4 Infrastructure & Network Recommendations

CHAPTER CONTENTS

Introduction

Recommended Infrastructure and Network Improvements

INFRASTRUCTURE & NETWORK RECOMMENDATIONS

Introduction

Glenwood Springs offers a scenic natural setting that makes the City a desirable place to live and visit. This setting allows easy access to a variety of hiking and road and mountain biking trails, river sports and the famous hot springs. The compact nature of the City is a direct result of the surrounding natural features and existing topography. This compactness translates into short intra-city trips for its residents and visitors with a diversity of available mobility options. However, the City's size also limits usable space for expansion, both through development and for transportation improvements. Due to the varied type of development in Glenwood Springs, each area has specific needs and concerns that will shape future multi-modal transportation facilities.

Recommended vehicular infrastructure was identified based on a review of previous studies and reports, information provided by City staff, commissions feedback, public input, and assessment of existing conditions. The recommendations focus on improving connectivity, providing additional capacity via either expanding existing facilities or adding new facilities and completing system gaps. In addition, many of the streets in the City are one-dimensional in nature, primarily designed to serve vehicular traffic. The new model for streets is to safely and efficiently meet the needs of all users, regardless of age, ability, or chosen mode of transportation.

Table 4.1 presents a list of recommended Infrastructure and Network Improvements to establish a multi-modal transportation network. Figures 4.1 and 4.2 illustrate the locations of these recommendations.

Recommended Infrastructure and Network Improvements

Table 4.1: Recommended Infrastructure and Network Improvements

Project Type	Project Rank	Project Name	Description
	On-Street Bicycle Facilities		
	1	8th Street on-street bicycle facilities	Install bicycle shared lane markings along both travel lanes of 8th Street from Vogelaar Park to Blake Avenue. Work elements include installing pavement markings and signing.
	6	Midland Avenue on-street bicycle facilities	Install bicycle lanes on Midland Avenue from 8th Street to 27th Street. Work elements for this project would include removal and replacement of striping as well as signing improvements. Widening of midland would need to occur, where current pavement width would not accommodate all modes.
	16	Bike Boulevard through North Glenwood Springs neighborhood	Designate and mark a bicycle boulevard between 6th and Pine and 6th and Linden intersections through north Glenwood Springs neighborhood. Work elements would include installing shared lane markings and signing.
	18	Donegan Road (GarCo) pedestrian (sidewalk) and bicycle (bike lanes) improvements	Install bike lanes on the north and south side of the Donegan Road. Add sidewalk on one side of Donegan Road. Work elements include widening existing roadway bench, adding pavement, adding curb and gutter, and adding 5' sidewalk.
	19	7th Street on-street bicycle facilities	Install bicycle shared lane markings along both travel lanes of 7th Street from Midland Avenue to Blake Avenue. Work elements include installing pavement markings and signing.
	21	6th Street on-street bicycle facilities	This project would add on-street bike lanes (buffered bike lanes) on 6th Street from Laurel Street to Olive Street. Work elements for this project would include removal and replacement of striping as well as signing improvements. Some widening may need to occur, where current pavement width would not accommodate the new facilities.
	34	Four Mile Road on-street bike facilities	Construct 6' shoulders to both travel lanes; add bicycle warning signs per MUTCD guidance. This project would require roadway reconstruction (clearing, major grading, and paving), signing and striping.
	39	Midland on-street bike facilities 27th - Four Mile Rd	This project would add on-street bike lanes on Midland Ave from 27th Street to Four Mile Road. Work elements for this project would include removal and replacement of striping as well as signing improvements. Widening of midland would need to occur, where current pavement width would not accommodate all modes.
	45	Midland Avenue on-street bike facilities	This project would add on-street bike lanes on Midland Ave from I-70 to 8th Street. Work elements for this project would include removal and replacement of striping as well as signing improvements. Some widening may need to occur, where current pavement width would not accommodate all modes.
	NA	10th Street on-street bicycle facilities	Install bicycle shared lane markings along both travel lanes of 10th Street from School Street to Blake Avenue. Work elements include installing pavement markings and signing.

Table 4.1: Recommended Infrastructure and Network Improvements

Project Type	Project Rank	Project Name	Description
	NA	Pitkin Avenue on-street bicycle facilities	Install bicycle lanes Pitkin Avenue from 8th Street to 14th Street. Work elements include installing pavement markings and signing.
	NA	14th Street on-street bicycle facilities	Install bicycle shared lane markings on 14th Street from Blake Avenue to Coach Miller Drive. Work elements include installing pavement markings and signing.
	NA	Coach Miller Drive on-street bicycle facilities	Install bicycle shared lane markings on Coach Miller Drive from 14th Street to and along Park Drive. Work elements include installing pavement markings and signing
Bicycle/Pedestrian On- and Off-Street Improvement			
	15	South Blake Ave sidewalk improvements and bike facilities	Add 5' sidewalk on north and south side of Blake Ave from 23rd to 27th; add 5' sidewalk from BRT station to Walmart on north and south side of Blake Ave (City to complete this project in 2015); add 5' sidewalk on south side of Blake Ave: add shared lane markings from on Blake Ave from 23rd St to SH-82.
	23	Enhance connection: Two Rivers Park to Glenwood Canyon Recreation Trail	Install wayfinding signs along entire corridor per MUTCD; widen sidewalk underneath I-70 bridge at exit 116 to 8'; add shared lane markings along N. River Street to Glenwood Canyon Recreation Trail Trailhead.
Bicycle/Pedestrian Shared-use Path			
	3	Midland Avenue shared-use path Lowes-Devereux	Install 10' share-use path adjacent to Midland Avenue from Lowes to I-70 interchange. Work elements would include clearing, removals, grading, and path paving.
	7	Hwy-6 Corridor shared-use path Laurel - Mel Ray	Design and construct a 10' wide shared-use path on the north side of Highway-6. The project would include improving the existing sidewalk (typically 6') from Donegan Rd to Mel Ray Rd, removal and replacement of the old asphalt shared-use path from Linden St. to Mel Ray Rd. Work elements include removal and replacement of sidewalk, signing, and asphalt shared-use path.
	26	27th St side-path	Install 10' wide attached shared-use path to south side of 27th Street from S. Grand Ave to SH-82. Work elements would include clearing and grubbing, removals, installing a retaining wall (Average 6.5' high), and installing pedestrian curb ramps.
	27	LoVa Trail	Install 10' shared-use path from West Glenwood Sanitation District plant to New Castle. Refer to existing construction drawings for alignment and cost implications.
	28	Atkinson Trail connection to Park East Trail	Install 10' wide detached share-use path from Atkinson Trail to Mountain Drive. Work items include removals, sub-base preparation, and path paving.
	29	Rio Grande Trail connection at 10th Street	Install 10' wide shared-use path from 10th Street to Rio Grande Trail. This project would include coordination with RFTA, school district, and property owners. Work elements would include, removals, clearing, grading, and path paving.

Table 4.1: Recommended Infrastructure and Network Improvements

Project Type	Project Rank	Project Name	Description
	33	Rio Grande Trail and 11th St connection	Install a 10' wide shared-use pathway from 11th Street to the Rio Grande Trail. This project would include coordination with RFTA and property owners. Work elements would include, removals, clearing, grading, and path paving.
	35	Colorado River shared-use path (Rivertrail segment)	Install 10' wide shared-use along the Colorado River, from Two Rivers Park to White water Activity Area. Work elements would include clearing, grading, retaining walls, path paving, and placing a bicycle and pedestrian bridge.
	37	Rio Grande Trail connection at 14th St	Install a 10' wide shared-use pathway from 14th Street to the Rio Grande Trail. This project would include coordination with RFTA and property owners. Work elements would include, removals, clearing, grading, and path paving.
	40	Atkinson Trail to Rio Grande Trail, "22nd St" bridge connection	Install 10' shared-use path on the west side of the Roaring Fork from 27th Street north to a new bridge across the river vicinity of 22nd Street (City Property) along the ditch alignment. This project would include clearing, removals, grading, retaining walls, path paving, and a new bridge across the river.
	44	SH-82 shared-use path to commercial areas	Install new 10' shared-use path along SH-82 from South Blake Ave to commercial center (Thrifty Thrills area).
Pedestrian Sidewalk			
	12	Blake Ave sidewalk improvements	Add 5' sidewalk where missing and add 5' sidewalk where existing segments are substandard along east side of Blake Avenue.
	24	School Street sidewalks	Install 6' wide sidewalks on the west side of School Street from 8th Street to 9th Street and from 10th Street to 11th Street. Work elements include clearing and grubbing, removals, adding concrete sidewalk and pedestrian curb ramps.
	41	Coach Miller Dr sidewalk	Install 6' wide sidewalks on the west side of Coach Miller Drive. This project would include clearing, minor grading, and sidewalk paving.
	43	Midland sidewalk 27th to Park West Drive	Install new 6' sidewalk along Midland Ave from end-of-path near Terraces/Hager Lane to end-of-path at Park West Drive.
Intersection Improvement			
	9	7th Street Rectangular Rapid Flashing Beacons (RRFB's)	Install RRFB's at pedestrian crosswalks along 7th Street.
	11	Hwy 6 Rectangular Rapid Flashing Beacon (RRFB) at Soccer Field Road bus stop	Install RRFB on US-6 to access the transit stop opposite Soccer Field Rd.

Table 4.1: Recommended Infrastructure and Network Improvements

Project Type	Project Rank	Project Name	Description
	13	Mt. Sopris Drive Rectangular Rapid Flashing Beacon (RRFB's) at Midland Ave	Install RRFB's on Midland Ave at Mt. Sopris Dr. intersection. Work elements would include a signing and striping.
	14	RRFB's Crossing Hwy-6 and 135 Road bus stop	Install an RRFB activated pedestrian crosswalk across Hwy-6 to access the transit stop opposite 135 Rd. Work elements would include signing and striping.
	17	27th Street and S Grand Ave traffic operations	Compare and evaluate signal timing of current intersection and operations of a roundabout to mitigate traffic congestion.
	22	RRFB crossing Midland Ave at 4 Mile Road	Install RRFB's across Midland Avenue at the Four Mile and Airport Roads intersection. This project would include adding signing, striping and RRFB equipment.
	25	Grade-separated bicycle and pedestrian crossing of SH-82 and 27th Street	Evaluate underpass/overpass for both a north-south crossing of 27th Street (align with Rio Grande Trail) and a east-west crossing of SH-82.
	30	Grade-separated pedestrian crossing of SH-82 at 15th	Evaluate a new pedestrian overpass that connects High School to east side of SH-82.
	31	6th and Laurel pedestrian and bicycle improvements (in conjunction with the Grand Avenue Bridge improvements)	Facilitate safe and comfortable movement of pedestrians and bicyclists through this intersection via wayfinding signage, shared lane markings, bicycle lanes, shared-use pathways (or sidewalks) in conjunction with Grand Avenue Bridge improvements.
	32	12th St ditch underpass	Install 14' wide (min.) underpass beneath SH-82 along 12th Street ditch alignment. Work elements would include excavation, retaining walls, grading, clearing, working with property owners, and traffic control.
	36	Grade-separated bicycle and pedestrian crossing of Grand at 23rd	Evaluate underpass/overpass for an east-west crossing of SH-82 on the north side of the intersection.
	42	23rd St and SH-82 intersection improvements	Install pedestrian refuge island in SH-82 to facilitate shorter pedestrian crossing distances. This would include removals, removal and replacement of striping, and refuge installation.
	46	Grade-separated pedestrian crossing of SH-82 at 9th Street	Install a new grade-separated bicycle/pedestrian crossing of Grand Ave SH-82 at 9th Street. Evaluate underpass and overpass options.
	47	Whitewater Activity Area underpasses	Construct an underpass under Midland Avenue on one side of the Colorado River for watersport users to reduce at grade conflict with vehicles.

Table 4.1: Recommended Infrastructure and Network Improvements

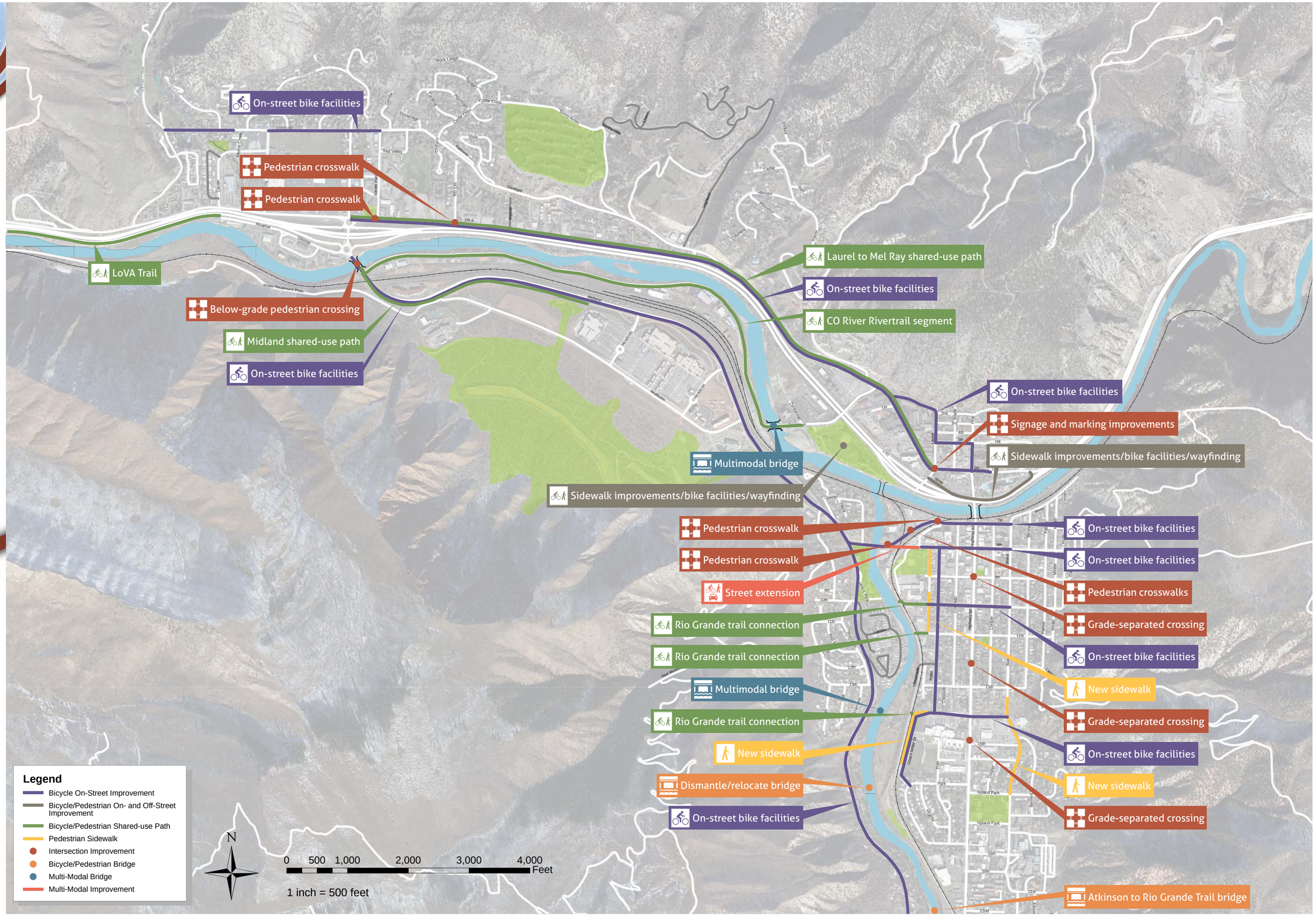
Project Type	Project Rank	Project Name	Description
	Bicycle/**Pedestrian Bridge**		
	4	Relocate Grand Avenue pedestrian bridge to 15th St over the Roaring Fork River	Dismantle and relocate the existing (1985) Grand Avenue pedestrian bridge to 15th Street over the Roaring Fork River.
	Bridge and Multi-Modal Infrastructure Improvement Projects		
	2	South Bridge	Implement South Bridge project per the preferred alternative in the EA. The improvements would be from Four Mile Road/Airport Road to new interchange with SH-82 and would include 2 vehicle travel lanes, landscape buffers and 8' shared-use pathways.
	5	Sunlight Bridge replacement	Design and construct a new multi-modal bridge over Roaring Fork to connect Midland and South Grand Ave at 27th Street. This project would include widening the existing bridge to a three lane section to include a left turn lane and the additions of 8' shared-use sidewalks on both sides.
	10	14th Street Multi-modal bridge	Construct multi-modal bridge across Roaring Fork Bridge connecting 14th Street and Midland Avenue.
	20	Devereux Road multi-modal bridge	Construct multi-modal bridge across Colorado Bridge connecting Devereux Road to Midland Avenue. This project would include 2 vehicle travel lanes, 8' shared-use paths on both sides of the bridge, and all structural elements to span the Colorado River and Railroad ROW. In addition, a complete environmental assessment (EA) would be necessary.
	38	Roaring Fork Bridge Mt Sopris Dr - CR 154	Install a new multi-modal bridge over Roaring Fork to connect Mt. Sopris Drive to CR 154. This project would include two vehicle travel lanes, shared-use sidewalks, and bridge structure. In addition, property acquisition would be necessary.
	Multi-Modal Improvement		
	1	8th St Extension	This project will include extending 8th Street from Vogelaar Park to Roaring Fork River. It will include the following improvements, 2 vehicle travel lanes and 8' shared-use pathways.

Glenwood Springs
Long Range Transportation Master Plan

Figure 4.1: Recommended Infrastructure and Network Improvements - North Map

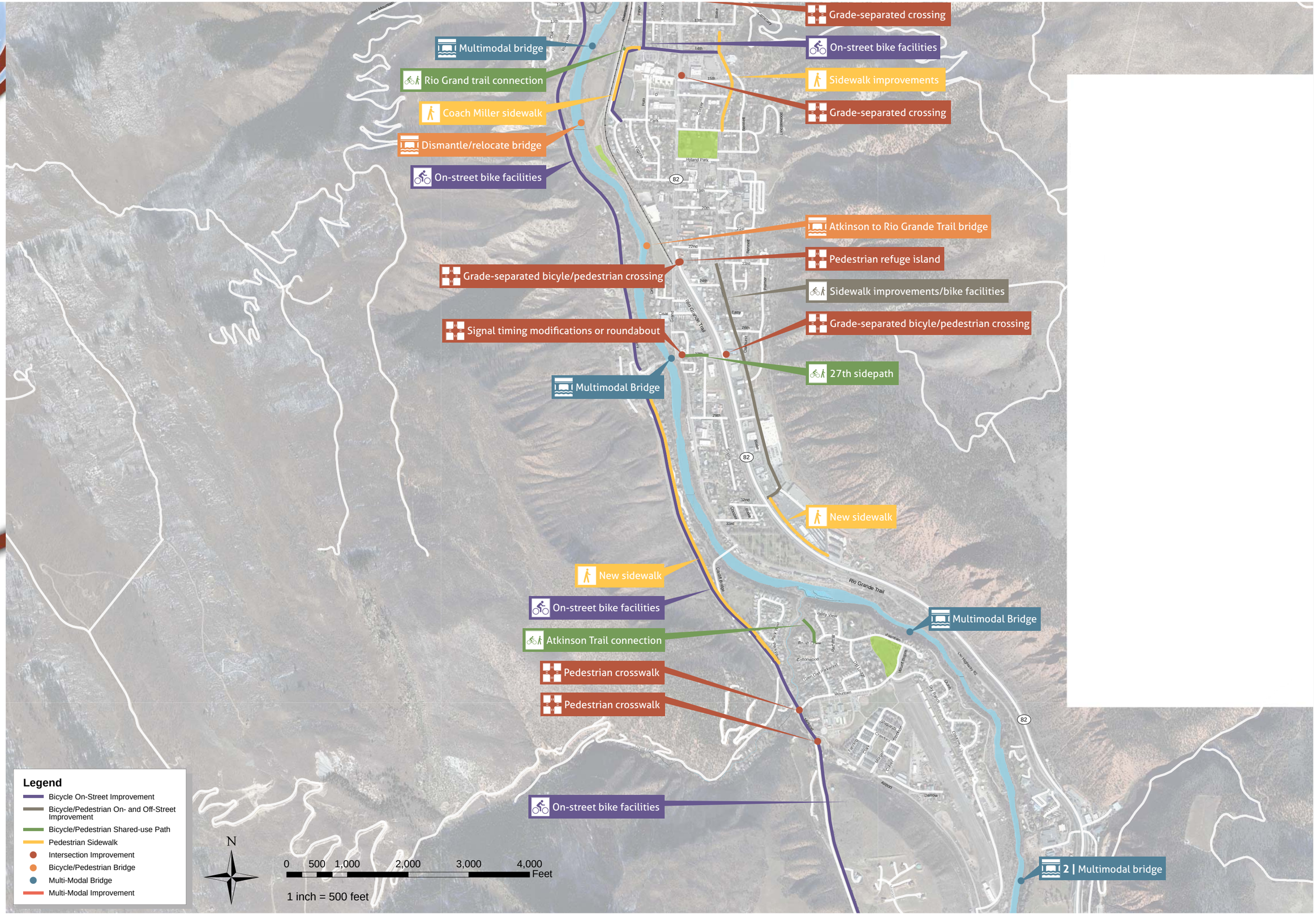
PARSONS BRINCKERHOFF

alta PLANNING + DESIGN



Glenwood Springs
Long Range Transportation Master Plan

Figure 4.2: Recommended Infrastructure and Network Improvements - South Map

PARSONS BRINCKERHOFF

alta PLANNING + DESIGN