

Transit Service Plan Update Final Report



March 28, 2014

*Prepared for:
North Central Regional Transit District*



KFH Group, Inc.



Southwest Planning

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Chapter 1

Needs and Existing Services

The North Central Regional Transit Authority (NCRTD) Transit Service Plan Update is intended to provide a short term direction for the operation. The goals included ensuring a more efficient (doing things right) and effective (doing the right things) NCRTD that is able to provide more service for residents and visitors to the region.

The Plan is in three chapters in addition to numerous technical memoranda in the attachments. The first chapter is a summary of the technical memoranda developed in support of this plan. This includes the extensive outreach efforts, review of existing services, demographics, travel patterns and other activities. The second chapter is the new service plan itself, detailing the changes to each route and service related activity. This plan was a result of detailed work by the consultants with strong support from NCRTD staff who spent many hours reviewing the routes. Chapter 3 addresses the implementation plan and the funding strategies needed to successfully change the services.

The first chapter of the *Transit Service Plan Update* includes the review of the five technical memoranda used to determine the service area needs and potential service changes. These technical memoranda are listed as follows:

1. ***A Review of Demographics, Land Uses, and Travel Patterns*** – which identifies where potential transit users live and where people are going.
2. ***Review of NCRTD Services*** – which documents the current level of service and where it operates.
3. ***Outreach Activities*** – This document details the outreach efforts and the results of the outreach activities
4. ***Identification of Unmet Needs*** – This compares the areas of need to the level of service provided, to assess how the needs are met and where unmet needs may exist. It was developed based on the results of the first three technical memoranda.
5. ***Development of Service and Operational Alternatives*** – Based on the needs and the review of services, a number of changes in service were introduced for the study team to consider and select those most appropriate.



These reports will be summarized in the following sections of this plan. Those interested in greater detail are urged to read the supporting technical memoranda in full.

Following the summary of the technical memoranda will be the development of the service changes, followed by infrastructure issues, ADA needs and other operational needs.

REVIEW OF DEMOGRAPHICS, LAND USES, AND TRAVEL PATTERNS

The Review of Demographics, Land Uses, and Travel Patterns presented in Technical Memorandum No. 1 includes the following sections:

- General Population Characteristics,
- Origins and Destinations,
- Travel Patterns; and
- Review of Existing Planning Documents.

General Population Characteristics

Population trends and projections are presented at the county level. Figure 1-1 presents a general map of the NCRTD service area, which includes the rural counties of Los Alamos, Rio Arriba, Santa Fe, and Taos.

Population Trends and Projections

As of 2010, the United States Census Bureau reported that the population of the four counties in the NCRTD service area totaled 240,790 (see Table 1-1). This was an increase of 10% over the total 2000 four-county population, with majority of the growth in Santa Fe and Taos Counties. The county with the overall highest density is Los Alamos (175.8 persons per square mile), due to its small compact nature. Overall, the region has a very low population density (23.8 persons per square mile).

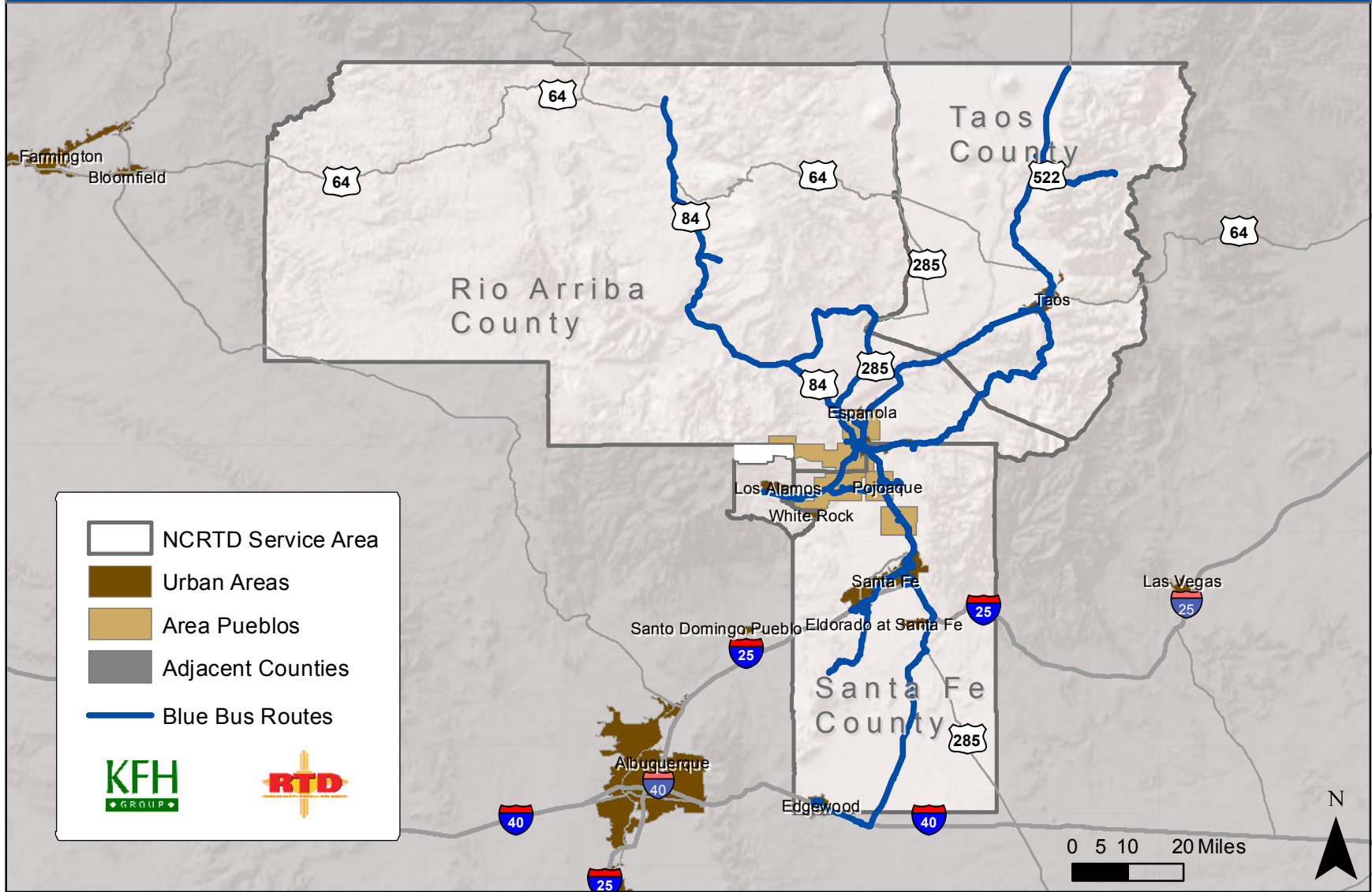
Table 1-1: Population and Population Density

Population Characteristics	Los Alamos County	Rio Arriba County	Santa Fe County	Taos County	Total NCRTD Region
2000 Population	18,343	41,190	129,292	29,979	218,804
2010 Population	19,190	41,366	147,864	32,370	240,790
Population Change, 2000-2010	847	176	18,572	2,391	21,986
Percent Change, 2000-2010	4.60%	0.40%	14.40%	8.00%	10.00%
2010 Land Area (Sq. Mi.)	109	5,896	1,911	2,205	10,121
2010 Pop. Density (persons per sq. mi.)	175.8	7	77.4	14.7	23.8

Source: U.S. Census Bureau, 2000 and 2010 Censuses



**Figure 1-1: North Central Regional Transit District
Blue Bus Service Area**





Population projections developed by the University of New Mexico, through 2030 estimate that Santa Fe and Taos Counties will grow significantly over the next 30 years, while the population in Los Alamos and Rio Arriba Counties will slightly decline (see Table 1-2).

Table 1-2: Population Growth Projections by County

	Los Alamos	Rio Arriba	Santa Fe	Taos	Total NCRTD Region
Projected Population					
2010	18,026	40,371	144,532	32,937	235,866
2015	18,058	40,780	154,756	35,012	248,606
2020	18,063	41,026	164,006	36,769	259,864
2025	18,016	41,058	171,905	38,183	269,162
2030	17,880	40,872	178,124	39,221	276,097
2035	17,603	40,509	182,410	39,850	280,372
2040	17,210	40,008	184,832	40,062	282,112
Percent Change					
2010-2015	0.2%	1.0%	7.1%	6.3%	5.4%
2015-2020	0.0%	0.6%	6.0%	5.0%	4.5%
2020-2025	-0.3%	0.1%	4.8%	3.8%	3.6%
2025-2030	-0.8%	-0.5%	3.6%	2.7%	2.6%
2030-2035	-1.5%	-0.9%	2.4%	1.6%	1.5%
2035-2040	-2.2%	-1.2%	1.3%	0.5%	0.6%
2010-2040	-4.5%	-0.9%	27.9%	21.6%	19.6%

Source: *New Mexico County Population Projections July 1, 2010 to July 1, 2040*, Geospatial and Population Studies Group, University of New Mexico. Released November 2012.

Table 1-3 presents student population at colleges and universities in the region. As of 2012, enrollment at these institutions totaled more than 14,000, predominantly within the City of Santa Fe. Student populations are also concentrated in Española, with more than 3,800 students enrolled at Northern New Mexico College, and to a smaller degree at the University of New Mexico branches in Los Alamos and Taos.

Table 1-3: Student Population at Colleges and Universities in the Region

County	City	College/University	2012 Student Population
Los Alamos	Los Alamos	University of New Mexico	710
Rio Arriba	Española	Northern New Mexico College	3,873
Santa Fe	Santa Fe	Institute of American Indian Arts	350
Santa Fe	Santa Fe	Santa Fe Community College	6,480
Santa Fe	Santa Fe	Santa Fe University of Art and Design	650
Santa Fe	Santa Fe	St. John's College	450
Taos	Taos	University of New Mexico	1,705
NCRTD Regional Total			14,218

Source: University of New Mexico website and Wikipedia as accessed 5/30/13



Origins and Destinations

This section summarizes the key origins and destinations in the region using demographic data, a variety of other sources as well as considerable field observation.

Population Density

Population density is often an effective indicator of the types of public transit services that are most feasible within a study area. While exceptions exist, an area with a density of 1,500 persons per square mile will generally be able to sustain frequent, daily fixed-route transit service. This can be lower based on the key destinations such as tourist centers, colleges and other large employers. Figure 1-2 portrays the population density in the NCRTD region at the Census block group level. The block groups that have a population density greater than 1,500 persons per square mile are found in Santa Fe, Española, Taos and Los Alamos.

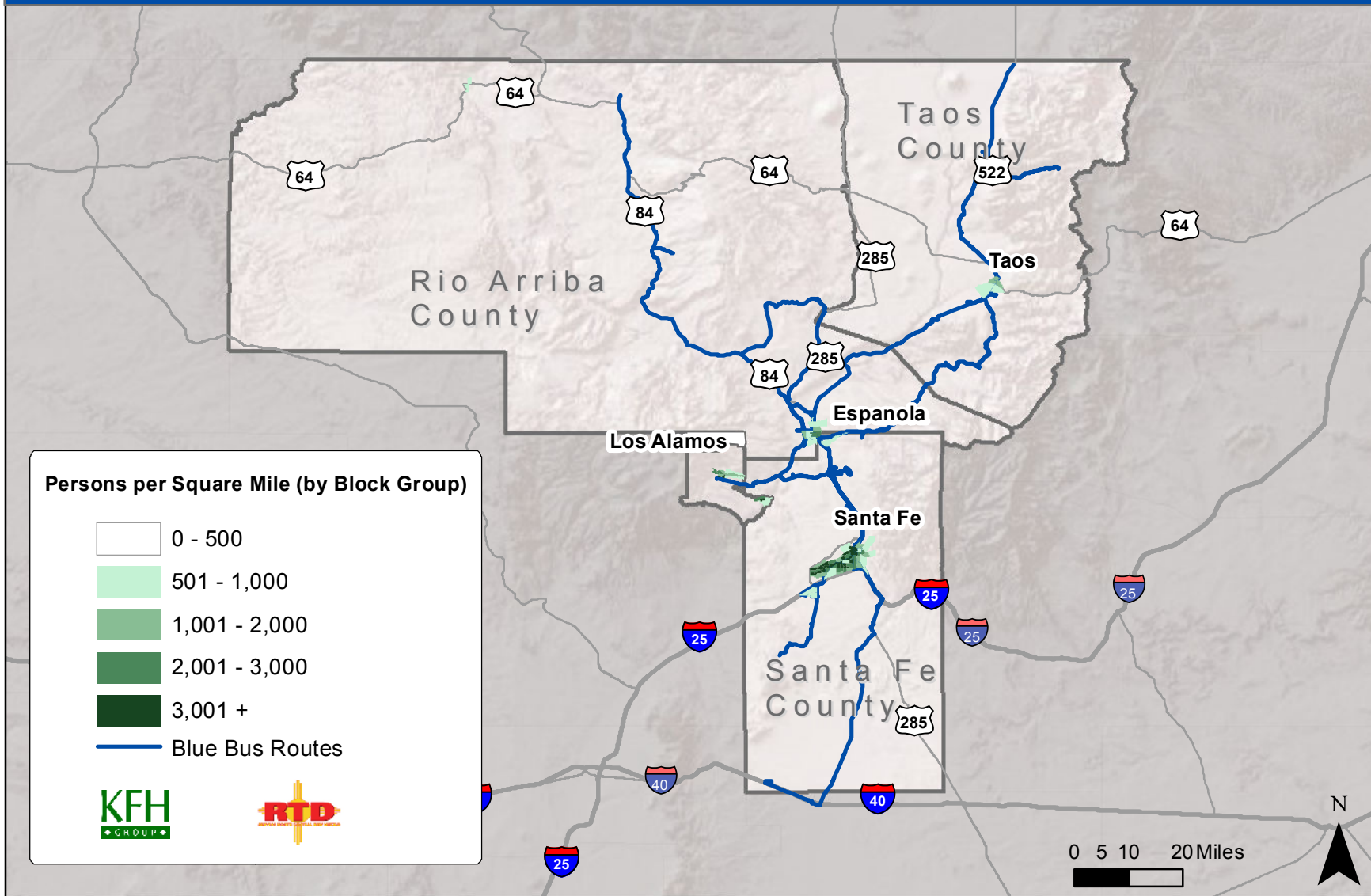
Analysis of Transit-Dependent Populations

This part of the needs assessment identifies more specifically where potential users reside and where they need to go. A detailed analysis of where transit-dependent populations live is presented at the block group level. Travel destinations that are likely to generate transit ridership are also presented for the region. Public transportation needs are defined in part by identifying the relative size and location of those segments within the general population that are most likely to be dependent on transit services. These include individuals who may not have access to a personal vehicle or are unable to drive themselves due to age, disability, or income status. Determining the location of transit dependent populations allows for an evaluation of current transit services and the extent to which they meet community needs.

Transit Dependence Index Analysis - For this analysis, KFH Group uses a Transit Dependence Index (TDI) approach. The Transit Dependence Index (TDI) is an aggregate measure that may be associated with mapping software to effectively display relative concentrations of transit dependent populations within a study area. The TDI utilizes data from the American Community Survey (ACS) five-year estimates (2007-2011), which permit an analysis of socioeconomic characteristics at the block group level, in addition to geographic information (e.g., block group boundaries) supplied by the United States Decennial Census. In brief, the TDI includes the following factors:

- Population per square mile,
- Elderly population (aged 65+),
- Youth population (aged 10-17),
- People living below poverty level,
- Households with no vehicle; and
- People with disabilities.

Figure 1-2: North Central Regional Transit District Study Area Population Density by Block Group





Details on the TDI, including the basis for its development, data sources used, and the TDI formula and factors, are detailed in the brief attached as Appendix A to this report. The results of these analyses are summarized below.

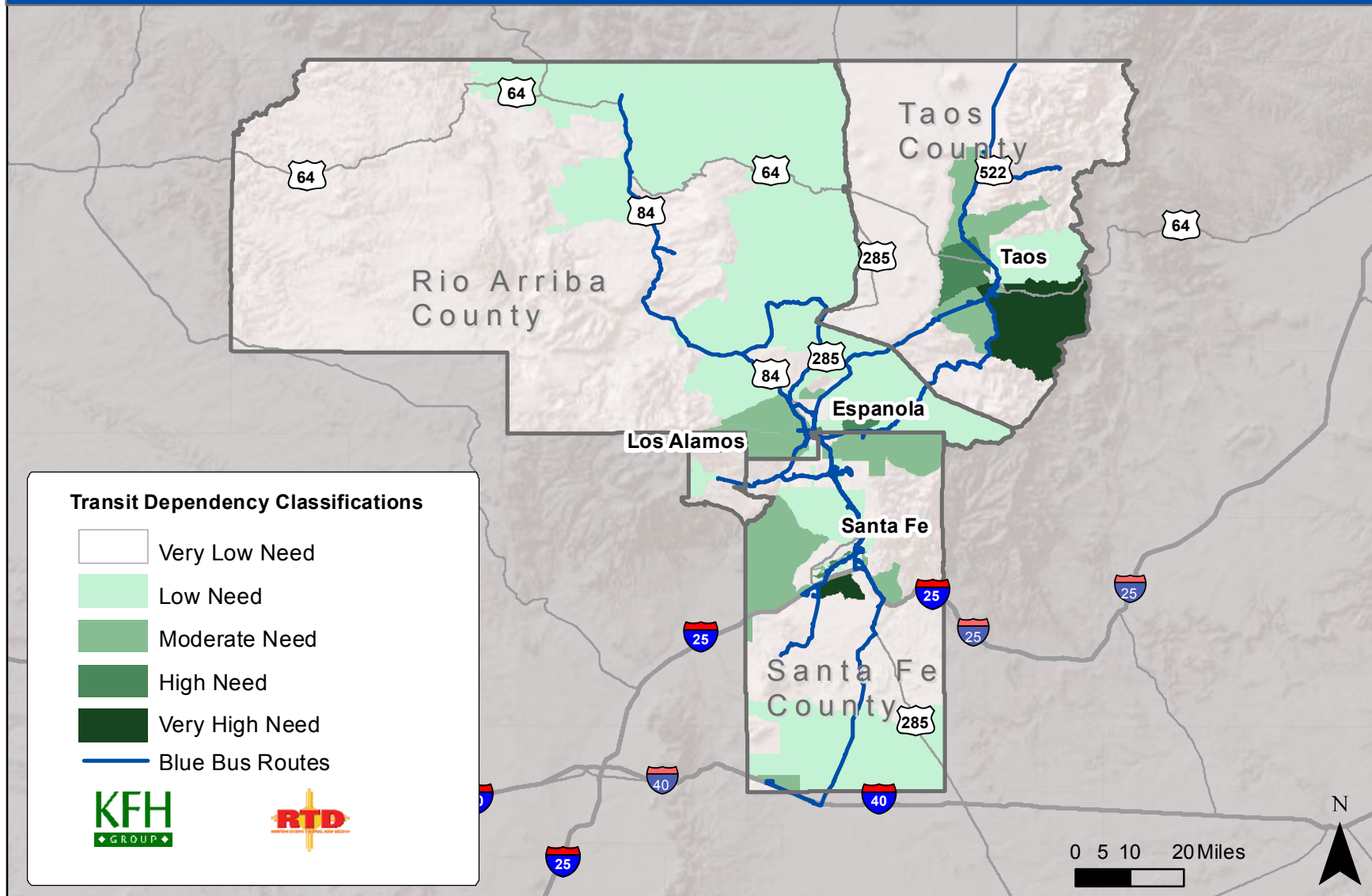
Because population with mobility disabilities is based on the 2000 Census, and the block group boundaries in the NCRTD service area changed significantly between the 2000 and 2010 Censuses, the TDI analysis conducted for this study did not include disability as a factor in the overall TDI analysis. Instead, concentrations of people with disabilities have been located through a separate analysis. A county-level summary of the population characteristics indicative of transportation need (including factors included in the TDI factors as well as disability) is presented in Table 1-4 and depicted in Figure 1-3.

Table 1-4: County-Level Population Characteristics Indicative of Transportation Need

Population Characteristics	Los Alamos County	Rio Arriba County	Santa Fe County	Taos County	Total NCRTD Region
Total Population					
Total Persons*	18,040	40,216	143,053	32,720	234,029
Total Households*	7,484	14,987	60,594	13,014	96,079
Land Area (Sq. Mi.)**	109	5,861	1,909	2,203	10,083
2000 Total Persons (for disability analysis)***	18,343	41,190	129,292	29,979	218,804
Transit Needs Characteristics Included in Transit Dependency Index					
Number of Persons/Households*					
Elderly (ages 65+)	2,548	5,539	20,980	5,430	34,497
Youth (ages 10-17)	2,247	4,545	13,897	3,075	23,764
Autoless Households	187	906	2,890	723	4,706
Persons Living Below Poverty	657	7,657	21,765	6,970	37,049
Percent of Total Population:					
Elderly (ages 65+)	14.1%	13.8%	14.7%	16.6%	14.7%
Youth (ages 10-17)	12.5%	11.3%	9.7%	9.4%	10.2%
Autoless Households	2.5%	6.0%	4.8%	5.6%	4.9%
Persons Living Below Poverty	3.6%	19.0%	15.2%	21.3%	15.8%
Density (Persons or Households per Square Mile)					
Elderly (ages 65+)	23.3	0.9	11.0	2.5	3.4
Youth (ages 10-17)	20.6	0.8	7.3	1.4	2.4
Autoless Households	1.7	0.2	1.5	0.3	0.5
Persons Living Below Poverty	6.0	1.3	11.4	3.2	3.7
Disability Characteristics (Not Included in TDI Due to Census Block Group Geography Changes)					
Persons with Mobility Disabilities***	621	3,078	7,542	1,726	12,967
Percentage of Population with a Disability	3.4%	7.5%	5.8%	5.8%	5.9%
Persons with Disabilities Per Sq. Mi.	5.7	0.5	3.9	0.8	1.3

Sources: U.S. Census Bureau: *2007-2011 American Community Survey, **2010 Census, ***2000 Census

**Figure 1-3: North Central Regional Transit District
Persons Displaying Characteristics of Transit Dependency**





Overall Needs Based on TDI Analysis

The relative need among block groups for transit services based on the TDI analysis (including the factors related to population density, age, income status, and vehicle availability) is summarized in Figure 1-3. As can be seen in this map, the greatest needs are in the Town of Taos, southeast of Taos, City of Española, and County of Santa Fe.

Location of Major Trip Generators

Identifying major trip generators in the region complements the above demographic analysis by indicating where transit services may be most needed. Trip generators attract transit demand and include common origins and destinations such as major employers, medical facilities, educational facilities, civic buildings, shopping centers, and tourism destinations. Trip generators are mapped in Figure 1-4 and are listed by type in Appendix B of the first technical memorandum.

The majority of trip generators in the region are located in areas of high population density in and around the cities of Santa Fe, Española, Los Alamos, and Taos. Pockets of trip generators are also found scattered throughout the region, including along Hwy 84 in Rio Arriba County, within the Pueblos, and along Hwy 68 between Taos and Española.

It should be noted that, although elementary schools are not typically mapped as transit destinations, elementary school-aged children ride transit services in NCRD region, as observed by members of the study team who rode each of the routes.

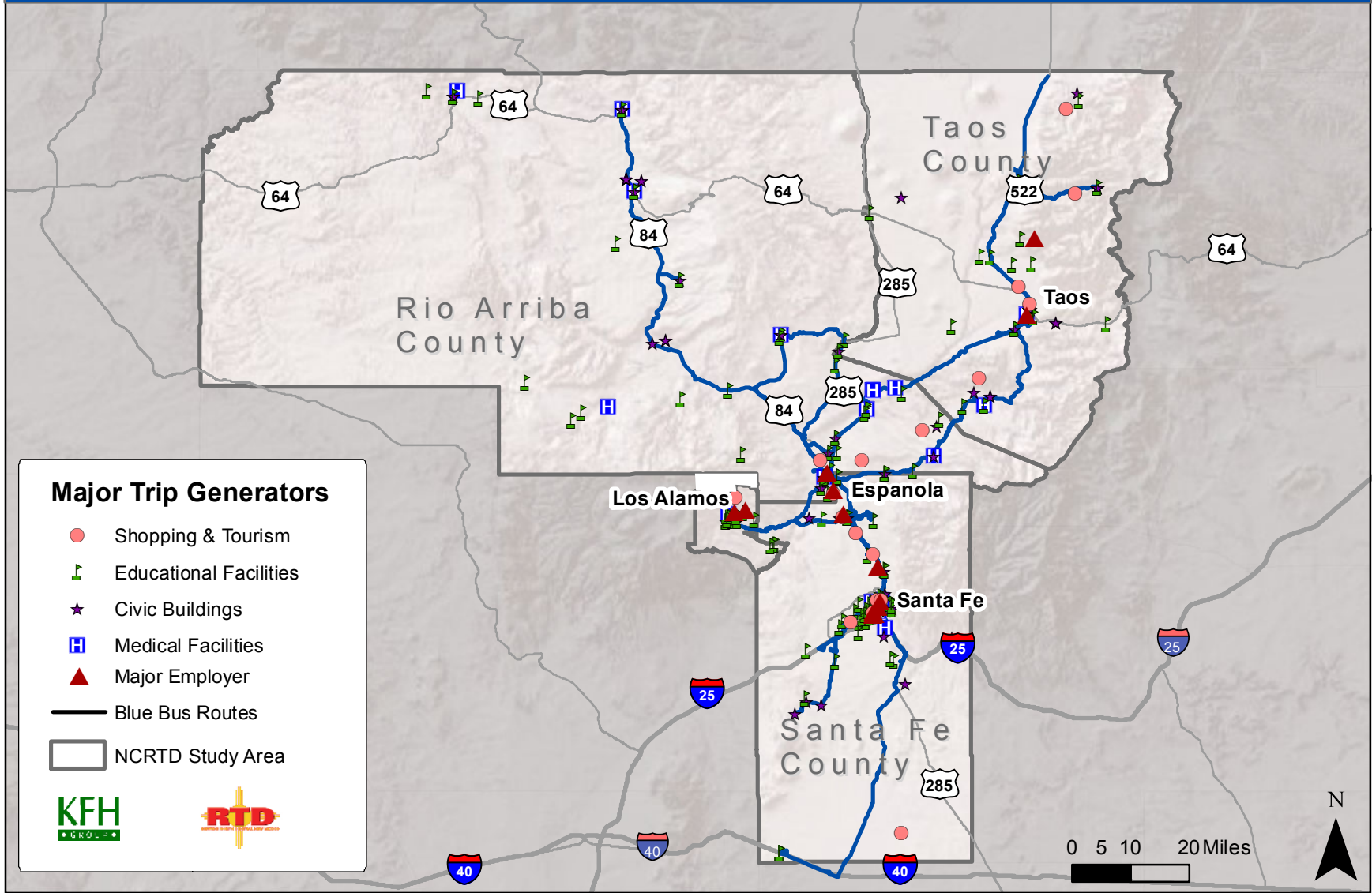
Block groups with highest rate of growth over the past decade were also mapped (Figure 1-5). As shown in this map, the cities of Santa Fe, Taos, and Los Alamos are the fastest growing communities (particularly Santa Fe).

Regional Travel Patterns

Table 1-5 presents county-level estimates on mode of transportation used in commuting to work for workers 16 years and up, available from the 2007-2011 American Community Survey 5-Year Estimates. As indicated in this table, public transportation is used by a very small percentage of workers, ranging from 1.2% (828 workers) in Santa Fe County, to 1.9% (270 workers) in Taos County, with a regional total of 1.4% (1,479 workers) commuting by public transportation. These numbers are typical for a service area such as North Central New Mexico (Mode split estimates for rural transit are estimated at 1 - 2 percent across the country).

Figure 1-4: North Central Regional Transit District Major Trip Generators

1-10



Major Trip Generators

- Shopping & Tourism
- 🌳 Educational Facilities
- ★ Civic Buildings
- H Medical Facilities
- ▲ Major Employer
- Blue Bus Routes
- ▭ NCRTD Study Area



0 5 10 20 Miles



**Figure 1-5: North Central Regional Transit District
Rate of Growth per Block Group**

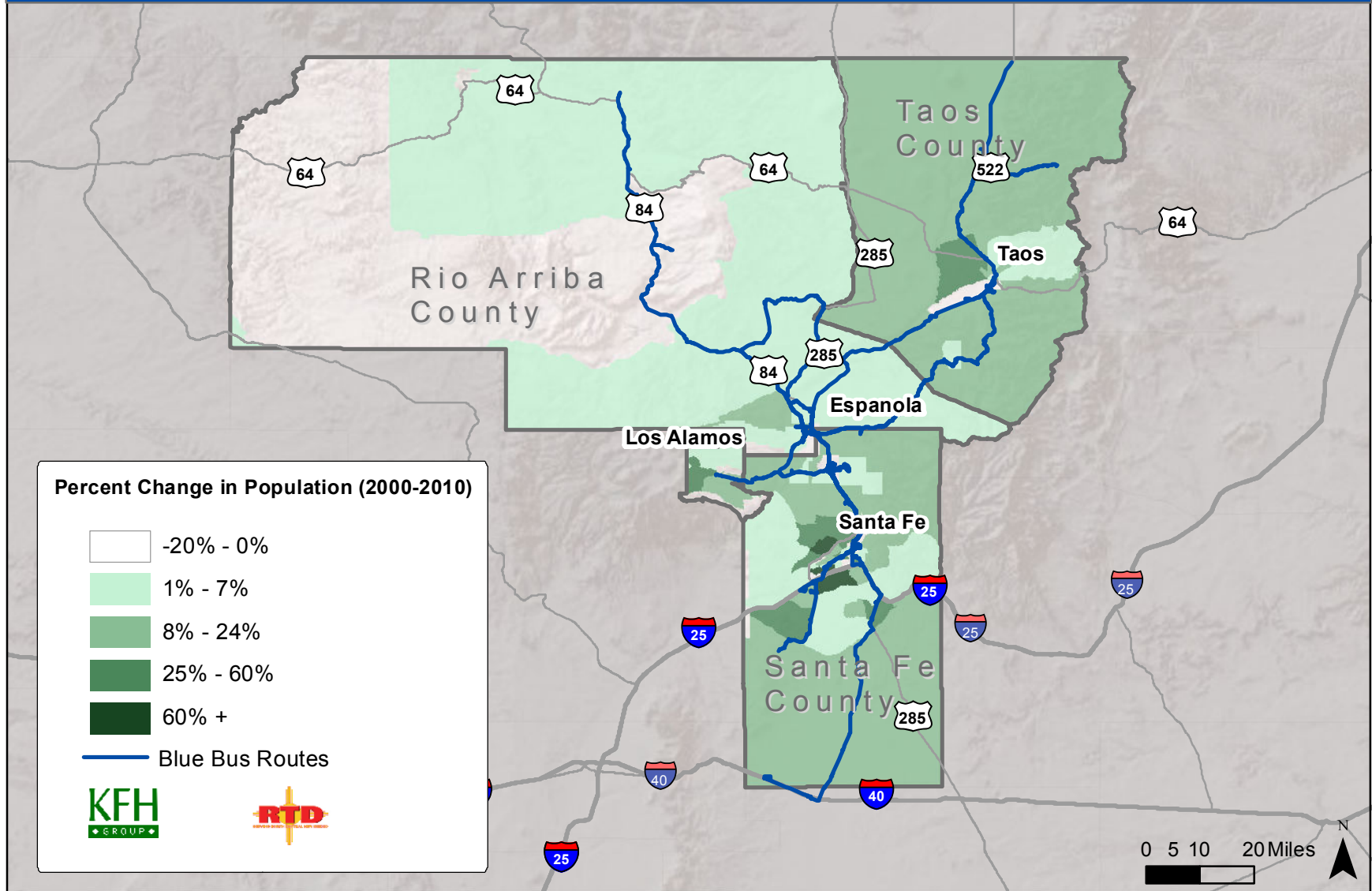




Table 1-5: Commuting Modes by County of Residence

	Los Alamos County	Rio Arriba County	Santa Fe County	Taos County	Total Region
Total Workers 16 years & over	8,949	16,107	70,081	13,891	109,028
Commuting Mode:					
Car, truck, or van -- drove alone	7,105	11,899	50,541	9,544	79,089
--percent of total	79.4%	73.9%	72.1%	68.7%	72.5%
Car, truck, or van - carpooled	786	2,744	8,053	1,527	13,110
--percent of total	8.8%	17.0%	11.5%	11.0%	12.0%
Public transportation (excluding taxicab)	148	233	828	270	1,479
--percent of total	1.7%	1.4%	1.2%	1.9%	1.4%

Source: 2007-2011 American Community Survey 5-Year Estimates

Another source of data that provides an understanding of employee travel patterns is the United States Census Bureau’s Longitudinal Employer-Household Dynamics (LEHD) 2010 dataset.¹ LEHD draws on federal and state administrative data from Censuses, surveys, and administrative records. Table 1-6 presents county-level data on the location of primary jobs for workers aged 16 or older, who live in each of the four counties. As shown in this table, there is a significant amount of inter-county commuting by residents of Rio Arriba, Santa Fe, and Taos Counties.

Table 1-6: County-Level Employee Travel Patterns to Primary Jobs

Destination (County of Primary Job)	Origin (County of Residence)								Regional Total	
	Los Alamos		Rio Arriba		Santa Fe		Taos			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Los Alamos	6,900	74.9%	1,878	16.2%	3,263	6.3%	1,115	8.7%	13,156	15.4%
Rio Arriba	109	1.2%	2,518	21.7%	1,481	2.9%	1,566	12.3%	5,674	6.6%
Santa Fe	446	4.8%	2,717	23.4%	34,134	65.8%	2,287	17.9%	39,584	46.3%
Taos	77	0.8%	1,471	12.7%	626	1.2%	5,235	41.0%	7,409	8.7%
Bernalillo	783	8.5%	1,388	12.0%	8,298	16.0%	1,290	10.1%	11,759	13.8%
Other Counties	903	9.8%	1,633	14.1%	4,093	7.9%	1,290	10.1%	7,919	9.3%
Total Workers	9,218	100.0%	11,605	100.0%	51,895	100.0%	12,783	100.0%	85,501	100.0%

Source: U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics (Beginning of Quarter Employment, 2nd Quarter of 2002-2011).

¹ US Census Bureau. OnTheMap Application and 2010 LEHD Origin-Destination Employment Statistics. <http://lehd.did.census.gov/led/datatools/onthemap.html>.



The following commuter travel patterns can be derived from this table:

- Los Alamos County residents work predominantly (74.9%) within Los Alamos County, with the next most frequent destination being Bernalillo County (8.5%), and very small numbers commuting elsewhere.
- Rio Arriba County residents are more dispersed in their commuting patterns, with jobs in Santa Fe County (23.4%), within their own county (21.7%), Los Alamos County (16.2%), Taos County (12.7%), and Bernalillo County (12%), and the remainder (14.1%) scattered in other counties.
- Santa Fe County residents largely work within their county (65.8%), with the next most frequent destination being Bernalillo County (16%). More than 3,200 residents commute to jobs in Los Alamos County (6.3%), nearly 1,500 to Rio Arriba County (2.9%), a small number (626, 1.2%) commuting to Taos County and the remainder (7.9%) commuting to other counties outside the region.
- While the largest portion of Taos County residents (41%) work within the county, significant portions commute to Santa Fe County (17.9%), Rio Arriba County (12.3%), Bernalillo County (10.1%) and Los Alamos County (8.7%). The remaining 10.1 percent commute elsewhere.
- Looking at the region as a whole, employed residents of all four counties work in Santa Fe County (46.3%), Los Alamos County (15.4%), Bernalillo County (13.8%), Taos County (8.7%), and Rio Arriba County (6.6%), with 9.3% working elsewhere.

REVIEW OF EXISTING SERVICES

This technical memorandum provides a review of the current services operated by the North Central Regional Transit District (NCRTD), with particular focus on the twenty fixed routes. This review included collection and analysis of operating data provided by NCRTD, discussions with NCRTD staff, and observation of services through riding the routes. In conjunction with the review of demographics, land uses, and travel patterns, and the identification of unmet needs, this information will be used to develop options, alternatives, and strategies to improve existing services or to develop new routes where necessary.

Contents of Memorandum

This document is presented in the following manner:

- **Background** – This section discusses the history of the organization and provides information on the governance structure and funding mechanisms in place through the District.
- **Review of Current Services and Overall Performance** – This section provides an overview of the NCRTD routes and services and a review of overall system performance. It also provides a review of previous expenses and revenues and



projected future budgets for the District. In addition, this section discusses other diagnostic measures beyond financial and ridership data.

- **Route Profiles** – This section offers a profile of individual NCRTD routes and services. Each route profile includes a description of the route, connections to other transportation services in the region, observations and comments from riding the route, and route strengths and weaknesses. The profiles also detail ridership and operating effectiveness and efficiency for each route.
- **Adjacent and Connecting Transit Services** – While individual route profiles include information on connections to other transit services in the region; this section provides an overall review of shared stops and current connections between these services.
- **Major Corridors and Duplication of Effort** – This section discusses major corridors in the NCRTD system, and provides a review of internal duplication of NCRTD routes as well as duplication with other transit services in the region.
- **ADA/Accessibility Considerations and Issues** – This section discusses areas related to the Americans with Disabilities Act (ADA) and to overall accessibility issues.
- **Summary of Existing Service Review** – This section summarizes the review of existing services and provides an initial analysis of the current system. This section also discusses modifications to current routes already planned by NCRTD.

Current Services and Overall Performance

NCRTD currently operates twenty fixed routes and two demand response routes in the North Central New Mexico region, with services as far north as Chama and Costilla and as far south as Edgewood and Moriarty, a distance of 174 miles. This section provides an overview of the NCRTD routes and services and a review of overall system performance, with particular focus on operating and ridership data. This section also reviews other diagnostic measures beyond this data, and provides information on current capital resources.

Fixed Routes

The twenty NCRTD fixed routes operate Monday through Friday and are fare free. Basic route information that includes ridership and operating statistics is provided in Table 1-7.



Table 1-7: NCRTD Basic Route Information, FY2012

Name	One Way Trips	Revenue Service Miles	Revenue Service Hours	Route Length - Round Trip (miles)	Scheduled Running Times	Headways
Pueblo Feeder Service						
Pojoaque to Nambe	3,167	31,048	2,016	25	7:00 a.m. to 5:06 p.m. (2.5 round trips)	2 hr.
San Ildefonso	3,399	22,980	1,008	16	7:00 a.m. to 6:00 p.m. (4 round trips)	1 hr.
Local Service						
Riverside	40,508	46,620	5,292	12	6:00 a.m. to 7:00 p.m. (Continuous)	30min./1 hr.
Westside	13,062	40,845	3,276	11	6:00 a.m. to 6:58 p.m. (Continuous)	1 hr.
UNM- Taos Klauer Campus	3,197	17,640	2,016	16	8:15 a.m. to 6:30p.m. (Continuous)	1.10 hr.
NM 599	6,852	25,956	590	15	5:55 a.m. to 4:23 p.m. (3 a.m. & 1p.m. one-way trips)	45 min.
Regional/Rural Routes						
Questa to Taos	12,202	46,872	2,016	58	6:35 a.m. to 6:20 p.m. (3 round trips)	2.5 hr.
Peñasco to Taos	8,697	43,848	2,016	72	6:05 a.m. to 6:35 p.m. (2 round trips)	2 hr.
Taos to Española	12,169	77,204	2,478	92	5:15 a.m. to 7:20 p.m. (3 round trips)	3 hr.
Española to Santa Fe	24,170	39,172	2,268	86	7:00 a.m. to 4:00 p.m. (3 round trips)	3 hr.
Española to Los Alamos to Pojoaque	1,317	33,764	1,008	N/A**	9:57 a.m. to 2:00 p.m. (0 round trips**)	1 hr.
Española to Chimayo	5,873	35,532	2,016	19	8:00 a.m. to 6:00 p.m. (Continuous)	1 hr.
Española to El Rito - Ojo Caliente	4,149	72,324	2,268	69	7:40 a.m. to 5:14 p.m. (4 round trips)	2 hr.
Chimayo to Las Trampas	2,051	48,384	2,016	34 (52 to Espanola)	7:00 a.m. to 5:30 p.m. (2.5 round trips)	2 hr.
Chama to Española	1,887	38,332	824	179	8:00 a.m. to 5:50 p.m. (2 round trips)	4 hr.
Questa to Red River	4,890	19,410	2,016	26	6:20 a.m. to 6:35 p.m. (6 round trips)	1 hr.
Eldorado to Santa Fe	8,243	53,676	2,016	34	7:10 a.m. to 6:30 p.m. (6 round trips)	1.5 hr.
Edgewood to Santa Fe	4,946	47,499	1,007	152	5:55 a.m. to 6:40 p.m. (1 round trip)*	N/A*
Pueblo/Local/Regional Hybrid						
Tesuque to Santa Fe	7,176	44,608	2,520	69	8:00 a.m. to 6:00 p.m. (4 round trips)	2 hr.
Santa Clara	7,022	52,920	2,058	73	7:05 a.m. to 5:55 p.m. (4 round trips)	1.20 hr.
Demand Response						
Demand Response	7,762	58,766	3,132	N/A	6:00 a.m. to 6:00 p.m.	N/A
Pojoaque Demand Response	3,088	22,109	1,199	N/A	5 hours per day	N/A
System Total	185,827	919,509	45,056			

* Commute route with one AM and PM run ** Does not run on a round trip basis



Demand-Response Services

While the vast majority of the NCRTD services are provided through the fixed routes, according to NCRTD two demand response service routes operate within 15 miles of Española within Rio Arriba County. These demand response services are summarized in Table 1-8.

Table 1-8: NCRTD Demand Response Information: FY2011 and FY2012

	One Way Trips	Revenue Service Miles	Revenue Service Hours	Scheduled Running Times	One-Way Trips per Hour	One-Way Trips Per Mile	MPH
FY 2011 Demand Response	10,050	59,129	3,534	6:00 a.m. to 6:00 p.m.	2.84	0.17	16.73
FY 2012 Demand Response	10,850	80,885	4,331	6:00 a.m. to 6:00 p.m.	2.51	0.13	18.68

The fare for the demand-response service is \$1.00 curb to curb and \$2.00 for door to door service. This service is open to the general public; however, there is no published information regarding the demand response service. The general public demand response service is also competing directly with the fixed route services in Española. In addition, the demand-response service is not operated in a manner to comply with Americans with Disabilities Act (ADA) paratransit requirements. More information on ADA paratransit services is included in a later section.

Revenues

NCRTD services are funded through a variety of federal, state, and local sources. The primary revenue source is the Gross Receipts tax (GRT). In FY2012 over \$7 million was provided through the GRT, nearly 70 percent of the NCRTD revenues.

Table 1-9 provides a review of all revenues, with actuals for FY2011-FY2012, budgeted amounts for FY2013 along with actuals through April 15, 2013, and the budget request for FY2014.

Table 1-9: Revenues

	FY11 Actual	FY12 Actual	FY13 Budgeted	FY13 Actual to 4/15/13	FY14 Budget Request
Section 5311/ Administration	\$594,161	\$489,984	\$482,040	\$439,277	\$496,501
Section 5311/ Operating	\$482,858	\$412,168	\$605,000	\$312,746	\$815,559
Section 5311/ Capital	\$95,587	\$57,545	\$289,000	\$2,493	\$96,000
Section 5311 Total	\$1,172,607	\$959,696	\$1,376,040	\$754,516	\$1,408,060
Section 5316 (JARC)/ Operating	\$137,655	\$99,166	\$182,356	\$118,129	\$58,089
Section 5304/ Planning	\$16,276		\$36,050	\$0	\$151,250
Tesuque Tribal FTA	\$0	\$4,749	\$43,434		
ARRA Stimulus	\$303,022	\$0	\$0		
Tribal Transit	\$71,212	\$57,595	\$0	\$222,604	
Section 5309/ Earmark	\$51,323	\$547,197	\$0	\$23,929	
Veterans Initiative					\$333,800
Total Other Federal Grants	\$441,833	\$609,541	\$79,484	\$246,533	\$485,050
State Capital Outlay/ Vehicles	\$0	\$616,856	\$280,000		\$170,000
LA Contribution	\$660,000	\$600,000	\$500,000	\$500,000	\$450,000
Building	\$0	\$250,000	\$333,000		
Other Revenue Total	\$660,000	\$1,466,856	\$1,113,000	\$500,000	\$620,000
Local Member Match	\$880,000	\$0	\$0	\$0	\$0
Gross Receipts Tax (GRT)	\$7,524,035	\$7,027,717	\$7,013,800	\$4,117,865	\$6,720,765
Misc.	\$99,641	\$33,702	\$0	\$53,411	\$40,000
Local/GRT Revenue Total	\$8,503,677	\$7,061,418	\$7,013,800	\$4,171,277	\$6,760,765
Total NCRTD Revenues	\$10,915,772	\$10,196,678	\$9,764,680	\$5,790,454	\$9,331,964

Source: NCRTD



Capital Expenses

In recent years primary capital expenses for NCRTD have been for a new administrative and operations facility. Table 1-10 provides a review of capital expenses, with actuals for FY2011-FY2012, budgeted amounts for FY2013 along with actuals through April 15, 2013, and the budget request for FY2014.

Table 1-10: Capital Expenses

	FY11 Actual	FY12 Actual	FY13 Budgeted	FY13 Actual to 4/15/13	FY14 Budget Request
Furniture & Equipment under 5K		\$0	\$0	\$2,168	
Capital Expenses		\$0	\$457,000	\$6,781	
Buildings	\$880,690	\$1,129,200	\$180,000	\$224,891	\$8,000
Furniture & Fixtures	\$5,767	\$16,597	\$525,326	\$93,661	
Other Capital Expenses		\$0	\$0	\$9,090	\$450,000
Benches and Signage		\$0	\$0	\$4,952	
Passenger Bus	\$265,880	\$925,284	\$350,000	\$0	\$386,000
Bus Shelters	\$52,430	\$10,584	\$0	\$15,000	\$15,000
Total Capital Expenses	\$1,204,767	\$2,081,665	\$1,512,326	\$341,543	\$859,000

Source: NCRTD

Administrative, Operating, and Other Expenses

Administrative, operating, and other expenses incurred by NCRTD are provided in Table 1-11 with actuals for FY2011-FY2012, budgeted amounts for FY2013 along with actuals through March 29, 2013, and the budget request for FY2014. Not surprising, primary expenses are for salaries and benefits for operations and administrative staff and for fuel. Table 1-11 also includes GRT allocations for sponsored services not directly operated by the NCRTD in the City of Santa Fe, Los Alamos County and Rail Runner.



Table 1-11: Administration, Operations, and Other Expenses

<u>ADMINISTRATION</u>	FY11		FY13	FY13	FY14 Budget
	Actual	Actual	Budgeted	Actual to	Request
Salaries and Benefits	\$378,443	\$322,204	\$408,316	\$197,480	\$383,924
Other Admin Expenses	\$159,261	\$81,806	\$126,443	\$42,791	\$144,441
Contracts	\$170,200	\$228,120	\$323,500	\$77,593	\$303,600
Total Administration Expenses	\$707,904	\$632,130	\$858,259	\$317,864	\$831,965
<u>FINANCE</u>	FY11		FY13	FY13	FY14 Budget
	Actual	Actual	Budgeted	Actual to	Request
Salaries and Benefits	\$217,396	\$191,916	\$223,811	\$164,998	\$245,593
Other Expenses	\$62,027	\$84,000	\$46,035	\$11,659	\$35,485
Contracts	\$20,670	\$53,500	\$29,500	\$27,997	\$25,233
Total Finance Expenses	\$300,093	\$329,416	\$299,346	\$204,654	\$306,311
<u>OPERATIONS ADMINISTRATION]</u>	FY11	FY12	FY13	FY13	FY14 Budget
	Actual	Actual	Budgeted	Actual to	Request
Salaries and Benefits	\$285,574	\$242,529	\$249,293	\$130,603	\$245,384
Other Expenses	\$25,284	\$16,200	\$18,796	\$10,469	\$16,156
Total Operations Admin. Expenses	\$310,858	\$258,729	\$268,089	\$141,072	\$261,540
<u>OPERATIONS</u>	FY11	FY12	FY13	FY13	FY14 Budget
	Actual	Actual	Budgeted	Actual to	Request
Salaries and Benefits	\$1,186,635	\$1,271,688	\$1,488,431	\$1,006,924	\$1,560,908
Other Expenses	\$37,713	\$153,651	\$140,400	\$62,388	\$167,203
Total Operations Expenses	\$1,224,348	\$1,425,339	\$1,628,831	\$1,069,312	\$1,728,111
<u>FLEET/BUILDING</u>	FY11	FY12	FY13	FY13	FY14 Budget
	Actual	Actual	Budgeted	Actual to	Request
Salaries and Benefits	\$59,799	\$60,980	\$142,579	\$49,066	\$134,234
Fuel	\$304,353	\$328,291	\$420,000	\$299,347	\$430,000
Vehicle Maintenance - Repair	\$70,270	\$58,588	\$70,000	\$37,565	\$70,000
Other Expenses	\$216,939	\$155,664	\$348,684	\$226,286	\$467,929
Total Fleet/Building Expenses	\$651,361	\$603,523	\$981,263	\$612,264	\$1,102,163
<u>OPERATIONS - Non RTD</u>	FY11	FY12	FY13	FY13	FY14 Budget
	Actual	Actual	Budgeted	Actual to	Request
Non-RTD Railrunner	\$1,922,899	\$1,985,628	\$1,823,588	\$1,048,947	\$1,957,780
Non-RTD Los Alamos County	\$1,238,603	\$1,303,870	\$1,402,760	\$519,829	\$1,344,173
Non-RTD City of Santa Fe	\$952,775	\$967,630	\$981,932	-	\$940,921
Total Operations Expenses	\$4,114,277	\$4,257,128	\$4,208,280	\$1,568,776	\$4,242,874

Source: NCRTD



System-wide Performance Review

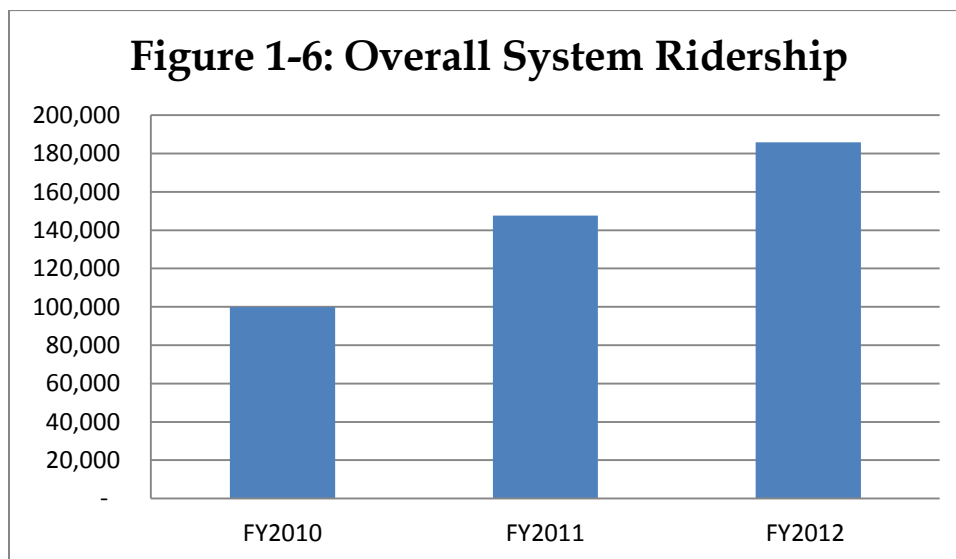
The performance review begins by looking at operating data for the overall NCRTD system. This data includes ridership (one-way passenger trips), vehicle miles, vehicle hours, and operating expenses. From this data the following performance indicators can be determined:

- Cost per Passenger Trip,
- Cost per Mile,
- Cost per Hour,
- Passenger Trips per Mile; and
- Passenger Trips per Hour.

While each of these performance indicators has value, typically the most useful single measure is the passenger trips per hour measure, as it reflects usage in relation to the amount of service provided. Generally speaking, the majority of transit operating costs are hourly (wages and benefits), so higher values of trips per hour reflect better use of existing resources.

Ridership

NCRTD services have demonstrated a significant ridership increase over the past several years. As shown in Figure 1-6, ridership has increased from 99,933 passenger trips in FY2010 to 147,546 passenger trips in FY2011 to 185,827 passenger trips in FY2012 – an 86 percent increase over that two-year period.





Using ridership data for the first three quarters of FY2013, in FY 2013 ridership rose 3.9 percent.

Operating Performance

Table 1-12 summarizes system wide data and performance measures for the past two fiscal years (FY2013 data and performance will be reviewed at the conclusion of the fiscal year). A review of the operating data provides the following observations:

- The all-important measure of productivity - one-way passenger trips per revenue hour - increased by over 21% between FY2011 and FY2012.
- The increase in ridership, coupled with only a slight increase in operating costs, resulted in an almost 20% decrease in cost per passenger trip.

Table 1-12: NCRTD Basic Performance Data and Measures: FY2011-2012

	FY2011	FY2012	Percent Change
One-Way Passenger Trips	147,546	185,827	25.9%
Vehicle Miles	850,230	919,519	8.1%
Vehicle Hours	43,508	45,056	3.6%
Total Operating Costs	\$3,259,889	\$3,323,373	1.9%
Cost per Passenger	\$22.09	\$17.88	-19.1%
Cost per Mile	\$3.83	\$3.61	-5.7%
Cost Per Hour	\$74.93	\$73.76	-1.6%
Passenger Trips Per Mile	0.17	0.20	16.5%
Passenger Trips Per Hour	3.39	4.12	21.6%

Source: NCRTD

While the system wide review is helpful, it is critical to review individual routes and assess their performance. Table 1-13 provides this assessment.



Table 1-13: NCRTD Basic Performance Data by Route

Route	One-Way Trips per Revenue Hour	One-Way Trips per Revenue Mile	MPH
Pueblo Feeder Service			
Pojoaque to Nambe	1.57	0.10	15.40
San Ildefonso	3.37	0.15	22.80
Local Service			
Riverside	7.65	0.87	8.81
Westside	3.99	0.32	12.47
UNM - Taos Klauer Campus	1.59	0.18	8.75
NM 599	11.61	0.26	43.99
Regional/Rural Routes			
Questa to Taos	6.05	0.26	23.25
Peñasco to Taos	4.31	0.20	21.75
Taos to Española	4.91	0.16	31.16
Española to Santa Fe	10.66	0.62	17.27
Española to Los Alamos to Pojoaque	1.31	0.04	33.50
Española to Chimayo	2.91	0.17	17.63
Española to El Rito - Ojo Caliente	1.83	0.06	31.89
Chimayo to Las Trampas	1.02	0.04	24.00
Chama to Española	2.29	0.05	46.52
Questa to Red River	2.43	0.25	9.63
Eldorado to Santa Fe	4.09	0.15	26.63
Edgewood to Santa Fe	4.91	0.10	47.17
Pueblo/Local/Regional Hybrid			
Tesuque to Santa Fe	2.85	0.16	17.70
Santa Clara	3.41	0.13	25.71
System Average	4.14	0.21	24.30

Cost Performance

As indicated in Table 1-12 overall system costs increased only slightly over the two year period despite an 8.1% increase in vehicle miles. As a result overall system cost per hour and cost per mile decreased between FY2011 and FY2012. The cost per hour of \$73.76 is within the normal range for transit peers and the same is said for cost per mile.



Review of Other Diagnostic Measures

The diagnostic measures are used to determine how well the system is performing in areas other than financial, ridership and productivity. Both efficiency measures (doing things right) and effectiveness measures (doing the right things) will be reviewed. These diagnostic measures are detailed in Tables 1-14. These measures include:

- One-way trips per capita - This is a measure of the impact NCRTD has on the community.
- Revenue miles per hour - The average speed of the route will be used for any changes of the route.
- Preventable accidents per 100,000 miles - a safety measure.
- Service area coverage 1/2 mile and 3/4 mile - This illustrates the service area for those persons walking to a stop.

Table 1-14: NCRTD Basic Diagnostic Measures: FY2011-2012

Year	One-Way Trips Per Capita	Revenue Miles per Hour	Preventable Accidents per 100k Miles
FY 2011 NCRTD	1.75	22.35	0.5
FY 2012 NCRTD	1.14	19.54	0.3

Source: NCRTD

One-Way Trips Per Capita

The number of one-way trips per capita is an indicator of the system’s footprint in the community. This number increased slightly in FY2012 (1.75) from 1.14 trips per capita in FY2011.

Average Speed

The average speed fluctuated 14 percent from FY2011 to FY2012. The current 22 mph is a productive speed for regional transit services. These numbers will be important at the route level in determining the average speed of each route. For example, if a route is operating at a scheduled 13.5 mph is always late; its scheduled speed is too fast and requires an extension of time to the route or a shorter route.



Preventable Accidents and Road Calls

Preventable accidents are at .5 per 100,000 miles, which is excellent. Accidents in FY2012 were up slightly from FY2011, but still remain low. FY2011 had one more non-preventable accident than 2012, but the accident rate for the system is exemplary.

Service Area Coverage

The service area coverage is measured in two ways. First, the ½ mile distance indicates the most likely maximum distance many people will walk to get to the bus (Figure 1-7). This map indicates that much of the core of Española service area within ½ mile of a route is covered. Areas outside of Española and the adjacent Pueblos are rural and regional in nature or are covered by other transit jurisdictions. In these areas the ½ mile buffer is not an effective indicator of service provision.

The ¾-mile coverage area (Figure 1-8) for ADA purposes shows the area in which complementary paratransit service must be provided. Unless the route is for commuting purposes only and operates only during peak hours, ADA complementary paratransit service is required within ¾ of a mile from the route.

Vehicle Inventory

As of October 2012, the NCRTD fleet consisted of 36 vehicles. Passenger capacity for each of these vehicles ranges from five to 40. Information on the overall existing fleet is provided in Table 1-15. Two 14 passenger buses, one 18 passenger bus, and one 28 passenger bus are on order, and this inventory will be updated accordingly for the draft final versions of the plan.

Figure 1-7: NCRTD Service 0.5 Mile Buffer

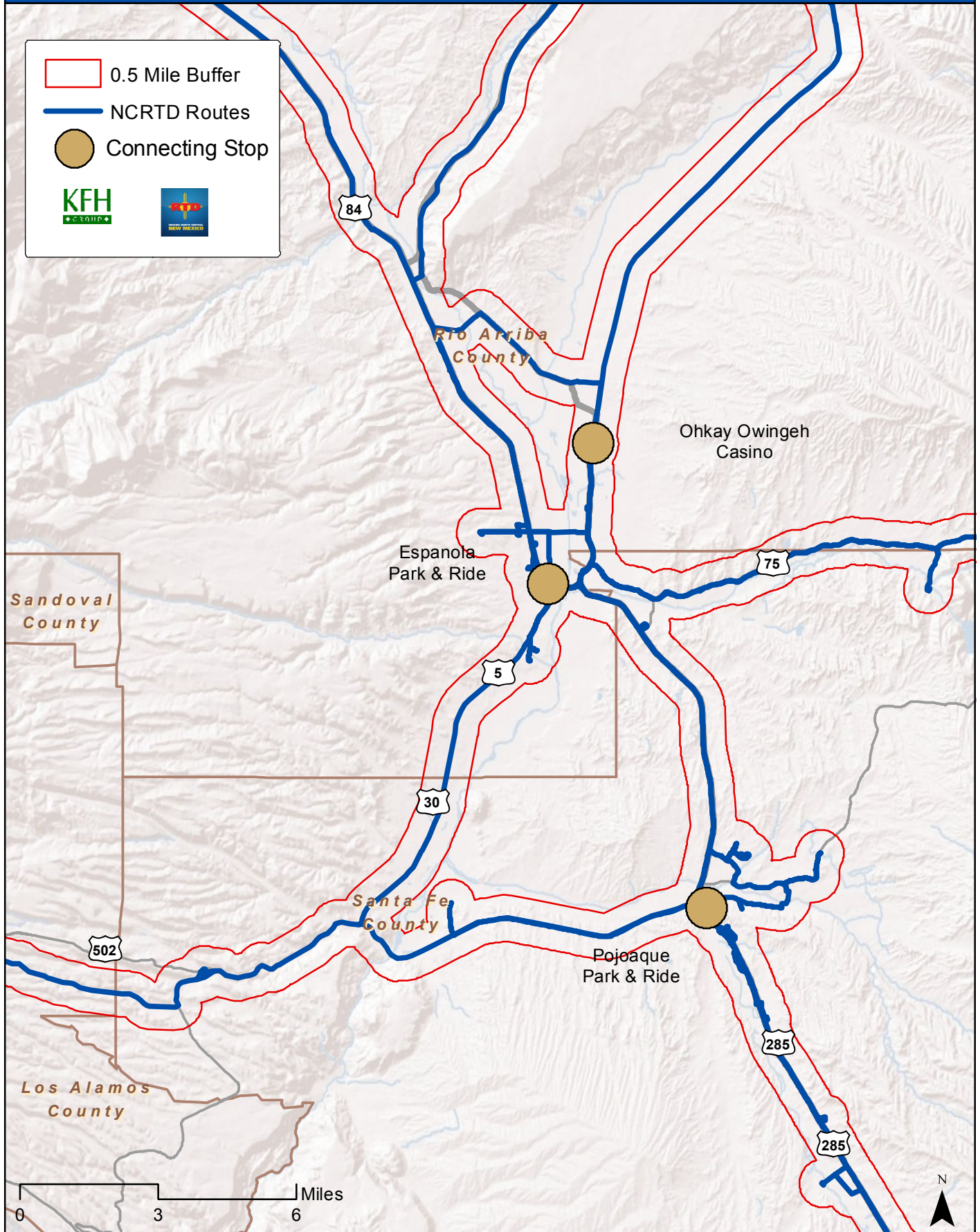


Figure 1-8: NCRTD Service 0.75 Mile Buffer

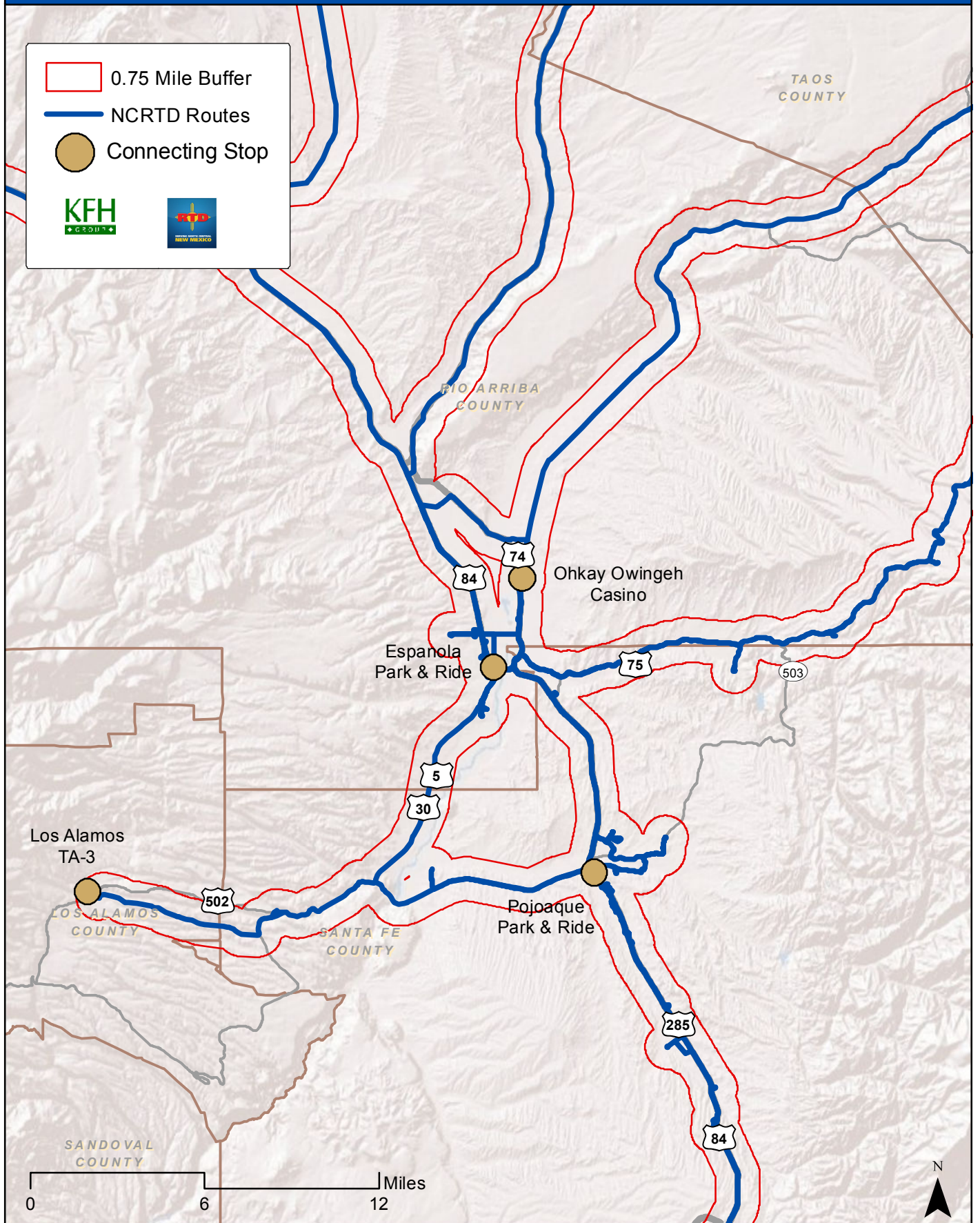




Table 1-15: Vehicle Inventory (As of 10/29/12)

UNIT #	MAKE	MODEL	PASS #	CONFIG	YEAR
T-502	FORD/STARTRANS	E-350	12	CUTAWAY	2008
T-508	DODGE/BRAUN	B-250	5	VAN	2001
T-510	FORD	E-150	N/A	VAN	2000
T-512	DODGE/BRAUN	B-250	10	EXTD VAN	2001
T-520	FORD/STARTRANS	E-350	12	CUTAWAY	2008
T-526	FORD/BRAUN	E-350	8	EXTD VAN	2008
T-527	FORD/BRAUN	E-350	8	EXTD VAN	2008
T-532	CHEVY/BRAUN	UPLANDER	6	MINI VAN	2008
T-533	CHEVY/BRAUN	UPLANDER	6	MINI VAN	2008
T-534	GMC/GLAVAL	C5500	25	BUS	2009
T-535	FORD/GOSHEN	E-350	12	CUTAWAY	2009
T-536	FORD/GOSHEN	E-350	12	CUTAWAY	2009
T-537	FORD/STARTRANS	E-350	12	CUTAWAY	2010
T-539	CHEVY/GLAVAL	E3500/TITAN II	18	BUS	2010
T-540	CHEVY/GLAVAL	E3500/TITAN II	18	BUS	2010
T-541	CHEVY/GLAVAL	E3500/TITAN II	18	BUS	2010
T-542	CHEVY/GLAVAL	E3500/TITAN II	18	BUS	2010
T-543	CHEVY/GOSHEN	E3500/PACER II	12	CUTAWAY	2011
T-544	CHEVY/GOSHEN	E3500/PACER II	12	CUTAWAY	2011
T-545	CHEVY/GOSHEN	E3500/PACER II	12	CUTAWAY	2011
T-548	INTER/CHAMPION	4300/DEFEN	40	BUS	2011
T-549	INTER/CHAMPION	4300/DEFEN	40	BUS	2011
T-550	INTER/CHAMPION	4300/DEFEN	40	BUS	2011
T-551	FORD/GLAVAL	F-550/ENTO	28	BUS	2011
T-552	FORD/STARTRANS	E-350/CAND	14	BUS	2010
T-553	FORD/GLAVAL	F-550/ENTO	28	BUS	2011
T-554	FORD/GLAVAL	F-550/ENTO	28	BUS	2011
T-555	CHEVY/GLAVAL	E3500/TITAN II	13	BUS	2011
T-556	CHEVY/GLAVAL	E3500/TITAN II	13	BUS	2011
T-557	CHEVY/GLAVAL	E3500/TITAN II	13	BUS	2011
T-558	CHEVY/GLAVAL	E3500/TITAN II	13	BUS	2011
T-559	CHEVY/GLAVAL	E4500/TITAN II	18	BUS	2011
T-560	CHEVY/GLAVAL	E3500/TITAN II	13	BUS	2011
T-561	FORD/BRAUN	E350/BRAUN	8	EXTD VAN	2011
T-562	FORD/BRAUN	E350/BRAUN	8	EXTD VAN	2011
T-563	FORD/BRAUN	E350/BRAUN	8	EXTD VAN	2011

Source: NCRTD



Facilities

In 2012, NCRTD moved into their new headquarters in Española. This marked the first time the District's division began operating under one roof². The 12,500 square foot facility houses administrative staff, operations, and fleet maintenance.

Bus shelters are located at some key locations along NCRTD routes. However, in most cases these shelters are inaccessible for people who use wheelchairs due to the lack of sidewalks or a pathway.



Crowded Area at the Espanola Park and Ride

Transfer locations in Pojoaque, Santa Fe, Taos, and Los Alamos are adequate for current routes and ridership. Conversely, the Park & Ride location in Española that serves as the connecting point for many NCRTD routes is very crowded.

Summary of Existing Services

The NCRTD services consists of eleven regional routes, three pueblo feeder routes, four local routes and one pueblo/local/regional hybrid route. The highest levels of service are in Española and along the Highway 285/84 corridor between Española and Santa Fe. A total of 20 routes, 4 pueblo, and 12 regional travel along this corridor, and much of the service is duplicative.

It is evident that based on the overall data and performance measures from FY2011 and FY2012, NCRTD is headed in a positive direction. The FY2012 performance measures can now serve as benchmarks for the system as a whole. The objective will be to improve service over those benchmarks. The next step is to assess individual routes to identify specific areas to improve performance over time, and to identify opportunities for improved service design and to reduce any duplication.

The review of the individual routes indicates that some routes are performing well, while other routes are candidates for modifications. Each route is profiled in Technical Memorandum No. 2. The summary of those routes includes six primary categories of service rationalization for the NCRTD fixed route services. They are:

² NCRTD 2012 Annual Report



- Major Corridors and Interlining,
- Connections,
- Bus stops,
- Jurisdictional Coordination/Regional Service Planning,
- Service Duplication,
- Scheduling and Timing Points; and
- Service and Route Design.

Major Corridors and Interlining

By far the corridor with the most significant ridership and service is the corridor connecting Santa Fe and Española. There are currently three separate routes that operate entirely or in large part along this corridor at some points during the day. Many of the routes serve different stop locations, but it remains that there are several NCRTD buses serving the corridor at the same time.

- *Española to Santa Fe* – This route travels along Highway 285/84 stopping at major destinations.
- *Tesuque to Santa Fe* – This route operates primarily between Santa Fe and Tesuque Pueblo along Highway 285/84.
- *Santa Clara* – This route starts in the Santa Clara Pueblo to the southwest of Española, going through Española to the north before heading south along Highway 285/84 connecting to Santa Fe.

Another corridor that has potential for interlining is the Española to Taos corridor along the highroad to Taos. There are three routes serving this corridor which all connect, though there is some duplication in the Chimayo area during the morning peak times.

- *Española to Chimayo* – this is a local route that connects Española to Chimayo on hour-long headways.
- *Chimayo to Las Trampas* – is primarily a commuter route that connects the Chimayo route to the Peñasco route.
- *Peñasco to Taos* – this is also a mostly commuter route going from Las Trampas to Taos in the mornings and evenings.

Consolidating the Highway 285/84 routes into two or three routes and the high road routes into one or two routes will likely improve productivity by eliminating duplication and improve on-time performance.

Connections

As noted earlier, a connection is not a shared stop. Just because two routes stop at the same location doesn't mean that those routes connect. A connection is a timed meet at a stop location where passengers have the chance to alight one bus and board another. NCRTD does an excellent job connecting their services with Atomic City routes, but can make improvements coordinating connections with other NCRTD routes, Chile Line services, and NMDOT Park & Ride routes. For example, the Chimayo route stops just 300 yards short of connecting to other NCRTD routes in Española.



NMDOT Park and Ride making a timed connection with the Rail Runner service.

While NCRTD does an excellent job coordinating with the NMDOT Park and Rider services so as not to duplicate routes and compete with one another, there is less coordination in making timed connections. At the Española park and ride location there are often NCRTD buses departing the stop as NMDOT Park and Ride buses are arriving.

Bus Stops

According to the New Mexico Uniform Traffic Ordinance bus operators cannot load and unload passengers at locations other than a bus stop. Many potential passengers are not served, not because they do not live on a route, but rather because they do not live near a bus stop, which is limited in rural areas. The addition of bus stops may help residents along rural corridors access NCRTD services.

The majority of the bus stop shelters are inaccessible to a person using a wheelchair. This not only negatively impacts ridership it is out of compliance with ADA.

The individual route profile maps show a sample of daily boarding at all bus stop locations in the NCRTD system. Many stops go unused throughout the day.

Jurisdictional Coordination/Regional Service Planning

Jurisdictional coordination and regional service planning are important from a performance (increased productivity) and political (turf issues) standpoint. Many of the NCRTD routes that serve the Taos area meander through Taos stopping at locations already served by the Chile Line, or locations that should be served by the



The Taos County Courthouse shared stop with the Chile Line



Chile Line. The Chile Line operates regional service connecting Taos to Santa Fe on the weekends. Regional service is one of the primary directives of NCRTD. Streamlining the meandering service in Taos in coordination with the Chile Line will improve productivity of both systems and enable each entity to focus on their major service typologies for the area.

Service Duplication

There are several areas where NCRTD services are duplicative. Some routes duplicate more than one route. Duplication is a major contributor to low productivity because it creates an environment where NCRTD is competing with itself. Some routes are duplicative geographically though they serve the same areas at separate times and some routes are duplicative in both geography and scheduling. The following routes are duplicative of other routes:

- *Santa Clara* - This route duplicates several other routes, including portions of the Westside route, Riverside and all other routes serving the Highway 285/84 corridor.
- *Tesuque to Santa Fe* - This route operates along a stretch also served by other Española to Santa Fe services, with only a few stops at several different locations from the other routes.
- *Española to Santa Fe* - This route is one of six that travel along Highway 285/84 between Santa Fe and Española.
- *UNM Taos Klauer Campus* - This route is a local Taos route, most of which duplicates Chile Line service, though the Chile Line does not currently stop at the campus.
- *Peñasco to Taos* - The portion of this route that meanders through Taos is duplicative of local Chile Line service, though some specific stop locations are not currently served by Chile Line.

Scheduling and Timing Points

Many of the routes operate to and from the right places however many do not operate when needed. Many do not operate schedules conducive to commuting in both directions. Many do not offer enough time for shopping or any other needs or offers 6 hours – too much time. In these cases, simply adjusting the schedules will generate higher ridership.

It is common for long regional routes with only 5 or 6 stops to have a timing point at every stop as long as the bus does not have to sit if there are no passengers. The same is not true for shorter local routes with many stops. Both the Riverside and Westside routes have timing points at every stop. As a result the buses sit at stops often for up to 5 minutes because they are running ahead of schedule. These routes have too



much time worked into them and have too many timing points, significantly reducing their effectiveness.

Service and Route Design

Selecting the right service and route design is an important factor in improving productivity. Looping and meandering routes tend to be frustrating for transit customers, lead to decreases in ridership, and hurt the productivity of routes. Transit routes and schedules should be clear and easy to understand. The Westside is an example of a route that both loops and meanders and suffers from low productivity (3.99 trips per hour) especially for a route serving an urban area. The Pojoaque Nambé route is also a meandering route that only serves 1.5 passengers per hour.

The Española - Los Alamos - Pojoaque route is very difficult to understand as it is essentially two separate routes. It travels several times between Española and Los Alamos before changing direction completely and traveling several times between Los Alamos and Pojoaque. Finally the route travels from Pojoaque to Española. The route does not complete only one full round trip from 9:57 a.m. to 2:00 p.m., though the route runs continuously.

The Española to El Rito to Ojo Caliente route consists of a long loop at the northern portion of the route. This renders the route ineffective as passengers at the beginning of the loop have to ride for over an hour to get to the park and ride. Passengers on the back half of the loop have to ride over an hour to get back to their trip origin.

OUTREACH ACTIVITIES

NCRTD highly values public input and has requested significant efforts to reach out to the public. The KFH Group and its team member Southwest Planning (SWP) conducted extensive outreach in order to gauge the appropriateness of the service and to determine where there are still unmet needs.

Connecting with the Public and Other Stakeholders

To that end, the KFH Group Team used a number of approaches to connect to various segments of the public. These included the following:

1. Southwest Planning conducted 15 meetings and one focus group throughout the service area. These are documented with a full set of meeting transcripts.
2. Discussions with over 100 riders, bus drivers, local residents, and other stakeholders throughout the service area.



3. Discussions with management from connecting transit systems: Santa Fe Trails, Atomic City Transit, The Chile Line, Rail Runner and NMDOT Park and Ride.
4. Meetings with management staff and drivers/dispatchers.
5. The 2011 survey conducted for NCRTD.

Public and Pueblo Meetings

SWP conducted 10 community meetings and 5 Pueblo meetings over the course of 5 weeks across the North Central Regional Transit District. Prior to the community meetings, SWP implemented a media campaign to inform residents that the meetings were going to occur. The media campaign included radio ads, public service announcements, flyers, NCRTD rider alerts, interfacing with local community organizations and government agencies, church bulletin announcements in select communities, and other forms of outreach.

Community Meeting Summary

Attendance varied by community. Madrid was the best attended community meeting with 30 people in attendance. On average, the meetings had 5-7 people.

Connectivity

1. A number of transit destinations were brought up repeatedly as target destinations: Santa Fe (most popular), Española, Los Alamos and Taos by the more rural communities. Participants traveling to these destinations indicated that they would use them for shopping, school, medical facilities, etc. as connection points to other destinations.

New Service

1. There were a number of requests for new service in the following areas:
 - a. La Cienega/Las Golondrinas,
 - b. Tres Piedras,
 - c. Tourist oriented service - Santa Fe to Taos and
 - d. Ski service.

Service Times

1. Investigate weekend service from all the rural communities. While not every community mentioned the need for weekend service, and some explicitly rejected it, the issue was brought up at a number of meetings.



2. Many rural areas would like more than a morning-afternoon route. People using the buses are forced to spend a full day in their target destination for
 - a. Access to medical services for the elderly,
 - b. Shopping,
 - c. Activities for children,
 - d. Human services department; and
 - e. Unemployment office.
3. Multiple respondents discussed the need for service times geared towards summer activities for tourists and children.
4. Multiple morning/evening connections were identified as being either too early or too late to properly accommodate work schedules.
5. Service times do not always properly connect with other transit services (Chile Line, Rail Runner, etc.).

Communication

Generally, there is not a lot of awareness in any of the communities about the NCRTD as a brand; however, the “Blue Bus” branding was strong. Numerous respondents indicated that the meeting was the first they had heard of the NCRTD, but that they were familiar with that blue bus.

1. Communication in the rural areas should be targeted to the area.
2. Those participants who visited the website had polarized opinions about it.
3. The phone number received mixed but generally positive reviews.
4. Numerous respondents requested that schedules be posted at bus stops. They also indicated that schedules were difficult or impossible to come by.
5. Bus drivers are the main channel of communication with riders.
6. Many participants thought that the NCRTD buses should say “free” clearly on the outside of the bus.
7. Other channels of communication such as radio, billboard, etc. are less effective means of reaching the communities than others listed above; however, they still had some impact.



Other

There were a small yet vocal number of respondents that were concerned about bike space on the bus. These riders indicated that the two available bike racks on their buses would sometimes fill up. Any additional cyclists attempting to use the bus would be unable to. They also indicated that only a small number of additional bike spaces would greatly alleviate the problem.

Some routes are becoming too full to accommodate the number of riders. Look at routes to make sure equipment is being upgraded according to ridership growth.

Primary reasons for bus use were to save money on gasoline prices, protect the environment, and due to lack of transportation alternatives.

Bus drivers as a means of communication, scheduling, and other functions on commuter routes are an important resource for the NCRTD. They currently perform some informal duties that should be formalized and taken advantage of.

Buses generally were considered to be comfortable and safe.

ASSESSMENT OF OVERALL NEED

The final step in the needs assessment analysis is to determine the unmet needs and gaps in service. The efforts conducted in the first three technical memoranda are used in this memorandum to identify the unmet mobility needs and potential gaps in transit service in the RTD region. We will use the findings to evaluate the potential for generating future transit ridership over the next five years and beyond. This effort will help us to identify the unmet mobility needs and potential gaps in transit service in the four-county region. We will use the findings to evaluate the potential for generating future transit ridership over the next five years and beyond.

Based on the findings from the first three memoranda the study team has determined that there are unmet needs in a variety of areas:

- **Unserved Areas** - NCRTD has service throughout much of the region. The coverage areas of service include most communities of the size that could sustain service. There are a few areas that are not receiving service at this time (this includes both communities as well as significant destinations - often tourist oriented). These were identified in the outreach component as well as through demographic analysis and observations. These areas vary widely and will require different approaches to service. In addition to these unserved areas,



there are areas that are unserved due to a lack of a bus stop and these will be discussed in a subsequent section.

- **Underserved Areas** – These include areas that do not get enough service, particularly commuter service, weekend service or night service. These include communities on existing routes, some with regular service, just not at the right time. In some cases areas are not served because of a lack of a bus stop and these are discussed in the following section.
- **Bus Stops** – Due to New Mexico state law public transit buses can only stop at designated bus stops and flag stops common across the country in rural areas, are not permitted. The limited stops inhibit ridership and causes communities on the route, not to be served. There is a need for many more stops throughout the transit system especially on the long distance rural routes. These needs can be remedied at very little (and one time) cost.
- **Connectivity and Regional Mobility** – NCRTD is the glue that binds each of the six systems in the service area. Timed, seamless meets are essential for connectivity. Without a seamless meet, there is no real connection. There are many examples of buses missing each other and eliminating the ability to travel throughout the service area. The connectivity must include all modes as well as to ensure that RTD buses meet each other as well.
- **Existing Service Modifications** – A considerable number of the needs can be met with simple adjustments to schedules, minor route changes and other no cost or very low cost changes to service. This includes:
 - eliminating service duplication,
 - modifying existing routes and schedules,
 - reducing the number of timing points; and
 - tailor service for seasonal fluctuations when serving tourist areas and colleges.
- **Rationalize Taos/Española/Santa Fe Corridor** – Currently there are three separate routes that serve the same corridor. Service in this corridor needs to be coordinated and less confusing. There should be one route serving the corridor with both local and express service. All of the other routes should be connecting and feeding these trunk routes.
- **Americans with Disabilities Act** – There are a number of ADA issues that need to be addressed. This includes:

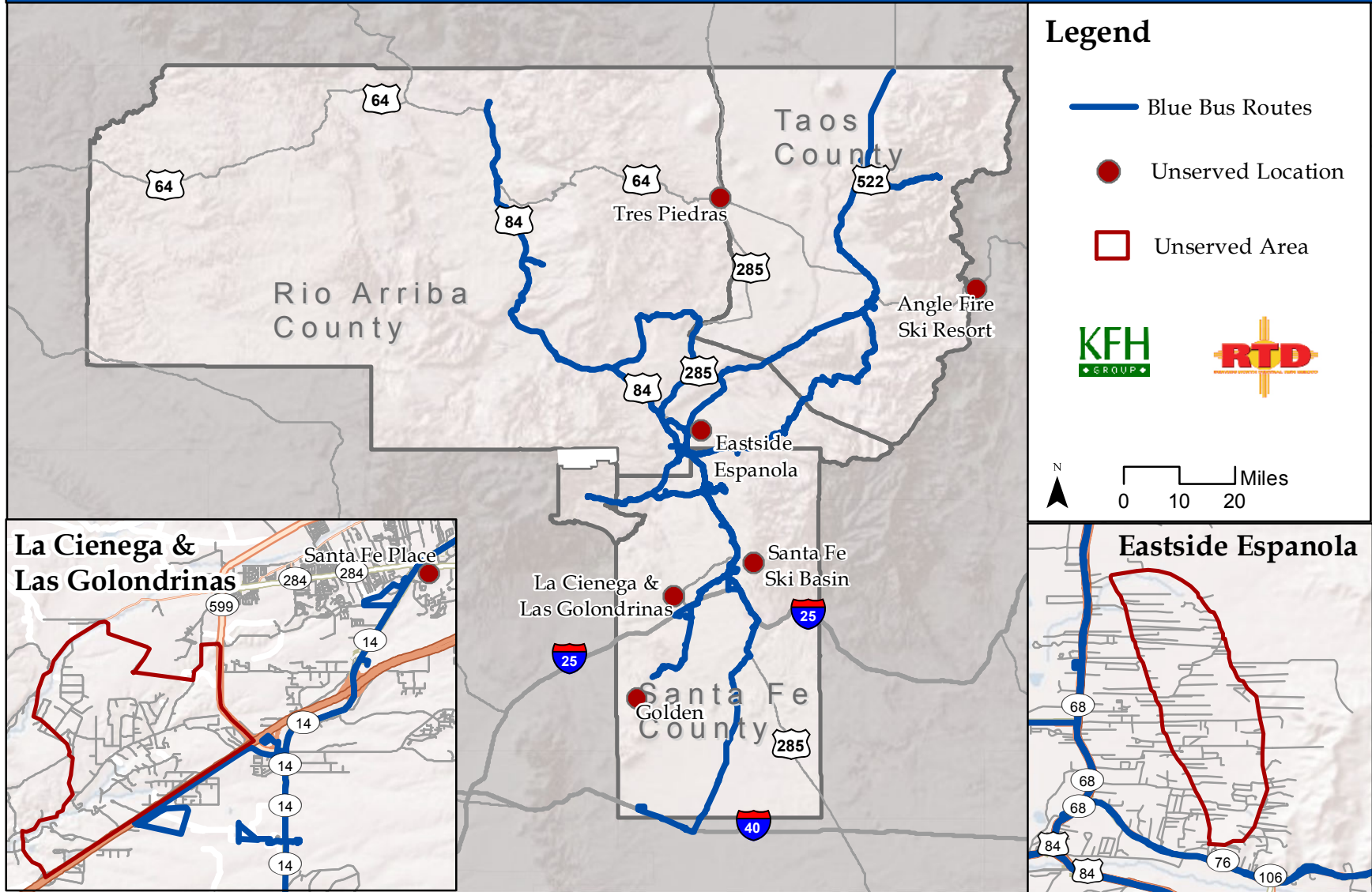


- ensuring that complementary paratransit or a flex route design is available as required by the ADA,
 - properly marketing and promoting the service; and
 - ensuring that bus shelters are accessible (discussed in the section on facilities).
- **Facilities** - Only some facilities are under control of the RTD. Major issues include shelters that need ADA improvements and the Española Transit Hub (owned by the City of Española) used by the Park and Ride service as well as the Blue Bus.
 - **Coordinated Planning Activities** - There are six transit systems directly serving the region and coordination/connectivity is an essential component to regional mobility. In fact all systems generate higher ridership when they ensure connections between systems. In previous years, staff of the different systems met quarterly to discuss issues of mutual concern. To aide in the accomplishment of that goal most of the providers voiced a need for a formal or informal Planning Work Group. The consultants believe this should be a formal arrangement to ensure that all parties commit to an open planning process.

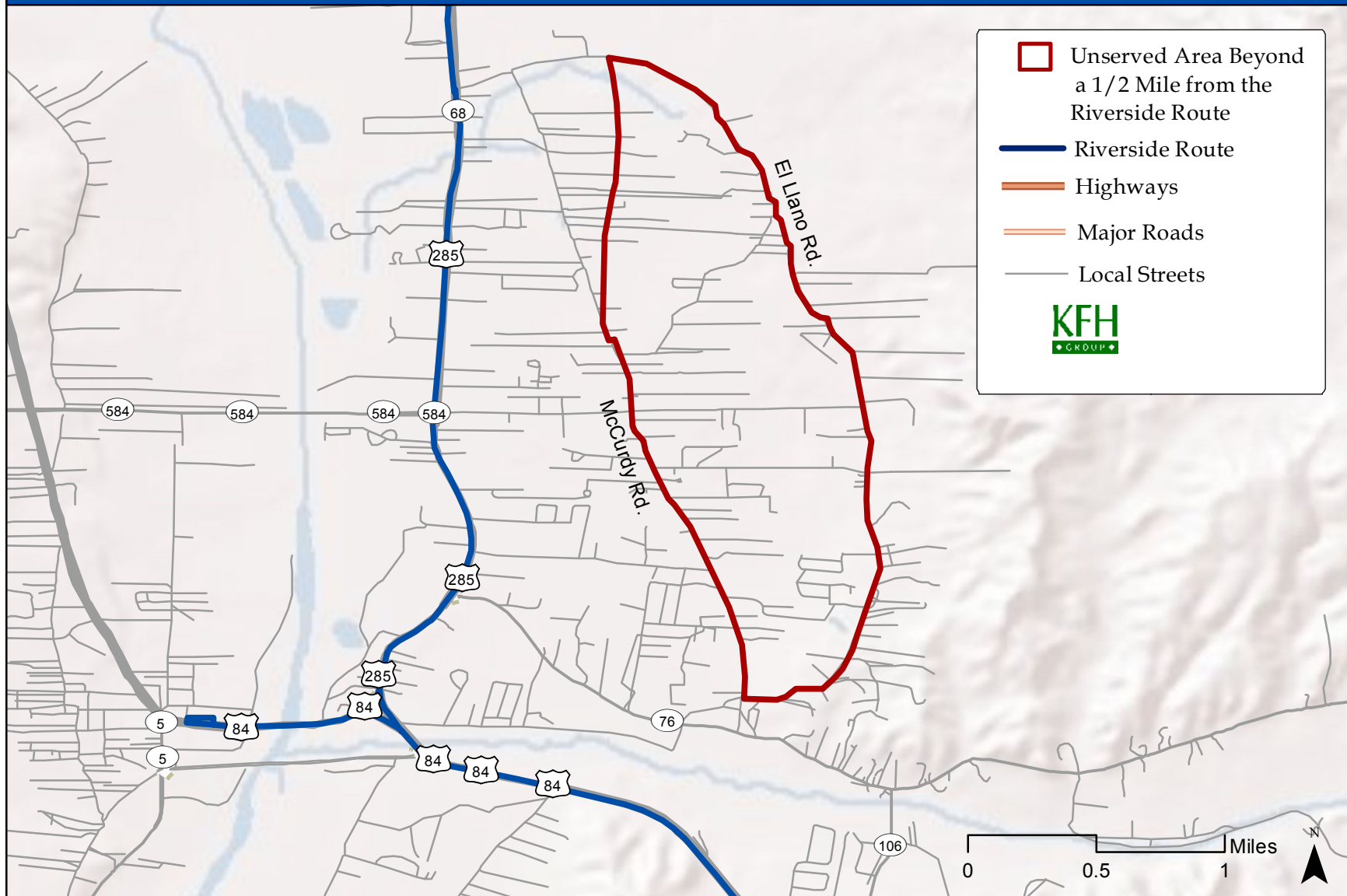
Unserved areas identified in the previous technical memoranda are depicted in Figure 1-9 and include:

- **East Side of Española between McCurdy and El Llano Rds. south toward Santa Cruz** - This area of Española is between ½ and 1 mile from the Riverside Route and is the largest residential area in Española. Currently only the portions of this area close to Riverside have reasonable access to the Riverside route. Figure 1-10 details this area of need.
- **La Cienega** - This is a community southwest of Santa Fe that parallels I-25 to the west and is about five miles south of the 599 Rail Runner train stop. The population of the area is about 4,000. Figure 1-11 details this area and Las Golondrinas. Currently it is 5 miles from the nearest Santa Fe Trails bus stop and about 10 miles from the Santa Fe Place Transit Center.
- **Las Golondrinas** - A living history museum about 1.5 miles north of La Cienega. This would be a stop on a route that served La Cienega. It is depicted in Figure 1-11.
- **Golden** - This is a small community 11 miles south of Madrid. The area is sparsely populated and is depicted in Figure 1-12.

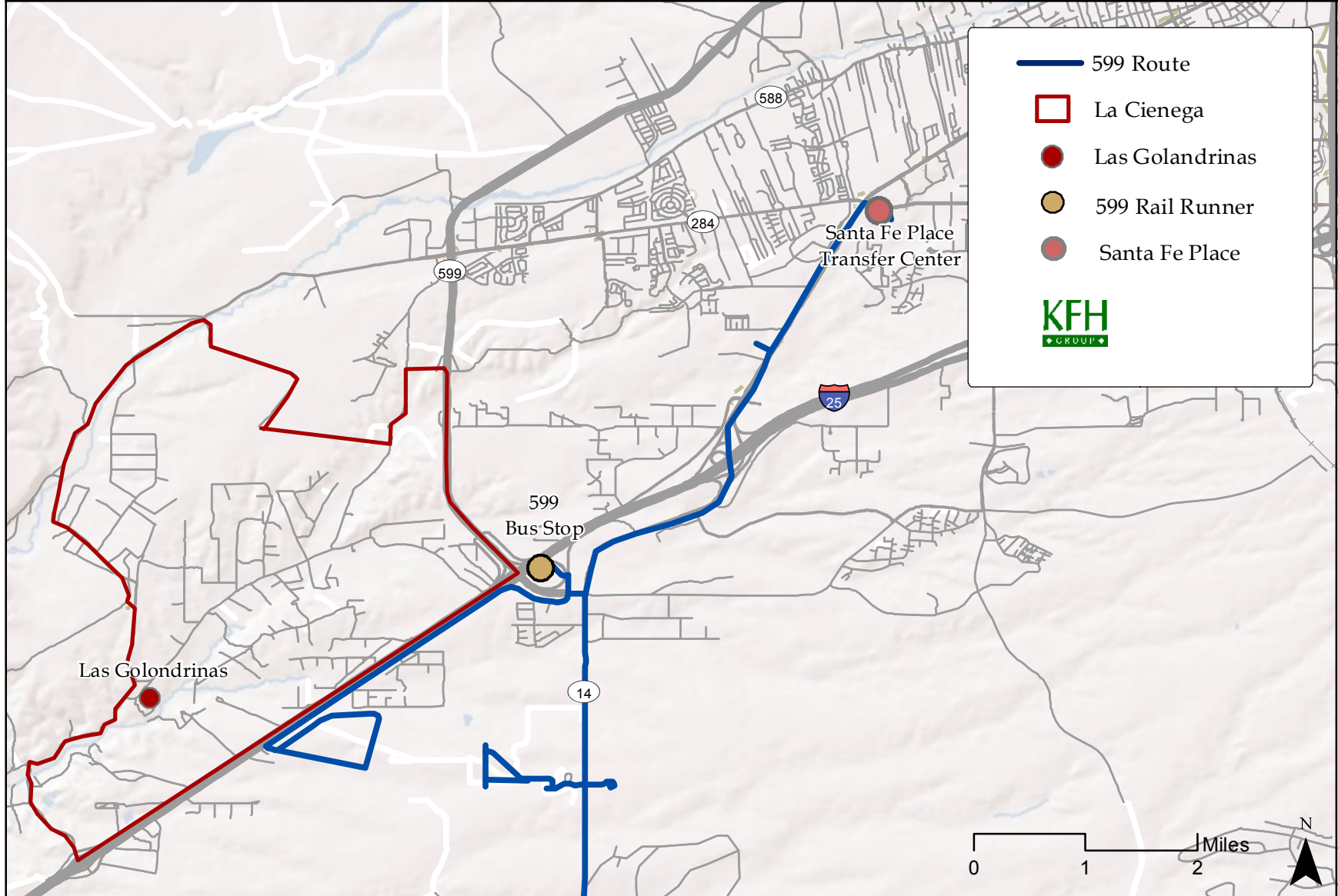
**Figure 1-9: North Central Regional Transit District
Unserved Areas**



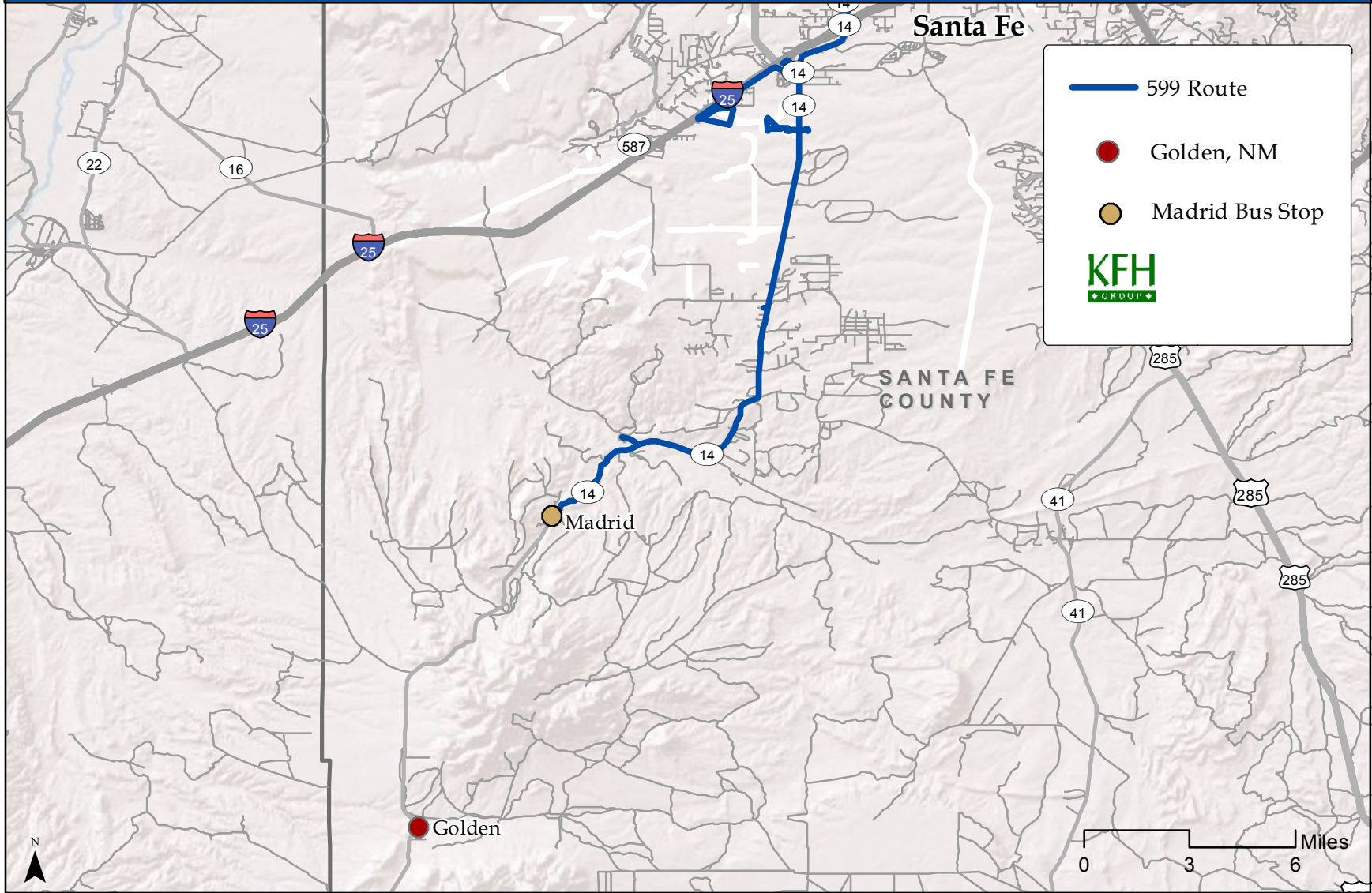
**Figure 1-10: North Central Regional Transit District
East Side of Espanola Unserved Area**



**Figure 1-11: North Central Regional Transit District
La Cienega Unserved Area**



**Figure 1-12: North Central Regional Transit District
Golden Unserviced Area**





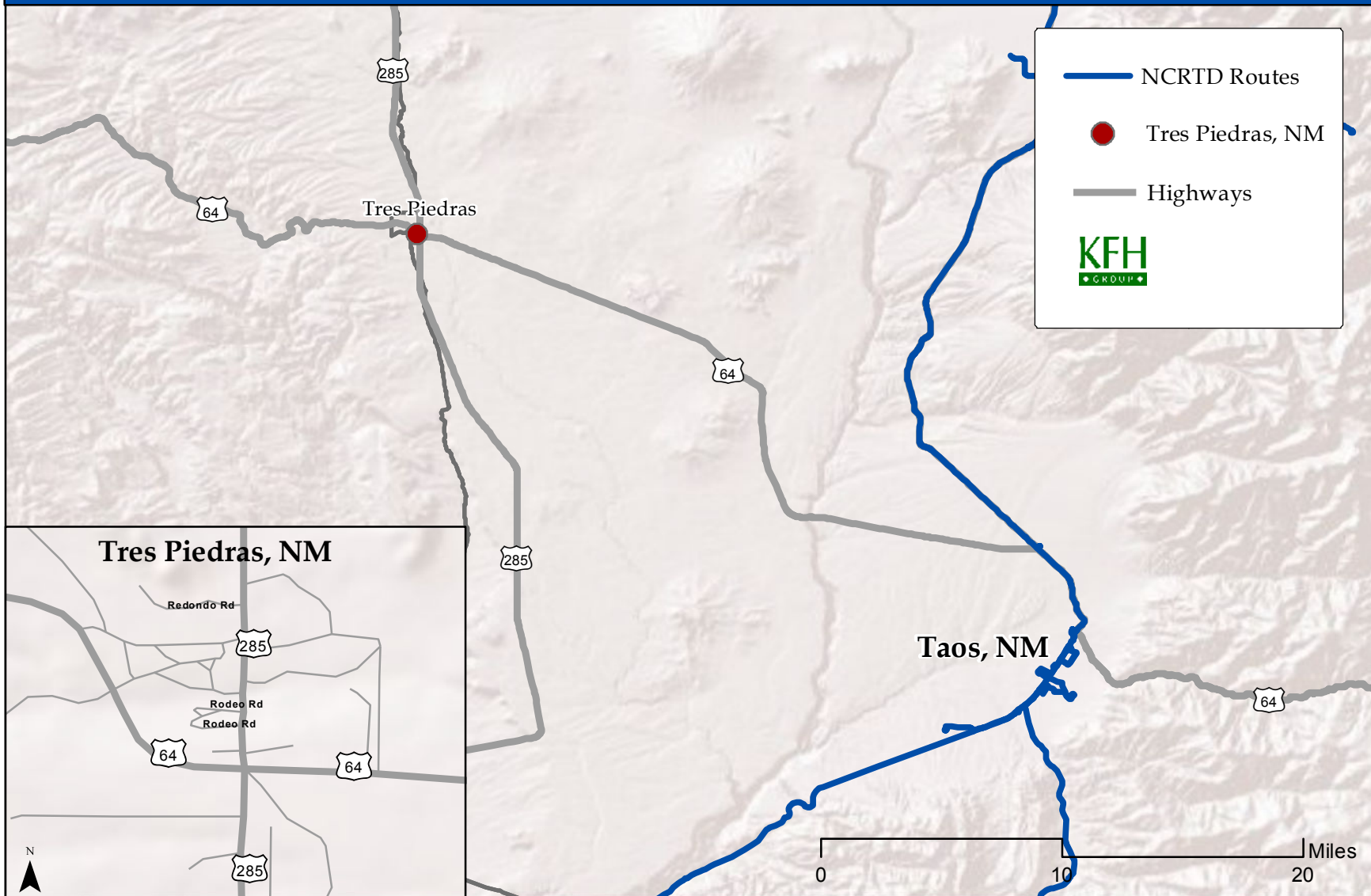
- *Tres Piedras* – In the northern reaches of the service area is Tres Piedras a small isolated community over 30 miles from Taos (Figure 1-13). There are a few homes at the crossroads of US highways 285 and 64 with approximately 1,000 people living in the larger area and an average density of fewer than 2 persons per square mile.
- *Service to Ski Basins in the Santa Fe and Taos areas* – These services could be developed in conjunction with the Rail Runner and the local ski destinations.

Commuter Service Needs

A number of communities have some service, but no commuter service. Those communities with access to NMDOT Park and Ride service are not included in this:

- The San Ildefonso bus misses a commuter connection so it is not used as commuter service.
- The Chama route by virtue of its three day per week service does not provide access for commuters anywhere on this route. There was an expression of a need for commuter service from Abiquiu south into Española.
- The El Rito service also does not provide commuter access.
- Santa Clara has commuter service into Santa Fe, but it does not have commuter access to Española.
- Service from Chimayo for commuters get people into Española by 8 a.m. and while this may work for some commuters, it is late for others especially if they need to transfer to another bus.

**Figure 1-13: North Central Regional Transit District
Tres Piedras Unserved Area**





Mid-Day Service

Very often service that caters to commuter's offer the availability of a mid-day ride home. Further, people who want to go shopping or have personal or medical needs often must stay all day as there is no mid-day ride. These communities/routes include:

- **Edgewood** – This community is requesting a mid-day ride for people who only want to travel for a half day, either morning or afternoon. The mid-day option would allow for both. While the mid -day service will in all probability be a low ridership service, it could boost commuter ridership as more people would ride knowing they can get home at mid-day in an emergency.
- **Questa** – Mid day riders state they need more time in Taos.
- **Peñasco** – This route operates one A.M. and one P.M. run. The routes operate two way service when there is only demand for one way service. The southbound run can be delayed until closer to noon taking people back to Peñasco, then turning around and providing a mid-day northbound run (eliminating the 3 P.M. run from Peñasco).
- **Pojoaque - Nambé** – There is a four hour mid-day gap in service making local travel and shopping difficult.
- **Taos - Española** – This route has an almost 9-hour gap in service rendering use for anyone other than commuters and some students difficult at best.
- **Santa Clara** – There is a four hour mid-day gap in service on this route.

Bus Stops

Because of a New Mexico law prohibiting “flag” bus stops, every stop must be designated. There are two sets of issues related to bus stops:

- **Rural routes** – The rural routes all have a need for a significant expansion of bus stops. Currently it is typical that bus stops are many miles apart, often the bus stops bypass communities that only need a simple stop to receive service.
- **Urban routes** – The urbanized routes especially in the Española area have each stop serve as a timing point often requiring the bus to stop at almost every stop whether there is a passenger at the stop or not. This needs to be modified to both tighten the schedule, but also reduce the number of timing points (such as one out of every 6 – 8 stops).



ADA

ADA needs are in two areas. These include:

- **Complementary paratransit or flex route service** – many of the rural routes are required to have ADA service. This could be in the form of complementary paratransit where a separate vehicle will provide door to door service for any qualifying person for trips within $\frac{3}{4}$ of a mile of the route. The other option and more appropriate in rural areas would be a flex route service where persons with disabilities can still be picked up at their door by the route bus. This second option will be most appropriate for areas outside Española (which has an ADA paratransit program).
- **Bus Shelters** – Bus stops without improvements do not have to be modified for ADA. Stops with shelters; however, must have accessible features. Unfortunately, most of the shelters are inaccessible according to ADA due to: 1) The concrete pad is not large enough to allow the deploying of a lift, 2) inaccessible shelter due to placement of the shelter in a ditch, surrounded by gravel, and/or in many cases a 1 - 3 inch lip from the ground to the pad.

Facilities

The major facility issues include the need for upgraded shelters (discussed under ADA issues) and the need for more space at the Española Transit Hub. The current lot is typically full and as more buses meet there, space becomes an issue. In the short term emphasis should be placed on timed meets between NCRTD and Park and Ride buses to reduce the need for auto traffic. Between reduced space for parking and excellent connections to the community, it may be possible to continue to meet the needs at this location.

DEVELOPMENT OF ALTERNATIVES

These alternatives are a working document designed to initiate a collaborative approach to selecting the alternatives that will guide the development of the NCRTD over the next 5 - 10 years. The alternatives define the services possible.

In some cases, there are multiple options. In others, there is only one basic solution to an issue. After receipt of Technical Memorandum No. 5, the consultant met with NCRTD management to determine the best approach for service related changes to meet the needs of the community.

As previously stated, the coverage area of NCRTD needs very little improvement as most areas that can benefit from transit are served. The focus is not as much where,



but when. When a vehicle is traveling to a particular destination determines to a great extent, its usage. When the bus is scheduled is a very significant driving force behind ridership – going when the customer wants to go. For example, if the bus to the big town does not operate during commute hours, this large segment of the riding public will be excluded. If the time available in the big town is limited to an hour (as is the case in some situations), that severely limits the usability of the service. In this example, commuters and most other riders would not be able to use the service – not because it did not go where needed, but that it did not go when needed.

The alternatives included amending existing routes to meet more needs and addressing unserved areas with new service. The development of alternatives and options included the following components:

- I. *Route by Route Changes and Recommendations* – Most routes need some changes. All routes will be reviewed, with alternatives for each that are in need of change.
- II. *New Services* – Based on the review of needs, a number of significant origins and destinations were identified. Services were designed to meet those needs.
- III. *ADA Issues* – There are a number of ADA issues related to facilities and service that must be addressed.
- IV. *Facility Options* – In particular, the major issue is in Española. Bus stops will also be addressed.
- V. *Funding Opportunities* – NCRTD has an excellent, diverse base of local and Federal funds. In this section we will look at the private sector.
- VI. *Other Issues* – This includes revising the approach toward schedules, maps, terminology, route names, and numbers.

Route Summaries

Those interested in the detailed alternatives should review Technical Memorandum No. 5 which has detailed maps and information for each alternative.

1. Pojoaque to Nambé:
 - a. Revise service hours to be more compatible to needs or add service hours.
 - b. Change to Dial a Ride service.
2. San Ildefonso:
 - a. Extend service into the Pueblo.
 - b. Revise or add service hours.
 - c. Add bus stops on 502.



3. Riverside:
 - a. Revise southern portion of route.
 - b. Timed meets.
 - c. Eliminate timing points at every stop.
4. Westside:
 - a. Complete reconfiguration.
 - b. Westside and crosstown routes.
 - c. Timed meets.
5. UNM Taos:
 - a. Reduce service to coincide with campus usage.
 - b. Turn service over to Chile Line to operate the last 1.5 miles to campus.
6. NM 599:

This route has recently been revised and will not be modified at this time.
7. Questa to Taos:
 - a. Modify schedule to allow more time in Taos for medical, shopping, personal business, etc.
 - b. Additional bus stops.
 - c. Timed for advantageous meets with Chile Line.
8. Peñasco/Taos:
 - a. Revise schedule.
 - b. Revise route in Taos to reduce duplication with Chile Line.
9. Taos to Española:
 - a. Revise schedule.
 - b. Provide greater frequency.
 - c. Revise route in Española.
10. Española to Santa Fe:
 - a. Include Tesuque and Santa Clara trips on the Española to Santa Fe schedules.



11. Española/Los Alamos/Pojoaque:
 - a. Revise schedule.
12. Española to Chimayo:
 - a. Connect to Española at transfer center.
 - b. Combine with Las Trampas.
13. Española to El Rito:
 - a. Revise route and schedules.
14. Las Trampas to Chimayo:
 - a. Revise schedule of route.
15. Chama to Española:
 - a. Revise schedule.
 - b. Combine with Chimayo.
16. Questa to Red River:
 - a. Adjust to seasonal levels.
17. Eldorado to Santa Fe:
 - a. Revise service levels.
18. Edgewood to Santa Fe:
 - a. Add a mid-day round trip, combined with Eldorado.
19. Tesuque to Santa Fe:
 - a. Combining service with Española to Santa Fe service.
20. Santa Clara:
 - a. Coordinate Santa Fe schedules.
 - b. Revise local service schedule.



21. Paratransit:

- a. Use existing vehicles on layover whenever possible.

Review of Costs

Most of the changes are no or low cost changes as often an adjustment to the schedule is all that is needed. In at least two routes there are significant savings by seeking an alternative.

Potential New Services

The review of needs indicated a number of potential new services that were detailed in Technical Memorandum No. 5.

- ***East Side of Española between McCurdy and El Llano Rds. south toward Santa Cruz*** - This area of Española is between ½ and 1 mile from the Riverside Route and is the largest residential area in Española. Currently only the portions of this area close to Riverside have reasonable access to the Riverside route. Residents of the Santa Cruz area have access to the Chimayo route, but only as far as Las Lomas apartments. Modifications to the Westside route will meet many needs. The new service would be a separate route.
- ***La Cienega*** - This is a community southwest of Santa Fe that parallels I-25 to the west and is about five miles south of the 599 Rail Runner train stop. The population of the area is about 4,000. Currently it is 5 miles from the nearest Santa Fe Trails bus stop and about 10 miles from the Santa Fe Place Transit Center. A flex route service was proposed to connect to the Santa Fe Trails Transfer Center.
- ***Las Golondrinas*** - A living history museum about 1.5 miles north of La Cienega. This would be a stop on a route that served La Cienega.
- ***Golden*** - This is a small community 11 miles south of Madrid. The area is sparsely populated. One day per week service is proposed with an extension from the Madrid/NM 599 Route.
- ***Tres Piedras*** - In the northern reaches of the service area is Tres Piedras a small isolated community over 30 miles from Taos. There are a few homes at the crossroads of US highways 285 and 64 with approximately 1,000 people living in the larger area and an average density of fewer than 2 persons per square mile. One day per week service is proposed.



- **Regional Taos to Española to Santa Fe premium express service** - This would be attractive to commuters and tourists depending on the timing. Weekend service should be offered and marketed to visitors in Santa Fe and if appropriate to visitors in Taos. Currently Chile Line is doing some of this service.
- **Service to Ski Basins in the Santa Fe and Taos areas** - These services could be developed in conjunction with the Rail Runner and the local ski destinations. Funding should be provided by private sector beneficiaries.
- **Shopper Shuttles** - Another partnering opportunity where the destination retailer(s) would sponsor the service and certain demographics would be targeted (elderly, low income, etc.). Funding should be provided by private sector beneficiaries.
- **Weekend Service** - Saturday service typically generates about one-half the riders of a weekday and typically one-third the riders. As discussed above, premium Regional service would be effective and consideration should be given to operating Española routes on Saturday and if possible, Sunday.



Chapter 2

Transit Service Plan Update

The Transit Service Plan Update is the culmination of the five technical memoranda previously completed. The first chapter of the plan includes a summary of the first five technical memoranda. Interested readers are invited to review the detailed analysis and outreach in the attachments to this plan. The implementation activities and the financial plan will be fully incorporated in this plan as Chapter 3. This chapter of the Plan (Chapter 2) will include the following elements:

1. **Transit Routes**
 - a. Maps,
 - b. Bus stops,
 - c. Service days, hours and frequencies,
 - d. Transfers and timed meets,
 - e. Estimated hours, miles and ridership,
 - f. Operating cost; and
 - g. Capital needs.
2. **Future Services**
 - a. Maps,
 - b. Service days, hours and frequencies,
 - c. Estimated hours, miles and ridership,
 - d. Operating cost; and
 - e. Capital needs.
3. **ADA Requirements** – This includes both ADA paratransit as well as flex route service.
4. **Bus stops and amenities.**

ROUTE REVISIONS

The routes to be incorporated into the system are detailed in this section. These routes were developed from a series of alternatives developed in Technical Memorandum No. 5 Development of Alternatives. Those interested in the specific



alternatives for each route as well as new bus stops are encouraged to review that technical memorandum in Attachment No. 5.

Operating Assumptions

The service revisions require a number of assumptions that will be weaved throughout each change. These assumptions are as follows:

1. **ADA Service** - Almost all routes will require ADA type service. In the Española area, ADA paratransit will be continued, but all other routes will require a flex route (route deviation) service. This will be discussed in detail in Section III - ADA Issues. Flex route service will be free for qualifying persons with disabilities, but a \$5 or more fare for each "flex" should be charged for the premium service of having a vehicle come to your door.
2. **Service Times** - This is critical to successful service. Unfortunately, what is best for riders and ridership as a whole may be difficult to schedule for vehicle operators. For example, two-hour runs may work well for rural communities, but may not be acceptable to vehicle operators. Therefore, we will work closely with staff to ensure that the best and most consistent schedules are in place that balances the needs of management and vehicle operators with those of customers. Most rural/commuter routes have the recommendation to provide one peak trip a.m. and p.m. as well as a mid-day option. This gives part day riders the option of traveling in the morning or afternoon and gives riders a minimum of three hours at their destination. Commuters have a mid-day return. A second option allows for multiple morning and afternoon trips, but no mid-day return. This however gives riders an option of one hour or three - four hour stays in the destination location (typically Española, Taos, and Santa Fe). Commuters do not get the mid-day option in this scenario.
3. **Service Constraints** - NCRTD is somewhat constrained in that it should not compete with New Mexico Department of Transportation Park and Ride Service (NMDOT Park and Ride) between Española, Los Alamos and Santa Fe. Competition means that times and destination stops are duplicated. For example, in Santa Fe while NMDOT Park and Ride focuses on destinations such as the Capitol, Sheridan and South Capitol Station, while NCRTD focuses on the Indian School and the Indian Hospital. NCRTD also serves the Rail Runner and downtown, albeit at different times. The emphasis will be on NCRTD services that complement NMDOT Park and Ride services.
4. **Timed Meets** - Where feasible appropriately timed meets will occur with NCRTD and all other transit systems that interface. When building schedules, the transfer time will be the basis for the schedule - where feasible.



5. **The Española Transit Hub** - Critical to successful timed meets is a transfer hub that can function with up to six- seven vehicles meeting at one time (in most cases it would be two or three buses). While it is still a Park and Ride lot, in this report it will be referred to as the Española Transit Hub as it or a similar location in the future is truly the hub of the system as a majority of NCRTD's and many NMDOT Park and Ride routes travel through Española.
6. **Additional Bus Stops** - Bus stops will be added to most rural and regional routes. These are depicted in each of the route maps. There are safety issues related to bus stops as inevitably passengers will need to cross busy highways such as U.S. 84 with 65 mph speed limits. While there are no official or unofficial standards, NCRTD can develop its own standards for safety. This can be accomplished through proper procedures for both the vehicle operators and the riders, with appropriate outreach. Where feasible stops will be placed at protected intersections.
7. **Cost Per Hour** - For preliminary cost purposes we are using a figure of \$76 per hour, based on the information reported by NCRTD.
8. **Status Quo Alternatives** - The status quo is also an alternative for each route.
9. **Change** - Disadvantages always include the following: Change will be difficult for some: both staff and riders. Where possible change is to be avoided. Where significant change is required, a proactive grass roots outreach campaign should help riders seek the best transit solution. This will minimize the negative effects. Fortunately, for the most part, change will be of a timing nature to help improve service.
10. **Service Levels** - These are based on estimates of needs. Smaller communities receive less service out of necessity. The attempt here is to balance service levels based on need and utilization. These levels can be modified and increased or decreased.

I. TRANSIT ROUTES

In this section, the routes will be configured for the new service plan.

Nomenclature

Terminology is important and must be consistent:

- **Vehicle Direction** - It is recommended that the direction be referred to as northbound, southbound, etc.



- **Route Names** - The route names are descriptive. In most cases, they describe each end point, while in others they state the name of the community or primary point, such as NM 599 or UNM Taos. Other names can include; the main thoroughfare traveled (Riverside Route for example) or simply the end point of the route such as the Chama Route.
- **Route Numbers** - The system is definitely large enough to assign numbers to each route. The route number assignments should be geography based.
- **Bus Stop Names** - Where possible bus stops will be identified by a cross street or a major origin/destination such as Ohkay Owingeh Casino.

ROUTE CHANGES

This section reviews the changes made to the existing routes. In some cases, the service level increases and in other decreases based on need. The issues do not revolve around where the bus goes, rather in many cases it is when the bus goes - simply a matter of adjusting the schedules to meet commute, shopping, medical and other needs. Overall, the service changes will allow for greater convenience and ease of use.

RIO ARRIBA COUNTY BASED ROUTES

The first group of routes includes those based in Rio Arriba County and serves the Española Transit Hub. As this is the center of the system, with a majority of the routes passing through here, where possible these routes will be coordinated with timed meets to ensure regional accessibility.

SANTA FE COUNTY BASED ROUTES

These are the routes that are based in Santa Fe County and primarily serve areas surrounding Santa Fe. These routes connect to one or more of the following services: the Rail Runner, Santa Fe Trails and other NCRTD routes.

TAOS COUNTY BASED ROUTES

The Taos County based routes include all routes serving Taos or with a destination in Taos as well as the Red River route.

LOS ALAMOS COUNTY BASED ROUTES

The Los Alamos County based routes consists of routes connecting Española and Pojoaque to Los Alamos.



Rt. 100 - Riverside

This route, one of the busiest in the system traverses Española in a north/south manner. The route operates primarily on Riverside and arrives at the Española Transit Hub every half hour during peak hours.

Service Changes

There are two basic issues related to this route. These include:

- The route travels south to Dreamcatcher Theater. The last 1.5 miles in each direction has very low ridership.
- The route is timed to operate at a very low speed, with timing points at every stop. The route is scheduled for 30 minutes, but only takes about 20 minutes necessitating the bus to sit at various places throughout the route. In the future if the bus must sit, it should be timed to sit at an end point.

Revise Route

The route needs to be revised at each end to provide more effective service. The schedule must ensure arrivals at the Española Transit Hub on the one-half hour. The changes include limited service to the Ohkay Owingeh Library in the center of the pueblo and to the Dreamcatcher Theater four times per day. That would allow the route to operate on one-half hour headways with the exception of the limited service runs that will be one-hour round trips (Figure 2-1). This could be supplemented by a second peak bus to continue the one-half hour headways.

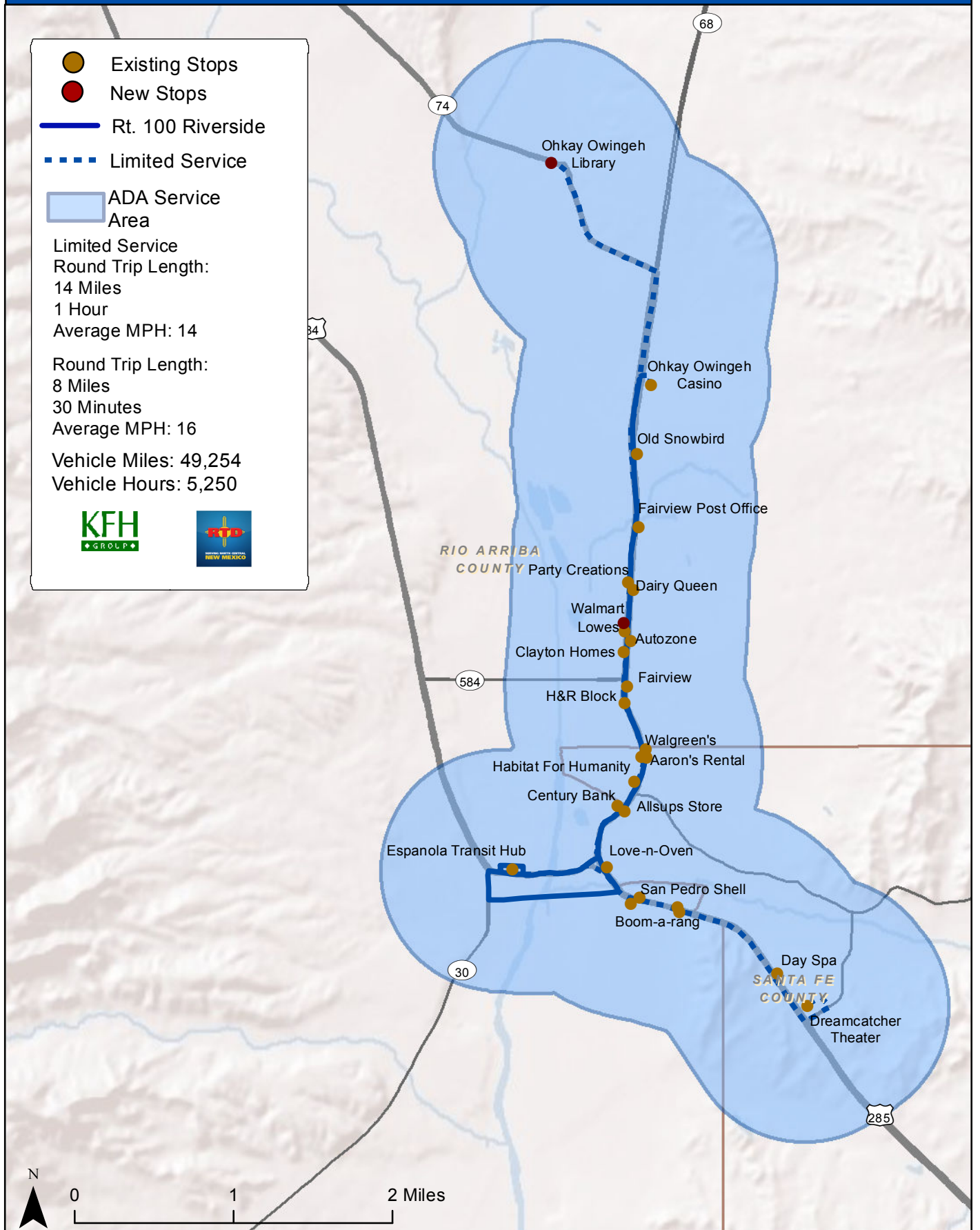
Eliminate Most Timing Points

Currently all stops are timing points causing the bus to sit at various times throughout Riverside Drive. Timing points should be limited to each end point and two others 10 minutes apart. The timing should be such that if there is slack in the schedule it should be taken at the Transit Hub and not along the route. All other stops will be in between the timing points. Outreach efforts will be targeted to assisting riders in understanding how to read the schedule and determine the appropriate time for that stop. This is standard practice in the transit industry.

Bus Stops

The bus stops will remain as is for the most part, with additional stops at the Ohkay Owingeh Pueblo and on Santa Clara Bridge Road. If Wal-Mart chooses to become a sponsor, there can be a stop at the store front/side or in the lot next to the store (both are common in many Wal-Marts across the country).

Figure 2-1: Route 100 Riverside





Operating for the most part on half-hour headways (on the hour and half hour), will allow for seamless timed transfer to all routes serving Española. This will make access to Española available to all riders in a manner that does not require a wait for a bus. This may also have a positive impact on the parking problem at the Transit Hub.

Service Impact - Performance

The level of service in this corridor will not change significantly, however, with modified schedules, new stops and timed connections to all other routes serving Española, we anticipate an increase in ridership. Table 2-1 describes the FY13 performance for this route and compares the basic route data with the routes in the plan.

Table 2-1: Rt. 100 Riverside Route Revisions

	FY13	New	% Change
Service Hours	5,250	5,250	0.00%
Service Miles	49,254	49,254	0.00%
Ridership	41,483	-	-
One-Way Passenger Trips per Hour	8	-	-
Average MPH	9	9	-
Cost	\$399,000	\$399,000	0.00%

Cost Impact

The service hours and costs will remain unchanged.



Rt. 110/120 - Westside/Crosstown

This route will be completely revised. It will have two distinct routes that interline at the hub every half hour: a Westside route and a crosstown route that goes into the unserved eastern side of the Española area. The eastern part of Española/El Llano has the greatest unmet need in the region. This along with the additional stop on the Chimayo Route at Santa Cruz, will expand options for riders in this area. This route will meet the Riverside Route at the Hub every half hour.

Service Changes

The route will change to provide greater coverage with schedules that are simple to follow. This will be in essence, two routes each operating a 30 minute round trip and one hour headway. Figure 2-2 illustrates the two interlined routes. The two routes will provide direct service to all of the Westside destinations in the previous route structure, but in less time. In addition, there will be crosstown service on Fairview to El Llano, providing new service in El Llano and eastern Española.

Bus Stops

Bus stops will have to be reconfigured for the new routes, but many will remain as is, just on a different route. Figure 2-2 illustrates the best options for bus stops on these routes.

Transfers and Timed Meets

Operating on half hour headways (on the hour and half-hour), will allow for seamless timed transfer to all routes serving Española. This will make access to Española available to all riders in a manner that does not require a wait for a bus.

Service Impact - Performance

The level of service will not change significantly, however the service area covered will double, extending service to the central east side and El Llano. The ridership was very low and it is anticipated that this will change significantly with this new access, direct service and timed meets. Table 2-2 describes the FY 13 performance for this route and compares the basic route data with the routes in the plan.

Figure 2-2: Route 110 Westside and Route 120 Crosstown

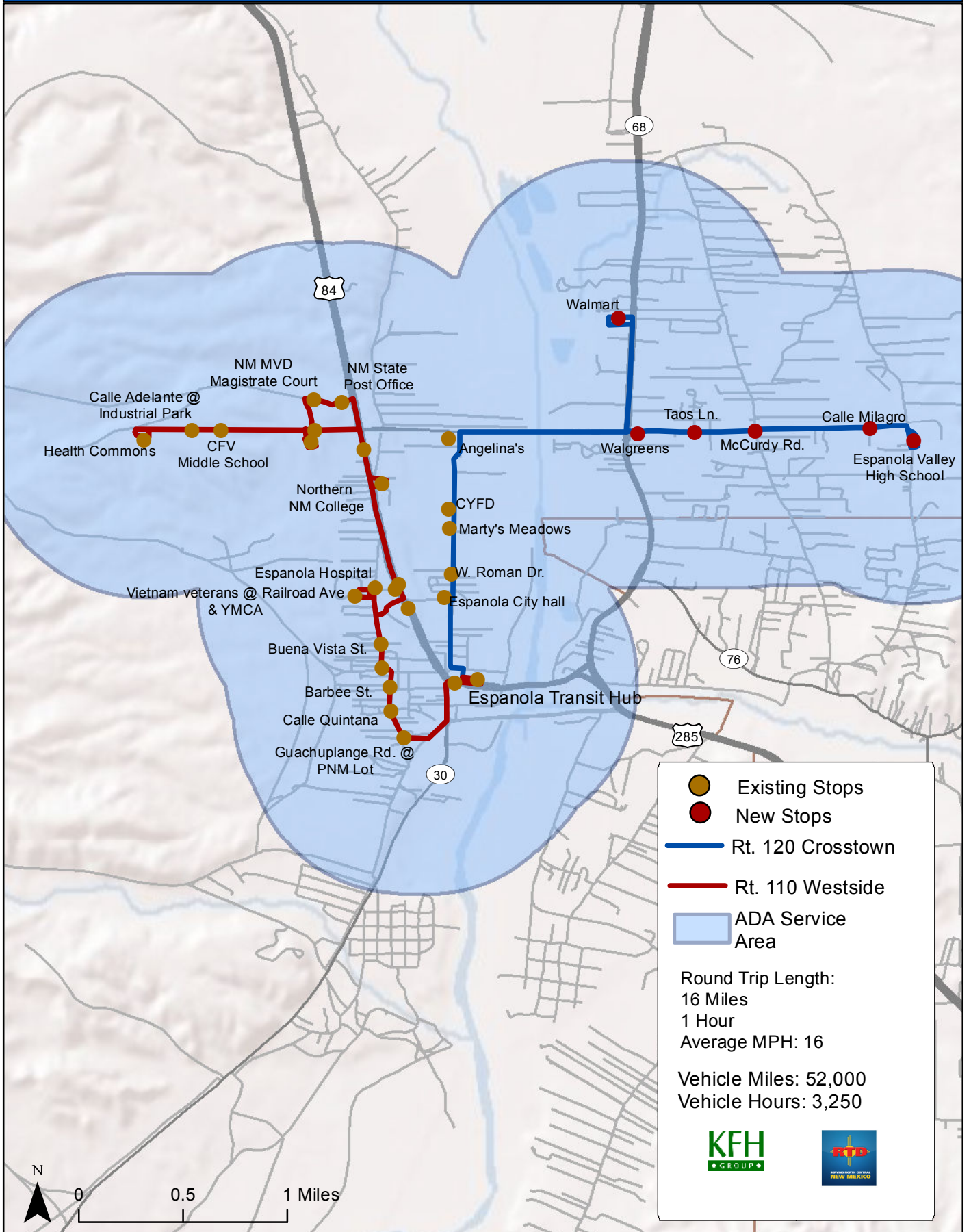




Table 2-2: Rt. 110/120 Westside/Crosstown Route Revisions

	FY13	New	% Change
Service Hours	3,250	3,250	0.00%
Service Miles	39,289	52,000	32.35%
Ridership	13,351	-	-
One-Way Passenger Trips per Hour	4	-	-
Average MPH	12	16	-
Cost	\$247,000	\$256,750	3.95%

Cost Impact

The service hours will not change. Due to the considerable increase in mileage an additional \$9,750 annually will be required for the new route.



Rt. 150 - Chimayo

There are currently two routes that serve this area. Chimayo operates about eight vehicle hours a day and the Las Trampas route operates six vehicle hours per day.

Service Changes

This modified route will combine the Las Trampas route with the Chimayo route using the same vehicle. This will reduce the hours for the two routes from 14 vehicle hours daily to 12.5 hours. Further this route will now provide expanded service and connectivity to the rest of the system by connecting at the Española Transit Hub rather than Las Palomas Apartments. The Santa Cruz area will also be connected to the rest of Española, giving the Eastside of Española more consistent service.

The Las Trampas Route will become part of the Chimayo Route. The route will start in Las Trampas at 7:00 a.m. and provide all stops service to the Española Transit Hub with an arrival at 8:00 a.m. (Figure 2-3). The service will then provide hourly service between Chimayo and the Española Transit Hub for timed meets. At noon, the bus will leave Española and provide service back to Las Trampas. It will then come back to Chimayo to continue the hourly runs until 5:30 p.m. when it completes one more eastbound trip to Las Trampas arriving there at 6:30 p.m.

Bus Stops

Bus stops should be on both sides of the street with schedules that match. The number of timing points between Española and Chimayo should be reduced to four, for example: Española Park and Ride, Sangre De Cristo Church, Dollar General and Chimayo. An additional non-timing point stop should include Rio Chiquito. In Santa Cruz/Española there should be one more stop at the vicinity of Rt. 76 and Lamb St to better serve the Santa Cruz area.

Transfers and Timed Meets

Each run will connect for a timed meet at the Española Transit Hub. This will allow connections to the local Española Routes, as well as most other routes that stop at the Española Transit Hub. This will be a major improvement to this route.

Service Impact - Performance

The level of service and the coverage in this corridor will increase, while the service hours are reduced through the combination of routes. The Chimayo route will now serve all points on Riverside between Santa Cruz Rd. and the Española Transit Hub.

Figure 2-3: Route 150 Chimayo

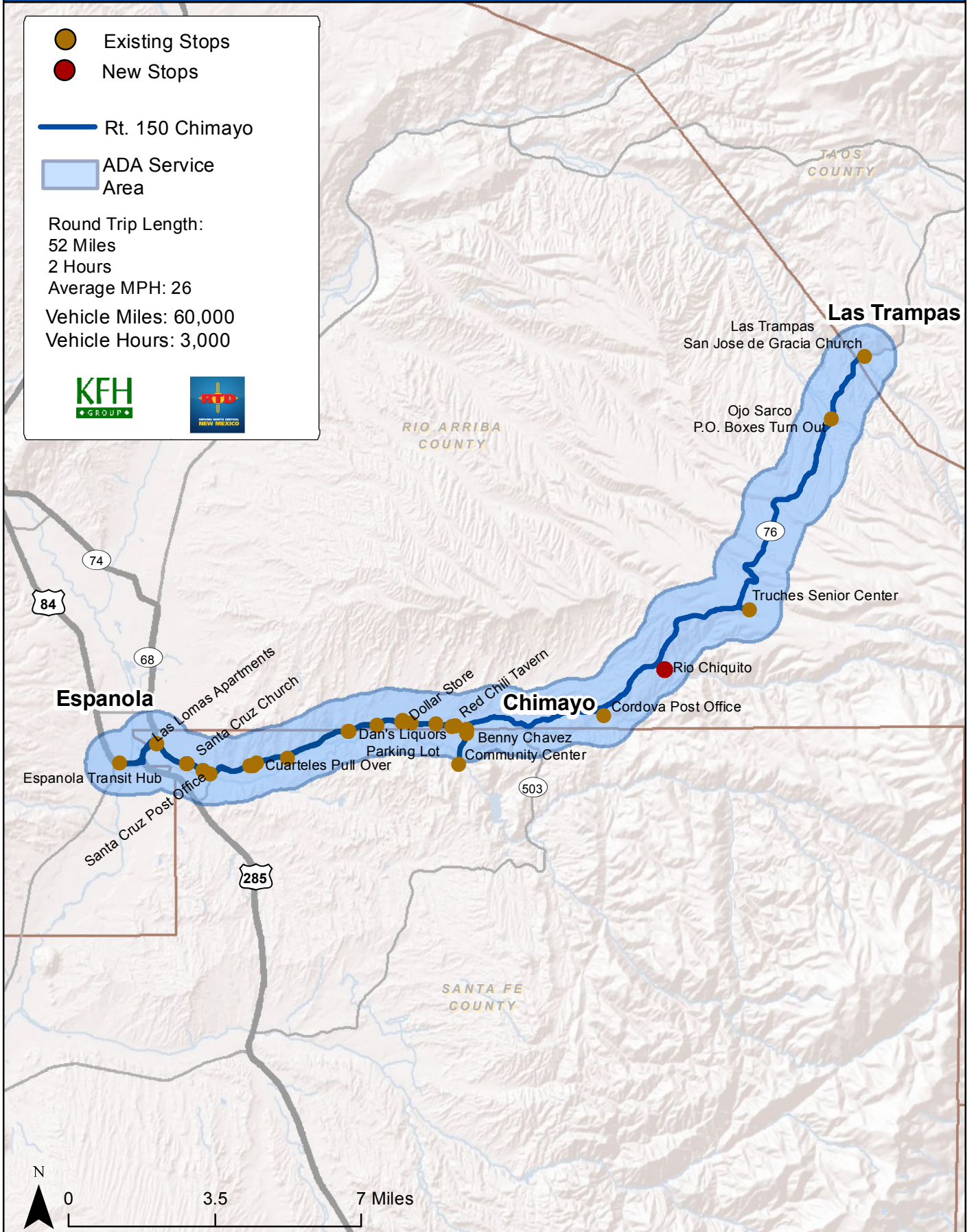




Table 2-3 describes the FY 13 performance for this route and compares the basic route data with the routes in the plan.

Table 2-3: Rt. 150 Chimayo Route Revisions

	FY13	New	% Change
Service Hours	3,500	3,000	-14.29%
Service Miles	79,789	60,000	-24.80%
Ridership	8,871	-	-
One-Way Passenger Trips per Hour	2	-	-
Average MPH	23	20	-
Cost	\$266,000	\$228,000	-14.29%

Cost Impact

The service hours and costs will be reduced by 500 hours annually, saving about \$38,000 annually.



Rt. 160 - Santa Clara Pueblo

This route is a combination commuter route and local loop route. It has low ridership, which corresponds with the limited number of stops outside of Santa Clara Pueblo. This route should be part of the seamless network being built around the Hub.

Service Changes

The most significant change to this route will be the re-routing to eliminate the loop nature of the service as well as the duplication of service with the Riverside route. This is depicted in Figure 2-4. The second change will be to time the route to meet at the Hub on the top of the hour or the one-half hour giving Santa Clara residents seamless access to Española and the region. Service hours and times will remain the same.

The route will eliminate the loop by traveling on the west side of the route and going to the Ohkay Owingeh Library. There riders can connect to the Riverside route to travel south (or riders will have a seamless connection at the Hub). This will reduce the travel time for anyone who wants to use part of the loop. For example to go from the hub to the stop at Reggie's is about a seven minute trip to get there. The return trip, however, is over an hour, as the rider must traverse the entire route. In the new service, each leg of the trip would be seven minutes.

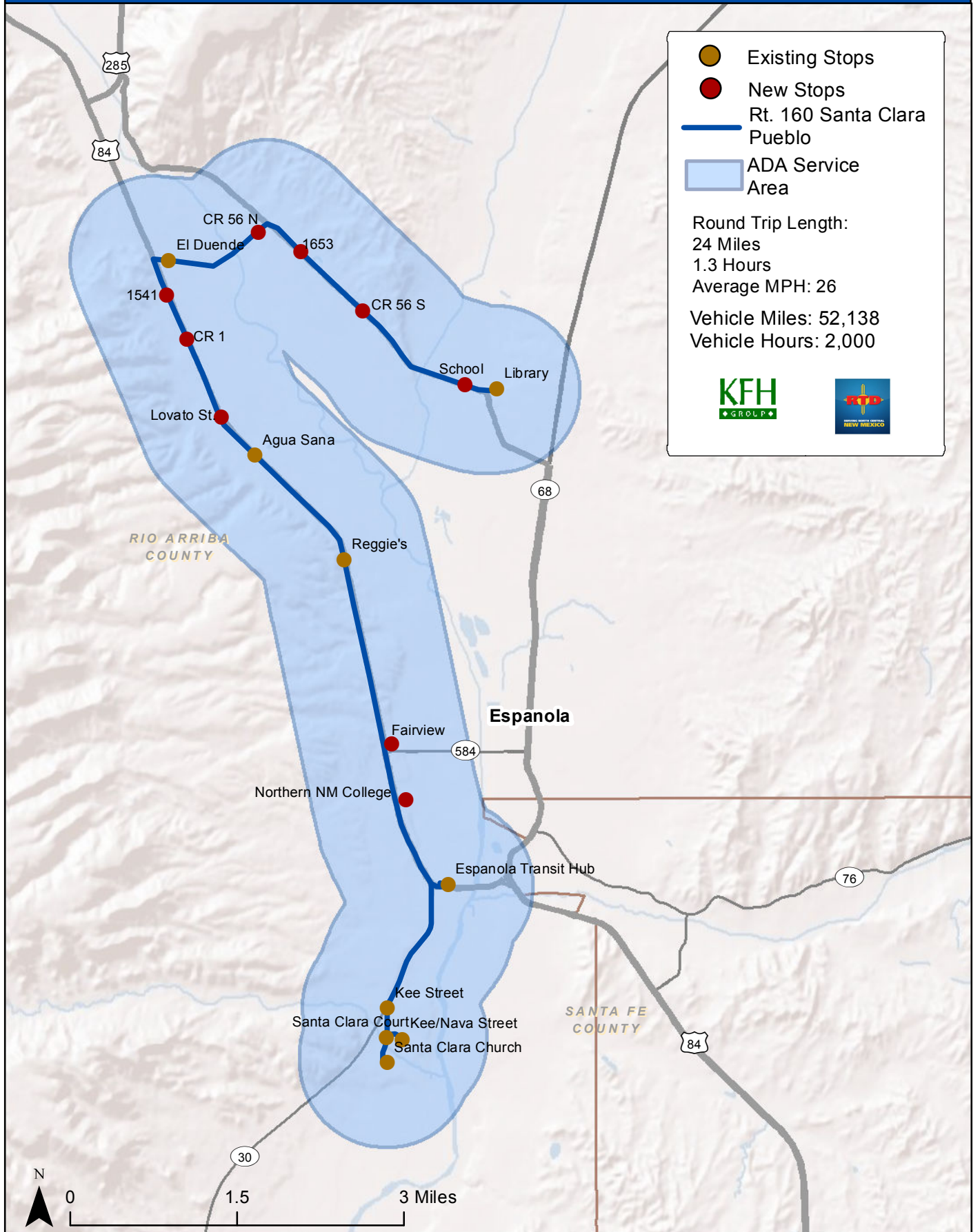
Two other minor changes include a schedule change to ensure that the bus arrives at the hub either on the hour or half-hour. The second is to ensure that the Santa Clara bus stops at the hub in both directions of its Santa Fe run. Again, this stop must be timed for the top of the hour or one-half hour.

Finally, as with the Tesuque route, the Santa Clara peak trips to Santa Fe will also be placed on the Rt. 200 Santa Fe schedules.

Bus Stops

There should be a variety of stops in Española along U.S. Highway 84 to include the Northern New Mexico College and north of the Fairview U.S. 84 intersection. Additional stops should be placed on Highway 74 every mile in the populated areas. Stops along the Chama Highway should be every mile and this route should use the same stops used by the El Rito and Chama routes.

Figure 2-4: Route 160 Santa Clara Pueblo





Transfers and Timed Meets

The residents of Santa Clara can benefit from the timed meets designed for this route. They will now have seamless connections within Española and connections to buses going to Santa Fe, Los Alamos, and Taos as well as expanded opportunities to travel to Santa Fe.

Service Impact - Performance

While the level of service will not change, the more direct service and the connections to other routes will significantly increase ridership on this route.

Table 2-4 describes the FY13 performance for this route and compares the basic route data with the routes in the plan. This will be followed by a brief discussion of expectations for this route highlighting basic performance data and measures for the first year of implementation.

Table 2-4: Rt. 160 Santa Clara Pueblo Route Revisions

	FY13	New	% Change
Service Hours	2,000	2,000	0.00%
Service Miles	52,138	52,138	0.00%
Ridership	7,242	-	-
One-Way Passenger Trips per Hour	4	-	-
Average MPH	26	26	-
Cost	\$152,000	\$152,000	0.00%

Cost Impact

The service hours and costs will remain unchanged.



Rt. 180 - El Rito

The El Rito route is a poor performer as it does not meet the time needs of residents or visitor and a large portion of the route is either unserved due to a lack of bus stops or in the case of Rt. 554 south of El Rito, there are no virtually no origins or destinations until U.S. Rt. 84. There is no commute run, which will also keep ridership low. In addition, the loop nature of this route requires excessively long round trips for many, especially those at the busiest stop at Ojo Caliente.

Service Changes

There are three changes to this route that will reduce costs and increase ridership. These include the following two, with the third – additional bus stops in the following section:

- Adjust the timing on this route to allow for commuter service – One A.M. commuter run, if a driver is available in the El Rito area the route can start at in El Rito. If based out of Española, the bus can operate in revenue service northbound prior to its southbound commuter run. The timing will be such that the bus will arrive at the Española Transit Hub at either 7:30 a.m. or 8:00 a.m. with an evening return at either 5:00 p.m. or 5:30 p.m. (depending on initial A.M. arrival). There would also be a mid-day round trip. This will reduce service hours from eight to six daily.
- Change the route from a loop route to a direct route. This change (Figure 2-5) will allow for reduced ride times (round trip) for most and eliminate 12 miles of dead space on Rt. 554.

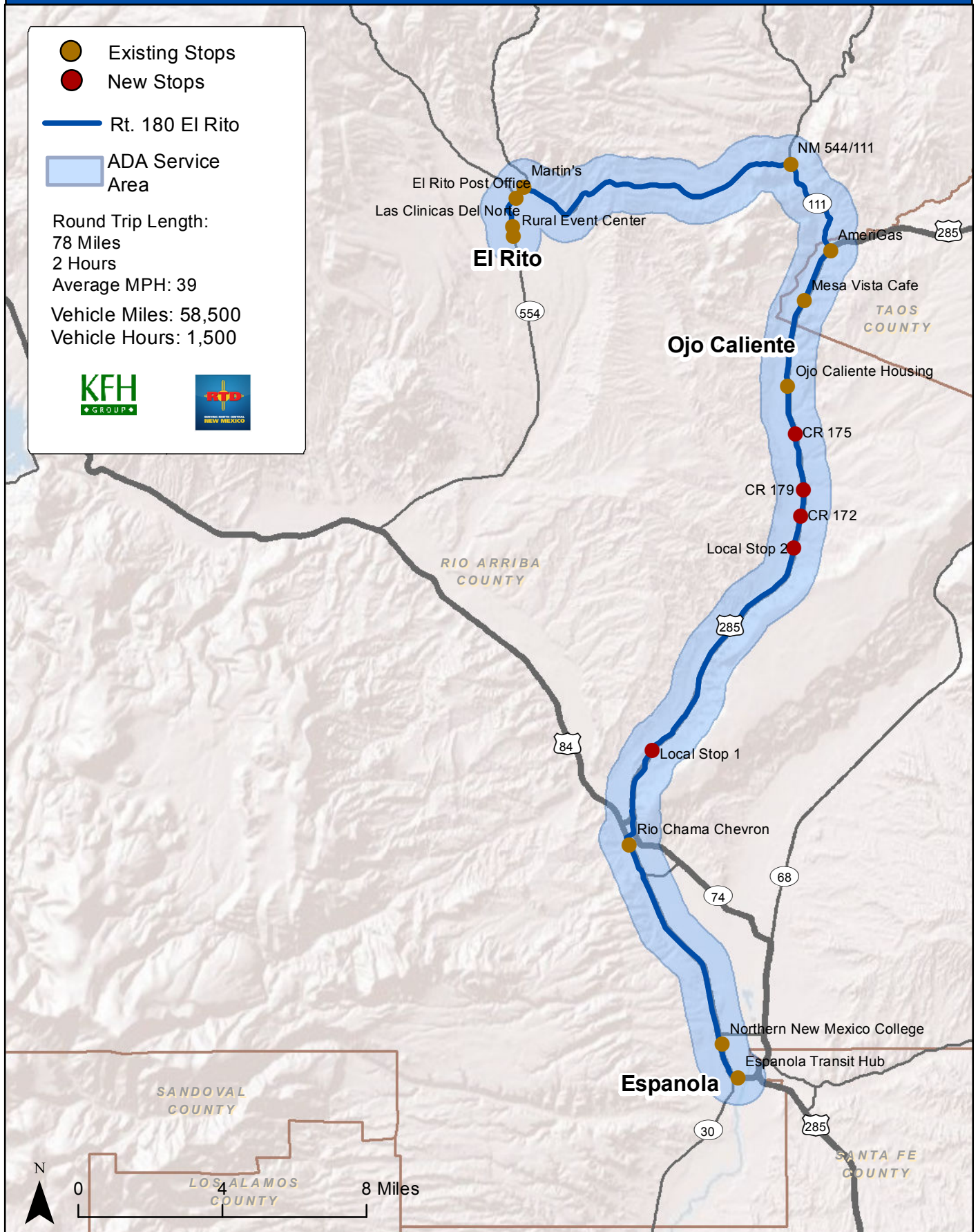
Bus Stops

Currently there are no bus stops between Ojo Caliente and Española – 23 miles. In fact, there are numerous populated areas south of Ojo Caliente for five miles that would justify stops each mile. There will also be additional stops on U.S. 84/285 on the way into Española to be shared with the Chama and Santa Cara routes. Stops between the turnoff for U.S. 285 and Fairview should be every mile. These are depicted in Figure 2-5.

Transfers and Timed Meets

This bus will arrive and depart at the Transit Hub to meet a variety of buses and always the two Española routes. It will also meet a Santa Fe (either NCRTD or Park and Ride) bus in the morning, mid-day and evening.

Figure 2-5: Route 180 El Rito





Service Impact - Performance

The level of service in this corridor will be reduced and at the same time it is anticipated that ridership will be increased due to the usefulness of the new schedules and the opening of the route by adding bus stops and reducing ride time for most. While ridership will always be modest (the nature of long rural routes), it is anticipated that ridership will easily double. Table 2-5 describes the FY13 performance for this route and compares the basic route data with the routes in the plan.

Table 2-5: Rt. 180 El Rito Route Revisions

	FY13	New	% Change
Service Hours	2,000	1,500	-25.00%
Service Miles	71,441	58,500	-18.11%
Ridership	4,835	-	-
One-Way Passenger Trips per Hour	2	-	-
Average MPH	32	39	-
Cost	\$152,000	\$114,000	-25.00%

Cost Impact

The service hours and costs will be reduced by 25 percent, cutting costs by about \$38,000.



Rt. 190 - Chama – Expansion – Six-Month Trial

The Chama Route as currently configured is a three day a week service, which precludes its use for commuter service especially from Abiquiu south to Española. This greatly inhibits ridership as does the current schedule that allows for one hour for shopping at Wal-Mart.

Service Changes

This route will operate five days per week on a six-month trial basis. Essential to this trial will be significant grass roots marketing to advise customers of the new commuter schedules and mid-day service, affording time for shopping, medical services and other needs. The bus will have a timed meet at the Transit Hub allowing seamless access to Española and other parts of the service area (Figure 2-6). It should be pointed out that the new times will be far more conducive to ridership (with more time for shopping and medical needs for example).

Bus Stops

Currently the route operates its first 22 miles to Abiquiu without any stops, passing a number of significant sized communities along the Rio Chama River. It is proposed that there be additional stops along U.S. 84 south of Abiquiu. This would include a series of stops between Rt. 554 (timing point) and U.S. Rt. 285 as well as stops virtually every mile to the Transit Hub, most notably the Northern New Mexico College. These stops will be shared with the El Rito and in part, Santa Clara routes. These will not be timing point stops, with the exception of the stop at Rt. 554.

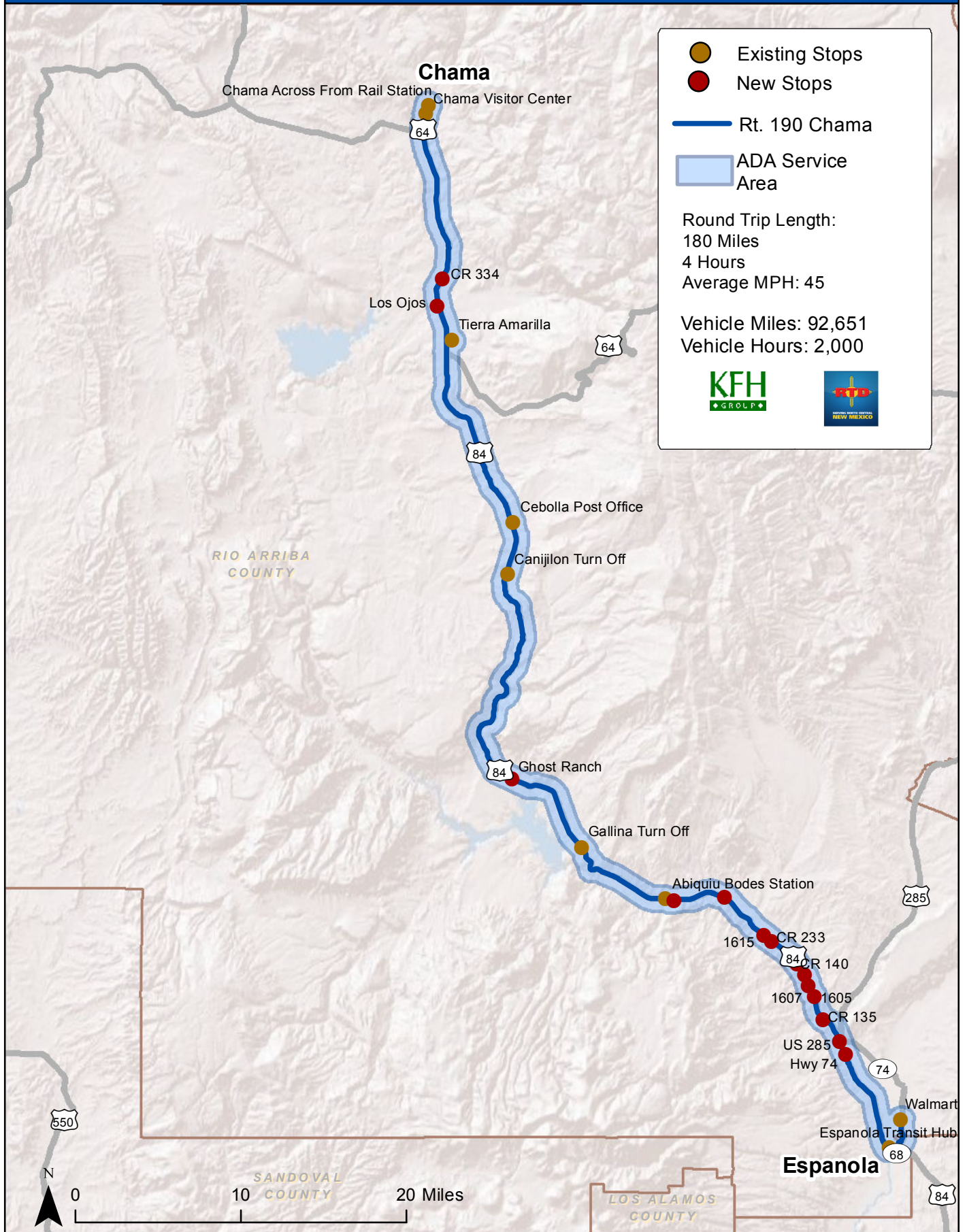
Transfers and Timed Meets

This route will be timed to arrive at the Transit Hub at either 7:30 a.m. with a 5:00 p.m. or 5:30 p.m. return or an 8:00 a.m. arrival and a 5:30 p.m. or 6:00 p.m. return. This will allow time for passengers that have to transfer to another Española route and access to the entire system.

Service Impact - Performance

This is an opportunity for additional ridership for a variety of needs and at the same time reduces the number of daily service hours from eight to six. Total service hours for five day per week service on an annual basis will be 2,000 hours compared to the present 1,200 hours (eight hours three days per week). It is anticipated that the productivity and ridership of this route will improve as there will now be opportunities for commuters, students (many south of Abiquiu), and shoppers (with time in

Figure 2-6: Route 190 Chama





Española) riders at new bus stops, and even day trippers to Ghost Ranch. The timed meets will also attract new riders on this route extending the reach of transit.

Table 2-6 describes the FY13 performance for this route and compares the basic route data with the routes in the plan. Assuming these new attributes will be marketed to potential riders, it is anticipated that productivity on this route (one-way trips per vehicle hour) will increase 20 - 25 percent in the first year.

Table 2-6: Rt. 190 Chama Route Revisions

	FY13	New	% Change
Service Hours	1,200	2,000	66.67%
Service Miles	55,613	92,651	66.60%
Ridership	3,296	-	-
One-Way Passenger Trips per Hour	3	-	-
Average MPH	46	45	-
Cost	\$91,200	\$152,000*	66.67%

**For one year*

Cost Impact

The service hours and costs will increase as the service will go from three days per week to five days per week. The total cost for this service will be \$152,000 on an annual basis. This is an increase of \$60,800 (annualized) over the current service level.



Rt. 200 - Santa Fe

This regional route that has relatively high ridership and in fact is the most heavily travelled corridor in the region. It meets a variety of needs from commuters and students to medical, shopping and personal business for riders going to both Santa Fe and Española. This route operates along the same corridor as the New Mexico Department of Transportation Park and Ride service (NMDOT Park and Ride); therefore, it must complement that service and avoid competition (same times and same destinations).

At the current time both the Tesuque Pueblo route and the Santa Clara Pueblo route have at least one round trip daily to Santa Fe - basically identical to the Santa Fe route described here. This recommendation includes all three of these routes in the Rt. 200 Corridor (Figure 2-7). There are to be 14 sets of round trips when all three of the current routes are counted along with the Park and Ride Service (six of the round trips). The draft schedule will be presented in the next chapter.

Service Changes

The changes to this route are for the most part an issue of scheduling and timing:

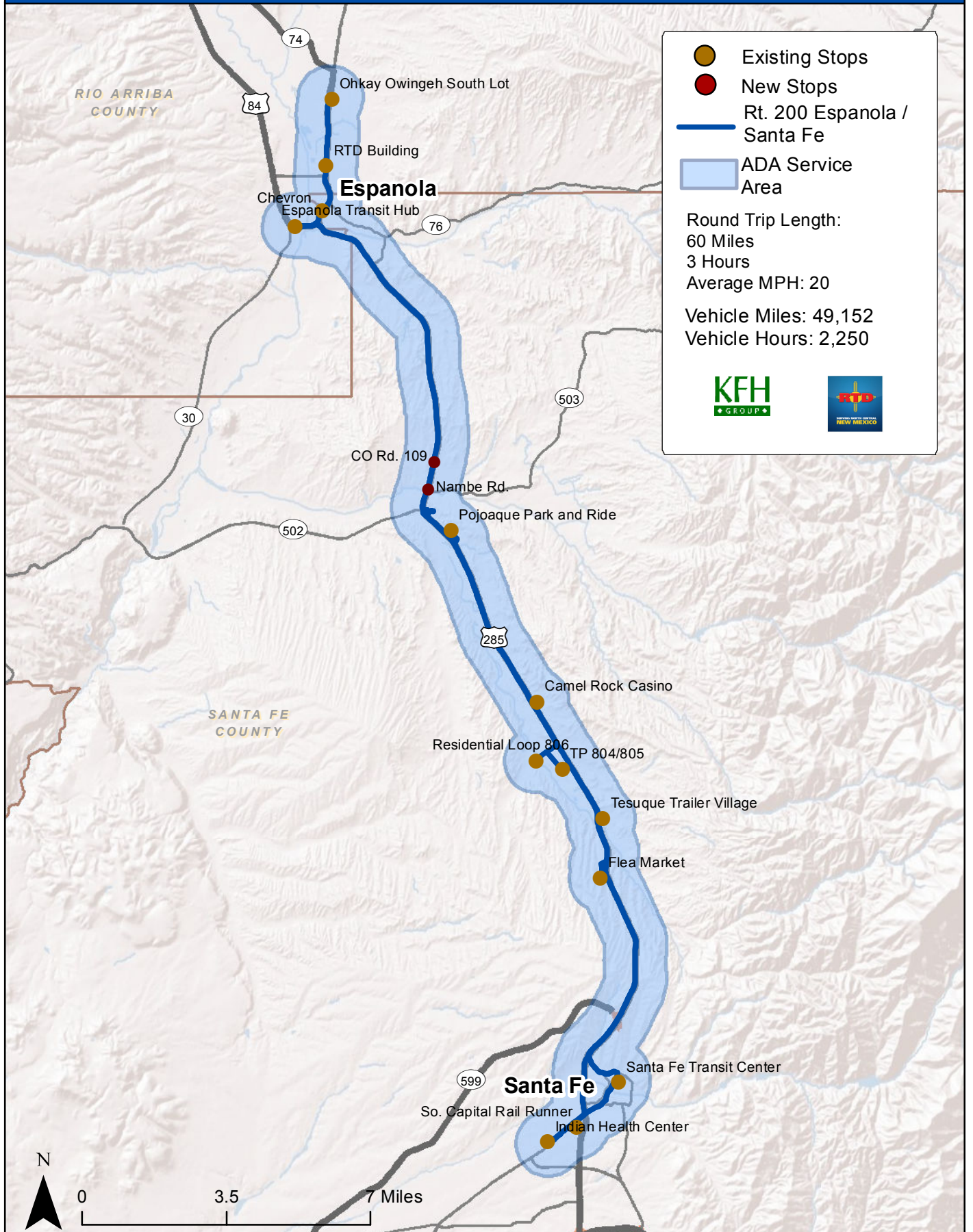
- The NCRTD buses will be scheduled to arrive/depart the Española Transit Hub on the hour or one half hour. This will allow for timed meets with all other route serving the area.
- Santa Clara service will make a stop at the Española Transit Hub in the morning and evening and will have a timed meet with other NCRTD buses.
- The morning southbound Tesuque trip will start in Española and run local service to Santa Fe. This will match the evening return that already goes to Española.
- The late morning and afternoon NCRTD runs have changed time to meet the Rail Runner and Los Alamos buses.

Bus Stops

The bus stops are illustrated on Figure 2-7. Most buses will operate at the key stops and timing points (Española, Pojoaque, Camel Rock and stops in Santa Fe) some will run express and make very limited stops and one A.M. southbound and a P.M. northbound peak hour trip will be all stops. Additional (non-timed) stops should be placed:

- At the intersection of U.S. 285 and Nambé Rd.
- At the intersection with County Rd. 109N/Camino Las Joyas.

Figure 2-7: Route 200 Santa Fe





These stops are at signaled intersections and have safe pedestrian access. These stops should be available for all routes that pass through. Since they are at the street, the bus will not stop unless riders want to board or alight. It is also possible to stop on the shoulders pursuant to NMDOT approval.

Transfers and Timed Meets

There are multiple opportunities for this corridor to offer timed transfers to ensure seamless travel throughout much of the region. First, most buses will be timed to be in Española Transit Hub on the hour or half hour to maximize timed meets. This activity will allow NCRTD to offer more rapid and convenient service throughout the region. Following are the timed meets:

- **Rail Runner** - Timed connects on an A.M. and P.M. run,
- **Pojoaque Park and Ride** - The San Ildefonso, Los Alamos and Pojoaque/Nambé routes will all have timed meets with NCRTD or Park and Ride buses as appropriate,
- **Española Park and Ride** - Timed to multiple routes on the half hour (can include: Santa Clara, El Rito, Chama, Taos, and Chimayo. Local Española Service will meet each corridor bus; and
- It is possible to interline with the Española/Taos route to provide a one-seat ride from Taos to Santa Fe.

Service Impact - Performance

The level of service in this corridor will not change significantly; however, schedules will be adjusted to allow for seamless transfers at many transfer points. Further, two routes (Tesuque and Santa Clara) operate some service in this corridor and those runs will be included in the schedule, adding a number of additional options for riders. New timed meets, additional stops and express service will also encourage ridership. Table 2-7 describes the latest performance for this route and the Santa Fe portions of the Santa Clara and Tesuque routes.

Table 2-7: Rt. 200 Santa Fe Route Revisions

	FY13	Revised	% Change
Service Hours	2,250	2,250	0.00%
Service Miles	49,152	49,152	0.00%
Ridership	25,341	-	-
One-Way Passenger Trips per Hour	11	-	-
Average MPH	20	20	-
Cost	\$171,000	\$171,000	0.00%

Cost Impact

The service hours and costs will remain virtually unchanged.





Rt. 210 - Pojoaque-Pueblo

This underperforming route operates in an area not suited to fixed route. The meandering circuitous nature of the streets makes fixed route service problematic. Further, this route does not meet the requirements of the Americans with Disabilities Act (ADA). The timing of the route covers the morning rush hour, but does not cover the evening rush hour. There are about seven service hours daily. Ridership dropped 20 percent between 2011 and 2012 to about 1.5 one-way trips per hour.

Service Changes

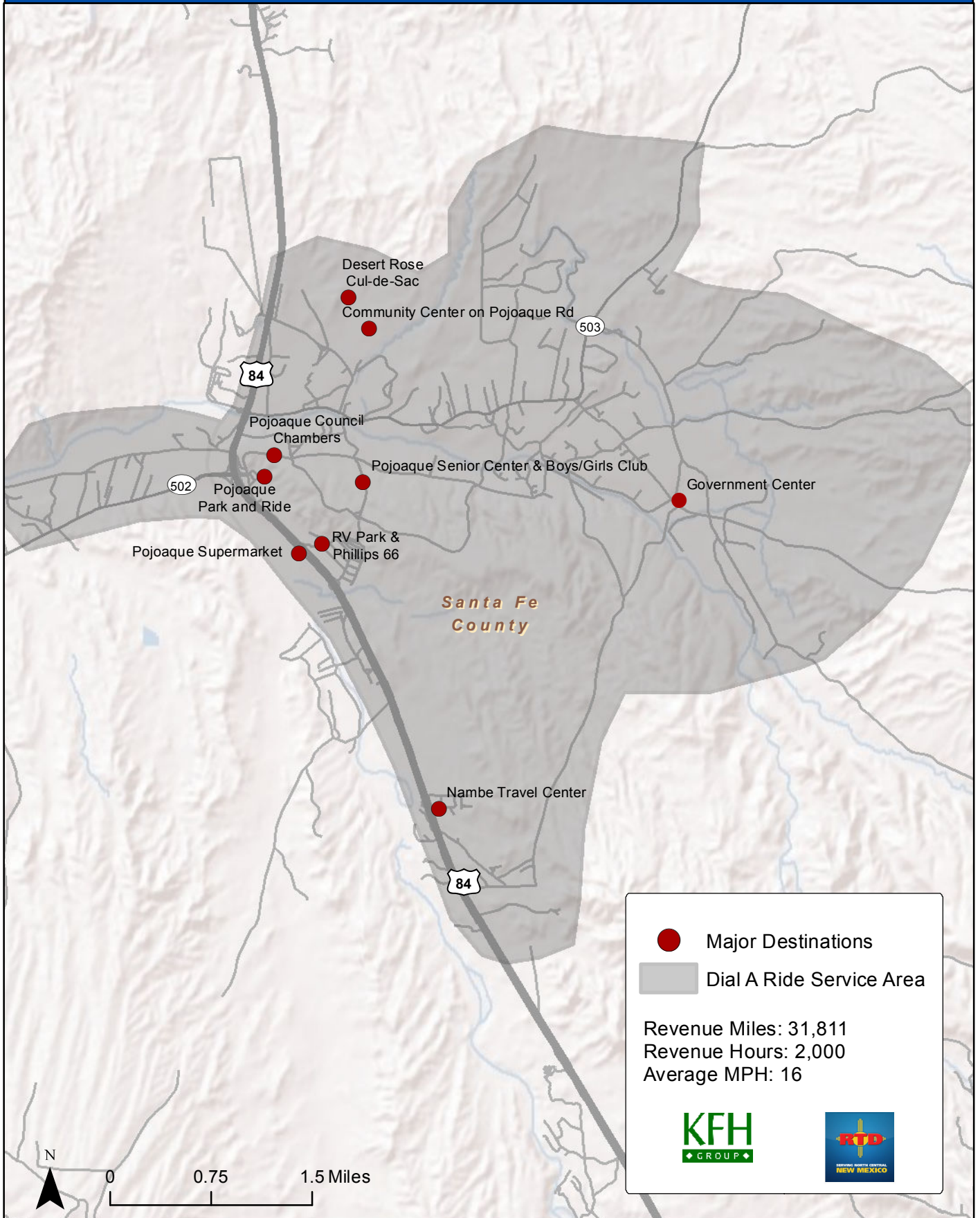
This route will be changed from an ineffective fixed route to a dial a ride where customers can call up to one - two hours before the trip. Dial a ride service is more suited to this service area and will offer a more flexible service for riders (Figure 2-8). There will be two types of trips. The first is standing order trips where customers apply for a standing order for a regular trip that always goes at the same time on the same day. For example, commuters may want to set up standing order trips five days a week for their morning and evening commute trip to the Pojoaque Park and Ride facility. Another example is a person who has medical treatments one day per week at the same time. Standing order trips are set in the schedule and customers only have to call if they are cancelling their trip. The second type of rider will be the dial a ride riders who call shortly before the trip. The dispatcher will use the new software that will be implemented in the near future.

The second part of this change is a revision to the schedule (with no additional service hours). The schedule should allow for morning and evening commuters with service starting at 6:30 a.m. in order to meet a Santa Fe/Española corridor bus. The service can operate, for example: 6:30 a.m. to 9:30 a.m., 11:00 a.m. to 1:00 p.m. and 4:00 p.m. to 6:30 p.m. or 6:30 a.m. to 10:00 a.m. and 3:00 p.m. to 6:30 p.m. This could allow for ample time for local shopping or longer distance needs.

Bus Stops

Dial a ride services like ADA paratransit does not have designated bus stops. The bus stops at the requested origin or destination. The bus will not stop in an area that is unsafe, inaccessible or where unsafe backing up is necessary.

Figure 2-8: Route 210 Pojoaque Pueblo





Transfers and Timed Meets

Transfers will be available at the Pojoaque Park and Ride facility at the request of passengers. Transfers are available for direct service to Santa Fe, Española, and Los Alamos.

Service Impact - Performance

Dial a ride will provide more convenient, flexible service for riders. There will be shorter ride times and convenient transfer opportunities for commuters to both Blue Buses and Park and Ride service. The revised service hours will also attract new riders. Overall, it is anticipated that ridership will improve up to 25 percent in the first year. Table 2-8 describes the FY13 performance for this route and compares the basic route data with the routes in the plan.

Table 2-8: Rt. 210 Pojoaque Pueblo Route Revisions

	FY13	New	% Change
Service Hours	2,000	2,000	0.00%
Service Miles	31,811	31,811	0.00%
Ridership	1,459	-	-
One-Way Passenger Trips per Hour	1	-	-
Average MPH	16	16	-
Cost	\$152,000	\$152,000	0.00%

Cost Impact

These changes have no impact on cost.



Rt. 220 – Tesuque Pueblo

The Tesuque service operates as a circulator between Tesuque and Santa Fe, just to the south. One peak P.M. northbound trip operates between the Santa Fe and the Española Transit Hub. The service operates about 8 hours daily.

Service Changes

The only actual change to this route would be to start the route in Española as an all stops (local) bus to Santa Fe, adding a segment between Camel Rock and Española (Figure 2-9). All other services will remain the same. The only other change is to have the A.M. and P.M. local service between Española and Santa Fe included on the Rt. 200 schedules as well as the Tesuque schedules.

Bus Stops

The bus stops will remain the same.

Transfer and Timed Meets

This bus will allow transfers to the Santa Fe system at Sheridan St., Rail Runner and for the one trip each way to Española, a timed meet with the Española Routes.

Service Impact - Performance

This route will remain relatively stable with possible increases from the enhanced commuter connections. Table 2-9 describes the FY13 performance for this route and compares the basic route data with the routes in the plan.

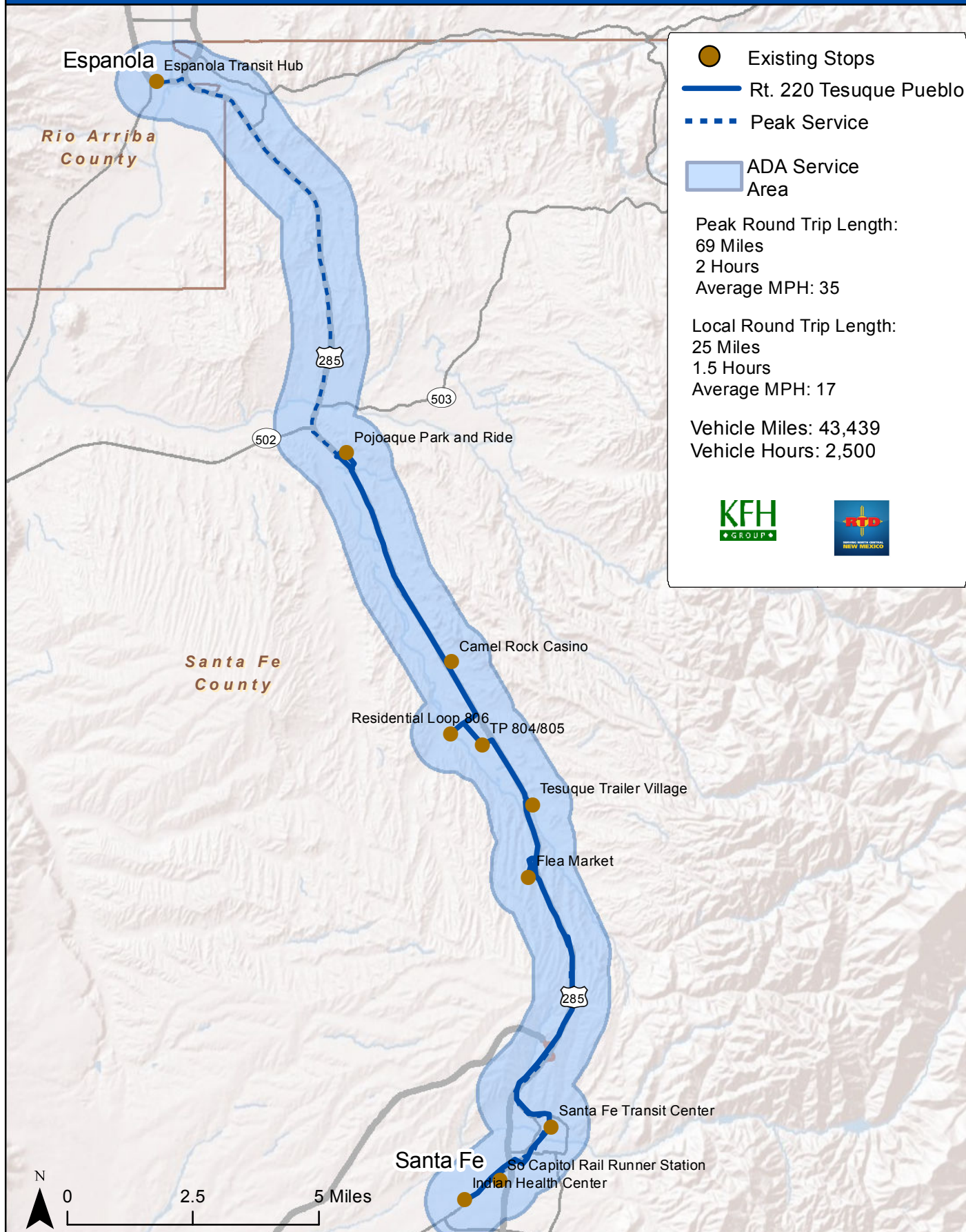
Table 2-9: Rt. 220 Tesuque Pueblo Route Revisions





	FY13	New	% Change
Service Hours	2,500	2,500	0.00%
Service Miles	43,439	43,439	0.00%
Ridership	7,487	-	-
One-Way Passenger Trips per Hour	3	-	-
Average MPH	17	17	-
Cost	\$190,000	\$190,000	0.00%

Cost Impact

The service hours and costs will remain unchanged.

Figure 2-9: Route 220 Tesuque Pueblo





-  Existing Stops
-  Rt. 220 Tesuque Pueblo
-  Peak Service
-  ADA Service Area

Peak Round Trip Length:
 69 Miles
 2 Hours
 Average MPH: 35

Local Round Trip Length:
 25 Miles
 1.5 Hours
 Average MPH: 17

Vehicle Miles: 43,439
 Vehicle Hours: 2,500



Rt. 230 - San Ildefonso Pueblo

The San Ildefonso route operates two round trips to the Pojoaque Park and Ride in the morning and two in the evening to meet commuter needs for residents needing access to Santa Fe or Española. There is no mid-day service. The service starts at the visitor center and does not enter the pueblo at this time.

Service Changes

The changes to this route will include additional stops in the Pueblo and along Rt. 30 at Avanyu and along O Toh Nah Po at the northern end of the pueblo (Figure 2-10). This will add about 40 minutes to each round trip, however cutting out five minutes of scheduled slack time each hour will reduce the added time to 30 - 35 minutes. Adding about 500 hours annually to this route.

The second change will adjust the schedule to maximize timed transfers at Pojoaque Park and Ride. Service times will be anchored by these meets to the greatest extent possible.

Bus Stops

This route will see a significant change in the number of bus stops. First, all the stops on Rt. 502 as discussed for Rt. 400 Los Alamos will be available for this route. In addition, there will be two stops on Rt. 30 to include Avanyu and along O Toh Nah Po off of Rt. 30. In addition, there should be two stops within the Pueblo near the government offices and at the senior center.

Transfers and Timed Meets

All transfers for this route will be at the Pojoaque Park and Ride facility. The route timing will be determined based on the potential to meet Santa Fe and Española buses, to allow for access to these cities.

Service Impact - Performance

This route can see ridership gains from the added stops along the route and assured timed meets for buses both north and southbound. Table 2-10 describes the FY 13 performance for this route and compares the basic route data with the routes in the plan.

Figure 2-10: Route 230 San Ildefonso Pueblo

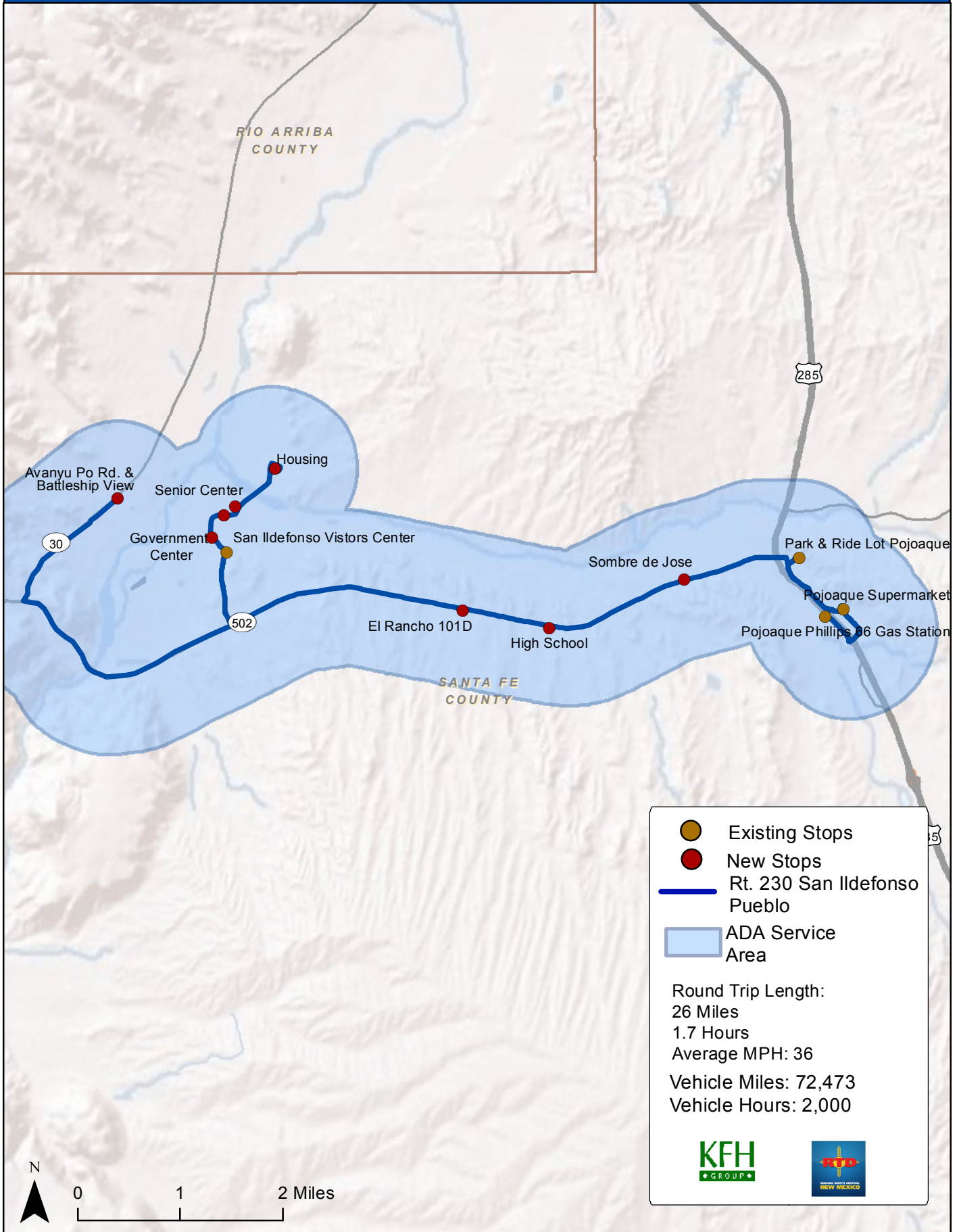




Table 2-10: Rt. 230 San Ildefonso Pueblo Route Revisions

	FY13	New	% Change
Service Hours	1,500	2,000	33.33%
Service Miles	54,491	72,473	33.00%
Ridership	3,348	-	-
One-Way Passenger Trips per Hour	2	-	-
Average MPH	36	36	-
Cost	\$114,000	\$152,000	33.33%

Cost Impact

The service hours and costs will increase 500 hours needed to serve Rt. 30. Each round trip takes an extra 30 – 40 minutes and with the elimination of slack in the route, this addition will cost about \$38,000.



Rt. 270 – Turquoise Trail

Up until July 2014, this was a commuter route that served employment sites near the 599 Rail Runner station. This was a short and productive route that operated limited hours. In July, RTD added off peak service to Madrid (Figure 2-11). The service now operates to Madrid with a round trip at about 11:00 a.m. and a return trip to Madrid leaving Santa Fe Trails transfer center at 4:30 p.m.

This route change is still relatively new and will need time to mature. No changes are recommended at this time. Management should review ridership weekly to determine its effectiveness.

Bus Stops

It is recommended that some of the timing points be eliminated and management should monitor the on-time performance and adjust accordingly.

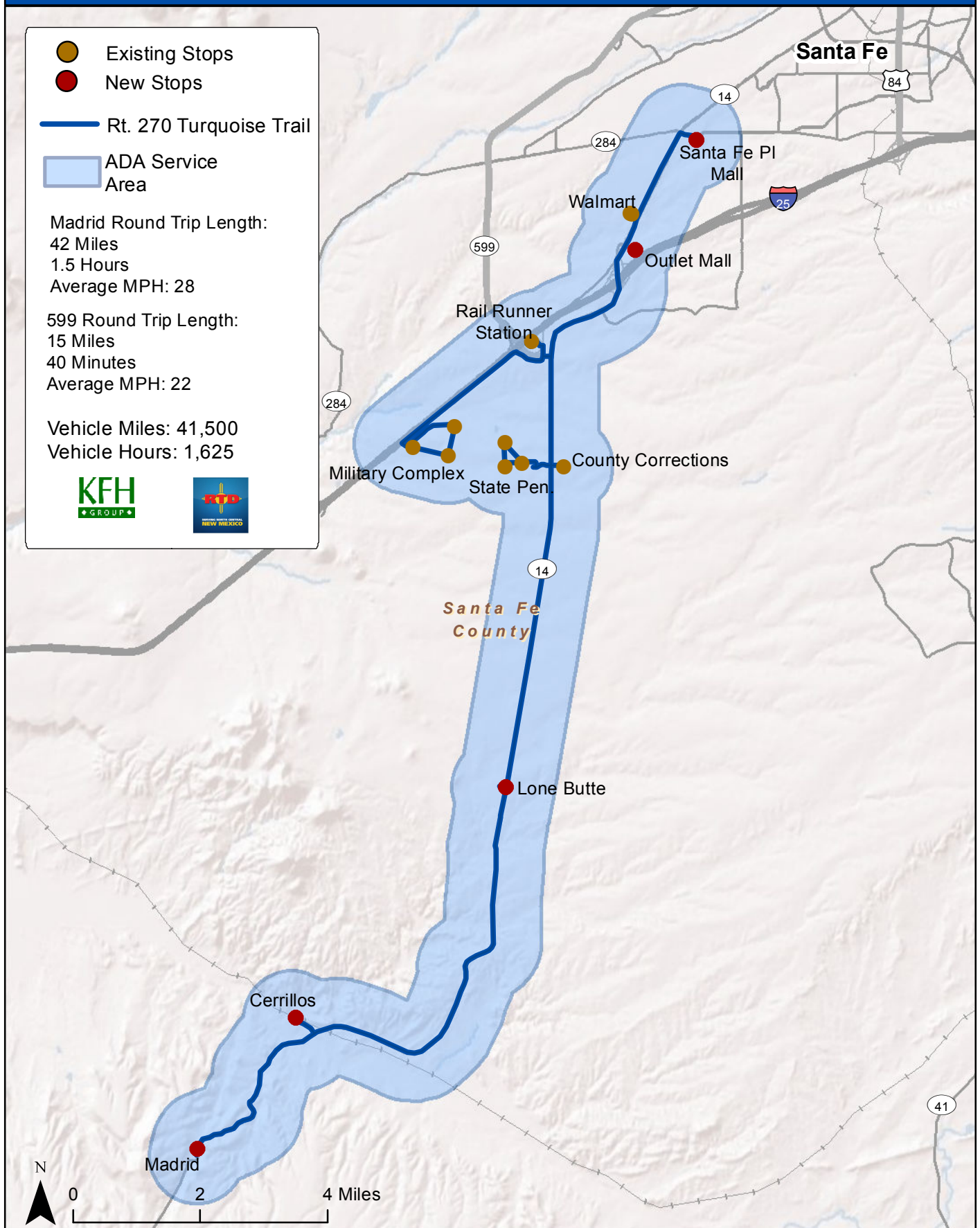
Service Impacts – Performance

No Changes.

Cost Impact

No Changes.

Figure 2-11: Route 270 Turquoise Trail





Rt. 280 - Eldorado

This route serves suburban Santa Fe in a community south of Santa Fe alongside U.S. Rt. 285. There are six round trips daily – three in the morning from 7:00 a.m. to 10:45 a.m. and three in the afternoon from 2:30 p.m. to 6:30 p.m. – about eight hours of service daily. The Eldorado’s first run in the morning and last in the evening duplicate the Edgewood route.

Service Changes

The current service sees most ridership on the first and last trips of the day – commuter service (Figure 2-12). For the short term, the route will remain the unchanged with the exception of a mid-day time adjustment in order to combine with the Edgewood route for one mid-day round trip. It should be noted that the Edgewood mid-day round trip is on a six- month trial, therefore this change should also be on a six-month trial. Combining routes may help to boost ridership and give these routes a chance to thrive. Other than the timing change, El Dorado riders will see no changes.

The longer term objective will be to combine the first northbound run, the mid-day run, as well as the last run southbound with Edgewood, eliminating the cost of most of the Eldorado service with no reduction in service levels or quality.

Bus Stops

No additional stops.

Transfers and Timed Meets

This route will meet Santa Fe Trails and NCRTD buses at Sheridan Street.

Service Impact - Performance

The level of service in this corridor will not change, however schedules will be adjusted to share resources and provide more effective ride times for riders. This route will be combined with the Edgewood route for one daily round trip.

Table 2-11 describes the FY13 performance for this route and compares the basic route data with the route in the plan. The combination of a mid-day run with the Edgewood route will not affect the cost of the Eldorado route.

Figure 2-12: Route 280 Eldorado

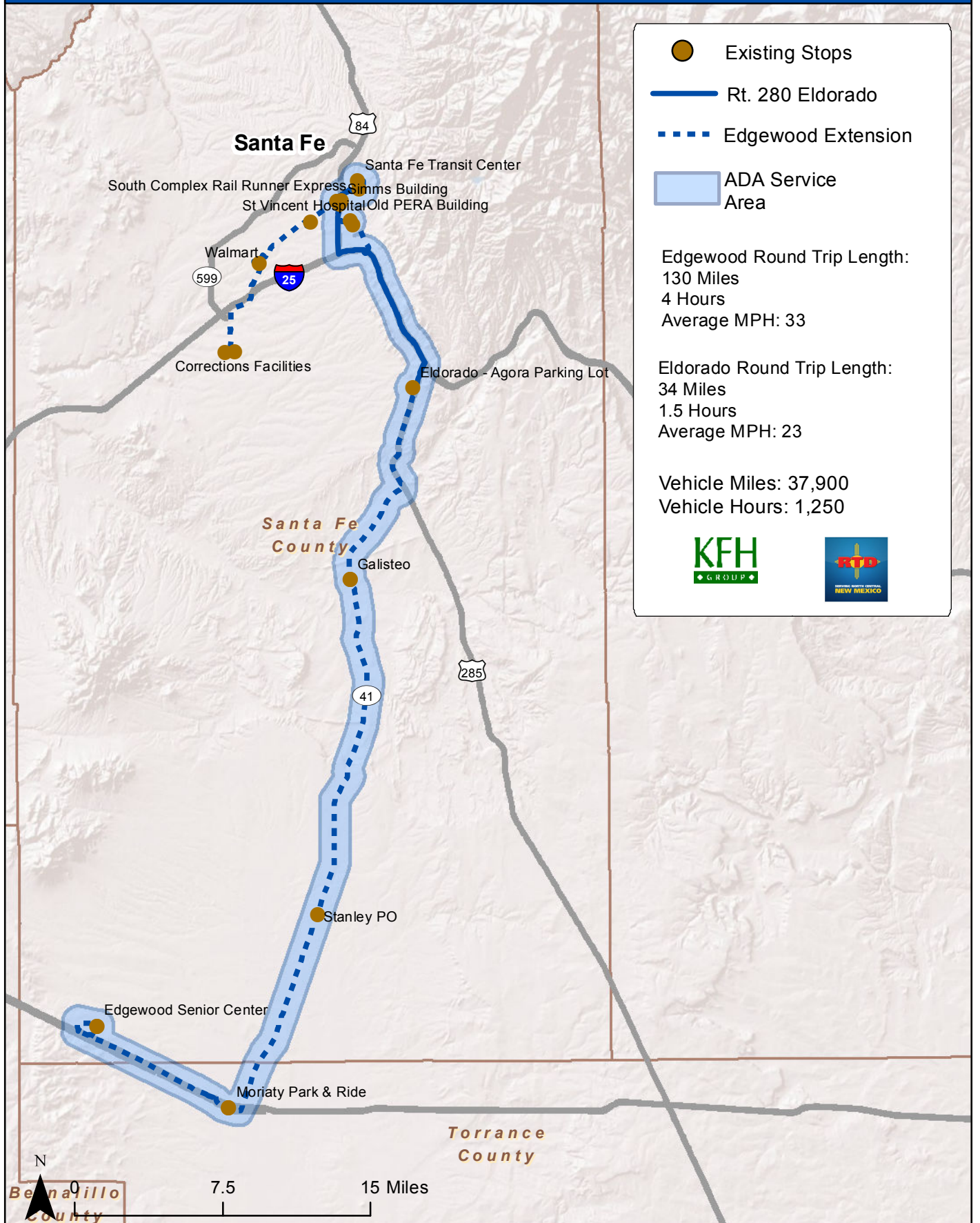




Table 2-11: Rt. 280 Eldorado Route Revisions

	FY13	New	% Change
Service Hours	2,000	2,000	0.00%
Service Miles	50,533	50,533	0.00%
Ridership	14,610	-	-
One-Way Passenger Trips per Hour	7	-	-
Average MPH	25	25	-
Cost	\$152,000	\$152,000	0.00%

Cost Impact

The service hours and costs will remain unchanged.



Rt. 290 - Edgewood

The Edgewood route consists of one northbound trip for the morning commute and one southbound trip for the evening commute (Figure 2-13). This route has good ridership and now uses one of NCRTD's biggest buses. There is also a need for additional bike racks and/or destination based bicycle storage.

This route uses a driver who then goes to their regular job during the day. The bus stays in Santa Fe during the day. The driver lives in the Edgewood area and there is no deadhead costs. Without a driver-rider (who is paid for their time), the deadhead would double the costs of the route. The mid-day round trip would use a different driver and a smaller vehicle.

Service Changes

The primary need voiced for this route is a mid-day return option. This mid-day service should be combined with the Eldorado route's mid-day round trip to reduce costs without reducing service or quality. The increase in cost for the mid-day run can be reduced if the mid-day run is combined with the Eldorado route (also serving Eldorado).

Bus Stops

The bus will stop at Eldorado.

Transfers and Timed Meets

This route will meet Santa Fe Trails and NCRTD buses at Sheridan Street.

Service Impact - Performance

The service in this corridor will add a mid-day run that may generate low ridership, but can help enhance use of the route during peak hours as riders would now have a mid-day return option. Further by combining the mid-day run with El Dorado it can boost ridership at a time that usually sees low ridership.

Table 2-12 describes the FY13 performance for this route and compares the basic route data with the routes in the plan. As with Rt. 280 Eldorado, the combining of the two routes will increase the productivity and ridership, freeing resources for the six-month mid-day trial.

Figure 2-13: Route 290 Edgewood

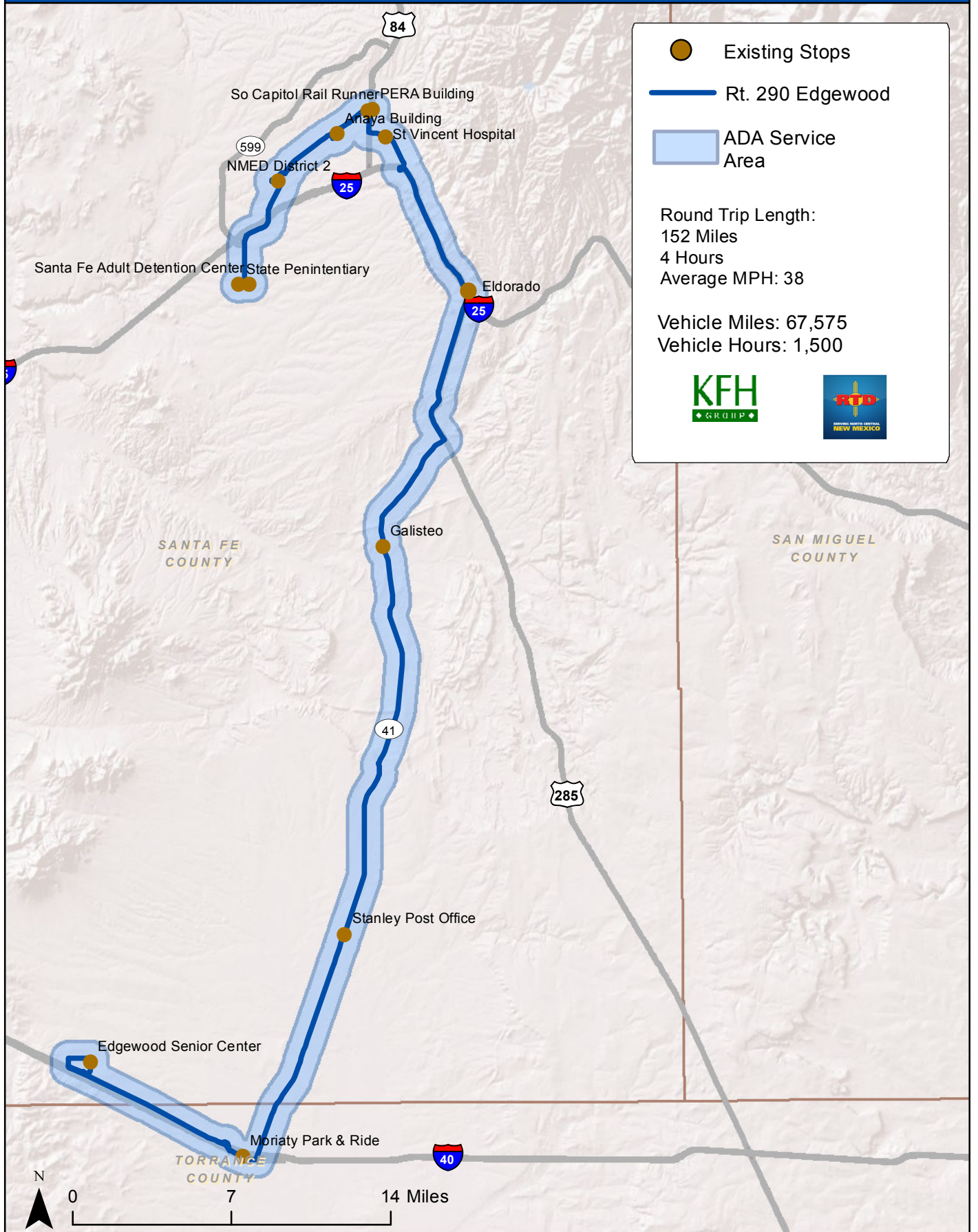




Table 2-12: Rt. 290 Edgewood Route Revisions

	FY13	New	% Change
Service Hours	1,250	1,500	20.00%
Service Miles	54,575	67,575*	23.82%
Ridership	14,610	-	-
One-Way Passenger Trips per Hour	12	-	-
Average MPH	44	45	-
Cost	\$95,000	\$114,000	20.00%

**Additional mileage is calculated from El Dorado to Edgewood and return*

Cost Impact

The additional mid-day run will increase annual costs by \$19,000.



Rt. 300 - Taos

There are three round trips on this route. One very early roundtrip gets very little ridership on the southbound run. The second trip follows right behind the first and the last trip arrives back in Taos after 7:00 p.m. There are nine hours of daily service.

Service Changes

The first change is to route the bus onto Fairview when in Española for service to Railroad Avenue and a stop at the college. All buses would follow this routing in both directions, giving access to college students on each run (Figure 2-14).

The second change would be to revise the schedules. To target commuters to Española and beyond the first bus would start at 6:00 a.m. or 6:30 a.m. This first bus would be timed to meet a 7:30 a.m. or 8:00 a.m. Santa Fe bus. The evening bus, leaving at 6:00 p.m., would also have timed meets. There would also be a mid-day round trip as well from 11:00 a.m. from Española with a return from Taos at 2:00 p.m.

Bus Stops

Additional bus stops will be south of Velarde and in some areas stops will be every mile. This route will also use all stops in the Española area along the roads traveled by this route. No additional timing points are needed with the exception of Velarde.

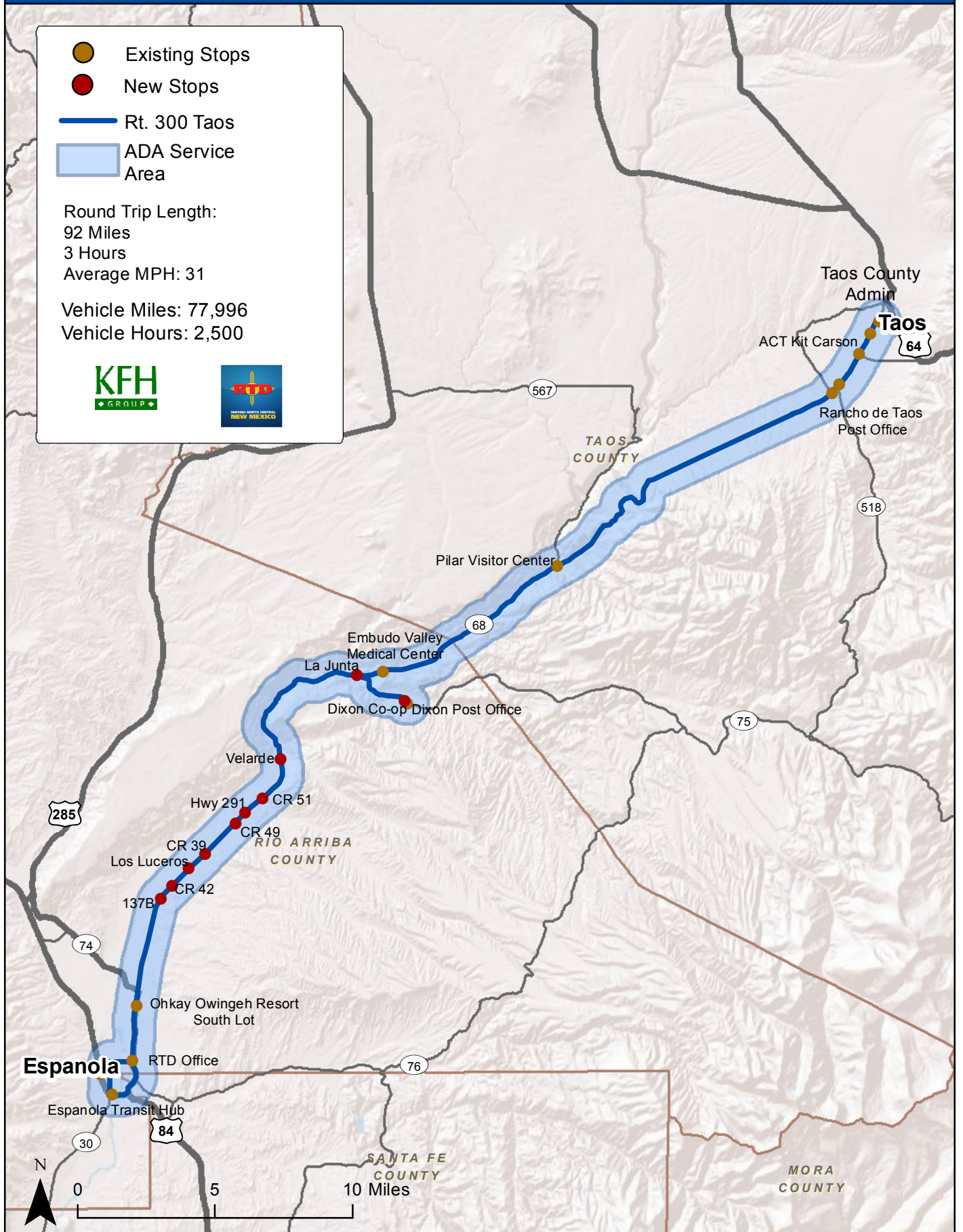
Transfers and Timed Meets

The Taos end of the route should be anchored by a transit connection and an appropriate park and ride lot within the Taos area. Where possible timed meets with Chile Line should be sought. There will be timed meets with Santa Fe buses and an interline is possible as well. However if the connections are seamless and rapid, the need for an interline is not as great.

Service Impact - Performance

The current schedules make it difficult for riders to use the service. The very early start time generates almost no ridership, where a route that starts later can still get

Figure 2-14: Route 300 Taos





people to Española and beyond for a morning and evening commute. The mid-day run will also be productive, especially between the cities. Communities such as Alcalde, Velarde, Dixon, and Embudo will now be able to take advantage of the service for shopping, medical, and other needs, as they will not have to stay in Española or Taos all day.

Table 2-13 describes the FY13 performance for this route and compares the basic route data with the routes in the plan. With the additional stops/opportunities and the new timing, it is anticipated that ridership will increase 10 - 20 percent.

Table 2-13: Rt. 300 Taos Route Revisions

	FY13	New	% Change
Service Hours	2,500	2,500	0.00%
Service Miles	77,996	77,996	0.00%
Ridership	10,525	-	-
One-Way Passenger Trips per Hour	4	-	-
Average MPH	31	31	-
Cost	\$190,000	\$190,000	0.00%

Cost Impact

The service hours and costs will remain unchanged.



Rt. 310 - Red River

The Red River Route links a small resort community to Questa and Taos. Red River itself has a one-vehicle demand response service that addresses internal needs. The service operates at the same level throughout the year, even though ridership falls off after March until November. Most of the ridership is directed eastbound from Questa in the morning and westbound to Questa on the return this indicates (and supported by interviews) that many of the trips are commuter oriented. The service operates six round trips with the first trip from Red River that requires a deadhead move from where the driver is based in Questa (Figure 2-15). The deadhead move is made three more times throughout the day. Including deadhead time there is about eight hours of service daily.

Service Changes

The changes will revolve around the following:

- Tightening the schedule that has five minutes slack every 25 minutes. Eliminating these breaks allows for more service for the same cost.
- Scheduling the deadhead moves – Since the driver is going anyway, it should be placed on the schedule.
- Reducing service during off-season.

By eliminating the five minutes at each end of the run (30 minutes) and by scheduling the deadhead moves from the driver's base and returning (two hours), the service could complete four round trips (eight in total) in the time that three trips are taken now (5:55 a.m. to 9:10 a.m.). This can be done in the morning and evening.

During off-peak season the service can still operate the to the current number of round trips in the morning and afternoon, reducing service three hours per day for the same amount of round trips. For seven months of off peak season, this savings comes to 440 hours.

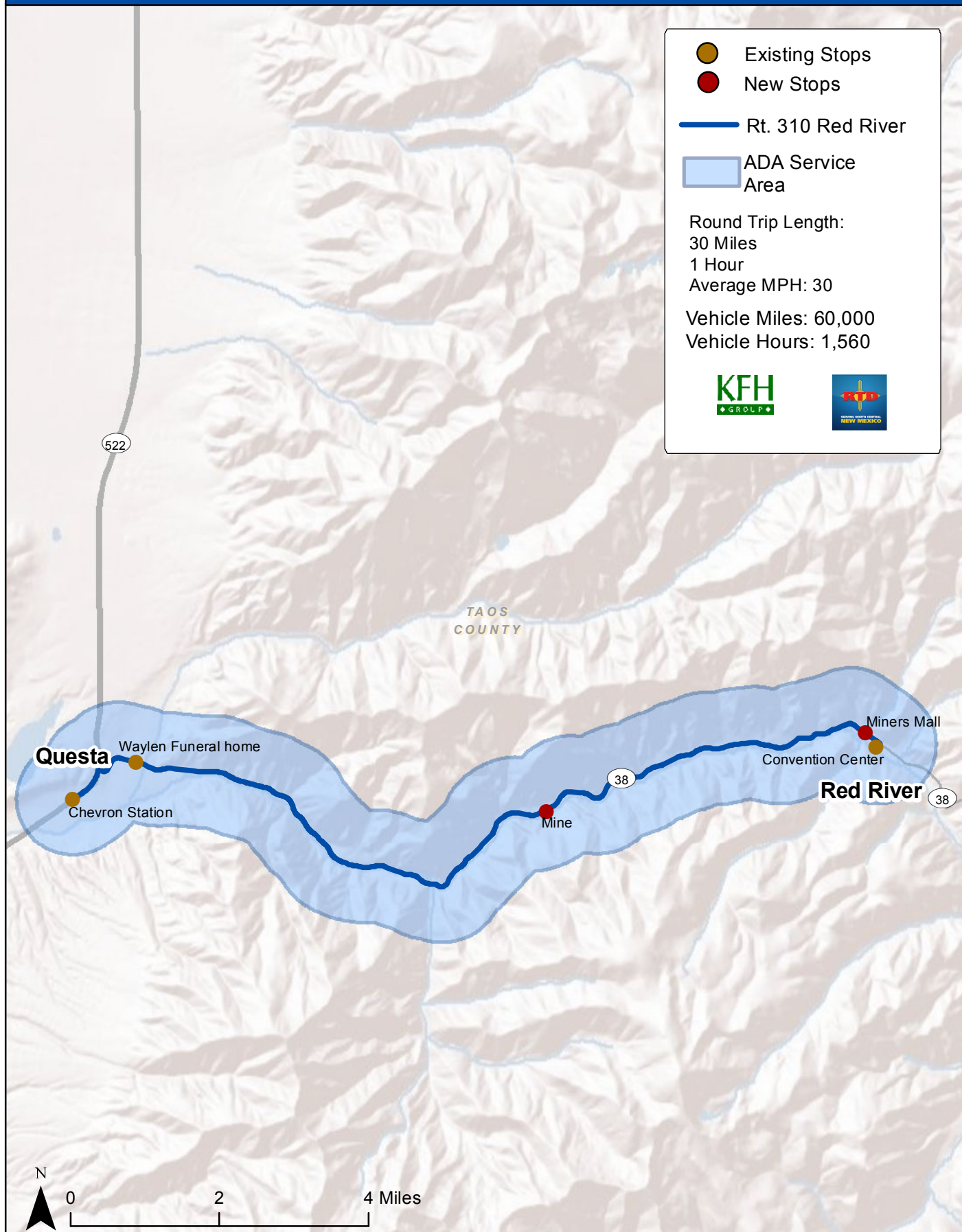
Bus Stops

One to two additional bus stops will be placed in Red River.

Transfers and Timed Meets

The schedules will be designed to provide a meet for westbound passengers to meet a Questa/Taos bus in the morning and the reverse in the evening.

Figure 2-15: Route 310 Red River





Service Impact - Performance

By better utilizing all of the hours available, this route can add a round trip during peak season for the same amount of hours. This can generate additional ridership through more service and faster running times. Off-peak service will have its hours reduced, but not the number of round trips (from the current level). This keeps a good level of service for Red River while reducing costs in the off-peak season. Table 2-14 describes the FY13 performance for this route and compares the basic route data with the routes in the plan.

Table 2-14: Rt. 310 Red River Route Revisions

	FY13	New	% Change
Service Hours	2,000	1,560	-22.00%
Service Miles	45,000	60,000	33.33%
Ridership	5,334	-	-
One-Way Passenger Trips per Hour	3	-	-
Average MPH	23	30	-
Cost	\$152,000	\$123,240	-18.92%

Cost Impact

The service hours and costs will remain the same during peak season, with an off peak reduction of three hours per day, 440 hours. This results in a cost reduction of \$28,760.



Rt. 320 - Questa

This route, primarily for commuters sees good ridership on the early A.M. and evening commuter trips. The northbound 7:30 p.m. run from Taos and its corresponding return to Taos however do not leave passengers with many options - either a 1 hour stay in Taos or 7.5 hours.

Service Changes

This route has the opportunity to provide far more service for the same number of hours by making a few simple changes. The route will operate the first southbound run as always, but it will not return to Questa at 7:45 a.m., as there typically are no riders (Figure 2-16). Instead, the bus will return northbound at 10:00 a.m. and proceed to conduct two round trips between 10:00 a.m. and 3:00 p.m. The last run will remain the same, leaving the Taos area at 5:30 p.m.

Bus Stops

The stops can remain as is for now with the addition of a stop in the vicinity of San Cristobal (Rt. 493).

Transfers and Timed Meets

There is and will continue to be a timed meet between the Questa and the Red River routes for the first and last Questa trips. This will not change. Other connections can be made with adjustments to the Red River route.

Service Impact - Performance

With no change in service levels, the service will now become more open to riders in the area for shopping, medical, and other needs in addition to commuting. Additional mid-day ridership is anticipated.

Table 2-15 describes the FY13 performance for this route and compares the basic route data with the routes in the plan. This will be followed by a brief discussion of expectations for this route highlighting basic performance data and measures for the first year of implementation.

Figure 2-16: Route 320 Questa

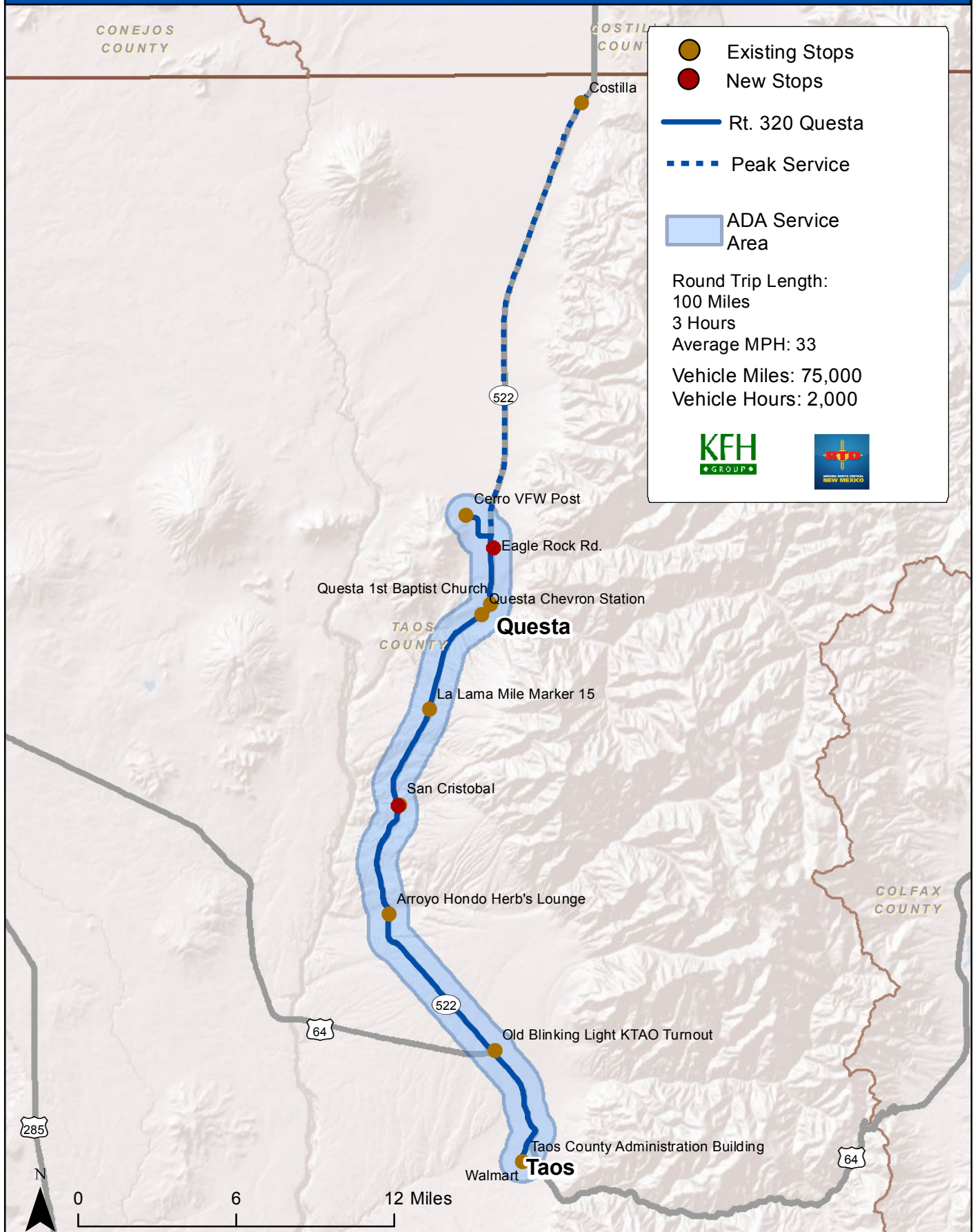




Table 2-15: Rt. 320 Questa Route Revisions

	FY13	New	% Change
Service Hours	2,000	2,000	0.00%
Service Miles	46,292	75,000	62.02%
Ridership	12,921	-	-
One-Way Passenger Trips per Hour	6	-	-
Average MPH	23	33	-
Cost	\$152,000	\$158,000	3.95%

Cost Impact

The service hours will remain unchanged. Due to the increase in miles, the annual cost will increase by \$6,000.



Rt. 330 - Penasco

The route as currently configured operates a northbound peak hour trip to Taos and then heads back to Las Trampas at a time when few would ride in that direction. The afternoon trip is essentially a deadhead move as well since few would ride to Taos in the afternoon with no way of getting back. In essence, there is a two-hour northbound run in the morning and a 1.5 hour southbound run in the evening. This 3.5 hours of service results in 6.5 service hours, with three hours of ineffective time.

Service Changes

The scheduling of the route should change, however finding service for that vehicle after arriving in Taos could be an issue. The second change would be to schedule a mid-day round trip to meet needs of riders that do not want to stay all day in Taos.

The second change is to add a stop at the Picuris Pueblo west of Penasco – this will add five to ten minutes to the trip, which could be offset by a reduction in stops in Taos and greater dependence on the Chile Line for circulation in Taos (Figure 2-17). Service will operate “closed door” within Taos, as northbound buses will only drop off passengers in Taos, while southbound buses will only pick up passengers, avoiding any trips internal to Taos as well as eliminating competition with the Chile Line.

Bus Stops

A stop will be added at the Picuris Pueblo.

Transfers and Timed Meets

Transfers will be available at the Chile Line Transfer point.

Service Impact - Performance

The level of service in this corridor will not change; however, schedules will be adjusted to meet the needs of riders for both commuter/all day needs to half-day needs for shoppers, those going to medical appointments and personal business that cannot ride at this time.

Table 2-16 describes the FY13 performance for this route and compares the basic route data with the routes in the plan. It is expected that ridership will increase 5 - 10 percent due to the changes.

Figure 2-17: Route 330 Penasco

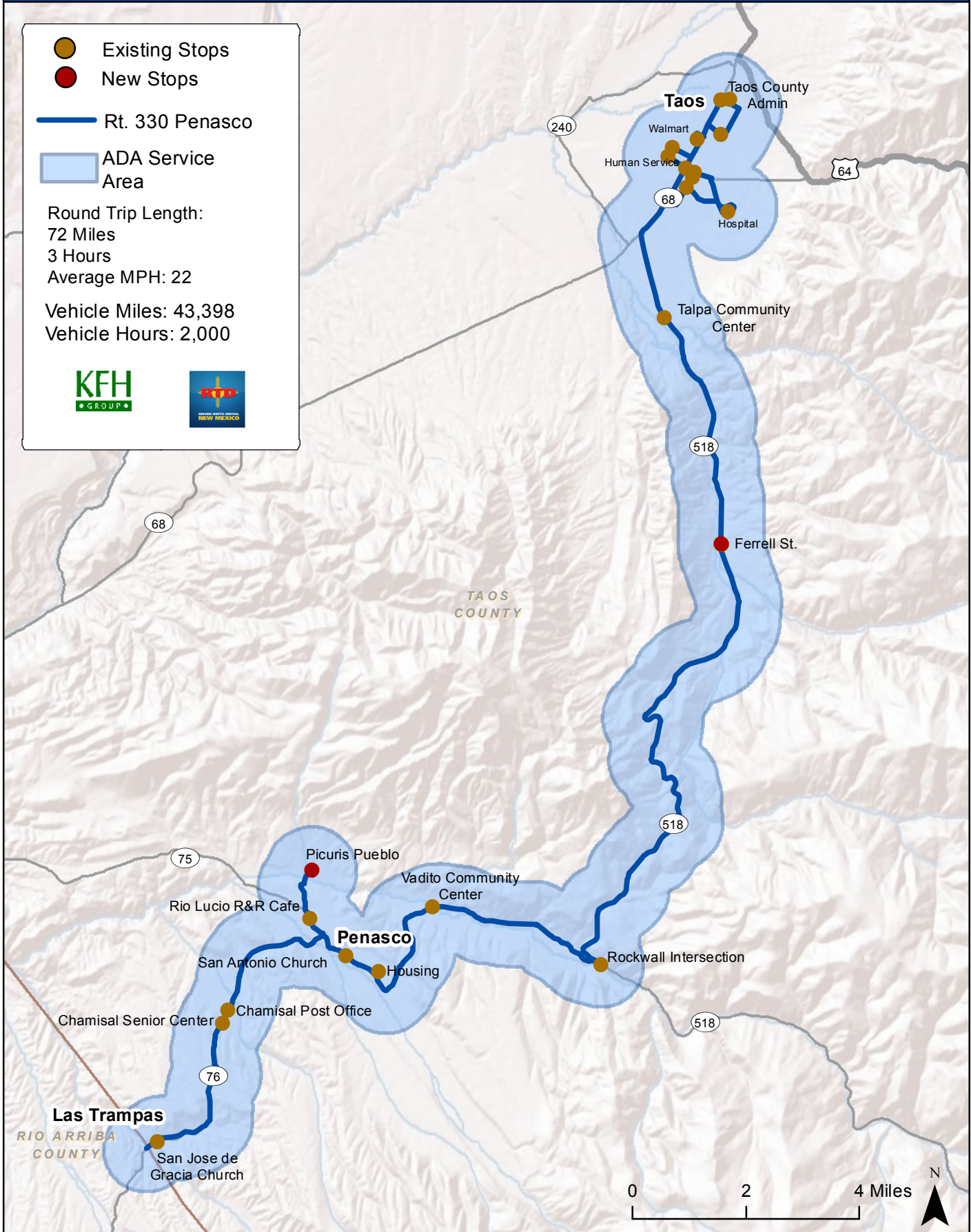




Table 2-16: Rt. 330 Penasco Route Revisions

	FY13	New	% Change
Service Hours	2,000	2,000	0.00%
Service Miles	43,398	43,398	0.00%
Ridership	9,192	-	-
One-Way Passenger Trips per Hour	5	-	-
Average MPH	22	22	-
Cost	\$152,000	\$152,000	0.00%

Cost Impact

The service hours and costs will remain the same.



Rt. 400 Los Alamos – Española and Rt. 410 Los Alamos – Pojoaque (LA-E/LA-P)

This route is designed to provide midday service to and from Los Alamos from Española and Pojoaque during hours when the Park and Ride service does not operate. It is proposed that the hours of service be revised to better meet needs and provide a southbound connection at Pojoaque to Santa Fe at 12:20 p.m.

Service Changes

The service hours will be revised to better meet the needs of riders. Service will start in Española at 11 a.m., travel to Los Alamos, departing Los Alamos about noon and offering service to Pojoaque for a timed meet with a southbound Santa Fe bus. The bus will then travel back to Los Alamos, followed by a last run to Española ending at 2 p.m. (Figure 2-18). The Park and Ride service starts again at Pojoaque at 2:53 p.m. and Los Alamos at 3:28 p.m. The route will now serve the Los Alamos urban core on Rt. 502.

Bus Stops

There is a significant need for service along Highway 30 and 502. There should be stops along Rt. 30:

1. Battleship View,
2. Red Clay Rd. (timing point),
3. Wagon Rd.; and
4. Kee St.

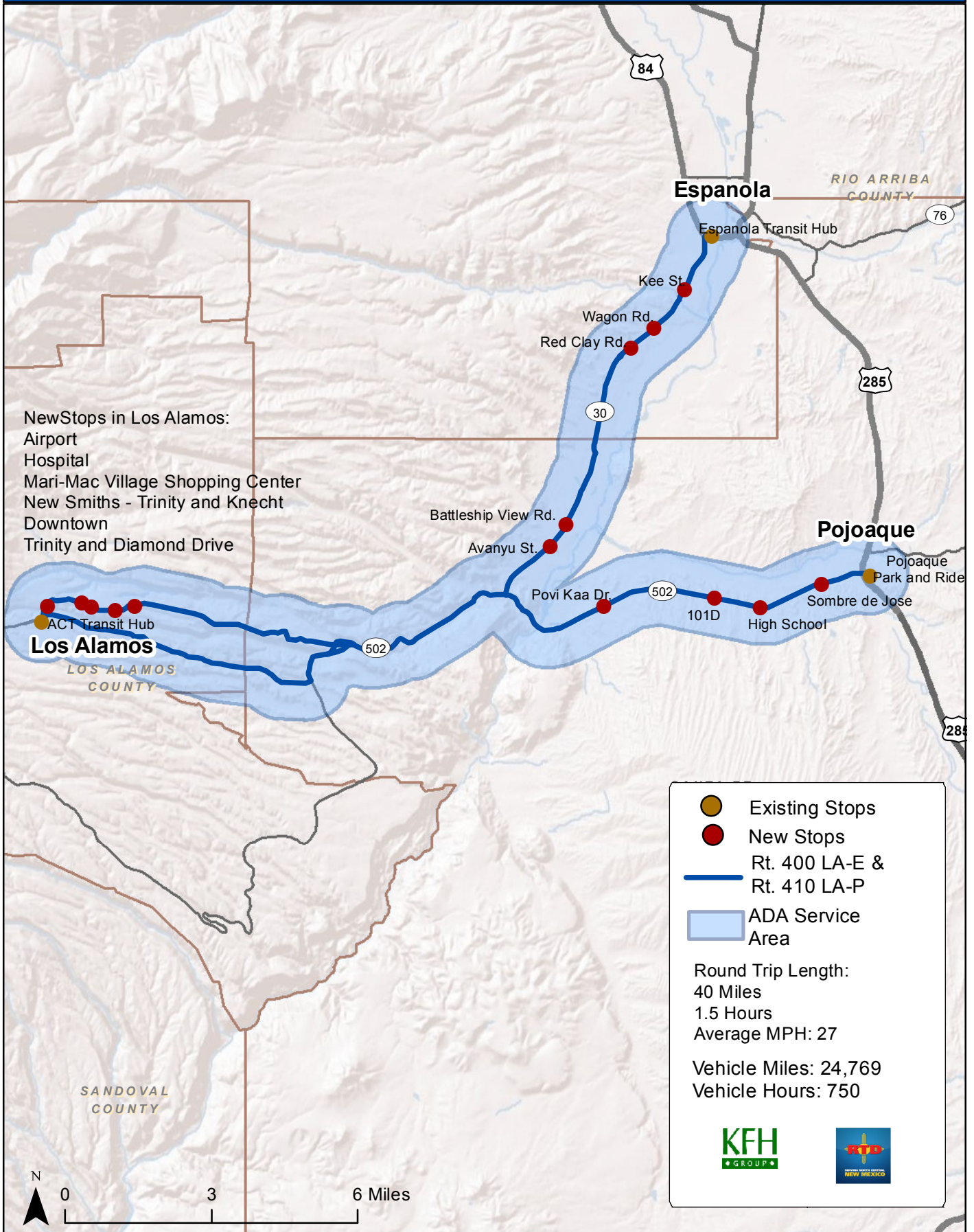
The stops along Rt. 502 should be as follows:

1. Sombre de Jose,
2. CR. 101E/High School,
3. CR. 101D (timing point),
4. Povi Kaa; and
5. Entrance to San Ildefonso.

There will also be a new set of stops within Los Alamos including:

1. The airport,
2. Hospital,
3. Mari Mac Village Shopping Center,
4. Trinity and Knecht (new mall)
5. Downtown; and
6. Trinity and Diamond Dr.

Figure 2-18: Route 400 LA-E and Route 410 LA-P





These stops will provide access to the system for persons that reside along the route. It is recommended a stop along each highway’s mid-point should be a timing point.

Transfers and Timed Meets

This route is dependent on the ability of riders to transfer to another route or another system. Each connection at the Española Transit Hub will be met by the local Española Routes. There will also be a timed meet in Pojoaque for mid-day service to Santa Fe from Los Alamos. The route will also connect to the Atomic City Transit Center.

Service Impact - Performance

The level of service in this corridor will not change significantly; however, schedules will be adjusted to allow for greater use of the service. It will also allow for extended stays in Española or Los Alamos with one leg of the trip using Park and Ride services. This route will never be a high ridership route as the travel between these cities at mid-day is light and this route serves more to complement the Park and Ride service by offering a mid-day return. While this route may gain a little ridership, if marketed by Park and Ride (and placed on their schedule) that service may also see a slight increase in riders. Table 2-17 describes the FY 13 performance for this route and compares the basic route data with the changes proposed in the plan.

Table 2-17: Routes 400 and 410 Los Alamos Route Revisions

	FY13	New	% Change
Service Hours	1,000	750	-25.00%
Service Miles	33,026	24,796	-24.92%
Ridership	1,459	-	-
One-Way Passenger Trips per Hour	1	-	-
Average MPH	33	27	-
Cost	\$76,000	\$57,000	-25.00%

Cost Impact

The reduction in service hours will result in a \$19,000 savings annually.



PARATRANSIT

NCRTD operates paratransit service in the Española area (Figure 2-19), both in support of ADA as well as for these areas currently not served by fixed route. The purpose of ADA paratransit is to meet the needs of those that cannot use fixed route because of a disability. As fixed route improves, NCRTD should see a reduction in use of ADA paratransit. This service is the only form of public transit that strives for fewer riders rather than more riders. The objective is to place as many riders on the fixed route as possible.

Service Changes

This service will see a number of modifications. First as the availability of fixed route transit increases, NCRTD should see a reduction in use of paratransit. Management and staff must pursue opportunities to get riders to use the fixed route service rather than the far more expensive paratransit. The other change will include deploying vehicles and drivers that are coming in from another area (for example: Chama and El Rito) to operate in paratransit mode while otherwise laying over. These drivers would get their manifests electronically on their tablets or mobile data terminals. This and other implementation issues will be discussed in detail in the next chapter.

Service Impact - Performance

As stated above, it is anticipated that as fixed route expands, many more ADA and non-ADA riders will be able to use the fixed route service. The reduction of paratransit through greater use of fixed route should always be an objective of NCRTD.

Cost Impact

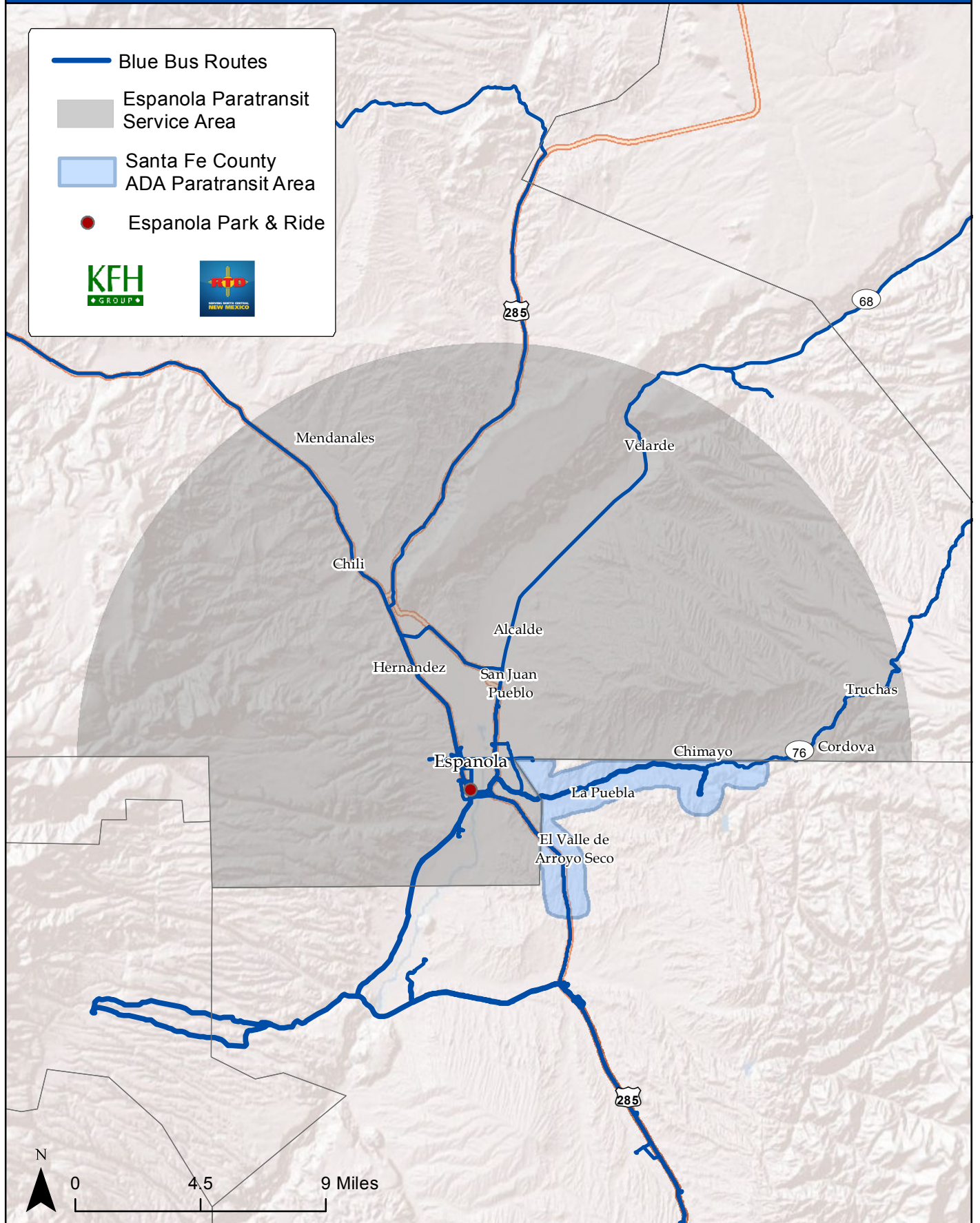
While difficult to calculate at this point, it is expected that ridership will remain stable and will not increase due to the expansion and greater utility of fixed route.

SERVICE ELIMINATED

Rt. 350 - UNM Taos Klauer

This route is a near duplicate of the Chile Line service operated by the Town of Taos. The only exception is that this route travels 1.5 miles further south to the campus. This route operates all year including when class is not in session generating almost zero ridership on those days. Overall, it has very low ridership and is in fact one of the poorest performing routes in the system.

Figure 2-19: Espanola Paratransit Service Area





This route should be turned over to Chile Line for compensation to extend their route 1.5 miles to UNM Klauer Campus. This service would only be extended when the Campus is open and active – about 210 days. A three-mile round trip extension every hour would result in about an additional 12 minutes each hour or about two hours per day.

Service Impact - Performance

This change will have little impact on overall ridership, but by consolidating service with Chile Line, will help their productivity, and lower their cost per trip.

Cost Impact

The route currently costs about \$153,216 annually (\$76 per hour times 2016 hours). Eliminating this route and transferring service to Chile Line (\$15,000 cost) will save \$138,216.

NEW SERVICES

There are two new services that will be implemented for a six-month trial. These routes are designed to provide limited service for shopping, medical, and other needs. These services can ultimately be expanded or eliminated based on route performance over the six-month period. It will be incumbent on NCRTD and community leaders to ensure that all residents are informed of these services and can take advantage of them.

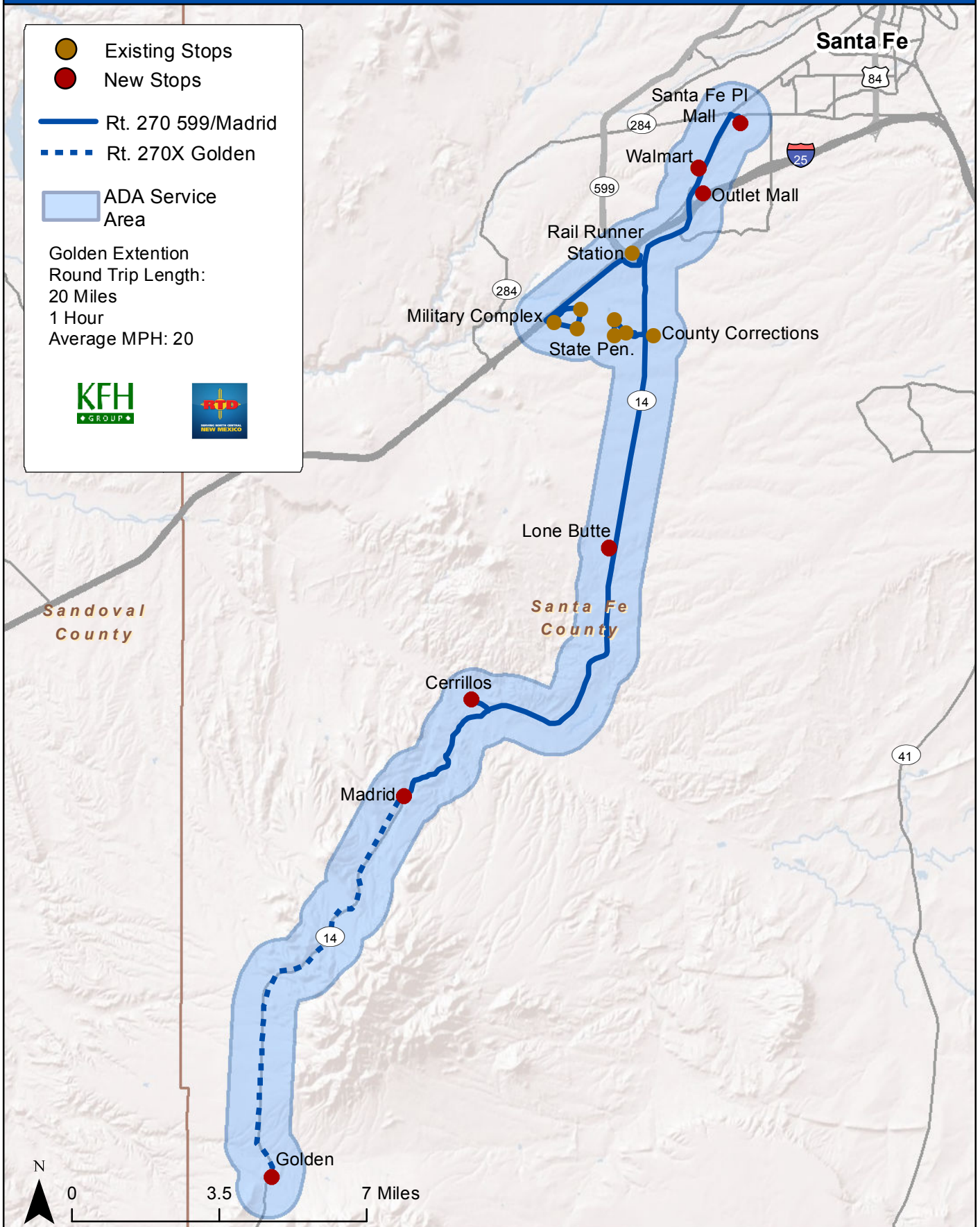
Rt. 270X - Golden Extension- Six-Month Trial

Golden is a small rural community about 10 miles south of Madrid. Madrid is now served by two round trips daily in the mid-day. This service will provide access from Golden into Santa Fe one day per week as an extension of the Madrid route (Figure 2-20). NCRTD will identify a stop with parking access. This would add 30 minutes to each leg of the round trip, or about \$76 per week - \$3,950 annually. This service will provide mid-day service into Santa Fe with stops at the outlet mall, Wal-Mart and the Santa Fe Place Mall/Transit Center.

Service Impact - Performance

While ridership will be light, as an add on to the Madrid route, it can help boost overall ridership. Adding two - three trips on a one way run will make the service viable.

Figure 2-20: Route 270X Golden Extension





Cost Impact

The cost of this service would be about \$3,950 per year to add it to the Madrid service.

Rt. 360 - Tres Piedras

Tres Piedras is a small community over 30 miles northwest of Taos. The potential ridership for a daily route is minimal. Tres Piedras can support a one day per week mid-morning/mid-afternoon trip for medical appointments, shopping, and personal business (Figure 2-21). It is recommended that a scheduled service start in Tres Piedras at 9:00 a.m. – 10:00 a.m. (utilizing a bus that would otherwise layover in Taos – the Rt. 320 – Questa for example). The return would be at 3:00 p.m. – 4:00 p.m. The vehicle would make designated stops in Taos at the County building, the hospital, Wal-Mart and other shopping areas. This would require two round trips at 2 hours each round trip.

Service Impact - Performance

Light ridership levels are anticipated; however, there is an untapped market for shopping, medical appointments, and other personal needs.

Cost Impact

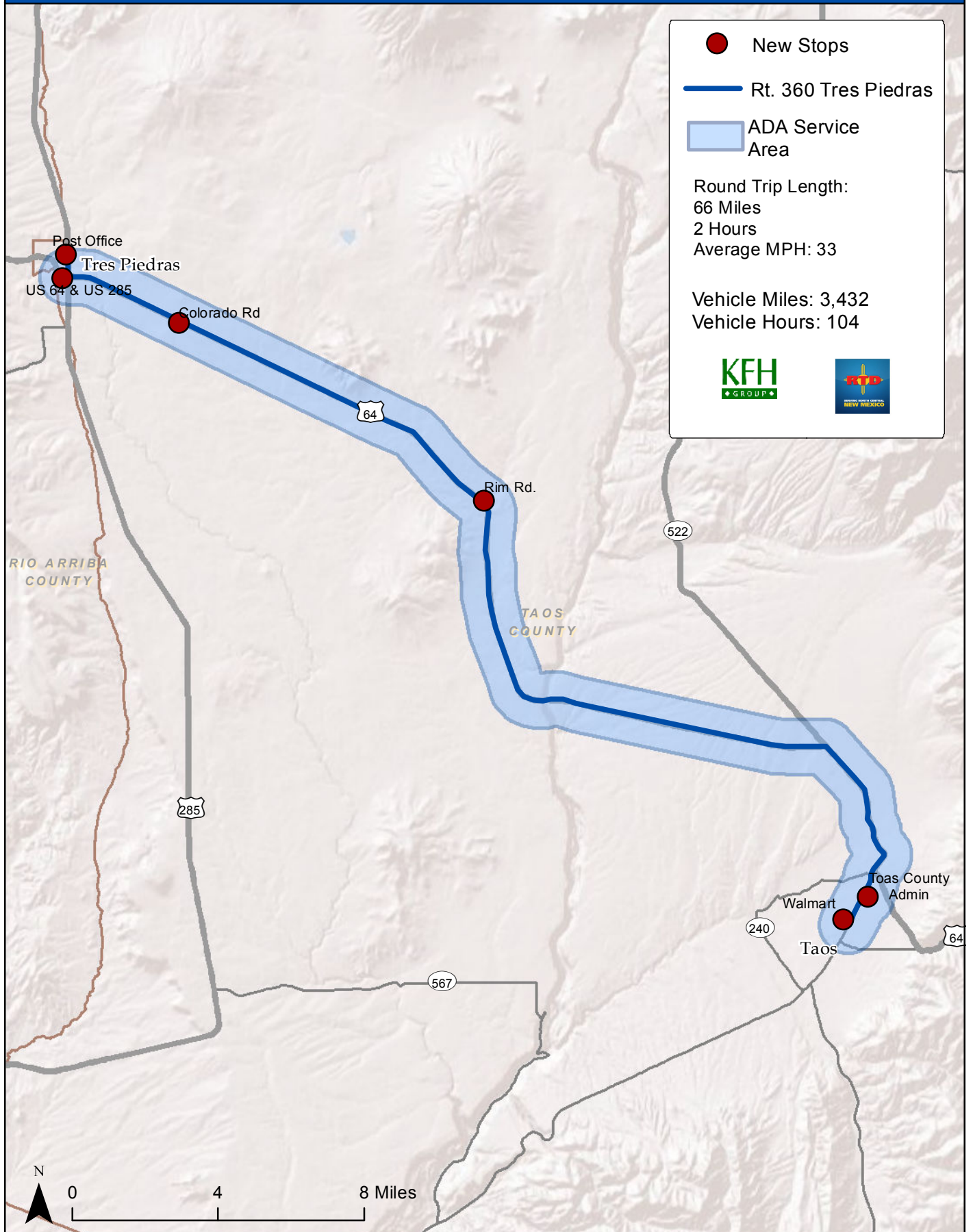
The cost of this service would be about \$16,000 per year (4 hours per week).

FUTURE SERVICES

There are a number of services identified that should be implemented as funding becomes available over the next five years. This includes traditional routes, ski or shopper shuttles paid all or in part by the private sector, tourist and weekend service. These are discussed below.

The first three services reviewed are dependent on seeking and securing private and public sector sponsors. To this end, NCRTD will be funding a marketing position and will use \$52,000 for this effort. That funding will be used to generate sponsors for these services.

Figure 2-21: Route 360 Tres Piedras





1. La Cienega/Las Golondrinas

This area has requested service through the public meeting process and the review of demographics indicates that there are some transportation needs in the region. This is a community southwest of Santa Fe that parallels I-25 to the west and is about five miles south of the 599 Rail Runner train stop. The population of the area is about 4,000.

The new route is illustrated in Figure 2-22. This route would start in Las Cienega and serve Las Golondrinas, Rail Runner 599 Station, the outlet mall, Wal-Mart and Santa Fe Transit Center near the Mall. At the mall, riders could transfer to go throughout Santa Fe.

Service hours can include one – two peak hour trips in the morning and evening along with a mid-day round trip. There will be timed connections to a southbound Rail Runner and timed connections at the Transit Center.

Service Impact - Performance

This is an untapped market, where we anticipate light to moderate ridership levels of three – four one-way trips per hour. Most important, these will be new riders.

Cost Impact

Assuming 6 hours per day, the estimated annual cost is \$114,000. This will require an additional peak vehicle. The capital cost associated with this smaller bus would be about \$120,000.

2. Regional Premium Express – Weekends

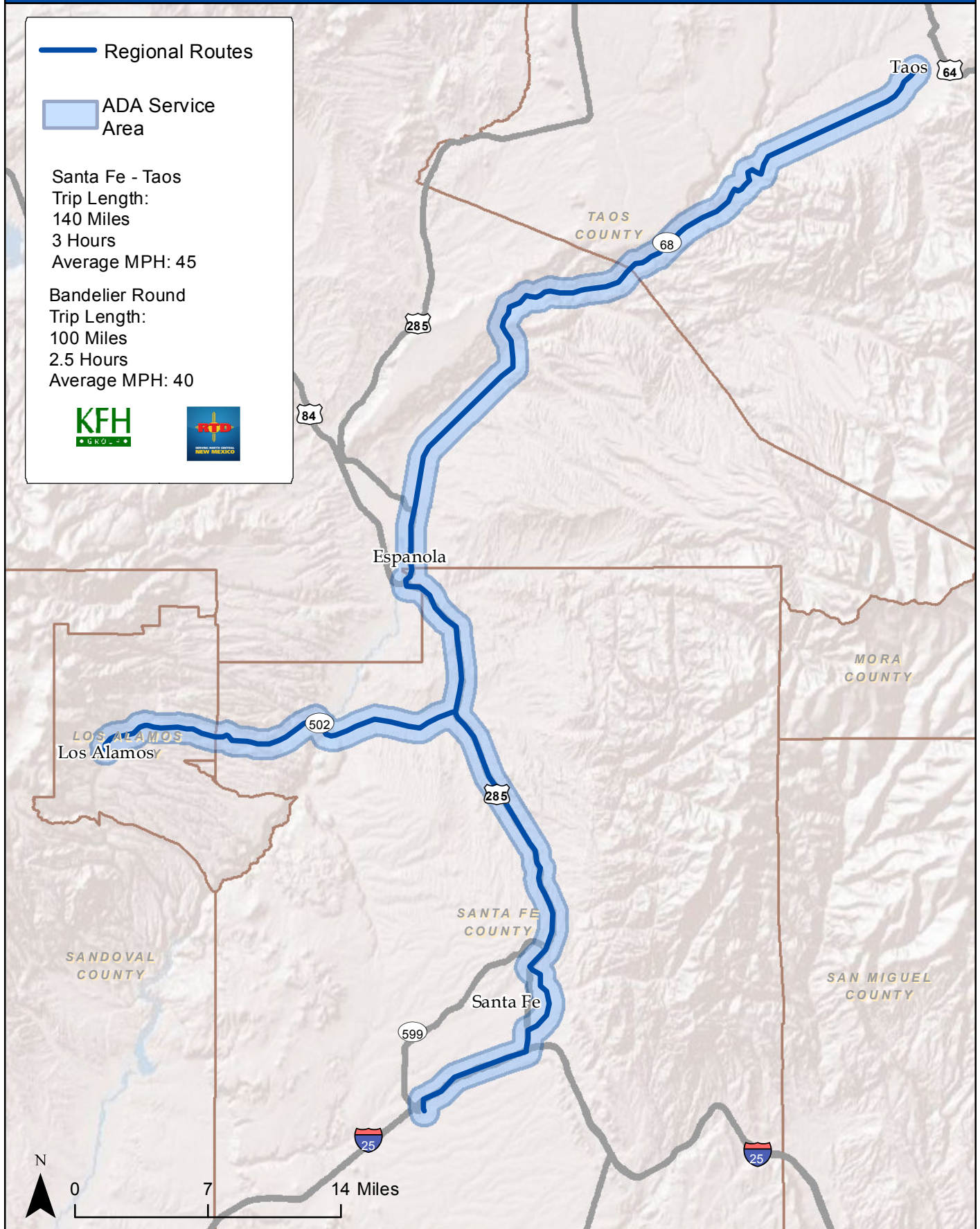
Currently the only premium regional service in the Taos – Española – Santa Fe corridor is the Taos Chile Line service on weekends. This service is limited and it is designed for people in Taos. There is an opportunity for NCRTD and Taos to swap out routes. The UNM Taos route, discussed above, should be operated by Chile Line (eliminating duplication of services and simply adding 1 and ½ miles to the route). Regional service such as this route (Figure 2-23) should be operated by NCRTD. It may be possible to work out an arrangement between these systems. Figure 2-23 displays this service.

Premium service could target service employees and tourists with regular weekend day service. Major destinations can include Taos, Santa Fe, Bandelier National monument, connecting through White Rock with Atomic City Transit’s service to the

Figure 2-22: Route 299 La Cienega/Las Golondrinas



Figure 2-23: Regional Premium Express - Weekends





monument or it could operate direct to the Monument. NCRTD can partner with tourist oriented destinations and hotels to offset the costs. Partners would get stops of their choice and advertising benefits. These sponsorship opportunities will be discussed in detail in Chapter 3.

For the Taos – Santa Fe service there should be 16 hours of service each weekend day, the service can start at 8:00 a.m. and operate as late as 8:00 p.m., with four additional hours for a second vehicle operating opposite the first bus in the morning and evening trips. Off peak season would call for a reduction of weekend service to 12 hours of service each weekend day using one bus.

For Bandelier service, the bus could start at 9 a.m. and have a last return arriving in Santa Fe at 6:00 p.m. This service would operate in peak seasons only (about 6 months). There is a variety of options in terms of hours of service, operating only in peak seasons as well as the number of stops.

Service Impact - Performance

Premium service would be marketed and operated in partnership with major origins and destinations in the region such as hotels, cities, casinos, Bandelier restaurants and other tourist related businesses. If properly marketed and planned, this service could generate 10 – 15 one-way trips per vehicle hour of service in the six months between May and October or 160 – 240 one-way trips daily.

Capital Needs

This service should ultimately use high back seats and comfortable vehicles for the premium longer distance trips. As this is a weekend service, NCRTD can pick from its fleet if a suitable vehicle is available. The service should not be implemented in the event a suitable vehicle is not available. A good first impression is essential.

Cost Impact

Operating the full service Taos – Santa Fe, as outlined above with peak and off peak weekend service, the costs would be \$114,900 annually. Bandelier service for six months would cost about \$36,000. Much of the local share of this cost can come from tourist destinations such as hotels, retailers, cities, and casinos. Service should not be implemented until sponsors are in place.

As a premium service, the NCRTD can charge \$5 per non-sponsored trip, reducing the costs by about 20 – 30 percent.



3. Ski Shuttles

Ski shuttles should also be dependent to some extent on sponsors – ski resorts and others benefiting from ski tourism. There are a variety of ski centers that could benefit from transit by ensuring greater access to their facility, seeing a reduction in parking demand and reducing pollution.

Partner with ski resorts willing to become sponsors/funders who in return receive valuable marketing, service to their facility, ability to promote youth skiing and the ability to generate good will through support of the community.

- a. Prioritize by willingness to partner.
- b. Service Hours - Run consistent service throughout the day. Hours may vary based on demand.
- c. Seasonal Service – This service will operate during ski season.
- d. Look to partnering and putting packages together with Rail Runner.

Possible partners include (Figure 2-24):

- *Sipapu Ski* – accessed through Española/Dixon and/or Taos.
- *Ski Santa Fe* – accessed through Santa Fe.

The Taos Ski Valley has service via Chile Line in partnership with the Village of Taos Ski Valley, so they are not included.

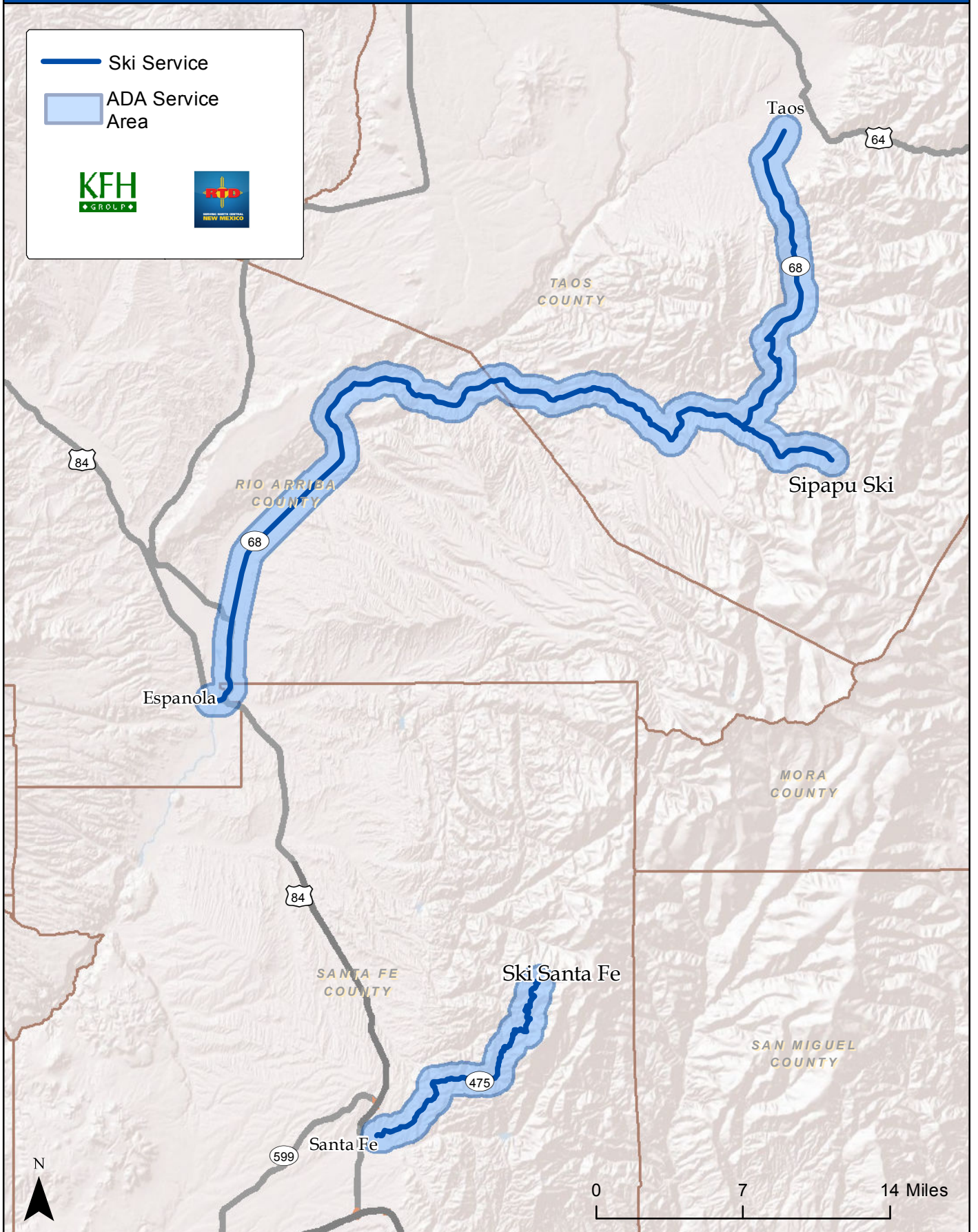
Service Levels

These services can be operated on a variety of different schedules based on the level of sponsorship. For example the per-route costs would be:

- Certainly all day, every day would be optimal, but that would cost \$23,000 per month or \$115,000 for five months.
- Weekend service is more feasible and for all day service 12 hours – this would cost about \$38,000 for five months.

It is anticipated that the expense would be offset to some degree by the ski resorts. The capital costs for this service will be about \$200,000 for a new vehicle sized and outfitted as a ski shuttle.

Figure 2-24: Potential Ski Services





4. Shopper Shuttle

Shopper shuttles, like the previous services above, can serve a niche market and are typically paid for by sponsors. In this case, sponsors such as Wal-Mart, Smiths, Albertsons, or other large retailer are appropriate. These shuttles target transit dependent populations such as elderly people, people with disabilities, or low-income families, and take them to needed shopping areas. These services are typically paid for by the retailer(s) in exchange for transporting their customers and promotional considerations (see the section on Sponsorships to follow). This effort requires significant marketing and sales. This is a business proposition, not a request for money – that is why these services are successful.

Service Impact – Performance

These types of services can be promoted by retailers and can generate reasonable ridership of 10 – 20 customers per vehicle trip. These services can be very productive. This service can use existing vehicles and can be set up during off peak times to ensure vehicles are available.

Cost Impact

This service should be paid for by retailers and other sponsors that receive benefits from this service, rather than the taxpayers.

5. Weekend Española Service

Weekend service can benefit service employees, tourists and local residents by providing access on Saturday and if possible, Sunday. As a rule of thumb, Saturday service typically generates one-half of weekday ridership and Sunday typically one third. However, the presence of tourist oriented services and the need for service employees to get to work can increase the ridership numbers. Currently Santa Fe Trails, Rail Runner, Chile Line (Taos Ski Valley - seasonal and Regional Express service) and Atomic City (Bandelier only – seasonal) operate on the weekends. NCRTD, Regular Chile Line and Atomic City services do not operate on the weekends.

Consideration should be given to operating limited service on Española routes. Clearly regional service would be most advantageous to operate on weekends (discussed above). NCRTD could operate two buses in service in Española on the existing routes. Operating hours can vary, but as a minimum, the bus could operate Saturdays 7:00 a.m. to 6:00 p.m. The key question is, should NCRTD operate Saturdays only or both Saturday and Sunday (9:00 a.m. to 6:00 p.m.)?



Service Impact - Performance

As stated above, Saturday service typically operates at about half the ridership of a typical weekday. Based on this, we estimate productivity at about four – five one-way trips per hour combined on both routes. Sunday service can generate about three one-way trips per hour.

Cost Impact

Operating two vehicles on Saturday service throughout the year would cost \$87,000. Sunday service would cost an additional \$71,000. Since this service would operate on weekends and holidays, NCRTD should pick its best/most appropriate vehicles for this service.

SUMMARY OF SERVICE CHANGES

The wide variety of service changes are summarized in Table 2-18, which summarizes all of the revisions to existing services. This table shows a slight reduction in service hours overall, while it is anticipated that ridership will increase. Table 2-19 depicts the new six-month trial services.

Table 2-18: System Route Revisions

#	Route	Service Hours	Service Miles	Average MPH	FY 14 Operating Cost	FY 13 Operating Cost	Cost Change	Percent Change
100	Riverside	5,250	49,254	9	\$399,000	\$399,000	\$0	0.00%
110/120	Westside/Crosstown	3,250	52,000	16	\$256,750	\$247,000	\$9,750	3.95%
150	Chimayo	3,000	60,000	26	\$228,000	\$266,000	-\$38,000	-14.29%
160	Santa Clara Pueblo	2,000	52,138	26	\$152,000	\$152,000	\$0	0.00%
180	El Rito	1,500	58,500	39	\$114,000	\$152,000	-\$38,000	-25.00%
190	Chama	2,000	92,651	45	\$152,000	\$91,200	\$60,800	66.67%
200	Santa Fe	2,250	49,152	20	\$171,000	\$171,000	\$0	0.00%
210	Pojoaque Pueblo	2,000	31,811	16	\$152,000	\$152,000	\$0	0.00%
220	Tesuque Pueblo	2,500	43,439	17	\$190,000	\$190,000	\$0	0.00%
230	San Ildefonso Pueblo	2,000	72,473	36	\$152,000	\$114,000	\$38,000	33.33%
270	Turquoise Trail	1,625	41,500	26	\$123,500	\$123,500	\$0	0.00%
280	Eldorado	2,000	50,533	25	\$152,000	\$152,000	\$0	0.00%
290	Edgewood	1,500	67,575	35	\$114,000	\$95,000	\$19,000	20.00%
300	Taos	2,500	77,996	31	\$190,000	\$190,000	\$0	0.00%
310	Red River	1,560	60,000	30	\$123,240	\$152,000	-\$28,760	-18.92%
320	Questa	2,000	75,000	33	\$158,000	\$152,000	\$6,000	3.95%
330	Penasco	2,000	43,398	22	\$152,000	\$152,000	\$0	0.00%
350	UNM Taos Klauer	0	0	-	\$15,000	\$153,216	-\$138,216	-90.21%
400/410	LA-E/LA-P	750	24,796	27	\$57,000	\$76,000	-\$19,000	-25.00%
DR	Demand Response	2,515	54,986	22	\$191,140	\$191,140	\$0	0.00%
	Totals	36,950	1,007,948	26	\$2,843,630	\$2,972,056	-\$128,426	-4.32%

Table 2-19: New Service

#	Route	Service Hours	Service Miles	Average MPH	Operating Cost
270X	Golden Extension	52	1,040	20	\$3,950
360	Tres Piedras	104	3,432	33	\$7,904
		156	4,472	26.5	\$11,854



II. ADA SERVICES

There are a number of issues related to ADA that should be addressed as soon as possible. Federal regulations under the Americans with Disabilities Act (ADA) require comparable service for qualified persons with disabilities. This comparable service can take the form of either ADA complementary paratransit as is operated in the Española area, or as a flex route that will pick up riders upon request, up to $\frac{3}{4}$ mile from the route.

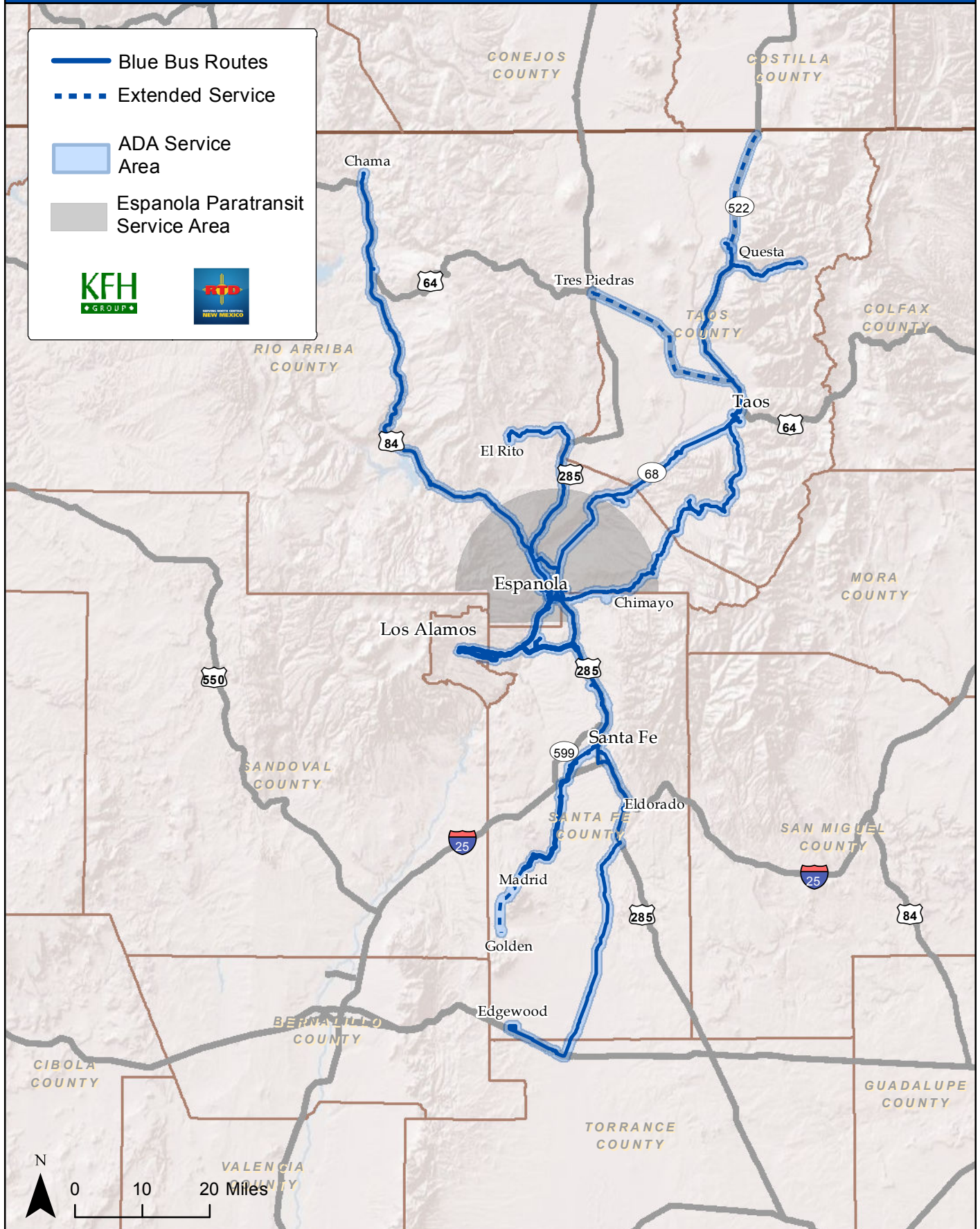
- A. **Complementary Paratransit** - this service is a door-to-door service that qualifying ADA customers can use if they cannot use fixed route due to a disability. This service works best in urban areas where for example one - two vehicles can meet the needs. Unfortunately, for the rural and regional routes this would be ineffective, as it would virtually require a very expensive parallel service.
- B. **Flex Route Service** - Flex route service (also called route deviation) is used in rural and regional service to meet ADA needs. Under the regulations, the flex service must be open to all customers. This is considered a premium service and non-ADA customers should be charged \$5 or more for each time it requires the bus to flex. Qualified ADA riders would ride for no more than twice the fixed route fare, which in this case is zero.

NCRTD would not have to provide ADA service within the service area of other transit jurisdictions as that is the other system's responsibility. The rider will be responsible for arranging service within another transit jurisdiction. In addition, the Okhay Owingeh Pueblo provides ADA level service within its boundaries.

It is recommended that NCRTD continue operating paratransit within the Española area (Figure 2-19). All other routes should offer flex service and all vehicles should be accessible for persons using wheelchairs. Figure 2-25 illustrates the $\frac{3}{4}$ -mile corridor on either side of each route. Other features of flex route include:

- Customers must call the same day within two hours of the requested service.
- The dispatcher will be responsible for flexing the appropriate bus. This will become a more active position.
- The bus cannot get into every origin or destination and will not be put in a position where a hazardous maneuver is required.

Figure 2-25: System Map and ADA Service Area





NCRTD already has an eligibility program in place. This will now need to be expanded system-wide. The consultants will work with NCRTD to ensure that this process is:

- Stringent, yet fair and consistent.
- Ensures that only those that cannot ride the flex or fixed route due to a disability are eligible.



Chapter 3

Implementation and Funding Strategies

This is the final chapter of the NCRTD Transit Service Plan update. The implementation and funding strategies closely follow the service planning addressed in Chapter 2. Chapter 1 summarizes the Technical Memoranda used to develop the plan. This chapter reviews the activities needed to properly plan and implement new service now and in the future.

IMPLEMENTATION STRATEGIES

The implementation strategies cover a wide range of activities in preparation for implementation of new service. They are as follows:

Routes and Operations Planning

While this plan does not include specific schedules, this section does address fundamentals in planning and developing schedules for routes.

Scheduling Fundamentals

This will include planning out the routes and drafting approximate schedules. The following steps should be taken when conducting operations planning activities:

1. **Route Speed** - Establish an appropriate MPH for each route. Base this on current running times, then adjust the MPH up or down depending on the route's on-time performance.
2. **Determine crucial times** - crucial times are usually at the destination (employment or appointment for example) or interim destination (transfer location). The route timing should be based on those crucial times required for a transfer or to get customers to work on time.



3. **Scheduling** - In scheduling the routes work back from these crucial times based on the miles per hour.
4. **Timing Points** - Limit timing points to every seven to 10 minutes in rural areas and every 5 – 7 minutes in urban areas.
5. **Limit dwell time/Minimize down time** - there should be zero dwell time along the route, except at transfer locations or end points. This dwell time should be limited to 5 minutes. For routes that routinely go back and forth, dwell time should be reduced to once per hour.
6. **Regular Seasonal Changes** - The service hours and times by necessity, change whether due to a specific need or seasonal changes. Management must make regular orderly changes and modifications. The best times to do this are when the seasonal requirements necessitate changes. Making all changes at the same times usually works best.
7. **Recovery time** - Winter schedules should be modified or contingencies developed to ensure recovery time on routes that are routinely slowed by inclement weather.
8. **Link Runs** - Table 3-1 illustrates the different runs of each route in order for planners to link up runs and ensure at least 4 hour shifts. This type of table can be used as a tool to ensure that vehicle operators have a reasonable work schedule.

The most complicated routing in the system is the service between Española and Santa Fe. The service must complement rather than compete with the Park and Ride service and it must make timed connections at Rail Runner as well as in Española. Recommended schedules should include elements of the example in Table 3-2. This schedule ensures that timed meets are kept and that NCRTD is slotted in between Park and Ride service.

Nomenclature

Terminology is important and must be consistent:

1. **Vehicle Direction** - It is recommended that the direction be referred to as northbound, southbound, etc. as is done for the Riverside route. For example Española – Chimayo would be eastbound and westbound, while Chama would be northbound and southbound. The head-sign will reflect where the vehicle is going at that time. For example, on the Chama route when traveling northbound the sign would say Chama, while southbound it will say Española.

Table 3-1: Vehicle Chart for Each Route

	5:00 AM	6	7	8	9	10	11	12:00 PM	1	2	3	4	5	6
Taos Based														
Questa			TAOS						QUESTA					x :45
Red River*		x:20			x:15	RED RIVER					x:40			
UNM*		TAOS												
Penasco				TAOS				LAS TRAMPAS						
Taos						ESPAÑOLA				ESPAÑOLA				
Tres Piedras***			TRES PIEDRAS			ESPAÑOLA						TRES PIEDRAS		
Española Based	5:00 AM	6	7	8	9	10	11	12:00 PM	1	2	3	4	5	6
Riverside														
Westside/Crosstown														
Los Alamos		ESPAÑOLA								ESPAÑOLA				
Santa Fe														
Chama				ESPAÑOLA							ESPAÑOLA			
El Rito				ESPAÑOLA						ESPAÑOLA				ESPAÑOLA
Chimayo														
ADA Paratransit														
Pueblo Based	5:00 AM	6	7	8	9	10	11	12:00 PM	1	2	3	4	5	6
Tesuque Pueblo			TESUQUE					TESUQUE						
Pojoaque Pueblo						NAMBE				NAMBE				
San Ildefonso Pueblo						SAN ILDEFONSO				SAN ILDEFONSO				
Santa Clara Pueblo						x:40	ESPAÑOLA							
Santa Fe Based	5:00 AM	6	7	8	9	10	11	12:00 PM	1	2	3	4	5	6
Edgewood				SANTA FE				Shared Vehicle		SANTA FE				x:40
Eldorado			x:10	SANTA FE						SANTA FE				
Turquoise Trail**				SANTA FE					SANTA FE					

*** One day per week service
 ** Service to Golden 1 day per week.
 * Seasonal Changes
 Vehicle in Service



Service Metrics

There are a few service planning performance measures that should be monitored monthly by route and system wide.

1. Identify key performance measures -
 - a. *Basic ridership* - Total one-way trips.
 - b. *Productivity* - One Way Trips per Vehicle Hour a key measure of success.
 - c. *On-Time Performance* - Defined as between zero and five minutes after the scheduled time. Standard on time performance is between 90 and 95 percent (exceptions are made for weather or construction delays).
 - d. *Cost* - Cost per One Way Trip is a function of cost per hour and productivity.
 - e. *Safety Measures* - Road calls and Accidents per 100,000 miles.
2. Benchmark current effort by route and system wide and establish the starting point.
3. Depending on the measure, goals should be set to improve performance 5 percent over existing performance.

Training and Practice

With new routes comes the need for training of drivers, dispatchers, and call takers to ensure knowledge about the route changes and excellent customer service. Each driver should have a route book (or digital display) with maps and turn-by-turn directions for each route. Drivers must be trained on each route. At no time should a route be assigned to a driver that has not been trained on the route.

Table 3-2: Examples of Española to Santa Fe Routes

Southbound Routes								
Operator / Route	Kee St.	Espanola Park and Ride	Pojoaque Park and Ride	Camel Rock Casino	Sheridan St.	So Capitol Rail Runner	Indian School	Indian Hospital
Park and Ride		5:52	6:09		6:34	6:55		
Park and Ride		6:23	6:40		7:05	7:26		
Santa Clara	6:50	7:00						7:35 - 7:45
Espanola - Santa Fe		7:30	7:50		8:20			8:30
Tesuque		8:00	8:15	8:30	8:46			9:00
Park and Ride		8:00	8:17		8:42	9:03		
Park and Ride		8:45	9:02		9:27	9:48		
Tesuque				10:23	10:44			11:00
Espanola - Santa Fe		10:00	10:20		10:50			11:00
Espanola - Santa Fe		12:00	12:20		1:15	1:05		1:20
Santa Clara		4:25						5:00
Tesuque				4:23	4:44	5:06		5:00
Park and Ride		5:27	5:44			6:25		
Park and Ride		6:30	6:47			7:28		
Northbound Routes								
Operator / Route	Indian Hospital	Indian School	So Capitol Rail Runner	Sheridan St.	Camel Rock Casino	Pojoaque Park and Ride	Espanola Park and Ride	Kee St.
Park and Ride			5:25			6:08	6:23	
Park and Ride			6:55			7:38	7:53	
Park and Ride			7:47			8:30	8:45	
Santa Clara	7:45	7:50					8:45	
Santa Fe - Espanola	8:30		9:00	8:45	9:17	9:35	9:55	
Tesuque	9:00			9:16	9:37			
Tesuque	11:00			11:16	11:37			
Santa Fe - Espanola	11:00			11:10	11:30	11:45	12:00PM	
Santa Fe - Espanola	2:30			2:45	3:05	3:15	3:30	
Tesuque	3:00			3:16	3:37			
Park and Ride			4:24	4:45		5:12	5:27	
Santa Clara	5:00	5:05					5:55	6:00
Tesuque			5:06	5:15	5:37	5:50	6:00	
Park and Ride			5:27	5:48		6:15	6:30	
Park and Ride			7:29	7:49		8:16	8:31	

Blue Bus Routes
 NM DOT Routes



Timeline/Kick-Off

Do not implement service until everything is ready. Table 3-3 illustrates a basic timeline to implement new service.

Table 3-3: Timeline of Implementation Activities

Activity	Months						
	0	1	2	3	4	5	6
Determine Routes	█						
Develop Schedules	█	█					
Test Schedules		█					
Print maps and schedules			█				
Marketing/Outreach/Meetings				█	█	█	
Train drivers					█		
Grand Re-Opening						█	
Monitor Service						█	█

Service Monitoring

Initial service monitoring during the implementation to ensure routes are timely and meets are fully coordinated. Supervisors and management should be in place regularly monitoring on time performance, dwell time, route practicality and other factors related to the service.

Vehicle Inventory, Needs, and Replacement Plan

NCRTD should utilize a limited number of vehicle types. These can include minivans, light cutaway buses and light, medium, heavy-duty body on chassis buses, and if NCRTD can afford it in the future a heavy duty transit coach, especially for the longer distance and heavily used services. It is recommended that NCRTD avoid raised roof vans. They are not appropriate for fixed route, have few if any advantages over small cutaway vehicles and many disadvantages – they are less expensive but at 20 percent match the cost differential is little. The raised roof van can hold very few passengers comfortably and typically no more than 2 wheelchairs. They are not made for the wear and tear of everyday service. Minivans should only be used on paratransit service, or perhaps a very lightly used route.

A vehicle replacement schedule was developed for the NCRTD fleet (Table 3-4), which currently consists of 41 revenue vehicles and 9 non-revenue vehicles (i.e., used for administrative and maintenance purposes). The vehicle replacement schedule is based on each vehicle’s age, current mileage, average annual mileage, and useful life





expectancy. It should be noted that five vehicles will be retired from the fleet in the next few months, following delivery of five vehicles, which were funded in 2013. All of these vehicles have been accounted for in Table 3-24.

In general, the vehicles used in NCRTD revenue service have the following useful life expectancies:

- 10 years or 350,000 miles (heavy-duty 40-passenger buses),
- 7 years or 200,000 miles (medium-duty 25-28 passenger buses),
- 5 years or 150,000 miles (light-duty 18-20 passenger buses),
- 5 years or 150,000 miles (light-duty 8-14 passenger cutaways); and
- 5 years or 150,000 miles (minivans).

NCRTD's non-revenue vehicles are attributed with the following useful life expectancies:

- 7 years or 150,000 miles (sedans and small trucks),
- 4 years or 100,000 miles (vans and minivans); and
- 15 years (trailer).

For each vehicle in the fleet, the remaining useful life in terms of age and mileage were calculated. Then, a relative priority in terms of remaining useful life (or extent to which the vehicle has already surpassed its life expectancy) was assigned to each vehicle for both age and mileage. The relative priorities were quantified along the following scale:

- 1 - Vehicle has already exceeded its life expectancy (most urgent need for replacement).
- 2 - Vehicle will exceed its life expectancy in 2014.
- 3 - Vehicle will exceed its life expectancy in 2015.
- 4 - Vehicles will exceed its life expectancy in 2016.
- 5 - Vehicles will exceed its life expectancy in 2017-2019.
- 6 - Vehicles will exceed its life expectancy in 2020 or later.

Finally, the priorities for both age and mileage were taken into account to determine a recommended replacement year for each vehicle in the fleet. Table 3-4 presents details and results of this analysis. With a strong maintenance program and reasonable operating environment, many vehicles can be safely used beyond their life expectancy. A conservative approach guided these calculations for planning purposes,



basing vehicle life expectancy on manufacturer recommendations (as indicated by NMRTD) and FTA/NMDOT funding thresholds.

It should be noted that the on-order replacements for the five retiring vehicles are included in the replacement schedule.

The recommended replacement plan for revenue vehicles, grouped by year and vehicle type, is presented in Table 3-5. To summarize, the following quantities of replacement vehicles will be needed in the current and next five years to ensure to continue reliable operations of existing services. Additional weekday service may require additional vehicles. Weekend service will not require additional vehicles.

Vehicles currently on order:

- 2 light-duty 20-passenger cutaways (delivery is anticipated in early April 2014).
- 3 light-duty 14-passenger cutaways (delivery of 2 are anticipated in late April with the third anticipated by the end of June).

Table 3-4: NCRTD Revenue Vehicle Inventory and Replacement Analysis

Unit #	Primary Usage	Chassis VIN Number	Year	Make	Model	Passenger Capacity	Type	NCRTD Maintenance Category	Funding Source	Odo-meter Aug. 2012	Odo-meter Nov. 2013	Est. Annual Mileage	NCRTD Useful Life Expectancy	Min. Years of Useful Life	Replacement Year Based on Age	Priority for Age-Based Replacement	Min. Miles of Useful Life	Re-maining Useful Life Mileage	Year Min. Mileage Attained	Priority for Mileage-Based Replacement	Com-bined Priority Score	Recom-mended Replacement Year
T-502	EXTRA	1FD3E35L28DA70733	2008	FORD/STARTRANS	E-350	12	CUTAWAY	Light Duty Small Bus Van - 8-14 Pass	NMDOT	117,214	147,230	24,013	5 Years/150,000 Miles	5	2013	*	*	*	*	*	*	*
T-508	COMMUTER	2B4JB25V71K538832	2001	DODGE/BRAUN	B-250	5	VAN	Van	RA COUNTY	188,021		17,093	4 Years/100,000 Miles	4	2005	*	*	*	*	*	*	*
T-512	COMMUTER	2B4JB25V71K538832	2001	DODGE/BRAUN	B-250	10	EXTD VAN	Light Duty Small Bus Van - 8-14 Pass	RA COUNTY	141,026			5 Years/150,000 Miles	5	2006	*	*	*	*	*	*	*
T-519	COMMUTER	1GBDV13W98D151758	2008	CHEVY/BRAUN	UPLANDER	6	MINI VAN	Minivan	NMDOT	120,884		30,221	5 Years/150,000 Miles	5	2013	1	150,000		2013	1	2	2014
T-520	EXTRA	1FD3E35L28DB32499	2008	FORD/STARTRANS	E-350	12	CUTAWAY	Light Duty Small Bus Van - 8-14 Pass	NMDOT	126,748	156,762	24,011	5 Years/150,000 Miles	5	2013	*	*	*	*	*	*	*
T-526	TRAMPAS	1FTZS34L48DB41635	2008	FORD/BRAUN	E-350	8	EXTD VAN	Light Duty Small Bus Van - 8-14 Pass	NCRTD	129,675	174,633	35,966	4 Years/100,000 Miles	4	2012	*	*	*	*	*	*	*
T-527	EXTRA	1FTZS34L18DB44976	2008	FORD/BRAUN	E-350	8	EXTD VAN	Light Duty Small Bus Van - 8-14 Pass	NCRTD	150,597	176,394	20,638	4 Years/100,000 Miles	4	2012	1	100,000	-76,394	has passed	1	2	2014
T-533	COMMUTER	1GBDV13W98D198966	2008	CHEVY/BRAUN	UPLANDER	6	MINI VAN	Minivan	NCRTD	131,210		32,803	5 Years/150,000 Miles	5	2013	1	150,000		2013	1	2	2014
T-534	TESUQUE	1GDE5V1969F406260	2009	GMC/GLAVAL	C5500	25	BUS	Medium Duty - 25-28 Pass	NMDOT	147,923	191,126	34,562	7 Years/200,000 Miles	7	2016	4	200,000	8,874	2014	2	6	2015
T-535	EXTRA	1FDEE35L19DA52802	2009	FORD/GOSHEN	E-350	12	CUTAWAY	Light Duty Small Bus Van - 8-14 Pass	NMDOT	85,214	120,047	27,866	5 Years/150,000 Miles	5	2014	2	150,000	29,953	2015	3	5	2015
T-536	DEMAND	1FDEE35L49DA52776	2009	FORD/GOSHEN	E-350	12	CUTAWAY	Light Duty Small Bus Van - 8-14 Pass	NMDOT	95,789	123,773	22,387	5 Years/150,000 Miles	5	2014	2	150,000	26,227	2015	3	5	2015
T-537	RED RIVER	1FDEE35L5ADA05971	2010	FORD/STARTRANS	E-350	12	CUTAWAY	Light Duty Small Bus Van - 8-14 Pass	NMDOT	79,088	139,491	48,322	5 Years/150,000 Miles	5	2015	3	150,000	10,509	2014	2	5	2015
T-539	EXTRA	1GB9G5BGX2A1156203	2010	CHEVY/GLAVAL	E4500/TITAN II	18	BUS	Light Duty Mid Size - 18-20 Pass	TESUQUE	71,923	118,977	37,643	5 Years/150,000 Miles	5	2015	3	150,000	31,023	2015	3	6	2015
T-540	SANTA CLARA	1GB9G5BG7A1155414	2010	CHEVY/GLAVAL	E4500/TITAN II	18	BUS	Light Duty Mid Size - 18-20 Pass	SANTA CLARA	82,675	140,538	46,290	5 Years/150,000 Miles	5	2015	3	150,000	9,462	2014	2	5	2015
T-541	599	1GB9G5BG2A1156034	2010	CHEVY/GLAVAL	E4500/TITAN II	18	BUS	Light Duty Mid Size - 18-20 Pass	TAOS GRT	69,517	113,519	35,202	5 Years/150,000 Miles	5	2015	3	150,000	36,481	2015	3	6	2015
T-542	EXTRA	1GB9G5BG7A1156126	2010	CHEVY/GLAVAL	E4500/TITAN II	18	BUS	Light Duty Mid Size - 18-20 Pass	RAC GRT	51,456	96,389	35,946	5 Years/150,000 Miles	5	2015	3	150,000	53,611	2015	3	6	2015
T-543	UNMKLAUER	1GB3G2BG2B1110676	2011	CHEVY/GOSHEN	E3500/PACER II	12	CUTAWAY	Light Duty Small Bus Van - 8-14 Pass	RAC GRT	40,134	72,868	26,187	5 Years/150,000 Miles	5	2016	4	150,000	77,132	2017	5	9	2017
T-544	CHAMA	1GB3G2BG7B1111225	2011	CHEVY/GOSHEN	E3500/PACER II	12	CUTAWAY	Light Duty Small Bus Van - 8-14 Pass	TAOS GRT	42,989	102,825	47,869	5 Years/150,000 Miles	5	2016	4	150,000	47,175	2015	3	7	2016
T-545	POJOAQUE	1GB3G2BG3B1110198	2011	CHEVY/GOSHEN	E3500/PACER II	12	CUTAWAY	Light Duty Small Bus Van - 8-14 Pass	POJ PUEBLO	43,685	86,815	34,504	5 Years/150,000 Miles	5	2016	4	150,000	63,185	2016	4	8	2016
T-548	ESPA/SF	5WEASAA6CJ592562	2011	INTER/CHAMPION	4300/DEFEN	40	BUS	Heavy Duty Small - 40 Pass	TAOS/RAC GRT	33,956	78,160	35,363	10 Years/350,000 Miles	10	2021	6	350,000	271,840	2022	6	12	2021
T-549	EXTRA	5WEASAA6CJ592563	2011	INTER/CHAMPION	4300/DEFEN	40	BUS	Heavy Duty Small - 40 Pass	TAOS/RAC GRT	42,012	82,922	32,728	10 Years/350,000 Miles	10	2021	6	350,000	267,078	2022	6	12	2021
T-550	QUESTA	5WEASAA2CJ592561	2011	INTER/CHAMPION	4300/DEFEN	40	BUS	Heavy Duty Small - 40 Pass	TAOS/RAC GRT	26,423	80,823	43,520	10 Years/350,000 Miles	10	2021	6	350,000	269,177	2020	6	12	2021
T-551	TAOS/ESPA	1FDGF5HT58EC64020	2011	FORD/GLAVAL	F-550/ENTO	28	BUS	Medium Duty - 25-28 Pass	5311 OPR	40,143	97,137	45,595	7 Years/200,000 Miles	7	2018	5	200,000	102,863	2016	4	9	2017
T-552	EXTRA	1FDEE35L5ADA5897	2010	FORD/STARTRANS	E-350/CAND	14	BUS	Light Duty Small Bus Van - 8-14 Pass	NMDOT	41,756	78,702	29,557	5 Years/150,000 Miles	5	2015	3	150,000	71,298	2016	4	7	2016
T-553	EDGEWOOD	1FDGF5GT98ED06710	2011	FORD/GLAVAL	F-550/ENTO	28	BUS	Medium Duty - 25-28 Pass	ST OF GOOD RPR	31,276	84,174	42,318	7 Years/200,000 Miles	7	2018	5	200,000	115,826	2017	5	10	2018
T-554	ELDORADO	1FDGF5GT28ED06709	2011	FORD/GLAVAL	F-550/ENTO	28	BUS	Medium Duty - 25-28 Pass	ST OF GOOD RPR	28,765	76,312	38,038	7 Years/200,000 Miles	7	2018	5	200,000	123,688	2017	5	10	2018
T-555	WESTSIDE	1GB3G3BG1B1177050	2011	CHEVY/GLAVAL	E3500/TITAN II	13	BUS	Light Duty Small Bus Van - 8-14 Pass	ST OF GOOD RPR	27,151	70,595	34,755	5 Years/150,000 Miles	5	2016	4	150,000	79,405	2016	4	8	2016
T-556	EL RITO	1GB3G3BG3B1175817	2011	CHEVY/GLAVAL	E3500/TITAN II	13	BUS	Light Duty Small Bus Van - 8-14 Pass	ST OF GOOD RPR	63,000	135,491	57,993	5 Years/150,000 Miles	5	2016	4	150,000	14,509	2014	2	6	2014
T-557	RIVERSIDE 2	1GB3G3BG4B1176409	2011	CHEVY/GLAVAL	E3500/TITAN II	13	BUS	Light Duty Small Bus Van - 8-14 Pass	ST OF GOOD RPR	22,789	63,519	32,584	5 Years/150,000 Miles	5	2016	4	150,000	86,481	2017	5	9	2017
T-558	DEMAND	1GB3G3BG0B1176634	2011	CHEVY/GLAVAL	E3500/TITAN II	13	BUS	Light Duty Small Bus Van - 8-14 Pass	ST OF GOOD RPR	16,336	65,003	38,934	5 Years/150,000 Miles	5	2016	4	150,000	84,997	2016	4	8	2016
T-559	PENASCO	1GB6G5C5GB1111463	2011	CHEVY/GLAVAL	E4500/TITAN II	18	BUS	Light Duty Mid Size - 18-20 Pass	ST OF GOOD RPR	37,683	87,184	39,601	5 Years/150,000 Miles	5	2016	4	150,000	62,816	2016	4	8	2016
T-560	RIVERSIDE 1	1GB3G3BGXB1176494	2011	CHEVY/GLAVAL	E3500/TITAN II	13	BUS	Light Duty Small Bus Van - 8-14 Pass	ST OF GOOD RPR	33,756	63,107	23,481	5 Years/150,000 Miles	5	2016	4	150,000	86,893	2018	5	9	2017
T-561	DEMAND	1FTDS3EL48DB25739	2011	FORD/BRAUN	E350/BRAUN	8	EXTD VAN	Light Duty Small Bus Van - 8-14 Pass	ST OF GOOD RPR	17,501	44,915	21,931	4 Years/100,000 Miles	4	2015	3	100,000	55,085	2017	5	8	2016
T-562	SAN I/LA	1FTDS3EL08DB25740	2011	FORD/BRAUN	E350/BRAUN	8	EXTD VAN	Light Duty Small Bus Van - 8-14 Pass	ST OF GOOD RPR	46,212	104,093	46,305	4 Years/100,000 Miles	4	2015	3	100,000	-4,093	2014	2	5	2015
T-563	CHIMAYO	1FTDS3DL28DB25741	2011	FORD/BRAUN	E350/BRAUN	8	EXTD VAN	Light Duty Small Bus Van - 8-14 Pass	ST OF GOOD RPR	11,567	49,531	30,371	4 Years/100,000 Miles	4	2015	3	100,000	50,469	2016	4	7	2016
T-565		1GB6G5BG3D1193259	2013	CHEVY/GLAVAL	E4500/TITAN II	14	BUS	Light Duty Small Bus Van - 8-14 Pass	ST OF GOOD RPR	n.a.	9,106		5 Years/150,000 Miles	5	2018	5	150,000	140,894				2018
T-566		1GB6G5BG3B1192452	2013	CHEVY/GLAVAL	E4500/TITAN II	14	BUS	Light Duty Small Bus Van - 8-14 Pass	ST OF GOOD RPR	n.a.	9,388		5 Years/150,000 Miles	5	2018	5	150,000	140,612				2018
T-567		1GB6G5CGBE1106004	2014	CHEVY/GLAVAL	E4500/TITAN II	18	BUS	Light Duty Small Bus Van - 8-14 Pass	ST OF GOOD RPR	n.a.	new		5 Years/150,000 Miles	5	2019	5	150,000					2019
T-568		1FVACDXT4EHT1405	2013	FREIGHTLINER/CHAMPION	M2/DEFENDER	28	BUS	Medium Duty - 25-28 Pass	ST OF GOOD RPR	n.a.	new		7 Years/200,000 Miles	7	2020	6	200,000					2020
CURRENTLY ON ORDER																						
	delivery expected early Apr 2014		2014	CHEVY/GLAVAL	E4500/TITAN II	20	CUTAWAY	Light Duty Mid Size - 18-20 Pass	NMDOT	n.a.	on order		5 Years/150,000 Miles	5	2019	6	150,000					2019
	delivery expected early Apr 2014		2014	CHEVY/GLAVAL	E4500/TITAN II	20	CUTAWAY	Light Duty Mid Size - 18-20 Pass	NMDOT	n.a.	on order		5 Years/150,000 Miles	5	2019	6	150,000					2019
	delivery expected late Apr 2014		2014	CHEVY/GLAVAL	E4500/TITAN II	14	CUTAWAY	Light Duty Small Bus Van - 8-14 Pass	S. 5311	n.a.	on order		5 Years/150,000 Miles	5	2019	6	150,000					2019
	delivery expected late Apr 2014		2014	CHEVY/GLAVAL	E4500/TITAN II	14	CUTAWAY	Light Duty Small Bus Van - 8-14 Pass	S. 5311	n.a.	on order		5 Years/150,000 Miles	5	2019	6	150,000					2019
	delivery expected late June 2014		2014	CHEVY/GLAVAL	E4500/TITAN II	14	CUTAWAY	Light Duty Small Bus Van - 8-14 Pass	GRT	n.a.	on order		5 Years/150,000 Miles	5	2019	6	150,000					2019

* Indicates vehicles have already been funded for replacement; replacement vehicles on order are included at the bottom of this table.

Table 3-5: Recommended NCRTD Revenue Vehicle Replacement Schedule (2014-2019)

Unit #	Passenger Capacity	Type	NCRTD Maintenance Category	Funding Source of Vehicle to be Replaced	NCRTD Useful Life Expectancy	Recommended Replacement Year	2014	2015	2016	2017	2018	2019
T-502	12	CUTAWAY	Light Duty Small Bus Van - 8-14 Pass	NMDOT	5 Years/150,000 Miles	(1)						
T-508	5	VAN	Van	RA COUNTY	4 Years/100,000 Miles	(1)						
T-512	10	EXTD VAN	Light Duty Small Bus Van - 8-14 Pass	RA COUNTY	5 Years/150,000 Miles	(1)						
T-526	8	EXTD VAN	Light Duty Small Bus Van - 8-14 Pass	NCRTD	4 Years/100,000 Miles	(1)						
T-520	12	CUTAWAY	Light Duty Small Bus Van - 8-14 Pass	NMDOT	5 Years/150,000 Miles	(1)						
T-519	6	MINI VAN	Minivan	NMDOT	5 Years/150,000 Miles	2014	x					(2)
T-533	6	MINI VAN	Minivan	NCRTD	5 Years/150,000 Miles	2014	x					(2)
T-527	8	EXTD VAN	Light Duty Small Bus Van - 8-14 Pass	NCRTD	4 Years/100,000 Miles	2014	x				(2)	
T-556	13	BUS	Light Duty Small Bus Van - 8-14 Pass	ST OF GOOD RPR	5 Years/150,000 Miles	2014	x					(2)
T-562	8	EXTD VAN	Light Duty Small Bus Van - 8-14 Pass	ST OF GOOD RPR	4 Years/100,000 Miles	2015		x				(2)
T-535	12	CUTAWAY	Light Duty Small Bus Van - 8-14 Pass	NMDOT	5 Years/150,000 Miles	2015		x				
T-536	12	CUTAWAY	Light Duty Small Bus Van - 8-14 Pass	NMDOT	5 Years/150,000 Miles	2015		x				
T-537	12	CUTAWAY	Light Duty Small Bus Van - 8-14 Pass	NMDOT	5 Years/150,000 Miles	2015		x				
T-539	18	BUS	Light Duty Mid Size - 18-20 Pass	TESUQUE	5 Years/150,000 Miles	2015		x				
T-540	18	BUS	Light Duty Mid Size - 18-20 Pass	SANTA CLARA	5 Years/150,000 Miles	2015		x				
T-541	18	BUS	Light Duty Mid Size - 18-20 Pass	TAOS GRT	5 Years/150,000 Miles	2015		x				
T-542	18	BUS	Light Duty Mid Size - 18-20 Pass	RAC GRT	5 Years/150,000 Miles	2015		x				
T-534	25	BUS	Medium Duty - 25-28 Pass	NMDOT	7 Years/200,000 Miles	2015		x				
T-561	8	EXTD VAN	Light Duty Small Bus Van - 8-14 Pass	ST OF GOOD RPR	4 Years/100,000 Miles	2016			x			
T-563	8	EXTD VAN	Light Duty Small Bus Van - 8-14 Pass	ST OF GOOD RPR	4 Years/100,000 Miles	2016			x			
T-544	12	CUTAWAY	Light Duty Small Bus Van - 8-14 Pass	TAOS GRT	5 Years/150,000 Miles	2016			x			
T-545	12	CUTAWAY	Light Duty Small Bus Van - 8-14 Pass	POJ PUEBLO	5 Years/150,000 Miles	2016			x			
T-552	14	BUS	Light Duty Small Bus Van - 8-14 Pass	NMDOT	5 Years/150,000 Miles	2016			x			
T-555	13	BUS	Light Duty Small Bus Van - 8-14 Pass	ST OF GOOD RPR	5 Years/150,000 Miles	2016			x			
T-558	13	BUS	Light Duty Small Bus Van - 8-14 Pass	ST OF GOOD RPR	5 Years/150,000 Miles	2016			x			
T-559	18	BUS	Light Duty Mid Size - 18-20 Pass	ST OF GOOD RPR	5 Years/150,000 Miles	2016			x			
T-543	12	CUTAWAY	Light Duty Small Bus Van - 8-14 Pass	RAC GRT	5 Years/150,000 Miles	2017				x		
T-557	13	BUS	Light Duty Small Bus Van - 8-14 Pass	ST OF GOOD RPR	5 Years/150,000 Miles	2017				x		
T-560	13	BUS	Light Duty Small Bus Van - 8-14 Pass	ST OF GOOD RPR	5 Years/150,000 Miles	2017				x		
T-551	28	BUS	Medium Duty - 25-28 Pass	5311 OPR	7 Years/200,000 Miles	2017				x		
T-565	14	BUS	Light Duty Small Bus Van - 8-14 Pass	ST OF GOOD RPR	5 Years/150,000 Miles	2018					x	
T-566	14	BUS	Light Duty Small Bus Van - 8-14 Pass	ST OF GOOD RPR	5 Years/150,000 Miles	2018					x	
T-553	28	BUS	Medium Duty - 25-28 Pass	ST OF GOOD RPR	7 Years/200,000 Miles	2018					x	
T-554	28	BUS	Medium Duty - 25-28 Pass	ST OF GOOD RPR	7 Years/200,000 Miles	2018					x	
T-567	18	BUS	Light Duty Small Bus Van - 8-14 Pass	ST OF GOOD RPR	5 Years/150,000 Miles	2019						x
new	20	CUTAWAY	Light Duty Mid Size - 18-20 Pass	NMDOT	5 Years/150,000 Miles	2019						x
new	20	CUTAWAY	Light Duty Mid Size - 18-20 Pass	NMDOT	5 Years/150,000 Miles	2019						x
new	14	CUTAWAY	Light Duty Small Bus Van - 8-14 Pass	S. 5311	5 Years/150,000 Miles	2019						x
new	14	CUTAWAY	Light Duty Small Bus Van - 8-14 Pass	S. 5311	5 Years/150,000 Miles	2019						x
new	14	CUTAWAY	Light Duty Small Bus Van - 8-14 Pass	GRT	5 Years/150,000 Miles	2019						x
T-568	28	BUS	Medium Duty - 25-28 Pass	ST OF GOOD RPR	7 Years/200,000 Miles	2020						
T-548	40	BUS	Heavy Duty Small - 40 Pass	TAOS/RAC GRT	10 Years/350,000 Miles	2021						
T-549	40	BUS	Heavy Duty Small - 40 Pass	TAOS/RAC GRT	10 Years/350,000 Miles	2021						
T-550	40	BUS	Heavy Duty Small - 40 Pass	TAOS/RAC GRT	10 Years/350,000 Miles	2021						
Total Replacements by Year:							4	9	8	4	5	9

(1) Replacement has already been funded; delivery of these five vehicles (included in this table as well) is anticipated by late June 2014.

(2) A second vehicle replacement will be needed during this planning period based on vehicle life expectancy of current vehicle type.



2014:

- 2 minivans,
- 1 light-duty cutaways, and
- 1 light-duty 13-passenger bus.

2015:

- 4 light-duty cutaways,
- 4 light-duty 18-passenger buses, and
- 1 medium-duty 25-passenger bus.

2016:

- 7 light-duty 8-14-passenger cutaways or small buses, and
- 1 light-duty 18-passenger bus.

2017:

- 3 light-duty 13-passenger buses, and
- 1 medium-duty 28-passenger buses.

2018:

- 3 light-duty 14-passenger buses, and
- 2 medium-duty 28-passenger buses.

2019:

- 2 minivans,
- 5 light-duty 8-14 passenger cutaways or small buses, and
- 2 light-duty 18-passenger cutaways.

This replacement schedule assumes continued state, federal and local financial assistance, including local match for grant-funded vehicles. It should be noted that funding sources indicated represent funding for vehicles that are currently in NCRTD's fleet, and are not necessarily indicative of recommendations for replacement funding sources.



Facility Planning

The focus of this section is on the Park and Ride/Transfer Center in Española. This facility is the hub of NCRTD's service and in need of modification, as most routes will now meet on a timed basis.

Park and Ride Facility - Española

The current facility (owned by the City of Española) is required to accommodate all sizes of vehicles from minivans to 45-foot intercity coaches. While it is centrally located, it is at its maximum usage now. The parking lot is virtually full (with Park and Ride customers) and the ability for buses to have a timed meet (critical for the system) is difficult at best due to the crowding and the fact that private vehicles can use the same entrance and drop off customers at the same spot as the buses.

Short of expanding the facility, there are a number of actions NCRTD and its transit partners can take to mitigate the problem in the short term:

1. The ability of NCRTD and New Mexico DOT Park and Ride to ensure excellent timed connections can mitigate the need for an expanded facility for a short while by encouraging Española riders to take the local bus to the Park and Ride lot. This option should be pursued for the short term.
2. Re-design the lot to allow for a separate entrance and additional staging space for buses.
3. The existing facility is well located for Park and Ride, being close to the south end of town allowing for minimal time going through Española. Plan to either expand this facility in the long term or develop or lease an intercept lot where passengers can ride a shuttle to a seamless connection at the Park and Ride facility.
4. Park and Ride at NCRTD Facility - There is space for a park and ride lot at the NCRTD administrative offices. Many of the NMDOT Park and Ride buses use that facility and they can make this the first and last stops, rather than dead-heading to the existing park and ride lot.

Bus Stops

It is important to make the distinction between bus stops and timing points. Timing points guide the schedule and allow riders to estimate when the bus will arrive at their stop. While all timing points are bus stops, most stops are not timing points.

1. **Timing Points** - Both the Riverside and Westside routes have timing points at every stop. As a result, the buses sit at stops often for up to 5 minutes because they are running ahead of schedule. These routes have too much time worked



into them and have too many timing points, significantly reducing their effectiveness. Timing points should be every 5 to 7 minutes.

2. **Additional Bus Stops** – New Mexico state law does not allow flag stops, which necessitate the need for additional bus stops on rural routes. The rural routes often have stops miles apart. In fact there are many route segments where there are no stops for 10 miles or more, precluding use by people who live along the route for want of a pole and sign. New stops were identified for many of the routes in Chapter 2 as depicted on each route map. The rural timing points can remain intact, albeit with a few changes but it simply allows for stops in between.

Shelters and Benches

NCRTD has a number of shelters on a variety of routes. It is recommended that NCRTD strive to make all of its shelters accessible. While NCRTD cannot affect change to the pathways, persons with disabilities should be able to enter and use the shelter. The placement of shelters should be guided by the following criteria:

1. **Shelter Placement** - Shelters should only be placed at stops where people wait for the bus rather than get off the bus. For example, there are stops where people wait for a bus (typically inbound to the destination city on a regional route). The stop across the street from the above stop is primarily to drop people off – they do not need a shelter. The Chimayo route is a good example of this problem.
2. **Americans with Disabilities Act (ADA)** – Shelters must meet the accessibility requirements of the ADA. A person with a disability must be able to enter the shelter, have space to maneuver and board a bus (while on the shelter concrete pad). Pads should be 8 feet deep to allow the vehicle to deploy a lift or ramp.
3. **Shelter Priority** - Shelters should be placed only at the most popular stops where people are getting on the bus, rather than at little used stops or destination based stops. Benches should be a second option, with a simple pole and sign as the third level. NCRTD should conduct an assessment of its stops after the service is revised and use the assessment to determine stop priorities and capital costs.

Marketing and Public Information

There are three components to this effort. The first is the development of a system map, schedules and a how to ride guide. The second is quality customer service. Customers must receive accurate and timely information regarding schedules – over the telephone, hard copy and on the internet. The third component to this effort is to develop the message for the new service implementation.



Development of Schedules and Maps

The combination route map and system schedule should be eliminated and replaced by a smaller system map with a How to Ride Guide/Rules of the Road on the back. Each route should have its own three-fold route map and schedule. This will also allow the system to adjust schedules on a route by route basis without having to revise the system map (far more costly). It will be much simpler to print one three-fold schedule, which can be done in-house. This is standard practice in the transit industry. This map and set of schedules should also be available on line.

Customer Service

With the implementation of the new service and schedules, there should be easy access to customer information. A trip planner should be available on the NCRTD web site. Ultimately the trip planner should encompass the region - perhaps through Google Transit.

In addition to a trip planner, customers should be able to call the NCRTD customer service office and get accurate and timely information related to any of the NCRTD routes and connecting systems.

The Message

The service changes will have an impact on many riders, most of whom will now be able to use the service for more trips. The message should include the following elements:

- a. Faster service and direct connections - Seamless transfers and faster service will be more attractive.
- b. Easy to use - New route maps and schedules and excellent customer service telephone support will make the service easier to use. Timely/accurate information is essential to success.
- c. FREE.
- d. Improved schedules for all needs: commuting, shopping personal business.

Fare Media

At this time fare media is irrelevant on NCRTD buses as all of the services are free. In the future as premium services are implemented, fares may be instituted. If fares are implemented in the future, it is first recommended that each of the providers



in the region adopt a shared fare media for customer convenience and ease of use. Electronic media should be employed as well using a smart card that can be loaded on-line or through machines at major transfer points.

Regional Planning Process – One Network of Services

As identified in the needs technical memorandum, there are six transit systems that serve all or part of the four county service areas. It is essential that each of these systems work together to ensure regional connectivity because unlike the transit systems, people do not travel only within their political jurisdiction. Therefore, while there are six systems, there should be only one network of services.

In discussions with management from each of the systems involved, there is a consensus among them that regular meetings between management and planning staffs of each system will help ensure that the region's transit services truly form one network of services. In the past there has been an informal working group that served this purpose; however, that working group faded away recently.

It is recommended that the regional transit working group be reformed into an official, formal committee that meets quarterly in order to:

- Discuss potential changes with the other systems so they can ensure connectivity between services.
- Work together to solve mobility problems and avoid duplication.
- Conduct joint planning efforts. In effect, this plan is a joint effort as the other transit system representatives sit on the NCRTD Board and are able to comment on all aspects of this plan.
- Resolve to institute a regional web site with Google transit for the region.

FUNDING AND REVENUE STRATEGIES

There are a variety of funding sources, many of which NCRTD is already taking advantage of. This includes a variety of FTA funds, tax receipts and some local government contributions.

There is no question that funding is always a challenge; however, many transit systems, knowing they operate a valuable service, find a way to get the funding. One of the greatest untapped areas is the private sector. There are a number of business arrangements that can be initiated by transit and private businesses such as a sponsorship program that some larger businesses find attractive.



5 Year Revenue and Funding Plan: Securing Sustainability

NCRTD is in a good place with its dedicated funding. However new sources of revenue should be developed to ensure a diversity of funding.

Funding Opportunities

NCRTD currently has a variety of FTA funding sources as well as a valuable dedicated tax unlike most rural and regional transit systems of its size in the nation. NCRTD also generates Section 5311 and 5311(C) Tribal Transit funds. In addition, NCRTD received stimulus funding and took advantage of the Job Access and New Freedom funds that were available. NCRTD has done an excellent job using a variety of FTA and local tax revenues.

From time to time new funding sources come available. NCRTD has done a good job seeking out those opportunities. This should continue. In addition our recommendation for new funding sources is to seek out the private sector in a sponsorship/partnership arrangement. NCRTD has already identified funds to hire a marketing specialist who will generate funds through the following program.

Sponsorship Programs

Transit has a long history of providing advertising on and in buses for additional revenue. Many systems have engaged in advertising over the years, but a sponsorship program is more than simply advertising. Instead of the usual selling of just one form of advertising, NCRTD should sell sponsorship packages. Since sponsorship and advertising funds are an important source of local funding, this program can help expand the service.

Identifying the Service

As discussed above, the program is designed to sell a service to both public and private sponsors. Possible services for sale can include (but should not be limited to):

A. Sponsorship Services at Any Level

- Recognized as a sponsor on NCRTD how to ride guide (system map and schedule).
- Sponsored by... on all system literature and advertising.
- Decal on side or back of the bus.
- Dedicated shuttle.
- Special promotions sponsorship.



B. Higher Level Sponsorship Services

- Company logo on NCRTD map.
- Placing of a shelter for customers and/or employees.
- Placing of a stop conducive to customers and/or employees - this could include going into a parking lot and stopping next to the facility.
- Route named for sponsor.
- Bus Wrap.

If properly packaged, these services have considerable value to businesses such as:

1. **Large Retailers** – Wal-Mart, Target and supermarkets are excellent examples, malls and other big box stores are others.
2. **Hospitals** – There are a number of examples of wrapped buses for hospitals, medical groups, and pharmacies.
3. **Casinos** – There are a number of casinos, some affiliated with Pueblos that may be interested in this excellent form of advertising.
4. **Ski Resorts** – These are discussed in a separate section – there are many opportunities here.
5. **Hotels, Museums and other Tourist Attractions** – There are many opportunities here.
6. **Large Local Based Corporations** – Are there any large corporations based in the area?
7. **Small Local Based Companies** – Any local company can participate at a number of levels.
8. **Fast Food Restaurants** – Wrapped buses are popular with some of the largest chains.
9. **Television, Radio Stations, and Local Newspapers** – There are also opportunities with these organizations. They can give NCRTD valuable advertising.

Develop Sponsorship Levels and Packages

After determining what will be for sale, the following activities should be accomplished:

1. **Price the Items** – Attach value to each item for sale. Check with firms that wrap buses to determine the cost of a wrap. Items should be priced competitively with similar types of advertisements, such as billboards, and television and radio



advertising. Think big! Both large and small firms should have opportunities. Set up multi-year packages for semi-permanent advertising such as bus wraps, shelter and bench signs.

2. **Develop Sponsorship Packages** – After pricing the various services to be provided, NCRTD should put them in sponsorship packages to maximize revenue. Each level of sponsorship should have a name to it. For example; gold, silver, bronze, etc., or a name to connote transit. Examples can include:
 - **High End Sponsor (Five star, platinum, etc.)** – the value of these services is significant. High end services should only go to those sponsors willing to pay over \$10,000 per year (with 3 year contracts). Various packages can be combined based on a customer/sponsors need. These high end services include, but are not limited to; bus wraps, a shelter in front of facility, with advertising, route named after sponsor (e.g. mall route, Hospital route or College route), routing conducive to the sponsors business, and logo on NCRTD map. Each of these services should be worth up to \$10,000 per year and more if they are combined.
 - **Mid-Level Sponsors** – These sponsors should have access to a variety of packages that include; advertising on a shelter(s), bench(s), and internal advertising. Decal on back of the bus, and name in the riders guide are also available. Other opportunities can include sponsoring special promotions.
 - **Entry Level Sponsor** – Small local sponsors have a place in sponsorship as well. Packages can include: advertising on benches, and internal advertising. Certain special promotions should be priced for the entry level sponsor, and recognition as a sponsor should be on promotional material

Sponsorship Implementation Tasks

- a. **Create Promotional Material** – Develop materials to sell the sponsorships. The material should be of high quality.
- b. **Recruit Supporters** – Community and political leaders as well as can be recruited to help sell the packages. Attempt to get local media outlets to assist.
- c. **Sell Sponsorships** – After all of the preparation has been completed, the sales can be initiated. Both large and small sponsors should be sought. For larger firms, first attempts should be with local contacts. If attempts with large firms fail at the local level - contact regional or corporate offices.



Funding Potential

With an aggressive, professional sales approach this program has the potential to generate significant unencumbered cash for the organization. The vehicles serving as rolling billboards can generate more than \$500 per month per vehicle (after expenses). Assuming ten vehicles are wrapped, this approach can generate \$60,000 per year in revenue. Additional sponsorships can generate approximately \$10,000 annually for a net revenue of \$70,000 annually.

Development and Implementation of the Program

NCRTD will be implementing this program in house and will be hiring a marketing specialist. This approach while more difficult than contracting the program, is far more lucrative to conduct in house.