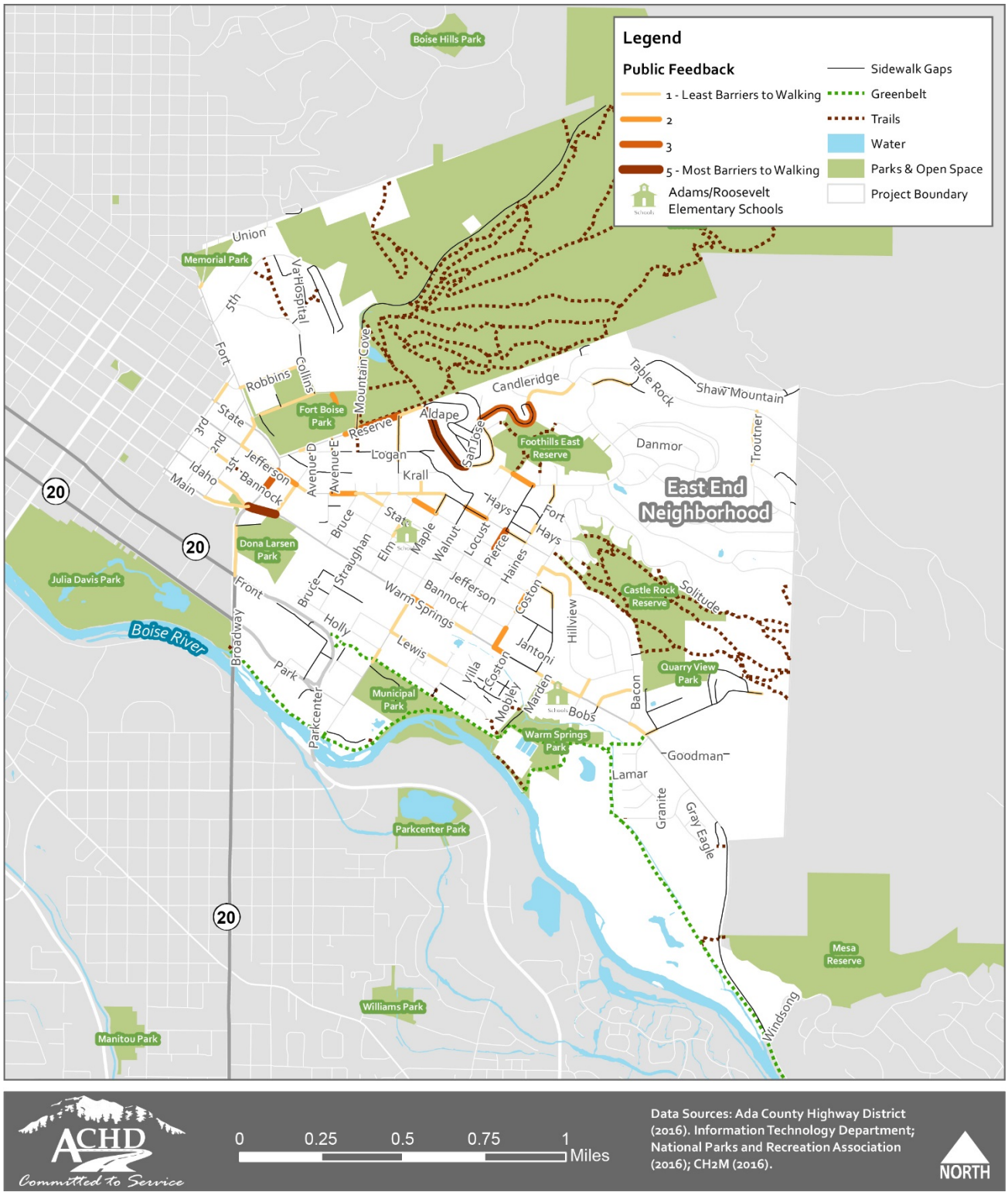


Figure 3-4. Needs Analysis Online Mapping Results: Barriers to Walking

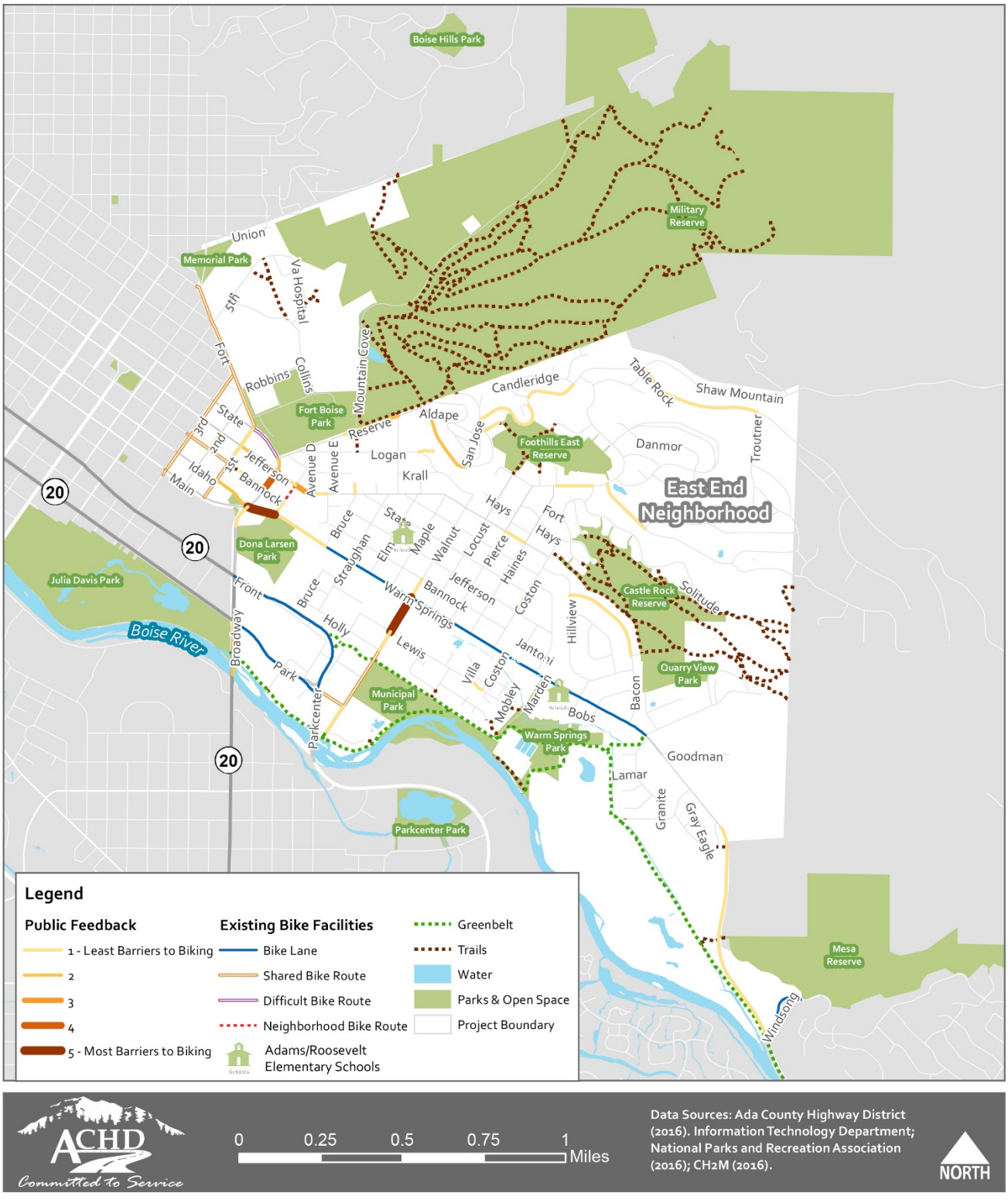


Figure 3-5. Needs Analysis Online Mapping Results: Barriers to Biking

3.1.3 Student Public Involvement Meeting

The project team engaged two sixth-grade classes at Roosevelt Elementary School on April 5, 2017 for 1 hour. The team provided a brief project background, and students set to work in teams marking up maps and then presenting their comments and feedback to the group.

What did we learn from the sixth-grade students? Each table of six or so students located their school on a map spatially, then proceeded to identify barriers and challenges they face when biking or walking to school, visiting friends, or getting around the neighborhood. After identifying several such challenges, the tables discussed the list they had developed and located on the map with dots to select the top priority project. A representative from each table went to the front of the classroom, located their prioritized project on a map, and told the classroom and the planning team what the challenge was and why fixing it was most important to their group. Some groups identified similar challenges; the list of challenges that came out of this student workshop looked like this:

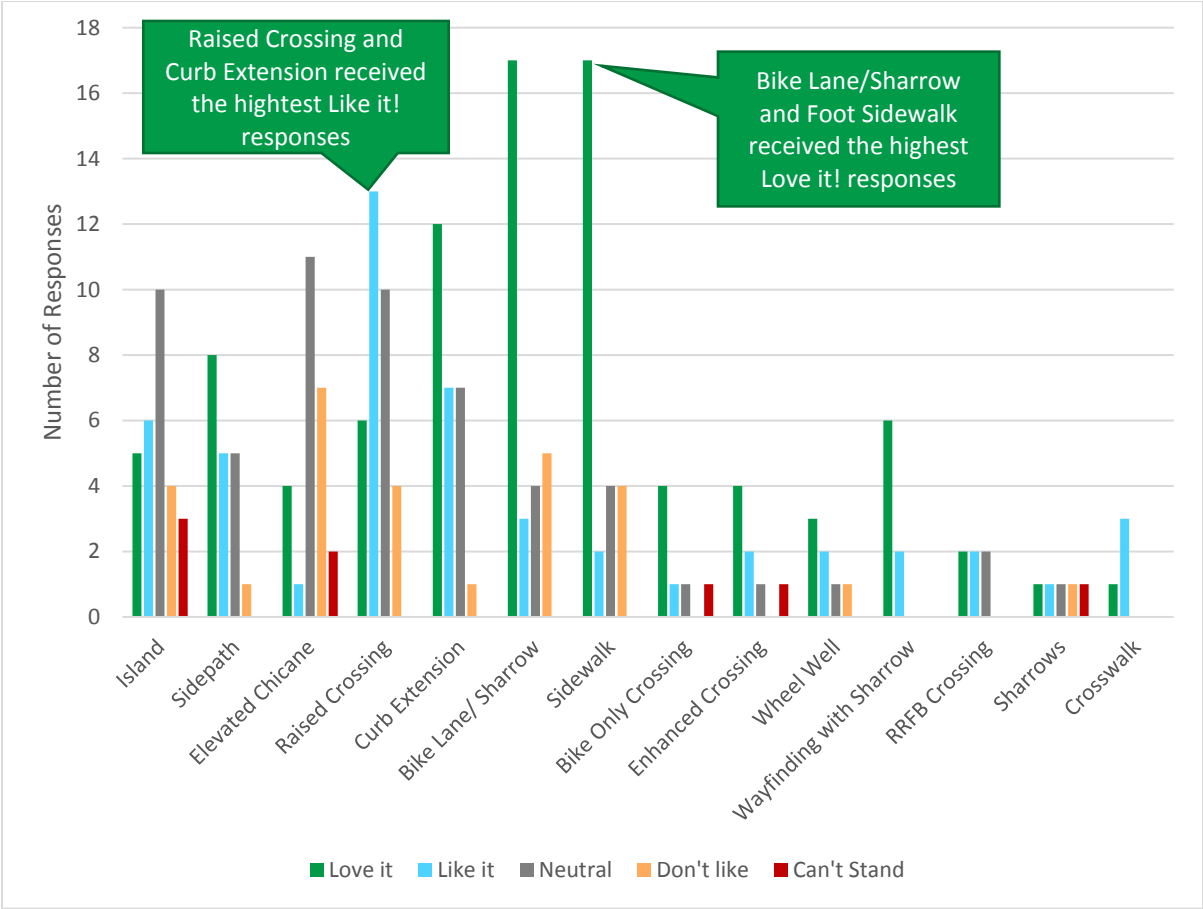
- **Shaw Mountain Road—**Vehicles travel fast, the road is curvy, and no bike lane or sidewalk is available.
- **Shaw Mountain Road—**While stop signs on located along the road, drivers ignore them.
- **Warm Springs Avenue—**This street is difficult to cross; only two flashing crosswalks are provided, and even at these, cars do not always stop.
- **Haines Street—**Only one crosswalk crossing is located on Haines Street, and it is at the bottom of the hill. Cars are going fast and do not always see people in the crosswalk.
- **East Table Rock Road—**Vehicles tend to speed a lot on this street.
- **Roosevelt School Parking—**When the school has events, seeing around parked cars to safely get out into a crosswalk and cross the streets around the school is difficult.

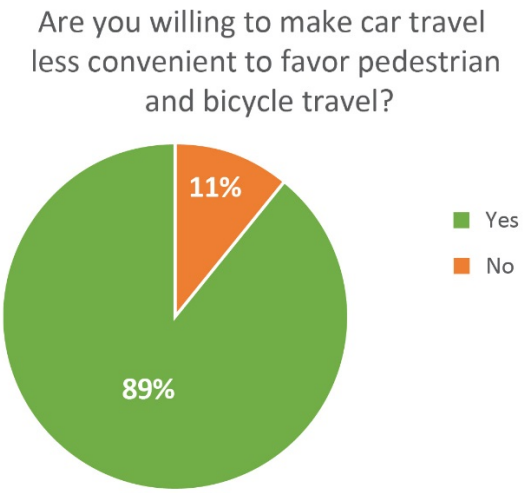
Interactive mapping activity at the student public involvement meeting to determine neighborhood needs

3.1.4 Targeted Small Group Meetings or "Pop-up Events"

The project team visited five pop-up areas within the project study area with a van and materials that communicated existing barriers, challenges, and opportunities within the neighborhood. At each pop-up event, the project team shared concept-level bicycle and pedestrian projects with members of the community to solicit their feedback. Treatments ranged from basic improvements to address network deficiencies, such as sidewalk infill projects, to more novel treatments such as bicycle chicanes, raised crossings, and protected bikeways. Figure 3-6 displays a comprehensive summary of the level of support for each of the bicycle and pedestrian treatments shown to the public.

Pop-up event participants expressed strong support for investments in bicycle and pedestrian infrastructure in the East End area, despite an acknowledgement of some of the potential trade-offs between drivers and active users. Most participants (89 percent) indicated they were willing to make car travel less convenient to favor pedestrian and bicycle travel, and were willing to give up on-street parking in areas for better pedestrian and bicycle facilities (79 percent).





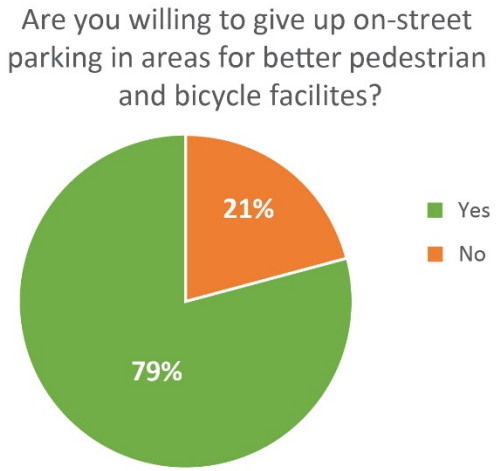


Figure 3-6. Pop-Up Event Survey Results: Popularity of Bicycle and Pedestrian Treatments

3.1.5 Summary of Public Comment

Table 3-2 provides a breakdown of the total number of all comments received during the public involvement period and through which method they were received. Based on the information provided in the table, on-line tools appear were the most effective method for collecting comments for this plan.

Table 3-2. Summary of Public Comments

Comment	Number of Comments	Percent
Online Mapping Tool Comments (Wikimap)	**289**	31%
Online Survey Responses	359	38%
Pop-up comments	173	19%
Public Involvement Meeting Comments	112	12%
Total	**933**	

3.2 Walking and Biking Generators and Attractors

Figure 3-3 depicts known walking and biking generators throughout within the neighborhood area.

3.3 Walking and Biking Barriers

During the public involvement outreach period, comments regarding barriers to both walking and biking were received. Those comments were compiled and developed into maps depicting the density of comments along segments of road or spot locations. See Figure 3-4 and Figure 3-5 for walking and biking barriers, respectively.

Pop-up event survey results—willingness to make car travel less convenient to favor pedestrian and bicycle travel

The impact of traffic volumes and speeds throughout the neighborhood were evident in the comments. Greater densities of comments around walking and biking barriers correlated with street segments with higher AADT and higher posted speeds.

Access around the current Warm Springs Avenue/Broadway Avenue intersection and St. Luke's campus area drew a significant number of comments with respect to both walking and biking barriers. Numerous other improvements that will benefit pedestrian and bicycle access have been approved and are under construction as of the summer of 2017.

3.4 Reported Walking and Biking Crashes

Bicycle and pedestrian crash data for the plan area were collected from the data files available through the Local Technical Highway Assistance Council. Reported crash data are available for the 2011 to 2015 timeframe. No fatal crashes were recorded during this timeframe for either cyclists or pedestrians.

Table 3-3 and Table 3-4 show the location and number of crashes for both pedestrians and bicyclists. As with the pedestrian crashes, the higher volume traffic streets and through streets were the location of the higher number of crashes.

Table 3-3. Reported Pedestrian Crashes between 2011 and 2015

Location	Crashes
Broadway or Avenue B	7
Warm Springs Avenue	2
Main Street (Main/2nd Streets and Main/3rd Streets)	2
Avenue A	1
Park Boulevard	1
Total pedestrian crashes between 2011 and 2015	13

Table 3-4. Reported Cyclist Crashes between 2011 and 2015

Location	Crashes
Broadway or Avenue B	13
Front Street (two crashes counted above at Broadway Avenue)	3
Fort Street (two of which were at Reserve Street)	3
Other various locations:	9
—Walnut and Lewis Streets	
—East Jefferson Street and Avenue D	
—1st and Idaho Streets	
—2nd Street between Jefferson and Bannock Streets	
—3rd and Main Streets	
—MK Plaza Drive	
Total cyclist crashes between 2011 and 2015	28

SECTION 4

Identified Project List

The team sorted, categorized, and evaluated comments gathered through public input. They then conducted a technical review of issues identified in the comments to evaluate the situation. A preliminary list of projects was developed from the comments received. The team then conducted pop-up events in locations where comments had been clustered and shared location-appropriate preliminary project ideas. The team received public input from these events that helped to refine the potential improvement opportunities. Figure 4-1 shows the refined project list resulting from those efforts.

Table 4-1 identifies all projects and lists the treatment type, segment, project description, and level of priority. To maintain fairness and produce the most effective projects, the ACHD implements a formal prioritization process for selection of ACHD Community Programs projects. The criteria fall into two main categories—technical and programming. Following are the technical criteria used to evaluate the project:

- Average daily traffic
- Distance to school and age of pedestrian
- Existing pedestrian (and bicycle) facilities
- Americans with disabilities attributes
- Distance to civic facilities and transit
- Demographic data

The programming criteria focus on the availability of other funding, other agency support, and the overall cost/benefit. In addition to the formal numerical evaluation that results from the process, the voice of the neighborhood is an important factor in final project prioritization.

Sidewalk gaps not specifically identified as individual projects can still be prioritized at the discretion of the partner agency, ACHD, or through a Community Program application.

Figure 4-1. Recommended Projects

Table 4-1. East Boise Bicycle and Pedestrian Plan: Prioritized Project List

Treatment Type	Treatment ID	Segment	Treatment Description*	Priority
Bikeway	B-1	Jefferson/McKinley Street from Avenue C to Maple/Avenue J	Bike Lane with median islands, curb extensions, wayfinding signage	High
Bikeway	B-2	Franklin Street from Maple/Avenue J to Coston (and/or Washington St. from N. Coston St. to E. McKinley)	Bike Boulevard - Sharrows, chicanes, and wayfinding signage, appropriate crossing enhancements	High
Bikeway	B-3	Walnut Street from Warm Springs Avenue to Franklin	Bicycle Boulevard - Sharrows, curb extensions where there is on-street parking, wayfinding signage	Low
Bikeway	B-4	Walnut Street from Warm Springs to Park Boulevard	Bike lane uphill/NB, sharrow downhill/SB	High
Bikeway	B-5	Santa Maria Drive, San Felipe Way, and San Jose	Bicycle Boulevard - Sharrows and wayfinding signage	High
Bikeway	B-6	Reserve Street from Fort to Santa Maria	On-Street Bike Lanes and Wayfinding signage	High
Bikeway	B-7	Shenandoah Road from Shaw Mountain to Locust	Bicycle Boulevard - Wayfinding signage, sharrows on left side/downhill; climbing lane on right side/uphill	High
Bikeway	B-8	Foothills East Reserve at Rimrock	Bike Amenities - Steep path or stairs with wheel well to aid bikes (City of Boise Project)	High
Bikeway	B-9	Bannock Street from Bruce to Coston	Bicycle Boulevard with sharrows, wayfinding signage, and median islands.	High
Bikeway	B-10	Flume Street from Bannock to Jefferson	Sharrows and wayfinding signage	High
Bikeway	B-11	Locust Street from Franklin to Shenandoah	Bicycle Boulevard - Sharrows, curb extensions where there is on-street parking, wayfinding signage	Medium
Bikeway	B-12	Roanoke Drive from terminus at Troutner Way to Shenandoah	Bicycle Boulevard - Wayfinding signage, sharrows on downhill; climbing lane on uphill	High
Bikeway	B-13	Rimrock Court from Shenandoah to terminus/junction with proposed alternative alternative pathway connection through East Foothills Reserve	Bicycle Boulevard - Wayfinding signage and sharrows	High
Crossing	C-1	Franklin Street at Walnut Street	Continental crosswalk, median island, and curb extensions	High
Crossing	C-2	Franklin Street at Pierce	Continental crosswalks, curb extensions	High
Crossing	C-3	Franklin Street at Locust	Continental crosswalk, curb extensions	High
Crossing	C-4	McKinley Street at Bruce/Avenue F	Continental crosswalk, curb extensions	Medium
Crossing	C-5	McKinley Street at Avenue G	Midblock Crossings - Continental crosswalks	High
Crossing	C-6	McKinley Street at Avenue H	Continental crosswalk, curb extensions	High
Crossing	C-7	Jefferson Street at Avenue C	Enhanced Crossing - Rectangular Rapid Flashing Beacon (RRFB)	Low
Crossing	C-8	Jefferson Street at Flume St	Continental crosswalk, curb extensions	High

Table 4-1. East Boise Bicycle and Pedestrian Plan: Prioritized Project List

Treatment Type	Treatment ID	Segment	Treatment Description*	Priority
Crossing	C-9	Flume Street from Bannock to Jefferson	Flume crossing improvements: reduce grade and pave approaches	High
Crossing	C-10	Walnut Street at Bannock	Continental crosswalk, curb extensions	High
Crossing	C-11	Walnut Street at Strawberry Lane	Midblock Crossing - Continental crosswalks	Low
Crossing	C-12	Walnut Street at Greenbelt	Enhanced Crossing - Rectangular Rapid Flashing Beacon (RRFB) and raised crosswalk	Low
Crossing	C-13	Reserve at Mountain Cove Rd	Enhance existing emergency traffic signal and enhanced crossing	High
Crossing	C-14	San Felipe Way between Santa Maria and San Jose	Improvement to existing traffic diverter; add sharrows and wayfinding signage for bike/pedestrian-only crossing	Medium
Crossing	C-15	Bannock Street at Straughan	Curb extensions and continental crosswalks	Low
Crossing	C-16	Bannock Street at Elm	Curb extensions	Low
Crossing	C-17	Warm Springs at Straughan Avenue	Enhanced Crossing - Rectangular Rapid Flashing Beacon (RRFB) and continental crosswalks	Medium
Crossing	C-18	Warm Springs between Marden and Old Penitentiary (exact location TBD)	Enhanced Crossing - HAWK or signal and curb extensions	Medium
Crossing	C-19	Warm Springs at Avenue C	Enhanced Crossing - Rectangular Rapid Flashing Beacon (RRFB), curb extensions	High
Crossing	C-20	Broadway at Dona Larsen Park	Enhanced Crossing - HAWK with pedestrian refuge island	High
Crossing	C-21	Walnut Street at Park Blvd	Mini roundabout	High
Crossing	C-22	Shenandoah Road at Roanoake Drive	Curb extensions and continental crosswalks	High
Crossing	C-23	San Felipe/Santa Paula Road at Shaw Mountain Road	Enhanced Crossing - Rectangular Rapid Flashing Beacon (RRFB). May require advance warning flashers for poor sight distance.	High
Crossing	C-24	Warm Springs at Coston	Enhanced Crossing - Rectangular Rapid Flashing Beacon (RRFB) and continental crosswalks	High
Crossing	C-25	Warm Springs at Penitentiary	Improved crossings incorporated into planned intersection improvements	High
Crossing	C-26	Warm Springs at Mesa Reserve/Golf Course	Enhanced Crossing - Rectangular Rapid Flashing Beacon (RRFB) and continental crosswalks with wayfinding	Medium
Crossing	C-27	Bannock Street at Bruce	Curb extensions and continental crosswalks	High
Sidewalk	S-1	Franklin Street from Maple to Locust	Sidewalk completion	High
Sidewalk	S-2	Franklin Street from Pierce to Haines	Sidewalk completion	High
Sidewalk	S-3	Walnut Street from Washington to Franklin	Sidewalk completion	Medium

Table 4-1. East Boise Bicycle and Pedestrian Plan: Prioritized Project List

Treatment Type	Treatment ID	Segment	Treatment Description*	Priority
Sidewalk	S-4	Pierce Street from Franklin to Shenandoah	Sidewalk completion	Medium
Sidewalk	S-5	Avenue H from Krall to Reserve	Sidewalk completion	High
Sidewalk	S-6	Collins Rd from E Garrison to N Collins Rd	Sidewalk completion	Low
Sidewalk	S-7	Krall Street from Reserve to Avenue F	Sidewalk completion	Medium
Sidewalk	S-8	Logan/Floral/Krall Street from Avenue E to Walnut	Sidewalk completion	Medium
Sidewalk	S-9	Avenue E from Jefferson to Reserve	Sidewalk completion	Medium
Sidewalk	S-10	Costen from Warm Springs to Franklin	Sidewalk completion	High
Shoulder Enhance-ment	O-1	Shaw Mountain Road from Reserve to Shenandoah, restripe shoulders to approximate 4' width	Shoulder enhancement	High
Off-Road Trail	T-1	Rimrock, Shenandoah, and Shaw Mountain alternative route connections through East Foothills Reserve	Off-road trail improvements for walking and biking (City of Boise Project)	Medium
Multi-Use Pathways	P-1	Cemetery pathway connection by City	Pathway improvements for walking and biking (City of Boise Project)	High
Multi-Use Pathways	P-2	Broadway Avenue - Dona Larsen Park path connection	Paved multi-use pathway by ACHD	High
Multi-Use Pathways	P-3	Castle Rock/Quarry View Park connection	Multi-use path from Warm Springs to Sunrise (City of Boise Project)	Medium

* Treatment Descriptions are optional; not all will be used. Final elements will be refined during project development and conceptual design phases.

4.1 Top-Five Projects

From the prioritized project list shown above, the top five projects were identified by the neighborhood, community, and supported by staff. These high priority projects are listed in Table 4-2. As the projects move into design, detailed analysis will be conducted, additional neighborhood involvement will be planned, and necessary warrant or other data will be collected. The concepts presented in this plan represent a generally agreed upon starting point, and projects may have different solutions when fully and finally designed.

Table 4-2. Top Five Projects

Rank	Treatment Type	Treatment ID	Segment	Treatment Description*
1	Crossing	C-20	Broadway Avenue and Dona Larsen Park	Enhanced Crossing - HAWK with pedestrian refuge island
2	Bikeway	B-5	Santa Maria Drive, San Felipe Way, and San Jose Way	Bicycle Boulevard - Sharrows and wayfinding signage
3	Sidewalk	S-1	Franklin Street from Maple to Locust Streets	Sidewalk completion
4	Crossing	C-9	Flume Street from Bannock Street to Jefferson Street	Flume crossing improvements: reduce grade and pave approaches to connect into the Bannock Bikeway Project and Donna Larsen Trail system.
5	Crossing	C-15	Bannock Street at Straughan Avenue	Curb extensions and continental crosswalks

* Treatment Descriptions are optional; not all will be used. Final elements will be refined during project development and conceptual design phases.

4.2 Pop-up Areas

While Table 4-1 lists all projects identified throughout the planning area, the discussion below focuses on how projects can be linked together to create systems. Pop-up areas were developed based on the density of comments received through the online comment process that involved receiving comments on an interactive map and through a survey (Figure 4-2). Five areas in particular stood out as having received the most comments; those five areas became pop-up areas and are described in more detail below. Pop-up areas loosely encompass an identifiable space in which projects naturally complement one another to provide bicycle and pedestrian connectivity to neighborhood trails system and the regional greenbelt, providing for enhanced connectivity to local attractors. and responding to the highest density of comments received. While pop-up areas contain project elements linked to a specific location, each project element is clearly identified in the table and can remain as a stand-alone project.

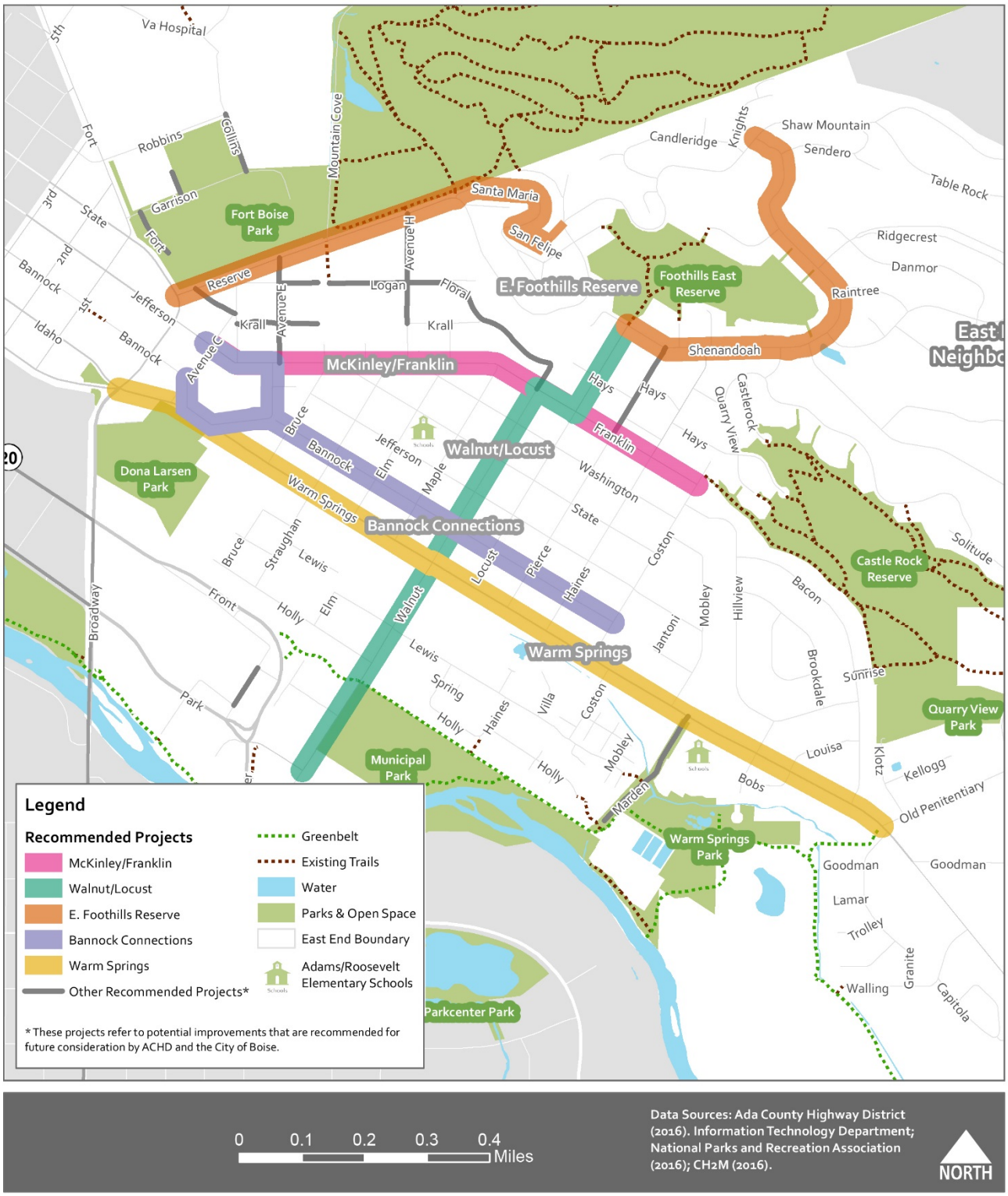


Figure 4-2. Pop-up Area Projects

4.2.1 Pop-up Area 1: Jefferson/McKinley/Franklin West-East Neighborhood Connection

The Jefferson/McKinley/Franklin West-East Neighborhood Connection is an approximately 1-mile segment between Avenue C and Coston Street, comprising the following collector roads: Jefferson, McKinley, and Franklin Streets. The area experiences relatively low speeds and traffic volumes and can be characterized as a residential corridor with single-family homes on both sides of the street and discontinuous sidewalks. The corridor is near four Valley Ride bus stops on Washington Street. This area is recommended for bicycle and pedestrian improvements to address the following needs:

- Create a west-east connection across neighborhoods for bicycles and pedestrians.
- Maintain neighborhood character while creating safe, enjoyable space for biking and walking.

Pop-up area characteristics are as follows:

- The entire corridor has a posted speed of 20 MPH.
- Jefferson and McKinley Streets have the highest traffic volumes through the corridor.
- Franklin Street experiences considerably less traffic.
- Enhance connectivity to Castle Rock Reserve and local trail network.

Where average daily traffic exceeds 3,000, as it is on Jefferson and McKinley Streets, bike lanes are recommended. Bike lanes physically separate bikes from vehicles with a solid white line. Cost of bike lanes are relatively low; however, a trade-off is that parking would be removed on both sides of the street. These trade-offs should be evaluated during the design process.

Franklin Street experiences considerably less traffic, thus, minimizing the need for physical separation. This plan recommends a bicycle boulevard, which can include some of these facility treatments:

- Chicanes
- “Sharrows” designating the route and alerting drivers to the presence of bicycle riders
- Staggered chicanes and on-street parking, narrowing the visual field for drivers and slowing down speeds to a comfortable rate for bicycles
- Incomplete sidewalks, which could be completed or a lower-cost side path could be constructed

NOTE: Washington Street provides the same connection as Franklin Street and has lower traffic volumes. Washington Street could provide a lower-stress bicycle environment. During project planning and design period, Washington Street should be considered instead of or in addition to Franklin Street as a bike boulevard.

4.2.2 Pop-up Area 2: Walnut/Locust South-North Connection

The Walnut/Locust South-North Connection is an approximately 1-mile segment between Park Boulevard and Shenandoah Drive and is the main south-north corridor in the neighborhood. Walnut Street is a collector south of Warm Springs Avenue and a local street north of Warm Springs Avenue. The proposed route remains on Walnut Street north to Franklin Street, along Franklin Street to the east, and then uses Locust Street north to connect to Shenandoah Drive. The use of Pierce Street as opposed to Locust Street was considered for the final connection from Franklin Street to Shenandoah Drive, but the milder grade on Locust Street is typically more appealing to cyclists even than lower traffic volumes which may occur on Pierce Street. Placing two bike facilities on adjacent streets is not recommended.

There is more traffic south rather than north of Warm Springs Avenue on Walnut Street. Enhancements along Walnut Street will provide for better access to the Boise Greenbelt at Municipal Park along a shared bike route, Warm Springs Avenue, and Foothills East Reserve Park. Bicycle and pedestrian improvements are recommended in this area to address the following needs:

- Create a north-south connection across neighborhoods for bicycles and pedestrians.
- Facilitate safer crossing of Warm Springs Avenue.

Projects in this corridor include the following:

- South of Warm Springs, an RRFB is recommended in place of the existing crosswalk on Walnut Street where the greenbelt crosses near Municipal Park. RRFBs alert drivers to the presence of pedestrians and bicycle riders crossing and vehicles must stop to cross.
- A bicycle lane would be provided in the northbound direction, which is slightly uphill.
- Crossing enhancements on Warm Springs Avenue (described in Warm Springs pop-up area section).
- North of Warm Springs Avenue, Bicycle Boulevard treatments based on lower traffic volumes and speeds. North of Franklin Street, three streets connect to Shenandoah Drive: Locust, Haines, and Pierce Streets. Locust Street is proposed as the connector street because it has the most accessible slope.

4.2.3 Pop-up Area 3: East Foothills Reserve Alternate Route

The East Foothills Reserve Alternate Route would provide an east-west connection through the northern area of East Boise. Reserve Street is a collector and serves as a route to the Military Reserve Park, which attracts bikers, runners, and walkers. Enhancements along this corridor will provide for better access to local trail system and the new Multi-use pathway along Front St. providing for enhanced connection to Downtown Boise and North Boise.

Pop-up area characteristics are as follows:

- Reserve Street presently has incomplete sidewalks and bike lanes on both sides of the street west of Mountain Cove Road.
- East of Mountain Cove Road, a single bike lane exists on the south side of the street.
- Shaw Mountain Road is classified as a local street, but because of geographic constraints, it serves as the main east-west connection in the area and is lacking bicycle facilities or sidewalks. Steep slopes on either side leave little opportunities to cost-effectively provide those facilities. For that reason, this project evaluates an alternative route.

Following are projects in this corridor:

- Reserve Street, between Fort Street and Santa Maria Drive would implement on-street bike lanes and wayfinding signage.
- The emergency traffic signal at Mountain Cove Road upgraded to facilitate pedestrians and bicycle riders crossing and turning.
- Alternative access to Shaw Mountain Road using bicycle boulevard treatments and wayfinding on local streets north: Santa Maria Drive, San Felipe Way, and San Jose Way. These streets are already low-traffic, low-stress environments for bicycle riders and pedestrians and can be enhanced. “Sharrow” pavement markings alert drivers to the presence of bicycle riders and provide wayfinding.
- A concept study should be considered to evaluate the feasibility of bike and pedestrian enhancement on Shaw Mountain Road.
- Shenandoah Drive would provide connection around Foothills East Reserve and an alternative to Shaw Mountain Road. Sharrows would be provided southbound, downhill, because bicycle riders could better keep up with car traffic. In the northbound, uphill direction, a bicycle lane would provide physical separation from car traffic, because bicycle riders riding uphill would be traveling much more slowly than car traffic.

4.2.4 Pop-up Area 4: Bannock Street Connections

The Bannock Street Connection is an approximately ten-block segment between the intersection of Flume and Jefferson Streets to Coston Street. Bannock Street can be characterized as a relatively wide residential corridor with single-family homes, on-street parking on both sides of the street, and continuous sidewalks, with relatively low speeds and traffic volumes. Seven Valley Ride bus stops are near the area, located on Washington Street and Warm Springs Avenue.

Pop-up area characteristics are as follows:

- Bannock Street provides a low-stress alternative route to Warm Springs Avenue, which has higher volumes and speeds.
- Low traffic speeds and volumes in this area do not necessitate physical separation between bicyclists and vehicles.
- Bicycle boulevard is recommended to create a low-stress bicycling environment. A bicycle boulevard in this area would employ “sharrow” pavement markings and wayfinding signage to prioritize safe bicycle travel. Curb extensions at intersections would further enhance pedestrian and bicycle travel through the project area.

The following access improvements are proposed to enhance east-west connectivity for bikes and pedestrians, and when all completed, will make up the Bannock Bikeway.:

- **Flume crossing improvements—**Create paved approach on all four legs of crossing including widening and reduced grade; incorporate wayfinding on both sides of flume to help direct users.
- **Bike boulevard continuation west/downtown—**Provide access to Jefferson Street via bike boulevard on Flume Street; raise existing crosswalk at Jefferson to enhance access to westbound bike lanes.
- **Multi-use path south/west—**Provide wayfinding sharrows to direct users down the one block of Bannock directly west of the flume to improved multi-use path to Warm Springs, along widened section parallel to Warm Springs then northwest to connect to Avenue C.
- **Bannock & Avenue B Re-evaluation**—Current RRFB being installed at E. Bannock Street and Avenue B at a future date can be reviewed, and if warranted, a HAWK with a bike button can be considered.

4.2.5 Pop-up Area 5: Warm Springs Avenue

Warm Springs Avenue is a minor arterial street that serves as the main east-west connection through the East End Neighborhood; it has higher speeds and volumes than any other street in the area. The higher speeds (posted speed of 30 MPH) and volumes can make crossing Warm Springs Avenue difficult for bicyclists and pedestrians; a park and the green belt are destinations on the south side of Warm Springs Avenue, and schools and the Military Reserve Park are destinations to the north. Warm Springs Avenue generally picks up more volume towards Avenue B (west side).

Pop-up area characteristics are as follows:

- Warm Springs Avenue itself has complete sidewalks, planter strips, and bike lanes on each side of the street.
- Most of Warm Springs Avenue has on-street parking on both sides of the street.

Projects in this pop-up area intend to facilitate crossing of Warm Springs Avenue, as well as increase bicycle rider and pedestrian comfort.

Following are enhanced crossings in this pop-up area:

- Crossings could be enhanced at Avenue C, Marden Avenue, and Straughn Avenue. Possible improvements could include RRFBs to alert drivers to the presence of pedestrians and bicyclists.
- Marden Avenue provides a connection to the Boise Greenbelt. This plan recommends further investigation be conducted that focuses on replacing the existing signal at mid-block in front of Adams School. Locating with a HAWK signal at Marden Avenue intersection would support access to the greenbelt. Additionally, design should consider a bike signal to help bicyclists cross without having to dismount and curb extensions to aid crossings. The location of a signal at Marden Avenue will support both school and greenbelt users. However, locating a signal at Hot Springs Drive, which is the entrance to both Adams School and the Natatorium, could also be beneficial. This block from Hot Springs Drive to Marden Avenue on Warm Springs Avenue should be evaluated in more detail to determine the most effective crossing location.

The following will provide enhancement crossings identified outside the Pop Up area but still on Warm Springs:

- Add Enhanced Crossing on Warm Springs at Golf Course.
- Add wayfinding signage off of Warm Springs to highlight connectivity to the Greenbelt and local trail system.

4.3 Menu of Treatment Options

Table 4-3 below summarizes the "menu" of bicycle and pedestrian treatment options that were considered as part of this plan. Not all treatments in this menu summary were determined to be appropriate for all segments identified in the plan. This toolbox of bicycle and pedestrian improvements was compiled from professional practice literature, such as the National Association of City Transportation Officials *Urban Bikeway Design Guide*, case studies from other cities, academic research, and professional best practice.

Table 4-3. Menu of Bicycle and Pedestrian Treatment Options

Project Type	Description	Example Photo
Bike lane	Designated bicycle areas defined by solid white lines. Paint can be used to enhance bike lane visibility and emphasize bicycle priority.	
Bike signal	A bicycle signal is traffic control device that is used in combination with an existing conventional traffic signal or hybrid beacon (HAWK). Bicycle signals would be rider activated, and provide guidance for bicyclists at intersections.	

Table 4-3. Menu of Bicycle and Pedestrian Treatment Options

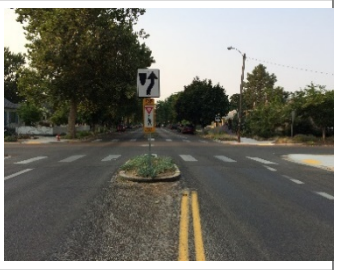
Project Type	Description	Example Photo
Bike-only crossing (diverter)	Bike-only use diverters to block car traffic and provide openings for bike-only crossing. This treatment makes an intersection right-in, right-out only for vehicles.	
Chicane	Chicanes narrow the street to make encourage safe vehicle speeds, and landscaping provides stormwater management benefits.	
Curb extension	Curb extensions shorten crossing distances and allow crossing bicyclists and pedestrians to make use of shorter gaps.	
HAWK	A HAWK beacon is a pedestrian-activated, traffic-control device that stops road traffic to allow pedestrians to safely cross. It is used when full traffic signal warrants are not met, but pedestrian crossings are prioritized.	
Median island	Median islands reduce roadway width to slow traffic speeds, prioritizing bicycle and pedestrian travel.	
Pedestrian refuge island	Median islands at midblock crossings can aid pedestrians crossing the street and reduce roadway width to slow traffic speeds, prioritizing bicycle and pedestrian travel.	
Protected or buffered bike lane	Protected bike lanes create a bicycle-friendly route by further separating bike lanes from car traffic with a curb, planters, parked cars, or even a painted buffer.	

Table 4-3. Menu of Bicycle and Pedestrian Treatment Options

Project Type	Description	Example Photo
Raised crossing	Raised pedestrian crosswalks serve as traffic calming measures by extending the sidewalk height across the road and bringing motor vehicles to the pedestrian level. Pedestrians become more visible to approaching drivers.	
RRFB	An RRFB is a pedestrian-activated signal that alerts drivers to a pedestrian crossing with flashing lights. It is cheaper to install than a full signal, and is more responsive to pedestrians. It can be used in conjunction with a raised crosswalk.	
Sharrow and/or directional sharrow	Sharrows emphasize the presence of bicycle riders for car drivers, help with wayfinding for bicycle riders, and arrows can indicate direction of travel (straight or a turn).	
Side path	In areas where a full sidewalk may be unnecessary or cost-prohibitive or in a setting where traditional sidewalks are not wanted (more rural), a side path can be provided with landscaping to provide a separated space for pedestrians without full curb and gutter treatment.	
Wheel well for steep path or stairs	Connections for bicycle riders up steep grades or stairs can be made with a wheel well designed to aid a bicycle rider pushing their bike up or down.	
Wayfinding	A bicycle wayfinding system consists of comprehensive signing and/or pavement markings to guide bicyclists to their destinations along preferred bicycle routes. Signs are typically placed at decision points along bicycle routes – typically at the intersection of two or more bikeways and at other key locations leading to and along bicycle routes. They often indicate distance to a major destination, better informing bicycle riders and all users of riding distances.	

Table 4-3. Menu of Bicycle and Pedestrian Treatment Options

Project Type	Description	Example Photo
"Z Crossing" or 2-stage crossing with pedestrian refuge island	Staggered crosswalks (or Z–crossings) are treatments in which the crosswalk is split by a median and is offset on either side of the median. This crossing forces pedestrians to turn in the median and face oncoming traffic before turning again to cross the second half of the crosswalk, increasing pedestrian awareness of oncoming traffic.	

SECTION 5

Implementation and Funding

5.1 Ada County Highway District Community Programs

ACHD's Community Programs is a comprehensive program for supporting community needed projects. The goal of the program is to "...expand and enhance a safe, efficient, and accessible pedestrian and bicycle network for all residents of Ada County."

The types of projects this program supports are generally pedestrian- and bicycle-centric projects, including traffic mitigation that provides safer spaces for bicyclists and pedestrians. Projects already identified in the *Pedestrian-Bicycle Pedestrian Plan* (ACHD, 2005), or by the school districts as part of Safe Routes to School, or in the neighborhood plans, are great candidates for the program. Of all, Safe Routes to School and the ability to reduce school safety busing are the top priorities. ACHD provides a broad definition for Safe Routes to School, including "…. any project designed and constructed with the objective of encouraging and enabling more children to safely walk and bike to school."

5.2 Funding Sources

5.2.1 Community Programs

The ACHD website[2] provides detailed information to neighborhood associations or individuals regarding the opportunity and application process for funding neighborhood enhancement projects. Typically, no match is required by neighborhoods when using funds through the Community Programs system.

5.3 Other Funding Sources

Several grants are available through local, state, and federal programs. These can change over time, so current information should be sought at the time of the project. These grants usually require some amount of financial match. However, they can be used in combination with other ACHD projects and can support the inclusion of a Community Programs project with another ACHD project if grant funding is available.

[2] http://www.achdidaho.org/Community/

SECTION 6

Works Cited

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Geographic Information Data

CH2M HILL Engineers, Inc. (CH2M). 2016. *Geographic information system mapping data.* Boise, ID.

National Recreation and Parks Association (NRPA). 2016. *Geographic information system mapping data.* Boise, ID.

Appendix A
Existing Plan and Policy Review

APPENDIX A

Existing Plan and Policy Review

A.1 Neighborhood Plans

Adjacent neighborhood Bicycle and Pedestrian Plans were reviewed for continuity from the East Boise neighborhood to surrounding neighborhoods. Most recent neighborhood plan was the North Boise Neighborhood Plan (2016). This plan helped drive plan layout and direction to provide similarity in plan development and content as well as actual project continuity.

A.2 City Comprehensive Plans

The City's Blue Print Boise (2011), the City's Comprehensive Plan, provides land use policy information and provides guidance specific to the East Boise neighborhood goals.

Goals of the Blue Print Boise plan, specifically directed to the East End Neighborhood, that influenced this plan include:

- To maintain the character of the East End by recognizing its unique amenities and natural features, encouraging appropriate infill development and allowing development in adjacent areas that does not negatively impact the existing neighborhood.
- Protect and enhance the existing single-family residential character of the neighborhood.
- To route traffic around the neighborhood's interior and concentrate it on designated arterial/collector streets.
- Maintain and improve the East End's quality of life and level of public/quasi-public services.

Other more general goals of the Blue Print Boise plan that created a foundation for development of this plan include:

- **No. 4: A Connected Community (CC)—**Priority actions to promote a more connected community include: (1) Expand non-motorized transportation, (2) Develop the tools needed to measure and monitor progress towards a more connected community, and (3) Improve technological and social connections.
  - CC1.1: Promote Transit-Supportive Development Patterns
  - CC1.2: Provide Livable Streets Design Guide Update
  - CC1.4: Create Standards for Street Connectivity
  - CEA1.3: Provide Safe Routes to Schools
- **Theme No. 7: A Safe, Healthy, and Caring Community (SHCC)—**Priority actions to promote a safe, healthy, and caring community include: (1) Minimize risks associated with natural hazards, (2) Promote active living and healthy lifestyles, and (3) Monitor special needs.
  - SHCC2.1: Expand Pathway and Trails Network

A.3 Pedestrian-Bicycle Transition Plan (2005)

The goal of the ACHD's Pedestrian-Bicycle Transition Plan (PBTP) was to address "…federal pedestrian planning guidelines and the regulatory requirements of the Americans With Disabilities Act (ADA)." The PBTP focused on meeting the requirements of Title II of the ADA, which requires evaluation of services, programs and policies for compliance with the ADA. A significant element of the plan included a self-

evaluation of existing facilities. This was conducted in 2004 and created an extensive GIS database that is foundation for sidewalk and bicycle infrastructure information for the county. The database was a significant source of information for the development of the project list in this plan. The database should be consulted as projects from this plan move to the design phase. Detailed information is available in the database that will direct design to help meet the requirements of the ADA.

A.4 Downtown Boise Implementation Plan (2013) and ACHD Capital Improvements Plan (2012)

The goal of this plan is to establish a blueprint for the implementation of transportation and streetscape improvements in the downtown core to minimize impact to businesses and travelers, get the most cost-effective construction possible, reduce construction timeframes and avoid “re-work” by provide coordinated, logical sequencing of work. This plan and the ACHD Capital Improvements Plan together help round out implementation recommendations. These plans provided the background for understanding currently planned projects.

A.5 COMPASS Complete Streets Policy (2009)

The ACHD adopted the Complete Streets Policy which drives the development of street design to include or at least consider all modes of transportation including pedestrians, bicyclists, and public transportation. Providing safe and accessible streets for all users is the goal of this document and helps set the tone and direction of the East Boise Plan.

A.6 Roadways to Bikeways Plan (2009)

This master plan provides detailed maps show planned short, medium and long-term bicycle facility improvements throughout the county, including the East Boise neighborhood. These planned facilities are incorporated into this current planning process.

A.7 Livable Streets Design Guide (2009)

This Guide provides a starting point for desired street sections that include space for pedestrians and bicyclists as well as community activity. As projects move into the design phase, this Guide should be referenced for specific design elements.

A.8 Safe Routes to School

There are four schools that serve the East Boise area. Two schools reside in the planning boundary and are shown on the maps; those include Adams and Roosevelt Elementary Schools. Schools serving the area, but outside of the planning boundary include North Junior High on 13th Street in the North End, and Boise High on 10th and Washington Street. The School District provided Safe Routes information for the two elementary and junior high public schools that serve the East Boise neighborhood. These recommended routes are incorporated into the projects identified in this plan.

A.9 Ridge to Rivers

The Ridge to Rivers Program is an inter-governmental partnership led by the City of Boise. Partners include City of Boise, Ada County, Bureau of Land Management (Boise District), Boise National Forest, and the Idaho Department of Fish and Game. The vision of the 10-Year Management Plan, recently completed by the partnership is: *Our vision for Ridge to Rivers is to sustain and improve upon a vital public trail system spanning the Boise Foothills that provides accessible, diverse, and fun recreation opportunities; protects our*

beautiful natural resources; promotes the physical and emotional health of our people; inspires us to enjoy nature; and remains the enduring pride of our community.

The partnership works to provide a high-quality system of trails that traverse a variety of land ownership and reach into the edges of the City of Boise. The East Boise Neighborhood is fortunate to be home to one of the major hubs of trailheads at the Military Reserve Park.

Connection from the neighborhood to the trail system and use of the trail system to create connectivity through the neighborhood were integrated into this plan.

Appendix B
DRAFT Listed Bicycle and Pedestrian Projects

APPENDIX B

Draft Listed Bicycle and Pedestrian Projects

The tables and maps below break down the listed projects into bicycle and pedestrian projects.

Table B-1. East Boise Bicycle and Pedestrian Plan: Prioritized Project List –Bikeway Projects

Treatment Type	Treatment ID	Segment	Treatment Description*	Priority
Bikeway	B-1	Jefferson/McKinley Street from Avenue C to Maple/Avenue J	Bike Lane with median islands, curb extensions, wayfinding signage	High
Bikeway	B-2	Franklin Street from Maple/Avenue J to Coston (and/or Washington St. from N. Coston St. to E. McKinley)	Bike Boulevard - Sharrows, chicanes, and wayfinding signage, appropriate crossing enhancements	High
Bikeway	B-3	Walnut Street from Warm Springs Avenue to Franklin	Bicycle Boulevard - Sharrows, curb extensions where there is on-street parking, wayfinding signage	Low
Bikeway	B-4	Walnut Street from Warm Springs to Park Boulevard	Bike lane uphill/NB, sharrow downhill/SB	High
Bikeway	B-5	Santa Maria Drive, San Felipe Way, and San Jose	Bicycle Boulevard - Sharrows and wayfinding signage	High
Bikeway	B-6	Reserve Street from Fort to Santa Maria	On-Street Bike Lanes and Wayfinding signage	High
Bikeway	B-7	Shenandoah Road from Shaw Mountain to Locust	Bicycle Boulevard - Wayfinding signage, sharrows on left side/downhill; climbing lane on right side/uphill	High
Bikeway	B-8	Foothills East Reserve at Rimrock	Bike Amenities - Steep path or stairs with wheel well to aid bikes (City of Boise Project)	High
Bikeway	B-9	Bannock Street from Bruce to Coston	Bicycle Boulevard with sharrows, wayfinding signage, and median islands.	High
Bikeway	B-10	Flume Street from Bannock to Jefferson	Sharrows and wayfinding signage	High
Bikeway	B-11	Locust Street from Franklin to Shenandoah	Bicycle Boulevard - Sharrows, curb extensions where there is on-street parking, wayfinding signage	Medium
Bikeway	B-12	Roanoke Drive from terminus at Troutner Way to Shenandoah	Bicycle Boulevard - Wayfinding signage, sharrows on downhill; climbing lane on uphill	High
Bikeway	B-13	Rimrock Court from Shenandoah to terminus/junction with proposed alternative pathway connection through East Foothills Reserve	Bicycle Boulevard - Wayfinding signage and sharrows	High
Off-Road Trail	T-1	Rimrock, Shenandoah, and Shaw Mountain alternative route connections through East Foothills Reserve	Off-road trail improvements for walking and biking (City of Boise Project)	Medium
Multi-Use Pathways	P-1	Cemetery pathway connection by City	Pathway improvements for walking and biking (City of Boise Project)	High

Table B-1. East Boise Bicycle and Pedestrian Plan: Prioritized Project List –Bikeway Projects

Treatment Type	Treatment ID	Segment	Treatment Description*	Priority
Multi-Use Pathways	P-2	Broadway Avenue - Dona Larsen Park path connection	Paved multi-use pathway by ACHD	High
Multi-Use Pathways	P-3	Castle Rock/Quarry View Park path connection	Multi-use path from Warm Springs to Sunrise (City of Boise Project)	Medium

* Treatment Descriptions are optional; not all will be used. Final elements will be refined during project development and conceptual design phases.

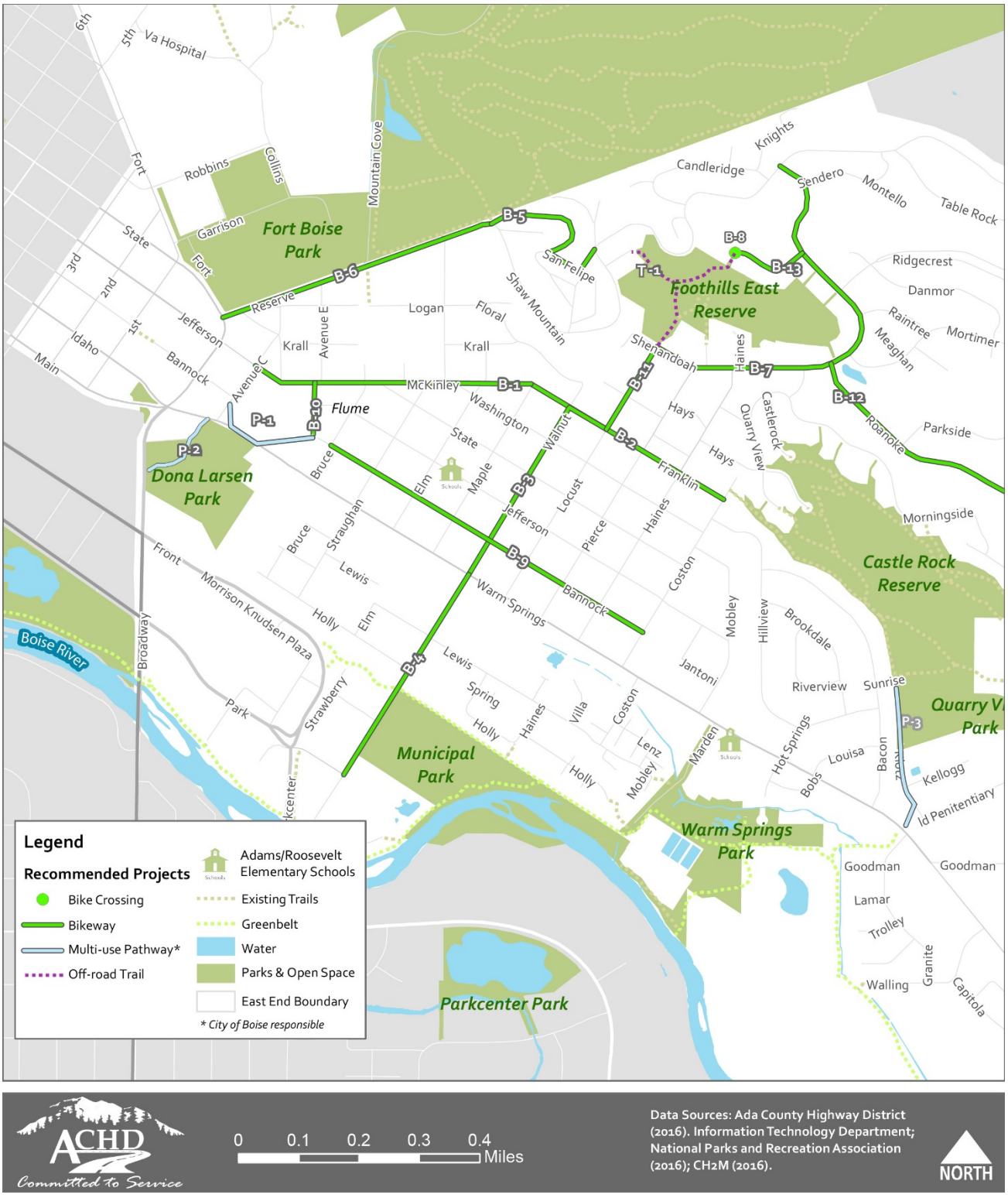

Figure B-1. Recommended Bikeway Projects

Table B-2. East Boise Bicycle and Pedestrian Plan: Prioritized Project List – Sidewalk and Crossing Projects

Treatment Type	Treatment ID	Segment	Treatment Description*	Priority
Crossing	C-1	Franklin Street at Walnut Street	Continental crosswalk, median island, and curb extensions	High
Crossing	C-2	Franklin Street at Pierce	Continental crosswalks, curb extensions	High
Crossing	C-3	Franklin Street at Locust	Continental crosswalk, curb extensions	High
Crossing	C-4	McKinley Street at Bruce/Avenue F	Continental crosswalk, curb extensions	Medium
Crossing	C-5	McKinley Street at Avenue G	Midblock Crossings - Continental crosswalks	High
Crossing	C-6	McKinley Street at Avenue H	Continental crosswalk, curb extensions	High
Crossing	C-7	Jefferson Street at Avenue C	Enhanced Crossing - Rectangular Rapid Flashing Beacon (RRFB)	Low
Crossing	C-8	Jefferson Street at Flume St	Continental crosswalk, curb extensions	High
Crossing	C-9	Flume Street from Bannock to Jefferson	Flume crossing improvements: reduce grade and pave approaches	High
Crossing	C-10	Walnut Street at Bannock	Continental crosswalk, curb extensions	High
Crossing	C-11	Walnut Street at Strawberry Lane	Midblock Crossing - Continental crosswalks	Low
Crossing	C-12	Walnut Street at Greenbelt	Enhanced Crossing - Rectangular Rapid Flashing Beacon (RRFB) and raised crosswalk	Low
Crossing	C-13	Reserve at Mountain Cove Rd	Enhance existing emergency traffic signal and enhanced crossing	High
Crossing	C-14	San Felipe Way between Santa Maria and San Jose	Improvement to existing traffic diverter; add sharrows and wayfinding signage for bike/pedestrian-only crossing	Medium
Crossing	C-15	Bannock Street at Straughan	Curb extensions and continental crosswalks	Low
Crossing	C-16	Bannock Street at Elm	Curb extensions	Low
Crossing	C-17	Warm Springs at Straughan Avenue	Enhanced Crossing - Rectangular Rapid Flashing Beacon (RRFB) and continental crosswalks	Medium
Crossing	C-18	Warm Springs between Marden and Old Penitentiary (exact location TBD)	Enhanced Crossing - HAWK or signal and curb extensions	Medium
Crossing	C-19	Warm Springs at Avenue C	Enhanced Crossing - Rectangular Rapid Flashing Beacon (RRFB), curb extensions	High
Crossing	C-20	Broadway at Dona Larsen Park	Enhanced Crossing - HAWK with pedestrian refuge island	High
Crossing	C-21	Walnut Street at Park Blvd	Mini roundabout	High
Crossing	C-22	Shenandoah Road at Roanoake Drive	Curb extensions and continental crosswalks	High
Crossing	C-23	San Felipe/Santa Paula Road at Shaw Mountain Road	Enhanced Crossing - Rectangular Rapid Flashing Beacon (RRFB). May require advance warning flashers for poor sight distance.	High

Table B-2. East Boise Bicycle and Pedestrian Plan: Prioritized Project List – Sidewalk and Crossing Projects

Treatment Type	Treatment ID	Segment	Treatment Description*	Priority
Crossing	C-24	Warm Springs at Coston	Enhanced Crossing - Rectangular Rapid Flashing Beacon (RRFB) and continental crosswalks	High
Crossing	C-25	Warm Springs at Penitentiary	Improved crossings incorporated into planned intersection improvements	High
Crossing	C-26	Warm Springs at Mesa Reserve/Golf Course	Enhanced Crossing - Rectangular Rapid Flashing Beacon (RRFB) and continental crosswalks with wayfinding	Medium
Crossing	C-27	Bannock Street at Bruce	Curb extensions and continental crosswalks	High
Sidewalk	S-1	Franklin Street from Maple to Locust	Sidewalk completion	High
Sidewalk	S-2	Franklin Street from Pierce to Haines	Sidewalk completion	High
Sidewalk	S-3	Walnut Street from Washington to Franklin	Sidewalk completion	Medium
Sidewalk	S-4	Pierce Street from Franklin to Shenandoah	Sidewalk completion	Medium
Sidewalk	S-5	Avenue H from Krall to Reserve	Sidewalk completion	High
Sidewalk	S-6	Collins Rd from E Garrison to N Collins Rd	Sidewalk completion	Low
Sidewalk	S-7	Krall Street from Reserve to Avenue F	Sidewalk completion	Medium
Sidewalk	S-8	Logan/Floral/Krall Street from Avenue E to Walnut	Sidewalk completion	Medium
Sidewalk	S-9	Avenue E from Jefferson to Reserve	Sidewalk completion	Medium
Sidewalk	S-10	Costen from Warm Springs to Franklin	Sidewalk completion	High
Shoulder Enhance-ment	O-1	Shaw Mountain Road from Reserve to Shenandoah, restripe shoulders to approximate 4' width	Shoulder enhancement	High

* Treatment Descriptions are optional; not all will be used. Final elements will be refined during project development and conceptual design phases.

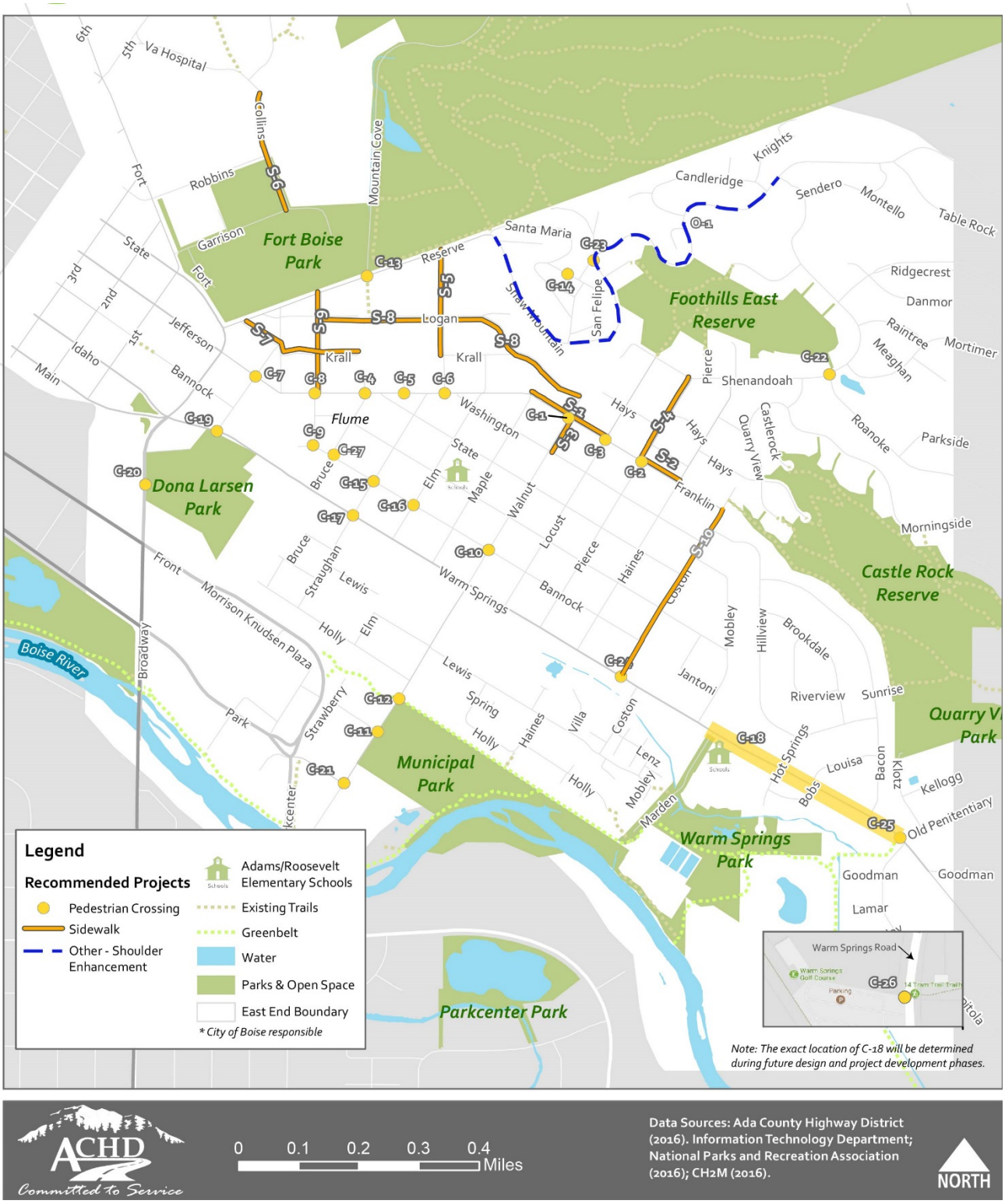

Figure B-2. Recommended Pedestrian Projects