RAPID CITY AREA METROPOLITAN PLANNING ORGANIZATION

TRANSIT FEASIBILITY STUDY

April 2018

Transit Feasibility Study

Prepared for:

Rapid City Area Metropolitan Planning Organization

Prepared by:

Felsburg Holt & Ullevig
6300 South Syracuse Way, Suite 600
Centennial, CO 80111

303.721.1440

and

Nelson\Nygaard Consulting Associates
116 New Montgomery Street
San Francisco, CA 94105

415.284.1544

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1.0 Executive Summary

1.1 Introduction

The Rapid City Area Metropolitan Planning Organization (RCAMPO) is responsible for regional multimodal transportation coordination and includes the City of Rapid City, the City of Box Elder, the City of Summerset, the City of Piedmont, Ellsworth Air Force Base, the unincorporated areas of Black Hawk, and the developing areas of Pennington and Meade counties. The Rapid City Area has an established multimodal transportation network, however, as the area continues to grow, the region will require the continued development of transportation options to maintain the region's quality of life.

1.2 Project Overview

The objective of this transit feasibility study is to determine whether additional transit may be appropriate for the area and, if so, what type of service and/or programs would be best to meet the regional needs.

The project involved these primary steps:

- Documenting existing conditions and evaluating the need for transit service (that is, services for commuters, services for the aging population, and services for students).
- Evaluating peer transit systems to learn how other comparable areas meet their transit needs.
- Developing transit service and program options for how the region's need could be met, such as matching the demand in the area to the most appropriate service and/or program.
- Identifying the most appropriate services and programs to meet the greatest regional needs.
- Determining major next steps and possible funding sources for the implementation of the recommended services and programs.

1.3 Existing Plans and Services

The project team used the recommendations from RapidTRIP 2040 and the 2013–2017 Coordinated Public Transit-Human Services Transportation Plan as a starting point to understand current transit services, and existing conditions. Since the Rapid City Area has multiple transit options, including public transportation providers in the City of Rapid City and private non-profit human service providers, the project team reviewed existing transit services and documented the service type, service area, major service details, and primary users.

The project team also analyzed the regional composition, demographics, and existing travel patterns. This specifically included demographic groups with a higher propensity to use transit services and programs such as aging adults, households without a vehicle, people with low incomes, and people with disabilities.

1.4 Stakeholder and Public Outreach

During the Transit Feasibility Study, many meetings were held with stakeholders and the public to present the project and solicit input from the community. Participants in these meetings specifically discussed ridership priorities, geographic priorities, and operational priorities.

Key feedback from the stakeholders and public include:

- There is a significant need for services to support the aging and disabled populations.
- The region is missing a champion for transit. Councils, mayors, and elected officials need to be informed and champion transit initiatives.
- Any new service or program should be flexible and as on-demand as possible.
- Many region residents live outside Rapid City because the cost of housing is cheaper but it comes with a higher transportation cost.

1.5 Peer Reviews

Peer Reviews were completed for four agencies with characteristics like those of the Rapid City region. The agencies were generally of similar size and scope to Rapid Transit System, had some similar population and service area characteristics, or represented a diverse range of governance and organizational alternatives.

The major takeaway from the peer agencies include:

- There are two distinct types of regional service
- Service planning should consider local and regional transit together
- Unified branding has been a successful element of integrating local and regional services
- MPOs or other regional players can have a major role in overseeing transit service
- Outside organizations can subsidize direct service
- Successful coordinated efforts to expand services can take time

1.6 Alternative Development and Analysis

Based on the needs identified in the first phase of this study, the project team narrowed a set of transportation programs and service alternatives to eight that could potentially address the various mobility demands. The possible programs and services included:

- Ridematching and Carpool Programs
- Vanpools
- Voucher Program
- Special Group Trips
- Lifeline Service
- Demand-Response Service
- Commuter Express Bus Routes
- Regional Service

Two programs were identified to have a high applicability in the near-term to meet the region's greatest needs in a cost-effective and efficient way. This includes an incremental approach to a voucher program and a ridematching and carpooling program. The voucher program is focused on meeting the needs of the vulnerable transit dependent populations. The carpooling program is focused on meeting the needs of interested commuters and providing a lower cost option for low-income commuters.

This two-program approach reflects the current lower-density land use patterns in the region, the auto-oriented development that make it challenging for traditional transit services to be successful, and the desire from the community for flexible programs with door-to-door service and quick response times.

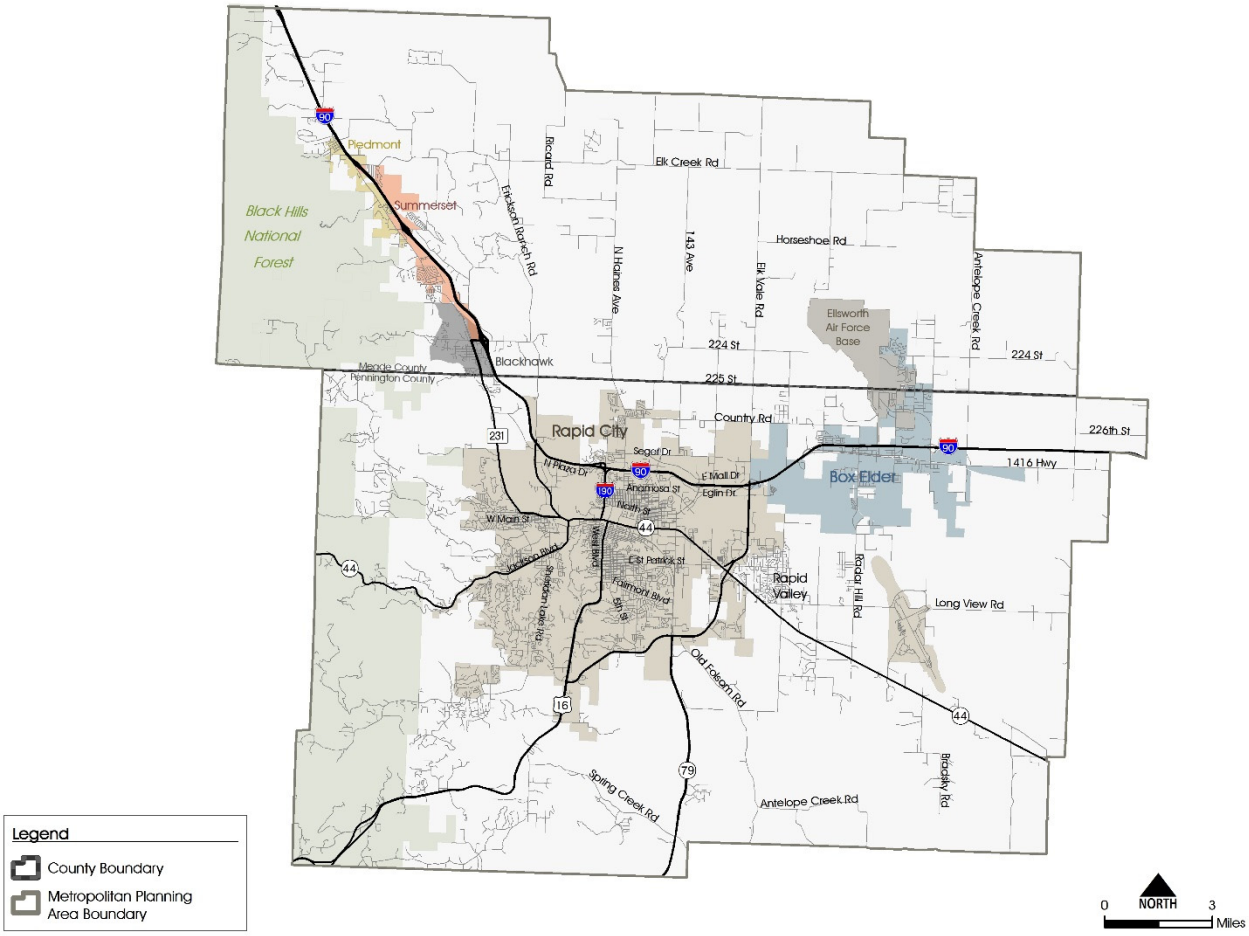
1.7 Implementation and Next Steps

The recommended near-term approach of a voucher program and a ridematching and carpooling program is designed to be implemented over the next one to three years. To implement these programs successfully, the RCAMPO will need to enlist the participation of select cities, both counties, and public and private human service agencies, as well as private transportation providers, in various ways. Chapter 8 provides a summary of the advisory frameworks, policy frameworks, and administrative frameworks considered for oversight and administration.

2.0 Introduction

The RCAMPO is responsible for regional multimodal transportation coordination and includes the City of Rapid City, the City of Box Elder, the City of Summerset, the City of Piedmont, Ellsworth Air Force Base, the unincorporated areas of Black Hawk, and the developing areas of Pennington and Meade counties, as shown in **Figure 1**. The Metropolitan Planning Area (MPA) covers approximately 478 square-miles. The Rapid City Area is diverse because it includes the urban center of Rapid City, suburban communities outside Rapid City, rural areas in Meade County and Pennington County, and National Forest lands.

Figure 1. Rapid City Area Metropolitan Planning Organization Boundaries and Local Jurisdictions



The Rapid City Area has an established multimodal transportation network to support the residents, employees, and visitors to the region. As the area continues to grow, the area's residents and visitors will require the continued development of transportation options to maintain the region's quality of life. The study has been initiated to consider the feasibility of expanding transit services and programs in the region. This report presents the finding of the feasibility study.

2.1 Transit Feasibility

The purpose of this feasibility study is to provide transit service to address the greatest unmet needs in the region. The objective of this transit feasibility study is to determine whether additional transit may be appropriate for the area and, if so, what type of service and/or programs would be best to meet the regional needs.

The project involved these primary steps:

- Documenting existing conditions and evaluating the need for transit service (that is, services for commuters, services for the aging population, and services for students).
- Evaluating peer transit systems to learn how other comparable areas meet their transit needs.
- Developing transit service and program options for how the region's need could be met, such as matching the demand in the area to the most appropriate service and/or program.
- Identifying the most appropriate services and programs to meet the greatest regional needs.
- Determining major next steps and possible funding sources for the implementation of the recommended services and programs.

3.0 Previous Planning Efforts

The RCAMPO has led several transportation planning studies, including studies that considered the need and potential for transit services. The project team reviewed several plans and identified two that directly relate to this transit feasibility study: RapidTRIP 2040 and 2013–2017 Coordinated Public Transit-Human Services Transportation Plan.

3.1 RapidTRIP 2040

RapidTRIP 2040, the long-range transportation plan for the RCAMPO, is a comprehensive study of the transportation network emphasizing the transportation modes of automobile, bicycle, pedestrian, and transit throughout the region. RapidTRIP 2040 identified the transportation Needs Plan for the region, identified anticipated future funding availability, and established the Fiscally Constrained Plan for the region over the next 25 years.

RapidTRIP 2040 planned the continued operation and maintenance of the Rapid Transit System in the recommendations. Identified during the planning process were opportunities for capital improvements, expanded service, new service, and operation improvements. However, no additional funding was obligated for these projects in the Fiscally Constrained Plan. The planning process also recommended this current study, a Regional Transit Service Feasibility Study.

3.2 2013–2017 Coordinated Public Transit-Human Services Transportation Plan

The RCAMPO Coordinated Public Transit-Human Services Transportation Plan provides transportation options and seeks to improve transportation service for seniors, persons with disabilities, and low-income individuals by identifying gaps in transportation service and providing strategies and setting priorities to help fill these gaps. The plan was created through coordinated efforts by public transit providers, human service agencies and key stakeholders.

The plan identified multiple gaps and needs. The following are most applicable as a starting point for this transit feasibility study:

- Transit service is limited.
- Service is needed later at night, on Sundays, and to areas outside the city limits, such as Rapid Valley and Box Elder.
- Transit service is too expensive for many people.

The plan also identified multiple strategies to address the gaps in service and regional needs. The following were used as a starting point for this transit feasibility study:

- Determine need and perform a cost/benefit analysis for providing transportation service outside city limits.
- Use new technologies, online services, or social media applications to make transportation information, options, and services more accessible.
- Research and interview agencies that have had success coordinating services.

Information and strategies from both the RapidTRIP 2040 and the 2013–2017 Coordinated Public Transit-Human Services Transportation Plan were used as a starting point for this transit feasibility study.

4.0 Existing Services

The Rapid City Area has multiple transit options, including public transportation providers in the City of Rapid City and private non-profit human service providers. This section briefly describes the current transit services and provides details on the service type, service area, and primary users.

4.1 Public Transit Providers

Two public providers offer service within the Rapid City area MPO limits: Rapid Transit System and Prairie Hills Transit.

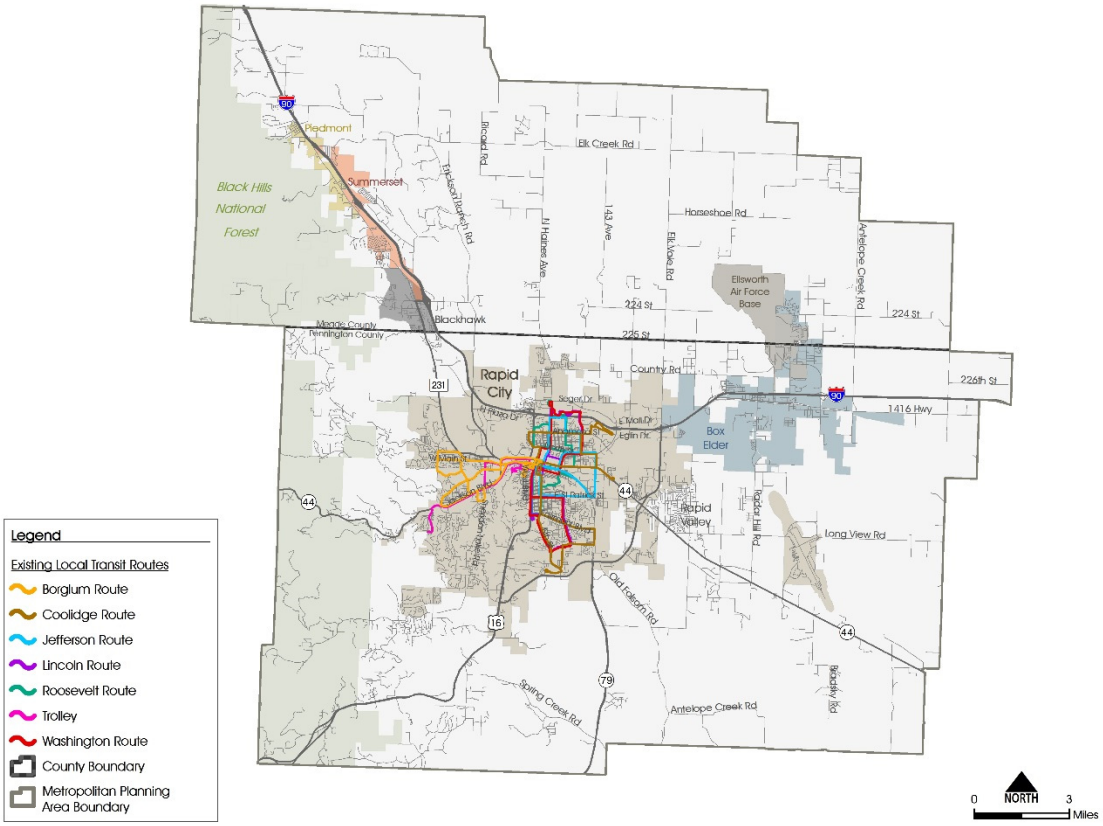
4.1.1 Rapid Transit System

Rapid Transit System provides fixed route, demand response, and a seasonal trolley within the City of Rapid City. Fixed route service operates Monday through Friday, 6:20 AM to 5:50 PM, and Saturday from 9:50 AM to 4:40 PM. Demand response service operates Monday through Friday, 6:20 AM to 5:50 PM, and Saturday from 8:00 AM to 7:00 PM. The seasonal trolley operates Monday through Saturday from 10:00 AM to 5:00 PM.

Services are open to all riders, including commuters, persons with disabilities, students, and visitors. Service is free to school-aged youth.

Figure 2 shows the existing Rapid Transit System fixed service routes within the MPA.

Figure 2. Existing Fixed Route Transit Service



4.1.2 Prairie Hills Transit

Prairie Hills Transit provides a hybrid deviated fixed route/demand response service with advance notice along the I-90 corridor between Spearfish and Rapid City. The service area includes Meade County from Sturgis and Piedmont to Rapid City, as well as areas in western Pennington County. The service is provided Monday, Tuesday, Wednesday, and Friday from 7:00 AM to 5:00 PM.

Service is open to any rider but is primarily used by persons with disabilities and the aging population.

Table 1 presents a summary of each public transit provider.

Table 1. Summary of Public Transit Providers

PROVIDER	SERVICE TYPE	SERVICE AREA	SERVICE DETAILS	PRIMARY USERS
Rapid Transit System	▪ Fixed route ▪ Demand response (Dial-A-Ride) ▪ Trolley (City View)	▪ City of Rapid City	▪ Fixed Route: M–F, 6:20 AM to 5:50 PM, and Saturday from 9:50 AM to 4:40 PM ▪ Dial-A-Ride: M–F, 6:20 AM to 5:50 PM, and Saturday from 8:00 AM to 7:00 PM ▪ Trolley: M–Sa, 10:00 AM to 5:00 PM	▪ Open to all riders ▪ Commuters ▪ Persons with disabilities ▪ Students ▪ Visitors
Prairie Hills Transit	▪ Hybrid deviated fixed route/ demand response	▪ Service in Meade County (from Sturgis and Piedmont to Rapid City; in Sturgis to Ft. Meade) ▪ Service in Pennington County	▪ Rapid City service on Monday, Tuesday, Wednesday, and Friday from 7:00 AM to 5:00 PM ▪ Advance notice required	▪ Open to all riders ▪ Primarily used by persons with disabilities and the aging population

4.2 Private, Non-Profit Transit Providers

Multiple private, non-profit providers offer transit service in the Rapid City region, often in support of their existing community service. The following is a summary of these services and programs.

4.2.1 Black Hills Works

Black Hills Works provides program-specific transportation services in support of their clientele, many of which are persons with disabilities. The service is available every day, 24 hours a day.

4.2.2 Chair Lift

Chair Lift is a newer service to the region offering demand response service Monday to Friday, 7:00 AM to 8:00 PM and on weekends by appointment. The service is open to anyone, with many trips servicing adults with disabilities.

4.2.3 The Club for Boys

The Club for Boys offers program-specific transportation from schools in Rapid City to their facility. The service is limited to Monday to Friday after school. The service primarily supports elementary and middle school boys from lower-income families.

4.2.4 YMCA

The YMCA offers program-specific transportation to and from most schools in Rapid City to their facility. The service is limited to Monday to Friday before and after school. The service primarily supports elementary school students.

4.2.5 Youth and Family Services

Youth and Family Services offers program-specific transportation to and from home and school. The service is limited to Monday through Friday. The service primarily supports low-income youth within the City of Rapid City.

4.2.6 Senior Companions (Good Samaritan)

Senior Companions offers demand response service to seniors and individuals with low-incomes, aged 55 and older. The service is limited to Monday through Friday, 8:00 AM to 5:00 PM. The service relies on volunteer drivers using their own vehicles.

Table 2 presents a summary of each non-profit human service provider.

Table 2. Summary of Private Non-Profit Human Service Providers

PROVIDER	SERVICE TYPE	SERVICE AREA	SERVICE DETAILS	PRIMARY USERS
Black Hills Works	▪ Program-specific transportation ▪ Service to support agency and clientele	▪ Not specific ▪ Transportation to group activities, medical appointments, employment	▪ 24/7 service	▪ Adults with disabilities
Chair Lift	▪ Demand response	▪ Rapid City, Piedmont, Summerset, Black Hawk, and Box Elder	▪ Monday to Friday, 7:00 AM to 8:00 PM; weekends by appointment ▪ Advance reservation preferred	▪ Open to anyone ▪ Adults with disabilities
The Club for Boys	▪ Program-specific transportation	▪ From Rapid City schools to club (Horace Mann, Rapid Valley, Valley View, Robbinsdale, East Middle, North Middle, South Middle)	▪ Monday to Friday, after school	▪ Elementary and middle school boys, primarily from lower-income families
YMCA	▪ Program-specific transportation	▪ To and from most Rapid City schools	▪ M–F, Buses depart YMCA at 7:15 AM for schools; programs run until 6:00 PM in the evening	▪ Students in grades K–5
Youth and Family Services	▪ Program-specific transportation	▪ From schools and homes of program participants	▪ Service in support of programs	▪ Children of all ages, low-income families
Senior Companions (Good Samaritan)	▪ Demand response	▪ Not specific	▪ Volunteer drivers ▪ No charge for service	▪ Aging population ▪ Open to anyone age 55 or older needing assistance

5.0 Existing Conditions

As one of the first steps in understanding the feasibility of transit services, the project team evaluated existing conditions in terms of their ability to support transit service. A key starting point in assessing the feasibility for additional transit service is to understand community composition, demographics, and existing travel patterns.

The process focused on inventorying areas with higher concentrations of population and employment because transit services and programs are typically more successful in areas with higher populations and employment densities. The existing conditions assessment inventories demographic groups with a higher propensity to use transit services and programs such as aging adults, households without a vehicle, people with low incomes, and people with disabilities. Data was collected from the U.S. Census Bureau and the Environmental Protection Agency's Smart Location Database in April 2017.

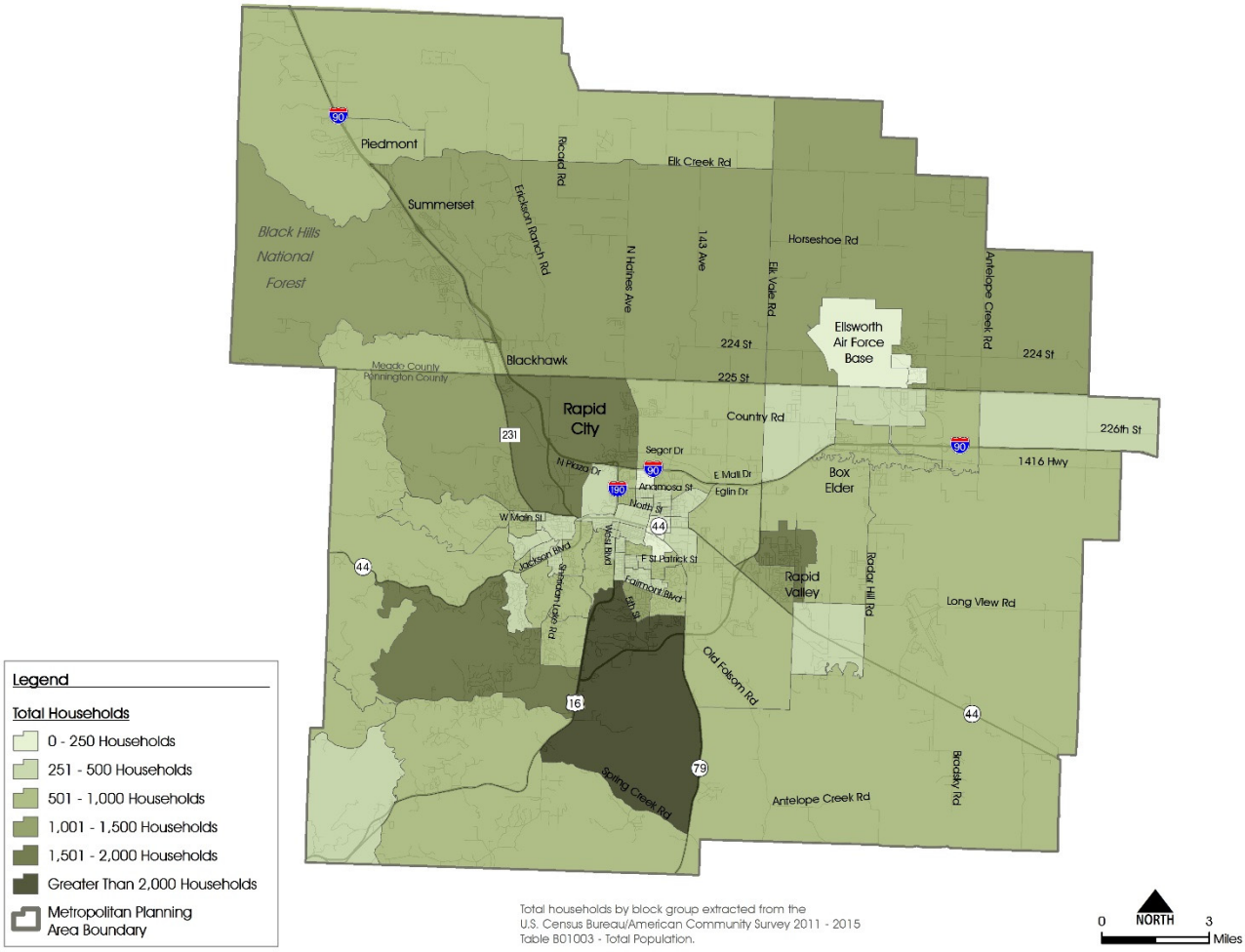
5.1 Overview

The RCAMPO area includes the urbanized areas of Meade and Pennington counties, including the entirety of the cities of Box Elder, Piedmont, Rapid City, and Summerset. In 2010, the City of Rapid City's population was approximately 68,000, Meade County's population was approximately 25,500, and Pennington County's population was approximately 101,000. Due to the unavailability of planning area specific data for Meade and Pennington counties, full county statistics are provided.

5.1.1 Households

Households are dispersed throughout the Rapid City Area. The highest concentration of households is in the unincorporated areas of Pennington County, just south of the City of Rapid City. **Figure 3** shows the households in the region.

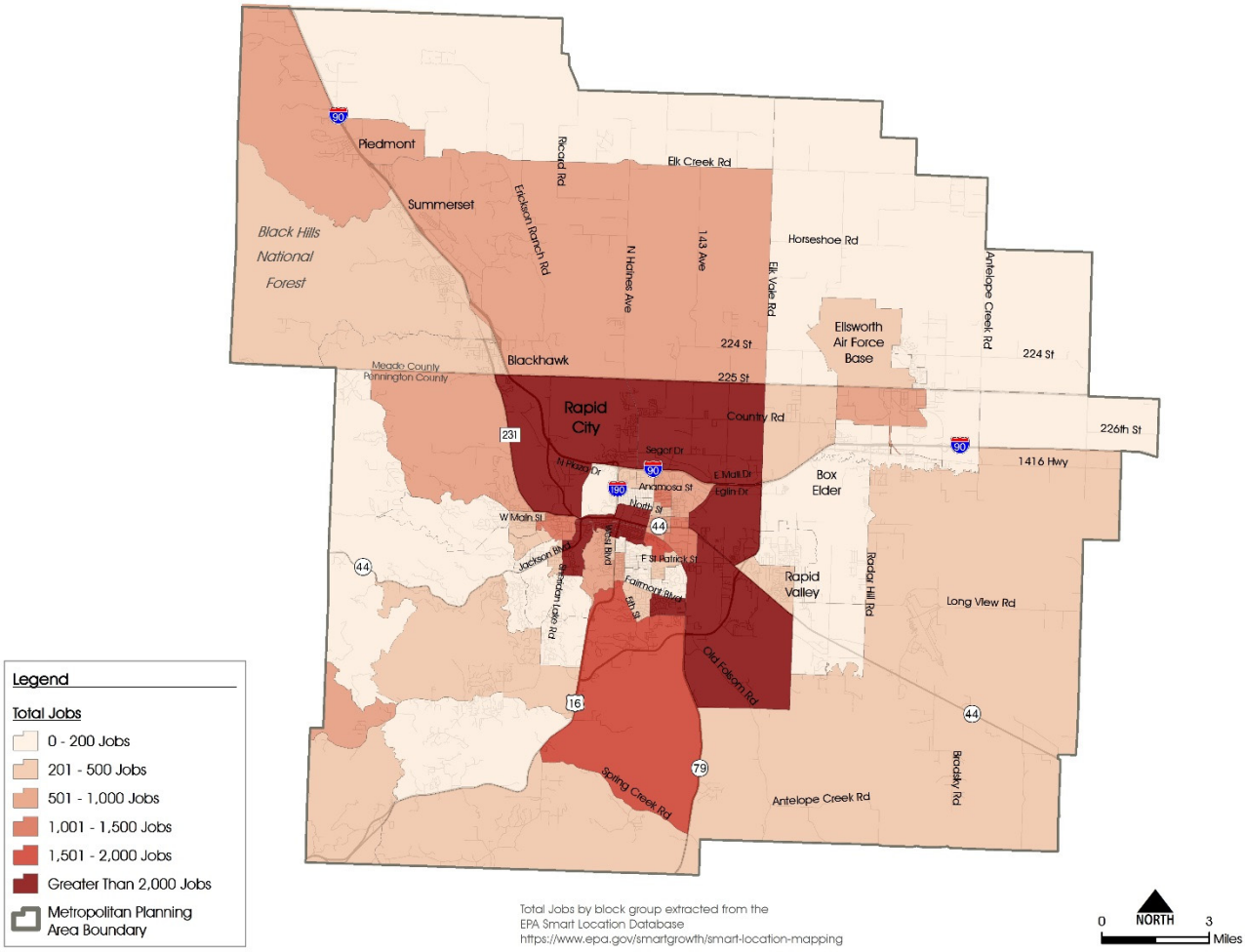
Figure 3. Total Households



5.1.2 Employment

Jobs and employment centers in the Rapid City region are centrally located in the region near Rapid City, downtown, along the I-90 corridor, and along the SD 44 corridor. **Figure 4** shows this heavy concentration of jobs.

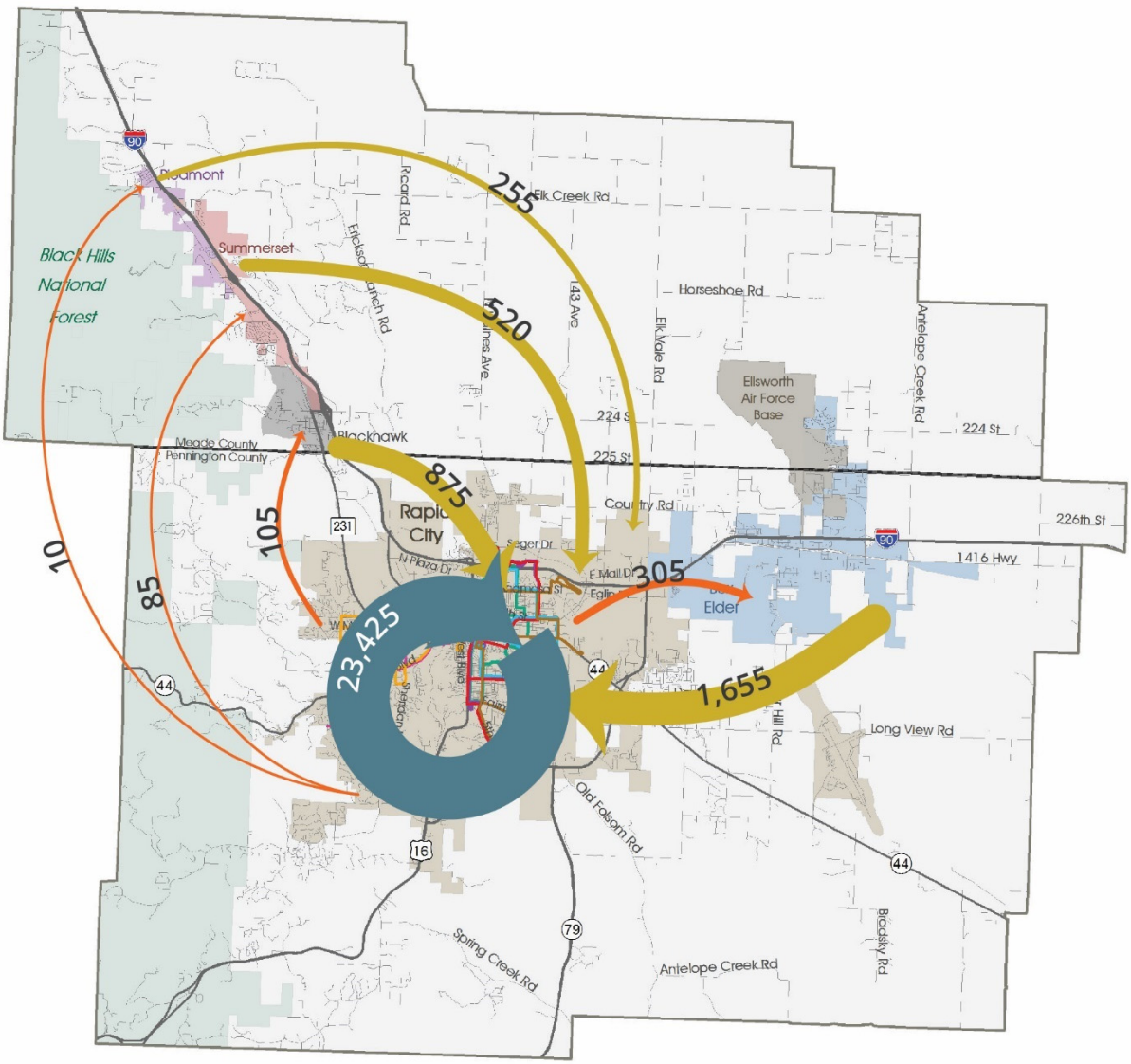
Figure 4. Total Jobs



5.1.3 Travel Patterns

The US Census Bureau's Longitudinal Employer-Household Dynamics (LEHD) dataset provides insight into the travel patterns in the Rapid City region. Most employees live and work in the City of Rapid City. The second strongest pattern is seen from employees who live in the Box Elder community and commute into Rapid City for employment. **Figure 5** shows how regional commute patterns are heavily oriented toward the City of Rapid City.

Figure 5. LEHD Commute Patterns



5.2 Transit Dependent Demographics

In addition to considering the spatial distribution of households and jobs within the area, it is important to consider specific demographic groups that may have a higher need for transit services and programs.

Transit services and programs generally focus on two types of transit users: discretionary riders and transit-dependent riders. Discretionary riders generally have adequate resources and the ability to operate a private vehicle but choose to use transit because it offers a convenience or an ease. Discretionary riders are more likely to use transit services and programs for commuting. Transit-dependent riders generally use transit services and programs because they lack access to a vehicle or the ability to operate a vehicle. These riders use transit for all types of trips, including commuting, medical appointments, and shopping. The following section considers the size and distribution of demographic groups typically associated with a higher use of transit services and programs, including:

- Persons 65 and older
- Zero vehicle households
- Low-income populations
- Persons with disabilities

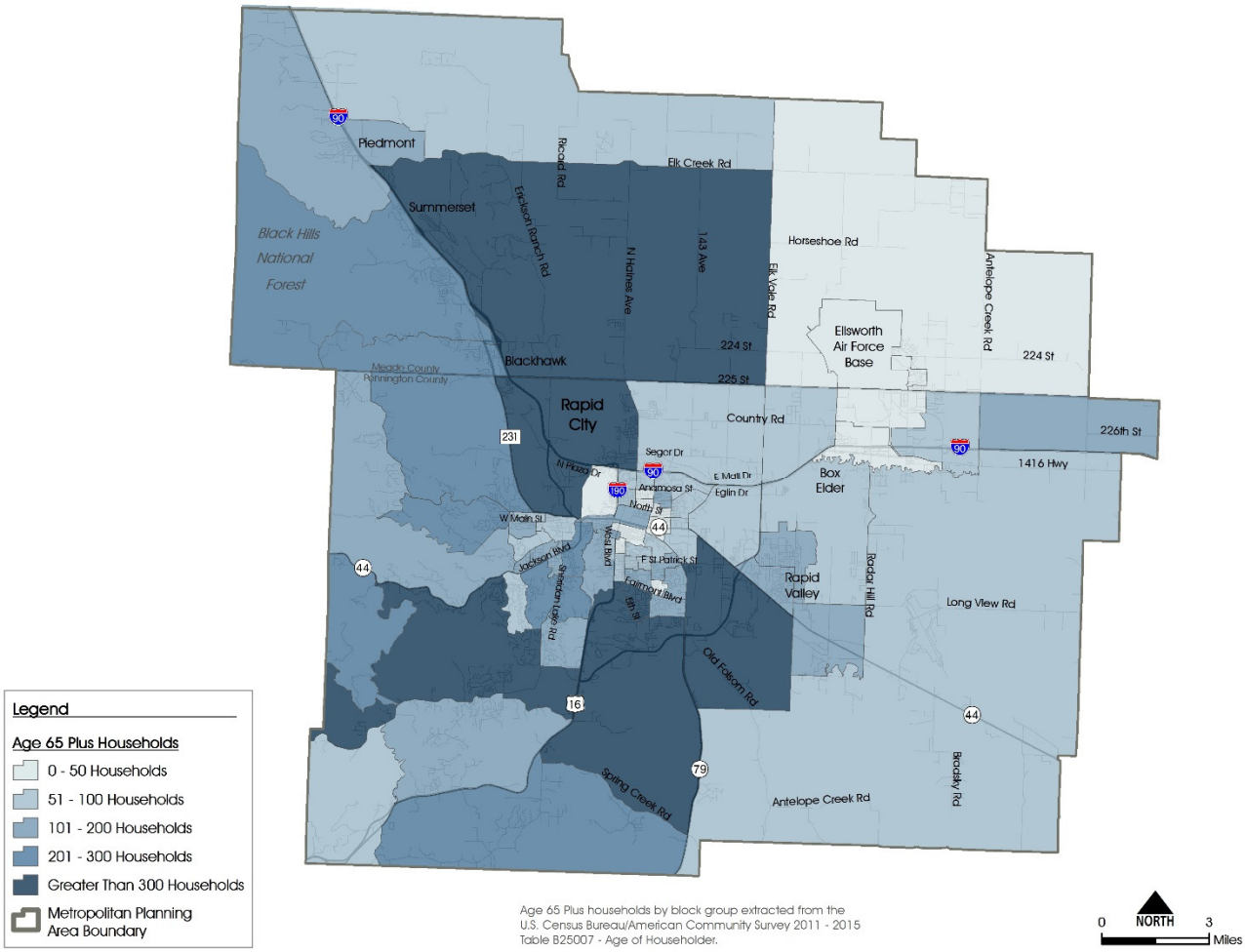
It should be noted that there can be overlap among these groups. For example, many older adults also have low incomes and may lack access to a vehicle. Each demographic is an important indicator of increased demand for public transit services and programs and is, therefore, considered individually.

5.2.1 Persons 65 and Older

Older adults are more likely to use transit services and programs than the general population. The aging population is a key group for transit services and programs because, in addition to having a greater likelihood to ride transit, the population is increasing in the Rapid City Area.

Figure 6 shows the spatial distribution and concentrations of age 65+ households. The highest concentrations of people 65 and older are in northwest Rapid City, as well as the unincorporated, and more rural, portions of Meade and Pennington counties.

Figure 6. Age 65+ Households

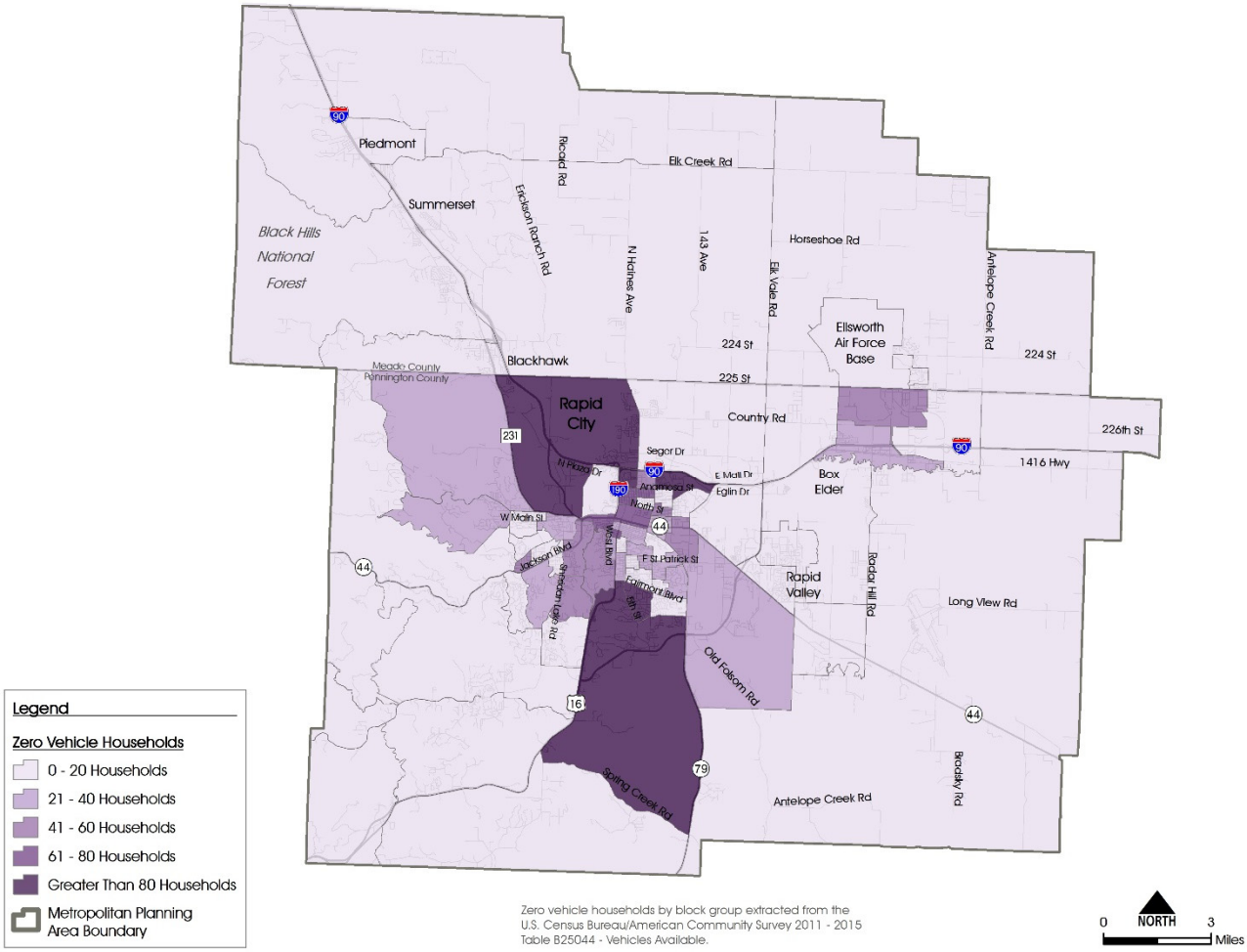


5.2.2 Zero Vehicle Households

Individuals without access to a vehicle are also more likely to use transit services and programs than the general population. Individuals who do not own a car are a key group for transit because they must rely on others, whether it is neighbors, friends, family, or existing transit services, to meet their transportation needs. Approximately 2,000 households in the region do not have access to a vehicle.

Figure 7 shows the spatial distribution and concentrations of zero vehicle households. The northern neighborhoods in Rapid City and the Spring Creek area have the highest concentrations of households without access to a vehicle.

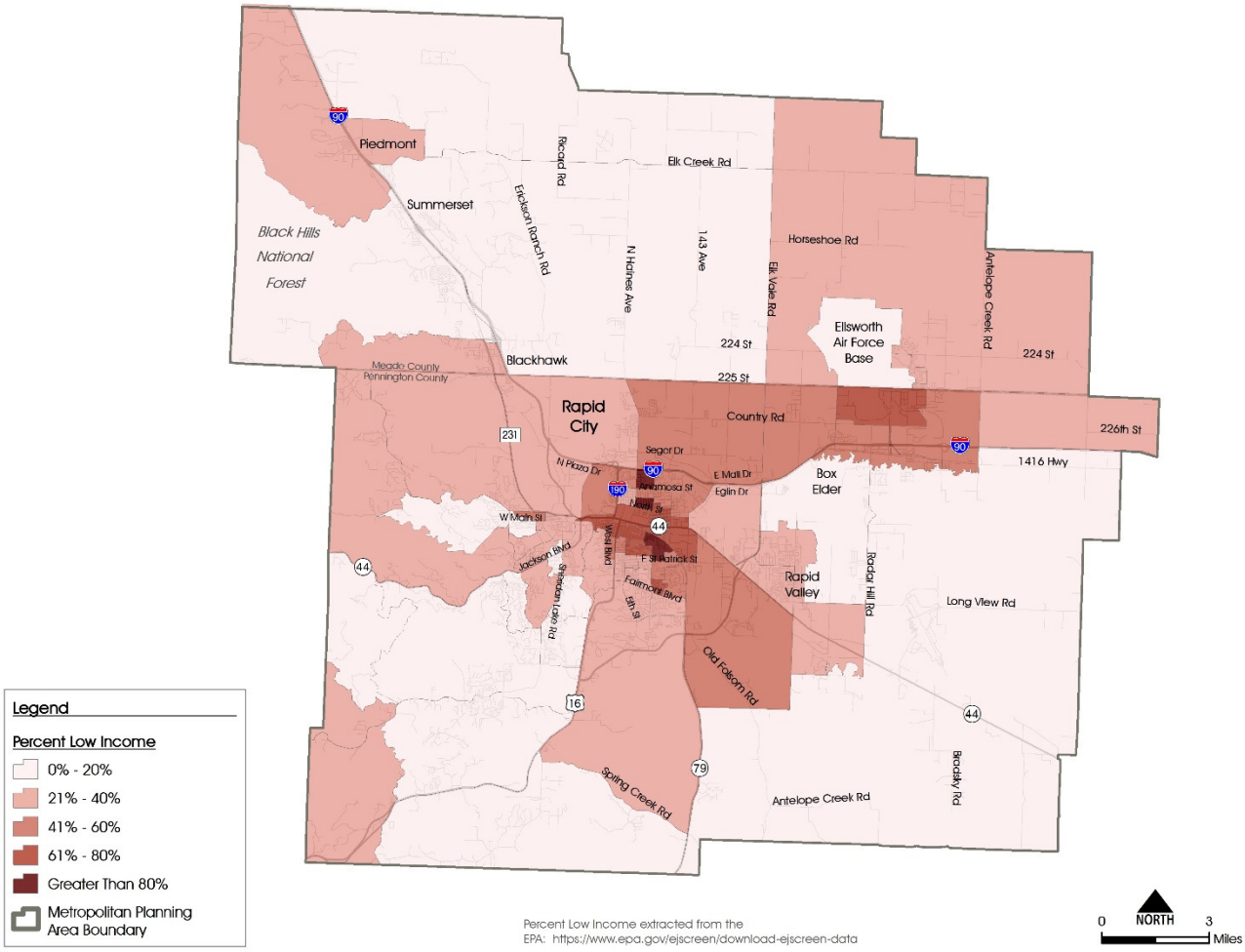
Figure 7. Zero Vehicle Households



5.2.3 Low-income Populations

Low-income individuals and households have a significant need for transit services and programs to meet their daily needs. Approximately 37,000 residents in the RCAMPO area are considered low income. **Figure 8** shows the distribution of low-income populations in the region. Low-income residents are dispersed through the region, but concentrations exist in downtown Rapid City and in the City of Box Elder.

Figure 8. Percentage of Low-Income

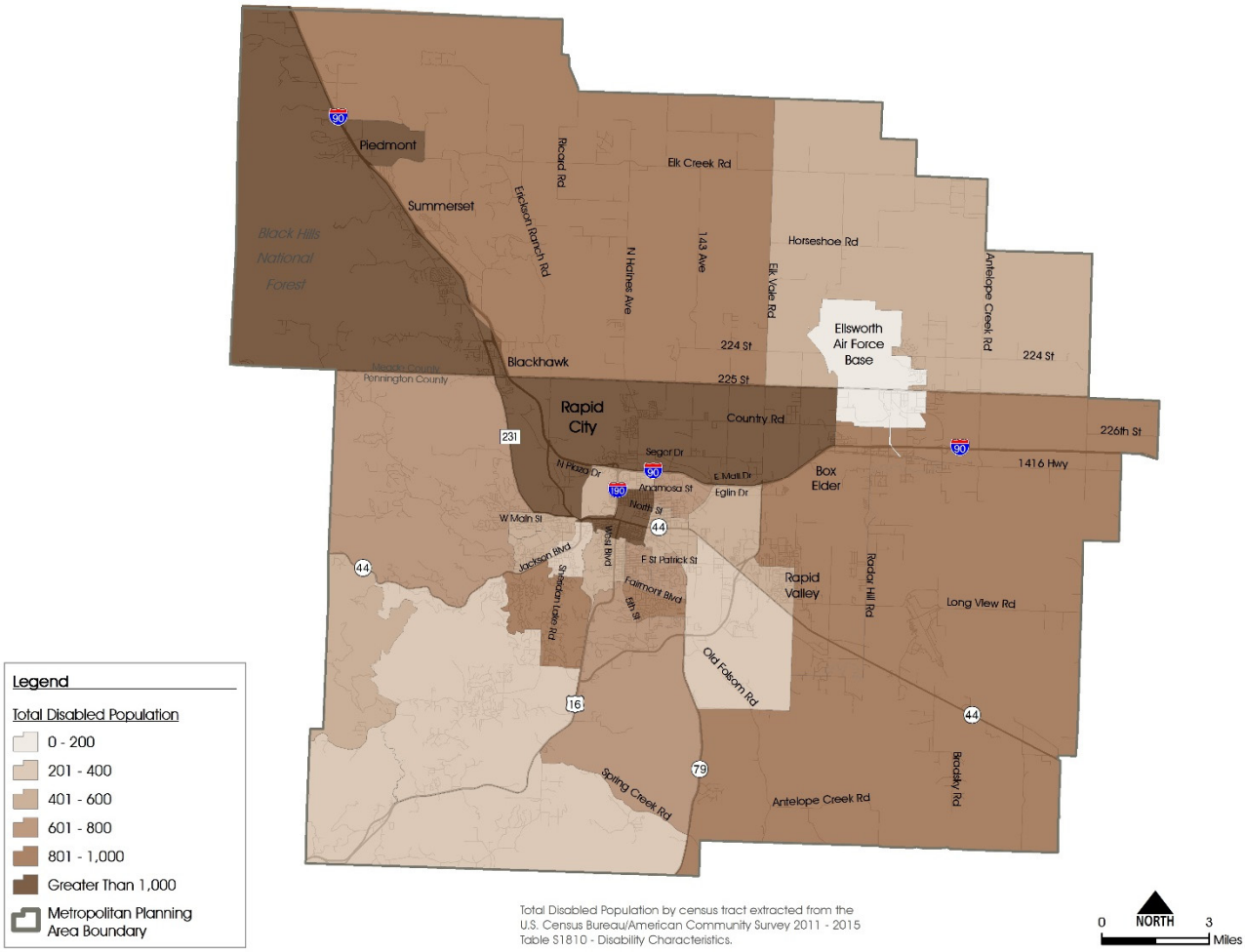


5.2.4 Persons with Disabilities

Individuals with disabilities generally use transit services and programs because they lack the ability to operate a vehicle. Approximately 10,600 residents in the Rapid City Area are individuals with a disability. Individuals who are unable to operate a private vehicle are a key group for transit because they must rely on others, whether it is neighbors, friends, family, or existing transit services, to meet their transportation needs.

Figure 9 shows the spatial distribution of persons with disabilities.

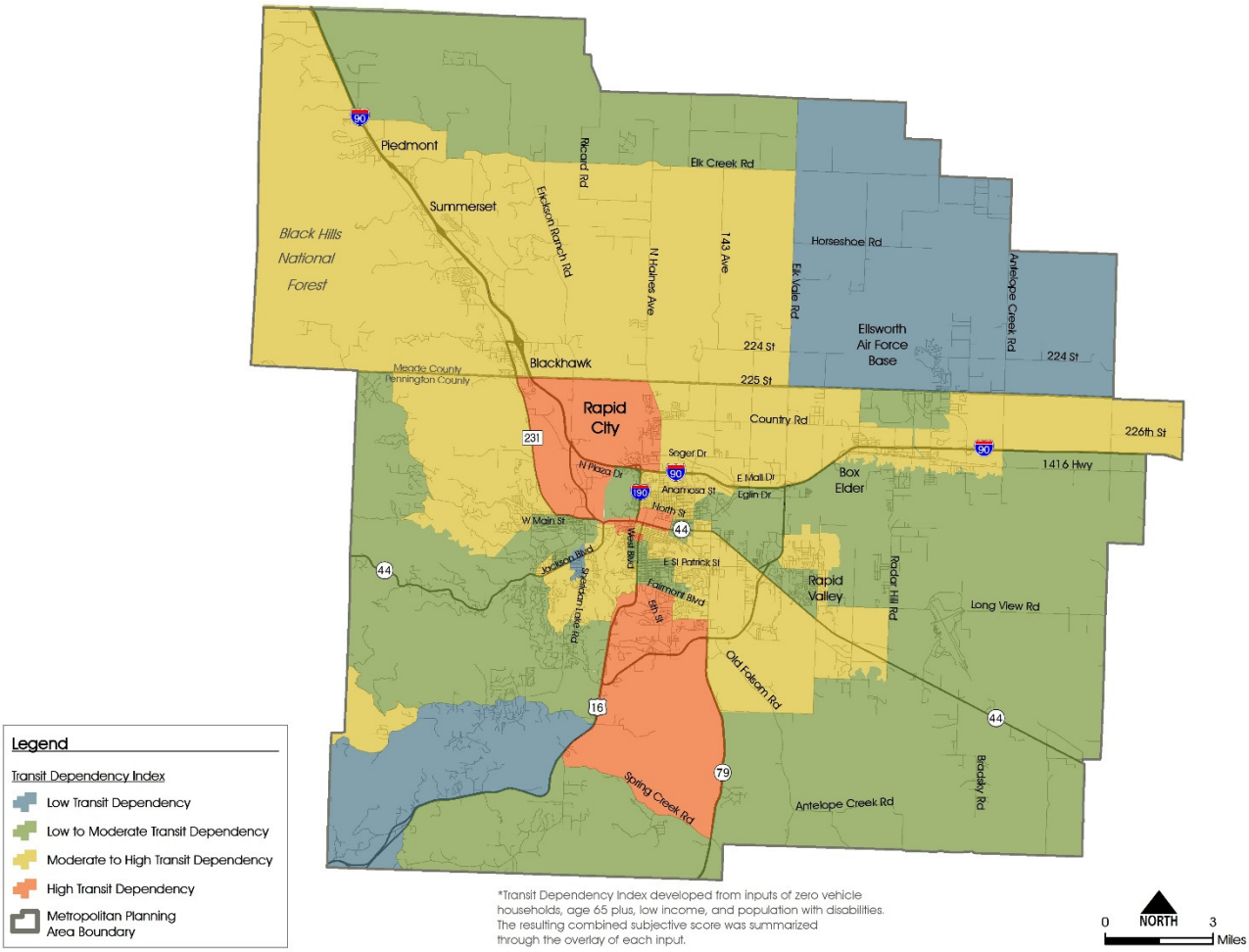
Figure 9. Persons with Disabilities



5.3 Transit Dependency Index

The next step in the process is to combine these demographic characteristics to provide a complete and comprehensive picture of the geographic areas in the Rapid City region that have the strongest propensity to use transit. **Figure 10** shows the results of the transit propensity exercise. This transit dependency index provides an indication of the areas of highest demand for transit services and programs in the region.

Figure 10. Transit Dependency Index



6.0 Stakeholder and Public Outreach

The existing conditions data provide a quantitative perspective on where transit programs and services are needed the most and the types of services that could potentially be supported by the community. The project team also conducted qualitative outreach to engage stakeholders and the general public to discuss attitudes and ideas about the needs for transit services and programs and how those might be provided.

6.1 Discussion with MPO Committees

The project team met with each MPO committee in April 2017 to discuss transit opportunities and priorities.

Attendees participated in three exercises to answer three main questions:

- Ridership Opportunities
  - If a new regional transit service could be provided, who are the priority riders?
  - Participants selected their top 3 from the following: students, aging population, persons with disabilities, persons with low income, military personnel, commuters, visitors, and others.
- Geographic Opportunities
  - If a new regional transit service could be provided, where are the geographic priorities?
  - Participants identified their top 3 origins and top 3 destinations on a large map of the MPO area.
- Operational Opportunities
  - If a new regional transit service could be provided, what are the operational priorities?
  - Participants allocated $100 among the following services: frequency, weekday service – morning, weekday service – evening, weekend service – Saturday, weekend service – Sunday, seasonal service (May to September), door-to-door service, and other.

6.1.1 Ridership Opportunities

Participants rated serving persons with disabilities, persons with low incomes, and the aging population as the priority riders types. Visitors and military personnel received the lowest scores.

Figure 11. Ridership Opportunities Results

6.1.2 Geographic Opportunities

Participants identified most of the origins and destinations within the downtown core of the City of Rapid City. The airport and Ellsworth Air Force Base were both identified as regional sources of origins and destinations. The following were identified as major regional sources of origin trips: Rapid Valley, Piedmont, Summerset, and farther beyond the MPO boundary on the I-90 corridor. **Figure 12** presents a map showing the overall results.

Figure 12. Geographic Opportunity Results

6.1.3 Operational Opportunities

The Citizens Advisory Committee participants communicated the importance of serving residents' daily needs, whether commuting or accessing essential services like the hospital. They communicated the importance of door-to-door service for the aging population and people with disabilities. The Technical Coordinating Committee also strongly valued providing weekday service in the morning and in the evenings to serve residents; service that best supports commute patterns. The Executive Policy Committee prioritized providing weekday service in the morning and in the evenings to serve residents but also valued Saturday service to serve visitors.

Table 3 summarizes the results of exercise 3 for all three committees. Significant priority was put on weekday service in the morning and in the evening.

Table 3. Operational Opportunities Results

SERVICES	TOTAL	PERCENT
Frequency	**$163**	**10%**
Weekday Service – Morning	**$416**	**26%**
Weekday Service – Evening	**$423**	**26%**
Evening Service	**$110**	**7%**
Weekend Service – Saturday	**$195**	**12%**
Weekend Service – Sunday	**$82**	**5%**
Seasonal Service (May to September)	**$78**	**5%**
Door-to-Door Service	**$134**	**8%**
Other	**$0**	**0%**
Total	**$1,601**	

6.2 Stakeholder Interviews

A key part of the feasibility study was to speak with stakeholders in the MPO region to discuss current perceptions on transit, transit opportunities, issues, and challenges. Interviewed stakeholders represented the education, tourism, workforce, and social services sectors. The project team also interviewed current transit providers to hear their insights, opinions, and preferences for transit service.

Key findings from the stakeholder interviews include:

- Rapid City is an auto-oriented region and residents prefer to drive, if they can afford to do so.
- There is a significant need for services to support the aging and disabled populations.
- The region is missing a champion for transit. Councils, mayors, and elected officials need to be informed and champion transit initiatives.
- Any new service or program should be flexible and as on-demand as possible.

- There is a layer of complexity in finding out about what services exist and how they work; there is a need for more streamlined information that can be easily understood by persons with disabilities and the aging population.
- Many region residents live outside Rapid City because the cost of housing is cheaper but it comes with a higher transportation cost.
- The program for students to ride Rapid Transit System for free has been a real success and should be continued.
- Service is most needed in the evenings and on weekends to support residents and visitors to the region.

6.3 Public Outreach

The project team held two public meetings in July 2017 to solicit similar input from the general public. The purpose of the meetings was to understand the public's current experience with transit services in the region, what geographic areas in the region need to be better accessible by transit, and their vision and priorities for the future.

The public meetings were not well attended, and the project team received limited feedback from the community. However, the project team also reached out to the public at Main Street Square and received significant input on the public's experience with existing transit services, and their vision and priorities for the future.

6.3.1 Project Website

Throughout the project, the project team maintained a project website where the public could provide comments and connect with the project team, and review the meeting materials as well as the draft report. The website, http://www.rapidcitytransitfeasibility.com/, will be maintained until the project is completed in April 2018.

7.0 Peer Reviews

Peer agencies were sought with characteristics like those of the Rapid City region: they were generally of similar size and scope to Rapid Transit System, had some similar population and service area characteristics, or represented a diverse range of governance and organizational alternatives that might serve as models for this study.

After extensive review of peer options, four peers from across the nation were identified:

- Butte Regional Transit (B-Line), Butte County, California
- Pocatello Regional Transit (PRT), Pocatello, Idaho, and surrounding area
- Salem-Keizer Transit (Cherriots and CARTS), Polk and Marion counties, Oregon
- Watertown Area Transit, Watertown, South Dakota, and the surrounding area

7.1 Butte Regional Transit

Butte County, California, is a mostly rural county located about 60 miles north of Sacramento. The service area has a population of 225,000, with the largest concentration of residents and employment in Chico with a population of 90,000. B-Line provides 22 fixed-route services in Chico and Oroville, including regional routes that link Butte County's cities. B-Line serves two major facilities: California State University, located in Chico (CSU Chico), and Butte College, located approximately 15 miles southeast from Chico. Regional routes afford limited local circulation in Paradise, Gridley, and Biggs, as well as several other small communities. B-Line currently provides no regional services beyond Butte County, but transit operators from two adjacent counties provide both commuter and lifeline service to Chico. B-Line Paratransit operates as an Americans with Disabilities Act (ADA) complement to the fixed routes in the county's three largest cities and travels up to 3 miles beyond ADA boundaries for eligible riders paying an additional fare.

B-Line uses a regional approach for service planning; duplicative local routes were redesigned or merged when several transit systems agreed to consolidate using a unified system name, logo, and fare policy.

B-Line represents the 2005 consolidation of six separate transit operations. It includes the services of three former fixed-route transit providers, including urban services provided by Chico Area Transit System (CATS), Oroville Area Transit System (OATS), and Butte County Transit's (BCT) rural service that connected key cities and towns in the county. Three other services, all ADA paratransit and/or senior dial-a-rides provided by local jurisdictions, were also consolidated into B-Line: the Chico Clipper, Paradise Express, and Oroville Express. Before and after consolidation, all the transit agencies contracted with the same transit service provider, making consolidation easier.

All regional services outside Chico, the largest city, are provided via fixed routes, with complementary paratransit services where required. B-Line does not offer rural demand-response service like the regional service provided by Prairie Hills Transit.

Today, CSU Chico partners with B-Line to support service by subsidizing transit costs in Chico through student fees. These fees also allow students to ride transit for free. As a result, B-Line has received a significant infusion of fare revenues from this institutional partner.

Before consolidation, two municipalities (Oroville and Paradise) purchased administrative services for transit operations from the county. Today, through the Joint Powers Authority (JPA), all participating

jurisdictions provide funding for transit based on a formula that considers population and service levels. The Butte County Association of Governments (BCAG) covers administrative costs. BCAG provides two dedicated staff for administration, and one policy board oversees the combined system.

Consolidating this system was not easy. It required several years of effort, including a study process during which dialogues were facilitated among elected officials and city representatives to agree on cost-sharing formulas, policy board representation, and service hours allocation.

This model is relevant for the Rapid City region because it illustrates an MPO-administered transit system (which was seen in Butte County as having a regional and balanced perspective) and showcases how existing transit systems can merge to create a single unified system with each local jurisdiction paying a share of the costs.

7.2 Pocatello Regional Transit

Pocatello Regional Transit (PRT) serves Pocatello, Idaho, and seven surrounding rural counties (Bannock, Bingham, Bear Lake, Box Elder, Caribou, Franklin, and Power), all located about 150 miles north of Salt Lake City. The service area has a population of 214,000, with the largest concentration of residents in Pocatello (population 54,000) and Chubbuck (population 14,000).

PRT provides 10 local fixed-route services within the city of Pocatello, with four routes to local K-12 schools and two routes serving Idaho State University. Two commuter services also serve outlying areas, as well as TELLO BUS, a demand-response service spanning the seven rural counties surrounding Pocatello and Chubbuck. All three programs share maintenance and employees.

Pocatello had privately run streetcar and later bus service until 1965, when the company that provided it went out of business. PRT arose out of a 1970s-era paratransit service called TELLO BUS. When Pocatello became a designated urbanized area in 1980, the city took responsibility of providing transit services within Pocatello and the surrounding area.

PRT is a department within the City of Pocatello, which directly operates and oversees transit service. The director of PRT reports to the mayor, and the city council approves its budget. The Bannock Transportation Department (the MPO) handles project planning and design work, and the PRT director sits on the board.

PRT has agreements with six of the seven surrounding counties to run regional service (some agreements have expired but service continues). The state of Idaho administers the demand-response contract for services to senior citizens. Some of these PRT costs are paid using Idaho Medicaid funds to provide non-emergency medical travel for a regional healthcare provider. PRT receives 52 percent of its $2.6 million operating budget from federal assistance and another 25 percent from local donations (including both rider donations and corporate donations). County and municipal governments pay PRT to provide rural services through agreements with the City of Pocatello.

PRT leases space to Greyhound at their main bus terminal and is the contractor for a Greyhound service between Pocatello, Salt Lake City, and Butte, Montana.

This model provides an example of a city department taking the lead on providing regional services and administering those services for other government entities. If this model were applied in Rapid City, it would be equivalent to Rapid Transit System operating the local services and the various services

provided by Prairie Hills Transit, with the City of Rapid City having the primary policy/oversight responsibilities for the regional service.

7.3 Salem-Keizer Transit (Cherriots and CARTS)

Salem-Keizer Transit serves Salem, Oregon, and surrounding areas in Marion and Polk counties, located 43 miles south of Portland. The service area has a population of 400,000, with the largest concentrations of residents in Salem (population 160,000) and Keizer (population 37,000). Salem-Keizer Transit provides service under two brands. Cherriots provides frequent, weekday urban services in the cities of Salem and Keizer, including 21 local fixed-route services and one demand-response route in West Salem. Chemeketa Area Regional Transportation System (CARTS) provides 10 regional routes serving rural areas of Marion and Polk counties, including two express routes, three demand-response routes, and five limited fixed-route services, all of which run only weekdays during the day. Salem-Keizer Transit is a mass transit district, which means it is a governmental agency that is not a department of either city or the counties.

Cherriots and CARTS have had a history of working separately alongside each other for many years, but in more recent years, they have taken a regional approach for service planning, with each brand providing service that complements the other. According to staff, Cherriots undertook administrative responsibilities for CARTS because no other entity was interested or had the required capability. CARTS service was previously contracted to a local nonprofit organization.

Today, each brand has a different fare structure, and a universal pass is available solely for CARTS or for both systems. CARTS will merge into the Cherriots brand later this year, becoming known as "Cherriots Regional."

Since its inception in 1979, Salem-Keizer Transit has provided service to Marion and Polk counties, introducing the Cherriots and CARTS brands to support different services. When CARTS formed, there was a special non-taxing district that would have provided oversight and governance with representatives from the counties and cities within them; however, there was no funding and a lack of cooperation. Service cuts in 2009 reduced the span of service and eliminated Saturday service.

Salem-Keizer Transit has a seven-member board of directors that provides oversight and guidance to the agency but does not have taxing capacity. Board members are elected from seven districts within the Salem Urban Growth Boundary (UGB), but they act as an authority for how funds are spent outside the UGB in rural areas served by CARTS. There is no real direct representation for areas outside the UGB.

Salem-Keizer Transit contracts separately for two of the CARTS routes outside the UGB. One route is operated in partnership with Trimet in Wilsonville, where both agencies coordinate schedules for regional trips between the two areas (taking turns providing trips on the same route). A second contract with Spirit Mountain Casino provides service to the casino. The two services provide connections to the Portland area via Canby Area Transit (CAT), South Metro Area Regional Transit (SMART), and to McMinnville via Yamhill County Transit.

Cherriots receives funding from FTA section 5307 (capital expenses) and 5311 (operating expenses), state funds, and local property taxes. CARTS is supported by Oregon's cigarette tax and the "lawn mower fund," which pays for senior transportation and paratransit.

This peer provides a model for Rapid City of two providers working side by side who have increased levels of coordination and cooperation over the years, with the rural service ultimately being embraced

by the urban transit system and folded in as a separate division. The model illustrates a transit district approach, which some consider to have greater flexibility and authority to manage regional services because a district operates independently of a municipal or county government. The contract with a private casino bus operator also provides a potential model for consideration in the Rapid City region.

7.4 Watertown Area Transit

Although smaller than the other peers, South Dakota's Watertown Area Transit, Inc. provides a different type of model: the system is administered by a private nonprofit that receives funding from public jurisdictions to provide services to their populations: Watertown and Codington County.

Watertown Area Transit provides service to Watertown, South Dakota, and surrounding areas in Codington County, located 100 miles north of Sioux Falls. The service area has a population of 28,000, with the largest concentration of residents in Watertown (population 22,000). It also contains a small portion of the Lake Traverse Indian Reservation (population 10,000).

Watertown Area Transit is an entirely demand-response system with no fixed routes. All trips are curb-to-curb. A 2005 study explored the possibility of implementing a single fixed-route service with 30- to 45-minute headways, but it was never implemented. As a fully demand-response system, all trips must be scheduled one day in advance by 3:00 PM the previous day.

Watertown works with two "sister" agencies that provide service to surrounding areas, including the Brookings Area Transit Authority, which provides connections to medical centers in Brookings and Sioux Falls, and Community Transit, which serves the nearby Lake Traverse Reservation.

More than half ($199,000) of Watertown Area Transit's $390,000 budget comes from federal funds, while another $163,000 comes from local funds, including rider fares and private donations. The Watertown City Council also donates funding to the transit agency but does not provide policy oversight: that is done by the nonprofit organization. This is not a unique arrangement; other transit systems in South Dakota such as Prairie Hills Transit are nonprofit organizations, and even some comparable urban systems are nonprofits, such as Bis-Man Transit in Bismarck and Mandan, North Dakota.

A key source of funding for Watertown Area Transit is through its contract with Prairie Lakes Healthcare System in which they are paid to provide "free rides" to and from medical appointments.

Watertown Area Transit serves as a potential model for regional administration and governance if a new or existing nonprofit organization were to assume responsibility for service in the Rapid City area, outside the city limits.

Key characteristics of these transit agencies are summarized in **Table 4**.

Table 4. Summary of Transit Agencies

CHARACTERISTIC	RAPID TRANSIT SYSTEM	BUTTE REGIONAL TRANSIT (B-LINE)	POCATELLO REGIONAL TRANSIT (PRT)	SALEM-KEIZER TRANSIT (CHERRIOTS AND CARTS)	WATERTOWN AREA TRANSIT
Service Area	▪ Rapid City, SD	▪ Butte County, CA	▪ Pocatello, ID ▪ Seven rural counties	▪ Salem, OR ▪ Marion County ▪ Polk County	▪ Watertown, SD ▪ Codington County
Basic Population Characteristics (2015 ACS)	▪ Rapid City (73,000) ▪ Metro Area (135,000)	▪ Service Area (225,000) ▪ Chico (90,000)	▪ Service Area (214,000) ▪ Pocatello (54,000) ▪ Chubbuck (14,000)	▪ Service Area (400,000) ▪ Salem (160,000) ▪ Keizer (37,000)	▪ Service Area (28,000) ▪ Watertown (22,000) ▪ Lake Traverse Indian Reservation (10,000)
Major Facilities Served	▪ South Dakota School of Mines and Technology (2,800 students) ▪ Rapid City Regional Hospital (8,000 employees)	▪ Butte College (14,000 students) ▪ CSU Chico (16,000 students)	▪ Idaho State University (15,000 students) ▪ Fort Hall Reservation (5,000 residents)	▪ Oregon State Capitol (21,000 employees) ▪ Salem Health Hospital (3,900 employees) ▪ Willamette University (2,800 students) ▪ Salem-Keizer School District (43,000 students)	▪ Lake Area Technical Institute (2,000 students) ▪ Mount Marty College (160 students) ▪ Terex Utilities (600 employees) ▪ Prairie Lakes Healthcare System (500 employees)
Ridership (Annual Unlinked Trips)	▪ 435,619	▪ 1,509,763	▪ 422,861	▪ 3,975,034	▪ 50,361

CHARACTERISTIC	RAPID TRANSIT SYSTEM	BUTTE REGIONAL TRANSIT (B-LINE)	POCATELLO REGIONAL TRANSIT (PRT)	SALEM-KEIZER TRANSIT (CHERRIOTS AND CARTS)	WATERTOWN AREA TRANSIT
Fleet	▪ 20 demand-response vehicles ▪ 17 fixed-route buses	▪ 21 demand-response vehicles ▪ 26 fixed-route buses	▪ 17 demand-response vehicles ▪ 11 fixed-route buses	▪ 144 demand-response vehicles ▪ 54 fixed-route buses ▪ 24 vanpools	▪ 9 demand-response and flex route buses ▪ 2 vans
Urban Routes and Rural Bus Service	▪ 6 local routes in Rapid City ▪ 2 School Tripper routes ▪ City View Trolley (tourist-oriented) ▪ Dial-A-Ride service for limited mobility residents	▪ 22 local fixed-route services in Chico and Oroville ▪ Regional routes that connect Butte County cities ▪ B-Line Paratransit	▪ 10 local fixed-route services in Pocatello ▪ 4 to local K-12 ▪ 2 to Idaho State University ▪ 2 commuter services ▪ TELLO BUS (demand-response) spans the seven rural counties	**Cherriots:** ▪ 21 local fixed-route services in West Salem ▪ 1 demand-response route in West Salem **CARTS:** ▪ 10 regional routes serving rural Marion and Polk counties ▪ 2 express routes ▪ 3 demand-response routes ▪ 5 limited fixed-route services (weekdays only, daytime)	▪ Entirely demand-response

CHARACTERISTIC	RAPID TRANSIT SYSTEM	BUTTE REGIONAL TRANSIT (B-LINE)	POCATELLO REGIONAL TRANSIT (PRT)	SALEM-KEIZER TRANSIT (CHERRIOTS AND CARTS)	WATERTOWN AREA TRANSIT
Service Models	▪ Different fare structure for fixed-route, Dial-A-Ride, and tourist services	▪ Unified system name, logo, and fare policy	▪ Local service: $1 ▪ Blackfoot Commuter: $10 ▪ Preston/Logan Commuter: Free ▪ Demand-response: $2 ▪ Riders allowed to provide donations	▪ Cherriots: $1.60 ▪ CARTS: $2.25 - $3 ▪ Universal pass available for CARTS or both systems	▪ Within Watertown: $2.50 ▪ Trips outside Watertown but within Codington County: $3 or $5 depending on distance
Service Frequencies and Span	▪ Weekdays: Hourly from 6:20 AM to 5:50 PM ▪ Saturdays: Hourly from 9:50 AM to 4:40 PM	▪ Fixed-route: Mon – Sat, hourly from 6:00 AM to 10:00 PM ▪ Regional routes: 2-4 runs during peak hours ▪ Paratransit service up to 3 miles outside Chico, Oroville, and Paradise	▪ Weekdays: Hourly from 6:00 AM to 7:00 PM ▪ K-12 service runs during school hours ▪ Saturdays: 9:00 AM to 5:40 PM (2 routes only)	**Cherriots:** ▪ Weekdays: 15-30 minute headways between 5:00 AM and 10:00 PM **CARTS:** ▪ Weekdays: 2-8 runs each day between 7:00 AM and 5:00 PM ▪ 1 express route until 11:00 PM	▪ Weekdays: 6:00 AM to 6:00 PM ▪ Saturdays: 6:00 AM to 4:00 PM
Administrative Organization	▪ Department of City of Rapid City government	▪ All transit agencies contract with same transit service provider	▪ PRT is a department within the City of Pocatello	▪ Cherriots and CARTS service provided by Salem-Keizer Transit	▪ Private nonprofit

CHARACTERISTIC	RAPID TRANSIT SYSTEM	BUTTE REGIONAL TRANSIT (B-LINE)	POCATELLO REGIONAL TRANSIT (PRT)	SALEM-KEIZER TRANSIT (CHERRIOTS AND CARTS)	WATERTOWN AREA TRANSIT
Oversight Body	▪ Mayor and City Council	▪ Butte County Association of Governments (BCAG)	▪ Mayor and City Council ▪ Bannock Transportation Department (the MPO)	▪ Board of Directors (7 members)	▪ N/A

Coordination/Collaborative Arrangements	▪ N/A	▪ System represents coordinated planning effort when all providers consolidated services	▪ PRT has agreements with 6 of 7 counties to provide regional service
			▪ State of Idaho administers demand-response contract for senior citizen services
			▪ PRT leases space to Greyhound
			▪ Via the state of Idaho, PRT is paid using Idaho Medicaid funds to provide non-emergency medical travel for a healthcare provider
				▪ Salem-Keizer Transit contracts for 2 CARTS routes outside the urban growth boundary
				▪ Trimet
				▪ Spirit Mountain Casino
				▪ Connections provided to Portland area via:
				  ▪ Canby Area Transit
				  ▪ South Metro Area Regional Transit
				  ▪ Yamhill County Transit to McMinnville
					▪ Brookings Area Transit Authority
					▪ Connections to medical centers in Brookings and Sioux Falls
					▪ Community Transit
					▪ Serves Lake Traverse Reservation

CHARACTERISTIC	RAPID TRANSIT SYSTEM	BUTTE REGIONAL TRANSIT (B-LINE)	POCATELLO REGIONAL TRANSIT (PRT)	SALEM-KEIZER TRANSIT (CHERRIOTS AND CARTS)	WATERTOWN AREA TRANSIT
Funding and Cost-Sharing Agreements	▪ N/A	▪ Receive federal and state funding ▪ Jurisdictions provide funding based on a formula that considers population and service levels ▪ Administrative costs covered by BCAG	▪ 52% of $2.6 million from federal assistance ▪ 25% from local donations ▪ County and municipal governments pay PRT to provide rural services	**Cherriots:** ▪ FTA Section 5307/5311 ▪ State funds ▪ Local property taxes **CARTS:** ▪ Oregon cigarette tax ▪ Lawn mower fund	▪ >50% of $390,000 from federal assistance ▪ $163,000 from local funds (rider fares, private donations) ▪ Prairie Lakes Healthcare System pays for free rides to and from medical appointments

7.5 Lessons Learned from Peers

Rapid City's peers provide some examples for how regional services might be operated and administered.

There are two distinct types of regional service. Peer agencies indicate two distinct service models for regional routes. Commuter-focused service typically runs from outlying areas into the city, or to and from large activity centers (such as a university or an office park) and runs during rush hour. Lifeline service typically serves outlying areas, such as a route between different towns, and may have a wider span of service throughout the day.

Service planning should consider local and regional transit together. Local and regional routes should be designed to complement, not duplicate each other, maximizing limited resources. B-Line's consolidation included the redesign or merging of several duplicative local and regional routes, where a well-integrated set of services offers routes that provide local coverage within an urban area and then transition to rural services outside the urban core.

Unified branding has been a successful element of integrating local and regional services. Several peer agencies have a single brand for both local and regional services, which reduces confusion for riders and emphasizes transit's ability to serve various trips across the region. B-Line (Butte County, CA) is the consolidation of six transit operations, two of which provided local service and four of which provided regional or demand-response service. Salem-Keizer Transit (Salem, OR) is currently rebranding CARTS, their regional transit service, as "Cherriots Regional," reflecting its relationship to Cherriots, their local transit brand.

Although Pocatello's services extend far beyond the city, a single website, brochure, and naming convention provide an easy-to-understand unifying message to riders in the region.

MPOs or other regional players can have a major role in overseeing transit service. Regional governments are a natural fit for either supporting or administering regional transit service. B-Line's administrative staff comes from the local MPO, the BCAG, while Salem-Keizer Transit has an elected board of directors that comes from its UGB (which contains the city and some, but not all, surrounding areas). Watertown's system is an independent nonprofit that is perceived as independent of the city.

While the outcomes of this study will depend on community goals, the peers illustrate that precedents exist for the RCAMPO or another organization to assume an administrative and/or a service provision role for regional transit.

Outside organizations can subsidize direct service. Major activity centers may have a distinct interest in promoting transit ridership and are willing to subsidize service. This can increase ridership while also addressing any issues those entities may have, such as parking or traffic. Multiple peer agencies contract with specific organizations to provide free or subsidized service. B-Line provides free rides to CSU Chico, which subsidizes costs. Watertown Area Transit contracts with the Prairie Lakes Healthcare System to provide free trips to medical appointments. Moreover, Salem-Keizer Transit contracts with an area casino and resort to provide subsidized trips. Contracts with military bases, major employers, universities, and other organizations can provide a dedicated revenue source for a transit agency.

Successful coordinated efforts to expand services can take time. Salem-Keizer Transit has been modifying its approach to working with CARTS over the last two decades and only more recently embraced it as an essential regional service that should fall under the Cherriots umbrella. Consolidating services in Butte County took several years until all elected officials recognized the value in an integrated urban and rural transit system. Unless there is a strong champion for the provision of rural services outside Rapid City, it may take time to gain stakeholder and political support to fund and develop these services.

8.0 Alternative Development and Analysis

Based on the array of needs identified in the first phase of this study, the project team narrowed a set of transportation service alternatives to eight that could potentially address the various mobility demands in the RCAMPO region.

8.1 Geographic Opportunities

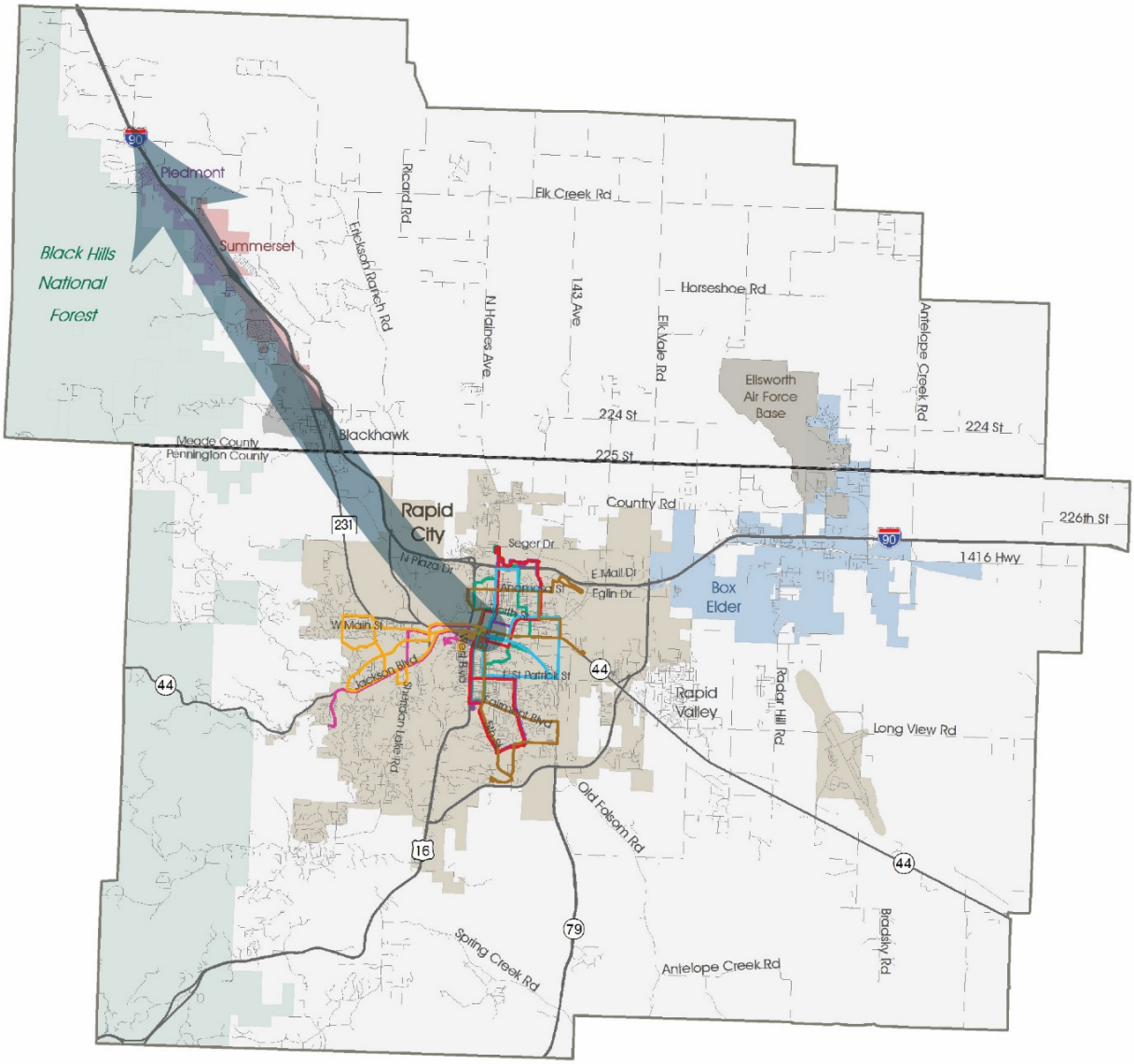
The project team considered the applicability of the eight alternatives along four main travel corridors as well as for the entire MPA.

Northwest Geographic Opportunity

The geographic opportunity in the northwest MPO area includes the communities of Piedmont, Summerset, Black Hawk, Northwest Rapid City, and unincorporated portions of Meade County and Pennington County. The major corridor is the I-90 corridor.

Transit services and/or programs would serve areas of higher concentrations of age 65+ households, persons with disabilities, and zero vehicle households.

Figure 13. Northwest Geographic Opportunity

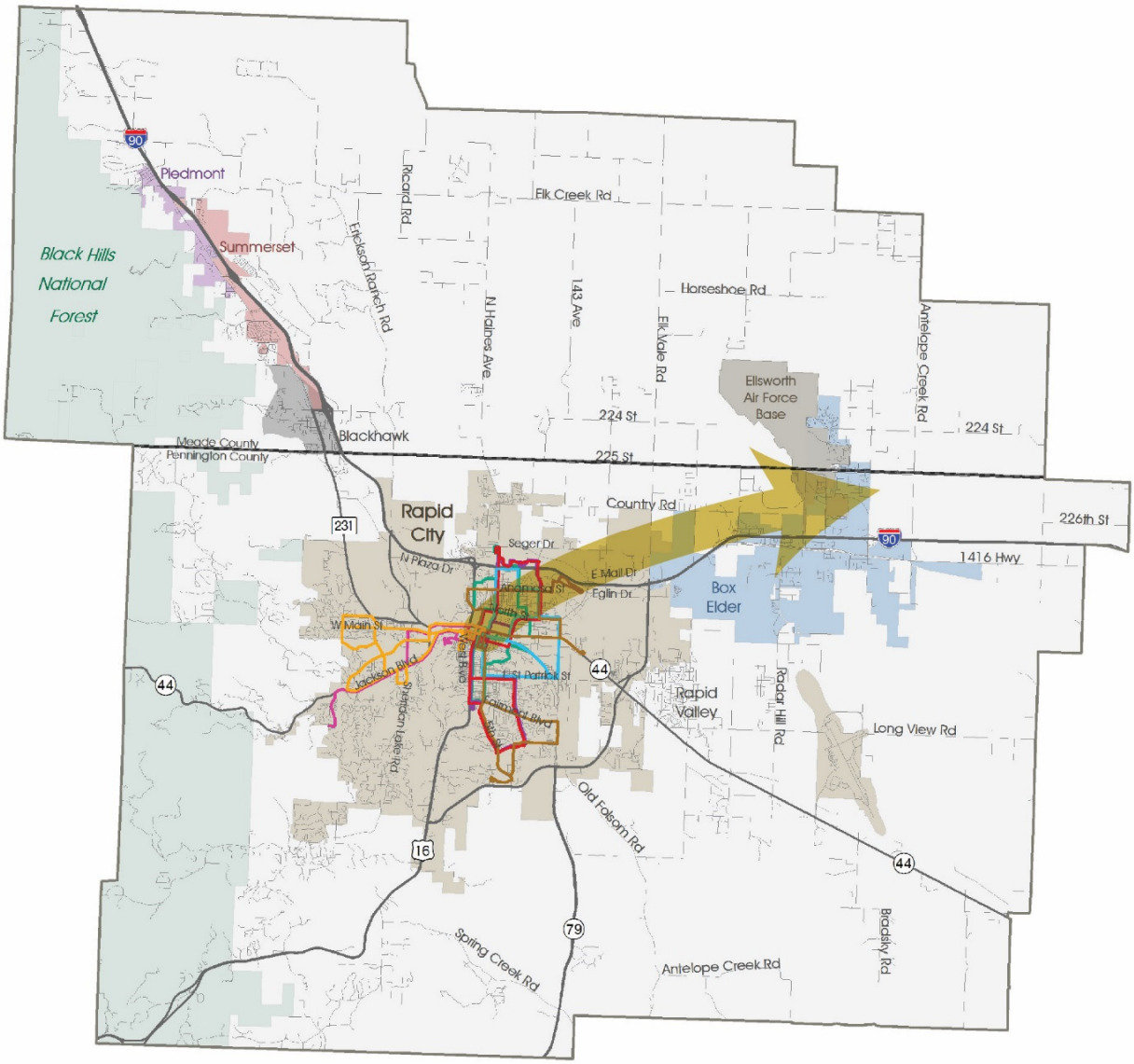


Northeast Geographic Opportunity

The geographic opportunity in the northeast MPO area includes the communities of Box Elder, Northeast Rapid City, Pennington County, and potentially Meade County. Major origins and destinations include downtown Rapid City, Rushmore Crossing, Feeding South Dakota, and Ellsworth Air Force Base.

Transit services and/or programs in this area would serve higher concentration of low-income populations.

Figure 14. Northeast Geographic Opportunity

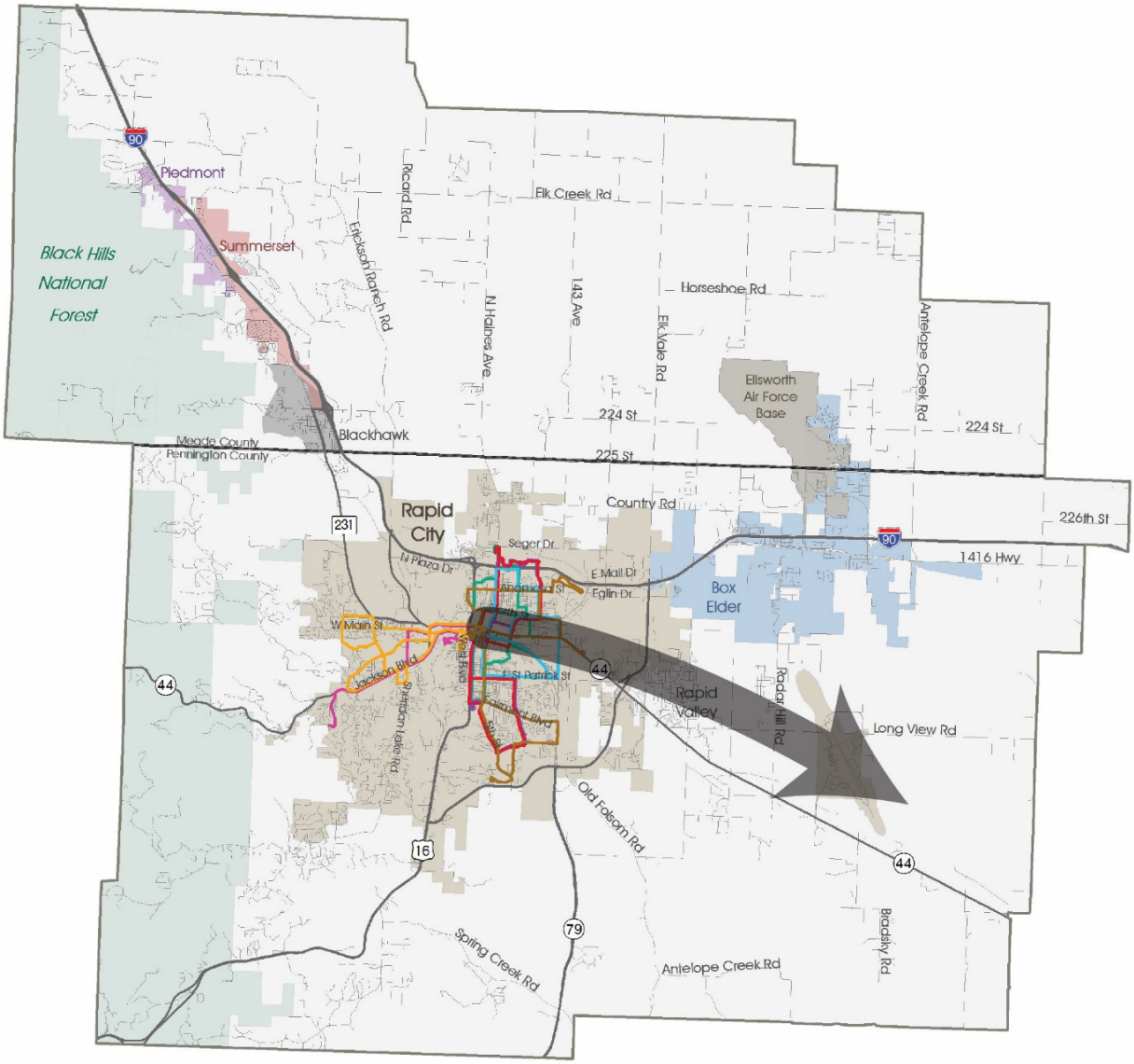


Southeast Geographic Opportunity

The geographic opportunity in the southeast MPO area includes the communities of Rapid Valley and unincorporated Pennington County. Major origins and destinations include downtown Rapid City, Western Dakota Tech, and Rapid City Regional Airport. The major corridor is the SD 44 corridor.

Transit services and/or programs in this area would serve higher concentration of low-income populations.

Figure 15. Southeast Geographic Opportunity

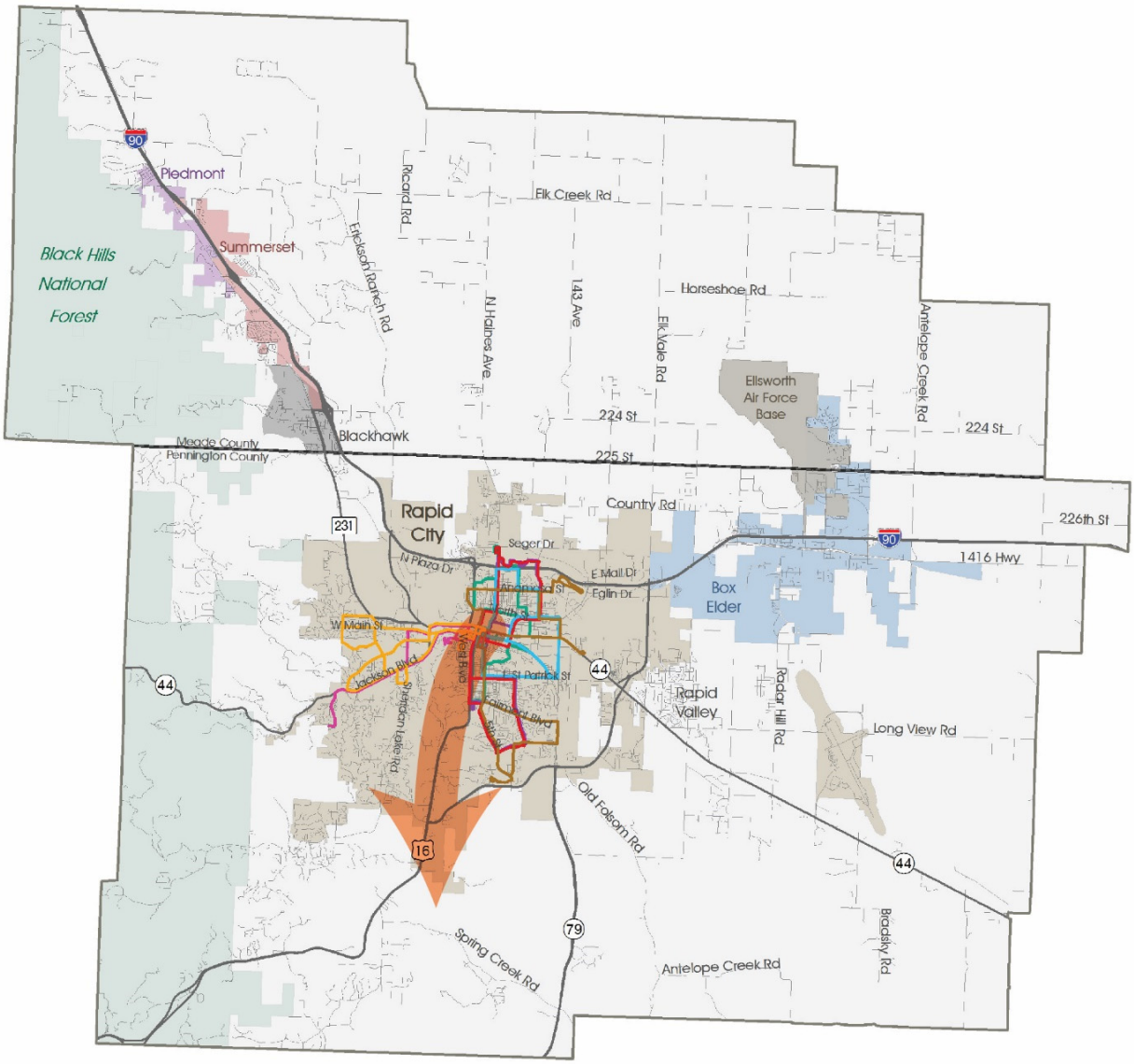


Southwest Geographic Opportunity

The geographic opportunity in the southwest MPO area includes the communities of Rapid City and unincorporated Pennington County. Major origins and destinations include downtown Rapid City, medical facilities like Rapid City Regional Hospital, and major employers like Black Hills Corporation. The major corridor in this area is Mount Rushmore Road/US 16.

Transit services and/or programs in this area would serve higher concentrations of age 65+ households and zero vehicle households.

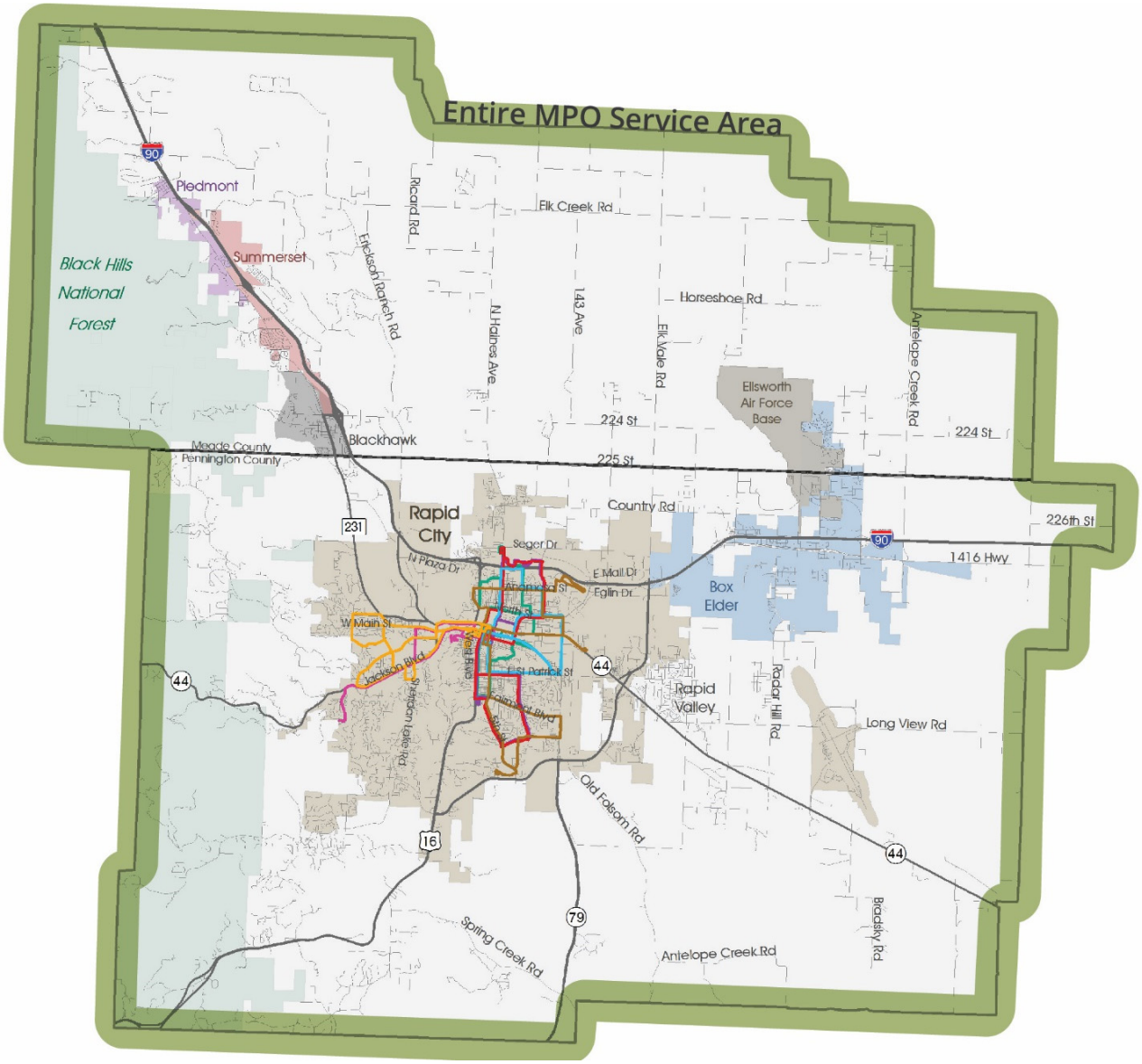
Figure 16. Southwest Geographic Opportunity



Regional Geographic Opportunity

Finally, the project team considered the applicability of transit services and programs that would serve the entire MPO, including all communities using all major corridors in the region.

Figure 17. Regional Geographic Opportunity



The intention of this next section is to define conceptual alternatives, all of which could be appropriate for implementation in the Rapid City MPO region. Some alternatives, such as carpools, are appropriate for nearly all the MPO service areas. Others, however, are feasible only under certain conditions that may not be present in all four MPO quadrants.

Two types of alternatives are identified as potential approaches to address transportation demands in the Rapid City region:

- **Transportation Program/Coordination Alternatives.** These alternatives are coordinated through employers, by individuals, or with private for-profit and non-profit transportation providers:
  - Ride Matching and Carpool
  - Vanpool
  - Voucher
- **Transit Service Alternatives.** These alternatives focus on providing new or expanded transit services: operating buses or other vehicles to pick up and drop off individuals, either along routes, in specific service areas, or as a demand-response service:
  - Special Group Trips
  - Lifeline Service
  - Demand-Response Service (Dial-a-Ride or Call-and-Ride)
  - Commuter Express Route
  - Regional Service

These are described in the following sections.

8.2 Transportation Program/Coordination Alternatives

The project team identified three program alternatives.

8.2.1 Ride Matching and Carpools

Carpools are defined as ridesharing among commuters using a personal vehicle to access daily commute destinations such as work or school. Carpools are often used for long-distance commutes and can be used to travel to destinations across the MPO region. Ride matching services can help facilitate and promote carpooling. Public, private, or nonprofit organizations can operate such services. In addition to commute carpools, human service agencies and other organizations can encourage occasional carpooling to serve isolated individuals in portions of Pennington and Meade counties.

Background and Identified Need

Carpooling is effectively the shared use of a car by the driver—usually the owner of the vehicle—and one or more passengers.

Carpooling arrangements and programs involve varying degrees of formality and regularity. Carpools may be formally arranged through an employer, a public website, etc., or casual, where the driver and passenger might not know each other or have advanced agreed upon arrangements. Carpools also depend on potential participants to have sufficiently similar commuting patterns. Carpooling has proven to be most successful in areas with little or no transit service, including rural areas.

Carpools can be an effective strategy to meet the needs of residents commuting to work. However, many variables affect success, including the cost to an individual driver or rider, the availability of an automobile, scheduling, the effectiveness of ride matching programs, and the ability to serve non-commute transportation.

Carpools can lower commute costs for low-income residents and may benefit people with disabilities who do not need ADA-compliant transportation services. However, they are unlikely to meet the needs of some populations of older adults because many older adults do not make daily commute trips to a workplace.

While carpools can be a useful element of an overarching transportation strategy, they do not reliably meet the core transportation needs identified through this study. However, through informal carpools, neighbors might travel together to a common destination. While sharing the ride to the grocery store may not seem to be a critical focus for most carpooling programs, shared travel among older adults, for example, can also help reduce isolation by ensuring that others are aware of an individual's needs.

Potential Corridors

A ride matching program and promotion of carpooling could be implemented to serve the entire MPO region.

Priorities Addressed by This Alternative

- Provides a transportation option where no others exist.
- Helps to reduce transportation costs, primarily for commuters.
- Is easy to implement and has a minimal administrative burden.
- Has lower costs compared to other strategies.

Implementation Considerations

Ride matching services can help facilitate and promote commuter carpooling. The RCAMPO could work with employers (such as Ellsworth Air Force Base, Rapid City Regional Hospital, and others) and human service agencies to develop a campaign specific to promote carpooling.

For non-commuter carpools, human service agencies, churches, and senior centers can work to promote ride matching for their consumers.

Other considerations are as follows:

- Carpools are not well suited for most occasional or periodic trips such as shopping or medical appointments.
- Some participants must own a vehicle, which may be prohibitive for residents with low incomes or those with certain types of disabilities.
- Carpools may require partnerships with employers or local agencies and organizations.
- Low-density communities can make it more difficult to find carpool partners.
- Ride matching and carpool strategies have been implemented in many rural areas across North America.

Estimated Costs

Implementing carpools is inexpensive. Carpools require some initiative by those who need a ride, and their success depends on the availability of drivers and other riders who are traveling to the same destinations at the same times. Total operating costs are estimated to be less than $10,000 annually to manage a carpool promotional campaign and provide basic ride matching services.

Table 5. Ride Matching and Carpools Alternative Summary

	NEAR TERM ASSUMPTIONS (WITHIN 1 TO 3 YEARS)	LONGER TERM ASSUMPTIONS (4+ YEARS)
Service Design	▪ Promote carpool resources and tools for commuters and students ▪ Develop carpool matching for occasional trips for older adults and other populations with limited resources, those risking isolation, as a supplement	Additional focus on carpools for older adults and others
Service Hours	Participants develop route and schedule themselves.	No change
Headways	N/A	N/A
Vehicle Requirements	Person vehicle or a participant	
Annual Operating Costs (estimated)	Minimal to oversee rideshare outreach effort: approximately $10,000 annually, with additional one-time startup costs of about $15,000	Will depend on service expansion
Annual Baseline Ridership Goal	15 new carpools per year, serving approximately 30 riders (4,600 round trips per year, assuming average 3 trips per week)	
Potential Lead or Partner Agencies	RCAMPO, City of Rapid City, Pennington or Meade County, major employers	

8.2.2 Vanpools

Vanpools offer ridesharing to commuters using a sponsored van. Vanpools are typically used for long-distance commutes, often to destinations outside the area where they originate.

Background and Identified Need

Vanpooling has proven to be most successful in areas with little or no transit service and is especially beneficial when serving employment locations with a limited supply of parking, of which there are few in the MPO region. Vanpools will not serve the needs of people traveling to locations other than regular employment.

Typically, commuters are assigned to a specific vanpool group/van operating on a fixed schedule. Vanpools are formed by a group of 5 to 15 commuters who live close to each other and have similar work schedules and work destinations. Routes are determined by individuals in a specific vanpool: vanpools can make multiple stops along the route to pick up riders and/or have a single fixed pickup location.

Monthly fares are calculated based on the number of riders per vanpool group and fares are paid in advance by the vanpool group and divided among the vanpool participants. Base fares are usually fixed each month. Vanpools usually require two volunteer drivers: the primary driver and one back-up driver.

Several vanpool service companies currently exist. These companies provide the vans and help to match riders. Often vanpooling—and carpooling—is supported by programs such as preferential carpool/vanpool parking, guaranteed ride home programs, and employee subsidies.

To organize a vanpool program, the lead agency should work with interested employers on how to structure a program. A list of interested employees would be generated to match riders, mode choice, destination, time of work, and other preferences. Educational information would be developed and distributed to raise awareness about vanpools, as well as to outline the process for participating. Typically, the economic (fuel savings) and quality of life (reduced stress from not driving) benefits are emphasized in information to encourage commuters to consider vanpooling.

Potential Corridors

A vanpooling program could be implemented to serve all the MPO region.

Priorities Addressed by This Alternative

- Opens job markets to individuals with low incomes and others who are more likely to be transit dependent.
- Provides opportunities for partnerships with employers to reduce public expenditures on transportation.
- Reduces transportation costs for residents.

Implementation Considerations

Working with a vanpool provider and offering information to encourage vanpooling is a relatively simple undertaking compared with other services proposed in this study and can be scaled to the number of potential users. The initial step in creating a vanpool program is to reach out to vanpool leasing companies (or purchase vans directly). For a successful program, the lead agency and participating employers must promote regional transportation policies that support vanpooling; build strong working relationships with cities, employers, and other regional partners; and market and provide referrals to the vanpool program.

Other considerations include:

- Vanpools are most successful when they are operated through partnerships with employers or local agencies and organizations.
- Transit agencies that operate vanpools directly can count vanpool riders in their ridership calculations and certain expenditures by vanpool operators may be used as a local match for Section 5311 funds.
- Vanpool leasing companies often develop and promote vanpools in rural areas.

Estimated Costs

Implementing vanpools is comparatively inexpensive versus developing new transit services and can benefit from funding, typically, from several markets, including vanpool users, employers, and sponsoring agencies. Costs paid by the lead agency are assumed to be no more than about $10,000 per year for assistance and outreach to employers in developing vanpools. Vehicles are assumed to be provided by a vanpool service provider.

Table 6. Vanpools Alternative Summary

	NEAR TERM ASSUMPTIONS (WITHIN 1 TO 3 YEARS)	LONGER TERM ASSUMPTIONS (4+ YEARS)
Service Design	▪ Lead agency to identify local businesses whose employees may benefit from participating in a vanpool program ▪ Lead agency to work with employers to support vanpool subsidies via an employer-sponsored commuter benefits program ▪ Lead agency to assist with coordinating the vanpool as needed	▪ Further expand vanpool use by local employers and residents ▪ Provide additional subsidies for small businesses or low-income individuals
Service Hours	Participants develop route and schedule themselves	No change
Headways	N/A	N/A
Vehicle Requirements	Passenger vans accommodating 5 to 15 passengers	
Annual Operating Costs (estimated)	Minimal to oversee outreach and matching effort: approximately $10,000 annually	Will depend on service expansion
Annual Baseline Ridership Goal	4 new vanpools per year, serving approximately 40 riders (10,000 round trips per year)	To be determined
Potential Lead or Partner Agencies	RCAMPO, City of Rapid City, Ellsworth Air Force Base, major employers, vanpool leasing company	

8.2.3 Voucher Programs

Voucher programs typically involve an arrangement between a sponsoring organization and a participating taxi company or companies, ride-hailing services, limousine operators, nonprofit organizations that operate transportation services, and transit providers. These programs accept and accommodate requests from sponsored customers, clients, or residents and/or accept vouchers provided by the sponsoring organization to riders as partial payment for the trip.

Background and Identified Need

A voucher program allows people to make a trip and pay a lower rate than they would otherwise pay, for example, if they were paying full taxi fares. Under a voucher program, riders are issued scrip/vouchers (which can be paper tickets, debit cards, or simply a form of identification that allows direct billing of services provided) to pay for part of their trip. Typically, an agreement is developed between a sponsoring organization and one or more participating taxi/shuttle companies, or in some cases, ride-hailing services like Lyft and Uber. These programs accept and accommodate requests from registered customers, clients, or residents and accept vouchers (or a special billing code for people who use a special link or enter a code if a ride-hailing service is used) provided by the sponsoring organization to riders as partial payment for the trip. Most voucher programs focus on older adults and/or people with disabilities residing within specific service areas, but some are available to general residents as well. Human service agencies that use this strategy generally limit taxi subsidies to agency clientele or program participants.

This approach allows existing resources to be leveraged, helping to alleviate the need to provide new routes or scheduled services in some rural service areas.

Although several taxi and shuttle providers operate service in and around Rapid City, stakeholders have found some to be unreliable at times. Taxis are not regulated in the area and are not required to provide accessible vehicles.

Potential providers include the following:

- A-1 Cab Service
- Black Hills Taxi
- Canyon Cab
- City Cab
- Deadwood Cab
- Express Taxi
- Hess Limousine
- Hill City Taxi
- My Designated Driver Taxi
- Nite Ride
- Pick Me Up Taxi & Car Service
- Rapid City Limousine Service
- Rapid Shuttle
- Rapid Taxi
- Tim's Taxi Service
- Chair Lift

The ride-hailing service Lyft is newly available for all residents in the region. Lyft is now fully functional throughout the MPA.

While the various providers may need to be vetted to ensure that they carry appropriate levels of insurance and that costs would be in-line with expectations for operation of a voucher program, many voucher programs allow users to choose any provider.

One of the potential obstacles noted previously, the need for more accessible vehicles, could be overcome if incentives to help transportation providers purchase accessible vehicles could also be used to encourage their participation in a voucher program.

Because voucher programs can be popular, strict limits on trips per month and the amount of the subsidy may be needed to control costs.

A voucher program requires a mechanism for paying the subsidy, decisions about the amount of subsidy per trip, and limits on the number or value of trips that will be provided per month. Some large voucher programs use automated means and central call centers, but small-city or community programs usually use coupons.

Potential Corridors

Vouchers can be provided anywhere taxi or ride-hailing services are available. That will be the limiting factor. A few taxi companies serving the region said they will travel long distances, but at a cost that is likely to be too steep to subsidize with a voucher program.

Priorities Addressed by This Alternative

- Helps to make existing transportation options more affordable for people with limited mobility.
- Provides an option for personalized or door-to-door service.
- Provides same-day, if not immediate, service.
- Is effective for unanticipated travel and evening and weekend hours.
- Is effective for service to underserved areas in the RCAMPO region.
- Provides an opportunity to incentivize bringing accessible vehicles into the market.
- Has low startup costs.
- Facilitates a connection to social services and other programs for people who need it most.

Implementation Considerations

Implementing a voucher program provides an opportunity to serve populations that have limited options, particularly in areas where few other transportation options exist today or where other strategies would be costly to provide. In some ways, a voucher program can offer greater flexibility than some of the transit service strategies because trips can take place outside traditional service hours and drivers can provide a higher level of individual service.

Considerations include the following:

- A voucher program ideally requires well-managed and controlled providers, taxi companies, and ride-hailing services.
- The lack of available taxi service or ride-hailing service impacts program effectiveness. This has been a challenge in some rural areas.
- Lacking accessible taxicabs means not all people who require the service can be accommodated, thereby necessitating an accessible option for those individuals.
- A voucher program requires a lead agency to assume responsibility for day-to-day administration and payments.
- A voucher program requires consideration of measures to prevent fraud.
- In some communities, drivers have been reluctant to accept the scrip or vouchers.

Estimated Costs

The cost to administer a voucher program varies depending on the number of participants, which would depend on where service is available and who is eligible to use it. For example, if a countywide service with an average taxi subsidy of $20 per ride is established, and if an average of 30 one-way trips are provided

per day (assuming seven-day service), the annual operating cost could be about $220,000, not including administrative costs. A smaller program assuming a $10 per-user subsidy for 30 one-way trips each day could be approximately $110,000. The total available budget for taxi, van, or ride-hailing subsidies can be controlled with a daily ceiling, allowing trips on a "first-come, first served" basis or by limiting the number of vouchers provided to participants. Additional fixed costs may include printed materials and vouchers.

Table 7. Voucher Program Alternative Summary

	NEAR TERM ASSUMPTIONS (WITHIN 1 TO 3 YEARS)	LONGER TERM ASSUMPTIONS (4+ YEARS)
Service Design	Voucher program: passenger request determines routing	Options for debit card payments, accessible vans, and other enhancements
Service Hours	Flexible: pick up at times requested by passengers	No change
Headways	N/A	N/A
Vehicle Requirements	Standard taxis and vans, and accessible vehicles (for example, ramp-equipped minivans)	Program could provide accessible vehicles as needed
Annual Operating Costs (estimated)	Approximately $60,000 for small scale startup program, likely to expand to $110,000 or $220,000 annually depending on program characteristics	Costs could increase significantly
Annual Baseline Ridership Goal	Varies depending on available budget, level of subsidy, constraints such as trip limits, eligibility, etc. A midsize program might serve 11,000 riders per year.	
Potential Lead or Partner Agencies	RCAMPO, City of Rapid City, Pennington County, Meade County, other incorporated cities, taxi providers, and ride-hailing services	

8.3 Transit Service Alternatives

Five categories of transit service alternatives are discussed, ranging from the simplest to the most extensive.

8.3.1 Special Group Trips

Special Group Trips are the most basic of transit service offerings. They typically provide a link between communities with few services and a major shopping destination—often a supermarket or major retailer like Wal-Mart. Most Special Group Trips operate weekly or biweekly. In some communities, these services are developed to consolidate trips: instead of eight separate dial-a-ride trips to Safeway, a special group shopper trip carries many riders on a single trip, often at a lower fare with a higher level of service to incentivize travel on the service. In other communities, Special Group Trips are used for medical appointments, including difficult-to-serve appointments such as those for dialysis.

Background and Identified Need

Special Group Trips offer an opportunity to pilot basic transit services where no transit options currently exist, offering a limited option for a specific trip purpose. They typically operate as scheduled bus routes, which may deviate up to a mile or more from the main corridor.

A Special Group Trip service might provide options on different days to various communities, especially those with higher concentrations of older adults or lower-income residents. Ideally, because riders are concentrated within a relatively small area or a facility (e.g., an apartment complex with a many older residents), pickups can be simple, and the bus or van travels to a single pre-determined destination, usually a supermarket or shopping center. Because riders may have 60 to 90 minutes to make their purchases before the shuttle departs, the intent is to provide access only to the destination.

For example, Black Hawk residents could have access to Target in Rapid City one day a week, given about an hour to complete their shopping and be driven back to their home/trip origin. The focus would be on front-door convenience and the provision of highly personalized service. In some communities, the destination stores (or other businesses) provide partial funding for these types of services.

Given the lack of retail opportunities in some smaller rural communities in Meade and Pennington counties, stakeholders talked about the value of basic access to key destinations. Although special group trips would be limited, they would offer important access. A transit provider or a human service transportation provider can operate this type of service.

Potential Corridors

Special Group Trips may be applicable in all MPO service areas.

Priorities Addressed by This Alternative

- Pilots a basic transit option to address demands for access to shopping.
- Helps to reduce isolation for individuals without other transportation access and provides an opportunity for socialization during travel.
- Provides a transportation option that does not focus strictly on medical services.

Implementation Considerations

This service offers a narrow focus of service and thus targets a specific market. The most successful Special Group services are often initiated by providing outreach to potential destinations and encouraging collaboration and potential donations/joint-funding for this service. Seeking out mobile home communities and housing developments for residents with modest incomes (serving large numbers of older adults) may be a useful step in determining the most appropriate destinations for this type of service. If necessary, individuals can be preregistered for this service.

Special Group Trips may allow the use of vehicles during off-peak times, maximizing operations of existing vehicles.

Estimated Costs

Costs to operate Special Group Trips will depend on the operating costs of the vehicle. Providing a single weekly trip could cost $10,000 to $12,000 annually, and it may be possible to recover some costs from a participating retailer or residential facility. A single weekly trip from each MPO service area is estimated at approximately $45,000 annually.

Additional fixed costs may include vehicles if not readily available.

Table 8. Special Group Trips Alternative Summary

	NEAR TERM ASSUMPTIONS (WITHIN 1 TO 3 YEARS)	LONGER TERM ASSUMPTIONS (4+ YEARS)
Service Design	Weekly shopping trips to a pre-determined destination	Options for additional trips to other destinations
Service Hours	Approximately 10:00 AM – 1:30 PM on select weekdays	Likely unchanged
Headways	N/A	N/A
Vehicle Requirements	One per trip	One per trip
Annual Operating Costs (estimated)	Approximately $10,000 – $12,000 for one trip per week for a single MPO service area or $45,000 for all service areas	Will depend on service expansion requirements
Annual Baseline Ridership Goal	Depends on service levels, but assumes 450 round trips per service	To be determined
Potential Lead or Partner Agencies	RCAMPO, Pennington County, Meade County, Chair Lift, or other human service agencies, businesses served by program	

8.3.2 Lifeline Service

Lifeline Services can be fixed-route/flex-route or demand-response services, operating wholly within a small community or providing a regional link. They usually operate one to four days a week. This is a common approach used in rural areas where transit services do not exist or where services can be provided more efficiently by grouping passengers with a common destination and scheduling their trips at the same time.

Background and Identified Need

Lifeline Services typically operate as scheduled bus routes, which may deviate up to a mile or more from the main corridor.

A common type of Lifeline route is one that departs a rural community in the late morning and travels to Rapid City, making stops at either a few scheduled destinations or those identified by riders. The bus might lay over at one specific location in Rapid City over a period of up to three or four hours and then return to the origin. Currently, Prairie Hills Transit offers this type of service for individuals traveling from Belle Fourche, Sturgis, Deadwood, Lead, Central City, Whitewood, Ft. Meade, Piedmont, Summerset, and Black Hawk into Rapid City four days per week. Service is also provided from Fall River County and Custer County two days per month, passing through the Southwest MPO service area. Given the success of these services, an expansion may be appropriate in areas that are not currently afforded Lifeline access to Rapid City.

Characteristics of Lifeline Services often include curb-to-curb convenience at the expense of direct routing, although in many communities across the US, Lifeline Services do not deviate but instead serve only selected bus stops, requiring passengers to find their own transportation to the bus stop if there is no local circulator in operation.

Potential Corridors

Lifeline Services exist in the Northwest MPO service area and could be better marketed to individuals who are unaware of the services. Existing services operating through the Southwest MPO service area could be upgraded to more frequent routes with dedicated stops in Pennington County. New services could be implemented in the Southeast and Northeast MPO service areas.

Priorities Addressed by This Alternative

- Offers a lower-cost approach to address some of the identified specialized transportation needs.
- Provides service linking major activity centers, including retail stores, medical facilities, and social service agencies.
- Increases traveler independence and reduces isolation, particularly for older adults and others with limited mobility in rural areas.
- Allows sufficient times for errands and appointments without requiring riders to travel during commute times.
- Potentially builds on an existing successful model in the study region.

Implementation Considerations

It will be critical to identify areas of greatest need with an option to pilot Lifeline Services where it is not currently offered. For example, data from Chair Lift and Prairie Hills Transit may help point to specific destinations (stores or clinics) that could be most effectively served by Lifeline Services.

Other considerations include the following:

- Lifeline Services may allow the operation of underused vehicles during off-peak times, when errands and appointments can be made.
- Funds must be secured for capital, administrative, and operating expenses.
- The success of the service will somewhat depend on the effectiveness of implementation and marketing plans.
- The implementation approach may require reservations or allow people to board at scheduled stops, which could result in some capacity constraints.

Estimated Costs

Lifeline Services are relatively low-cost transit operations because they typically do not operate every day and require only one vehicle per corridor. A Lifeline operation might range from about $19,000 annually for a single weekly run in one corridor (or $56,000 for three weekly trips) to about $190,000 annually for a two-bus operation providing service in various corridors on weekdays.

Additional fixed costs may include vehicles, communications equipment, stops and signage, and scheduling software (costs to be determined).

Table 9. Lifeline Service Alternative Summary

	NEAR TERM ASSUMPTIONS (WITHIN 1 TO 3 YEARS)	LONGER TERM ASSUMPTIONS (4+ YEARS)
Service Design	Regional trips along a specific corridor, 1-4 days per week	Options for additional capacity or transition from Lifeline to regular scheduled service operating all weekdays and possibly weekends
Service Hours	Approximately 9:00 AM – 3:00 PM on select weekdays	No change to service hours, but potential increases in service levels or offerings on more days
Headways	One inbound and outbound trip per corridor	One inbound and outbound trip per corridor
Vehicle Requirements	One per corridor	One per corridor
Annual Operating Costs (estimated)	Approximately $19,000 for one day per week or $56,000 for three days per week in a single corridor	Approximately $190,000 for two buses operating all weekdays, covering all corridors
Annual Baseline Ridership Goal	2,400 round trips per year for one weekly trip per corridor	
Potential Lead or Partner Agencies	RCAMPO, City of Rapid City, Pennington County, Meade County, Prairie Hills Transit, and Chair Lift	

8.3.3 Demand-Response Service

Two models exist for demand-response service: a reservations-based demand response service or an on-demand service:

1. Dial-a-ride is a shared, curb-to-curb transportation service and is available to either the general public or is eligibility based, like the Rapid Transit System Dial-A-Ride.
2. An on-demand bus or van service, sometimes referred to as a call-and-ride service, is a dedicated shared-ride public transit service that allows same-day trip requests, typically for trip pickup and drop-off locations within a specified area.

Background and Identified Need

The purpose of this strategy is to address mobility needs outside Rapid City by offering shared-ride, curb-to-curb, demand-response service that is requested either one day in advance or in real time or on short notice on the day of the trip. Individuals may be able to use a smartphone app, a web-based interface, or a direct phone line to a dispatcher (or to the bus driver) to request a pick-up. Call-and-ride programs often allow customers to request a trip in person at a transfer center, like the Milo Barber Transportation Center.

Both dial-a-ride and call-and-ride offer services based on passenger requests. These types of services are frequently successful in suburban and rural areas where demand is too low to justify regularly scheduled

bus services. Given the relative low density and lack of scheduled transit services outside Rapid City, demand-response service may be a good fit in both Pennington and Meade counties.

For both dial-a-ride and call-and-ride service, vehicle routing is determined entirely or primarily in response to passenger requests. Typically, passengers may request to be picked up from and taken to any location within the defined service area or to a fixed-route transfer point in Rapid City. In a large demand-response system, with multiple vehicles operating throughout a large service area, trips are usually requested through a call center (or via web portal or app) where vehicles are centrally scheduled and dispatched. However, given potential lower demand in areas outside Rapid City, it may be most appropriate to develop service areas and travel corridors, which might allow one or two vehicles to operate with all real-time requests received and scheduled by the driver.

Developing rural demand-response service to provide local circulation in some communities and links to Rapid City will help to address some of the identified transportation demands for individuals with low incomes, older adults, and people with disabilities, as well as the general public.

Potential Corridors

Demand-response services could be implemented in any of the four service quadrants to allow local circulation in small communities and to provide trips to and from Rapid City.

Priorities Addressed by This Alternative

- Provides a basic level of mobility coverage for low-density environments with dispersed destinations.
- Facilitates a connection to social services, medical appointments, shopping opportunities, and other programs for people who need them most.
- Supports human service and health agencies by helping them find transportation for their clients and patients.
- Allows coverage of a large geographic area.
- Provides the added ability to reserve trips on the day of travel, either in real time or on relatively short notice.

Implementation Considerations

Dial-a-ride and call-and-ride trips provide a high level of service to individuals who need them, but these trips are expensive services to provide, especially in terms of cost per trip. The high cost of dial-a-ride service (the 2014 costs for local dial-a-ride service in Rapid City was about $14 per trip) may eventually require managing demand, especially for people who do not need a higher level of service and particularly if other services are introduced that may be more cost-effective to operate.

Other considerations include the following:

- If local circulation is provided in individual communities, it would be appropriate to consider a funding formula for cities (and counties) to share in the cost of the service.
- Dial-a-ride and call-and-ride services generally do not meet the needs of regular commute trips.
- Vehicles and support equipment plus capital funds may be required to pay for these investments.

- Dial-A-ride and call-and-ride services may require investment in technologies and communications equipment to allow demand-response reservations and trip scheduling.
- Dial-A-ride and call-and-ride services could be implemented in combination with commuter express bus routes (see page 58) to provide local circulation only, not traveling all the way to Rapid City.
- Several of the peer transit systems operate rural dial-a-ride services, including Pocatello Regional Transit, CARTS, and Watertown Area Transit.

Estimated Costs

Demand-response services costs begin at about $140,000 annually for a weekday-only operation of one vehicle for nine hours (approximately $560,000 if one vehicle operates in each of the four corridors). Longer service hours or weekend services would increase costs. Additional fixed costs may include vehicles, communications equipment, and scheduling software/consumer interface (costs to be determined).

Table 10. Demand-Response Service Alternative Summary

	NEAR TERM ASSUMPTIONS (WITHIN 1 TO 3 YEARS)	LONGER TERM ASSUMPTIONS (4+ YEARS)
Service Design	Local or corridor curb-to-curb circulation, 9 hours daily via dial-a-ride or call-and-ride service	▪ Longer service hours, ▪ More flexible scheduling (e.g., transition from advance reservations to same-day reservations) ▪ Weekend service
Service Hours	Approximately 8:00 AM – 5:00 PM Monday through Friday	▪ 7:00 AM – 7:00 PM Monday through Friday; ▪ Weekend service hours to be determined
Headways	N/A	N/A
Vehicle Requirements	1-2 per corridor or service area, up to 8 vehicles	1-4 per corridor or service area, depending on demands
Annual Operating Costs (estimated)	▪ Approximately $140,000 - $280,000 for one or two vehicles in one service area ▪ Approximately $560,000 if one vehicle operates in each of the four corridors	▪ Up to $1.47 million for eight vehicles operating 12 hours per day on weekdays, 8 hours on Saturday, and 6 hours on Sunday ▪ Actual costs are likely to be lower
Annual Baseline Ridership Goal	Depending on service levels, 4,000 to 32,000	
Potential Lead or Partner Agencies	RCAMPO, City of Rapid City, Pennington County, Meade County, incorporated cities, Chair Lift, Prairie Hills Transit, or other human service agencies	

8.3.4 Commuter Express Bus Routes

A commuter express route is generally a nonstop or very limited-stop commuter service operating from small cities and communities outside Rapid City to one or more destinations in Rapid City. Such a route could also operate to an outlying major employment center in the tourism industry or to a military installation such as Ellsworth Air Force Base. This strategy generally provides a compelling alternative to private automobile travel for regular commute hour service.

Background and Identified Need

Commuter express bus service facilitates transit travel between residential areas and urban centers. Although it is often implemented to reduce congestion, it also provides a transit option where none exists.

Although commuter express bus service offers many benefits as a strategy, it would meet only a small subset of travel demands in the Rapid City region. It is designed to serve key regional destinations only, rather than to provide broad coverage and many local stops. It would likely be appropriate only in a few specific corridors. This service type works best where there are other complementary services such as local routes, as exist in Rapid City, or circulators and park-and-ride facilities in rural communities.

Because typical commuter express bus services do not operate midday, most users would be commuters to jobs or school. A commuter express bus is unlikely to provide services for shopping, medical purposes, or access to social services because many riders would not have an opportunity to return home until the end of the day when services are operating again. Stakeholders, including those representing people with limited transportation options, expressed the need for service to a variety of needs, not necessarily to jobs alone. Commuter express bus service is a reasonable solution for members of the general public but will have limited value in addressing the travel demands of older adults, people with disabilities, and low-income residents who are not commuting, unless supported by other strategies. For example, adding a flexible midday option could allow non-commuters to spend just a few hours in Rapid City, while providing commuters an option if they need to leave work early or travel to work later in the day.

Potential Corridors

Although services could be considered to any of the four service quadrants, based on population densities and travel demands, implementation of this strategy is most likely to be effective in the Northeast MPO and Southwest MPO study areas.

Priorities Addressed by This Alternative

- Provides a regularly scheduled option for commuter travel to/from Rapid City.
- Provides a reduced commuting cost compared to driving alone, especially for long commutes.
- Offers a reliable regional transit connection between smaller cities/communities and Rapid City, which may allow some travelers to go shopping or to medical appointments.
- Expands existing resources and services.

Implementation Considerations

If access to park-and-ride facilities is required, this strategy may not effectively address the demands of low-income residents (as well as older adults and people with disabilities). Likewise, as an example, without a local circulator in Box Elder, residents without cars would not have a local transit link to get them to the commuter express bus.

This strategy has long-term potential to provide a basic regional transit network linking Rapid City with other small population centers along key corridors in Pennington County. Providing commuter express bus routes, however, is not necessarily the most cost-effective solution for meeting some of the needs identified by stakeholders.

Other considerations are as follows:

- Funds must be secured for additional administrative and operating expenses.
- Existing regional transit providers do not currently serve commute trips.
- Commuter express bus routes may require dedicated park-and-ride facilities in outlying communities.
- Although stakeholders identified commuter travel needs, commuting is not a priority for some target markets.
- Among the peers, Pocatello Regional Transit operates some commute-only services.

Estimated Costs

Implementing limited commuter express services weekdays only may range from about $60,000 to $130,000 annually to operate one or two trips during commute hours only. A more robust schedule nearly doubles this amount to about $200,000 if operated in two corridors. Additional fixed costs may include vehicles, bus stop signs, and park-and-ride facilities (costs to be determined).

Table 11. Commuter Express Bus Alternative Summary

	NEAR TERM ASSUMPTIONS (WITHIN 1 TO 3 YEARS)	LONGER TERM ASSUMPTIONS (4+ YEARS)
Service Design	1–2 one-way trips to Rapid City during AM and 1–2 one-way trips to origins during PM	Expand express routes to provide additional runs, earlier and later based on user needs
Service Hours	Approx. 6:30 AM – 8:00 AM; 4:30 PM – 6:00 PM Monday through Friday	5:30 AM – 9:00 AM and 3:30 PM to 7:00 PM Monday through Friday; midday complement for bidirectional travel
Headways	N/A	45-60 minutes during peak hours
Vehicle Requirements	1–2, depending on corridors served	2–3 depending on route expansion needs
Annual Operating Costs (estimated)	▪ Approximately $60,000–$75,000 on US 16 to southwest for basic service ▪ Approximately $115,000–$130,000 on I-90 to/from Box Elder and Ellsworth AFB for basic service	Will depend on service expansion
Annual Baseline Ridership Goal	10,200 per corridor	
Potential Lead or Partner Agencies	RCAMPO, City of Rapid City, Pennington County, Ellsworth AFB	

8.3.5 Regional Service

A new network of bus routes within the region would provide reliable, regularly scheduled regional bus service. These could be operated as fixed or deviated routes to meet local mobility needs and connect to the existing transit network in Rapid City.

Background and Identified Need

Rapid City is served by regular bus routes that have proven to be an effective way to serve the considerably denser concentration of residents than exists elsewhere in the region.

Regional bus service refers to the development of new bus routes or the expansion of the existing bus routes extending services to adjacent cities in Pennington and Meade counties to serve other population centers. Regional bus service would be the available to the general public and would operate with consistent schedules and operating hours.

The regional routes would operate at relatively high speeds following major corridors, making limited stops or deviating in smaller cities (service can deviate within a predetermined flex area within a range of an established bus stop to provide service to passengers who request it). Stops are typically provided in denser areas and/or at locations where passengers can access important destinations.

The value of regular bus routes that operate all day is that they provide access for both commuters and for people going to school, shopping, to medical trips, or on social outings. They provide flexibility for people who may want to visit a destination for a couple of hours or all day.

Implementing regional service would effectively be prioritizing transit investment throughout the MPO service area, highlighting the value of regularly scheduled transit service as a tool to link communities whose populations are currently unserved by transportation options.

It is assumed that in the short term, regional bus service would likely operate on weekdays only, with scheduled services based on passenger demand. Headways should be scheduled to allow connections to routes in Rapid City. Costs savings may be generated by operating intra-county service initially as a supplement to the express services but then extending the routes to provide better local circulation where community circulators are not present.

An ADA-complementary demand-response service would not be required if route deviations are provided to serve requests from the general public or ADA-eligible riders.

Stakeholders described the value of more extensive regional bus service than the other strategies would afford.

Potential Corridors

Regional bus services should be considered to any of the four MPO quadrants, with frequencies and equipment allocated based on population densities and travel demands.

Priorities Addressed by This Alternative

- Provides reliable, regularly scheduled regional service where it does not exist today.
- Affords same-day travel without advanced reservations or scheduling (except in the event of a deviation).

- Increases traveler independence.
- Attracts commute-oriented travel demand and addresses basic mobility needs of transit-dependent populations.
- Provides connections to services in Rapid City.
- Offers flexible service to provide curbside pick-ups and drop-offs when needed.

Implementation Considerations

Providing regional bus services is not necessarily the most cost-effective solution for meeting some of the needs identified by stakeholders.

Other considerations are as follows:

- Funds must be secured for administrative and operating expenses.
- It may be challenging to provide a reliable and consistent schedule, especially with deviations.
- Official bus stops and amenities (some capital costs) will need to be planned and sited.
- It may take some time to achieve ridership potential; will require extensive marketing.
- Several of the peers operate regional fixed-route services, including Butte County's B-Line and CARTS regional all-day services.

Estimated Costs

Estimated costs depend on the level of service implemented, the corridors where service is provided, and the service provider. For a comparative estimate, four routes operating with one bus for 10 hours a day, weekdays only at an hourly cost of $75 would be approximately $750,000 annually. A shorter service span or reduced frequencies would reduce costs to about $450,000 annually.

Additional fixed costs may include vehicles and bus stop signs, shelters, and other amenities.

Table 12. Regional Bus Alternative Summary

	NEAR TERM ASSUMPTIONS (WITHIN 1-3 YEARS)	LONGER TERM ASSUMPTIONS (4+ YEARS)
Service Design	All-day service along primary corridors	Expansion of service span or frequency
Service Hours	Approximately 6:30 AM – 6:30 PM (with reduced frequencies midday) Monday through Friday	5:30 AM – 7:00 PM Monday through Friday and possible addition of weekend services
Headways	60–120 minutes	No change
Vehicle Requirements	1–4, depending on corridors served	1–6 depending on route expansions or increased frequencies
Annual Operating Costs (estimated)	Approx. $125,000 per route, or $750,000 for four regional routes	Will depend on service expansion
Annual Baseline Ridership Goal	20,400 per corridor	
Potential Lead or Partner Agencies	RCAMPO, City of Rapid City, Pennington and/or Meade County, Ellsworth AFB, Prairie Hills Transit	

8.4 Recommended Alternatives

As the Rapid City area continues to grow steadily, the potential for additional transit programs and services exists. The alternatives development and evaluation, in conjunction with existing conditions data, and stakeholder input, informed the near-term (within 1 to 3 years) and long-term (4 years or longer) applicability of each alternative type. **Table 13** summarizes the applicability of each alternative in the near-term and long-term timeframes.

Table 13. Summary of Alternatives Applicability

	NEAR TERM APPLICABILITY (WITHIN 1-3 YEARS)	LONGER TERM APPLICABILITY (4+ YEARS)
Ridematching and Carpools	High	High
Vanpools	Moderate	High
Voucher Programs	High	High
Special Group Trips	Moderate	High
Lifeline Service	Moderate	High
Demand-Response Service	Low	Moderate
Commuter Express Bus Routes	Low	Low
Regional Service	Low	Low

Two programs are identified to have a high applicability in the near-term to meet the region's greatest needs in a cost-effective and efficient way. This includes an incremental approach to a voucher program and a ridematching and carpooling program. The voucher program is focused on meeting the needs of the vulnerable transit dependent populations. The carpooling program is focused on meeting the needs of interested commuters and providing a lower cost option for low-income commuters.

This two-program approach reflects the current lower-density land use patterns in the region, the auto-oriented development that make it challenging for traditional transit services to be successful, and the desire from the community for flexible programs with door-to-door service and quick response times. The incremental approach will allow the MPO and MPO agencies to monitor use, then implement more robust services when interest and demand in the near-term alternatives grows. For example, consistent and growing participation in the ridematching and carpooling program would allow for a vanpool program to be considered.

9.0 Implementation and Next Steps

Based on the evaluation, the near-term focus should be on providing a basic level of transportation and options to address the needs of older adults, people with disabilities, and low-income residents in the region, while identifying opportunities to provide regional commute options in the long-term. The approach reflects the current demographics and land use patterns of the region, namely the lower-density, auto-oriented communities that make it more challenging for traditional transit services to be successful. These short-term options include a voucher program as well as a ride matching and carpool program. An incremental approach to implementation is recommended.

9.1 Near-Term Programs

The major next steps for the two near-term programs include the following:

9.1.1 Voucher Program

- Develop comprehensive regional inventory of potential providers
- Develop memorandum of understanding with local agencies and funding partners
- Determine and document payment option, fare policies, and eligibility requirements
- Develop service agreements with partner agencies
- Develop a strategy for educating, advertising and outreaching to the public about the program
- Bolster partnerships with local human service providers
- Monitor and track program usage

9.1.2 Ride Matching and Carpools

- Compare and select available ridematching systems
- Develop a strategy for educating, advertising and outreaching to the public about the program
- Bolster partnerships with major employers
- Monitor and track program usage

The recommended near-term approach is designed to be implemented over the next one to three years. To do this successfully, the RCAMPO will need to enlist the participation of select cities, both counties, and public and private human service agencies, as well as private transportation providers. Participation from the stakeholders will vary. The following section further defines the possible framework and participation levels of each agency.

9.2 Oversight and Administration

9.2.1 Advisory Framework

One of the first steps in implementation is to determine the appropriate advisory framework. The advisory framework provides a formal approach to gathering ongoing and relevant information related to transit service needs and coordination opportunities. The advisory oversight could be provided by the following groups:

- A continuation of the current study's SAT
- The MPO Technical Coordinating Committee
- A new formal or ad hoc committee or council on regional transit service and coordination

9.2.2 Policy Framework

Another early action item in implementation is to determine the appropriate policy framework. The policy framework would serve as the formal decision-making body. Options for policy oversight include:

- The RCAMPO's Executive Policy Committee
- One, or both, counties
- A new formal or ad hoc committee or council focusing on transit service and coordination

9.2.3 Administrative Framework

Based on the peer review, the Coordinated Public Transit and Human Services Plan, and feedback from the MPO and stakeholder staff, the potential to create a coordinated strategy to address transportation gaps and service needs may be best achieved through a coordinated mobility management approach. This includes hiring a mobility manager to integrate information about available services and outreach to assist residents of the region with travel planning and navigating existing and new services. Mobility management would require developing and expanding relationships across local leadership and programs to build a group of leaders that will support and advocate for local funding sources. The mobility manager would coordinate directly with the advisory and policy oversight groups.

Table 14 identifies the possible agencies equipped with the skills and capabilities needed to administer the implementation of the programs.

Table 14. Potential Leaders for Administrative Role

IDENTIFIED SKILLS AND CAPABILITIES	RCAMPO	CHAIR LIFT	RAPID TRANSIT SYSTEM	PRAIRIE HILLS TRANSIT
Operates regionally?	Y	Y		Y
Brokers transportation services?				
Involved in transportation coordination efforts?	Y		Y	Y
Organizational focus on transportation services?	Y	Y	Y	Y
Provider of transportation services?		Y	Y	Y
Operates call center for scheduling and dispatch?		Y	Y	Y
Provides information and referral or /travel navigation service?		Y	Y	Y
Provides public information about programs/services?			Y	Y
Administers funding for transportation services?	Y	Y	Y	Y
Experience with target demographics and constituencies?		Y	Y	Y
Experience working with an array of providers?	Y		Y	
Experience with vouchers/direct payment programs?		Y	Y	Y

Administrative Staffing Expectations

Under a coordinated mobility management approach, it is expected that the primary staff responsibilities for the lead agency would include the following:

- **Management of the program.** Oversee elements of management, staff supervision, budgeting, accounting, purchasing, marketing, and payroll.
- **Coordinate with partner agencies.** This includes ongoing communication and coordination with agencies that interface with the lead agency, as well as facilitating information sharing among partners, and program evaluation.
- **Market and distribute public information**. Maintain and update transportation information. Prepare newsletters and other outreach materials.
- **Implement specialized programs and offer technical expertise.** Staff would be responsible for training and serve as a resource for transportation providers.
- **Develop, maintain and update a transportation program rider database.**
- **Compile operating and financial statistics and prepare performance reports**. This function involves gathering all operating and financial data and developing a standard performance report including tables, charts and graphs. The report would be distributed to the Rapid City Area MPO, specifically the Technical Coordinating Committee, and partner agencies and interested stakeholders.
- **Apply for and coordinate funding.** There are several opportunities for securing public and private funding sources to help finance programs. Applying for funds; coordinating with other partner agencies and businesses; following through with funding requests; and securing funding agreements are major responsibilities. This also involves cost-sharing among partner organizations and assigning costs to the appropriate funding sources.
- **Plan, implement and evaluate new types of services.** These responsibilities involve detailed planning and implementing of new types of service such as expanded strategies.

Specific staffing requirements are dependent upon the scale of the implementation effort. While start-up responsibilities may be more time consuming, once the programs are running in the near-term, overseeing the recommendation transportation services may require less time. Longer term, depending on the scale of the programs, additional staffing needs may be likely.

9.3 Longer-Term Programs

Longer term, increased demand in the voucher and ridematching and carpool programs may result in the need for increased capacity. This could take the form of lifeline services and vanpool programs. Both may require capital investment, increased funding, and greater administration and oversight. It is recommended that after the first three years of the voucher program and ridematching and carpooling program, the feasibility of program expansions be evaluated.

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by
Felsburg Holt & Ullevig
6300 South Syracuse Way, Suite 600
Centennial CO, 80111
www.fhueng.com

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