ROARING FORK TRANSPORTATION AUTHORITY

RFTA
Roaring Fork Transportation Authority

Rifle
COLORADO

Transit Circulator Feasibility Study

Draft Final Report

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Executive Summary

The City of Rifle's comprehensive plan outlines a vision for directing growth in a way that creates "a sustainable, highly-livable community with a diverse economic base." There is recognition that as the city grows, transit could serve as one of many catalysts to help the city achieve this goal.

The objective of this study, therefore, is to identify how transit services fit into Rifle's overall vision, and to determine the feasibility of offering such service.

Is transit feasible in Rifle?

Success of a transit system is based on a number of factors. Quantitative factors include utilization and capacity of existing transit services (ch. 1), local land use densities, demographics, the spatial distribution of origins and destinations (ch. 2), and the level of unmet need (ch. 3).

Once it has been determined that there is a need for transit based on a comparison of supply and demand, feasibility becomes a function of qualitative factors including community goals, local perceptions about the need for transit, and the levels of public and political support for transit (ch. 4). Within these constraints and guidelines, a variety of service options (ch. 5), funding options (ch. 6) and governance and management options (ch. 7) can be evaluated.

Key findings and recommendations relating to each of these factors is summarized below.

The Need for Transit: Key Findings from Chapters 1, 2, and 3

With the Traveler currently in operation, existing services are meeting the basic mobility needs of seniors and people with disabilities. Similarly, the RFTA Grand Hogback route serves basic regional commuter trips and some internal circulation in Rifle, north of I-70. Yet, there remain unmet needs. New land uses in South Rifle including the Grand River Hospital, Wal-Mart, and the Colorado Mountain College are too far for many residents to access on foot. For individuals who are unable to drive and are ineligible for the Traveler (anyone without a disability under the age of 60), access to these sites is only possible by taxi or by trips provided by family and friends. During times the traveler does not operate (weekends and evenings), there is essentially no local transit service in the City of Rifle.

Land Use densities – which currently range between approximately 2.5 and 5 units per acre at the neighborhood level in the City of Rifle – are at the threshold of being able to support demand responsive or low-frequency fixed-route public transit services. Given these land use patterns and the identified unmet needs, a well-designed and adequately funded transit service would likely generate sufficient ridership to be considered a success.

Project Goals: Summary of Chapter 4

Early in the planning process, the City of Rifle organized a stakeholder committee to advise the consultant on matters pertaining to the planning process. Stakeholders were consulted via stakeholder interviews and through two planning workshops: a goal setting workshop and a service planning workshop.

Prior to designing a service to meet the identified needs, the stakeholders were asked to provide input on the role of transit in Rifle's overall vision for the future. The stakeholders and the project team agreed that in order to be successful, the study and resulting recommendations will need to:

- Follow a process that communicates how transit fits into the short and long-range goals of the Rifle community
- Improve access to community resources
- Provide an efficient service that is financially sustainable
- Provide a service that supports and contributes to economic development
- Facilitate sustainable mobility by providing alternatives to driving alone

These goals were used to evaluate potential service options as part of the service planning workshop, and resulted in the selection of the recommended service configuration described in Chapter 5.

Recommendations: Summary of Chapters 5, 6, and 7

The recommendations outlined in Chapters 5, 6 and 7 address service options, funding options, and management and governance options based on the needs and goals identified in Chapters 1 through 4. Each of the recommendations is summarized below.

Service Configuration

The recommended service option is a fixed-route with stops on Railroad Avenue and Airport Road operating weekdays at 30-minute frequencies during the morning and afternoon peak commute periods and 60-minute intervals during the remainder of the day. To serve the various land uses and trip purposes in the corridor, it is recommended that service be offered from 6:00 am until at least 10:00 pm, Monday through Friday (see figure 5-11 on page 5-13).

Supplementing the recommended fixed-route service, it is also recommended that the Traveler be utilized to provide complementary ADA paratransit service (a statutory requirement of the Americans with Disabilities Act), as well as general public dial-a-ride service in outlying residential areas. Under this recommendation, additional resources would be provided to the Traveler to ensure that the level of service currently being offered to seniors is not affected.

Funding Options

Based on an evaluation of a wide range of funding options, it is recommended that the service be funded with Federal operating, administrative and capital support through the Federal Transit Administration's Section 5311 Grant program using a new sales tax as local match. Depending on the governance option selected, a sales tax rate between 0.30 percent and 0.40 would be needed for the recommended service option. To ensure high utilization rates, fares are not recommended for the fixed-route portion of service. However, to control demand, a relatively high fare ($3 – $4 per ride) should be charged for public access to the Traveler. This will ensure that individuals needing a ride have access to the service without overwhelming the Traveler with new trip requests.

Advertising and public-private partnerships are also identified as a source of supplemental program income.

Governance and Management Options

Although five options were considered for the governance and management of the recommended service, only two are recommended for further consideration. The first option (identified as Option 1 in Chapter 7) involves Rifle joining the RFTA RTA with passage of a sale tax. The

second option (identified as Option 3 in Chapter 7) involves Rifle passing a sales tax (either by forming its own RTA, or by raising the general sales tax and earmarking the difference for transit), and contracting for service with RFTA.

While elimination of the other options was made on technical grounds, determining whether to choose between these two remaining options is a political decision that will need to be made by the City of Rifle.

Next Steps

Immediate next steps include the following:

- **Application for CDOT funds:** The Colorado Department of Transportation (CDOT) is the state administrator of Federal Transit Administration funds. In order to obtain funding through the Section 5311 program, the City of Rifle will need to apply for funding through CDOT starting in April 2011. Applications for funding are made on a two-year basis. If Rifle wishes to implement service before 2014, an application will need to be submitted immediately.
- **Public Hearing/Public Involvement:** Up to this point, this study has been primarily an internal effort with limited public involvement. It will be important to conduct one or more public workshops or open houses to review, discuss, and seek input on the various options identified in this plan.
- **Plan revisions:** Although not specifically included in the step-by-step implementation plan, plan revisions are an important part of the implementation process. The City of Rifle should update this plan to reflect new information collected during the implementation process. Routes and service patterns, funding options, and other elements can and should be updated to reflect the changing needs of the community. In fact, one of the first updates will accompany the decision to either join RFTA or to form an independent RTA within Rifle.

Chapter 7 outlines a step-by-step implementation plan with additional details on next steps.

Chapter 1. Existing Services

This chapter provides an overview of existing transit services in the City of Rifle and the surrounding area. A description of each service follows. Existing transit services are summarized in Figure 1-5 at the end of this chapter on page 1-5. The information in this section was informed through internet searches for transportation providers in the area, communication with local officials and stakeholders, and existing plans including the Intermountain Transportation Coordination Plan and the RFTA/ECO Transit Connector Feasibility Study.

Public Fixed-Route Transit

At this time, the Roaring Fork Transportation Authority (RFTA) provides the only general public transit service in Rifle via its Grand Hogback Route which is described in greater detail below. This service connects Rifle to the larger RFTA service area which includes Aspen, Snowmass Village, Pitkin County, Basalt, a portion of Eagle County, Carbondale, Glenwood Springs and New Castle. At this time, Rifle is not a member of the RFTA, but RFTA carries service contracts with both Garfield County and the City of Rifle.

RFTA Grand Hogback Route

Currently, the Grand Hogback Route is the only fixed-route transit service to serve Rifle. It began operations in 2002 and currently operates a morning and evening service seven days a week connecting the cities of Rifle, Silt, New Castle, and Glenwood Springs. The route travels on US Highway 6 between Rifle and New Castle and on Interstate 70 between New Castle and Glenwood Springs. The one-way trip length is reported to take approximately 40-50 minutes.

In Rifle, the Grand Hogback Route serves the Colorado Department of Transportation (CDOT) Park and Ride Lot at the intersection of Highway 6 and Centennial Parkway, with stops along Railroad Avenue in downtown Rifle and Metro Park. Other major destinations of the route include the Roaring Fork Marketplace in Glenwood Springs and the West Glenwood Springs Park and Ride. These locations serve as transfer points to other destinations in the RFTA service area. Service hours of operation are relatively consistent for both weekdays and weekends. Weekend service frequency is slightly lower. Figure 1-1 provides an illustration of local stops and routing in Rifle.

Monday through Friday, there are four AM and five PM eastbound trips from Rifle to Glenwood Springs. Alternatively, there are two AM and five PM westbound trips from Glenwood to Rifle. Service on weekdays operates from 5:15 AM to 9:55 AM, then from 3:05 PM to 8:55 PM.

Saturday and Sunday offers two AM and three PM trips in both directions. Bus frequency during operating hours is typically hourly with some minor deviations. Service on weekends operates from 6:45 AM to 9:55 AM, then from 3:05 PM to 8:55 PM. Figure 1-2 and 1-3 below, illustrate the Grand Hogback Route's service schedule.

While no operational changes are scheduled at this time, the Intermountain Transportation Coordination Plan (2008) does indicate a future need in extending the Grand Hogback Route's service from Rifle to Parachute, CO, located approximately 16 miles to the west. Additionally, the plan notes that additional service frequency is required during the morning and evenings to meet demands.

Figure 1-1 RFTA Grand Hogback Route and Existing Bus Stops

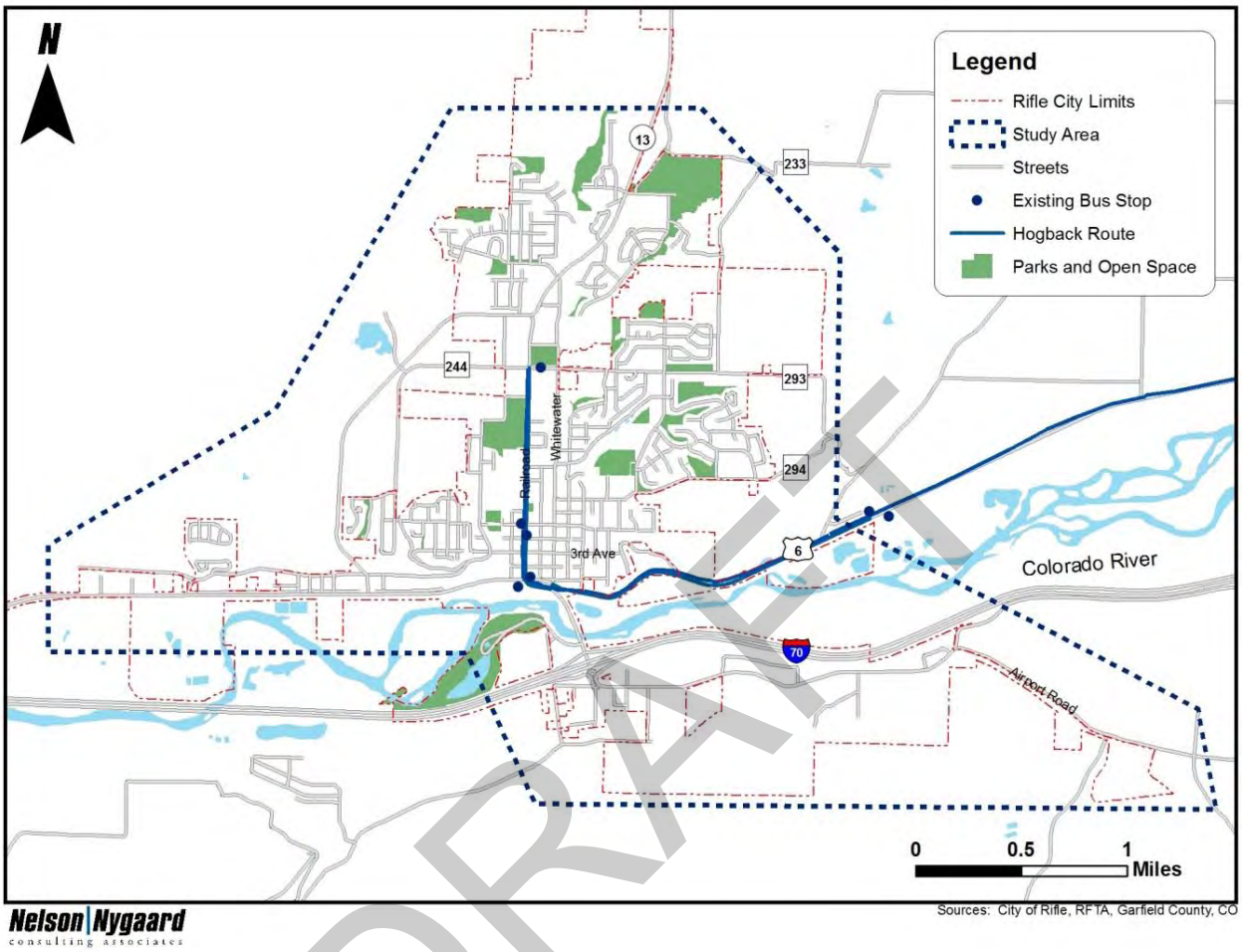


Figure 1-2 Grand Hogback Eastbound Route Schedule

	Rifle		Silt	New Castle	Glenwood Springs
	Metro Park	Park & Ride	Firehouse	6th & Main	Glenwood Park & Ride
AM	5:15	5:20	5:30	5:40	6:05
	6:15	6:20	6:30	6:40	7:05
	6:45	6:50	7:00	7:10	7:35
	9:15	9:20	9:30	9:40	9:55
PM	4:05	4:10	4:20	4:30	4:45
	5:05	5:10	5:20	5:30	5:45
	6:15	6:20	6:30	6:40	6:55
	7:15	7:20	7:30	7:40	7:55
	8:15	8:20	8:30	8:40	8:55

Source: RFTA

Figure 1-3 Grand Hogback Westbound Route Schedule

	Glenwood Springs		New Castle	Silt	Rifle	
	Roaring Fork Marketplace	Glenwood Park & Ride	Convenience Stores	COOP	Park & Ride	Metro Park
AM	5:45	5:57	6:09	6:18	6:30	6:34
	8:05	8:17	8:29	8:38	8:50	8:54
PM	3:05	3:17	3:29	3:38	3:50	3:54
	4:05	4:17	4:29	4:38	4:50	4:54
	5:15	5:27	5:39	5:48	6:00	6:04
	6:15	6:27	6:39	6:48	7:00	7:04
	7:15	7:27	7:39	7:48	8:00	8:04

Source: RFTA

Fares on the Grand Hogback Route range from $1.00 (trips within Rifle) to $5.00 Rifle to Glenwood Springs or vice-versa. As previously noted, the Grand Hogback Route connects Rifle to the entire RFTA service area. Other communities within this service area can be reached through transfers in Glenwood Springs. The complete fare chart for RFTA including destinations on the Grand Hogback Route is listed in Figure 1-4 below. Several discounts are available. Both seniors 65 and older and infants 5 and under may ride the system for free. Youth (6-16 years of age) receive a $1.00 discount. Bicycles can be carried on the system for a fee of $2.00.

Figure 1-4 RFTA System-wide Fares (Grand Hogback Route shaded in grey)

	Rifle	Silt	New Castle	Glen-wood	Carbon-dale	El Jebel	Basalt	Woody Creek	Brush Creek/82	Snowmass	Aspen
Rifle	$1.00	$3.00	$4.00	$5.00	$6.00	$7.00	$8.00	$9.00	$10.00	$10.00	$10.00
Silt	$3.00	$1.00	$3.00	$4.00	$5.00	$6.00	$7.00	$8.00	$9.00	$9.00	$9.00
New Castle	$4.00	$3.00	$1.00	$3.00	$4.00	$5.00	$6.00	$7.00	$8.00	$8.00	$8.00
Glenwood	$5.00	$4.00	$3.00	$1.00	$3.00	$4.00	$5.00	$6.00	$7.00	$7.00	$7.00
Carbondale	$6.00	$5.00	$4.00	$3.00	$1.00	$3.00	$4.00	$5.00	$6.00	$6.00	$6.00
El Jebel	$7.00	$6.00	$5.00	$4.00	$3.00	$1.00	$3.00	$4.00	$5.00	$5.00	$5.00
Basalt	$8.00	$7.00	$6.00	$5.00	$4.00	$3.00	$1.00	$3.00	$4.00	$4.00	$4.00
Woody Creek	$9.00	$8.00	$7.00	$6.00	$5.00	$4.00	$3.00	$1.00	$3.00	$3.00	$3.00
Brush Creek/82	$10.00	$9.00	$8.00	$7.00	$6.00	$5.00	$4.00	$3.00	FREE	FREE	FREE
Snowmass	$10.00	$9.00	$8.00	$7.00	$6.00	$5.00	$4.00	$3.00	FREE	FREE	FREE
Aspen	$10.00	$9.00	$8.00	$7.00	$6.00	$5.00	$4.00	$3.00	FREE	FREE	FREE

Source: RFTA

Paratransit Services

The term paratransit is most commonly used to refer to specialized demand-responsive transit service provided for seniors and people with disabilities. Historically, the term paratransit has been used to refer to a variety of shared-ride transportation services other than conventional transit service, usually using small vehicles. The principle paratransit provider in the Rifle area is The Traveler, which is discussed in more detail below.

ADA Paratransit Services

As a means for ensuring equal access to public facilities, the 1991 Americans with Disabilities Act (ADA) contains a requirement for providers of fixed-route public transportation to offer complementary paratransit service.

Complementary paratransit is a specialized demand-responsive service provided for people who cannot use fixed-route transit due to a disability. The service is called "complementary" because it is provided, at a minimum, where and when the fixed-route service is provided. It complements fixed-route service by providing additional service needed to make the entire system usable by people with disabilities.

Because the Grand Hogback Route is a regional commuter service – as opposed to a local service – complementary paratransit service is not required in the Rifle area. If a local fixed-route transit service were offered in the Rifle area, this provision of the ADA would be invoked, and complementary paratransit services would be required for eligible customers living within three-quarters of a mile of the proposed fixed-route service.

The Traveler

The Traveler is a non-ADA, demand responsive, door to door, driver-assisted transportation program that serves Garfield County residents including the City of Rifle. The service is geared towards residents who cannot use private or public transportation because it is unavailable, inaccessible, or unaffordable. The program is primarily geared towards the elderly and individuals with disabilities. Eligible riders include people over the age of 60 and people with a disability.

While the program is assisted by RFTA, it remains a non-profit organization and receives support from the Garfield County Council on Aging, Garfield County, the Cities of Carbondale, Glenwood Springs, New Castle, Silt, Rifle, Parachute, the Aspen Community Foundation, private donors and Traveler riders. Approximately 90 percent of The Traveler's operating costs are paid for by Garfield County.

The Traveler operates Monday through Friday from 8 AM to 5 PM. To utilize the service, eligible individuals must schedule a reservation 24 hours in advance and rides are provided on a first-come, first-served basis.

Fares are not fixed and are set as a "suggested contribution." Individuals over 60 years old are suggested to make a donation of $2.00 for each one-way ride within towns and $3.00 for one-way trips between towns in the service area. Trips to/from Grand Junction have a special, higher suggested donation rate. Drivers do not make change.

As of 2005, The Traveler had approximately 550 regular clients with an average of 200 clients using the service each week.

Figure 1-5 below describes additional service characteristics related to the public transportation services serving Rifle.

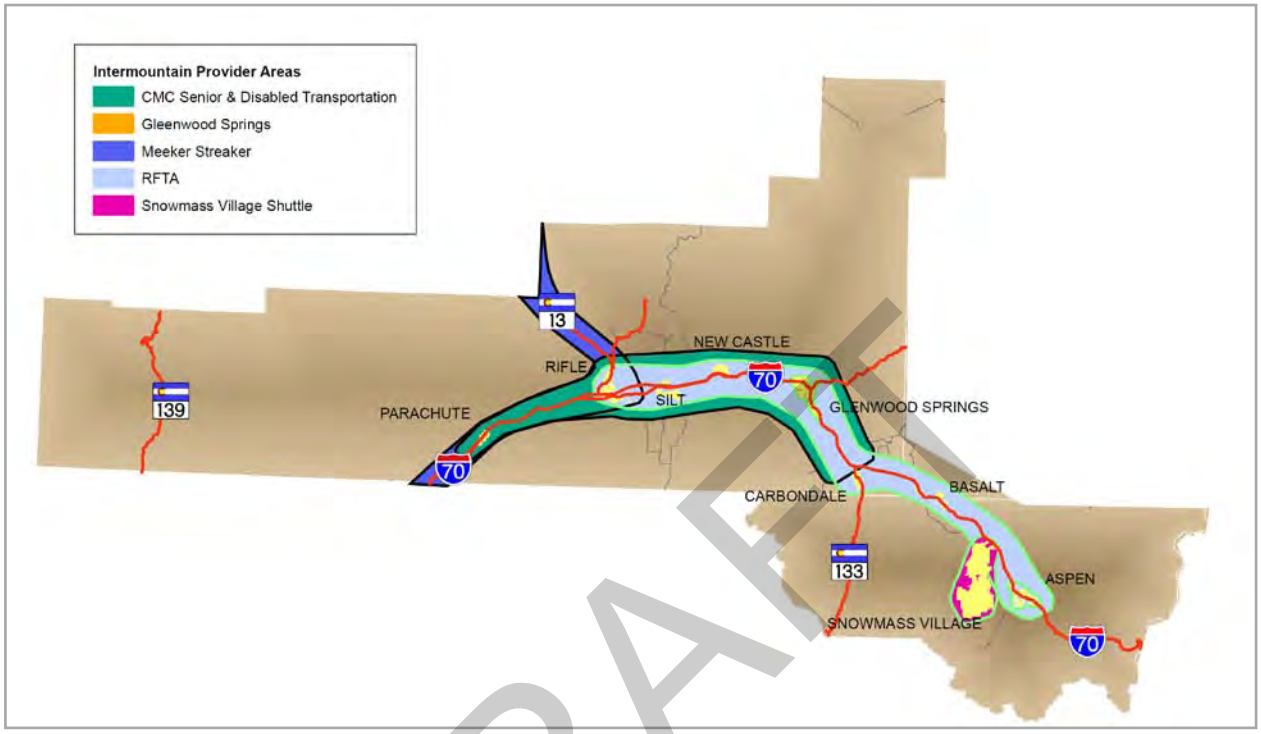
Figure 1-5 Summary of Rifle Area Public Transit Services

	Service Type	Service Area	Annual Vehicle Miles	Annual Vehicle Hours	Annual Passenger Trips	Net Annual Cost	Trips per Hour	Trips per Mile
Grand Hogback Route	Regional General Public Commuter Service	Rifle, Silt, New Castle, Glenwood Springs	196,394	8,746	65,172	$ 662,595	7.45	0.33
Cost Per			$ 3.37	$ 75.76	$ 10.17			
The Traveler	Specialized Dial-a-Ride	Seniors and People with Disabilities within Garfield County	26,183	1,750	4,092	$ 149,617	2.34	0.16
Cost Per			$ 5.71	$ 85.50	$ 36.56			
Ride Glenwood (Comparison)	Local General Public Transit Circulator	Glenwood Springs	131,781	10,753	486,680	$ 874,561	45.26	3.69
Cost Per			$ 6.64	$ 81.33	$ 1.80			

Source: The Traveler, RFTA, and Nelson\Nygaard

Figure 1-6 below illustrates the general service area of public transportation services in the Western Intermountain Region which includes Rifle and surrounding communities.

Figure 1-6 Existing Public Transportation in the Western Intermountain Service Area



Source: Intermountain Transportation Coordination Plan

Note: The CMC Senior & Disabled Transportation service is now known as The Traveler

Regional/National Transportation Services

Amtrak

Amtrak is a nationwide passenger rail service. In FY 2007 annual ridership for Amtrak was 25.8 million passengers. While no Amtrak service exists in Rifle, nearby Glenwood Springs has an Amtrak station that is served by the California Zephyr which traverses between Chicago, IL and Emeryville, CA on a daily basis. Individuals in Rifle can access this rail service via RFTA bus service from Rifle to Glenwood Springs.

Greyhound

Greyhound Bus Lines provides regularly scheduled service to and from the region. Similarly to Amtrak, Greyhound does not have a station or a bus stop in Rifle. However, Glenwood Springs has a full-service Greyhound Station. Through this station, individuals can access the national Greyhound network via the Interstate 70 corridor.

Air Service

Presently, no commercial air services fly to or from the Garfield County Regional Airport (in Rifle) or the Glenwood Springs Municipal Airport. The nearest commercial airport is in Grand Junction, CO, approximately 55 miles to the southwest. Here, individuals can access numerous air carriers.

Presently, there are no public transportation services or private charters that operate scheduled service between Rifle and the Grand Junction Regional Airport. The next nearest commercial airport is in Aspen. Transit connections are available between Rifle and Aspen via the Grand Hogback route. Eagle County airport is also relatively close, but is not currently served by transit from Rifle.

Private Taxi Services

Presently, there are a few private taxi services that serve Rifle, CO, including High Mountain Taxi, Valley Taxi of Glenwood Springs and Big Daddy's Taxi of Rifle, CO. Fares for these services are based on rates set by the operators.

Mountain Valley Developmental Services

In addition to the above mentioned transportation resources, there are other organizations that provide basic levels of transportation service open to specific groups. As an example, Mountain Valley Developmental Services (MVDS) is a non-profit that provides a variety of community-based services to developmentally-disabled adults and children in Eagle, Garfield, Lake, and Pitkin Counties. Presently, the organization has nine group homes and each has a dedicated form of transportation (van or wheelchair equipped van). These vehicles provide transportation for clients living at the homes for the purpose of transporting them to work sites or community participation activities directly related to their developmental programs. Clients are also transported using existing public transportation services such as The Traveler.

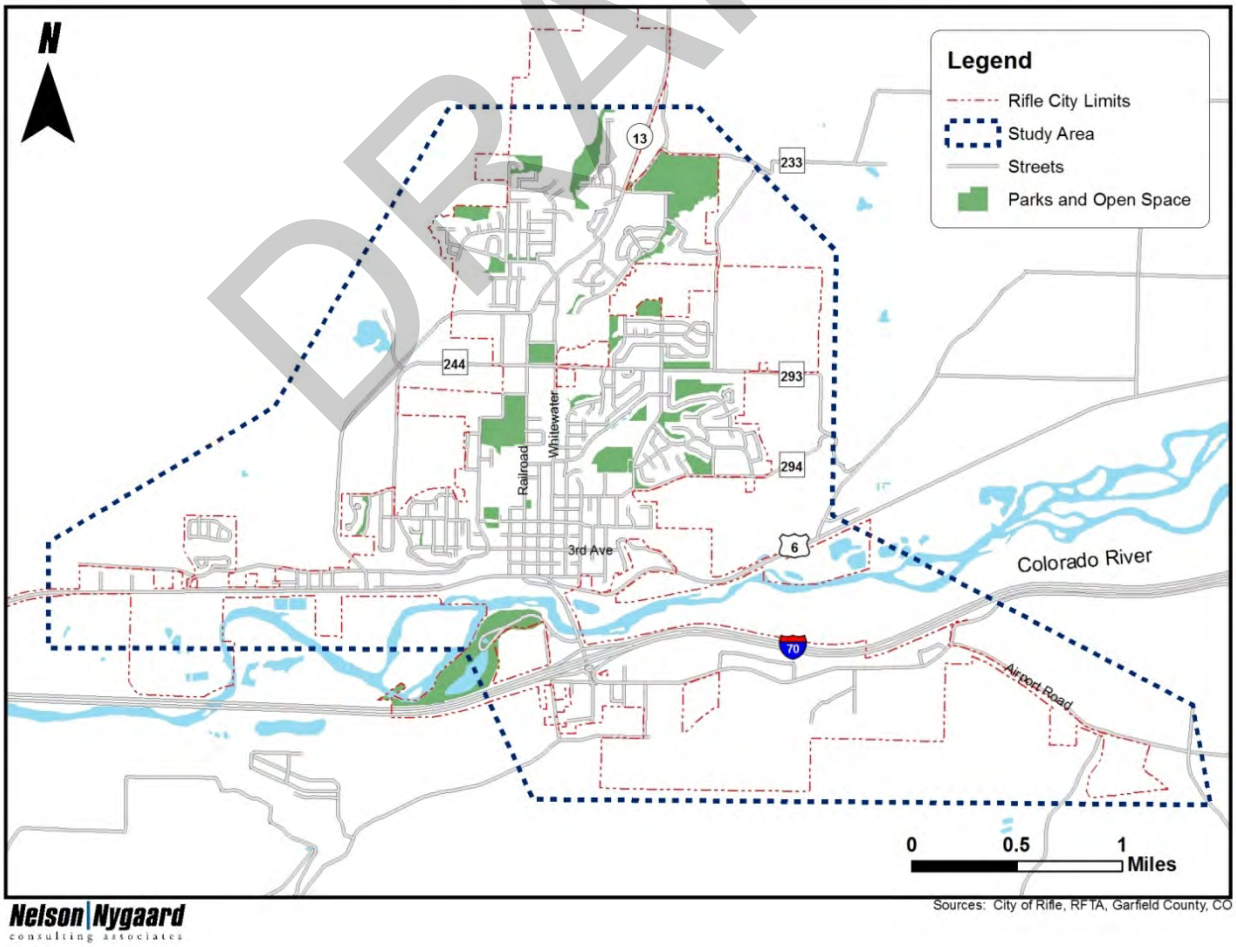
Chapter 2. Community Profile

An essential aspect to planning and designing effective public transportation service is to understand the predominant markets for travel and the populations that are most in need of travel options. While people travel for a variety of reasons, most trips are made between home and work, between home and services such as shopping, medical clinics and hospitals, community or social services, and to visit friends and family. In this chapter, we look to demographic data to understand where people live (trip origins) and at the location of major destinations and places of employment to understand where people travel (trip destinations). The following section highlights the spatial distribution of the Rifle area demographics and land uses, with a focus on demographic groups and activity centers most frequently associated with public transportation use. The results of this analysis are incorporated into the needs assessment (see Chapter 3).

Overview of the Rifle Area

Rifle straddles I-70 and the Colorado River in Western Colorado at the point where the Book Cliffs converge with the Rocky Mountains. The Grand Hogback, a geographic formation to the east of Rifle, forms an eastern boundary to the Rifle area and is the namesake of the regional express bus that connects Rifle to Glenwood Springs.

Figure 2-1 Study Area Reference Map



Growth

The City of Rifle experienced an annual average population growth rate of 4.5 percent between 2000 and 2009, a rate faster than Garfield County (3.52%) and the United States as a whole (1.0%), during the same period. In fact, as shown in Figure 2-3, during the nine year period between 2000 and 2009, Rifle surpassed Glenwood Springs as the county's largest city.

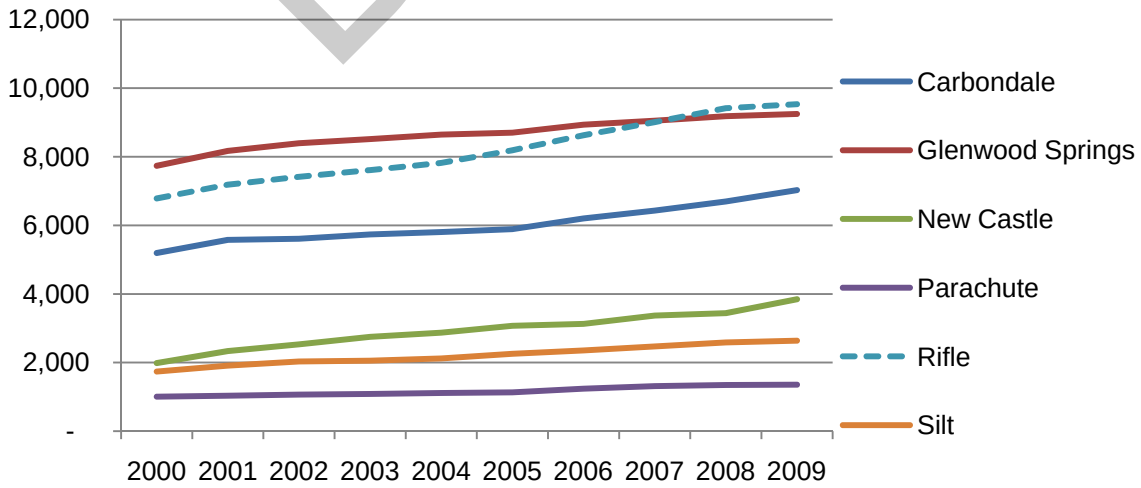
Figures 2-2 and 2-3 present population statistics from the 2000 Census and the 2009 state population estimates prepared by the Colorado Department of Local Affairs State Demography Office.

Figure 2-2 Garfield County 2000 – 2009 Growth Rates

Town Name	2000 Census	2009 Estimated Population	Annual Average Growth Rate
Carbondale	5,196	7,026	3.91%
Glenwood Springs	7,736	9,250	2.17%
New Castle	1,984	3,848	10.44%
Parachute	1,006	1,354	3.84%
Rifle	6,784	9,531	4.50%
Silt	1,740	2,637	5.73%
Total Incorporated	24,446	33,646	4.18%
Balance (Unincorporated)	19,345	24,000	2.67%
Total/Average	43,791	57,646	3.52%

Source: Colorado Department of Local Affairs, State Demography Office

Figure 2-3 Garfield County 2000 – 2009 Growth



Source: Colorado Department of Local Affairs, State Demography Office

Continuing this trend, state demographers expect that Rifle will grow substantially over the next 30 years[1]. The City of Rifle Comprehensive Plan indicates that Rifle will grow from a current population of 9,500 to a potential population that is between 25,000 to 40,000 by the year 2040. The sidebar to the right provides an excerpt from the City's comprehensive plan listing the factors expected to contribute to this unprecedented growth. Recognizing the probability for growth, the Comprehensive Plan is designed to direct and channel development to "create a sustainable, highly-livable community with a diverse economic base."

The Rifle Comprehensive Plan lists the following factors contributing to future growth:

- "Location in the heart of the Western Slope of Colorado, a high-growth region due to its impressive recreational opportunities, climate, and high quality of life
- "Location at the epicenter of significant natural gas and oil shale reserves
- "Location on Interstate 70 and a key railroad corridor that will encourage the growth of commercial and industrial uses
- "Proximity to the Roaring Fork Valley and the Vail Valley, and the lack of growth potential in those areas will push growth to Rifle"

Study Area Demographics

The market for public transportation users is typically divided into two primary groups:

- "Choice" riders who have adequate resources and abilities to operate a private vehicle but choose to use transit because it offers them comparable convenience and/or because of other personal lifestyle and value choices; and
- Transit dependent riders who use public transportation services because they lack the resources to own or maintain a private vehicle, or are unable to operate a private vehicle. Transit dependent individuals are typically characterized by age (older adults aged 65 or more), disability status, income, and households without a vehicle.

While both of these markets are important for public transportation services, each has distinct service needs, preferences, and priorities. Our broad assumption is that there are no definitive demographic characteristics that are linked with choice riders, because for these travelers, using public transportation is a choice. Instead, we understand choice rider travel patterns by looking at the overall demand for travel, which is largely influenced by the location of employment and activity/service centers.

Transit dependent riders, on the other hand, are more easily identified by demographic characteristics that typically indicate challenges associated with operating a private vehicle, such as age, abilities, and income. For purposes of this analysis, we examined the proportion of older adults (people over 60), youth (people under 16), persons with disabilities, persons with lower incomes, and households without a vehicle. The following analysis highlights year 2000 spatial distribution of these populations across the community (see Figures 2-4 through 2-9). Data is presented on the Census Block Group level and is drawn from Census 2000 data[2].

Although ethnicity is not necessarily a sign of transit dependency, RFTA's ridership is comprised of approximately 50 – 60 percent Latino/Latina riders. As such, we have also included a table on

[1] 2010 Rifle Comprehensive Plan

[2] Data for the 2010 census was not available at the time that the analysis for this chapter was conducted. As such, this report relies on relatively old data. Census data in this report is used as a starting point in assessing the need for transit services. Anecdotal and qualitative data are used to supplement and expand the census data and paint a fuller picture of the need for transit services in Rifle.

ethnicity of Rifle and the surrounding communities (drawn from the 2009 American Community Survey) to illuminate the ethnic makeup of the area as well.

Figure 2-4 Census Block Groups

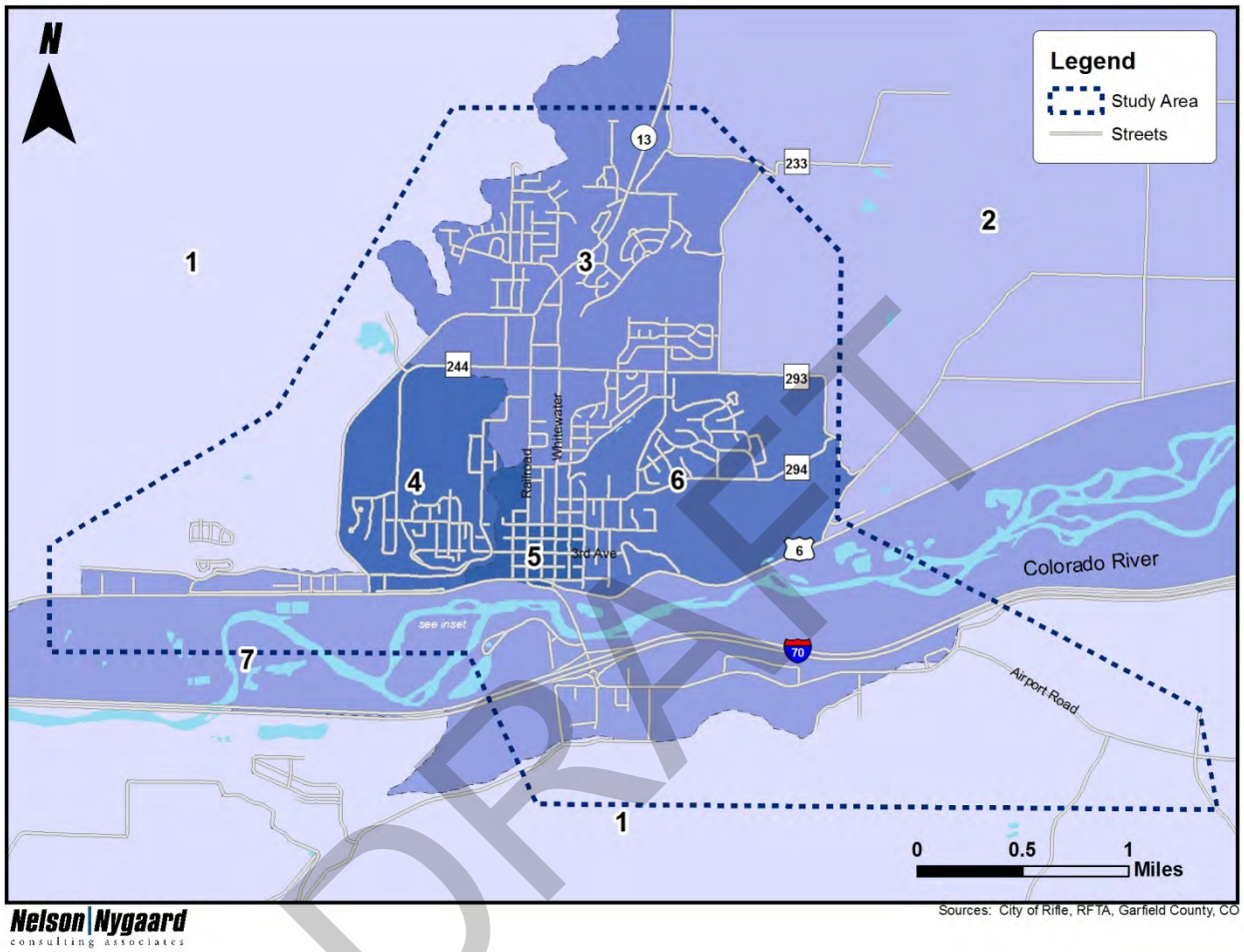


Figure 2-5 Census Data by Block Group

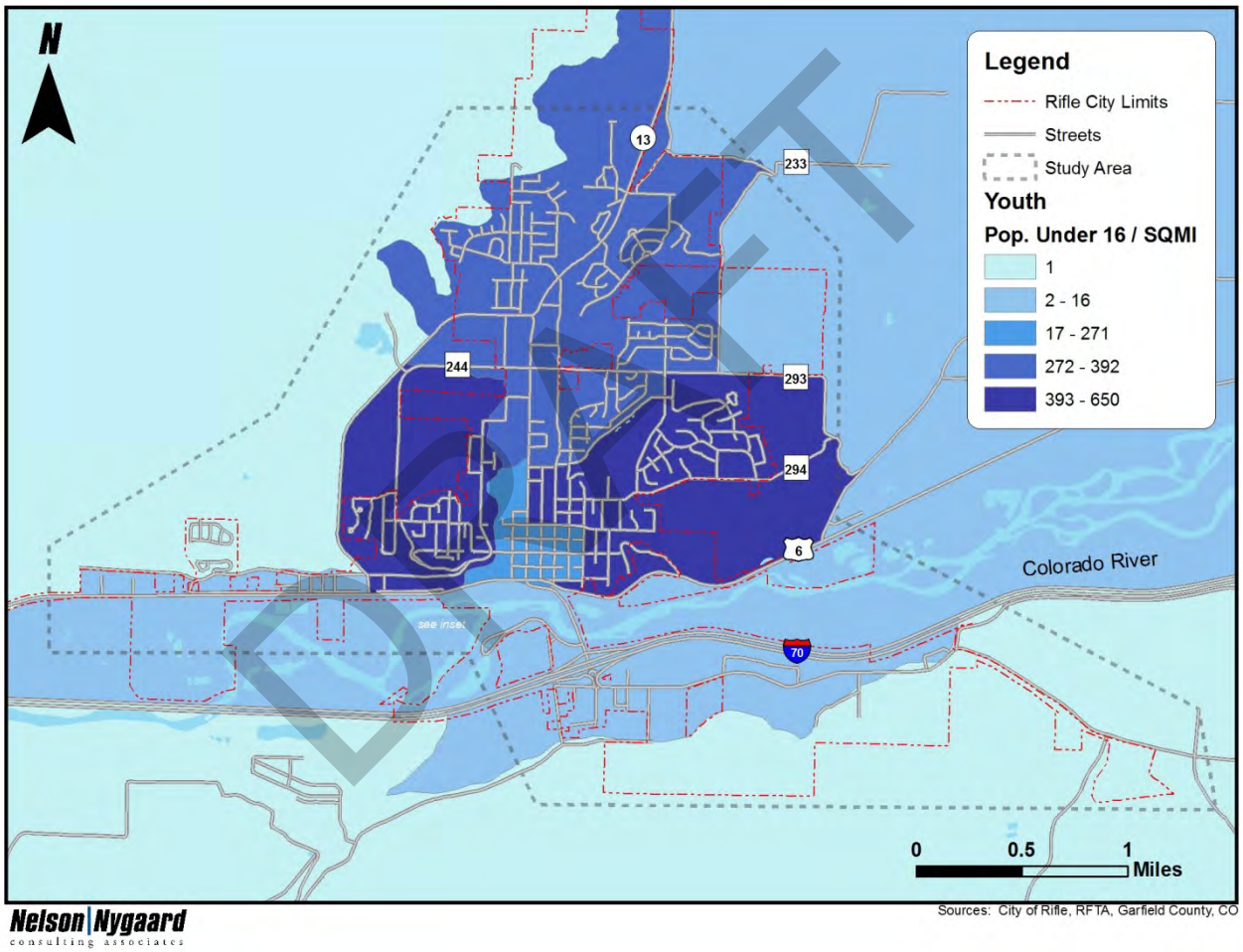
Block Group Number	Total Population	Total Households	Population Under 16	Population Over 65	People with Disabilities	Population Below Poverty Level	Zero Vehicle Households
1	1,223	351	26%	4%	6%	0%	3%
2	1,847	604	28%	5%	8%	12%	2%
3	2,696	937	31%	7%	11%	6%	2%
4	1,512	528	30%	12%	8%	7%	4%
5	490	220	9%	13%	15%	4%	15%
6	2,171	756	28%	18%	12%	9%	9%
7	452	223	15%	24%	28%	2%	4%
Total/Avg.	10,391	3,619	27%	10%	10%	7%	5%

Source: 2000 Census

Youth

Overall, youth make up approximately 27 percent of the Rifle population. Block Groups 1, 2, 3, 4 and 6 each have a relatively similar percentage of children (between 28 and 31 percent) relative to the total population. Block Groups 5 and 7 have significantly fewer children (9 and 15 percent, respectively). In terms of density (see Figure 2-6), Block Groups 4 and 6 rank the highest for number of children per square mile. These trends indicate that youth are concentrated in the single family neighborhoods surrounding Rifle.

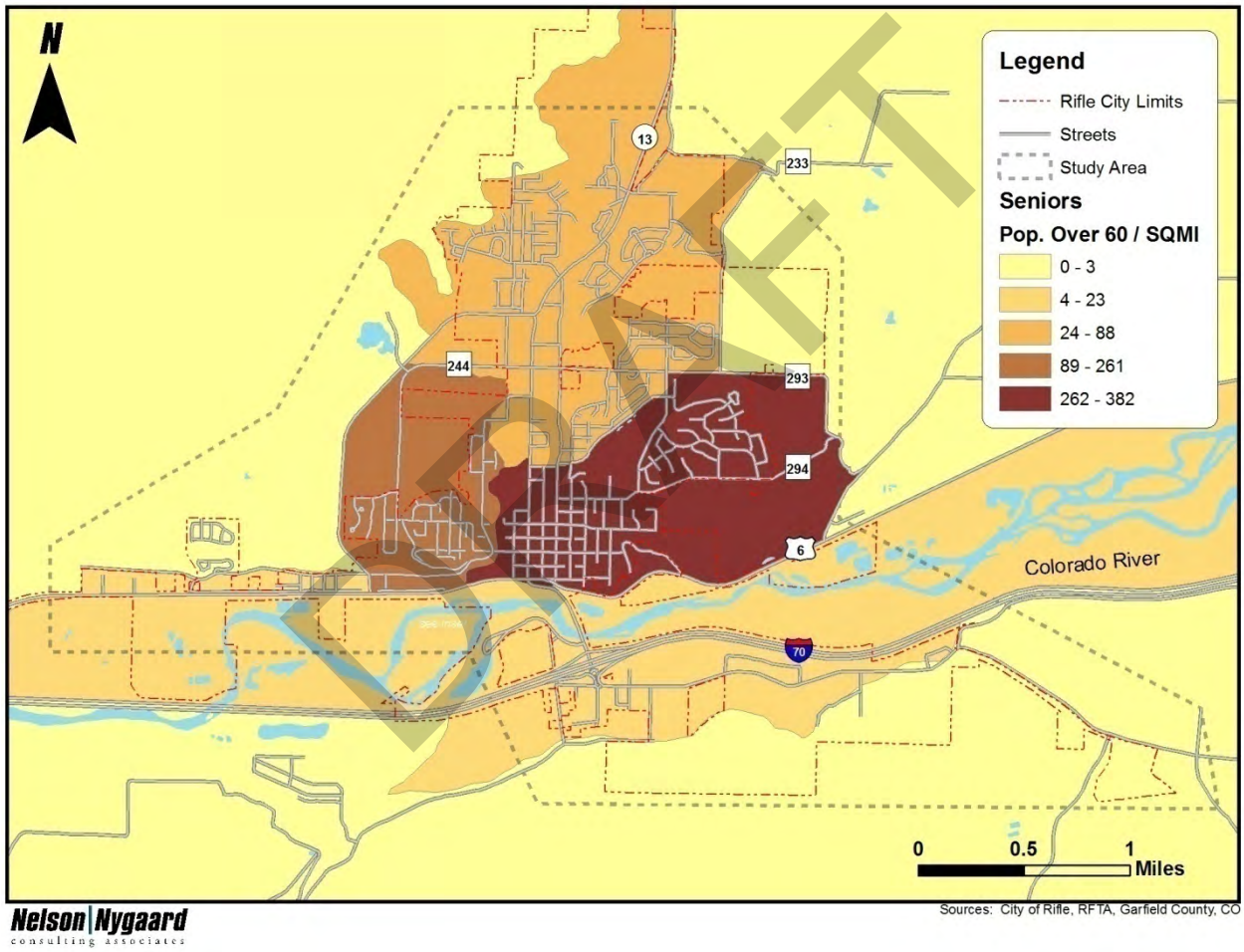
Figure 2-6 Youth per Square Mile



Older Adults

Older adults make up approximately 10 percent of Rifle's overall population. As a percentage of the total population, Older Adults are more concentrated in Block Groups 7 and 6 (see Figure 2-5). In terms of special density (see Figure 2-7), Older Adults tend to be more prevalent in closer-in neighborhoods (including Block Groups 4, 5, and 6) and less prevalent in the outlying areas such as Block Groups 1, 2, and 3. Through our discussions with the City and from our tour of the area, we are aware of the multiple senior housing developments in Block Group 6 (on Ute Avenue).

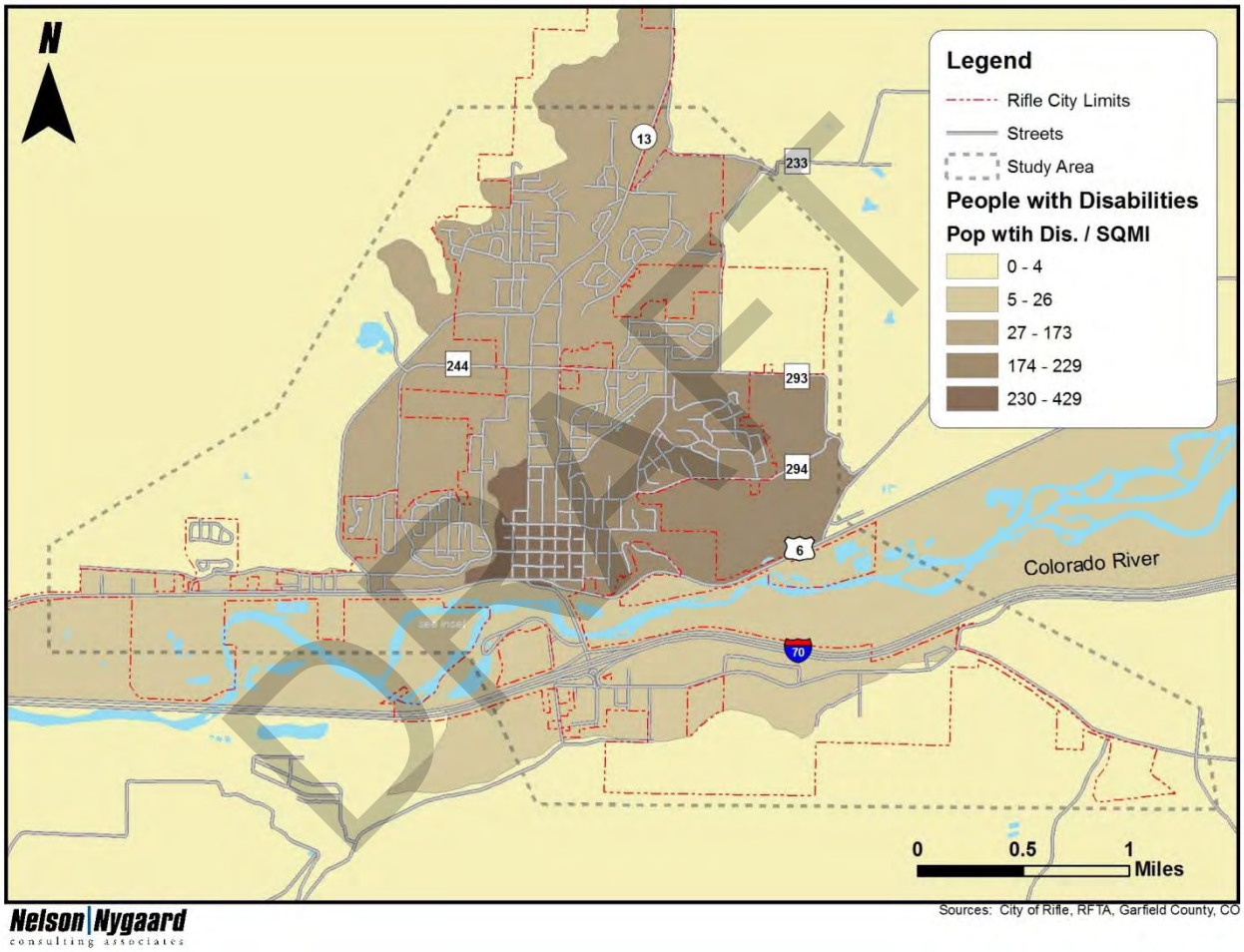
Figure 2-7 Older Adults (60+) per Square Mile



Persons with Disabilities

People with disabilities make up approximately 10 percent of Rifle's overall population. As a percentage of the overall population (see Figure 2-5), there is a disproportionate number of people with disabilities in Block Groups 5 (15 percent) and 7 (28 percent). In terms of density (see Figure 2-8), people with disabilities are concentrated in Block Groups 5 and 6.

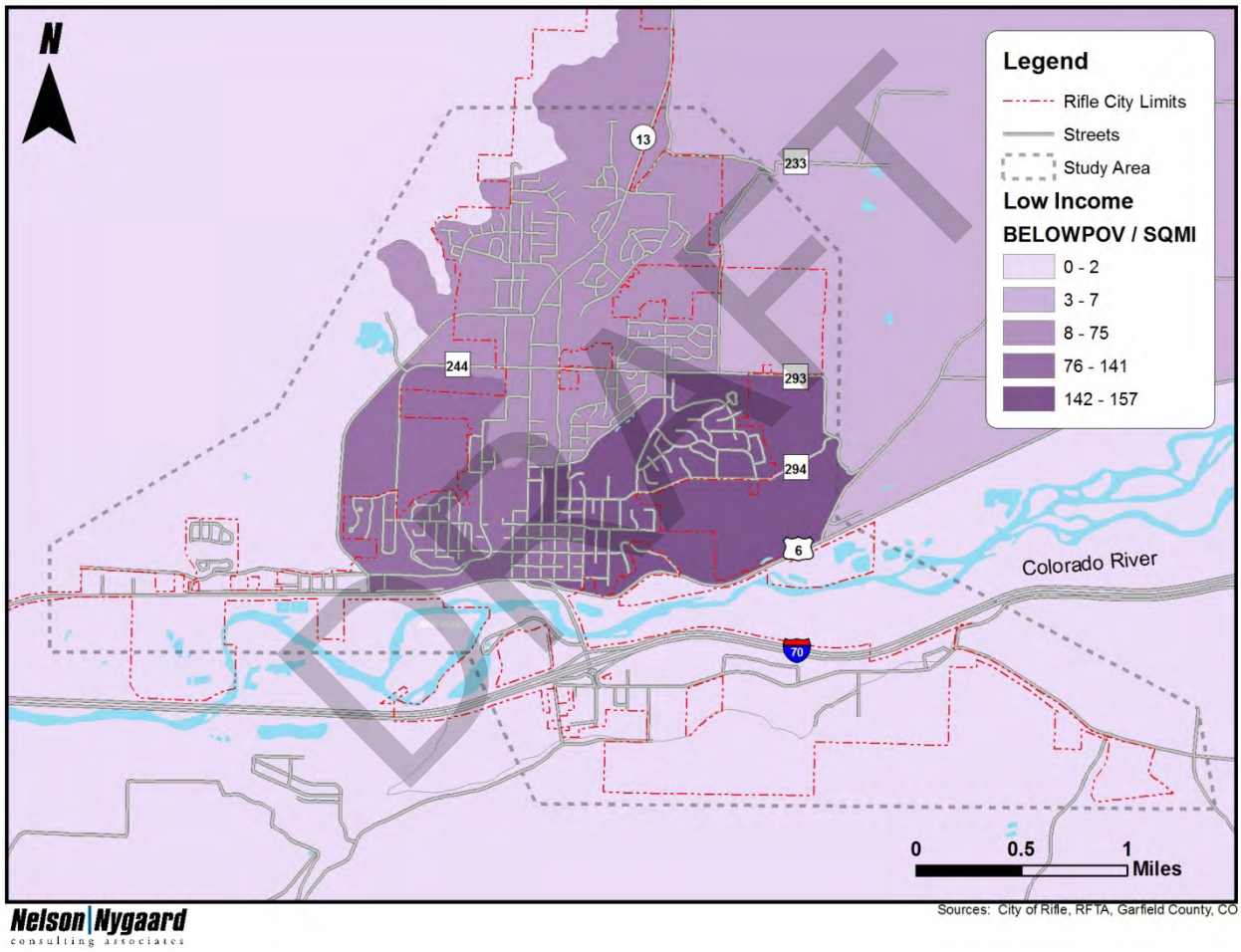
Figure 2-8 Persons with Disabilities per Square Mile



Persons with Low Income

For purposes of this analysis, persons with low income are defined as a household with a median income at 150 percent or less than the poverty level[3] (US Census 2000 Summary File 3, Table P88). This group makes up approximately 7 percent of Rifle's overall population. As a percentage of Rifle's overall population (see Figure 2-5), there is a disproportionate number of people with low incomes in Block Groups 2 (12 percent) and 6 (9 percent). In terms of spatial density (see Figure 2-9) people with low incomes are most concentrated in Block Group 6.

Figure 2-9 Persons with Low Income per Square Mile

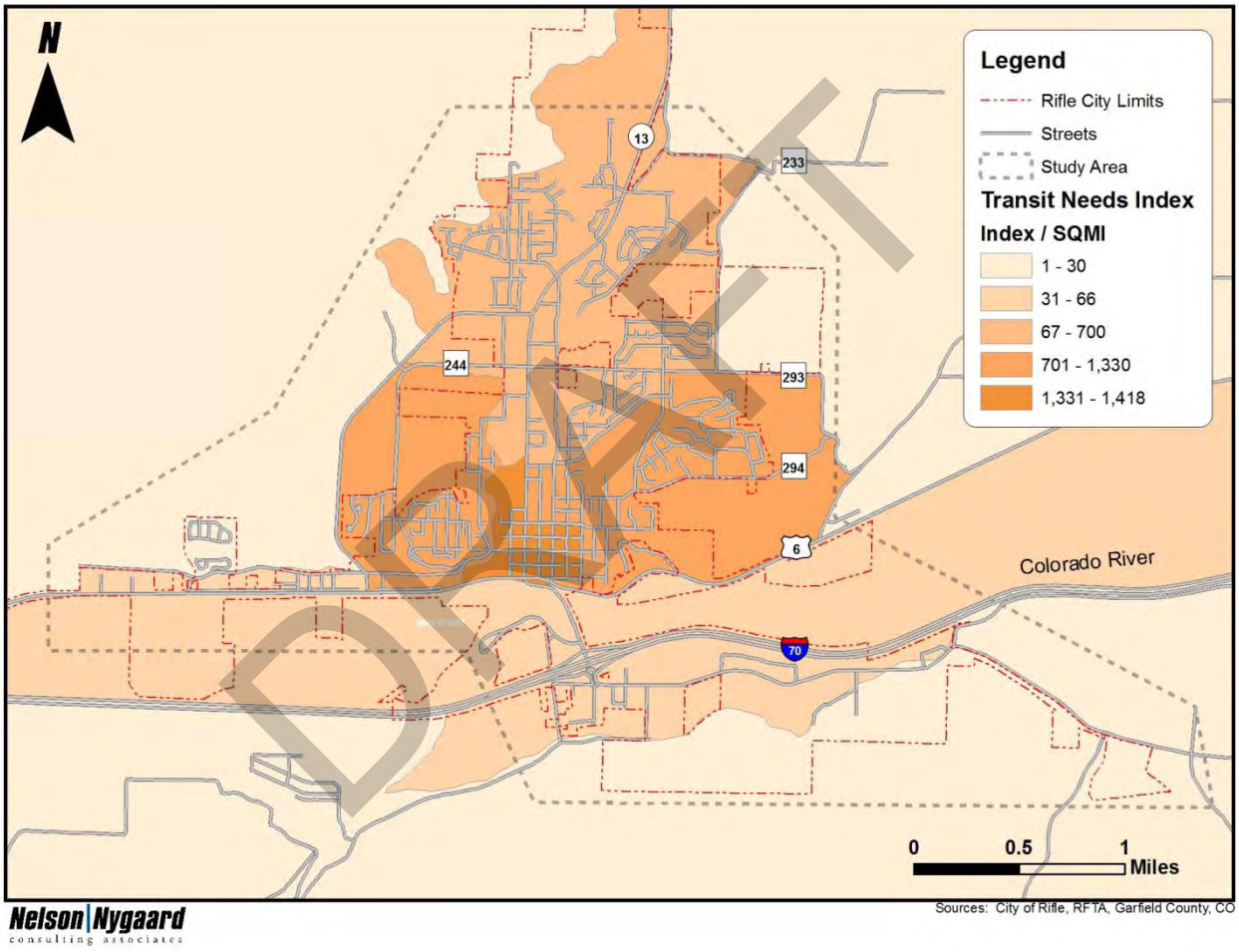


[3] Federal poverty levels differ based on household size. Data included in the map, therefore, represent the proportion of the population that is below the poverty level for their individual household characteristics. For reference sake, in 2000, the poverty level for a family of four with two children under the ages of 18 was $17,463; 150% of this would be $26,195.

Composite Needs Index

Figure 2-10 depicts a composite of the four populations described above: youth, older adults, persons with disabilities, and persons with low income. To create this map, the populations were added and normalized by square miles within each Block Group. Though there is some overlap between populations (for example, older adults who also have a disability or are low income), this map indicates the relative magnitude of need at the Block Group level.

Figure 2-10 Transit Dependent Composite Needs Index



Households without a Vehicle

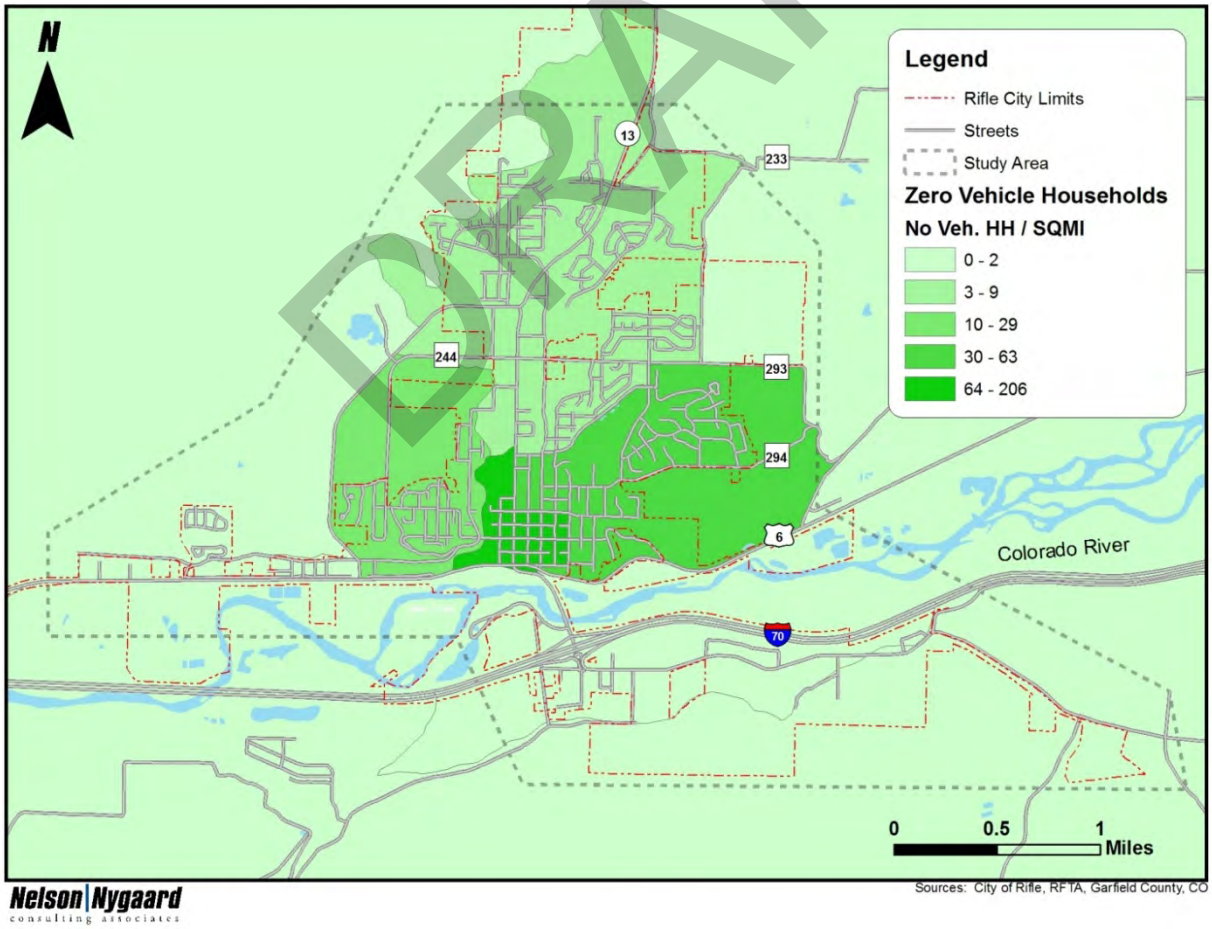
As shown in Figures 2-11 and 2-12, the vast majority of households in the study area own at least one vehicle. Those without a vehicle live primarily in the center of Rifle in Block Group 5 where 15 percent of households do not own vehicles. This proportion of households with zero vehicle ownership is relatively high compared to vehicle ownership rates at the national, state, and county levels (see Figure 2-11), where 10 percent, 6 percent, and 5 percent of households have no vehicles, respectively.

Figure 2-11 Households without a Vehicle : National, State and County Comparison

	United States	Colorado	Garfield County, Colorado
Total Occupied Households	105,480,101	1,658,238	16,229
Owner Occupied Units w/ Zero Veh.	3,165,468	29,303	249
Renter Occupied Units w/ Zero Veh.	7,695,599	76,623	521
Total Zero Vehicle Households	10,861,067	105,926	770
Percent of Total	*10%*	*6%*	*5%*

Source: 2000 Census

Figure 2-12 Households without a Vehicle per Square Mile

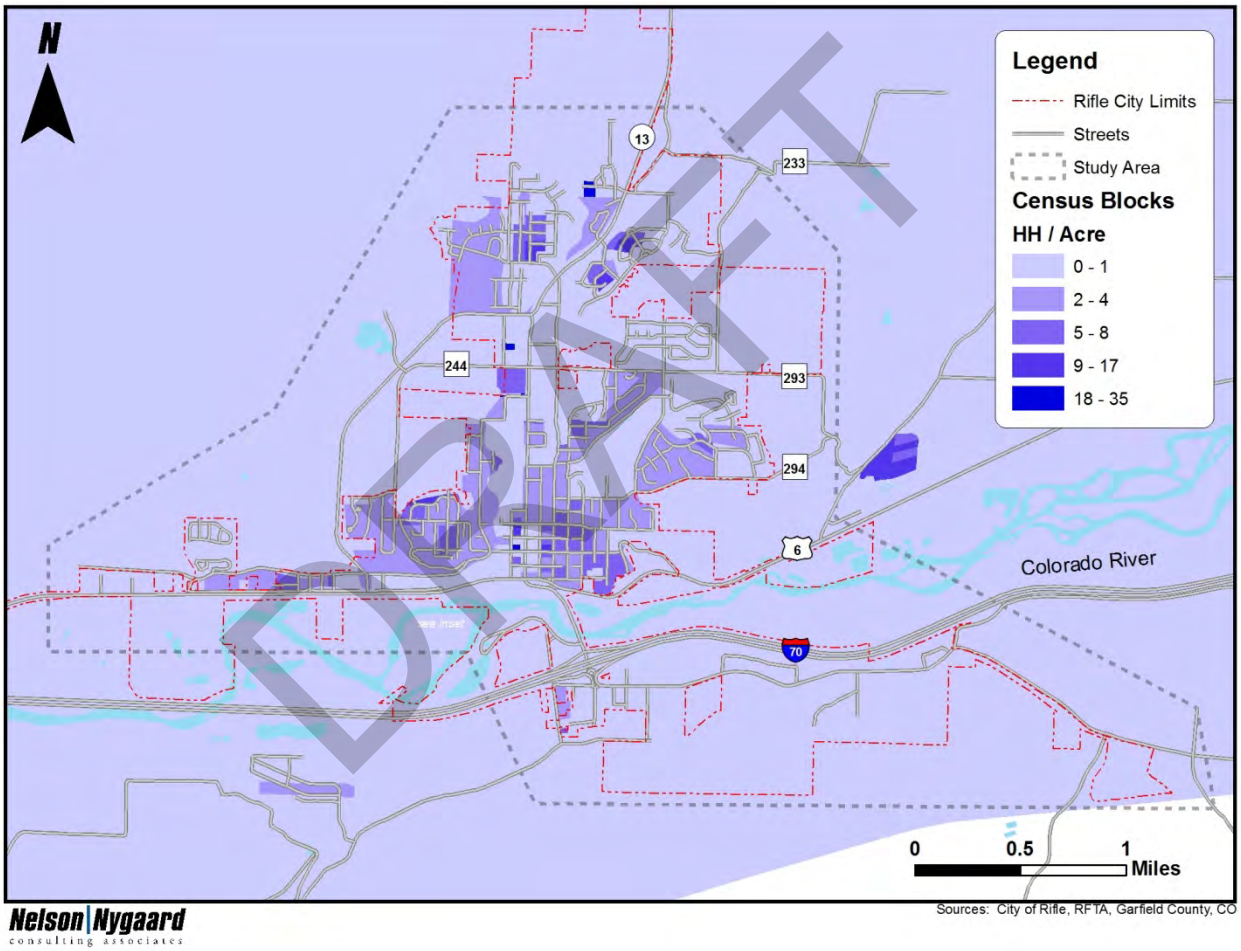


Household Density

Using census data, household density in Rifle for the year 2000 is estimated to be approximately 2.1 units per acre. This estimate uses census block data[4] and includes all households and developed land within the Rifle area, excluding households outside of the core developed area (see Figure 2-16). Assuming an annual average growth rate of 4.5 percent, an adjusted estimate of household density for 2009 could be as high as 2.5 households per acre[5].

Further analysis of household density is provided in figures 2-13 through 2-15.

Figure 2-13 Household Density by Census Block



[4] The block level data is a more fine-grained level of detail than the Block Group level which is what our previous maps have been using. Block level data is only available for general statistics such as total population and total households. Although the data is less specific, the data is helpful because it gives us a detailed understanding of household densities at the sub-neighborhood level.

[5] This estimate assumes that all new development took place within the core area. Since we know that new development extended beyond the core area, the actual density is likely somewhere between 2.1 and 2.5.

Figure 2-14 2000 Community-Wide and Neighborhood-Level Household Densities

	Total Population	Total Households	Total Acres	Households per Acre
N Rifle	616	244	105	2.3
SE Rifle	862	391	101	3.9
SW Rifle	738	276	73	3.8
Greater Rifle Area (Balance)	3,655	1,281	774	1.7
Grand Total/Average	5,871	2,192	1,054	2.1

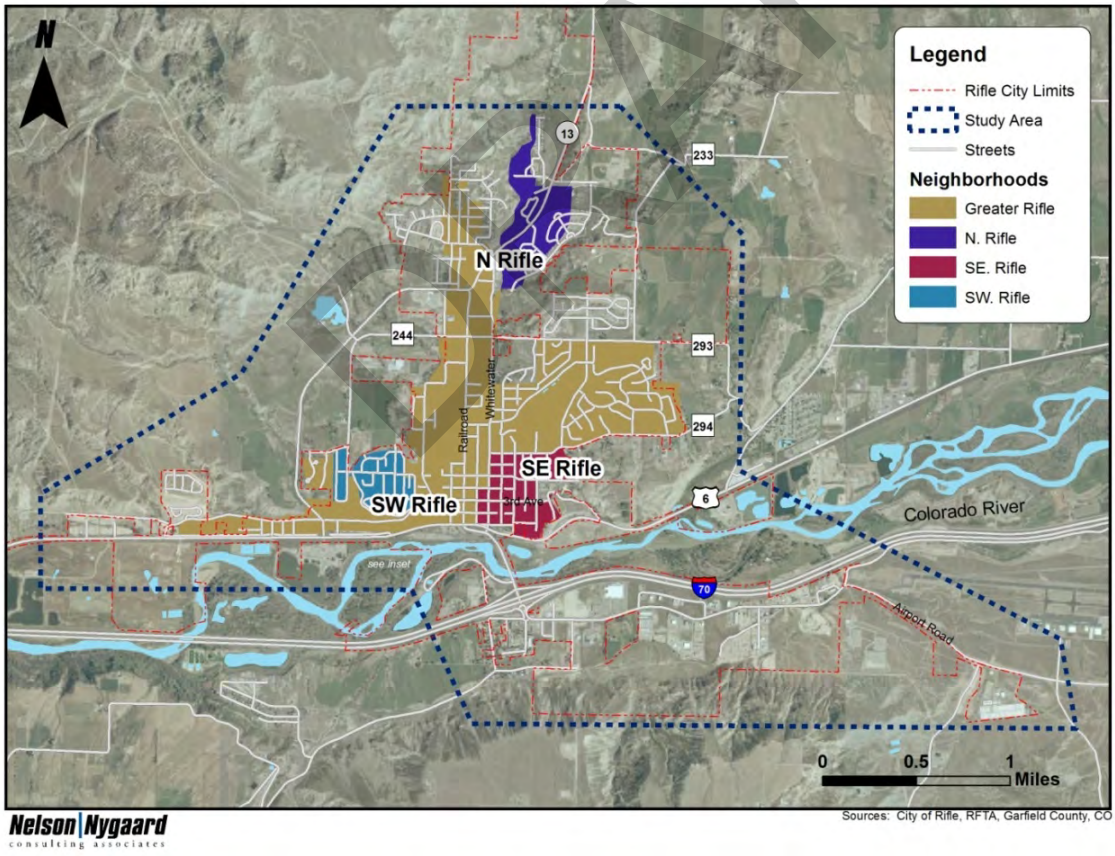
Source: 2000 Census, Nelson\Nygaard

Figure 2-15 2009 Community-Wide and Neighborhood-Level Household Densities

	Growth Rate[6]	Total Population	Total Households	Households per Acre
N Rifle	4.5%	915	342	3.3
SE Rifle	4.5%	1,281	478	4.7
SW Rifle	4.5%	1,097	409	5.6
Greater Rifle Area (Balance)	4.5%	5,432	2,028	2.6

Source: 2000 Census, Nelson\Nygaard

Figure 2-16 Core Area and Neighborhood Geographies used in Household Density Estimates



[6] Not all neighborhoods grew at the same rate. We used 4.5 percent across the board to simply approximate how growth since 2000 might have affected densities. Areas where substantial infill development occurred will have higher densities than areas where most of the new development occurred on raw land outside of the core area.

Race and Ethnicity

Race and ethnicity are shown in Figure 2-17, below. As indicated, Rifle has a relatively high percentage of Latino residents. This is an important demographic factor because a large (50 – 60 percent) portion of RFTA's ridership is Latino.

Figure 2-17 Race and Ethnicity

Race/Ethnicity	Carbondale	Glenwood Springs	New Castle	Parachute	Rifle	Silt
White	72.7%	79.3%	64.0%	53.0%	70.5%	70.4%
Latino	25.2%	18.1%	33.3%	38.2%	28.0%	24.2%
African American	0.0%	0.0%	0.3%	0.0%	0.1%	0.4%
Asia or Pacific Islander	1.4%	0.0%	0.2%	0.0%	0.0%	3.8%
American Indian	0.0%	0.2%	0.0%	1.9%	0.0%	0.0%
Two or more races/ethnicities	0.7%	2.4%	1.4%	7.0%	1.4%	1.2%
Other	0.0%	0.0%	0.8%	0.0%	0.0%	0.0%
Total	100%	100%	100%	100%	100%	100%

Source: American Community Survey, 2005-2009 5-Year Estimates

Land Uses, Employment Patterns, and Major Destinations

Transportation infrastructure is almost always closely aligned with trip generators such as employment, shopping, and service centers. Areas with higher populations and employment densities are more easily served by public transportation, in part because high density areas have a larger market for travel. In rural areas, public transportation can also be successful by providing connections between village and town centers and employment or service sites, such as hospitals and shopping centers.

Through our assessment of land use patterns in Rifle and our discussions with the Rifle city planners, we have found that employment is clustered in several zones in the Rifle area. There appears to be an axis of retail oriented land use clusters running from north to south in the center of the study area. Community shopping, restaurants and retail employment is clustered between Railroad Avenue and Whitewater Avenue between 24rd street and 14th Street. This area also has a small number of light industrial jobs.

The downtown area, centered on 3rd Street and bounded by Railroad Avenue, Whitewater Avenue, Centennial Parkway and 5th Street is the historic hub of business activity. This area features shopping, restaurants, public offices and services such as the city Library and U.S. Post Office, banks, human services, and other destinations typical of rural western towns. A multiplex theatre scheduled to open in November 2011 will add significant evening traffic to the Downtown area. This follows the recent opening of a new public library on Railroad Avenue.

Rifle's newest retail and shopping area is south of I-70 along Airport Road. Land uses and employment in this area are more regional in nature and are oriented toward traffic coming off of I-70. Destinations in south Rifle include a variety of hotels and restaurants as well as the Grand

River hospital, Wal-Mart, and several smaller strip-center retailers. This area is rapidly expanding and is expected to grow as an employment center and destination for services in coming years.

Industrial employment is another major base of economic activity in the Rifle area. Figure 2-18 depicts the industrial land uses and employment centers that flank the western and eastern edges of the study area.

Figure 2-19 shows the locations of other major destinations such as schools, churches, civic buildings, hospitals, parks and senior housing facilities. The Rifle Colorado Mountain College campus is located on the eastern end of Airport Road and is a major destination for potential transit riders.

Figure 2-18 Land Uses and Employment Zones

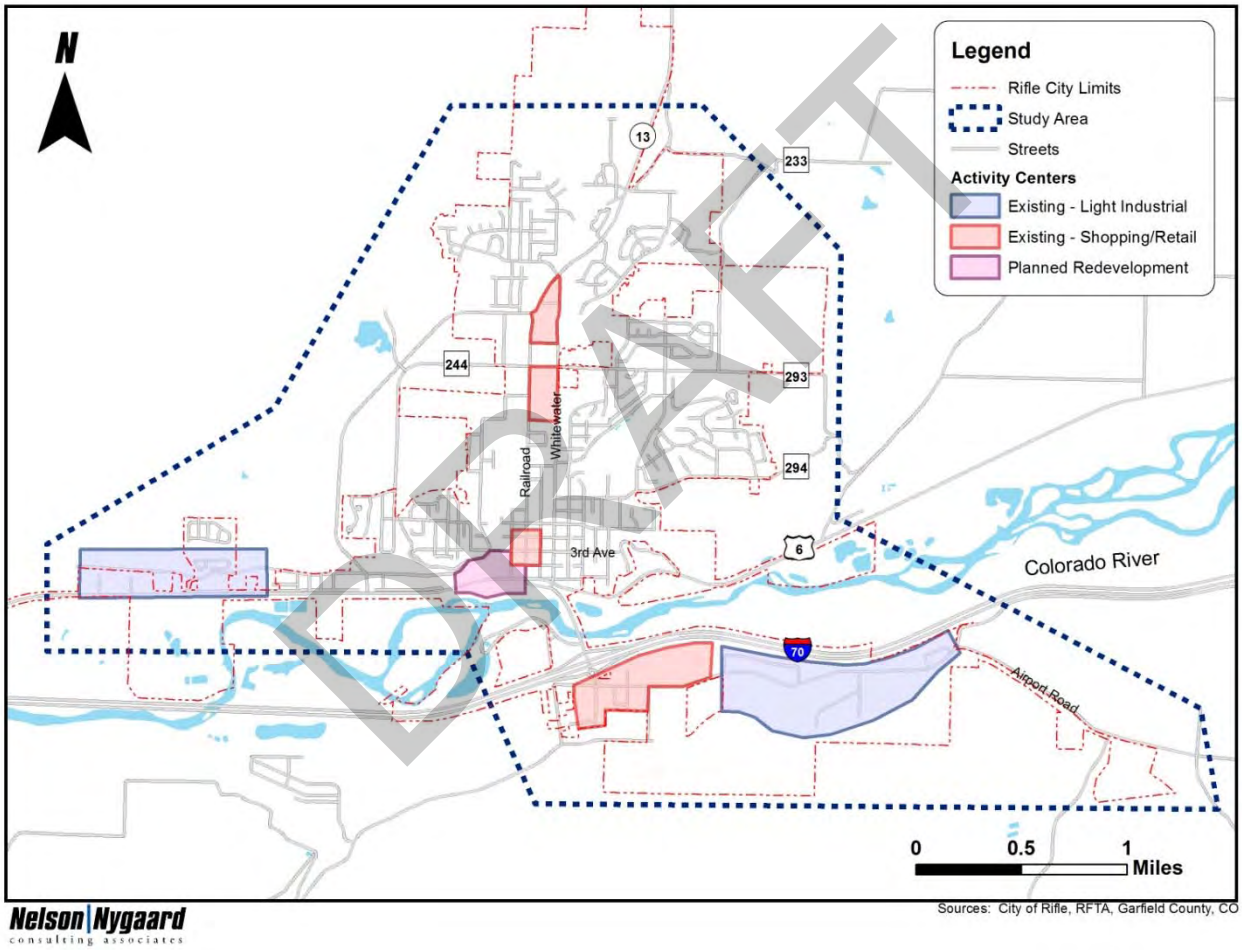
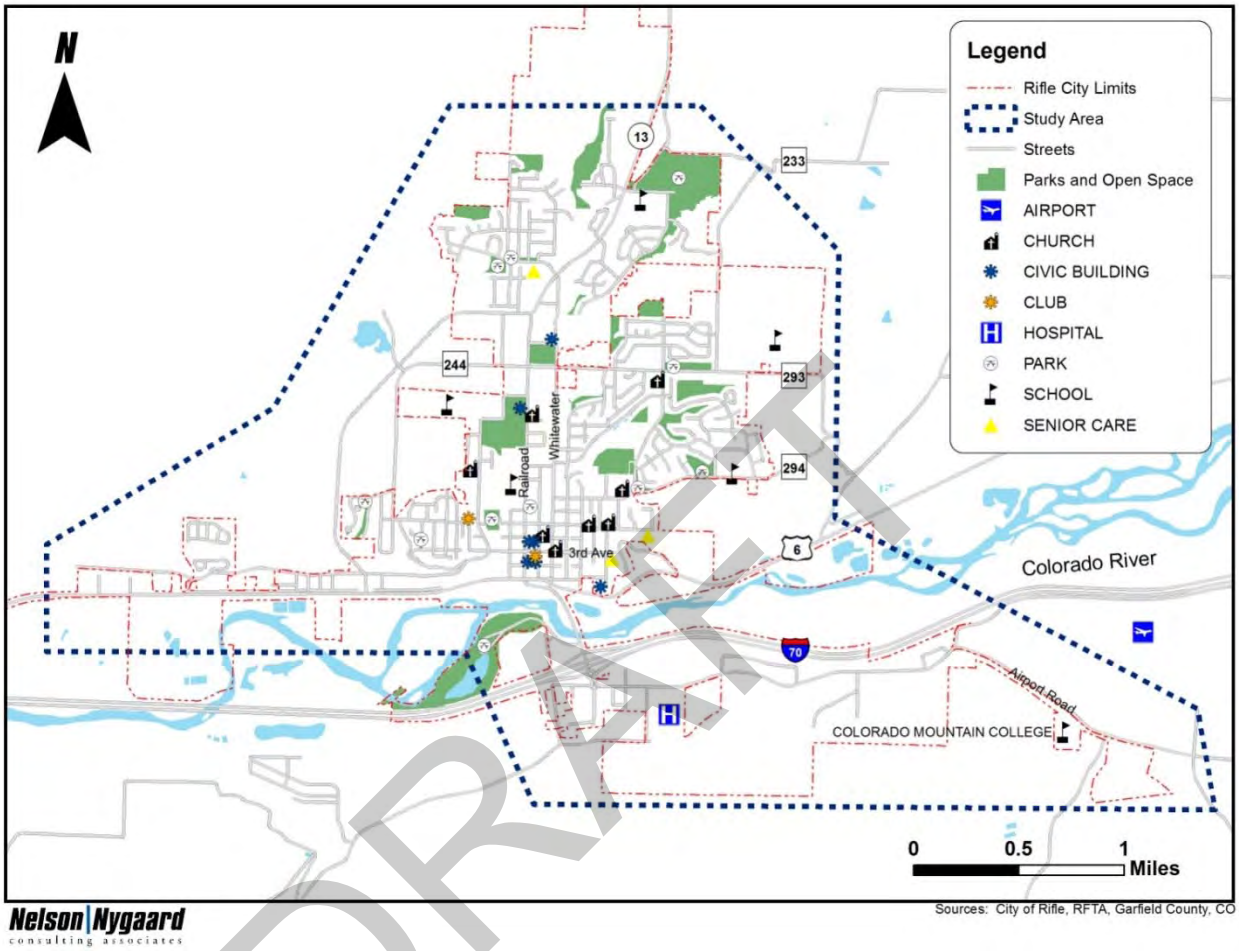


Figure 2-19 Major Destinations



Commute Patterns

Figure 2-20 displays the number and share of workers over the age of 16 in the city of Rifle, cities in Garfield County, and areas outside Garfield County that commute into or within Rifle for work. Conversely, this table identifies the commute destinations for residents of Rifle that work outside of its city limits. This commute flow analysis is derived from the Longitudinal Employment-Household Dynamics (LEHD) program, which generates accurate employment data using statistically aggregated information from federal and state administrative records on employers and employees with core Census Bureau economic censuses and surveys. Using surveys and up-to-date administrative data combined with State Quarterly Census of Employment and Wages (SQEW) information, the LEHD offers a more precise picture of the local labor market than census data alone.

This information is helpful because it provides a snapshot of the number of commute trips that stay within Rifle. Assuming that 3 percent of commuters will use transit (a mode share that is much lower than up-valley mode shares, and therefore, a conservative estimate), work related trips could account for as much as 15,851 riders per year.

Figure 2-20 Regional Commute Patterns

	Commute Inflow to Rifle		Commute Outflow from Rifle	
	Count	Percent	Count	Percent
Battlement Mesa	322	7.2%	3	0.1%
Carbondale	24	0.5%	65	1.9%
Glenwood Springs	101	2.2%	498	14.0%
New Castle	132	2.9%	62	1.8%
Parachute	77	1.7%	9	0.2%
Rifle	1,025	22.8%	1,025	28.7%
Silt	96	2.1%	63	1.9%
Other County	2,717	60.6%	1,810	51.4%

Source: US Census Longitudinal Employment-Household Dynamics, 2009

Chapter 3. Needs Assessment

Taking into account our assessment of existing services (Chapter 1), the community profile (Chapter 2), and feedback received via stakeholder interviews and intercept survey results, the study team has identified a set of preliminary[1] findings and key community transportation needs. These findings and needs are summarized below.

Strengths

- **Highly walkable core area** – Rifle's core area is highly walkable and retains its historic mixed-use fabric and gridded-street pattern. Walkability increases accessibility to transit and can lower the developmental densities needed to achieve sufficient transit ridership
- **Recognition that transit is a key element of Rifle's growth** – The comprehensive plan reflects a desire to integrate transportation and land use planning. This attitude toward planning is beneficial because it recognizes the linkages between land use and transit ridership. Policies that focus higher density development toward the core area of downtown Rifle and designated high density nodes elsewhere in the City will further increase potential transit ridership.
- **Rifle/RFTA Coordination** – Rifle's cooperation with RFTA is a positive step toward developing transit services for the Rifle area. Even if RFTA isn't the operator of the eventual services offered in Rifle, a spirit of coordination and cooperation can improve operating efficiencies, lowering operating costs while improving the quality of service.
- **The Traveler as an asset** – The Traveler is an asset for several reasons. First, it meets a great deal of need. Seniors and people with disabilities have access to services and destinations throughout Rifle and the County because of this service. Second it represents an efficient approach to meeting transportation needs. Many communities struggle with coordination of human service transportation programs. The Traveler efficiently addresses this issue by consolidating senior transportation with transportation for people with disabilities under a single program in a cost effective way.

Weaknesses

- **Inconsistent messaging for previous transit funding proposals** – According to our interviews, previous ballot measures regarding transit funding and joining RFTA were unsuccessful in Rifle partly because the voting public was not fully aware of what was being proposed. Our understanding is that the public was given limited information (approximately 1,000 brochures were printed) one month in advance of the election. Despite the lack of information provided, the ballot measure failed by a small margin. Future efforts to improve communication by providing more detailed information in a more timely way will improve public perception of transit services.

[1] These findings and needs are said to be preliminary because data is still being collected and processed. For example, at the time this memo was published, the intercept survey had not yet been conducted.

Challenges

- **Transit is a low priority in Garfield County –** In a recent public opinion survey conducted in Garfield County, public transportation was ranked as a relatively unimportant issue facing Garfield County[2]. The priority of Rifle residents for a circulator bus is not clear from this survey, however.

- **Boom and bust economic cycle** – The economic downturn facing Rifle since 2008 has decreased general fund revenues by 33 percent between 2007 and 2010.

  The uncertainty surrounding the local economy presents multiple challenges for a prospective transit program. First, transit will be competing against other priority projects for increasingly limited funds. Second, fluctuations in transit revenues can pose significant challenges to planning for and maintaining consistent transit service levels. Inconsistency in transit service can negatively affect service quality, customer satisfaction, and ridership.

- **Dispersed population and low developmental densities** – Seminal research by Pushkarev and Zupan conducted in 1977 discusses the relationship between land use and transportation and establishes land use density requirements for transit services[3]. Their research, which continues to be widely used by transit planning professionals, indicates that community-wide land use densities of 3.5 – 6 dwelling units per acre is necessary to support demand-responsive transit services (see Figure 3-1) . Neighborhood-level densities of 4 or more dwelling units per acre are needed to support "minimum" fixed-route transit services[4].

  According to our analysis – and accounting for growth since the 2000 census – there appears to be only two or three areas in Rifle with densities in excess of 4 units per acre at the neighborhood level (see Figure 2-15). Given these densities, other factors may be necessary to entice an appropriate level of ridership to justify the provision of city-wide fixed-route transit services.

- **Dispersed and divergent needs** – As shown in Figure 2-10, even though each population has distinct requirements, the index presents a relatively even distribution of need throughout the developed areas of Rifle. What this means is that the needs in each neighborhood, while different from one another, are relatively equal in proportion. Given that the need for transit is dispersed, it will be difficult to serve all needs without significant costs. Some level of prioritization of needs will have to occur.

2 Weigel, Lori. "Garfield County Survey Regarding Public Transportation and Conversation/Trails" Public Opinion Strategies. June 2010.

3 Victoria Transportation Policy Institute, 2010

4 Minimum service is defined as 20 buses daily. Assuming a 15 hour service span, this translates into a service frequency of one bus every 45 minutes.

Figure 3-1 Transit Density Requirements

Mode	Service Type	Minimum Density (Dwelling Units/Acre)	Area and Location
Dial-a-Bus	Demand response serving general public (not just people with disabilities.	3.5 to 6	Community-wide
"Minimum" Local Bus	1/2-mile route spacing, 20 buses per day (approx. 60 minute frequency)	4	Neighborhood
"Intermediate" Local Bus	1/2-mile route spacing, 40 buses per day (approx. 30 minute frequency)	7	Neighborhood
"Frequent" Local Bus	1/2-mile route spacing, 120 buses per day (approx. 15 minute frequency)	15	Neighborhood
Express Bus – Foot access	Five buses during two-hour peak period	15	Average density over 20-square-mile area within 10 to 15 miles of a large downtown
Express Bus – Auto access	Five to ten buses during two-hour peak period	15	Average density over 20-square-mile tributary area, within 10 to 15 miles of a large downtown
Light Rail	Five minute headways or better during peak hour.	9	Within walking distance of transit line, serving large downtown.
Rapid Transit	Five minute headways or better during peak hour.	12	Within walking distance of transit stations serving large downtown.
Commuter Rail	Twenty trains a day.	1 to 2	Serving very large downtown.

Source: Victoria Transportation Policy Institute (2010) (based on Pushkarev and Zupan, 1977)

Needs

- **Limited in-town service for "choice" riders and people with low incomes** – Given the relatively complete coverage of The Traveler service, the principal gap in service is for individuals who are not eligible to use The Traveler. For these populations the following gaps exist:
  - No service during mid-day, or evenings: because the RFTA route only operates during peak periods, there is no in-town transit service during mid-day periods.
  - No service to South Rifle businesses, services, and jobs: There is currently no public transit option for non-Traveler riders to cross over I-70 to access jobs and service in the south part of Rifle. This means there is no transit access to Wal-Mart, the Grand River Hospital, or the Colorado Mountain College. These destinations are major transit trip generators and would attract a significant amount of ridership given a properly designed transit service.
- **Walkability:** Outside of Rifle's historic core, land uses are becoming auto-dominant. Walkability in these areas is limited, and will dampen the potential ridership of transit services. Improved walkability in areas outside of the core area of Rifle is needed to facilitate residents being able to walk to potential transit stops.

Chapter 4. Stakeholder Involvement

The process of determining feasibility is based in-part on feedback received from stakeholders. A committee of stakeholders was assembled for this project with members of the community representing a broad cross section of perspectives. Details regarding stakeholder committee membership are provided in Appendix B.

Stakeholder involvement took the form of stakeholder interviews, two planning workshops and an intercept survey conducted at the CMC campus[1]. Each is described below.

Stakeholder Interviews

Interviews were held with representatives from Rifle, RFTA and the steering committee on September 29th and 30th, 2010. The following interviews were conducted:

- Nathan Lindquist, Rifle
- John Hocker, RFTA Operations
- Jason White & David Johnson, RFTA Planning
- Dan Blankenship, RFTA Administration
- Rich Burns, The Traveler
- Michael Werts, Grand River Hospital
- Nancy Genova, Colorado Mountain College

Information gained during the interviews was used to help bring the project consultant up to speed regarding current issues affecting transit and the feasibility of a potential transit circulator service in Rifle. The interviews were also used to solicit recommendations for additional stakeholder committee members.

Planning Workshops

Two workshops were conducted in November and January, respectively. The first workshop focused on visioning and developing a series of goals and objectives for the project. The second workshop used these goals and objectives to evaluate a set of conceptual alternatives. The feedback gained through the second workshop guided the formation of the recommended service option presented in Chapter 5.

Visioning Workshop

The visioning workshop was held on November 11th, 2010 at the Rifle City offices. The agenda and meeting summary are included in Appendix B. The agenda included introductions, an overview of the project scope, schedule, and status, presentation of preliminary findings (chapters 1, 2, and 3), and discussion of goals and objectives. The discussion regarding goals and objectives was facilitated by referring members of the stakeholder committee to findings from chapters 1, 2, and 3.

[1] The intercept survey was planned for several other locations including the City Market and Wal-Mart, but access was not granted by their respective management teams.

Project Goals and Objectives

The following goals were developed by organizing statements made during the visioning workshop around common themes. The five themes that emerged were:

- Process
- Access
- Financial Sustainability
- Economic Development
- Sustainable Mobility

Five goal statements were developed for each of these themes and are presented below. Each goal statement is accompanied by an introductory paragraph followed by a series of supporting objectives. These goals are used in Chapter 5 to rank performance of conceptual service alternatives.

Goal: Follow a process that communicates how transit fits into the short and long-range goals of the Rifle community

Stakeholders felt that this project provides an opportunity to think strategically about how transit relates to the community's short- and long-range goals. Reflecting on the findings of the market assessment, Stakeholders recognize that transit may not be feasible in the short-term and that the study will need to consider longer-term growth patterns in order to provide a meaningful and effective transit strategy. Long-term thinking, it was felt, would also help Rifle proactively prepare for the anticipated growth. Conversely, stakeholders also felt that the feasibility study should help to identify easily implementable, concrete steps that can demonstrate success in early phases of implementation.

Objective: Look at transit holistically, taking into consideration how transit could offset or delay the need for other major capital projects.

Objective: Provide short- and long-range recommendations for development of transit solutions.

Objective: Recognize the symbiotic relationship between transit and land use and ensure transit plans work in concert with local land use plans.

Goal: Improve access to community resources

Stakeholders expressed a need to improve access to destinations throughout the community. Of particular concern was a need to provide access to the Grand River Hospital, the Rifle Wal-Mart and the Rifle Campus of the Colorado Mountain College. Stakeholders also expressed a need to provide access to new civic and cultural destinations emerging in downtown Rifle including the new public library and the community theatre during evening hours when Traveler services are not offered.

Objective: Provide access to retail, health, and educational destinations in South Rifle.

Objective: Provide access to evening cultural activities/shopping/entertainment in downtown Rifle.

Goal: Provide an efficient service that is financially sustainable

During the project kickoff meeting, Stakeholders expressed a need for the service to be financially sustainable. This combines the need for the service to be efficient and economical with the need for the service to be supported by a variety of funding sources generated through innovative partnerships. Building on existing partnerships with RFTA, local businesses and governmental entities was identified as an important strategy. Stakeholders also felt that the circulator feasibility process could be beneficial in identifying opportunities to improve the efficiency of existing services.

Objective: Look for opportunities to build on the successes of and improve efficiencies in current transit operations including the Hogback and Traveler services.

Objective: Seek funding from a variety of sources including local businesses and institutions, state and federal grants, foundations, joint-operating agreements, and traditional sources such as a transit district sales tax.

Objective: Set reasonable performance expectations for transit service, such as a minimum number of boardings per revenue hour of service.

Goal: Provide a service that supports and contributes to economic development

Drawing on demographic information presented in the market assessment, stakeholders recognize the potential for the Rifle area to experience significant growth over the next 20 years. Stakeholders expressed an interest in evaluating the role of transit in supporting and contributing to economic development as Rifle grows in the coming years. Particular areas of growth emphasized by the stakeholders included major development potential around the airport and in South Rifle, plans for intensification of density in the downtown area, the potential for Rifle to become a second economic hub on I-70 in Garfield County, and the goal to make Rifle an energy village with a diversified economy.

Objective: Seek gas industry support by including an evaluation of the feasibility of natural gas vehicles and by highlighting potential air-quality improvements generated by transit.

Objective: Facilitate local economic capture by improving access to local businesses.

Objective: Facilitate densification of downtown Rifle by reducing parking demand while increasing accessibility.

Objective: Provide transit as an amenity as a means of attracting new residents and businesses seeking transit options.

Objective: Accommodate a growing local workforce by providing internal circulation between residences and jobs.

Objective: Improve access for those who have limited transportation alternatives, such as households without a vehicle, seniors, and people with disabilities.

Objective: Contribute to Energy Village goals by reducing oil consumption**.**

Goal: Facilitate sustainable mobility by providing alternatives to driving alone

Several of the comments expressed by the stakeholders focused on reducing dependence on single-occupant automobile trips. Suggestions included providing transit as a means of increasing the percentage of trips (mode share) not involving a personal automobile, reducing

vehicle miles traveled, and increasing walking and biking in the community. Suggestions also included exploring travel demand management options (including carpooling, telework, vanpools, parking strategies, and employer transit pass programs) as part of the feasibility study.

Objective: Facilitate reduced auto dependency and a reduction of vehicle miles traveled.

Objective: Combine transit with land use policies that reduce traffic volumes on key Rifle corridors.

Objective: Increase transit mode share in Rifle.

Objective: Increase active transportation in Rifle including walking and biking.

Objective: Evaluate Travel Demand Management options as part of the feasibility study.

Objective: Set expectations of transit reliability, safety, and convenience to ensure transit's appeal.

Service Planning Workshop

A service planning workshop was conducted on January 13th, 2011. The objective of this meeting was to evaluate and identify a preferred service pattern (routes, schedules, level of service, etc) to meet community goals. The meeting was facilitated using the service concepts presented in Chapter 5 in conjunction with the goals and objectives outlined above.

Stakeholders indicated support for a relatively high frequency fixed route service on Railroad Avenue supplemented by a demand responsive service for other areas not served by the fixed-route. This option is described in further detail at the end of Chapter 5.

Intercept Survey

Intercept surveys are informal surveys conducted in public locations where there is a great deal of foot traffic. Surveyors stand in prominent locations and invite passersby to participate in the survey. Intercept surveys are not designed to capture a representative sample, but instead, to collect opinions of, and gauge level of interest from participants. Results are not treated as representative of the community.

A modified intercept survey was conducted at the CMC campus as part of this study. Other locations were planned, including the City Market and the Wal-Mart, but permission was not granted for access to these locations. Furthermore, scheduling conflicts beyond the control of the surveyor required the surveyor to leave the intercept survey forms with a CMC representative for distribution.

The survey form and results are included in Appendix C.

Chapter 5. Service Options

This chapter presents three major categories of transit service commonly offered in rural areas to meet local circulation needs: demand-responsive service, fixed-route service, and flex-route service. Each service type is described in general terms, then specifically with regard to its application in Rifle. Information on the costs and benefits of each of the options is included based on the planning assumptions set forth in Appendix A.

Performance relative to the project goals (see Chapter 4) is given for each option. Performance is ranked on a relative scale from one to four represented by symbols. Best performance is illustrated using a completely filled circle symbol ●. Three-quarter-filled ◕ and half-filled ◑ circles represent medium-high and medium-low performance, respectively. Lowest performance is represented by the quarter-filled circle symbol ◔.

Based on feedback offered at the Service Planning Workshop, the recommended service configuration is a hybrid fixed-route/DAR service with a phased implementation approach. The recommended option is discussed in further detail in Chapters 6 and 7 where funding and implementation issues are discussed.

Concept 1: Demand-Responsive Services

Demand-response services such as Dial-A-Ride (DAR) are public transportation services that provide rides based on passenger requests. Patrons schedule service by calling a transit dispatch office to set up an appointment. In many systems this is done 24 hours in advance, but recent improvements in scheduling and dispatch technology have enabled some DAR service operators to schedule service with as little as one hour notice.[1] When passengers schedule a trip, they are usually given a window of time when the bus or van will pick them up and drop them off. Rides may be shared by individuals traveling between similar locations, thus the trip is not always direct. Industry standards generally recommend DAR services as opposed to fixed-route services when demand is less than 8-10 passengers per hour, depending on the service area.

As described in Chapter 1, The Traveler currently offers DAR service for seniors and people with disabilities in Rifle and throughout most of Garfield County. Building on this existing service, a general public DAR system could be established in Rifle by simply opening Traveler service to the public within Rifle city limits. This conversion would require additional funding for The Traveler to cover increased operating and capital costs. Governance issues would also need to be addressed including determining Rifle's role in oversight and management if the public portion were subsidized by the City of Rifle.

The fact that The Traveler is already in operation also makes initiation of general public DAR service a logical first-step toward implementing flex- or fixed-route services. DAR service often establishes patterns of 'subscription' trips – groups of recurring trips that are scheduled all at once by individual riders. Over time, these trips tend to result in the formation of informal routes that transit dispatchers use as the basis of trip-planning. Because of this, dial-a-ride services can evolve to become flex-route or fixed-route services. General public DAR service, therefore, can act as a first-step toward implementation of public transit service in rural communities.

The level of service provided by DAR can be high but can also be very expensive to operate on a per-passenger basis. This is because DAR service almost always carries fewer passengers per

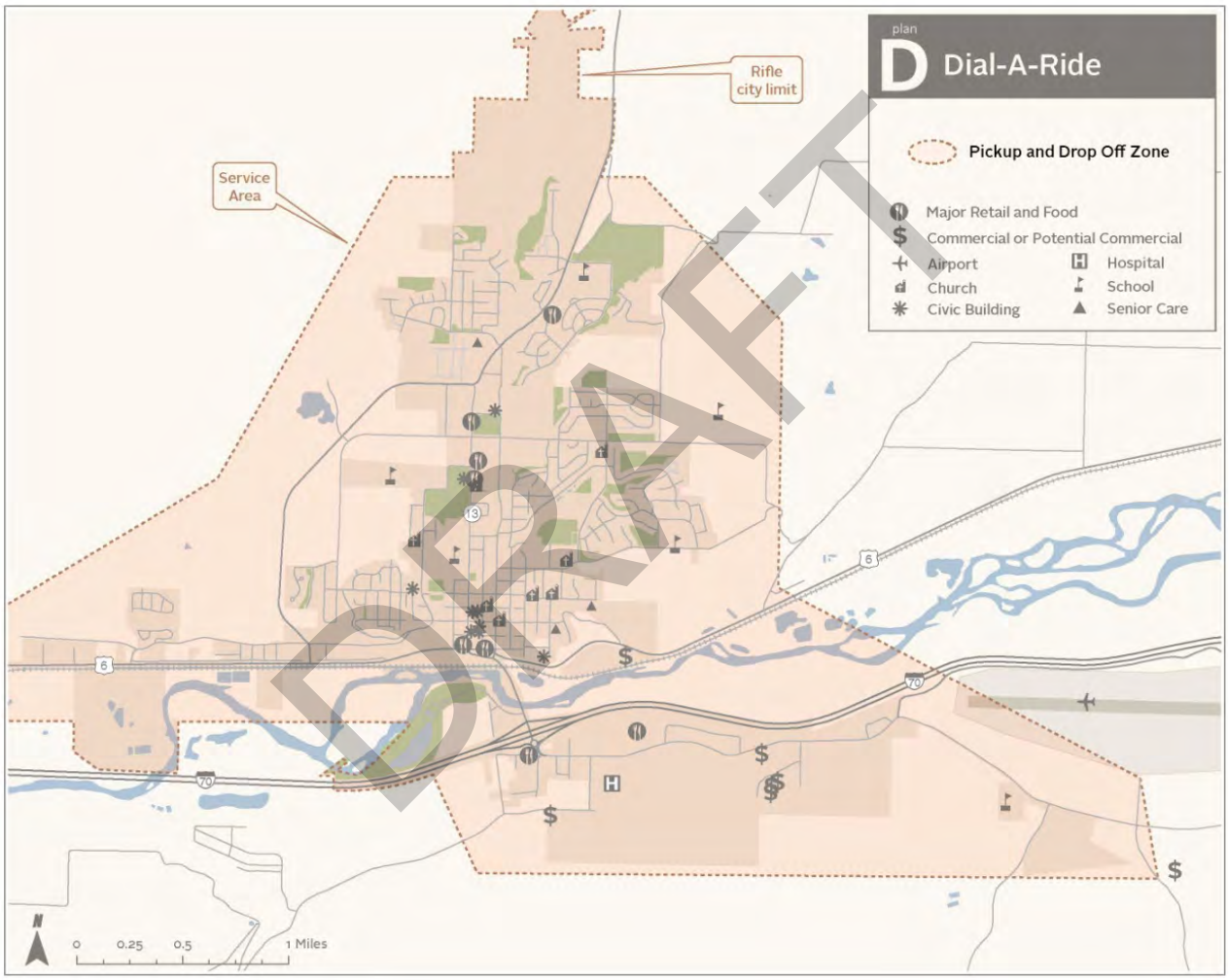
[1] See TCRP Report 76, Guidebook for Selecting Appropriate Technology Systems for Small Urban and Rural Public Transportation Operators.

hour even though the hourly costs of operation are similar to other modes. There are however, strategies that can be employed to control costs, such as charging fairly high fares, limiting service areas and restricting the hours of operation.

For example, Figure 4-1, below shows a service area defined by the intersection of the study area boundary and Rifle City limits.

A variant of this option would be to operate general public DAR service throughout the city combined with the north-south fixed-route described below.

Figure 5-1 Demand Response Service

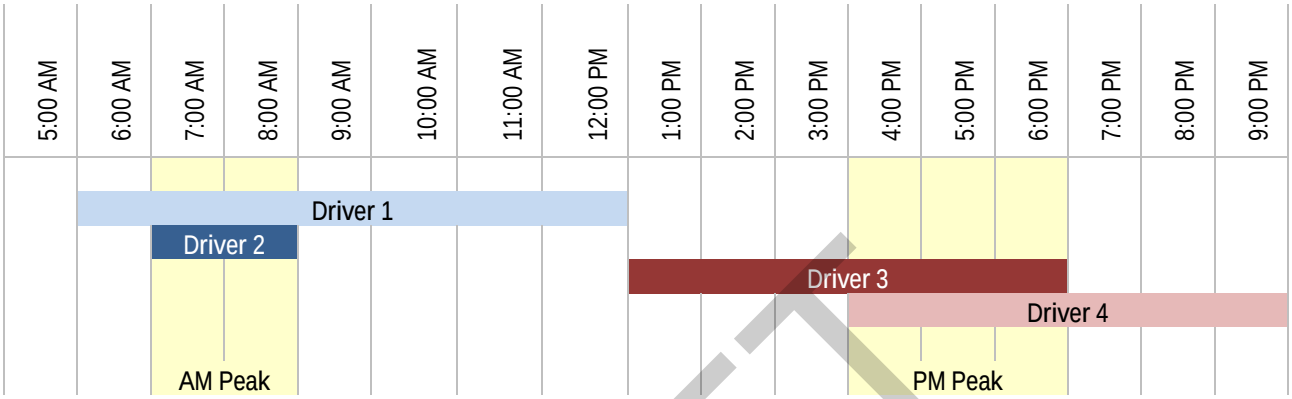


Level of Service

As a curb-to-curb operation, the level of service of DAR transit is conceivably very high: essentially all trip origins and destinations in the city can be served on an on-call basis. In systems with limited capacity, however, DAR service can become quickly overloaded when multiple trip requests are made at the same time. High demand can result in long travel times for individuals as they wait for other riders to reach their destinations. As such, the level of service for DAR transit depends on a number of factors including the number of vehicles available, trip-reservation policies, and the average travel time for individual trips.

The level of service envisioned in Rifle for conceptual planning purposes is to offer two vehicles during peak periods with overlapping schedules such that only three full-time drivers are required. As shown in Figure 4-2 a part time driver would be needed to meet peak demand in the morning. Service would operate from 6:00 AM to 10:00 PM, Monday through Friday.

Figure 5-2 Conceptual Dial-a-Ride Vehicle Schedule



Ridership

Based on a total of 6,527 annual hours of service, a general public DAR service would serve between 20,000 and 46,000 riders annually. This level of demand can be met with two vehicles if the demand is evenly distributed throughout the day. If there is significant demand during peak periods, additional vehicles may be necessary. Once operations begin, a monitoring program would enable the operator to evaluate ridership levels to adjust fleet size as needed.

Costs

Based on the assumptions outlined in Appendix A, a general public dial-a-ride service in Rifle would cost a total of $544,000 per year plus periodic capital expenditures for vehicles and facilities.

The major benefit of general public DAR service versus fixed-route service is that it does not require complementary ADA paratransit service. From a system-level perspective, this helps keep total costs lower than systems with independent fixed-route and paratransit programs. However, this benefit is not readily recognizable in Rifle because The Traveler already provides service for customers who would normally qualify for ADA paratransit service. In other words, The Traveler service is effectively providing ADA paratransit service in Rifle, so the cost of providing new ADA service may be negligible.

To demonstrate the benefit of DAR transit service relative to fixed-route service, it is necessary to separate the ADA paratransit costs from the general public DAR cost estimate. One way to accomplish this is to assume the cost of the new public DAR service would be equal to the existing cost of The Traveler plus the incremental cost of providing an additional vehicle and operating the service for an additional four hours in the evening. The incremental new cost could then be used as a comparison against fixed-route alternatives.

Since The Traveler service does not currently breakout costs by municipality, we assume that the existing cost of providing service in Rifle is equal to the cost of providing service using one vehicle during The Traveler's normal operating period.

According to our estimate, one vehicle operating from 6:00 AM to 6:00 PM would cost approximately $337,000 per year. If we assume that this amount reflects the approximate cost of existing Traveler service, we can estimate that the public non-ADA portion of DAR service would amount to approximately $207,000 annually.

Performance relative to Goals

Of the four options described in this report, this strategy ranked highest for the process objective. This ranking is due to the fact that DAR can be implemented using an existing program and because it provides a strong basis for phased implementation. Similarly, because DAR service has the potential to serve unlimited destinations, it also ranked well on the access objective. DAR's high cost per passenger and low overall ridership, however, resulted in a low ranking for efficiency, economic development and sustainable mobility.

Figure 5-3 Performance of Dial-a-Ride Service Option

Process	Access	Efficiency	Economic Development	Sustainable Mobility
●	●	◔	◑	◔

Concept 2: Fixed-Route Services

Fixed-route bus service is regularly scheduled public transportation service that operates between two or more pre-determined points. Routes are typically planned to run along major travel corridors between key destinations (or service anchors) such as housing complexes and central business districts or major shopping centers and along major corridors.

Advantages associated with fixed-route service are: (1) scheduled service is easy to understand and use and (2) fixed-route service can carry a larger number of passengers by increasing service frequency and vehicle size. Fixed-route bus service, however, will almost always require that travelers adjust their travel patterns to work within the scheduled departure and arrival times, including carefully timing trips to meet the scheduled departures. In rural areas, it may also be difficult to identify corridors where sufficient numbers of people can walk to/from the corridor and their final destination. Fixed-route bus services usually work best for commuters and mobile members of the transit dependent population and are usually less effective for persons with disabilities and older adults.

As discussed, costs associated with fixed-route services are similar to demand response service. In rural environments, DAR and fixed-route services use the same vehicles, thus have similar requirements in terms of fuel, insurance, drivers and maintenance. Additional costs are also required to provide supporting infrastructure such as signage, shelters, and information materials. Furthermore, if federal money is used to fund the service, complementary ADA paratransit service must be offered for individuals living within three-quarters of a mile of the fixed-route service and traveling during the same operating hours. Providing ADA complementary paratransit increases service costs.

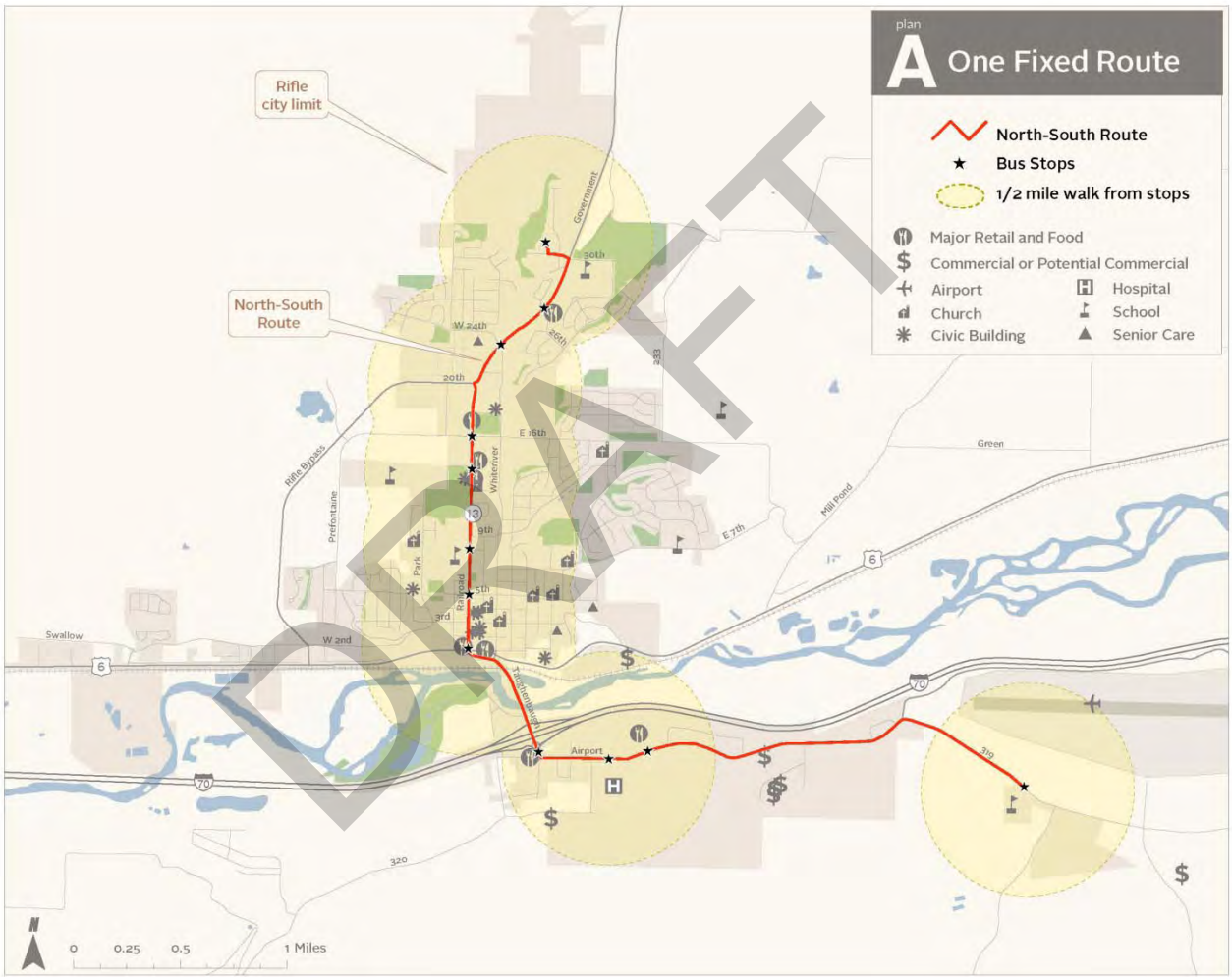
Despite these additional costs, fixed-route service is generally more efficient in terms of cost per passenger as compared with DAR service because it can carry more passengers per service hour.

Considering Rifle's land use patterns and street configuration, two conceptual route configurations were evaluated: Fixed-Route Option A and Fixed-Route Option B.

Fixed-Route Option A

The focus of this concept is to concentrate services along Railroad Avenue to provide high-frequency service to key destinations identified in the community. This route features eight prominent stops with an alignment primarily on Railroad Avenue, north of I-70 and Airport Road in South I-70.

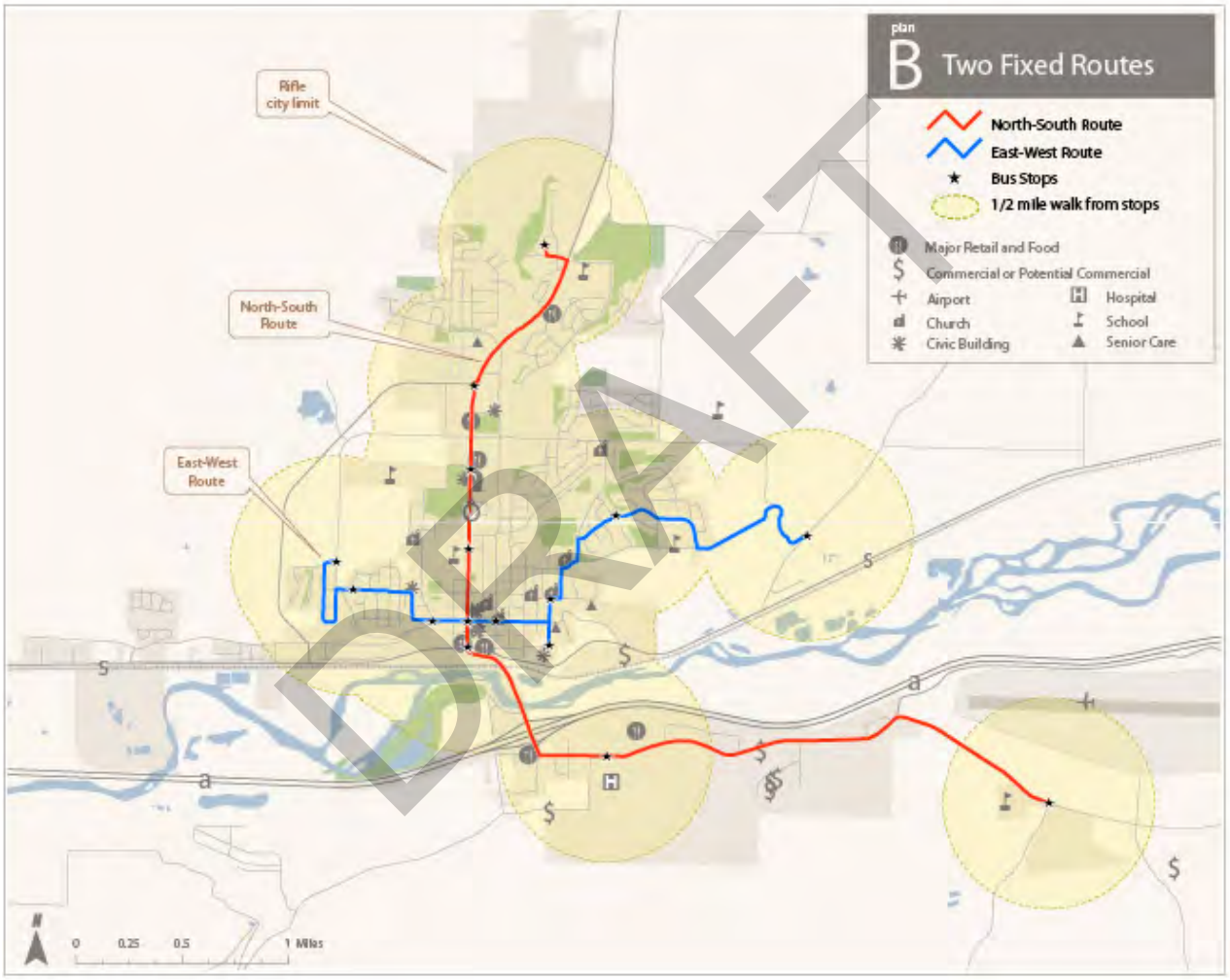
Figure 5-4 Fixed-Route Option A – One Fixed Route



Fixed-Route Option B

In this scenario, two fixed-routes are envisioned. The north-south route would feature the same stop locations as the Route described for Concept A, albeit with 60 minute service as opposed to 30 minute service. The east-west route would feature stops throughout the neighborhoods flanking eastern and western Rifle. Total round-trip travel time for the east-west route is 30 minutes. A variant of the east-west route is possible with even greater coverage in the eastern neighborhoods with a round-trip travel time of 45 minutes.

Figure 5-5 Fixed-Route Option B – Two Fixed Routes



Level of Service

In an attempt to demonstrate the tradeoffs between frequency and coverage, we modeled Option A with a 30-minute headway on the north-south route, while option B involves a 60-minute headway on the north-south Route and 30- to 45-minute service on the east-west route. Both service configurations would require two vehicles, but Option A provides a high level of service along Rifle's busiest commercial corridors, while option B provides enhanced coverage of the neighborhoods to the east and west of downtown Rifle.

Ridership

Since our ridership estimates are based on an assumed range of riders per hour and since the annual hours of service are the same for both options A and B, our ridership estimates for options A and B are identical. Ridership for both options ranges from 83,000 to 165,000 annual riders.

Costs

Basing our estimates on the assumptions outlined in Appendix A, Option A would cost approximately $670,000 annually. Due to higher mileage, Option B would cost $695,000 per year; slightly more than option A.

Since The Traveler currently operates in Rifle serving customers who generally fit ADA eligibility criteria, our assumption is that The Traveler would continue operating and would provide ADA service during normal operating hours. Therefore, our estimate of the cost of additional ADA paratransit service for the fixed-route scenarios is based on the hours of service required beyond The Traveler's typical operating hours, plus the cost of operating an extra vehicle during peak periods of demand. Four additional hours of evening service plus four additional hours of mid-day service ADA service would cost a total of $167,000 per year. However, based on the experience of Glenwood Springs, evening trip requests are infrequent. As such, the demand for ADA service is not likely to result in full utilization of a vehicle during these hours. In other words, the actual cost of additional ADA service is likely less than $167,000 per year.

Performance relative to Goals

Both options were ranked medium for the process objective because they are not easily implementable and may not be feasible for several years (depending on the availability of funding). Option A was ranked lower than option B in relation to the access objective because option A provides the least amount of coverage whereas option B provides walking-distance access to nearly all developed areas of Rifle. Option B was ranked slightly lower than option A with regard to efficiency. This lower efficiency score for option B is based on the fact that option B involves more vehicle mileage and related costs, yet is expected to generate approximately the same ridership as option A. Both options were ranked well for economic development based on ridership, while option A was ranked higher than option B based on the difference in service frequency.

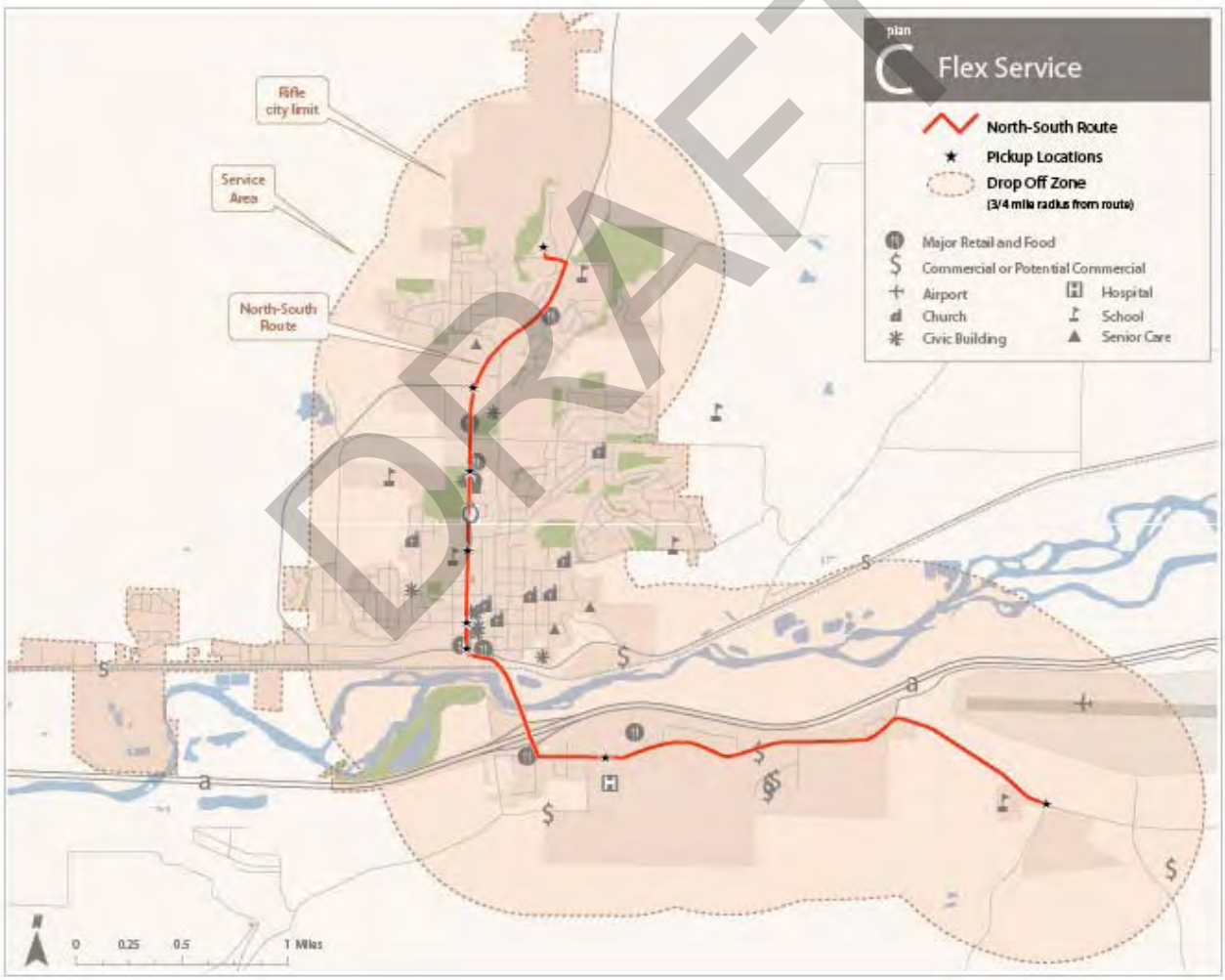
Figure 5-6 Performance of Fixed-Route Service Options

	Process	Access	Efficiency	Economic Development	Sustainable Mobility
Option A	◑	◑	●	●	●
Option B	◑	●	◕	●	◑

Concept 3: Flex-Route Services

Flex service is a hybrid between fixed-route and DAR service structures. In this scenario, the transit vehicle operates on a standard schedule and route, but is capable of deviating off-route to pick up scheduled passengers the way a DAR service would. Given the variability in travel times, it is often necessary to publish fewer time-points on a flex-route schedule. While a formal stop may still be provided at a given point in a neighborhood, the operator does not guarantee pickup at a designated time except for at the end-points or designated check-points (such as transfer points between routes, or key destinations). Check-points with scheduled stop-times in Rifle could include terminal stops and downtown Rifle. Intermediate stops would be served with a slightly greater degree of variability in arrival times. To eliminate the need for complementary ADA service, the flex-route service area should be at least three-quarters of a mile on either side of the route. The concept is illustrated in Figure 4-7.

Figure 5-7 Flex-Route Service Concept



Advantages of flex-routes are that they are often effective at providing service to areas where population and employment densities make traditional fixed-route service difficult. The demand-response feature of the service allows a larger area to be served and improves the attractiveness of public transportation. Flex-services, however, can be difficult for some riders to understand and

use. Because flex-routes allow time to travel off-route, fewer trips can be scheduled during the same time period as compared with fixed-route service, thus the overall service levels are lower.

Level of Service

With strict limitations on reservation criteria, the flex-route service could conceivably maintain a 30 minute headway at key check-points (Terminal stops and downtown CDOT park-and-ride) with two vehicles. This assumes an average round-trip corridor travel time of 40 minutes plus 20 minutes of idle/flex time. A more realistic schedule would likely involve setting the frequency of service at 45 minutes, yielding an additional 15 minutes for scheduled requests. Even with the additional time, however, the operator may want to limit the number of flex-requests per run.

Ridership

Ridership for flex-route service is estimated to be between 41,000 and 124,000 annual riders based on 8,256 annual hours of service.

Costs

Flex-route service, as described, would cost approximately $706,000 to operate annually. Since the service operations are dramatically different from and less compatible with the current operations of The Traveler, however, it is likely that the agencies served by The Traveler would wish to continue receiving service from The Traveler. Thus, since The Traveler already performs the ADA role as previously described, the only significant cost savings expected relative to the other options is that the additional $90,000 required for ADA service in the evenings as a complement to fixed-route options A & B would not be required for the flex-route option.

Performance relative to Goals

Reflecting its position in the middle of the continuum from DAR to full-fledged fixed-route service, flex-route service was ranked above fixed-route but below DAR in terms of process performance. This reflects the idea that flex-route services can be offered as an intermediary step between DAR and fixed-route service. In terms of access, flex-route service was ranked below DAR because strict flex-request criteria will likely be needed to maintain frequency and reliability. Efficiency was ranked low because flex-route services are not as productive as fixed-route services, and accumulate significantly more miles and associated costs. Both economic development and sustainable mobility were ranked relatively high, however, because flex-route service has the potential to generate more ridership than DAR and may be more frequent than fixed-route option B.

Process	Access	Efficiency	Economic Development	Sustainable Mobility
◕	◕	◑	◕	◕

Summary of Service Options

Figure 5-8 Summary of Service Options

Description	Span	Freq.	Cycle	Vehicles in Peak Service	Total Annual Hours	Total Annual Miles	Total Annual Passengers	Total Annual Operating Cost
Dial-a-Ride	16.0 Hrs.	N/A	N/A	2	6,231	87,230	18,692	$543,629
Fixed-Route Option A								
North-South Route	16.3 Hrs.	30 Min.	60 Min.	2	8,256	89,165	82,560	$669,083
Fixed-Route Option B								
North-South Route	15.8 Hrs.	60 Min.	60 Min.	1	4,128	44,582	41,280	$334,541
East-West Route	16.0 Hrs.	30 Min.	30 Min.	1	4,128	57,792	41,280	$360,168
Flex-Route	16.5 Hrs.	30-45 Min.	60 Min.	2	8,256	108,429	41,280	$706,455

Recommended Option: Fixed-Route Option A

The above options were presented to stakeholders at the January 13, 2011 stakeholder service planning workshop. Based on feedback received during the workshop – including real-time prioritization of project goals and evaluation of each option relative to the weighted goals – a preference for fixed-route option A emerged. It was suggested, however, that the feasibility study further evaluate whether a fixed-route service could be augmented with additional DAR or flex-route service to serve the eastern and western portions of Rifle. It was also requested that the feasibility study include a cost estimate for a differential frequency pattern reflecting high frequency during peak demand periods and low-frequency during other times of the day. The following recommended service option reflects this feedback.

Further Evaluation of DAR and Flex-route Service

A general public DAR service would allow individuals who are not eligible for ADA service to gain access to public transit in areas too far from the fixed-route to walk. General public DAR service would be performed using the same vehicles, drivers and dispatch infrastructure as the ADA paratransit service (i.e. the Traveler). Additional demand could potentially require additional vehicles and drivers to supplement existing resources used by the Traveler.

The principle benefit of providing general public DAR service is expanded coverage. Disadvantages include potentially high unit costs (i.e. cost per trip) for general public trips that might otherwise be met with other resources (i.e. family, friends, neighbors, taxi, etc). Charging a relatively high fare for service can control demand and mitigate the high unit costs of general public DAR service. Premium fares for general public DAR service discourage abuse and offset operating costs.

Another disadvantage of general public DAR service is that it can be viewed as unfair competition for local Taxi services. This can be addressed by contracting with Taxi services (instead of using the agency's vehicles and drivers) to provide a portion of DAR service for both ADA and general public customers. Contracting for service can also help control costs by ensuring a rate that is often lower than the marginal cost of providing DAR service.

Assuming that demand can be kept low through pricing policies and service contracts, overall costs for general public DAR can be relatively low.

An east-west running flex-route option would provide a similar level of coverage, while also providing feeder service to the main north-south fixed-route. The advantage of this option is that it provides a similar level of coverage as a public DAR option. The disadvantage of a flex-route option is that it increases annual operating costs significantly. Compared to DAR services, which operate only when needed, Flex-route services operate continuously. As such, the costs of Flex-route services are much higher. If ridership is relatively low, the cost per trip for flex-route service can be extremely high.

Recommendation regarding general public DAR and Flex-Route Service

We recommend that Rifle consider implementing a public DAR service in conjunction with ADA service operated by the Traveler. To control demand for non-ADA trip requests, we recommend a relatively high fare ($3.00 - $5.00 per trip) for non-ADA trips. ADA and public DAR service should be supplemented, as needed, through contracted service with local taxi companies.

Reflecting the desire expressed by stakeholders to see flex-route service offered in the east and west neighborhoods of Rifle, we recommend an eventual transition of DAR services toward flex-route services as demand grows and as service patterns begin to emerge. Phasing is described in detail in Chapter 7.

Recommended Level of Service

Reflecting feedback received during the service planning workshop, fixed-route option A was adjusted to feature 30-minute frequency during peak periods and 60-minute frequency during all other periods. Figure 4-9, below outlines the effect of these changes on total hours and vehicle requirements. The availability of an additional vehicle during off-peak hours raises the opportunity to offer The Traveler a spare vehicle for mid-day non-ADA service (i.e. general public DAR service).

Figure 5-9 Level of Service for Recommended Option

	Start	End	Span	Frequency	Cycle	Peak Vehicles	Daily Hours	Annual
Morning	6:00 AM	7:00 AM	1:00	1:00	1:00	1	1:00	258
AM Peak	7:00 AM	9:00 AM	2:00	0:30	1:00	2	4:00	1,032
Mid-Day	9:00 AM	4:00 PM	7:00	1:00	1:00	1	7:00	1,806
PM Peak	4:00 PM	7:00 PM	3:00	0:30	1:00	2	6:00	1,548
Evening	7:00 PM	10:00 PM	3:00	1:00	1:00	1	3:00	774
			16:00			2	21:00	5,418

ADA service would be provided during these same hours (from 6:00 AM to 10:00 PM) through the Traveler.

Ridership of Recommended Service Option

Based on the estimated 5,418 total annual service hours, the revised ridership estimate for the fixed-route service is between 54,000 and 108,000 annual riders.

Ridership associated with a general public DAR service and ADA paratransit service is expected to be relatively low. Assuming that the Traveler is already providing many of the would-be ADA

trips, the addition of formal ADA service would increase productivity by a small amount. Existing productivity on the Traveler is 2.34 riders per hour. Adding formal ADA service would likely only increase demand to three trips per hour.

General public DAR service, if provided using the Traveler, may have additional ridership impacts. A free general public DAR service would generate significant ridership. Given the high marginal cost of DAR service, a fare-free model would be unsustainable (it would essentially be a free taxi). A relatively high fare would control ridership, limiting ridership to perhaps one additional trip request per hour in addition to the three ADA trips per hour identified above. Total ridership for ADA and general public DAR service would amount to approximately 21,672 annual riders. Subtracting current ridership[2], this reflects a total of approximately 17,580 new riders.

Costs of Recommended Service Option

Figure 4-10 outlines the revised cost estimate for Option A reflecting the level of service outlined in Figure 4-9, above.

Figure 5-10 Estimated Cost for Recommended Option

Total Operating Cost	$175,001
Total Admin Cost	$150,566
Total Variable Maintenance Cost	$90,112
Total Fixed Maintenance Cost	$23,406
Estimated Total Annual Cost	$439,086

Building on the successful role that The Traveler currently plays in Rifle, we recommend that The Traveler be used to provide complementary ADA service for the expanded fixed-route service[3]. We further recommend that general public DAR service be made available for a premium fare throughout Rifle, to be provided by The Traveler[4]. This would help ensure coverage without sacrificing frequency of the north-south route.

As previously estimated, the annual cost of additional ADA service provided by the Traveler could be as high as $167,000, but would likely be significantly lower if demand for ADA service during evening periods is low. The addition of non-ADA trip requests, however, will likely increase costs beyond basic ADA service. For budgeting purposes, a conservative estimate of $83,500 is used in the funding options presented in chapter 7. This amount reflects an estimate for an additional eight daily vehicle hours on top of current Traveler service levels. If demand turns out to be greater than anticipated, additional service will be required, thus increasing costs proportionate to the increase in service hours offered.

[2] See figure 1-5 in Chapter 1.

[3] Pursuant to the Americans with Disabilities Act of 1990, ADA paratransit must be offered to eligible residents (i.e. people who cannot access the fixed-route due to a physical or mental disability) living within three-quarters of a mile of fixed-route services. Paratransit can serve as a feeder to fixed-route service, or can provide direct, curb-to-curb transportation between trip origins and destinations.

[4] General public DAR service fares should be set high enough to limit demand and control abuse. DAR service should be structured as feeder service by policy, but could also provide direct, curb-to-curb transportation between trip origins and destinations.

Figure 5-11 Recommended Route Configuration: Fixed-Route Option A – One Fixed Route

Chapter 6. Financial Plan

As indicated in Chapter 5, the recommended service option would cost approximately $440,000 per year plus contract fees for ADA and general public DAR service, plus additional periodic capital expenditures for replacement vehicles and facilities upgrades. This chapter delves deeper into the components of the recommended service option's cost structure and explores options for covering these costs. Chapter 7 builds on these concepts to outline a recommended plan of action for pursuing transit circulator services in Rifle.

Expenses

Federal funding for transit programs is available for administrative, operating and capital costs. Each category of funding includes slightly different rules regarding allowable costs and match levels. Therefore, it is beneficial to present program costs broken down into these cost categories.

Administrative Costs

Administrative costs are the fixed costs required to support transit services, and include administrative salaries and benefits, staff training expenses, supplies, professional services, facilities maintenance costs, insurance premiums, and other fixed overhead.

Assuming a generic operating structure in which service is provided through a contract with RFTA, administrative costs for the recommended option are estimated at $151,000 per year. This is based on RFTA's current fully loaded rate of $27.79 per vehicle hour for fixed administrative costs multiplied by the recommended service option's estimated 5,418 annual vehicle hours.

Operations Costs

Operations costs are variable costs of operating transit services. Operating costs encompass fuel, oil and other vehicle fluids, drivers' and mechanics' salaries and benefits, road and maintenance supervisory staff salaries and benefits, vehicle parts, and operating supplies. Fuel and oil and drivers' salaries are consumed on an hourly rate whereas costs relating to vehicle maintenance are consumed on a mileage rate.

Assuming the generic operating structure of the recommended service option described above, the total annual estimate for fuel and oil and drivers salaries (operating costs that are consumed at an hourly rate) is $175,000. This is based on a fully loaded marginal cost of $32.30 per vehicle hour multiplied by the recommended service option's estimated 5,418 annual vehicle hours.

Maintenance costs, including mechanics' salaries and replacement parts and supplies are applied at a marginal cost of $1.55 per mile. Maintenance related fixed overhead is charged at a rate of $0.39 per mile. Based on 58,514 annual vehicle miles estimated for the recommended service option, annual variable maintenance costs would amount to approximately $90,000 and $23,000 respectively; or a total of 113,000 for annual maintenance related expenses.

Combined, total annual operating costs would be approximately $289,000.

Capital Costs

As previously described in Chapter 4, the proposed service would require a minimum of two vehicles. We estimate that peak passenger loads could be as high as 25 passengers during peak travel periods, suggesting a maximum vehicle capacity requirement between 20 - 30 passengers (assuming some passengers will stand during peak loads). Vehicles in this capacity range cost between $60,000 – $280,000, depending on vehicle specifications. Vehicles with non-traditional propulsion systems, such as natural gas or hybrid configurations are between 10 and 30 percent more expensive than gasoline and diesel configurations[1].

Depending on the governance and management structure selected for the service (see Chapter 6), at least one spare vehicle may be required at startup[2]. Thus, a total capital cost for three vehicles could amount to as much as $540,000, assuming a mid-range cost of $180,000 per vehicle. Vehicle replacement would occur at approximately seven to ten year intervals based on the useful life of the selected vehicles. Medium duty vehicles generally have a useful life of seven years or 200,000 miles whereas heavy duty vehicles have a useful life of approximately 10 years or 350,000 miles.

To accommodate multi-modal transfers, vehicles should be outfitted with bicycle racks. Bike racks are often offered by vehicle vendors as an optional feature. Pricing for bike racks can range from $500 to $1,500 installed. Relative to the cost of the vehicle, this option is inexpensive. Therefore, a separate line item is not included in the proposed budget.

In addition to vehicle costs, startup capital costs will include expenses for bus stop amenities. Basic amenities include bench, stop sign and pole, shelter, trash can, and ADA accessible concrete pad. Costs for stop amenities are given in Figure 6-1, below, including a potential mix of stop amenities appropriate to the recommended service configuration. The total startup cost associated with these amenities is $39,360.

Figure 6-1 Bus Stop Amenities Pricing Estimate

	Type 1	Type 2	Type 3	Type 4
Pole & Sign	$200.00	$200.00	$200.00	$200.00
Trash Receptacle	$450.00	$450.00	$450.00	$ -
44" Bench	$250.00	$250.00	$250.00	$ -
9'X13" Pad	$1,000.00	$1,000.00	$ -	$ -
4' X 8' Shelter	$4,000.00	$ -	$ -	$ -
Labor	$3,540.00	$1,140.00	$540.00	$120.00
Total	$9,440.00	$3,040.00	$1,440.00	$320.00
Number of Each Type Required	2	4	4	8
Total Cost	$18,880.00	$12,160.00	$5,760.00	$2,560.00

Sources: Prices reflect a composite of a 2010 bid for bus stop amenities and escalation of bus stop amenity prices from a 1999 study of bus stop amenities in Wilsonville, CA.

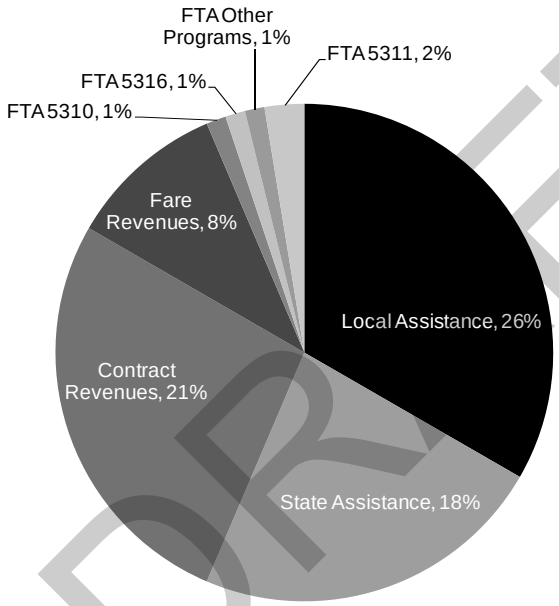
[1] http://www.oregon.gov/ODOT/PT/docs/5310/2011-Vehicle-Useful-Life.pdf

[2] The budgets presented in Chapter 7 assume utilization of Rifle's existing body-on-chassis van as a spare during the first two years of operation.

Revenue

Nationally, operating revenue for transit systems is sourced from a combination of fares (32 percent), local funds (29 percent), state funds (25 percent), federal assistance (8 percent) and a mix of other sources[3]. Rural systems – see Figure 6-2 – are funded with a much lower percentage of fares (8 percent), which is offset by a higher portion of service contracts (21 percent). Revenue for transit services in Colorado generally takes the form of fares and service fees, federal assistance grants, and local match provided by either a dedicated source of funding (typically sales tax) or through one-time apportionments from a variety of sources (generally for capital items). This section outlines how a variety of funding programs might fit together to fund the recommended service option.

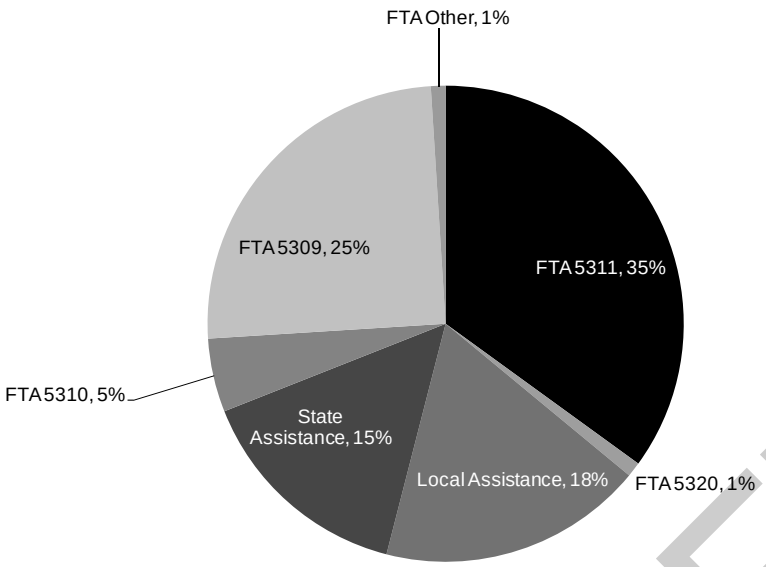
Figure 6-2 Sources of Rural Transit Operating Revenue



Note: FTA 5317, FTA 5309 and Operations FTA 5320 funds comprise less than 1% each.

[3] http://www.ntdprogram.gov/ntdprogram/pubs/national_profile/2009NationalProfile.pdf

Figure 6-3 Sources of Rural Transit Capital Revenue



Note: FTA 5316 and FTA 5317 funds comprise less than 1% each.

CDOT Section 5311

The Federal Transit Administration provides funding to support public transportation in areas of less than 50,000 populations through its Section 5311 program. Funds may be used for capital, operating, and administrative assistance to state agencies, local public bodies, nonprofit organizations, and private operators of public transportation services.

The 5311 program provides up to 50 percent match for operating expenses and 80 percent match for administrative and capital expenses. With high levels of competition in Colorado, CDOT generally does not award a full 50 percent match. Recent awards have averaged between 20 and 30 percent match for operating expenses in rural resort areas. Remote rural areas in other portions of the state have received significantly higher match ratios, but, according to CDOT, these systems have been operating for many years and are subject to different criteria than start-up systems.

Match calculations for operations costs are based on the service's net operating deficit. This is the total cost of operations minus revenue from fares. To be conservative, the estimates provided in this chapter assume a match ratio of 25 percent of net operating deficit. Post award negotiations will determine the final amount awarded, which may be slightly higher depending on a number of factors considered by CDOT.

Further details regarding the CDOT 5311 funding program and steps necessary to secure funding are provided in Chapter 6.

Fares & Service Fees

Passenger fares can provide an ongoing revenue stream to help support the cost of operating a transit service. While passenger fares provide valuable operating revenues, fares can only be expected to recover a small share of operating costs. For example, fares for rural transit services

nationwide are currently averaging a fare recover ratio of approximately 8 percent[4]. RFTA's fare collection recovery ratio averages approximately 30 percent for services that charge fares.

Surveys collected by Nelson\Nygaard indicate that a free fare is a major incentive for passengers who use circulator transit services[5]. This finding mirrors the experience in Glenwood Springs where ridership on local services doubled after eliminating fares. The consequence of not charging fares, however, is eliminating this source of revenue makes balancing the budget more challenging when dedicated revenue sources fail to meet budget needs.

Another consideration when deciding whether or not to charge a fare is to consider the cost of fare collection. Most transit systems have a cost of collection between 10 and 30 percent of fare revenue. If RFTA provides service, the marginal cost of collecting fares in Rifle may be relatively low since the infrastructure is already in place to count and audit collected fares[6]. If Rifle provides services, however, cost of collection could be much higher because new infrastructure would need to be put in place.

Assuming a 10 percent recovery ratio and a 20 percent cost of collection, fares are estimated to be approximately $44,000 with an $8,800 annual cost of collection. Therefore, eliminating fares in Rifle could reduce administrative costs by $8,800, but would reduce revenue by $44,000.

Whether or not a fare is charged will play a significant role in determining the level of ridership on the recommended service. As indicated in Chapter 4, ridership for the recommended service ranges from 54,000 to 108,000 annual riders (unlinked trips). Assuming that (1) a free fare system would experience the highest potential ridership for the recommended service option (i.e. 108,000 annual riders), and (2) a fare-based system (on-par with other fare-based service offered by RFTA) would experience low to mid-range ridership (i.e. 74,000 annual riders), we can calculate the trade-off associated with a fare-based system and a free-fare system. Figure 6-4, below shows a free-fare system has a higher subsidy requirement but also has a higher number of riders. As a result, the subsidy per rider is lower in the free-fare example than it is in a fare-based system. The breakeven point in this example (where the subsidy per rider is equal in both a free-fare and a fare-based service) occurs with a 33 percent fare recovery ratio. Therefore, it would make sense to offer a fare-based system under the following conditions:

- **If the ridership assumptions are correct:** Our assumption is that a fare-based system will experience approximately a 32 percent reduction in ridership relative to a free-fare system. This is on par with experiences elsewhere, but not necessarily representative of what will happen in Rifle.
- **If Rifle can achieve a fare recovery ratio of 33 percent or greater:** Increasing the recovery rate of fare collection greatly improves the subsidy per rider outcome.
- **If subsidy per rider is more of a concern than overall ridership:** This is a policy decision that Rifle will need to make. Ridership plays a role in other program goals (as described previously). Therefore, a low subsidy per rider may not be the only motivating factor in this decision.

A last consideration regarding fares has to do with timing. Starting with a fare-free system and then adding fares will be politically challenging. Starting with a fare-based system will result in lower initial ridership, but will be easier to replace with a fare-free system at a later date.

[4] http://www.ntdprogram.gov/ntdprogram/pubs/NTST/2008/HTML/Transit_in_the_US.htm#_Toc213598055

[5] Nelson\Nygaard Consulting Associates, 2001, San Rafael Shuttle Bus Feasibility Study, City of San Rafael, CA

[6] Collection costs are built into the factors used to estimate costs in the preceding section.

Based on these factors, the current budget reflects a free-fare for fixed route services. Public DAR and ADA services would require a fare to control demand and offset operating costs. ADA service fares should be set at approximately half of public DAR service fares.

Figure 6-4 Fare and Ridership Trade-offs – Effect on Subsidy per Rider

	Ridership	Cost of Service	Fare Revenue	Net Deficit (subsidy)	Subsidy per Rider
Fare-Free	108,360	$ 430,286	$ -	$ 430,286	$ 3.97
Fare-Based	74,180	$ 439,086	$ 43,909	$ 395,177	$ 5.33

Note: Figures assume a 10 percent fare recovery ratio and a 20 percent cost of fare collection. Figures also reflect the estimate that a fare-free system generates 20 riders per hour and fare-based system generates approximately 14.

Advertising

Many transit agencies use revenue from bus-side and bus-stop advertising to supplement operating revenues. Based on discussions with Rifle's Chamber of Commerce there is a need for additional advertizing venues in Rifle due to a lack of billboards in the vicinity of Rifle. Rates for advertising in Rifle run approximately $300 per month. Assuming that space is leased 10 months out of the year on both vehicles, an advertising program would generate approximately $6,000 per year. If advertising were also offered on benches (assuming 10 benches are built, as identified above), an additional $30,000 could be raised.

Sales Tax

Colorado is one of only a few states that do not have a dedicated source of state funding for general public transit. Local sales taxes are the primary source for funding transit services.

As a home-rule municipality, the City of Rifle is responsible for collecting sales tax within city limits. According to Rifle's fiscal 2009 budget, taxable sales in 2008 were approximately $124,584,000. At Rifle's current tax rate of 3.5 percent of taxable sales, this tax base generated a total of $4,360,000 in sales tax revenue. To estimate potential revenue from an additional sales tax for transit, Figure 6-5 lists additional revenue generated from a range of potential tax rates.

Figure 6-5 Potential Tax Levels and Associated Revenue Levels

Tax Rate	Revenue
0.10%	$124,584
0.20%	$249,167
0.30%	$373,751
0.40%	$498,335
0.60%	$747,502
0.80%	$996,670
1.00%	$1,245,837

Source: 2009 Rifle City Budget, Nelson\Nygaard Calculations

There appear to be several means by which a municipality can enact a sales tax for transit in Colorado. First, a city can raise general sales tax and earmark the increment raised specifically to fund transit operations. Second, Colorado Statute 29-2-103.5, Sales Tax for Mass Transit authorizes counties outside of the Regional Transportation District (RTD) to enact a sales tax, a use tax, or both to support mass transportation within the county. Under this scenario a municipality would contract with the county to provide service. Third – the most common case – is for a city to enact a tax as part of joining a Regional Transportation Authority (RTA). This is typically done in conjunction with several jurisdictions but can be done as a single municipality as well. In fact, South Platte Valley RTA – an RTA serving the Town of Sterling, Colorado - follows this model. These options are explored in further detail in Chapter 6.

General Fund

Local funds could be used in the form of direct financial contributions or provided through in-kind services. As an example of in-kind matching, if the salaries of planning and administrative staff are paid for through general fund sources (specifically, non-federal Department of Transportation sources), the expenses can be counted as in-kind match toward the local match portion of the grant. This is allowable only if the source of funds is not the U.S. Department of Transportation and if the service or good is part of the project budget upon which the federal grant is based.

Direct payments from the general fund can be supported by a variety of general fund sources. Many cities in Colorado, including Ft. Collins, Boulder, and Colorado Springs use parking fees as a source of general fund revenue that supports transit. Some cities allocate discretionary funding in years of surplus to a transit account that can be used to either supplement on-going operating expenses, serve as a reserve for bad years, or for periodic capital purchases.

Property Taxes

One option raised by project stakeholders is the prospect of forming a transit district within the City of Rifle that would levy a property tax to support transit. According to Colorado Statute 32-7-140 the mill levy limitation for property tax is one-half mill on each dollar of valuation for assessment each year. For simplicity, we have used sales tax in the funding mix instead of property tax. If sales tax is not feasible, property tax should be considered.

Mineral Lease Royalties

A portion of Mineral Lease Royalties paid by oil and gas companies are distributed periodically to local governments by the Colorado Department of Local Affairs (DOLA). According to Rifle staff, availability of this funding source fluctuates and is fairly unpredictable on a year-to-year basis. Due to the unpredictable nature of these funds, Rifle generally deposits proceeds paid by DOLA in the City's capital fund rather than the general fund.

As funds become available, revenue from Mineral Lease Royalties may be a good source for periodic capital purchases such as replacement vehicles, improve bus stops, or expansion of fleet facilities. It is not recommended, however, that these funds be relied on for on-going operations.

Vehicle Registration Fees

The current funding structure used by RFTA for member jurisdictions includes a mix of both sales tax and vehicle registration fees. Current vehicle registration fees are $10. Revenue from vehicle registration fees is not reported as a separate line item in the current RFTA budget. However,

according to our interviews with RFTA staff, vehicle registration fees make up a large percentage of RFTA's overall budget.

Assuming an average annual rate of 7,000 vehicle registrations per year in Rifle (approximately two vehicles per household), annual revenue of approximately $70,000 could be generated from this source. However, a recent survey conducted in Garfield County found that the level of support for public transit dropped precipitously when vehicle registration fees were included in the funding mix[7]. As a conservative budgeting measure, therefore, we have left vehicle registration fees out of the funding mix.

Development Fees

A traffic or transportation impact fee is a charge imposed on new development to compensate for their impacts on the local transportation infrastructure. A fee is typically assessed on square footage of planned development. Impact fees can be implemented by local ordinance that identifies specific criteria for establishing an impact fee. Impact fees can be imposed in downtown urban areas or in outlying growth areas. Like all developer fees, transportation fees must show a nexus between the development and specified improvement or service provided. The revenues generated from an impact fee can vary tremendously, dependent upon the fee structure and the level of development growth. These fees would be used for transportation improvement projects. This could include intersection improvement projects, bicycle/pedestrian projects, traffic calming measures, or transit service.

Transient Hotel Tax Proceeds

Revenues derived from hotel taxes are usually for general fund purposes and to pay for tourist-related improvements. These could include a variety of infrastructure improvements, including a local transit circulator service. According to the Rifle Chamber of Commerce, Rifle's estimated revenues generated from the hotel tax have been approximately $150,000 to $175,000 per year in the recent past. The current rate is 2.5 percent.

An increase in hotel tax revenues would need to be approved by the Hotel Tax advisory board – of which many of its members are also members of the Rifle Transit Circulator Feasibility Study stakeholder committee. Given that much of the tourism in Rifle is based around outdoor recreation, it may be difficult to make the case that transit has a strong nexus with tourist activities.

Public/Private Partnerships

Other successful circulator services have established public/private partnerships and have received generous financial support from the private sector. The private sector, broadly interpreted, can include employers, merchants and retail establishments.

Contributions can take the form of ongoing operating support or can also be used for onetime capital purchases such as passenger shelters and benches. Employers or merchants that benefit from the circulator service may be interested in supporting it, particularly if a bus stop were located at their front door (maximizing convenience for their employees or customers). A few examples discussed during stakeholder meetings are listed below.

[7] Garfield County Public Opinion Survey, 2009

- **Oil & Gas Industry:** Given the region's natural abundance of oil and gas, there are numerous opportunities to partner with local oil and gas companies to support the transit program. A logical approach would be to seek sponsorship of a natural gas vehicle fleet.
- **Partners in Transportation Coordination:** The Traveler service has already enabled a certain degree of consolidation of human service transportation programs. Nevertheless, there will be times when The Traveler cannot meet its service needs and vice versa. Coordination among programs can lead to service contracts in which the agency offering service is able to generate additional revenue on a fee for service basis.
- **CMC student eco-pass:** Colorado Mountain College could partner with Rifle and/or RFTA (depending on the governance framework selected, see Chapter 6), to establish a discount student pass program. Such a program might involve a general student fee for all students. These student fees would fund a service contract with the transit operator (Rifle or RFTA) which in turn will give each student an unlimited ride bus pass. The rate charged by the operator would be set such that the total cost of service is revenue neutral (i.e. the same level of revenue estimated if students were charged regular fares). The primary benefit of such an arrangement will be ridership generation, not revenue generation.

Chapter 7. Implementation Plan

As the culmination of this feasibility study, this chapter outlines a series of governance and management options and sets forth a recommendation for how to implement the recommended service option. Included in this chapter is an overview of the financial implications of the recommended option as well as a step-by-step implementation plan.

Governance and Management Options

There are a variety of ways to approach governance and management of a future transit circulator service in Rifle. Key questions to be addressed in determining the appropriate management structure include:

- What role should Rifle play in the various facets of operating a transit circulator service?
- What role should RFTA play?
- What management structure most effectively achieves the project goals?
- How will the selected management structure affect the service's competitive positioning for limited federal assistance?
- What management structure is most capable of responding to Rifle's needs over both the short- and long-range planning horizons identified in this plan?

To begin answering these questions, we consider several options for filling the various roles required to manage and operate a transit system. Every transit system involves at some level the following roles:

- **Day-to-day operations and administration:** The most basic role to be filled is that of the transit service operator. This role involves day-to-day operations of transit services including hiring and training drivers, establishing driver schedules, conducting and overseeing operations, and coordinating vehicle maintenance.
- **Management of service contract:** If the provision of service is carried out through a service contract, Rifle or another entity will be responsible for managing the contract. If Rifle assumes the role of operator, the operations and management roles would be the combined responsibility of Rifle.
- **Applying for funds:** Regardless of which entities assume the roles of operator and manager, a single entity will be responsible for securing and overseeing funding for the service. This role includes on-going reporting and coordination with CDOT and FTA if federal funds are pursued, as well as management of local dedicated revenue sources.
- **Service planning:** In order to maximize the effectiveness of service, on-going monitoring and evaluation should become an integral part of planning for service changes over time. This role will need to be filled by either Rifle or RFTA or through a joint-effort of the two entities.
- **Marketing:** All services require an effective public information and marketing campaign. This includes developing brochures, creating a distribution network and preparing other marketing materials and informational pieces.
- **Maintenance:** Although the operator of services will ultimately play an important role in coordinating vehicle maintenance, the entity that performs vehicle maintenance need not

be the operator. In many rural communities routine preventive maintenance can be provided by commercial garages.

Five scenarios are envisioned in which Rifle and RFTA – and in one case, a third-party contractor – fill these roles in various configurations. The options are organized from highest level of RFTA involvement to lowest.

Option 1 - Join RFTA RTA

Perhaps the most familiar option for providing transit service in Rifle is to join the RFTA Regional Transportation Authority (RTA) by enacting a voter approved transit sales tax. This scenario is familiar because it has been attempted in the past but did not achieve sufficient voter approval. Under this scenario, Rifle would be given a seat on the RFTA Board of Directors and service levels would be set proportionate to revenues contributed to the RTA by Rifle. Depending on the agreement reached with RFTA, RFTA may fill all of the roles identified above, or share responsibilities with Rifle. For budgeting purposes, we have assumed that Rifle will provide contract management, grant application (in partnership with RFTA), planning and marketing. These tasks would require hiring a full time transit administrator as a Rifle employee.

There are several advantages of this option. First, it gives Rifle a seat on the RFTA board of directors. This role would give Rifle more say in how regional services are configured. Second, residents understand this option because it is practiced in neighboring communities where regional and local services are provided by RFTA. Familiarity will be beneficial during the election if people have a positive perception of RFTA services. Third, by bringing the Rifle service fully into the RFTA membership framework, local and regional services can be handled in a more coordinated fashion. This would enable Rifle and RFTA to address service and revenue issues relating to local circulators and the regional Hogback services in a holistic way.

Fourth, it is relatively flexible. RFTA's membership agreement allows for individual members to tailor the agreement to meet their needs. For example, as a member of RFTA, the City of Glenwood Springs procures its own vehicles and handles grant application processes through CDOT[1]. Glenwood Springs provides a full-time service administrator who serves as a liaison with RFTA and CDOT and performs service planning and marketing functions. A major function of this position is to correspond with CDOT regarding Ride Glenwood Spring's 5311 grants.

One disadvantage of this option is that the regional focus of the RFTA organization could result in the diffusion of attention away from local concerns. Part of the reason Glenwood Springs provides its own service administrator is to ensure that adequate attention is placed on planning at the local level. To maintain adequate attention on local service, planning and marketing functions would likely need to be performed by Rifle.

Another potential disadvantage of this option is that it may be difficult to implement if voters do not perceive RFTA in a positive light.

[1] The grant management role performed by Glenwood Springs was indicated as sub-optimal by Glenwood Springs staff due to the significant amount of administrative effort required to maintain compliance with CDOT rules and regulations. Their suggestion was to pursue an arrangement similar to Aspen's agreement with RFTA.

Figure 7-1 Option 1 Funding Plan

	2012	2013	2014	2015	2016
Operating Costs					
Operations & Maintenance	$288,519	$297,175	$306,090	$315,273	$324,731
ADA/DAR Service Contract	$83,500	$86,005	$88,585	$91,243	$93,980
RFTA Administration	$141,766	$146,019	$150,400	$154,912	$159,559
Rifle Administration	$75,000	$77,250	$79,568	$81,955	$84,413
Total Operating Expenses	$588,785	$606,449	$624,642	$643,381	$662,683
Capital Costs					
Vehicles	$320,000	$0	$160,000	$0	$0
Stop Amenities	$39,360	$0	$0	$0	$0
Maintenance Facility Upgrades	$0	$0	$0	$0	$0
Total Capital Expenses	$359,360	$0	$160,000	$0	$0
Total Annual Expenses	$948,145	$606,449	$784,642	$643,381	$662,683
Fares & Net Operating Deficit					
Fare Revenue Proceeds (0%)	$8,350	$8,601	$8,859	$9,124	$9,398
Net Operating Deficit	$363,669	$374,579	$385,816	$397,391	$409,313
Revenue - Federal Match Programs					
5311 Operations Grant (25%)	$90,917	$93,645	$96,454	$99,348	$102,328
5311 Administration Grant (50%)	$37,500	$38,625	$39,784	$40,977	$42,207
5311 Capital Grant (50%)	$179,680	$0	$80,000	$0	$0
Total Federal Grant Revenue	$308,097	$132,270	$216,238	$140,325	$144,535
Revenue - Local Match					
Sales Tax (0.425%)	$498,336	$513,286	$528,685	$544,545	$560,882
Advertizing Proceeds	$36,000	$37,080	$38,192	$39,338	$40,518
In-kind Match (Administration)	$15,000	$15,450	$15,914	$16,391	$16,883
Corporate Vehicle Sponsorship	$160,000	$0	$0	$0	$0
DOLA Capital Funding (Stop Amenities)	$19,680	$0	$0	$0	$0
Transfer from Reserve	$0	$0	$80,000	$0	$0
Total Local Revenue	$729,016	$565,816	$662,791	$600,274	$618,283
Total Annual Revenue	$1,037,113	$698,086	$879,028	$740,599	$762,817
Surplus/(Deficit)	$88,968	$91,637	$94,386	$97,218	$100,135
Reserve Fund Balance	$88,968	$180,606	$194,992	$292,210	$392,345

Note: This budget is to be used as a fund raising guide. All figures are subject to change. Grants are illustrative and do not represent formal commitments: Inclusion of grants from DOLA, CDOT and corporate partners is not intended to imply that these funds have been awarded or obligated in any way.

Option 2 - Contract for Service via Intergovernmental Agreement

This is the current model for Traveler services and for the Hogback service. Rifle pays for the service it receives from RFTA based on a service contract. Under this scenario, essentially all functions except contract management are performed by RFTA.

An advantage of this arrangement is that it requires limited administrative oversight on behalf of Rifle. However, this is also a disadvantage because Rifle has limited control over the provision of service. As a result, this option does not provide Rifle with a proactive role in service planning or marketing.

Another disadvantage of this arrangement is that service is entirely dependent on general fund apportionments. In lean years, without a dedicated source of revenue, funding for service can easily be cut. Because of its unpredictable nature and limited potential for long-term success, this option is not recommended.

Option 3 - Independent Municipal Transit Agency – Joint-Operating Agreement

This option is a hybrid of Options 1 and 2. Under this scenario, Rifle would seek voter approval of a dedicated funding source, but would not join the RFTA RTA. Rifle would either enact and earmark a general sales tax increase for transit or form an RTA of its own and raise sales tax through the RTA taxing mechanism. Service in this scenario would be purchased from RFTA on a contract basis.

In structuring an agreement with RFTA, there are a number of options available for providing services. We recommend that RFTA provide day-to-day operations, Rifle and RFTA jointly apply for 5311 funding, and Rifle provide contract management, service planning, marketing, and potentially maintenance services.

Our suggestion that RFTA operate day-to-day transit services reflects our opinion that RFTA is better suited to carry out the day-to-day operations tasks than Rifle. Because RFTA already has the capacity to operate a large transit system, RFTA's fixed overhead costs are not likely to change dramatically as a result of adding two service vehicles in Rifle. However, if Rifle were to perform day-to-day operations without RFTA's assistance, Rifle would need to develop new expertise in a variety of areas including risk management, compliance, driver training and recruitment, road supervision, and scheduling. These tasks would require hiring multiple experienced staff (see Figure 7-3) as well as the periodic solicitation of specialized professional services.

Aside from simply being good practice, our recommendation that the two agencies collaborate on grant requests reflects CDOT's preference for coordinated grant applications. It also facilitates cooperation and collaboration and proactive regional-level planning.

Our recommendation that Rifle perform service planning and marketing tasks reflects the idea that local services require local planning and promotion. These functions may require hiring a full time transit administrator as a Rifle employee. if the cost of performing these services at the local level is significantly greater than sourcing these services centrally, the benefits of local planning and marketing should be considered relative to cost. As experienced on this study, Rifle and RFTA planning staff have a good working relationship and can easily collaborate on planning issues across organizations.

Lastly, we suggest that Rifle may be able to perform some or all maintenance functions locally at a lower cost than RFTA. This assertion is based on the fact that RFTA's nearest garage is

located in Glenwood Springs and specialized maintenance is often performed in Aspen. Rifle's public works department has a garage in Rifle that may be suitable for the majority of preventive maintenance tasks (specialized maintenance tasks would likely still need to be performed up-valley). If Rifle were to provide maintenance it would eliminate the need to transport vehicles long distance and could create significant cost savings by reducing vehicle transportation between garages. For planning purposes, we have assumed that Rifle's variable maintenance costs would amount to $1.25 per mile (compared to $1.55 for RFTA). These figures will need to be confirmed with further analysis to understand the full costs of Rifle providing maintenance.

Advantages of this option include increased flexibility for both Rifle and RFTA. By forming an agreement outside of a formal regional RTA framework, the two parties may have more freedom to explore novel approaches.

Another potential advantage is that this option may be less expensive compared to Option 1 if significant cost savings can be achieved through a more efficient maintenance arrangement. This will need to be explored in more detail.

Conversely, setting up a separate RTA or a dedicated general sales tax may require a considerable amount of effort. Since the RFTA RTA already exists, it may be simpler to join RFTA than forming an entirely separate RTA.

Figure 7-2 Option 3 Funding Plan

	2012	2013	2014	2015	2016
Operating Costs					
Operations & Maintenance	$271,550	$279,697	$288,087	$296,730	$305,632
ADA Service Contract	$83,500	$86,005	$88,585	$91,243	$93,980
RFTA Administration	$141,766	$146,019	$150,400	$154,912	$159,559
Rifle Administration	$75,000	$77,250	$79,568	$81,955	$84,413
Total Operating Expenses	$571,816	$588,970	$606,640	$624,839	$643,584
Capital Costs					
Vehicles	$320,000	$0	$160,000	$0	$0
Stop Amenities	$39,360	$0	$0	$0	$0
Maintenance Facility Upgrades	$250,000	$0	$0	$0	$0
Total Capital Expenses	$609,360	$0	$160,000	$0	$0
Total Annual Expenses	$1,181,176	$588,970	$766,640	$624,839	$643,584
Fares & Net Operating Deficit					
Fare Revenue Proceeds (10%)	$8,350	$8,601	$8,859	$9,124	$9,398
Net Operating Deficit	$346,700	$357,101	$367,814	$378,848	$390,214
Revenue - Federal Match Programs					
5311 Operations Grant (25%)	$86,675	$89,275	$91,954	$94,712	$97,553
5311 Administration Grant (50%)	$37,500	$38,625	$39,784	$40,977	$42,207
5311 Capital Grant (50%)	$304,680	$0	$80,000	$0	$0
Total Federal Grant Revenue	$428,855	$127,900	$211,737	$135,689	$139,760
Revenue - Local Match					
Sales Tax (0.40%)	$498,336	$513,286	$528,685	$544,545	$560,882
Advertizing Proceeds	$36,000	$37,080	$38,192	$39,338	$40,518
In-kind Match (Administration)	$15,000	$15,450	$15,914	$16,391	$16,883
Corporate Vehicle Sponsorship	$160,000	$0	$0	$0	$0
DOLA Capital Funding (Maintenance Facility)	$125,000	$0	$0	$0	$0
DOLA Capital Funding (Stop Amenities)	$19,680	$0	$0	$0	$0
Transfer from Reserve Fund	$0	$0	$32,000	$0	$0
Total Local Revenue	$854,016	$565,816	$614,791	$600,274	$618,283
Total Annual Revenue	$1,282,871	$693,716	$826,528	$735,964	$758,043
Surplus/(Deficit)	$101,695	$104,746	$59,888	$111,125	$114,459
Reserve Fund Balance	$101,695	$206,441	$234,329	$345,454	$459,913

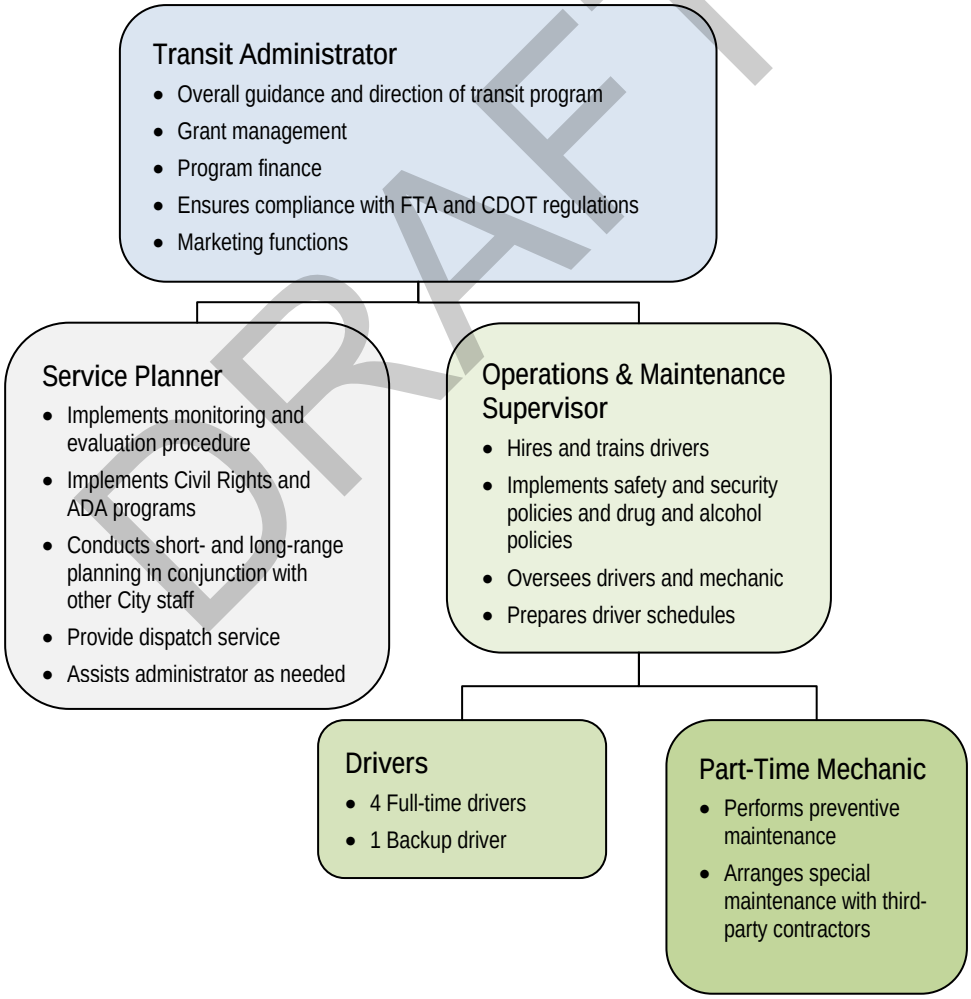
Note: This budget is to be used as a fund raising guide. All figures are subject to change. Grants are illustrative and do not represent formal commitments: Inclusion of grants from DOLA, CDOT and corporate partners is not intended to imply that these funds have been awarded or obligated in any way.

Option 4 - Independent Municipal Transit Agency – In House Operations

This option is similar to Option 3 in that Rifle would either enact and earmark a general sales tax increase for transit or form an RTA of its own and raise sales tax through the RTA taxing mechanism. However, instead of contracting with RFTA for operations, the city would operate services directly by forming a transit division within its municipal framework. Thus, this option does not involve RFTA in the provision of local services. RFTA would continue to operate the Grand Hogback and Rifle's funding for the Grand Hogback would remain in place, but not through official membership in the RFTA RTA.

Depending on how Rifle approaches the formation of an internal transit operations division, the cost structure for this model could differ greatly from RFTA's. For illustrative purposes, the personnel potentially required to form an in-house operation are outlined in Figure 7-3.

Figure 7-3 Potential Organization Chart for Rifle Transit Division



In theory, there may be economies of scope associated consolidating all functions under Rifle's jurisdiction. Instead of having two levels of administration as would be required in Options 1 and 3, this option requires only one level of administration. Nevertheless, benefits from improved

economies of scope may be outweighed by inefficiencies associated with reduced economies of scale.

Because RFTA has hundreds of drivers and vehicles, RFTA is able to exercise a great deal of flexibility in responding to resource allocation issues. Rifle will not have this level of flexibility when it's resources consist of 3 vehicles and 5 drivers. When vehicles are damaged or worn, or when drivers show up late, or quit unexpectedly, Rifle will face a much greater challenge than when RFTA faces these kinds of issues.

An advantage of this option is that it gives Rifle ultimate control over the provision of transit services. This can also be viewed as a disadvantage, however because this increased level of control also includes an increased level of responsibility and liability.

Another disadvantage of this option is by not participating in the RFTA RTA, Rifle has little control over regional services. Forming an independent municipal structure provides little assurance that regional services will continue to be offered in Rifle.

Option 5 - Independent Municipal Transit Agency – Third-Party Operations Contract

This option is similar to Option 3, but instead of contracting with RFTA, Rifle would open the bid process to all public transit operators and select the lowest cost contractor.

There is a common perception in the transit industry that contracted service delivery leads to significant cost savings for transit providers. A 2001 survey conducted by the Transportation Research Board showed that two of the top three reasons that agencies chose to contract services were to improve cost-efficiency and reduce costs. The same study found 60 percent of all transit providers nationwide contract all or part of their service delivery to a private or nonprofit organization.

These benefits typically apply only to agencies that do not operate under restrictive union labor contracts allowing for reduced labor rates under a contract for services. The cost efficiency of a turnkey service contract is also dependent on the presence of local service providers or the attractiveness of the site to a national service provider to support a competitive bid process.

Glenwood Springs recently solicited bids for contracted service but was unsatisfied with the results. According to the Ride Glenwood Springs administrator, bids were not competitive and the process was inefficient. Although the evidence is not conclusive, this experience suggests that there is not a strong market for privately contracted services. An economic explanation for this may be that RFTA is relatively efficient and, therefore, potential profits from operating in the corridor are relatively low. Also, RFTA has significant sunk costs in the region. From a micro economic perspective, large sunk costs have a tendency to discourage new entrants in the local market.

If there is evidence that these conditions have changed, Rifle should consider soliciting bids. A simple way to test the market-readiness for contracted services would be to informally poll several national operators regarding their level of interest in setting up operations in the local area. If it appears that contractors are uninterested in serving the area, this option should be avoided.

Figure 7-4 Option 4 Funding Plan

	2012	2013	2014	2015	2016
Operating Costs					
Operations & Maintenance	$271,550	$279,697	$288,087	$296,730	$305,632
ADA Service Contract	$83,500	$86,005	$88,585	$91,243	$93,980
Administration	$141,766	$146,019	$150,400	$154,912	$159,559
Total Operating Expenses	$496,816	$511,720	$527,072	$542,884	$559,171
Capital Costs					
Vehicles	$320,000	$0	$160,000	$0	$0
Stop Amenities	$39,360	$0	$0	$0	$0
Maintenance Facility Upgrades	$250,000	$0	$0	$0	$0
Total Capital Expenses	$609,360	$0	$160,000	$0	$0
Total Annual Expenses	$1,106,176	$511,720	$687,072	$542,884	$559,171
Fares & Net Operating Deficit					
Fare Revenue Proceeds (10%)	$8,350	$8,601	$8,859	$9,124	$9,398
Net Operating Deficit	$346,700	$357,101	$367,814	$378,848	$390,214
Revenue - Federal Match Programs					
5311 Operations Grant (25%)	$86,675	$89,275	$91,954	$94,712	$97,553
5311 Administration Grant (50%)	$70,883	$73,009	$75,200	$77,456	$79,779
5311 Capital Grant (50%)	$304,680	$0	$80,000	$0	$0
Total Federal Grant Revenue	$462,238	$162,285	$247,153	$172,168	$177,333
Revenue - Local Match					
Sales Tax (0.325%)	$373,752	$384,965	$396,513	$408,409	$420,661
Advertizing Proceeds	$36,000	$37,080	$38,192	$39,338	$40,518
In-kind Match (Administration)	$15,000	$15,450	$15,914	$16,391	$16,883
Corporate Vehicle Sponsorship	$160,000	$0	$0	$0	$0
DOLA Capital Funding (Maintenance Facility)	$125,000	$0	$0	$0	$0
DOLA Capital Funding (Stop Amenities)	$19,680	$0	$0	$0	$0
Transfer from Reserve Fund	$0	$0	$80,000	$0	$0
Total Local Revenue	$729,432	$437,495	$530,619	$464,138	$478,062
Total Annual Revenue	$1,191,670	$599,779	$777,773	$636,306	$655,395
Surplus/(Deficit)	$85,494	$88,059	$90,701	$93,422	$96,224
Reserve Fund Balance	$85,494	$173,553	$184,253	$277,675	$373,899

Note: This budget is to be used as a fund raising guide. All figures are subject to change. Grants are illustrative and do not represent formal commitments: Inclusion of grants from DOLA, CDOT and corporate partners is not intended to imply that these funds have been awarded or obligated in any way.

Figure 7-5 Side-by-Side Comparison of First-Year Budgets

	Funding Option 1	Funding Option 3	Funding Option 4
Operating Costs			
Operations & Maintenance	$288,519	$271,550	$271,550
ADA/DAR Service Contract	$83,500	$83,500	$83,500
RFTA Administration	$141,766	$141,766	$0
Rifle Administration	$75,000	$75,000	$141,766
Total Operating Expenses	$588,785	$571,816	$496,816
Capital Costs			
Vehicles	$320,000	$320,000	$320,000
Stop Amenities	$39,360	$39,360	$39,360
Maintenance Facility Upgrades	$0	$250,000	$250,000
Total Capital Expenses	$359,360	$609,360	$609,360
Total Annual Expenses	$948,145	$1,181,176	$1,106,176
Fares & Net Operating Deficit			
Fare Revenue Proceeds (10.00%)	$8,350	$8,350	$8,350
Net Operating Deficit	$363,669	$346,700	$346,700
Revenue - Federal Match Programs			
5311 Operations Grant (25%)	$90,917	$86,675	$86,675
5311 Administration Grant (50%)	$37,500	$37,500	$70,883
5311 Capital Grant (50%)	$179,680	$304,680	$304,680
Total Federal Grant Revenue	$308,097	$428,855	$462,238
Revenue - Local Match			
Sales Tax[1]	$498,336	$498,336	$373,752
Advertizing Proceeds	$36,000	$36,000	$36,000
In-kind Match (Administration)	$15,000	$15,000	$15,000
Corporate Vehicle Sponsorship	$160,000	$160,000	$160,000
DOLA Capital Funding (Maintenance Facility)	$0	$125,000	$125,000
DOLA Capital Funding (Stop Amenities)	$19,680	$19,680	$19,680
Transfer From Reserve	$0	$0	$0
Total Local Revenue	$729,016	$854,016	$729,432
Total Annual Revenue	$1,037,113	$1,282,871	$1,191,670
Surplus/(Deficit)	$88,968	$101,695	$85,494

1 Sales tax levels vary for each option: Option 1 = 0.40 percent, Option 2 = 0.40 percent, Option 3 = 0.30 percent.

Recommendation

Our suggestion is to pursue Option 1 and Option 3 simultaneously. Although Option 4 appears to be the most financially attractive, it requires the creation of an entirely new transit entity within Rifle. This carries a great deal of risk. It also limits Rifle's access to drivers and vehicles thus making resource allocation a challenge.

As outlined in the following implementation plan, there is more work to be done to determine the level of public acceptance of the recommended service option. Part of this process needs to involve testing the perception and level of support for Option 1 versus Option 3 (Option 4 could also be vetted publicly). As Rifle and RFTA explore these options it is likely that as additional information becomes available one option will emerge as dominant over the other. For the time being, both options are viable and should be advanced for further consideration.

Implementation Phasing

Implementation of the recommended service is broken down into three phases. Phase I focuses on launching service. Phase II focuses on evaluating service and adjusting service levels to meet demand. Phase III provides a long-term perspective for how transit can play a role in Rifle's long-range vision. This implementation plan is a guideline to be modified as Rifle begins the implementation process. The nature of implementation is fraught with uncertainty. As things change, Rifle staff should modify the list to suit their needs.

Phase I – March 2011 – March 2012

Phase one begins immediately and ends once service has operated for 6 – 12 months. The focus of phase 1 is to launch service. It is divided into the following sub-tasks:

Step I-1 – Adopt plan and initiate funding requests

After reviewing and commenting on this feasibility study, the stakeholder committee and/or Rifle City Council should formally recognize this plan and its recommendations.

Immediately after adopting this plan, Rifle should work with RFTA staff to begin applying for 5311 funds (applications are due in April/May, 2011 for a three-year funding period). To ensure that Rifle and RFTA are familiar with the process, it would be best to meet face to face with CDOT staff in preparation for applying for funds. In telephone conversations conducted as part of this project, CDOT staff have suggested that Rifle should partner with RFTA (to show collaboration), and that Rifle should ask for the maximum amount of funding needed (including administrative funding).

Part of the process of applying for CDOT funds involves verifying that the proposed project is on the current adopted Long Range Transportation Plan. In conversations with CDOT's Region III office the project team was able to verify that the project concept is included at the corridor level. Rifle and RFTA staff will need to follow up with John Valerio of CDOT to verify that the long range plan adequately addresses the project. John will also assist in making sure that the project is included on the Statewide Transportation Improvement Plan (STIP).

Step I-1a – Form transit advisory council

Within one month of concluding this process, Rifle should reconvene the stakeholder committee to establish a transit advisory council. This group should have more formalized roles (chair,

secretary and sub-committee chairs) than the present informal group structure. Representatives should be drawn from local industry, CMC, local human service agencies, downtown development authority, CDOT, etc. This council should be consulted regarding policy issues that arise during the subsequent implementation steps. This council can also be used as a mechanism for exploring public/private partnerships, identifying funding, and pursuing a dedicated funding source for the recommended service option.

The initial objective of the council will be to pursue the funding needed to launch service, including capital assistance contributions from local businesses, as identified in the preceding funding plans.

Step I-2 – Seek public input, refine service and governance plan

As soon as possible, the council and Rifle staff should present the concepts from the plan, the recommended service option, and the recommended governance options to the public for formal feedback. A public hearing is a requirement for obtaining 5311 funds, so this process should involve CDOT staff to ensure that proper procedure is followed. The hearing should be used to gain feedback on stop locations, solicit input regarding funding options, and possibly to brainstorm a name and image for the new service (if appropriate).

Step I-3 – Seek formal approval and finalize funding requests

Once the public has had an opportunity to weigh in, Rifle staff should present the refined service and governance options to the Rifle City Council and any other relevant decision makers for formal approval. This approval should coincide with submittal of the official application for CDOT 5311 funds.

Step I-3a – Develop policies and procedures

As part of the application process, Rifle will be required by CDOT to sign off on a list of certifications and assurances. This is a legal obligation indicating that Rifle will fulfill federal requirements and comply with federal rules and regulations. To do this Rifle will need to develop a set of policies and procedures that outline how the proposed service will meet federal requirements. CDOT and the Colorado Association of Specialized Transit Agencies (CASTA) can provide technical assistance to help with this.

Step I-4 – Secure dedicated funding

In parallel with the 5311 application, Rifle should begin developing a plan of action for securing dedicated funding. By now Rifle should have a better idea about the level of support for a sales tax and whether there is a public preference for a particular governance option. Rifle should begin working the appropriate authorities to add the question to the 2011 ballot. The transit advisory council should be used as a task force for developing a public message regarding the upcoming election, including specific messaging about what the tax will pay for.

Step I-5 – Develop marketing plan

As progress is made on the fund raising front, and potentially after securing funding from CDOT, Rifle should begin developing a marketing plan for the transit service. The marketing plan should use data from this feasibility study and other sources to develop a community profile. This market research should be used to outline and describe customer needs.

Responding to these customer needs, it should address:

- The brand of the service including its name, its image in the community, and its mission
  - The image should include a supporting and cohesive color scheme, logo, and related collateral materials
  - Collateral materials should include a map and schedule as part of an informational brochure
- Route names should be meaningful and reflective of the brand and image
- Concepts for bus stop locations and stop amenity layout and designs
- Publicity events, including a launch-day ribbon cutting event, as well as establishing the service's presence at other periodic community events (farmers markets, city festivals, school visits, etc.).
- Media outreach information including an information sheet with key messages and statistics, and campaign ideas such as "I support transit" editorial articles written by members of the transit advisory council and potential riders, information about the upcoming election, etc.

The marketing plan should be treated as a living document that is updated and modified as the project progresses. Once staff are hired (see Step 1-7b, below), the plan will be transferred to the appropriate person who will continue developing it. Like the policies and procedures described above, CDOT and CASTA have resources to assist with development of the marketing plan.

Step I-6 – Celebrate

By now CDOT will have made a decision regarding funding. The election may also be nearing, or may even have occurred. If there is reason to celebrate, make sure to do so! Many people will have worked hard raising funds and advancing the project. Mark the occasion with a celebration for the transit advisory council members and other supporters. Be sure to include positive messaging targeted at the public and media regarding the next steps for the project.

Step I-7 – Hire transit administrator

Once funds are available to hire staff and it is clear that there is support for the service, Rifle should hire a transit administrator. This person will take the helm and continue implementing the remaining tasks in this phase. As with prior steps, CASTA and CDOT will have access to job descriptions, requirements, advertisements, and other information that will help with the hiring process.

Step I-7a – Procure vehicles

As soon as funds have been awarded by CDOT and matching funds have been secured, Rifle (or RFTA, if RFTA is taking the lead at this point), should begin the vehicle procurement process. CDOT and CASTA can provide assistance in this area as well. Some vehicles can take up to 9 months for delivery, so this task should be started as soon as funds are available.

Step I-7b – Hire auxiliary staff

If Rifle decides to go with governance Option 3, the transit administrator will want to start hiring staff on a rolling basis as the workload picks up. There will be a great deal of work that needs to be done all at once to get the service ready and the administrator will need help. Drivers should be the last staff members hired immediately before service launch.

Step I-7c – Train drivers

CDOT sets minimum driver training requirements. These will be addressed in the policies and procedures set forth earlier. CASTA provides training and should be consulted regarding local driver training programs.

Step I-8 – Develop monitoring and evaluation plan

Once a planner has been hired, Rifle should develop a monitoring and evaluation plan that is based on the goals identified for this project. An outline is provided in the appendix.

Step I-9 – Publicize & launch service

Using the marketing plan developed earlier, the transit administrator should work with the transit advisory council to get the word out about the upcoming service. A well publicized ribbon cutting is a must. This could be combined with another community event so that it receives maximum exposure.

Step I-10 – Implement monitoring and evaluation plan

After launching the service and operating for several months, Rifle should begin implementing the evaluation and monitoring plan developed earlier. Although the service may not perform as expected initially, it is important to collect data and monitor progress at all stages of development.

Phase II – March 2012 – 2015

Phase 2 begins after at least one year of successful operations. Triggers for transitioning into Phase II should be included in the evaluation and monitoring plan developed under Step 1-8, above. We suggest that phase II begin when service exceeds ridership standard, meets cost standards, and meets a majority of other standards. Phase II is divided into the following steps.

Step II-1 – Evaluate twelve months operating data

After operating service for twelve months, take a step back and look at what has been accomplished. What patterns can be observed with regard to ridership? Costs? Funding? What issues have emerged that were not envisioned during the planning process? How were they overcome? Is the service achieving the original goals set forth? Have the goals changed?

Use this information to think critically and creatively about how service should adapt over the next few years.

Step II-2 – Re-evaluate transit advisory council membership, structure, and mission

After nearly two years of involvement in planning and operations, members of the original council may be ready for a change. Meet with the committee with the intent of discussing the council structure, goals, mission and membership. Once charting a course for the next year or so, consider ways to expand committee membership. Think about the diversity of members as well as the skills that they bring to the council. What is the council missing?

Step II-3 – Focus on service quality and other priority improvements

After having evaluated the operating data and revisited the council, identify key issues to be addressed over the coming year. Spend time focused on addressing these issues. If no issues have been identified, focus on improving service quality and customer satisfaction.

Step II-4 – Build relationships and funding partnerships

Finally, use Phase II to expand relationships and funding partnerships. Vehicle replacements are a few years away, but it doesn't hurt to start thinking about how to fund those capital purchases early.

Phase 3 – 2015 – 2020

Phase III is far enough in the future that it is difficult to foresee. This phase is about looking for trends and major changes that influence the direction of transit. The following triggers should alert Rifle and RFTA that changes are needed:

- Vocalized expression of need by community members
- Intensification of land use above five dwelling units per acre
- Significant changes in regional RFTA service
- Significant changes in revenue
- Significant changes in fuel prices

APPENDIX A

PLANNING CRITERIA AND ASSUMPTIONS

Appendix A. Planning Criteria and Assumptions

Operations, Maintenance & Administrative Costs

Costs for each of the service concepts are based on RFTA's current-year fully allocated costs (derived from the FY 2011 budget). RFTA allocates fixed overhead by service hours and fixed maintenance costs by mile. The following cost factors were used:

- Marginal cost/hour: $32.30
- Marginal cost/mile: $1.55
- Fixed overhead cost/hour: $27.61
- Fixed maintenance cost/mile: $0.39

If services are not provided by RFTA, adjustments will need to be made to reflect the cost structure of the entity providing the service. Chapter 6 provides further detail on different operating structures, including their cost and revenue implications.

Level of Service

Service hours and miles were estimated using travel times and distances obtained from online mapping software Google Maps combined with assumed dwell and idle times for each stop. The service estimates assume an annual operating schedule of 258 calendar days. This reflects weekday service (Monday through Friday) service excluding weekends and excluding up to 3 holidays per year.

Reflecting the desire to connect to the CMC, which has high enrollment during evening hours, the service span assumed for all service concepts is from 6:00 AM to 10:00 PM.

Ridership

Ridership was estimated based on observed ridership on local routes (including The Traveler, The Ride, and the Grand Hogback). Data obtained from the National Transit Database was also consulted for small urban transit operators with comparable land use densities. Drawing on these sources and professional judgment, the following productivity factor ranges were used to estimate ridership for each of the service concepts:

- 3 to 7 trips per hour for Demand Responsive services
- 5 to 15 trips per hour for Flex-Route services
- 10 to 20 riders per hour for Fixed-Route services