



TRANSIT OPERATIONS PLAN

FINAL REPORT

MAY 2018



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Appendix A: Outreach Presentation Material

1.0 INTRODUCTION

The Transit Operations Plan (TOP) is the City of Glenwood Spring's five-year planning, service, and implementation blueprint for its Ride Glenwood Springs (RGS) transit service. It addresses specific route, service, and operations recommendations as well as strategic transit planning and policy guidance. The TOP is required by the Colorado Department of Transportation (CDOT) to receive state and federal transit funding and to comply with other requirements in the City's role as a transit provider through RGS. CDOT had awarded FTA Section (§) 5304 grant funds to the City to use for completion of this plan update.

The primary goal of this project is to update the City's most recent 2010 Five-Year Transit Operations Plan to better respond to existing conditions and possible changes in travel patterns following the completion of the new Grand Avenue Bridge.

A key objective of this TOP update is to streamline RGS operations and promote full integration into and synchronization with regional Roaring Fork Transportation Authority (RFTA) services. The results of this TOP update, as presented herein, can be used by any public transit agency, but will be particularly useful to smaller urban transit providers. Operations efficiencies realized from the results of this study have been designed to be implemented over the next 12 to 24 months by RGS staff; note that RFTA can also directly benefit from this plan update as they contract RGS operations with the City and many customers combine both RFTA and RGS services to move throughout the Roaring Fork Valley.

City Transportation staff led this TOP update with consultant assistance (IBI Group) and with ongoing input from the City's Transportation Commission.

Ride Glenwood Springs (RGS), the local public transit system, is owned by the City of Glenwood Springs, a Colorado home-rule municipality. RGS provides low-cost (\$1.00 daily unlimited rides along with discount stored value passes) public transportation to all people pursuant to Title VI of the 1964 Civil Rights Act in Glenwood Springs. The City is responsible for all expenses associated with RGS operations, capital improvements, and administration, and contracts all RGS operations and maintenance to the Roaring Fork Transportation Authority (RFTA). Ride Glenwood Springs is an intra-city year-round public transit service, operating two buses with 30-minute headway on one (1) fixed route. The RGS route operates daily from 6:53am to 7:53pm. RGS provides critical local connections to the intra-state CDOT Bustang route, regional RFTA transit services, the Greyhound Bus Lines national system, the Amtrak national passenger rail system, and local skier and airport private shuttle services.

1.1 Recommendations Summary

Chapter 5 presents a preferred or recommended approach for the City of Glenwood Springs to advance a restructuring of RGS transit services and provide enhanced mobility for residents and visitors. The approach is designed to address service efficiencies (inefficient route segments), and input from the community (including first mile-last mile feeder connections, coverage-oriented transit/mobility in low density corridors and neighborhoods, etc.).

A preferred approach of the City is to ultimately discontinue the traditional fixed-route RGS service and transition towards more flexible and responsive transit service delivery via microtransit solutions. Further, City Council desires to transition directly to the realignment of RFTA's Valley Local service via North Glenwood while simultaneously implementing a city-wide ride-hailing (e-hailing) service, over the next two-year period. To this end, the following phased approach is recommended:

Phase 1: *Work with RFTA to Address Fare Integration and Logistical Issues Relating to Realigning Local Valley Bus via North Glenwood (Spring 2018)*

Phase 2: *Realigning Local Valley Bus via North Glenwood and City-Wide Ride-Hailing (e-Hailing) Services (First Quarter - 2020)*

Realign Local Valley Bus via North Glenwood: Discontinue RGS fixed route service entirely and reroute the Valley Local via North Glenwood on the RGS alignment to West Glenwood Mall and terminating at the West Glenwood Park and Ride lot. This would maintain a one-seat ride for City residents traveling to the West Glenwood Mall that currently is provided by the RGS route. Existing Valley Local operation on Wulfsohn Road, Midland Avenue and 8th Street between Glenwood Meadows and Downtown would be replaced by flex-route or City-wide ride hailing service.

City-Wide Ride-Hailing (e-Hailing) Services: Phase 2 includes the deployment of **RGS e-Ride** service. **RGS e-Ride** will be a directly subsidized microtransit/ on-demand ride hailing (e-Hailing) of shared ride service in sedans, SUVs or vans.

This program would provide trips to anybody in the community for trip origins and destinations within the City of Glenwood Springs. Service would be available to accommodate all discretionary and non-discretionary trips (no trip purpose restrictions), operating 7-days a week between the hours of 6:00am and 10:00pm. **RGS e-Ride** may charge a \$2.00 fare with a maximum trip cost of \$9.00 (hence a subsidy of \$7.00 per trip). Conversely, the fare structure may be modified to promote certain trip types such as commuters or specific communities (service coverage on Donegan Road., Mountain Valley and Red Mountain), whereby a \$1.00 fare may be charged during the hours of 6:00am-9:00am and 4:00pm-7:00pm, for example.

RGS e-Ride would enable residents or visitors to e-Hail eligible trips from their smartphones. For example, using the phone app of the participating transportation company (i.e., transportation network company (TNC) or taxi company), the rider can input “RGS e-ride” in the payment section in order to receive the discounted rate. Ride costs of \$1.00 or \$2.00 plus the additional fare for rides that would otherwise exceed \$9.00.

1.2 Methodology and Report Structure

The TOP update provides for a profile of current transit services in the city and insight into future transit/mobility needs, presents conceptual alternatives to meet future needs and provides for a preferred or recommended approach. Further, an important element of the study work plan included the design and administration of a community survey, public meetings and a select number of stakeholder meetings and interviews.

The remainder of this TOP is organized into the following chapters:

Chapter 2 – *Existing Conditions* – profiles existing public transit services, organization and governance, fleet and facilities, and financial (including revenue) profile.

Chapter 3 – *Survey Research and Stakeholder Consultation* – presents the results of the survey research/outreach efforts.

Chapter 4 – *Service Alternatives* – presents a technical and policy discussion and analysis of a range of service delivery concepts.

Chapter 5 – *A Way Forward* – presents TOP update recommendations including a timeframe for deployment and financial plan.

2.0 EXISTING CONDITIONS

This chapter presents a description of current Ride Glenwood Springs (RGS) transit services including:

- Background;
- Organization and governance;
- Existing system description;
- Fleet and facilities;
- RGS financial profile; and
- RGS revenue sources.

A discussion of initial stakeholder consultation/outreach efforts is presented in Section 3.

2.1 Existing System Description

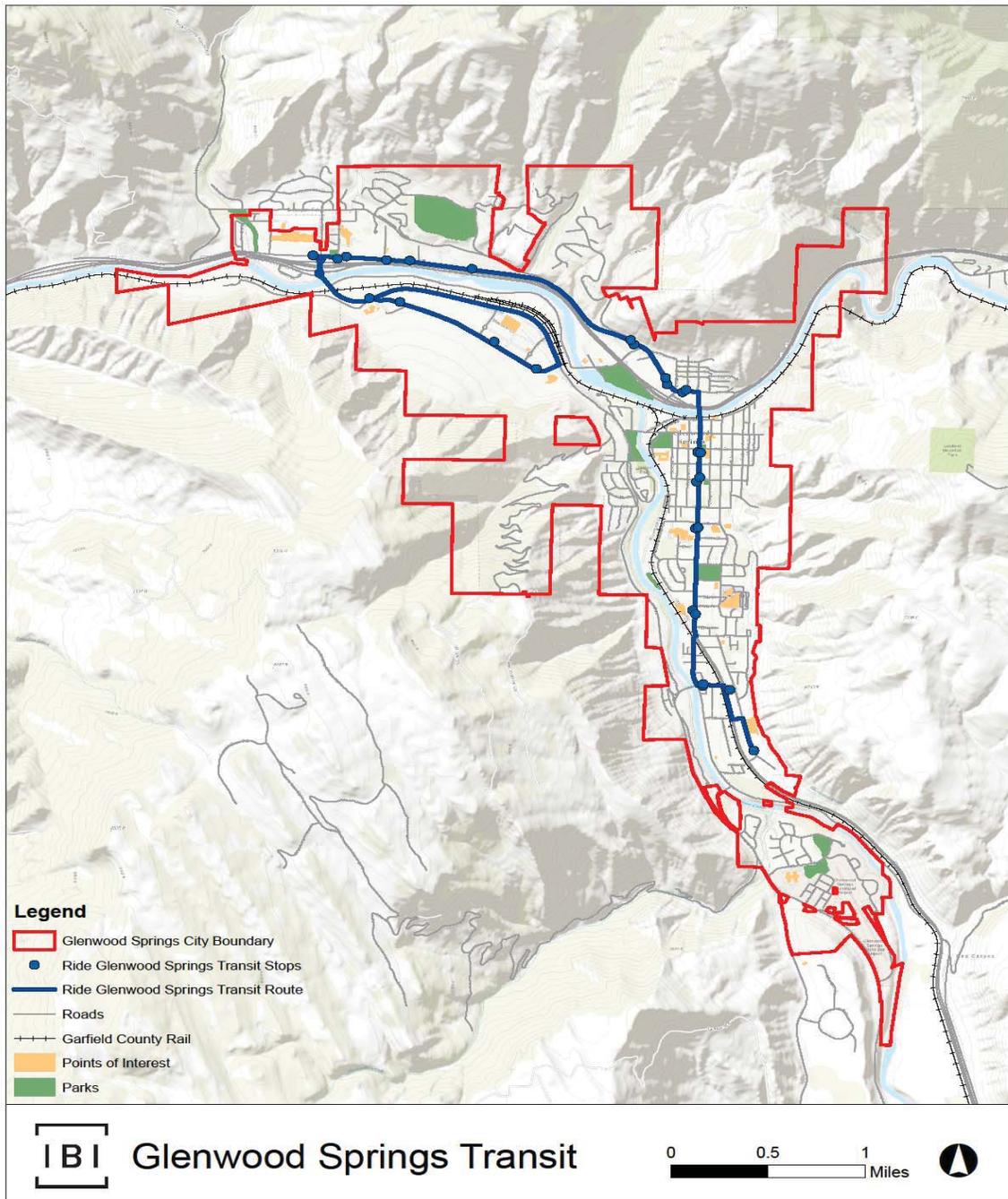
2.1.1 Background

Ride Glenwood Springs (RGS) fixed route and The Traveler complementary paratransit services operate along Highway 6 & 24 and State Highway 82 within the City of Glenwood Springs, a community of approximately 10,000 residents in a 5.7-square mile area located at the confluence of the Roaring Fork and Colorado Rivers. The RGS service area is displayed in Exhibit 2-1.

State Highway 82 is the main arterial corridor in Glenwood Springs and travels north/ south through the central portion of the City and on to Aspen to the south. Highway 6 and 24, which runs east toward Vail and west toward Grand Junction, connects the west end of town to downtown. Major streets intersecting the route and destinations/bus stops include the West Glenwood Park and Ride, West Glenwood Mall, Johnson Park, Traver Trail, 6th Street, 9th Street, 11th Street, 14th Street, 20th and Grand, 27th Street (RFTA BRT Park and Ride), and the Roaring Fork Market Place. There is also an on-call stop located at Valley View Hospital.

Year-round Ride Glenwood Springs transit service began in 1998, funded in part by a .25% Transportation tax. Residents approved a dedicated two-tenths percent (0.2%) local sales tax for public transportation in 2000. The fixed route service initially consisted of two routes (Main and South); however, the South Route was discontinued in 2012 due to declining sales tax revenues and low ridership. Additionally, service span on the Main route was decreased from 16 hours to 13 hours per day; by one hour in the morning and two hours in the evening. A route deviation option also was added to provide access to Valley View Hospital, Kids Plex, and Gilstrap Court, which were not on the fixed route.

Exhibit 2-1. Service Area Map



RGS operated fare-free from 2005 until April 2012, when the City implemented a \$1.00 one-way fare. This contributed to a sharp drop in ridership and service productivity in FY

2013, followed by a further fare adjustment to \$1.00 per day for unlimited rides. Fare collection was temporarily suspended in 2017 as a mitigation to construction delays and to promote route usage during the Grand Avenue Bridge construction project.

Since its inception, RGS service has been operated by either the Roaring Fork Transportation Authority (RFTA) (following its formation in 2001) or its predecessor, the Roaring Fork Transit Agency. The City’s obligation to provide ADA Complementary Paratransit service is fulfilled through a partnership with Garfield County and RFTA. The Traveler service, which is operated by RFTA, is restricted to individuals who are eligible under the Americans with Disabilities Act (ADA).

2.2 Organization and Governance

RGS is managed as an integrated municipal function under the oversight of the Glenwood Springs City Council through the City Manager, City Engineer and Transportation Manager, as seen in Exhibit 2-2.

Exhibit 2-2. RGS Management Hierarchy



The City Council is the policy-making body responsible for adopting RGS policies, determining service and funding levels for the system, and ensuring performance consistent with community expectations, and regulatory compliance.

Under the City Manager and within the Department of Engineering, the Transportation Department is responsible for the Glenwood Springs Airport, alternative modes (bicycling, walking), downtown parking, traffic calming, transportation planning, and the day-to-day administration of the transit system.

The Transportation Manager is responsible for most administrative duties including: service contract monitoring administration, capital program planning, system performance monitoring, system planning and marketing, and grant compliance.

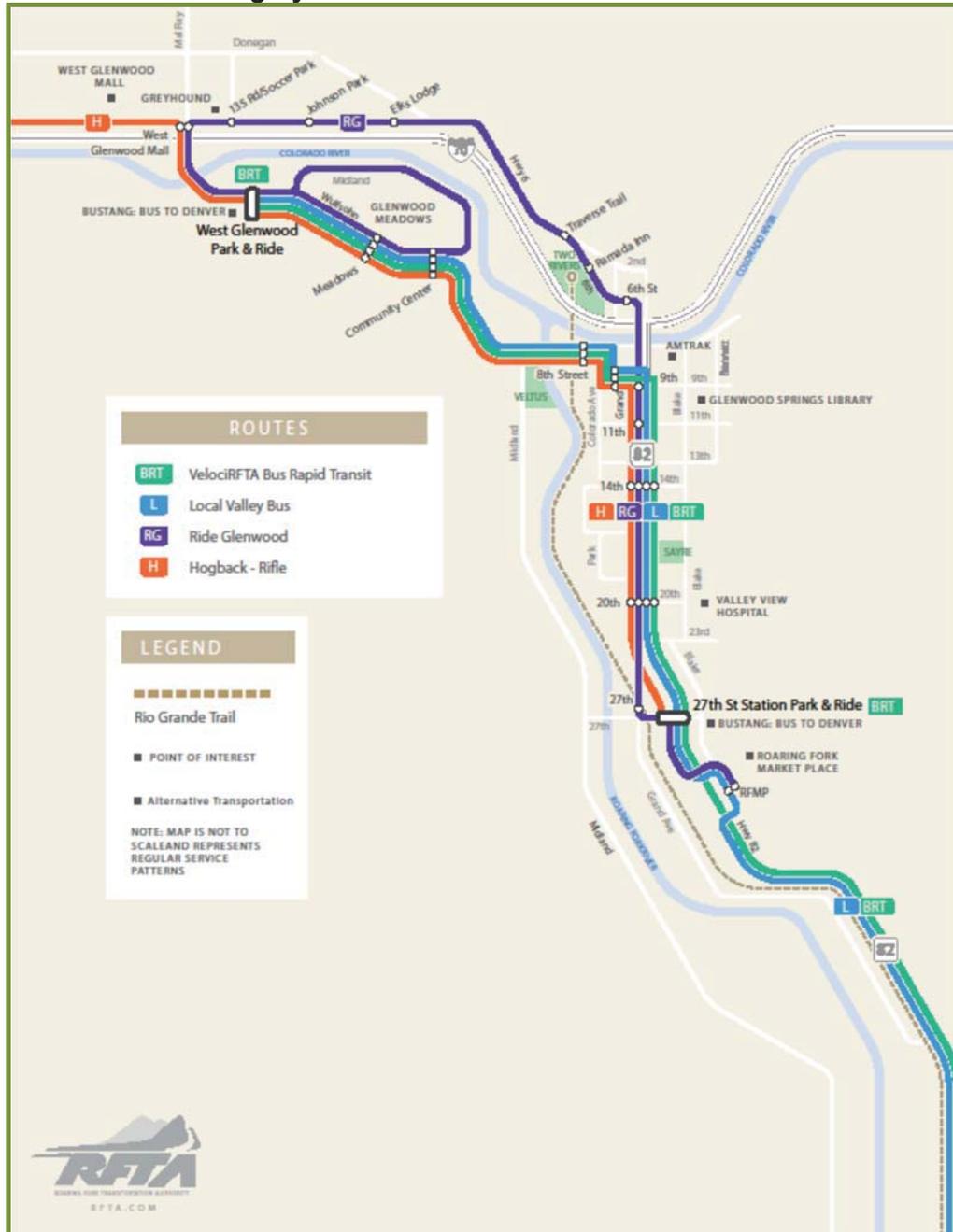
The City contracts with RFTA for all transit operations, as well as maintenance and repair services for the transit fleet. RFTA is a regional sales tax supported transit authority, of which the City of Glenwood Springs is a member.

2.3 Existing System Description

Service Design

As shown in Exhibit 2-3, the RGS route is part of a four-route regional network that also includes the VelociRFTA BRT, the Hogback-Rifle route, and the Roaring Fork Valley Local Route.

Exhibit 2-3. Existing System



The route network is briefly described in the following paragraphs.

- RGS – Two buses cover the route, beginning service at opposite ends of Glenwood Springs. Southbound trips begin at the West Glenwood Springs Park and Ride lot and proceed north to the West Glenwood Mall, and then east on Highway 6 and 24 toward downtown. RGS continues south through town on Highway 82, terminating at the Roaring Fork Market Place. Key destinations include downtown Glenwood Springs, Glenwood Springs High School, Sayre Park, the 27th Street and Highway 82 RFTA Bus Rapid Transit Park and Ride lots, and the Roaring Fork Market Place. Deviation service is available to Valley View Hospital, Kid’s Plex, and Gilstrap Court upon request.
- VelociRFTA connects Glenwood Springs to Aspen with limited-stop, high frequency bus rapid transit (BRT) service providing travel times comparable to travel via personal vehicle. Southbound trips originate at the West Glenwood Park and Ride and travel through Glenwood Springs to the 27th Street BRT Station Park and Ride, continuing south to Aspen with stops at park and ride facilities in the towns of Carbondale, El Jebel, Willits, Basalt and Brush Creek/Highway 82. Within Aspen, BRT stops include Aspen Airport, Buttermilk, 8th Street, and Garmisch Street, with service terminating at Rubey Park. Northbound trips operate in reverse.¹
- Roaring Fork Local Valley Route provides local service in the BRT corridor making additional local stops in Aspen, Snowmass Village, Basalt, Carbondale, and Glenwood Springs. Northbound trips originate in Aspen at Rubey Park and continue north on Highway 82 with stops at Brush Creek/Highway 82, Basalt, downtown Basalt, Aspen Junction, Sagewood, Willits, El Jebel, JW Drive, Badger East, Badger West, Catherine’s Store, Ranch at Roaring Fork, Carbondale, Carbondale Pool, 6th and Colorado Avenue, Highway 133 and Main Street, Aspen Glen, CMC/CR 154, and RFMP before arriving in Glenwood Springs. Within the City, buses stop at the 27th Street BRT Station Park and Ride, 20th Street, 14th Street, 9th Street, Court House, Community Center, and Glenwood Meadows before terminating at the West Glenwood Park and Ride facility on Wulfsohn Road. Southbound trips operate in reverse.
- Hogback-Rifle Route connects Rifle to Glenwood Springs via Silt and New Castle. Eastbound trips originate at the Rifle Metro Park and Ride lot and follow I-70 to the West Glenwood Park and Ride facility; then continue through downtown Glenwood

¹ Only BRT buses that are going into or out of service at the Glenwood Springs Maintenance Facility (GMF) act as local buses through Glenwood Springs, to and from 27th Street to the GMF. There are approximately twenty-nine up valley (winter/summer) and thirty down valley (winter/summer) of these per day that provide one seat rides for people between GMF and 27th Street. All other buses, after going into service, terminate their down valley trips at 27th Street, and then head back up valley to Aspen.

Springs and terminate at the 27th Street BRT Station stop. Westbound trips operate in reverse.

Service Span refers to the days and hours during which service is available to customers. As is often the case in Colorado mountain communities, operating days and hours may vary by season with longer spans on some routes during the summer and winter months, and shorter spans during the shoulder and off-season months. RFTA currently modifies its schedules five times per year, which is more frequently than most peer systems.

- RGS operates seven days per week within a 13-hour span between 6:53am and 7:53pm. The schedule is the same on weekdays and weekends, and does not vary by season. As noted earlier, the span was reduced from 16 hours in 2012 when night service was reduced by two hours (from 9:53pm to 7:53pm) and morning service was reduced by one hour (from 5:53am to 6:53am).
- VelociRFTA service span varies by season. The summer schedule covers a 21.5-hour span (4:30am - 2:00am) seven days per week. By comparison, the spring schedule covers a 17-hour span on weekdays (4:30am – 9:30pm) with weekend service limited to one morning northbound trip designed to meet the *Bustang* intercity bus to Denver.
- Roaring Fork Valley Local service span also varies by season. The summer schedule covers a 23.5-hour span (4:00am - 3:30pm) am seven days per week. By comparison, the spring schedule covers the same 23.5-hour span on weekdays, and a 22.5-hour span (5:00am – 3:30am) on weekends.
- Hogback-Rifle operates seven days per week within a 16-hour span (5:20 am until 9:08 pm) between Metro park in Rifle and 27th Street in Glenwood Springs. Service is primarily focused on peak periods. New Castle received one midday trip that turns around at the Elk Creek Elementary School and does not continue on to Rifle. There are ten up valley and eight down valley trips per day. The spring and fall weekend service is reduced to six up valley and six down valley trips per day.

Service Frequency refers to the time headway (interval) between consecutively scheduled buses operating along a route. As is the case with service span, the frequency of RFTA schedules may vary by season with more frequent service on some routes during the summer and winter months, and shorter spans during the shoulder and off-season months.

- RGS operates on 30-minute headways seven days per week throughout the year.
- VelociRFTA service frequency varies by season. During the summer months, weekday buses operate every 10 minutes during the morning peak hours, every 15 minutes during the midday and early evening hours, variably 7-10 minutes during afternoon peak hours, and hourly after 9:00pm. On weekends, the summer service frequency is every 15 minutes throughout the day, and hourly after 9:00 pm. By comparison, the spring schedule is less frequent as weekday buses

operate every 12 minutes during the morning peak hours, every 30 minutes during the midday and early evening hours, variably 7-12 minutes during afternoon peak hours, and every 30 minutes after 7:00pm. Weekend BRT service is limited to a single northbound trip.

- Roaring Fork Valley Local weekday schedules provide year-round service every 30 minutes until 8:00pm, and hourly service at night. Weekend schedules operate every 30 minutes during peak hours and hourly at other times of the service day.
- Hogback-Rifle operates on variable frequencies ranging from 25 to 90 minutes. Service focuses on peak periods with just one trip scheduled between 10:00am and 3:00pm from Glenwood Springs to New Castle.

RGS Ridership and Productivity Profile

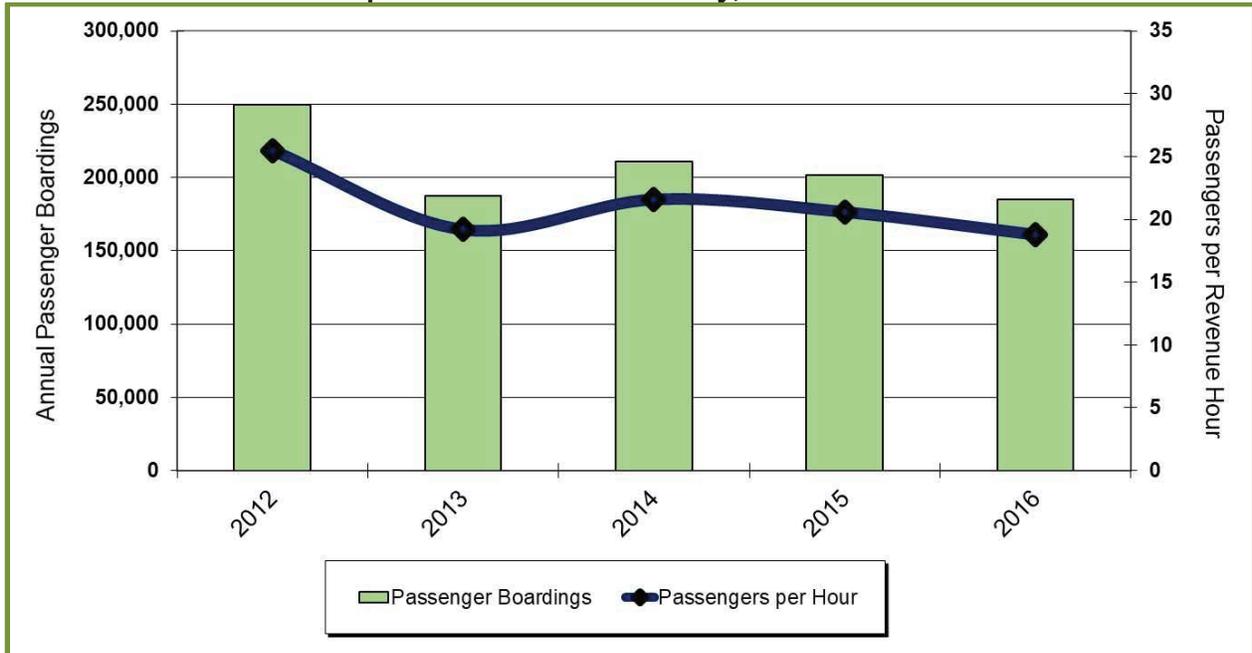
Historical performance statistics are compiled in Exhibit 2-4. RGS provided approximately 185,000 passenger trips on two buses operating nearly 9,900 revenue service hours in FY 2016. The route averaged over 500 boardings per day, or 18.8 boardings per revenue service hour.

Exhibit 2-4. RGS Performance Summary, FY 2012 – 2016

Fiscal Year	Boardings	Revenue Hours	Productivity
2012	249,792	9,800	25.5
2013	187,218	9,759	19.2
2014	210,755	9,738	21.6
2015	201,419	9,774	20.6
2016	185,065	9,861	18.8
TOTAL	1,034,249	48,932	21.1

As displayed in Exhibit 2-5, ridership and service productivity have declined steadily since FY 2012. The sharpest decline came between 2012 and 2013, coinciding with the elimination of the South Route, reduction of service span on the Main route, and reinstatement of a \$1.00 cash fare in April 2012. Ridership nominally increased in FY 2014, possibly in response to a fare reduction implemented in April 2013 (from \$1.00 per one-way ride to \$1.00 per day for unlimited travel). However, the declines continued in FY 2015 and FY 2016.

Exhibit 2-5. RGS Ridership and Service Productivity, FY 2012 – 2016



2.4 Fleet and Facilities

Revenue Vehicles - The City owns three revenue vehicles operated by RFTA in RGS service, as listed in Exhibit 2-6. The Gillig is a standard heavy-duty model with a minimum 12-year useful life ending in 2022. The two Neoplanans have exceeded their life cycle and spare parts are difficult to obtain given that the manufacturer is no longer in business.

Exhibit 2-6. RGS Active Revenue Vehicle Fleet, March 2017

Number of Vehicles	Manufacturer / Brand	Model Year	Fuel Type	Length	Capacity (seats + standees)	Condition	Mileage
							3/17/2017
Fixed Route							
1	Neoplan AN440	2005	Diesel	40'	41 + 12	Poor	367,650
1	Neoplan AN440	2005	Diesel	40'	41 + 12	Poor	399,747
1	Gillig 40' Low-Floor	2010	Diesel	40'	39 + 10	Good	253,751

Maintenance Facility - RFTA's West Glenwood maintenance and operations facility, located at 2307 Wulfsohn Road near Midland Avenue, is a modern facility housing a small dispatch/operations area and a bus maintenance shop. The maintenance shop includes five service bays and parking for more than 40 RFTA buses and the three RGS buses.

Park and Ride Facilities - RFTA owns and maintains two park and ride facilities situated within the City of Glenwood Springs:

- West Glenwood Springs Park and Ride – is located one-half mile south of I-70 on Wulfsohn Road between Glenwood Meadows and Midland Avenue. The facility was expanded in 2016. It has approximately 100 parking spaces and a bus turnaround loop. It also contains one restroom for RFTA bus operators and one for the general public. Additional spaces are available at the Midland Center Mall located on the west side of Midland Avenue. The facility allows RGS customers to connect to RFTA’s Valley Local, BRT, and Rifle Hogback routes, as well as CDOT’s *Bustang* intercity system.
- Glenwood 27th Street Station Park and Ride - is located in the south end of Glenwood Springs southeast of the intersection of South Glen Road (Hwy 82) and 27th Street. The new facility, which was developed by RFTA as part of the BRT project, contains 53 parking spaces and is equipped with heated kiosks, real time passenger information, and public restrooms. RGS customers can transfer to RFTA’s Valley Local, BRT, and Rifle Hogback routes.

Bus Stops – RGS serves 27 posted bus stops, as listed in Exhibit 2-7. All stops are denoted by posted bus stop signs, and most stops are equipped with benches, shelters, advertising frames and trash cans as indicated. Solar power is installed at 13 shelter stops, although currently none have lighting. The bus shelter stops were purchased by the advertiser, who contracts with the city. Bike racks are available at RFTA’s 27th Street and West Glenwood park and Ride lots and at 20th Street and SH82 Northbound stops.

Advanced Technologies - RFTA makes significant use of advanced scheduling and communications technologies to enhance RGS quality and customer travel experience. These include:

- Software – RFTA utilizes electronic fareboxes, Automated Vehicle Locator (AVL) system, Automated Passenger Counting (APC) systems to enhance operational efficiency.
- Customer information – RFTA provides real time customer information through SMARTRIDER and TRANSIT mobile applications that can be accessed on smart phones and laptop computers. The TRANSIT mobile application provides access to the We-cycle program as well as bus schedules.
- WiFi on all RFTA regional buses and at VelociRFTA stations. There is no WiFi on the RGS buses.
- Customer next bus display at the South Glenwood BRT Station as well as maps and schedules.
- Solar power at 13 bus stops.

- RFTA buses have a robust modern camera system. RGS buses have cameras but those installed in the Neoplan buses are old and not up to the standard of those installed on RFTA buses, or the City’s newer Gillig bus.

Exhibit 2-7. RGS Bus Stop Inventory

Bus Stop	Sign	Shelter	Bench	Ad Frames (#)	Trash Recepticle	Solar Panels
W GWS Park & Ride	Y	Y	Y		Y	
Kid's Plex	Y					
W GWS Mall	Y	Y	Y	0	Y	
US 6 & Soccer Field Rd.	Y	Y	Y	1	Y	Y
US 6 & CR 135 (Johnson Park Mini Golf)	Y	Y	Y	1	Y	Y
US 6 & Traver Trail eastbound	Y	Y	Y	2	Y	
US 6 & Ramada Inn	Y				Y	
6th St. eastbound	Y					
9th St. & SH82 southbound	Y	Y	Y	2		Y
11th St. & SH82 southbound	Y	Y	Y	2	Y	Y
14th St. & SH82 southbound	Y	Y	Y	2	Y	Y
20th St. & SH82 southbound	Y	Y	Y	2	Y	Y
27th St. eastbound (Berthod Motors)	Y		Y			
Roaring Fork Marketplace (Turnaround)	Y	Y	Y	3	Y	Y
27th St. westbound	Y				Y	
20th St. & SH82 northbound	Y	Y	Y	1	Y	Y
14th St. & SH82 northbound	Y	Y	Y	1	Y	Y
11th St. & SH82 northbound	Y				Y	
9th St. & SH82 northbound	Y	Y	Y	3	Y	Y
6th St. westbound	Y	Y	Y	3	Y	Y
US 6 & Antlers Inn	Y		Y		Y	
US 6 & Traver Trail westbound	Y	Y	Y	1	Y	
Elks Lodge	Y	Y	Y	1	Y	Y
US 6 & CR 135 (Johnson Park Mini Golf)	Y	Y	Y	1	Y	Y
US 6 & Soccer Field Rd. (W GW Plaza)	Y					
Community Center	Y	Y	Y	2	Y	
Glenwood Meadows	Y					
TOTAL	27	18	20	29	21	13

2.5 RGS Financial Profile

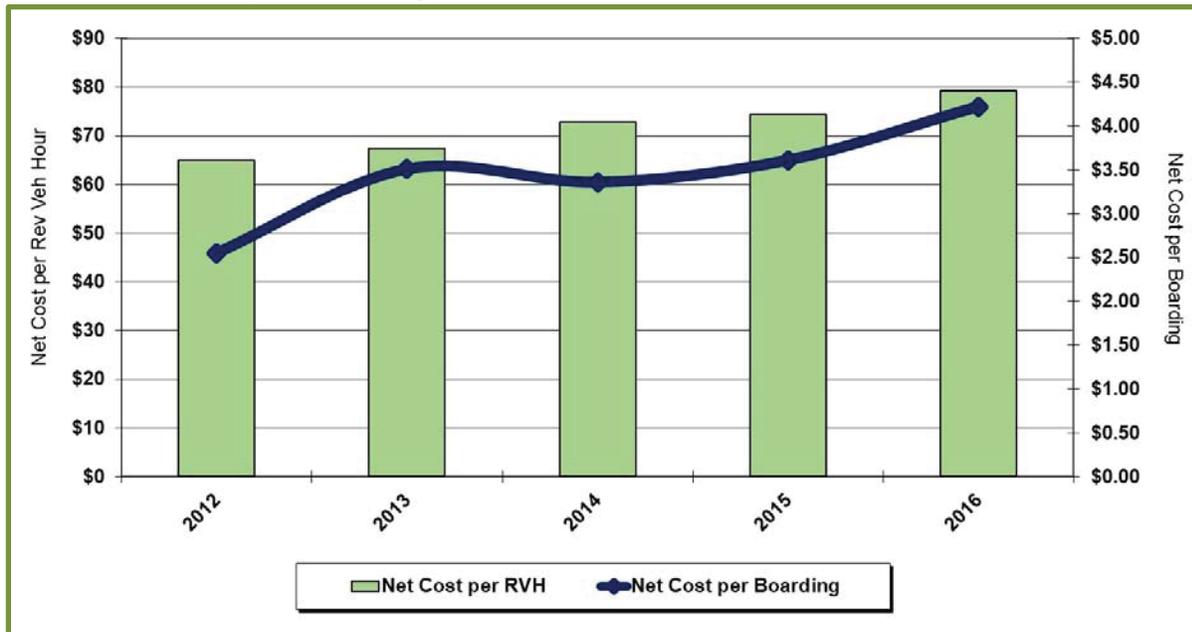
Historical financial performance statistics are compiled in Exhibit 2-8. These totals include only the RFTA contract and exclude city overhead such as operating expenses incurred by city staff. Total FY 2016 operating expenses were approximately \$882,000, offset by \$101,000 in farebox revenue, and resulting in \$781,000 in net operating expenses. Total operating expenses increased by 16.1% during the five-year period FY 2012 through FY 2016; from over \$759,000 in FY 2012 to \$882,000 in FY 2016. The average annual increase in total operating expenses was 3.2% per year. By comparison, net operating expenses (total expenses less fare revenues), increased by nearly 23%, or 4.6% per year.

Exhibit 2-8. System Financial Results, FY 2012-2016

FY	Total Operating Cost	Fare Revenue	Net Operating Cost	Farebox Recovery	Average Fare	Annual Boardings	Net Cost per Boarding	Revenue Vehicle Hours	Net Cost per Hour
2012	\$759,423	\$123,215	\$636,208	16.2%	\$0.49	249,792	\$2.55	9,800	\$64.92
2013	\$778,688	\$121,039	\$657,649	15.5%	\$0.65	187,218	\$3.51	9,759	\$67.39
2014	\$820,944	\$113,022	\$707,922	13.8%	\$0.54	210,755	\$3.36	9,738	\$72.70
2015	\$834,951	\$107,805	\$727,146	12.9%	\$0.54	201,419	\$3.61	9,774	\$74.40
2016	\$882,003	\$101,049	\$780,954	11.5%	\$0.55	185,065	\$4.22	9,861	\$79.20
Change	16.1%	-18.0%	22.8%	-29.4%	10.7%	-25.9%	65.7%	0.6%	22.0%
Change - average	3.2%	-3.6%	4.6%	-5.9%	2.1%	-5.2%	13.1%	0.1%	4.4%

Unit cost trends in net operating expenses are observed in Exhibit 2-9. The net operating cost per revenue service hour, which is an indicator of cost efficiency, increased by an average of 4.4% annually since FY 2012; from \$64.92 in FY 2012 to \$79.20 in FY 2016. Meanwhile, the net cost per passenger boarding, which is an indicator of cost effectiveness, increased by an average of 13.1% annually during the same period. These performance measures suggest that although RFTA has been able to limit the growth of hourly operating costs over the last five years to more or less the rate of inflation, the subsidy per passenger is increasing at a much higher rate due to declining ridership and corresponding declines in fare revenue.

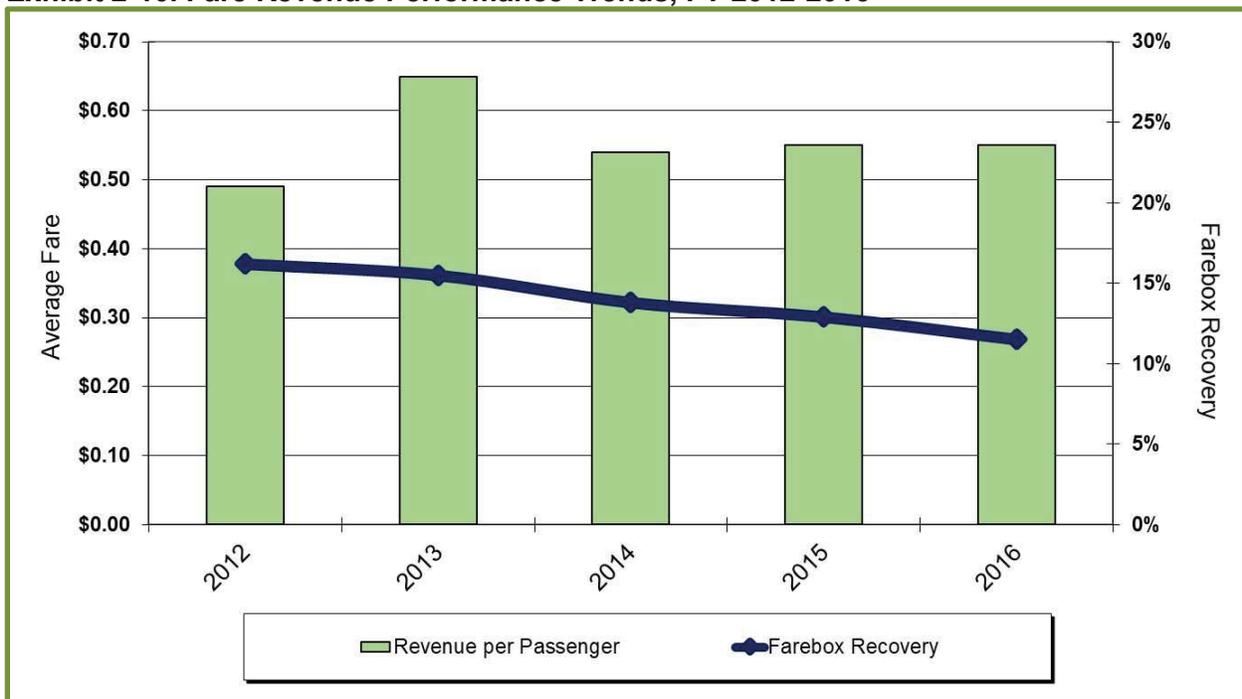
Exhibit 2-9. Cost per Boarding, 2012 – 2016



Declining ridership and farebox revenue are key factors in the diminishing cost effectiveness of RGS. Fare revenues did not keep pace with expenses, declining by 18%

from FY 2012 to FY 2016. As shown in Exhibit 2-10, the average fare (bars) spiked by one-third in FY 2013, rising from \$0.49 to \$0.65 per passenger boarding. This rise is attributable to onboard fare collection occurring for a full year in FY 2013, but only part of the year in FY 2012. Similarly, the subsequent drop in average fare in FY 2014 from \$0.65 to \$0.54 reflects the replacement of the \$1.00 one-way cash fare with a \$1.00 Day Pass and other discounted multi-ride passes. RGS average fare has settled in at \$0.55 during the past two years. The graph (line) shows the decline in farebox recovery, which dropped from 16.2% of total operating expenses in FY 2012 to 11.5% in FY 2016.

Exhibit 2-10. Fare Revenue Performance Trends, FY 2012-2016



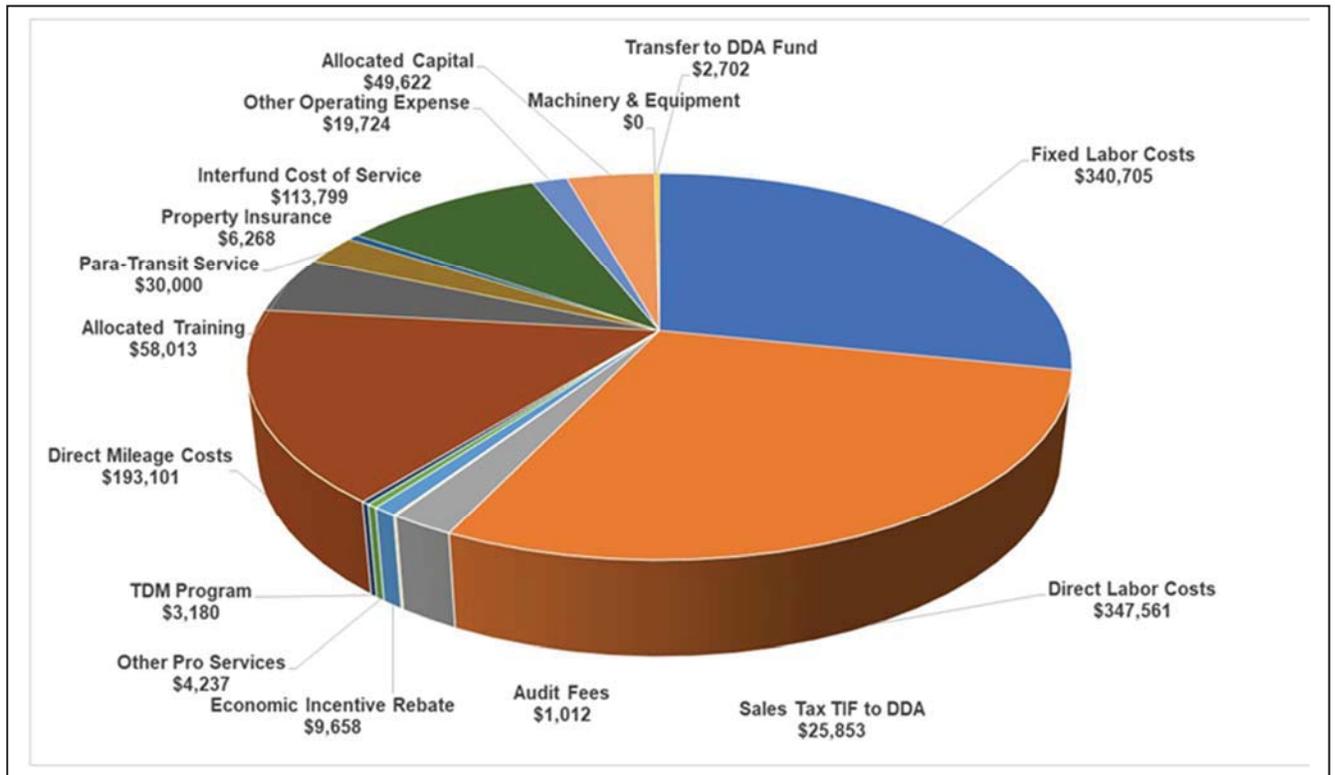
Operating Expenses – As noted earlier, the City of Glenwood Springs contracts with RFTA to operate the RGS service. FY 2016 line item operating expenses are compiled in Exhibit 2-11. Those line items highlighted in yellow reflect operating expenses that are part of the RFTA contract.

Exhibit 2-11. RGS Line Item Operating Expenses, FY 2016

RGS Costs	2012	2013	2014	2015	2016	5-Year Cost	Change - 4 yrs	Change - Average
Fixed Labor Costs	\$313,441	\$342,879	\$310,288	\$316,313	\$340,705	\$1,623,626	8.7%	2.2%
Direct Labor Costs	\$258,792	\$236,319	\$330,882	\$334,758	\$347,561	\$1,508,312	34.3%	8.6%
Sales & Use Tax Refunds	\$0	\$954	\$0	\$2,887	\$0	\$3,841		
Sales Tax TIF to DDA	\$13,040	\$13,040	\$15,501	\$20,044	\$25,853	\$87,478	98.3%	24.6%
Audit Fees	\$1,107	\$1,695	\$567	\$552	\$1,012	\$4,933	-8.6%	-2.1%
Economic Incentive Rebat	\$4,680	\$4,308	\$4,078	\$6,722	\$9,658	\$29,446	106.4%	26.6%
Other Pro Services	\$43,765	\$2,470	\$0	\$5,979	\$4,237	\$56,451	-90.3%	-22.6%
Employee Bus Passes	\$4,137	\$1,849	\$62	\$0	\$283	\$6,331	-93.2%	-23.3%
TDM Program	\$0	\$9,930	\$600	\$2,376	\$3,180	\$16,086		
Direct Mileage Costs	\$218,877	\$216,361	\$196,361	\$200,112	\$193,101	\$1,024,812	-11.8%	-2.9%
Allocated Training	\$40,345	\$49,986	\$41,521	\$41,546	\$58,013	\$231,412	43.8%	10.9%
City Van Pool Expenses	\$685	\$685	\$0	\$6,827	\$0	\$8,196	-100.0%	-25.0%
Para-Transit Service	\$0	\$30,000	\$30,000	\$30,000	\$30,000	\$120,000	0.0%	0.0%
Property Insurance	\$6,153	\$6,338	\$6,268	\$6,268	\$6,268	\$31,295	1.9%	0.5%
Interfund Cost of Service	\$59,843	\$101,929	\$101,929	\$113,799	\$113,799	\$491,299	90.2%	22.5%
Other Operating Expense	\$21,123	\$11,068	\$10,502	\$10,629	\$19,724	\$73,046	-6.6%	-1.7%
Allocated Capital	\$51,182	\$57,407	\$54,914	\$50,026	\$49,622	\$263,151	-3.0%	-0.8%
Machinery & Equipment	\$54,327	\$34,930	\$0	\$0	\$0	\$89,257	-100.0%	-25.0%
Transfer to DDA Fund	\$2,702	\$2,702	\$0	\$2,707	\$2,702	\$10,813	0.0%	0.0%
Total Costs	\$1,094,198	\$1,124,849	\$1,103,474	\$1,151,545	\$1,205,718	\$5,679,784	10.2%	2.5%

A distribution of FHY 2016 operating expenses is displayed in Exhibit 2-12. Labor, direct mileage, and other operating expenses represent the majority of the annual expense, accounting for nearly 87% of all expenditures.

Exhibit 2-12. 2016 RGS Expense Distribution



2.6 RGS Revenue Sources

RGS is funded by a combination of sales tax receipts, municipal street tax proceeds, federal grants, farebox revenues, advertising revenue, and other sources. Historical revenue statistics are compiled in Exhibit 2-13.

Exhibit 2-13. RGS Revenue by Funding Source, FY 2012 – 2016

FY	Sales Tax	Street Tax Fund	Audit Revenue	Federal Grants	Advertising	Farebox Revenue	Interest Income	Misc.	Total Funding
2012	\$778,528	\$19,734	\$5,692	\$283,680	\$4,142	\$125,229	\$445	\$63	\$1,217,512
2013	\$759,275	\$14,622	\$1,248	\$317,864	\$5,066	\$128,473	\$186	\$65	\$1,226,799
2014	\$835,341	\$15,497	\$12,320	\$239,001	\$8,144	\$117,015	\$622	\$6,326*	\$1,234,266
2015	\$899,132	\$16,706	\$2,633	\$242,714	\$7,936	\$112,760	\$1,013	\$15,272*	\$1,298,166
2016	\$935,476	\$19,076	\$4,317	\$249,627	\$7,909	\$104,452	\$678	\$710	\$1,322,245
Total Change	20.2%	-3.3%	-24.2%	-12.0%	91.0%	-16.6%	52.4%	1027.0%	8.6%
Average change	4.0%	-0.7%	-4.8%	-2.4%	18.2%	-3.3%	10.5%	205.4%	

* Miscellaneous income for 2014 and 2015 reflects payments for services refunded by RFTA following their annual audit.

RGS generated over \$1.3 million in total revenues in FY 2016. Funding sources and historical revenue streams are discussed in order of their significance to overall funding.

Local Sales Tax accounted for 70.7% of total RGS revenue in FY 2016. Glenwood Springs voters approved a dedicated 0.2 percent (0.2%) transit sales tax in 2000 (and began to be collected in 2001), which has proven to be the backbone of RGS funding. The sales tax is a stable funding source that since FY 2012 has kept pace with the rise in operating costs.

Federal Transit Administration (FTA) Grants accounted for 18.9% of total RGS revenue in FY 2016. FTA provides transit capital and operating funding for rural areas through the Section 5311 Non-Urbanized Area Formula Grant Program. Section 5311 funding flows through CDOT. RGS receives a portion of its operating revenue from FTA 5311 funds, and also receives periodic capital replacement grants from the FTA and CDOT State FASTER funds. Funds may be used for capital, operating, planning or technical assistance projects. Section 5311 Program grants are intended to provide access to employment, education and health care, shopping and recreation. The 5311 program provides 80% capital and administrative funding and 50% operations funding. FTA Annual funding since FY 2012 has ranged between \$239,000 and \$318,000, and was just under \$250,000 in FY 2016.

RGS was recently awarded a CDOT State FASTER Capital grant to replace one bus. The City also is eligible for Section 5310 and 5339 funds.

Farebox Revenue accounted for 7.9% of total RGS revenue in FY 2016. Refer to Section 2.5 for additional discussion.

Glenwood Springs Street Tax Fund accounted for 1.4% of total RGS revenue in FY 2016. The City of Glenwood Springs historically has dedicated a small portion of the Street Tax Fund to public transit. Annual funding since FY 2012 has varied generally between \$15,000 and \$20,000.

Advertising revenue on bus shelters accounted for 0.6% of total RGS revenue in FY 2016. Annual funding since FY 2012 has varied generally between \$4,000 and \$8,000.

Other revenues, including interest income, audit and miscellaneous revenues, accounted for about one-half of one percent (0.5%) of total RGS revenues in FY 2016.

Sources of Potential Funding

- CDOT FASTER - The only consistent state source of transit revenue in Colorado is \$15 million per year coming from vehicle registration fees that was established as part of the 2009 FASTER state legislation. This is a fixed level of funding, rather than a percentage of the total collected, so each year it declines in buying power due to inflation. A provision in the legislation provides for the allocation of FASTER funds into the State Transit and Rail Fund, which provides grants to local governments and transit agencies for projects such as new bus stops, maintenance facilities or multi-modal transportation centers. Although a number of FASTER projects have been

funded in recent years, the majority of FASTER funds are now being allocated to the Bustang intercity bus program.

- Aging Services funding that may include transportation are coordinated through the State Area Agencies on Aging and include Older Americans Act (OAA) and the Older Coloradoans Act.
- Medicaid services - that include Non-Emergency Medical Transportation, Home and Community Based Services, and Services for Developmentally Disabled are coordinated through area Medicaid brokers.
- Public private partnerships may be an additional way to leverage resources and infuse additional funding into transit operations and capital projects.
- Temporary Assistance for Needy Families (TANF) provides assistance to families in need that often includes transportation programs. TANF programs are coordinated through the Garfield County Department of Health and Human Services.
- Opportunities for additional transportation funding may also be available through organizations that service veterans. These include the Veterans Administration and the Colorado Trust Fund. These are coordinated through the Garfield County Veterans Services Office.
- Vocational Rehabilitation programs that may include transportation funding are coordinated through Workforce Centers or field offices. Independent Living Centers also provide some vocational rehabilitation funding.

3.0 SURVEY RESEARCH AND STAKEHOLDER CONSULTATION

3.1 Community Survey

An integral element of the Transit Operations Plan work plan was the design and administration of a community survey. This survey was developed to solicit feedback from residents, employees, and visitors regarding mobility needs, existing transit services and usage, connectivity, areas for improvement, and other transportation concerns. The purpose of the survey was to obtain a better understanding of the qualitative aspects of transit service delivery and to understand how the City can best meet the transportation and mobility needs of residents and visitors. This chapter documents the results from this survey.

3.1.1 Methodology

The community survey was developed in collaboration with City Staff and contained a variety of questions related to travel behavior, transportation mode choice, propensity to use transit, demographic information, recommendations for service improvement, and more. The survey was made available online via Survey Monkey in both English and Spanish. Print copies were made available at City Hall and at the Amtrak Station. The online survey was made available for approximately two months in order to obtain a significant sample size.

3.1.2 Key Findings

A total of 79 people participated in the community survey. The following key findings were noted from the survey as listed below and as illustrated in Exhibits 3.1 to 3.6.

FREQUENTLY USED TRANSPORTATION MODE AND PURPOSE

The top three most utilized transit services were:

- VelociRFTA Bus Rapid Transit
- Local Valley Bus
- Ride Glenwood Springs

The top three modes of transportation utilized in Glenwood Springs were:

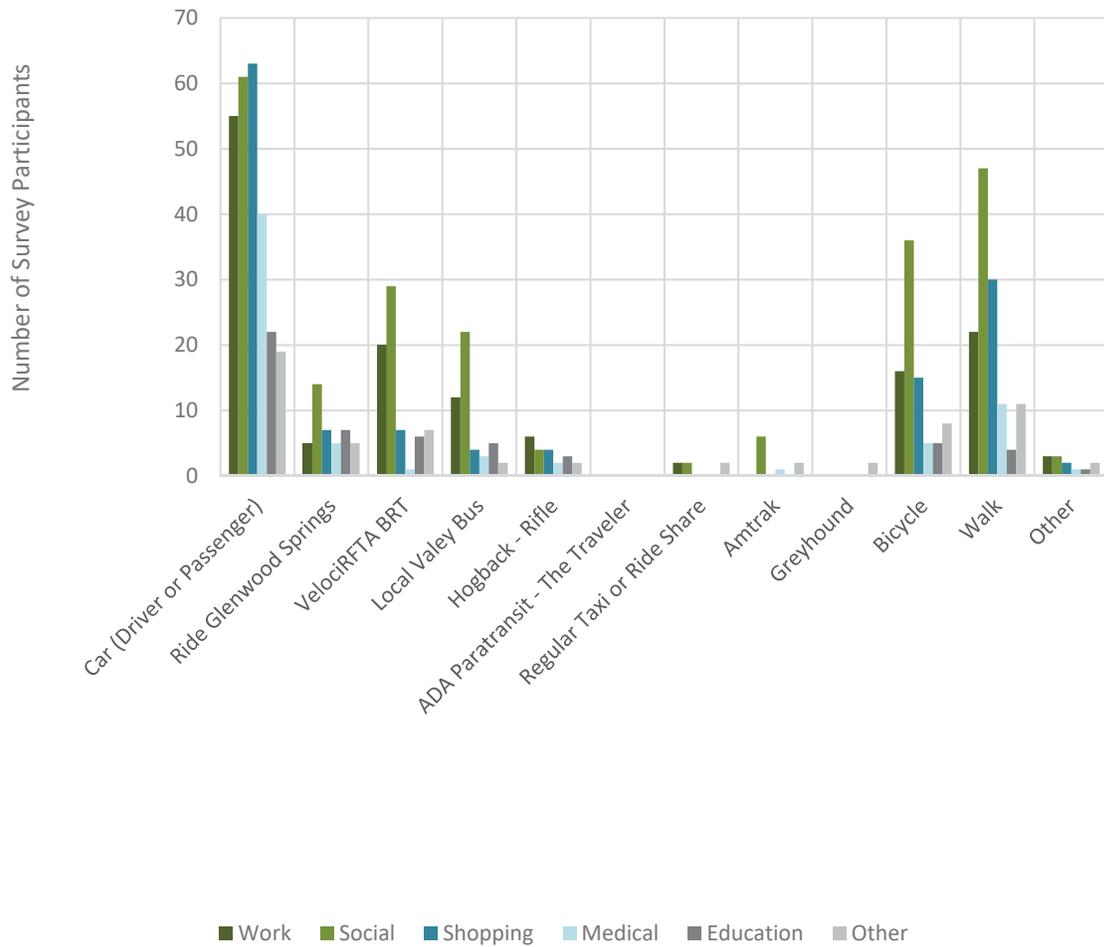
- Private vehicles
- Walking
- Biking

Survey respondents indicated that when public transit was used, it was used primarily for social/recreational purposes.²

² RFTA reports that their biennial passenger survey indicated that the primary trip purpose of BRT and regional bus services is for employment purposes.

Exhibit 3-1: Frequently Used Transportation Mode and Purpose

What types of transportation do you or your household use in a typical week and for what purpose? (Check all that apply)



OPINIONS ON RIDE GLENWOOD SPRINGS (RGS) BUS SERVICE BY USERS

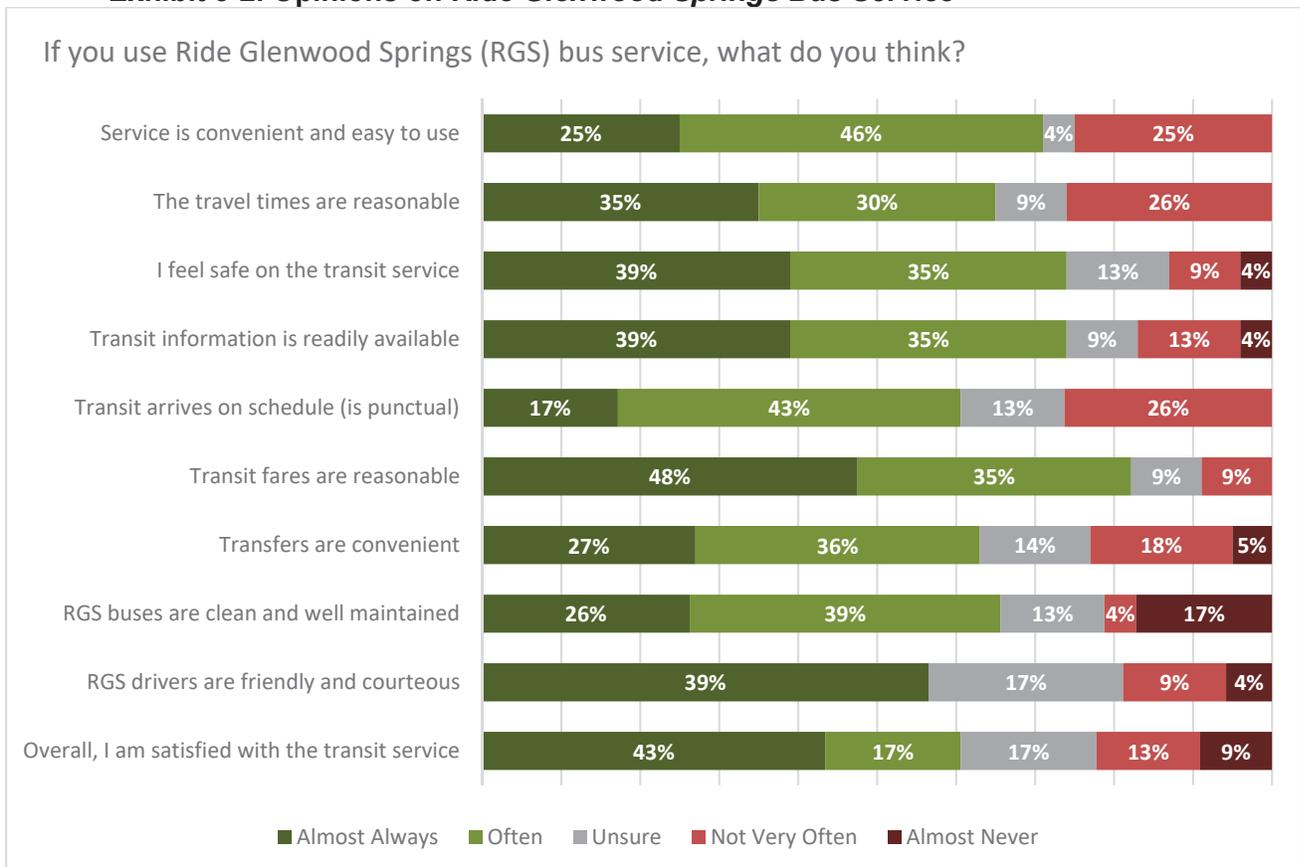
In general, most transit riders were satisfied with RGS bus services. The top three service components transit riders were most satisfied with were:

- Transit fares
- Safety
- Easily accessible transit information

The following service components should be considered for improvement based on lower satisfaction levels:

- Travel times
- On-time performance
- Service convenience and ease of use

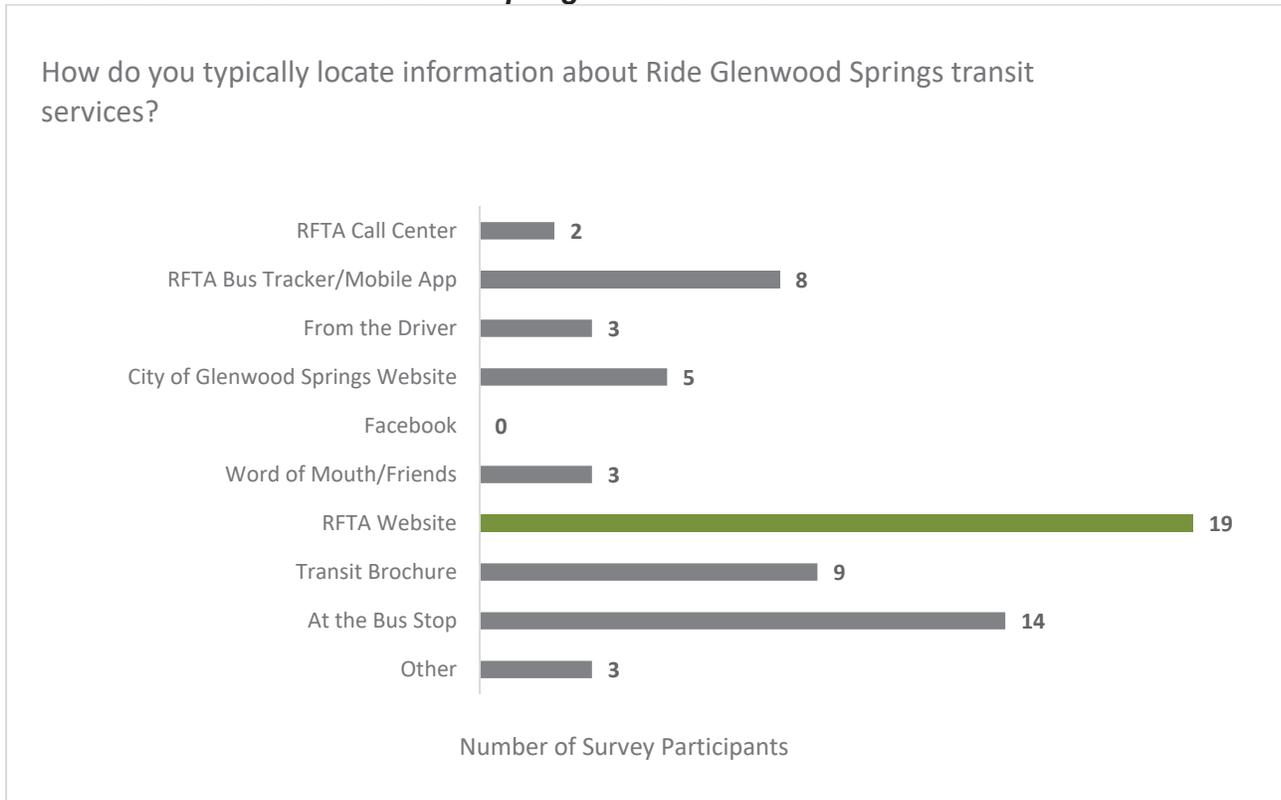
Exhibit 3-2. Opinions on Ride Glenwood Springs Bus Service



LOCATING INFORMATION ABOUT RIDE GLENWOOD SPRINGS TRANSIT SERVICES

The top three ways people find out about Ride Glenwood Springs transit services were through the RFTA website, at the bus stop, and the transit brochure.

Exhibit 3-3. Ride Glenwood Springs Transit Services



REASONS WHY RIDE GLENWOOD SPRINGS TRANSIT SERVICES ARE NOT USED

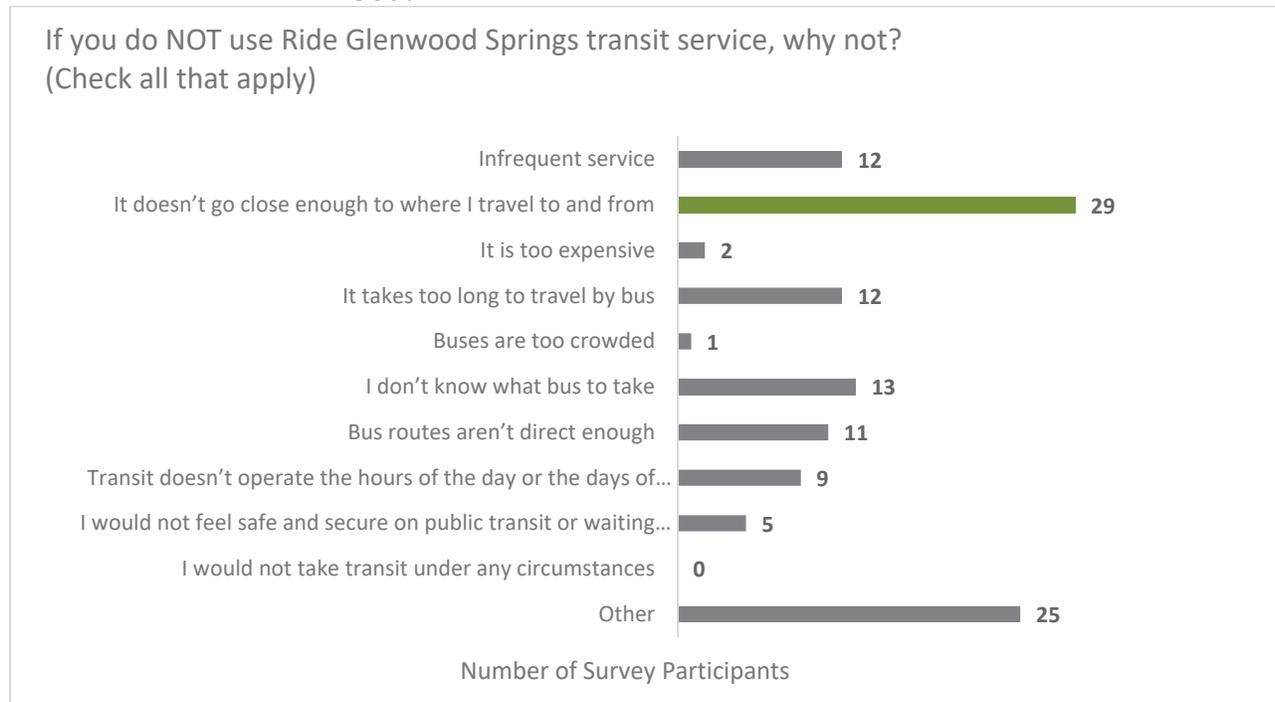
The top three reasons why Ride Glenwood Springs transit services are not used are:

- It doesn't go close enough to desired destinations
- People don't know which bus to take
- It takes too long to travel by bus

Additionally, a number of survey participants also selected "other" and provided their own reasons for why they do not use Ride Glenwood Springs transit services. These reasons included:

- **Bus Stops:** Survey participants identified lack of stops in Canyon Creek, Glenwood Park, Red Mountain neighborhood, Midland corridor, and for the area south of Glenwood.
- **Information Access Issues:** Survey participants either did not know where to access bus schedule information or thought the bus schedule was confusing.
- **Mode Choice:** Survey participants stated they typically chose to drive or walk/bike.

Exhibit 3-4. Reasons Why Ride Glenwood Springs Transit Services are Not Used



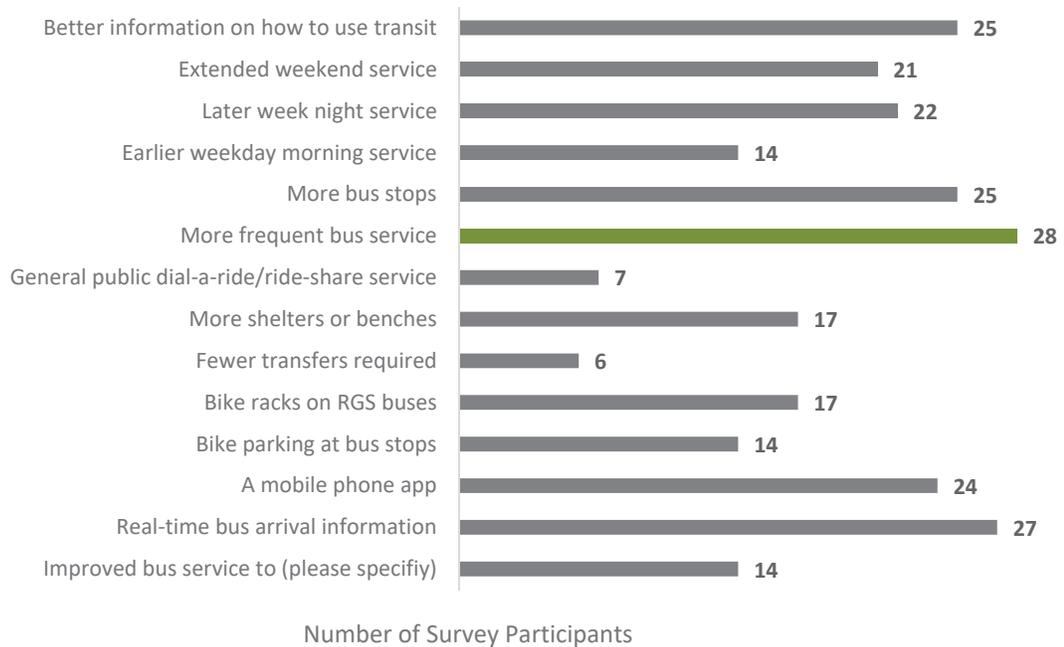
REQUESTED PUBLIC TRANSIT IMPROVEMENTS

The top three transit improvements that should be considered were:

- More frequent bus service
- Real time bus arrival information
- More bus stops / Better information on how to use transit

Exhibit 3-5. Requested Public Transit Improvements

Which types of public transit improvements should be considered? (Check all that apply)

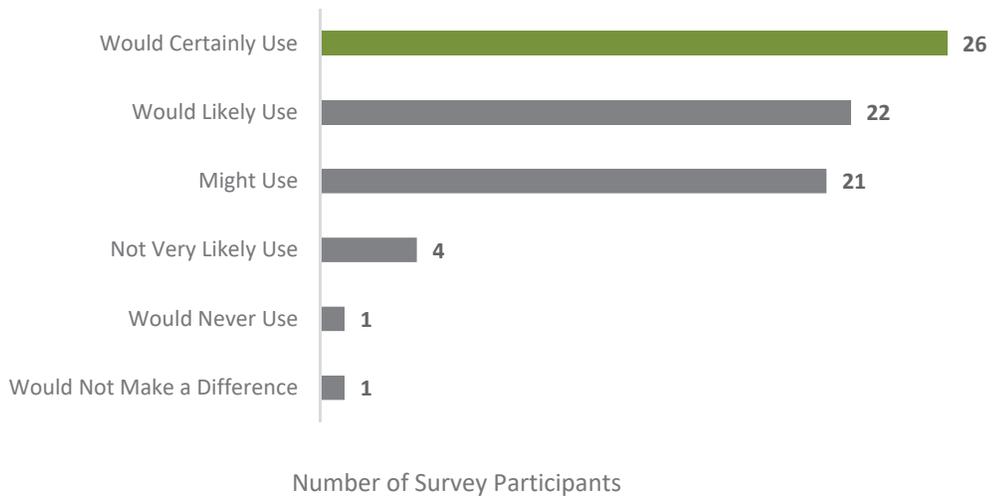


LOCAL SHUTTLE SERVICE LEVEL OF INTEREST

A majority of survey participants expressed interest in using Ride Glenwood Springs transit services if improvements were made to the system, with 26 survey participants (35%) stating they would certainly use and 22 survey participants (28%) stating they would likely use Ride Glenwood Springs.

Exhibit 3-6. Ride Glenwood Springs Transit Service Level of Interest

Please indicate how likely it is that you would use Ride Glenwood Springs if the improvements you noted were available?



3.1.2 Conclusions

Results from the survey indicated that there is interest in utilizing transit services provided by Ride Glenwood Springs, however a number of qualitative aspects of existing services impact mode choice. In general, survey participants identified service frequency, stop location, on-time performance, and access to bus schedule information as areas that needed improvement. Survey participants stated transit service could be improved by adding additional stop locations in areas such as Canyon Creek, Glenwood Park, Red Mountain neighborhood, Midland corridor, and for the area south of Glenwood. Additionally, survey participants did not know where to access bus schedule information and felt the schedule was confusing.

In contrast, survey participants who currently utilize transit services by Ride Glenwood Springs were generally satisfied with existing services. Survey participants generally felt that existing transit fares were reasonable and that transit services were safe.

The results of this community survey suggest that transit services by Ride Glenwood Springs represent a viable alternative to the private automobile. Service improvements such as greater frequency and additional bus stop locations should be considered to attract more ridership. Additionally, outreach and marketing of bus services should be considered to communicate where people can access information about bus services and how to read the schedule or map their ride.

The results from the community survey will serve as a framework in determining how the City of Glenwood Springs can best meet the transportation and mobility needs of residents, commuters, and visitors as well as to provide the foundation for developing potential transit/mobility solutions for the City.

3.2 Stakeholder Outreach Efforts

3.2.1 Background

The project team's initial on-site visit included meetings with the project management team, the Transportation Commission, key business leaders, RFTA operations staff (including RGS drivers), and the general public. The purpose of the initial meetings was to gain feedback on the existing service including thoughts and perceptions on operational challenges and opportunities for enhancements. A subsequent round of stakeholder consultation included the presentation of conceptual alternatives/service options.

3.3 Initial Site Visit Summary

The meetings and field work were productive, well attended and involved. Meetings were conducted with the project team, the Transportation Commission, a Focus Group, one-on-one with local business leadership, and the general public. Project team members also conducted a bus ride-a-long and gathered input from RFTA staff and RGS drivers.

Appendix A presents a copy of presentation material.



A wide range of ideas were generated through the process, providing the project team with a solid basis for moving forward. There were some consistent themes or concepts that were communicated by most groups. Common themes and concepts brought forth by the community included:

- South Glenwood Springs and Midland Avenue have limited transit infrastructure and opportunities.
- There is duplication of service along Highway 82.
- RGS service quality including customer service, on-time-performance, and condition of the buses was viewed by several as a reason not to use the service.
- Downtown parking concerns are being explored by the local community, including options for paid parking.
- Fare policy and fare integration with RFTA need to be considered.
- The concept of a downtown circulator bus or rubber trolley that would service tourists as well as local residents in the core of Glenwood Springs.
- It was generally agreed that a wide range of ideas and alternatives should be explored through the study.
- Increased use of technology and mobile applications was viewed as a necessary component of transit delivery alternatives.

4.0 SERVICE ALTERNATIVES

This chapter builds on the previously discussed *background, existing conditions, outreach and consultation* and analysis of *community survey* (solicited feedback from residents, employees, and visitors regarding mobility needs, existing transit services and usage, connectivity, areas for improvement, and other transportation concerns). Further, this chapter offers supplemental analysis that provides the basis for developing service alternatives.

Presented herein are three alternatives to potentially improve upon existing RGS fixed route service with a more effective service to meet current and future needs for local mobility in Glenwood Springs residents, employees and visitors. The alternatives are not necessarily mutually exclusive and include:

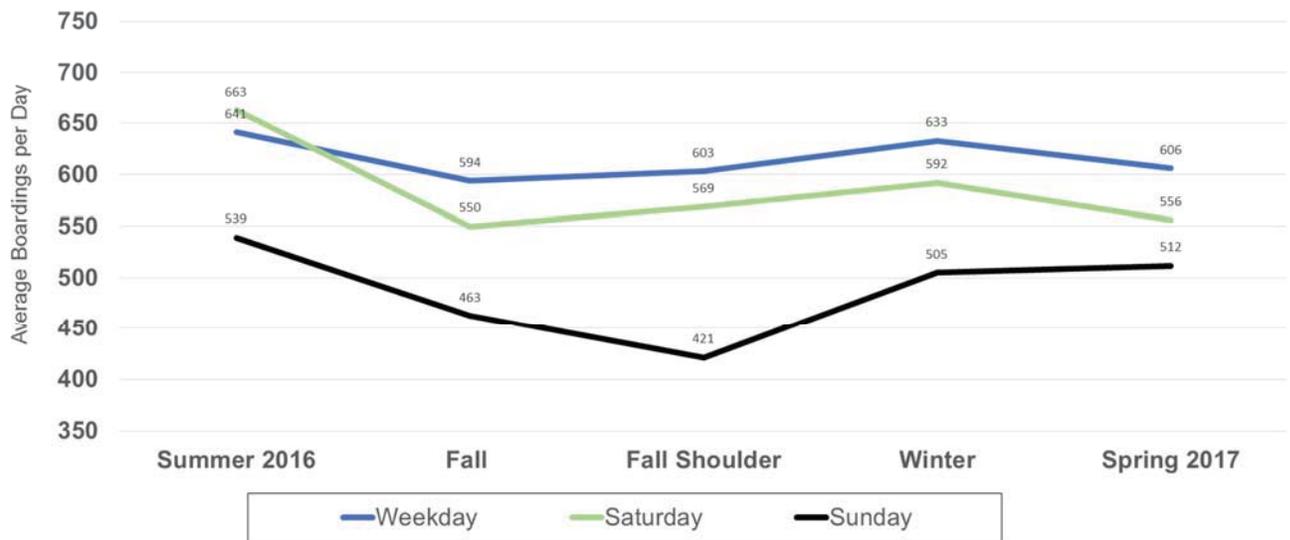
1. Local Fixed Route Consolidation
2. Flex Route and Local Ride Hailing
3. City-wide Ride-hail Subsidy

Conceptual alternatives are presented for consideration and discussion with the project management team and subsequently to be presented in a public meeting/Webinar to solicit feedback.

4.1 Supplemental Analysis

As discussed in Chapter 2 (Existing Conditions), RGS route ridership and productivity have steadily declined over the last five years to about 185,000 total boardings and 18.8 boardings per revenue hour in FY 2016. Exhibit 4-1 shows average daily RGS ridership by season and day of week for the most recent 12-month period 2016 – 2017. Daily boardings range from a high of 663 customer boardings per summer Saturday (2016) to a low of 421 boardings per late fall/early winter Sunday. Unlike RFTA Valley Local and VelociRFTA routes, the RGS timetable is the same every day.

**Exhibit 4-1. RGS Average Daily Ridership by Seasonal Schedule and Service Day
FY2017**



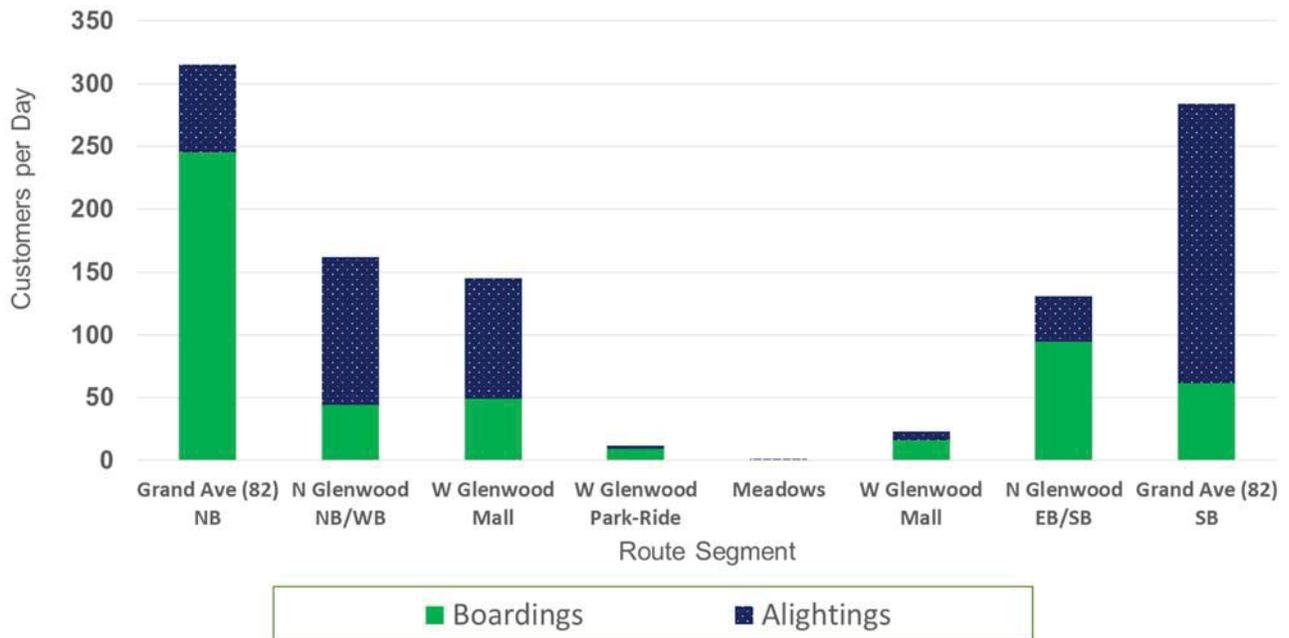
Route segment analysis helps to distinguish ridership activity in the 6th Street corridor through North Glenwood (which is uniquely covered by the RGS route) from the Grand Avenue corridor (south of 8th Street to the Roaring Fork Marketplace), which is also covered by RFTA Valley Local and VelociRFTA lines. The West Glenwood area, including Glenwood Meadows, West Glenwood Park and Ride Lot, and West Glenwood Mall, are partly overlapped by the RGS, Hogback, and Valley Local routes.

Recent ridership data supplied by RFTA allows for a detailed analysis of the RGS route by route segment and bus stop. Spring 2017 average daily ridership is distributed by route segment in Exhibit 4-2. The green and blue bars reflect average total daily boardings and alightings on the following eight segments (showing left to right):

1. Northbound trips departing from Roaring Fork Marketplace to 8th Street
2. Northbound/westbound trips on 6th Street and Hwy 6 to County Road 135
3. West Glenwood Mall
4. West Glenwood Park and Ride

5. Meadows³
6. Returning to West Glenwood Mall
7. Eastbound/southbound trips on Hwy 6 and 6th Street to the Grand Avenue Bridge
8. Southbound trips on Grand Avenue from 8th Street to Roaring Fork Marketplace

Exhibit 4-2. RGS Boardings & Alightings by Route Segment (Spring 2017)



Grand Avenue south of 8th Street – Nearly three-fifths of all RGS boardings occur on Grand Avenue between 8th Street and Roaring Fork Marketplace, in both directions. This equates to 250 – 350 boardings depending on season and service day; or 150 – 200 individuals per day, assuming that most customers take round trips on RGS. Key destinations along this segment include:

- Grand Avenue & 14th Street 75 – 100 boardings
- Roaring Fork Marketplace 65 – 80 boardings

³ Boardings/alightings may increase at the Meadows stop due to multifamily developments in the area.

- Grand Avenue & 9th Street 55 – 70 boardings
- 27th Street BRT station 50 – 60 boardings

This segment is served by RFTA’s Valley Local and VelociRFTA routes; therefore, it is assumed that those customers who both board and alight on this segment would not be impacted significantly if the RGS route were discontinued.⁴ These customers, estimated to be about 200 – 250 daily boardings, or 120 – 140 individuals per day, can use the Valley Local, which operates year-round service every 30 minutes on weekdays and hourly after 8:00pm.⁵ On weekends, the Valley Local operates every 30 minutes during peak times, and hourly at other times.

North Glenwood – Approximately 27% of all RGS boardings occur on 6th Street west of the Grand Avenue Bridge through the Historic Village and west on Hwy 6 to Road 135, in both directions. This equates to 150 – 200 customer boardings depending on season and service day; or 85 – 125 individuals per day, assuming that most customers take round trips on RGS. The prevailing customer traffic flow is south toward Downtown and South Glenwood, with nearly three times the number of daily boardings on eastbound/southbound trip as those boarding northbound/westbound trips toward West Glenwood Mall. Many of these customers are likely visitors and locally-employed residents working in the businesses along Hwy 6. Key destinations along this segment include:

- Hwy 6 & Road 135 40 – 50 boardings
- Hwy 6 & Johnson Park 25 – 35 boardings
- 6th Street & Ramada/Antlers 15 – 25 boardings
- 6th Street & Grand Avenue 15 – 25 boardings

This group would require alternative local service if the RGS route were discontinued.

West Glenwood Mall – Approximately 15% of all RGS boardings occur at the mall, in both directions. This equates to 80 – 120 customer boardings depending on season and day of week; or 50 – 75 individuals per day, assuming that most customers take round trips on RGS. Some of these customers are South Glenwood residents shopping or working at the mall, or visitors. Further, transit ridership would be generated by the campground/trailer park as well as high density housing to the west of the mall and the Greyhound terminal at the Loco gas station.

West Glenwood Park and Ride – Less than two percent of all RGS boardings occur at the park and ride. This equates to 10 – 15 boardings depending on season and day of week;

⁴ RFTA officials report that passengers traveling in the down valley direct may be impacted due to inconsistent on-time performance. The prospect of a tripper (a short piece of work on a bus and a short block made up of one or two bus trips) may be a strategy to mitigate this to some extent.

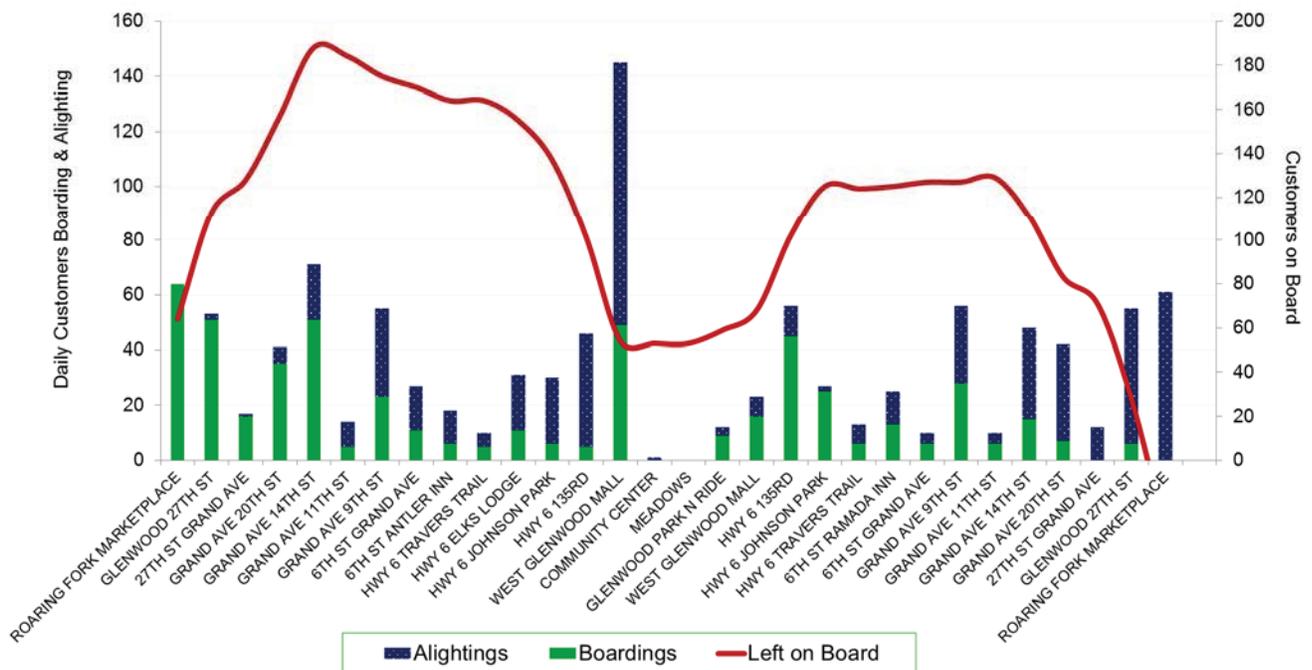
⁵ This assumes that sufficient capacity exists on the Valley Local to accommodate these customers, which has yet to be confirmed.

or 5 – 10 individuals per day, assuming that most customers take round trips on RGS. These customers likely are making transfers to RFTA routes or the Bustang intercity route.

Glenwood Meadows – This segment is served by RFTA’s Local Valley and VelociRFTA routes running on Wulfsohn Road. Ridership data obtained from RFTA implies negligible boardings at this location, but note that the data is insufficient for a more complete analysis.

The data is parsed further by directional bus stop in Exhibit 4-3. The bars on this graph indicate boardings and alightings, and the red line indicates the number of passengers remaining on board all trips departing each bus stop. The data shows that the RGS route is busiest along the Grand Avenue segment south of Downtown Glenwood Springs. The graph also shows that West Glenwood Mall is the busiest stop on the RGS route for weekday boardings and alightings, followed by Roaring Fork Marketplace.

Exhibit 4-3. RGS Boardings & Alightings by Bus Stop

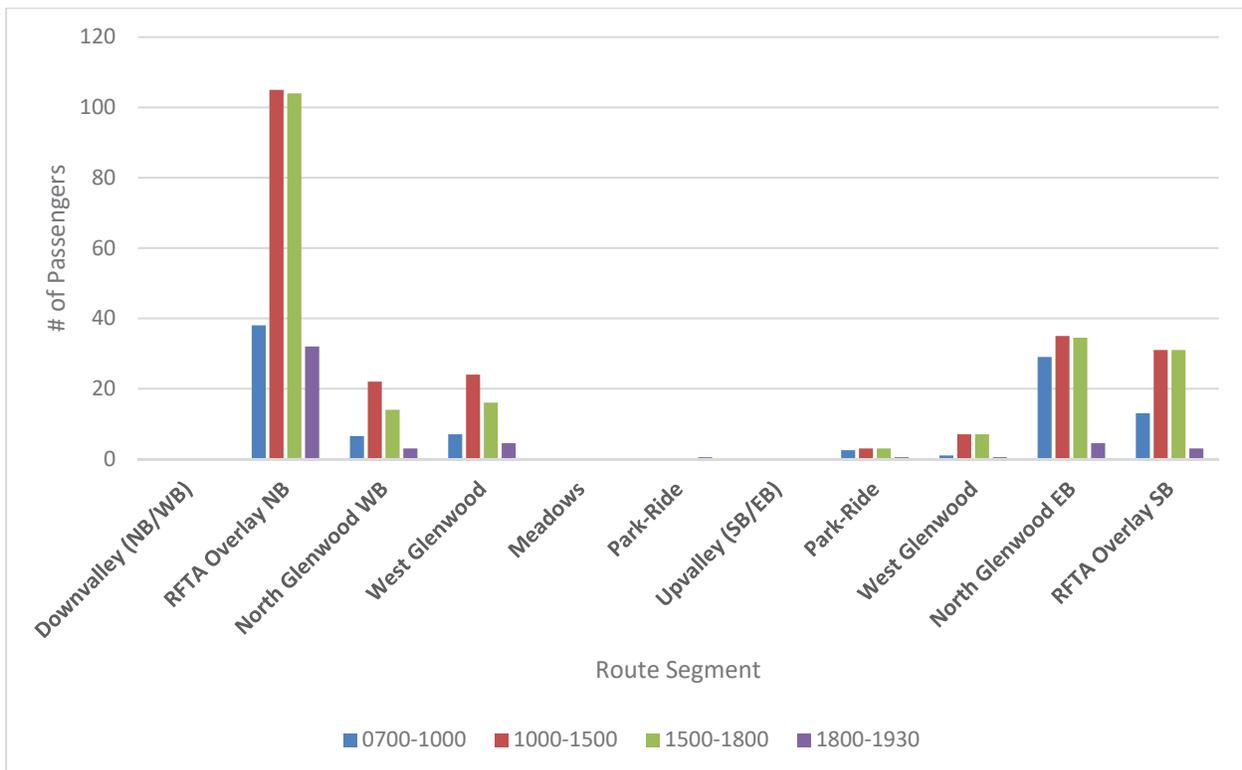


The aforementioned analysis of up valley and down valley ridership by route segment was further analyzed by time of day. Exhibit 4-4 presents RGS passenger boardings by route segment and time of day. The time of day divisions reflect morning peak hours (7:00am-10:00am), mid-day (10:00am-3:00pm), afternoon peak (3:00pm-6:00pm), and evening (6:00pm-7:30pm). The route segments closely replicate those previously presented

(average daily ridership). Results are similar in terms of those route segments generating the greatest ridership, typically northbound and southbound RFTA overlay (Grand Avenue).

Of note is the preponderance of passenger boardings in the 10:00am to 3:00pm time slot. The fewest passenger boardings are in the evening hours (6:00pm-7:30pm).

**Exhibit 4-4: RGS Passenger Boardings – by Route Segment & Time of Day
Spring 2017**



4.1.1 Community Input

Results from the community survey indicated that there is interest in utilizing transit services provided by Ride Glenwood Springs, however a number of qualitative aspects of existing services impact mode choice. Survey participants who currently utilize transit services by Ride Glenwood Springs were generally satisfied with existing services. Survey participants generally felt that existing transit fares were reasonable and that transit services were safe. However, survey participants identified service frequency, stop

location, on-time performance, and access to bus schedule information as areas that need improvement. Some stated that transit service could be improved by adding new stop locations in Glenwood Park, the Red Mountain neighborhood, Midland Avenue corridor, and south Glenwood. Additionally, survey participants did not know where to access bus schedule information and felt the schedule was confusing.

The results of this community survey suggest that service improvements such as frequency and additional bus stop locations should be considered to attract more ridership. Additionally, outreach and marketing of bus services should better communicate where people can access information about bus services, and how to read the schedule or map their ride.

Combined with input from the consultation and outreach efforts, the development of service (or conceptual) alternatives considered the need to provide transit/mobility solutions that address three key concerns:

- Current transit service “doesn’t go close enough to desired destinations”;
- “It takes too long to travel by bus”; and
- Better connectivity to Glenwood Park, the Red Mountain neighborhood, Midland Avenue corridor, and south Glenwood.

4.2 Service / Conceptual Alternatives

4.2.1 Local Fixed Route Consolidation

Given considerable overlap in Downtown and South Glenwood, this service concept speaks to the present network being modified to create more one-seat rides between origins and destinations in Glenwood Springs, while also reducing service duplication on South Grand Avenue between Downtown and Roaring Fork Marketplace. Several options are possible, ranging from truncation and realignment of the current RGS route to fit better with RFTA regional routes operating within the City, to discontinuation of RGS and introduction of alternatives to a purely fixed route service design. Key considerations to the discussion of fixed route service consolidation options are highlighted in the following paragraphs.

West Glenwood Transfer Point

Looking holistically at the route network, it is observed that RFTA’s use of the West Glenwood Park and Ride lot, while operationally convenient, is not necessarily consistent with customer travel patterns. For example, the RGS route data presented above indicates that the mall is the single largest generator of average weekday boardings and alightings on the route. West Glenwood Mall ridership activity was eight times greater than at the park and ride lot, which is isolated as a destination even though adequate as a transfer point.

Industry best practice for situating transit transfer facilities includes developing a location that has high visibility, access from a major roadway(s), trip chaining opportunities, and adequate parking. The City, RFTA and CDOT should consider relocating the West Glenwood transfer point to the mall,⁶ which meets best practices criteria, is closer to the I-70 Exit 114 interchange, and has eight times more boardings than the West Glenwood Transfer Point. This would require that RFTA extend Valley Local and VelociRFTA lines 0.9 mile west beyond the park and ride lot via Wulfsohn Road and Midland Avenue. Operationally, the extension would add about five minutes of running time to a one-way trip currently requiring up to 80 minutes end-to-end between Aspen and Glenwood Springs.

In addition to responding to existing ridership patterns, there are a number of additional benefits that might be realized by moving the transfer point to the Glenwood Mall. The mall provides a more visible park and ride location and trip-linking opportunities for customers who use the park and ride. The Bustang regional service would end at the mall, eliminating duplication of BRT and Valley Local service to the 27th Street Station and providing easier access from Interstate 70. Possible locations for a mall transfer point include leasing the existing parking north of the mall or an underdeveloped parcel situated just north of the mall property.

Fare Equalization

The current fare differential between RGS and Valley Local service is one key reason why customers with a choice would prefer to take the RGS route rather than the Valley Local. Currently, the one-way fare for Valley Local travel within Glenwood Springs is \$1.00, while the comparable RGS fare is \$1.00 per day for unlimited travel. Effectively, this means that a one-way trip is the same on both services; however, the round trip fare on the Valley Local is twice that of RGS. As noted earlier, most RGS customers use transit to make round trips, and typically less than 25% riding one-way only on a given day.

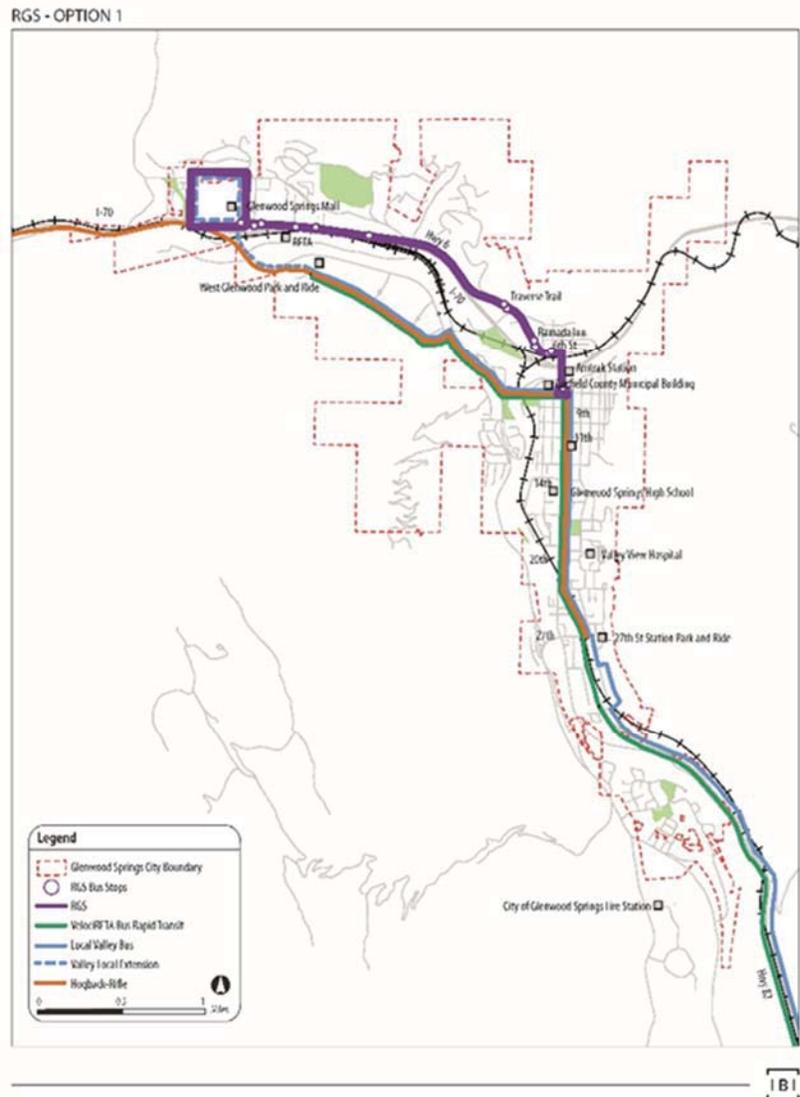
Fare equalization is an important pre-requisite to fixed route network rationalization within Glenwood Springs; however, a detailed fare analysis and recommendations is beyond the scope of this study. Ideally, local and regional fares should be integrated and make sense to customers. There are several ways to accomplish this policy; one relatively simple way would be to simply honor the RGS Day Pass on the Valley Local for travel entirely within Glenwood Springs. This would encourage local customers to switch from cash to the Day Pass to ride the Valley Local at a lower price, assuming that the cash fare differential does not change. This might require a proof-of-payment mechanism (e.g., fare receipt) for customers boarding in Glenwood Springs and traveling beyond the City limits. Depending on the City's preferred fare policy, another way would be to eliminate the \$1.00 Day Pass, or increase the price to an amount approaching \$2.00.

⁶ Consideration of this concept will need to address availability of bus loading space, bus stop amenities, possibly access to a restroom for bus operators, etc.

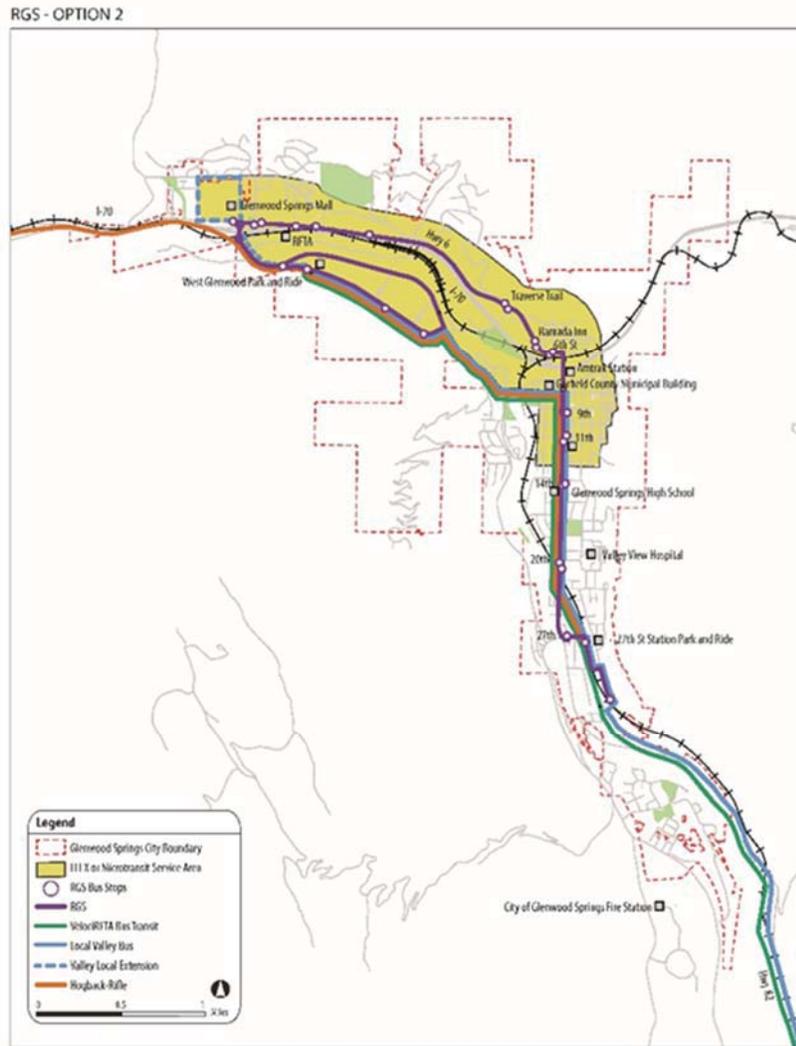
Service Options

Several possibilities exist for fixed route service consolidation options. All are consistent with the premise that the City defer to RFTA not only for service delivery, but most other aspects of the conventional fixed route system serving the City. It may be prudent to create a single identity (brand) for the fixed route system, offering the most frequent service affordable.

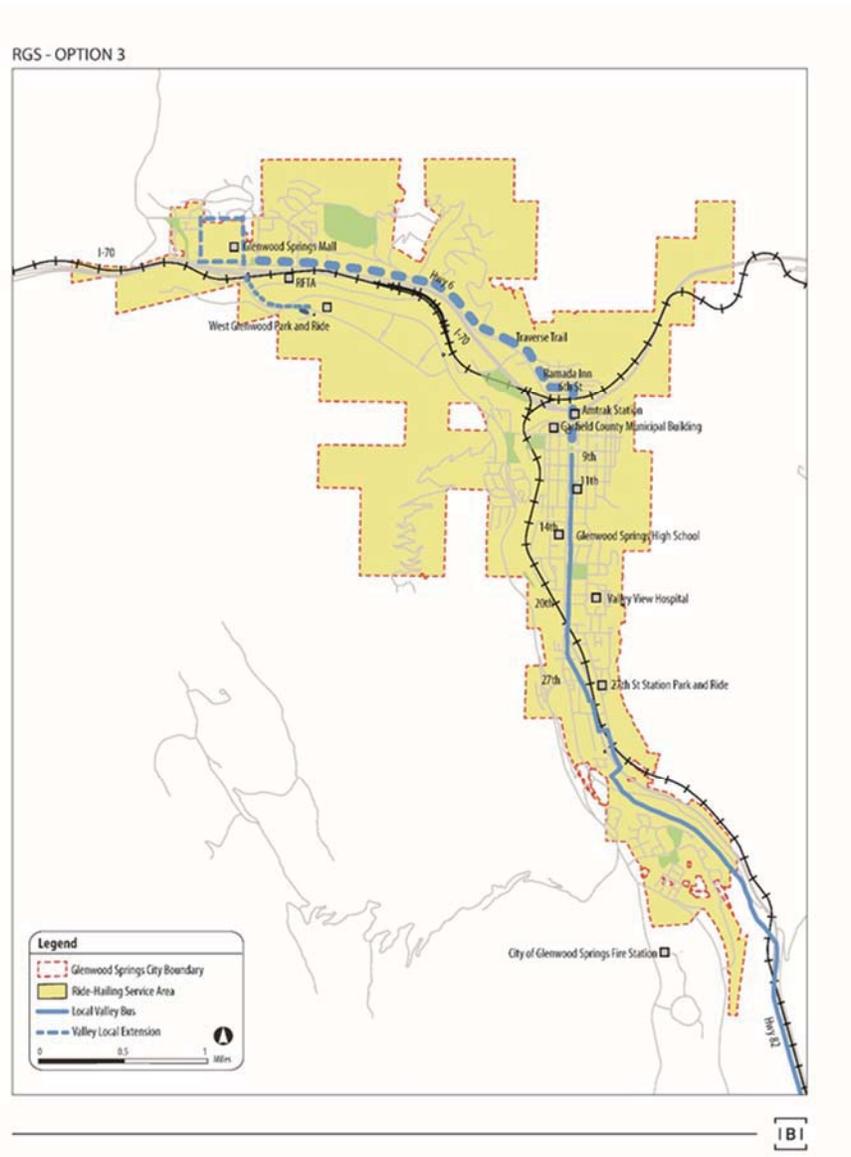
Option 1 – Reduce RGS from the present two buses to one bus operating between Downtown and West Glenwood Mall via the Grand Avenue Bridge, 6th Street and Hwy 6. Within the Downtown area, two-way operation on Grand Avenue with a terminal loop through south of 9th Street is suggested to facilitate transfer connectivity between local and regional routes, and to turn the bus around. This option eliminates RFTA fixed route duplication, maintains the unique component of the RGS route, and truncates the route with downtown. Current service span (6:00am – 8:00pm) and frequency (30 minutes) would be retained. This option assumes concurrent extension of the Valley Local route from its present terminus at West Glenwood Park and Ride to West Glenwood Mall located 0.9 mile west via West Wulfsohn Road and Midland Avenue.



Option 2 – Discontinue RGS fixed route service entirely and cover North Glenwood with a flexible service variation, as described in the next section. This option also assumes concurrent extension of the Valley Local route from its present terminus at West Glenwood Park and Ride to West Glenwood Mall via West Wulfsohn Road and Midland Avenue.



Option 3 – Discontinue RGS fixed route service entirely and reroute the Valley Local via North Glenwood on the RGS alignment to West Glenwood Mall and terminating at the West Glenwood Park and Ride lot. This would maintain a one-seat ride for City residents traveling to the West Glenwood Mall that currently is provided by the RGS route. Existing Valley Local operation on Wulfsohn Road, Midland Avenue and 8th Street between Glenwood Meadows and Downtown would be replaced by flex-route or city-wide ride hailing service as described in the following sections.



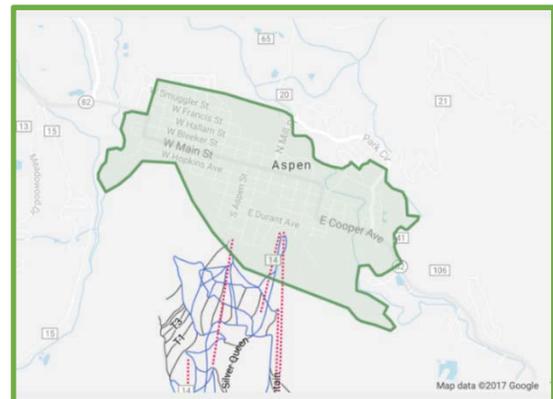
Options 2 and 3 assume that all fixed route services are provided by RFTA, which would consolidate service, branding and schedules, simplifying the service for passengers. The City would have several potential options for operating a flex-route service, including operating it in house, bidding it out competitively, or contracting it out to RFTA via the same mechanism currently used for RGS.

4.2.2 North Glenwood Alternative Service

In conjunction with RGS fixed route elimination (Options 2 and 3), the City could consider redeploying local resources on a customized service oriented to visitors and employees traveling between North Glenwood, Downtown and other parts of the City.

One alternative to RGS fixed route service in North Glenwood would be to replace it with a separately branded microtransit service featuring flexible routing and direct ride-hailing capacity for customers. Consistent with the goals of the recently completed *6th Street Master Plan*, the service design would link the North Glenwood Historic Village Core with Downtown and Confluence areas, and extend west through the Hwy 6 tourism corridor to the West Glenwood Mall.

An illustrative example of potential service provider and system design is that of Downtowner, Inc. Downtowner, Inc. partners with cities and local business sponsors to provide localized shuttle services using six-passenger electric Gem Carts, which are manufactured by Polaris Industries in Minnesota. Service design is based on a defined service area, but not necessarily a defined route or schedule. Some boarding may occur at designated stops, but most customers use Downtowner’s mobile phone application to hail a ride and track vehicle location and expected arrival time. Downtowner service is fare-free. Drivers are cross-trained as tour guides to enhance the visitor experience. Program revenue is generated primarily through paid advertising, sponsorships and potentially grants. Currently, Downtowner has operating contracts in five cities, including Manhattan Beach and Newport Beach, CA; Delray Beach and Downtown Tampa FL; and Aspen.



The *Aspen Downtowner* began service in summer 2016 through a partnership between the City, Downtowner Inc., and Smarking, a parking data management provider.⁷ Service operates daily from 11:00am to 11:00pm in an area (see adjacent map) extending about 0.8 mile north-south and 1.5 miles east-west across the Downtown grid from the Roaring Fork River to the base of Ajax Mountain. The service operates in the downtown core to Seventh Street in the West End. The City increased parking fees by 50% to partly fund the service, and to encourage ridership.

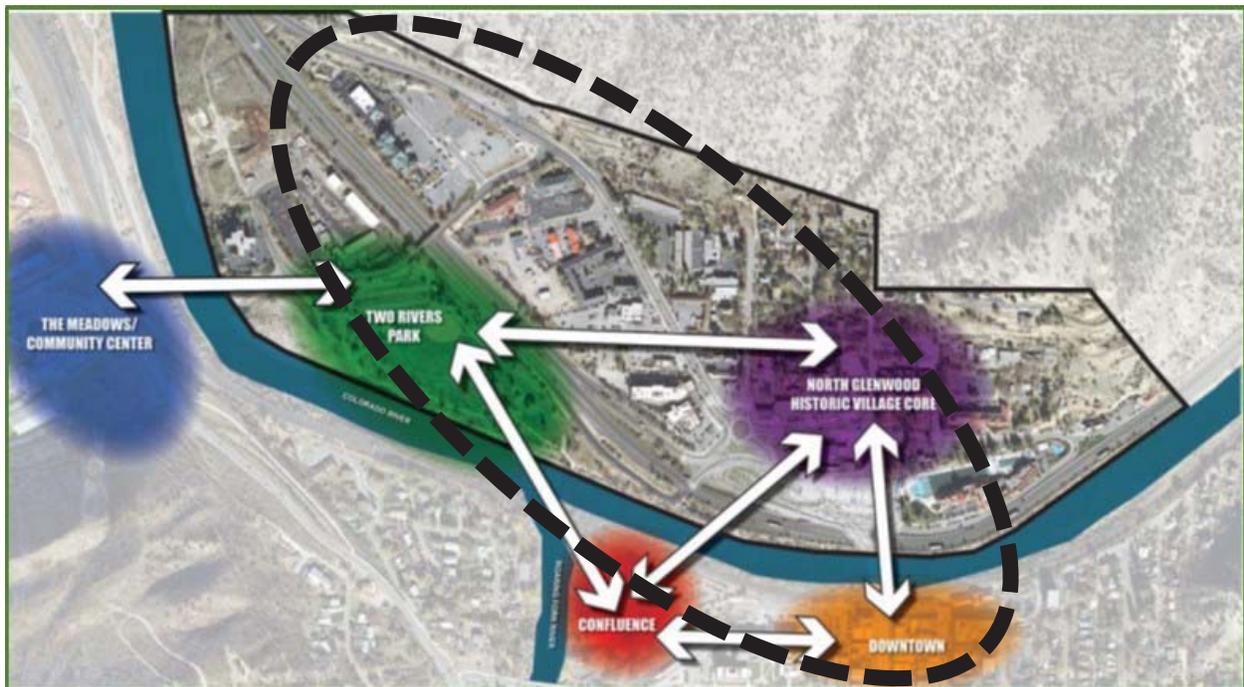
Applied to Glenwood Springs, the Downtowner service area could include Downtown north of 12th Street, the Confluence area immediately west of Downtown, the North Glenwood Historic Village, and the Hwy 6 corridor extending west to West Glenwood Mall. The City would need to consider the type of vehicle to be utilized in this service scenario as the

⁷ The City of Aspen’s Downtowner service provided over 24,000 vehicle trips serving over 47,300 passenger trips in 2017.

small, electric vehicles used by Aspen may impose capacity and speed constraints, and vehicles would need to meet ADA requirements. Note that it is difficult to assess the size of vehicle that may be required, given the limitations of current ridership data.

This service design supports the recently completed *6th Street Corridor Master Plan* vision of bringing together major activity centers separated by the river and the freeway, as illustrated in Exhibit 4-5. Among the key goals of the Master Plan is seamless connectivity between North Glenwood, Downtown, and the Confluence area via multiple travel modes. A new Grand Avenue pedestrian bridge separated from vehicle traffic opened in 2017 which significantly improved conditions for pedestrians and bicyclists making the less than quarter-mile trip between 6th Street in North Glenwood and the 7th Street shops and restaurants in Downtown.

Exhibit 4-5. Central Glenwood Springs Downtowner/Microtransit Coverage Area



Glenwood Springs' Exit 116 is undergoing a major redesign with a new Grand Avenue auto bridge, separate pedestrian bridge, and roundabout that intersects 6th Street in the project area. When completed in 2018, Highway 82 will be rerouted with the new interchange. A new public park will be located at the terminus of the new pedestrian bridge. The east end of 6th Street, between Laurel and Pine, is envisioned as becoming an extension of downtown, including a mixture of old and new buildings with uses that complement downtown. A compact residential neighborhood sits on the south-facing hill

above 6th Street, and east of Laurel Street. The neighborhood consists of mostly single-family homes, some dating to the original 1885 town site, which also included the downtown area south of the Colorado River to 12th Street.

The Downtowner service model is potentially well-suited to a branded transit service focusing on the transportation needs of visitors, industry employees, and patrons. The 6th Street-Hwy 6 corridor caters to visitors with more motels and lodging, iconic tourist destinations, restaurants and traveler services; notably:

- Glenwood Hot Springs Lodge
- Hotel Colorado
- Ramada Inn
- Silver Spruce Motel
- Affordable Inns
- Holiday Inn Express
- Hampton Inn Glenwood
- Hanging Lake Inn
- Hotel Glenwood Springs
- Best Western Antlers
- Glenwood Motor Inn
- Starlight Lodge
- Glenwood Hot Springs
- Yampah Spa & Vapor Caves
- Glenwood Caverns Adventure Park Tram
- Iron Mountain Hot Springs
- Rafting & outdoor adventure companies

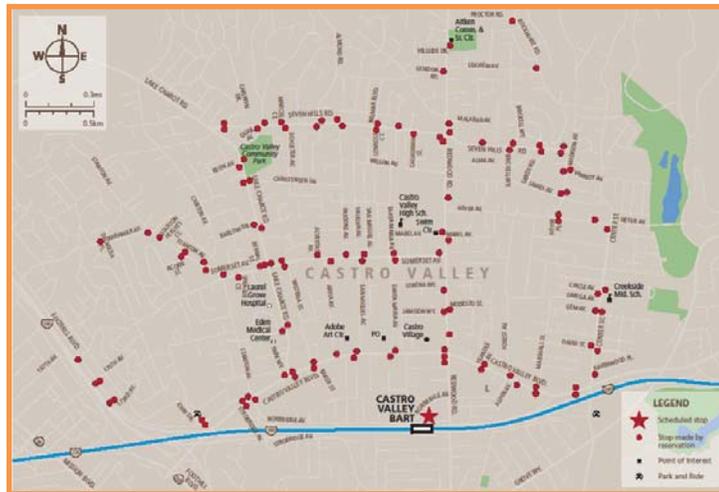
4.2.3 Flex Route with Ride-Hailing

A third alternative would be to replace the existing RGS route with separately branded small bus flexible route with citywide ride hailing capability through a cell phone application. The service area would be much the same as described for the microtransit option.



An example of such a service is the AC Flex system in Oakland, California. The service is a blend of on-demand service and traditional buses, designed to compete with ride booking services (transportation network companies) such as Uber and Lyft. AC Transit began a one-year demonstration of on-demand flex route service in July of 2016 in two suburban Oakland communities of Castro Valley and Newark, which previously were covered by fixed route 275, which was discontinued for one-year in March of 2017. *AC Flex* is a pilot program developed as an alternative to marginal fixed route service in areas with lower transit demand. Initially, the service ran concurrently with route 275, averaging 40 daily riders compared to 224 daily riders on the fixed route. There was a marketing push to begin 2017 and ridership on the *AC Flex* increased by 33% during the first quarter of 2017. The service has provided more than 20,000 trips since inception.

AC Flex routing is structured around the former fixed route bus stops (see adjacent maps). Customers are requested to begin or end their trips at a designated bus stop. All trips must begin and end within the flex service area, which includes two BART rail stations where customers may board without reservations at selected intervals: Union City BART every 30 minutes; and Castro Valley BART every 60 minutes.



AC Transit operates 12-passenger buses equipped with wheelchair access, fareboxes and Clipper Card readers. Service is accessed by customer request through an online account that links to a mobile phone number or e-mail address. Trips can be reserved using a cell phone, tablet or computer. Customers are advised to book trips at least 30 minutes prior to departure. Recurring trips may be reserved up to three months in advance. Service is available on weekdays from 6:00am until 8:00pm. Customers receive a text or e-mail notification 10 minutes prior to bus arrival. Fares are the same as for fixed route service. The adult cash fare is \$2.25 with half-fare discounts for youth ages 5-18, as well as customers with disabilities, and senior citizens 65 and older.

In Glenwood Springs, if designed around existing ridership travel patterns, this type of service would allow for a wider distribution of transit resources that might include Donegan Road, Mountain Valley and Red Mountain.

4.2.4 City-Wide Ride-Hailing (e-Hailing) Services

Another microtransit service alternative that could be applicable to Glenwood Springs and provide additional service coverage on Donegan Road., Mountain Valley and Red Mountain is an enhanced ride-hailing service offered by transportation network companies (TNCs) and traditional taxi



companies. Such services are growing rapidly because they meet customer expectations for convenience of hailing a ride, real-time vehicle location information, and electronic fare payment using current mobile phone technology.

For consideration, the City of Glenwood Springs may advance the deployment of **RGS e-Ride** service. **RGS e-Ride** will be a directly subsidized microtransit/ on-demand ride hailing (e-Hailing) of shared ride service in sedans, SUVs or vans.

This program would provide trips to anybody in the community for trip origins and destinations within the City of Glenwood Springs. Service would be available to accommodate all discretionary and non-discretionary trips (no trip purpose restrictions), operating 7-days a week between the hours of 6:00am and 10:00pm. **RGS e-Ride** may charge a \$2.00 fare with a maximum trip cost of \$9.00 (hence a subsidy of \$7.00 per trip). Conversely, the fare structure may be modified to promote certain trip types such as commuters, whereby a \$1.00 fare may be charged during the hours of 6:00am-9:00am and 4:00pm-7:00pm, for example.

RGS e-Ride would enable residents or visitors to e-Hail eligible trips from their smartphones. For example, using the phone app of the participating transportation company (i.e., TNC or taxi company), the rider can input “RGS e-ride” in the payment section in order to receive the discounted rate. Ride costs of \$1.00 or \$2.00 plus the additional fare for rides that would otherwise exceed \$9.00.

Glenwood Springs is served by a growing number of transportation network companies (TNCs), diversified taxi and private bus companies offering personal and group transportation options. These include (limited) Lyft and Uber ride-hailing services, as well as taxi services provided by locally-based Valley Taxi as well as regional providers such as High Mountain Taxi in Gypsum and Basalt Cab Services. It is recognized that there are some potential issues with private providers that include staffing and a changing regulatory environment; however, the providers are currently operating and these issues are beyond the control of the City. A ride hailing service could also be operated by RFTA.⁸ The major local providers are described briefly as follows.



- Uber Technologies Inc. formed in 2009 in San Francisco and currently operates in over 500 cities worldwide. It develops, markets and operates the Uber car transportation and food delivery mobile apps. Branded service variations include UberX (shared ride), UberPOOL (discount carpooling), UberXL (large sedan), UberSUV, and UberASSIST for persons with disabilities. Uber is actively pursuing partnerships with public entities including cities, counties and transit agencies to offer subsidized services.

⁸ RFTA drivers are currently prohibited from using mobile devices while behind the wheel of a vehicle. Expanding into on-demand service would require modification of these rules.

- Lyft Mobility Solutions formed in 2012 in San Francisco as a peer-to-peer ridesharing mobile app linking riders with drivers. Lyft has evolved into a hybrid between a taxi company and a ridesharing app to accommodate regulatory requirements in various cities. Currently, Lyft operates in over 220 communities nationwide. The company offers four branded services: Lyft Line (shared ride); Plain Lyft (exclusive ride); and Lyft Plus (larger cars and SUVs those traveling with suitcases and boxes, or in groups larger than four; and Lyft Shuttle fixed route bus routes in Chicago and San Francisco charging fares based on time and distance. In San Francisco, LyftLine uses “hot spots” to encourage passengers to congregate at select intersections in exchange for discounted fares. Lyft is actively pursuing partnerships with public entities including cities, counties and transit agencies to offer subsidized services.
- Valley Taxi provides taxi, shuttle, wedding and corporate transportation services to all of Glenwood Springs and the surrounding areas, including connections to Airport, Amtrak, and Bustang Shuttle service.

Since the providers already are providing service in Glenwood Springs, a potential role for the City would be to channel a portion of its transit funding toward market incentivization through fare subsidies or promotional activities. For example, the City could enter into partnerships with multiple providers to encourage an expansion of microtransit services without loss of competition or customer service quality. This approach avoids direct institutional ownership of the service by the City.

There is a growing number of examples in which transit agencies, cities and other governmental entities are collaborating with microtransit providers to facilitate personal mobility through ride-hailing services. Three variations are highlighted in the following paragraphs.

Go Centennial - The suburban Denver city of Centennial (population 107,000) contracts with Lyft to provide subsidized on-demand ride hailing service between residential areas of the City and RTD’s Dry Creek light-rail station. *Go Centennial* began in August 2016 as a six-month pilot program to potentially replace pre-scheduled Call-a-Ride service



operated by RTD. Fixed route transit is limited to one bus line running east-west through the City. The pilot program concluded in February 2017. Service was offered fare-free to registered customers on weekdays from 5:30am until 7:00pm. Service was accessed by customer request using either Lyft’s mobile phone app or the *Go Denver* integrated regional scheduling and fare payment app. The City administered app-training workshops

in libraries and recreation centers to help older residents and others become fully familiar with current technology.

The City of Centennial and the Denver South Transportation Management Association each committed \$200,000 to fund the Go Centennial pilot program as a public-private partnership between the City of Centennial, Denver South Transportation Management Association (DSTMA)/Southeast Public Improvement Metropolitan District (SPIMD), Lyft, Via Mobility Services, and corporate sponsors.

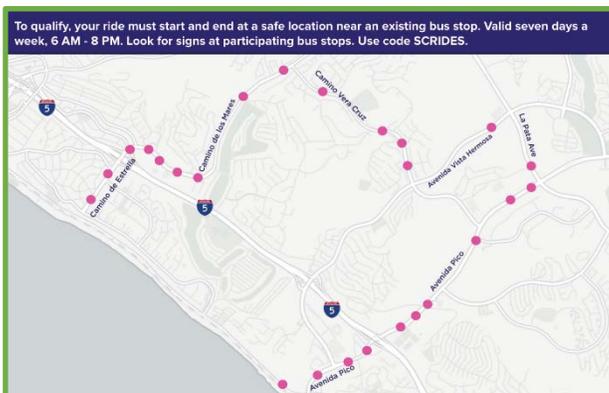


Altamonte Springs FL - The suburban Orlando city of Altamonte Springs (population 43,000) contracts with Uber to offer subsidized on-demand transportation service. All travel within the city limits is eligible for subsidy. Subsidized service is obtained by customers using Uber’s mobile phone app with a promo code that automatically deducts the subsidy from the customer fare. The City pays 20% of the cost of Uber travel within the city limits, and 25% of the cost of rides that begin or end at the SunRail commuter rail station. Service began in March 2016 as a one-year demonstration with a budget of \$500,000, partly from local businesses.



San Clemente CA Subsidized Lyft - The City of San Clemente contracts with Lyft to provide subsidized on-demand ride hailing service in areas of the City formerly covered by OCTA Routes 191 and 193, which were discontinued due to low ridership.

The service is intended to replace the fixed routes and customers are requested to begin or end their trips at a former fixed route bus stop (see adjacent map).



Subsidized Lyft began in October 2016 under \$900,000 two-year agreement funded by OCTA. Service is available

daily from 6:00am until 8:00pm. Fare subsidies are available to anyone traveling within San Clemente in areas covered by the discontinued bus routes. Customers directly hail service using Lyft’s mobile phone app, which also allows electronic fare payment. The

customer pays the first \$2.00 of the regular Lyft fare, and the City pays the remainder up to a maximum of \$11.00 (i.e., up to \$9.00 subsidy). The customer is responsible for any amount above \$11.00.

5.0 A WAY FORWARD

This chapter presents a preferred or recommended approach for the City of Glenwood Springs to advance a restructuring of RGS transit services and provide enhanced mobility for residents and visitors. The approach is designed to address service efficiencies (inefficient route segments), and input from the community (including first mile-last mile feeder connections, coverage-oriented transit/mobility in low density corridors and neighborhoods, etc.).

The following section, *Planned Improvements* presents a phased approach for implementation over the next two-year period. Further, the approach is consistent with the premise that the City defer to RFTA not only for service delivery, but most other aspects of the conventional fixed route system serving the City. This would result in creating a single identity for the fixed route system, along with a single schedule offering the most frequent (affordable) service. The future deployment of flex route/e-hailing service assumes pursuing a performance-based competitive procurement.

5.1 Planned Improvements

A preferred approach of the City is to ultimately discontinue traditional fixed route RGS service and transition towards more flexible and responsive transit service delivery via microtransit solutions. Further, City Council desires to transition directly to the realignment of RFTA's Valley Local service via North Glenwood while simultaneously implementing a City-wide ride-hailing (e-hailing) service, over the next two-year period. To this end, the following phased approach is recommended:

Phase 1: Work with RFTA to Address Fare Integration and Logistical Issues Relating to Realigning Local Valley Bus via North Glenwood

(Spring 2018)

A. Fare Integration

Building on current discussions, City and RFTA officials shall continue dialogue on fare equalization. As previously discussed in Section 4.2, the current fare differential between RGS and Valley Local services (and transfer policy to all regional services) is one key reason why passengers prefer to take the RGS route rather than the Valley Local.

In developing a fair and equitable fare strategy, discussion of fare integration will include, but not be restricted to:

- Fare policy including rates, concession fares, discounted stored value cards, passes;
- Transfer policy;
- RFTA farebox limitations (to accommodate additional fare types);
- Cost sharing/allocation strategies to address any fare revenue losses;

- Fare integration of future microtransit or ride-share service with fixed-route transit services;
- Prospect of future cashless fare strategies (with digital payment options); and
- Net impact on service productivity and farebox recovery.

B. Logistical Issues Relating to Realigning Local Valley Bus via North Glenwood

Targeting for a realigning of the Local Valley bus in the first quarter of 2020, organizational and planning considerations will need to be identified and addressed. At a minimum, such considerations will include:

- Detailed service planning addressing net impact of run and route recovery times;
- Opportunities to mitigate any inconsistencies in on-time performance currently affecting RFTA's down valley transit services;
 - Opportunities for a *tripper* (a short piece of work on a bus and a short block made up of one or two bus trips) as a strategy to mitigate this to some extent.
- Bus stop locations and amenities;
- Capital asset management plan including the prospect of transferring RGS bus ownership to RFTA;
- Development of a cost-allocation model to reflect fair and equitable compensation for appropriate incremental costs incurred by RFTA; and
- Recognition that the realigning of Local Valley bus would be done in consort with the implementation of City-wide ride-share (e-Hailing) service.

Further, as discussed in Section 4.2, there is the need to discuss the prospect of relocating the West Glenwood transfer point. In addition to responding to existing ridership patterns, there are a number of additional benefits that might be realized by moving the transfer point to the West Glenwood Mall. The mall provides a more visible park and ride location and trip-linking opportunities for customers who use the park and ride. The Bustang regional service would end at the mall, eliminating duplication of BRT and Valley Local service to the 27th Street Station and providing easier access from I-70.

This recommendation is based on our observations of routing efficiency. Multiple factors may impact its feasibility, including the wishes of the Mall ownership, future plans for redevelopment of the area, and operational considerations such as availability of bus loading space, bus stop amenities, possible access to a restroom for bus operators, and customer parking.

Phase 2: Realigning Local Valley Bus via North Glenwood and City-Wide Ride-Hailing (e-Hailing) Services

(First Quarter - 2020)

Re-Route Local Valley Bus via North Glenwood:

Discontinue RGS fixed route service entirely and reroute the Valley Local via North Glenwood on the RGS alignment to West Glenwood Mall and terminating at the West Glenwood Park and Ride lot. This would maintain a one-seat ride for City residents



traveling to the West Glenwood Mall that currently is provided by the RGS route. Existing Valley Local operation on Wulfsohn Road, Midland Avenue and 8th Street between Glenwood Meadows and Downtown would be replaced by flex-route or City-wide ride hailing service.

Phase 2 assumes that all fixed route services are provided by RFTA, which would consolidate service, branding and schedules, and hence, simplifying the service for passengers.

City-Wide Ride-Hailing (e-Hailing) Services: Phase 2 includes the deployment of **RGS e-Ride** service. **RGS e-Ride** will be a directly subsidized microtransit/ on-demand ride hailing (e-Hailing) of shared ride service in sedans, SUVs or vans.

Recognizing the limited data on ridership patterns in currently unserved areas and the need to assess current demand in the area previously served by the south route (which had been eliminated due to low ridership), a City-wide e-Hailing service would provide the flexibility and scalability to respond to demand and related market forces. Further, with the understanding that a substantial portion of existing customers will be absorbed by the realignment of the RFTA Valley Local service, it is anticipated that City-wide e-Hailing will create mostly "new" customers and it may take time to grow this ridership.

There is a growing number of examples in which transit agencies, cities and other governmental entities are collaborating with microtransit providers to facilitate personal mobility through ride-hailing services. Examples were presented previously in Section 4.2.4. As presented, sponsoring agencies only pay for trips taken (or the equivalent of hours used). Further, alternate scenarios exist for the provision of ride-hailing vehicles ranging from, as mentioned, collaborating with ride-share or microtransit companies to having the City purchase vehicles and leasing them to an operating company (which may include RFTA⁹) to operate.¹⁰

RGS e-Ride would provide trips to anybody in the community for trip origins and destinations within the City of Glenwood Springs. Service would be available to accommodate all discretionary and non-discretionary trips (no trip purpose restrictions), operating 7-days a week between the hours of 6:00am and 10:00pm. **RGS e-Ride** may charge a \$2.00 fare with a maximum trip cost of \$9.00 (hence a subsidy of \$7.00 per trip). Conversely, the fare structure may be modified to promote certain trip types such as commuters or specific communities (service coverage on Donegan Road., Mountain Valley and Red Mountain), whereby a \$1.00 fare may be charged during the hours of 6:00am-9:00am and 4:00pm-7:00pm, for example.

RGS e-Ride would enable residents or visitors to e-Hail eligible trips from their smartphones. For example, using the phone app of the participating transportation company (i.e., TNC or taxi company), the rider can input “RGS e-ride” in the payment section in order to receive the discounted rate. Ride costs of \$1 or \$2 plus the additional fare for rides that would otherwise exceed \$9.00.

As has been common place with transit agencies deployment of e-Hailing, on-demand mobility services, it is suggested that the City implement **RGS e-Ride** as a pilot program in order to refine a specific on-demand concept prior to full transition. This mobility service provides the flexibility and scalability to respond to ridership demand and possible changes in market conditions. The latter may include when schools are in session, seasonal fluctuations, special events, etc.

A summary of Phase 2 service and financial performance characteristics is presented in Exhibit 5-1.

⁹ RFTA drivers are currently prohibited from accessing electronic devices while driving.

¹⁰ HyperLink - the Hillsborough Area Regional Transit Authority's (HART) solution to getting people to and from bus stops for \$3 a trip – have launched the use of Teslas providing ride-share service in the USF area.

Exhibit 5-1: Phase 2 Service and Financial Performance Characteristics

Base Year (FY16)	Gross Operating Cost	Revenue Hours	Gross \$/Hour	Gross \$/Trip
	\$882,000	9,860	\$89.45	\$4.76

Phase 2: Realign Local Valley Bus via North Glenwood and City-Wide Ride-Hailing (e-Hailing) Services					
Phase 2	Service	Service Span	Frequency	Revenue Hours	Operating Cost
	Realign Local Valley bus [1]	6:00am-8:00pm*	30 min.	approx. 1,645	\$147,145
	RFTA route trippers (Grand Ave.) [2]	5 hour spread*	30 min.	3,520	\$314,865
	RGS e-Ride [3]	6:00am-10:00pm	on-demand	equivalent of 4,700	\$420,000
Total Operating Cost					\$882,010

* To coordinate with RFTA planning/scheduling personnel to determine the net impact on route and recovery times.

- [1] The revenue hour and cost assumptions presented for the realignment of the Local Valley bus represent the incremental cost for the marginal increase in trip distance and hence, travel time for the North Glenwood alignment. Based on an estimated 1,645 annual revenue hours at the prevailing rate of \$89.45 per hour, the gross operating cost is \$147,140. Specific impacts on route run times and recovery times will need to be coordinated with RFTA planning/scheduling personnel.
- [2] Reflects the assumption that 2 buses will be needed for 5 hours per day between the hours of 1:00pm to 6:00pm to mitigate down valley travel delays. The hours and duration (spread) may be adjusted to reflect specific times of day best suited to mitigate travel delays.
- [3] The \$420,000 figure for this service was used to result in a total operating cost comparable to the FY16 gross operating cost for RGS transit services. The equivalency hours were calculated using the prevailing rate of \$89.45 per hour. Based on a subsidy of \$7.00 per trip (as previously presented), the operating cost of RGS e-Ride service would translate to 60,000 annual passenger trips. It is assumed that this level of service may be an upper limit for a mature pilot program.

For comparative purposes, based on the equivalency 4,700 revenue hours and 60,000 annual passenger trips, this translates to close to 12.8 passenger trips per hour. Further, 60,000 annual passenger trips represent approximately one-third of current RGS ridership.

5.2 Fleet

Presently, the RGS route uses three 40-foot buses to provide the service, with one bus normally acting as a spare. Two of these buses are well beyond their useful life and are targeted for replacement with smaller 30' vehicles in the near future. The recommended service approach is to ultimately discontinue the RGS service and transition towards microtransit solutions. That said, RGS service will continue for the better part of the next two years or longer depending on the time frame for RFTA realignment.

Advancing a fleet plan is contingent on outcomes from Phase 1 discussions between City and RFTA officials regarding a capital asset management plan including the prospect of transferring RGS bus ownership to RFTA.

Further, for the future implementation of City-wide ride-share service, the City needs to determine if there is an appetite to purchase small capacity vehicles (i.e., sedans or minivans) and lease them to an operating company or agency.

In going forward, it is not recommended that the City purchase any new full-size transit buses.

5.3 Financial Plan

Financial Projections: The 2018 Glenwood Springs budget anticipates total transportation revenue of nearly \$1.37 million. Exhibit 5-2 illustrates projected total funding and funding by source from 2018 through 2022.

Exhibit 5-2. Funding Source Projections (FY 2018-2022)

FY	FUNDING SOURCE (PROJECTED FY 2018 - 2022)								Projected Annual Funding
	Sales Tax	Street Tax Fund	Audit Revenue	Federal Grants	Advertising	Farebox Revenue*	Interest Income	Misc.**	
2018	\$982,200	\$19,400	\$2,000	\$252,900	\$9,000	\$100,000	\$800	\$1,000	\$1,367,300
2019	\$1,033,274	\$19,264	\$1,880	\$253,659	\$10,980	\$96,000	\$912	\$1,050	\$1,417,019
2020	\$1,087,005	\$19,129	\$1,767	\$254,420	\$13,396	\$92,160	\$1,040	\$1,103	\$1,470,019
2021	\$1,143,529	\$18,995	\$1,661	\$255,183	\$16,343	\$88,474	\$1,185	\$1,158	\$1,526,528
2022	\$1,202,992	\$18,862	\$1,561	\$255,948	\$19,938	\$84,935	\$1,351	\$1,216	\$1,586,804
Projected Total	\$5,449,000	\$95,651	\$8,870	\$1,272,110	\$69,656	\$461,568	\$5,288	\$5,526	\$7,367,670
*Note: Farebox policy and implementation milestones will have a large impact on farebox revenues; therefore, the projection is consistent with other line items.									
*Note: Miscellaneous expenses are projected to increase by 5% per year.									

The projections are based on 5-year trends for individual revenue sources that are shown in Exhibit 5-2. Total revenue over the period is foreseen at nearly \$7.4 million and the total annual funding is expected to grow by more than \$200,000 by 2022. The annual gain of slightly less than 3% speaks to a conservative fiscal approach.

Sales tax shows the largest anticipated growth at 5% year. The street tax fund has been historically flat and shows a slight decrease of nearly 1% per year. Federal operating grants have also remained relatively flat at less than .5% increase per year. The only other significant revenue source is farebox revenue, which is assumed to remain flat.

The Phase 2 service and financial plan (Realign Local Valley Bus via North Glenwood and City-Wide Ride-Hailing (e-Hailing) Services) assumes stable funding. Increases or decreases in funding will impact on the anticipated levels of service presented. The services presented are flexible and scalable and able to be adjusted as necessary.

The deployment of e-Hailing, on-demand mobility services as a pilot program will enable the City to get some demonstrable operating experience prior to a full transition. The monitoring of the pilot program performance will provide for a better sense as to demand and validate ridership estimates, and an opportunity to adjust levels of service to respond to passenger demand, travel patterns, and fiscal constraints. Further, based on community acceptance and utilization, the scalability of this mobility service is such that the City may choose to adjust subsidy levels and use fare policy as a means of influencing travel behavior and passenger demand.

The financial plan as presented in Exhibit 5-1 reflects total operating costs for service. The realignment of the Local Valley bus and deployment of a City-wide ride-hailing mobility service will require an additional level of administrative staff effort and monies for a comprehensive marketing and communications strategy.

Appendix A: Outreach Presentation Material



Glenwood Springs

TRANSIT OPERATIONS PLAN



April 2017

Public Transit in Our Community



Transit Operations Plan

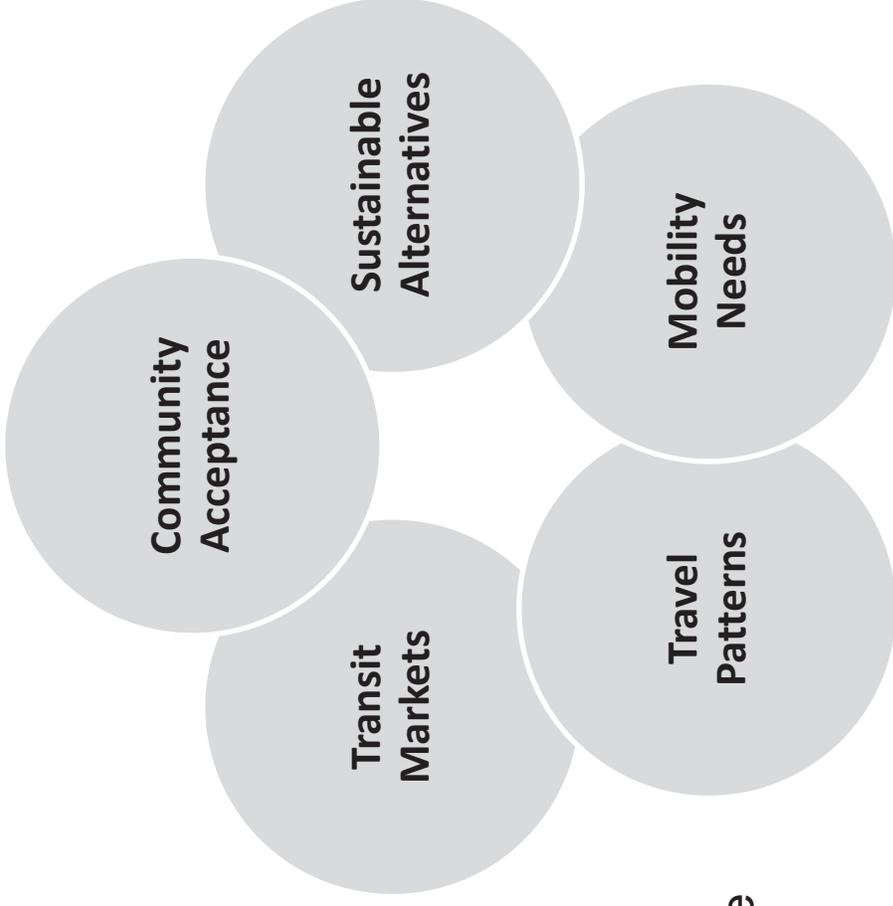
- To determine how public transit may better meet the short-term and longer-term needs of the community
- An Action Plan to guide the implementation of transit service improvements over the next 5+ year period.

- Route Design?
- Regional Coordination?
- Fare Policy & Rates?
- Alternate Delivery Schemes?
- Enhancing Technology?

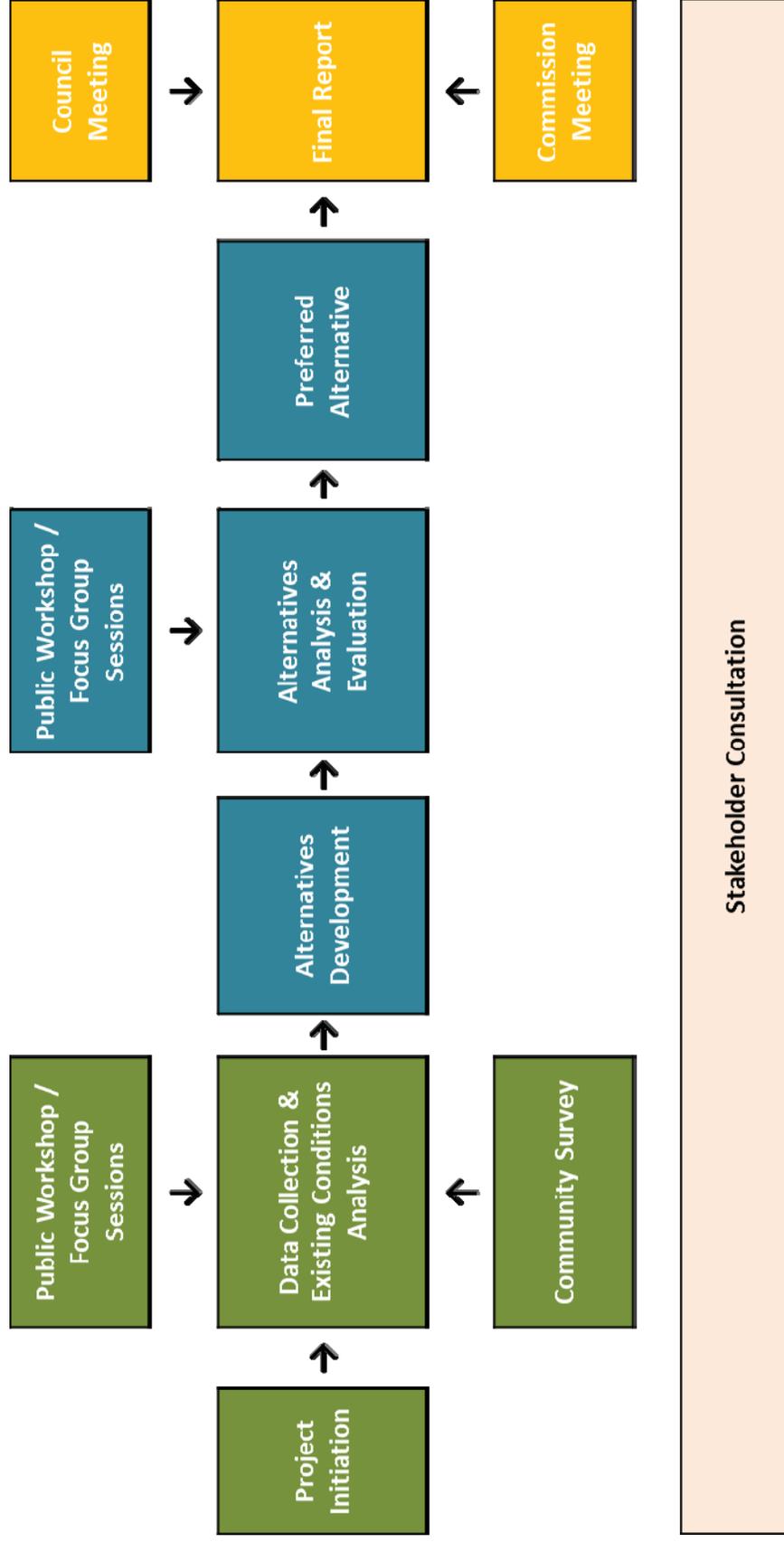


Project Understanding & Approach – Key Considerations

- Problem identification – what is working and what is not?
- What are the City's unmet mobility needs? Regional needs?
- What are the key local and regional origin & destinations?
- What are the critical markets in the study area?
- What kind of service is justified for the study area? Future service requirements?
- What does the community want?



Workflow



Ride Glenwood Springs – Current Operations

Ride Glenwood Springs

- 1 bus route that serves Glenwood Springs
- Daily from 6:53 a.m. to 7:53 p.m.
- 30 minute intervals
- 23 min. one-way trip (16 min. layover at south end/Roaring Fork Market Place / recovery time?)



RGS PERFORMANCE

- 185,000 passengers/year
- \$781k net annual operating cost
- \$4.22 cost/passenger

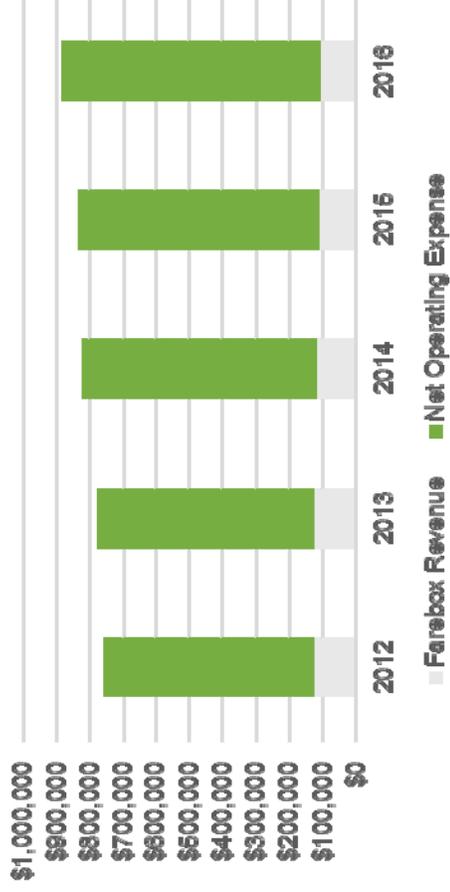
Fare Type	General Public	Senior 65+ & Children
Cash Fare	\$1.00/day	Free
7 Day Pass	\$5.00	
30-Day Pass	\$20.00	

Stored-value passes for \$20 & \$40 worth of bus rides

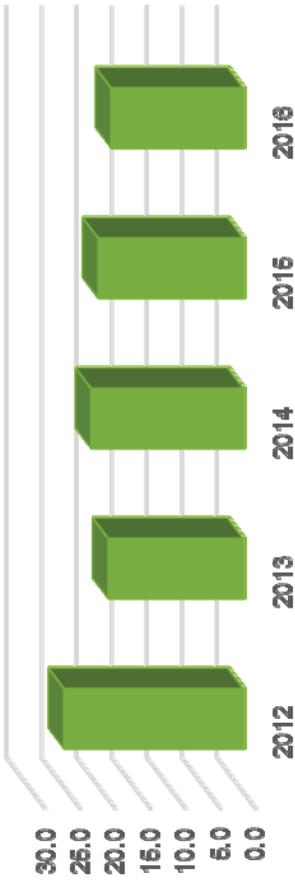


RGS – Operating & Financial Performance

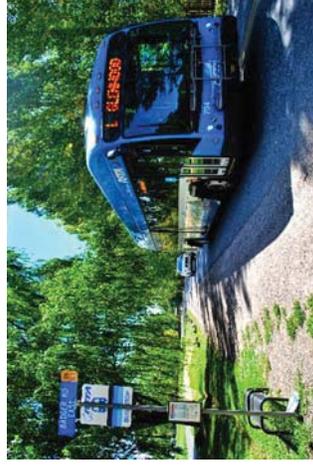
Net Operating Cost and Fare Revenue



Passengers per Revenue Hour



RGS Total Boardings



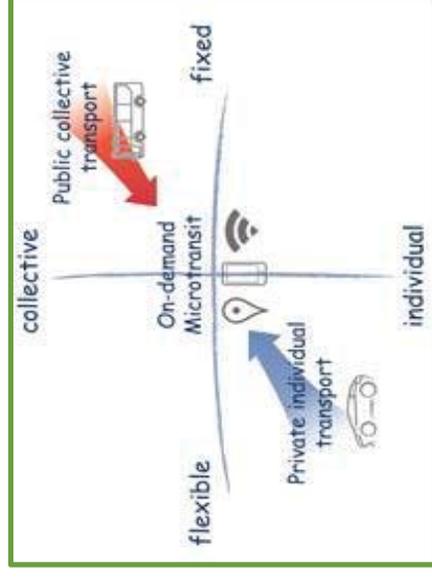
Key Issues/Considerations?

- Declining ridership
- Increased costs
- Declining R/C ratio (farebox recovery)
- Alternate route configurations:
 - 6th Street to Donegan Rd.
 - 7th Street to WalMart (23rd Street Loop)
 - Midland south from 27th Street
- First/last mile opportunities – access to bus stops
- Alternate delivery schemes?
- Other?

OPPORTUNITIES TO BEST MEET TRANSIT/ MOBILITY NEEDS

WHAT ATTRIBUTES WOULD ENCOURAGE INCREASED USE TRANSIT?

- Cost? Convenience?
- Travel Time? Flexibility?
- Technology? Other?



We Need Your Input! Service Improvements?

What types of *Ride Glenwood Springs* transit service improvements would you like to see?

- Better information on how to use *RGS*?
- Later night service? or Earlier morning service?
- More bus stops? More shelters or benches?
- More frequent bus service? Local? Regional?
- Technology - opportunities?
- Downtown circulator?
- Improved bus service to (any specific location)?
- Other?

OPPORTUNITIES TO BEST MEET YOUR TRANSIT/MOBILITY NEEDS

WHAT ATTRIBUTES WOULD ENCOURAGE YOU TO USE TRANSIT FOR SOME OF YOUR TRIPS?

- Cost? Convenience?
- Travel Time? Flexibility?
- Technology? Other?

Thoughts on:

- **Current route design?**
- **Alternate delivery schemes?**
- **Technology – providing real-time customer information?**





Glenwood Springs

TRANSIT OPERATIONS PLAN



October 2017

Public Transit in Our Community



Transit Operations Plan

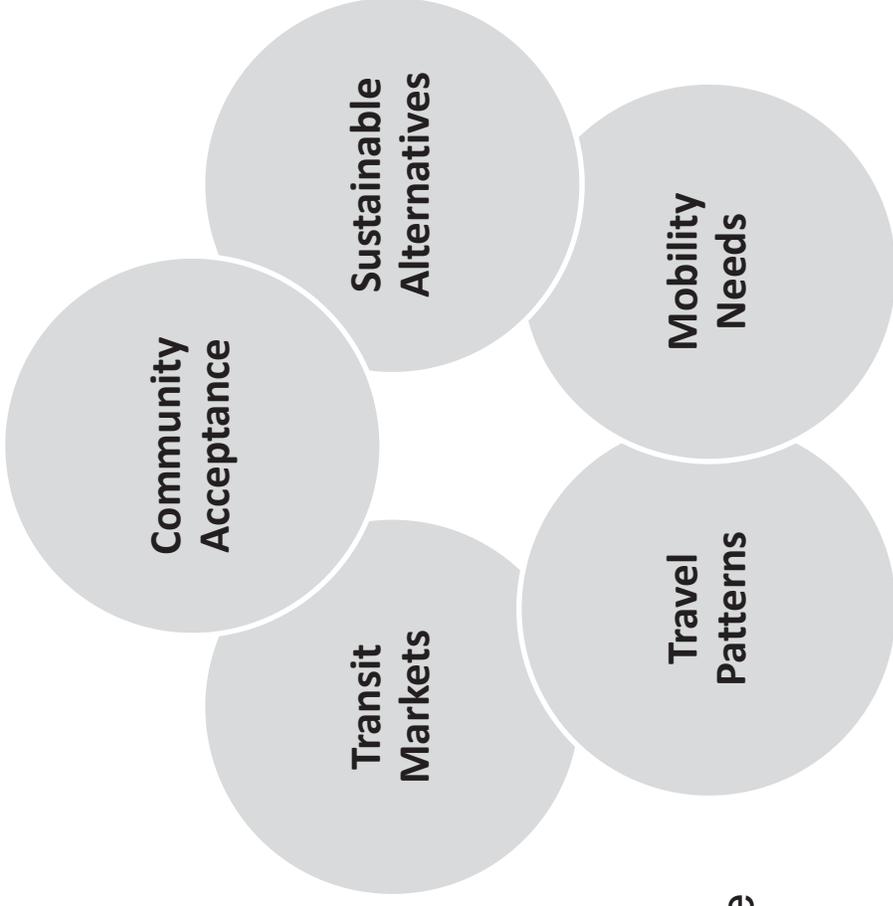
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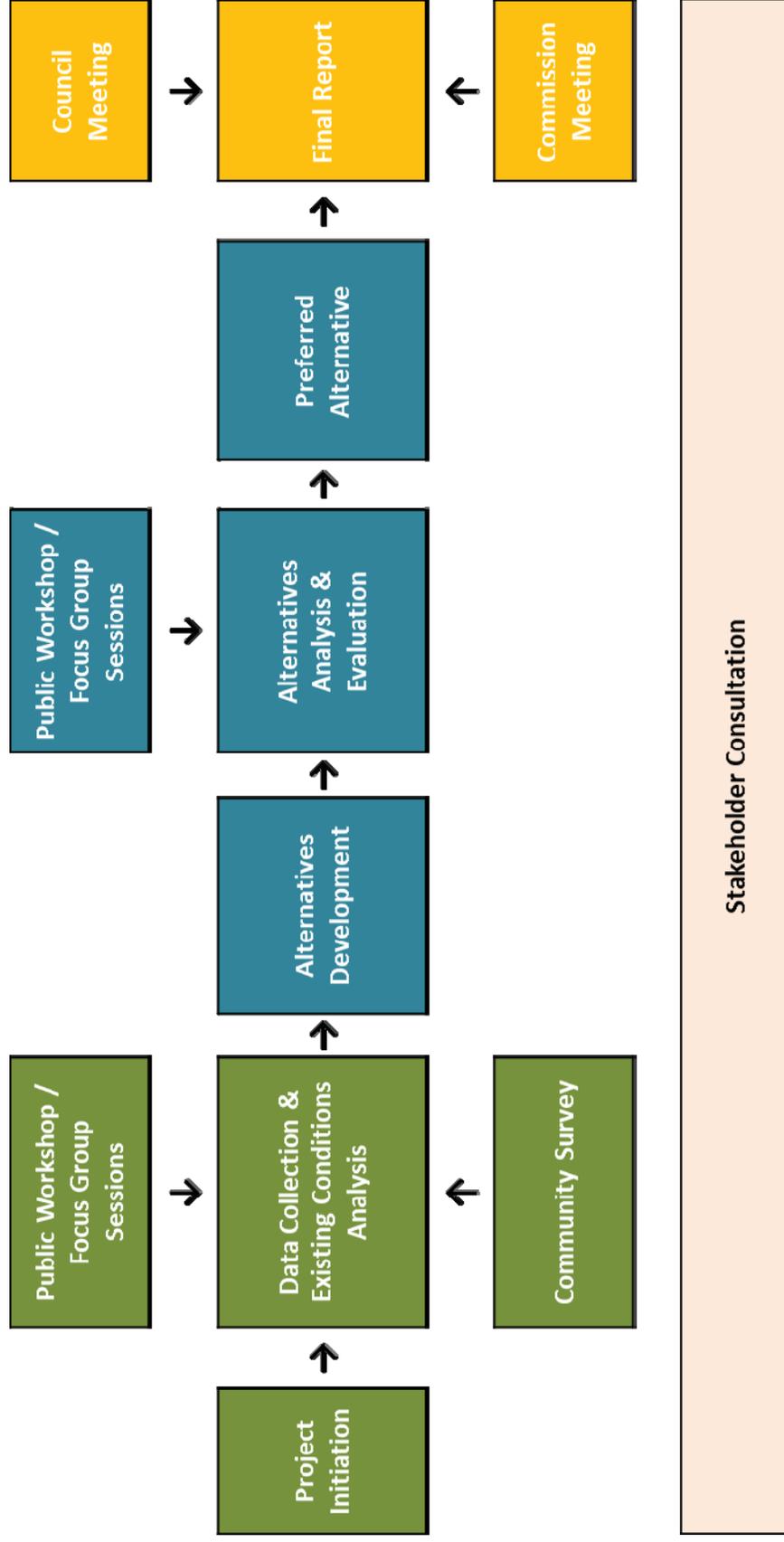


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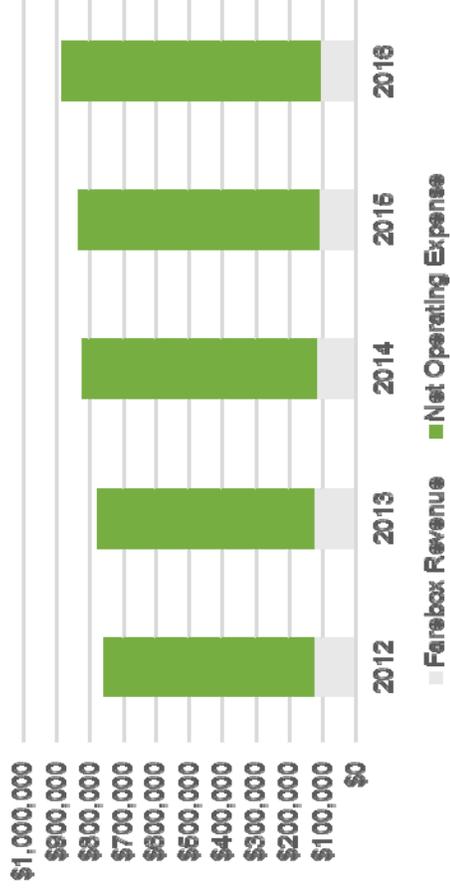
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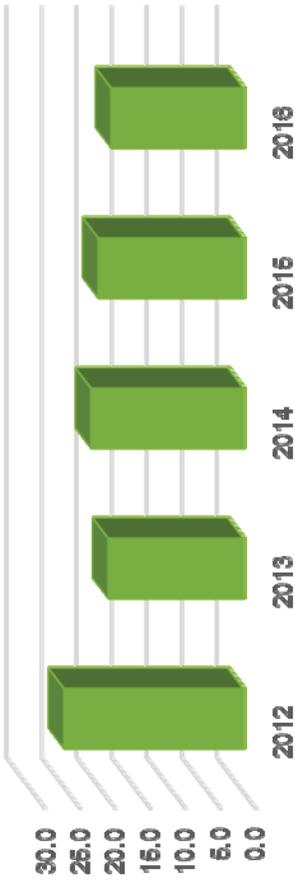


RGS – Operating & Financial Performance

Net Operating Cost and Fare Revenue



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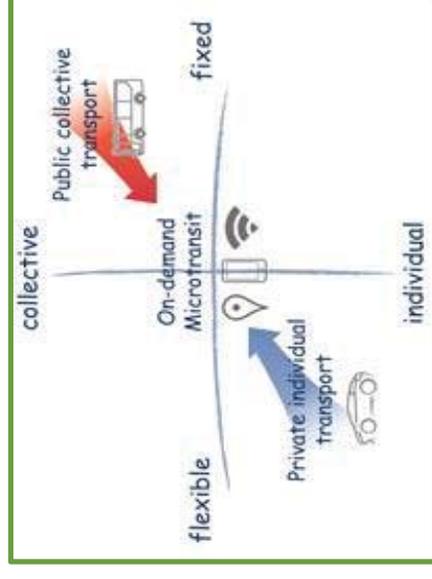
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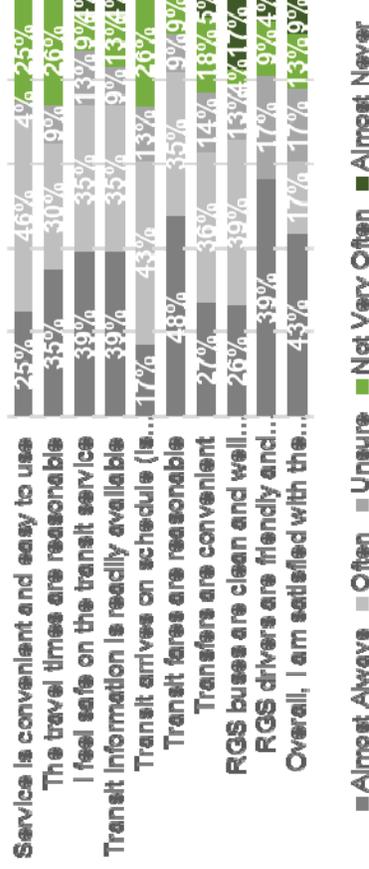


What We heard?

■ Outreach/Consultation & Community Survey

- Survey respondents who use RGS – generally satisfied & fares reasonable

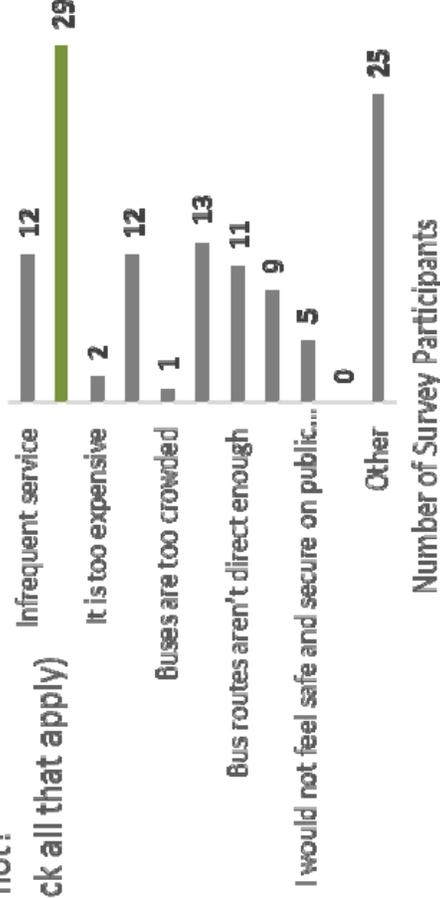
If you use Ride Glenwood Springs (RGS) bus service, what do you think?



- Identified – areas that need improvement:

- service frequency,
- stop location,
- on-time performance
- access to bus schedule information

If you do NOT use Ride Glenwood Springs transit service, why not? (Check all that apply)



What We heard?

Service Improvement Strategies to Address:

- “Doesn’t go close enough to desired destinations
- ”It takes too long to travel by bus”
- Real-time bus arrival information
- Better connectivity to Glenwood Park, the Red Mountain neighborhood, Midland corridor & south Glenwood

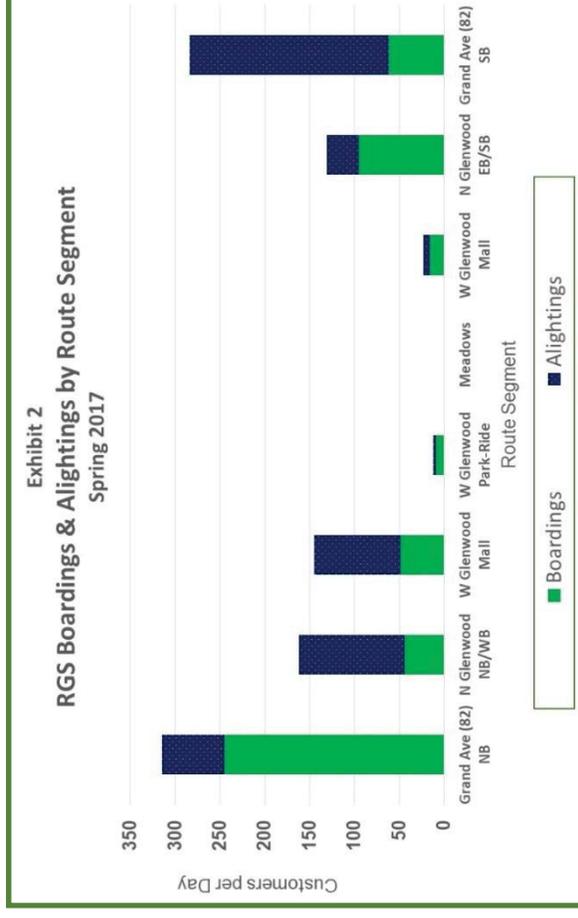
Common themes and concepts brought forth by the community included:

- Duplication of service along Grand.
- Consider fare integration with RFTA.
- Consider a downtown circulator - service tourists & local residents
- Increased use of technology and mobile apps



Service Alternatives - Analysis

- Grand Avenue south of 8th Street - **Nearly 60%** of boardings occur on Grand between 8th St. & Roaring Fork Market Place
- North Glenwood – **Approx. 27%** of boardings occur on 6th St. west of the Grand Ave. Bridge and west on Hwy 6 to Road 135
- West Glenwood Mall – **Approx. 15%** of boardings occur at the mall
- West Glenwood Park-Ride – **Less than 2%** of boardings occur at the park-ride
- RGS route is **busiest along Grand Ave. south of Downtown**
- The **West Glenwood Mall is the busiest stop** on the RGS route



Service Alternatives – Option 1

Reduce RGS to 1 Bus Serving North Glenwood

- One bus operating between Downtown and West Glenwood Mall via the Grand Avenue Bridge, 6th Street and Hwy 6
- Within the Downtown area, two-way operation on Grand Ave. with a terminal loop through south of 9th St. to facilitate transfer connectivity between local and regional routes
- Concurrent extension of the Valley Local route from its present terminus at West Glenwood Park-Ride to West Glenwood Mall located 0.9 mile west via West Wulfsohn Rd. and Midland Ave.



Service Alternatives – Flex or Microtransit Options

- Flex Routing: Blend of *on-demand* service and smaller, purpose built buses, service accessed through mobile phone or e-mail
- Ride-Hailing (*e-Hailing*) – may utilize:
 - 3rd party contractor;
 - transportation network companies - TNCs (Uber, Lyft); and/or
 - traditional taxi companies



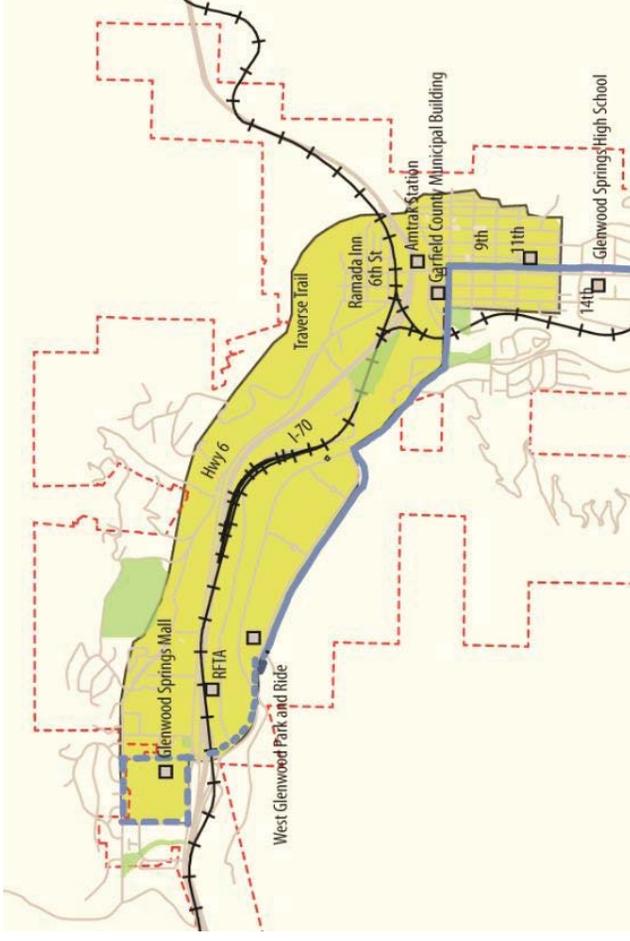
RGS e-Ride



Service Alternatives – Option 2

Flex or Microtransit in North Glenwood

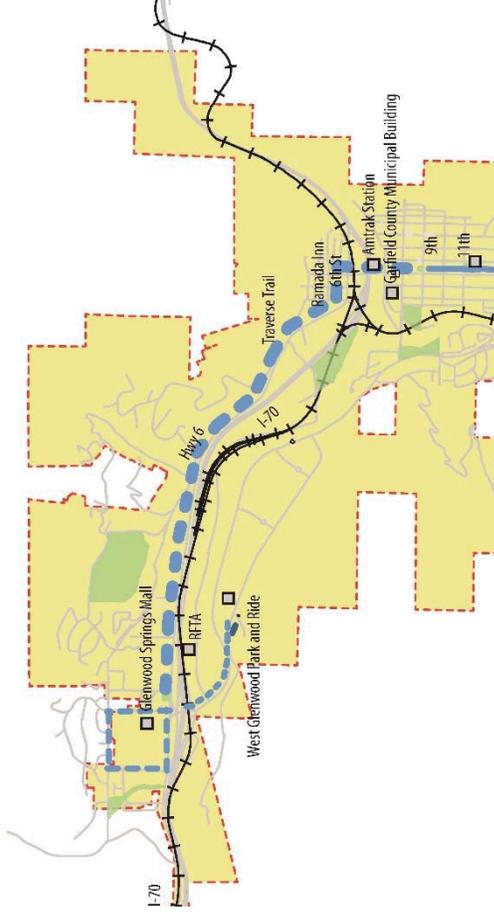
- Discontinue RGS fixed route service entirely
- Cover North Glenwood with a flexible service variation
- Concurrent extension of the Valley Local route from its present terminus at West Glenwood Park-Ride to West Glenwood Mall via West Wulfsohn Rd. and Midland Ave.



Service Alternatives – Option 3

Re-Route Valley Local via North Glenwood

- Discontinue RGS fixed route service entirely
- Reroute the Valley Local via North Glenwood on the RGS alignment to West Glenwood Mall, terminating at the West Glenwood Park-Ride lot
- Existing Valley Local operation on Wulfsohn Rd., Midland Ave. and 8th St. between Glenwood Meadows and Downtown would be replaced by flex-route or city-wide ride hailing service



Fare Policy & Integration?

RGS & Valley Local – fare differential:

- \$1. – unlimited travel/day vs. \$1./one-way fare

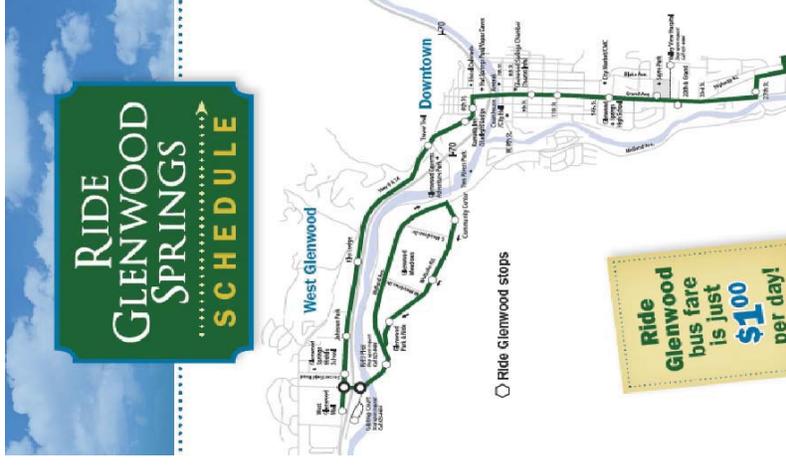
Need for local/regional fare integration:

- Honor RGS day pass on Valley Local within GS?
 - Encourage switch from cash to Day Pass
- Eliminate \$1. Day Pass or increase to \$2.?

Fare Policy: *RGS e-Hailing?*

(directly subsidized microtransit/on-demand ride hailing)

- Example: \$2. fare – maximum trip cost of \$9. – hence subsidy of \$7./trip.
- Opportunity for fare differentials? (i.e., \$1. during commute hrs.)





Glenwood Springs

TRANSIT OPERATIONS PLAN

We Need Your Input!

Service Improvements? Thoughts?

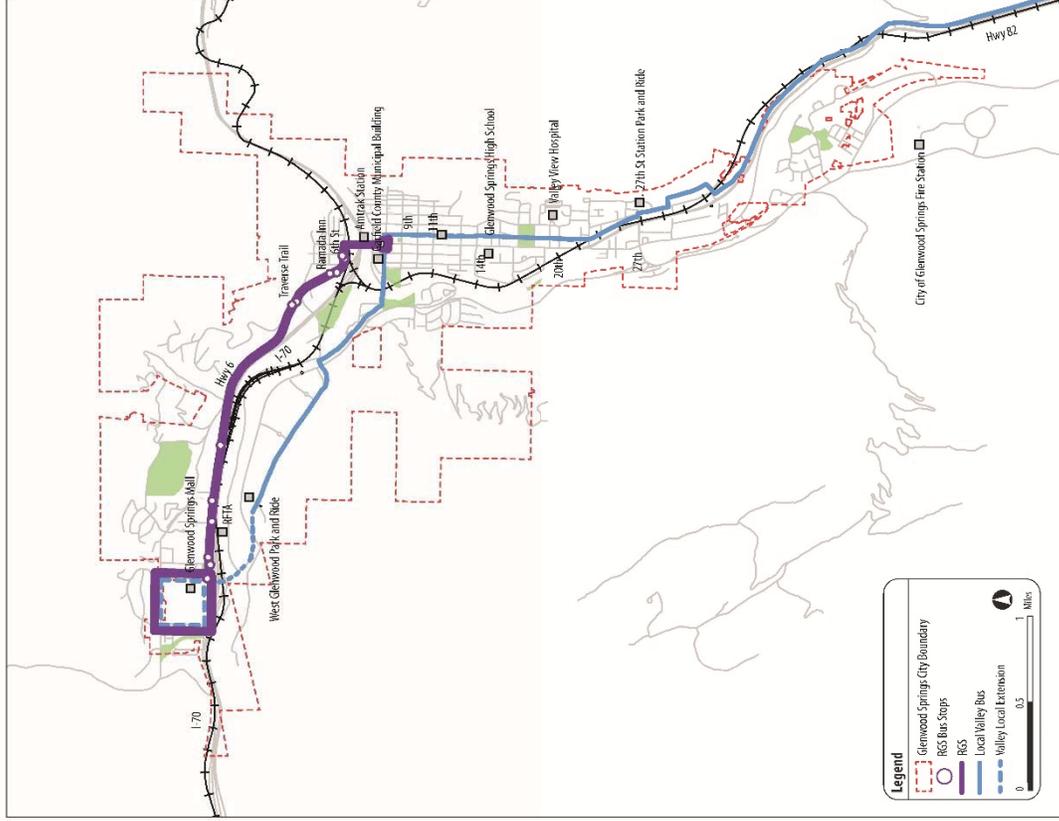
THANK YOU



October 2017

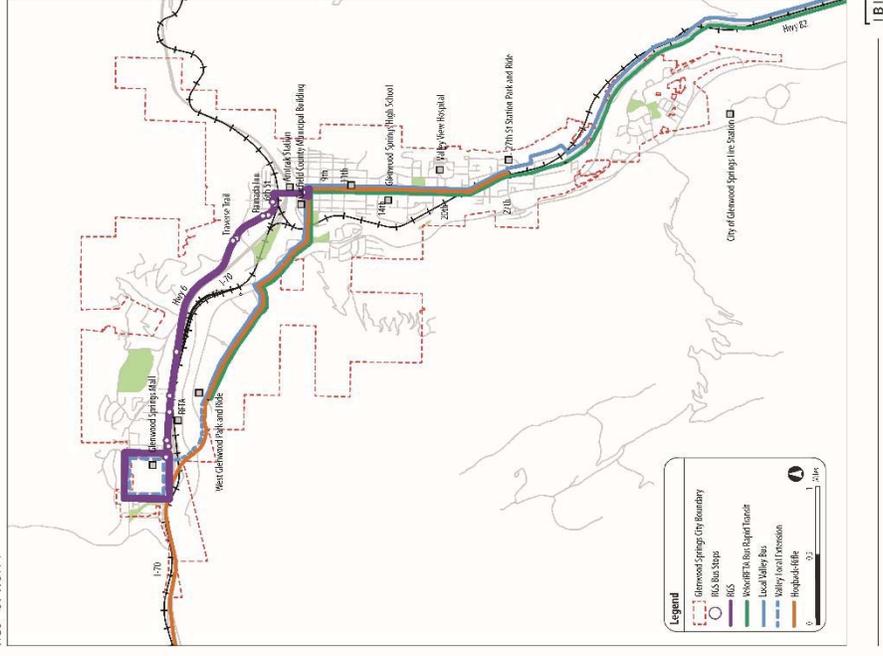
Service Alternatives – Option 1 (cont.)

RGS - OPTION 1



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RGS - OPTION 1

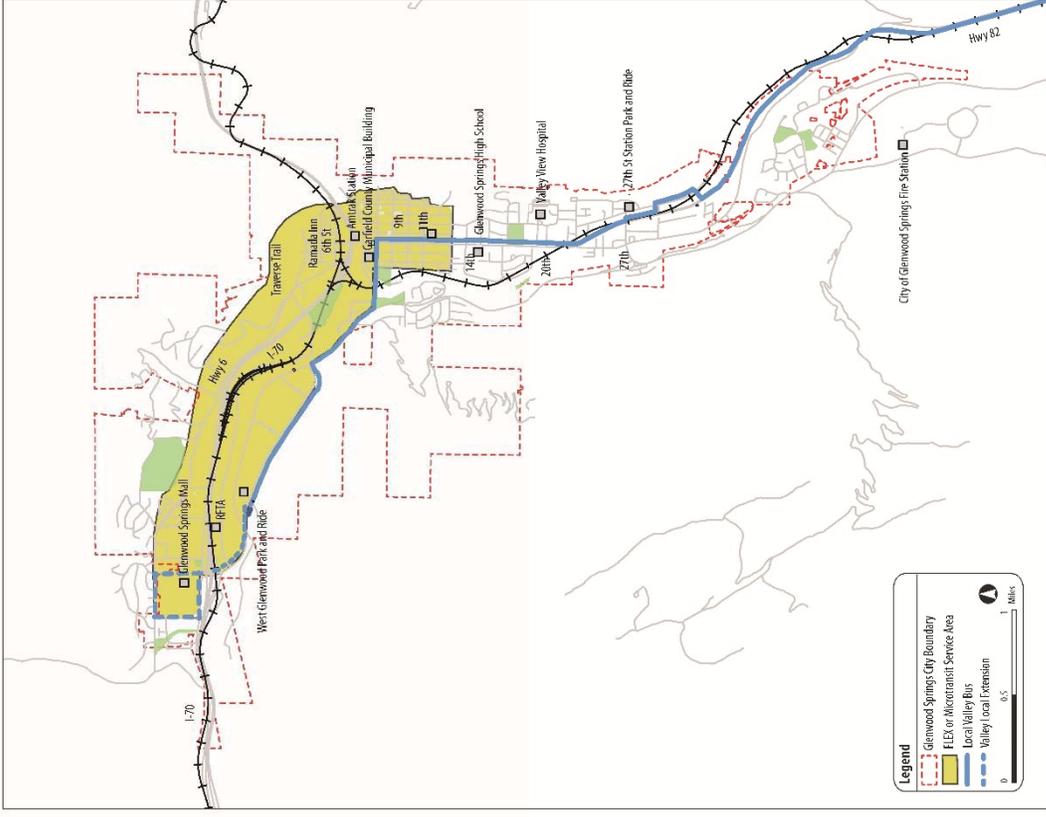


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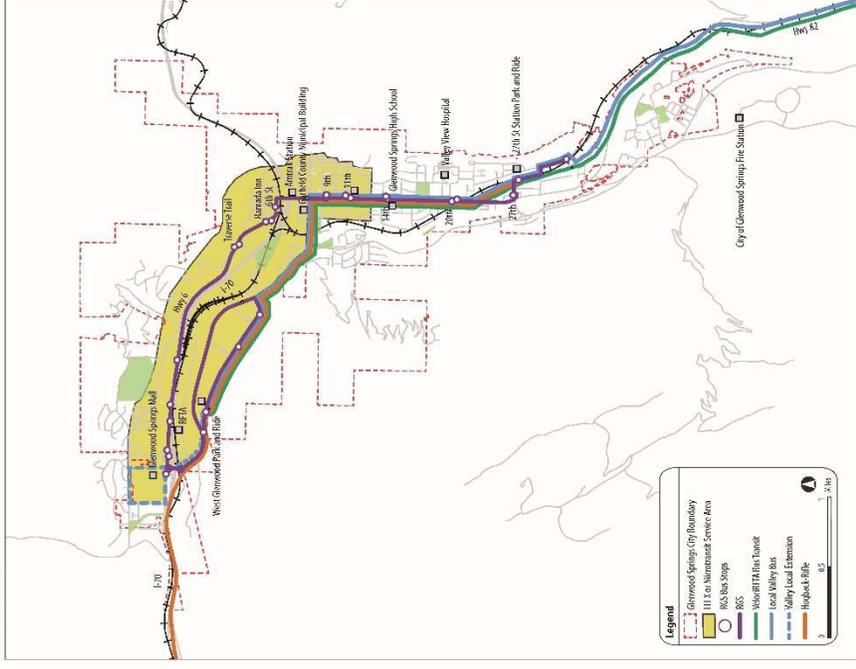
Service Alternatives – Option 2 (cont.)

RGS - OPTION 2



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RGS - OPTION 2



[B1]

Service Alternatives – Option 3

