



HERRIMAN CITY 2021 ACTIVE TRANSPORTATION PLAN

Adopted July 14, 2021



Kimley»»Horn



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Acknowledgements - Steering Committee

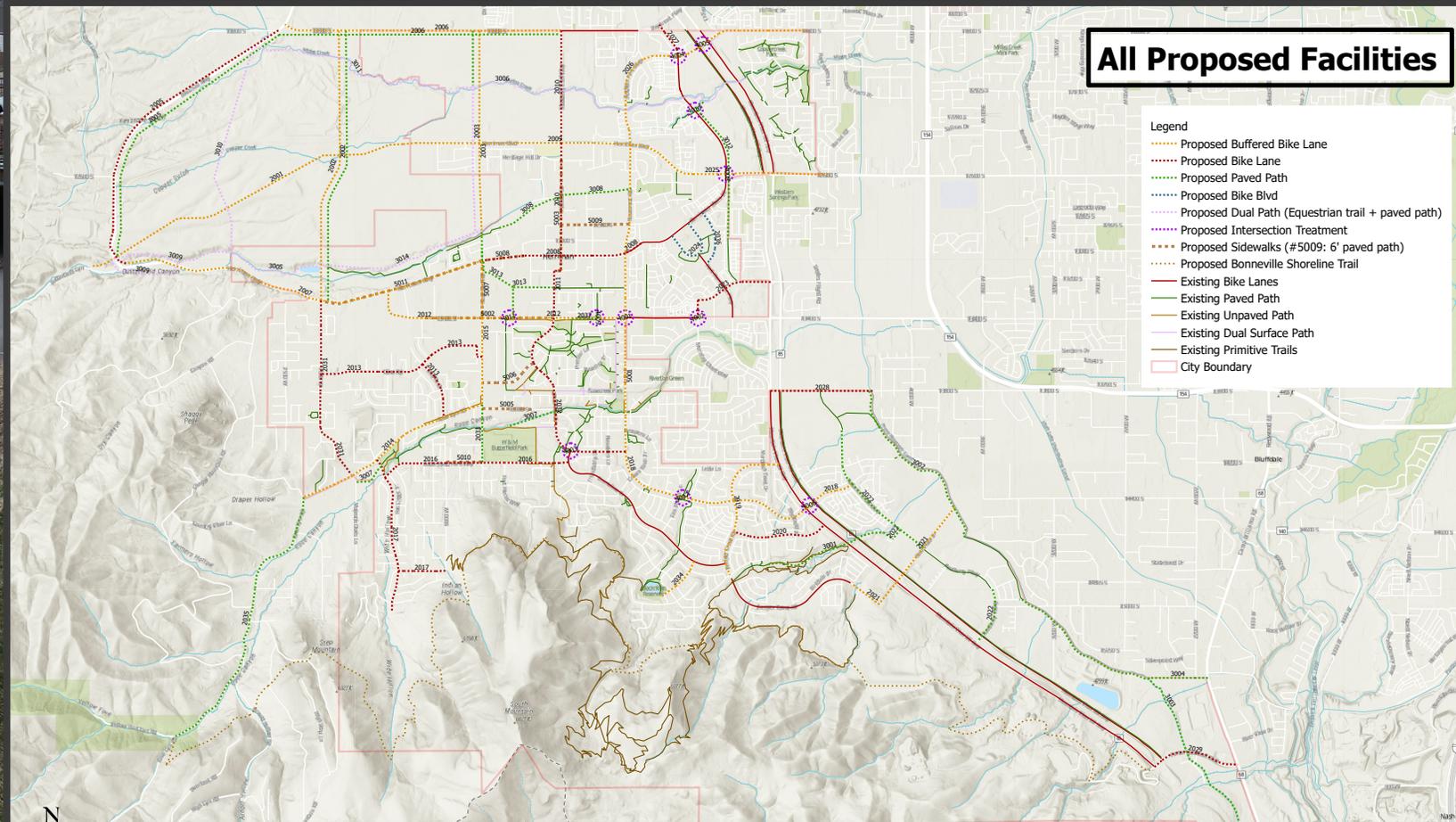
Bryce Terry	Herriman City
Jonathan Bowers	Herriman City
Heidi Shegrud	Herriman City
Michael Maloy	Herriman City
Nikki Navio	Wasatch Front Regional Council
Hugh Van Wagenen	Wasatch Front Regional Council
Peter Tang	UDOT
Heidi Goedhart	UDOT
Stephanie Tomlin	UDOT
Jeremy Searle	WCG
Austin Feula	WCG
Tim Taylor	WCG
Cristy Rodriguez	WCG
Jacob Farnsworth	Kimley Horn
Jordan King	Kimley Horn
John Matem	Kimley Horn



Executive Summary

The Herriman Active Transportation Plan provides a detailed plan for expanding the pedestrian and bicycle network within Herriman. This plan follows the recently completed 2019 Herriman Transportation Master Plan and adopted 2020 Herriman Parks, Recreation, Open Space, and Trails Master Plan. The active transportation plan builds off the projects within the Transportation Master Plan and Parks Master Plan, and expands on needed pedestrian and bicycle connections.

A map of the proposed facilities in the Herriman Active Transportation Plan is provided here. A larger version of this graphic is also available in Appendix A. The plan includes bike lanes, paved paths, intersection improvement projects, and sidewalk projects.



Introduction

Herriman is a rapidly growing city in the southwest corner of the Salt Lake Valley. Herriman is uniquely situated next to Yellow Fork Canyon, Butterfield Canyon, and South Mountain, with close access to the Jordan River Parkway and other active transportation routes. The opportunity for access to these recreational and commuter active transportation opportunities highlight the need for a well planned active transportation network. A previous active transportation plan was completed in 2011, however, it is outdated due to the rapid growth in the area. This active transportation plan addresses the need to provide connected and easily accessible active transportation network for the residents of Herriman.

Active Transportation Plan Benefits

An active transportation plan creates a strategic long-term approach to create an active transportation system that meets the needs of the community. The Herriman Active Transportation Plan accomplishes this by identifying existing and future facilities that connect key destinations throughout the City. Specific active transportation projects are identified and planned within several phases. Potential funding sources are also discussed.

There are many benefits to having a robust active transportation system and an associated master plan. A safe and easily accessible active transportation system has a wide variety of benefits to the community including:

- ⊕ Promote healthy living
- ⊕ Improved safety
- ⊕ Better quality of life
- ⊕ Additional transportation mode alternatives
- ⊕ Equitable access
- ⊕ Improved air quality
- ⊕ Accessibility to key locations in the community
- ⊕ Reduced traffic congestion
- ⊕ Encourage economic growth
- ⊕ Increased livability and desirability within the community

Steering Committee

A steering committee was assembled to help guide the active transportation planning process. The steering committee consisted of members representing Herriman City, WFRC, UDOT, and the consultant team. Individuals on the Steering Committee are outlined in the Acknowledgements section. The Steering



Committee met monthly throughout the project to discuss active transportation, safety, projects, public involvement, and the overall progress of the project.

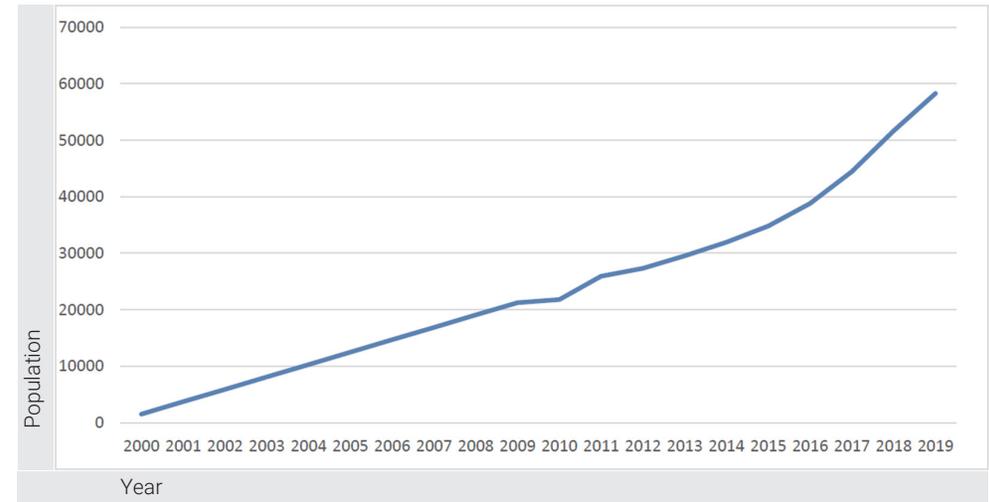
Herriman City Profile

Herriman has been experiencing rapid growth over the last 20 years as the Salt Lake metropolitan region rapidly expands south and west. Herriman has quickly been transitioning from a rural agriculture community to a medium density suburb. The 2019 Herriman Transportation Master Plan provides a thorough summary of Herriman demographics. Highlights from this summary are provided below.

- Herriman is one of the fastest growing cities in the state. Population has increased from 3,514 in 2000 to 40,725 in 2019. (US Census Estimates 2000-2018, 2019 City estimates)
- On average, Herriman has larger households (3.91 people per) and a younger population (26.2 years old) than Salt Lake County and the State of Utah. Additionally, Herriman has a higher percentage of its residents in the labor force, higher unemployment, higher median income, and a lower poverty rate than the averages for the county and State of Utah. (Source: US Census, ACS 5-year estimates)
- About 15 percent of Herriman residents work in Herriman, while the remainder leave the City to work. The mean travel time to work is 28 minutes for residents of Herriman. (Source: US

Census, ACS 5-year estimates)

- Currently, residents of Herriman typically do not bicycle or walk to work, and one percent use public transportation (based on the data provided). (Source: US Census, ACS 5-year estimates)
- Rapid population growth is expected to continue in Herriman with population expected to grow to 93,465 by 2030 and 113,772 by 2050. (2019 Herriman Transportation Master Plan)



Source: 2019 Herriman Transportation Master Plan

	WFRC Current Model	Herriman Revisions	WFRC Projections		Herriman Projections	
	2019	2019	2030	2050	2030	2050
Population	40,725	58,287	59,534	86,350	93,465	113,772
Households	12,124	17,353	19,652	31,357	41,315	80,852
Employment	11,917	11,754	24,532	33,608	24,345	33,413

Source: 2019 Herriman Transportation Master Plan



Vision, Goals, and Objectives

Through the active transportation planning process, public outreach, and previous input, the goals and objectives for the plan were identified. Active lifestyles and opportunities were a major theme derived from the public outreach and planning process. The citizens of Herriman are interested in amenities that are geared towards a wide range of demographics within the city, including young adults, families with small children, older children, empty nesters, etc. Herriman has seen some of the highest population growth in the state over the last decade, and throughout this period one of the major questions that the City is facing is **“How do we manage congestion in a rapidly growing city?”**

While there are a variety of ways this needs to be approached, the active transportation network is the critical backbone component to addressing this question. A quality active transportation network can allow working adults to commute to work without having to get in a car, individuals to access retail or eating establishments, students to travel to school, and families and active adults to access recreational opportunities. All of these help to reduce congestion, promote healthy living, improve air quality, encourage economic growth, while increasing livability and desirability of a community. Therefore, the following objectives were developed for this project.

Develop an active transportation master plan that will:

- **Guide** future active transportation decisions and investments
- **Preserve** the City’s core character while encouraging economic growth
- **Enhance** recreational opportunities and improve healthy living
- **Improve** air quality and reduce congestion with a variety of transportation choices

Coordinate with Previous Studies

The project team reviewed the following previous studies to ensure consistency with previous work and to fully understand the future plans for not only active transportation facilities, but also the roadway network, open spaces, and parks.



Herriman Transportation Master Plan, 2020

This report includes an overview of Herriman itself, residents’ demographics, growth rate and how it interacts with other cities. It then lays the foundation for the existing conditions on their existing land use and facilities, including pedestrian and bike and public transportation. Lastly it gives a proposed bicycle and transit plan as well as recommend street cross sectionals.

The recommended street improvements by phase was a key input in developing the projects and phasing of recommended active transportation projects. As active transportation projects are not likely to be funded and constructed entirely on their own, it is key to coordinate with planned roadway widening projects.

Herriman Parks, Recreation, Open Space, and Trails Master Plan, 2020

This report includes an extensive inventory of the existing infrastructure of trails, on-street bicycle facilities, trailheads, parks, and the Open Space master plan. In addition, it contains proposed recommendations for each of those, projected construction costs and lastly prioritizes them creating an action plan that details implementation actions for short and long-term.



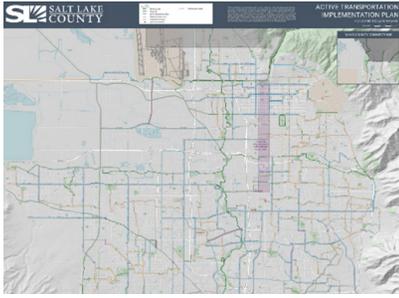
Herriman Hills Open Space (HHOS) Master Plan, 2018

Listed as one of their main objectives was to inventory existing trails and access points within the study area of HHOS. The previous mentioned plan had better insight on their existing inventory. In addition, this study mainly focused on what they refer to as backcountry trails and trailhead recommendations.



Herriman Bicycle Master Plan, 2011

Although not as recent of an existing bicycle facility study, this report clearly defines their bicycle system into different classes and includes an inventory of existing bicycle options, as well as, proposing different bike segment additions to be integrated.

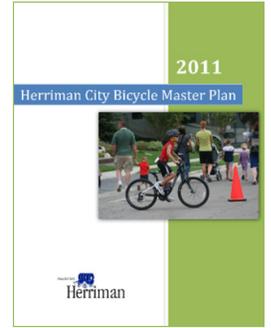


Salt Lake County Active Transportation Implementation Plan (ATIP), 2017

The Herriman section of their active transportation plan illustrates not only the proposed buffered bike lanes and multi-use paths but incorporates how these facilities can extend into the neighboring cities to create a complete active transportation network.

WFRC 2019 – 2050 Regional Transportation Plan, 2019

This plan illustrates several proposed projects in transit, shared use path, trail, buffered bike lane and traditional bike lanes. Also includes the implementation phase and the project cost.



Public Outreach

Public outreach has been a key component to Herriman's active transportation plan effort. The overall goal of the outreach efforts has been to verify that the proposed projects are in line with resident concerns and wants, as well as helping to identify any missed areas for improvement. In order to accomplish our goal, we administered a survey to Herriman residents. The main topics of the survey included preference for different types of bike lanes, paved pathways, sidewalks, and trails, pinpointing specific areas of improvement, and determining what areas of active transportation were currently working for the community.

Over
400 Survey
Responses
Over **1,000** Views
of the Public
Meeting

To administer the survey, we heavily relied on existing social media channels established by the city and residents. This included the City website, Facebook, Instagram, and Twitter. Other forms of outreach included H-stake signs at high active transportation areas throughout the city with a QR code to the survey, social media posts through local schools and parent organizations, as well as collecting information at local grocery stores using a tablet. We received over 400 responses to the survey. A full copy of the survey and the responses is included in Appendix D. The following is a list of high-level takeaways:

**Do you Walk, Bike, Hike,
Scooter, Skateboard,
Horseback Ride, etc?**



TAKE OUR SURVEY

Help shape the
future of Herriman



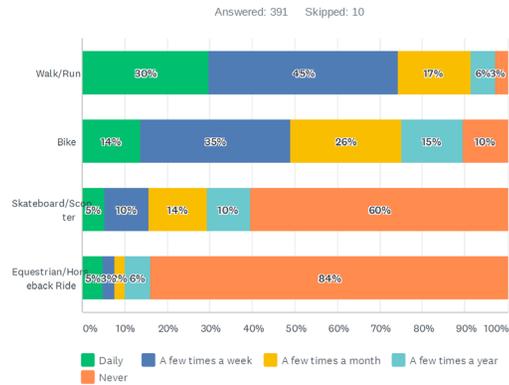
Use your phone camera to open the survey with the QR
or visit www.herriman.org/active-transportation

- ▶ The data we have collected is supported by public opinion.
- ▶ Residents want to see more trail connections and trails/paths in general.
- ▶ Walking, running, biking, and hiking are priorities for Herriman residents.
- ▶ Buffered bike lanes are preferred for safety reasons.
- ▶ 80% of respondents felt positive about buffered bike lanes
- ▶ 70% of respondents felt positive about traditional bike lanes and protected bike lanes.
- ▶ Less than 50% of respondents felt positive about bike boulevards.
- ▶ Over 90% of respondents indicated they would like more paved pathways, trails, and sidewalks in Herriman.



After concluding the survey period, we held a public meeting via Zoom and streamed it live to the city’s Facebook page. During the meeting we had 7 residents participate on Zoom, 14 on Facebook, and over 1,000 watch it on Facebook after the live meeting ended. The majority of comments received from attendees pertained to bicycling in the city and to the funding required for this project. In the community survey, and during the virtual meeting, residents supported buffered bike lanes over other options presented. A full copy of the public meeting presentation is included in Appendix C. This presentation was also used to present to the public at Planning Commission and City Council Meetings.

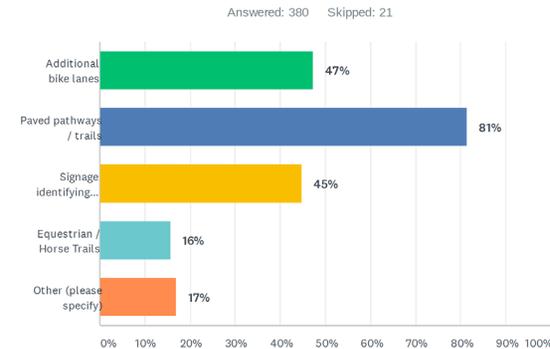
Q9 If paved pathways/trails were available to you, how often would you walk, bike, etc. in Herriman outside of your neighborhood?



**They help make a neighborhood great!
Nobody says “I wish we had less trails”**
— Herriman Citizen Survey Response

Open space and trails are a big reason we moved to Herriman
— Herriman Citizen Survey Response

Q10 What are some ways that Herriman can improve options and encourage more active transportation (non-motorized) in and around the city?





Do you Walk, Bike, Hike, Scooter, Skateboard, Horseback Ride, etc?



TAKE OUR SURVEY
Help shape the future of Herriman



Use your phone camera to open the survey with the QR code above or visit www.herriman.org/active-transportation-plan

Schedule a time to be rapid tested for COVID-19 by answering a few questions and scheduling an appointment online at testutah.com.

Recently Approved Ordinances

To view the ordinances in full detail, please visit <https://www.herriman.org/public-notices>

ORDINANCE 2021-01
An ordinance adopting an amendment to the Herriman City Code Title 8, Chapter 5 regarding sewage disposal.

ORDINANCE 2021-02
An ordinance authorizing a Zoning Map amendment for five acres of property located at 13504-13508 South 7530 West from A-1 to A-25.

ORDINANCE 2021-03
An ordinance authorizing a Zoning Map amendment for five acres of property located at 6477 West Vahlha Circle from FR-2.5 to A-1.

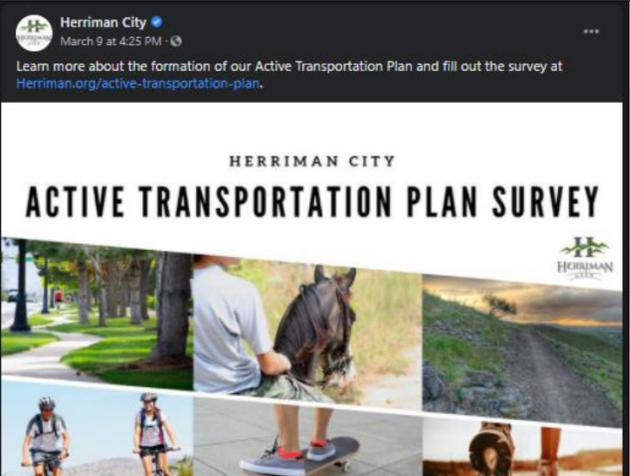
Herriman City is working to create an **Active Transportation Plan** and wants your feedback!

Watch for more information and take the survey starting in mid-February by scanning the QR code to the right, or by visiting the website below.

[Herriman.org/active-transportation-plan](https://www.herriman.org/active-transportation-plan)



Residents were able to access a survey and provide feedback through in response to several avenues of public outreach including Facebook, Instagram, Twitter posts, H-Stake Signs, Herriman's website, and the Herriman City Connection.



Herriman City @HerrimanCity · Feb 22
We're creating an Active Transportation Plan and need your help!

Complete the survey below as we formulate a plan to address how people move about the city without the aid of a motorized vehicle.

Survey: surveymonkey.com/r/HerrimanATP

Additional details at [Herriman.org](https://www.herriman.org).

COMMUNITY BUSINESS GOVERNMENT RUMOR HAS IT I WANT TO...

- City Council
- Planning Commission
- City Administration
- Public Notices
- Ordinances and Code
- Police Department
- Animal Services
- City Services
- City Recorder
- Elections
- Building
- Code Enforcement
- Communications
- Human Resources
- ITS

ACTIVE TRANSPORTATION PLAN

Herriman City is working to create an Active Transportation Plan and wants your feedback. This page will host information about the plan throughout the process—survey, renderings, houses, and eventually, adoption.



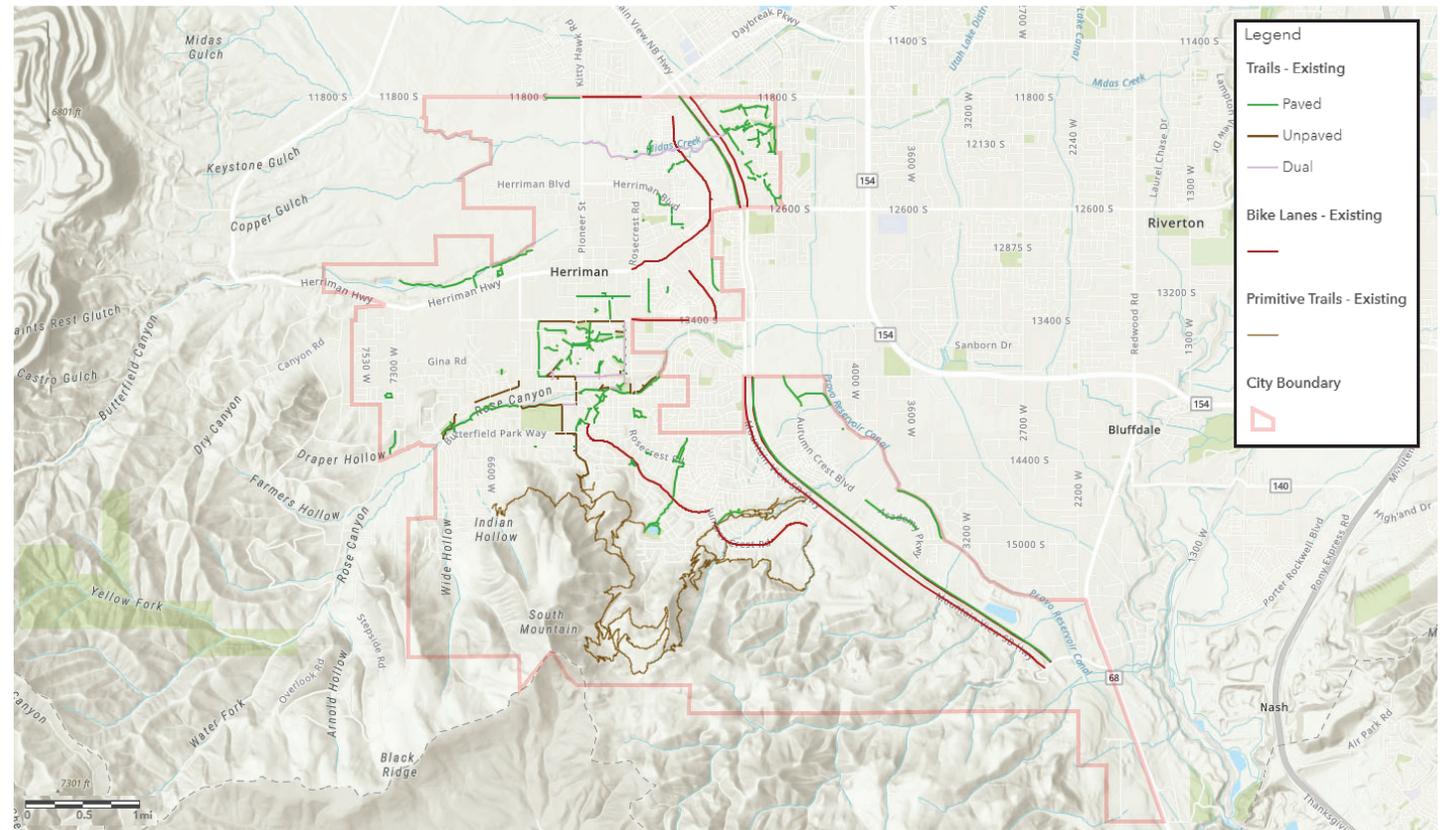
Existing Conditions

Existing Bicycle and Pedestrian Facilities

Herriman is starting with an already robust paved path and sidewalk network. Over recent years Herriman has built a paved path network which connects many neighborhoods and key destinations through the City. In addition to paved paths, Herriman also has a strong network of equestrian, hiking, and mountain biking trails. All of this combined already make Herriman a great community for utilizing active transportation within many neighborhoods.

Within Herriman there are currently approximately **13 miles of bike lanes, 32 miles of paved paths, and 388 miles of sidewalks.**

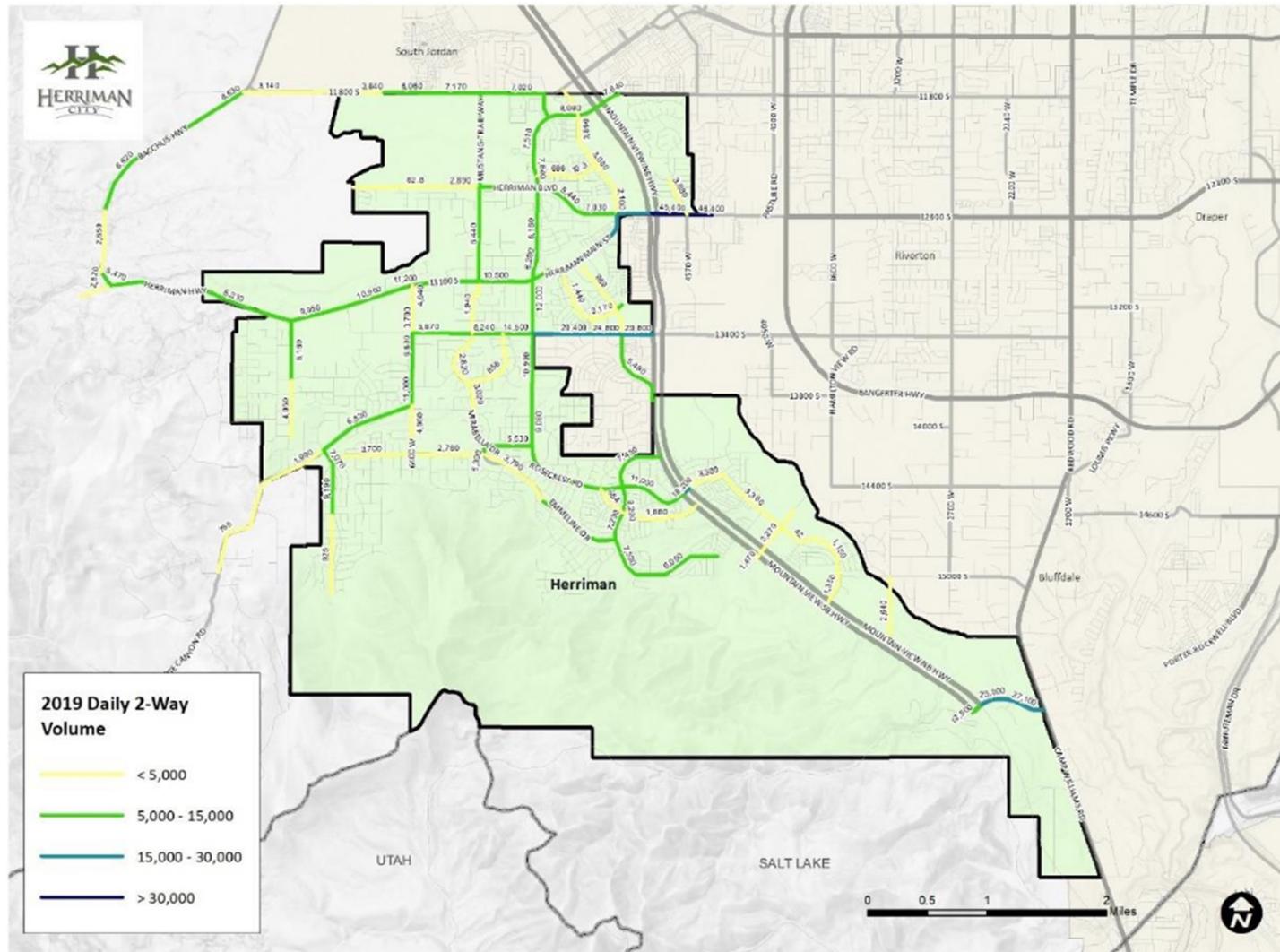
Paved paths, bike lanes, and primitive trails are shown in the figure below.



Traffic data

Daily volume estimates were developed for the 2019 Herriman Transportation Master Plan and are provided in the graphic below. While Average Daily Traffic volumes (ADTs) are fairly low along most corridors, other than 13400 South, rapid growth in Herriman and surrounding communities is expecting to quickly increase traffic volumes on many roadways.

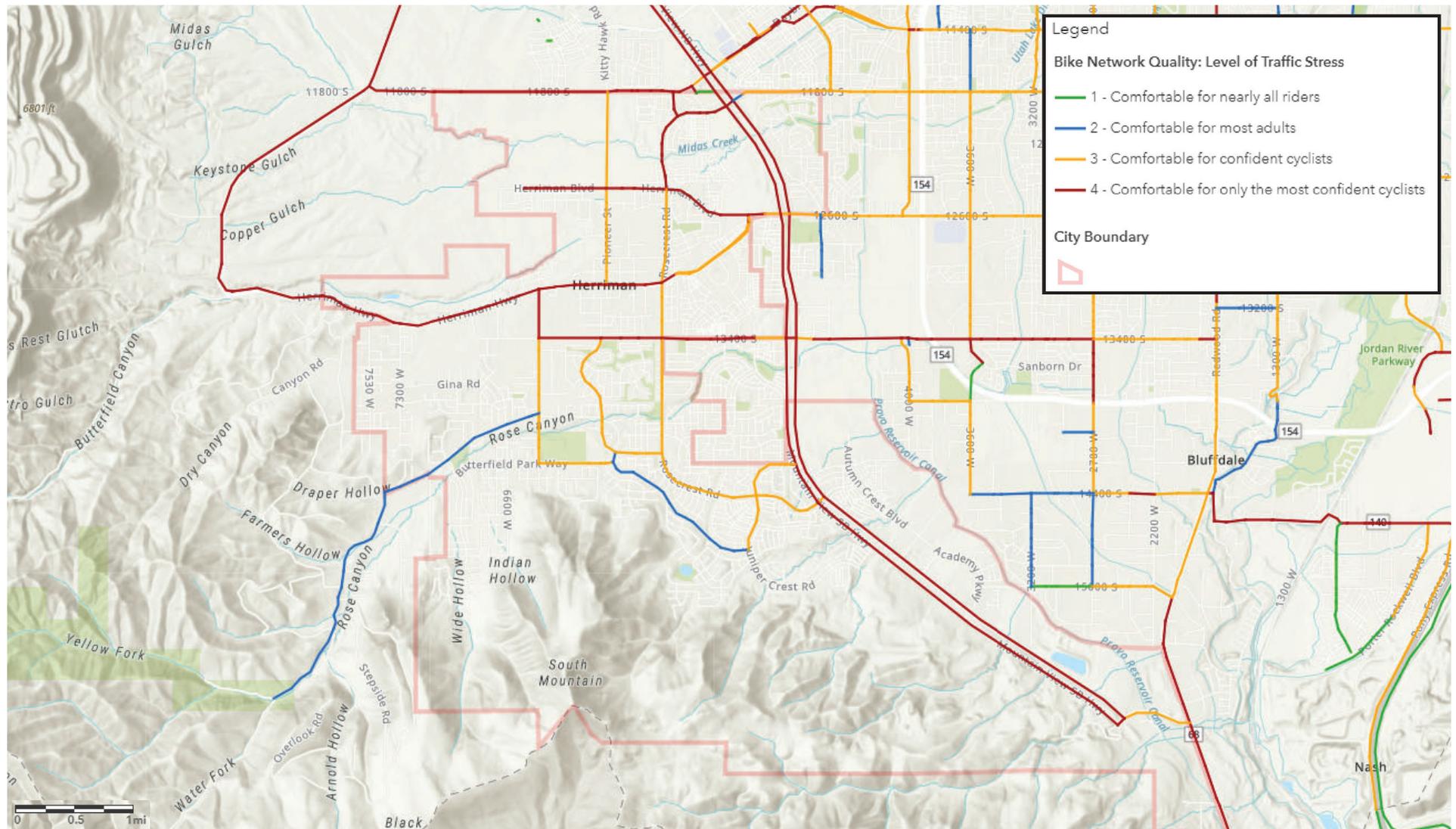
Generally, posted speed limits are 25 MPH or less on most city streets. Although many of the larger collector type roadways are posted at 35 MPH. A few of the large arterials through Herriman are posted at 40 MPH.



Source: 2019 Herriman Transportation Master Plan

Level of Traffic Stress

Wasatch Front Regional Council has developed a Level of Traffic Stress (LTS) online map.¹ Level of Traffic Stress (LTS) is an approach that quantifies the amount of discomfort that people feel when they bicycle close to traffic. The LTS data for Herriman is shown in the figure below. As seen in this figure, many of the major roadways through Herriman are already within the highest category “Comfortable for only the most confident cyclists”. As traffic increases it is likely that other roads will also begin to fall into the category. Thus, the need for a robust network paved path and buffered bike lane network within Herriman as recommended in this plan.



1 <https://wfrc.maps.arcgis.com/apps/MapSeries/index.html?appid=87827ba730d44a09aeae83a8f9dc43e>

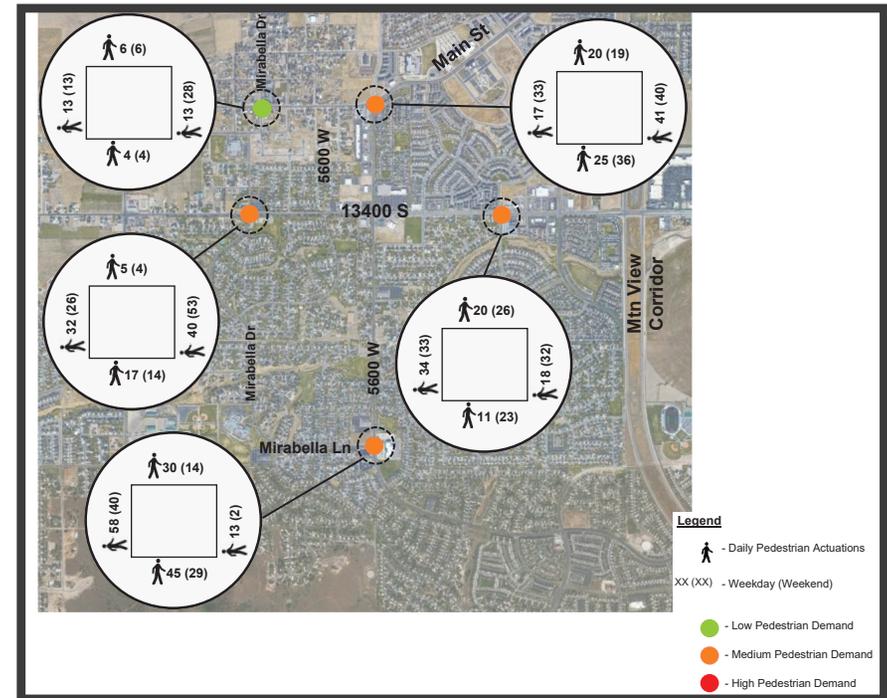
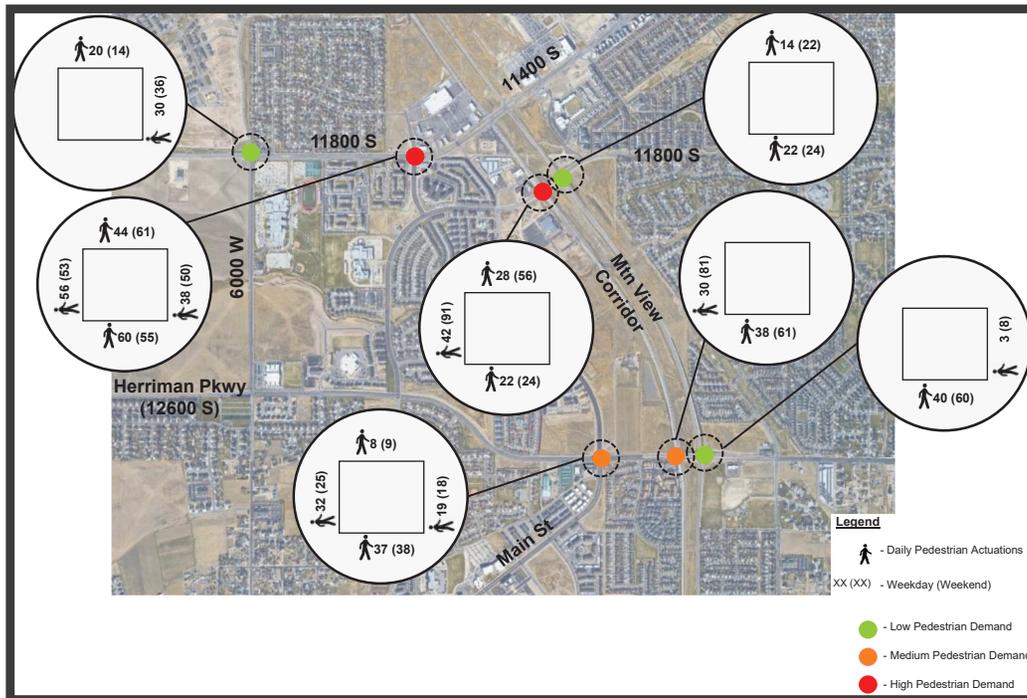
Active Transportation Counts

Pedestrian and bicycle count and usage data were obtained from four sources described below.

Signal Pedestrian Calls

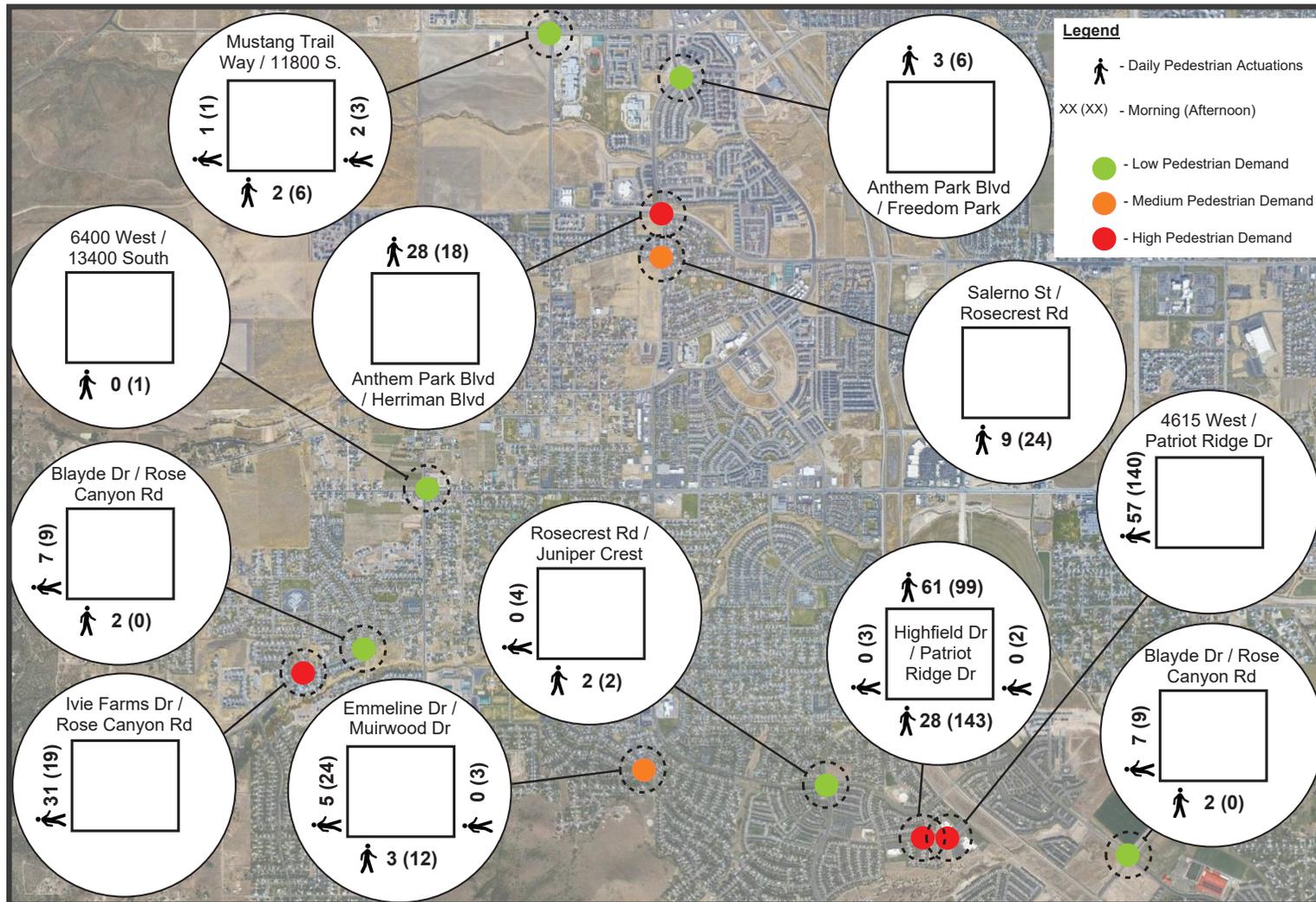
The UDOT Automated Traffic Signal Performance Measures (ATSPM) website collects data at certain signalized intersections such as signal timing and approach vehicle volume and speeds. In addition to those, they may collect pedestrian delays which reflect the amount of times pedestrian calls were placed and the associated delay. It is important to note that a pedestrian call may have served more than one pedestrian at a time; therefore this unit will show the minimum number of pedestrians that used the pedestrian button when going through a marked crosswalk at a signalized intersection within 24-hours.

WCG collected and analyzed pedestrian call data from 12 signalized intersections within Herriman on Wednesday, April 22, 2020 and on Saturday, April 25, 2020. According to weather logs it did not rain on either day and temperature ranged from 48 to 67 and 47 to 72 respectively. The two highest pedestrian call intersections were at 11800 S & Freedom Park Dr and at Mtn View Corridor & 11800 S (southbound direction). Both of these intersections are near the northern end (within Herriman limits) of the Mtn View Corridor trail. This area also has a mix of commercial, residential and school use which may contribute to the higher amount of pedestrian calls.



School Crosswalk Audits

Herriman completes an annual audit of all school crosswalks within city limits that are currently staffed by crossing guards. The 2020 / 2021 data collection effort is still ongoing and is expected to be completed in Spring 2021. A summary of the school crosswalk data that has been collected as of April 15, 2021 is shown in the following figure.



Blackridge TIS active counts/projections

A recent traffic study completed for Herriman included pedestrian and bicycle counts during the Saturday peak hours at Blackridge Reservoir. Blackridge Reservoir is one of the many popular recreational areas within Herriman and connects to paved trails, bike lanes, and biking / hiking trails. As shown in the following data, there are 30 – 40 pedestrians or bicyclists an hour that go through this area on a Saturday, showing the large demand for active transportation facilities and connections.

Blackridge Reservoir Pedestrian & Bicycle Counts Saturday Peak Hours, October 17, 2020

Time Period	Pedestrians		Bicycles		Total Ped / Bike Hourly		
	In	Out	In	Out	In	Out	Total
10:00 AM	4	8	2	0	-	-	-
10:15 AM	2	0	0	0	-	-	-
10:30 AM	5	1	1	0	-	-	-
10:45 AM	0	1	5	1	19	11	30
11:00 AM	10	1	7	4	30	8	38
11:15 AM	0	0	0	1	28	9	37
11:30 AM	0	1	0	0	22	9	31
11:45 AM	2	10	0	0	19	17	36

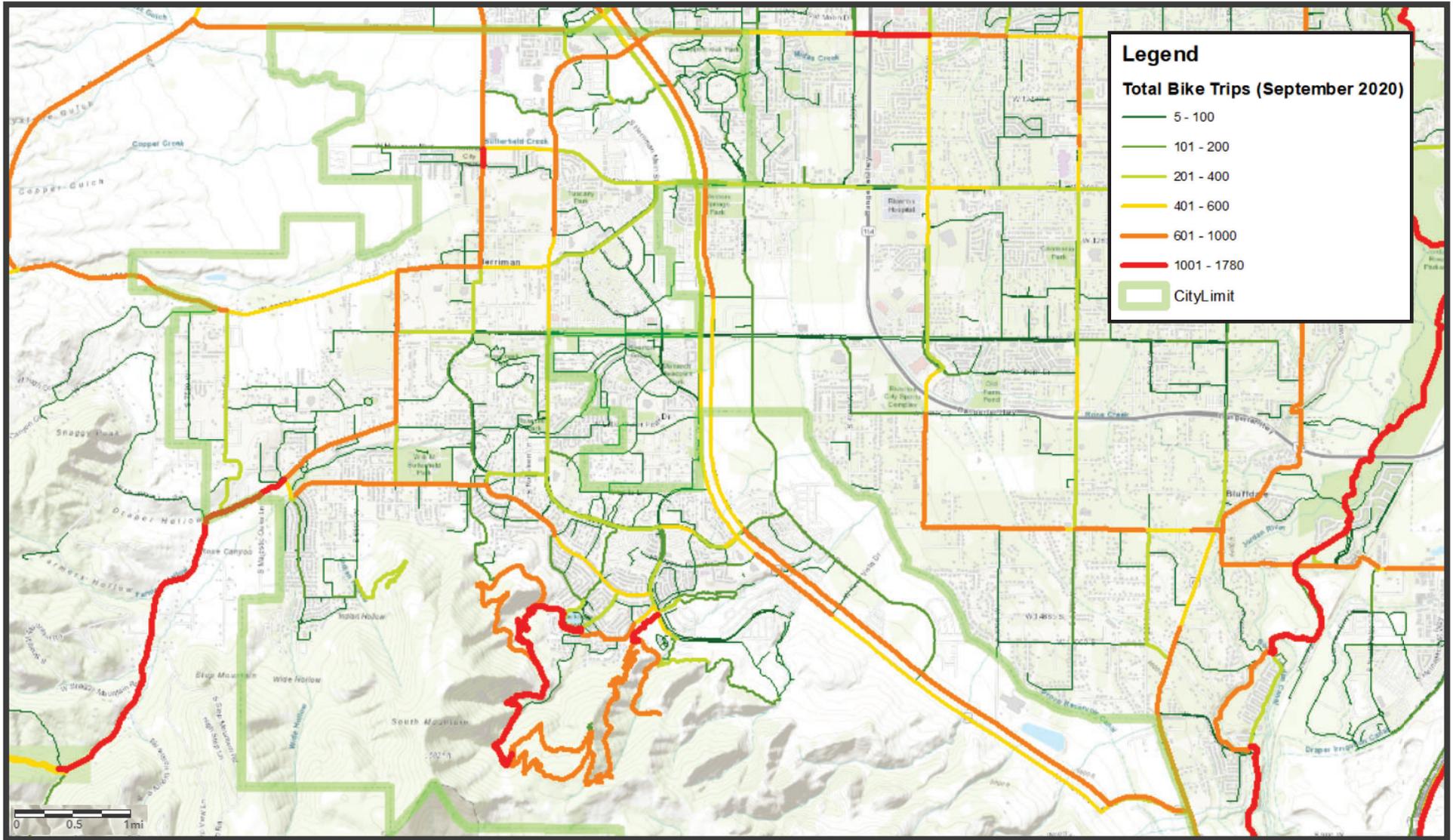
Strava Data

Strava is a fitness tracking app and social network for recording all modes of recreating but is most frequently utilized for recreational cycling and running. Through UDOT’s Strava Metro Partnership the project team was able to utilize Strava data for our analysis.

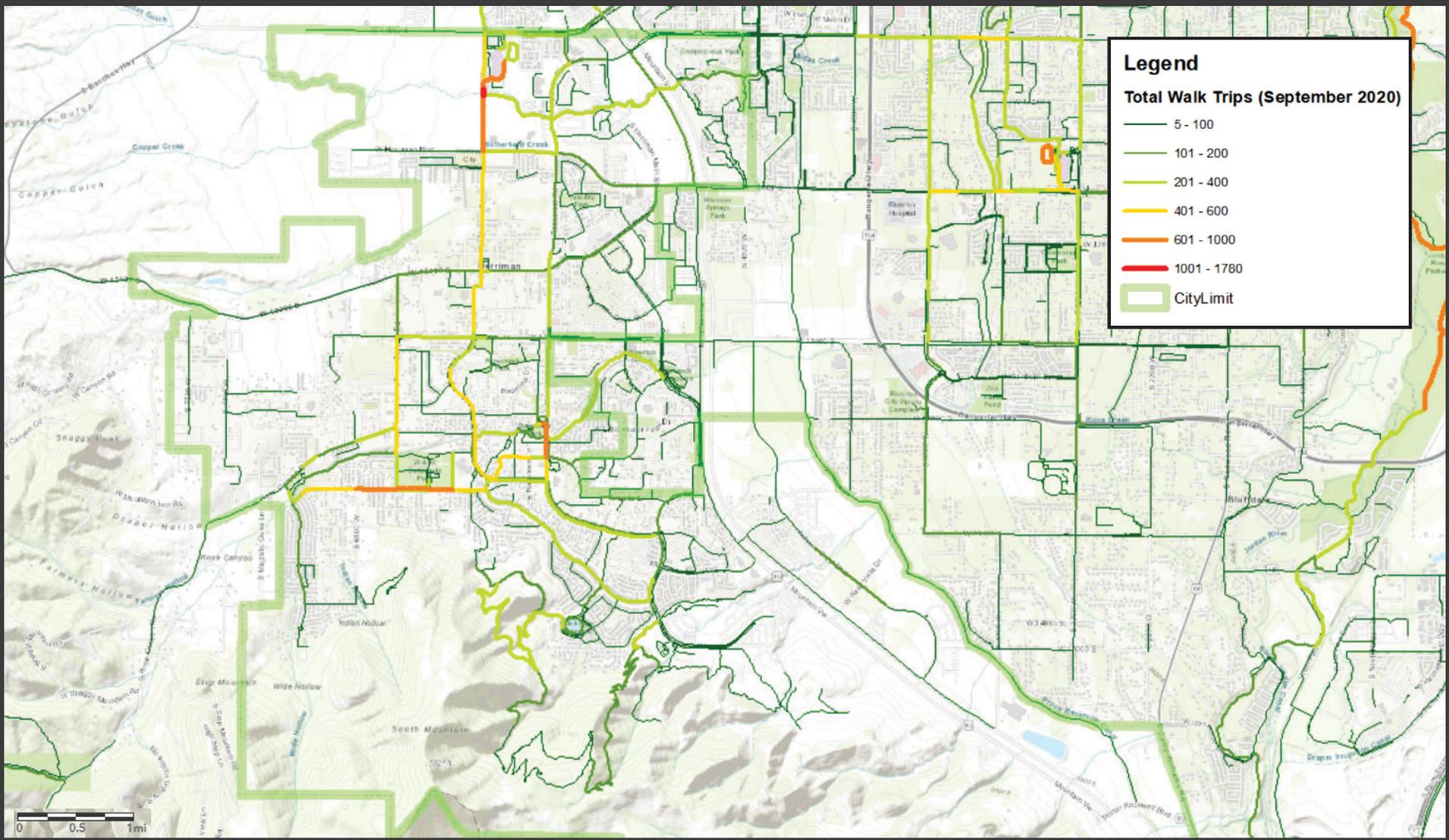
September 2020 data for both cycling and run/walk activities are presented in the figures below. It should be noted that Strava data is inherently biased toward recreational trips and more serious athletes. Through calibration to active transportation counters, it has been found that Strava represents approximately 1% to 17% of total cycling trips. If Herriman wants to utilize the Strava data more in the future it is recommended that it is compared to active transportation counters to develop a Herriman specific calibration factor.

Regardless of its limitations, Strava provides a good snapshot on a portion of the active transportation trips. This data is utilized along with public feedback, other data collection sources, and crash data to help develop recommendations.

Strava Total Bike Trips - September 2020



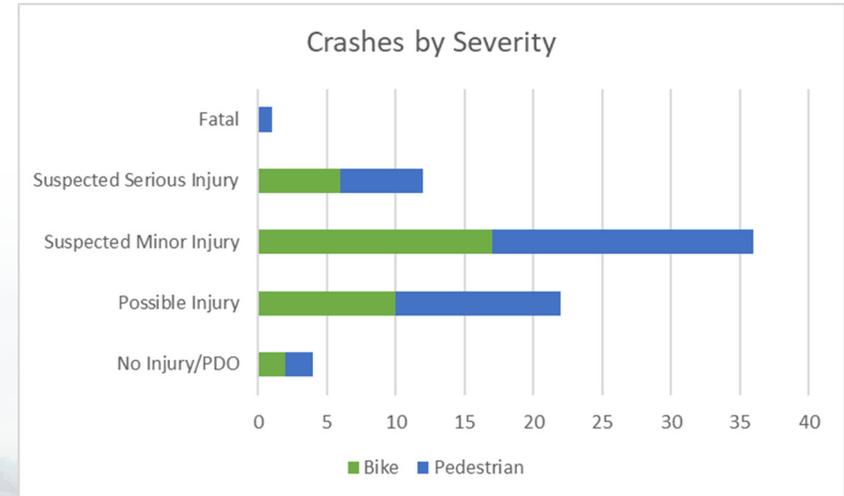
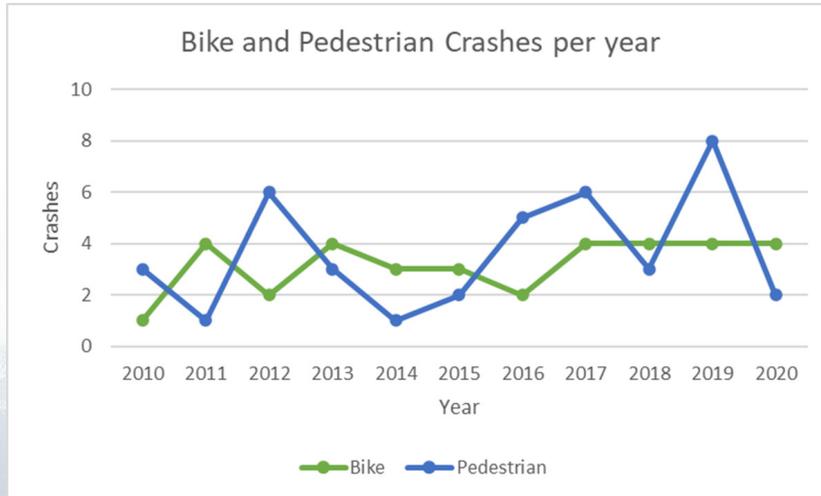
Strava Total Walk Trips - September 2020



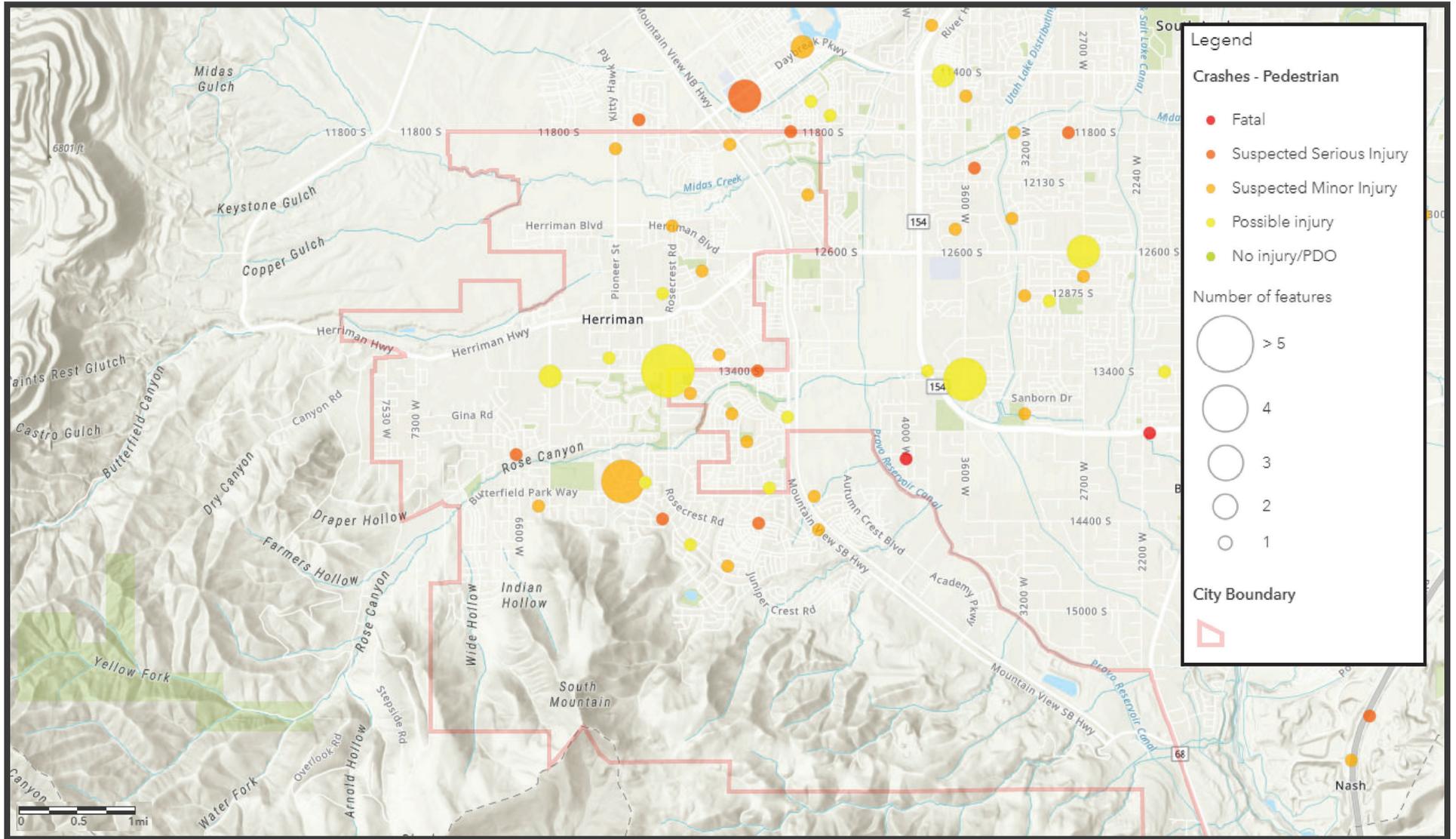
Crash Data

Crash data was collected for the 2010 – 2020 time frame for all crashes involving pedestrians or bicycles. Given the vulnerability of pedestrian and bicycles on roadways safety was a major consideration in determining treatment location and type. While the correct pedestrian and bicycle treatment can decrease crash risk, inadequate treatment can provide the illusion of safety thus actually leading to increased crash risk (for example: installing a marked crosswalk alone across a busy arterial).

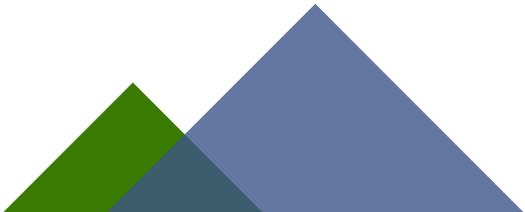
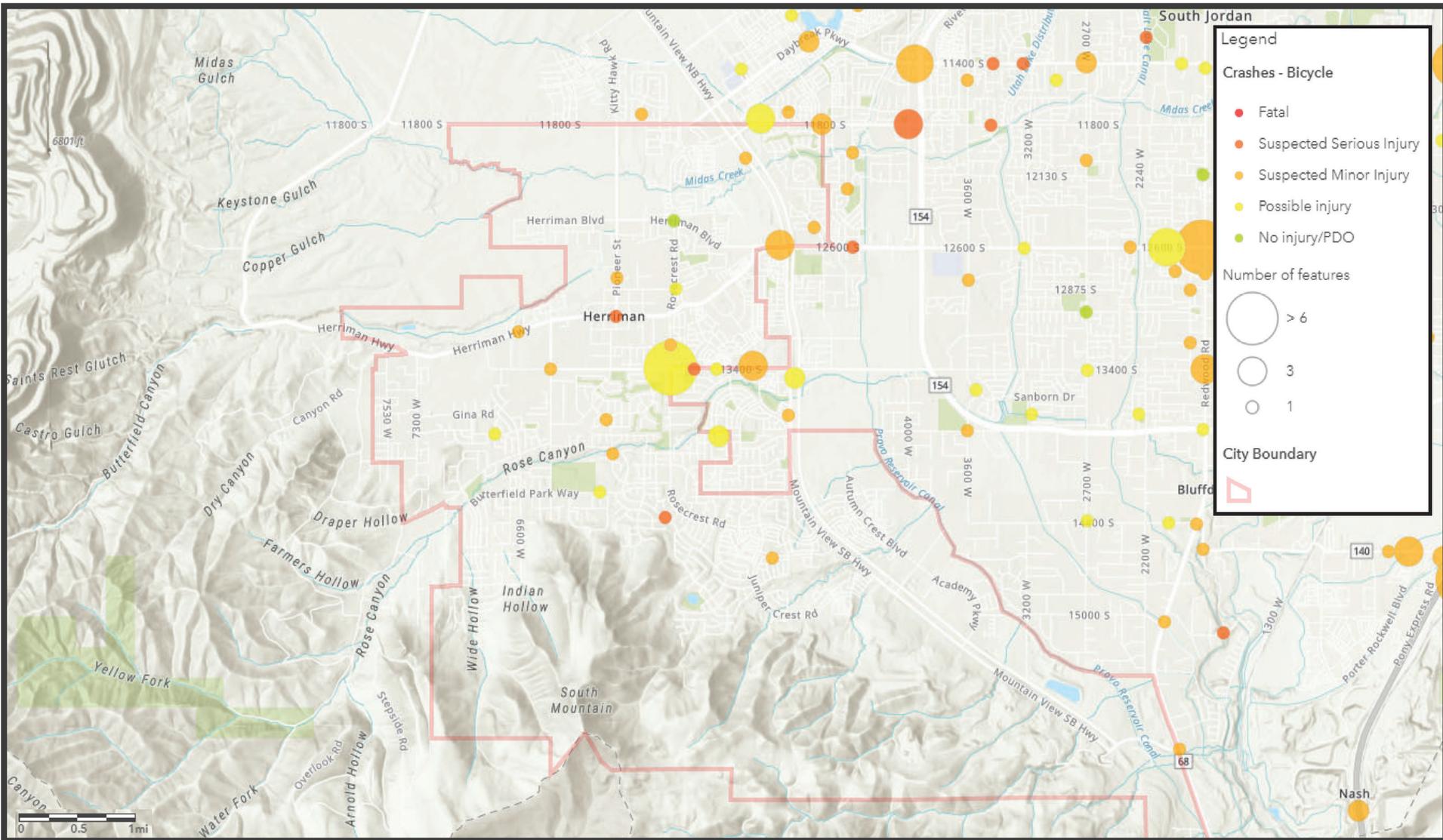
The Rosecrest (5600 West) and 13400 South intersection was identified as a high crash location for both pedestrians and cyclists.



Pedestrian Crashes: 2010 - 2020



Bicycle Crashes: 2010 - 2020



13400 South & Rosecrest Road (5600 West) Area

Given the number of pedestrian and bicycle crashes proximate to 13400 South, additional evaluation was completed for the intersection of Rosecrest Road (5600 West) & 13400 South and the 13400 South corridor.

Given the recent history of pedestrian crashes at Rosecrest Road (5600 West) & 13400 South Herriman could consider protected only left-turns or leading pedestrian intervals to improve pedestrian safety.²

13400 South & Rosecrest Road (5600 West) Area		
Pedestrian Crashes		Bicycle Crashes
All 5 have occurred since 2016	4/5 occurred at the signalized intersection during daylight, and dry conditions	12 bicycle crashes near the intersection and along 13400 South
2 were minor injury 3 were possible injury	All 4 at the intersection involved turning vehicles (2 lefts, 2 rights)	2 were serious injury

Additionally, crash narratives were reviewed for these crashes. Crash narratives provide additional details that are often missed through examining crashes at an aggregate level. A key takeaway from the crash narrative review was that there were many bicycle crashes related to unsignalized curb cuts along 13400 South. Green hatched striping through these locations could be considered through these locations to provide greater awareness to drivers on the presence of bicycles.



2 https://safety.fhwa.dot.gov/provencountermeasures/lead_ped_int/

Best Practices

The project team reviewed best active transportation practices at a national, state, county, and city level. From this review, recommendations for practices for Herriman to follow were developed. This is not meant to be a comprehensive document of design standards and policies, but rather a list of recommendations for the city.

Pedestrian Policies

We recommend that Herriman follows the same policies as UDOT for crosswalk and additional crossing treatment installation. Currently the two documents guide crosswalk and school crosswalk installation.

- UDOT Policy 06C-27: Marked Pedestrian Crosswalks
- Utah MUTCD, Part 7: Traffic Control for School Zones

Additionally, since the latest update to UDOT Policy 06C-27, FHWA has released the Guide for Improving Pedestrian Safety at Uncontrolled Locations³. This guide is particularly helpful when determining additional treatment at uncontrolled locations. The figure to the left shows the decision table from this document.

Roadway Configuration	Posted Speed Limit and AADT								
	Vehicle AADT <9,000			Vehicle AADT 9,000–15,000			Vehicle AADT >15,000		
	≤30 mph	35 mph	≥40 mph	≤30 mph	35 mph	≥40 mph	≤30 mph	35 mph	≥40 mph
2 lanes (1 lane in each direction)	1 2 4 5 6	1 5 6 7 9	1 5 6 7 9	1 4 5 6 7 9	1 5 6 7 9	1 5 6 7 9	1 4 5 6 7 9	1 5 6 7 9	1 5 6 7 9
3 lanes with raised median (1 lane in each direction)	1 2 3 4 5	1 5 7 9	1 5 7 9	1 3 4 5 7 9	1 5 7 9	1 5 7 9	1 3 4 5 7 9	1 5 7 9	1 5 7 9
3 lanes w/o raised median (1 lane in each direction with a two-way left-turn lane)	1 2 3 4 5 6 7 9	1 5 6 7 9	1 5 6 7 9	1 3 4 5 6 7 9	1 5 6 7 9	1 5 6 7 9	1 3 4 5 6 7 9	1 5 6 7 9	1 5 6 7 9
4+ lanes with raised median (2 or more lanes in each direction)	1 5 7 8 9	1 5 7 8 9	1 5 7 8 9	1 3 4 5 7 8 9	1 5 7 8 9	1 5 7 8 9	1 3 4 5 7 8 9	1 5 7 8 9	1 5 7 8 9
4+ lanes w/o raised median (2 or more lanes in each direction)	1 5 6 7 8 9	1 5 6 7 8 9	1 5 6 7 8 9	1 3 4 5 6 7 8 9	1 5 6 7 8 9	1 5 6 7 8 9	1 3 4 5 6 7 8 9	1 5 6 7 8 9	1 5 6 7 8 9

Given the set of conditions in a cell,

- # Signifies that the countermeasure is a candidate treatment at a marked uncontrolled crossing location.
- Signifies that the countermeasure should always be considered, but not mandated or required, based upon engineering judgment at a marked uncontrolled crossing location.
- Signifies that crosswalk visibility enhancements should always occur in conjunction with other identified countermeasures.*

The absence of a number signifies that the countermeasure is generally not an appropriate treatment, but exceptions may be considered following engineering judgment.

- 1 High-visibility crosswalk markings, parking restrictions on crosswalk approach, adequate nighttime lighting levels, and crossing warning signs
- 2 Raised crosswalk
- 3 Advance Yield Here To (Stop Here For) Pedestrians sign and yield (stop) line
- 4 In-Street Pedestrian Crossing sign
- 5 Curb extension
- 6 Pedestrian refuge island
- 7 Rectangular Rapid-Flashing Beacon (RRFB)**
- 8 Road Diet
- 9 Pedestrian Hybrid Beacon (PHB)**

*Refer to Chapter 4, 'Using Table 1 and Table 2 to Select Countermeasures,' for more information about using multiple countermeasures.
**It should be noted that the PHB and RRFB are not both installed at the same crossing location.

Bicycle Policies

Determining policy for Herriman involves balancing the necessary infrastructure required for safe and user friendly, and the feasibility and costs of the facilities.

Wasatch Front Regional Council (WFRC) provides an outline for treatments for different roadway types,

3 https://safety.fhwa.dot.gov/ped_bike/step/docs/STEP_Guide_for_Improving_Ped_Safety_at_Unsig_Loc_3-2018_07_17-508compliant.pdf

speeds, and average annual daily traffic (AADT).⁴ This was used as a framework for developing recommendations for Herriman. Although it should be noted that local context can frequently change recommendations. For example, as Herriman has a strong desire for sidepaths/paved paths these were often recommended if the necessary right-of-way was available, even if the roadway speeds and traffic volumes likely don't necessitate it. The WFRC bicycle facility contextual guide is provided in the figure to the right.

UDOT is currently working on design guidelines for active transportation. While this document is not available as of the completion of this plan, Herriman should stay in touch with UDOT staff and utilize this guideline when released.

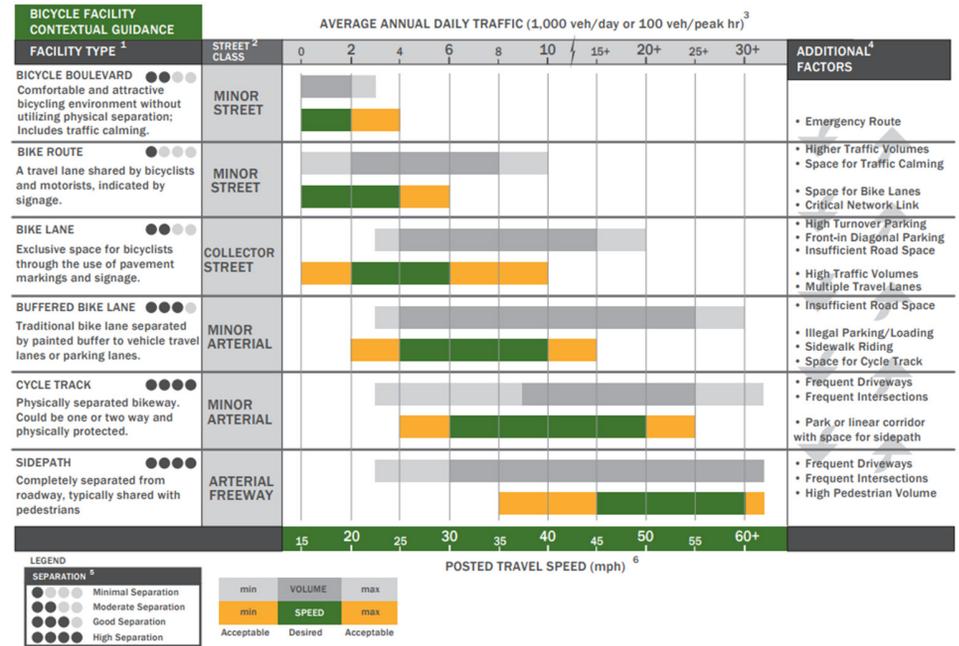
Additionally, Salt Lake County offers guidance on bikeway design and wayfinding.⁵ The bikeway design manual provides guidance on the following subjects:

- Bicyclist population types
- Design standards
- Corridor and intersection treatments
- Selection Process
- Seasonal Maintenance
- Signage / Parking

Future Active Transportation Continuous Counts

Collecting active transportation data on a continuous basis is key to understanding the patterns of walk and bike trips, and important in determining patterns in active transportation, and thus determining where funds would be best allocated for future projects.

UDOT utilizes counters by EcoCounter⁶ for active transportation data collection, and to maintain consistency we recommend Herriman uses the same counters. A rough guidelines of purchase cost and install cost for 5 devices were provided by UDOT and are shown here:



Counter Type	Purchase Cost	Installation Cost
Portable Pyrobox	\$3,500	\$0
Multi-Urban (trail)	\$5,500	\$2,500
Zelt (on-street)	\$3,500	\$2,000
CITIX IR	\$5,500	\$2,500
CITIX 3D	\$10,000	\$2,500

4 <https://wfrc.maps.arcgis.com/apps/MapSeries/index.html?appid=87827ba730d44a09aeeae83a8f9dc43e>

5 <https://slco.org/planning-transportation/transportation-portal/bicycle-best-practices/>

6 <https://www.eco-counter.com/en/produits/multi-range/mobile-multi/>





Treatment Recommendations

Bicycle Segment Treatment

Four main types of treatment are recommended. Paved side-path, buffered bike lanes, bike lanes, and bike boulevards. The treatment recommendations vary based on the posted speed limit, traffic volumes, and available cross-section.

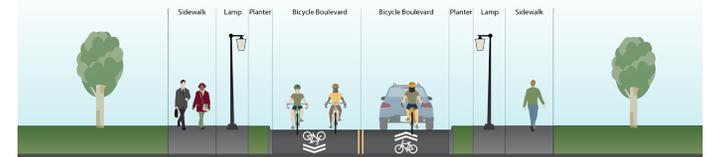
It should be noted that buffered bike lanes were used to identify any type of buffered facility. This could be paint, curbing, vertical delineation, etc. Based on the survey results Herriman residents had a slight preference for painted buffered bike lanes over protected bike lanes with curbing or vertical delineation. Given this preference, and the substantially lower costs, it was assumed that all buffered bike lanes would be striping. Going forward Herriman could modify these bike lanes if desired.

The four treatments recommended in the report are shown below.

Bike Lanes



Bike Boulevards



Buffered Bike Lanes

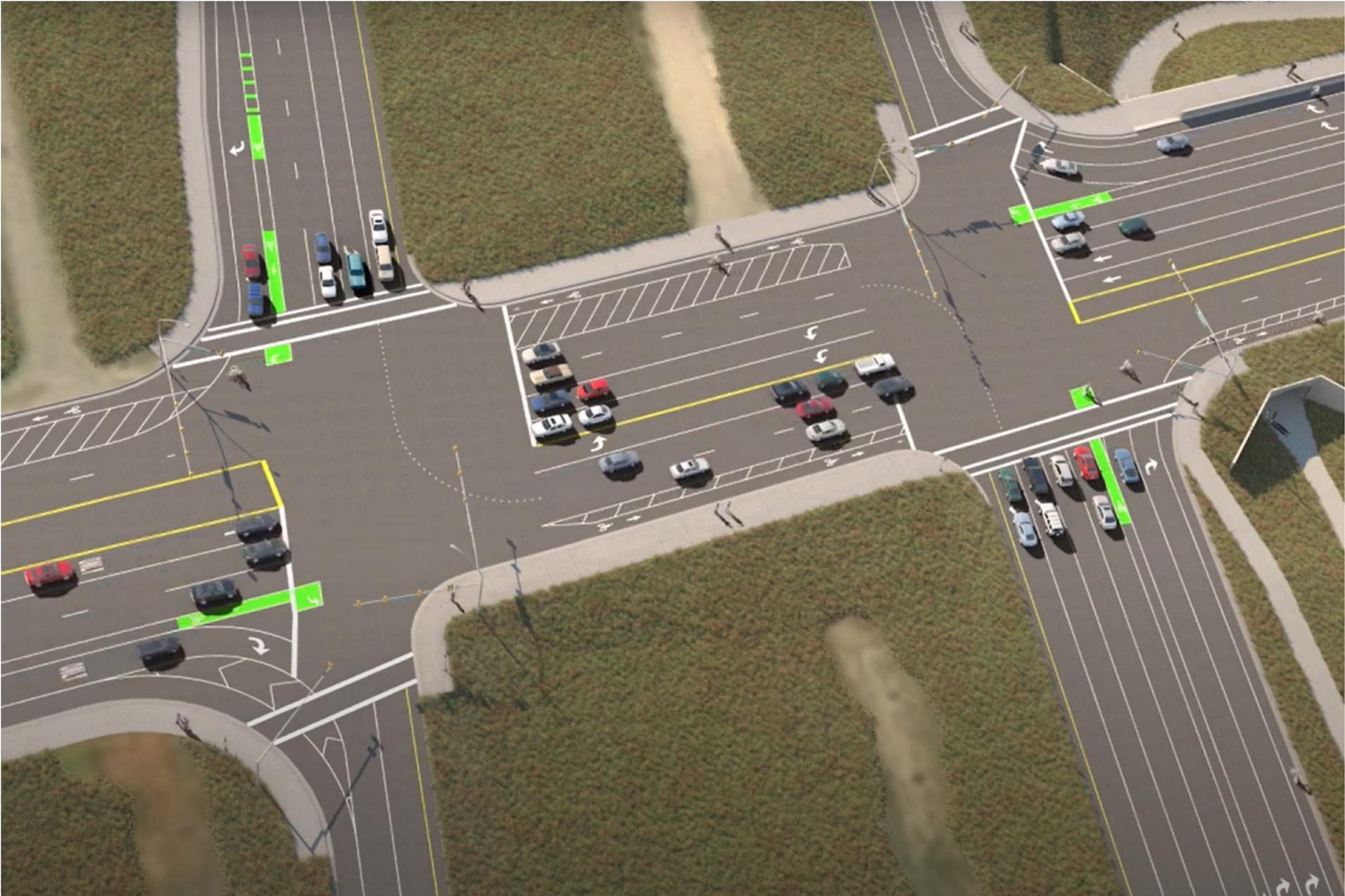


Paved Path

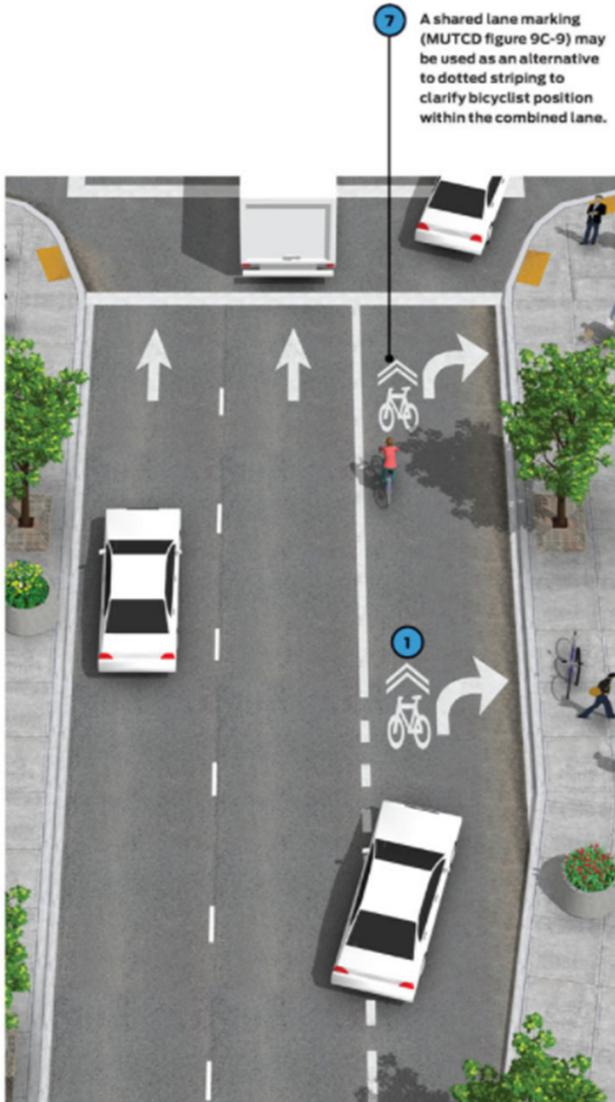


Intersection Treatment

An assortment of potential intersection treatments are provided on the following pages. Specific recommendations for intersection treatments and phasing are provided in the Implementation Plan later in the report.



Bike boxes would be ideal for intersections with high vehicle volumes and many travel lanes. The recently installed bike boxes on Redwood Road at Pioneer Crossing and 2100 North serve as a good example of the types of facilities that could be installed at Mountain View Corridor crossings.



7 At intersections where right-turn lanes are necessary **combined bike lane/turn lanes** should be used. (Graphic from NACTO*)



Where there is adequate space continuing a **through bike-lane** is preferred. Where there is large turning volume it the city could consider **green striping** for greater emphasis. (Graphic from NACTO)



Corner Bulb Outs improve intersections for both pedestrians and bicycles by reducing vehicle speed and crossing distances (example: 700 S & 900 S, SLC)



Where, due to geometric constraints, bicycle facilities cannot be maintained through an intersection **allowing access to an above the curb shared use path/sidewalk** can be a good option. (Example: SR-224 in Park City)



Painted driveway crossings along buffered bike lane facility (200 West, Salt Lake City)



Right-turn lane crossings and side path transition. (Redwood Road, Saratoga Springs)

Active Transportation Evaluation

As mentioned previously, Herriman currently has a great paved path and sidewalk system within many communities. While an excellent starting point, there is still room to improve. Based on our analysis of existing conditions and feedback from the public outreach process a few key areas for improvement were identified.

- **Connections across Mountain View Corridor:** Mountain View Corridor is currently a barrier for active transportation into other communities.
- **Paved path connectivity:** While there are currently many miles of paved paths throughout Herriman, residents expressed interest in better connectivity so that longer walks, runs, and bicycle rides could be done on paved trails.
- **Sidewalks in older neighborhoods:** Many older neighborhoods within Herriman lack sidewalks on either side of the roadway.
- **Direct bike lane connections:** Currently bike lane coverage is limited. Bike lanes to facilitate direct longer active transportation trips are key to replacing current vehicle trips with active transportation trips.

Key Destinations

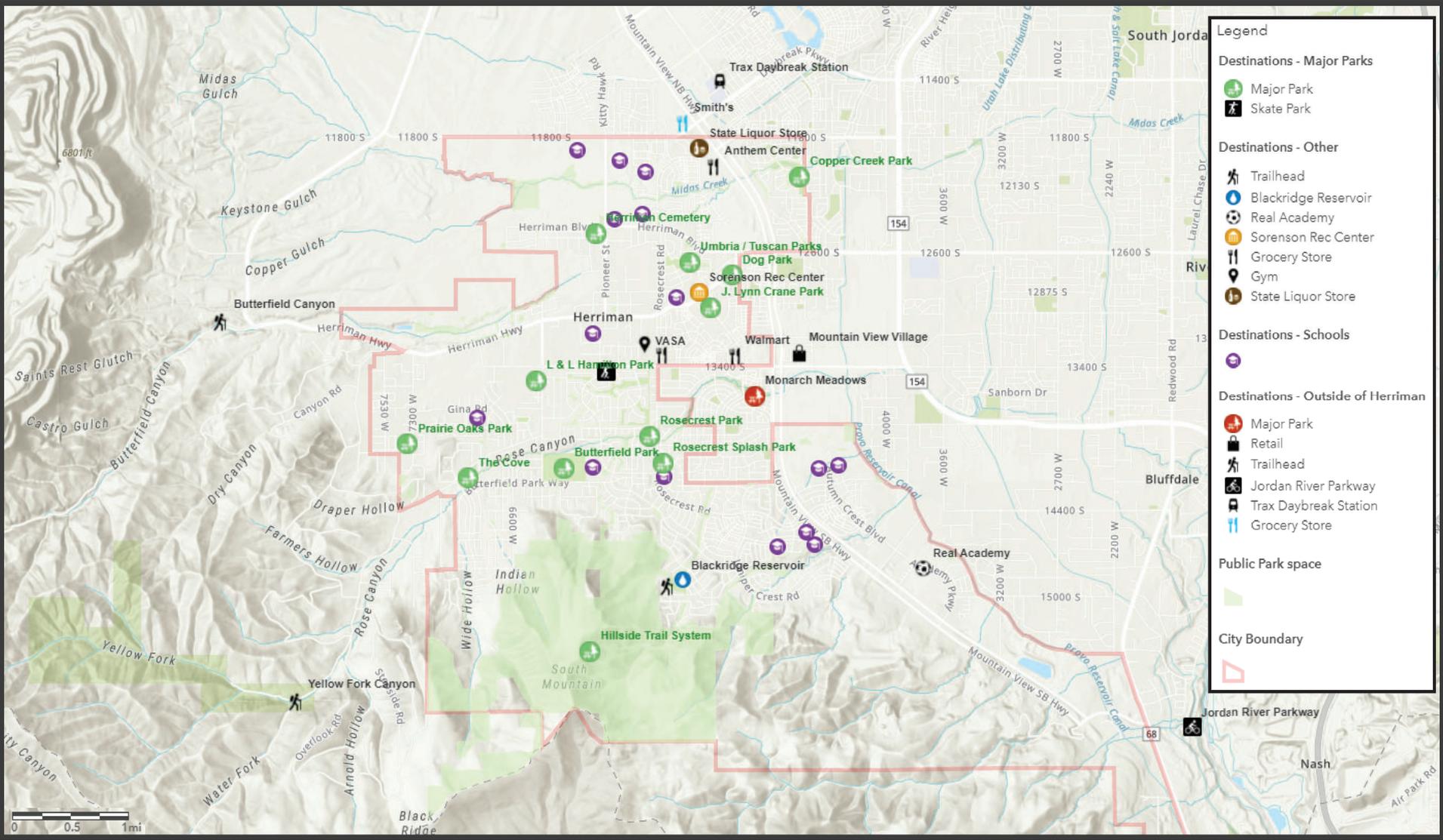
Herriman has a wide variety of destinations throughout the City. Destinations include parks, tennis courts, slack line stations, pickleball courts, skate parks, schools, the rodeo grounds, retail areas, Blackridge Reservoir, Butterfield and Yellow Fork Canyons, the Sorenson Recreation Center, Real Academy, and numerous hiking / mountain biking trails. With destinations being a strength of the City, the project team decided to approach this ATP from a Destination Perspective. Our analysis identifies and focuses on key destinations and then evaluates the safest and most efficient way to create active transportation connections between them, using the existing infrastructure. This approach is combined with the feedback from the public to ensure the destinations and concerns of the public are addressed in our recommendations.

Key destinations within Herriman and surrounding communities were determined through discussions with Herriman City staff. The figure below outlines the key existing destinations.

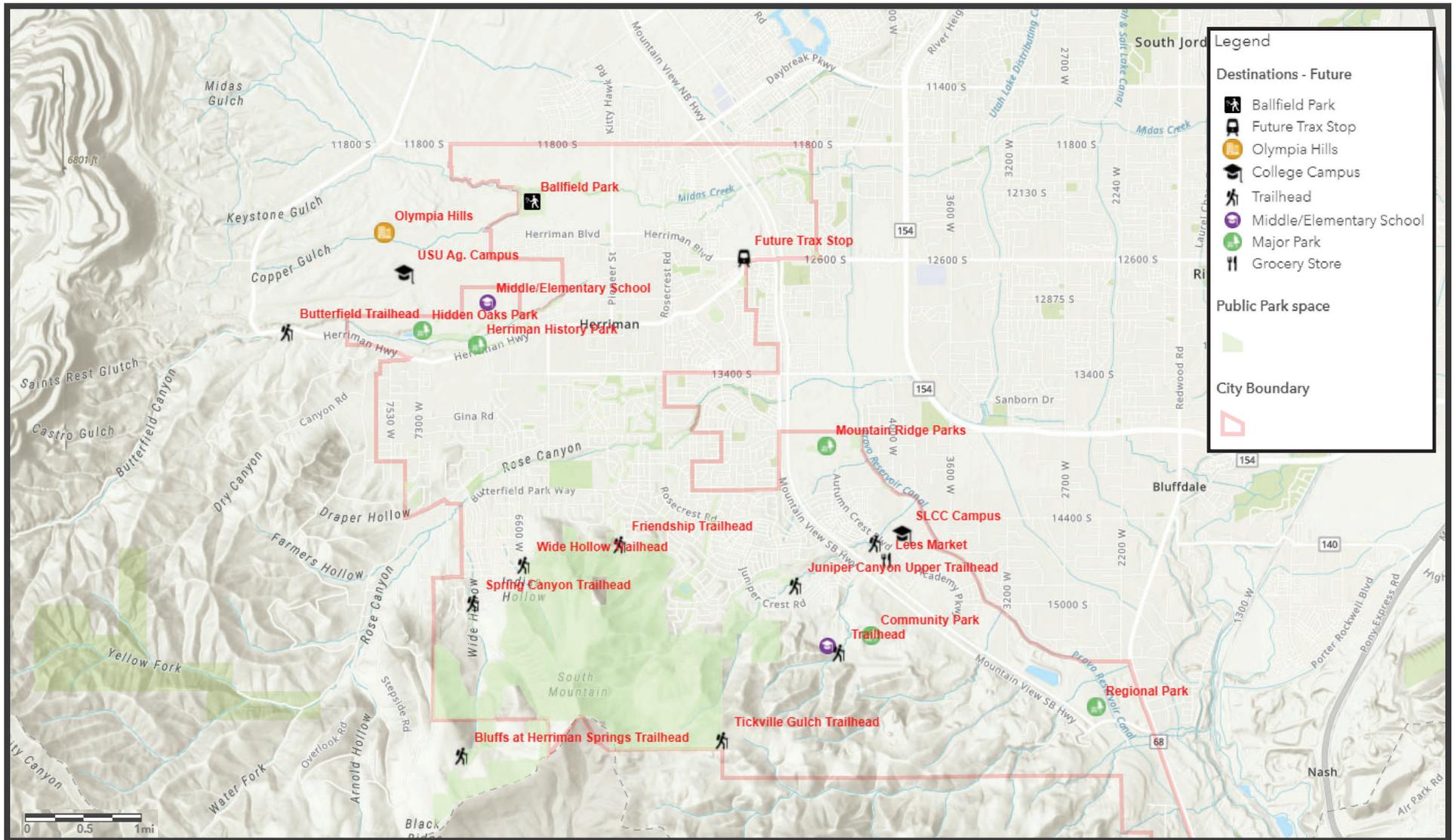
Additionally, due to rapid growth within Herriman and surrounding communities future destinations need to be considered. Through discussions with City staff the following future destinations were identified.



Existing Destinations



Future Destinations

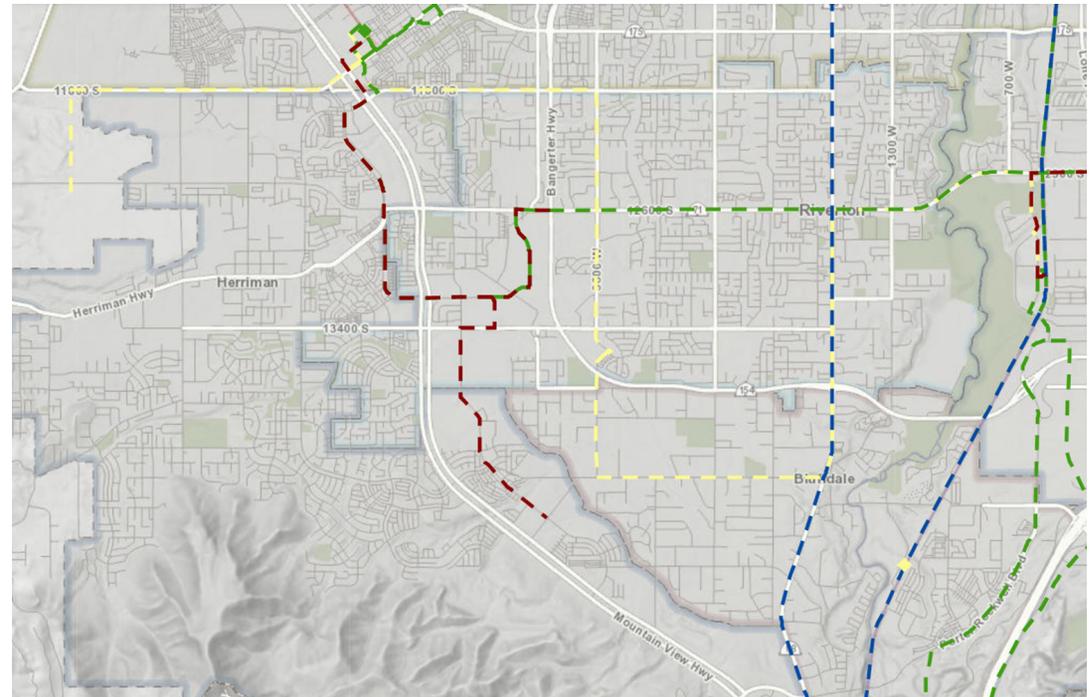
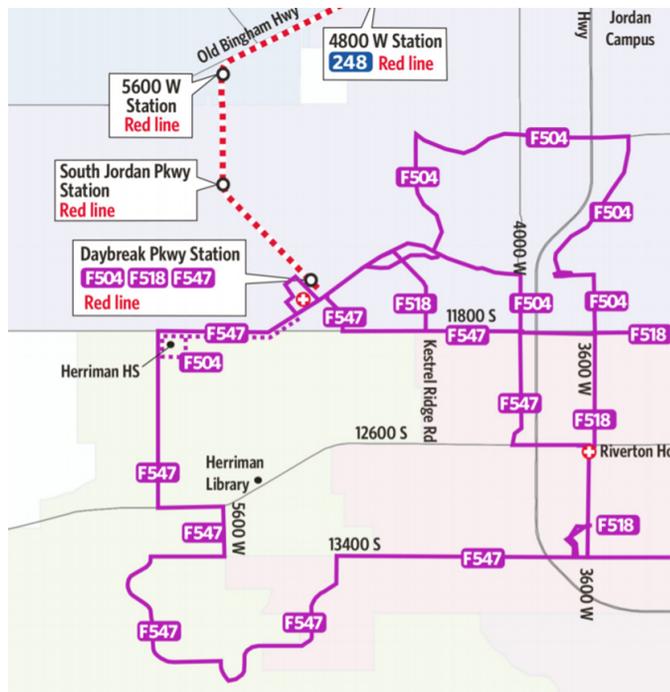


Transit Connections

Currently Utah Transit Authority (UTA) provides a flex route through Herriman. This route loops through Herriman between the Daybreak Red Line Station and Riverton and runs midweek on hourly headways from 6 AM to 9 PM. This route is shown in the figure below.

WFRC’s long range plan currently has three transit projects that will impact Herriman. These projects are outlined below and shown in the figure below.

- **11800 South (Daybreak Parkway Station to Olympia Hills Development):** Currently unfunded, but needed in Phase 3 (2041 – 2050)
- **Trax Red Line Corridor Preservation:** While there are currently no plans within the Long Range Plan to extend the Red Line preserving a corridor alignment through Herriman and east into Riverton is on the Long Range Plan.
- **UTA Core Service:** A core bus service along the preserved corridor



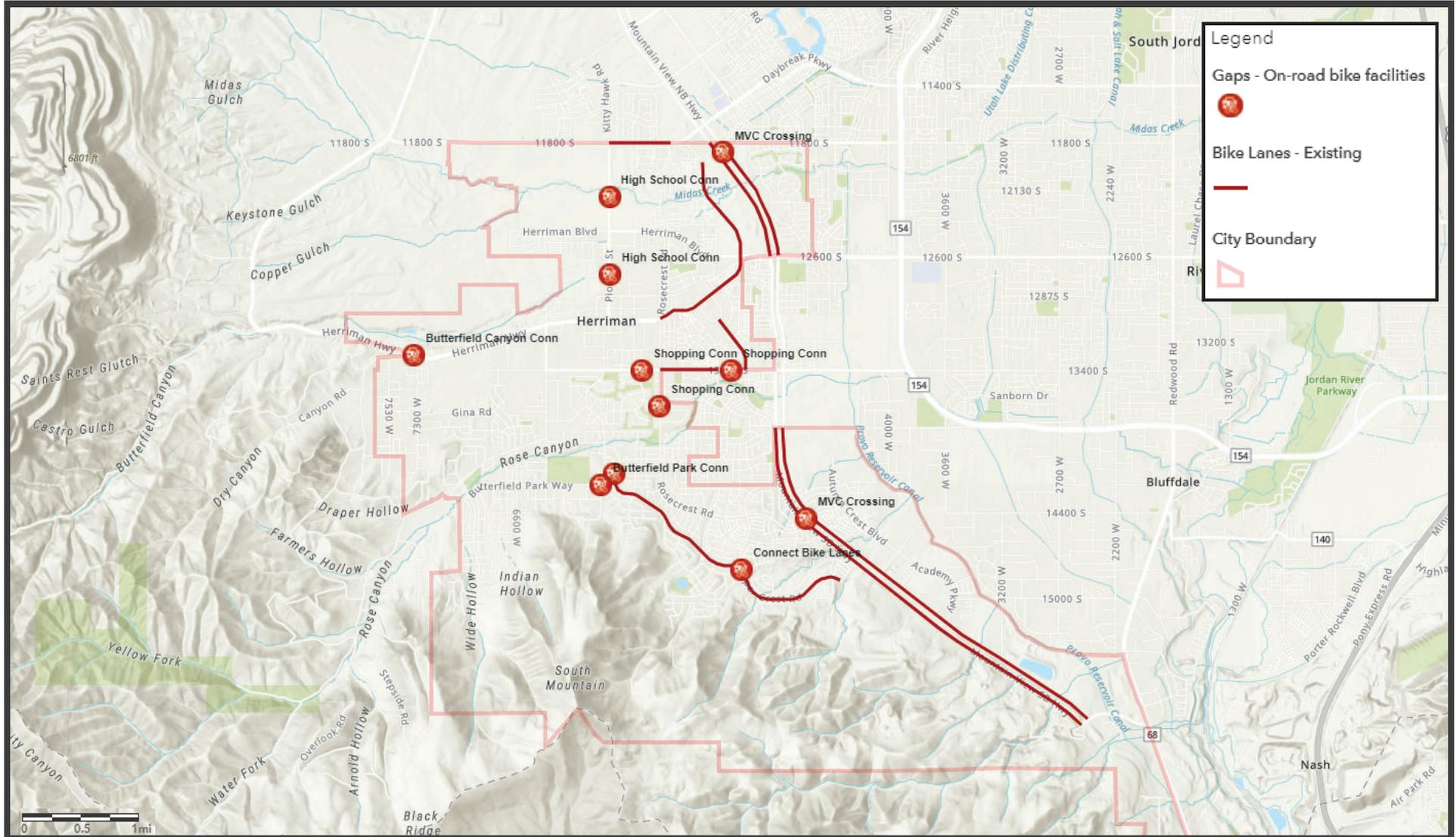
Active Transportation Gaps

Gaps were identified for both on-road facilities and trails. Additionally, gaps were examined based on the current and proposed future destinations and roadway network.



The major barriers in Herriman are arterial roadways. 134000 South is major roadway which carries significant traffic. Given how central this roadway is it is frequently required that bicycle and pedestrian trips cross or travel along this corridor. As traffic increases other roadways may also become barriers.

Gaps in the Bike Lane Network



Project Prioritization

The project team evaluated the identified active transportation gaps in the network and needed connections to key destinations. Through this analysis, a set of active transportation projects were identified. These projects were prioritized based on several metrics including cost, feasibility, constructability, existing and potential demand, destination characteristics, and future plans.

The four following priority levels were developed for prioritization. The timing for many active transportation projects is tied to proposed widening projects in the Transportation Master Plan. This is explained in more detail in the following sections.

High Priority These gaps have high demand, relatively low-cost solutions, available right-of-way (ROW), and service key destinations. These solutions should be planned for and implemented within a short time period.

Medium Priority These gaps also have high demand and service key destinations but may have higher costs, needed ROW, or other constraints.

Low Priority These network gaps have lower demand, higher cost, or other constraints. These should be planned for a longer-term implementation.

Long-Term These are identified gaps in the network that are currently unfeasible but would enhance the transportation network. These are included in the plan for long-term implementation and as new development takes place, but are likely not feasible for the City to implement without additional resources or opportunities.



Transportation Master Plan Classifications

Understanding the cross section recommendations identified in the Transportation Master Plan is key to developing active transportation recommendations. While the specific recommendations for bike facilities outlined in the cross sections do not need to be explicitly followed they do outline the amount of right-of-way likely available along a roadway.

Take for example the Minor Arterial cross section. This 106' feet of right-of-way could be used to have buffered bike lanes in each direction, or a 12' side path / sidewalk on one side to accommodate both bicycles and pedestrians.

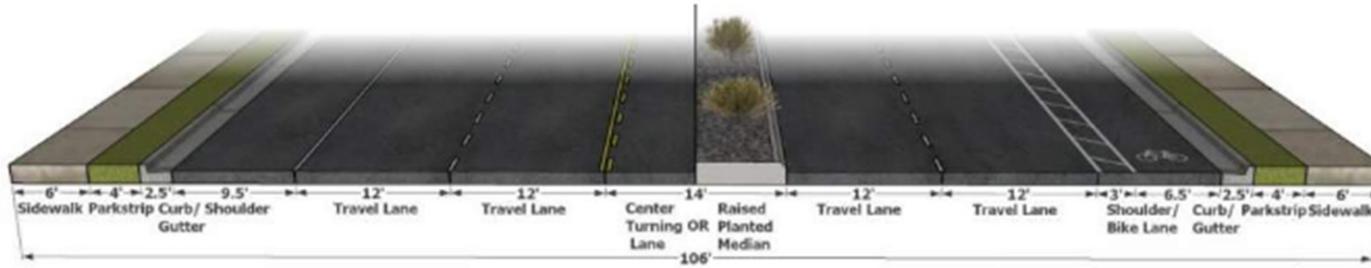
Roadway designations of major collector, minor arterial, and major arterial all contain sufficient space for fairly robust active transportation facilities. With heavy expected increases in future traffic major arterials are designed with the option to be configured as a 7-lane cross section. However, this would likely eliminate bicycle facilities. With this potential future outcome the active transportation network should be designed with multiple route options to avoid these potential large arterials in the future.

On the lower classification roadways bicycles do not need the same separation from vehicles. Any local streets can likely just be striped with sharrows or bike lanes. Minor collectors are potentially a complex middle ground where there likely is not enough right-of-away for buffered bike lanes or a side path, but volumes in the future could potentially be high enough for a standard bike lane to not be sufficient.

Additionally, project phasing was tied to the Transportation Master Plan timing as active transportation projects which require widening would likely not be completed without a corresponding roadway widening project.

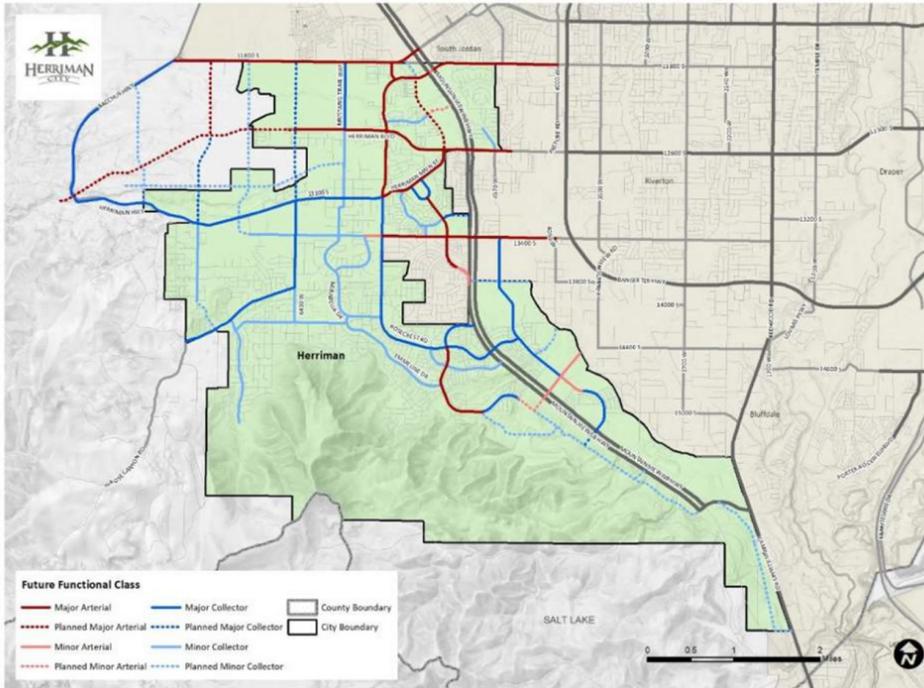
Street Functional Group	ROW Width (ft.)	Speed (mph)	Average Trip Length (miles)	Expected Accident Rate (accidents per million vehicle miles)	Access Control
Arterial	>90	35+	3 - 15	3 - 5	Significant
Collector / Minor Collector	66 - 90	25 - 35	1 - 5	2 - 4	Moderate
Local and Minor Local	<66	<30	<0.5	Varies	None





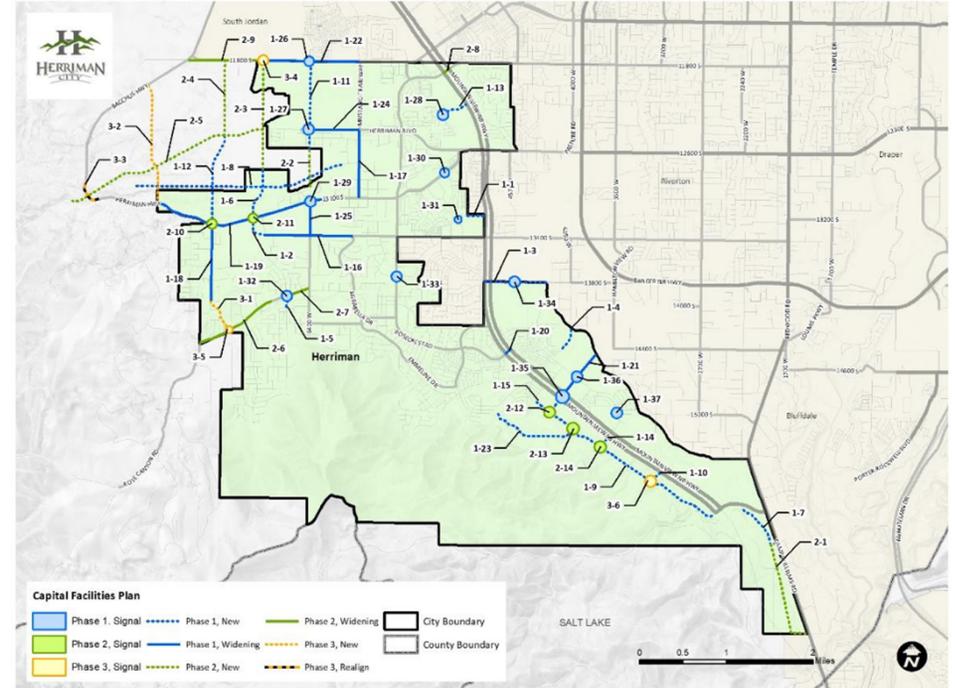
Minor Arterial Standard

Source: 2019 Herriman Transportation Master Plan



Existing and Recommended Major Street Network

Source: 2019 Herriman Transportation Master Plan



Recommended Street Improvement By Phase

Source: 2019 Herriman Transportation Master Plan

Infrastructure Improvement Recommendations

Proposed projects were divided into four categories:

1. Road cross section projects (ID 20XX)
2. Separate facility projects (ID 30XX)
3. Intersection/crossing improvements (ID 40XX)
4. Sidewalk projects (ID 50XX)

A total of 70 projects were developed. Maps and tables of the proposed projects are provided below.

A summary is provided below outlining the total and proposed distance (in miles) of the three active transportation facility types covered in this plan.

	Existing	Proposed	Percent Increase
Bike Lanes	12.8	37.9	296%
Paved Paths	31.5	23.4	74%
Sidewalks	388	5.1	1%

As shown in the summary table, the active transportation plan will increase the length of bike lanes in the city by 296% and paved trails by 74%. Sidewalks will continue to be constructed as new development occurs, so the length and connections will continually improve as well. This plan only identifies a few key gaps in the sidewalk that need to be corrected as a separate project.

The projects are summarized in the following tables and maps. There are 35 on-road/road adjacent projects, 14 paved path projects, 11 pedestrian and intersection improvement projects, and 10 key sidewalk projects. Together, these projects will help create a comprehensive, safe, and connected active transportation system in Herriman. These projects have been organized by priority and include type of improvement, length, and estimated cost for each.

As active transportation facilities are built out, wayfinding should also be provided. Salt Lake County's Bicycle Wayfinding Protocol should be reviewed when implementing wayfinding to provide consistent signage throughout the county.

ROAD CROSS SECTION PROJECTS

PROJECT ID	ROADWAY	TYPE	MILES	ESTIMATE
High Priority (High demand, relatively low-cost solutions, available ROW, servicing key destinations)				
2006	11800 South	Buffered Bike Lanes & Paved Side Path	2.0	\$2,271,000
2008	Herriman Main Street	Bike Lanes	1.1	\$29,000
2009	Herriman Boulevard	Buffered Bike Lanes	1.1	\$694,000
2010	Mustang Trail Way / Pioneer Street (6000 West)	Bike Lanes	1.6	\$34,000
2012	13400 South	Buffered Bike Lanes	1.8	\$37,000
2015	6400 West (North)	Buffered Bike Lanes	1.0	\$455,000
2016	Butterfield Park Way	Bike Lanes	1.3	\$36,000
2018	Rosecrest Road	Buffered Bike Lanes	3.3	\$108,000
2019	Juniper Crest Road	Buffered Bike Lanes	1.1	\$26,000
2024	Black Locust Way & Fort Herriman Parkway	Bicycle Boulevard	0.5	\$20,000
2025	Herriman Boulevard	Buffered Bike Lanes	1.5	\$32,000
2026	Anthem Park Boulevard	Buffered Bike Lanes	2.6	\$104,000
2032	Mirabella Drive	Bike Lanes	1.5	\$29,000
2034	Ashland Ridge Drive	Bike Lanes	0.3	\$10,000
2036	Brundisi Way	Bicycle Boulevard	0.4	\$13,000
MEDIUM PRIORITY (High demand and service key destinations, but have higher costs, needed ROW, or other constraints)				
2001	Herriman Boulevard (Proposed)	Buffered Bike Lanes	2.9	\$60,000
2002	7300 West (Proposed)	Paved Side Path & Buffered Bike Lane	1.9	\$475,000
2003	6400 West (Proposed)	Dual Side Path* & Buffered Bike Lane	1.7	\$595,000
2007	Herriman Highway	Buffered Bike Lanes	2.6	\$54,000
2014	Rose Canyon Road	Buffered Bike Lanes	1.4	\$29,000
2017	Spring Canyon Drive	Bike Lanes	1.4	\$29,000
2020	Sentinel Ridge Boulevard	Bike Lanes	0.7	\$14,000
2021	Real Vista Drive	Buffered Bike Lanes	1.1	\$22,000
2023	5200 West & Herriman Rose Boulevard	Bike Lanes	0.7	\$14,000
2027	Herriman Main Street	Bike Lanes	1.3	\$5,000
2028	13800 South	Bike Lanes	0.7	\$15,000
2031	7300 W (including proposed south connection)	Bike Lanes	1.3	\$27,000
2037	13400 South	Paved Side Path	0.2	\$45,000
LOW PRIORITY (Lower demand, higher costs, or other constraints)				
2011	Pioneer Street & 13200 South	Bike Lanes	0.5	\$10,000
2013	Gina Road & Blayde Drive	Bike Lanes	1.7	\$36,000
2022	Sentinel Ridge Boulevard & Academy Parkway	Paved Side Path	1.4	\$313,000
2033	6400 West (south)	Paved Side Path	0.4	\$92,000
LONG TERM (May be currently unfeasible but would strengthen the network)				
2035	Rose Canyon Road	Paved Side Path	2.1	\$3,724,000



OTHER FUNDING SOURCES (UDOT or Salt Lake County)					
2005	Bacchus Highway	Bike Lanes & Paved Side Path	2.3		NA
2029	Porter Rockwell Boulevard	Bike Lanes	0.6		NA

*Dual Paths consist of both a paved path and an equestrian trail

SEPARATE FACILITY PROJECTS					
PROJECT ID	TRAIL NAME	TYPE	MILES		ESTIMATE
MEDIUM PRIORITY (High demand and service key destinations, but have higher costs, needed ROW, or other constraints)					
3005	Hidden Oaks Creek West Extension	Dual Path*	0.7		\$159,000
3012	Transit Trail Extension	Paved Path	0.4		\$96,000
3014	Hidden Oaks Creek Trail	Equestrian Trail**	0.5		\$50,000
LOW PRIORITY (Lower demand, higher costs, or other constraints)					
3002	Provo Reservoir Canal (North)	Paved Path	1.6		\$359,000
3003	Provo Reservoir Canal (South)	Paved Path	2.7		\$602,000
LONG TERM (May be currently unfeasible but would strengthen the network)					
3004	Bluffdale Connection	Paved Path	0.4		\$96,000
3006	Midas Creek Extension (East)	Paved Path	0.9		\$195,000
3007	Rose Creek Extension	Paved Path	0.6		\$134,000
3008	Butterfield Creek East Extension	Paved Path	1.0		\$224,000
3009	Butterfield Creek West Extension	Dual Path*	1.1		\$375,000
3010	West Development Trail	Dual Path*	1.5		\$501,000
3011	Midas Creek Extension (West)	Dual Path*	1.5		\$501,000
3013	Herriman Elem. block conn	Paved Path	0.3		\$74,000
ALREADY FUNDED					
3001	Juniper Canyon	Paved Path	0.9		NA

*Dual Paths consist of both a paved path and an equestrian trail

**Paved Path already built



INTERSECTION / CROSSING IMPROVEMENTS				
PROJECT ID	INTERSECTION	TYPE	MILES	ESTIMATE
HIGH PRIORITY (High demand, relatively low-cost solutions, available ROW, servicing key destinations)				
4003	Paved Path at Mirabella Drive§	Crosswalk and RRFBs	NA	\$33,000
4007	Blackridge Trail at Rosecrest Road	RRFBs	NA	\$12,000
MEDIUM PRIORITY (High demand and service key destinations, but have higher costs, needed ROW, or other constraints)				
4001	13400 South & 5600 West	Intersection Improvements	NA	\$10,000
4002	13400 South & 5600 West	Intersection Improvements	NA	\$10,000
4009	13400 South & Roselina Drive	Intersection Improvements	NA	\$12,000
LOW PRIORITY (Lower demand, higher costs, or other constraints)				
4004	Anthem Park Boulevard & Main Street	Intersection Improvements	NA	\$10,000
4005	Anthem Park Blvd & Mountain View Corridor	Intersection Improvements	NA	\$10,000
4006	Rosecrest Rd & Mountain View Corridor	Intersection Improvements	NA	\$10,000
4008	Herriman Blvd & Main Street	Intersection Improvements	NA	\$10,000
4010	Paved Path at Herriman Main Street	Crosswalk and RRFBs	NA	\$12,000
LONG TERM (May be currently unfeasible but would strengthen the network)				
4011	Paved Path / Proposed Path at 13400 South	Crosswalk and RRFBs	NA	\$12,000

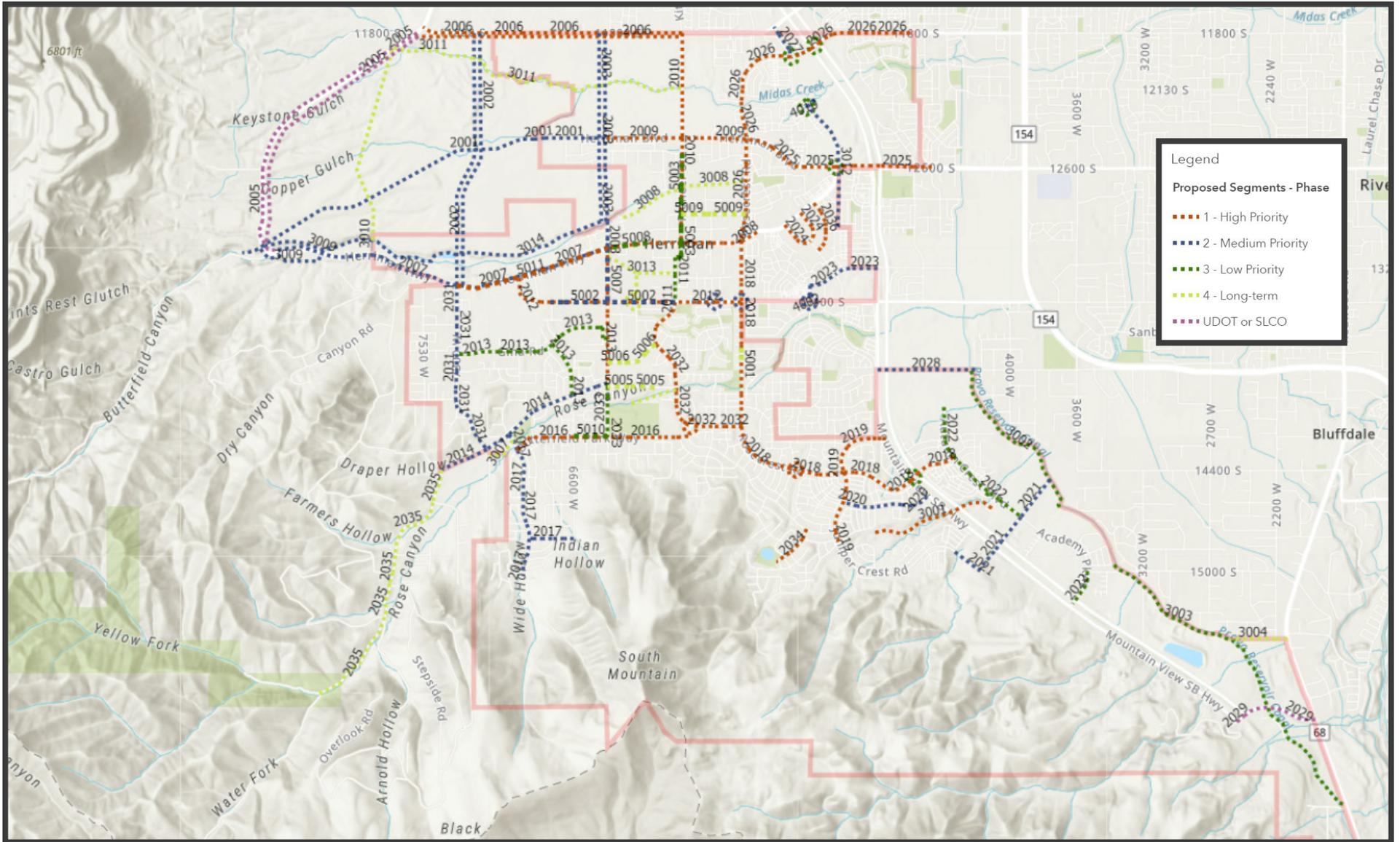
§ Paved Path ~200' west of Emmeline Drive. Realign paved path crossing on south side of road to align with north side path

SIDEWALK PROJECTS				
PROJECT ID	ROADWAY	TYPE	MILES	ESTIMATE
HIGH PRIORITY (High demand, relatively low-cost solutions, available ROW, servicing key destinations)				
5011	Herriman Highway	Sidewalk (one side)	1.2	\$193,000
MEDIUM PRIORITY (High demand and service key destinations, but have higher costs, needed ROW, or other constraints)				
5002	13400 South	Sidewalk (one side)	0.9	\$149,000
5007	6400 West	Sidewalk (one side)	0.4	\$66,000
LOW PRIORITY (Lower demand, higher costs, or other constraints)				
5003	6000 West	Sidewalk (one side)	0.8	\$133,000
5008	Herriman Main Street	Sidewalk (one side)	0.3	\$50,000
5010	Butterfield Park Way	Sidewalk (gaps on both sides)	0.1	\$18,000
LONG TERM (May be currently unfeasible but would strengthen the network)				
5001	Rosecrest Road	Sidewalk (one side)	0.1	\$18,000
5005	13900 South	Sidewalk (one side)	0.3	\$58,000
5006	Triple Crown Lane	Sidewalk (one side)	0.4	\$69,000
5009	12900 South	Sidewalk (one side)†	0.5	\$79,000

† Use a 6' paved asphalt path within Old Town Herriman boundaries, according to city ordinance #2015-32. The ordinance is included in Appendix B.



Proposed Active Transportation Improvements



Cost Estimates

The cost estimates for the Herriman active transportation projects were broken up based on priority phase and project type. The categories evaluated are Phase 1 High Priority (ID# 2000's), Phase 2-4 Bike Lane (ID# 2000's), Trail projects (ID# 3000's), Intersection Improvements (ID# 4000's), Sidewalk Improvement (ID# 5000's).

Phase 1 High Priority Projects

These projects included detailed estimates, with quantities and unit prices put together for each project, see xx appendix. The items evaluated include pavement widening, pavement markings, signs, thermoplastic active transportation messages, pavement striping removal, and a project contingency.

Assumptions:

- Arterial Pavement Section – 5" HMA, 6" UTBC, and 12" Aggregate subbase
- Collector Pavement Section = 5" HMA and 10" UTBC
- No Right-of-Way included, drainage, utilities, street lighting including on the roadway widening project. Just the cost to widen for buffered bike lanes.

Phase 2-4 Bike Lane Projects

The cost estimate for these projects were generated based on the detail cost estimates for Phase 1. An average cost per foot based on similar scope was developed for each project and that average cost was applied to phases 2-4.

Assumptions:

- Signing and striping Improvement projects used \$3.89 per foot
- Shared use path projects used \$43 per foot

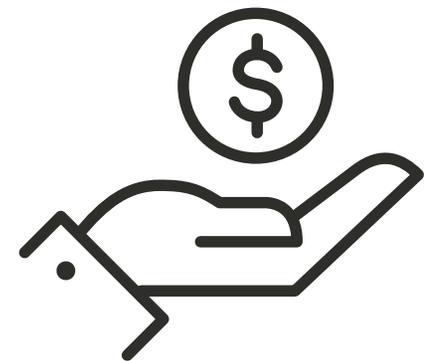
Trail Projects

Based on the detailed estimates for Phase 1 a trail improvement cost per foot cost was generated.

Assumptions:

- Shared use path projects used \$43 per foot

Intersection Projects



The estimates for these projects was developed by generating an average bike box intersection based on previous experience. Each intersection was then adjusted based on the proposed scope for each intersection.

Sidewalk Projects

The sidewalk projects costs were developed by calculating a sidewalk length times and assumed average 5 wide sidewalk. An additional \$3000 was added for contractor mobilization and contingency.

Potential amenities, design criteria, roadway crossings, policy updates, etc.

- Consider updating cross sections to include a wider range of active transportation improvements
 - **Minor Local Street:** Add option with sharrow.
 - **Local Standard Street:** Add option with 10' lanes and 6' bike lanes.
 - **Minor Collector Street:** Add option with 11' center turn lane and 5' bike lanes.
 - **Major Collector, Minor Arterial, and Major Arterial Streets:** Add option with 12' paved side path instead of bike lanes.
 - **Major Arterial Street:** 7-lane option with buffered bike lanes or paved side path (given the likely need for increase vehicular capacity in the future, the city should have a cross section that accommodates both a 7-lane cross section and bicycle fatalities).
- Consider developing connectivity standards. Neighborhood connectivity is key in ensuring a robust active transportation network. Herriman has provided active transportation connections at the end of many cul-du-sacs, which is great and should be continued going forward. The Utah Street Connectivity Guide⁸ provides a great guide for developing this framework.
- Require developers to provide active transportation facilities.

8 <https://mountainland.org/img/transportation/Studies/Utah%20Street%20Connectivity%20Guide.pdf>



Funding Sources for Active Transportation Infrastructure and Programs

The timing and implementation of active transportation projects is usually tied to funding. That is why many of the active transportation projects identified in this plan are tied to planned City roadway improvements. This will help to facilitate funding, ROW, and construction costs. Additional funding opportunities are also identified as part of this plan. Active transportation facilities often span multiple cities and connect to regionally significant destinations. Therefore, agencies like the Federal Government, UDOT, Salt Lake County, or metropolitan planning organizations (WFRC) may have funding available for active transportation projects. It is recommended that Herriman work closely with these agencies and neighboring municipalities to apply for active transportation funding.

Funding for ATP improvements and/or new facilities is available from a variety of sources, including federal programs and state and regional revenue sources. This chapter provides an overview of these potential funding sources.

Federal Programs

There are several federal funding sources that have potential to be used for ATP improvement projects:

- Rebuilding American Infrastructure with Sustainability and Equity (RAISE) Grant Program
- Transportation Infrastructure Finance and Innovation Act (TIFIA)
- Federal Transit Administration (FTA) Grant Programs
- Congestion Mitigation/Air Quality (CMAQ) Program
- Highway Safety Improvement Program (HSIP)
- National Highway Performance Program (NHPP)
- Surface Transportation Block Grant Program (STBG)
- Transportation Alternatives Set-Aside (TA Set-Aside)
- Recreational Trails Program (RTP)
- Safe Routes to School (SRTS)
- NHTSA Section 402: State and Community Highway Safety Grant Program
- NHTSA Section 405: National Priority Safety Programs (Nonmotorized Safety)



A brief overview of these programs is provided as follows.

Rebuilding American Infrastructure with Sustainability and Equity (RAISE) Grant Program

The RAISE competitive grant program is the combination of the former BUILD and TIGER Grant programs. Projects for RAISE funding are evaluated based on merit criteria that include safety, environmental sustainability, quality of life, economic competitiveness, state of good repair, innovation, and partnership. Within these criteria, the DOT will prioritize projects that can demonstrate improvements to racial equity, reduce impacts to climate change, and create good-paying jobs.

Link: <https://www.transportation.gov/RAISEgrants>

Transportation Infrastructure Finance and Innovation Act (TIFIA)

The TIFIA program provides credit assistance for qualified projects of regional and national significance. Many large-scale, surface transportation projects – highway, transit, railroad, intermodal freight, and port access – are eligible for assistance. Eligible applicants include state and local governments, transit agencies, railroad companies, special authorities, special districts, and private entities. The program’s fundamental goal is to leverage Federal funds by attracting substantial private and other non-Federal co-investment in critical improvements to the nation’s surface transportation system.

Link: <https://www.transportation.gov/buildamerica/financing/tifia/map>

Federal Transit Administration (FTA) Grant Programs

The following FTA grant programs listed pedestrian improvements as eligible for funding to provide access to transit:

- FTA Section 5310: Enhanced Mobility of Seniors and Individuals with Disabilities – Information on this program cites examples of funding for pedestrian improvements to improve transit access such as building an accessible path to a bus stop or providing curbs-cuts, sidewalks, accessible pedestrian signals, or other accessible features.
- FTA Section 5311: Rural Areas – Grants can support a joint development improvement, such as pedestrian and bicycle access to a public transportation facility.

Link: <https://www.transit.dot.gov/grants>

Congestion Mitigation/Air Quality (CMAQ) Program

The Fixing America’s Surface Transportation (FAST) Act continued the CMAQ program to provide a flexible funding source to state and local governments for transportation projects and programs to help meet the requirements of the Clean Air Act. Funding is available to reduce congestion and improve air quality for areas that do not meet the National Ambient Air Quality Standards for ozone, carbon monoxide, or particulate matter (nonattainment areas) and for former nonattainment areas that are now in compliance (air quality maintenance areas).



Link: https://www.fhwa.dot.gov/environment/air_quality/cmaq/

Highway Safety Improvement Program (HSIP)

The FAST Act continued the HSIP. The purpose of this program is to achieve a significant reduction in traffic fatalities and serious injuries on all public roads, including non-state-owned roads and roads on Tribal land. The HSIP requires a data-driven, strategic approach to improving highway safety on all public roads with a focus on performance.

Link: <https://safety.fhwa.dot.gov/hsip/hsip.cfm>

Link: <https://www.udot.utah.gov/connect/about-us/operations/traffic-safety/>

National Highway Performance Program (NHPP)

The FAST Act continued the NHPP, which was established under MAP-21. The NHPP provides support for the condition and performance of the National Highway System (NHS). All pedestrian/bicycle improvements must be associated with a NHS facility.

Link: <https://www.fhwa.dot.gov/specialfunding/nhpp/160309.cfm>

Surface Transportation Block Grant Program (STBG)

The STBG provides flexible funding that may be used by states and localities for projects to preserve and improve the conditions and performance on any Federal-aid highway. Eligible projects related to pedestrian safety include pedestrian and bicycle projects, safety projects, recreational trails, safe routes to school projects, and projects within the pre-FAST Act Title 23 definition of “transportation alternatives” (see the Transportation Alternatives Set-Aside description below). Projects must be identified in the Statewide Transportation Improvement Program (STIP) and be consistent with the Long-Range Statewide Transportation Plan and the Metropolitan Transportation Plan.

Link: <https://www.fhwa.dot.gov/specialfunding/stp/160307.cfm#d>

Transportation Alternatives Set-Aside

The FAST Act eliminated the MAP-21 Transportation Alternatives Program (TAP) and replaced it with a set-aside of STBG program funding for transportation alternatives (TA). These set-aside funds include all projects and activities that were previously eligible under the TAP, encompassing a variety of smaller-scale transportation projects such as pedestrian and bicycle facilities, recreational trails, and safe routes to school projects.

Link: <https://www.fhwa.dot.gov/fastact/factsheets/transportationalternativesfs.cfm>

Recreational Trails Program (RTP)

The RTP provides funds to the states to develop and maintain recreational trails and trail-related facilities for both nonmotorized and motorized recreational trail uses.

Link: https://www.fhwa.dot.gov/environment/recreational_trails/

Safe Routes to School (SRTS)

SRTS funds are available until expended (they are not subject to the usual Federal-aid highway four-year rule of availability). SRTS is now funded within the TA Set-Aside.

Link: https://www.fhwa.dot.gov/environment/safe_routes_to_school/guidance/#toc123542199

Link: https://www.fhwa.dot.gov/environment/transportation_alternatives/

NHTSA Section 402: State and Community Highway Safety Grant Program

To receive Section 402 grant funds, a state must have an approved HSP and provide assurances that it will implement activities in support of national goals that also reflect the primary data-related factors within the state, as identified by the state highway safety planning process. States can distribute highway safety grant funds to a wide network of sub-grantees, including local law enforcement agencies, municipalities, universities, health care organizations, and other local institutions.

States may spend 402 funds in accordance with an approved HSP that complies with the uniform national guidelines for highway safety programs. One of the eligible programs is to improve pedestrian and bicycle safety.

Link: <https://safety.fhwa.dot.gov/legislationandpolicy/policy/section402/>

NHTSA Section 405: National Priority Safety Programs (Nonmotorized Safety)

Under the FAST Act, Section 405 is the National Priority Safety Program, which provides grant funding to address selected national priorities for reducing highway deaths and injuries. The FAST Act added two new grants under this program, one of which is for nonmotorized safety. States are eligible if the annual combined pedestrian and bicyclist fatalities in the state exceed 15 percent of the total annual crash fatalities in the state using the most recently available final data from NHTSA's Fatality Analysis Reporting System (FARS). Eligible states may use Section 405 grant funds only for training law enforcement on state laws applicable to pedestrian and bicycle safety; enforcement mobilizations and campaigns designed to enforce those state laws; or public education and awareness programs designed to inform motorists, pedestrians, and bicyclists of those state laws.

Link: <https://www.law.cornell.edu/uscode/text/23/405> (See section H)



Local Funding Sources

Transportation and Land Use Connection Program (TLC)

The TLC program is a partnership between the Wasatch Front Regional Council (WFRC), Salt Lake County, Utah Department of Transportation (UDOT), and Utah Transit Authority (UTA). The TLC program is led by WFRC and provides technical assistance to local communities to help them achieve their goals and plans for future growth. This is done by helping communities implement changes to their built environment that can reduce traffic on roadways and enable more people the opportunity and access to walking, biking, and transit. The mission and goals of the TLC program are consistent with the Wasatch Choice Vision. TLC funds are more for the planning side of ATP improvements.

Link: <https://wfr.org/programs/transportation-land-use-connection/>

Transportation Alternatives Program (TAP)

TAP funds are for the construction and planning of bicycle and pedestrian facilities and the program is led by WFRC. An eligible project must be sponsored by a local government in the Ogden/Layton or Salt Lake/West Valley Urbanized Area, UDOT, or UTA. Eligible projects include on-road and off-road facilities for pedestrians, bicyclists, or other non-motorized forms of transportation which includes sidewalks, bicycle infrastructure, pedestrian and bicycle signals, traffic calming techniques, lighting, and other safety-related improvements. Funding eligibility includes Safe Routes to School projects.

Link: <https://wfr.org/programs/transportation-improvement-program/transportation-alternatives-program/>

Land and Water Conservation Fund (LWFC)

LWFC is a competitive grant program for the acquisition and/or development of public outdoor recreation areas. Federal oversight to this program is provided by the National Park Service and is administered locally by State of Utah through the Utah State Parks and Recreations. Any site or facility that is developed, improved, or purchased with funding from this grant program is protected in perpetuity as a public outdoor recreation area. All applications are reviewed and ranked through the evaluation process developed by the state and National Parks Service. Potential projects are evaluated on their alignment with needs identified in the 2019 Utah State Comprehensive Outdoor Recreation Plan (2019 SCORP), application completeness, technical merits, previous recreation program performance, project readiness, availability of local funding, and a site visit/inspection.

Link: <https://stateparks.utah.gov/resources/grants/land-and-water-conservation-fund/>

The National Parks Services – River, Trails and Conservation Assistance Program (NPS-RTCA)

NPS-RTCA is a federal program that supports community-led projects by helping them leverage resources through diverse partnerships. This is not a funding program but tried to align experts in the field of planning, design, and technical knowledge. The goal of NPS-RTCA is to provide the needed guidance to make community lead projects a success.



Link: <https://www.nps.gov/orgs/rtca/index.htm>

Federal Lands Access Program (FLAP)

The Federal Lands Access Program (FLAP) was established to improve transportation facilities that provide access to, are adjacent to, or are located within Federal Lands. FLAP supplements local and state resources for public roads, transit systems, and other transportation facilities. There is an emphasis placed on high-use recreation sites and economic generators.

Link: <https://highways.dot.gov/federal-lands/programs-access>

Utah Office of Outdoor Recreation Grant Programs – Utah Outdoor Recreation Grant (UORG) and Mini-Grant

The Utah Outdoor Recreation Grant (UORG) program is to help construct new outdoor recreation infrastructure projects that helps communities build recreation amenities that support local economic development. There are several tiers of grants that can be applied for based on the total project cost. The general eligibility requirements include being an eligible applicant, the project must be open for public use, the project increases visitation to the area, and offers economic opportunities to the community to help attracting or retain residents.

Link: <https://business.utah.gov/outdoor/grants/>

New Development

One way to add active transportation infrastructure and improvements is through new development. This active transportation plan includes planned trails and connections in areas of the city that are undeveloped. As part of a new development's requirements for City approval, they would need to provide the planned active transportation infrastructure within their development boundaries. In this way, new sections of the active transportation network can be added as new development occurs.



Appendices

Appendix A: All Proposed Facilities Map

Appendix B: Old Town Herriman Ordinances

Appendix C: Public Meeting Summary

Appendix D: Survey Summary



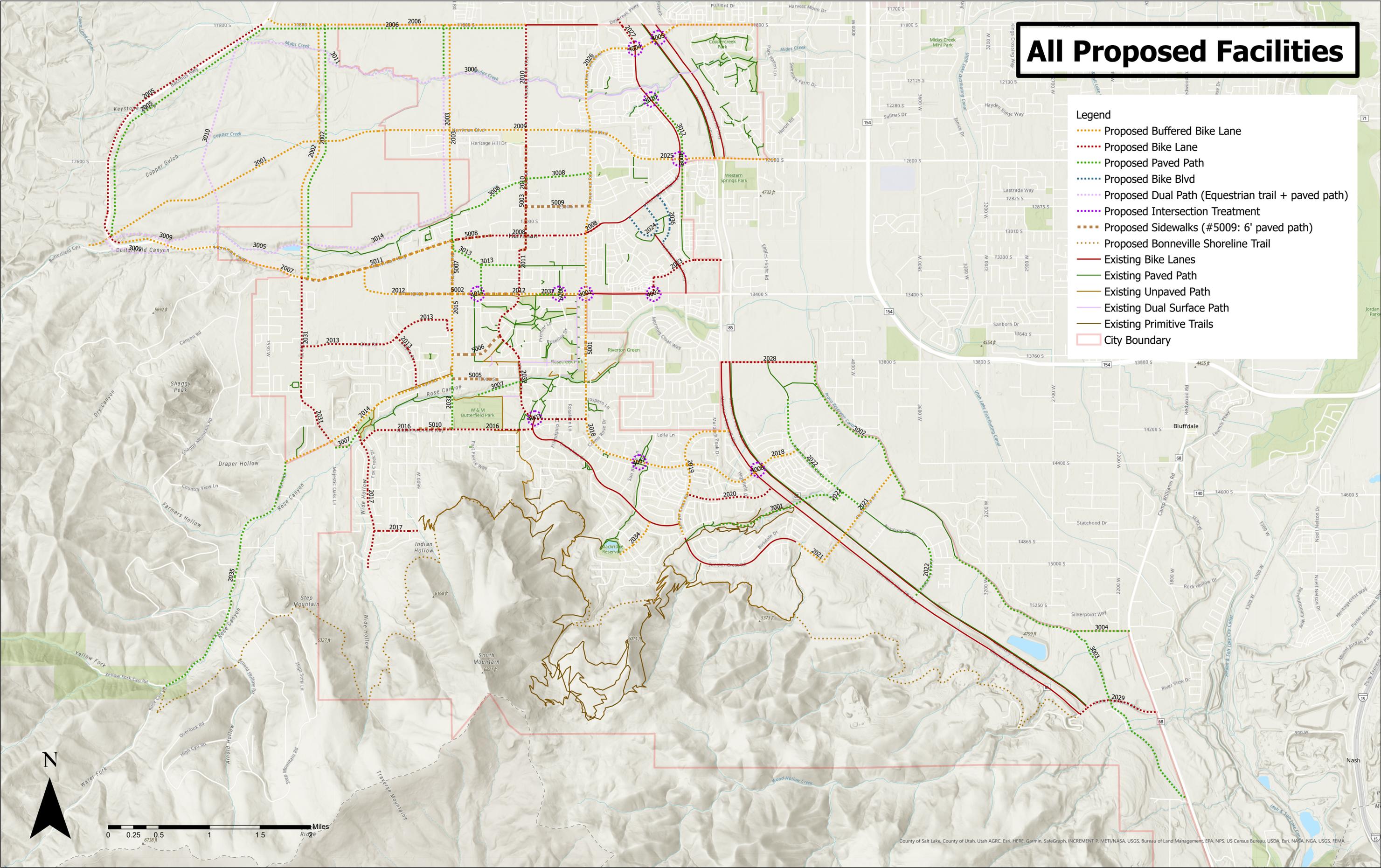
Appendix A: All Proposed Facilities Map



All Proposed Facilities

Legend

- Proposed Buffered Bike Lane
- Proposed Bike Lane
- Proposed Paved Path
- Proposed Bike Blvd
- Proposed Dual Path (Equestrian trail + paved path)
- Proposed Intersection Treatment
- Proposed Sidewalks (#5009: 6' paved path)
- Proposed Bonneville Shoreline Trail
- Existing Bike Lanes
- Existing Paved Path
- Existing Unpaved Path
- Existing Dual Surface Path
- Existing Primitive Trails
- City Boundary



Appendix B: Old Town Herriman Ordinances



HERRIMAN, UTAH
ORDINANCE NO. 2015-32

**15S15- HERRIMAN CITY – TEXT CHANGE TO ADD A CURB AND GUTTER
EXCEPTION IN THE DESIGNATED AREA**

WHEREAS, the City of Herriman, pursuant to state law, may enact a land use ordinance establishing regulations for land use and development; and

WHEREAS, pursuant to state law, the Planning Commission shall prepare and recommend to the City Council the proposed land use ordinance amendment; and

WHEREAS, pursuant to City of Herriman Land Use Ordinance, the Planning Commission shall hold a public hearing and provide reasonable notice at least 10 days prior to said public hearing to prepare and recommend to the City Council the proposed land use ordinance text changes; and

WHEREAS, notice of the Planning Commission public hearing on the land use ordinance text change was published on June 8, 2015, noticing of the June 18, 2015, public hearing at 7:00 p.m.; and

WHEREAS, the Planning Commission recommended approval of the land use ordinance text change in the meeting held on June 18, 2015, at 7:00 p.m. in the Community Center; and

WHEREAS, pursuant to City of Herriman Ordinance, the City Council must hold a public meeting allowing public input at said public meeting; and

WHEREAS, the City Council public meeting on September 23, 2015, was held at 7:00 p.m.; and

WHEREAS, the City Council finds that it is in the best interest of the citizens of the City of Herriman to adopt the land use ordinance text change as recommended by the Planning Commission;

NOW THEREFORE, be it ordained by the Herriman City Council that the following text change be adopted as a change to the land use ordinance of the City, and that the attached map be adopted as the official Curb and Gutter Exception Map, and that Sheet RD-01D be adopted as an amendment to the Herriman City Development Standards: *(the underlined text is the new wording and the strikethrough text is to be deleted)*

11-7-8: CURBS, GUTTERS, SIDEWALKS AND PARK STRIPS:

A. Type; Thickness: Curbs and gutters on all streets shall be concrete of the standard high back type unit, not less than two feet six inches (2'6") in overall width, and not less than seven inches

(7") thick where the curb abuts the street pavement.

B. Curb Corners: All curb corners shall have a radius of not less than twenty five feet (25').

C. Installation Required: The subdivider shall install curbs, gutters and sidewalks on existing and proposed streets in all subdivisions.

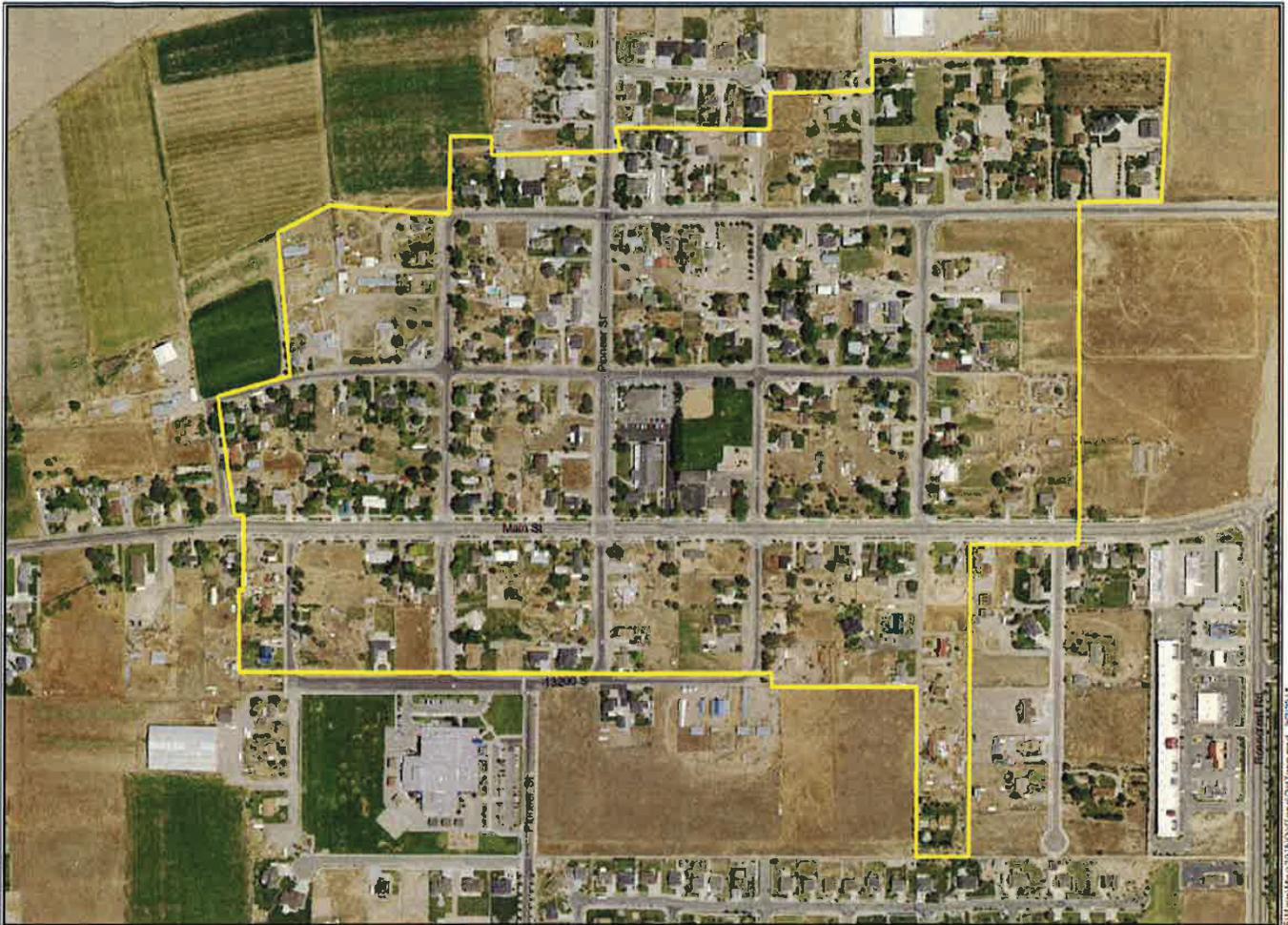
1. Exception: The improvements required by this section shall not apply to those properties within the area on the Curb and Gutter Exception Map approved by the City. These properties shall install modified improvements as found in the City standards. This exception applies to those properties which front along existing, paved, public roads. The exception does not apply to property that fronts 6000 West, Main Street, or 6400 West.

D. Landscaping Required: The subdivider shall install landscaping in the area between the curb and sidewalks. The type and amount of landscaping required shall be ~~at the discretion of the community development director and shall vary within the development.~~ as required in Title 9, Chapter 4, Landscaping.

E. Materials Used For Landscaping: The plants and other landscaping material that best serve the intended functions shall be used. Landscaping material shall be appropriate for local environment, soil conditions and availability of water.

F. ~~Exceptions:~~

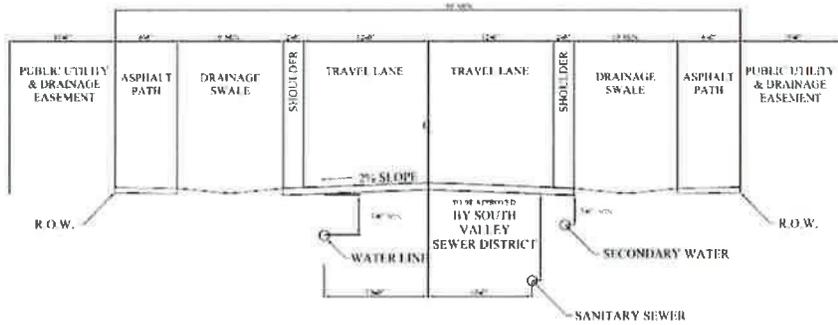
G. Dedication Of Additional Rights Of Way: All subdivisions shall dedicate additional rights of way as dictated by the city transportation master plan.



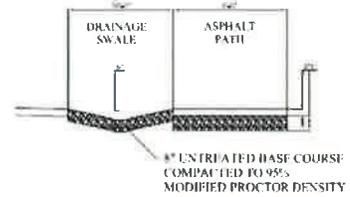
HERRIMAN CITY
CURB & GUTTER EXCEPTION



Map: GIS Map and Map 02/15/2015 09:41:01 User: mld 8/2/2015



CURB & GUTTER EXCEPTION AREA - RIGHT-OF-WAY



CURB & GUTTER EXCEPTION AREA DRAINAGE SWALE DETAIL.

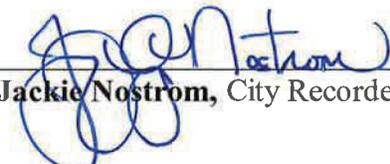
PASSED AND APPROVED this 23rd day of September, 2015.

HERRIMAN

ATTEST:



Mayor Carmen Freeman



Jackie Nostrom, City Recorder



Herriman City

ORDINANCE NUMBER: 2015-32

SHORT TITLE: AN ORDINANCE AUTHORIZING A TEXT CHANGE TO ADD A CURB AND GUTTER EXCEPTION IN THE DESIGNATED AREAS, THE CURB AND GUTTER EXCEPTION MAP AND THE TYPICAL ROAD WAY CROSS SECTION

PASSAGE BY THE CITY COUNCIL OF HERRIMAN CITY
ROLL CALL

NAME	MOTION	SECOND	FOR	AGAINST	OTHER
Carmen Freeman			X		
Mike Day			X		
Matt Robinson		X	X		
Craig B. Tischner			X		
Coralee Wessman-Moser	X		X		
	TOTALS		5	0	0

This ordinance was passed by the City Council of Herriman City, Utah on the 23rd day of September, 2015, on a roll call vote as described above.

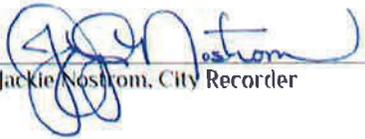
ORDINANCE NO. 2015-32

CITY RECORDER'S CERTIFICATE AND ATTESTATION

This ordinance was recorded in the office of the Herriman City Recorder on the 23rd day of September, 2015, with a short summary being published on the 29th day of September, 2015, in the *Salt Lake Tribune and Deseret News*, newspapers published in Salt Lake City, Utah. I hereby certify and attest that the foregoing constitutes a true and accurate record of proceedings with respect to Ordinance Number 2015-32.



Signed this 29th day of September, 2015


Jackie Nostrom, City Recorder

Appendix C: Public Meeting Summary





Virtual Public Meeting Summary

Meeting Information:

Project Name:	Herriman City Active Transportation Plan
Location:	Zoom Webinar
Date:	Thursday, March 25, 2021
Time:	6 pm – 7:30 pm MST
Number of Attendees:	7 on Zoom, 14 on Facebook Live, Over 1,000 views of recorded meeting

Notification Efforts:

- Social Media Posts (Facebook, Instagram, and Twitter)
- Facebook Meeting Livestream
- Herriman Connection Newsletter
- City Website Announcement

Presentation Topics (see attached presentation):

- ATP Overview
- ATP Purpose
- Public Opinion Survey Results
- Proposed Projects
- Next Steps

Area Representation:

- Individual Residents
- Herriman City
- WFRC
- UDOT

Project Team Attendees:

Team:

Jonathan Bowers, Herriman City Engineer	Jeremy Searle, WCG Project Manager
Bryce Terry, Herriman City Staff Engineer	Jacob Farnsworth, KH Deputy Project Manager
Michael Maloy, Herriman City Director of Planning	Austin Feula, WCG Project Team
Heidi Shegrud, Herriman City Landscape Architect	Jordan King, KH Project Team
Jonathan LaFollette, Herriman City Communications Manager	Devin Burgraff, Kimley-Horn

Summary of Comments:

Most of the comments received from attendees pertained to bicycling in the City and to the funding required for this project. In the community survey and during the virtual meeting stakeholders supported buffered bike lanes over other options presented.

Attachments:

- Meeting Presentation



HERRIMAN CITY

Active Transportation Plan

What is an Active Transportation Plan?

...and why does Herriman need one?

Bryce Terry
Herriman City Staff Engineer



HERRIMAN CITY

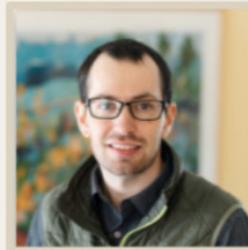
Active Transportation Plan



Project Team



Jeremy Searle, PE, PTOE
Project Manager



[Name], PE, PTOE



Jacob Farnsworth, PE, RSP1
Deputy Project Manager



[Name] King
[Title]



HERRIMAN CITY

Active Transportation Plan

Project Overview



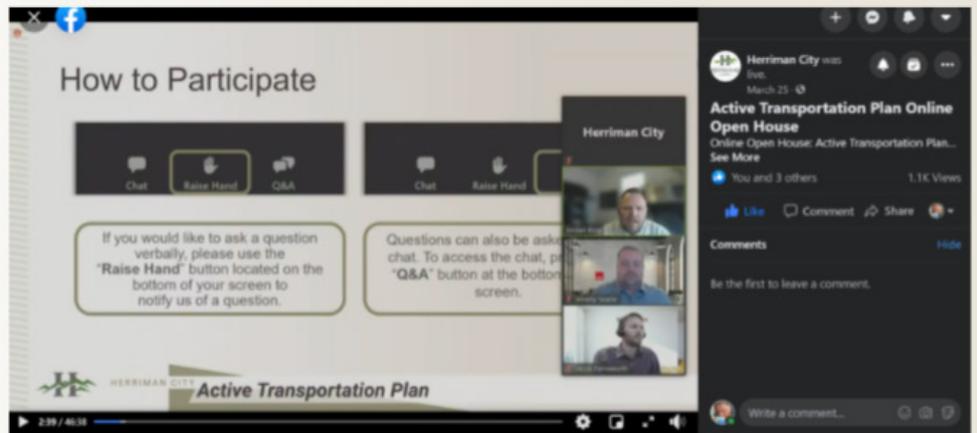
HERRIMAN CITY

Active Transportation Plan

Survey Results & Public Meeting

Who did we reach?

- 401 Survey Responses
- Live Participation via Zoom and Facebook Live
- Over 1,000 views of recorded meeting



HERRIMAN CITY

Active Transportation Plan

Survey Results

Biggest Takeaways

- **The data we have collected is supported by public opinion.**
- **Residents want to see more trail connections and trails/paths in general.**
- **Walking, running, biking, and hiking are priorities for Herriman residents.**
- **Buffered bike lanes.**



HERRIMAN CITY

Active Transportation Plan

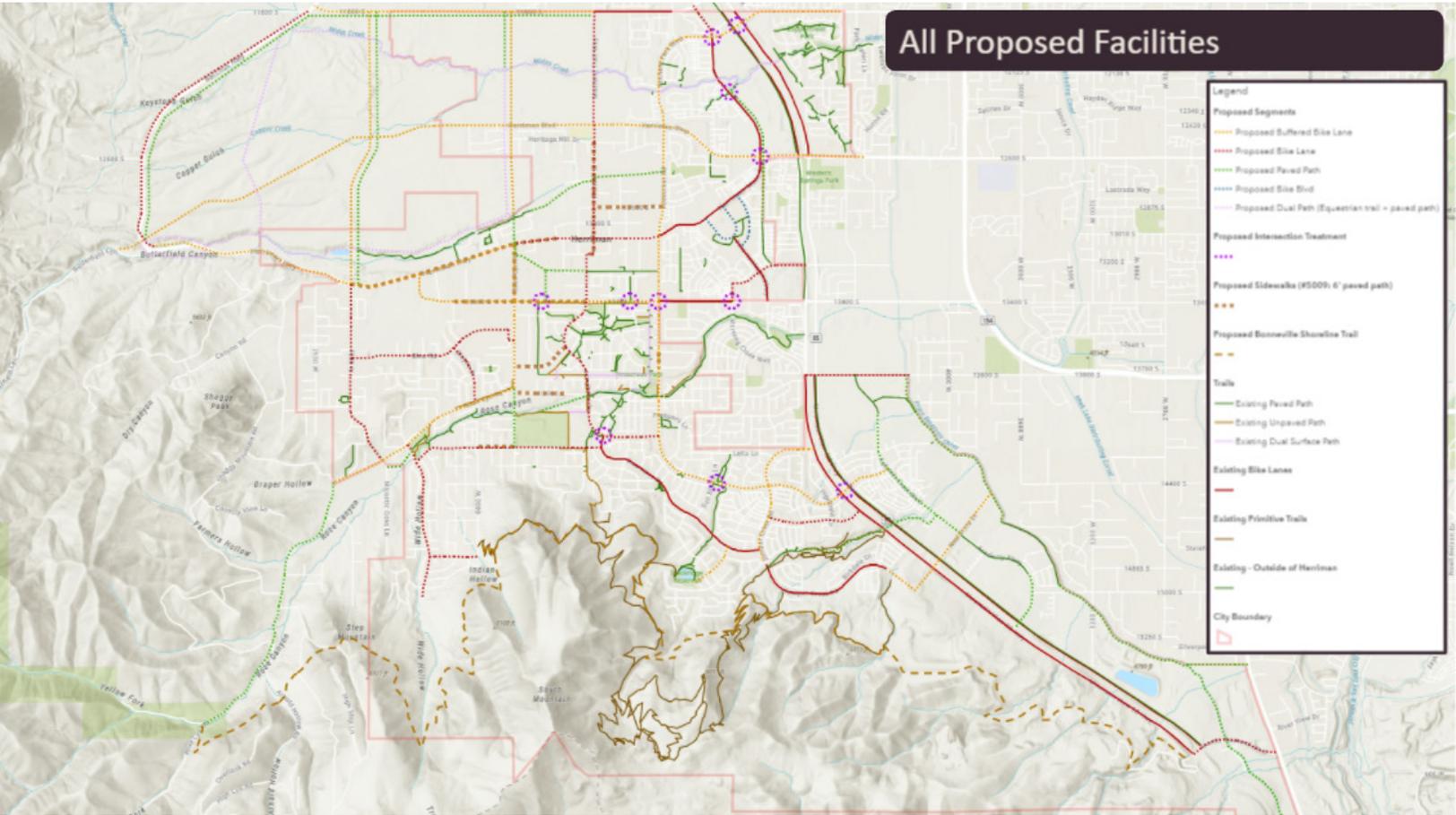
Proposed Projects



HERRIMAN CITY

Active Transportation Plan

All Proposed Facilities



Legend

Proposed Segments

- Proposed Buffered Bike Lane
- Proposed Bike Lane
- Proposed Paved Path
- Proposed Bike Shut
- Proposed Dual Path (Equestrian trail + paved path)

Proposed Intersection Treatment

- Proposed Sidewalk (PSDR: 6' paved path)
- Proposed Bonneville Shoreline Trail

Trails

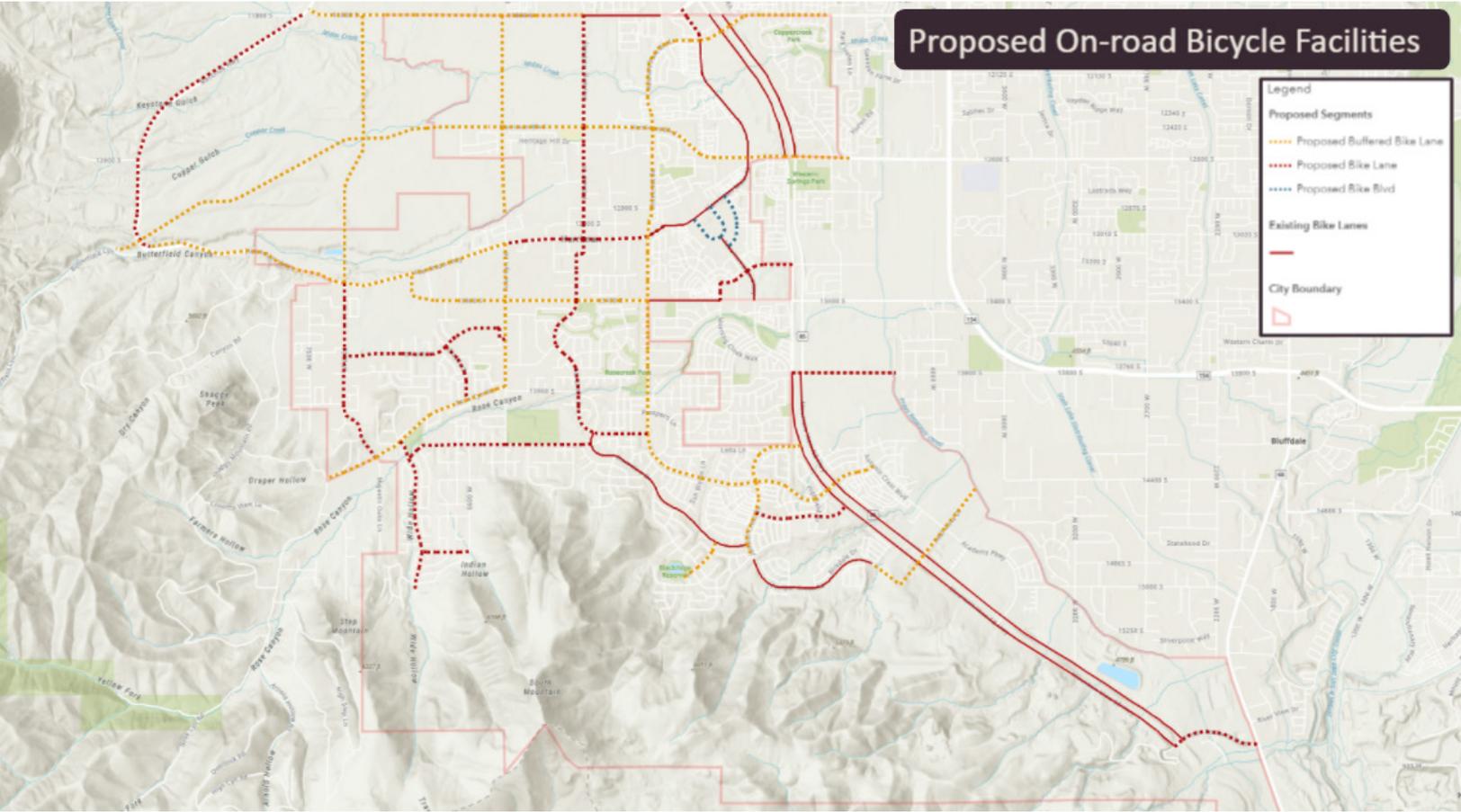
- Existing Paved Path
- Existing Unpaved Path
- Existing Dual Surface Path

Existing Bike Lanes

- Existing Primitive Trails
- Existing - Outside of Hermitas

City Boundary

Proposed On-road Bicycle Facilities



Proposed Paved Paths

Legend

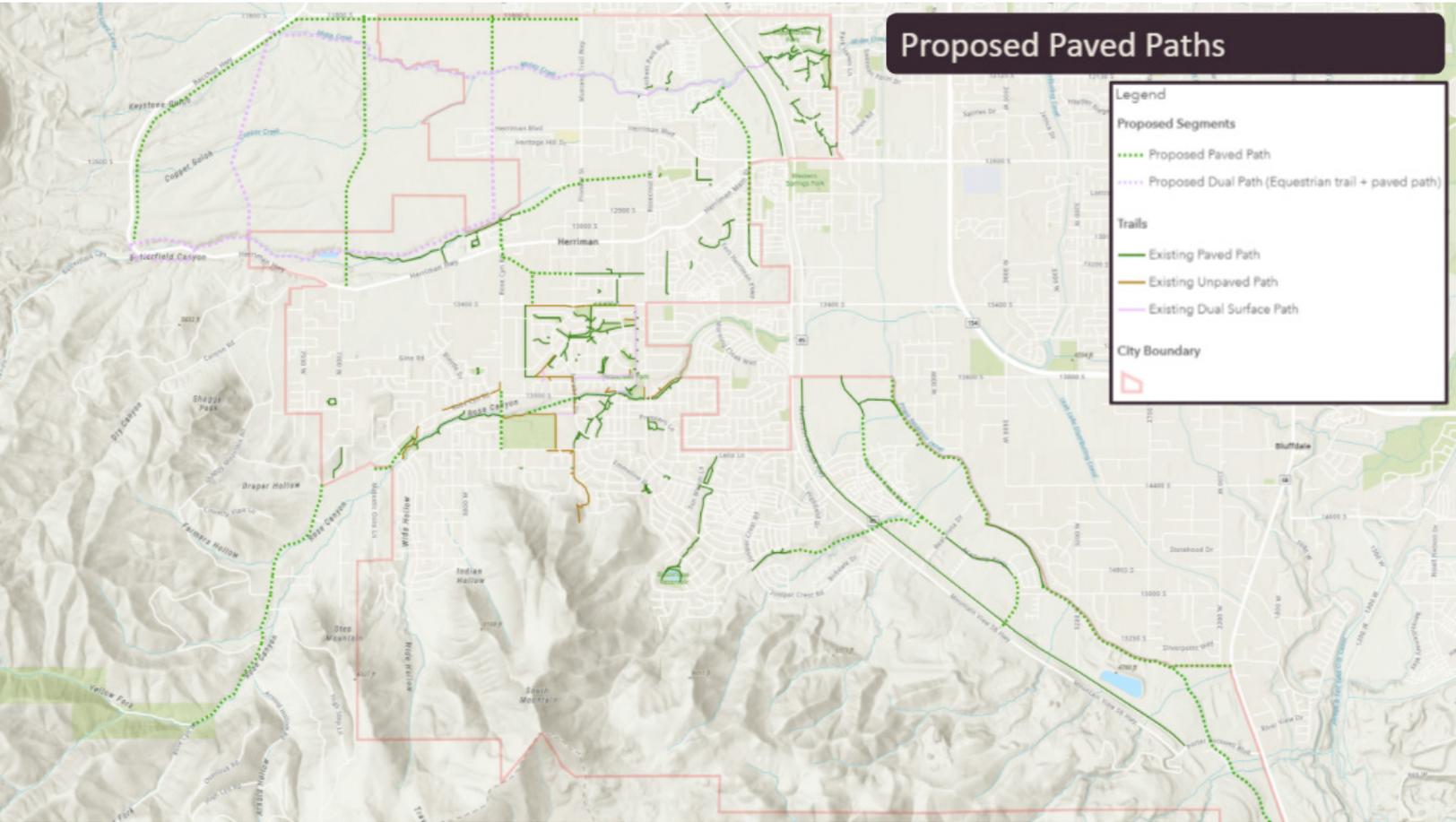
Proposed Segments

- Proposed Paved Path
- Proposed Dual Path (Equestrian trail + paved path)

Trails

- Existing Paved Path
- Existing Unpaved Path
- Existing Dual Surface Path

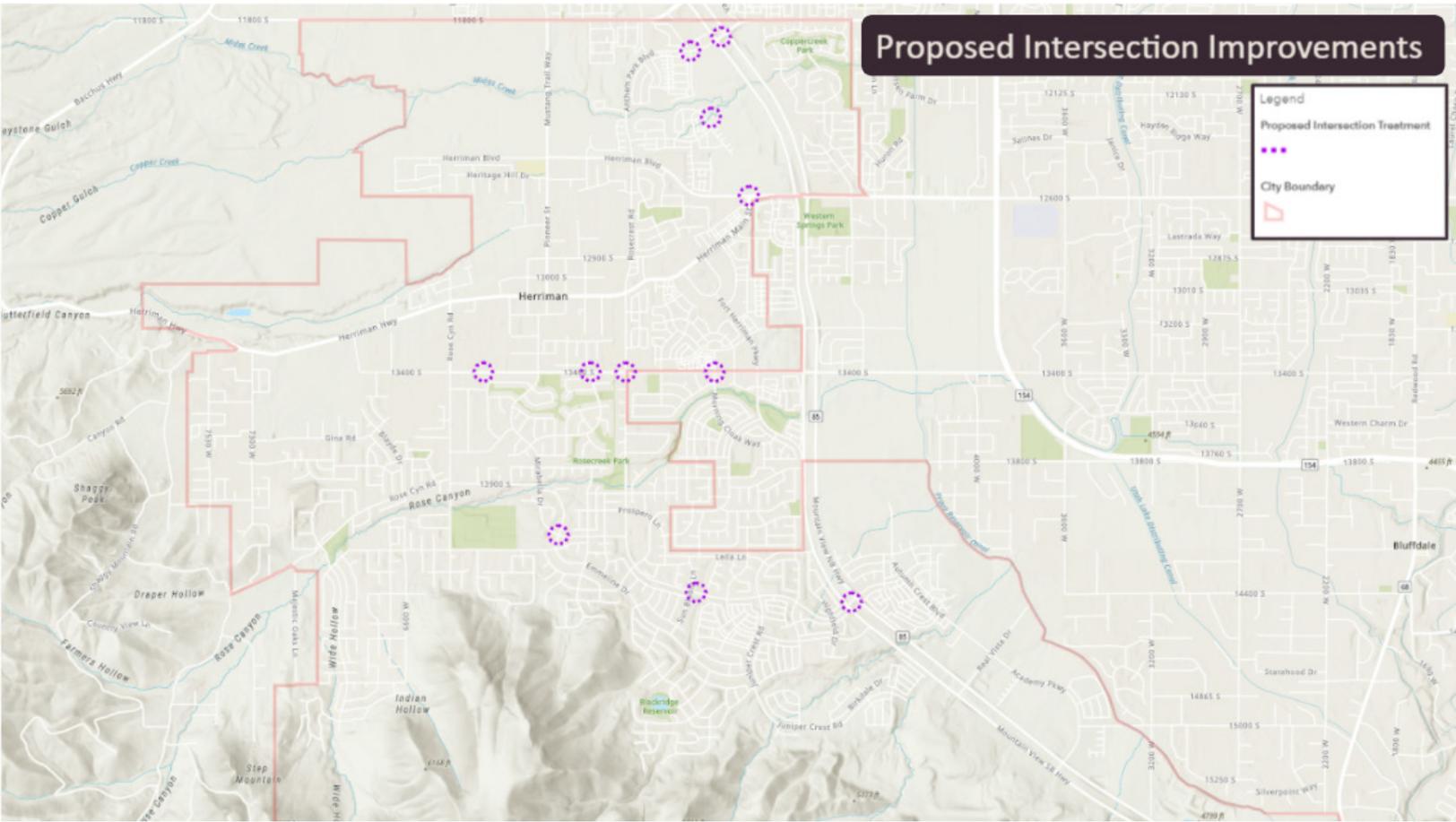
City Boundary



Proposed Intersection Improvements

Legend

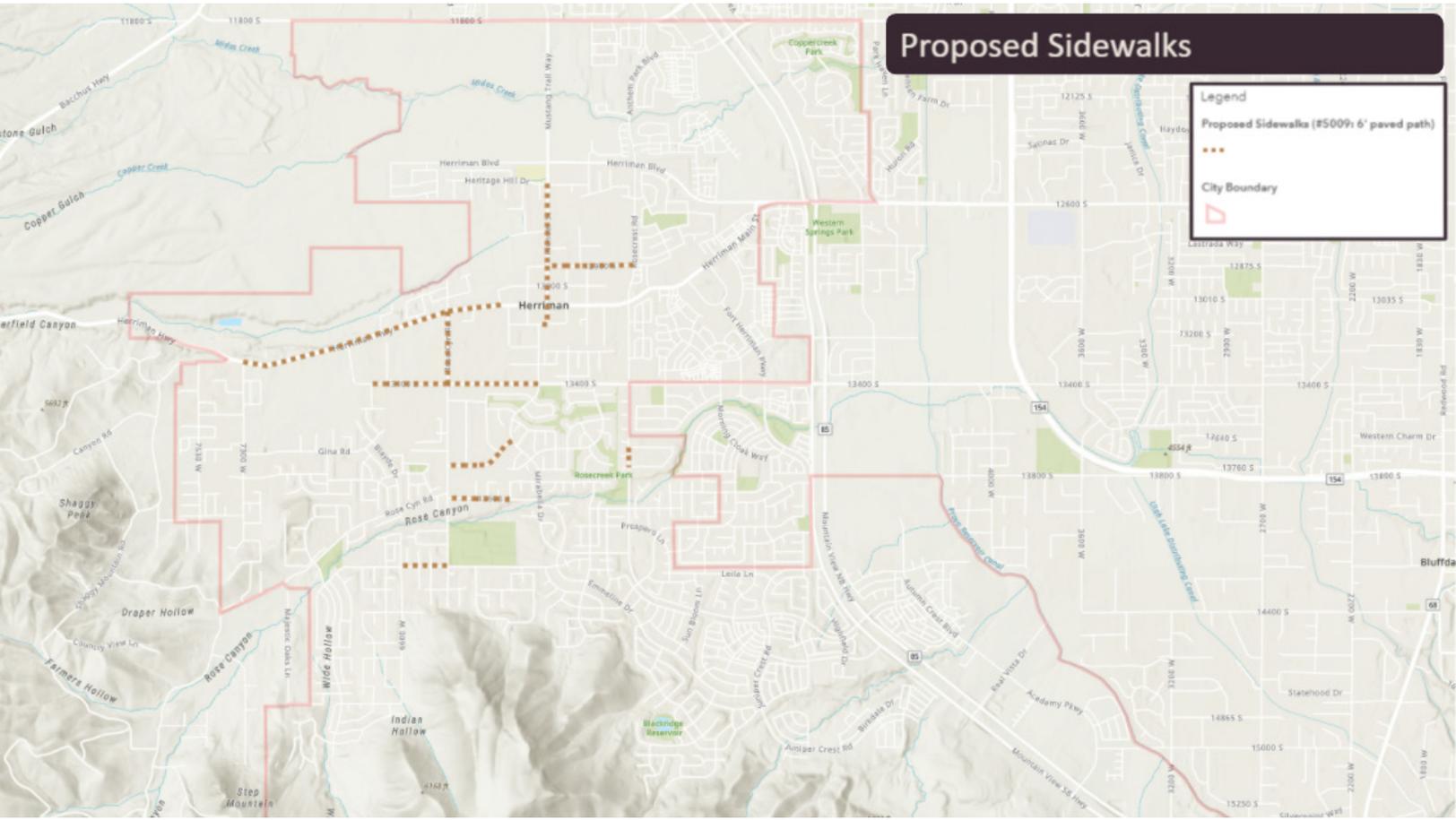
- Proposed Intersection Treatment
- City Boundary



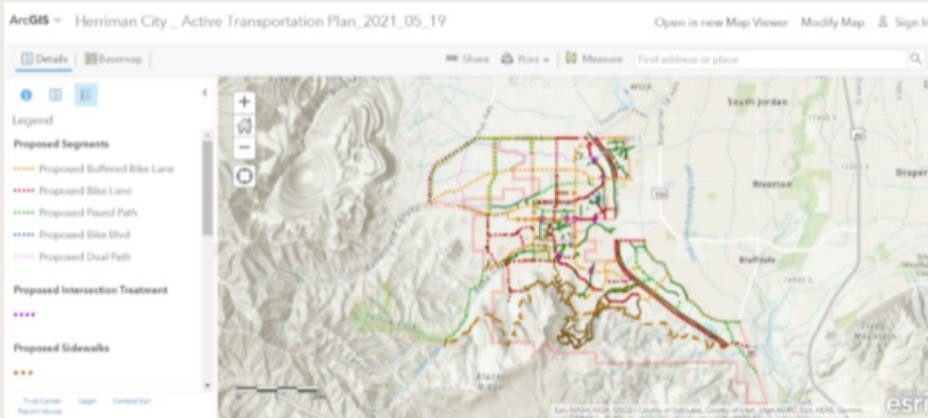
Proposed Sidewalks

Legend

- Proposed Sidewalks (#5009; 6' paved path)
- City Boundary



ArcGIS



<https://arcg.is/0zOqPy0>



HERRIMAN CITY

Active Transportation Plan



Draft Plan



HERRIMAN CITY

Active Transportation Plan

Thank You!

For more information about the active transportation plan please visit:

Herriman.org/active-transportation-plan

You can also email the project team at:

info@herrimanATP.com



HERRIMAN CITY

Active Transportation Plan

Appendix D: Survey Summary

