APPENDIX D10: SOUTH SALT LAKE VALLEY

Safety Summary

Tech Memo #1 Safety Analysis

Case Study Project Information Sheets

Case Study Project Location Map

Equity Index Map

SOUTH SALT LAKE VALLEY SAFETY SUMMARY

South Salt Lake Valley Geographic Focus Area

CSAP OVERVIEW

"A plan to provide local governments the means to make strategic roadway safety improvements"

Wasatch Front Regional Council (WFRC) is preparing a regional Comprehensive Safety Action Plan (CSAP). The CSAP will present a **holistic, well-defined strategy** to **reduce roadway fatalities and serious injuries** in the Wasatch Front region.

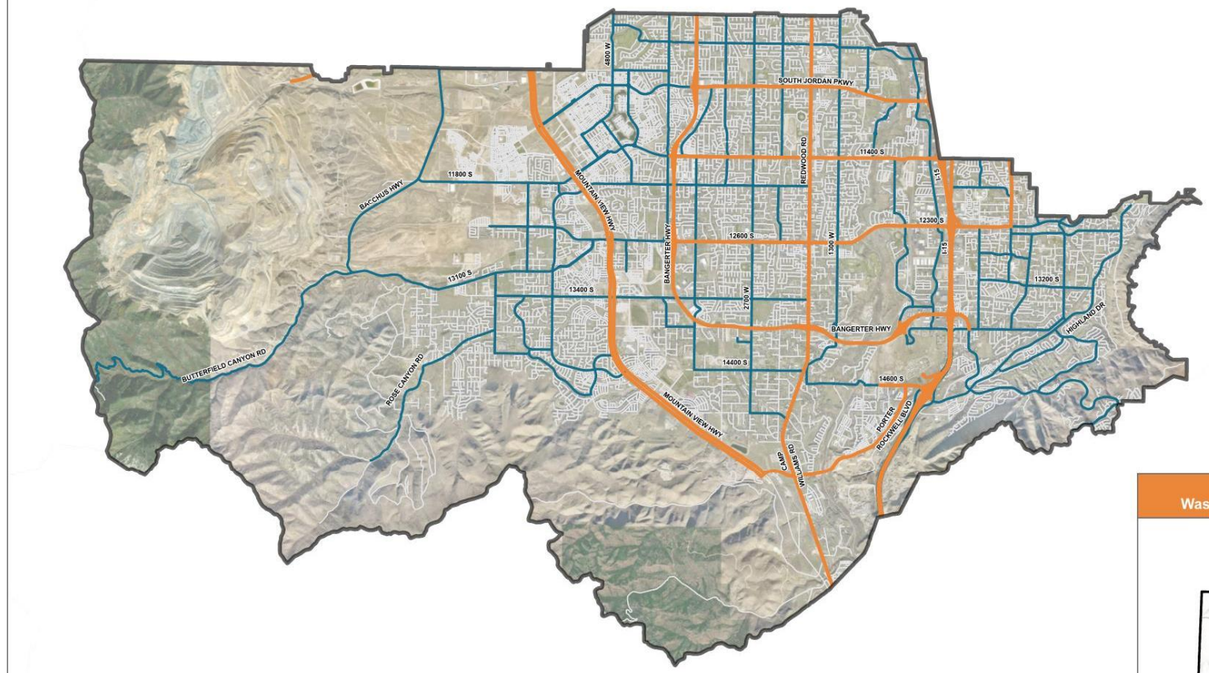
The CSAP will ***analyze*** safety needs, ***identify*** high-risk locations and factors contributing to crashes, and ***prioritize*** strategies to address them.

The CSAP will meet eligibility requirements that allow local jurisdictions to apply for **Implementation Grants** from the United States Department of Transportation (USDOT) Safe Streets and Roads for All (SS4A) discretionary grant program. The grant program was established by the Bipartisan Infrastructure Law (BIL) with $5 billion in appropriated funds, 2022-2026. A Safety Action Plan must include the following elements, as specified by FHWA to satisfy eligibility requirements to apply for an implementation grant:

State Route: Roadways owned, operated, and maintained by UDOT

Federal-Aid Route: Non-UDOT roadways eligible for federal funding – typically minor arterials and collectors

Local Streets: Other non-UDOT / non-Federal Aid roadways, primarily collectors, and residential streets



Miles
0 1 2 3

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Legend

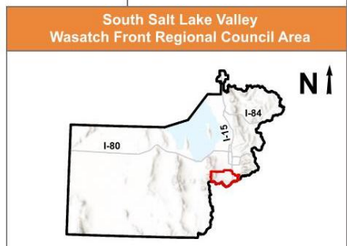
GFA Boundary

Roadway Types

State Routes

Federal Aid Routes

Local Streets



Self-Certification Checklist

Plan must include the following:

- ❑ Safety Analysis
  - ❑ Existing conditions and historical trends
  - ❑ Crashes by location, severity, and contributing factor
  - ❑ Systemic and specific safety needs
  - ❑ Geospatial identification of higher risk locations
- ❑ Identification of comprehensive set of projects and strategies

...And must complete 4 of the 6 elements to the right:

1. Leadership Commitment
   - ❑ Governing body publicly commit to a zero fatalities and serious injury goal
2. Plan Development
   - ❑ Committee charged with plan development, implementation, and monitoring
3. Development Activities
   - ❑ Engagement with public and relevant stakeholders
4. Equity
   - ❑ Data-driven, inclusive, and representative processes
5. Policies, Plans, Guidelines, and/or Standards
   - ❑ Assessment policies, plans, guidelines, and/or standards
6. Progress
   - ❑ Description on how progress will be measured over time

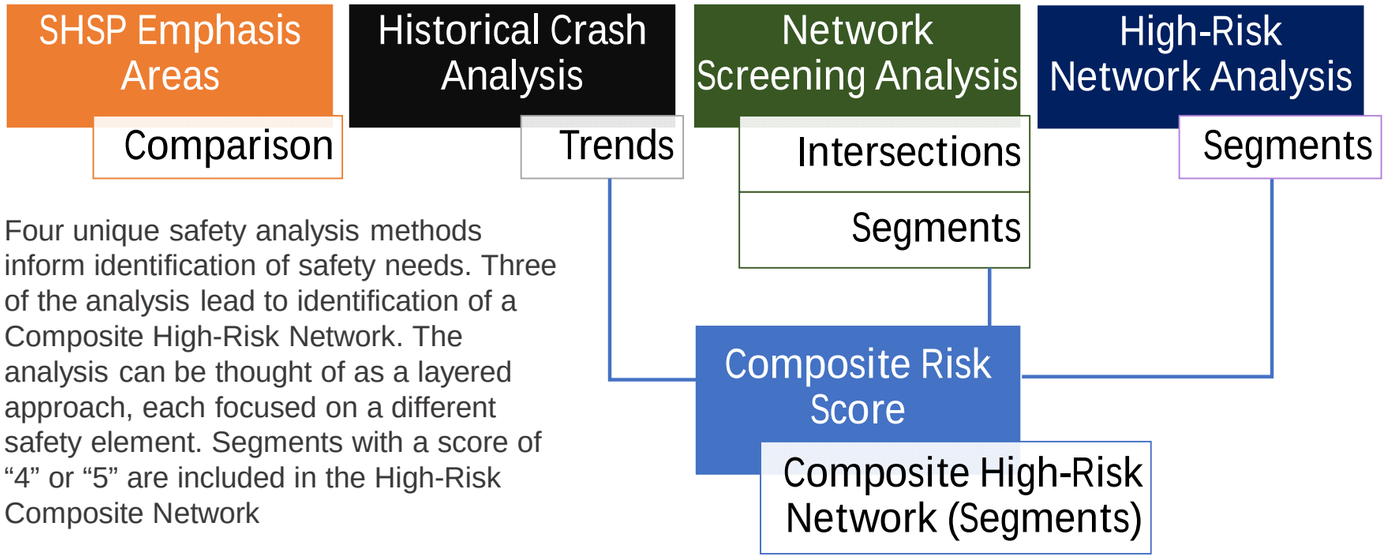
Safe System Approach

Implementing a Safe System Approach requires moving away from traditional safety paradigms.

- ❑ The Safe System approach seeks to prevent death and serious injuries.
- ❑ The Safe System approach designs for human mistakes and limitations.
- ❑ The Safe System approach focuses on speed management and strategies to reduce system kinetic energy.
- ❑ The Safe System approach aims to share responsibility among system users, managers, and others.
- ❑ The Safe System approach proactively identifies and addresses risks

Traditional Approach to Safety	Safe System Approach Paradigm
Prevent crashes	Prevent death and serious injury
Improve human behavior	Design for human mistakes/limitations
Control speeding	Reduce system kinetic energy
Individuals are responsible	Share responsibility
React based on crash history	Proactively identify and address risks

Safety Analysis Methodology



Four unique safety analysis methods inform identification of safety needs. Three of the analysis lead to identification of a Composite High-Risk Network. The analysis can be thought of as a layered approach, each focused on a different safety element. Segments with a score of "4" or "5" are included in the High-Risk Composite Network

Analysis	Composite High Risk Score Element	Value
Historical Crash Analysis	Segment 5-Year Crash Totals ≥ 3 Crashes	1
Network Screening Analysis	Positive CCR Differential	1
High-Risk Network Analysis	Crash Profile Risk Score ≥ 20	1
	usRAP Vehicle Star Rating = 1-2 Stars	1
	usRAP Pedestrian Star Rating = 1-2 Stars	0.5
	usRAP Bicycle Star Rating = 1-2 Stars	0.5
Total Possible Composite Risk Score		**5**

Strategic Highway Safety Plan (SHSP) Emphasis Area Comparison

Based on a comparison of fatal and serious injuries for each Utah SHSP Emphasis area, the following emphasis areas should be considered when developing safety improvement projects specific to the **South Salt Lake Valley** GFA.

- Intersections
- Teen Driver
- Speed-Related
- Roadway Departure
- Motorcycle

Intersection, Roadway Departure, and Speed-Related emphasis areas rank highest in terms of number of fatal and serious injuries at the Statewide and WFRC Levels.

In addition to Intersection, Roadway Departure, and Speed-Related emphasis areas within the **South Salt Lake Valley** GFA, Teen Driver and Motorcycle are also identified as top emphasis areas.

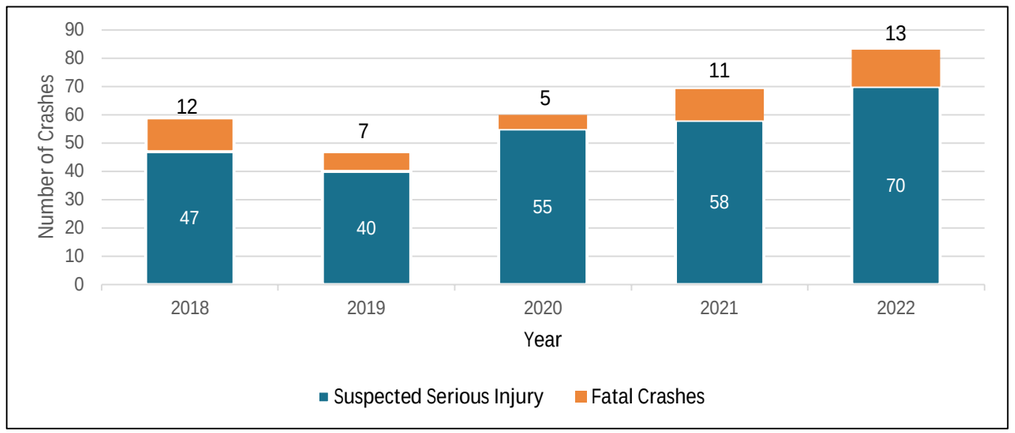
Strategic Highway Safety Plan Emphasis Area Comparison

Category	Utah SHSP Safety Emphasis Area	Statewide Totals		WFRC Totals		South Salt Lake Valley Totals		
		Fatal and Serious Injury	Rank	Fatal and Serious Injury	Rank	Fatal and Serious Injury	Rank	Change in Rank From WFRC
Driver	Teen Driver	1,640	**4**	751	4	91	2	2
	Older Driver	1,508	6	700	6	36	9	-3
	Speed-Related	2,133	**3**	936	3	90	3	0
	Aggressive Driving	555	11	297	10	26	11	-1
	Distracted Driving	718	10	286	11	33	10	1
	Impaired Driving	1,184	8	623	8	51	7	1
	No Safety Restraints	1,542	**5**	599	9	59	6	3
Roadway	Intersection	3,567	**1**	2,163	1	202	1	0
	Roadway Departure	2,931	**2**	1,014	2	64	4	-2
Special Users	Motorcycle	1,457	7	750	5	63	5	0
	Pedestrian	912	9	636	7	38	8	-1
	Bicycle*	280	12	167	12	10	12	0

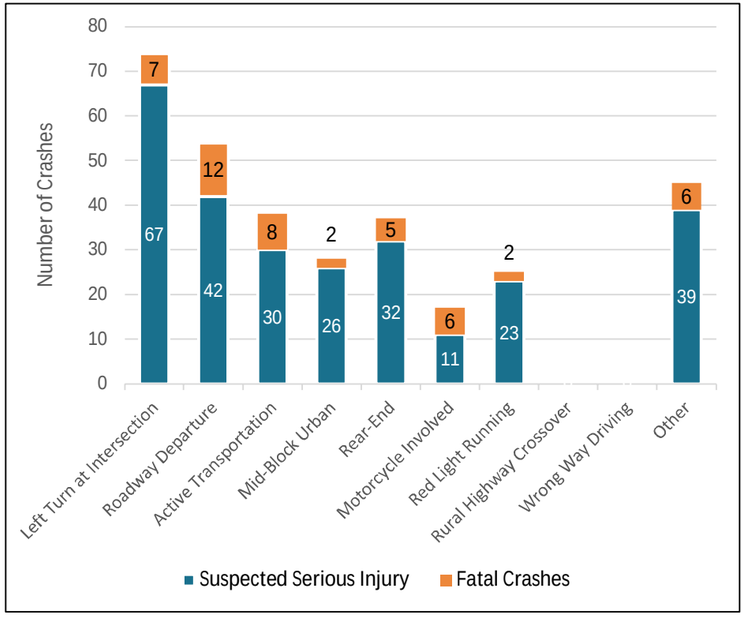
*While Bicycles are not one of the eleven Utah SHSP emphasis areas, they are included as part of the CSAP safety analysis.

5-Year Historical Crash Trends in the South Salt Lake Valley GFA

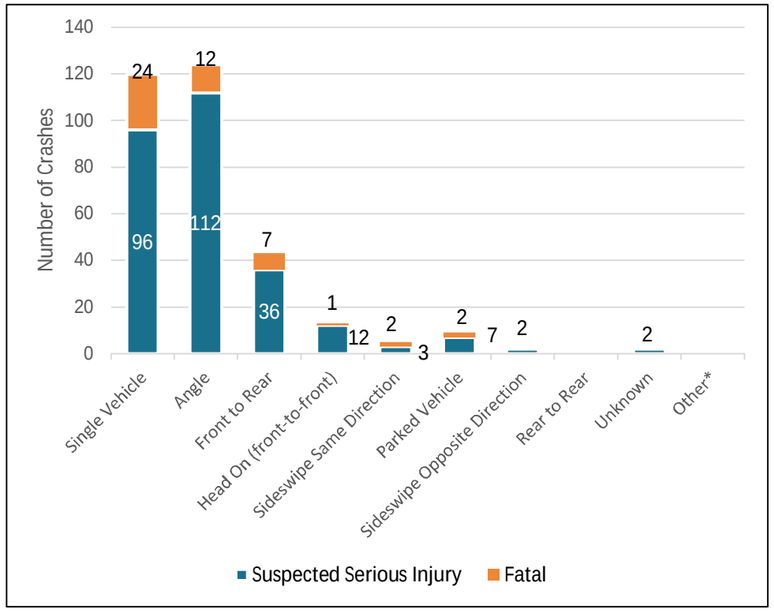
Route Type	State Route		Federal Aid Route		Local Street		Overall Total		% of WFRC
Crash Severity	Crashes		Crashes		Crashes		Crashes		%
	#	%	#	%	#	%	#	%	
Fatal	31	0%	12	0%	5	0%	**48**	**0.3%**	**0.0%**
Suspected Serious Injury	139	1%	96	2%	35	2%	**270**	**1.5%**	**0.1%**
Suspected Minor Injury	762	8%	579	10%	133	6%	**1,474**	**8.2%**	**0.8%**
Possible Injury	1,943	20%	1,013	17%	246	11%	**3,202**	**17.9%**	**1.8%**
No Injury / Property Damage Only	6,770	70%	4,368	72%	1,784	81%	**12,922**	**72.1%**	**7.2%**
Route Total	**9,645**	**100%**	**6,068**	**100%**	**2,203**	**100%**	**17,916**	**100%**	**9.9%**



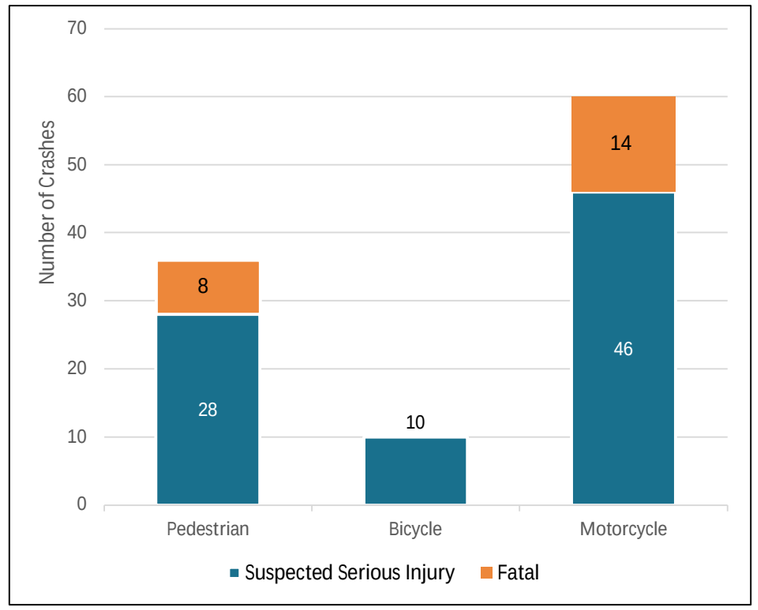
Annual Fatal and Serious Injury Crashes (2018-2022)



Crash Type



Manner of Collision



Active Transportation

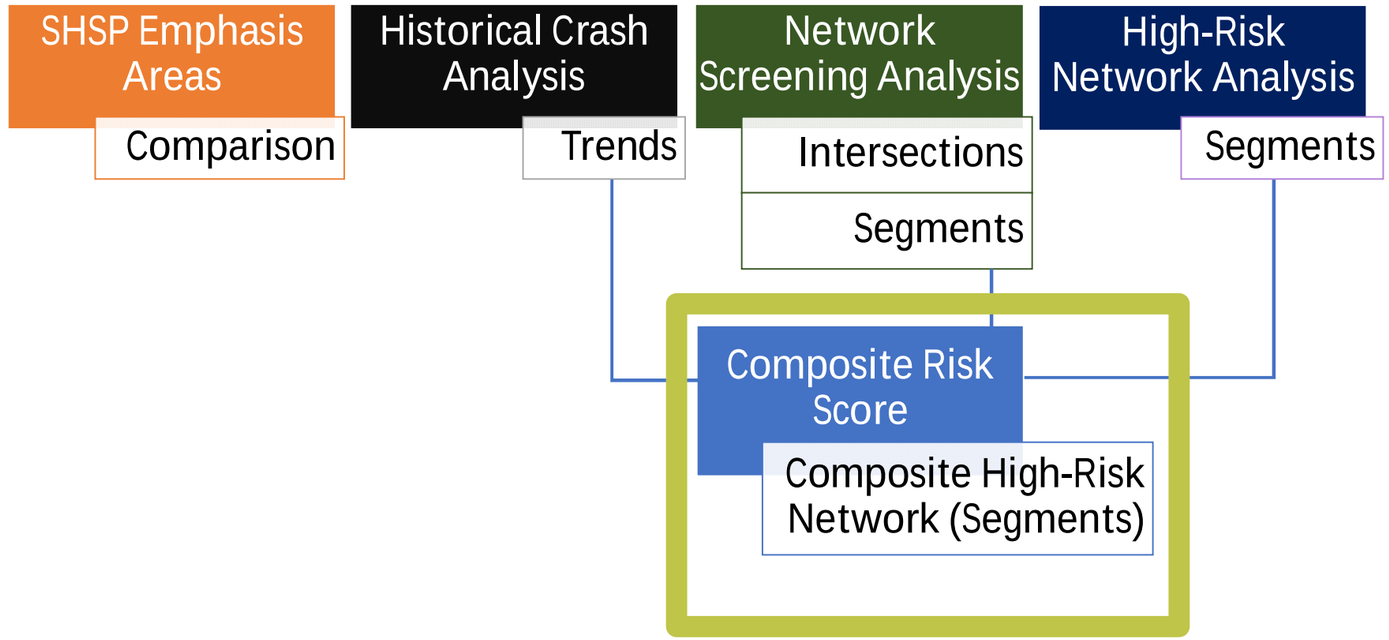
Composite High-Risk Roadway Network

Each of the completed safety analysis methodologies identified segments or intersections that are **candidates for safety improvements** to reduce fatalities and serious injury crashes.

To provide focused information for jurisdictional decisions regarding **prioritization of safety improvements**, an analysis was performed to identify overlapping segments from each of the analysis methodologies. A **composite score**, from zero to five, was assigned to each State Highway or Federal Aid Route segment in the region. State Route or Federal Aid Route segments with a score of "4" or higher are included in the Composite High-Risk Network. These represent the top 10% of State Route and Federal Aid Route segments for the entire WFRC area.

The Composite High Risk Network map on page 8 includes State Route and Federal Aid Route segments with a score of "4" or higher.

A list of locally-owned and maintained Federal Aid Route segments in the **South Salt Lake Valley** GFA Composite High-Risk Network is included on the next page. Streets operated and maintained by local agencies are an emphasis of the SS4A program.



Analysis	Composite High Risk Score Element	Value
Historical Crash Analysis	Segment 5-Year Crash Totals ≥ 3 Crashes	1
Network Screening Analysis	Positive Local CCR Differential	1
High Risk Network Analysis	Crash Profile Risk Score ≥ 20	1
	usRAP Vehicle Star Rating = 1-2 Stars	1
	usRAP Pedestrian Star Rating = 1-2 Stars	0.5
	usRAP Bicycle Star Rating = 1-2 Stars	0.5
Total Possible Composite Risk Score		**5**

Composite Risk Score
Composite High-Risk Network (Segments)

Composite High-Risk Network (State Route/Federal Aid) and Local Street Risk Network

Facility	Limits	Functional Classification	City	Length (miles)	RISK TYPE: *usRAP- Pedestrian Star Rating*	*usRAP - Bicycle Star Rating*	*usRAP- Vehicle Star Rating*	Crash Profile Risk Score	CCR Differential Analysis	Significant Crashes	Local Street Risk Assessment
State Route											
South Jordan Parkway	Bangerter Highway to I-15	Other Principal Arterial	South Jordan	4.2	X	X	X	X		X	
11400 South	Bangerter Highway to 3420 West	Other Principal Arterial	South Jordan, Draper	0.6	X	X	X	X		X	
11400 South	Redwood Road to I-15	Other Principal Arterial	South Jordan	2.3	X	X	X		X	X	
12600 South (SR-71)	Dunhammer Drive to 1630 West	Other Principal Arterial	Riverton	1.4	X	X	X	X		X	
12300 South (SR-71)	265 West to 700 East	Other Principal Arterial	Draper	1.5	X	X	X	X	X	X	
Bangerter Highway (SR-154)	2700 West to 13800 South	Other Principal Arterial	Riverton, Bluffdale	4.5	X	X	X	X		X	
14600 South	Noell Nelson Drive to I-15	Minor Arterial	Bluffdale	1.0	X	X	X	X		X	
Bangerter Highway (SR-154)	200 West to 13800 South	Other Principal Arterial	Draper	0.8	X	X	X	X		X	
Redwood Road (SR-68)	9400 South to 9916 South	Other Principal Arterial	South Jordan	1.5	X	X	X	X		X	
Redwood Road (SR-68)	11400 South to Andover Road	Other Principal Arterial	South Jordan	0.3	X	X	X		X	X	
Redwood Road (SR-68)	12600 South to Bangerter Highway	Other Principal Arterial	Riverton	2.2	X	X	X	X		X	
Camp Williams Road (SR-68)	1500 South to Portter Rockwell Blvd	Other Principal Arterial	Bluffdale	1.0	X	X	X	X		X	
Bangerter Highway (SR-154)	12600 South to 13400 South	Other Principal Arterial	Riverton	1.0	X	X	X	X		X	
State Street (US-89)	11400 South to 12300 South	Other Principal Arterial	Draper	1.2	X	X	X	X	X	X	
700 Easy (SR-71)	11400 South to 12300 South	Other Principal Arterial	Draper	1.2	X	X	X	X	X	X	
Federal Aid Routes											
1300 W	10400 S to McClan Dr	Major Collector	South Jordan	0.1	X	X	X		X	X	
Daybreak Rim Way	Oakmond Rd to Bangerter Hwy	Minor Arterial	South Jordan	1.3	X	X	X	X		X	
11400 S	State St to 150 E	Other Principal Arterial	Sandy	0.3	X	X	X		X	X	
12300 S	700 E to 100 E	Minor Arterial	Draper	0.5	X	X	X	X	X	X	
1300 E	Draper Gate Dr to Ballard Cv	Minor Arterial	Draper	0.5	X	X	X	X	X		

State Route and Federal Aid segments in the **South Salt Lake Valley GFA** Composite High-Risk Network are listed at left. Each of these segments received a composite risk score of "4" or higher. These segments provide a focus for local jurisdictions or for coordination with UDOT. Each of these segments are shown on the map on page 8.

Composite Risk Score

Composite High-Risk Network (Segments)

Composite High-Risk Network (State Route/Federal Aid) and Local Street Risk Network

					RISK TYPE						
Facility	Limits	Functional Classification	City	Length (miles)	*usRAP- Pedestrian Star Rating*	*usRAP - Bicycle Star Rating*	*usRAP- Vehicle Star Rating*	Crash Profile Risk Score	CCR Differential Analysis	Significant Crashes	Local Street Risk Assessment
Federal Aid Routes											
1300 E	13200 S to Bent Pine Cv	Minor Arterial	Draper	0.5	X	X	X	X		X	
13400 S	5600 W to Monarch Meadows Pkwy	Minor Arterial	Riverton, Herriman	0.1	X	X		X	X	X	
Bluffdale Blvd (14600 S)	1515 W to 850 W	Minor Arterial	Bluffdale	1.2	X	X	X	X	X	X	
Local Streets											Local Street Risk Assessment
Anthem Park Boulevard	SR-65 to 12600 South	Minor Arterial	Herriman	1.1							X
Monarch Meadow/Ft Herriman	4800 West to Main Street	Local	Herriman/Riverton	1.4							X
River Heights	10350 South to 11970 South	Minor Collector	South Jordan	2.3							X
Rose Crest Road	Autumn Crest Boulevard to Palisade Rose Driv	Major Collector	Herriman	0.9							X
Fort Street	13200 South to 12400 South	Major Collector	Draper	0.9							X
Emmeline Drive	Sun Bloom Lane to Friendship Drive	Minor Collector	Herriman	0.7							X
12600 South	Main Street to 6200 West	Minor Arterial	Herriman	1.5							X
3200 West	Rolling Creek Way to 12130 South	Major Collector	Riverton/South Jordan	0.6							X
13200 South	Highland Drive to 300 East	Minor Collector	Draper	2.0							X
6000 West	13900 South to 1st Street	Major Collector	Herriman	1.1							X

The Local Street Risk Assessment considered factors such as locations of crashes, proximity to schools, and hard-braking.

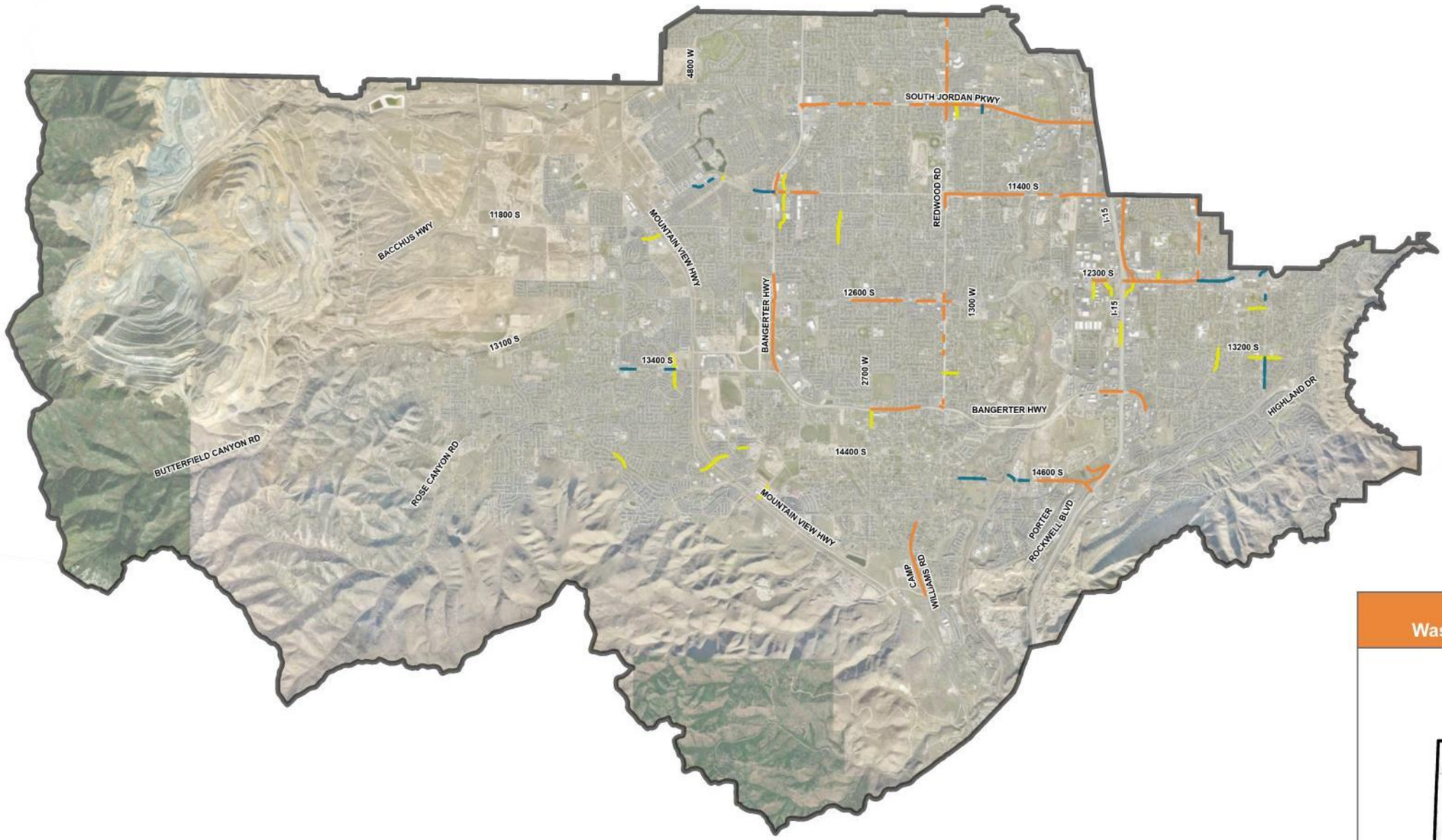
State Route and Federal Aid segments in the **South Salt Lake Valley GFA** Composite High-Risk Network are listed at left. Each of these segments received a composite risk score of "4" or higher. These segments provide a focus for local jurisdictions or for coordination with UDOT. Each of these segments are shown on the map on page 8.

Local Streets are also listed at left. These segments were identified through a separate analysis that considered factors such as crash location, proximity to schools, and hard braking.

Composite Risk Score

Composite High-Risk Network (Segments)

Composite High-Risk Roadway Network



Miles
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Legend

GFA Boundary

Composite High-Risk Network

State Routes

Federal Aid Routes

Local Streets

South Salt Lake Valley
Wasatch Front Regional Council Area

Composite Risk Score

Composite High-Risk Network (Segments)

Network Screening - Intersections

Network Screening is one of the inputs to the Composite High Risk Roadway Network. Network screening is based on Critical Crash Rate Differential analysis as documented in the Highway Safety Manual. This analysis identified intersections where historical crash rates exceed those which can be expected for similar facilities**.**

A list of the top 10 intersections on State Routes, Federal Aid Routes, and Local (Non-Federal Aid) Streets in the **South Salt Lake Valley** GFA are listed at right, along with their associated number of crashes.

For each intersection, the Critical Crash Rate (CCR) Differential and Equivalent Property Damage Only (EDPO) value is listed. These intersections represent those with the highest potential for safety improvements and can be considered as project candidate locations.

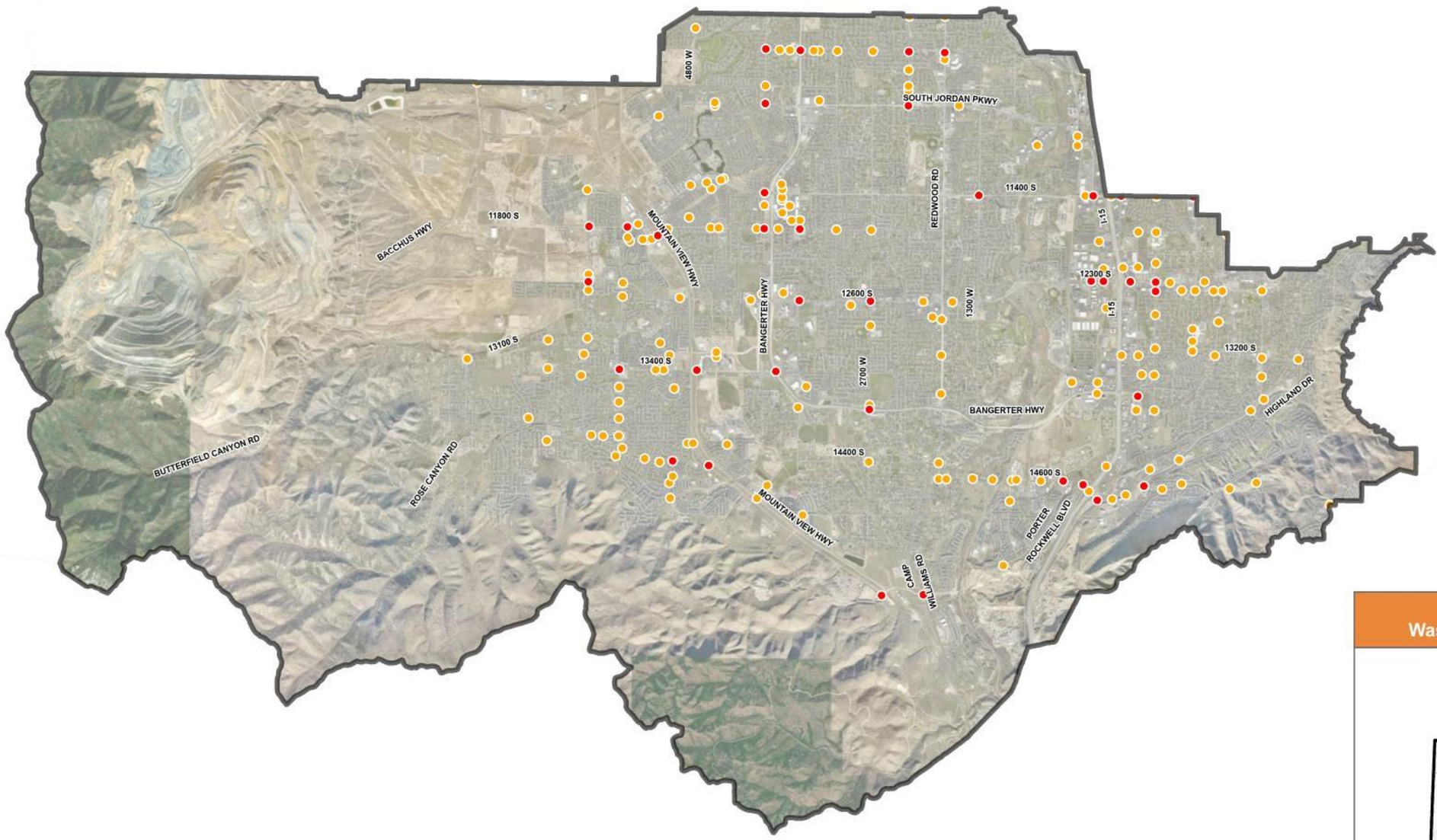
Signalized and unsignalized intersections in the **South Salt Lake Valley** GFA with a positive Critical Crash Rate Differential (rate exceeds expected rate) are mapped on page 10.

Intersection	City	Crashes	Critical Crash Rate Differential	EPDO[1]	*Fatal*	*Suspected Serious Injury*	*Suspected Minor Injury*	*Possible Injury*	*No Injury/PDO*	Angle	Front to Rear	Head On	Parked Vehicle	Single Vehicle	Rear to Rear	Rear to Side	Sideswipe (Same Direction)	Sideswipe (opposite Direction)	Other/Unknown	Pedestrian	Bicycle	Motorcycle
Signalized Intersections																						
Minuteman Dr & Highland Dr	Draper	72	7.5	387	0	0	8	14	50	38	26	1	2	0	0	0	0	4	1	0	1	0
Palisade Rose Dr & Rosecrest Rd	Herriman	25	5.0	87	0	0	0	6	19	18	5	0	2	0	0	0	0	0	0	0	0	0
300 E & 12450 S	Draper	21	3.6	52	0	0	0	3	18	8	6	0	3	0	0	0	1	2	1	0	1	0
Pony Express Rd & Highland Dr	Bluffdale	46	3.1	349	0	1	5	10	30	21	14	2	5	1	0	1	0	1	1	0	1	0
Porter Rockwell Blvd & Bluffdale Blvd	Bluffdale	37	3.0	256	0	1	4	4	28	4	29	1	1	0	0	0	0	1	1	0	0	1
Mountain View Sb Hwy & Anthem Park Blvd	Herriman	82	2.9	1719	1	4	10	16	51	38	32	2	4	0	0	0	2	2	2	2	1	0
Rockwell Park Ln & Shocky Access	Herriman	25	2.9	1007	1	0	2	5	17	2	7	0	14	0	1	0	0	1	0	0	0	0
Mustang Trail Way & Herriman Blvd	Herriman	16	2.6	101	0	0	3	2	11	9	4	1	1	1	0	0	0	0	0	1	0	0
Mountain View Sb Hwy & Rosecrest Rd	Herriman	40	1.2	167	0	0	4	4	32	14	17	0	3	0	0	0	0	5	1	1	0	0
4000 W & 11800 S	South Jordan	39	1.0	363	0	1	6	10	22	22	12	1	3	0	0	0	0	1	0	1	1	1
Unsignalized Intersections																						
2200 W & Temple View Ln	South Jordan	17	6.9	38	0	0	0	2	15	10	7	0	0	0	0	0	0	0	0	0	0	0
300 E & Carlquist Dr Roundabout	Draper	26	5.3	171	0	1	1	3	21	7	9	0	6	0	0	0	0	2	2	0	0	0
Creek Meadow Rd & Creek Meadow Rd	Riverton	10	4.9	41	0	0	0	3	7	10	0	0	0	0	0	0	0	0	0	0	0	0
District Dr & 11500 S	South Jordan	10	4.1	20	0	0	0	1	9	10	0	0	0	0	0	0	0	0	0	0	0	0
Parkway Plaza Dr & 11550 S	South Jordan	4	3.7	14	0	0	0	1	3	4	0	0	0	0	0	0	0	0	0	0	0	0
Oakmond Rd & Oakmond Rd	South Jordan	8	3.5	18	0	0	0	1	7	1	4	0	2	0	0	0	0	1	0	0	0	0
Charger Way & Pheasant View Dr	Draper	4	3.2	25	0	0	0	2	2	2	1	0	0	0	0	0	0	1	0	0	0	0
Eagles Flight Rd & Teal Ridge Way	Riverton	5	3.1	15	0	0	0	1	4	3	2	0	0	0	0	0	0	0	0	0	0	0
Anthem Park Blvd & Herriman Blvd	Herriman	13	2.8	45	0	0	1	1	11	4	7	1	1	0	0	0	0	0	0	0	1	0
Mike Weir Dr & Traverse Ridge Rd	Draper	9	2.6	51	0	0	1	2	6	2	1	0	4	1	0	0	0	1	0	0	1	0

1. Equivalent Property Damage Only Crashes

= 90 - 100% probability that crash type is over-represented
= 80 - 90% probability that crash type is over-represented
= 70 - 80% probability that crash type is over-represented

Network Screening - Intersections



Miles
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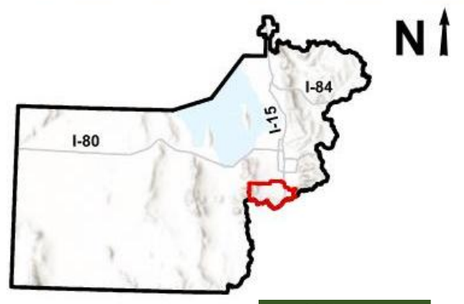
Legend

GFA Boundary

Critical Crash Rate Differential (> 0.0)

- Signalized
- Unsignalized

South Salt Lake Valley
Wasatch Front Regional Council Area



Network Screening Analysis
- Intersections
- Segments

Supporting Information

High-Risk Roadway Segments (Federal Aid Routes)

Facility	Limits	City	RISK TYPE: *usRAP- Pedestrian Star Rating*	*usRAP - Bicycle Star Rating*	*usRAP- Vehicle Star Rating*	*Crash Profile Risk Score*	CCR Differential Analysis	Significant Crashes	Local Streets Risk Assessment
Federal Aid Routes									
Bacchus Highway	South Jordan Parkway to North GFA Extents	South Jordan	X	X					
Bacchus Highway	13100 South to South Jordan Parkway	South Jordan	X						
South Jordan Parkway	Mountain View Corridor to Cardinal Park Ro	South Jordan	X	X					
10400 South	Vermillion Drive to Bangerter Highway	South Jordan	X						
13100 South/13090 South	Bacchus Highway to Rosecrest Road	Herriman	X	X					
Rose Canyon Road	13400 South to 13100 South	Herriman	X	X					
13400 South	2700 West to Redwood Road	Riverton	X	X					
13400 South	Mountain View Corridor to 2700 West	Herriman	X						
13400 South	Rose Canyon Road to Mountain View Corrid	Herriman	X	X					
11800 South	Bacchus Highway to 6000 West	Herriman	X						
11800 South	6000 West to Mountain View Corridor	Herriman	X	X	X				
Daybreak Parkway	Mountain View Corridor to Oakmond Road	South Jordan	X	X					
Daybreak Parkway	Oakmond Road to Bangerter Highway	South Jordan	X	X	X				
Freedom Park Drive	Anthem Park Blvd to 11800 South	South Jordan	X						
Anthem Park Blvd	Miller Crossing Drive to Mountain View Cor	Herriman	X						
11800 South	Mountain View Corridor to Anthem Court	South Jordan	X						
11800 South	2480 West to Redwood Road	Riverton	X	X	X				
4000 West	12600 South to Kilt Street	Riverton	X						

A list of Federal Aid segments in the **South Salt Lake Valley GFA** identified from each of the safety analysis methods is listed in the table at left. An “x” is placed to identify the analysis that flagged the segment:

- **usRAP** Star Ratings (Vehicle, Bicycle, Pedestrian)
- **Crash Profile** Risk Score
- **Network Screening,** applying Critical Crash Rate (CCR) and Significant Crashes (three or more crashes over 5-year period)

The maps on page 19 through 23 depict each of these segments identified by the respective analysis.

Composite Risk Score

High-Risk Network

High-Risk Roadway Segments (Federal Aid Routes), Cont'd

Facility	Limits	City	RISK TYPE: *usRAP- Pedestrian Star Rating*	*usRAP - Bicycle Star Rating*	*usRAP- Vehicle Star Rating*	*Crash Profile Risk Score*	CCR Differential Analysis	Significant Crashes	Local Streets Risk Assessment
Federal Aid Routes									
12600 South	Main Street to Bangerter Highway	Riverton	X	X					
4570 West	Geronimo Road to 12600 South	Riverton			X				
2700 West	15000 South to Van Ross Drive	South Jordan	X						
2240 West	12600 South to 11800 South	Riverton			X				
15000 South	2700 West to Camp Williams Road	Bluffdale	X						
1300 West	Y worry Lane to North GFA Boundary	South Jordan	X						
1300 West	Withers Lane to Y worry Lane	Riverton	X	X	X				
1300 West/Loumis Parkway	Blue Quill Drive to Ryanna Drive	Bluffdale	X	X					
Loumis Parkway	Redwood Road to Blue Quill Drive	Bluffdale	X						
1690 West	14600 South to Redwood Road	Bluffdale			X				
14600 South	1690 West to 1515 West	Bluffdale			X				
14600 South	1515 West to Heritage Crest Way	Bluffdale	X	X	X				
10000 South	1000 West to East GFA Extents	South Jordan	X	X	X				
Jordan Gateway/Lone Peak Par	12300 South to North GFA Extents	South Jordan	X						
Jordan Gateway/Lone Peak Par	Golden Harvest Road to 12300 South	Draper	X		X				
200 West	Bangerter Highway to Galena Park Blvd	Draper	X						
13800 South	600 West to 200 West	Draper	X						
Galena Park Blvd/Vista Station	13490 South to 700 West	Draper	X	X	X				

A list of Federal Aid segments in the **South Salt Lake Valley GFA** identified from each of the safety analysis methods is listed in the table at left. An "x" is placed to identify the analysis that flagged the segment:

- **usRAP** Star Ratings (Vehicle, Bicycle, Pedestrian)
- **Crash Profile** Risk Score
- **Network Screening,** applying Critical Crash Rate (CCR) and Significant Crashes (three or more crashes over 5-year period)

The maps on page 19 through 23 depict each of these segments identified by the respective analysis.

Composite Risk Score

High-Risk Network

High-Risk Roadway Segments (Federal Aid Routes), Cont'd

Facility	Limits	City	RISK TYPE: *usRAP- Pedestrian Star Rating*	*usRAP - Bicycle Star Rating*	*usRAP- Vehicle Star Rating*	*Crash Profile Risk Score*	CCR Differential Analysis	Significant Crashes	Local Streets Risk Assessment
Federal Aid Routes									
700 West	Galen Park Blvd to 11400 South	Draper	X	X	X				
Pony Express Road	South GFA Boundary to 14600 South	Draper	X						
300 East	11800 South to 11400 South	Draper			X				
Willow Springs Lane	300 East to Whisper Bend Drive	Draper			X				
2000 East	Graystone Drive to Genova Drive	Draper	X	X	X				
13800 South	Wadsworth Park Drive to Bangerter Highway	Draper	X	X	X				
Bangerter Parkway	Highland Drive to 13800 South	Draper	X	X					
Traverse Ridge Road	Deer Ridge Road to Highland Drive	Draper	X						
Draper Parkway/12300 South	700 East to North GFA Extents	Draper	X	X	X				
1300 East	Manfield Way to North GFA Extents	Draper	X	X	X				
1300 East	13200 South to Manfield Way	Draper	X	X					
1300 East	13700 South to 13200 South	Draper	X	X	X				
Fort Street	13400 South to 12400 South	Draper			X				
12400 South/Pioneer Road	970 East to Highland Drive	Draper	X						
Highland Drive	Bangerter Parkway to Pioneer Road	Draper	X						
Jordan Gateway	12300 South to North GFA Extents	South Jordan				X			
4000 West	12600 South to North GFA Extents	Riverton				X			
Draper Parkway	700 East to 1300 East	Draper				X			

A list of Federal Aid segments in the **South Salt Lake Valley GFA** identified from each of the safety analysis methods is listed in the table at left. An "x" is placed to identify the analysis that flagged the segment:

- **usRAP** Star Ratings (Vehicle, Bicycle, Pedestrian)
- **Crash Profile** Risk Score
- **Network Screening,** applying Critical Crash Rate (CCR) and Significant Crashes (three or more crashes over 5-year period)

The maps on page 19 through 23 depict each of these segments identified by the respective analysis.

Composite Risk Score

High-Risk Network

High-Risk Roadway Segments (Federal Aid Routes), Cont'd

Facility	Limits	City	RISK TYPE						
			usRAP- Pedestrian Star Rating	*usRAP - Bicycle Star Rating*	*usRAP- Vehicle Star Rating*	*Crash Profile Risk Score*	CCR Differential Analysis	Significant Crashes	Local Streets Risk Assessment
Federal Aid Routes									
Daybreak Rim Way / Daybreak	Oakmond Road to Bangerter Highway	South Jordan				X			
11800 South	Bacchus Highway to SR-85	South Jordan				X			
14600 South	Camp Williams Road to 800 West	Bluffdale				X			
1300 East	13700 South to 13200 South	Draper				X			
Pony Express Road	South GFA Extent to 14600 South	Riverton				X			
Rose Canyon Road	13400 South to 13100 South	Herriman				X			
13400 South	Rose Canyon Drive to SR-85	Herriman				X			
12600 South	Main Street to Bangerter Highway	South Jordan				X			
13100 South	Butterfield Canyon Road to Rosecrest Road	Herriman				X			
Bacchus Highway	Truck Road to Old Bingham Highway	South Jordan				X			
Rose Canyon Road	Yellow Fork Canyon to 6400 West	Herriman				X			
Lake Run Rd	Daybreak Pkwy to Frogs Leap Dr	South Jordan					X	X	
4050 W	Innovation Dr to 13400 S	Riverton					X	X	
River Heights Dr	Summer Heights Dr to Vista Pradera Way	South Jordan					X	X	
Bluffdale Blvd	1328 W to 1300 W	Bluffdale					X	X	
River Heights Dr	Logan Canyon Rd to 10400 S	South Jordan					X	X	
Traverse Ridge Rd	Highland Dr to Traverse Pointe Dr	Draper					X	X	
Traverse Ridge Rd	Private Driveway to Mike Weir Dr	Draper					X	X	

A list of Federal Aid segments in the **South Salt Lake Valley GFA** identified from each of the safety analysis methods is listed in the table at left. An "x" is placed to identify the analysis that flagged the segment:

- **usRAP** Star Ratings (Vehicle, Bicycle, Pedestrian)
- **Crash Profile** Risk Score
- **Network Screening,** applying Critical Crash Rate (CCR) and Significant Crashes (three or more crashes over 5-year period)

The maps on page 19 through 23 depict each of these segments identified by the respective analysis.

Composite Risk Score

High-Risk Network

Network Screening – Segments (Local Streets)

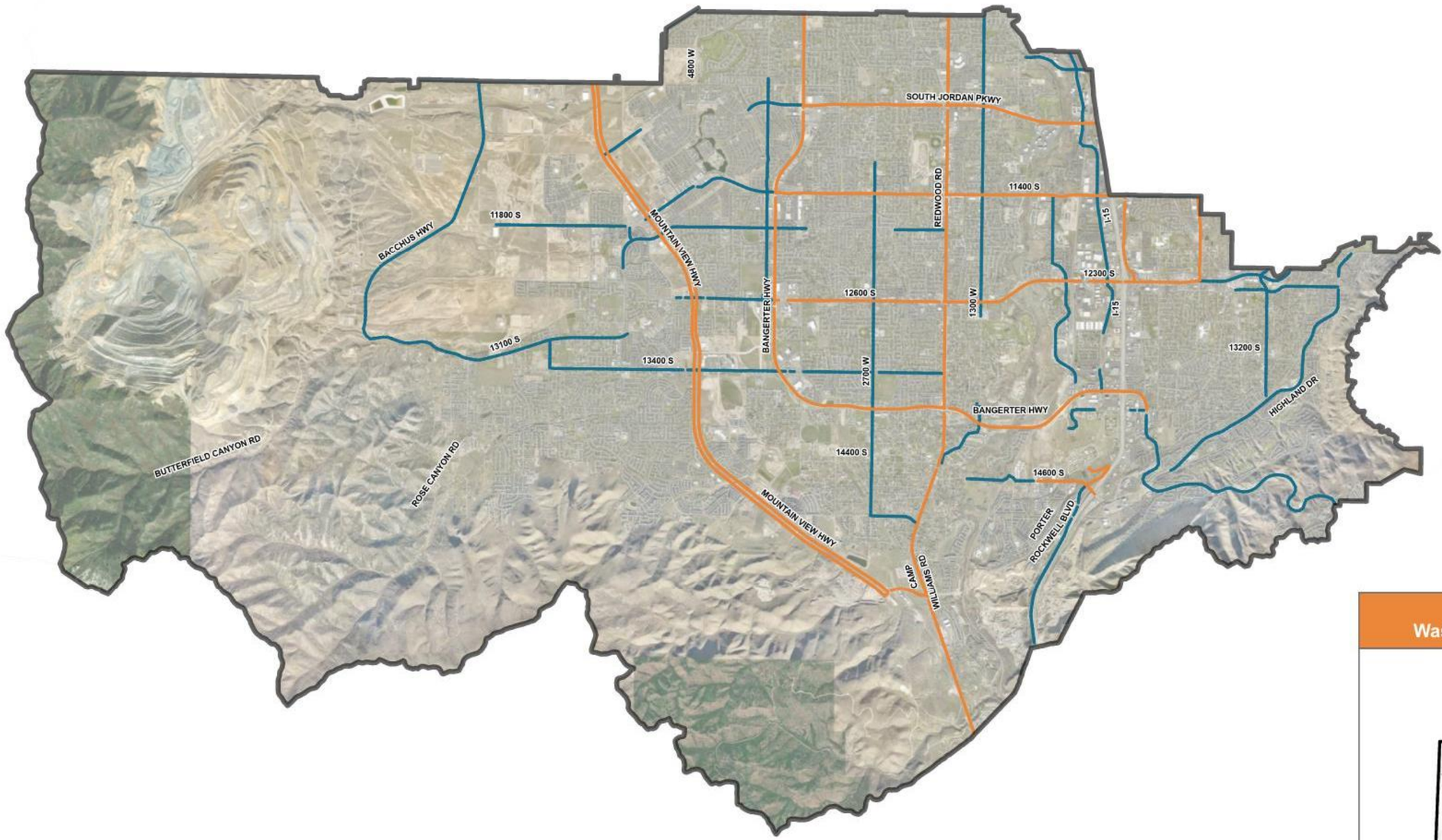
Facility	Limits	City	RISK TYPE						
			usRAP- Pedestrian Star Rating	*usRAP - Bicycle Star Rating*	*usRAP- Vehicle Star Rating*	*Crash Profile Risk Score*	CCR Differential Analysis	Significant Crashes	Local Streets Risk Assessment
Federal Aid Routes									
700 E	Fox Meadow Dr to Golden Pheasant Dr	Draper					X	X	
700 E	Golden Pheasant Dr to Pheasant View Dr	Draper					X	X	
2200 W	10400 S to Temple View Ln	South Jordan					X	X	
Local Streets									
300 W	Opportunity Way to 11400 S	Draper					X	X	
Jordan Narrows Rd	Camp Williams Rd to 1400 W	Bluffdale					X	X	
Heritagecrest Way	Concord Park Dr to 14600 S	Bluffdale					X	X	
Spring View Pkwy	14600 S to Stone Fly Cir	Bluffdale					X	X	
Koins Way	Rising Star Way to Life Dr	Bluffdale					X	X	
Emma Mine Dr	Mineral Way to Dynamic Cir	Herriman					X	X	
Park Bluff Way	Puma Mountain Way to Cantle Dr	Bluffdale					X	X	
Parkway Plaza Dr	11500 S to 11400 S	South Jordan					X	X	
12200 S	Spencer Peak Way to 300 E	Draper					X	X	
Spencer Peak Way	150 E to 12175 S	Draper					X	X	

A list of Local Street segments in the **South Salt Lake Valley GFA** identified from Network Screening, applying Critical Crash Rate (CCR) and Significant Crashes (three or more crashes over 5-year period), is shown at left.

Composite Risk Score

High-Risk Network

usRAP Pedestrian Star Rating - Segments



Miles
0 1 2 3

N

Legend

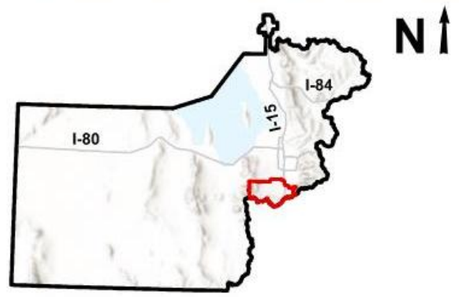
GFA Boundary

Pedestrian Star Rating (1-2)

State Routes

Federal Aid Routes

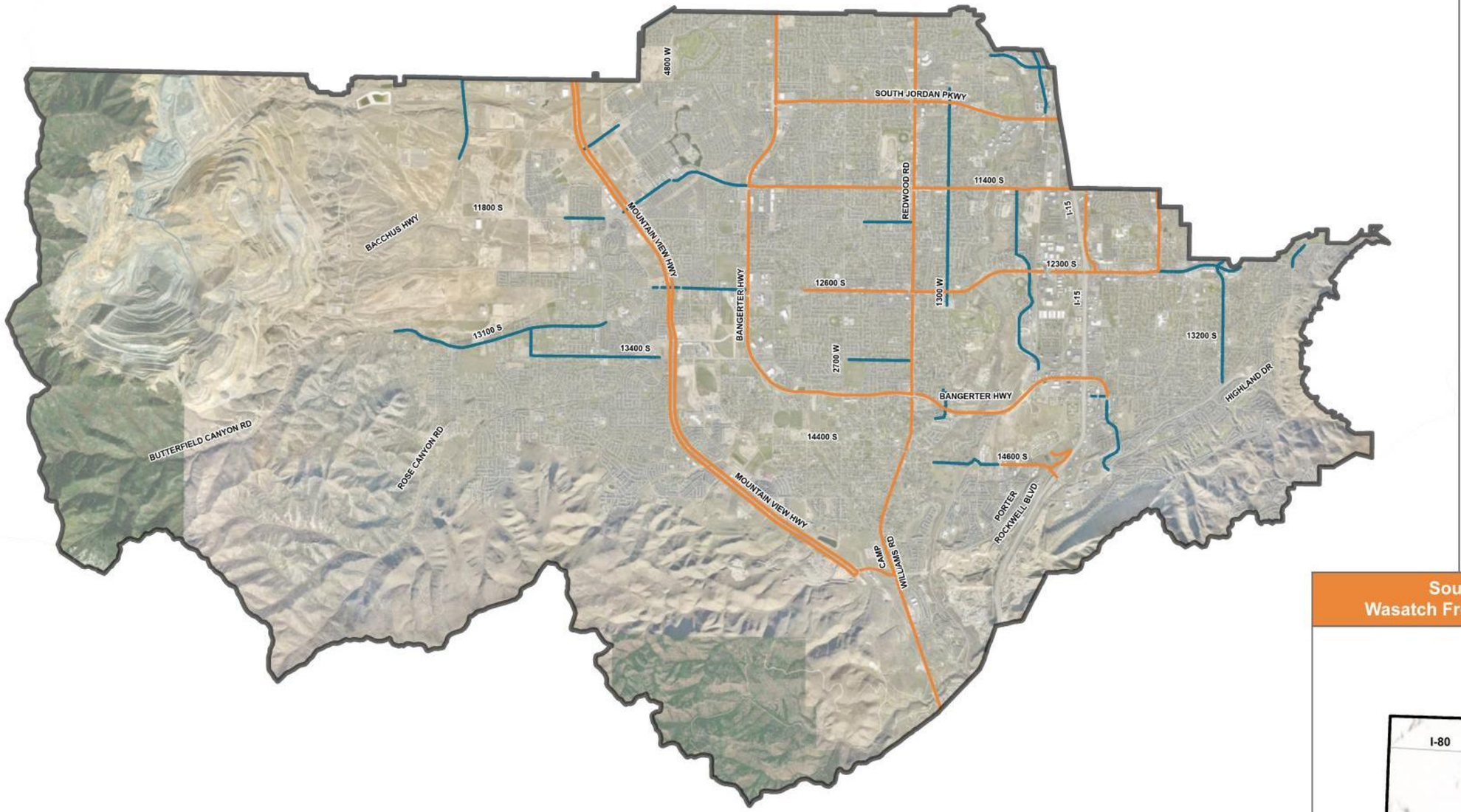
South Salt Lake Valley
Wasatch Front Regional Council Area



High-Risk Network Analysis

State Route and Federal Aid Segments	Local Street Segments

usRAP Bicycle Star Rating - Segments



Miles
0 1 2 3

N

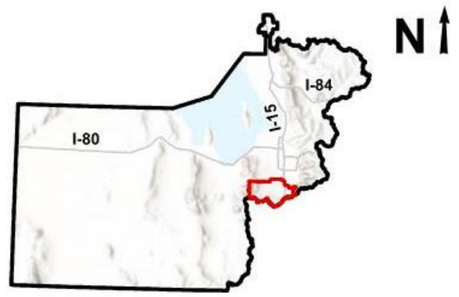
Legend

- GFA Boundary

Bicycle Star Rating (1-2)

- State Routes
- Federal Aid Routes

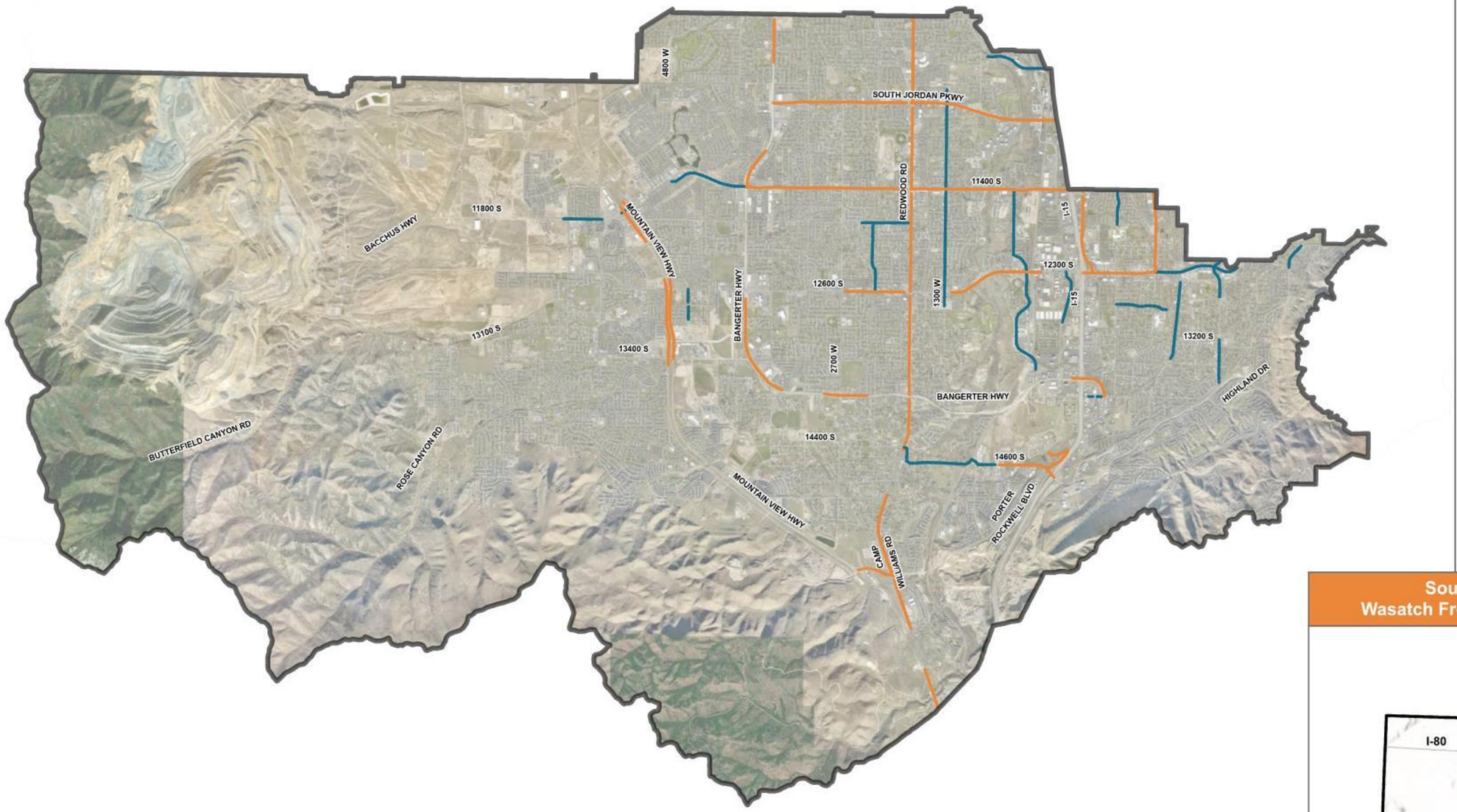
South Salt Lake Valley
Wasatch Front Regional Council Area



High-Risk Network Analysis

State Route and Federal Aid Segments	Local Street Segments

usRAP Vehicle Star Rating - Segments



Miles
0 1 2 3

N

Legend

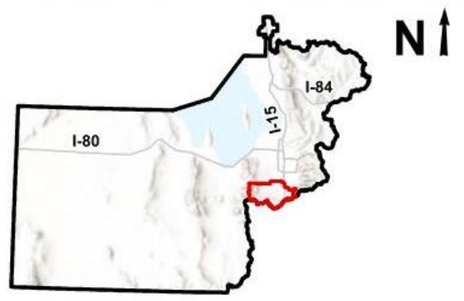
GFA Boundary

Vehicle Star Rating (1-2)

State Routes

Federal Aid Routes

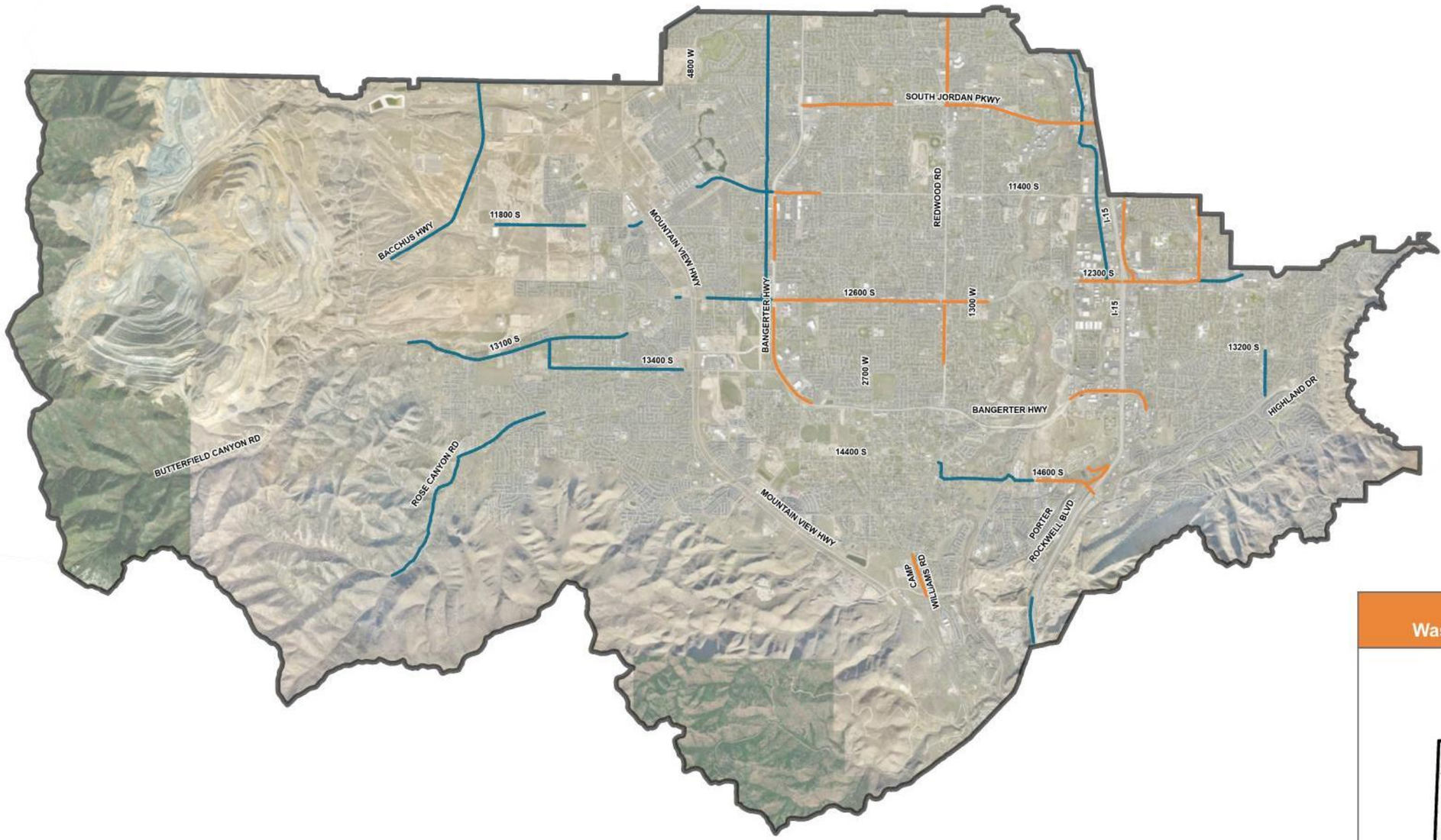
South Salt Lake Valley
Wasatch Front Regional Council Area



High-Risk Network Analysis

State Route and Federal Aid Segments	Local Street Segments

Crash Profile Risk - Segments



Miles
0 1 2 3

N

Legend

GFA Boundary

Crash Profile Risk (> 20)

State Routes

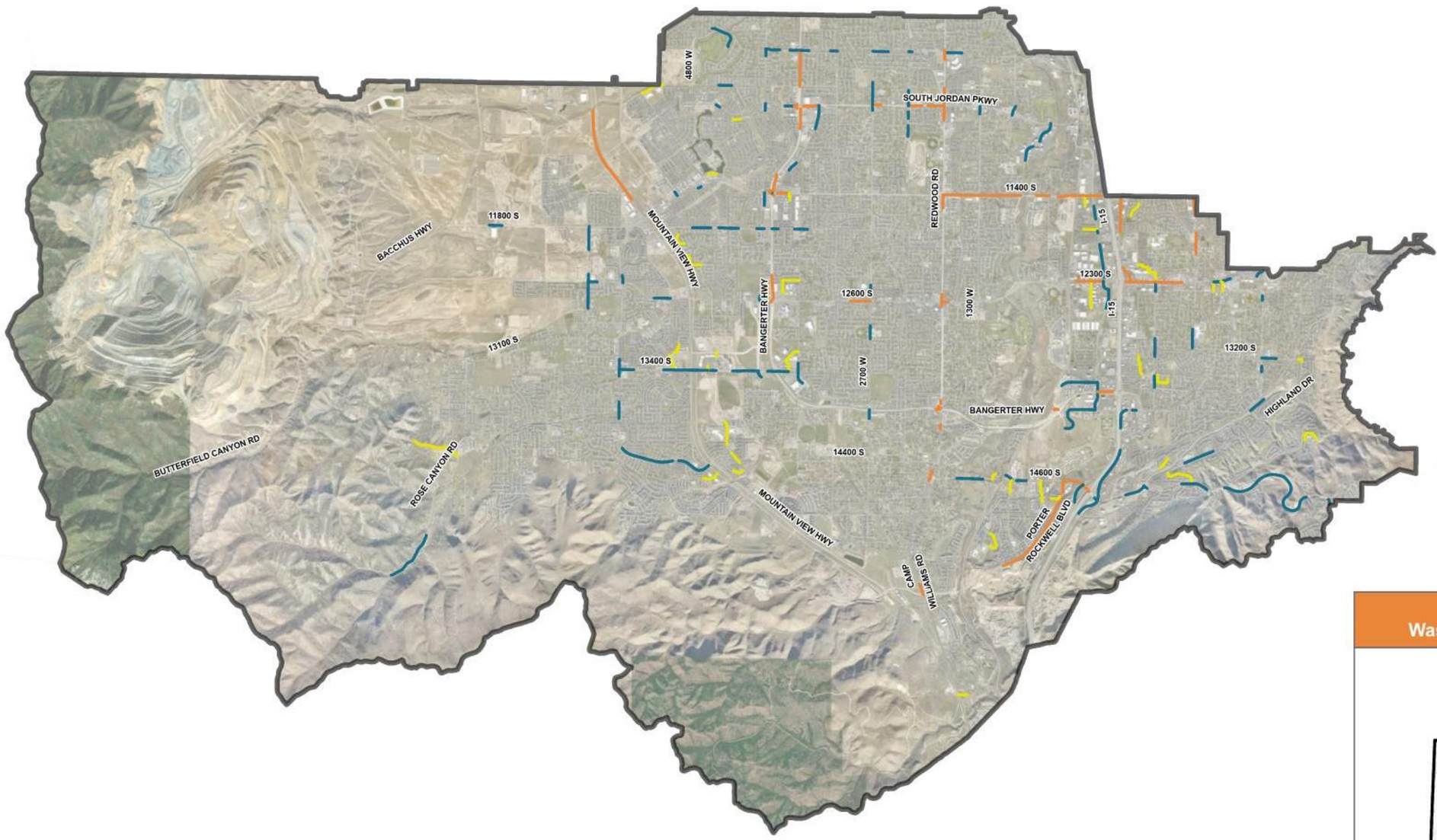
Federal Aid Routes

South Salt Lake Valley
Wasatch Front Regional Council Area

High-Risk Network Analysis

State Route and Federal Aid Segments	Local Street Segments

Network Screening - Segments



Miles
0 1 2 3

N

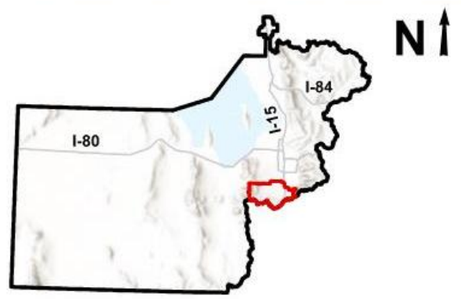
Legend

GFA Boundary

Critical Crash Rate Differential (> 0.0)

- State Routes
- Federal Aid Routes
- Local Streets

South Salt Lake Valley
Wasatch Front Regional Council Area



High-Risk Network Analysis

State Route and Federal Aid Segments	Local Street Segments

SOUTH SALT LAKE VALLEY TECH MEMO #1
SAFETY ANALYSIS

TECHNICAL MEMORANDUM #1

APPENDIX A10 - SOUTH SALT LAKE VALLEY GEOGRAPHIC FOCUS AREA ANALYSIS

December 2023

Statutory Notice

23 U.S.C. § 409: US Code - Section 409: Discovery and admission as evidence of certain reports and surveys

Notwithstanding any other provision of law, reports, surveys, schedules, lists, or data compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential accident sites, hazardous roadway conditions, or railway- highway crossings, pursuant to sections 130, 144, and 148 of this title or for the purpose of developing any highway safety construction improvement project which may be implemented utilizing Federal-aid highway funds shall not be subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data.

File name: Appendix A10 - South Salt Lake Valley GFA - Safety Analysis

Table of Contents

List of Figures

List of Tables

1. Introduction

Appendix A10 summarizes the safety analysis performed for the South Salt Lake Valley Geographic Focus Area (GFA) for the Wasatch Front Area Comprehensive Safety Action Plan (CSAP).

The analysis of available safety related data informs identification of a potential project locations that may be further considered in the development of safety related projects and project types.

1.1. Safety Analysis

The following safety analysis methodologies were completed for the South Salt Lake Valley GFA:

- Strategic Highway Safety Plan (SHSP) Emphasis Area Analysis
- Historical Crash Analysis
- Crash and Network Screening Analysis
- Roadway Characteristic Risk Analysis
  - Crash Profile Risk Assessment
  - usRAP Risk Factors Analysis
  - Local Street Risk Assessment

An overview on the methodologies used to perform these safety analyses are described in Technical Memorandum #1: Safety Analysis Results Summary. **Appendix A10** summarizes the results of the analyses for the South Salt Lake Valley GFA.

1.2. Appendix Organization

This Appendix is organized into the following sections:

- **Section 1** - Introduction
- **Section 2** - South Salt Lake Valley GFA study area and roadway network.
- **Section 3** - Strategic Highway Safety Plan (SHSP) Emphasis Area Analysis for fatal and serious injuries.
- **Section 4** - Historical Crash Analysis
- **Section 5** - Crash and Network Screening Analysis based on Highway Safety Manual (HSM).
- **Section 6** - Roadway Characteristic Risk Analysis
- **Section 7** - Safety analysis common risk characteristics and Composite High-Risk Roadway Network.

2. Study Area

The CSAP study area includes each jurisdiction within the WFRC area. To organize the large number of jurisdictions within the WFRC area into manageable analysis areas, jurisdictions are organized into Geographic Focus Areas (GFA). The South Salt Lake Valley GFA (**Figure 2.1**) is located entirely within Salt Lake County and includes the following agencies and jurisdictions:

- South Jordan
- Riverton
- Draper
- Bluffdale
- Herriman
- Copperton (Township)

The safety analyses presented in this Technical Memorandum are specific to the South Salt Lake Valley GFA.

Figure 2.2 highlights the roadway network within the South Salt Lake Valley GFA study area. Roadways within the study area are divided into the following three categories:

- State Routes: UDOT-maintained roads
- Federal Aid Routes: Jurisdiction-maintained roads eligible for federal funding
- Local Streets: Local Jurisdiction-maintained roads that are not Federal Aid routes.

NOTE ON CRASH DATA ANALYSIS: All crash data presented in this Technical Memorandum are specific to the South Salt Lake Valley, for the years 2018-2022. Crash data was obtained from the Utah Department of Transportation.

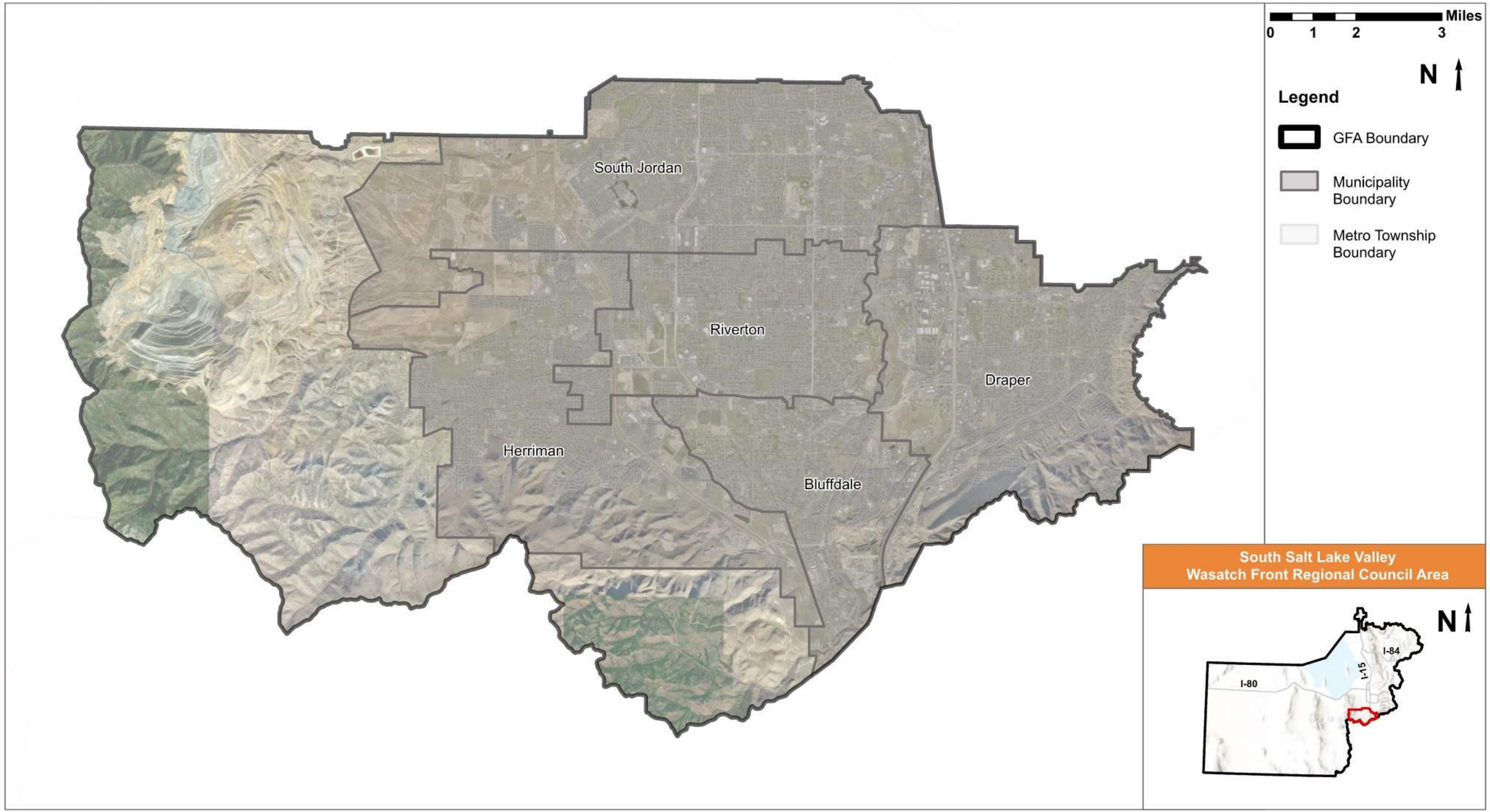


Figure 2.1 – South Salt Lake Valley GFA Study Area

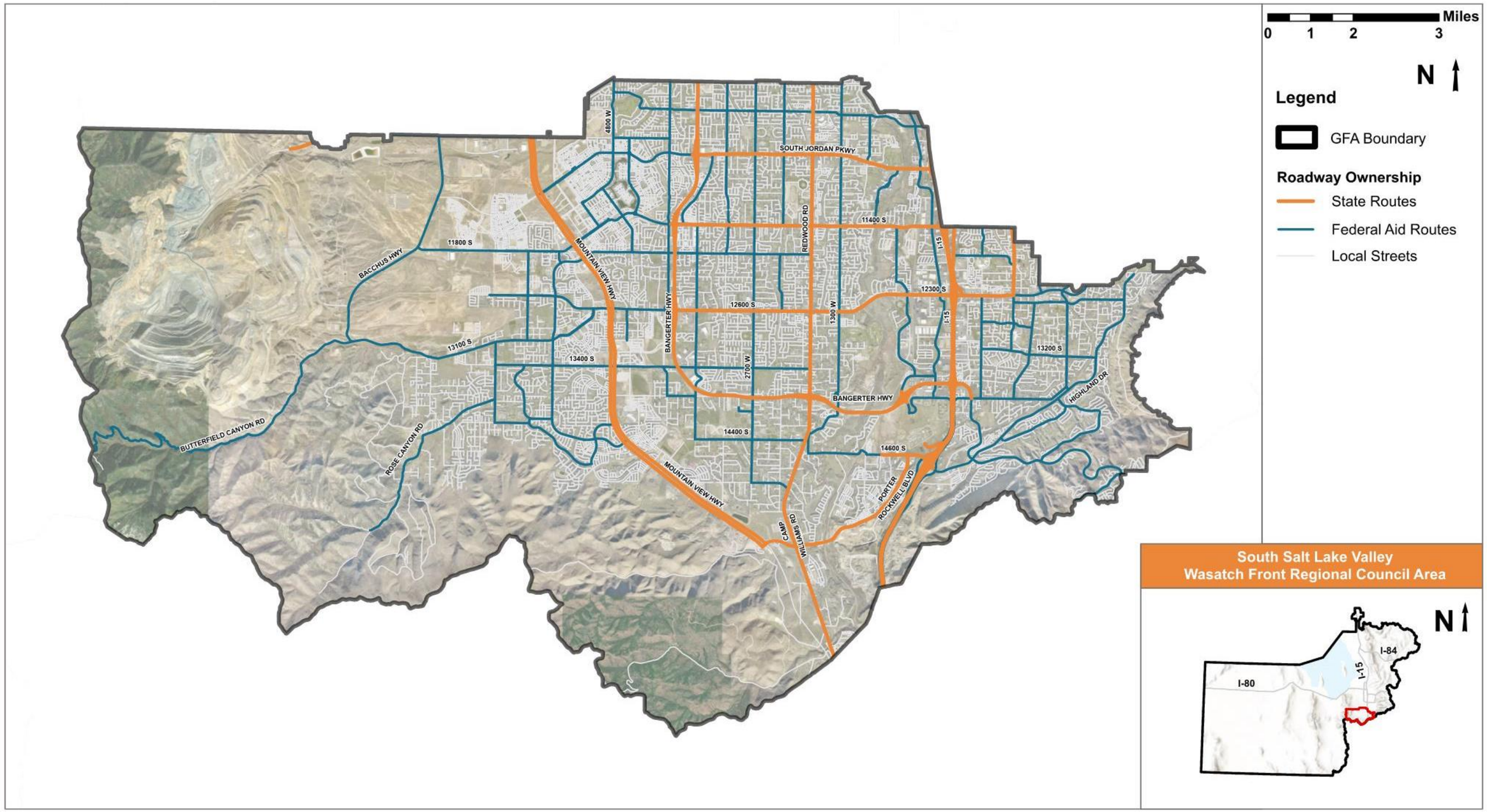


Figure 2.2 – South Salt Lake Valley GFA Roadway Network

3. SHSP Emphasis Area Analysis

The SHSP emphasis area analysis ranks the frequency of fatal and serious injury crashes in South Salt Lake Valley GFA for each of the eleven Utah SHSP emphasis areas. The rankings of the emphasis areas are compared for the South Salt Lake Valley GFA, statewide (all public roads statewide), and the WFRC study area totals. Each reported crash can have more than one emphasis area identified. The results of the SHSP emphasis area analysis are displayed in **Table 3.1**. The top five ranked emphasis areas are highlighted in the table with the top five for the South Salt Lake Valley GFA listed below:

- Intersections
- Roadway Departure
- Teen Driver
- Impaired Driving
- Speed-Related

Table 3.1 – SHSP Emphasis Areas Analysis

Category	Utah SHSP Safety Emphasis Area	Statewide Totals		WFRC Totals		South Salt Lake Valley Totals		
		Fatal and Serious Injury	Rank	Fatal and Serious Injury	Rank	Fatal and Serious Injury	Rank	Change in Rank From WFRC
Driver	Teen Driver	1,640	**4**	917	5	98	2	3
	Older Driver	1,508	6	523	8	27	10	-2
	Speed-Related	2,133	**3**	723	6	74	5	1
	Aggressive Driving	555	11	243	11	25	11	0
	Distracted Driving	718	10	955	4	64	6	-2
	Impaired Driving	1,184	8	1,234	3	85	4	-1
	No Safety Restraints	1,542	**5**	347	10	39	8	2
Roadway	Intersection	3,567	**1**	1,975	1	191	1	0
	Roadway Departure	2,931	**2**	1,503	2	98	2	0
Special Users	Motorcycle	1,457	7	597	7	49	7	0
	Pedestrian	912	9	452	9	30	9	0
	Bicycle*	280	12	118	12	6	12	0

**Bicyclists aren't one of the eleven Utah SHSP emphasis areas but was included as part of the CSAP safety analysis.*

4. Historical Crash Analysis

A historical crash data analysis was conducted for the most recent complete 5-year period from 2018 to 2022. This historical crash analysis is primarily focused on fatal and serious injury crashes.

4.1. Overall Crashes

Table 4.1 provides an overview of overall crashes by severity and roadway ownership within the South Salt Lake Valley GFA. The data shows the following:

- State Routes recorded 54% of the total crashes in this GFA
- State Routes recorded 31 of 48 fatal crashes in this GFA
- Federal Aid routes recorded 34% of fatal and serious injury crashes in this GFA
- Federal Aid routes recorded 12 of 48 fatal crashes in this GFA
- Local Streets (non-Federal Aid) recorded 12% of fatal and serious injury crashes in this GFA
- Local Streets recorded five of 48 fatal crashes in this GFA

Table 4.1 – Crashes by Severity by Roadway Ownership

Route Type	State Route		Federal Aid Route		Local Street		Overall Total		% of WFRC
Crash Severity	Crashes		Crashes		Crashes		Crashes		%
	#	%	#	%	#	%	#	%	
Fatal	31	0%	12	0%	5	0%	**48**	**0.3%**	**0.0%**
Suspected Serious Injury	139	1%	96	2%	35	2%	**270**	**1.5%**	**0.1%**
Suspected Minor Injury	762	8%	579	10%	133	6%	**1,474**	**8.2%**	**0.8%**
Possible Injury	1,943	20%	1,013	17%	246	11%	**3,202**	**17.9%**	**1.8%**
No Injury / Property Damage Only	6,770	70%	4,368	72%	1,784	81%	**12,922**	**72.1%**	**7.2%**
Route Total	**9,645**	**100%**	**6,068**	**100%**	**2,203**	**100%**	**17,916**	**100%**	**9.9%**

4.2. Fatal and Serious Injury Crashes by Year

Figure 4.1 through **Figure 4.3** provide an overview of fatal and serious injury crashes by year and roadway ownership for the South Salt Lake Valley GFA. The data shows the following:

- Fatal crashes have increased during the most recent 5-year period (2018-2022)
- Serious injury crashes have increased during the most recent 5-year period (2018-2022)

4.3. Fatal and Serious Injury Crashes by Location

Figure 4.4 shows the locations of the fatal and serious injury crashes within the South Salt Lake Valley GFA. Crashes are largely focused on State Routes.

Figure 4.5 is a density map of fatal and serious injury crashes within the South Salt Lake Valley GFA.

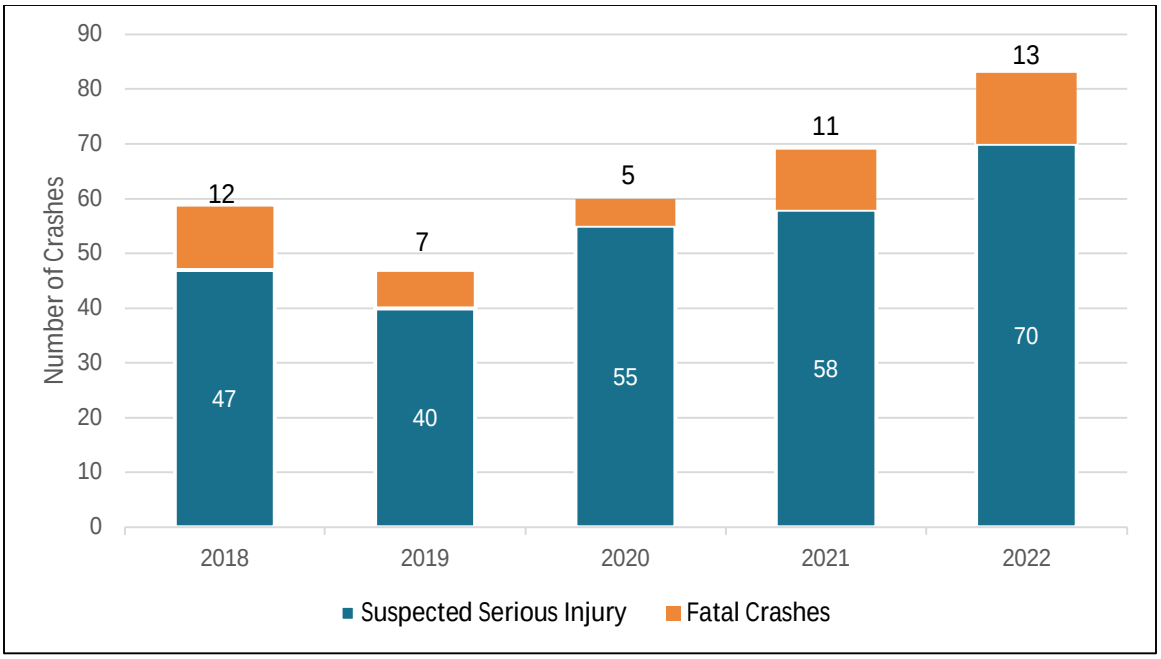


Figure 4.1 – Fatal and Serious Injury Crashes by Year

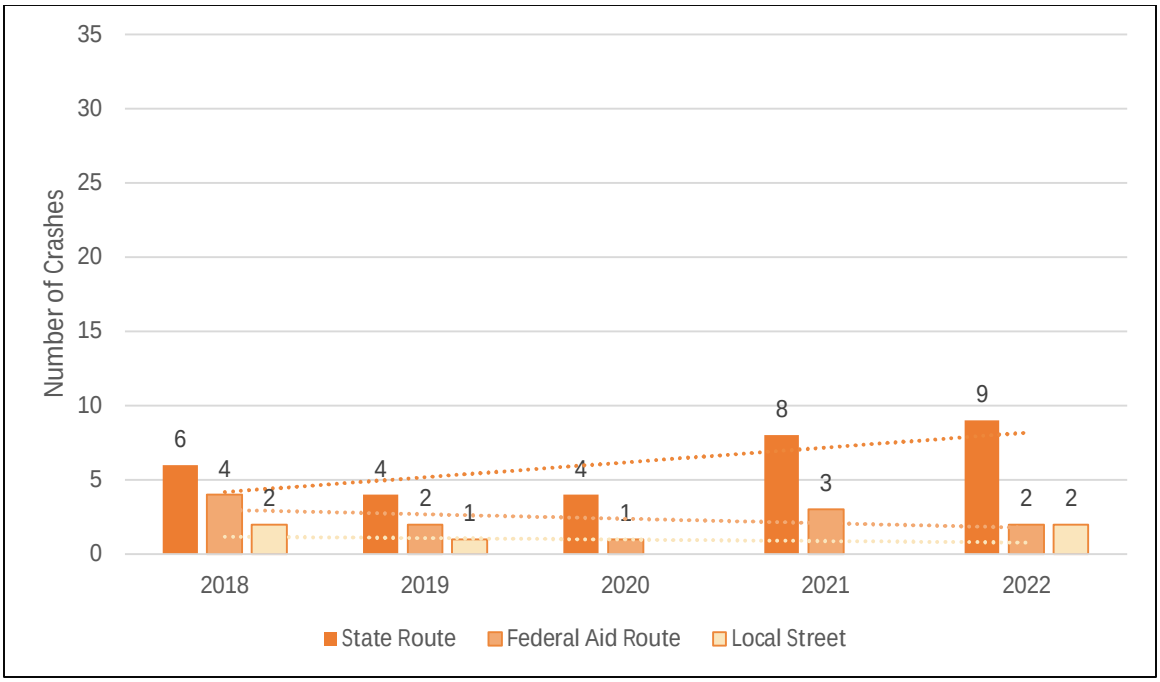


Figure 4.2 – Annual Fatal Crashes by Roadway Ownership

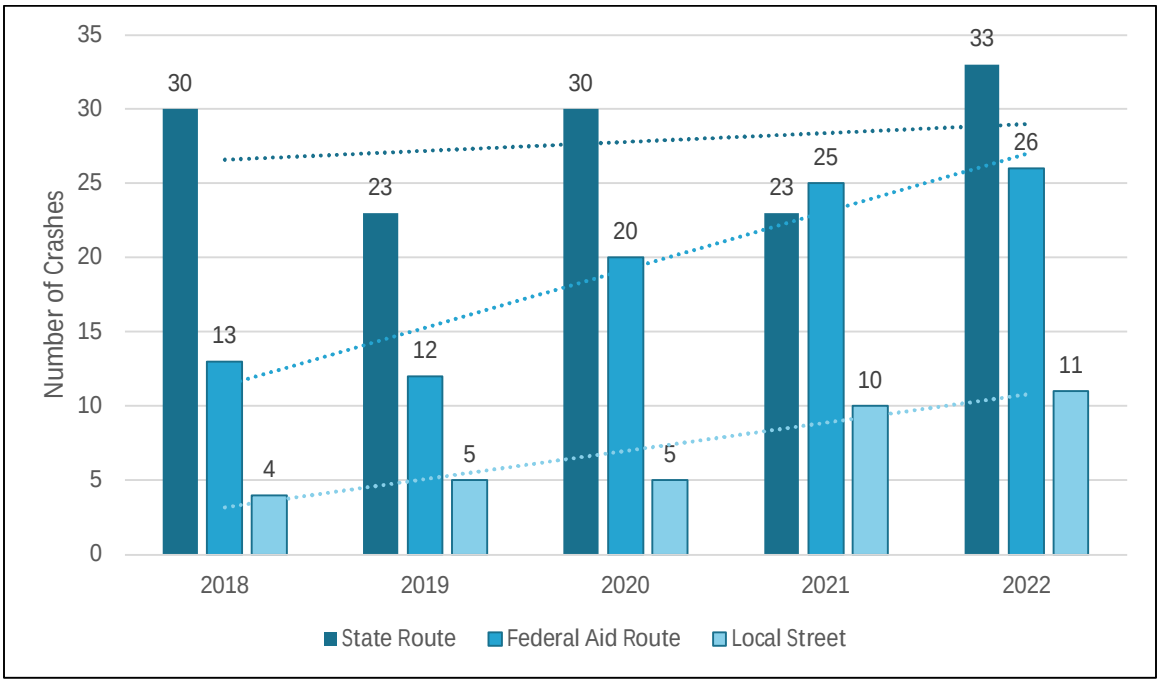


Figure 4.3 – Annual Serious Injury Crashes by Roadway Ownership

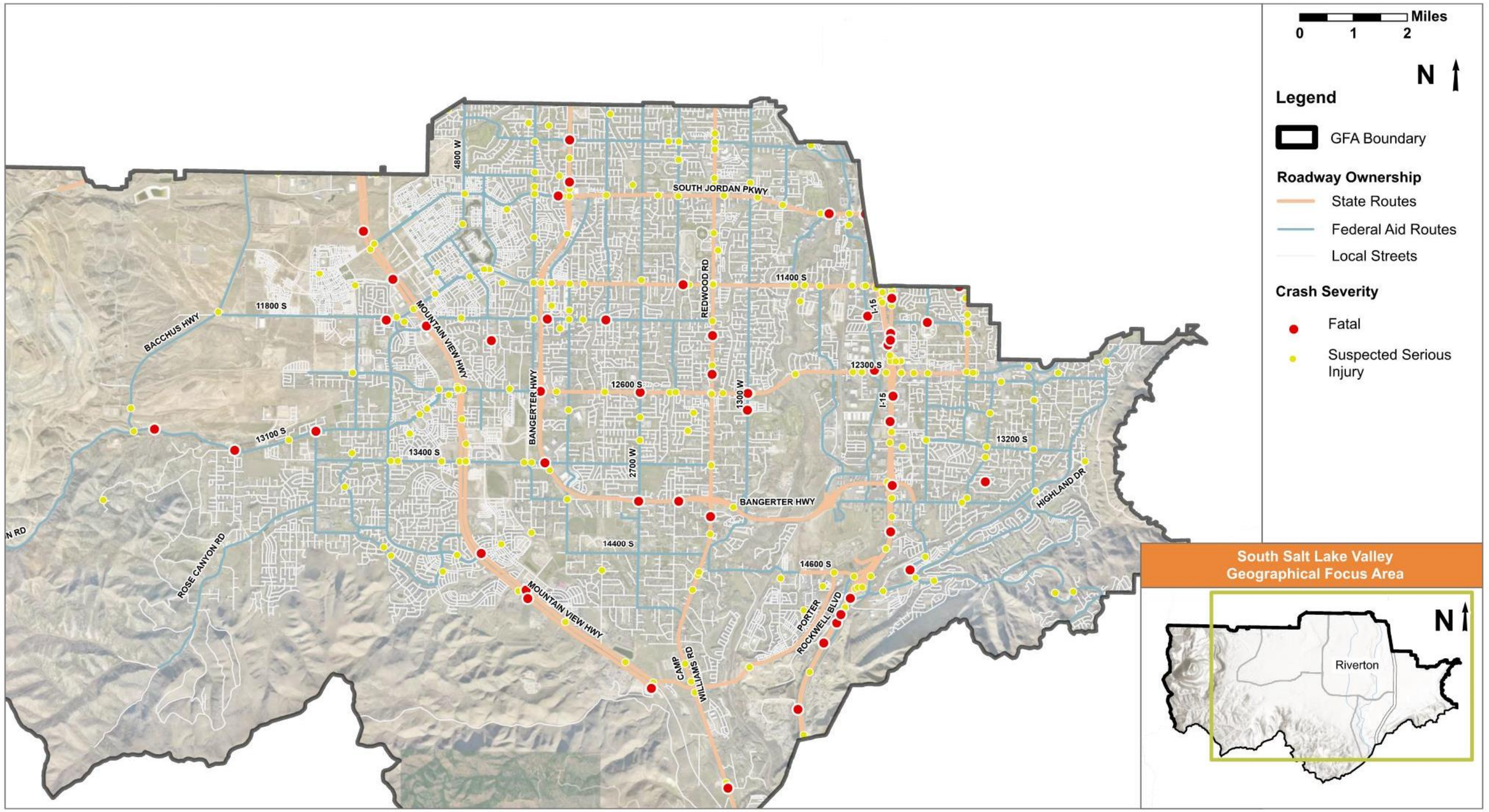


Figure 4.4 – Fatal and Serious Injury Crashes

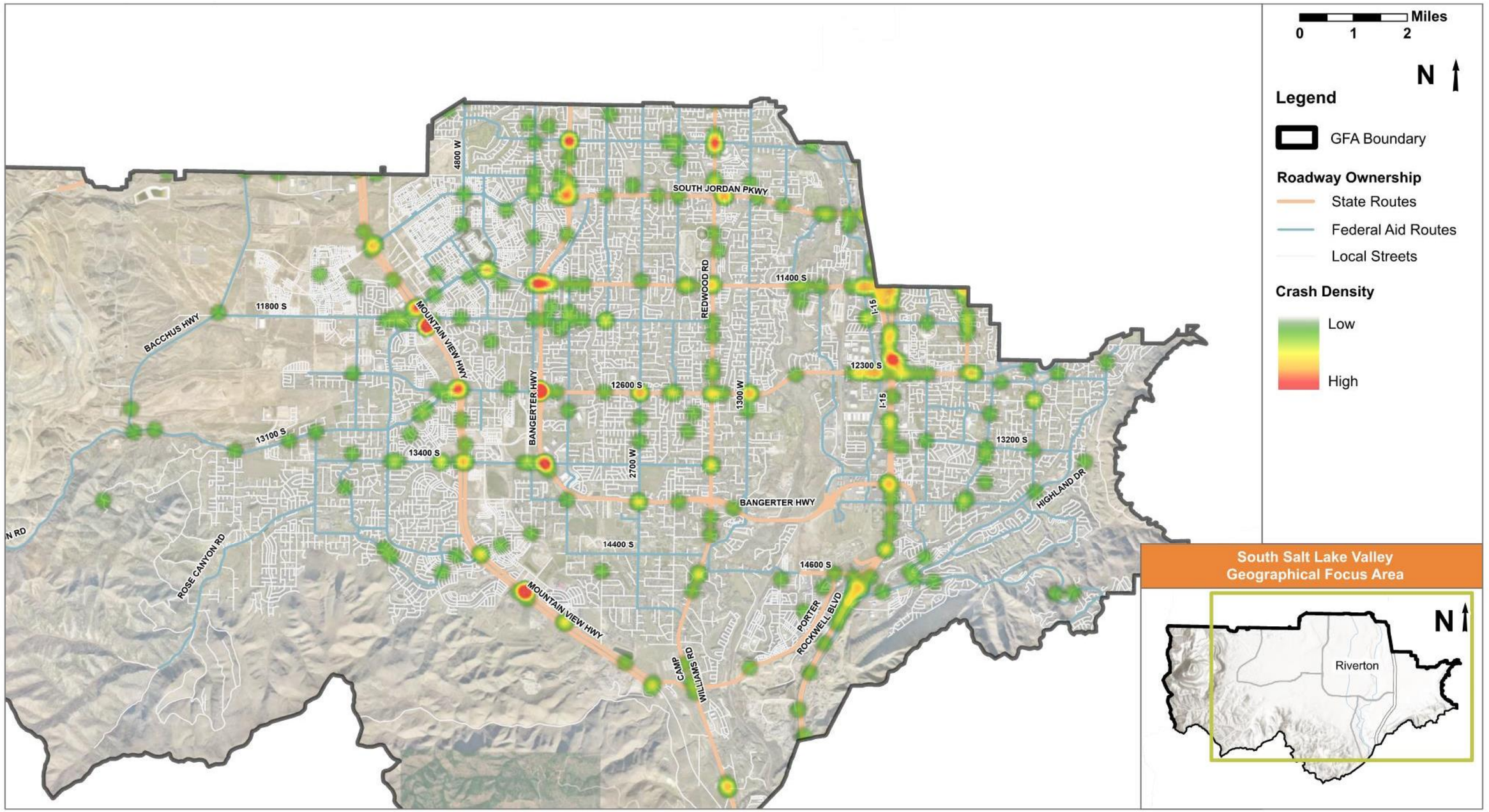


Figure 4.5 – Fatal and Serious Injury Crash Density

4.4. Fatal and Serious Injury Crashes by Crash Type

Figure 4.6 through **Figure 4.8** provide an overview of fatal and serious injury crashes by crash type and roadway ownership for the South Salt Lake Valley GFA. The data shows the following:

- Left turn at Intersection crash type has the highest number of total fatal and serious injuries with 74 crashes
- Roadway Departure has the most frequency of fatal crashes, followed by Active Transportation

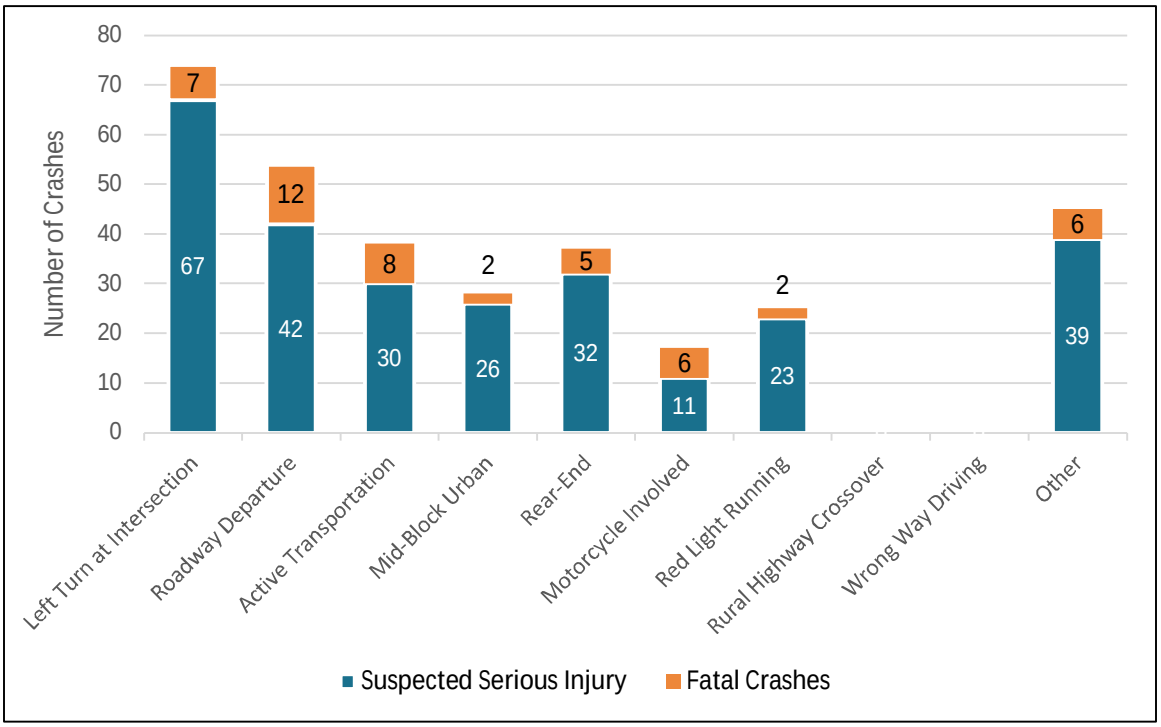


Figure 4.6 – Fatal and Serious Injury Crashes by Crash Type

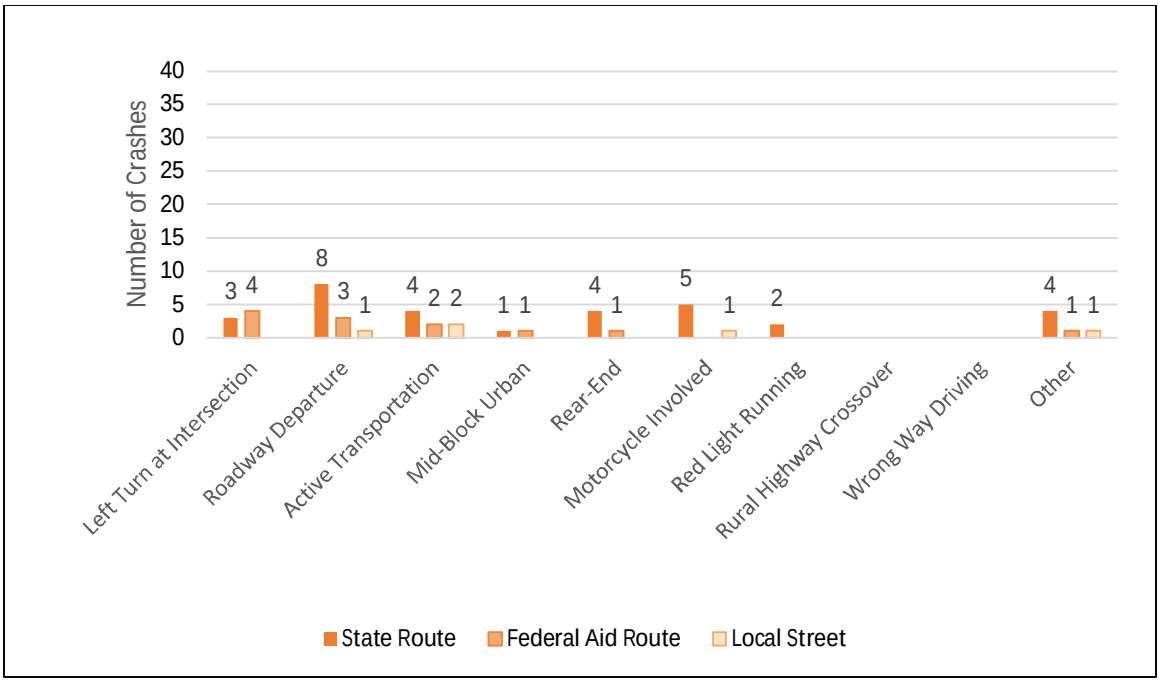


Figure 4.7 – Fatal Crashes by Crash Type and Roadway Ownership

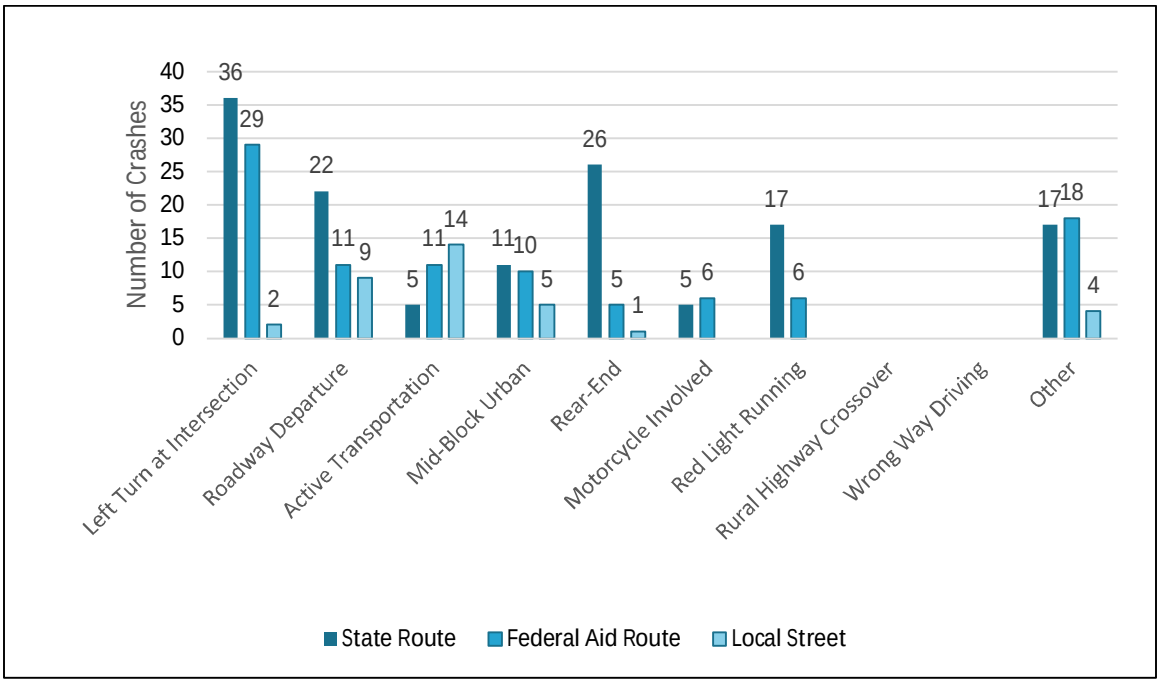


Figure 4.8 – Serious Injury Crashes by Crash Type and Roadway Ownership

4.5. Fatal and Serious Injury Vulnerable User Crashes

Figure 4.9 through **Figure 4.11** provide an overview of fatal and serious injury crashes by vulnerable road user and roadway ownership for the South Salt Lake Valley GFA. The data shows the following:

- There were 8 pedestrian fatal crashes in the five-year analysis period (2018-2022)
- There were no bicycle fatal crashes in the five-year analysis period (2018-2022)
- Motorcycles represent the most frequent fatal and serious injury vulnerable user crashes
- Pedestrian fatal crashes occur on both State Routes and Federal Aid routes

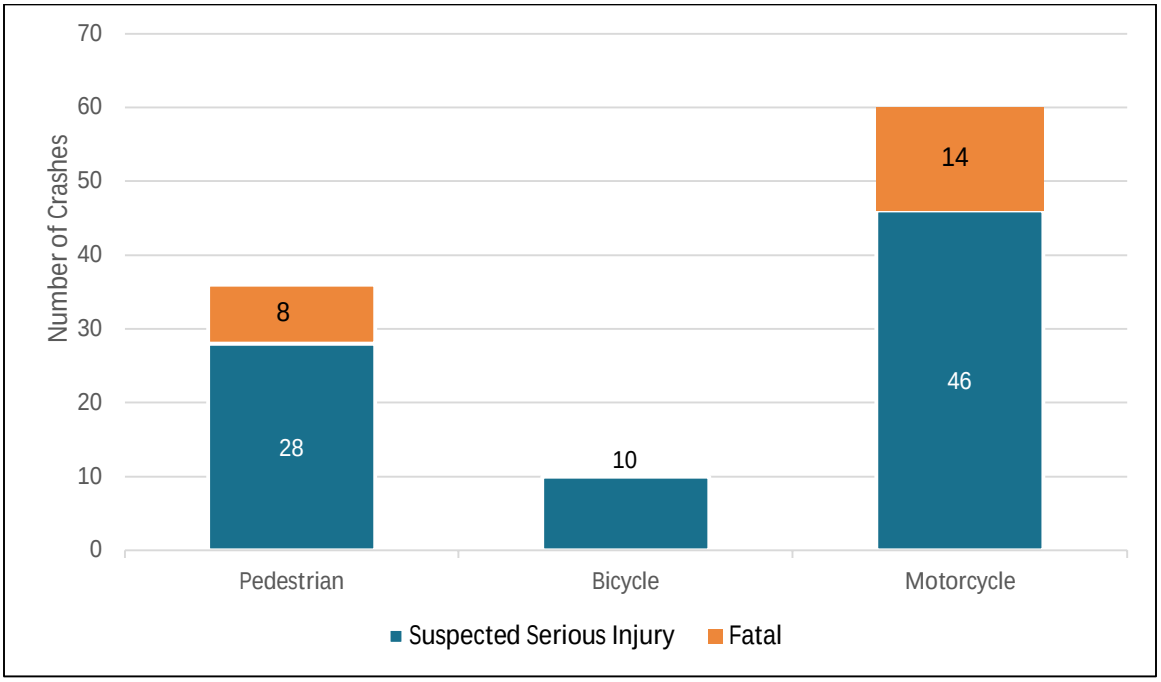


Figure 4.9 – Fatal and Serious Injury Crashes by Vulnerable User

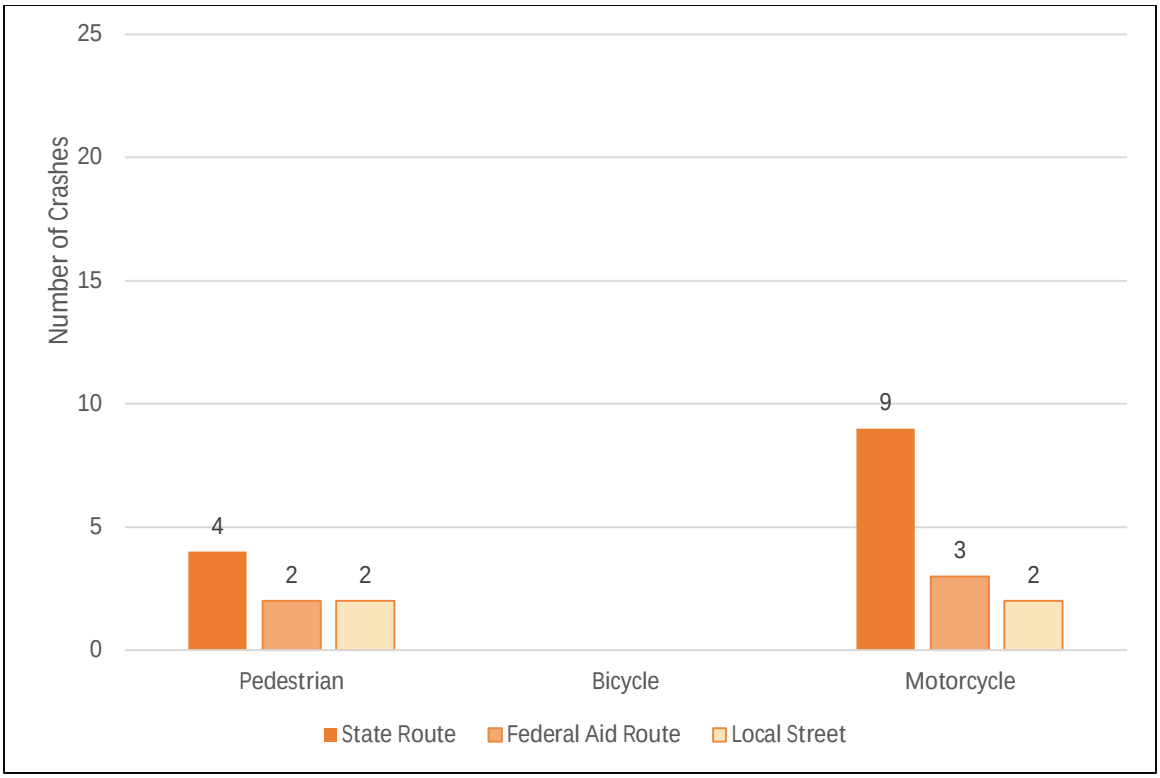


Figure 4.10 – Fatal Crashes by Vulnerable User and Roadway Ownership

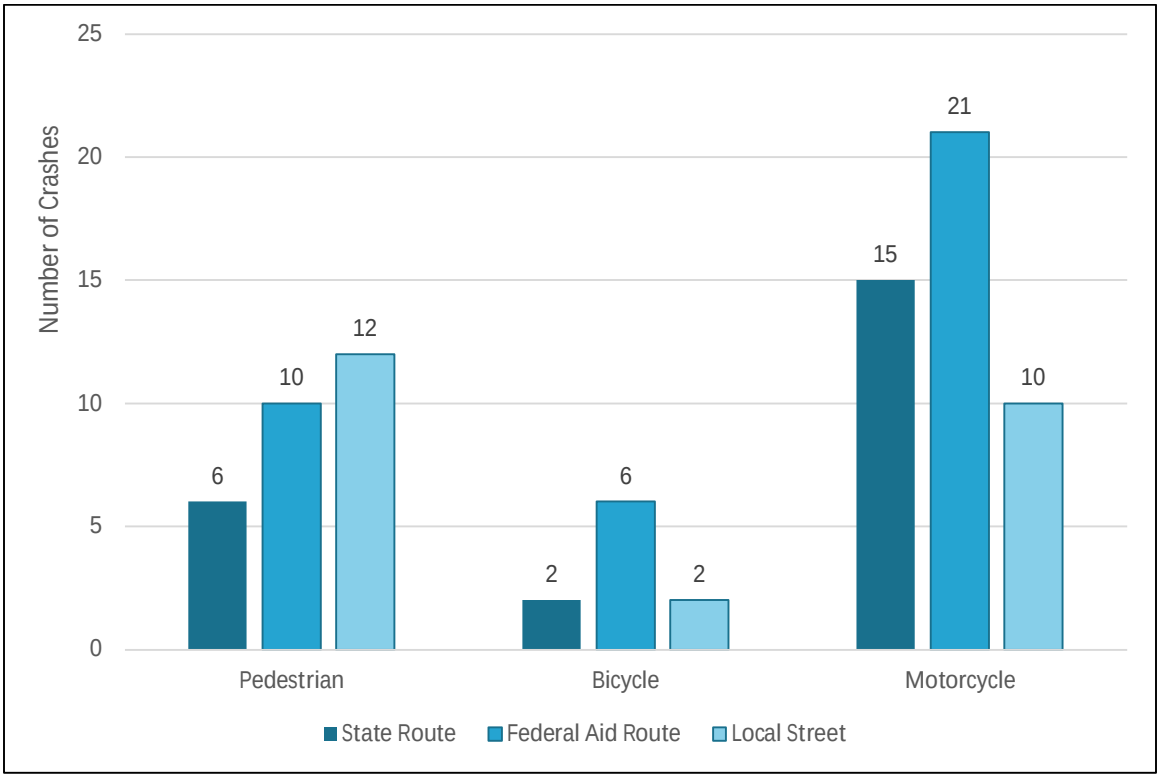


Figure 4.11 – Serious Injury Crashes by Vulnerable User and Roadway Ownership

4.6. Fatal and Serious Injury Crashes by Manner of Collision

Figure 4.12 through **Figure 4.14** provide an overview of fatal and serious injury crashes by manner of collision and roadway ownership for the South Salt Lake Valley GFA. The data shows the following:

- Angle crashes have the highest number of total fatal and serious injuries with 124 crashes
- Angle crashes are closely followed by single vehicle manner of collision
- Most single fatal crashes occurred on State Routes, while severe injury single vehicle crashes was more evenly split between State Routes and Federal Aid routes

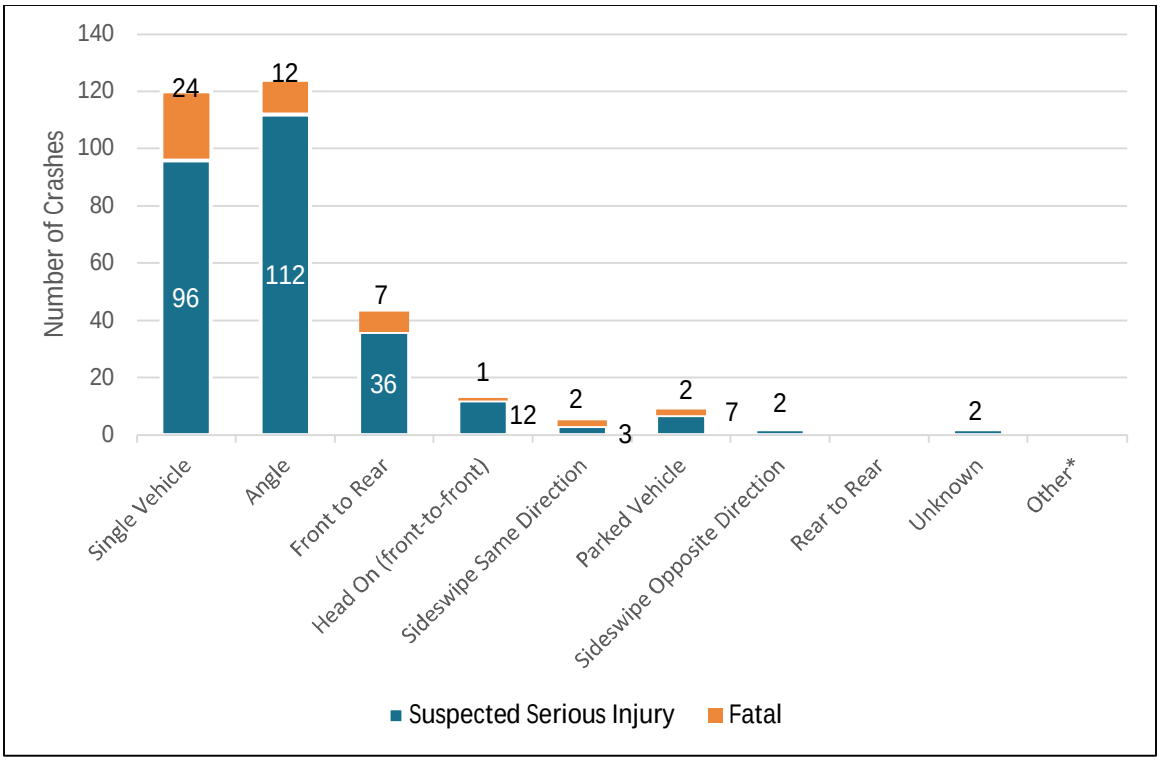


Figure 4.12 – Fatal and Serious Injury Crashes by Manner of Collision

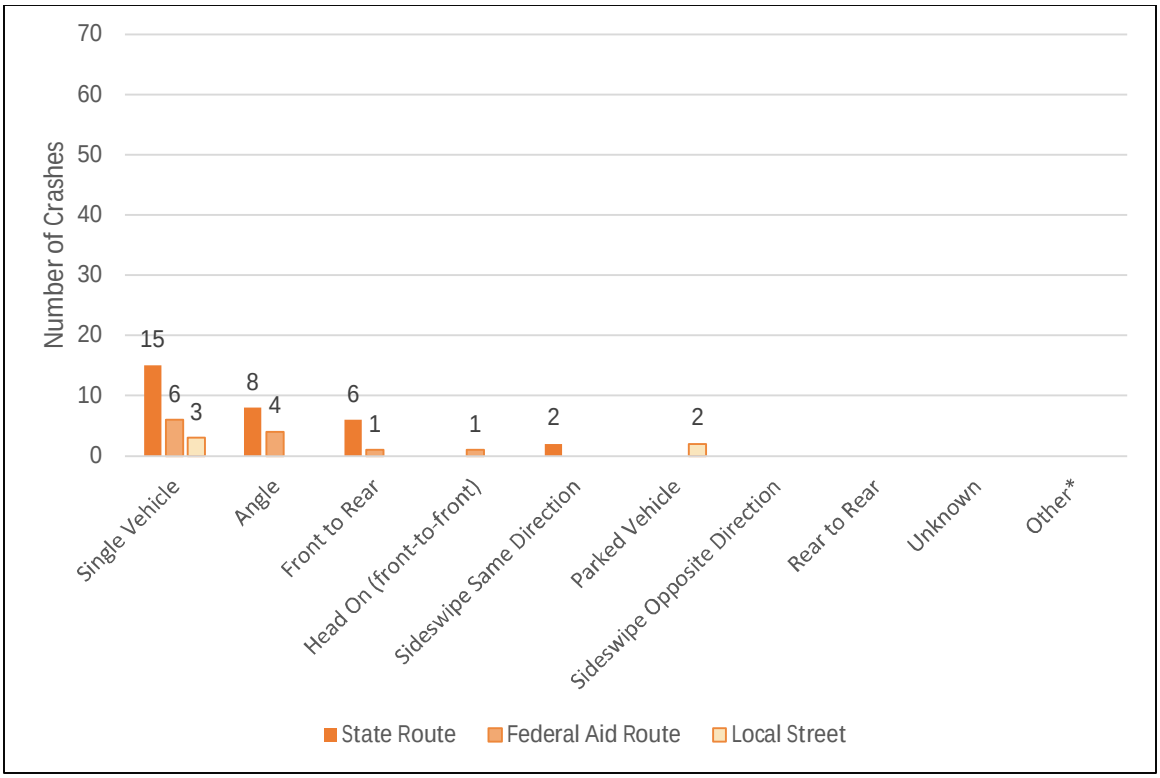


Figure 4.13 – Fatal Crashes by Manner of Collision and Roadway Ownership

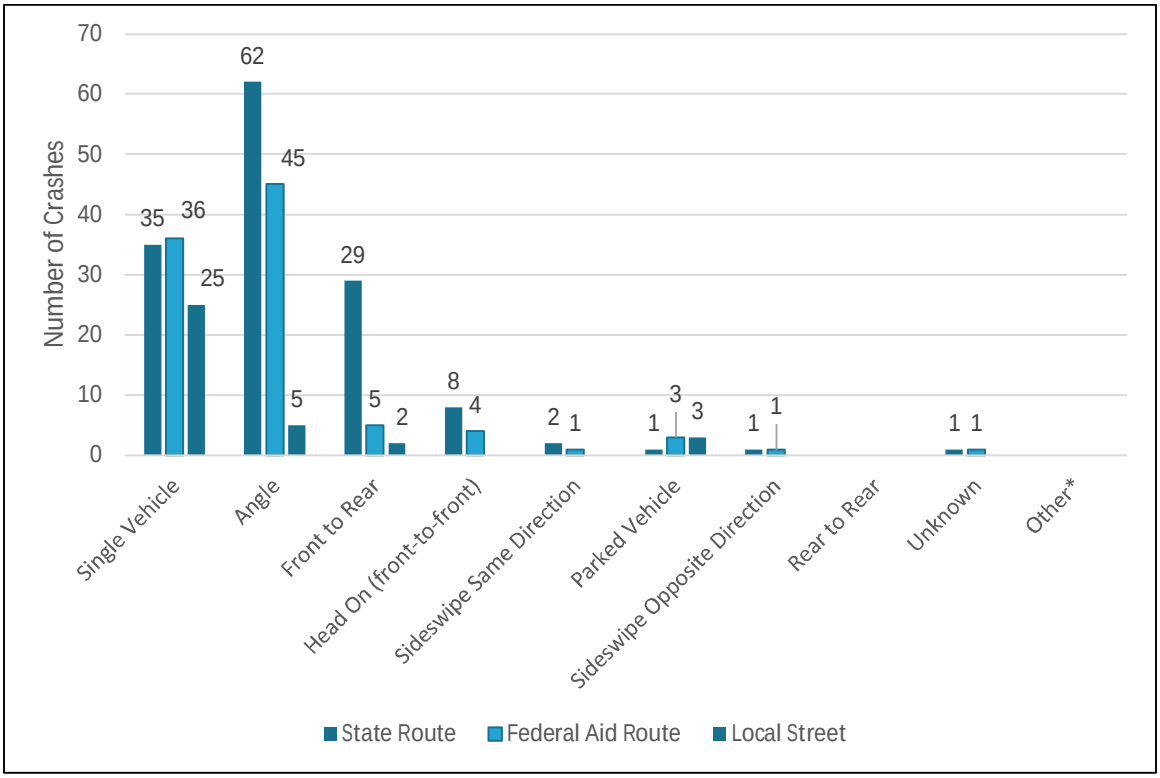


Figure 4.14 – Serious Injury Crashes by Manner of Collision and Roadway Ownership

4.7. Fatal and Serious Injury Intersection Crashes

Figure 4.15 through **Figure 4.17** provide an overview of fatal and serious injury crashes by intersection and roadway ownership for the South Salt Lake Valley GFA. The data shows the following:

- More crashes were Intersection Involved than Not Intersection Involved; however, more fatal crashes occurred were Not Intersection Involved
- State Routes accounted for more Intersection Involved and Not Intersection Involved

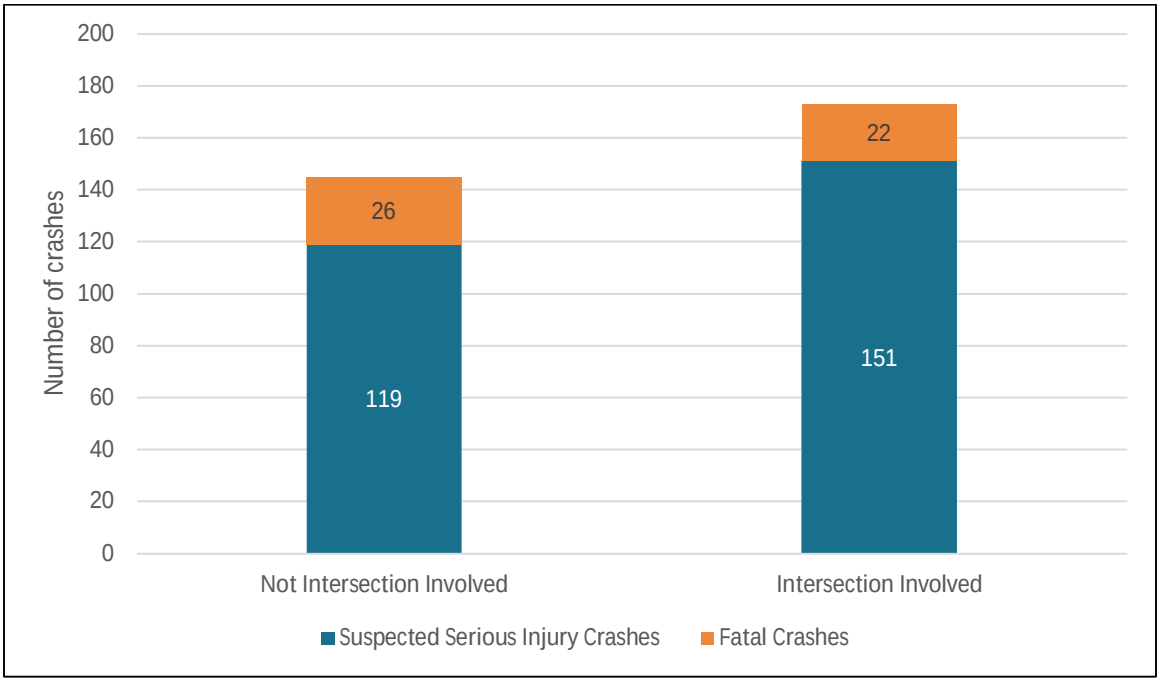


Figure 4.15 – Fatal and Serious Injury Crashes by Intersection

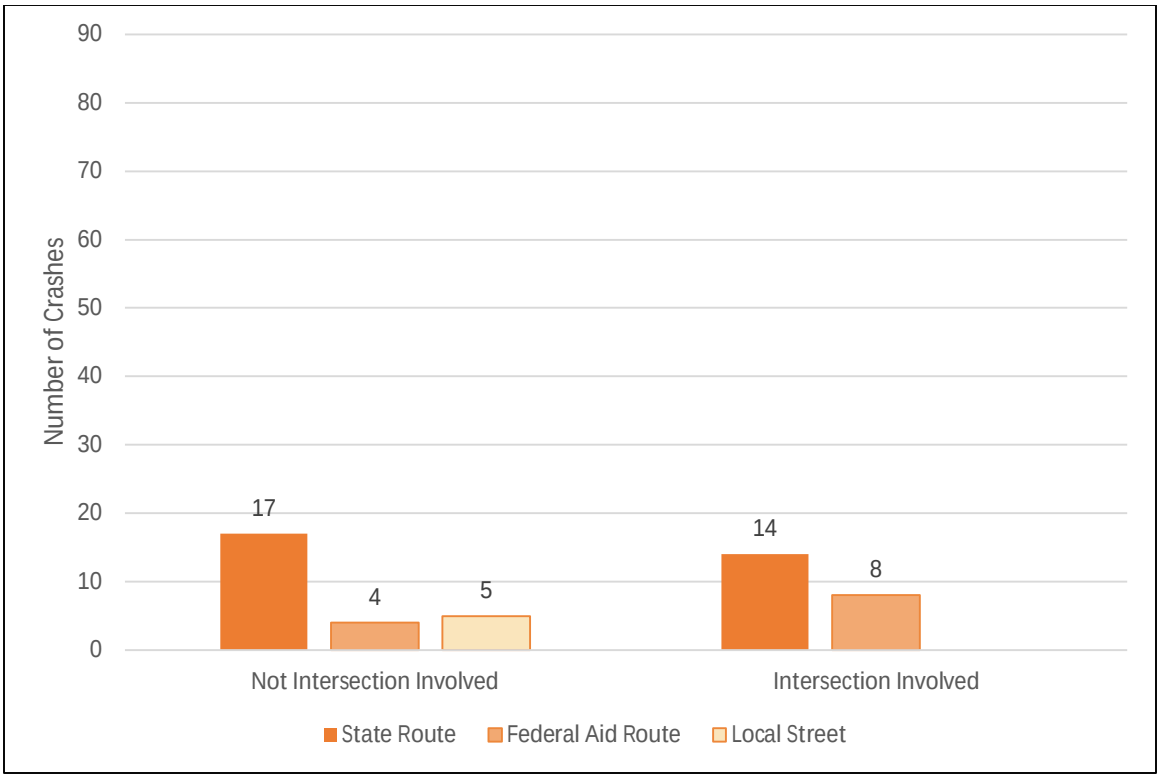


Figure 4.16 – Fatal Crashes by Intersection and Roadway Ownership

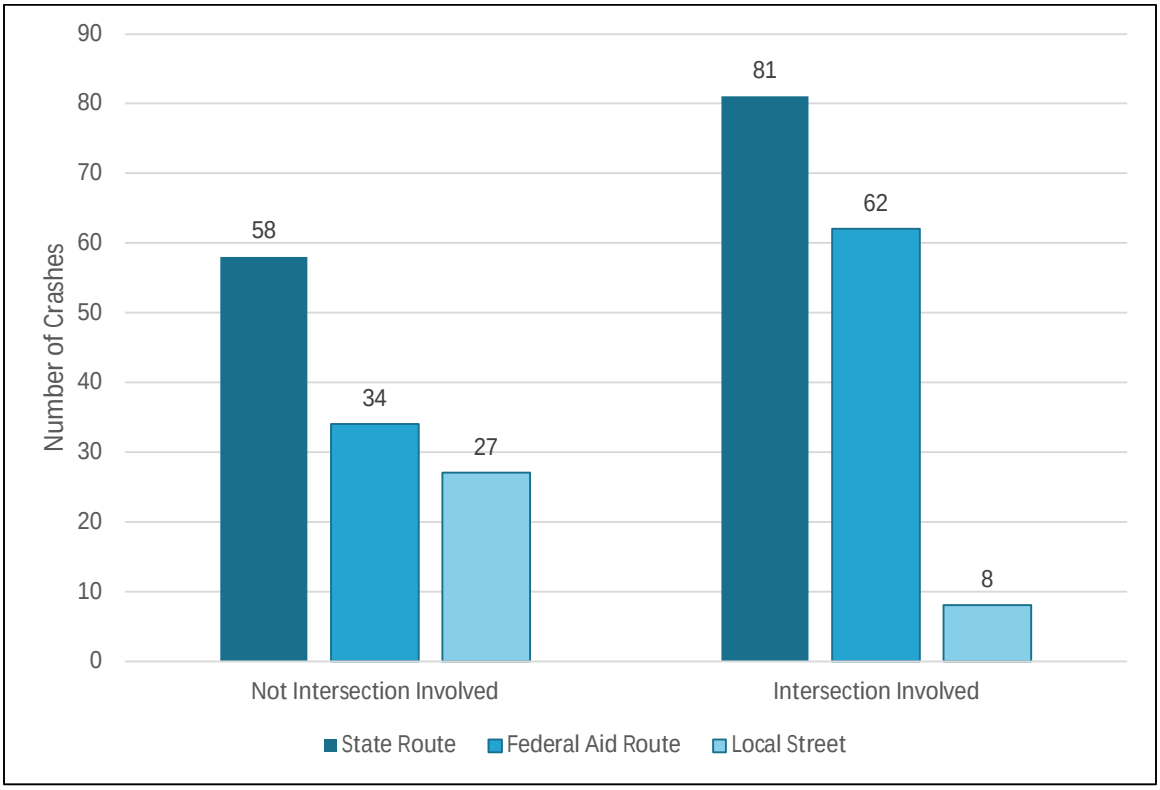


Figure 4.17 – Serious Injury Crashes by Intersection and Roadway Ownership

4.8. Fatal and Serious Injury Crashes by Functional Class

Figure 4.18 through **Figure 4.20** provide an overview of fatal and serious injury crashes by functional class and roadway ownership for the South Salt Lake Valley GFA. The data shows the following:

- Principal Arterial accounted for highest frequency of fatal crashes, and as well as highest frequency of serious injury crashes
- All of the Principal Arterial fatal crashes occurred on State Routes

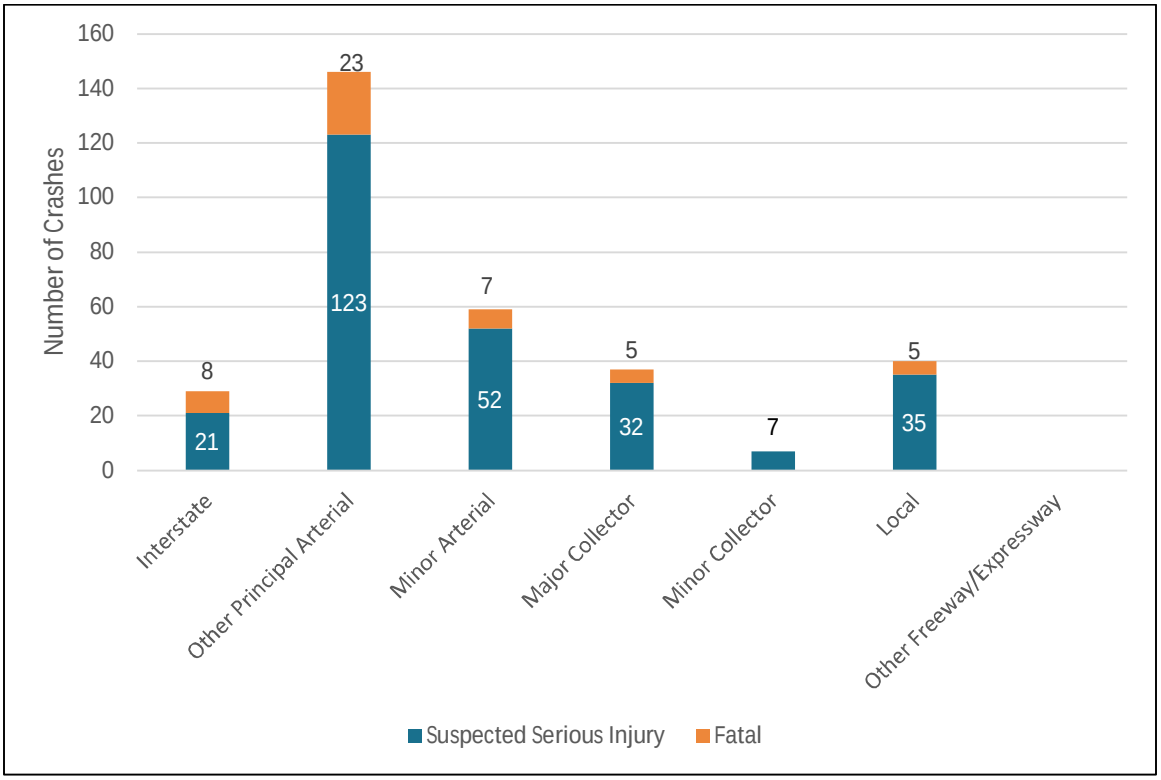


Figure 4.18 – Fatal and Serious Injury Crashes by Functional Class

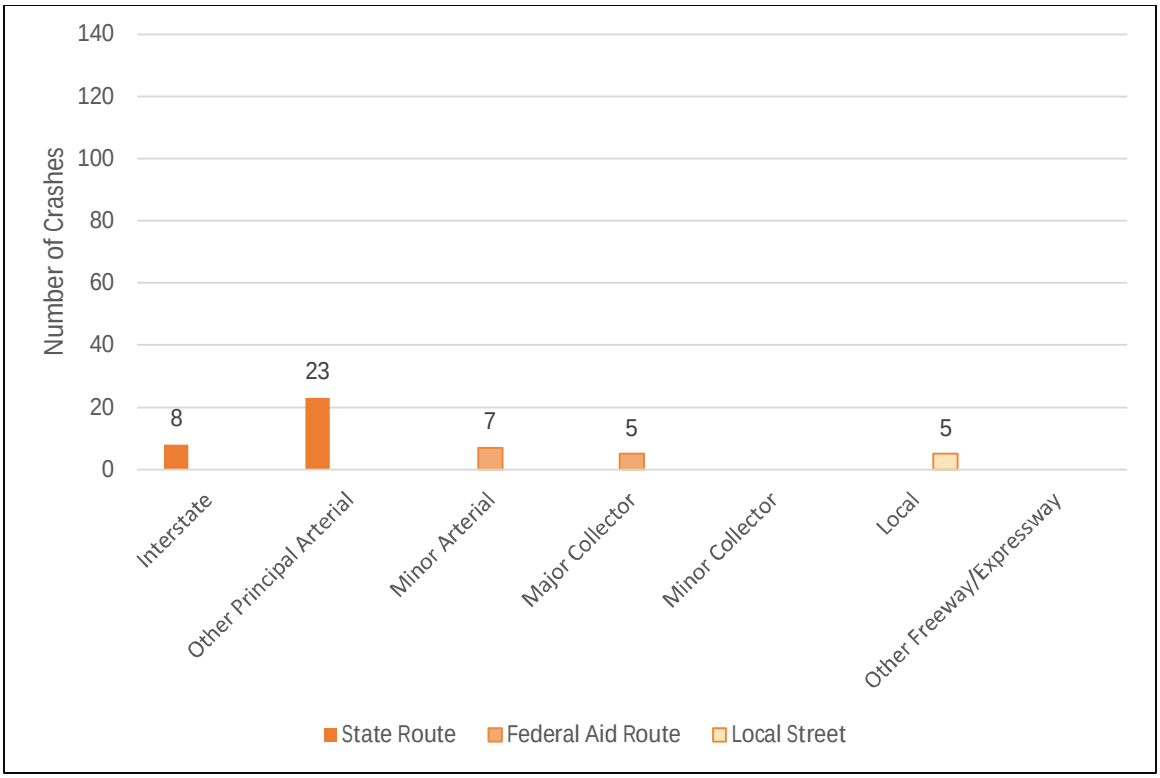


Figure 4.19 – Fatal Injury Crashes by Functional Class and Roadway Ownership

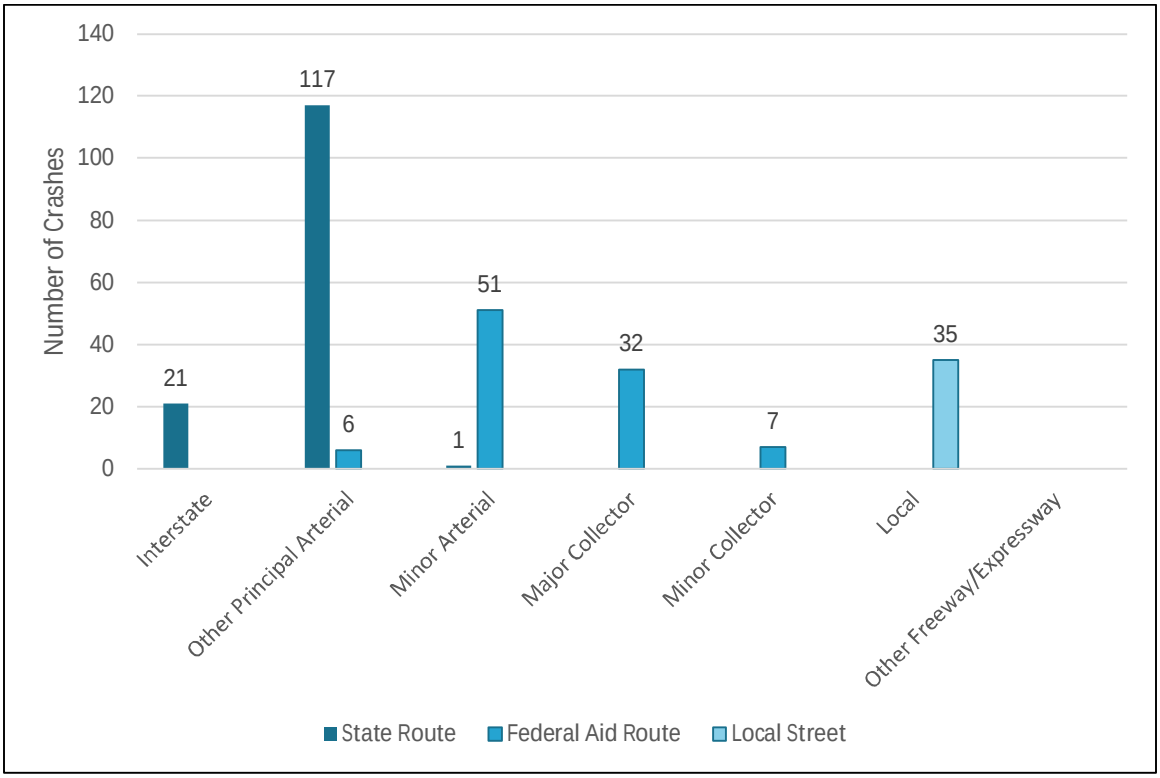


Figure 4.20 – Serious Injury Crashes by Functional Class and Roadway Ownership

4.9. Fatal and Serious Injury Crash Trees Diagrams

Fatal and serious injury crash tree diagrams were generated for the South Salt Lake Valley GFA. These crash tree diagrams are presented in **Figure 4.23** through **Figure 4.22**.

The crash trees are limited to the top 3 categories for crash type and manner of collision. Each crash tree diagram displays the total fatal and serious injury crashes (T), fatal crashes (K), and serious injury crashes (A). The data shows the following:

- There are not rural State Route or Federal Aid crashes in this GFA
- State Routes recorded the highest number of crashes (54%), with Federal Aid at 34% and Local Routes at 13%
- Intersection-related crashes exceed that of non-intersection on State Routes and Federal Aid routes; on Local Streets, non-intersection related crashes exceed intersection-related crashes
- Of the intersection related, Left Turn at intersection was prominent on State Routes and Federal Aid routes

CRASH TYPE

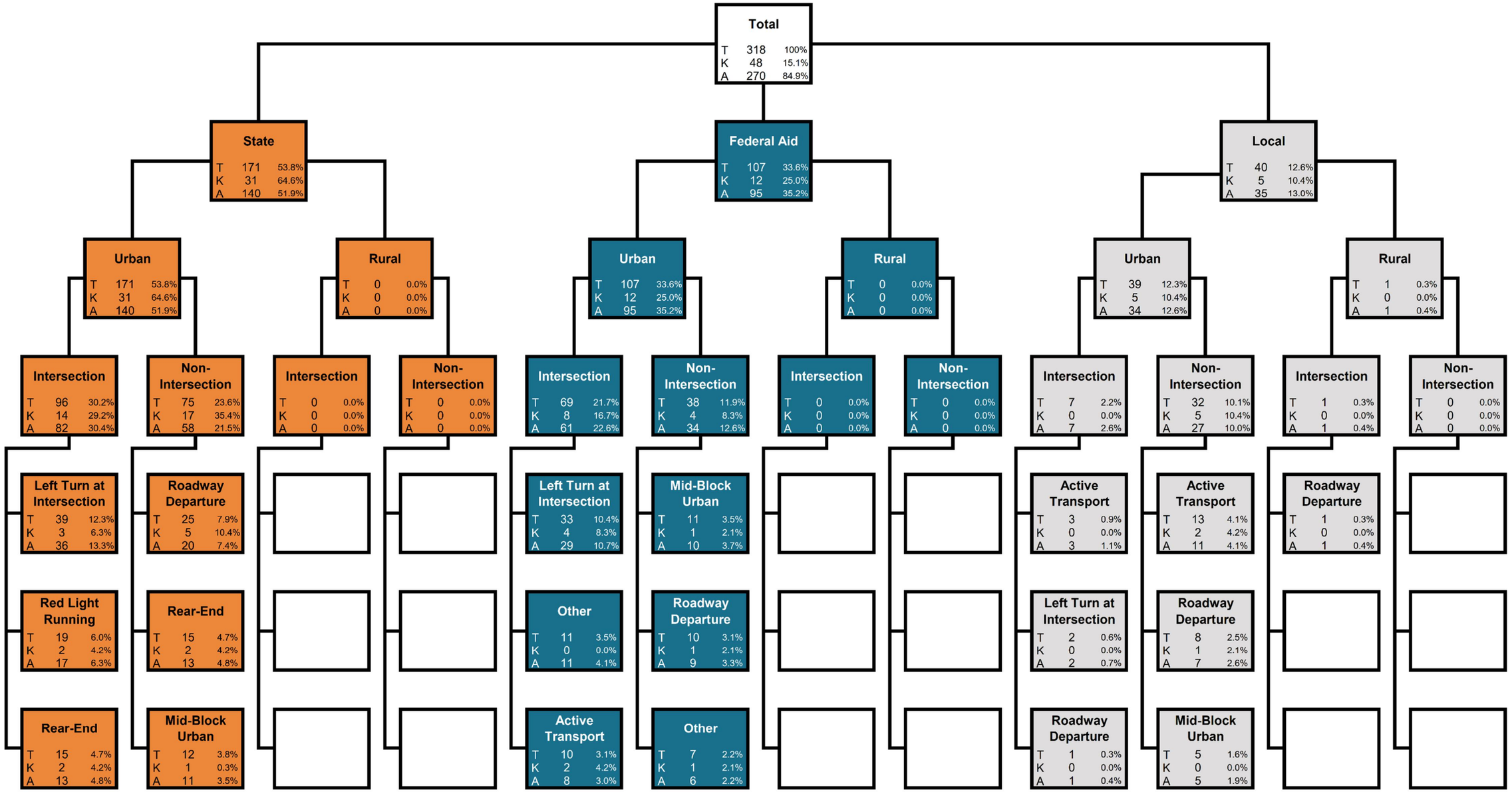


Figure 4.21 – Fatal and Serious Injury Crash Tree Diagram (Crash Type)

MANNER OF COLLISION

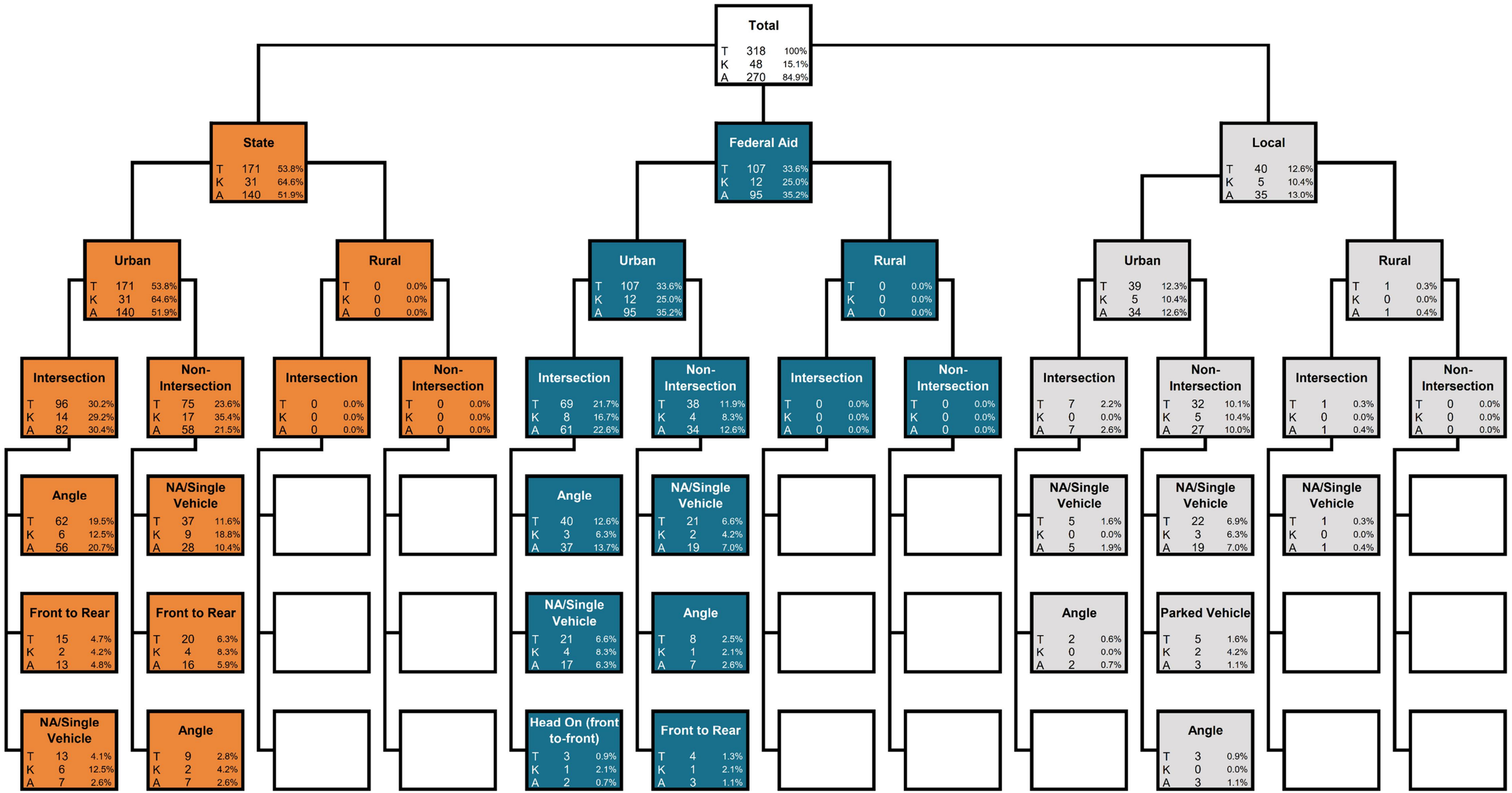


Figure 4.22 – Fatal and Serious Injury Crash Tree Diagram (Manner of Collision)

ACTIVE TRANSPORTATION

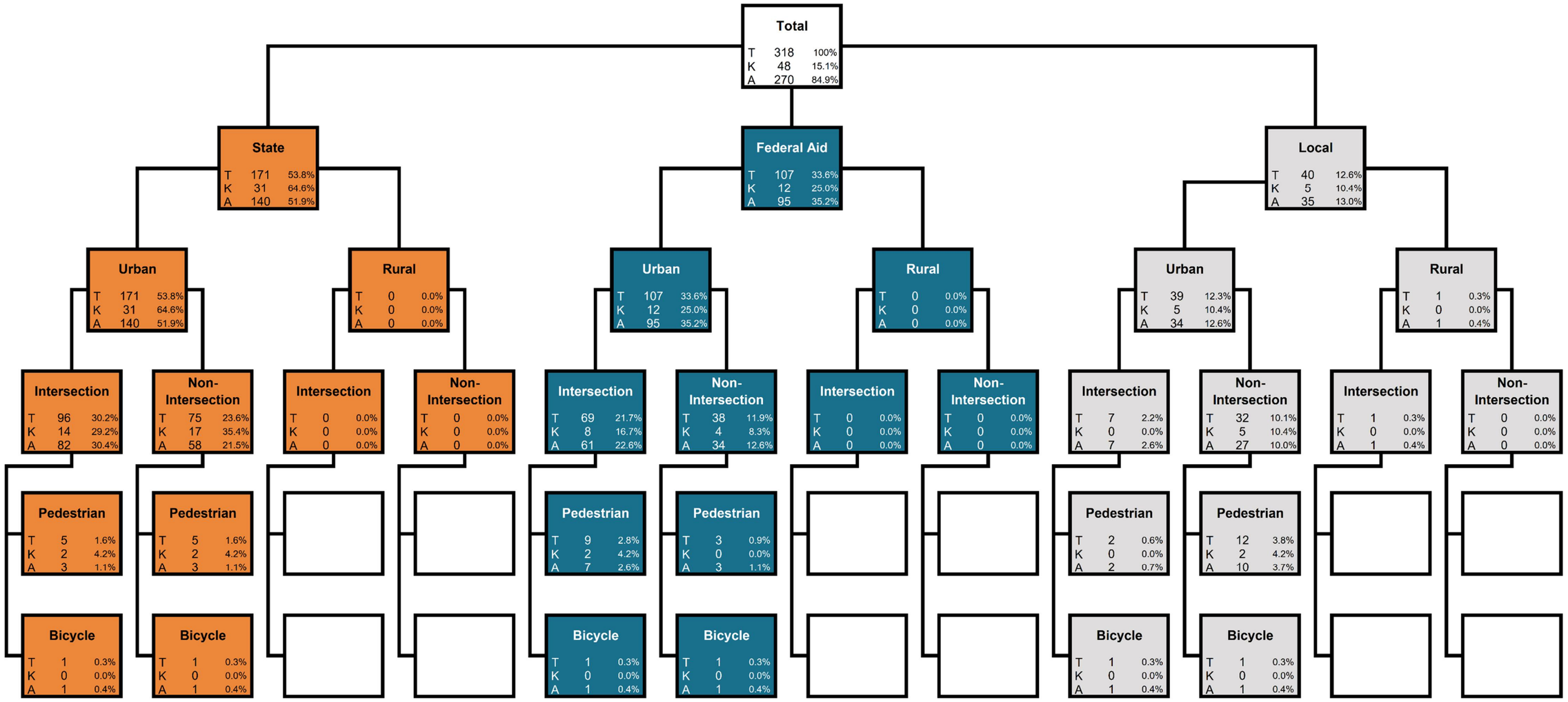


Figure 4.23 – Fatal and Serious Injury Crash Tree Diagram (Active Transportation)

5. Crash and Network Screening Analysis

A crash and network screening analysis was prepared for the South Salt Lake Valley GFA informed by four sub-analyses:

- Number of Crashes
- Critical Crash Rate (CCR)
- Probability of a Specific Crash Type Exceeding Threshold Proportion
- Equivalent Property Damage Only (EPDO)

CCR Differential by roadway ownership are mapped in the following figures:

- **Figure 5.1** – CCR Differential – Segments (State Routes)
- **Figure 5.2** – CCR Differential – Segments (Federal Aid Routes)
- **Figure 5.3** – CCR Differential – Segments (Local Routes)
- **Figure 5.4** – CCR Differential – Intersections (Signalized)
- **Figure 5.5** – CCR Differential – Intersections (Unsignalized)

A positive Local CCR Differential is an indication of a location with a potential for safety improvement (PSI).

A list of the top 10 CCR Differential segments and intersections for the South Salt Lake Valley GFA are located in **Table 5.1** and **Table 5.2** along with their associated number of crashes, probability of a specific crash type exceeding threshold proportion, and EPDO analysis results.

These locations represent those with the highest potential for safety improvements and can be considered as project candidate locations.

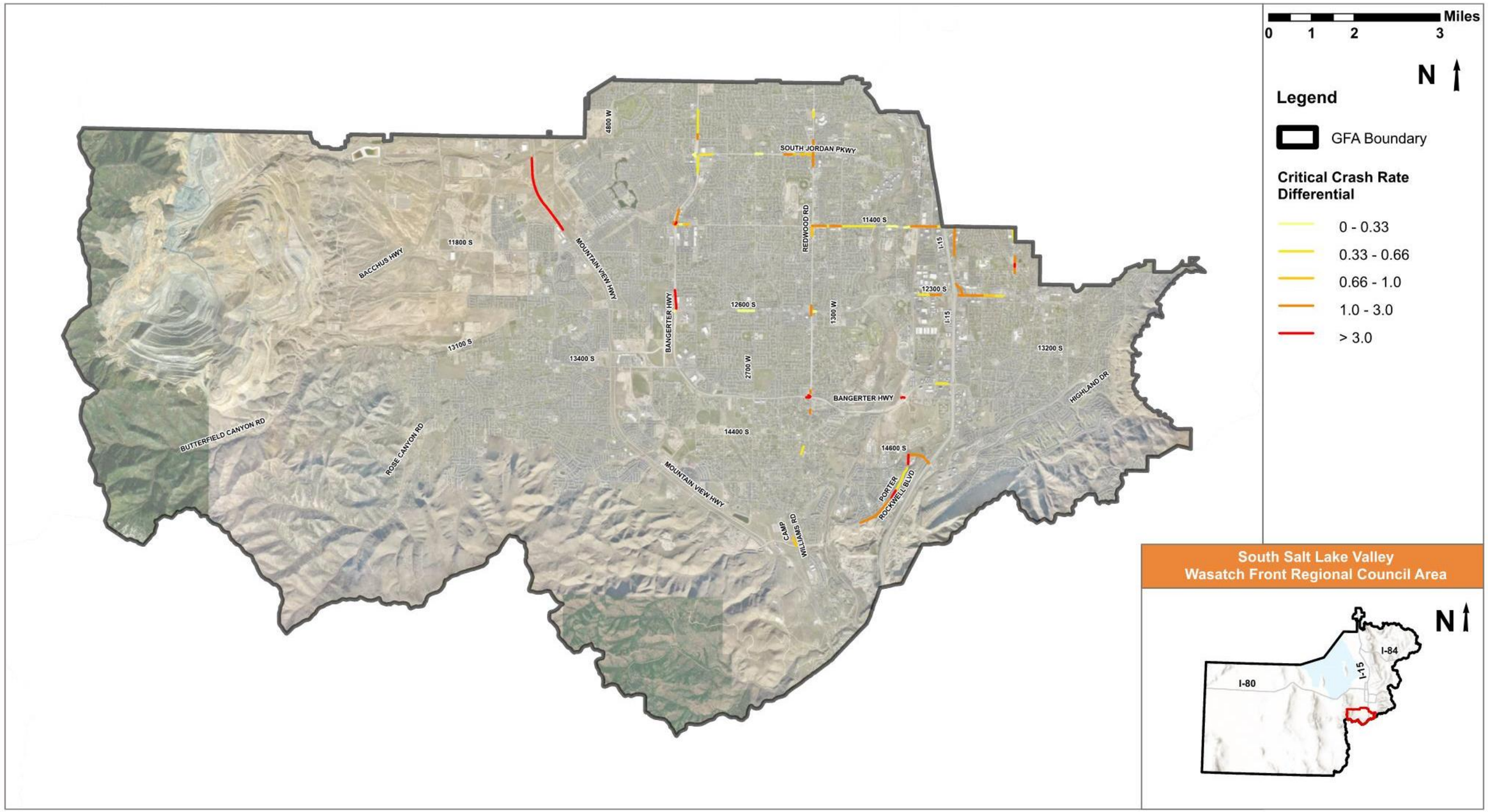


Figure 5.1 – CCR Differential – Segments (State Routes)

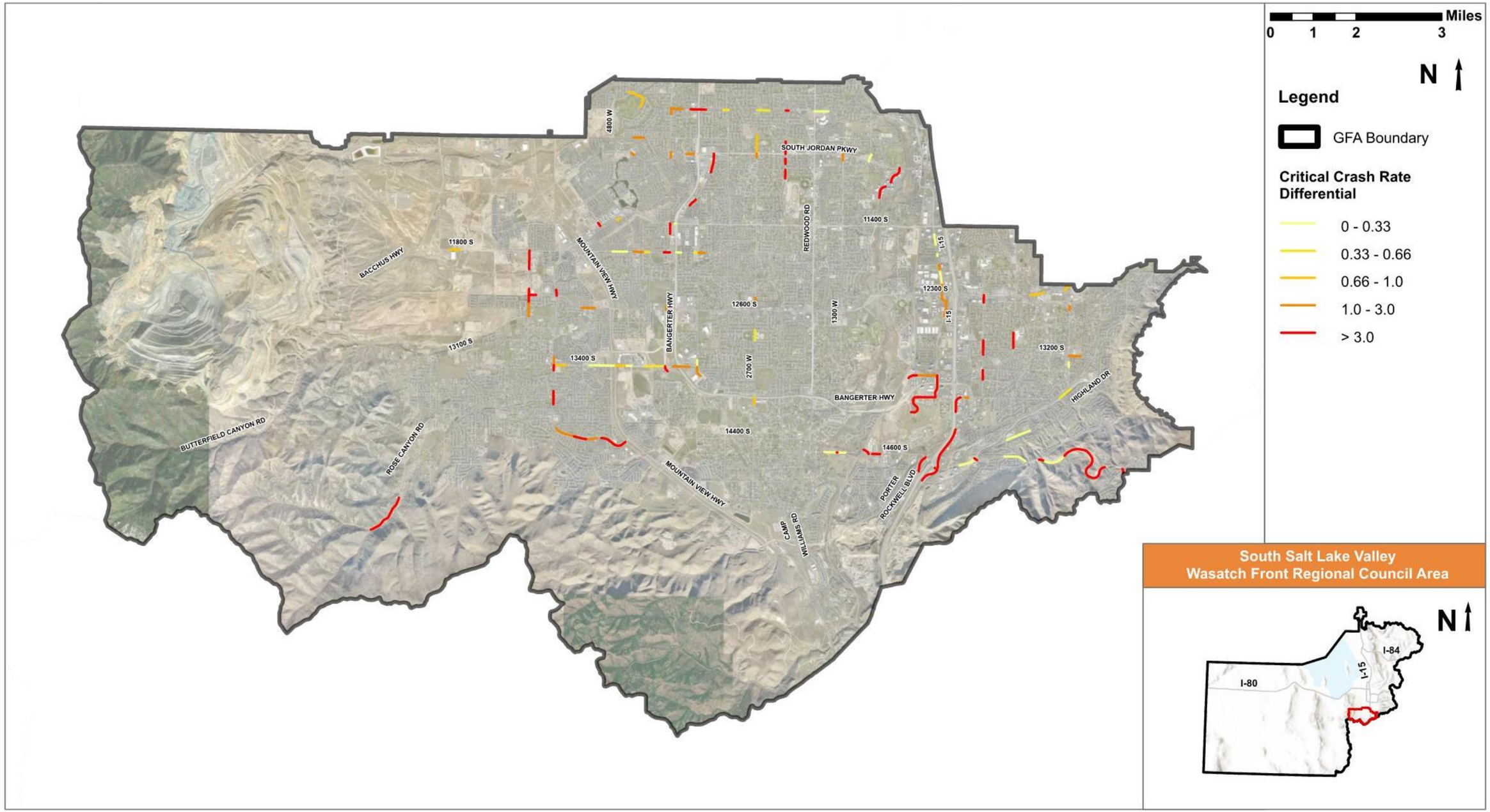


Figure 5.2 – CCR Differential – Segments (Federal Aid Routes)

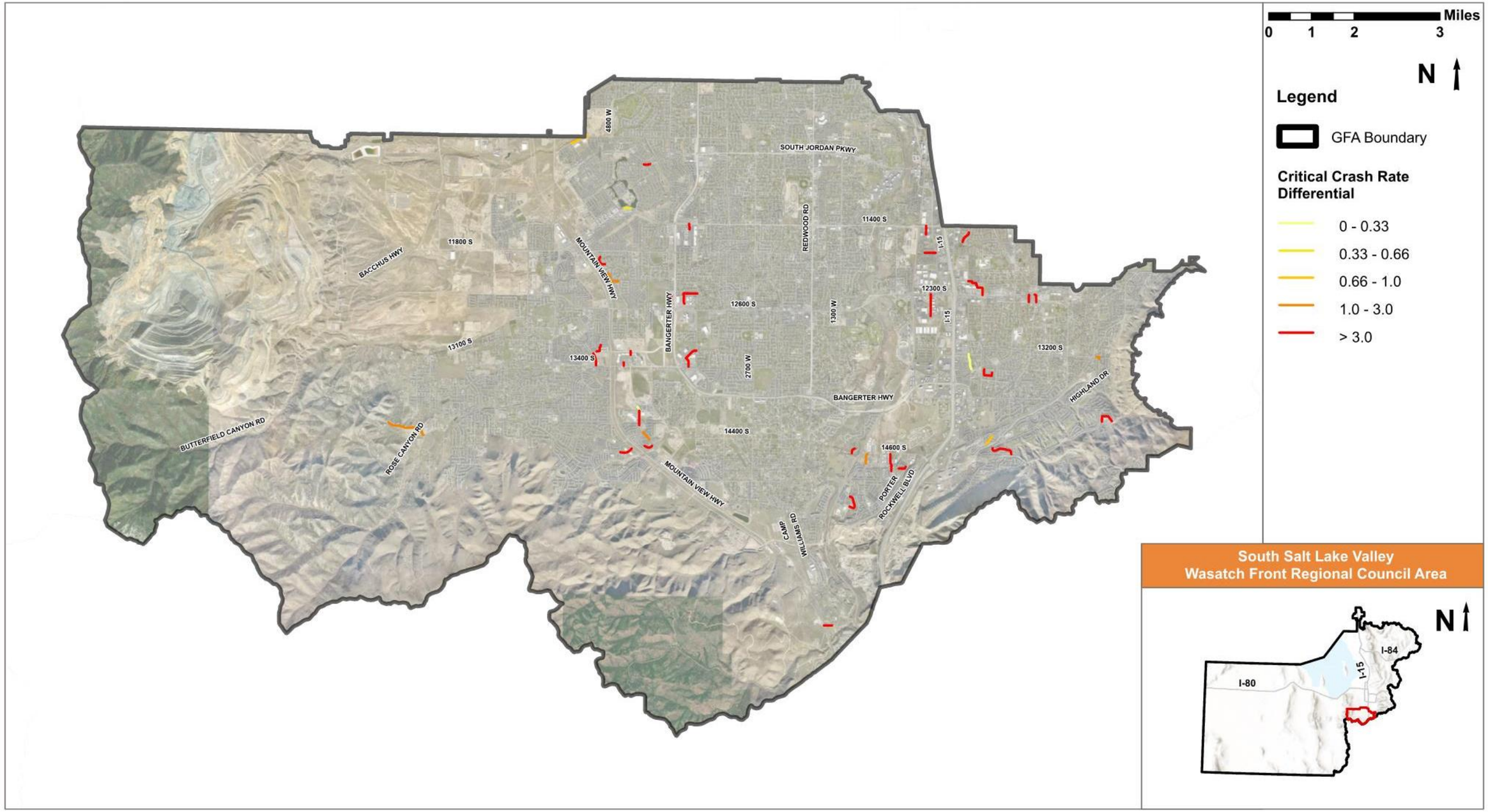


Figure 5.3 – CCR Differential – Segments (Local Routes)

Table 5.1 – Crash and Network Screening Analysis Results - Segments

Facility	Limits	Functional Classification	City	Crashes	Critical Crash Rate Differential	EPDO[1]	*Fatal*	*Suspected Serious Injury*	*Suspected Minor Injury*	*Possible Injury*	*No Injury/PDO*	Angle	Front to Rear	Head On	Single Vehicle	Parked Vehicle	Rear to Rear	Rear to Side	Sideswipe (Same Direction)	Sideswipe (opposite Direction)	Other/Unknown	Pedestrian	Bicycle	Motorcycle
State Routes																								
Bangerter Hwy (SR-154)	SB Ramp to 600 W	Other Principal Arterial	Draper	9	132.3	30	0	0	1	0	8	0	4	0	1	0	0	0	0	4	0	0	0	0
Bangerter Hwy (SR-154)	NB Ramp to 12600 S	Other Principal Arterial	Riverton	3	121.3	46	0	0	2	0	1	0	1	0	1	0	0	0	0	1	0	0	0	0
Bangerter Hwy (SR-154)	WB Ramp to Redwood Rd	Other Principal Arterial	Riverton	14	46.4	66	0	0	1	3	10	1	6	1	3	0	0	0	0	3	0	0	0	0
Bangerter Hwy (SR-154)	11400 S to NB Ramp	Other Principal Arterial	South Jordan	9	32.0	19	0	0	0	1	8	0	2	0	2	2	0	0	0	3	0	0	0	0
Porter Rockwell Blvd (SR-131)	Freedom Point way to 15100 S	Other Principal Arterial	Bluffdale	4	8.9	14	0	0	0	1	3	0	0	0	3	0	0	0	0	1	0	0	0	0
Mountain View Hwy (SR-85 SB)	Lake Ave to South Jordan Pkwy	Other Principal Arterial	South Jordan	10	7.2	208	0	1	3	4	2	1	4	0	5	0	0	0	0	0	0	0	0	0
700 E (SR-71)	11900 S to Kimballs Ln	Other Principal Arterial	Draper	9	5.2	122	0	1	0	2	6	1	7	0	1	0	0	0	0	0	0	0	0	1
Mountain View Hwy (SR-85 SB)	South Jordan Pkwy to Bingham Creek	Other Principal Arterial	South Jordan	9	4.9	927	1	0	0	3	5	0	3	0	6	0	0	0	0	0	0	0	0	0
Porter Rockwell Blvd (SR-131)	Rising Star Way to 14600 S	Other Principal Arterial	Bluffdale	3	4.8	24	0	0	1	0	2	0	2	0	1	0	0	0	0	0	0	0	1	0
Mountain View Hwy (SR-85 SB)	Lake Ave to Private Driveway	Other Principal Arterial	South Jordan	3	4.4	13	0	0	0	1	2	0	1	0	1	0	0	0	0	0	1	0	0	0
Federal Aid Routes																								
Lake Run Rd	Daybreak Pkwy to Frogs Leap Dr	Major Collector	South Jordan	3	200.6	35	0	0	1	1	1	0	1	0	2	0	0	0	0	0	0	0	0	0
4050 W	Innovation Dr to 13400 S	Major Collector	Riverton	6	46.8	6	0	0	0	0	6	1	1	0	1	0	0	0	0	1	2	0	0	0
River Heights Dr	Summer Heights Dr to Vista Pradera Wa	Minor Collector	South Jordan	8	43.4	71	0	0	2	2	4	2	1	0	2	3	0	0	0	0	0	0	0	0
Bluffdale Blvd	1328 W to 1300 W	Minor Arterial	Bluffdale	3	29.6	3	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0
River Heights Dr	Logan Canyon Rd to 10400 S	Minor Collector	South Jordan	12	28.5	75	0	0	2	2	8	6	0	1	2	0	0	0	1	2	0	1	0	0
Traverse Ridge Rd	Highland Dr to Traverse Pointe Dr	Minor Arterial	Draper	4	26.9	4	0	0	0	0	4	2	0	0	2	0	0	0	0	0	0	0	0	0
Traverse Ridge Rd	Private Driveway to Mike Weir Dr	Minor Arterial	Draper	5	26.7	5	0	0	0	0	5	0	1	0	3	0	0	0	0	1	0	0	0	1
700 E	Fox Meadow Dr to Golden Pheasant Dr	Minor Collector	Draper	4	25.5	25	0	0	1	0	3	2	1	0	1	0	0	0	0	0	0	0	0	1
700 E	Golden Pheasant Dr to Pheasant View D	Minor Collector	Draper	6	23.5	16	0	0	0	1	5	2	0	0	2	0	0	0	0	0	2	0	0	0
2200 W	10400 S to Temple View Ln	Major Collector	South Jordan	11	22.3	32	0	0	1	0	10	2	5	0	0	2	0	1	0	0	1	0	0	0
Local Streets																								
300 W	Opportunity Way to 11400 S	Local	Draper	3	463.3	35	0	0	1	1	1	0	3	0	0	0	0	0	0	0	0	0	0	1
Jordan Narrows Rd	Camp Williams Rd to 1400 W	Local	Bluffdale	3	278.5	13	0	0	0	1	2	0	1	0	1	0	0	0	0	1	0	0	0	0
Heritagecrest Way	Concord Park Dr to 14600 S	Local	Bluffdale	6	192.2	48	0	0	1	2	3	3	0	0	0	3	0	0	0	0	0	0	0	1
Spring View Pkwy	14600 S to Stone Fly Cir	Local	Bluffdale	3	184.3	3	0	0	0	0	3	0	1	0	2	0	0	0	0	0	0	0	0	0
Koins Way	Rising Star Way to Life Dr	Local	Bluffdale	3	180.0	3	0	0	0	0	3	2	0	0	1	0	0	0	0	0	0	0	0	0
Emma Mine Dr	Mineral Way to Dynamic Cir	Local	Herriman	4	175.3	14	0	0	0	1	3	0	0	1	1	1	0	0	1	0	0	0	0	0
Park Bluff Way	Puma Mountain Way to Cantle Dr	Local	Bluffdale	3	129.1	3	0	0	0	0	3	1	1	0	0	0	0	0	0	0	1	0	0	0
Parkway Plaza Dr	11500 S to 11400 S	Local	South Jordan	3	100.4	13	0	0	0	1	2	2	0	0	1	0	0	0	0	0	0	1	0	0
12200 S	Spencer Peak Way to 300 E	Local	Draper	3	86.3	3	0	0	0	0	3	2	0	0	1	0	0	0	0	0	0	0	0	0
Spencer Peak Way	150 E to 12175 S	Local	Draper	3	81.5	13	0	0	0	1	2	0	0	0	2	0	0	0	0	1	0	0	0	0

1. Equivalent Property Damage Only Crashes

= 90 - 100% probability that crash type is over-represented
= 80 - 90% probability that crash type is over-represented
= 70 - 80% probability that crash type is over-represented

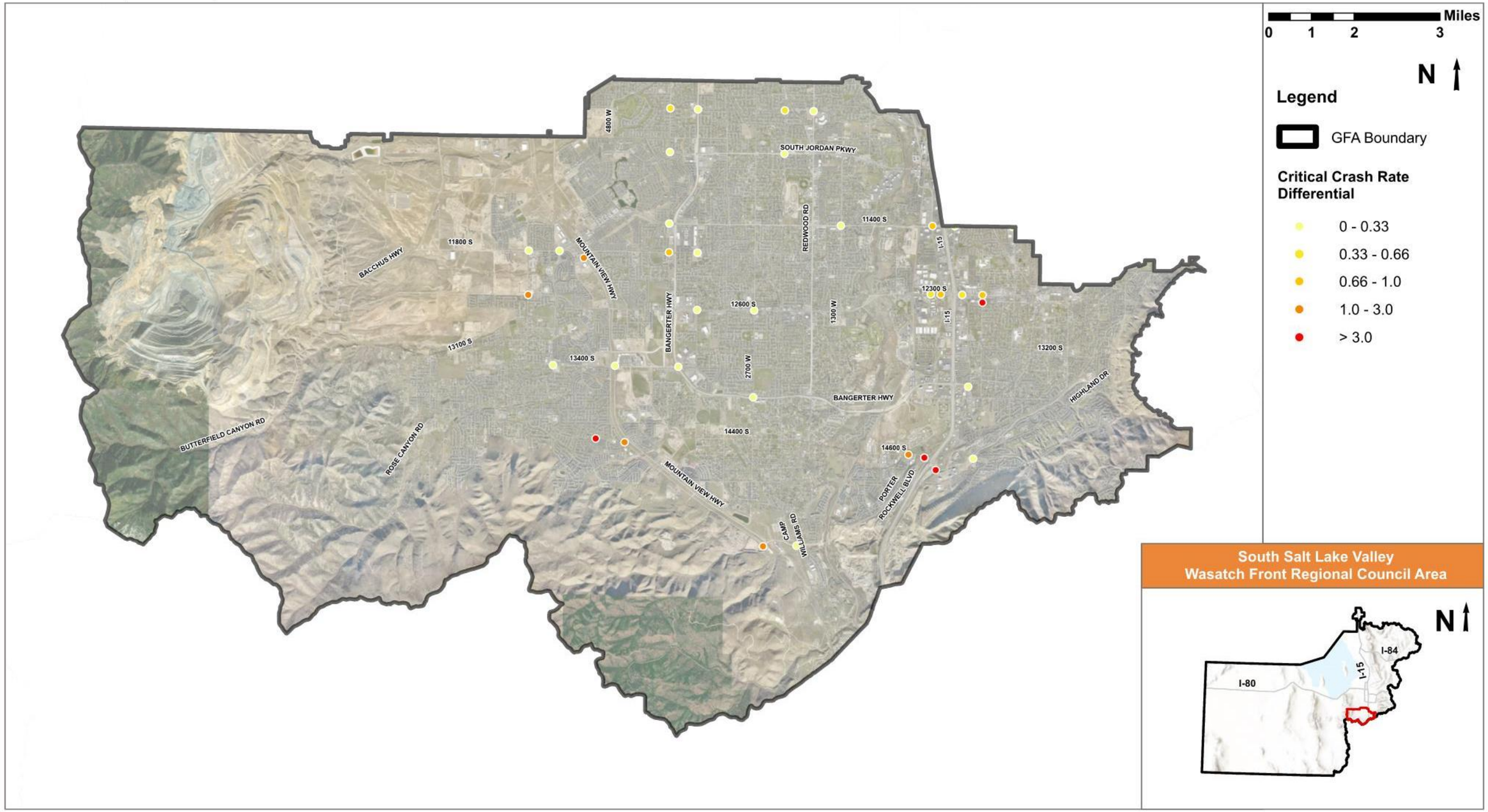


Figure 5.4 – CCR Differential – Intersections (Signalized)

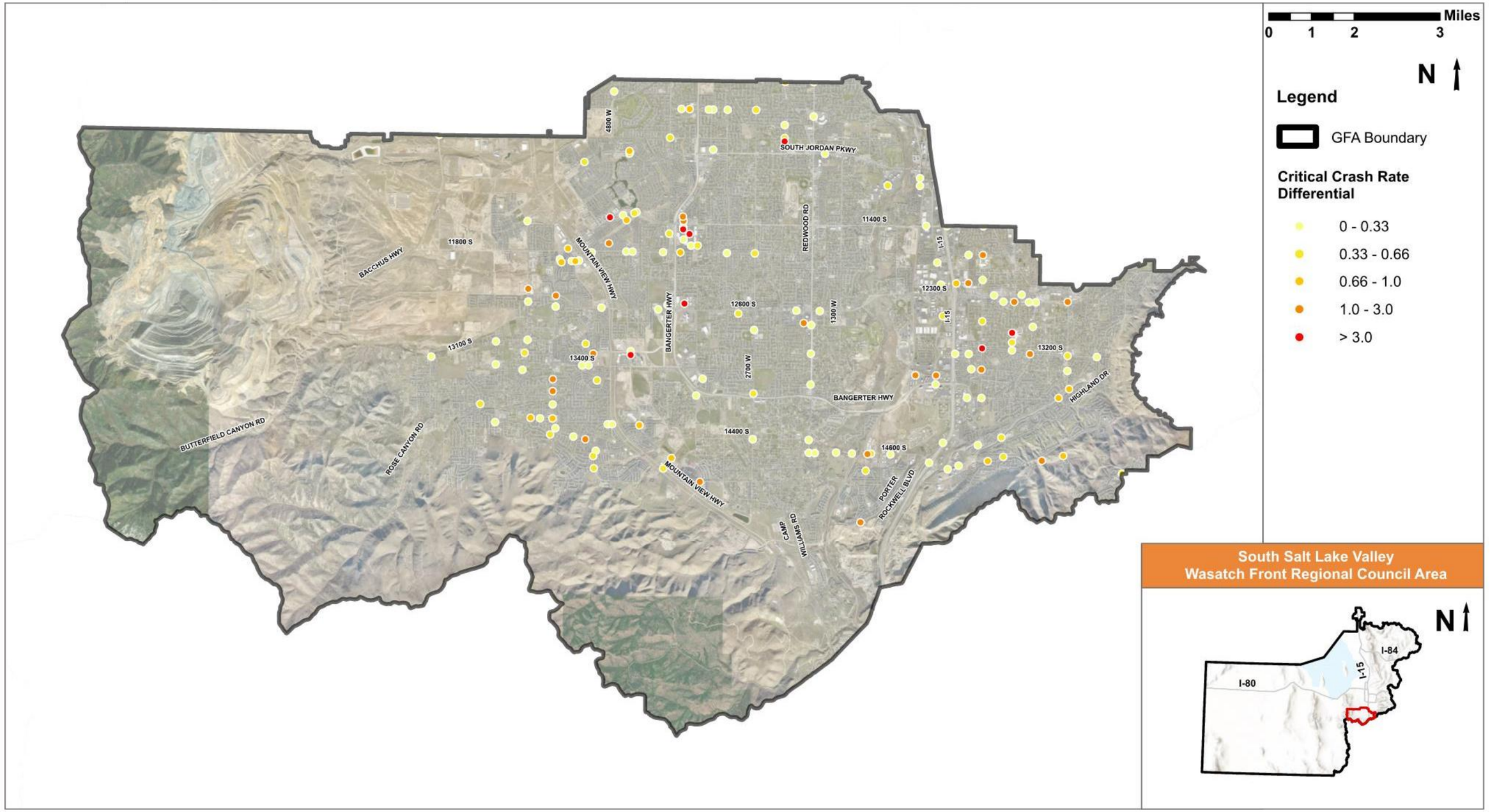


Figure 5.5 – CCR Differential – Intersections (Unsignalized)

Table 5.2 – Crash and Network Screening Analysis Results - Intersections

Intersection	City	Crashes	Critical Crash Rate Differential	EPDO[1]	*Fatal*	*Suspected Serious Injury*	*Suspected Minor Injury*	*Possible Injury*	*No Injury/PDO*	Angle	Front to Rear	Head On	Parked Vehicle	Single Vehicle	Rear to Rear	Rear to Side	Sideswipe (Same Direction)	Sideswipe (opposite Direction)	Other/Unknown	Pedestrian	Bicycle	Motorcycle
Signalized Intersections																						
Minuteman Dr & Highland Dr	Draper	72	7.5	387	0	0	8	14	50	38	26	1	2	0	0	0	0	4	1	0	1	0
Palisade Rose Dr & Rosecrest Rd	Herriman	25	5.0	87	0	0	0	6	19	18	5	0	2	0	0	0	0	0	0	0	0	0
300 E & 12450 S	Draper	21	3.6	52	0	0	0	3	18	8	6	0	3	0	0	0	1	2	1	0	1	0
Pony Express Rd & Highland Dr	Bluffdale	46	3.1	349	0	1	5	10	30	21	14	2	5	1	0	1	0	1	1	0	1	0
Porter Rockwell Blvd & Bluffdale Blvd	Bluffdale	37	3.0	256	0	1	4	4	28	4	29	1	1	0	0	0	0	1	1	0	0	1
Mountain View Sb Hwy & Anthem Park Blvd	Herriman	82	2.9	1719	1	4	10	16	51	38	32	2	4	0	0	0	2	2	2	2	1	0
Rockwell Park Ln & Shocky Access	Herriman	25	2.9	1007	1	0	2	5	17	2	7	0	14	0	1	0	0	1	0	0	0	0
Mustang Trail Way & Herriman Blvd	Herriman	16	2.6	101	0	0	3	2	11	9	4	1	1	1	0	0	0	0	0	1	0	0
Mountain View Sb Hwy & Rosecrest Rd	Herriman	40	1.2	167	0	0	4	4	32	14	17	0	3	0	0	0	0	5	1	1	0	0
4000 W & 11800 S	South Jordan	39	1.0	363	0	1	6	10	22	22	12	1	3	0	0	0	0	1	0	1	1	1
Unsignalized Intersections																						
2200 W & Temple View Ln	South Jordan	17	6.9	38	0	0	0	2	15	10	7	0	0	0	0	0	0	0	0	0	0	0
300 E & Carlquist Dr Roundabout	Draper	26	5.3	171	0	1	1	3	21	7	9	0	6	0	0	0	0	2	2	0	0	0
Creek Meadow Rd & Creek Meadow Rd	Riverton	10	4.9	41	0	0	0	3	7	10	0	0	0	0	0	0	0	0	0	0	0	0
District Dr & 11500 S	South Jordan	10	4.1	20	0	0	0	1	9	10	0	0	0	0	0	0	0	0	0	0	0	0
Parkway Plaza Dr & 11550 S	South Jordan	4	3.7	14	0	0	0	1	3	4	0	0	0	0	0	0	0	0	0	0	0	0
Oakmond Rd & Oakmond Rd	South Jordan	8	3.5	18	0	0	0	1	7	1	4	0	2	0	0	0	0	1	0	0	0	0
Charger Way & Pheasant View Dr	Draper	4	3.2	25	0	0	0	2	2	2	1	0	0	0	0	0	0	1	0	0	0	0
Eagles Flight Rd & Teal Ridge Way	Riverton	5	3.1	15	0	0	0	1	4	3	2	0	0	0	0	0	0	0	0	0	0	0
Anthem Park Blvd & Herriman Blvd	Herriman	13	2.8	45	0	0	1	1	11	4	7	1	1	0	0	0	0	0	0	0	1	0
Mike Weir Dr & Traverse Ridge Rd	Draper	9	2.6	51	0	0	1	2	6	2	1	0	4	1	0	0	0	1	0	0	1	0

1. Equivalent Property Damage Only Crashes

= 90 - 100% probability that crash type is over-represented
= 80 - 90% probability that crash type is over-represented
= 70 - 80% probability that crash type is over-represented

6. Roadway Characteristic Risk Analysis

A roadway characteristic risk analysis was performed using the following three sub-analysis:

- Crash Profile Risk Assessment
- usRAP Risk Assessment
- Local Street Risk Assessment

6.1. Crash Profile Risk Assessment

This risk assessment sub-analysis identifies common roadway characteristics for fatal and serious injury crashes that occurred within the WFRC study area. Based on the scoring of the various roadway characteristic risks identified from analysis of crash reports, a risk score was assigned to all state and federal aid routes within the South Salt Lake Valley GFA consistent with the methodology described in Tech Memo #1 Section 3.4. The results of the Crash Profile Risk Assessment are mapped in the following figures:

- **Figure 6.1** – Crash Profile Risk Assessment Results (State Routes)
- **Figure 6.2** – Crash Profile Risk Assessment Results (Federal Aid Routes)

Table 6.1 provides an overview of urban and rural segments with the highest risk scoring. Up to ten urban and rural segments are listed if the segment received at least 67% of the overall total risk score.

Table 6.1 – Crash Profile Risk Segments (Federal Aid Routes)

Area Type	Road Segment	Extents	Risk Score
Urban	Jordan Gateway	12300 South to North GFA Extents	25
Urban	4000 West	12600 South to North GFA Extents	23 to 25
Urban	Draper Parkway	700 East to 1300 East	22.8
Urban	Daybreak Rim Way / Daybreak Parkway	Oakmond Road to Bangerter Highway	22.1
Urban	11800 South	Bacchus Highway to SR-85	20.2 to 21
Urban	14600 South	Camp Williams Road to 800 West	20.4 to 20.5
Urban	1300 East	13700 South to 13200 South	20.2
Urban	Pony Express Road	South GFA Extent to 14600 South	20
Rural	Rose Canyon Road	13400 South to 13100 South	22.3
Rural	13400 South	Rose Canyon Drive to SR-85	22.3
Rural	12600 South	Main Street to Bangerter Highway	21.5 to 21.9
Rural	13100 South	Butterfield Canyon Road to Rosecrest Road	21
Rural	Bacchus Highway	Truck Road to Old Bingham Highway	20.6
Rural	Rose Canyon Road	Yellow Fork Canyon to 6400 West	20.2

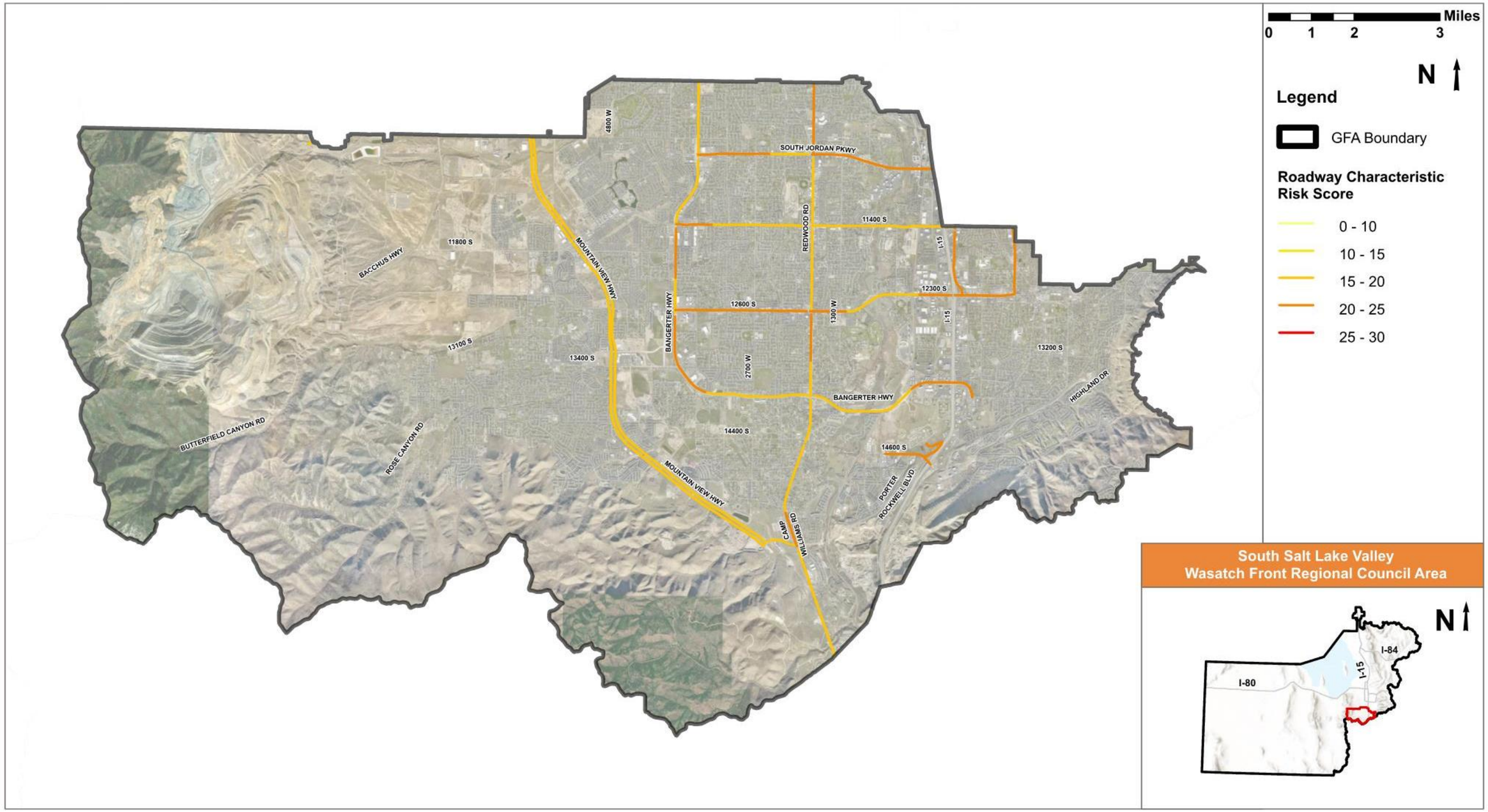


Figure 6.1 – Crash Profile Risk Assessment Results (State Routes)

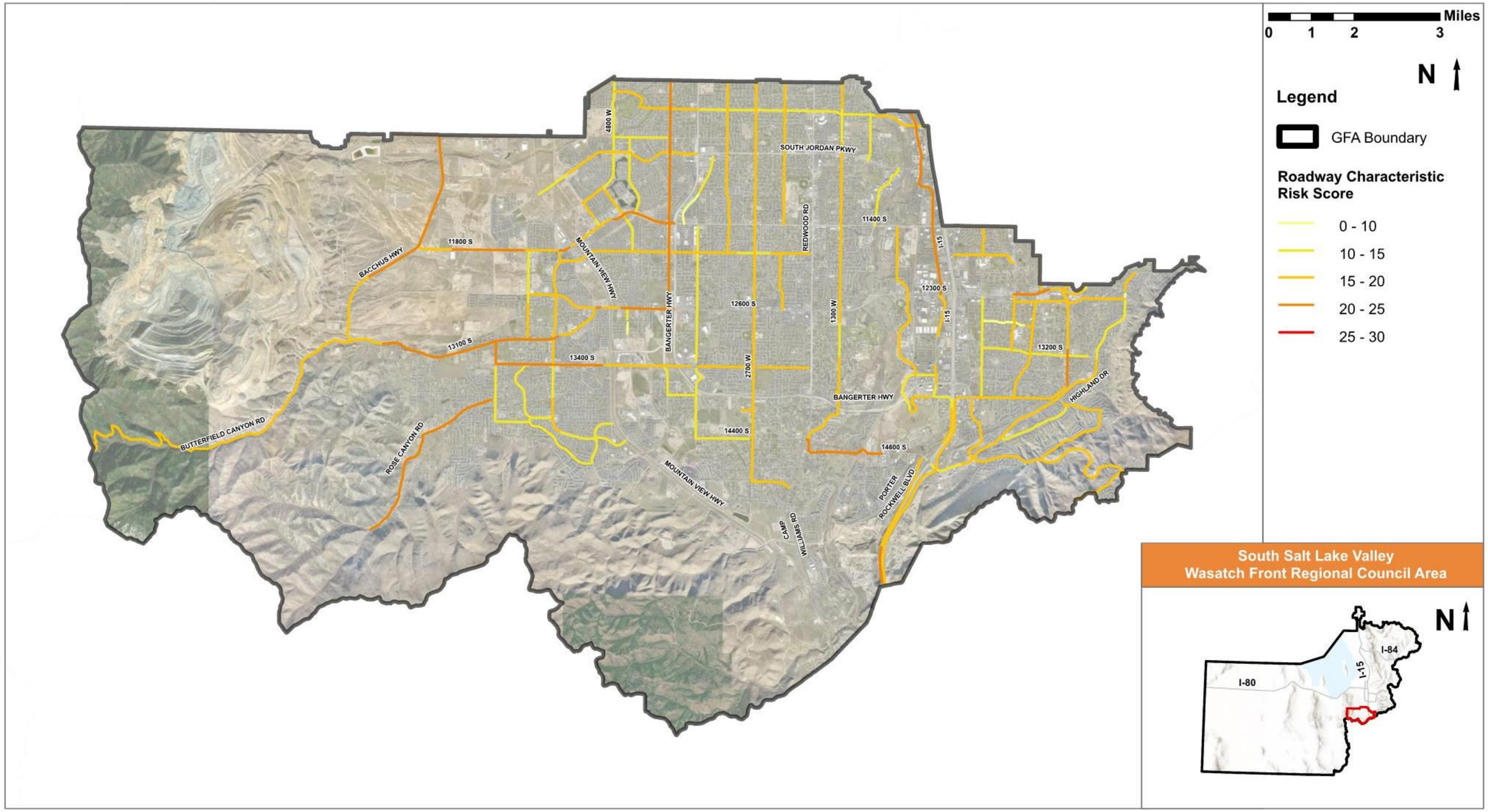


Figure 6.2 – Crash Profile Risk Assessment Results (Federal Aid Routes)

6.2. usRAP Risk Assessment

A roadway characteristic risk assessment was performed using roadway feature data collected for Utah state and federal aid routes. The risk assessment was performed using the usRAP tool. The output of the usRAP tool is a star rating or risk rating for vehicle, pedestrian, and bicyclist features. The results of the usRAP risk assessment by star rating are mapped in the following figures:

- **Figure 6.3** – Vehicle Star Rating (State Routes)
- **Figure 6.4** – Vehicle Star Rating (Federal Aid Routes)
- **Figure 6.5** – Pedestrian Star Rating (State Routes)
- **Figure 6.6** – Pedestrian Star Rating (Federal Aid Routes)
- **Figure 6.7** – Bicycle Star Rating (State Routes)
- **Figure 6.8** – Bicycle Star Rating (Federal Aid Routes)

A summary of the highest risk segments (1-2 Stars) for federal aid routes in the South Salt Lake Valley GFA are located in **Table 6.2**.

Table 6.2 – usRAP Risk Segments (Federal Aid Route)

Road Segment	Extents	Vehicle Risk	Pedestrian Risk	Bicycle Risk
Bacchus Highway	South Jordan Parkway to North GFA Extents		X	X
Bacchus Highway	13100 South to South Jordan Parkway		X	
South Jordan Parkway	Mountain View Corridor to Cardinal Park Road		X	X
10400 South	Vermillion Drive to Bangerter Highway		X	
13100 South/13090 South	Bacchus Highway to Rosecrest Road		X	X
Rose Canyon Road	13400 South to 13100 South		X	X
13400 South	2700 West to Redwood Road		X	X
13400 South	Mountain View Corridor to 2700 West		X	
13400 South	Rose Canyon Road to Mountain View Corridor		X	X
11800 South	Bacchus Highway to 6000 West		X	
11800 South	6000 West to Mountain View Corridor	X	X	X
Daybreak parkway	Mountain View Corridor to Oakmond Road		X	X
Daybreak parkway	Oakmond Road to Bangerter Highway	X	X	X
Freedom Park Drive	Anthem Park Blvd to 11800 South		X	

Road Segment	Extents	Vehicle Risk	Pedestrian Risk	Bicycle Risk
Anthem Park Blvd	Miller Crossing Drive to Mountain View Corridor		X	
11800 South	Mountain View Corridor to Anthem Court		X	
11800 South	2480 West to Redwood Road	X	X	X
4000 West	12600 South to Kilt Street		X	
12600 South	Main Street to Bangerter Highway		X	X
4570 West	Geronimo Road to 12600 South	X		
2700 West	15000 South to Van Ross Drive		X	
2240 West	12600 South to 11800 South	X		
15000 South	2700 West to Camp Williams Road		X	
1300 West	Y worry Lane to North GFA Boundary		X	
1300 West	Withers Lane to Y worry Lane	X	X	X
1300 West/Loumis Parkway	Blue Quill Drive to Ryanna Drive		X	X
Loumis Parkway	Redwood Road to Blue Quill Drive		X	
1690 West	14600 South to Redwood Road	X		
14600 South	1690 West to 1515 West	X		
14600 South	1515 West to Heritage Crest Way	X	X	X
10000 South	1000 West to East GFA Extents	X	X	X
Jordan Gateway/Lone Peak Parkway	12300 South to North GFA Extents		X	
Jordan Gateway/Lone Peak Parkway	Golden Harvest Road to 12300 South	X	X	
200 West	Bangerter Highway to Galena Park Blvd		X	
13800 South	600 West to 200 West		X	
Galena Park Blvd/Vista Station Blvd	13490 South to 700 West	X	X	X
700 West	Galen Park Blvd to 11400 South	X	X	X
Pony Express Road	South GFA Boundary to 14600 South		X	

Road Segment	Extents	Vehicle Risk	Pedestrian Risk	Bicycle Risk
300 East	11800 South to 11400 South	X		
Willow Springs Lane	300 East to Whisper Bend Drive	X		
2000 East	Graystone Drive to Genova Drive	X	X	X
13800 South	Wadsworth Park Drive to Bangerter Highway	X	X	X
Bangerter Parkway	Highland Drive to 13800 South		X	X
Traverse Ridge Road	Deer Ridge Road to Highland Drive		X	
Draper Parkway/12300 South	700 East to North GFA Extents	X	X	X
1300 East	Manfield Way to North GFA Extents	X	X	X
1300 East	13200 South to Manfield Way		X	X
1300 East	13700 South to 13200 South	X	X	X
Fort Street	13400 South to 12400 South	X		
12400 South/Pioneer Road	970 East to Highland Drive		X	
Highland Drive	Bangerter Parkway to Pioneer Road		X	

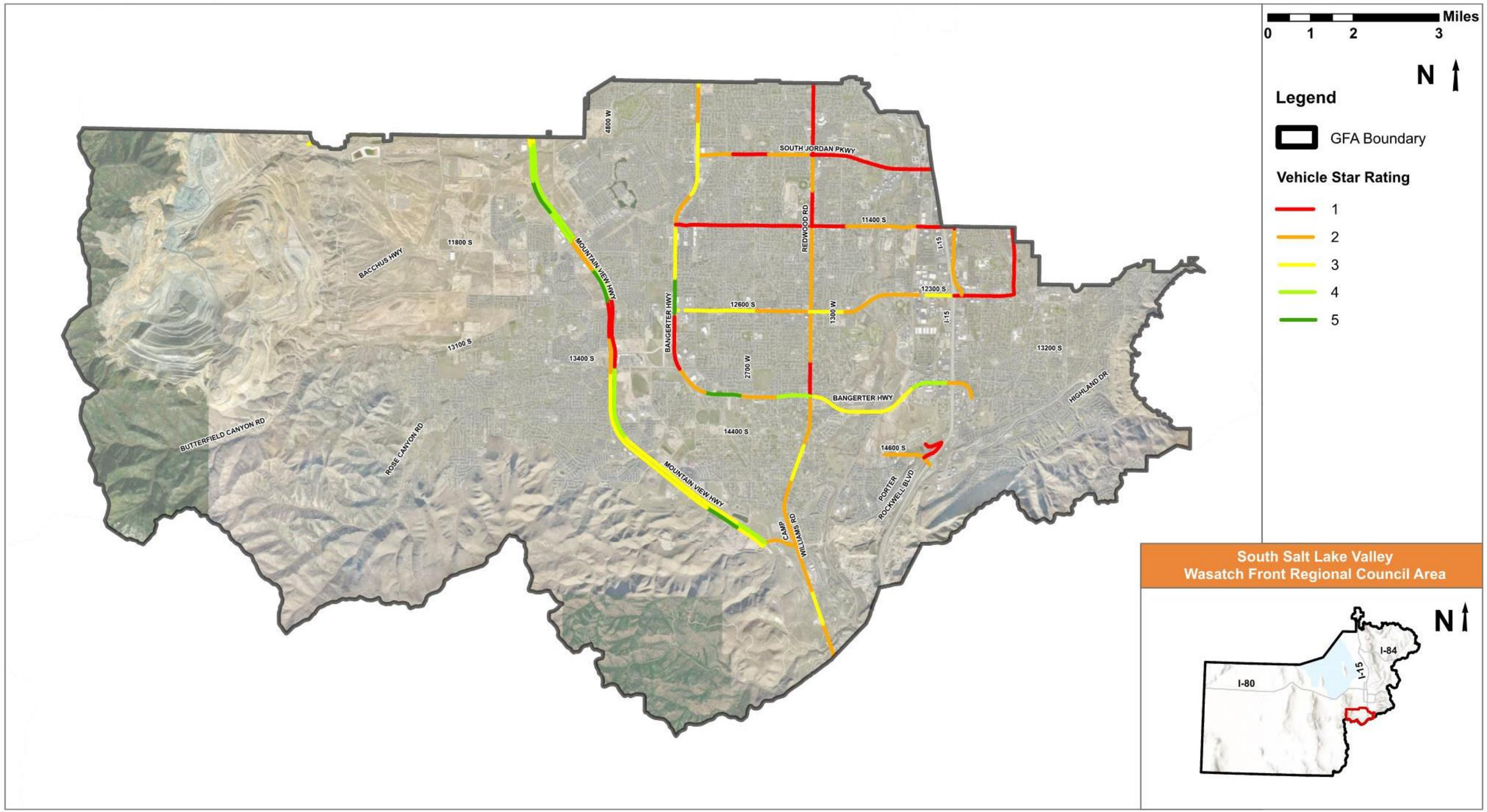


Figure 6.3 – Vehicle Star Rating (State Routes)

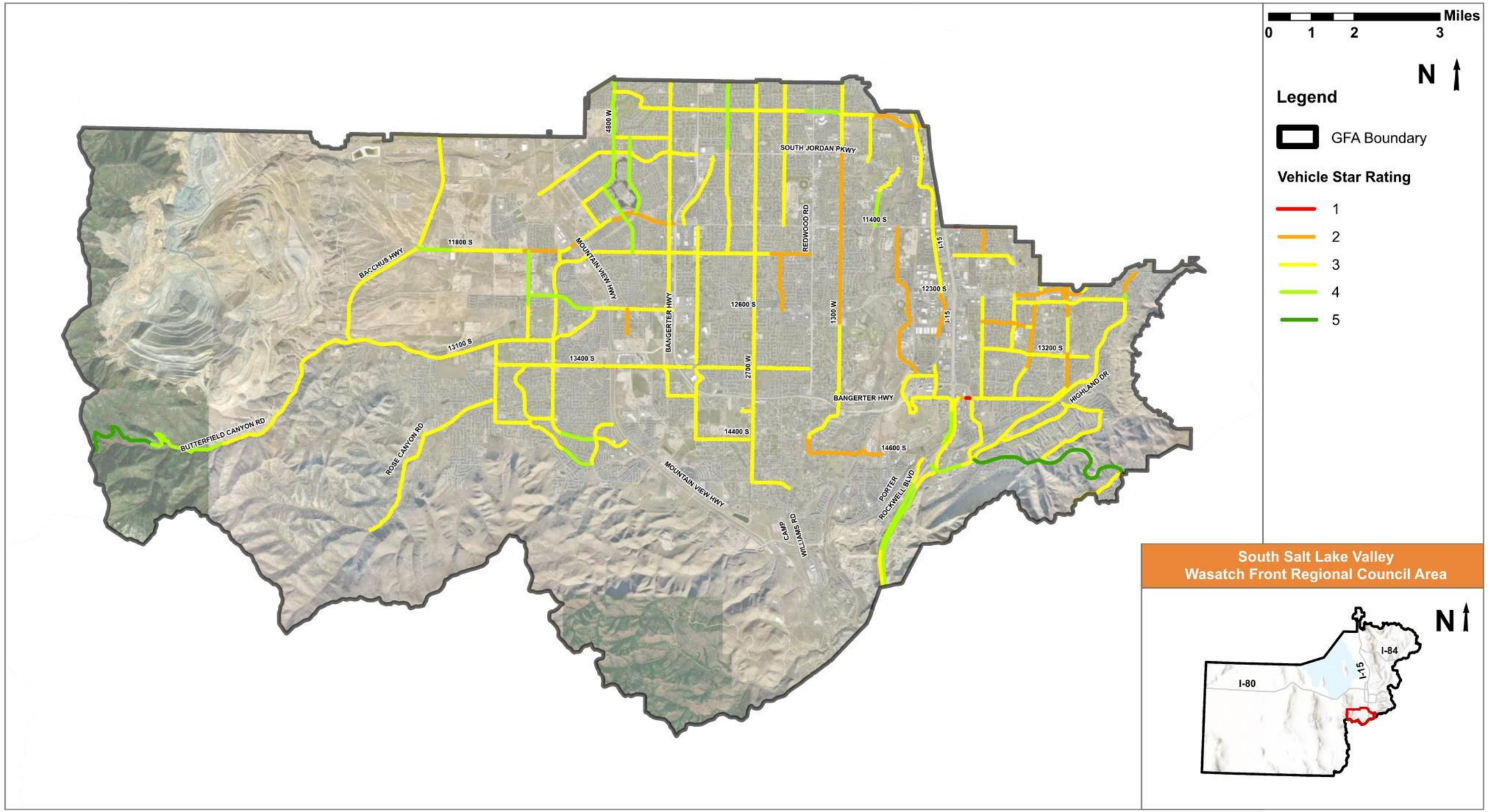


Figure 6.4 – Vehicle Star Rating (Federal Aid Routes)

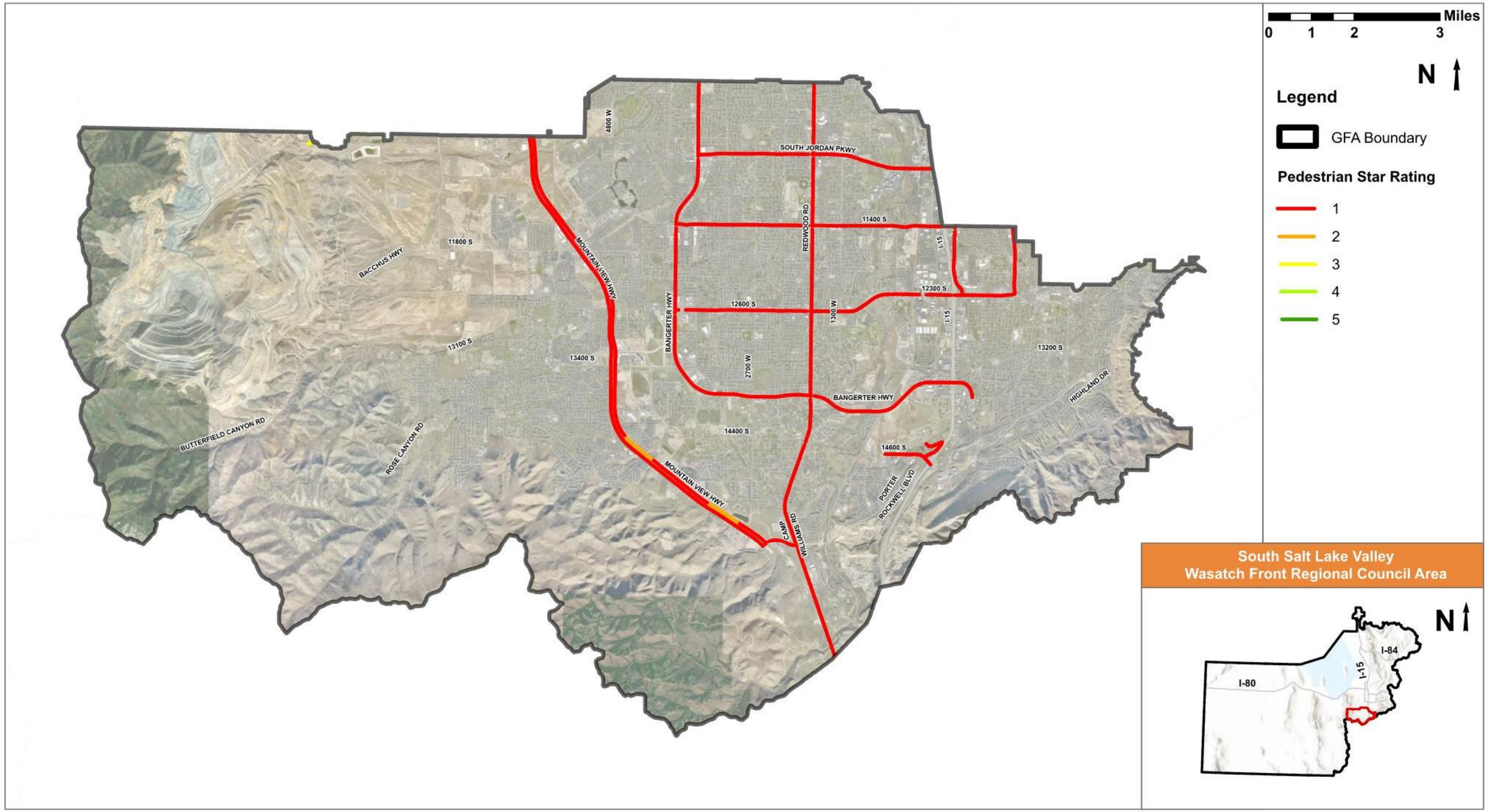


Figure 6.5 – Pedestrian Star Rating (State Routes)

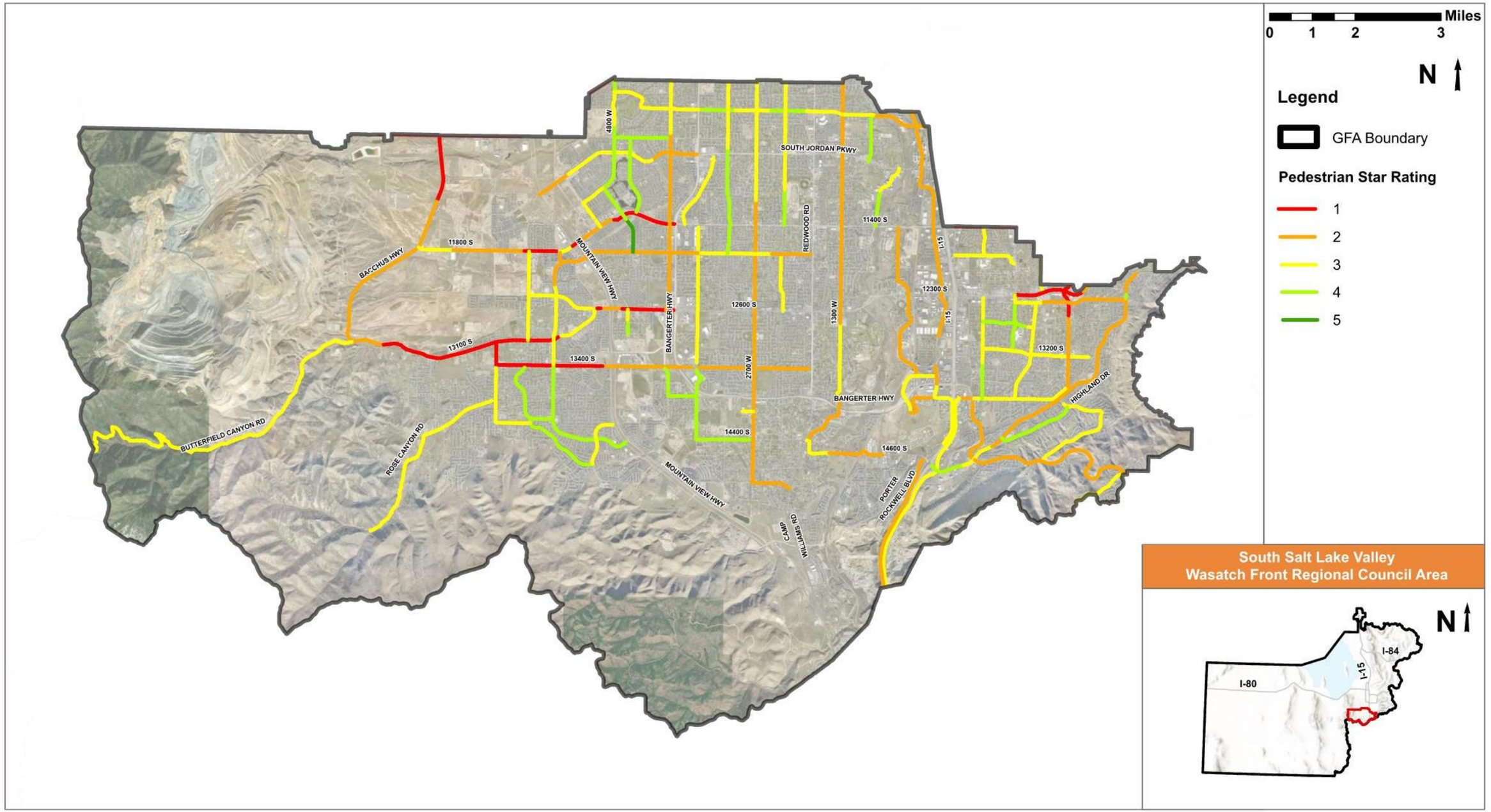


Figure 6.6 – Pedestrian Star Rating (Federal Aid Routes)

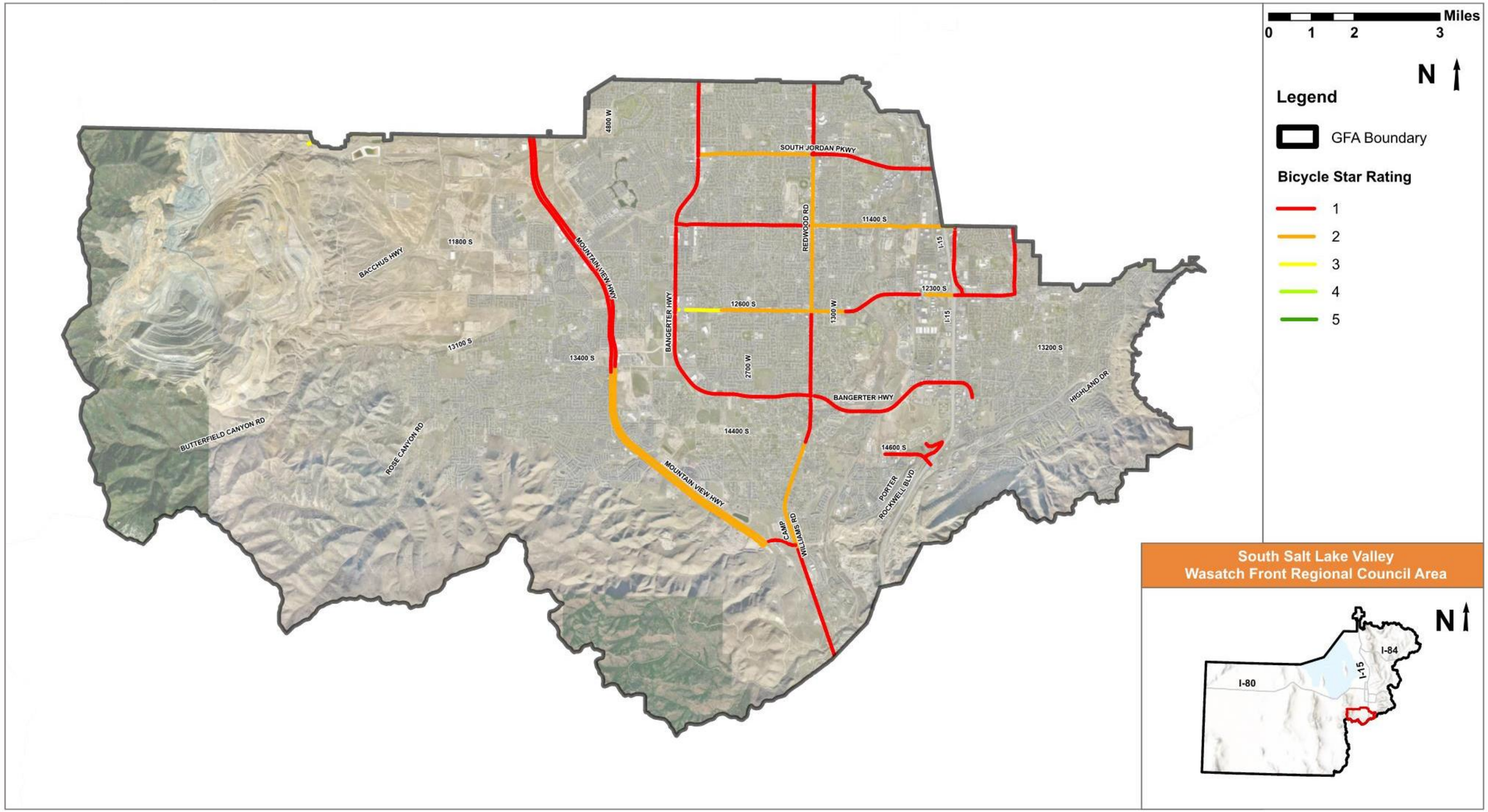


Figure 6.7 – Bicycle Star Rating (State Routes)

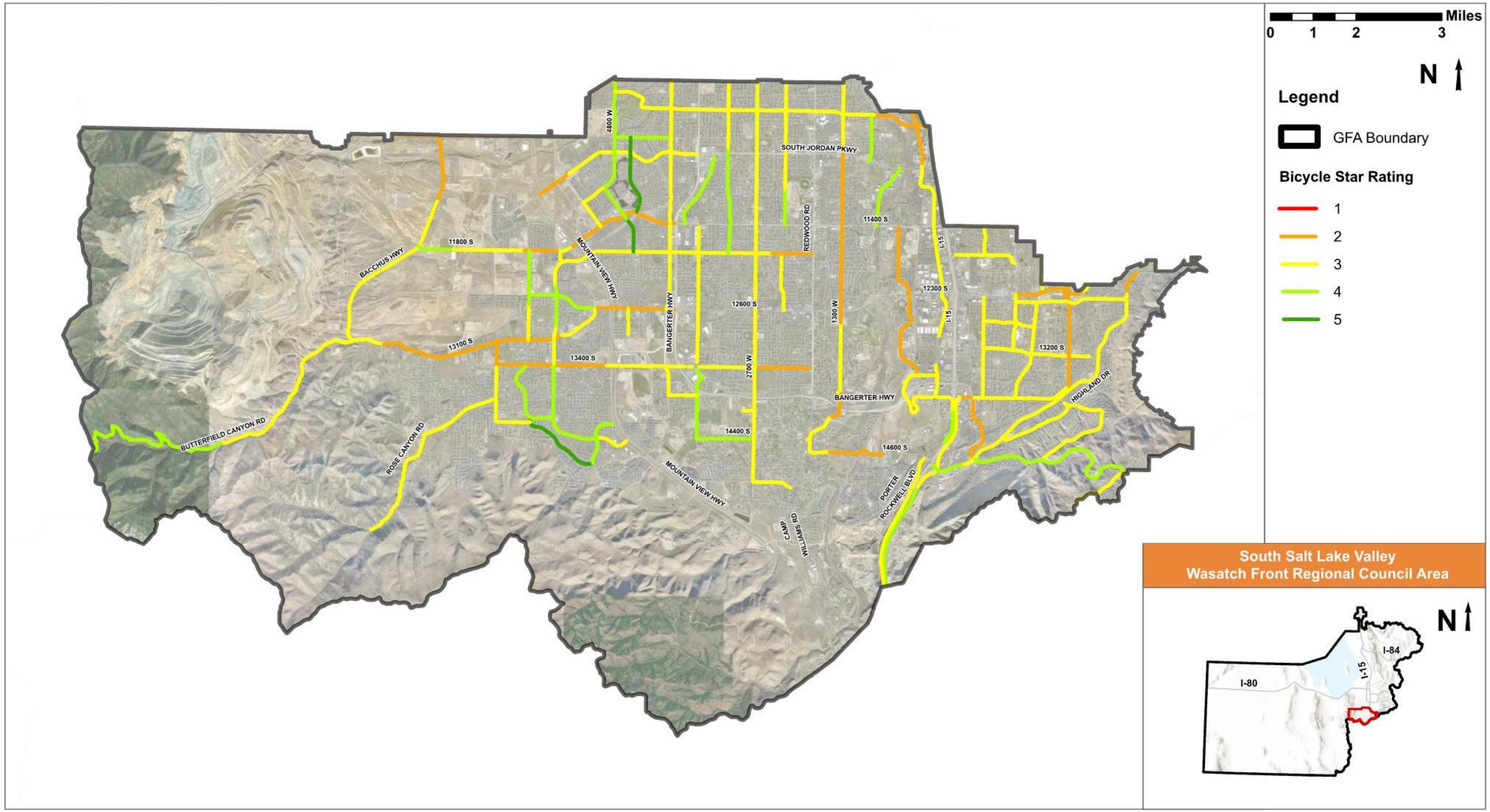


Figure 6.8 – Bicycle Star Rating (Federal Aid Routes)

6.3. Local Street Risk Assessment

A local street risk assessment was performed for all local roads within WFRC that are not included in the usRAP network. The results of the local street risk assessment are summarized in **Table 6.3** and **Figure 6.9**. Mapped segments include the top 5% risk segments within the WFRC study area and the top 10 segments or high priority segments within the South Salt Lake Valley GFA.

Table 6.3 – Local Street High Priority Segments

Road Segment	Extents
Anthem Park Boulevard	SR-65 – 12600 South
Monarch Meadow/Ft Herriman	4800 West – Main Street
River Heights	10350 South – 11970 South
Rose Crest Road	Autumn Crest Boulevard – Palisade Rose Drive
Fort Street	13200 South – 12400 South
Emmeline Drive	Sun Bloom Lane – Friendship Drive
12600 South	Main Street – 6200 West
3200 West	Rolling Creek Way – 12130 South
13200 South	Highland Drive – 300 East
6000 West	13900 South – 1st Street

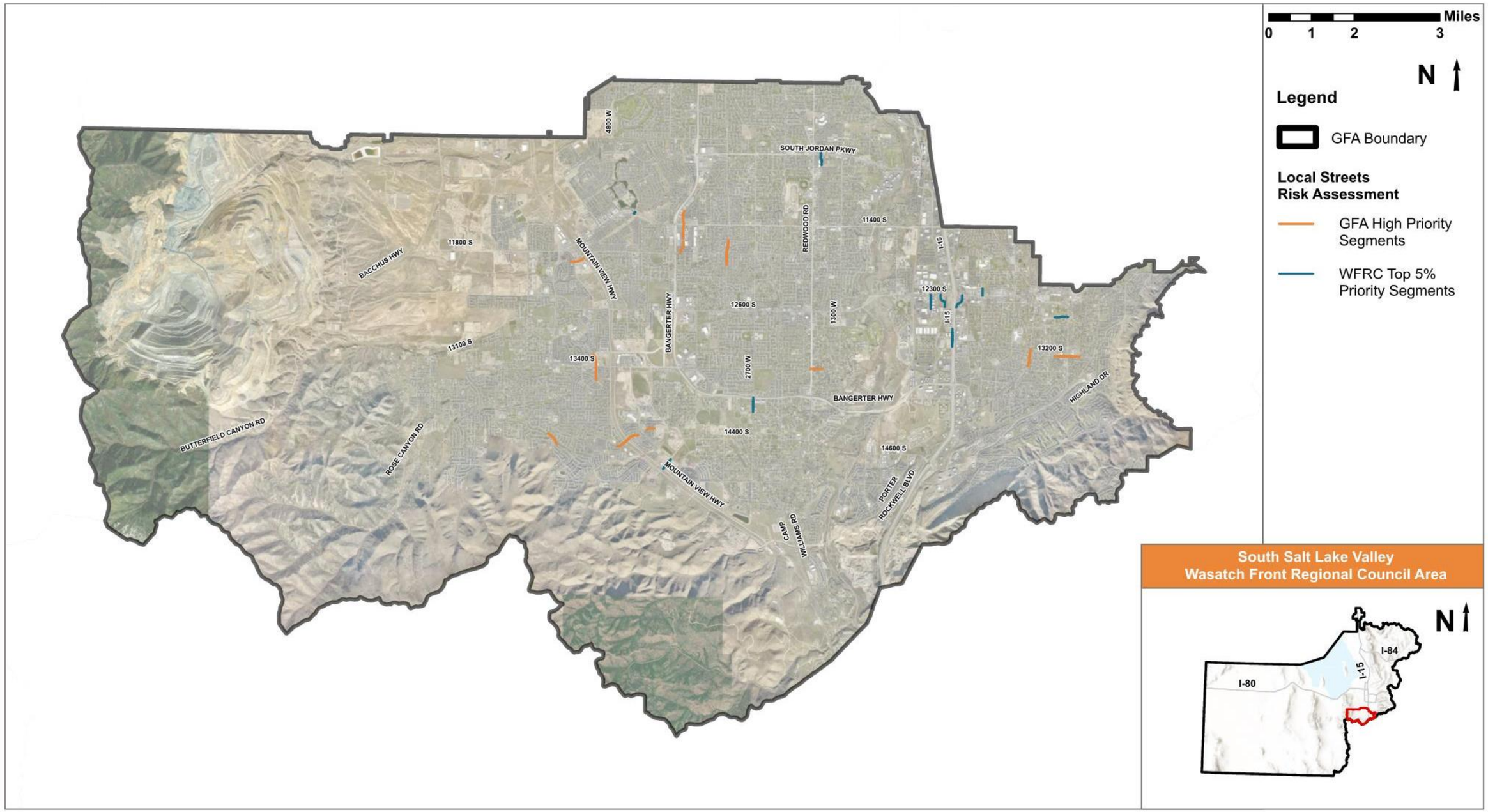


Figure 6.9 – Local Street Risk Assessment Results

7. Safety Analysis Summary

This section summarizes the safety analysis performed for the South Salt Lake Valley GFA by identifying common risk characteristics and a composite high-risk roadway network.

7.1. Common Risk Characteristics

Based on the SHSP Emphasis Area Analysis and the Historical Crash Analysis summarized above, the following are common risk characteristics that should be considered when developing safety improvement projects specific to the South Salt Lake Valley GFA.

- Intersections
  - 56.6% of all fatal and serious injuries
- Teen Driver
  - 25.5% of all fatal and serious injuries
- Speed-Related
  - 25.2% of all fatal and serious injuries
- Roadway Departure
  - 17.9% of all fatal and serious injuries
  - 17.0% of all fatal and serious injury crashes
- Motorcycle
  - 17.6% of all fatal and serious injuries
  - 5.3% of all fatal and serious injury crashes
- Active Transportation
  - 11.9% of all fatal and serious injury crashes
- Left Turn at Intersection
  - 23.3% of all fatal and serious injury crashes

7.2. Composite High-Risk Roadway Network

Each of the safety analysis methodologies completed identified segments that can be improved to reduce fatalities and serious injuries.

To identify an overall high-risk roadway network and provide focused information for jurisdictional decisions regarding prioritization of safety improvements, an analysis was performed to identify overlapping segments from each of the analysis methodologies. A composite score, from zero to five, was determined using the approach in **Table 7.1**. The high-risk roadway network is a composite of the various risks as presented in **Section 4** through **Section 6** of Tech Memo #1. The top 10% of roadway segments for the entire WFRC area are included in the Composite High-Risk Network. These segments have a composite risk value of four or higher.

The South Salt Lake Valley GFA Composite High-Risk Network for Federal Aid routes is summarized in **Table 7.2**.

The results are also mapped in **Figure 7.1** (State Routes) and **Figure 7.2** (Federal Aid Routes).

Table 7.1 – Composite High-Risk Roadway

Analysis	Risk Type	Approach	Value
Historical Crash Analysis	Historical Crash Risk	5-Year Crash Totals ≥ 3 Crashes	1
Crash and Network Screening Analysis	Systemic Crash Risk	Positive Local CCR Differential	1
WFRC Risk Assessment	Roadway Risk	Risk Score ≥ 20	1
usRAP Risk Assessment	Vehicle Risk	Vehicle Star Rating = 1-2 Stars	1
usRAP Risk Assessment	Pedestrian Risk	Pedestrian Star Rating = 1-2 Stars	0.5
usRAP Risk Assessment	Bicycle Risk	Bicycle Star Rating = 1-2 Stars	0.5
		Total Possible Composite Risk Score	**5**

Table 7.2 – South Salt Lake Valley High-Risk Roadway Network (State Routes and Federal Aid Routes)

					RISK TYPE						
Facility	Limits	Functional Classification	City	Length (miles)	*usRAP - Pedestrian Star Rating*	*usRAP - Bicycle Star Rating*	*usRAP - Vehicle Star Rating*	Crash Profile Risk Score	CCR Differential Analysis	Significant Crashes	Local Street Risk Assessment
State Route											
South Jordan Parkway	Bangerter Highway to I-15	Other Principal Arterial	South Jordan	4.2	X	X	X	X		X	
11400 South	Bangerter Highway to 3420 West	Other Principal Arterial	South Jordan, Draper	0.6	X	X	X	X		X	
11400 South	Redwood Road to I-15	Other Principal Arterial	South Jordan	2.3	X	X	X		X	X	
12600 South (SR-71)	Dunhammer Drive to 1630 West	Other Principal Arterial	Riverton	1.4	X	X	X	X		X	
12300 South (SR-71)	265 West to 700 East	Other Principal Arterial	Draper	1.5	X	X	X	X	X	X	
Bangerter Highway (SR-154)	2700 West to 13800 South	Other Principal Arterial	Riverton, Bluffdale	4.5	X	X	X	X		X	
14600 South	Noell Nelson Drive to I-15	Minor Arterial	Bluffdale	1.0	X	X	X	X		X	
Bangerter Highway (SR-154)	200 West to 13800 South	Other Principal Arterial	Draper	0.8	X	X	X	X		X	
Redwood Road (SR-68)	9400 South to 9916 South	Other Principal Arterial	South Jordan	1.5	X	X	X	X		X	
Redwood Road (SR-68)	11400 South to Andover Road	Other Principal Arterial	South Jordan	0.3	X	X	X		X	X	
Redwood Road (SR-68)	12600 South to Bangerter Highway	Other Principal Arterial	Riverton	2.2	X	X	X	X		X	
Camp Williams Road (SR-68)	1500 South to Portter Rockwell Blvd	Other Principal Arterial	Bluffdale	1.0	X	X	X	X		X	
Bangerter Highway (SR-154)	12600 South to 13400 South	Other Principal Arterial	Riverton	1.0	X	X	X	X		X	
State Street (US-89)	11400 South to 12300 South	Other Principal Arterial	Draper	1.2	X	X	X	X	X	X	
700 Easy (SR-71)	11400 South to 12300 South	Other Principal Arterial	Draper	1.2	X	X	X	X	X	X	
Federal Aid Routes											
1300 W	10400 S to McClan Dr	Major Collector	South Jordan	0.1	X	X	X		X	X	
Daybreak Rim Way	Oakmond Rd to Bangerter Hwy	Minor Arterial	South Jordan	1.3	X	X	X	X		X	
11400 S	State St to 150 E	Other Principal Arterial	Sandy	0.3	X	X	X		X	X	
12300 S	700 E to 100 E	Minor Arterial	Draper	0.5	X	X	X	X	X	X	
1300 E	Draper Gate Dr to Ballard Cv	Minor Arterial	Draper	0.5	X	X	X	X	X		
1300 E	13200 S to Bent Pine Cv	Minor Arterial	Draper	0.5	X	X	X	X		X	
13400 S	5600 W to Monarch Meadows Pkwy	Minor Arterial	Riverton, Herriman	0.1	X	X		X	X	X	
Bluffdale Blvd (14600 S)	1515 W to 850 W	Minor Arterial	Bluffdale	1.2	X	X	X	X	X	X	

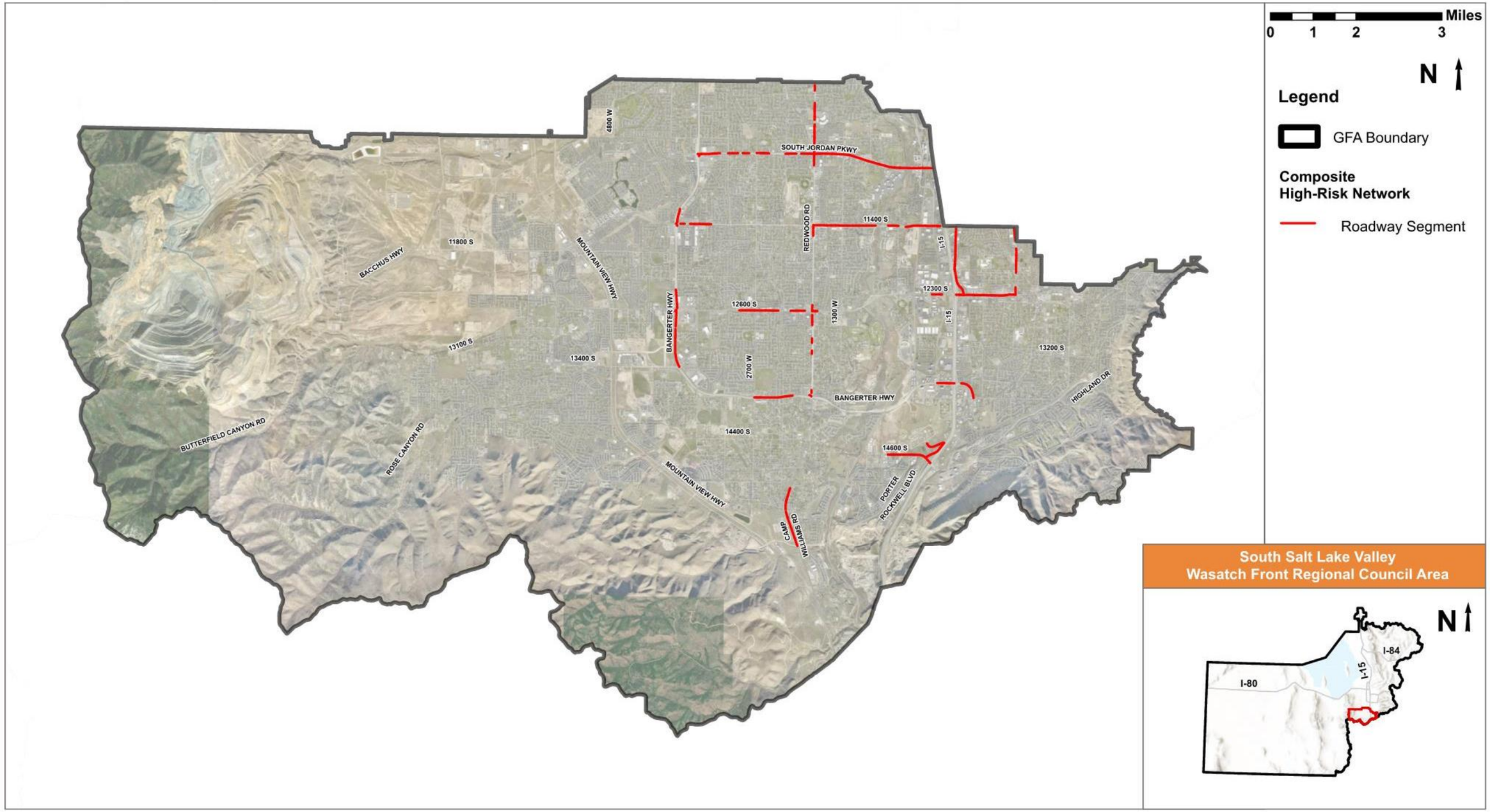


Figure 7.1 – South Salt Lake Valley High-Risk Roadway Network (State Routes)

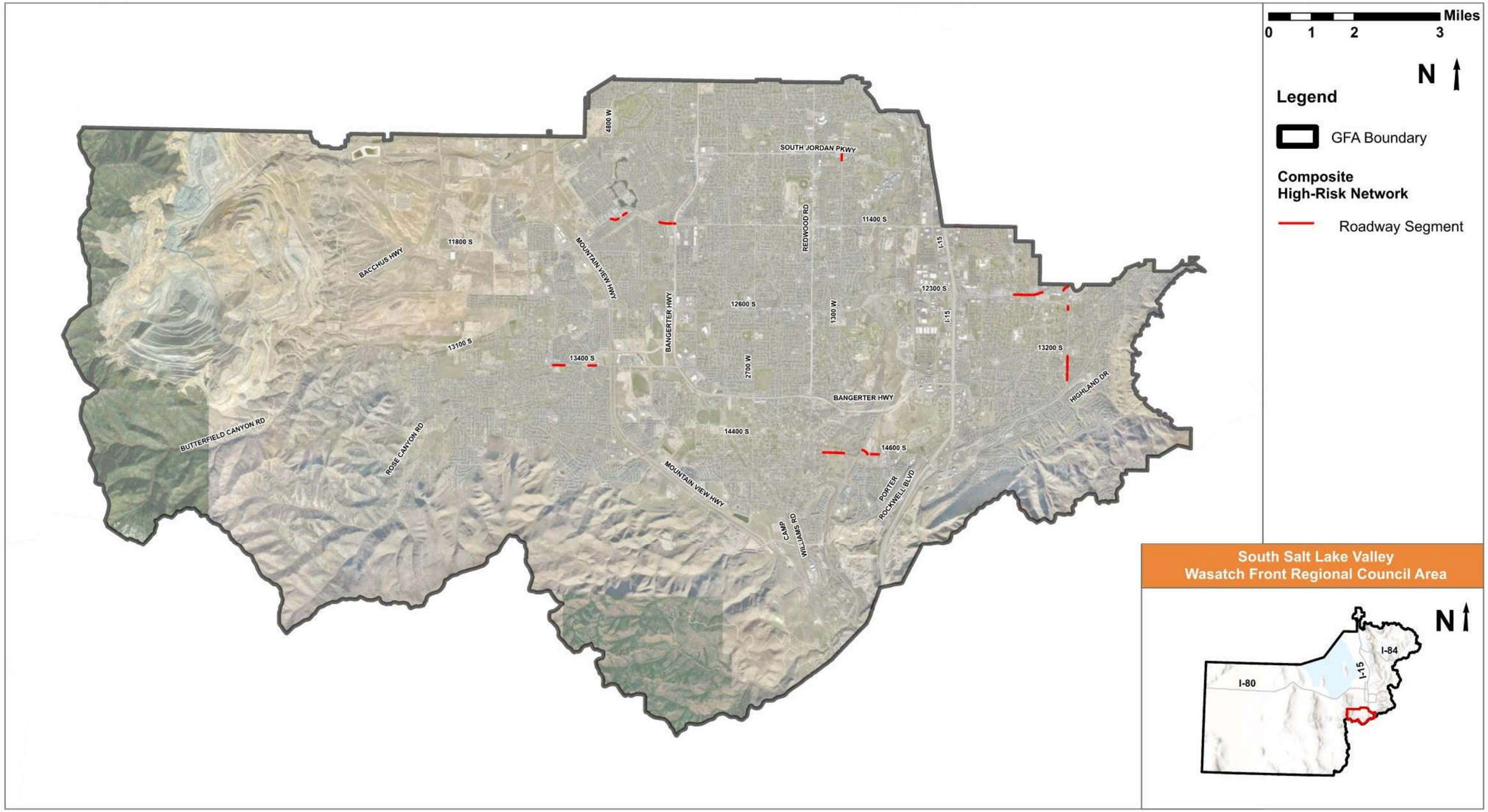


Figure 7.2 – South Salt Lake Valley High-Risk Roadway Network (Federal Aid Routes)

ATTACHMENT A

SOUTH SALT LAKE VALLEY CASE STUDY
PROJECT INFORMATION SHEETS

South Salt Lake Valley

Project ID	Jurisdictions	Project Name
10.52.1	Bluffdale	14600 South from SR 68 to I-15
10.52.2	Bluffdale	2700 West & 14400 South Intersection Improvements
10.53.1	Draper	12300 South from 700 East to 1300 East
10.53.2	Draper	Minuteman Drive & Highland Drive
10.54.1.1	Herriman, Riverton	13400 South from 6400 West to Bangerter Highway
10.54.2	Herriman	12600/Herriman Boulevard & Anthem Park Boulevard
10.54.3	Herriman	Sentinel Ridge Boulevard: 14230 South to 13400 South
10.55.1.1	Riverton, Herriman	13400 South from 6400 West to Bangerter Highway
10.56.1	South Jordan	South Jordan Parkway from Bangerter Highway to Redwood Road
10.56.2	South Jordan	Daybreak Parkway/SR 175 from 4000 West to 3600 West
10.56.3	South Jordan	Redwood Road and Shields Lane Intersection Improvements
10.57.1	Copperton	SR 209/SR 48 from Kennecott Road to 10200 South

Project Information Sheet

GFA(s):	**South Salt Lake Valley**	**Date Prepared:**	**3/14/2024**
Project Name:	**14600 South from SR 68 to I-15**	**Prepared By:**	**JSF**
Jurisdiction(s):	**Bluffdale**	**Checked By:**	**BCC**
Emphasis Areas:	**Intersections, Roadway Departures, Teen Driver**		
Equity Priority:	**Medium**		

Location Description

Roadway:	14600 South	
From:	SR 68	
To:	I-15	
Length:	2.29	miles

Key Intersection Locations:

1300 West	950 West	1000 West
1690 West	Heritagecrest Way	Porter Rockwell Boulevard
1630 West	Spring View Parkway	Pony ExpressRoad

Project Location Map

Map ID: 10.52.1

Segment Information and Safety Analysis Areas Summary

Roadway Characteristics	Value
Length (miles)	**2.29**
Average Daily Traffic (vehicles per day)	**3,816**
Functional Classification	**Other Principal Arteria**
Roadway Ownership	**State**
Urban/Rural Designation	**Urban**
Number of Key Intersections	**9**

Why Was This Location Identified?	
Composite Safety Score	✓
Historic Crashes	✓
Critical Crash Rate Differential	✓
Crash Profile Risk Score	✓
usRAP - Star Rating (Veh, Ped, Bike)	✓
Local Street Assessment	

Segment Crash History

Crash History (2018 - 2022)	# of crashes
Fatal Crashes (K)	**0**
Suspected Serious Injury Crashes (A)	**0**
Suspected Minor Injury Crashes (B)	**2**
Possible Injury Crashes (C)	**11**
No Injury/PDO Crashes (O)	**47**
Total Crashes	**60**
Total EPDO Crashes	**217**

What Crash Types are Over-Represented?			
Fatal		Head On (HO)	
Serious Injury		Parked Vehicle (PV)	✓
Pedestrian (Ped)		Single Vehicle	
Bicycle (Bike)		Rear to Rear (RR)	
Motorcycle		Rear to Side (RS)	
Angle	✓	Sideswipe (SS)	✓
Front to Rear (FR)		Other/Unknown	

Intersection Crash History

									What Crash Types are Over-Represented?							
Intersections	**Signal**	**K**	**A**	**B**	**C**	**O**	**Total**	**EPDO**	K/A	Ped/Bike	Angle	FR	HO	PV	RR/RS	SS
1300 West & 14600 South		0	0	0	3	0	3	34								
1690 West & 14600 South		0	0	1	2	0	3	45								
1630 West & 14600 South		0	0	0	4	0	4	45								
950 West & 14600 South		0	0	1	5	1	7	80								
Heritagecrest Way & 14600 South		0	0	0	4	0	4	45								
Spring View Parkway & 14600 So		0	0	0	2	1	3	24								
1000 West & 14600 South		0	0	0	10	1	11	115				✓				
Porter Rockwell Boulevard & 1460	✓	0	1	4	28	4	37	505								
Pony ExpressRoad & 14600 South	✓	0	1	10	30	21	62	678							✓	

Project Description/How is safety improved?

While this segment extends from Camp Williams Road/SR 68 to I-15, City of Bluffdale is already improving a large portion of this segment from the Jordan River Parkway to the 1000 W roundabout. The underway construction will remove the S-curve under the railroad and construct a new bridge under the railroad. It is proposed that other segments be improved with wider shoulders to allow for the installation of a buffered bicycle lane. It is also recommended that sidewalk infill be included in this project. The Jordan River Parkway Crossing should be upgraded to a high visibility crossing.

This project description represents potential safety improvement strategies that could be implemented at this location, as well as other locations with similar conditions. Additional improvement strategies could be considered subject to engineering analysis.

Proposed Proven Safety Countermeasures


Bicycle Lanes


Crosswalk Visibility Enhancements


Walkways


Wider Edge Lines

Opinion of Probable Construction Cost

Segment Improvements

Item Description	CMF	Applicable Crashes	Quantity	Unit	Unit Price	Item Cost
Install Sidewalk or Walkways	NA	Pedestrian	1.31	MILE	$ 634,000	$ 830,540
Shoulder Widening on Rural Roads	0.771	All Crashes	0.90	MILE	$ 32,000	$ 28,800
Traffic Calming - Lane Narrowing	0.68	All Crashes	1.47	MILE	$ 39,000	$ 57,330
Install Buffered Bicycle Lane	NA	Bicycle	1.47	MILE	$ 26,000	$ 38,220
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -

Intersection Improvements

Item Description	CMF	Applicable Crashes	Quantity	Unit	Unit Price	Item Cost
Upgrade Existing Crosswalk to High-Visibility Crosswalk	0.6 - 0.75	Pedestrian	1.00	XING	$ 37,000	$ 37,000
Perform an Intersection Control Evaluation and Implement	NA	All Crashes	1.00	INT	$ 225,000	$ 225,000
Install Pedestrian Hybrid Beacons (PHB) or HAWK	0.453	Pedestrian	1.00	EACH	$ 200,000	$ 200,000
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -

Improvements Subtotal:		$ 1,416,890
*Mobilization: (% +/-)**	*10%*	$ 75,000
Traffic Control: (% +/-)	*5%*	$ 70,845
Items Not Estimated / Contingency: (% +/-)	*40%*	$ 566,756
Estimated Construction Cost:		$ 2,129,491

Local Match†: 20% $ 541,000

† *Toward SS4A Implementation Grants*

Preconstruction Engineering/Design	*12%*	$ 255,539
*Utilities***		$ -
*ROW***		$ -
Construction Engineering/Management	*15%*	$ 319,424
Estimated Project Total:		$ 2,705,000

*Mobilization is 10% +/- of the subtotal with a minimum of $2,500 and a maximum of $75,000
**To be evaluated during feasibility study/design

Additional Potential Improvements

Additional safety improvements could be considered that were not included due to availability of data, need for site-specific information, and/or agency/jurisdiction input. Potential additional countermeasures are listed below. Refer to the ***Countermeasure Toolbox*** for a complete list of safety countermeasures.

Additional Improvements #1: _____
Additional Improvements #2: _____
Additional Improvements #3: _____
Additional Improvements #4: _____
Additional Improvements #5: _____

Disclaimer:

Disclaimer: The cost estimates provided in this document are for comparison purposes only. Actual project costs will vary. The recommended safety improvement strategies were based on available data and reasonable engineering judgment and a more detailed assessment may suggest additional safety strategies that could be considered.

Project Information Sheet

GFA(s):	**South Salt Lake Valley**	**Date Prepared:**	**3/14/2024**
Project Name:	**2700 West & 14400 South Intersection Improvements**	**Prepared By:**	**JSF**
Jurisdiction(s):	**Bluffdale**	**Checked By:**	**BCC**
Emphasis Areas:	**Intersections, Roadway Departures, Teen Driver**		
Equity Priority:	**Low**		

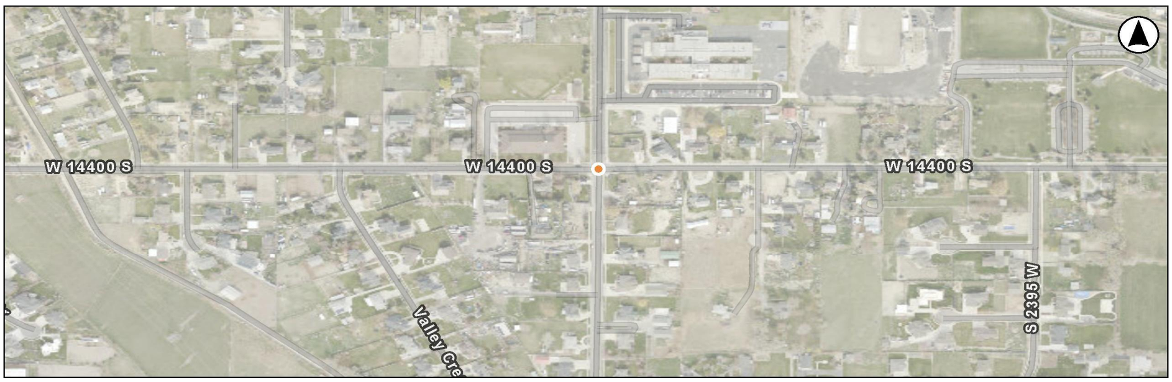
Location Description

Roadway: NA
From: NA
To: NA
Length: NA

Key Intersection Locations:
2700 West & 14400 South

Project Location Map

Map ID: 10.52.2



Segment Information and Safety Analysis Areas Summary

Roadway Characteristics	Value
Length (miles)	NA
Average Daily Traffic (vehicles per day)	NA
Functional Classification	NA
Roadway Ownership	NA
Urban/Rural Designation	NA
Number of Key Intersections	NA

Why Was This Location Identified?	
Composite Safety Score	NA
Historic Crashes	NA
Critical Crash Rate Differential	NA
Crash Profile Risk Score	NA
usRAP - Star Rating (Veh, Ped, Bike)	NA
Local Street Assessment	NA

Segment Crash History

Crash History (2018 - 2022)	# of crashes
Fatal Crashes (K)	NA
Suspected Serious Injury Crashes (A)	NA
Suspected Minor Injury Crashes (B)	NA
Possible Injury Crashes (C)	NA
No Injury/PDO Crashes (O)	NA
Total Crashes	**NA**
Total EPDO Crashes	**NA**

What Crash Types are Over-Represented?			
Fatal	NA	Head On (HO)	NA
Serious Injury	NA	Parked Vehicle (PV)	NA
Pedestrian (Ped)	NA	Single Vehicle	NA
Bicycle (Bike)	NA	Rear to Rear (RR)	NA
Motorcycle	NA	Rear to Side (RS)	NA
Angle	NA	Sideswipe (SS)	NA
Front to Rear (FR)	NA	Other/Unknown	NA

Intersection Crash History

									What Crash Types are Over-Represented?							
Intersections	**Signal**	**K**	**A**	**B**	**C**	**O**	**Total**	**EPDO**	K/A	Ped/Bike	Angle	FR	HO	PV	RR/RS	SS
2700 West & 14400 South		0	0	1	7	5	13	107								

Project Description/How is safety improved?

This project is focused on identifying and implementing the best intersection control type at this intersection. This will be accomplished through conducting an intersection control evaluation study and implementing the results. It could be possible that a roundabout will be the prefered alternative to improve safety based on the results of the study.

This project description represents potential safety improvement strategies that could be implemented at this location, as well as other locations with similar conditions. Additional improvement strategies could be considered subject to engineering analysis.

Proposed Proven Safety Countermeasures

Roundabouts

Opinion of Probable Construction Cost

Segment Improvements

Item Description	CMF	Applicable Crashes	Quantity	Unit	Unit Price	Item Cost
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -

Intersection Improvements

Item Description	CMF	Applicable Crashes	Quantity	Unit	Unit Price	Item Cost
Perform an Intersection Control Evaluation and Implement	NA	All Crashes	1.00	INT	$ 225,000	$ 225,000
Convert Existing Intersection to Modern Roundabout	0.18 - 0.59	All Crashes	1.00	INT	$ 2,500,000	$ 2,500,000
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -

Improvements Subtotal:		$ 2,725,000
*Mobilization: (% +/-)**	*10%*	$ 75,000
Traffic Control: (% +/-)	*5%*	$ 136,250
Items Not Estimated / Contingency: (% +/-)	*30%*	$ 817,500
Estimated Construction Cost:		$ 3,753,750

Local Match†: 20% $ 953,600

† *Toward SS4A Implementation Grants*

Preconstruction Engineering/Design	*12%*	$ 450,450
*Utilities***		$ -
*ROW***		$ -
Construction Engineering/Management	*15%*	$ 563,063
Estimated Project Total:		$ 4,768,000

*Mobilization is 10% +/- of the subtotal with a minimum of $2,500 and a maximum of $75,000
**To be evaluated during feasibility study/design

Additional Potential Improvements

Additional safety improvements could be considered that were not included due to availability of data, need for site-specific information, and/or agency/jurisdiction input. Potential additional countermeasures are listed below. Refer to the ***Countermeasure Toolbox*** for a complete list of safety countermeasures.

Additional Improvements #1: Set Appropriate Speed Limits for All Road Users
Additional Improvements #2:
Additional Improvements #3:
Additional Improvements #4:
Additional Improvements #5:

Disclaimer:

Disclaimer: The cost estimates provided in this document are for comparison purposes only. Actual project costs will vary. The recommended safety improvement strategies were based on available data and reasonable engineering judgment and a more detailed assessment may suggest additional safety strategies that could be considered.

Project Information Sheet

GFA(s): South Salt Lake Valley
Project Name: 12300 South from 700 East to 1300 East
Jurisdiction(s): Draper
Emphasis Areas: Intersections, Roadway Departures, Teen Driver
Equity Priority: Medium, Low

Date Prepared: 3/14/2024
Prepared By: JSF
Checked By: EJS

Location Description

Roadway: 12300 South
From: 700 East
To: 1300 East
Length: 0.88 miles

Key Intersection Locations:
800 East

Project Location Map

Map ID: 10.53.1

Segment Information and Safety Analysis Areas Summary

Roadway Characteristics	Value
Length (miles)	0.88
Average Daily Traffic (vehicles per day)	26,353
Functional Classification	Minor Arterial
Roadway Ownership	Federal Aid - Local
Urban/Rural Designation	Urban
Number of Key Intersections	1

Why Was This Location Identified?	
Composite Safety Score	✓
Historic Crashes	✓
Critical Crash Rate Differential	✓
Crash Profile Risk Score	✓
usRAP - Star Rating (Veh, Ped, Bike)	✓
Local Street Assessment	

Segment Crash History

Crash History (2018 - 2022)	# of crashes
Fatal Crashes (K)	0
Suspected Serious Injury Crashes (A)	2
Suspected Minor Injury Crashes (B)	4
Possible Injury Crashes (C)	11
No Injury/PDO Crashes (O)	59
Total Crashes	76
Total EPDO Crashes	461

What Crash Types are Over-Represented?			
Fatal		Head On (HO)	
Serious Injury	✓	Parked Vehicle (PV)	
Pedestrian (Ped)		Single Vehicle	
Bicycle (Bike)		Rear to Rear (RR)	
Motorcycle		Rear to Side (RS)	
Angle	✓	Sideswipe (SS)	✓
Front to Rear (FR)	✓	Other/Unknown	

Intersection Crash History

									What Crash Types are Over-Represented?							
Intersections	Signal	K	A	B	C	O	Total	EPDO	K/A	Ped/Bike	Angle	FR	HO	PV	RR/RS	SS
800 East & 12300 South		0	0	4	4	1	9	136								

Project Description/How is safety improved?

This project is focued on systemic corridor access management and bicycle safety improvements. It is proposed that a center curbed median be installed along the entire length of the project in the existing two-way left-turn lane to address angle (turning) crashes along the corridor. All unsignalized intersections and access driveways should be considered for right-in/right-out or 3/4 access. It is also proposed that lane narrowing and wider lane lines be implemented for traffic calming and to allow for the striping of a bicycle lane.

This project description represents potential safety improvement strategies that could be implemented at this location, as well as other locations with similar conditions. Additional improvement strategies could be considered subject to engineering analysis.

Proposed Proven Safety Countermeasures


Bicycle Lanes


Corridor Access Management


Reduced Left-Turn Conflict Intersections

Opinion of Probable Construction Cost

Segment Improvements

Item Description	CMF	Applicable Crashes	Quantity	Unit	Unit Price	Item Cost
Install Raised Medians on Roadways with Existing TWLTL	0.29	All Crashes	0.88	MILE	$ 928,000	$ 816,640
Traffic Calming - Lane Narrowing	0.68	All Crashes	0.88	MILE	$ 39,000	$ 34,320
Install Bicycle Lane	0.51 - 0.694	Bicycle	0.88	MILE	$ 21,000	$ 18,480
Install Driver Feedback Speed Limit Signs	NA	All Crashes	4.00	EACH	$ 10,000	$ 40,000
Traffic Calming - Wider Lane Lines	0.68	All Crashes	0.88	MILE	$ 21,000	$ 18,480
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -

Intersection Improvements

Item Description	CMF	Applicable Crashes	Quantity	Unit	Unit Price	Item Cost
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -

Improvements Subtotal:		$ 927,920
*Mobilization: (% +/-)**	*10%*	$ 75,000
Traffic Control: (% +/-)	*5%*	$ 46,396
Items Not Estimated / Contingency: (% +/-)	*30%*	$ 278,376
Estimated Construction Cost:		$ 1,327,692

Local Match†: 20% $ 337,400

† *Toward SS4A Implementation Grants*

Preconstruction Engineering/Design	*12%*	$ 159,323
*Utilities***		$ -
*ROW***		$ -
Construction Engineering/Management	*15%*	$ 199,154
Estimated Project Total:		$ 1,687,000

*Mobilization is 10% +/- of the subtotal with a minimum of $2,500 and a maximum of $75,000
**To be evaluated during feasibility study/design

Additional Potential Improvements

Additional safety improvements could be considered that were not included due to availability of data, need for site-specific information, and/or agency/jurisdiction input. Potential additional countermeasures are listed below. Refer to the ***Countermeasure Toolbox*** for a complete list of safety countermeasures.

Additional Improvements #1: _____
Additional Improvements #2: _____
Additional Improvements #3: _____
Additional Improvements #4: _____
Additional Improvements #5: _____

Disclaimer:

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WASATCH FRONT REGIONAL COUNCIL
Comprehensive Safety Action Plan

Project Information Sheet

GFA(s): South Salt Lake Valley
Project Name: Minuteman Drive & Highland Drive
Jurisdiction(s): Draper
Emphasis Areas: Intersections, Roadway Departures, Teen Driver
Equity Priority: Low

Date Prepared: 3/14/2024
Prepared By: MA
Checked By: EMF

Location Description

Roadway: NA
From: NA
To: NA
Length: NA

Key Intersection Locations:
Minuteman Drive

Project Location Map

Map ID: 10.53.2

Segment Information and Safety Analysis Areas Summary

Roadway Characteristics	Value
Length (miles)	NA
Average Daily Traffic (vehicles per day)	NA
Functional Classification	NA
Roadway Ownership	NA
Urban/Rural Designation	NA
Number of Key Intersections	NA

Why Was This Location Identified?	
Composite Safety Score	
Historic Crashes	
Critical Crash Rate Differential	
Crash Profile Risk Score	
usRAP - Star Rating (Veh, Ped, Bike)	
Local Street Assessment	

Segment Crash History

Crash History (2018 - 2022)	# of crashes
Fatal Crashes (K)	NA
Suspected Serious Injury Crashes (A)	NA
Suspected Minor Injury Crashes (B)	NA
Possible Injury Crashes (C)	NA
No Injury/PDO Crashes (O)	NA
Total Crashes	NA
Total EPDO Crashes	NA

What Crash Types are Over-Represented?			
Fatal		Head On (HO)	
Serious Injury		Parked Vehicle (PV)	
Pedestrian (Ped)		Single Vehicle	
Bicycle (Bike)		Rear to Rear (RR)	
Motorcycle		Rear to Side (RS)	
Angle		Sideswipe (SS)	
Front to Rear (FR)		Other/Unknown	

Intersection Crash History

									What Crash Types are Over-Represented?							
Intersections	Signal	K	A	B	C	O	Total	EPDO	K/A	Ped/Bike	Angle	FR	HO	PV	RR/RS	SS
Minuteman Drive & Highland Driv	✓	0	0	14	50	38	102	918								

Project Description/How is safety improved?

This project recommends the following improvements to the intersection of Minuteman Drive/Highland Drive: westbound left, transition to protected phasing; northbound/southbound left, transition to flashing yellow arrow format; east and south approaches, add right-turn storage lane; add crossing visibility improvements on the east and south legs; add advance warning signage to north and south approaches to intersection.

This project description represents potential safety improvement strategies that could be implemented at this location, as well as other locations with similar conditions. Additional improvement strategies could be considered subject to engineering analysis.

Proposed Proven Safety Countermeasures

Crosswalk Visibility Enhancements

Dedicated Left and Right-Turn Lanes at Intersections

Opinion of Probable Construction Cost

Segment Improvements

Item Description	CMF	Applicable Crashes	Quantity	Unit	Unit Price	Item Cost
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -

Intersection Improvements

Item Description	CMF	Applicable Crashes	Quantity	Unit	Unit Price	Item Cost
Change Permissive Left-Turn to Protected or Protected/Permissive	0.79 - 0.95	Left-Turn	1.00	INT	$ 8,000	$ 8,000
Change a 5-section "Doghouse" to Flashing Yellow Arrow	0.75 - 0.93	Left-Turn	2.00	INT	$ 8,000	$ 16,000
Provide Right-Turn Lanes	0.74 - 0.86	All Crashes	2.00	LANE	$ 150,000	$ 300,000
Upgrade Existing Crosswalk to High-Visibility Crosswalk	0.6 - 0.75	Pedestrian	2.00	XING	$ 37,000	$ 74,000
Systemic Low-Cost Countermeasures at Stop-Control Intersection	0.73 - 0.9	All Crashes	1.00	INT	$ 19,000	$ 19,000
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -

Improvements Subtotal:		$ 417,000
*Mobilization: (% +/-)**	*10%*	$ 41,700
Traffic Control: (% +/-)	*5%*	$ 20,850
Items Not Estimated / Contingency: (% +/-)	*30%*	$ 125,100
Estimated Construction Cost:		$ 604,650

Local Match†: **20%** **$ 153,600**

† *Toward SS4A Implementation Grants*

Preconstruction Engineering/Design	*12%*	$ 72,558
*Utilities***		$ -
*ROW***		$ -
Construction Engineering/Management	*15%*	$ 90,698
Estimated Project Total:		$ 768,000

*Mobilization is 10% +/- of the subtotal with a minimum of $2,500 and a maximum of $75,000
**To be evaluated during feasibility study/design

Additional Potential Improvements

Additional safety improvements could be considered that were not included due to availability of data, need for site-specific information, and/or agency/jurisdiction input. Potential additional countermeasures are listed below. Refer to the ***Countermeasure Toolbox*** for a complete list of safety countermeasures.

Additional Improvements #1: _____
Additional Improvements #2: _____
Additional Improvements #3: _____
Additional Improvements #4: _____
Additional Improvements #5: _____

Disclaimer:

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Project Information Sheet

GFA(s):	**South Salt Lake Valley**	**Date Prepared:**	**3/14/2024**
Project Name:	**13400 South from 6400 West to Bangerter Highway**	**Prepared By:**	**JSF**
Jurisdiction(s):	**Herriman, Riverton**	**Checked By:**	**EJS**
Emphasis Areas:	**Intersections, Roadway Departures, Teen Driver**		
Equity Priority:	**Medium, Low**		

Location Description

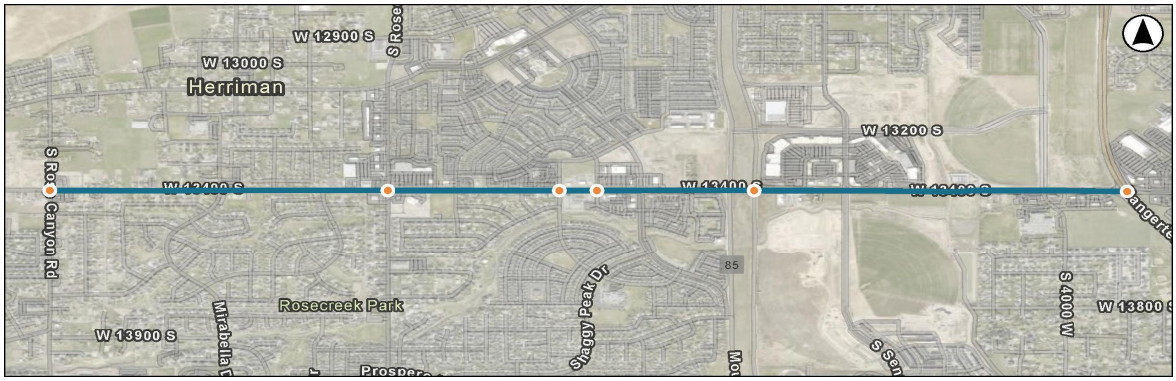
Roadway:	13400 South
From:	6400 West
To:	Bangerter Highway
Length:	3.20 miles

Key Intersection Locations:

Rose Canyon Road	Rosecrest Road
5200 West	Mountain View Corridor
Towne Market Place	Bangerter Highway

Project Location Map

Map ID: 10.54.1.1



Segment Information and Safety Analysis Areas Summary

Roadway Characteristics	Value
Length (miles)	**3.20**
Average Daily Traffic (vehicles per day)	**31,789**
Functional Classification	**Minor Arterial**
Roadway Ownership	**Federal Aid - Local**
Urban/Rural Designation	**Urban**
Number of Key Intersections	**6**

Why Was This Location Identified?	
Composite Safety Score	✓
Historic Crashes	✓
Critical Crash Rate Differential	✓
Crash Profile Risk Score	✓
usRAP - Star Rating (Veh, Ped, Bike)	✓
Local Street Assessment	

Segment Crash History

Crash History (2018 - 2022)	# of crashes
Fatal Crashes (K)	**0**
Suspected Serious Injury Crashes (A)	**2**
Suspected Minor Injury Crashes (B)	**26**
Possible Injury Crashes (C)	**28**
No Injury/PDO Crashes (O)	**199**
Total Crashes	**255**
Total EPDO Crashes	**1,284**

What Crash Types are Over-Represented?			
Fatal		Head On (HO)	
Serious Injury	✓	Parked Vehicle (PV)	✓
Pedestrian (Ped)		Single Vehicle	✓
Bicycle (Bike)		Rear to Rear (RR)	
Motorcycle		Rear to Side (RS)	
Angle		Sideswipe (SS)	
Front to Rear (FR)	✓	Other/Unknown	

Intersection Crash History

									What Crash Types are Over-Represented?							
Intersections	**Signal**	**K**	**A**	**B**	**C**	**O**	**Total**	**EPDO**	K/A	Ped/Bike	Angle	FR	HO	PV	RR/RS	SS
Rose Canyon Road & 13400 Sout	✓	0	0	4	10	7	21	210								
5200 West & 13400 South	✓	0	0	3	11	4	18	196								
Towne Market Place & 13400 Sou		0	0	5	10	6	21	231								
Rosecrest Road & 13400 South	✓	0	0	9	55	38	102	864								
Mountain View Corridor & 13400 S	✓	0	2	6	60	21	89	1,024								
Bangerter Highway & 13400 Sout	✓	1	3	28	85	26	143	2,785								

Project Description/How is safety improved?

This project is focused on systemic safety improvements along the corridor including constructing sidewalk in locations where no sidewalk is present, installing center curbed median and limiting access at unsignalized intersections, and striping a buffered bicycle lane where it currently does not exists west of Rosecrest Road. It is also proposed that all school crosings be upgraded to high visibility crosswalk markings.

This project description represents potential safety improvement strategies that could be implemented at this location, as well as other locations with similar conditions. Additional improvement strategies could be considered subject to engineering analysis.

Proposed Proven Safety Countermeasures


Corridor Access Management


Bicycle Lanes


Crosswalk Visibility Enhancements

Opinion of Probable Construction Cost

Segment Improvements

Item Description	CMF	Applicable Crashes	Quantity	Unit	Unit Price	Item Cost
Install Sidewalk or Walkways	NA	Pedestrian	0.52	MILE	$ 634,000	$ 329,680
Install Raised Medians on Roadways with Existing TWLTL	0.29	All Crashes	1.72	MILE	$ 928,000	$ 1,596,160
Traffic Calming - Lane Narrowing	0.68	All Crashes	0.99	MILE	$ 39,000	$ 38,610
Install Buffered Bicycle Lane	NA	Bicycle	0.99	MILE	$ 26,000	$ 25,740
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -

Intersection Improvements

Item Description	CMF	Applicable Crashes	Quantity	Unit	Unit Price	Item Cost
Install High Visibility Crosswalk Markings	0.6	Pedestrian	11.00	XING	$ 2,500	$ 27,500
Protected Intersection	NA	All Crashes	2.00	INT	$ 650,000	$ 1,300,000
Provide Left-Turn Lanes	0.52 - 0.72	Rural	2.00	LANE	$ 300,000	$ 600,000
Provide Right-Turn Lanes	0.74 - 0.86	All Crashes	2.00	LANE	$ 150,000	$ 300,000
Add Bicycle Treatments at Intersections	NA	All Crashes	2.00	INT	$ 9,000	$ 18,000
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -

Improvements Subtotal:		$ 4,235,690
*Mobilization: (% +/-)**	*10%*	$ 75,000
Traffic Control: (% +/-)	*5%*	$ 211,785
Items Not Estimated / Contingency: (% +/-)	*30%*	$ 1,270,707
Estimated Construction Cost:		$ 5,793,182

Local Match†: 20% $ 1,471,600

† *Toward SS4A Implementation Grants*

Preconstruction Engineering/Design	*12%*	$ 695,182
*Utilities***		$ -
*ROW***		$ -
Construction Engineering/Management	*15%*	$ 868,977
Estimated Project Total:		$ 7,358,000

*Mobilization is 10% +/- of the subtotal with a minimum of $2,500 and a maximum of $75,000
**To be evaluated during feasibility study/design

Additional Potential Improvements

Additional safety improvements could be considered that were not included due to availability of data, need for site-specific information, and/or agency/jurisdiction input. Potential additional countermeasures are listed below. Refer to the ***Countermeasure Toolbox*** for a complete list of safety countermeasures.

Additional Improvements #1: _____
Additional Improvements #2: _____
Additional Improvements #3: _____
Additional Improvements #4: _____
Additional Improvements #5: _____

Disclaimer:

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Project Information Sheet

GFA(s):	**South Salt Lake Valley**	**Date Prepared:**	**3/14/2024**
Project Name:	**12600/Herriman Boulevard & Anthem Park Boulevard**	**Prepared By:**	**MA**
Jurisdiction(s):	**Herriman**	**Checked By:**	**EMF**
Emphasis Areas:	**Intersections, Roadway Departures, Teen Driver**		
Equity Priority:	**Medium**		

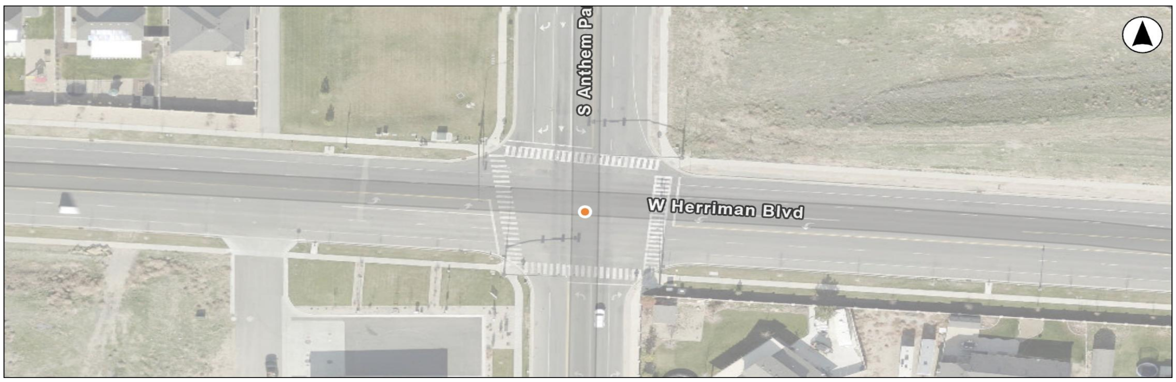
Location Description

Roadway: NA
From: NA
To: NA
Length: NA

Key Intersection Locations:
Herriman Boulev

Project Location Map

Map ID: 10.54.2



Segment Information and Safety Analysis Areas Summary

Roadway Characteristics	Value
Length (miles)	NA
Average Daily Traffic (vehicles per day)	NA
Functional Classification	NA
Roadway Ownership	NA
Urban/Rural Designation	NA
Number of Key Intersections	NA

Why Was This Location Identified?	
Composite Safety Score	
Historic Crashes	
Critical Crash Rate Differential	
Crash Profile Risk Score	
usRAP - Star Rating (Veh, Ped, Bike)	
Local Street Assessment	

Segment Crash History

Crash History (2018 - 2022)	# of crashes
Fatal Crashes (K)	NA
Suspected Serious Injury Crashes (A)	NA
Suspected Minor Injury Crashes (B)	NA
Possible Injury Crashes (C)	NA
No Injury/PDO Crashes (O)	NA
Total Crashes	**NA**
Total EPDO Crashes	**NA**

What Crash Types are Over-Represented?			
Fatal		Head On (HO)	
Serious Injury		Parked Vehicle (PV)	
Pedestrian (Ped)		Single Vehicle	
Bicycle (Bike)		Rear to Rear (RR)	
Motorcycle		Rear to Side (RS)	
Angle		Sideswipe (SS)	
Front to Rear (FR)		Other/Unknown	

Intersection Crash History

									What Crash Types are Over-Represented?							
Intersections	Signal	K	A	B	C	O	Total	EPDO	K/A	Ped/Bike	Angle	FR	HO	PV	RR/RS	SS
Herriman Boulevard & Anthem Pa	✓	0	0	1	11	4	16	151								

Project Description/How is safety improved?

This project recommends the following improvements to the intersection of W Herriman Blvd/Anthem Park Blvd: protected intersection improvements including bulbouts on all possible approaches and other improvements to increase pedestrian visibility; eastbound and westbound right-turn lane; advance warning signage on east and west approaches; retroreflective backplates/borders; high-visibility crossing, signage and ADA improvements at the intersection.

This project description represents potential safety improvement strategies that could be implemented at this location, as well as other locations with similar conditions. Additional improvement strategies could be considered subject to engineering analysis.

Proposed Proven Safety Countermeasures


Backplates with Retroreflective Borders


Crosswalk Visibility Enhancements


Dedicated Left and Right-Turn Lanes at Intersections

Opinion of Probable Construction Cost

Segment Improvements

Item Description	CMF	Applicable Crashes	Quantity	Unit	Unit Price	Item Cost
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -

Intersection Improvements

Item Description	CMF	Applicable Crashes	Quantity	Unit	Unit Price	Item Cost
Protected Intersection	NA	All Crashes	1.00	INT	$ 650,000	$ 650,000
Provide Right-Turn Lanes	0.74 - 0.86	All Crashes	2.00	LANE	$ 150,000	$ 300,000
Systemic Low-Cost Countermeasures at Stop-Control Intersection	0.73 - 0.9	All Crashes	1.00	INT	$ 19,000	$ 19,000
Install Retroreflective Backplates/Boarders			8.00			$ -
Install High-Visibility Crosswalk	0.6 - 0.75	Pedestrian	1.00	XING	$ 36,000	$ 36,000
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -

Improvements Subtotal:		$ 1,005,000
*Mobilization: (% +/-)**	*10%*	$ 75,000
Traffic Control: (% +/-)	*5%*	$ 50,250
Items Not Estimated / Contingency: (% +/-)	*30%*	$ 301,500
Estimated Construction Cost:		$ 1,431,750

Local Match†: 20% $ 363,800

† *Toward SS4A Implementation Grants*

Preconstruction Engineering/Design	*12%*	$ 171,810
*Utilities***		$ -
*ROW***		$ -
Construction Engineering/Management	*15%*	$ 214,763
Estimated Project Total:		$ 1,819,000

*Mobilization is 10% +/- of the subtotal with a minimum of $2,500 and a maximum of $75,000
**To be evaluated during feasibility study/design

Additional Potential Improvements

Additional safety improvements could be considered that were not included due to availability of data, need for site-specific information, and/or agency/jurisdiction input. Potential additional countermeasures are listed below. Refer to the ***Countermeasure Toolbox*** for a complete list of safety countermeasures.

Additional Improvements #1: Set Appropriate Speed Limits for All Road Users
Additional Improvements #2:
Additional Improvements #3:
Additional Improvements #4:
Additional Improvements #5:

Disclaimer:

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Project Information Sheet

GFA(s): South Salt Lake Valley
Project Name: Sentinel Ridge Boulevard from 13400 South to 14230 South
Jurisdiction(s): Herriman
Emphasis Areas: Intersections, Roadway Departures, Teen Driver
Equity Priority: Low

Date Prepared: 3/14/2024
Prepared By: JSF
Checked By: EJS

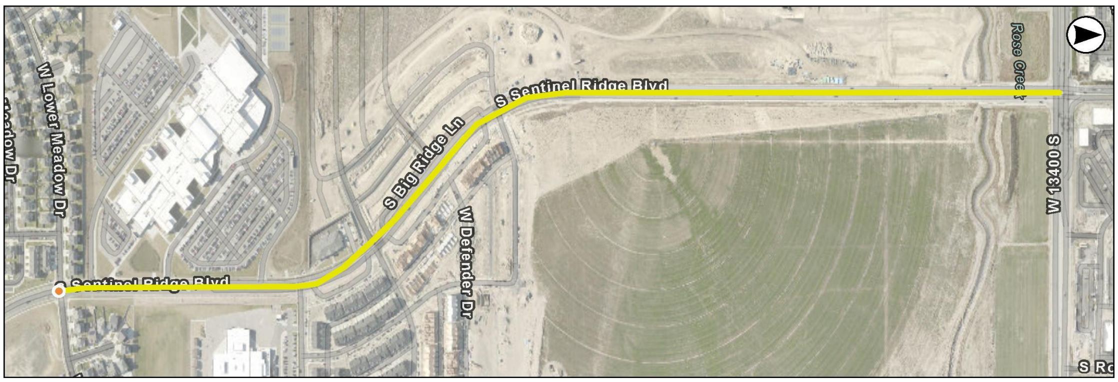
Location Description

Roadway: Sentinel Ridge Boulevard
From: 13400 South
To: 14230 South
Length: 1.09 miles

Key Intersection Locations:
14230 South

Project Location Map

Map ID: 10.54.3



Segment Information and Safety Analysis Areas Summary

Roadway Characteristics	Value
Length (miles)	1.09
Average Daily Traffic (vehicles per day)	8,542
Functional Classification	Local
Roadway Ownership	Local
Urban/Rural Designation	Urban
Number of Key Intersections	1

Why Was This Location Identified?	
Composite Safety Score	
Historic Crashes	✓
Critical Crash Rate Differential	✓
Crash Profile Risk Score	
usRAP - Star Rating (Veh, Ped, Bike)	
Local Street Assessment	

Segment Crash History

Crash History (2018 - 2022)	# of crashes
Fatal Crashes (K)	0
Suspected Serious Injury Crashes (A)	0
Suspected Minor Injury Crashes (B)	1
Possible Injury Crashes (C)	4
No Injury/PDO Crashes (O)	18
Total Crashes	**23**
Total EPDO Crashes	**86**

What Crash Types are Over-Represented?			
Fatal		Head On (HO)	✓
Serious Injury		Parked Vehicle (PV)	
Pedestrian (Ped)		Single Vehicle	
Bicycle (Bike)		Rear to Rear (RR)	
Motorcycle		Rear to Side (RS)	
Angle		Sideswipe (SS)	
Front to Rear (FR)	✓	Other/Unknown	

Intersection Crash History

									What Crash Types are Over-Represented?							
Intersections	Signal	K	A	B	C	O	Total	EPDO	K/A	Ped/Bike	Angle	FR	HO	PV	RR/RS	SS
14230 South & Sentinel Ridge Bo		0	0	1	5	3	9	82		✓						

Project Description/How is safety improved?

This project recommends the systemic safety improvements along the corridor including traffic calming, median installation, and active transportation improvements. These improvements include lane narrow and median installation along the entire corridor. Active transportation improvements include the extension of the muti-use path and bulbouts at all school crossings. It is also proposed that the intersection of 14230 South/Sentinel Ridge Boulevard be evaluated through Intersection Control Evaluation (ICE) study. Also the intersection should consider RRFB and higher visibility crosswalks. A pedestrian refuge island should be considered at the existing HAWK signal crossing.

This project description represents potential safety improvement strategies that could be implemented at this location, as well as other locations with similar conditions. Additional improvement strategies could be considered subject to engineering analysis.

Proposed Proven Safety Countermeasures

Crosswalk Visibility Enhancements

Rectangular Rapid Flashing Beacons (RRFB)

Opinion of Probable Construction Cost

Segment Improvements

Item Description	CMF	Applicable Crashes	Quantity	Unit	Unit Price	Item Cost
Traffic Calming - Lane Narrowing	0.68	All Crashes	1.09	MILE	$ 39,000	$ 42,510
Install Medians and Pedestrian Refuge Islands in Urban Areas	0.44	Pedestrian	1.09	LE (URBA	$ 958,000	$ 1,044,220
Install a Separated Bicycle Lane (Cycle Track or Multi-Use Path)	NA	Bicycle	0.73	MILE	$ 553,000	$ 403,690
Traffic Calming - Bulbouts	0.68	All Crashes	16.00	EACH	$ 36,000	$ 576,000
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -

Intersection Improvements

Item Description	CMF	Applicable Crashes	Quantity	Unit	Unit Price	Item Cost
Perform an Intersection Control Evaluation and Implement	NA	All Crashes	1.00	INT	$ 225,000	$ 225,000
Install a Rectangular Rapid Flashing Beacons (RRFB)	0.526	Pedestrian	1.00	XING (2)	$ 15,000	$ 15,000
Install Pedestrian Refuge Island	0.54	Pedestrian	1.00	EACH	$ 30,000	$ 30,000
Install High-Visibility Crosswalk	0.6 - 0.75	Pedestrian	3.00	XING	$ 36,000	$ 108,000
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -

Improvements Subtotal:		$ 2,444,420
*Mobilization: (% +/-)**	*10%*	$ 75,000
Traffic Control: (% +/-)	*5%*	$ 122,221
Items Not Estimated / Contingency: (% +/-)	*30%*	$ 733,326
Estimated Construction Cost:		$ 3,374,967

Local Match†: 20% $ 857,400

† *Toward SS4A Implementation Grants*

Preconstruction Engineering/Design	*12%*	$ 404,996
*Utilities***		$ -
*ROW***		$ -
Construction Engineering/Management	*15%*	$ 506,245
Estimated Project Total:		$ 4,287,000

*Mobilization is 10% +/- of the subtotal with a minimum of $2,500 and a maximum of $75,000
**To be evaluated during feasibility study/design

Additional Potential Improvements

Additional safety improvements could be considered that were not included due to availability of data, need for site-specific information, and/or agency/jurisdiction input. Potential additional countermeasures are listed below. Refer to the ***Countermeasure Toolbox*** for a complete list of safety countermeasures.

Additional Improvements #1: _____
Additional Improvements #2: _____
Additional Improvements #3: _____
Additional Improvements #4: _____
Additional Improvements #5: _____

Disclaimer:

Disclaimer: The cost estimates provided in this document are for comparison purposes only. Actual project costs will vary. The recommended safety improvement strategies were based on available data and reasonable engineering judgment and a more detailed assessment may suggest additional safety strategies that could be considered.

Project Information Sheet

GFA(s):	**South Salt Lake Valley**	**Date Prepared:**	**3/14/2024**
Project Name:	**13400 South from 6400 West to Bangerter Highway**	**Prepared By:**	**JSF**
Jurisdiction(s):	**Riverton, Herriman**	**Checked By:**	**EJS**
Emphasis Areas:	**Intersections, Roadway Departures, Teen Driver**		
Equity Priority:	**Medium, Low**		

Location Description

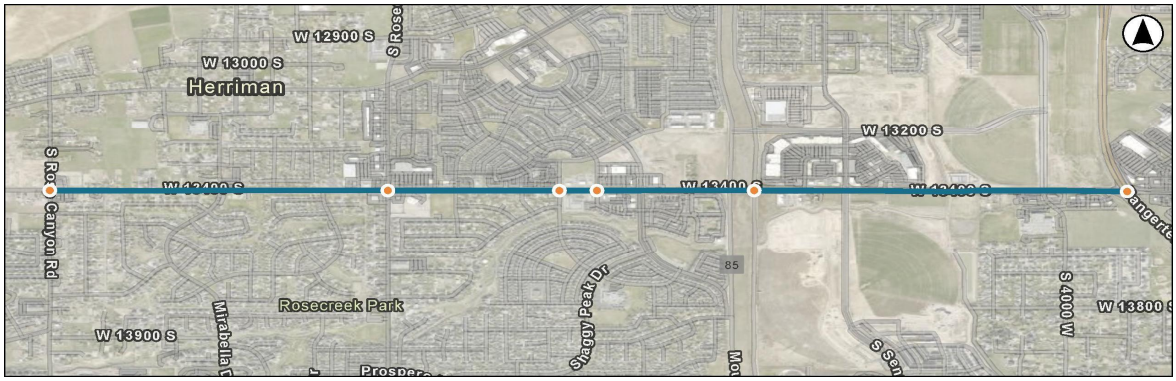
Roadway: 13400 South
From: 6400 West
To: Bangerter Highway
Length: 3.20 miles

Key Intersection Locations:

Rose Canyon Road	Rosecrest Road
5200 West	Mountain View Corridor
Towne Market Place	Bangerter Highway

Project Location Map

Map ID: 10.55.1.1



Segment Information and Safety Analysis Areas Summary

Roadway Characteristics	Value
Length (miles)	**3.20**
Average Daily Traffic (vehicles per day)	**31,789**
Functional Classification	**Minor Arterial**
Roadway Ownership	**Federal Aid - Local**
Urban/Rural Designation	**Urban**
Number of Key Intersections	**6**

Why Was This Location Identified?	
Composite Safety Score	✓
Historic Crashes	✓
Critical Crash Rate Differential	✓
Crash Profile Risk Score	✓
usRAP - Star Rating (Veh, Ped, Bike)	✓
Local Street Assessment	

Segment Crash History

Crash History (2018 - 2022)	# of crashes
Fatal Crashes (K)	**0**
Suspected Serious Injury Crashes (A)	**2**
Suspected Minor Injury Crashes (B)	**26**
Possible Injury Crashes (C)	**28**
No Injury/PDO Crashes (O)	**199**
Total Crashes	**255**
Total EPDO Crashes	**1,284**

What Crash Types are Over-Represented?			
Fatal		Head On (HO)	
Serious Injury	✓	Parked Vehicle (PV)	✓
Pedestrian (Ped)		Single Vehicle	✓
Bicycle (Bike)		Rear to Rear (RR)	
Motorcycle		Rear to Side (RS)	
Angle		Sideswipe (SS)	
Front to Rear (FR)	✓	Other/Unknown	

Intersection Crash History

									What Crash Types are Over-Represented?							
Intersections	**Signal**	**K**	**A**	**B**	**C**	**O**	**Total**	**EPDO**	K/A	Ped/Bike	Angle	FR	HO	PV	RR/RS	SS
Rose Canyon Road & 13400 Sout	✓	0	0	4	10	7	21	210								
5200 West & 13400 South	✓	0	0	3	11	4	18	196								
Towne Market Place & 13400 Sou		0	0	5	10	6	21	231								
Rosecrest Road & 13400 South	✓	0	0	9	55	38	102	864								
Mountain View Corridor & 13400 S	✓	0	2	6	60	21	89	1,024								
Bangerter Highway & 13400 Sout	✓	1	3	28	85	26	143	2,785								

Project Description/How is safety improved?

This project is focused on systemic safety improvements along the corridor including constructing sidewalk in locations where no sidewalk is present, installing center curbed median and limiting access at unsignalized intersections, and striping a buffered bicycle lane where it currently does not exists west of Rosecrest Road. It is also proposed that all school crosings be upgraded to high visibility crosswalk markings.

This project description represents potential safety improvement strategies that could be implemented at this location, as well as other locations with similar conditions. Additional improvement strategies could be considered subject to engineering analysis.

Proposed Proven Safety Countermeasures


Corridor Access Management


Bicycle Lanes


Crosswalk Visibility Enhancements

Opinion of Probable Construction Cost

Segment Improvements

Item Description	CMF	Applicable Crashes	Quantity	Unit	Unit Price	Item Cost
Install Sidewalk or Walkways	NA	Pedestrian	0.52	MILE	$ 634,000	$ 329,680
Install Raised Medians on Roadways with Existing TWLTL	0.29	All Crashes	1.72	MILE	$ 928,000	$ 1,596,160
Traffic Calming - Lane Narrowing	0.68	All Crashes	0.99	MILE	$ 39,000	$ 38,610
Install Buffered Bicycle Lane	NA	Bicycle	0.99	MILE	$ 26,000	$ 25,740
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -

Intersection Improvements

Item Description	CMF	Applicable Crashes	Quantity	Unit	Unit Price	Item Cost
Install High Visibility Crosswalk Markings	0.6	Pedestrian	11.00	XING	$ 2,500	$ 27,500
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -

Improvements Subtotal:		$ 2,017,690
*Mobilization: (% +/-)**	*10%*	$ 75,000
Traffic Control: (% +/-)	*5%*	$ 100,885
Items Not Estimated / Contingency: (% +/-)	*30%*	$ 605,307
Estimated Construction Cost:		$ 2,798,882

Local Match†: 20% $ 711,000

† *Toward SS4A Implementation Grants*

Preconstruction Engineering/Design	*12%*	$ 335,866
*Utilities***		$ -
*ROW***		$ -
Construction Engineering/Management	*15%*	$ 419,832
Estimated Project Total:		$ 3,555,000

*Mobilization is 10% +/- of the subtotal with a minimum of $2,500 and a maximum of $75,000
**To be evaluated during feasibility study/design

Additional Potential Improvements

Additional safety improvements could be considered that were not included due to availability of data, need for site-specific information, and/or agency/jurisdiction input. Potential additional countermeasures are listed below. Refer to the ***Countermeasure Toolbox*** for a complete list of safety countermeasures.

Additional Improvements #1: _____
Additional Improvements #2: _____
Additional Improvements #3: _____
Additional Improvements #4: _____
Additional Improvements #5: _____

Disclaimer:

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Project Information Sheet

GFA(s):	**South Salt Lake Valley**	**Date Prepared:**	**3/14/2024**
Project Name:	**South Jordan Parkway from Bangerter Highway to Redwood Road**	**Prepared By:**	**JSF**
Jurisdiction(s):	**South Jordan**	**Checked By:**	**EJS**
Emphasis Areas:	**Intersections, Roadway Departures, Teen Driver**		
Equity Priority:	**Medium, Low**		

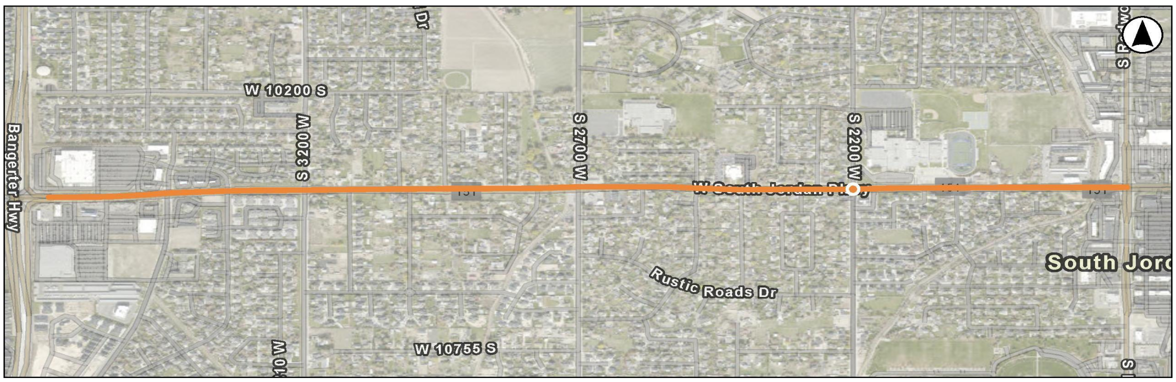
Location Description

Roadway: South Jordan Parkway
From: Bangerter Highway
To: Redwood Road
Length: 1.98 miles

Key Intersection Locations:
2200 West

Project Location Map

Map ID: **10.56.1**



Segment Information and Safety Analysis Areas Summary

Roadway Characteristics	Value
Length (miles)	**1.98**
Average Daily Traffic (vehicles per day)	**18,403**
Functional Classification	**Other Principal Arteria**
Roadway Ownership	**State**
Urban/Rural Designation	**Urban**
Number of Key Intersections	**1**

Why Was This Location Identified?	
Composite Safety Score	✓
Historic Crashes	✓
Critical Crash Rate Differential	✓
Crash Profile Risk Score	✓
usRAP - Star Rating (Veh, Ped, Bike)	✓
Local Street Assessment	

Segment Crash History

Crash History (2018 - 2022)	# of crashes
Fatal Crashes (K)	**0**
Suspected Serious Injury Crashes (A)	**0**
Suspected Minor Injury Crashes (B)	**6**
Possible Injury Crashes (C)	**12**
No Injury/PDO Crashes (O)	**75**
Total Crashes	**93**
Total EPDO Crashes	**345**

What Crash Types are Over-Represented?			
Fatal		Head On (HO)	
Serious Injury		Parked Vehicle (PV)	
Pedestrian (Ped)		Single Vehicle	
Bicycle (Bike)		Rear to Rear (RR)	
Motorcycle		Rear to Side (RS)	
Angle		Sideswipe (SS)	
Front to Rear (FR)	✓	Other/Unknown	✓

Intersection Crash History

									What Crash Types are Over-Represented?							
Intersections	**Signal**	**K**	**A**	**B**	**C**	**O**	**Total**	**EPDO**	K/A	Ped/Bike	Angle	FR	HO	PV	RR/RS	SS
2200 West & South Jordan Parkw	✓	0	1	2	26	17	46	451								

Project Description/How is safety improved?

This project is focused on systemic access management and active transportation safety improvements. It is proposed that center curbed medians be installed in the existing two-way left-turn lane and all unsignalized intersections and access drives become right-in/right-out or 3/4 access. It is also proposed that all school crosswalks be upgraded to include high visibility markings. All signalized intersections include bicycle treatment upgrades. The intersections of 2200 West and 2700 West should be upgraded to flashing yellow area type left-turn signal heads.

This project description represents potential safety improvement strategies that could be implemented at this location, as well as other locations with similar conditions. Additional improvement strategies could be considered subject to engineering analysis.

Proposed Proven Safety Countermeasures


Corridor Access Management


Reduced Left-Turn Conflict Intersections


Crosswalk Visibility Enhancements

Opinion of Probable Construction Cost

Segment Improvements

Item Description	CMF	Applicable Crashes	Quantity	Unit	Unit Price	Item Cost
Install Raised Medians on Roadways with Existing TWLTL	0.29	All Crashes	0.86	MILE	$ 928,000	$ 798,080
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -

Intersection Improvements

Item Description	CMF	Applicable Crashes	Quantity	Unit	Unit Price	Item Cost
Change a 5-section "Doghouse" to Flashing Yellow Arrow	0.75 - 0.93	Left-Turn	1.00	INT	$ 8,000	$ 8,000
Upgrade pedestrian push buttons to Audible Pedestrian Signals (APS)	NA	Pedestrian	1.00	INT	$ 4,000	$ 4,000
Install High Visibility Crosswalk Markings	0.6	Pedestrian	6.00	XING	$ 2,500	$ 15,000
Add Bicycle Treatments at Intersections	NA	All Crashes	5.00	INT	$ 9,000	$ 45,000
Change a permissive only to Flashing Yellow Arrow	0.5 - 0.6	Left-Turn	1.00	INT	$ 8,000	$ 8,000
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -

Improvements Subtotal:		$ 878,080
*Mobilization: (% +/-)**	*10%*	$ 75,000
Traffic Control: (% +/-)	*5%*	$ 43,904
Items Not Estimated / Contingency: (% +/-)	*30%*	$ 263,424
Estimated Construction Cost:		$ 1,260,408

Local Match†: 20% $ 320,200

† *Toward SS4A Implementation Grants*

Preconstruction Engineering/Design	*12%*	$ 151,249
*Utilities***		$ -
*ROW***		$ -
Construction Engineering/Management	*15%*	$ 189,061
Estimated Project Total:		$ 1,601,000

*Mobilization is 10% +/- of the subtotal with a minimum of $2,500 and a maximum of $75,000
**To be evaluated during feasibility study/design

Additional Potential Improvements

Additional safety improvements could be considered that were not included due to availability of data, need for site-specific information, and/or agency/jurisdiction input. Potential additional countermeasures are listed below. Refer to the ***Countermeasure Toolbox*** for a complete list of safety countermeasures.

Additional Improvements #1: _____
Additional Improvements #2: _____
Additional Improvements #3: _____
Additional Improvements #4: _____
Additional Improvements #5: _____

Disclaimer:

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Project Information Sheet

GFA(s):	**South Salt Lake Valley**	**Date Prepared:**	**3/14/2024**
Project Name:	**Daybreak Parkway/SR 175 from 4000 West to 3600 West**	**Prepared By:**	**JSF**
Jurisdiction(s):	**South Jordan**	**Checked By:**	**EJS**
Emphasis Areas:	**Intersections, Roadway Departures, Teen Driver**		
Equity Priority:	**Low**		

Location Description

Roadway: Daybreak Parkway/SR 175
From: 4000 West
To: 3600 West
Length: 0.50 miles

Key Intersection Locations:
4000 West

Project Location Map

Map ID: 10.56.2

Segment Information and Safety Analysis Areas Summary

Roadway Characteristics	Value
Length (miles)	**0.50**
Average Daily Traffic (vehicles per day)	**30,818**
Functional Classification	**Other Principal Arteria**
Roadway Ownership	**State**
Urban/Rural Designation	**Urban**
Number of Key Intersections	**1**

Why Was This Location Identified?	
Composite Safety Score	✓
Historic Crashes	✓
Critical Crash Rate Differential	✓
Crash Profile Risk Score	✓
usRAP - Star Rating (Veh, Ped, Bike)	✓
Local Street Assessment	

Segment Crash History

Crash History (2018 - 2022)	# of crashes
Fatal Crashes (K)	**0**
Suspected Serious Injury Crashes (A)	**0**
Suspected Minor Injury Crashes (B)	**4**
Possible Injury Crashes (C)	**8**
No Injury/PDO Crashes (O)	**31**
Total Crashes	**43**
Total EPDO Crashes	**211**

What Crash Types are Over-Represented?			
Fatal		Head On (HO)	
Serious Injury		Parked Vehicle (PV)	
Pedestrian (Ped)		Single Vehicle	
Bicycle (Bike)		Rear to Rear (RR)	
Motorcycle		Rear to Side (RS)	
Angle		Sideswipe (SS)	✓
Front to Rear (FR)		Other/Unknown	✓

Intersection Crash History

									What Crash Types are Over-Represented?							
Intersections	**Signal**	**K**	**A**	**B**	**C**	**O**	**Total**	**EPDO**	K/A	Ped/Bike	Angle	FR	HO	PV	RR/RS	SS
4000 West & Daybreak Parkway	✓	0	2	10	47	27	86	971								

Project Description/How is safety improved?

This project is focused on systemic bicycle and pedestrian safety improvements along the corridor. Improvements include intersection improvements and a bicycle signal at the Bangerter Highway interchange. Green bicycle markings/lanes should also be considered at this location. Leading pedestrian intervals are proposed at the 4000 West, River Heights Drive, and Parkway Plaza Drive intersections.

This project description represents potential safety improvement strategies that could be implemented at this location, as well as other locations with similar conditions. Additional improvement strategies could be considered subject to engineering analysis.

Proposed Proven Safety Countermeasures


Bicycle Lanes


Leading
Pedestrian Interval

Opinion of Probable Construction Cost

Segment Improvements

Item Description	CMF	Applicable Crashes	Quantity	Unit	Unit Price	Item Cost
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -

Intersection Improvements

Item Description	CMF	Applicable Crashes	Quantity	Unit	Unit Price	Item Cost
Install a Separate Bicycle Traffic Signal	NA	All Crashes	2.00	INT	$ 21,000	$ 42,000
Add Bicycle Treatments at Intersections	NA	All Crashes	5.00	INT	$ 9,000	$ 45,000
Upgrade pedestrian push buttons to Audible Pedestrian Signals (APS)	NA	Pedestrian	5.00	INT	$ 4,000	$ 20,000
Include a Leading Pedestrian Interval (LPI)	0.87	Pedestrian	3.00	INT	$ 3,000	$ 9,000
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -

Improvements Subtotal:		$ 116,000
*Mobilization: (% +/-)**	*10%*	$ 11,600
Traffic Control: (% +/-)	*5%*	$ 5,800
Items Not Estimated / Contingency: (% +/-)	*30%*	$ 34,800
Estimated Construction Cost:		$ 168,200

Local Match†: 20% $ 42,800

† *Toward SS4A Implementation Grants*

Preconstruction Engineering/Design	*12%*	$ 20,184
*Utilities***		$ -
*ROW***		$ -
Construction Engineering/Management	*15%*	$ 25,230
Estimated Project Total:		$ 214,000

*Mobilization is 10% +/- of the subtotal with a minimum of $2,500 and a maximum of $75,000
**To be evaluated during feasibility study/design

Additional Potential Improvements

Additional safety improvements could be considered that were not included due to availability of data, need for site-specific information, and/or agency/jurisdiction input. Potential additional countermeasures are listed below. Refer to the ***Countermeasure Toolbox*** for a complete list of safety countermeasures.

Additional Improvements #1: Set Appropriate Speed Limits for All Road Users
Additional Improvements #2:
Additional Improvements #3: Green Bicycle Lanes
Additional Improvements #4:
Additional Improvements #5:

Disclaimer:

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Project Information Sheet

GFA(s):	**South Salt Lake Valley**	**Date Prepared:**	**3/14/2024**
Project Name:	**Redwood Road and Shields Lane Intersection Improvements**	**Prepared By:**	**JSF**
Jurisdiction(s):	**South Jordan**	**Checked By:**	**BCC**
Emphasis Areas:	**Intersections, Roadway Departures, Teen Driver**		
Equity Priority:	**Medium**		

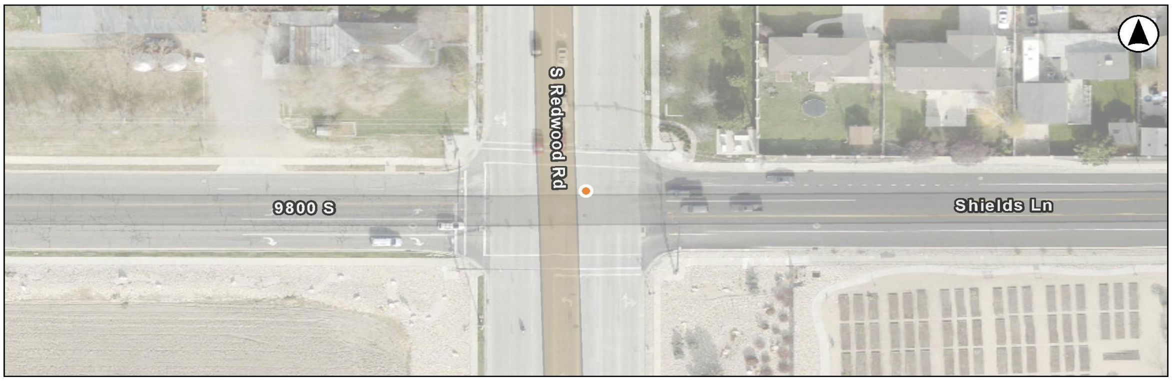
Location Description

Roadway: NA
From: NA
To: NA
Length: NA

Key Intersection Locations:
Shields Lane & Redwood Road

Project Location Map

Map ID: **10.56.3**



Segment Information and Safety Analysis Areas Summary

Roadway Characteristics	Value
Length (miles)	**NA**
Average Daily Traffic (vehicles per day)	**NA**
Functional Classification	**NA**
Roadway Ownership	**NA**
Urban/Rural Designation	**NA**
Number of Key Intersections	**NA**

Why Was This Location Identified?	
Composite Safety Score	**NA**
Historic Crashes	**NA**
Critical Crash Rate Differential	**NA**
Crash Profile Risk Score	**NA**
usRAP - Star Rating (Veh, Ped, Bike)	**NA**
Local Street Assessment	**NA**

Segment Crash History

Crash History (2018 - 2022)	# of crashes
Fatal Crashes (K)	**NA**
Suspected Serious Injury Crashes (A)	**NA**
Suspected Minor Injury Crashes (B)	**NA**
Possible Injury Crashes (C)	**NA**
No Injury/PDO Crashes (O)	**NA**
Total Crashes	**NA**
Total EPDO Crashes	**NA**

What Crash Types are Over-Represented?			
Fatal	**NA**	Head On (HO)	**NA**
Serious Injury	**NA**	Parked Vehicle (PV)	**NA**
Pedestrian (Ped)	**NA**	Single Vehicle	**NA**
Bicycle (Bike)	**NA**	Rear to Rear (RR)	**NA**
Motorcycle	**NA**	Rear to Side (RS)	**NA**
Angle	**NA**	Sideswipe (SS)	**NA**
Front to Rear (FR)	**NA**	Other/Unknown	**NA**

Intersection Crash History

									What Crash Types are Over-Represented?							
Intersections	**Signal**	**K**	**A**	**B**	**C**	**O**	**Total**	**EPDO**	K/A	Ped/Bike	Angle	FR	HO	PV	RR/RS	SS
Shields Lane & Redwood Road	✓	0	3	17	44	46	110	1,206								

Project Description/How is safety improved?

This project recommends the following improvements to the intersection of Shields Lane and Redwood Road: protected intersection improvements, performing a Road Safety Audit (RSA), and Intersection Control Evaluation (ICE) study to determine the optimal intersection control type for this location to improve safety for all users. It is anticipated that the study results could result in an intersection control type that reduces left-turn conflicts. Other improvements are proposed to increase pedestrian and bicyclist visibility.

This project description represents potential safety improvement strategies that could be implemented at this location, as well as other locations with similar conditions. Additional improvement strategies could be considered subject to engineering analysis.

Proposed Proven Safety Countermeasures


Reduced Left-Turn Conflict Intersections


Crosswalk Visibility Enhancements


Road Safety Audit

Opinion of Probable Construction Cost

Segment Improvements

Item Description	CMF	Applicable Crashes	Quantity	Unit	Unit Price	Item Cost
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -

Intersection Improvements

Item Description	CMF	Applicable Crashes	Quantity	Unit	Unit Price	Item Cost
Perform Road Safety Audits	0.4-0.9	All Crashes	1.00	INT	$ 5,000	$ 5,000
Perform an Intersection Control Evaluation and Implement	NA	All Crashes	1.00	INT	$ 225,000	$ 225,000
Protected Intersection	NA	All Crashes	1.00	INT	$ 650,000	$ 650,000
Upgrade Existing Crosswalk to High-Visibility Crosswalk	0.6 - 0.75	Pedestrian	3.00	XING	$ 37,000	$ 111,000
Install Reduced Left-Turn Conflict Control Intersection Type	0.37 - 0.78	Fatal & Injury	1.00	INT	$ 767,000	$ 767,000
Add Bicycle Treatments at Intersections	NA	All Crashes	1.00	INT	$ 9,000	$ 9,000
						$ -
						$ -
						$ -
						$ -
						$ -

Improvements Subtotal:		$ 1,767,000
*Mobilization: (% +/-)**	*10%*	$ 75,000
Traffic Control: (% +/-)	*5%*	$ 88,350
Items Not Estimated / Contingency: (% +/-)	*30%*	$ 530,100
Estimated Construction Cost:		$ 2,460,450

Local Match†: 20% $ 625,000

† *Toward SS4A Implementation Grants*

Preconstruction Engineering/Design	*12%*	$ 295,254
*Utilities***		$ -
*ROW***		$ -
Construction Engineering/Management	*15%*	$ 369,068
Estimated Project Total:		$ 3,125,000

*Mobilization is 10% +/- of the subtotal with a minimum of $2,500 and a maximum of $75,000
**To be evaluated during feasibility study/design

Additional Potential Improvements

Additional safety improvements could be considered that were not included due to availability of data, need for site-specific information, and/or agency/jurisdiction input. Potential additional countermeasures are listed below. Refer to the ***Countermeasure Toolbox*** for a complete list of safety countermeasures.

Additional Improvements #1: Set Appropriate Speed Limits for All Road Users
Additional Improvements #2:
Additional Improvements #3:
Additional Improvements #4:
Additional Improvements #5:

Disclaimer:

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Project Information Sheet

GFA(s):	**South Salt Lake Valley**	**Date Prepared:**	**3/14/2024**
Project Name:	**SR 209/SR 48 from Kennecott Road to 10200 South**	**Prepared By:**	**JSF**
Jurisdiction(s):	**Copperton**	**Checked By:**	**EJS**
Emphasis Areas:	**Intersections, Roadway Departures, Teen Driver**		
Equity Priority:	**Low**		

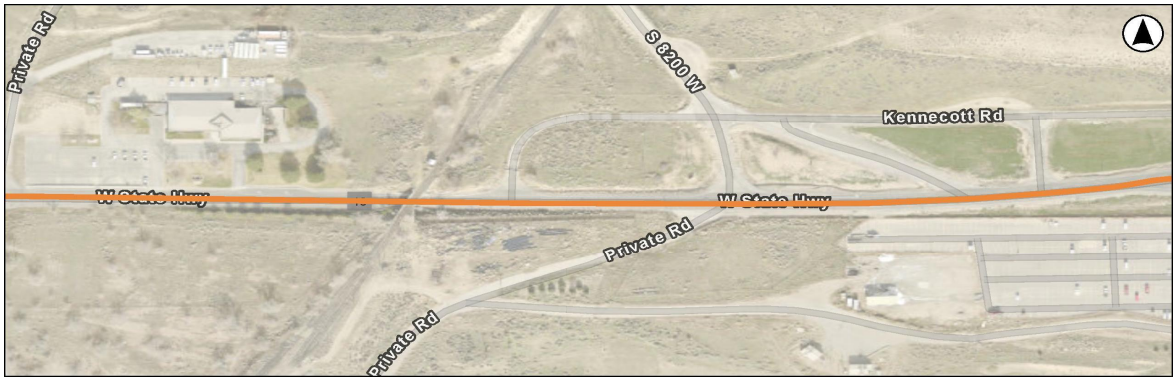
Location Description

Roadway: SR 209/SR 48
From: Kennecott Road
To: 10200 South
Length: 0.41 miles

Key Intersection Locations:

Project Location Map

Map ID: 10.57.1



Segment Information and Safety Analysis Areas Summary

Roadway Characteristics	Value
Length (miles)	**0.41**
Average Daily Traffic (vehicles per day)	**2,004**
Functional Classification	**Major Collector**
Roadway Ownership	**State**
Urban/Rural Designation	**Rural**
Number of Key Intersections	**0**

Why Was This Location Identified?	
Composite Safety Score	
Historic Crashes	✓
Critical Crash Rate Differential	✓
Crash Profile Risk Score	
usRAP - Star Rating (Veh, Ped, Bike)	
Local Street Assessment	

Segment Crash History

Crash History (2018 - 2022)	# of crashes
Fatal Crashes (K)	**0**
Suspected Serious Injury Crashes (A)	**0**
Suspected Minor Injury Crashes (B)	**1**
Possible Injury Crashes (C)	**1**
No Injury/PDO Crashes (O)	**6**
Total Crashes	**8**
Total EPDO Crashes	**40**

What Crash Types are Over-Represented?			
Fatal		Head On (HO)	
Serious Injury		Parked Vehicle (PV)	
Pedestrian (Ped)		Single Vehicle	
Bicycle (Bike)		Rear to Rear (RR)	
Motorcycle		Rear to Side (RS)	
Angle		Sideswipe (SS)	
Front to Rear (FR)		Other/Unknown	

Intersection Crash History

									What Crash Types are Over-Represented?							
Intersections	**Signal**	**K**	**A**	**B**	**C**	**O**	**Total**	**EPDO**	K/A	Ped/Bike	Angle	FR	HO	PV	RR/RS	SS

Project Description/How is safety improved?

This project is focused on system traffic calming measures to help reduce vehicle speed and improve safety as all users enter Copperton. This includes driver speed feedback signs, sidewalk extension and infill where missing, lane narrowing, and wider lane lines.

This project description represents potential safety improvement strategies that could be implemented at this location, as well as other locations with similar conditions. Additional improvement strategies could be considered subject to engineering analysis.

Proposed Proven Safety Countermeasures

Walkways

Opinion of Probable Construction Cost

Segment Improvements

Item Description	CMF	Applicable Crashes	Quantity	Unit	Unit Price	Item Cost
Install Driver Feedback Speed Limit Signs	NA	All Crashes	2.00	EACH	$ 10,000	$ 20,000
Traffic Calming - Lane Narrowing	0.68	All Crashes	0.41	MILE	$ 39,000	$ 15,990
Traffic Calming - Wider Lane Lines	0.68	All Crashes	0.41	MILE	$ 21,000	$ 8,610
Install Sidewalk or Walkways	NA	Pedestrian	0.36	MILE	$ 634,000	$ 228,240
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -

Intersection Improvements

Item Description	CMF	Applicable Crashes	Quantity	Unit	Unit Price	Item Cost
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -
						$ -

Improvements Subtotal:		$ 272,840
*Mobilization: (% +/-)**	*10%*	$ 27,290
Traffic Control: (% +/-)	*5%*	$ 13,642
Items Not Estimated / Contingency: (% +/-)	*30%*	$ 81,852
Estimated Construction Cost:		$ 395,624

Local Match†: 20% $ 100,600

† *Toward SS4A Implementation Grants*

Preconstruction Engineering/Design	*12%*	$ 47,475
*Utilities***		$ -
*ROW***		$ -
Construction Engineering/Management	*15%*	$ 59,344
Estimated Project Total:		$ 503,000

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**To be evaluated during feasibility study/design

Additional Potential Improvements

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Additional Improvements #1: Targeted Enforcement and Deterrence
Additional Improvements #2:
Additional Improvements #3:
Additional Improvements #4:
Additional Improvements #5:

Disclaimer:

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SOUTH SALT LAKE VALLEY CASE STUDY
PROJECT LOCATION MAP

Legend

GFA Boundary

Project Roadways
- State Routes
- Federal Aid Routes
- Local Streets

Jurisdiction Boundary

Project Intersections
- Signalized
- Unsignalized

Miles: 0, ½, 1

N

10.56.1

10.56.2

10.53.1

10.55.1.1

10.54.1.1

10.52.1

South Jordan

Jordan Pkwy

S Redwood Rd

River Front Park

Glenmoor Golf Course

Oquirrh Lake

Sandy

White City

E 9000 S

E 10600 S

W 9000 S

S State St

W 12300 S

E 12300 S

Draper

S 1300 E

W 12600 S

Riverbend Golf Course

Jordan River Parkway

E 13800 S

Herriman

Bangerter Hwy

Bluffdale

Camp Williams Rd

South Mountain Golf Course

South Salt Lake Valley
Geographical Focus Area

SOUTH SALT LAKE VALLEY EQUITY INDEX MAP

South Salt Lake Valley

Equity Need Areas

- High
- Medium
- Low

West Jordan
Midvale
White City
South Jordan
Dimple Dell Regional Park
Herriman
Draper
Hidden Hills
Jordan River Parkway
Bluffdale
Corner Canyon Regional Park
Yellow Fork Canyon County Park
Camp Williams State Military Reservation
Golf Club at Thanksgiving Point
N Redwood Rd
Lehi
Cedar Fort Rd
W Main
American F
48
209
15
210
71
154
89
68
92
74
73