WESTERN EL DORADO COUNTY 2019 SHORT- AND LONG-RANGE TRANSIT PLAN

Draft

Prepared for
EL DORADO COUNTY TRANSPORTATION COMMISSION

Prepared by
LSC Transportation Consultants, Inc.

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Western El Dorado County
Short- and Long-Range Transit Plan

Draft

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Introduction

The western slope of El Dorado County is comprised of nearly a dozen communities, from very small isolated communities to larger communities along the Highway 50 Corridor. The mix of urban and rural areas, some with easy freeway access, some along hilly narrow mountain roads and still others with suburban or low density development, makes providing transit a challenge. Nonetheless, El Dorado Transit has provided a successful transit program, which strives to meet the varied needs of Western El Dorado County by providing a combination of local fixed-route service, commuter service, Dial-A-Ride service and medical transportation. These services improve the quality of life for El Dorado County residents while also helping to address traffic congestion problems along the US 50 corridor.

The El Dorado County Transportation Commission (EDCTC) has initiated a Short-and Long-Range Transit Plan process in order to consider the impacts of the changing Western El Dorado County and how these changes will impact the near-term and long-term transit needs within the region. The plan will focus upon two key goals. On one level, the plan will yield a detailed, year-by-year short-range implementation plan to improve and enhance transit services. On another level, the study will provide a long-term (25-year) strategy for developing transit plans that support and enhance larger goals regarding transportation and land use.

The short-range element (5 years) will focus on concrete implementable steps towards the long-range vision for public transit services. This element of the overall study will focus on immediate transit service issues, such as route and scheduling modifications, current unmet service needs, and year-by-year capital improvements, including facilities for non-motorized transportation. It will also provide a financially-constrained plan for achieving transit goals.

The primary focus of the long-range element (25 years) is to identify long-range strategies for public transportation in Western El Dorado County that are consistent with land use, transportation, and air quality plans, and a series of implementation steps to achieve these strategies. This will be accomplished through a review of existing long-range plans, an evaluation of demographic forecasts, analysis of the regional traffic model, data collection, and preparation of alternative service strategies. Another key requirement of the long-range study is to ensure that it is financially constrained – that the operating and capital costs of the plan can be met by future foreseeable funding levels.

KEY STUDY ISSUES

This study is being conducted with the guidance of the El Dorado County Transportation Commission (EDCTC) and El Dorado County Transit Authority (El Dorado Transit) staff, and with input from a Stakeholder Advisory Committee (SAC). The SAC is comprised of members of the

Social Services Transit Advisory Committee (SSTAC), local government representatives, social service agency representatives and community activists. These groups convened at a kick-off meeting and identified issues they believe are important to address in this study, as described below.

Short-Term Issues

Current issues focus on operational and near-term capital needs, including the following:

- Nationwide bus ridership has declined on the order of 20 percent since its peak in 2008[1]. Contributing factors to the decrease could include: less expensive cost of automobile ownership, use of Uber and Lyft and relatively low gas prices. El Dorado County is not immune to the problem as system wide ridership has declined by 16 percent since 2008.

- Despite decreasing ridership, El Dorado County older adult population is anticipated to increase over the long term. Therefore, it will be important to provide effective transit service to medical and shopping destinations. This "aging in place" trend impacts demand both within the study area, as well as to Sacramento and Placer Counties.

- Several attempts have been made to serve the more affluent community of El Dorado Hills with little ridership generated. Service to this area needs to be reconsidered.

- Operating costs are as much as 23 percent higher in FY 2016 – 17 than the previous transit planning period, making it more challenging to provide cost efficient transit services.

- Dial-A-Ride ridership has also declined. Is Dial-A-Ride still meeting the needs of residents who rely on this service?

- Sacramento Commuter services are one of the few service types which have been increasing in ridership. More frequent service should be reviewed.

Long Range Issues

While the primary goal is to determine transit needs and how they can best be addressed over the next twenty years, a number of issues are being closely evaluated in this study, including the following:

- Long Range Ridership Demand Forecast: The long-range forecast for transit needs and service quantities need to be determined based on current needs and planned

[1] City Lab, The Stark Facts about Bus Ridership, May 2018

developments, including subdivision developments, commercial development, and other factors.

- Role of Transit: The appropriate role of transit service in western El Dorado County is considered in this study; identifying how transit can be used to achieve mobility, land use, and air quality goals particularly along the US 50 corridor.

- Capital and Infrastructure Needs: As El Dorado County continues to grow and develop, the infrastructure related to providing transit services need to be considered. In particular, as new development occurs in the westernmost portion of the County. Is the current operations facility appropriate for the long-term? How will El Dorado Transit serve the new County Line Multi-Modal Transit Center and Park and Ride? New CARB rules dictate that all new bus purchases must be zero emission beginning in 2029 with 25 percent of new bus purchases being zero emission in 2026. The infrastructure to support electric transit vehicles must be planned for. Long-term capital and infrastructure plan will be a key focus of this study.

- To meet active transportation and greenhouse gas emission goals, long-term transit plan elements should connect with sidewalk and bicycle networks.

These issues provided guidance for the direction of the study.

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Chapter 2

Study Area Characteristics

STUDY AREA

El Dorado County is located in the Gold Country of California, stretching from the Central Valley east of Sacramento up to the peaks of the Sierra Nevada. Much of the terrain consists of the ridges and valleys of the Western Slope. This study considers the western slope of El Dorado County (west of the Sierra Crest) including Placerville, Cameron Park, El Dorado Hills, Pollock Pines, and Diamond Springs, as well as smaller communities, herein referred to as "Western El Dorado County". The City of Placerville is the County seat and is the only incorporated town within the study area.

Western El Dorado County (excluding the Tahoe Basin) is approximately 1.1 million acres in size. The study area is presented in Figure 1. Western El Dorado County is a desirable location to live and visit. The region is known as an idyllic rural community and a tourist destination that has been experiencing residential and tourism growth in recent years. In particular, the area's proximity to employment opportunities in Sacramento County has generated substantial suburban growth in the western portion of the county.

The major arterial east/west access is provided by US Highway 50 (US 50), connecting the area with Sacramento to the west and South Lake Tahoe and Carson City, Nevada to the east. North/south highway access to the area is provided by Highway 49, connecting the area with Auburn to the northwest and Sonora to the southeast. State Route 193 provides northern access to Georgetown.

POPULATION

Historical Population and Projections

A key factor regarding future trends in transit need is change in population. The relatively undeveloped character of the county, coupled with the study area's proximity to the Sacramento area, has resulted in steady population growth. As shown in Table 1, the high rate of growth between 1990 and 2000 (2.2 percent per year) moderated somewhat during the decade from 2000 to 2010 (1.5 percent per year).

However, the California Department of Finance estimates growth to remain between 0.5% and 0.8% over the next few decades. These rates still result in substantial growth, adding an additional 7,997 Western El Dorado County residents between 2010 and 2020 and an additional 33,400 by 2040 (an 18 percent overall increase).

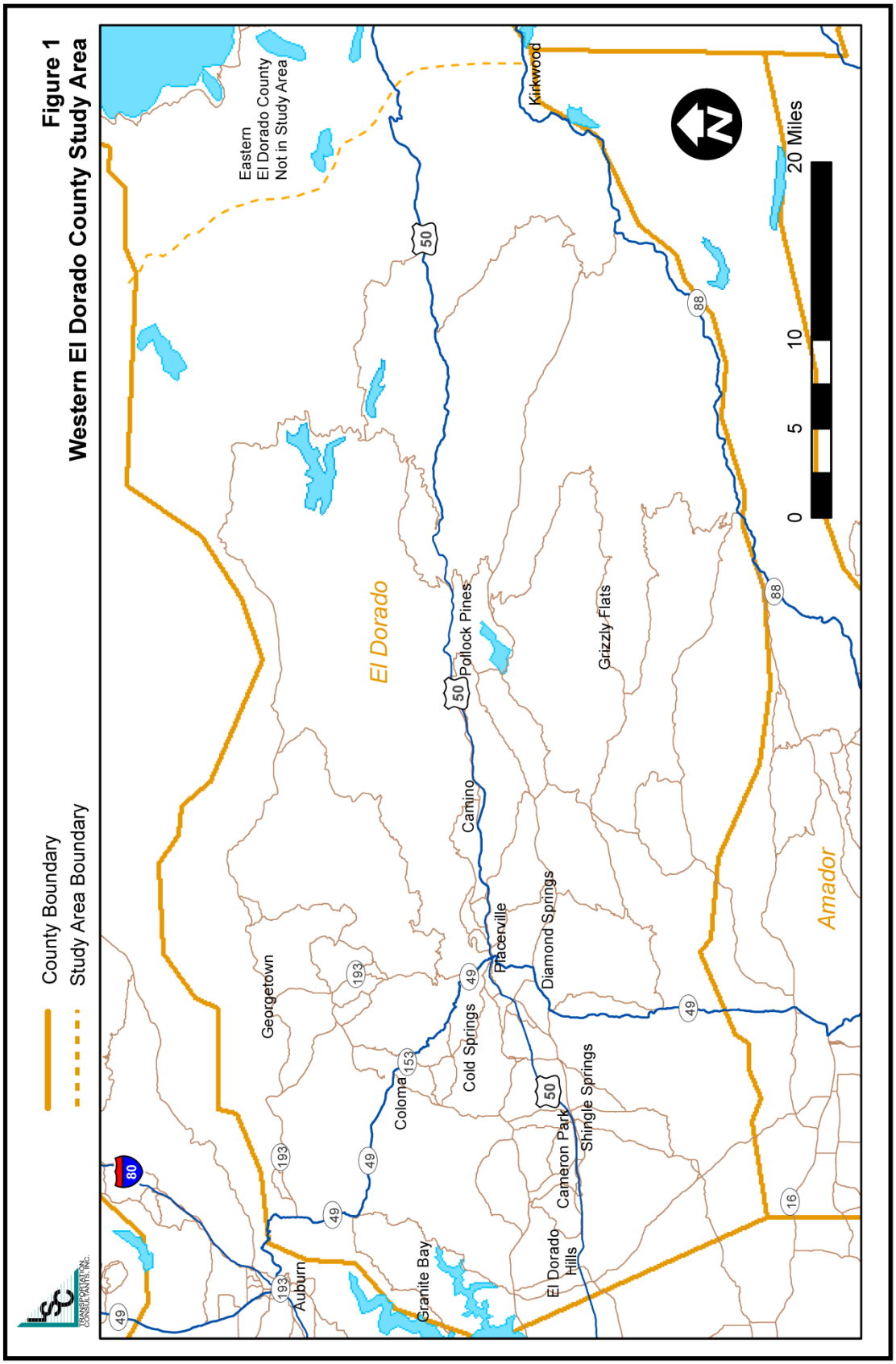


Figure 1
Western El Dorado County Study Area
County Boundary
Study Area Boundary
Eastern
El Dorado County
Not in Study Area
Kirkwood
20 Miles
0
5
10
El Dorado
Amador
Pollock Pines
Grizzly Flats
Camino
Placerville
Diamond Springs
Georgetown
Cold Springs
Coloma
Cameron Park
Shingle Springs
El Dorado Hills
Granite Bay
Auburn
50
88
49
193
153
16
80

TABLE 1: El Dorado County Historic and Forecast Populations

	1970	1980	1990	2000	2010	2020	2030	2040
El Dorado County Population	43,833	85,812	125,995	156,299	181,008	189,576	206,010	222,972
Annual Percent Growth	–	6.9%	3.9%	2.2%	1.5%	0.5%	0.8%	0.8%
Over Previous 10 Years	–	95.8%	46.8%	24.1%	15.8%	4.7%	8.7%	8.2%
California Population	20.0M	23.7M	29.8M	33.9M	37.3M	40.6M	43.9M	46.8M
Annual Percent Growth	–	1.7%	2.3%	1.3%	1.0%	0.9%	0.8%	0.6%
Over Previous 10 Years	–	18.6%	25.7%	13.8%	10.2%	8.9%	8.1%	6.5%

Source: Demographic Research Unit, California Department of Finance, January 2018

Table 2 also provides a picture of the relative expected growth in various portions of the study area:

TABLE 2: Western El Dorado County Population Projections 2018-2035

	Estimated/Forecast Population		Average Annual Growth		Total Growth	
Area	2018	2035	#	%	#	%
El Dorado Hills	39,276	55,124	932.2	1.7%	15,848	40%
Cameron Park – Shingle Springs	31,593	45,017	789.6	1.8%	13,424	42%
Coloma – Lotus	8,609	8,956	20.4	0.2%	347	4%
Diamond Springs	11,958	14,792	166.7	1.1%	2,834	24%
West Placerville	7,598	9,098	88.2	1.0%	1,500	20%
South Placerville	9,072	10,395	77.8	0.7%	1,323	15%
East Placerville	5,350	5,963	36.1	0.6%	613	11%
Georgetown	7,219	7,303	4.9	0.1%	84	1%
Pilot Hill	5,391	5,524	7.8	0.1%	133	2%
Pollock Pines	16,182	16,547	21.5	0.1%	365	2%
Mt. Aukum – Grizzly Flat	6,364	6,487	7.2	0.1%	123	2%
El Dorado High Country	2,641	2,637	-0.2	0.0%	-4	0%
El Dorado County Total*	151,253	187,843	2152.4	1.1%	36,590	24%
Subtotals						
US 50 Corridor West of Placerville	82,827	114,933	1,889	1.6%	32,106	39%
Placerville Area	22,020	25,456	202	0.8%	3,436	16%
North County	21,219	21,783	33	0.2%	564	3%

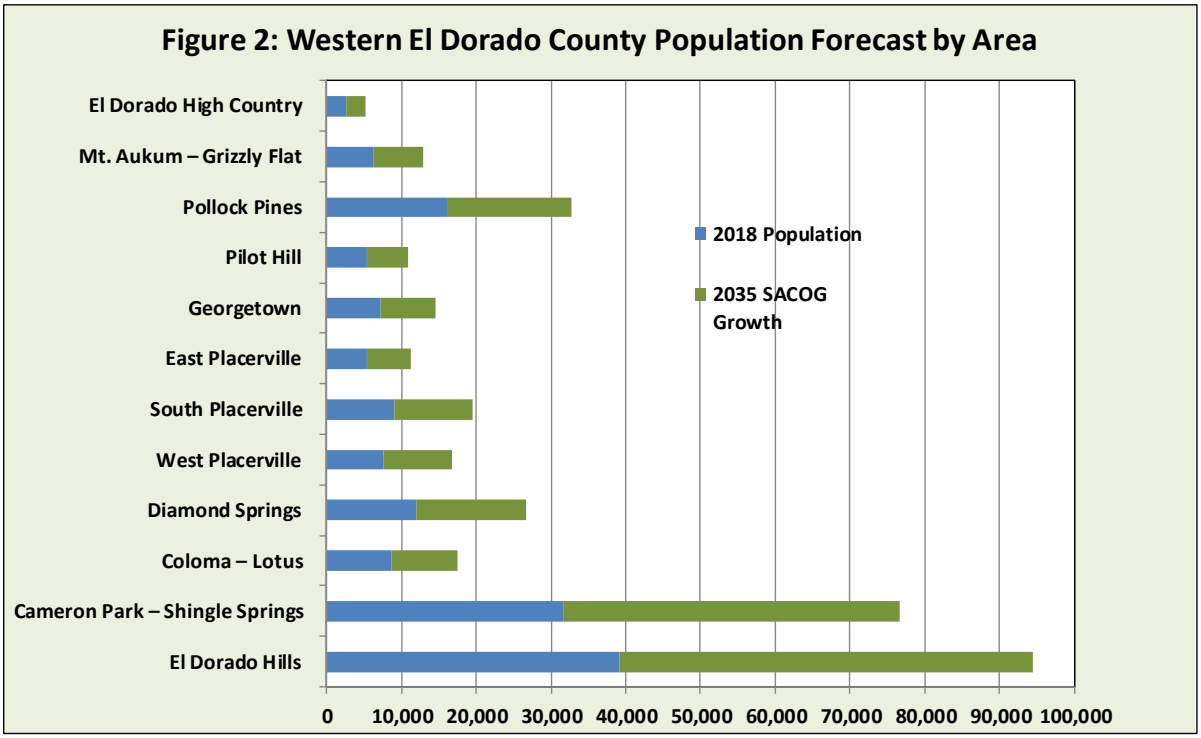
*Note: Excludes Tahoe Basin
Source: SACOG 2035 MTP

- Growth will continue to occur in the US 50 corridor west of Placerville to the Sacramento County Line, where 39 percent of population growth is expected by year 2035. Specifically, population growth is forecast for the El Dorado Hills area (15,848 additional residents, or 40 percent of area wide growth) and Cameron Park/Shingle Springs (13,424 additional residents, or 42 percent of area wide growth).

- An additional high-growth area is Diamond Springs, where population is forecast to grow by 24 percent (2,834 residents). The Placerville area will also see modest growth (16 percent, or 3,436 persons).

Figure 2 depicts the relative population in each area of the county.

Figure 2: Western El Dorado County Population Forecast by Area



Transit Dependent Population

Nationwide, transit system ridership is drawn largely from various groups of persons who make up what is often called the transit dependent population. This category includes elderly persons, persons with disabilities, low-income persons and members of households with no available vehicles. There is considerable overlap among these groups. Table 3 presents the transit dependent populations by census tract in Western El Dorado County from the U.S. Census Bureau's 2012-2016 American Community Survey data. Appendix A presents a reference map of census tracts.

TABLE 3: Western El Dorado County 2012-2016 Demographic Characteristics by Census Tract

Census Tract	Description	Total Population	Youth (5-17 Yrs)		Senior (65 & Over)		Disability		Low Income		Total Households	Zero Vehicle Households		1 Vehicle Households	
			#	*% of Census Tract*	#	*% of Census Tract*	#	*% of Census Tract*	#	*% of Census Tract*		#	*% of Census Tract*	#	*% of Census Tract*
306.01	Pilot Hill / Cool	5,412	947	*17.5%*	1,158	*21.4%*	593	*11.0%*	163	*3.0%*	2,163	16	*0.7%*	129	6.0%
306.02	Greenwood / Garden Valley	7,083	1,192	*16.8%*	1,447	*20.4%*	1,040	*14.7%*	482	*6.8%*	3,019	14	*0.5%*	312	10.3%
306.03	North Central County	3,137	398	*12.7%*	736	*23.5%*	628	*20.0%*	335	*10.7%*	2,042	17	*0.8%*	152	7.4%
307.01	Lakeridge Oaks	6,313	1,292	*20.5%*	749	*11.9%*	506	*8.0%*	105	*1.7%*	2,087	61	*2.9%*	114	5.5%
307.04	South El Dorado Hills/ Latrobe	7,093	1,529	*21.6%*	1,249	*17.6%*	965	*13.6%*	608	*8.6%*	2,640	4	*0.2%*	469	17.8%
307.06	West El Dorado Hills	5,620	1,255	*22.3%*	939	*16.7%*	383	*6.8%*	121	*2.2%*	2,249	183	*8.1%*	302	13.4%
307.09	Green Springs Ranch	4,736	1,036	*21.9%*	573	*12.1%*	232	*4.9%*	46	*1.0%*	1,655	30	*1.8%*	142	8.6%
307.1	Northeast El Dorado Hills	4,983	881	*17.7%*	789	*15.8%*	425	*8.5%*	102	*2.0%*	1,833	32	*1.7%*	207	11.3%
308.01	Deer Valley / Rescue	4,592	713	*15.5%*	856	*18.6%*	584	*12.7%*	157	*3.4%*	1,541	8	*0.5%*	57	3.7%
308.03	East Cameron Park	7,535	1,280	*17.0%*	1,645	*21.8%*	1,203	*16.0%*	743	*9.9%*	3,230	0	*0.0%*	294	9.1%
308.04	Shingle Springs / Frenchtown	6,255	1,114	*17.8%*	1,540	*24.6%*	1,159	*18.5%*	573	*9.2%*	2,396	82	*3.4%*	177	7.4%
308.07	Southwest Cameron Park	4,418	684	*15.5%*	514	*11.6%*	324	*7.3%*	347	*7.9%*	1,446	62	*4.3%*	198	13.7%
308.08	Northwest Cameron Park	6,928	1,052	*15.2%*	1,085	*15.7%*	625	*9.0%*	174	*2.5%*	2,396	0	*0.0%*	392	16.4%
308.09	South Central Cameron Park	2,486	491	*19.8%*	437	*17.6%*	393	*15.8%*	373	*15.0%*	995	14	*1.4%*	224	22.5%
308.1	North Central Cameron Park	3,642	682	*18.7%*	572	*15.7%*	500	*13.7%*	872	*23.9%*	1,418	0	*0.0%*	335	23.6%
309.01	Coloma / Lotus Area	3,143	404	*12.9%*	734	*23.4%*	403	*12.8%*	172	*5.5%*	1,300	62	*4.8%*	68	5.2%
309.02	N.Greenstone / Missouri Flat Area	4,741	708	*14.9%*	964	*20.3%*	586	*12.4%*	261	*5.5%*	1,915	0	*0.0%*	208	10.9%
310	Northwest Placerville	5,686	899	*15.8%*	1,187	*20.9%*	908	*16.0%*	1326	*23.3%*	2,386	71	*3.0%*	369	15.5%
311	North Placerville	5,023	654	*13.0%*	1,072	*21.3%*	576	*11.5%*	821	*16.3%*	2,402	58	*2.4%*	341	14.2%
312	South Placerville	5,224	543	*10.4%*	1,184	*22.7%*	909	*17.4%*	439	*8.4%*	2,044	67	*3.3%*	386	18.9%
313.01	Smith Flat / Camino	3,651	462	*12.7%*	813	*22.3%*	562	*15.4%*	484	*13.3%*	1,525	36	*2.4%*	202	13.2%
313.02	N. Pollock Pines / Cedar Grove	4,932	877	*17.8%*	799	*16.2%*	905	*18.3%*	787	*16.0%*	2,315	0	*0.0%*	251	10.8%
314.02	Somerset / Mt. Aukum	5,233	759	*14.5%*	977	*18.7%*	762	*14.6%*	694	*13.3%*	2,988	66	*2.2%*	163	5.5%
314.04	New Town / Old Fort Jim	2,322	315	*13.6%*	604	*26.0%*	399	*17.2%*	262	*11.3%*	1,034	14	*1.4%*	55	5.3%
314.05	Rancho del Sol / Gold Ridge	2,531	348	*13.7%*	526	*20.8%*	369	*14.6%*	116	*4.6%*	1,182	0	*0.0%*	51	4.3%
314.06	Fresh Pond / Pleasant Valley	5,638	880	*15.6%*	1,053	*18.7%*	955	*16.9%*	669	*11.9%*	2,626	41	*1.6%*	249	9.5%
315.02	South Missouri Flat Area	6,443	842	*13.1%*	1,408	*21.9%*	1,211	*18.8%*	868	*13.5%*	2,718	166	*6.1%*	317	11.7%
315.03	Kingsville / Nashville	2,674	254	*9.5%*	520	*19.4%*	221	*8.3%*	251	*9.4%*	1,140	0	*0.0%*	87	7.6%
315.04	Deer Park Area	5,418	684	*12.6%*	1,307	*24.1%*	1,168	*21.6%*	769	*14.2%*	2,199	27	*1.2%*	174	7.9%
317	Northwest El Dorado Hills	2,863	709	*24.8%*	339	*11.8%*	155	*5.4%*	23	*0.8%*	918	5	*0.5%*	88	9.6%
318	Southeast El Dorado Hills	7,430	1,955	*26.3%*	859	*11.6%*	266	*3.6%*	588	*7.9%*	2,218	0	*0.0%*	222	10.0%
319	Southeast County	104	4	*3.8%*	33	*31.7%*	12	*11.5%*	32	*30.8%*	893	0	*0.0%*	8	0.9%
Total Western El Dorado County		153,289	25,843	*16.9%*	28,668	*18.7%*	19,927	*13.0%*	13,763	*9.0%*	62,913	1,136	*1.8%*	6,743	10.7%
Total Eastern El Dorado County (Tahoe Basin)		29,711	3,749	*12.6%*	6,282	*21.1%*	4,301	*14.5%*	25,598	*86.2%*	25,969	203	*0.8%*	1,613	5%
Total Countywide		183,000	29,592	*16.2%*	34,950	*19.1%*	24,228	*13.2%*	39,361	*21.5%*	88,882	1,339	*0.7%*	8,356	5%

Source: U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates

The **youth** population, defined as people between the ages of 5 and 17, make up 16.9 percent of the Western El Dorado County population. As shown in Figure 3, the largest concentration of this population resides in the El Dorado Hills census tracts.

- There was an estimated 28,668 **persons aged 65** or over residing in Western El Dorado County, comprising 18.7 percent of the total population. The percentage of elderly persons was distributed fairly evenly throughout Western El Dorado County, although larger concentrations were found in the New Town/Old Fort Jim, Shingle Springs, Deer Park, and Southeast County areas. This information is presented graphically in Figure 4.

- Figure 5 presents the number and percentage of residents who are defined by the census as having a **disability**. It is estimated there are 19,927 disabled persons in Western El Dorado County, which comprised 13 percent of the study area population. The Deer Park area had the greatest concentration of disabled persons within the study area, along with Cameron Park and Shingle Springs.

- **Low-income** persons are another likely market for transit services, as measured by the number of persons living below the poverty level (determined by applying one or more of 48 thresholds defining poverty). An estimated 13,763 low-income persons reside in the study area, representing 9 percent of the total Western El Dorado County population. The concentration of those below poverty status was highest in the Southeast County, North Central Cameron Park, and Northwest Placerville areas as shown in Figure 6.

- Another key indicator of need for transit service is the number of **households without access to an operable vehicle**. According to the 2012-2016 American Community Survey, 1,136 households do not have a vehicle available. Another 6,743 households or 10.8 percent only have one car available; thereby making it difficult for more than one household member to travel to work by private vehicle. These population concentrations are shown in Figure 7.

Senior Population Trends

While forecasts for population groups with a high potential for transit use are not available, the California Department of Finance's Demographic Research Unit prepares forecasts of population by age group for each county. These are useful in understanding the impacts that future growth in senior population will have on transit needs. As shown in Table 4, these forecasts are available for each year, for the county as a whole. A review of these forecasts indicates the following:

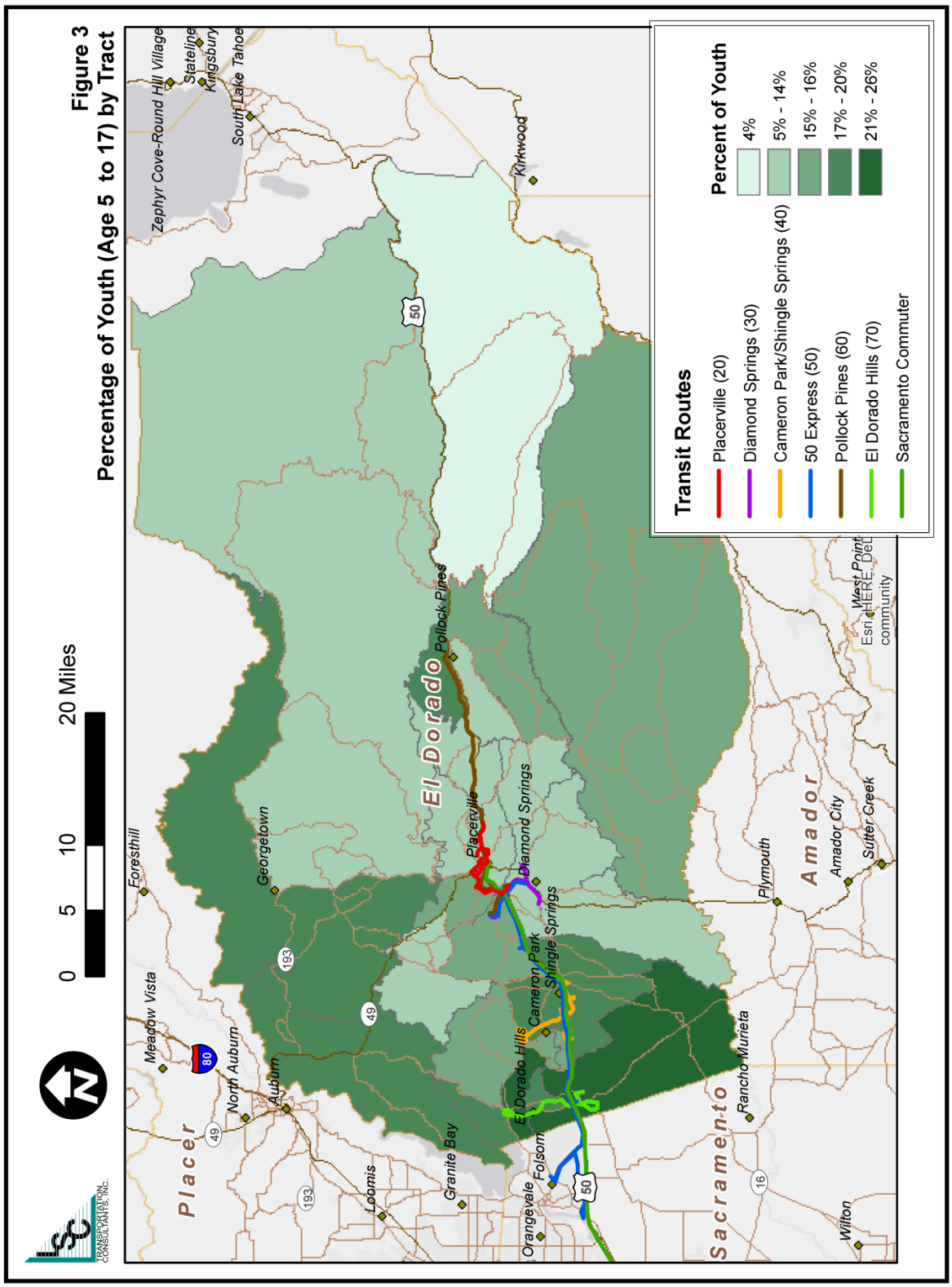


Figure 3
Percentage of Youth (Age 5 to 17) by Tract
0 5 10 20 Miles
Transit Routes
Placerville (20)
Diamond Springs (30)
Cameron Park/Shingle Springs (40)
50 Express (50)
Pollock Pines (60)
El Dorado Hills (70)
Sacramento Commuter
Percent of Youth
4%
5% - 14%
15% - 16%
17% - 20%
21% - 26%
El Dorado
Placer
Amador
Sacramento
Zephyr Cove-Round Hill Village
Stateline
Kingsbury
South Lake Tahoe
Kirkwood
Pollock Pines
Placerville
Diamond Springs
Cameron Park
Shingle Springs
El Dorado Hills
Folsom
Orangevale
Foresthill
Georgetown
Meadow Vista
North Auburn
Auburn
Loomis
Granite Bay
Rancho Murieta
Plymouth
Amador City
Sutter Creek
West Point
Wilton
Esri, HERE, Del
community

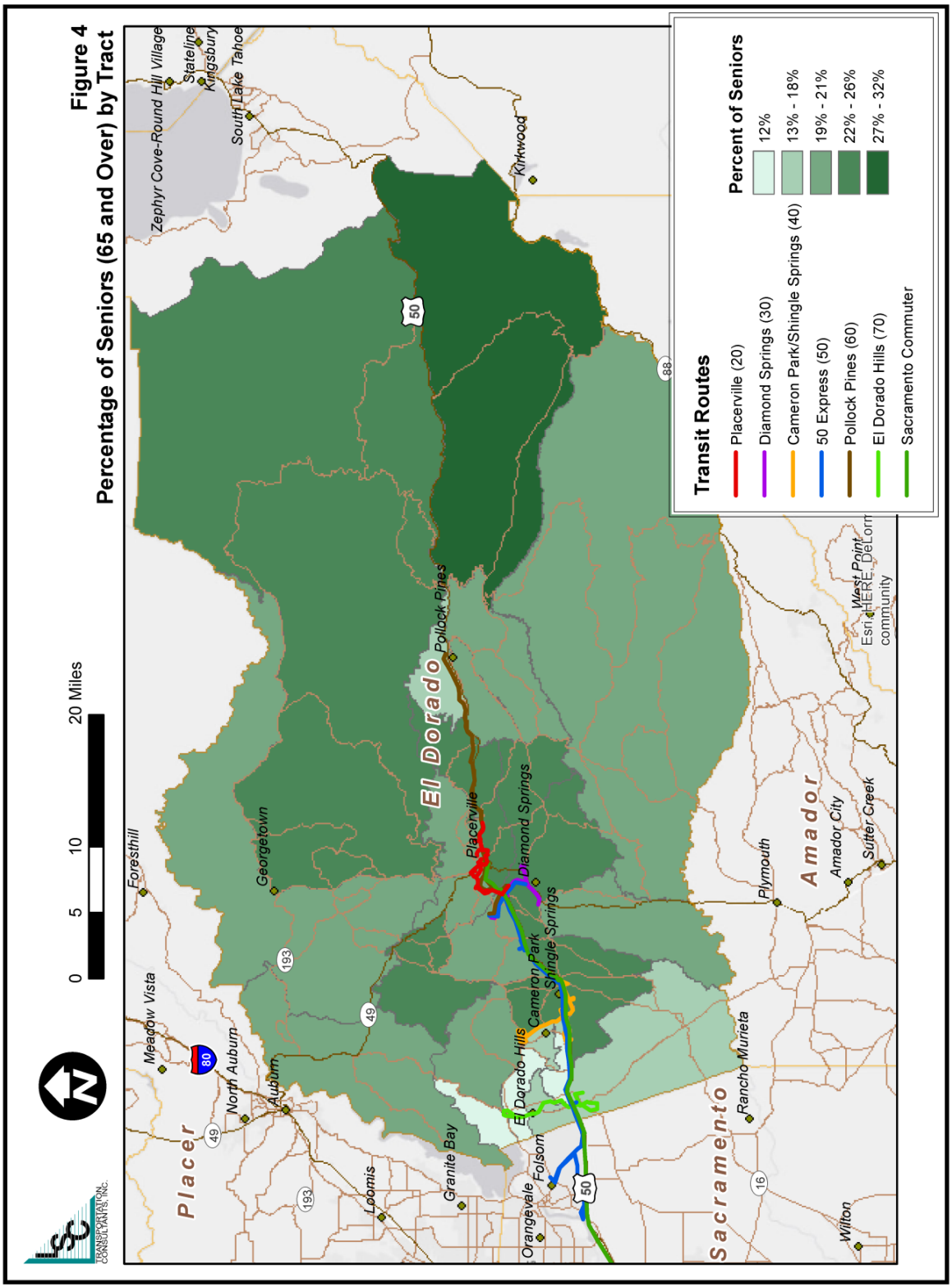


Figure 4
Percentage of Seniors (65 and Over) by Tract
Transit Routes
Placerville (20)
Diamond Springs (30)
Cameron Park/Shingle Springs (40)
50 Express (50)
Pollock Pines (60)
El Dorado Hills (70)
Sacramento Commuter
Percent of Seniors
12%
13% - 18%
19% - 21%
22% - 26%
27% - 32%
0 5 10 20 Miles
El Dorado
Placer
Amador
Sacramento
Zephyr Cove-Round Hill Village
Stateline
Kingsbury
South Lake Tahoe
Kirkwood
Pollock Pines
Placerville
Diamond Springs
Cameron Park
Shingle Springs
El Dorado Hills
Foresthill
Georgetown
Meadow Vista
North Auburn
Auburn
Loomis
Granite Bay
Orangevale
Folsom
Rancho Murieta
Plymouth
Amador City
Sutter Creek
West Point
Wilton
Esri, HERE, DeLorme community

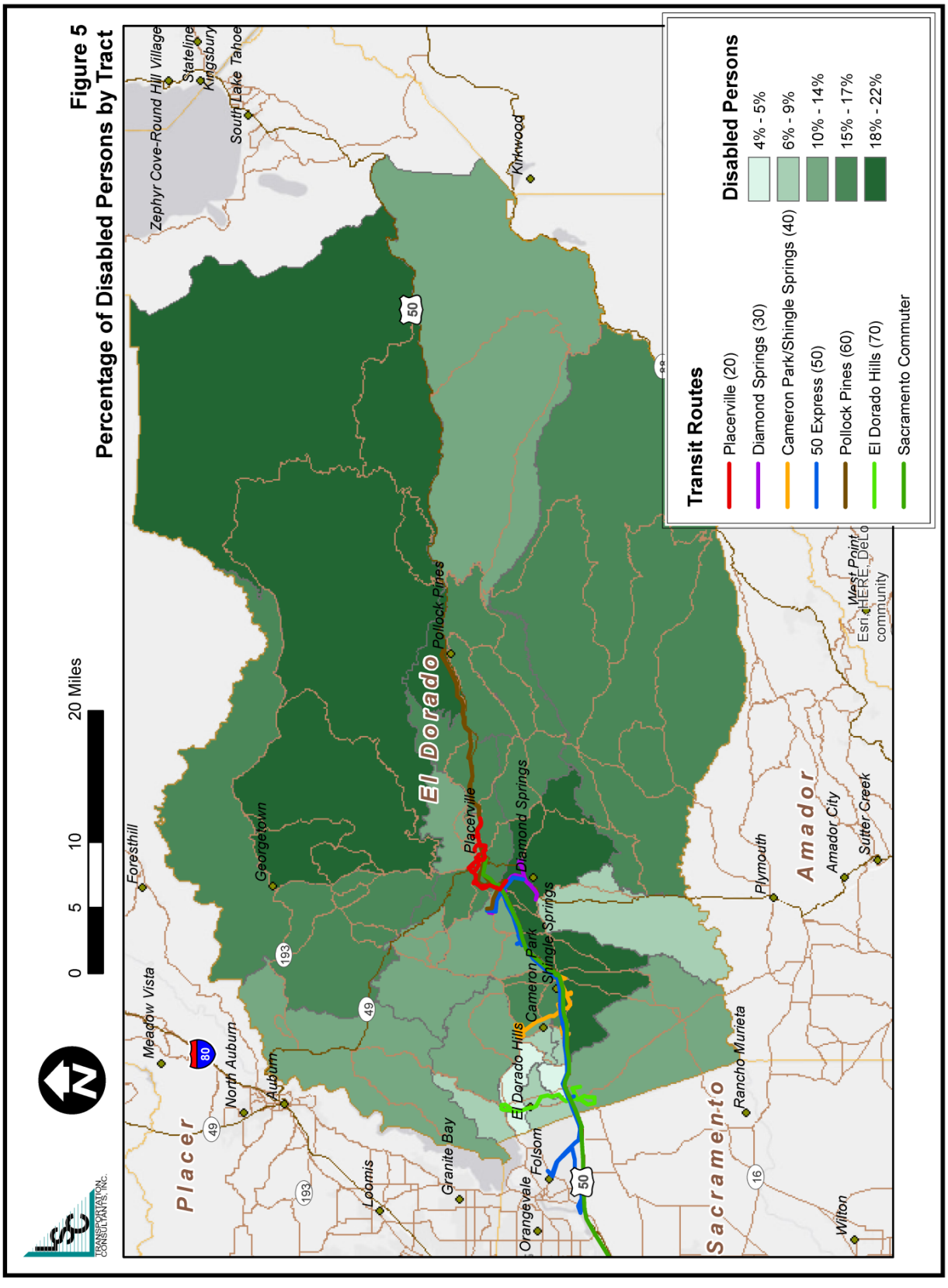


Figure 5
Percentage of Disabled Persons by Tract
Transit Routes
Placerville (20)
Diamond Springs (30)
Cameron Park/Shingle Springs (40)
50 Express (50)
Pollock Pines (60)
El Dorado Hills (70)
Sacramento Commuter
Disabled Persons
4% - 5%
6% - 9%
10% - 14%
15% - 17%
18% - 22%
0 5 10 20 Miles
El Dorado
Placer
Amador
Sacramento
Zephyr Cove-Round Hill Village
Stateline
Kingsbury
South Lake Tahoe
Kirkwood
Pollock Pines
Placerville
Diamond Springs
Cameron Park
Shingle Springs
El Dorado Hills
Georgetown
Foresthill
Meadow Vista
North Auburn
Auburn
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Orangevale
Rancho Murieta
Plymouth
Amador City
Sutter Creek
Wilton
West Point
Esri, HERE, DeLo
community
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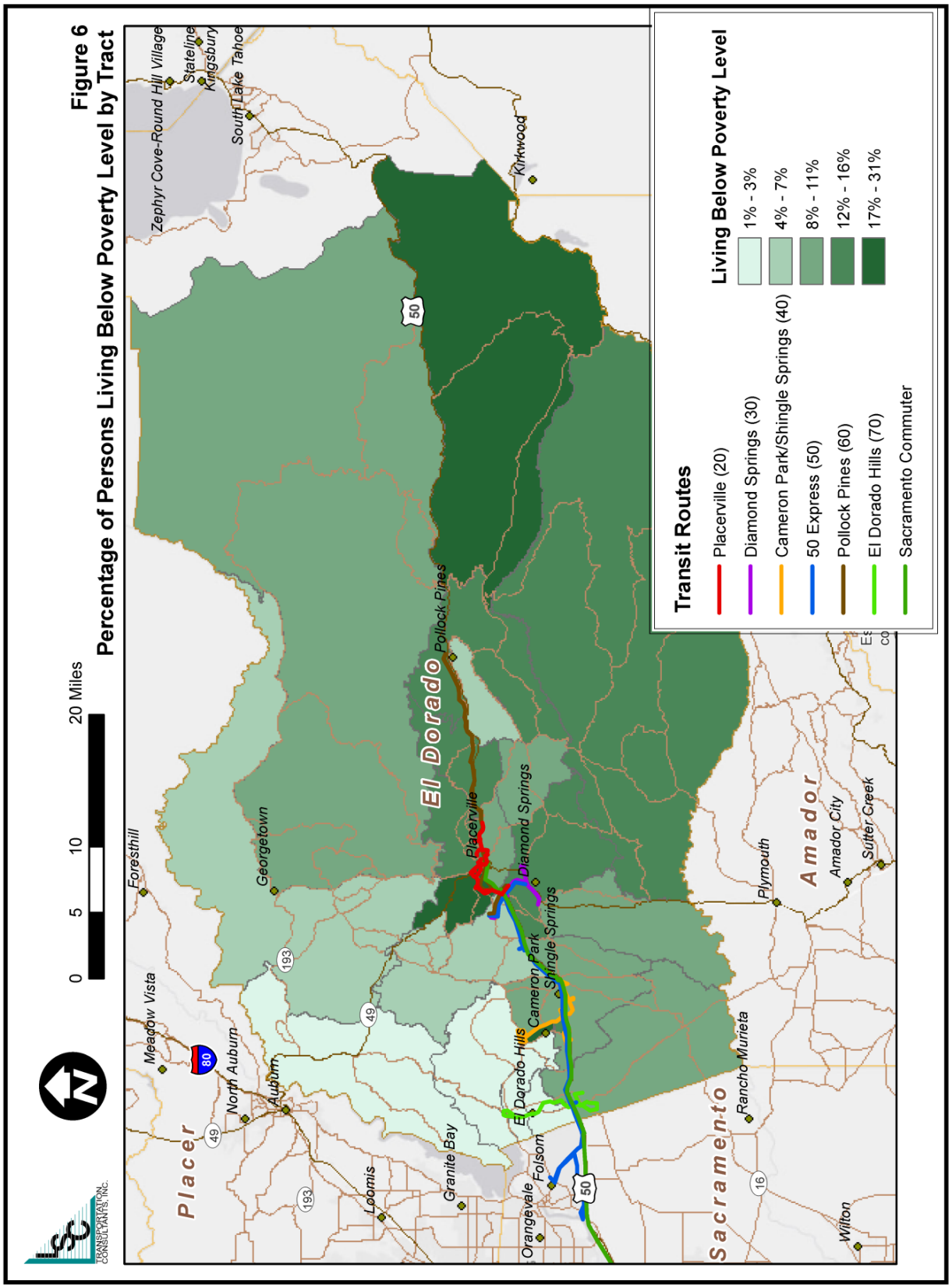


Figure 6
Percentage of Persons Living Below Poverty Level by Tract
0
5
10
20 Miles
Living Below Poverty Level
1% - 3%
4% - 7%
8% - 11%
12% - 16%
17% - 31%
Transit Routes
Placerville (20)
Diamond Springs (30)
Cameron Park/Shingle Springs (40)
50 Express (50)
Pollock Pines (60)
El Dorado Hills (70)
Sacramento Commuter
El Dorado
Placer
Amador
Sacramento
Foresthill
Meadow Vista
North Auburn
Auburn
Loomis
Granite Bay
Orangevale
Folsom
Georgetown
Placerville
Pollock Pines
Diamond Springs
Cameron Park
Shingle Springs
El Dorado Hills
Rancho Murieta
Plymouth
Amador City
Sutter Creek
Wilton
Kirkwood
South Lake Tahoe
Kingsbury
Stateline
Zephyr Cove-Round Hill Village
50
49
193
80
16
TRANSPORTATION CONSULTANTS, INC.

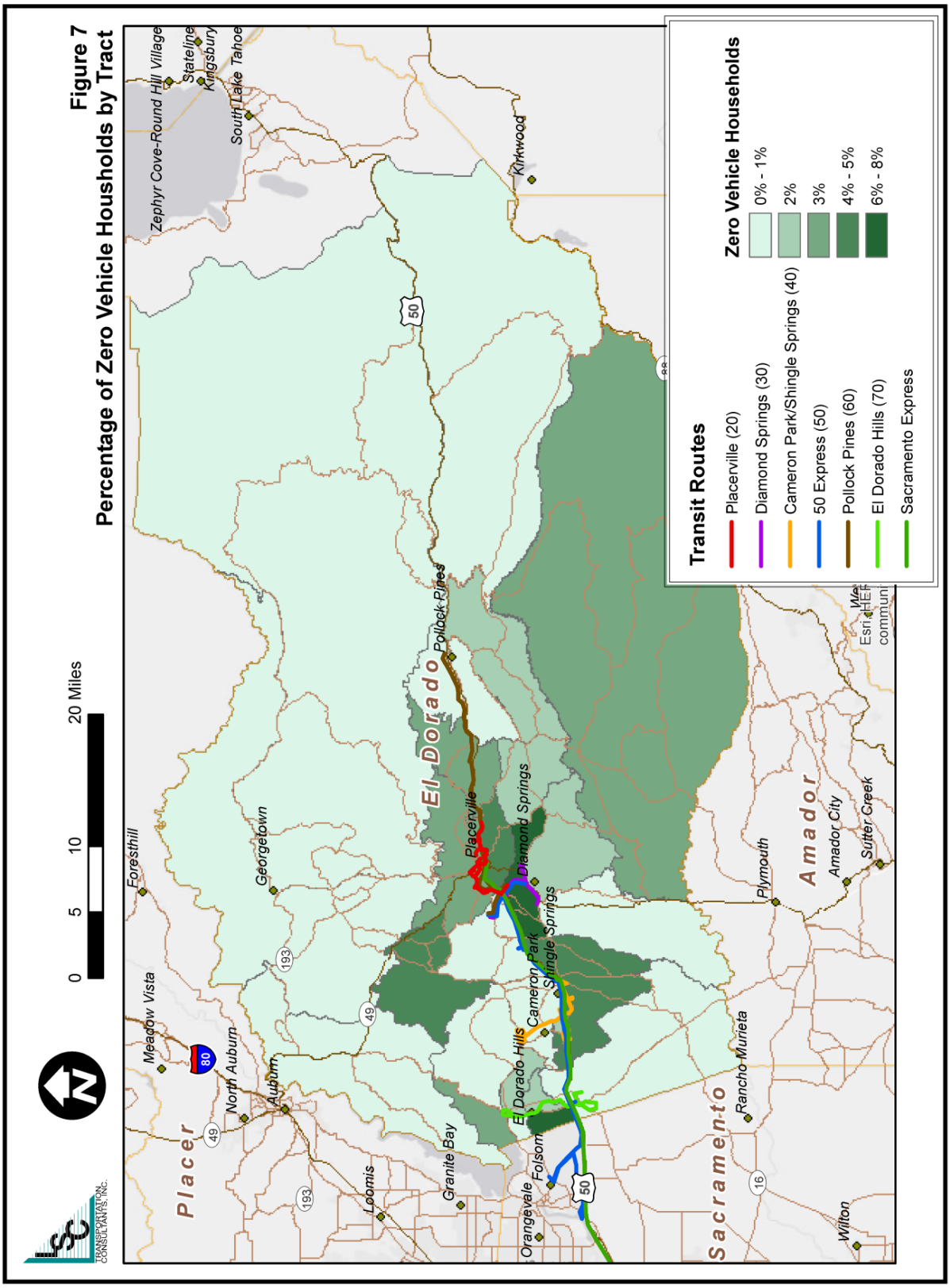


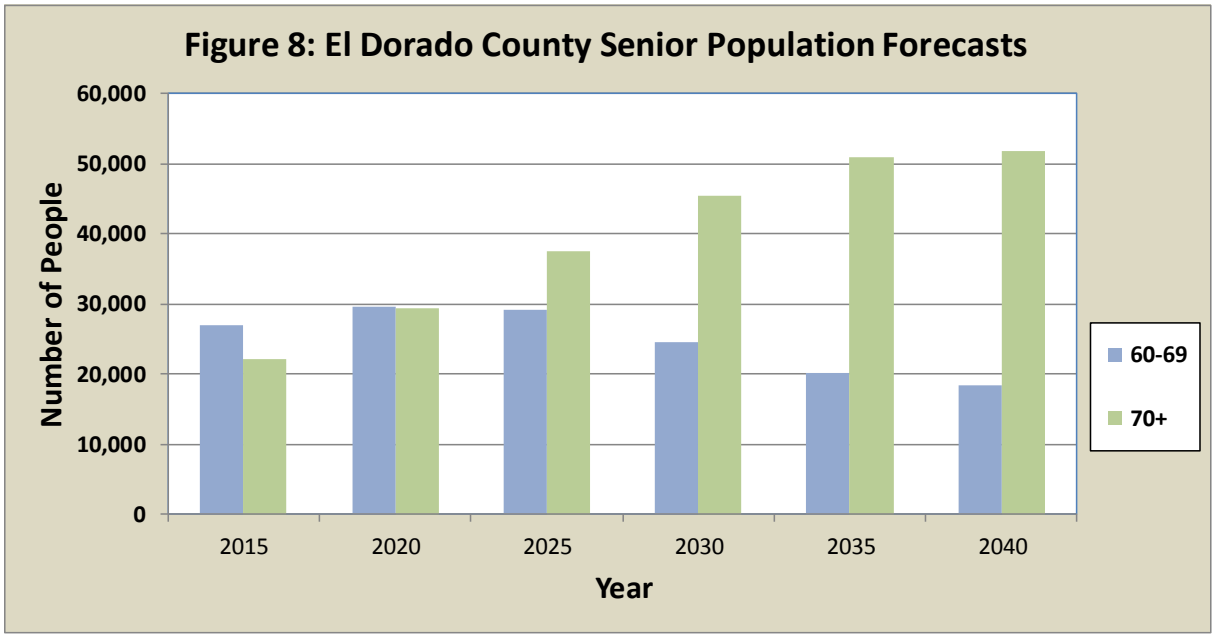
Figure 7
Percentage of Zero Vehicle Housholds by Tract
Zero Vehicle Households
0% - 1%
2%
3%
4% - 5%
6% - 8%
Transit Routes
Placerville (20)
Diamond Springs (30)
Cameron Park/Shingle Springs (40)
50 Express (50)
Pollock Pines (60)
El Dorado Hills (70)
Sacramento Express
0
5
10
20 Miles
Zephyr Cove-Round Hill Village
Stateline
Kingsbury
South Lake Tahoe
Kirkwood
Foresthill
Georgetown
Meadow Vista
North Auburn
Auburn
Loomis
Granite Bay
Orangevale
Folsom
Rancho Murieta
Wilton
Plymouth
Amador City
Sutter Creek
Placerville
Pollock Pines
Diamond Springs
Cameron Park
Shingle Springs
El Dorado Hills
Placer
El Dorado
Amador
Sacramento

TABLE 4: El Dorado County Population Forecasts by Age

Year	Population by Age Group 0-19	20-59	60-69	70+
2015	42,397	91,601	26,984	22,165
2020	40,290	90,194	29,630	29,462
2025	39,800	90,677	29,197	37,416
2030	41,565	94,380	24,578	45,487
2035	44,969	99,095	20,102	50,875
2040	47,778	104,988	18,392	51,814
% Change 2015 to 2025	-6%	-1%	8%	69%
Annual % Change	*-0.6%*	*-0.1%*	*0.8%*	*5.4%*
% Change 2025 to 2040	20%	16%	-37%	38%
Annual % Change	*1.2%*	*1.0%*	*-3.0%*	*2.2%*

Source: California Department of Finance Demographic Research Unit, Report P-1 (Age), January 2017

- The total number of seniors age 60 to 69 will ultimately decrease over the long-term planning period. From the 2015 figures, the percentage of total seniors 60 to 69 is forecast to increase by approximately 8.2 percent by 2025, but will decrease by approximately 37 percent by 2040. The number of seniors ages 60 to 69 is forecast to decrease from 26,984 in 2015 to 18,392 in 2040 as shown in Figure 8.



- Seniors age 70 and above (and thus more likely to need transit services such as Dial-A-Ride) will increase at a faster rate than total seniors, with growth between 2015 and 2040 of approximately 134 percent, or 29,649 additional residents.

These figures reflect a significant future increased need for transit services, particularly Dial-A-Ride services. They are used in this study as one factor in evaluating future growth in need for Dial-A-Ride services.

ECONOMIC/EMPLOYMENT

Western El Dorado County's economy is currently forecast to be relatively strong over coming years. The Caltrans Office of State Planning's Economic Analysis Branch prepares annual economic forecasts looking out to 2050. The *El Dorado County Economic Forecast* prepared in 2017 includes the following highlights:

- From 2017 through 2022, employment is forecast to increase by 1.1 percent per year. Employment growth will be greatest in professional, business, leisure, hospitality, education, and healthcare services. Together these sectors will account for 69 percent of the net job creation in the county.

- Real per capita income is expected to rise by 2.8 percent in 2017. Between 2017 and 2022, real per capita income will increase by 1.6 percent per year.

- Average salaries are currently below the California state average, and will remain so throughout the forecast. In El Dorado County, inflation-adjusted salaries are expected to rise by an average of 2.3 percent per year between 2017 and 2022.

- Total taxable sales, adjusted for inflation, are projected to increase by an average of 1.4 percent per year between 2017 and 2022.

- Industrial production will increase by 6.9 percent in 2017. From 2017 to 2022, industrial production is projected to grow at an average annual rate of 1.8 percent.

Major Industries in El Dorado County

Education, health, and social services provide 22 percent of the total employment within Western El Dorado County. The retail and wholesale industry employs the second largest number of employees at 14 percent, closely followed by professional, scientific and administrative services at 13 percent. Industries such as manufacturing, finance, hospitality, construction, and public administration average between 7 and 8 percent of total employment within the study area as shown in Table 5.

Table 5: Employment Industries of Western El Dorado County

Industry Type	Number of Employees	Percent of Employment Industry
Educational, Health Care, and Social Assistance Services	14,108	22%
Retail and Wholesale Trade	9,478	14%
Professional, Scientific, and AdministrativeServices	8,529	13%
Manufacturing	5,175	8%
Finance, Insurance, and Real Estate	5,122	8%
Arts, Entertainment, and Hospitality Services	5,110	8%
Construction	4,958	8%
Public Administration	4,865	7%
Transportation and Utilities	2,848	4%
Information	1,534	2%
Agriculture, forestry, fishing and hunting, and mining	690	1%
Other Services, except public administration	3,082	5%

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

Western El Dorado County Dwelling Units and Employment Projections

Dwelling units and employment projections have been forecast by the Sacramento Area Council of Governments (SACOG), by Regional Analysis District (RAD) and are presented in Table 6. The County forecasts indicate a higher proportion of dwelling unit growth in El Dorado Hills and El Dorado High Country. Regarding employment, the SACOG projections indicate a decrease of employment in the Pilot Hill, Coloma-Lotus, and Georgetown areas. Increases in employment are projected to occur in the El Dorado Hills and Diamond Springs areas of Western El Dorado County. A review of this table also indicates the following:

- These forecasts indicate an additional 20,915 net jobs added between 2012 and 2020.
- Total area employment in 2036 is forecast to be 48 percent higher than in 2012.

TABLE 6: Western El Dorado County Employment and Dwelling Units Projections: 2012-2036

	2012		2020		2036		Change 2012 - 2036			
Area	Dwelling Units	Employ-ment	Dwelling Units	Employ-ment	Dwelling Units	Employ-ment	Dwelling Units #	Employ-ment #	Dwelling Units %	Employ-ment %
El Dorado Hills	13,909	10,249	15,085	13,165	18,813	19,861	4,904	9,612	35%	94%
Cameron Park - Shingle Springs	12,554	8,514	12,949	10,765	15,846	14,872	3,292	6,358	26%	75%
Pilot Hill	2,281	435	2,294	434	2,354	430	73	-5	3%	-1%
Coloma - Lotus	3,374	747	3,375	741	3,425	732	51	-15	2%	-2%
Diamond Springs	5,365	1,358	5,369	1,672	6,545	2,088	1,180	730	22%	54%
Placerville	9,707	15,040	9,897	15,818	10,767	18,741	1,060	3,701	11%	25%
Pollock Pines	7,839	2,856	8,018	3,139	8,349	3,417	510	561	7%	20%
Mt Aukum - Grizzly Flat	4,105	1,267	4,122	1,266	4,124	1,263	19	-4	0%	0%
Georgetown	3,719	1,753	3,861	1,747	4,017	1,732	298	-21	8%	-1%
El Dorado High Country	1,519	944	1,519	944	2,049	942	530	-2	35%	0%
Western El Dorado Total	**64,372**	**43,163**	**66,489**	**49,691**	**76,289**	**64,078**	**11,917**	**20,915**	**19%**	**48%**

Source: SACOG, Regional Analysis District (RAD) Summaries, 2012 Estimate, 2020 and 2036 Projections

- Total area dwelling units in 2036 are forecasted to be 19 percent higher than in 2012, adding a net of 11,917 units.

MAJOR ACTIVITY CENTERS

There are a number of activity centers in Western El Dorado County which potentially generate transit demand. These can be categorized by health services, services for the elderly, services for individuals with disabilities, employment centers, and services for low income individuals and families. Table 7 highlights the most important activity centers in the study area and these are also shown in Figure 9.

Some important medical facilities are located outside of the county, such as the Kaiser medical offices in Folsom, and the UC Davis Medical Center and Mercy Medical Center in Sacramento.

MEANS OF TRANSPORTATION TO WORK

The American Community Survey (2012-2018 five-year estimates), conducted by the US Census Bureau, indicates that the majority of employed residents in Western El Dorado County (79 percent) drive alone to work, while 9 percent carpooled. In addition, 1 percent walked, and 2 percent used public transportation, as shown in Table 8. An estimated 9 percent of employed persons worked at home, which is significantly higher than the statewide average of 5 percent.

WESTERN EL DORADO COUNTY COMMUTE PATTERNS

Existing Commute Patterns

The US Census' Longitudinal Employee/Households Dynamics dataset provides useful information regarding existing commute patterns. The most recent data (from 2015) for all of Western El Dorado County is presented in Table 9 (showing where study area residents work) and Table 10 (showing where persons employed in the study area live). While this data includes persons that do not commute on a daily basis, it still presents a good indication of overall commuting patterns. Highlights of this data are as follows:

- Slightly more of employed Western El Dorado County residents work in Sacramento County (18,696, or 27.7 percent of total) than work in Western El Dorado County (17,129, or 25.3 percent).

- 41.4 percent of people working in Western El Dorado County are also residents of the area. Sacramento County residents contribute 19.7 percent, while Placer County contributes 4.7 percent.

- Overall, Western El Dorado County is a net exporter of commuters, with 45,256 persons commuting out of the area and 21,740 commuting into the area.

TABLE 7: Major Activity Centers in Western El Dorado County

Activity Centers for Seniors, Persons with Disabilities, and Low Income Individuals and Families

Activity Center (by Area)	Program Purpose
Cameron Park	
Alcoholics Anonymous	Recovering Alcoholics
Choices for Children	Child Care Referrals
Boys and Girls Club	
Community Services District	
Library	
Camino	
Progress House	Women's Addiction Recovery (residential)
Coloma	
Alcoholics Anonymous	
Progress House	Men's Addiction Recovery (residential)
Diamond Springs	
Alcoholics Anonymous	
Lion's Hall	Senior Nutrition Site
El Dorado County Mental Health Division Outpatient Clinic	Mental Health care
El Dorado County Alcohol & Drug	Alcohol & Drug Addiction Recovery
El Dorado	
Alcoholics Anonymous	Recovering Alcoholics
Telos Youth Outposts	Youth Behavioral Services
El Dorado Hills	
Alcoholics Anonymous	
Community Services District	Senior Nutrition Site and Teen Center
El Dorado Hills Senior Center	Senior Services
Sierra Immediate Care Medical Clinic	Medical Services
Library	
Garden Valley	
Alcoholics Anonymous	Recovering Alcoholics
Progress House	Women & Children's Residence for Recovering Addicts
Georgetown	
Alcoholics Anonymous	Recovering Alcoholics
Buckner Hall	Community Events
Divide Seniors	Senior Services
Divide Wellness Center	Health Clinic
Library	
Greenwood	
Community Center	Senior Nutrition Site
Mt. Aukum	
Three Forks Grange Hall	Community Events
Pollock Pines	Women, Infant & Children's Services
Alcoholics Anonymous	
Boys and Girls Club	
Senior Center	Senior Services, Nutrition Site
Shingle Springs	
Alcoholics Anonymous	Recovering Alcoholics
El Dorado County Probation -- Child Protective Services	
Senior Center	Senior Services
Shingle Springs Community Center	
Shingle Springs Tribal Health	Drop-In Health Clinic
Placerville	
Alcoholics Anonymous	
Alta California Regional Center	Services for Developmentally Disabled
Big Brother Big Sister	Mentoring Program
Boys and Girls Club	
CA Dept of Rehabilitation	
Central Sierra Regional Occupational Program	Job Information and Training
Children's Center/Network	Headstart
Choices Transitional Services	Independent Living Services for Developmentally Disabled Adults
Community Crisis Services	
El Dorado Council on Alcoholism (EDCA)	Alcohol & Drug Addiction Recovery
El Dorado County Community Services	
El Dorado County Dept. of Social Services	
El Dorado County Child Support Services	
El Dorado County Food Bank	
El Dorado County Food Programs	
El Dorado County Literacy Services	
El Dorado County Psychiatric Health Facility	
El Dorado County Public Health Dept.	
El Dorado County Senior and Family Services	
El Dorado County Veteran's Service Office	
The Center for Violence-Free Relationships	
Elder Options	Veteran's Services
GATES Recovery	Abuse Victims Services
Golden Sierra Job Training Agency	Professional Care Management
Health Depot	Addiction Recovery
Connections One Stop Workforce Development and Business Resource Center	Employment Services Life Skills, Preventative Health, Job Skills; Non-Eng. Speakers
Legal Center for the Elderly	Employment Services
Marshall Hospital	
Mental Health Day Treatment Center	Senior Legal Services
Motherlode Rehabilitation Enterprises, Inc.	Hospital
New Morning Youth Shelter	Treatment for Mental Illness
Library	Services for the Disabled Adults
Placerville Senior Center	Youth Shelter
Progress House	
S.H.A.R.E.	Senior Services, Nutrition Site
Senior Day Care Services	Transitional Services for Recovering Addicts
Senior Peer Counseling	Food Closet
Snowline Hospice	Senior Services
Social Security Administration	Senior Services Outreach
TriVisual Services	End of Life Services
WIC Office	Food Stamps, MediCal, CalWorks Services for Visually Impaired
Somerset	
Alcoholics Anonymous	
Pioneer Park Community Center	Senior Nutrition Site

Source: LSC Transportation Consultants, Inc.

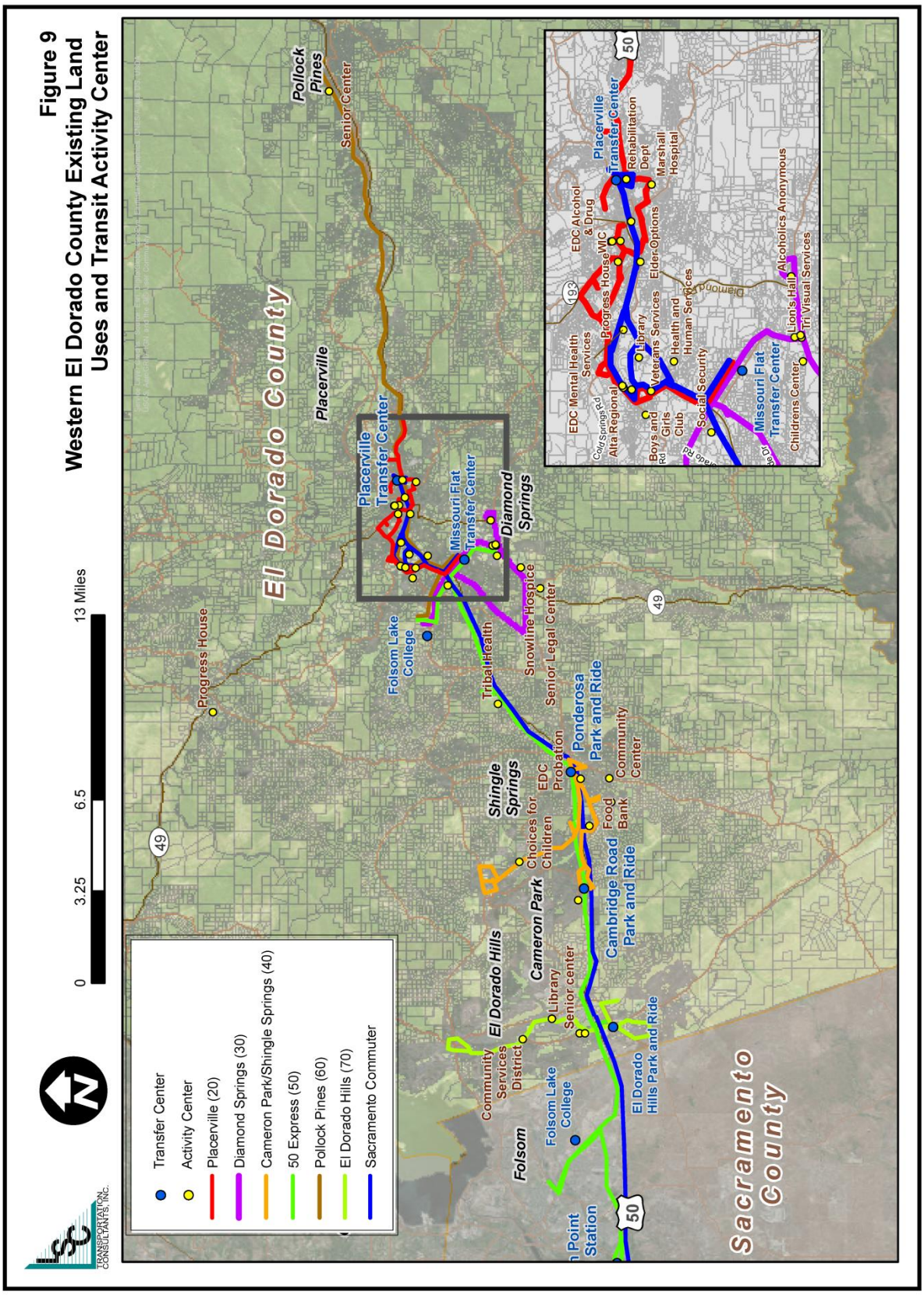


Figure 9
Western El Dorado County Existing Land Uses and Transit Activity Center
Transfer Center
Activity Center
Placerville (20)
Diamond Springs (30)
Cameron Park/Shingle Springs (40)
50 Express (50)
Pollock Pines (60)
El Dorado Hills (70)
Sacramento Commuter
0
3.25
6.5
13 Miles
El Dorado County
Sacramento County
Placerville
Pollock Pines
Diamond Springs
Shingle Springs
Cameron Park
El Dorado Hills
Folsom
Placerville Transfer Center
Missouri Flat Transfer Center
Senior Center
Progress House
Folsom Lake College
Tribal Health
Snowline Hospice
Senior Legal Center
Ponderosa Park and Ride
Community Center
EDC Probation
Choices for Children
Food Bank
Cambridge Road Park and Ride
Library
Senior center
Community Services District
El Dorado Hills Park and Ride
Point Station
EDC Alcohol & Drug
EDC Mental Health Services
Progress House
WIC
Rehabilitation
Dept
Marshall Hospital
Elder Options
Library
Veterans Services
Health and Human Services
Boys and Girls Club
Social Security
Alta Regional
Lions Hall
Alcoholics Anonymous
Tri Visual Services
Childrens Center
49
50
193

TABLE 8: Commute Mode of Western El Dorado County	
Commute Mode	**% of Working Residents**
Drove Alone	79%
Carpooled	9%
Public Transportation	2%
Walked	1%
Worked from Home	9%
Source: U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates	

Forecast Changes in Commute Patterns

The SACSIM15 (Sacramento Activity-Based Travel Simulation Model) transportation model, developed and maintained by SACOG, provides data regarding travel to and from the home in the six-county Sacramento Region, based upon a system of Regional Analysis Districts (RADs). The 2015 SACSIM Model is the most recent complete model and was prepared for the 2016 Metropolitan Transportation Plan and Sustainable Community Strategy. The base year for the model is 2012 and the forecast year is 2036. The model estimates travel demand in terms of "tours". A tour is a series of trips beginning and ending at home location. Purpose is defined by the primary activity on the tour (work, school, or other trip purpose). A tour includes a minimum of two one-way person trips with an average of 2.5 trips and includes all modes of travel (by car, transit, bike or on foot). Tours are classified as work tours if at least one trip in the tour is made for work purposes. For purposes of this study, this data has been summarized into a total of 20 areas. As, a total of 10 districts comprise Western El Dorado County, while the remainder of the Sacramento Region has been summarized into a total of 10 additional districts. As these figures reflect the only detailed forecasts of future travel demand between El Dorado County and the remainder of the region, they are used to assess future changes in inter-county transit demand in this study.

Appendix B displays travel demand for both 2012 and 2036 while Table 11 features the projected growth in commute related tours over the 24 year period. A review of these tables indicates the following key points regarding expected changes in commuting patterns:

- The greatest growth in commuting within Western El Dorado County is forecast to occur for trips internal to El Dorado Hills (1,259 tours). Other areas of high internal commuting growth consist of tours within Cameron Park/Shingle Springs (787), as well as trips within Placerville (754). Fewer commuters are anticipated to travel to the El Dorado High Country, Georgetown and Grizzly Flat.

TABLE 9: Where Residents of El Dorado County Work

County of Employment	Residents of El Dorado County #	Residents of El Dorado County %
El		
Western El Dorado County, CA	19,403	28.7%
Sacramento County, CA	18,696	27.7%
Placer County, CA	4,594	6.8%
Eastern El Dorado County, CA	4,499	6.7%
Douglas County, NV	2,494	3.7%
Santa Clara County, CA	1,859	2.7%
Alameda County, CA	1,676	2.5%
San Francisco County, CA	1,271	1.9%
Contra Costa County, CA	1,123	1.7%
San Joaquin County, CA	959	1.4%
Los Angeles County, CA	917	1.4%
San Mateo County, CA	915	1.4%
All Other Locations	9,195	13.6%
Total	67,601	100.0%
By Census Designated Place		
Sacramento, CA	6,180	9.1%
Placerville, CA	5,625	8.3%
South Lake Tahoe, CA	4,499	6.7%
El Dorado Hills CDP, CA	4,051	6.0%
Folsom, CA	3,885	5.7%
Diamond Springs CDP, CA	3,198	4.7%
Rancho Cordova, CA	2,714	4.0%
Roseville, CA	2,278	3.4%
Cameron Park CDP, CA	1,821	2.7%
Stateline CDP, NV	1,533	2.3%
San Francisco, CA	1,271	1.9%
Arden-Arcade CDP, CA	1,270	1.9%
Shingle Springs CDP, CA	811	1.2%
San Jose, CA	781	1.2%
Carmichael CDP, CA	586	0.9%
All Other Locations	27,098	40.1%
Total	67,601	

CDP = Census Data Place

Source: US Census, OnTheMap website accessed 9/20/2018

TABLE 10: Where Workers in El Dorado County Reside

County of Residence	Workers in El Dorado County #	Workers in El Dorado County %
Western El Dorado County	18,849	41.4%
Sacramento County	8,974	19.7%
Eastern El Dorado County	4,973	10.9%
Placer County	2,162	4.7%
San Joaquin County	792	1.7%
Douglas County	708	1.6%
Contra Costa County	583	1.3%
Washoe County	549	1.2%
Yolo County	473	1.0%
Alameda County	469	1.0%
Santa Clara County	442	1.0%
Amador County	433	1.0%
All Other Locations	6,155	13.5%
Total	45,562	
By Census Designated Place		
El Dorado Hills CDP, CA	3,563	14.9%
South Lake Tahoe, CA	3,526	14.7%
Cameron Park CDP, CA	2,352	9.8%
Placerville, CA	1,854	7.7%
Diamond Springs CDP, CA	1,818	7.6%
Folsom, CA	1,677	7.0%
Sacramento, CA	1,575	6.6%
Pollock Pines CDP, CA	1,049	4.4%
Citrus Heights, CA	719	3.0%
Rancho Cordova, CA	704	2.9%
Roseville, CA	629	2.6%
Elk Grove, CA	610	2.5%
Shingle Springs CDP, CA	540	2.3%
Orangevale CDP, CA	526	2.2%
Carmichael CDP, CA	508	2.1%
All Other Locations	23,992	

CDP = Census Data Place

Source: US Census, OnTheMap website accessed 9/20/2018

Table 11: Growth in Western El Dorado County Average Weekday Work Tours

2012 - 2036

	El Dorado Hills	Cameron Park - Shingle Springs	Pilot Hill	Coloma - Lotus	Diamond Springs	Placer-ville	Pollock Pines	Mt Aukum - Grizzly Flat	George-town	El Dorado High Country	Placer County	Yolo County	Yuba County	Sutter County	Down-town Sac	Natomas /N. Sac	Folsom - Arden Arcade	East Sac - Rancho Cordova Area	South Sac - Elk Grove	Southeast Sac County	Total
El Dorado Hills	1,259	352	1	2	-2	81	-4	-1	-10	1	1,000	102	6	8	183	581	1,213	1,090	134	17	**6,013**
Cameron Park - Shingle Springs	697	787	-2	-11	46	226	-1	-2	17	-1	515	57	2	3	93	322	672	558	143	13	**4,134**
Pilot Hill	31	19	7	-3	-2	30	3	0	-4	-3	132	1	1	-2	4	40	7	7	20	4	**292**
Coloma - Lotus	62	107	-1	-5	-5	57	4	1	-2	-4	96	8	1	1	-24	39	-32	-6	16	-3	**310**
Diamond Springs	167	156	-2	3	130	371	12	-2	17	5	146	9	-1	0	38	62	95	154	46	-1	**1,405**
Placerville	173	230	-2	-1	50	754	-7	-6	-11	-2	187	11	-1	2	60	111	124	17	67	-6	**1,750**
Pollock Pines	79	110	-3	-1	54	190	89	-6	7	-5	90	13	0	3	-14	44	42	58	49	5	**804**
Mt Aukum - Grizzly Flat	55	17	0	-2	16	52	3	23	-3	-2	20	11	0	0	4	23	-8	-5	15	-1	**218**
Georgetown	43	46	6	-2	11	101	5	1	21	8	57	11	0	1	-7	10	87	56	3	-5	**453**
El Dorado High Country	39	27	-1	0	11	78	15	-1	1	2	67	4	0	0	4	13	35	42	2	3	**341**
Placer County	563	200	-17	-2	2	39	-1	0	-12	1	--	--	--	--	--	--	--	--	--	--	**773**
Yolo County	18	18	0	2	0	-6	-3	0	0	-1	--	--	--	--	--	--	--	--	--	--	**28**
Yuba County	14	9	2	1	1	-6	-4	0	-4	-1	--	--	--	--	--	--	--	--	--	--	**12**
Sutter County	2	3	0	-1	0	-2	0	0	2	0	--	--	--	--	--	--	--	--	--	--	**4**
Downtown Sacramento	23	7	0	0	0	3	2	0	0	0	--	--	--	--	--	--	--	--	--	--	**35**
Natomas/N. Sacramento	296	82	3	-4	5	-57	-4	-1	2	-2	--	--	--	--	--	--	--	--	--	--	**320**
Folsom - Arden Arcade	1,824	630	3	-24	18	-21	-15	-2	-7	-3	--	--	--	--	--	--	--	--	--	--	**2,403**
East Sacramento - Rancho Cordova Area	624	270	1	-2	16	94	5	0	-9	-2	--	--	--	--	--	--	--	--	--	--	**997**
South Sacramento - Elk Grove	174	76	-3	-12	12	-199	-27	-2	-12	-9	--	--	--	--	--	--	--	--	--	--	**-2**
Southeast Sacramento County	39	27	-1	-3	-4	-44	-2	0	-3	-1	--	--	--	--	--	--	--	--	--	--	**8**
Total	**6,182**	**3,173**	**-9**	**-65**	**359**	**1,741**	**70**	**2**	**-10**	**-19**	**2,310**	**227**	**8**	**16**	**341**	**1,245**	**2,235**	**1,971**	**495**	**26**	**20,298**

Source: SACOG Regional Travel Demand Model (SACSIM15)

- For El Dorado residents who travel outside the county for work, the greatest increase is expected to be generated from the El Dorado Hills area followed by Cameron Park/Shingle Springs. The most common work related destinations are Placer County, Folsom –Arden Arcade area between US 50 and I-80 and East Sacramento – Rancho Cordova. Only a relatively small increase in tours is anticipated to Downtown Sacramento (341 from all locations).

- As for out-of-county residents travelling to El Dorado County for work, a significant number are expected to live in the Folsom-Arden Arcade area and travel to El Dorado Hills (1,824). Over the next 20 years or so, fewer out of county residents are expected to work in Placerville, Coloma or the high country.

Existing and Future Western El Dorado County Internal Travel Patterns

The SACOG SACSIM transportation model also provides very useful information regarding existing and future travel patterns within Western El Dorado County. Appendix B presents travel demand estimates for 2012 and 2036, while Table 12 below summarizes anticipated growth in travel between the two years in terms of tours. A review of this information indicates the following highlights:

- As with work tours, the El Dorado Hills and Cameron Park-Shingle Springs areas are expected to generate the greatest increase in travel by all modes. However, given low local route transit ridership on El Dorado Transit and the low Census public transit commute mode split for these areas, it can be assumed that the greater majority of this increase will be by private automobile. Over the 24 year period, as many as 8,617 new tours will be generated within El Dorado Hills and 7,777 new tours within Cameron Park-Shingle Springs.

- Tours between Placerville and Diamond Springs are anticipated to increase by anywhere from 2,000 to 3,000 but trips to the most rural areas of El Dorado County are anticipated to decrease by 2 to 128 tours.

- The largest growth in tours outside of El Dorado County will be to/from Folsom – Arden Arcade area (11,812 from all locations). Other areas with relatively high growth in traffic to/from Western El Dorado County are Placer County (5,065 from all locations).

MAJOR PLANNED DEVELOPMENTS

Major development and specific plans currently in the planning process consist of the following. Note that these proposals require various levels of analysis and discretionary decision-making. Locations for these developments are presented in Figure 10.

Table 12: Growth in Western El Dorado County Average Weekday Tours - All Trips
2012 - 2036

	El Dorado Hills	Cameron Park - Shingle Springs	Pilot Hill	Coloma - Lotus	Diamond Springs	Placerville	Pollock Pines	Mt Aukum - Grizzly Flat	George-town	El Dorado High Country	Placer County	Yolo County	Yuba County	Sutter County	Down-town Sac	Natomas/ N. Sac	Folsom to Arden Arcade	East Sac to Rancho Cordova Area	South Sac to Elk Grove	Southeast Sac County	Total
El Dorado Hills	8,617	1,920	15	-15	44	248	7	-2	-6	2	2,217	205	7	15	299	1,220	7,773	2,668	428	55	**25,717**
Cameron Park - Shingle Springs	2,578	7,777	-13	-42	82	359	31	-4	34	-2	1,009	139	0	2	162	526	2,638	1,173	244	6	**16,699**
Pilot Hill	72	32	38	-2	2	48	4	0	-47	-9	494	16	2	1	0	34	85	10	26	-2	**804**
Coloma - Lotus	188	678	-25	-128	27	173	11	0	-29	-4	216	21	4	8	-28	63	58	-30	21	-8	**1,216**
Diamond Springs	360	593	2	9	1,164	2,069	79	-1	11	9	223	22	-1	2	56	111	348	212	102	8	**5,378**
Placerville	328	716	-4	19	226	3,197	61	-7	-23	13	366	36	-1	3	114	218	391	41	88	-13	**5,769**
Pollock Pines	174	356	0	-6	253	772	862	-18	36	6	131	26	1	3	5	70	149	98	22	7	**2,947**
Mt Aukum - Grizzly Flat	72	101	2	-8	82	230	44	11	7	-1	32	8	0	0	7	21	63	30	6	4	**711**
Georgetown	100	205	-11	-19	14	386	-4	3	395	55	287	-6	1	3	-18	23	187	129	9	-6	**1,733**
El Dorado High Country	75	125	1	12	50	436	44	-3	-42	231	90	9	1	0	3	28	120	80	15	2	**1,277**
Placer County	1,291	446	-24	11	24	149	-4	0	-9	2	--	--	--	--	--	--	--	--	--	--	**1,886**
Yolo County	71	46	1	0	0	-6	-4	0	-6	-1	--	--	--	--	--	--	--	--	--	--	**101**
Yuba County	24	9	5	2	2	-9	-4	0	-9	-3	--	--	--	--	--	--	--	--	--	--	**17**
Sutter County	13	5	0	-2	0	-1	0	0	2	0	--	--	--	--	--	--	--	--	--	--	**17**
Downtown Sacramento	38	14	0	0	0	2	2	0	-1	0	--	--	--	--	--	--	--	--	--	--	**55**
Natomas/N. Sacramento	549	123	1	-1	3	-108	-4	-3	5	0	--	--	--	--	--	--	--	--	--	--	**565**
Folsom - Arden Arcade	7,256	1,667	8	8	52	91	-3	-1	-6	-2	--	--	--	--	--	--	--	--	--	--	**9,070**
East Sacramento - Rancho Cordova Area	1,824	717	4	4	37	193	14	0	-14	-1	--	--	--	--	--	--	--	--	--	--	**2,778**
South Sacramento - Elk Grove	358	178	-6	-24	24	-288	-30	-2	-10	-8	--	--	--	--	--	--	--	--	--	--	**192**
Southeast Sacramento County	67	85	-2	-2	-3	-54	1	-1	-6	-1	--	--	--	--	--	--	--	--	--	--	**84**
Total	**24,055**	**15,793**	**-8**	**-184**	**2,083**	**7,887**	**1,107**	**-28**	**282**	**286**	**5,065**	**476**	**14**	**37**	**600**	**2,314**	**11,812**	**4,411**	**961**	**53**	**77,016**

Source: SACOG Regional Travel Demand Model (SACSIM15)

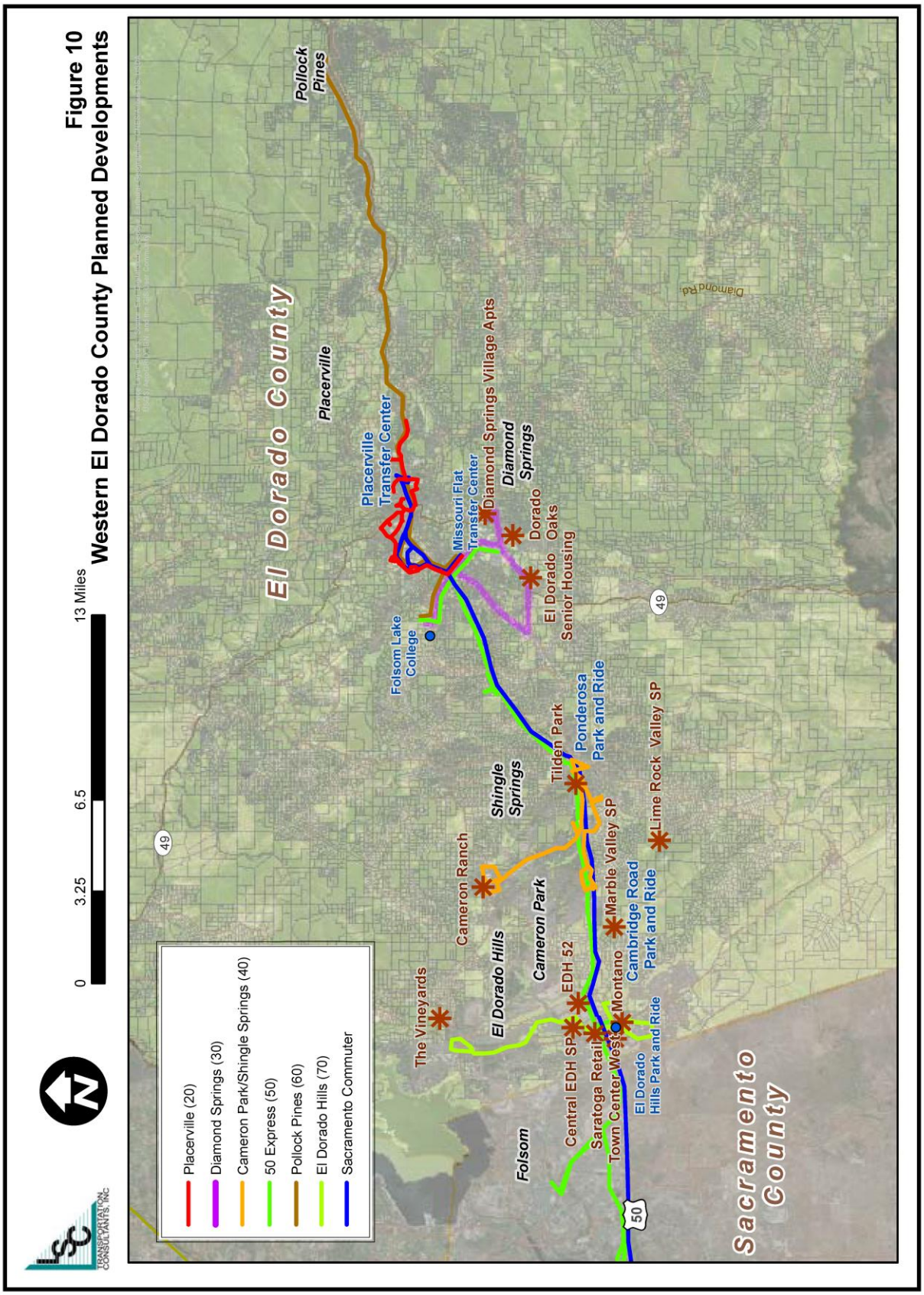


Figure 10
Western El Dorado County Planned Developments
0
3.25
6.5
13 Miles
Placerville (20)
Diamond Springs (30)
Cameron Park/Shingle Springs (40)
50 Express (50)
Pollock Pines (60)
El Dorado Hills (70)
Sacramento Commuter
El Dorado County
Sacramento County
Folsom
Placerville
Pollock Pines
Shingle Springs
Cameron Park
El Dorado Hills
Diamond Springs
Placerville Transfer Center
Missouri Flat Transfer Center
Diamond Springs Village Apts
Dorado Oaks
El Dorado Senior Housing
Folsom Lake College
Tilden Park
Ponderosa Park and Ride
Lime Rock Valley SP
Marble Valley SP
Cambridge Road Park and Ride
Montano
Cameron Ranch
The Vineyards
EDH 52
Central EDH SP
Saratoga Retail
Town Center West
El Dorado Hills Park and Ride
Diamond Rd.
49
50

Multi-Family Residential

- Diamond Springs Village would provide 80 new dwelling units of affordable housing near State Route (SR) 49 just north of Pleasant Valley Road in Diamond Springs.

- The El Dorado Senior Resort would consist of 147 dwelling units, located near SR 49 and Koki Lane in Diamond Springs.

- Town Center West is an expansion of the existing Town Center and is proposing 200 dwelling units.

Large Commercial

- EDH 52 is located north of US 50 and Tong Road, east of Silva Valley Parkway. The project proposes a 146 room hotel, grocery store, self- storage facility, gas stations, retail, and fast food restaurants.

- The Montano de El Dorado is a commercial retail and hospitality project located on a 16.8 acre site. The retail element of the project consists of development of eight buildings containing approximately 74,000 square feet of retail space. An office building containing approximately 6,000 square feet of office space would be in the southernmost portion of the site with a maximum height of 43 feet. An approximate 63,000 square foot hotel is proposed on the north-western portion of the project site at Latrobe Road.

- Saratoga Retail will be a small commercial center located near El Dorado Hills Boulevard and US 50. Currently, a restaurant and retail center is proposed as part of this project.

- Tilden Park is a commercial project proposed near Wild Chaparral Drive and Crosswoods Drive. It proposes 80 room hotel, a small grocery store, and office building.

Large Residential

- Cameron Ranch will be located near Green Valley and Starbuck Road and provide 41 single family dwellings.

- Dorado Oaks proposes to provide 156 single family dwellings and 218 multifamily dwelling units.

- Vineyards is a project proposing 42 single family dwellings.

Residential Specific Plans

- Central El Dorado Hills Specific Plan: The proposed project would provide for development of up to 1,000 dwelling units, 11 acres of civic limited commercial use (50,000 square feet of commercial use), 15 acres of public village park, 1-acre neighborhood park and 168 acres of natural open space. The proposed project site covers 341 acres in the vicinity of El Dorado Hills Boulevard between Olsen Lane and US Highway 50.

- Village of Marble Valley Specific Plan is analyzing various types of residential housing, commercial uses and public facilities including a Village Center, two public schools, vineyards, a wine and agricultural center, a historic park, other public and private parks and expansive permanent open space and trails.

- Lime Rock Valley SP is located near Durock Road and Shingle Lime Road. The project proposes 800 single family dwelling units.

MAJOR PLANNED ROADWAY IMPROVEMENTS

The following are the major roadway improvements in existing plans that have the potential to result in significant changes in transit operations.

- **Camino Safety Project on US Highways 50:** An improvement for the Community of Camino is planned to occur along US Highway 50, between Still Meadows Road and Upper Carson Road. As this section of roadways experiences collision rates that are higher than the state average, it is a priority County project that plans to restrict left turn crossings of the center line by installing a concrete median barrier on US 50 between Still Meadows Road and Lower Carson Road and widening the outside shoulders of US 50 to accommodate acceleration and deceleration lanes. The project plans to mitigate the closure of five intersections by constructing an undercrossing at Pondorado Road. Other work will include widening local roadway and improving intersections. The Final Environmental Document was completed in February of 2018 and construction is anticipated to begin in 2020 and conclude in 2021.

- **Silva Valley Parkway/Harvard Way Intersection:** The Silva Valley Parkway/Harvard Way Intersection improvements project will construct right- and left-turn pockets for north and southbound traffic on Silva Valley Parkway. The project will also add a through lane for southbound traffic on Silva Valley Parkway. Additionally the project will add bike lanes and bicycle and pedestrian detection at the intersection. The signal will also be optimized for efficiency. Construction is planned for the summer of 2020.

- **Western Placerville Interchange:** A new 150 space park and ride lot was just completed on Ray Lawyer Drive just south of US 50 as part of the Western Placerville Interchanges Phase 2 project that also included a westbound US 50 off-ramp at Ray Lawyer Drive. The lot will replace the El Dorado County Fairgrounds stop for local and commuter routes. Phase 2.2 of the project will construct an eastbound US 50 on-ramp at the existing Ray Lawyer Drive overcrossing in 2020, creating three-quarters of an interchange. Unfunded Phase 3 of the project includes the replacement and widening of the Forni Road/Placerville Drive US 50 overcrossing, improved operations at Forni Road/Placerville Drive/Fair Lane and US 50.

- **US 50/Cameron Park Drive Intersection:** An alternatives analysis is underway for improvements to the US 50 Cameron Park Drive intersection so as to meet LOS policies by 2035. Alternatives include widening Cameron Park Drive, widening the westbound off-ramp, adding an eastbound on ramp, removing the eastbound off ramp and creating a diverging diamond interchange. This project may improve efficiency and on-time performance for El Dorado County Transit in the long-term.

- **Ponderosa Road:** Another long-term US 50 Interchange improvement is at Ponderosa Road. This project is only in the planning phase but would affect the commuter, Shingle Springs and 50 express routes.

- **Capital SouthEast Connector:** Initially called the Elk Grove-Rancho Cordova-El Dorado Connector Project, it is now called the Capital SouthEast Connector. The Capital SouthEast Connector Joint Powers Authority (JPA) was formed in December 2006 when the cities of Elk Grove, Folsom, and Rancho Cordova, as well as El Dorado and Sacramento Counties, formalized their collaboration to proceed with planning, environmental review, engineering design and development of a new roadway connecting El Dorado Hills and Folsom with Elk Grove. The Sacramento Area Council of Governments (SACOG) oversaw the early planning stages.

  The Connector is a planned 34-mile parkway that would span from Interstate 5 south of Elk Grove to Highway 50 in El Dorado County, just west of El Dorado Hills. Communities in Western El Dorado and Sacramento Counties will be efficiently linked with Folsom, Rancho Cordova and Elk Grove. Currently, there are three alternative routes being analyzed. The intent of this Connector would be to reduce congestion on Highway 50 and reduce travel time between El Dorado Hills and Elk Grove by constructing continuous four lanes from the I-5 and SR 99 to the Silva Valley Parkway Intersection in El Dorado Hills with a continuous path for bicyclists and pedestrians. Actual construction is funding dependent and therefore would only affect transit in the long term.

KEY PLANNING DOCUMENTS

A key step in any physical planning process—particularly one that considers a longer planning horizon—is the careful consideration of other ongoing planning processes in the area. This section presents a review of these recent and concurrent planning studies and considers how each impacts the potential for future transit services.

Active Transportation Connection Study, El Dorado County Transportation Commission

The El Dorado County Transportation Commission (EDCTC) released an *Active Transportation Connection Study* in August 2017. This document outlined the process for identifying which adopted active transportation projects may be the most competitive under various regional, state, and federal grant application criteria. The study builds on projects previously identified within the El Dorado County Bicycle Transportation Plan (2010) and the City of Placerville Non-Motorized Transportation Plan (2010). The following seven topics were used as evaluation criteria to identify active transportation projects for each county district: Health, Environment, Demand, Connectivity, Safety, Equity and Costs.

El Dorado County General Plan (2004) and General Plan Amendment (2018)

The *General Plan* provides long-range direction and policy for the use of land within El Dorado County. It provides a mechanism through which the county can focus on the issues of greatest local concern, as well as a basis for rational decision-making regarding long-term physical development. The Transportation and Circulation Element of the General Plan contains objectives, goals and policies pertaining to motorized and non-motorized transportation.

Since the General Plan was developed in 2004, several amendments to the policies and goals of the Transportation and Circulation Element have occurred. Policy amendments have included changes to fund allocation, visual impacts, bicycle routes, level of service and traffic impact fees. Amendments to goals have been related to improving coordination between local, regional, State and Federal agency planning and the increasing support of “complete streets.” This transit plan is consistent with the latest General Plan amendments.

El Dorado County Regional Transportation Plan

The *Regional Transportation Plan* identifies transportation related capital improvement projects for the next 20 years. Transit improvements identified in the RTP consist of the following:

2015 – 2025

- El Dorado Hills Taxi Voucher Subsidy Program
- Implement Community Express Route Plan with 2-Hour Headway on US 50 Express
- Extend Placerville, Pollock Pines and Diamond Springs Service by one hour
- Advanced Public Transit System Technologies

2026 – 2035

- Coordination with schools and transit service
- Ensure connections to neighboring transit agencies are as efficient and convenient as possible
- Skier service to Sierra-At-Tahoe Ski Area or service to South Lake Tahoe; implementation of these additional improvements will be dependent upon obtaining additional financial resources.
- Develop a regional fueling station near the Sacramento/El Dorado County Line.
- Maintain transit services including local fixed-route, deviated fixed-route, Dial-A-Ride, and commuter service.

El Dorado Hills Community Transit Needs Assessment, LSC, May 2013

The *El Dorado Hills Needs Assessment and Highway 50 Corridor Operation Plan* was commissioned by the El Dorado County Transportation Commission as a dual purpose project. In the first part of the study, LSC Transportation Consultants, Inc. evaluated the need for transit service in El Dorado Hills. The primary recommendation from this portion of the study was to develop a taxi voucher program.

The second part of the study was development of a plan to revise overall El Dorado Transit service along the Highway 50 corridor between Pollock Pines on the east and Folsom on the west. When implemented, the service plan will:

- Expand service along the entire US 50 corridor between Pollock Pines and Folsom to hourly service, including improved service between the two Folsom Lake College campuses and between the El Dorado County Government Center and the communities in the western portion of the County.

- Enhance service within Cameron Park by providing consistent hourly service.

- Improve on-time reliability of Placerville Service.

Metropolitan Transportation Plan/Sustainable Community Strategies, 2020, Sacramento Area Council of Governments (SACOG)

The *Sustainable Community Strategy Plan* lays out the transportation and land use framework for the Sacramento Region (including Western El Dorado County). The 2020 – 2040 plan is currently being updated. In addition to guiding transportation decision making, it addresses the requirements of the Sustainable Communities and Climate Protection Act (SB 375). The strategy sets forth a target of reducing GHG emissions by 19 percent in 2035. Projects included in the 2016 plan that impact the study area consist of carpool lanes on US 50 as far east as Greenstone Road, as well as new local bus service on the south side of US 50 between Hazel Avenue and El Dorado Hills (El Dorado Hills Boulevard), serving a proposed new residential and employment development in the area.

El Dorado County Transit Authority Park-and-Ride Master Plan, 2017, Matthew C. Boyer & Associates

An update to the original *Park-and-Ride Master Plan (*2007) was completed in 2017. The purpose of the Park-and-Ride Master Plan is to identify the policies, actions and financing needed to ensure a continuous, adequate supply of parking capacity in Western El Dorado County to support El Dorado Transit's commuter bus service, as well as carpooling, vanpooling, and other forms of shared rides. This updated plan identifies additional policies, actions, and financing necessary to ensure an adequate supply of parking. Funding to build, rehabilitate and maintain Park-and-Ride facilities remains challenging. The plan estimates funding needs in the next 20 years to be almost $28.5 million:

- $12.45 million to construct El Dorado Transit's share of new Park-and-Ride facilities in Cameron Park and El Dorado Hills.

- An additional $13.275 million to construct a Regional Fueling Station and $300,000 to address high-priority deferred maintenance at the El Dorado Transit, including the El Dorado Hills Multimodal Transfer Facility.

- An average of $135,037 per year is needed for existing facilities, for a total of approximately $2.6 million. This amount of annual operation and maintenance costs is expected to grow over the years as new facilities are constructed. This should be funded primarily through Local Transportation Funds as part of the El Dorado Transit annual budget.

Two projects are envisioned to be developed as a partnership with others. The County Line Multi-Modal Transit Center should be developed in partnership with the City of Folsom and others as should the Regional Fueling Center. Implementation of the plan requires commitment by planning, funding, and implementing agencies. El Dorado Transit is only one of many partners that will play a key role in the long-term construction, maintenance and operation of Park-and-Ride facilities in El Dorado County.

SACOG Public Transit and Human Services Transportation Coordinated Plan, 2017

The *Public Transit and Human Services Transportation Coordinated Plan for Western El Dorado County* was completed in February 2017. It was part of a larger planning effort overseen by Caltrans on behalf of 23 counties in non-urbanized areas within the State of California to meet FTA plan requirements for certain grants. The project included an Existing Conditions Report, which described existing transportation services and programs and identified service gaps and needs for public and social services transportation. This was followed by identification of potential strategies and solutions to mitigate service gaps and development of a plan to implement those strategies. The highest priority strategies were sorted into low- and high-cost options.

<u>Lower Cost Strategies/Activities</u>

- Strengthen design review to enable better transit access in new developments.
- Offer increased information on transit options.
- Provide assistance with climbing bus stairs if “kneeling” buses are not physically feasible for certain areas.
- Provide more mobility training on using fixed-route transit and alternatives to driving.

<u>Higher Cost Strategies/Activities</u>

- Improve pedestrian crossings, especially near Prospector Plaza and at Highway 50 and Spring Street.
- Provide community shuttles to connect riders to bus stops on fixed-routes.
- Develop a community-coordinated volunteer program to fill transportation gaps.
- Expand demand-responsive service.

- Expand the Senior Center Shuttle's service area.

US Highway 50 Corridor System Management Plan, June 2014, Caltrans

A Corridor System Management Plan (CSMP) is a comprehensive, integrated management plan for increasing transportation options, decreasing congestion, and improving travel times in a transportation corridor. A CSMP includes all travel modes in a defined corridor: highways and freeways, parallel and connecting roadways, public transit (bus, bus rapid transit, light rail, intercity rail) and bikeways, along with intelligent transportation technologies, which include ramp metering, coordinated traffic signals, changeable message signs for traveler information, incident management, bus/carpool lanes and car/vanpool programs, and transit strategies. Each CSMP identifies current management strategies, existing travel conditions and mobility challenges, corridor performance management, planning management strategies, and capital improvements.

Specific strategies for the Highway 50 Corridor within El Dorado County include:

- Improving bus and carpool lanes from Cameron Park Drive to Ponderosa Road.

- Improved ITS from Missouri Flat Road to Echo Sandhill.

CITIZEN PARTICIPATION PROCESS INPUT

The California Transportation Development Act (TDA) requires EDCTC, as the Regional Transportation Planning Agency, to ensure the establishment and implementation of a citizen participation process in public transit. Since El Dorado Transit currently claims all available TDA funds for transit purposes, the formal unmet needs process does not apply; however EDCTC must conduct a citizen participation process annually. Pertinent comments received for the past three hearings are summarized below.

- The Saturday schedule for Placerville and Pollock Pines should be similar to the weekday schedule.

- The proposed Creekside development on the north side of Missouri Flat Road at the intersection of Missouri Flat Road and Forni Road may create demand for a transit stop in this area.

- Due to high concentrations of large animals, El Dorado County should seek funds to support a local environmental enhancement and mitigation program focused on animal crossings of US 50.

- Handicap/disabled seats have been observed to be taken by non/handicap/disabled individuals who typically take up both seats with their bags and coats.

- Concerns regarding El Dorado Hills, Cameron Park, and Shingle Springs residents have a hard time accessing Folsom destinations including Kaiser Permanente and shopping at the Palladio or Costco.

- Lack of county transportation services for seniors in El Dorado Hills even though the county has approved construction of two large senior communities and three senior living complexes in the area.

- Transportation between Placerville and South Lake Tahoe.

Chapter 3
Transportation Services

BACKGROUND

Modern public transit services have been available in Western El Dorado County since the late 1970s. Service was provided to the elderly and disabled population of greater Placerville until 1980, when it was opened to the general public. The creation of the El Dorado County Transit Authority (El Dorado Transit) in 1993 has proven to be an important milestone in the provision of an effective and well-accepted public transit system. Since then, a well-established public transit system has developed, serving a wide region of El Dorado County as well as commuter and non-emergency medical services to Sacramento.

El Dorado Transit is formed through a joint powers agreement between the County of El Dorado and City of Placerville. El Dorado Transit is governed by a five-member Board of Directors: three members appointed by the County Board of Supervisors and two members appointed by the Placerville City Council. Additionally, a transit advisory committee, made up of ten members representing both transit users and advocates, is responsible for reviewing the operation of the transit system, monitoring levels of service based upon budgets, and providing advice to the Executive Director. The Executive Director supervises a staff of 83 employees, including a five person management team: Executive Director, Operations Manager, Human Resource Manager, Finance Manager and Planning and Marketing Manager. An organization chart is shown in Figure 11.

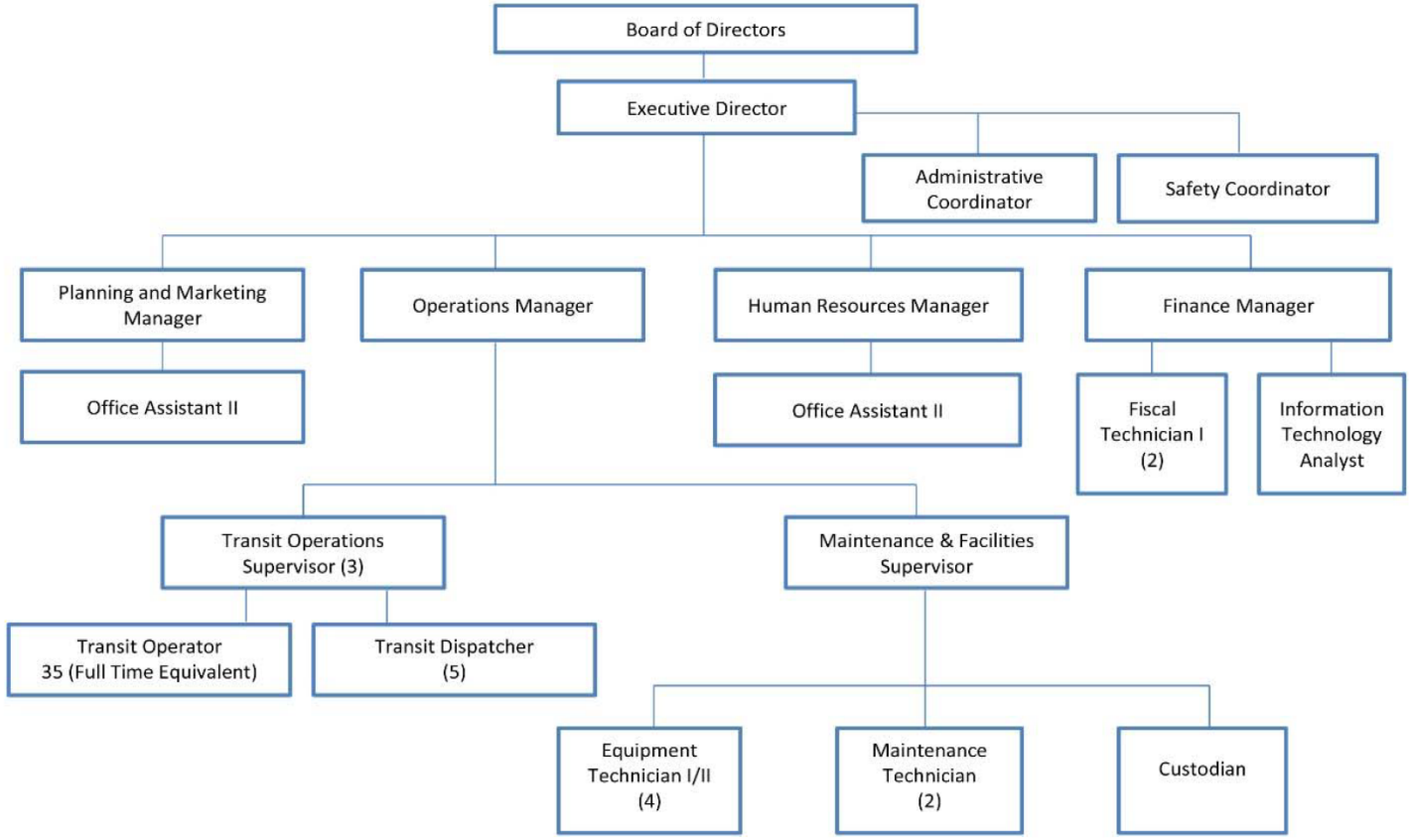
El Dorado Transit operates a wide range of services, including local community routes, demand response, intercity commuter service, medical transportation and contracted social service transportation. The following describes each of the existing services in detail, while Figure 12 depicts the routes graphically.

EXISTING EL DORADO TRANSIT SERVICES

Local Community Fixed-Routes

- Placerville (20): This route consists of an East Route and a West Route along the US 50 Corridor from the Missouri Flat Transfer Center to Point View Drive on the eastern side of Placerville, serving many transit activity centers along the way. The East and West Routes are essentially directional trips of the same loop, although the routes do serve different stops between Spring Street and Point View Drive. Service is provided Monday

Figure 11
El Dorado County Transit Organization Chart



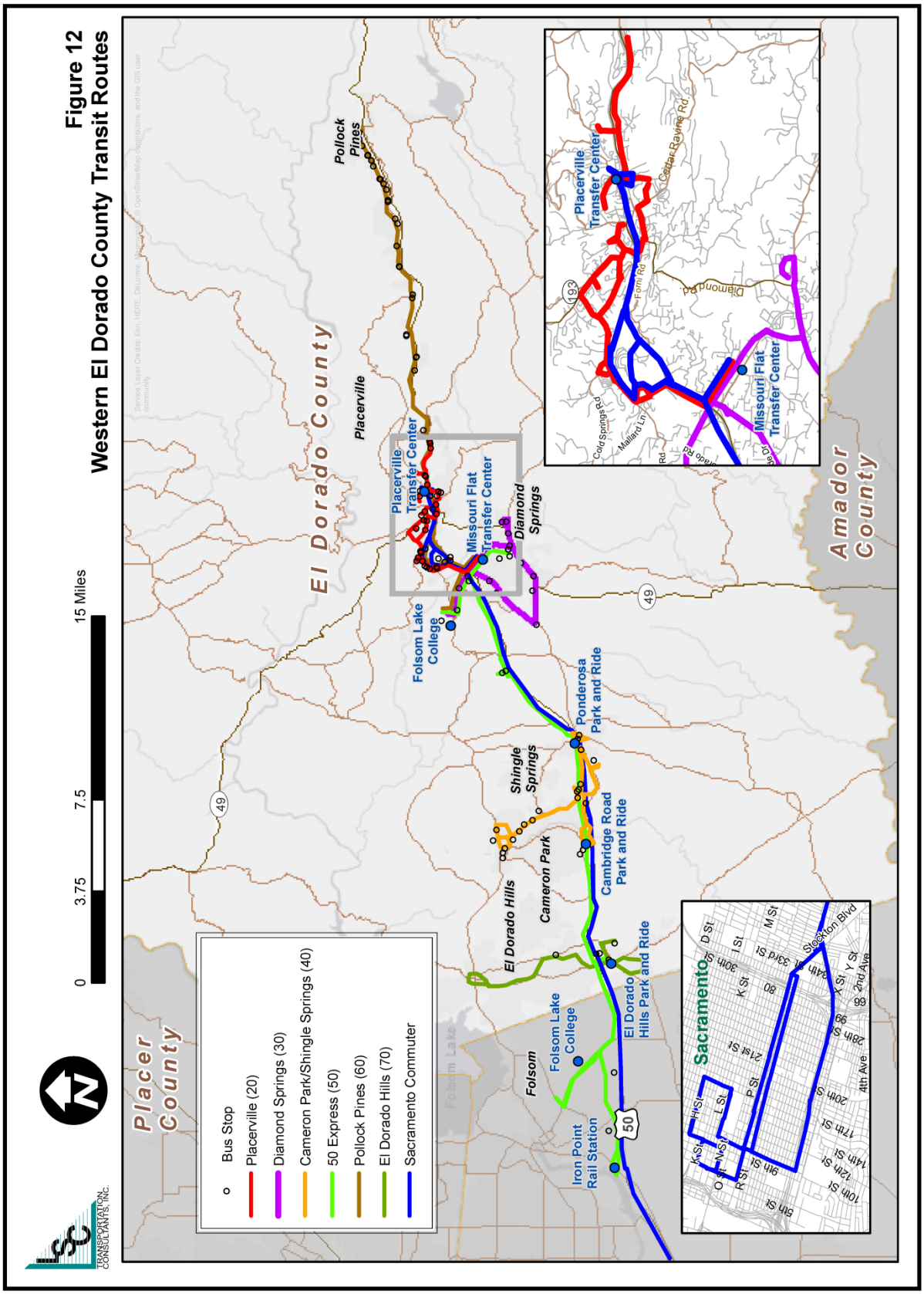


Figure 12
Western El Dorado County Transit Routes
Bus Stop
Placerville (20)
Diamond Springs (30)
Cameron Park/Shingle Springs (40)
50 Express (50)
Pollock Pines (60)
El Dorado Hills (70)
Sacramento Commuter
0
3.75
7.5
15 Miles
El Dorado County
Placer County
Amador County
Pollock Pines
Placerville
Placerville Transfer Center
Missouri Flat Transfer Center
Diamond Springs
Folsom Lake College
Ponderosa Park and Ride
Shingle Springs
Cameron Park
Cambridge Road Park and Ride
El Dorado Hills
Folsom
Folsom Lake College
El Dorado Hills Park and Ride
Iron Point Rail Station
Sacramento
49
50
193
Cedar Ravine Rd
Diamond Rd
Cold Springs Rd
Mallard Ln
Missouri Flat Rd
Folsom Lake
Service Layer Credits: Esri, HERE, DeLorme, and the GIS user community

through Friday on one hour headways from 6:00 AM to 7:00 PM. Some notable stops along the Placerville routes are: Human Services, El Dorado County Fairgrounds Park-and-Ride, Old City Hall and Placerville Senior Center. Request stops are available along the way at certain locations so as to meet resident needs without unnecessary out-of-the way travel time. As discussed below, complementary paratransit service is provided in Placerville, and the Placerville routes do not deviate from the regular route aside from the on-request stops.

- Diamond Springs (30): The Diamond Springs Route begins at the Missouri Flat Transfer Center and follows a clockwise loop around Diamond Springs on Pleasant Valley Road and Motherlode Drive then across highway 50 serving Folsom College, Safeway and Prospector Plaza. The Diamond Springs Route takes about one hour to operate. Service for this route is provided hourly from 6:00 AM to 7:00 PM on Monday through Friday. Important stops include the Diamond Springs Mobile Home Park and El Dorado Transit Offices and the Eskaton Lincoln Manor. This route provides transportation for a high number of charter school students from their campus at Folsom Lake College to their homes throughout the transit service area.

- Cameron Park/Shingle Springs (40): The route begins and ends at the Cambridge Road Park and Ride and serves the community of Cameron Park along Cameron Park Drive as far north as Green Valley Road. The route also does a small loop in Shingle Springs along Durock Road. Significant transit generators served include the Bel Air Shopping Center, Safeway Shopping Center, Marshall Medical and the Airpark Center. The route operates hourly from roughly 6:30 AM to 7:30 PM.

- 50 Express (50): The 50 Express operates every hour from 6:00 AM until 7:00 PM Monday through Friday, between the Missouri Flat Transfer Center and the Folsom Iron Point light rail station and Folsom Lake College in Folsom. Other significant stops include the Red Hawk Casino, Intel, Kaiser in Folsom and several Park and Rides along US 50. 50 Express is considered one of the urban routes.

- Pollock Pines (60): The Pollock Pines route provides scheduled transit service along the US 50 Corridor between the Missouri Flat Transfer Center in Diamond Springs, the Camino area, and the Safeway Plaza on Pony Express Trail in Pollock Pines. Service is provided Monday through Friday between 7:00 AM and 7:00 PM on hourly headways. Request stops and flag stops (driver discretion) are available at certain points along Pony Express Trail. This route connects low income residents in the more rural portion of the study area to services in Placerville.

- Saturday Express: This route operates seven round trips on Saturday along the US 50/Pony Express Trail corridor between the Missouri Flat Transfer Center in Diamond Springs and the Safeway Plaza on Pony Express Trail in Pollock Pines. In Placerville, the bus serves the area along Placerville Drive. The first eastbound bus leaves from the

Missouri Flat Transit Center at 9:00 AM, and the last westbound bus returns to Missouri Flat Transit Center at around 5:00 PM.

- Diamond Springs Saturday: El Dorado Transit operates a Saturday version of this local rural route from 9:00 AM to 5:00 PM.

- ADA Complementary Paratransit for Local Routes: "Complementary Paratransit" refers to curb to curb, on-demand service ("paratransit") which "complements" a fixed route by ensuring that persons with disabilities in the vicinity of the route have access to ADA public transit services under the requirements of the Americans with Disabilities Act. El Dorado Transit's complementary paratransit service is compliant with the transportation requirements of the ADA and is only available to persons who are unable to use the fixed routes. Services are provided within a ¾ mile radius of the fixed routes. ADA eligible passengers may schedule a complementary paratransit trip during regular business hours, 8:00 AM to 5:00 PM seven days a week, a maximum of three days in advance and up to 5:00 PM the day prior to the trip request. The complementary paratransit fare is $3.00 one-way.

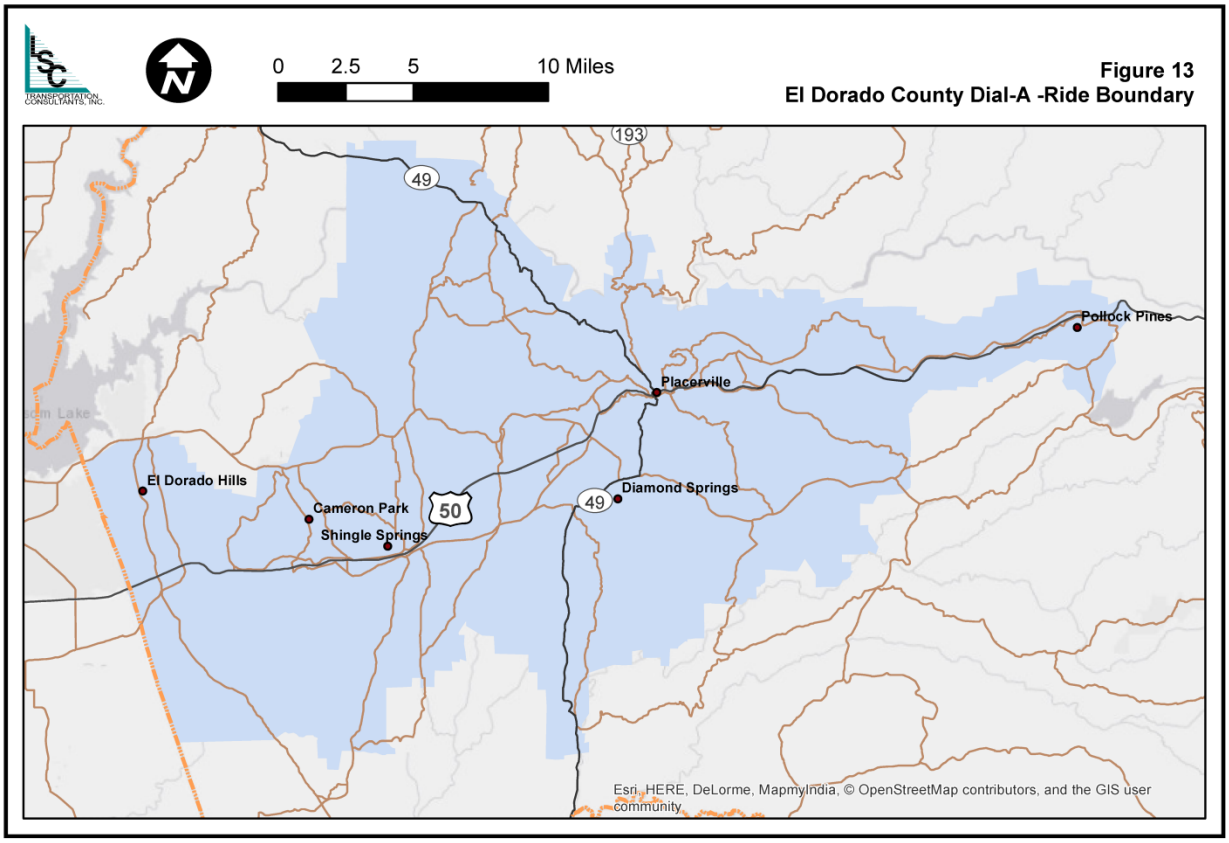
Commuter Services

The Sacramento Commuter Service provides eleven departures in each direction Monday through Friday between El Dorado County and downtown Sacramento. Morning departures from El Dorado County locations are scheduled from 5:10 AM to 8:30 AM, and afternoon eastbound departures from Sacramento occur from 2:45 PM to 6:25 PM. Two reverse commuting runs are offered for persons commuting from Sacramento to El Dorado County destinations (using bus runs that would otherwise be operated as "deadhead" trips to position buses and drivers). The Commuter routes serve the Central Park-and-Ride; Placerville Station; El Dorado County Fairgrounds Park-and-Ride; Cambridge Road Park-and-Ride; El Dorado Hills Park-and-Ride and Ponderosa Park-and-Ride.

The Sacramento Commuter service uses nine vehicles in the morning and ten vehicles in the afternoon. All buses are based out of the El Dorado Transit facility in Diamond Springs. Four of the commuter buses are parked in Sacramento during the day after the AM runs. The drivers are shuttled back to the El Dorado Transit operations facility by the returning buses. Two of the returning buses operate the reverse commuter routes.

Dial-A-Ride

The Dial-A-Ride (DAR) service is a demand response service designed for elderly and disabled passengers. Prior to January 2019, DAR was available to the general public on a space available basis but few general public actually used the service. Now DAR is specifically for seniors and persons with disabilities who are registered with El Dorado Transit. The service is available on a first-come, first-serve basis Monday through Friday between the hours of 7:30 AM and 5:00



PM and between 8:00 AM and 5:00 PM on Saturdays and Sundays. The DAR service area includes El Dorado Hills, Cameron Park, Shingle Springs, Placerville, Camino and Pollock Pines (Figure 13).

In January of 2019, El Dorado Transit eliminated service to some of the outlying areas and implemented a mileage based fare system. Each one-way ride fare is based on the length of the trip. Up to 4 miles is $2.00 and each additional mile is $0.50. Ride requests may be made on weekdays between 9:00 AM and 3:00 PM up to three days in advance or by subscription. El Dorado Transit DAR also recently implemented a “30 minute” pick up window so passengers must be ready for pick up 15 minutes before and 15 minutes after the scheduled pick up time.

Senior Day Care Centers are located in Placerville and El Dorado Hills, and operated by the El Dorado County Health and Human Services Agency. This program provides close supervision and assistance with a full day of scheduled therapeutic activities for homebound individuals with mental and physical impairments. Subscription Dial-A-Ride service to and from the Center is provided by El Dorado Transit using six buses.

SAC MED Non-Emergency Medical Appointment Transportation

The SAC MED is a public shared-ride non-emergency medical appointment transportation service for seniors, disabled, and general public passengers, serving medical facilities in

Sacramento and Roseville. Ride requests are scheduled on a first-come, first-served basis, and confirmed with a call back by 4:00 PM the day before the scheduled ride. Reservations for SAC MED must be made four days in advance and can be scheduled up to fourteen days in advance. The service operates Tuesdays and Thursdays, with the destination arrival times dependent upon the number of appointments scheduled for that day. Passenger medical appointment times must be between 10:00 AM and 2:00 PM. SAC MED pick up and drop off locations in El Dorado County are:

- Placerville Station
- Missouri Flat Transfer Center
- Ponderosa Road Park-and-Ride
- El Dorado Hills Park-and-Ride

Contracted Special Social Service Transportation

ALTA California Regional Center (ALTA) assists persons with developmental disabilities, including infants at risk and their families by providing and securing those services and supports necessary to maximize opportunities and choices. ALTA contracts with public transit, private taxi companies to provide transportation for their clients in the Western El Dorado County area. Alta funds 71.4 percent of the cost of trips for clients of Mother Lode Rehabilitation Enterprises, Inc. (M.O.R.E.), which provides a variety of services including vocational training, job placement, independent living training, semi-independent residential program, community integration, life skills as well as social/vocational counseling and behavior management as needed.

Special Event Services

In addition, El Dorado Transit typically operates an El Dorado County Fair Shuttle. The shuttle transports fair patrons between remote parking sites and the fair during all hours of the event. This fare-free service is financed through grants from the El Dorado County Air Quality Management District.

DISCONTINUED TRANSIT SERVICES

It is worthwhile to review previous transit services that have been discontinued for various reasons as a basis for understanding transit needs. Discontinued El Dorado Transit services consist of the following:

- Between July 2004 and July 1, 2006, El Dorado Transit provided service to major employment centers in Rancho Cordova. Commuter Routes 8 and 9 were operated in the morning and afternoon commute period using a 25-passenger bus. Departures at 5:00 AM and 6:35 AM from El Dorado County Fairgrounds Park-and-Ride arrived at Mayhew Road and Franchise Tax Board Court at 5:57 AM and 7:30 AM. The afternoon runs left Mayhew Road and Franchise Tax Board Court at 3:40 PM and 5:20 PM. This

service was discontinued due to poor ridership and route performance. Average daily ridership on these routes ranged from 2 – 4 passengers per day for each run, with only 2.8 one-way passenger trips per vehicle-hour of service (a passenger trip is defined as one person making a one-way trip; therefore, 3 people on a one-way bus trip would equal 3 passenger trips).

- The Georgetown Divide Route was a 12-month demonstration project that began in February 2001, serving the communities of Georgetown, Greenwood, Cool, Pilot Hill, and Garden Valley. The service initially provided 3 round-trips on Tuesdays and Thursdays but changed to request only service on July 17, 2001 due to low ridership. This service was discontinued in February 2002.

- The El Dorado Hills Shuttle Bus was implemented as a result of the annual unmet transit needs process during FY 1996 – 97. This 12-month demonstration project operated during FY 1997 – 98, serving El Dorado Hills and including the El Dorado Hills Business Park, Town Center, Raley's Center, Oak Ridge High School, The Village, El Dorado Hills Community Service District, Sam's Town Park-and-Ride and Prospector Plaza. Service was provided Monday through Friday between 5:25 AM and 6:20 PM. The initial five daily runs were later reduced to two runs due to poor ridership. Annual ridership totaled 823 with a 2.3 percent farebox ratio.

- A South County Route began service in FY 2005 – 06 as a demonstration project to connect the communities of Mt. Aukum, Somerset and Fairplay to Placerville. One morning and one afternoon round trip were operated between the Missouri Flat Transfer Center, Bistro/Fairplay in Somerset and Prospector Plaza in Placerville on Tuesdays. Due to ridership averaging less than 200 passenger trips per year, this service was discontinued in 2008.

- The Main Street Shuttle, which primarily transported prospective jurors between free parking at the Placerville Station and the Courthouse in downtown, was discontinued in July 2012. Jurors with a jury summons are now allowed to ride fare-free on two local routes between the Placerville Station and Courthouse in Placerville.

- In the past, El Dorado Transit has operated the Apple Hill® Shuttle. This service was a special high-profile service providing shuttle transportation for visitors to the Apple Hill® ranches every weekend during the month of October. It was intended to address traffic and parking issues. Shuttle buses departed from two locations, from 10:00 AM to 5:00 PM, every 15 to 30 minutes. This fare-free service was financed through grants from the El Dorado County Air Quality Management District and the Apple Hill® Growers Association. The service was discontinued in 2013; however, parking and traffic was still an issue. In 2018, El Dorado County contracted with El Dorado Transit to operate another Apple Hill® demonstration shuttle.

- In 2015, El Dorado Transit implemented an El Dorado Hills Taxi Voucher Program to meet mobility needs for seniors and disabled residents of El Dorado Hills. El Dorado Transit, contracted with a local taxi company to offer qualified residents (older adults and disabled) discounted taxi vouchers for travel anywhere within the El Dorado Hills Community Services District seven days a week from 7 AM to 10 PM. The program was not well used, so when it became difficult to find a taxi provider the program was discontinued. Instead, El Dorado Transit implemented the Cameron Park/El Dorado Hills route. This route was then modified to serve El Dorado Hills separately from Cameron Park. Unfortunately the El Dorado Hills route had poor ridership and was discontinued in January 2019.

EXISTING SERVICE CALENDAR

El Dorado Transit observes the following holidays:

- New Year's Day
- Martin Luther King, Jr. Day
- President's Day
- Memorial Day
- Independence Day
- Labor Day
- Veteran's Day
- Thanksgiving Day and the day after Thanksgiving
- Christmas Eve
- Christmas Day

EXISTING FARE STRUCTURE

Table 13 presents the fare structure for each specific El Dorado Transit service. As shown, general public fares are $1.50 per one-way trip or $60 for a month pass on local community routes. Discounts of 50 percent are offered to seniors/disabled and students. Complementary Paratransit service costs $3.00 per one-way trip. A combination El Dorado Transit local route and Sac RT pass can be purchased for $110.

El Dorado Transit DAR recently transitioned to a mileage based fare system. There is a $2.00 flat fee for the first four miles plus an additional $0.50 per additional mile.

Commuter fares can be purchased only for El Dorado Transit services, or a combination of El Dorado Transit and Sacramento Regional Transit services, as shown in Table 13. Base fares on El Dorado Transit commuter routes are $5.00 per one-way trip. Passes are available for $180 per month for El Dorado Transit or $210 per month for El Dorado Transit as well as Sacramento Regional Transit.

TABLE 13: El Dorado Transit Fare Structure

Service	General Public		Elderly/Disabled/Medicare		Student (K-12)	
	One-Way	Monthly	One-Way	Monthly	One-Way	Monthly
Local Routes[(1)]	$1.50	$60.00	$0.75	$30.00	$0.75	$30.00
Combination Local EDT and Sac RT Pass	--	$110.00	--	$80.00		
Dial-A-Ride	$2.00 + $0.50 per mile exceeding 4 miles					
ADA Paratransit	--	--	$3.00	--	--	--
Commuter Routes						
Sacramento Commuter Routes	$5.00	$180.00	N/A	N/A	N/A	N/A
Combination Pass (RT and EDT)	N/A	$210.00	N/A	N/A	N/A	N/A
SAC-MED Route	$10.00	N/A	$10.00	N/A	$10.00	N/A

Note 1: Routes 20, 30 40, 50x, 60, 70, 25, 35

Source: El Dorado County Transit Authority. Updated 12-05-18

El Dorado Transit is part of the Connect Card Program. With the Connect Card "smart card," passengers can prepay and use the card on El Dorado Transit, Yuba-Sutter Transit, Placer County Transit, Roseville Transit, Yolobus, E-Tran and Sac RT. This eliminates the need for exact change or cash as well as makes it easier to ride neighboring transit systems.

RIDERSHIP AND SERVICE LEVELS

Historical Ridership and Service Levels

System wide ridership over fiscal years FY 1998 – 99 through 2017 – 18, both in total and by major service category, is presented in Table 14. As presented, total system-wide ridership over the past 20 years has increased 45 percent, or 2.5 percent annual average growth. The El Dorado Transit target for annual ridership increase is 3.0 percent. The most rapid growth occurred between FY 2005 – 06 and FY 2008 – 09, with a significant decline in FY 2009 – 10 and a small decline in FY 2010 – 11. The decline in FY 2009 – 10 was due to a large loss in sales tax revenues and a resulting reduction in service. El Dorado Transit reduced service hours by 14 percent in FY 2009 – 10. With the exception of ridership growth in FY 2011 – 12 and FY 2015 – 16, ridership has slowly declined in recent years. This trend is not unusual for public transit agencies nationwide. A growth in the affordability and ownership of private automobiles combined with relatively low gas prices does not provide incentives to ride the bus.

Examination of ridership data by service (also in Table 14 and Figure 14) reveals that the increase in commuter route ridership (annual one-way passenger trips) accounts for three-quarters of the system-wide ridership increase over the twenty-year period and has steadily been increasing over the years. Local/community route ridership present day is greater than it was 20 years ago but significantly below its peak in FY 2008 – 09 (by 30 percent). Dial-A-Ride ridership also peaked in FY 2008 – 09 and has since slowly declined.

TABLE 14: El Dorado Transit Historical Ridership

Fiscal Year	Local Community Routes[1]	Rural Routes[2]	Dial-A-Ride[3]	Commuter Routes[4]	Contracted Social Services	Sac - Med	Special Event [5]	Total Annual One-Way Passenger-Trips	Total % Change
1998-99	100,916	885	13,117	93,381	38,631	0	9,319	256,249	0.4%
1999-00	112,823	638	16,490	113,422	39,693	0	12,331	295,397	15.3%
2000-01	104,461	610	16,930	123,808	40,160	0	8,977	294,946	-0.2%
2001-02	99,553	723	16,295	129,294	43,650	0	1,140	290,655	-1.5%
2002-03	100,514	601	17,616	132,504	45,549	291	765	297,840	2.5%
2003-04	107,789	451	21,955	130,903	50,118	593	942	312,751	5.0%
2004-05	105,286	397	27,227	133,529	48,510	509	1,313	316,771	1.3%
2005-06	109,807	669	32,302	134,367	37,598	677	8,933	324,353	2.4%
2006-07	140,333	743	33,230	133,081	38,628	757	13,797	360,569	11.2%
2007-08	172,491	648	31,550	142,450	37,785	693	26,088	411,705	14.2%
2008-09	191,921	463	30,683	156,379	35,879	657	28,533	444,515	8.0%
2009-10	173,901	328	27,650	131,078	33,517	456	27,914	394,844	-11.2%
2010-11	166,433	184	26,720	136,208	28,723	799	30,296	389,363	-1.4%
2011-12	184,881	116	26,523	138,905	36,961	688	35,603	423,677	8.8%
2012-13	171,576	243	26,475	143,916	33,804	590	38,036	414,640	-2.1%
2013-14	155,054	119	24,831	152,057	36,739	525	33,867	403,192	-2.8%
2014-15	154,553	83	25,060	149,465	34,018	613	10,525	374,317	-7.2%
2015-16	151,581	48	21,366	171,732	34,424	733	12,100	391,984	4.7%
2016-17	145,000	0	21,873	174,277	31,197	572	9,489	382,408	-2.4%
2017-18	129,768	0	19,734	182,670	28,408	527	10,947	372,054	-2.7%
Total Growth	28,852	-885	6,617	89,289	-10,223	527	1,628	115,805	45.2%
Average Annual Growth	1,443	-44	331	4,464	-511	26	81	5,790	2.5%

Note 1: Local Routes = Cameron Park/Shingle Springs, Cameron Park/El Dorado Hills, Placerville, Diamond Springs, Saturday Routes, Pollock Pines

Note 2: Grizzly Flat and South County

Note 3: Dial-a-Ride and Complementary Paratransit

Note 4: Commuter Routes include Iron Point Connector and 50 Express

Note 5: Special Event = Holly Jolly Trolley, County Fair Shuttle and Apple Hill Shuttle.

Source: El Dorado Transit Administrative Operations Reports

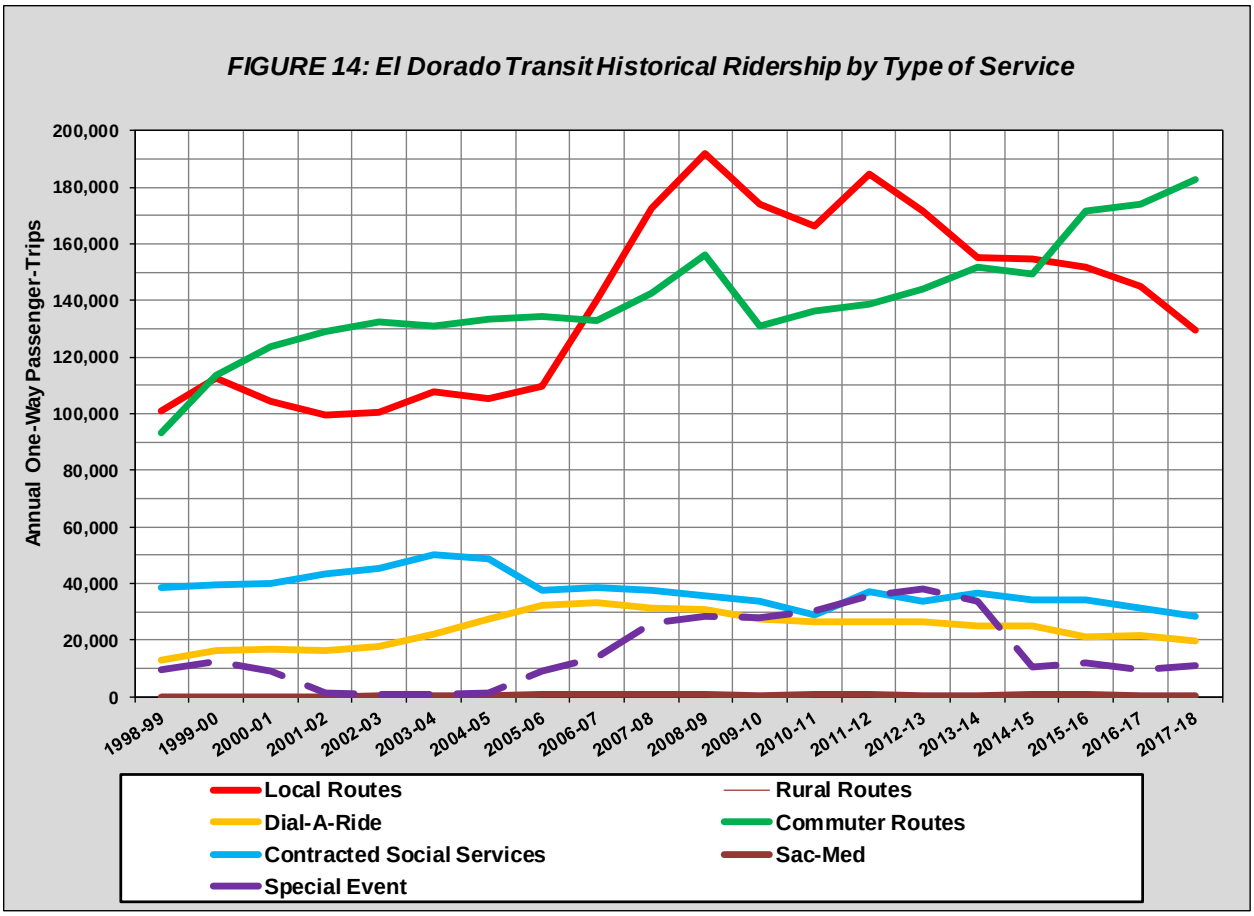


Table 15 presents a review of trends in the amount of public transit service which has been provided over the past 10 years. Vehicle service hours have increased over the past ten years (8.5 percent) with the greatest increase (15 percent) occurring in FY 2015 – 16. Overall, vehicle service miles have only increased by 1.1 percent over the ten year period. Also of note is the large decrease in service levels in FY 2009 – 10 as a response to sales tax revenue decreases during the recession.

Current Ridership

Total annual system-wide ridership for FY 2017 – 18 on all El Dorado Transit services was 372,054 one-way passenger trips, as shown in Table 16. This total annual one way passenger trip is 12 percent lower than when the previous plan was conducted in 2011 – 12. The local routes accounted for 35 percent of the total ridership, as shown in Figure 15, with Pollock Pines and Placerville each accounting for just over 29 and 34 percent, respectively. Commuter service accounted for 49 percent of the ridership (including the Iron Point Shuttle and Reverse Commute).

TABLE 15: El Dorado Transit Historical Service Levels

	Annual Service Hours		Annual Service Miles	
Fiscal Year	**#**	**% Change**	**#**	**% Change**
2008-09	50,720	--	1,138,424	--
2009-10	43,851	-13.5%	996,189	-12.5%
2010-11	44,441	1.3%	1,023,239	2.7%
2011-12	44,412	-0.1%	1,027,860	0.5%
2012-13	44,967	1.2%	1,009,071	-1.8%
2013-14	45,582	1.4%	1,000,040	-0.9%
2014-15	44,946	-1.4%	977,774	-2.2%
2015-16	51,768	15.2%	1,128,540	15.4%
2016-17	52,594	1.6%	1,136,392	0.7%
2017-18	55,045	4.7%	1,151,004	1.3%
Total 9 Year Growth	**4,325**	**8.5%**	**12,580**	**1.1%**

Source: El Dorado Transit Administrative Operations Reports

Table 16 and Figure 16 show monthly ridership data by route/service for FY 2017 – 18. As shown, the average total system-wide ridership is highest in the month of June as this is when the Fair Shuttle operates. Additionally, August, October and May also represent high transit activity months. Ridership is the lowest in the months of July, November, and December.

Detailed Ridership Review

To further provide a good understanding of current El Dorado Transit ridership patterns, more detailed ridership data was reviewed.

Commuter Services

Table 17 presents ridership by run and day of week for the Sacramento Commuter services (including the reverse commute runs) for the weekdays between June 11 and June 15, 2018. A review of this data indicates the following:

- Ridership is relatively steady Monday through Thursday. As many state employees work a 4/10 hour day schedule, Friday ridership is five percent less than the other weekdays.

- The AM and PM ridership varies in size throughout the weekdays. This indicates that passengers may use the service in one direction and carpool in the other. See Figure 17.

TABLE 16: Total El Dorado Transit Ridership by Month, Fiscal Year 2017-18

	Rural Local Fixed Routes							Commuter/Urban Routes				Demand Response							
Month	Cameron Park	Pollock Pines	Placer-ville	El Dorado Hills	Diamond Springs	Saturday Express	*Subtotal Local Routes*	Commute	Reverse Commute	50 Express	*Subtotal Commuter Routes*	Dial- A-Ride	ADA Para-transit	Contract MORE	Adult Day Services	SAC MED	Subtotal Demand Response	Fair Shuttle	**Total**
July 2017	821	3,030	3,813	11	1,295	467	*9,437*	11,016	68	2,082	*13,166*	1,606	52	1,870	549	33	*4,110*	0	**26,713**
August	1,050	3,869	4,470	217	2,283	432	*12,321*	13,234	46	2,853	*16,133*	1,833	84	2,285	664	46	*4,912*	0	**33,366**
September	1,050	3,337	3,771	247	2,415	542	*11,362*	11,225	53	3,049	*14,327*	1,596	109	1,900	545	43	*4,193*	0	**29,882**
October	1,275	3,605	4,002	348	2,510	416	*12,156*	12,730	56	3,586	*16,372*	1,687	85	2,106	552	49	*4,479*	0	**33,007**
November	997	2,870	3,472	320	2,008	281	*9,948*	11,169	40	3,084	*14,293*	1,512	77	1,734	462	78	*3,863*	0	**28,104**
December	877	2,836	3,588	299	1,931	529	*10,060*	10,493	46	2,705	*13,244*	1,590	39	1,677	478	60	*3,844*	0	**27,148**
January 2018	1,041	2,946	3,571	375	2,243	352	*10,528*	13,330	58	2,986	*16,374*	1,563	70	1,796	631	43	*4,103*	0	**31,005**
February	1,005	2,932	3,366	315	2,360	427	*10,405*	11,562	44	3,157	*14,763*	1,434	45	1,665	559	42	*3,745*	0	**28,913**
March	1,021	2,814	3,664	338	2,437	397	*10,671*	12,734	38	3,290	*16,062*	1,602	32	1,872	562	34	*4,102*	0	**30,835**
April	1,092	2,880	3,596	396	2,641	321	*10,926*	12,655	29	3,645	*16,329*	1,530	48	1,731	536	37	*3,882*	0	**31,137**
May	1,233	3,344	3,991	396	2,661	355	*11,980*	13,088	51	3,429	*16,568*	1,538	54	1,701	520	45	*3,858*	0	**32,406**
June	1,146	2,938	3,353	379	1,700	428	*9,944*	12,045	63	2,855	*14,963*	1,476	72	1,506	507	17	*3,578*	10,947	**39,432**
Total	**12,608**	**37,401**	**44,657**	**3,641**	**26,484**	**4,947**	***129,738***	**145,281**	**592**	**36,721**	***182,594***	**18,967**	**767**	**21,843**	**6,565**	**527**	**48,669**	**10,947**	**371,948**
Monthly Average	1,051	3,117	3,721	303	2,207	412	*10,812*	12,107	49	3,060	*15,216*	1,581	64	1,820	547	44	4,056	912	30,996
% of Systemwide	3.4%	10.1%	12.0%	1.0%	7.1%	1.3%	*34.9%*	39.1%	0.2%	9.9%	*49.1%*	5.1%	0.2%	5.9%	1.8%	0.1%	13.1%	2.9%	

Source: El Dorado Transit Administrative Monthly Ridership FY 2017-18

FIGURE 15: El Dorado Transit Proportion of Ridership by Type of Service

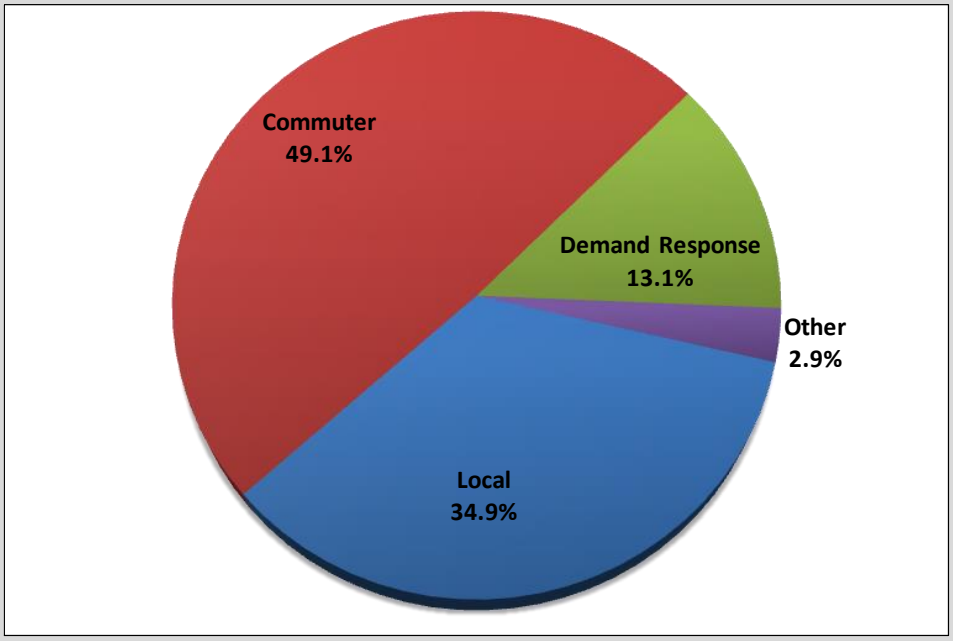


FIGURE 16: El Dorado Transit Ridership by Month by Service Mode

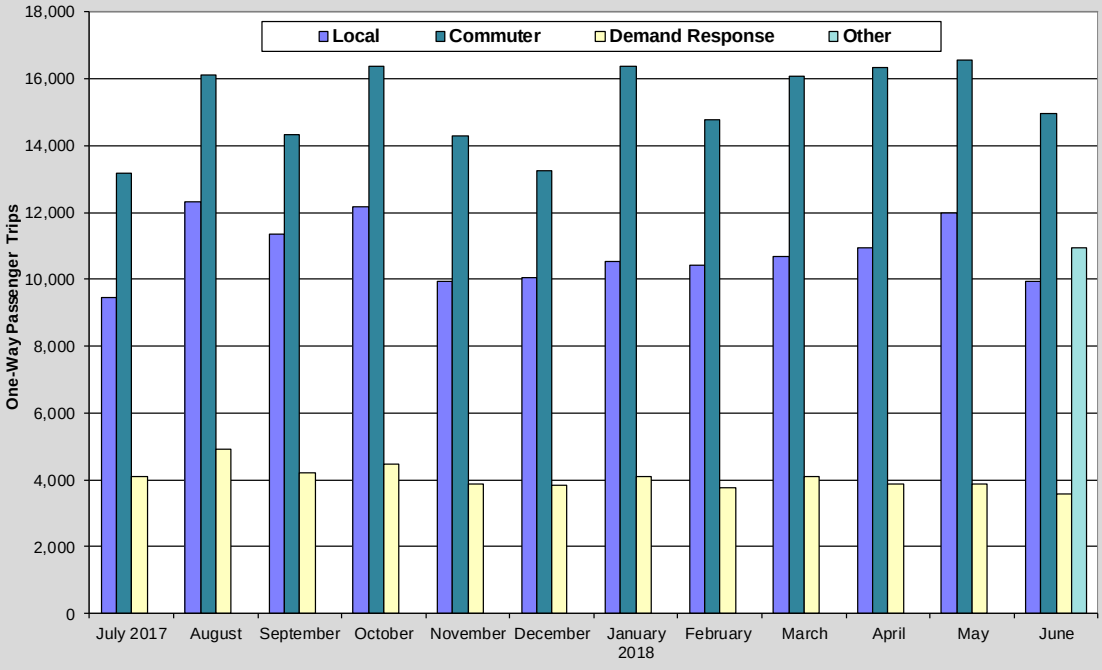


TABLE 17: El Dorado Transit Commuter Service Ridership by Day of Week

Route	Monday	Tuesday	Wednesday	Thursday	Friday	Weekly Total	Daily Average
Commuter 1	55	56	53	50	51	265	53
Commuter 2	41	60	52	44	31	228	45.6
Commuter 3	60	62	62	58	34	276	55.2
Commuter 4	67	86	63	77	51	344	68.8
Commuter 5	42	55	54	46	34	231	46.2
Commuter 6	35	51	44	46	37	213	42.6
Commuter 7	68	73	69	74	57	341	68.2
Commuter 8	51	49	45	51	38	234	46.8
Commuter 9	54	59	59	55	40	267	53.3
Commuter 10	53	57	66	54	41	271	54.2
Commuter 11	46	39	43	32	31	191	38.2
Reverse Commuter AM Route 6	2	1	1	2	0	6	1.2
Reverse Commuter AM Route 11	0	1	2	0	4	7	1.4
Reverse Commuter PM Route 2	0	3	0	0	0	3	0.6
Reverse Commuter PM Route 11	0	0	0	0	0	0	0
Total	**574**	**652**	**613**	**589**	**449**	**2,877**	**575.3**
Percent of Total	**20.0%**	**22.7%**	**21.3%**	**20.5%**	**15.6%**	**100%**	

Source: El Dorado Transit Ridership by Day of Week- June 11 - 15 2018

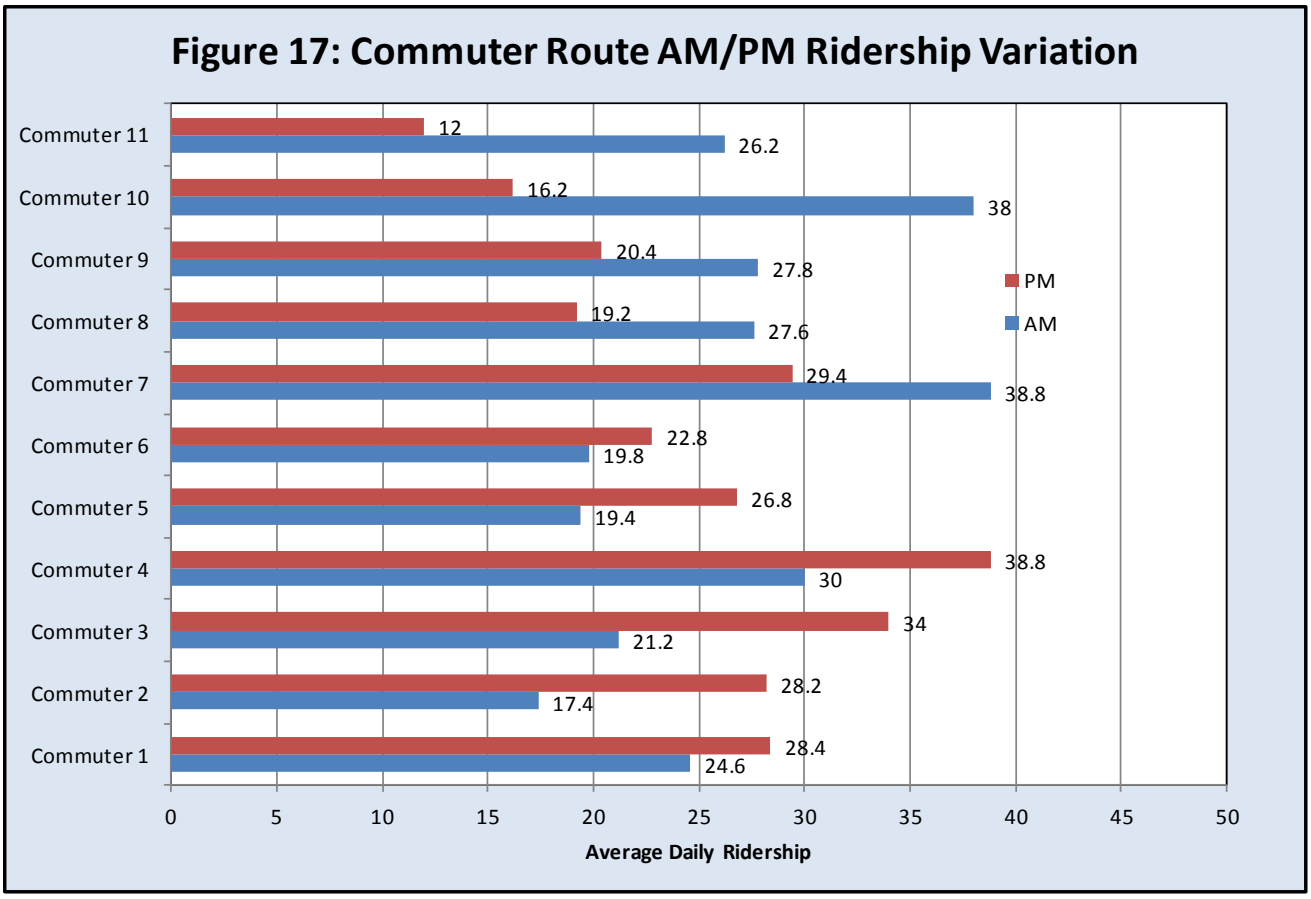
- The most popular runs in the AM are Routes 7 (7:30 AM arrival in downtown) and 10 (8:00 AM arrival in downtown) with an average of 38 passengers per run, followed by Routes 8 and 9 (which arrive in downtown between 7:30 AM and 8:00 AM) with an average of approximately 28 passengers per run.

- In the PM, Route 3 and 4 (with a 4:18 PM first pick-up) carries the highest average ridership of 34 and 39 passengers per day respectively, followed by Route 7 with 29 passengers per day. The lowest ridership is Route 11 with 12 passengers per day.

- The AM Reverse Commuter Routes 6 and 11 have an average daily ridership of 1.2 and 1.4 respectively. The PM Routes 2 and 11 have significantly lower ridership with less than one rider daily.

Fixed and Deviated Fixed-Route Services

Average daily ridership was collected during the week of June 10th to 16th, 2018 on both fixed and deviated fixed routes as shown in Table 18. In addition, Table 19 and Figures 18 (weekday) and 19 (Saturday) present the average ridership by run. This data indicates the following patterns:



- Over the weekdays, ridership is highest on Tuesday (632) and lowest on Monday (512). Reflecting the fact that Saturday service is limited to the Saturday Express (25) and Diamond Springs Saturday (35), Saturday ridership is 4 percent of average weekday ridership.

- Overall weekday ridership peaks in the 11:00 AM hour (66 passengers), drops somewhat in the mid-day period, and then reaches the daily peak of 141 passengers during the 2:00 PM to 3:00 PM hour.

- Overall Saturday ridership peaks in the 9:00 AM hour (19 passengers), drops within the mid-day period, then reaches the daily peak of 86 passengers total during the hours of 2:00 PM, 3:00 PM and 4:00 PM.

- The Diamond Springs route has a significant spike in ridership during the 2:00 PM hour, likely when the charter school students are travelling home.

- Ridership on the Placerville route is more consistent throughout the day than some of the other routes.

Table 18: El Dorado Transit Fixed Route Ridership by Day of Week

Route	Monday	Tuesday	Wed-nesday	Thursday	Friday	Saturday	Weekly Total	Weekday Average
Route 20 - Placerville	151	193	180	142	141	--	*807*	*161.4*
Route 25 - Saturday Express	--	--	--	--	--	89	*89*	--
Route 30 - Diamond Springs/El Dorado	77	94	72	78	79	--	*400*	*80*
Route 35 - Diamond Springs Saturday	--	--	--	--	--	29	*29*	--
Route 40 - Cameron Park/Shingle Springs	37	51	54	45	48	--	*235*	*47*
Route 50 - 50 Express	114	139	134	114	116	--	*617*	*123.4*
Route 60 - Pollock Pines	124	140	146	153	141	--	*704*	*140.8*
Route 70 - Cameron Park/El Dorado Hills	9	15	33	12	17	--	*86*	*17.2*
Total	**512**	**632**	**619**	**544**	**542**	**118**	**2,967**	***569.8***

Source: El Dorado Transit

- The El Dorado Hills Route never had a very high passenger load.

- The 7:00 AM Eastbound Pollock Pines run and the 3:00 PM Westbound Pollock Pines run have relatively higher ridership (18.3 and 11.3 respectively).

Demand Response Services

El Dorado Transit offers several types of demand response services: Dial-A-Ride, Complementary Paratransit, Contracted Services with Human Service Programs and Non-Emergency Medical Transportation (Sac-Med). Tables 20, 21 and Figure 20 present more detailed ridership information for these services.

Dial-A-Ride and Paratransit Ridership Patterns

The ridership data by day of week is presented in Table 20 while Figure 20 presents the data by time of day. The data indicates the following:

- Weekday ridership is relatively consistent, with Wednesday ridership slightly higher than the other weekdays.

- Saturday ridership represents 8.1 percent of total ridership for the week while Sunday represents 5.2 percent of weekly ridership.

  The 10:00 AM hour is the most popular time for DAR/paratransit trips on a weekday with an average of 9 boardings at this time. Between 8:00 AM and 4:00 PM average weekday hourly ridership stays around 5 to 6 one-way passenger trips per hour.

TABLE 19: El Dorado Transit Local Route Average Daily Ridership by Hour

	Weekday									Saturday			
Hour of Run Start Time	Cameron Park/Shingle Springs 40	Diamond Springs 30	Express 50X	Pollock Pines 60 EB	Pollock Pines 60 WB	Placerville 20 EB	Placerville 20 WB	El Dorado Hills 70	Total Weekday	Saturday Express EB	Saturday Express WB	Saturday Diamond Springs	Total Weekend
6:00 AM	1.9	0.6	19.2	--	--	1.0	6.5	1.2	30.4	--	--	--	
7:00 AM	2.7	5.7	18.4	18.3	--	7.5	0.9	2.5	56.0	--	--	--	
8:00 AM	4.7	6.2	12.1	2.2	8.5	5.2	8.7	1.4	49.0	--	--	--	
9:00 AM	2.2	11.1	19.5	4.9	1.9	11.2	6.0	0.9	57.7	4.0	11.0	4.5	19.5
10:00 AM	4.7	8.1	12.2	4.0	6.4	7.0	6.8	1.5	50.7	10.0	5.0	2.5	17.5
11:00 AM	4.5	15.4	16.0	6.3	5.0	10.2	7.6	1.0	66.0	0.0	5.5	2.5	8.0
12:00 PM	4.4	12.5	16.0	2.9	5.6	6.9	8.1	1.7	58.1	0.0	5.0	1.5	6.5
1:00 PM	3.3	11.5	8.5	3.8	5.2	7.2	8.2	1.5	49.2	3.0	4.5	1.0	8.5
2:00 PM	3.5	29.0	11.0	5.9	6.3	6.3	8.4	1.2	71.6	13.0	6.5	4.5	24.0
3:00 PM	6.7	8.9	19.3	3.8	11.3	4.3	14.3	1.2	69.8	27.0	2.5	5.0	34.5
4:00 PM	3.2	7.2	10.6	7.0	3.7	5.0	3.9	1.5	42.1	11.0	14.5	2.0	27.5
5:00 PM	1.6	4.8	7.2	2.3	8.7	1.6	6.1	1.0	33.3	--	--	--	
6:00 PM	0.8	1.6	6.6	6.3	0.0	3.9	0.6	1.3	21.1	--	--	--	

Source: Driver logs for September 3, 2018 to September 16, 2018

FIGURE 18: El Dorado Transit Local Fixed Route Average Weekday Ridership by Hour

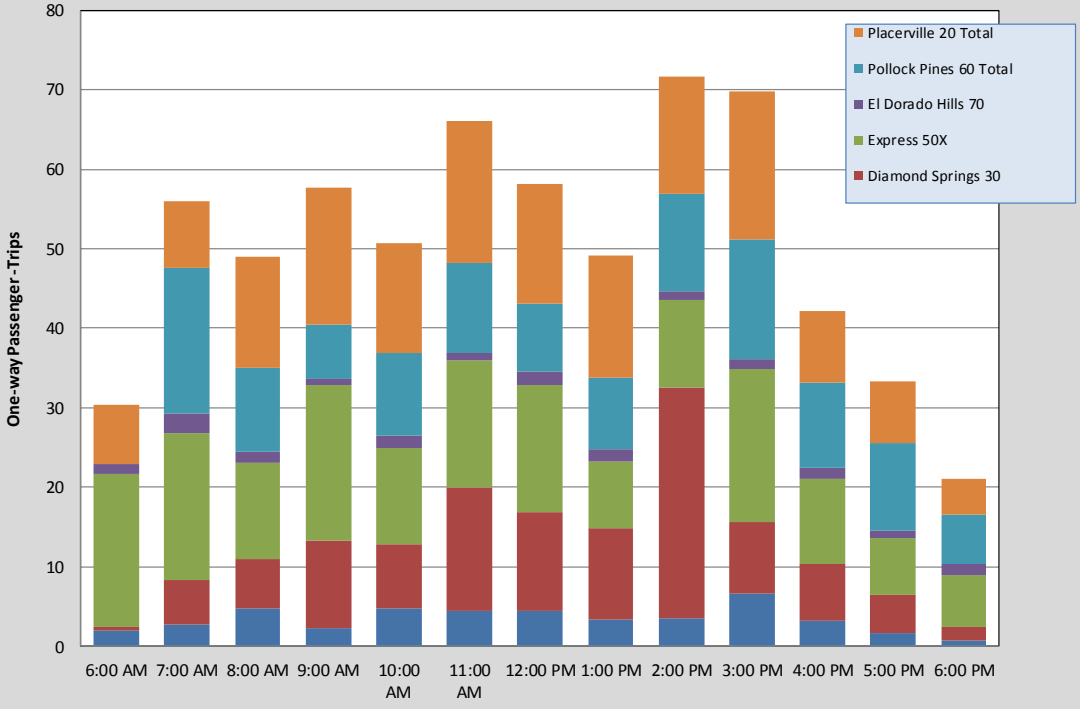


FIGURE 19: El Dorado Transit Saturday Fixed Routes Average Daily Ridership by Hour

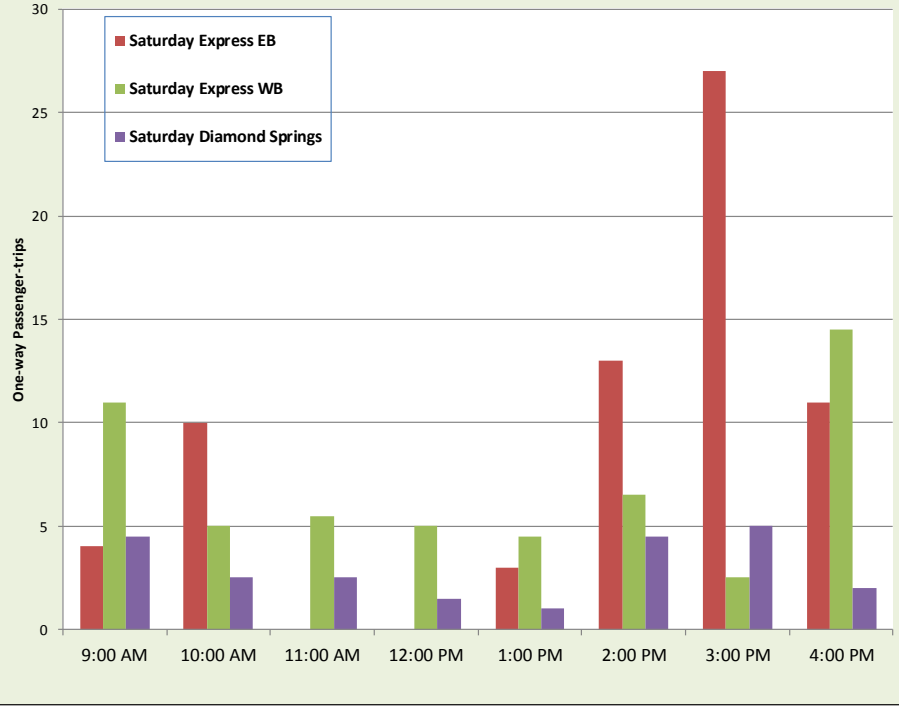


Table 20: El Dorado Transit Dial-A-Ride and Paratransit Ridership by Day of Week

	Daily Ridership	% of Total
Monday	46	13.4%
Tuesday	59	17.2%
Wednesday	75	21.8%
Thursday	59	17.2%
Friday	59	17.2%
Saturday	28	8.1%
Sunday	18	5.2%
Total	**344**	**100%**

Source: DAR and Paratransit Driver Manifests for 09/04/2018 to 09/10/2018

Table 21 presents travel patterns (origin/destination) for DAR and paratransit services. The table represents an average weekday in early September.

- Trips within Placerville are by far the most common DAR trip pattern (22.8 average weekday trips).

- The second most common trip pattern is between Cameron Park and Placerville (4 – 5 average weekday trips).

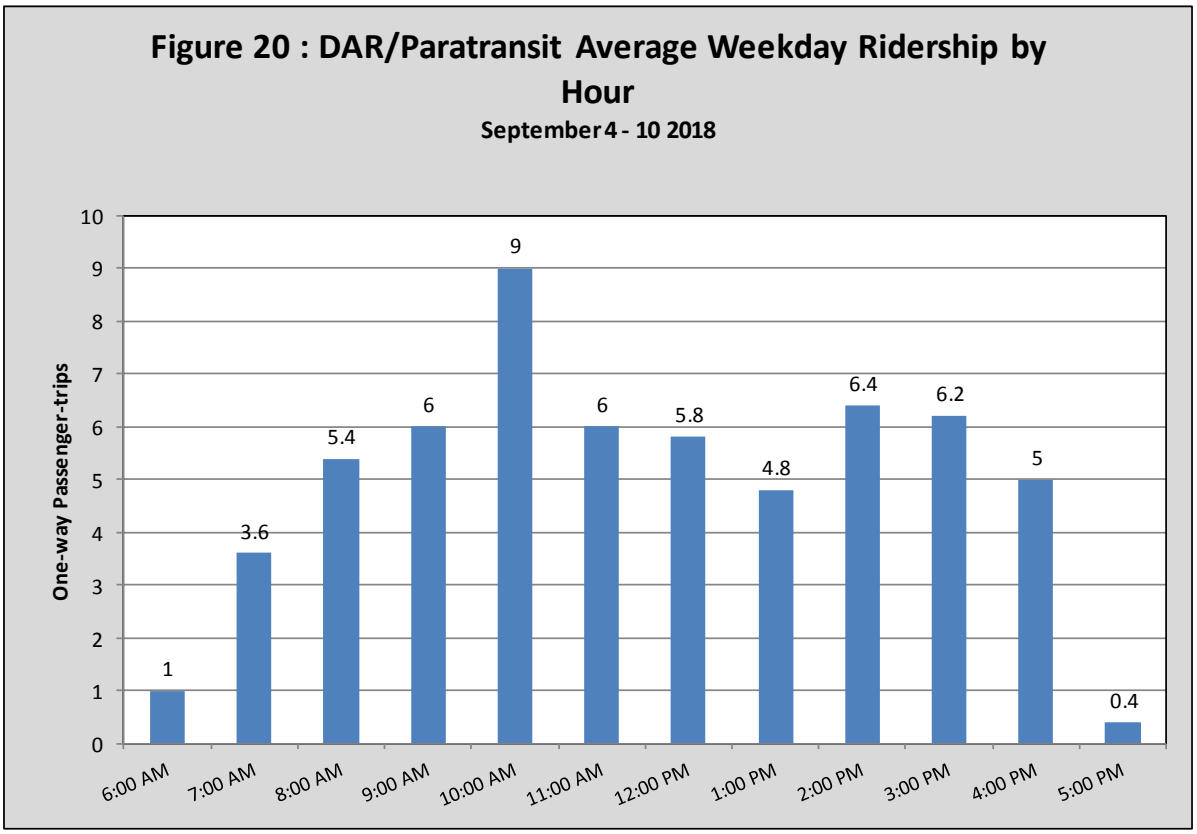
- El Dorado Hills (which has poor fixed-route ridership) represents 8.0 percent of average weekday DAR destinations and 6.2 percent of trip origins.

- The more rural communities of Camino, Coloma and Pollock Pines represent less than 2 percent of origin or destination areas. The communities of Garden Valley and Kelsey did not generate on DAR ridership during the week reviewed. Garden Valley is no longer served by DAR as of January 2019.

Table 21: El Dorado Transit Average Daily Dial-A-Ride Trip Origin/Destination Ridership Data

Origin Area	Destination Area: Camino	Coloma/ Lotus	Cameron Park	Diamond Springs	El Dorado	El Dorado Hills	Garden Valley	Kelsey	Placerville	Pollock Pines	Rescue	Shingle Springs	**Total**	**% Total Trips**
Camino	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	**0.6**	**1.1%**
Coloma/Lotus	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**	**0.0%**
Cameron Park	0.0	0.0	0.8	0.6	0.2	1.4	0.0	0.0	5.2	0.0	0.2	0.6	**9.0**	**16.4%**
Diamond Springs	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	2.4	0.0	0.0	0.0	**2.6**	**4.7%**
El Dorado	0.0	0.0	0.2	0.6	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	**2.6**	**4.7%**
El Dorado Hills	0.0	0.0	1.2	0.0	0.0	0.6	0.0	0.0	0.4	0.0	0.0	0.0	**2.2**	**4.0%**
Garden Valley	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**	**0.0%**
Kelsey	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**	**0.0%**
Placerville	0.6	0.0	4.0	2.0	1.4	1.2	0.0	0.0	22.8	0.4	0.6	1.6	**34.6**	**63.1%**
Pollock Pines	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	**0.2**	**0.4%**
Rescue	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	**0.8**	**1.5%**
Shingle Springs	0.0	0.2	0.6	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	**2.2**	**4.0%**
Total	**0.6**	**0.2**	**7.0**	**3.4**	**1.6**	**3.2**	**0.0**	**0.0**	**35.4**	**0.4**	**0.8**	**2.2**	**54.8**	**100.0%**
% Total Trips	**1.1%**	**0.4%**	**12.8%**	**6.2%**	**2.9%**	**5.8%**	**0.0%**	**0.0%**	**64.6%**	**0.7%**	**1.5%**	**4.0%**	**100.0%**	

Source: El Dorado Transit Driver Logs 09/04/2018 to 09/10/2018



Other Demand Response Services

Ridership on contracted and subscription DAR services to social service programs can fluctuate along with program attendance. In Fiscal Year 2017 – 18, ridership for the M.O.R.E contracted service decreased by 3,556, or 14 percent. Ridership on the Sac-Med program has stayed relatively steady over the years; however, this service meets an important non-emergency medical transportation need.

BOARDING BY STOP ACTIVITY

Boarding and alighting data is useful in determining which currently served locations generate the most activity and therefore need to be considered in alternative routing options. The following summary reflects boarding and alighting data collected by drivers between July 1, 2017 and June 30, 2018. Tables 22 through Table 24 show the highest boarding and alighting locations by stop for the fixed routes and commuters. Additional boarding and alighting information for each route can be found in Appendix C. A brief summary of the boarding and alighting data for each route by stop are described below.

Weekday Fixed-Route Boardings

Boarding and alighting summaries are described for each fixed-route line below.

Placerville Route (20): A total of roughly 160 people ride the Placerville Route on an average weekday. Approximately 35 people board the Placerville Route at the Missouri Flat Transfer Center daily. The three stops with the next highest average daily passengers boarding were: Old Placerville City Hall (17 people per day), Placerville Station Transfer Center 11 people per day), and the Placerville Post Office (9 people per day). For the most part, request stops have one or fewer average daily boardings with the exception of the MORE Workshop (5) Woodridge East (4).

- Diamond Springs (30): A total of 90 people ride Route 30 daily on average. The stop with the most daily ridership is by far the Missouri Flat Transfer Center (30 people per day), followed by Folsom Lake College El Dorado Center (21), Prospector Plaza (6) and Victory Mine Building (5).

- Cameron Park/Shingle Springs (40): Approximately 47 people ride Route 40 daily. The two stops with the highest average daily ridership were stops located at Coach Lane and Rodeo Road (10 people per day) and Ponderosa Road Park and Ride (9 people per day). Though, these boardings may have increased lately due to revisions to the 50 Express.

TABLE 22: Local Rural Fixed Route Boardings by Stop

Weekday

Fixed Routes	Total Annual Boardings	Daily Average
Missouri Flat Transfer Center	34,608	133.6
Iron Point Light Rail Station	7,583	29.3
Placerville Station Transfer Center	6,740	26.0
Ponderosa Rd Park & Ride	6,223	24.0
Folsom Lake College, El Dorado Center	5,345	20.6
Cambridge Rd Park and Ride	4,950	19.1
El Dorado Hills Park & Ride	4,361	16.8
Old Placerville City Hall	4,217	16.3
Safeway Plaza (Pony Express Trail)	4,166	16.1
Red Hawk Casino	2,976	11.5
Coach Ln and Rodeo Rd	2,895	11.2
Tractor Supply (Broadway)	2,775	10.7
FLC - Folsom Campus	2,541	9.8
Placerville Post Office	2,220	8.6
Upper Room	2,206	8.5
Big 5 (Placerville Dr)	2,111	8.2
Big Lots	1,863	7.2
Broadway and Schnell School Rd	1,722	6.6
MORE Workshop -CALL FOR BUS	1,608	6.2
Prospector Plaza	1,513	5.8
Woodman Circle	1,511	5.8
Coloma Court	1,454	5.6
Victory Mine Bldg	1,395	5.4
Tunnel St Apartments	1,301	5.0

Source: El Dorado Transit

- 50 Express (50x): The 50 Express route has the highest average daily ridership with approximately 123 people boarding daily. Missouri Flat Transfer Center (40 average daily boardings) and Iron Point Light Rail Station (30 average daily boardings) generate the most activity. The Ponderosa Park and Ride (16) and the El Dorado Hills Park and Ride (15) are also top boarding activity generators.

- Pollock Pines (60): The average daily boardings for the Pollock Pines Route is approximately 140. The two eastbound stops with the highest average daily ridership

TABLE 23: Saturday Routes Top Boarding Locations, 2017-2018

Stop	Boardings	
	Annual	Average Daily
Missouri Flat Transfer Center	1,165	22.4
Safeway Plaza (Pony Express Trail)	493	9.5
Old Placerville City Hall	442	8.5
Placerville Station Transfer Center	411	7.9
Tractor Supply (Broadway)	261	5.0
Big 5 (Placerville Drive)	250	4.8
Pony Express at Gilmore Street	245	4.7
Broadway and Schnell School Road	240	4.6
Prospector Plaza	184	3.5
Coloma Court	166	3.2
Eskaton Lincoln Manor	165	3.2
Tunnel Street Apartments	156	3.0
Pony Express at Alder Road -West	127	2.4
Carson Road and Larsen Drive	123	2.4
Upper Room	96	1.8
Home Depot (Placerville Drive)	80	1.5
Broadway and Carson Road	79	1.5
Pony Express at Blair Road - East	77	1.5
Regal Theater	65	1.3
El Dorado County Fairgrounds Park & Ride (Request Stop)	64	1.2
Pony Express at Trap Lane	61	1.2
Pleasant Valley Road and Church Street	60	1.2

Source: El Dorado Transit Passengers Report By Stop 7/1/2018-6/30/2018

were Missouri Flat Transfer Center (27 people per day) and Placerville Station Transfer Center 11 people per day). The westbound route had the highest average daily passengers boarding at the Safeway Plaza (17 people per day).

Table 22 summarizes boarding activity on the local community route stops for all routes. As indicated, the Missouri Flat Transfer Center has an estimated 133 boardings on an average weekday. The next busiest stop was the Iron Point Light Rail Station with an average of 29.3 boardings per day. Other stops with high activity include the Placerville Station Transfer Center (26), Ponderosa Road Park and Ride (24), and Folsom Lake College, El Dorado Center (20.6).

Table 24: Sacramento Commuter Routes Top Boarding Locations, 2017-2018

Stop	Boardings	
	Annual	Average Daily
AM Boardings		
El Dorado Hills Park & Ride	27,259	109.5
Cambridge Rd Park and Ride	11,572	46.5
Ponderosa Rd Park & Ride	9,434	37.9
Vine and Mercedes Park & Ride	8,718	35.0
EDC Fairgrounds Park & Ride	5,218	21.0
Central Transit Center	3,494	14.0
Placerville Station Transfer Center	3,092	12.4
PM Boardings		
9th Street at N Street	8,305	33.4
H Street at 11th Street	8,160	32.8
9th Street at P Street	6,781	27.2
9th Street at L Street	5,951	23.9
L Street at 14th Street	5,185	20.8
Q Street at 16th Street	5,131	20.6
Q Street at 29th Street	4,780	19.2
5th Street at N Street	3,648	14.7
Q Street at 13th Street	3,616	14.5
8th Street at I Street	3,189	12.8
15th Street at K Street	2,895	11.6
5th Street at P Street	2,337	9.4
Reverse Boardings		
Reverse - 9th Street at N Street	295	1.2
El Dorado Hills Park & Ride	120	0.5
Reverse - EDC Fairgrounds	48	0.2
Central Transit Center	31	0.1
Placerville Library	17	0.1
EDC Fairgrounds Park & Ride	14	0.1
Ponderosa Rd Park & Ride	10	0.0
Cambridge Rd Park and Ride	7	0.0
Reverse - 5th Street at P Street	6	0.0

Source: El Dorado Transit Passengers Report By Stop 7/1/2018-6/30/2018

Saturday Boardings

Bus stops with at least 1 average daily boarding on one of the El Dorado Transit Saturday Routes are displayed in Table 23. As shown, the Missouri Flat Transfer Center has an estimated 22.4 Saturday boardings followed by the Safeway Plaza (Pony Express Trail) (9.5) and Old Placerville City Hall (8.5).

Commuter Route Boarding and Alighting

As shown in Table 24, the El Dorado Hills area generates the most AM Commuter passenger boarding activity. Between the El Dorado Hills and Vine and Mercedes Park-And-Ride lots an average of 144.5 passengers board daily. Other popular boarding locations are the Cambridge Park-And-Ride (46.5) and the Ponderosa Park-and-Ride (37.9). In the afternoon/evening boarding is more evenly distributed between the downtown Sacramento stops with 9th and N (33.4) and H and 11th (32.8) generating the most average daily boardings. The most popular boarding location for Reverse commuters in downtown Sacramento is also 9th and N (1.2 average daily boardings) and in El Dorado County also the El Dorado Hills Park-And-Ride (0.5).

ON-TIME PERFORMANCE

Local Routes

El Dorado Transit considers a route late if the bus arrives at the time point later than five minutes after the scheduled time. El Dorado Transit has adopted an on-time performance standard of 85 percent on time for rural fixed routes and 90 percent on time for urban routes. Overall, the local routes were on time 86.9 percent of runs for FY 2017 – 18. As shown in Figure 21, a small percentage of local fixed routes (including the 50 Express Urban route) arrived later than 10 minutes late in FY 2017 – 18. The Placerville West and Pollock Pines East routes had the greatest proportion of runs that ran 1 – 10 minutes late. Time points with relatively poor on-time performance include: the most western end of the Placerville Routes on Broadway, Marshall Hospital, Big 5, the DMV in Placerville and Missouri Flat Transfer Center.

Commuter Routes

The AM Commuter Routes were on-time 90.3 percent of the time while the PM routes were on-time 89.3 percent of the time, very close to the standard for urban routes. As shown in Figures 22 and 23, both AM and PM Route 10 had the worst on-time performance. Route 9 is also delayed more frequently. These two routes arrive and depart Sacramento close to 8:00 AM and 5:00 PM.

Figure 21: Local Fixed Route On-Time Performance
FY 2017-08

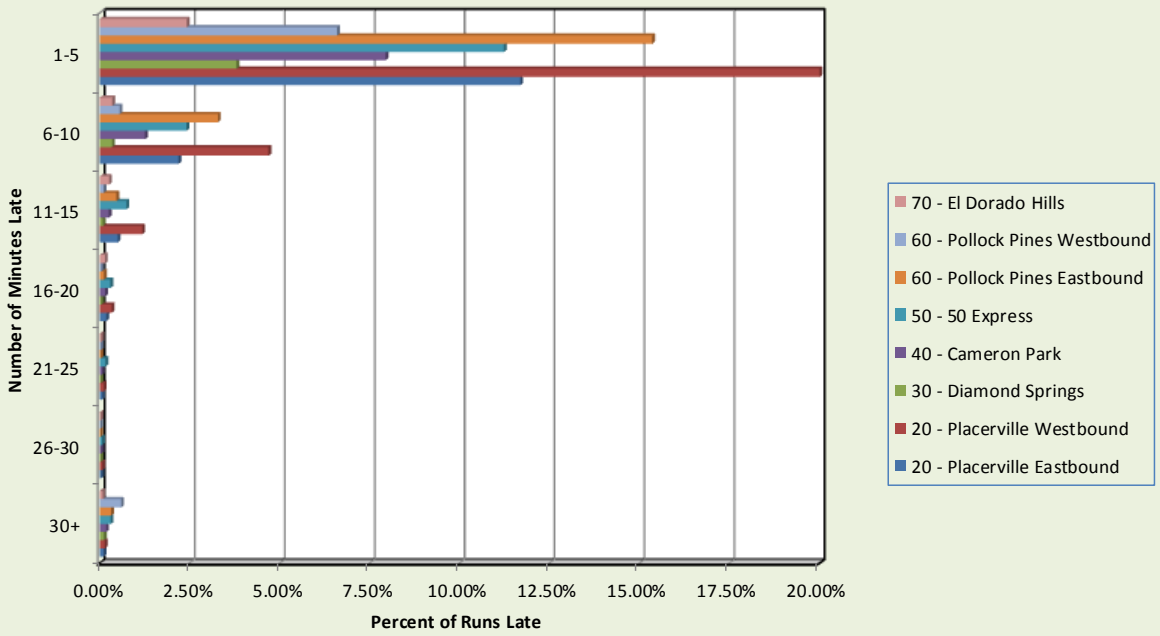
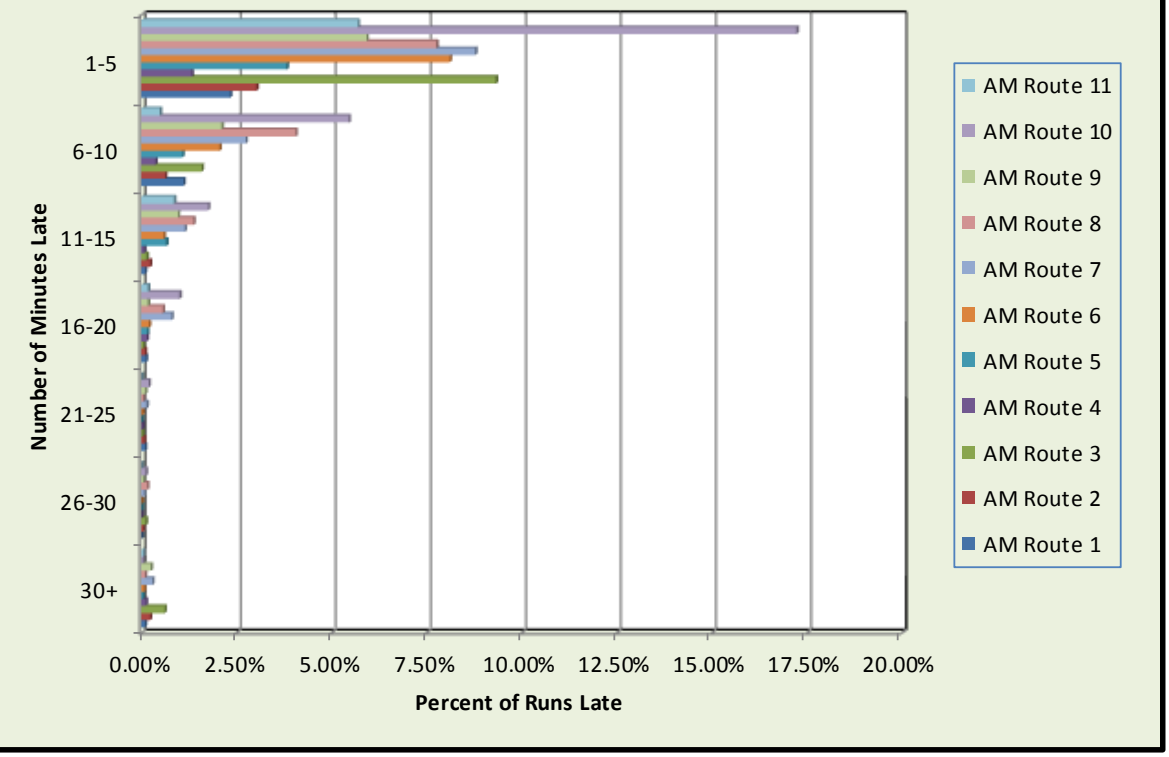
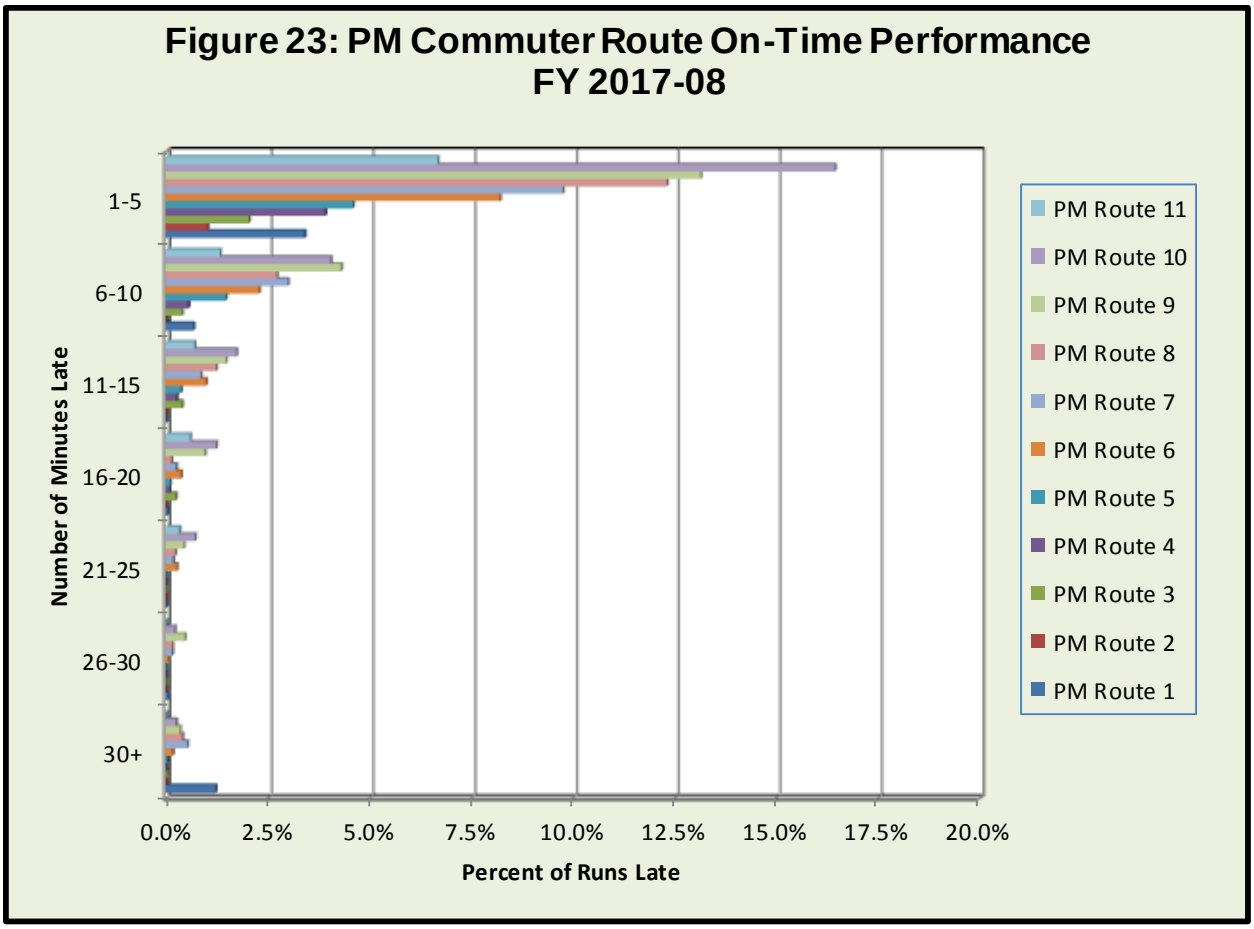


Figure 22: AM Commuter Route On-Time Performance
FY 2017-08





Demand Response

Demand response services are considered "on-time" if arrival time is no more than 10 minutes outside the 30 minute reservation window. The current on-time standard for demand response services is 90 percent on-time. El Dorado Transit tracks on-time performance using a one week sample of bus arrivals. Data for the week of September 4, 2018 shows the following:

- ADA Paratransit was 91.3 percent on-time
- Alta contracted services (M.O.R.E) was 99.5 percent on-time
- DAR was 97.7 percent on-time
- Sac-Med was 90.9 percent on-time
- Senior Day Care transportation was 99.6 percent on-time

FINANCIAL CHARACTERISTICS

System Expenses and Cost Allocation Model

El Dorado Transit expenses totaled $7.7 million in FY 2017 – 18, as shown in Table 25. The majority of the expenses (72 percent) were for salaries and benefits of operating and administrative staff. After salaries and benefits, the next highest cost was fuel and lubricants (8 percent).

The operating costs for 2017 – 18 presented in Table 26 were used to develop a cost allocation equation for El Dorado Transit services. Costs were allocated in three categories—vehicle-hour, vehicle-mile, or fixed—depending upon the service parameter that most directly generates the cost item. For example, fuel costs are allocated to vehicle-miles. Personnel costs were allocated between the three categories based on the proportion of total salary attributable to each parameter. This equation allows an accurate estimation of costs associated with specific services. As shown in Table 26, $1,638,100 can be attributed to per-mile costs; $3,896,289 can be attributed to per-hour costs; and $2,225,305 is considered fixed costs. The resulting cost equation is as follows:

Annual Operating/Administrative Cost = ($70.78) X (vehicle-hours of service) +
($1.42 per vehicle-mile of service) + $2,225,305

This cost equation is used to evaluate service performance, discussed below, and to estimate service alternatives later in the planning process. Note that the vehicle-hour and mile data reflects only revenue service hours and miles.

System Revenues

The revenue sources required to support El Dorado Transit's administration, operations and maintenance are drawn from a number of sources. Table 26 shows the revenues received in FY 2017 – 18, totaling $7,754,694. As indicated, the largest source of income for El Dorado Transit is Local Transportation Funds (LTF) which account for 53.6 percent of the budget. The next largest source of revenue is State Transit Assistance (STA) 15.5 percent of the revenues. FTA Section 5311 (for urbanized areas) accounted for 6.3 percent. Farebox revenue including monthly pass sales and SCRIP totaled over $1,000,000. Revenue from contracted services brought in 5.5 percent of the total revenue for FY 2017 – 18. A small portion of the revenue (0.5 percent) comes from AB 2766 (air quality improvement grants) funding for operation of the Fair Shuttle.

TABLE 25: El Dorado Transit Cost Allocation Model

FY 2017-18

Line Item	Total	Total Vehicle Service Miles	Total Vehicle Service Hours	Fixed
Salaries	$3,470,924	$377,455	$2,437,311	$656,158
Benefits and Payroll Taxes	$2,077,700	$225,945	$1,458,978	$392,777
Employee Medical Exams and Checks	$8,400			$8,400
Insurance	$498,150			$498,150
Fuel & lubricants	$604,000	$604,000		
Vehicle Maintenance	$430,700	$430,700		
Professional Services	$165,000			$165,000
Service Contracts/Equipment	$126,500			$126,500
Utilities	$63,500			$63,500
Special Department Expense	$2,400			$2,400
Communications	$58,520			$58,520
Postage, Publications, Notices, Printing	$33,000			$33,000
Marketing	$3,000			$3,000
Office Expense	$16,050			$16,050
Building/Equipment/Maintenance	$32,000			$32,000
Equipments Rents Leases	$17,500			$17,500
Uniforms	$16,000			$16,000
Household Supplies	$13,750			$13,750
Membership and Other	$11,800			$11,800
Staff Development and Training	$27,000			$27,000
Park and Ride & Bus Stop Expenses	$23,800			$23,800
Connect Card Administration Expenses	$18,000			$18,000
Fair Shuttle Grant AB2766	$42,000			$42,000
Total Expenditures	$7,759,694	$1,638,100	$3,896,289	$2,225,305
Unit Quantities		1,151,004	55,045	
Cost Per Unit		$1.42	$70.78	

Source: El Dorado Transit, FY 2017-18 Ammended Operating Budget Does not include contingency.

TABLE 26: El Dorado Transit Revenues, Fiscal Year 2017-18

Revenues	Fiscal Year 2017-18 Total	% of Total
Transportation Development Act (TDA/LTF)	$4,159,003	53.6%
State Transit Assistance (STA)	$0	0.0%
State Transit Assistance (STA) Deferred	$1,202,830	15.5%
Interest Income	$40,400	0.5%
Federal Transit Administration (FTA) Section 5311 Grant	$490,631	6.3%
Farebox	$219,229	2.8%
Contract Services	$426,500	5.5%
Farebox - Charter	$4	0.0%
Sac Commute Route Passes	$736,258	9.5%
Bus Passes	$87,898	1.1%
Scrip	$38,000	0.5%
Advertising Revenue	$0	0.0%
Misc. Revenue	$0	0.0%
Fair Shuttle AB2766 Grant	$35,265	0.5%
State Transit Assistance (STA)/State of Good Repair (SGR)	$235,677	3.0%
Low Carbon Transit Operations Program (LCTOP) Grant CP	$79,625	1.0%
Offset Reserve Fund - CalTIP (restricted)	$8,374	0.1%
Total Operating Revenue	**$7,759,694**	**100%**

Source: El Dorado Transit, FY 2017-18 Final Amended Operating Budget

FISCAL YEAR 2017/18 SYSTEM PERFORMANCE ANALYSIS

To gain further insight into the efficiency and effectiveness of El Dorado Transit services, it is useful to conduct an analysis of ridership and operating data on a service category basis. Ridership and operating statistics for FY 2017 – 18 were reviewed to identify average activity, allocated costs, allocated subsidy, fare box ratio, and average fares. Tables 27 and 28 present this analysis of financial performance indicators for each type route/service.

- **Ridership:** As discussed above, annual ridership by route/service ranges from a low of 527 on the Sac Med service to a high of 145,357 on the Sacramento Commuter service. Other relatively high ridership routes include the Placerville Route with 44,657 annual one-way passenger trips, followed by Pollock Pines (37,401) and 50 Express (36,721). The Dial-A-Ride carried 19,734 one-way passenger trips, just under the 21,843 passenger trips provided by contract for MORE. Total systemwide ridership for FY 2017 – 18 was 372,054 one-way passenger trips. Ridership by route is depicted in Figure 24. Overall, 39 percent of El Dorado Transit passengers board the Sacramento Commuter service.

TABLE 27: El Dorado Transit Operating Data and Performance Indicators - Rural Local Fixed Routes

Fiscal Year 2017-2018

	Rural Local Fixed Routes								
	Cameron Park	Pollock Pines	Placerville	El Dorado Hills	Diamond Springs	Diamond Springs Saturday	Saturday Express	**Total Local Routes**	**Total Systemwide**
Operating Data									
One-Way Passenger-Trips	12,608	37,401	44,657	3,671	25,351	1,133	4,947	**129,768**	**372,054**
Allocated Total Operating Cost	$425,030	$801,121	$823,282	$397,487	$428,725	$53,837	$116,214	**$3,045,697**	**7,759,805**
Farebox Revenues	$17,617	$58,710	$53,745	$4,671	$39,812	$1,479	$7,301	**$183,335**	**1,564,229**
Subsidy Required	$407,413	$742,411	$769,537	$392,816	$388,913	$52,358	$108,913	**$2,862,362**	**6,195,576**
Vehicle Service Hours	3,148	5,704	6,426	2,906	3,232	418	836	**22,670**	**55,046**
Vehicle Service Miles	52,655	117,184	76,337	52,213	48,688	5,165	16,331	**368,573**	**1,151,004**
Performance Indicators									
Average Fare [1]	$1.40	$1.57	$1.20	$1.27	$1.57	$1.31	$1.48	$1.41	$4.20
Operating Cost Per Trip	$33.71	$21.42	$18.44	$108.28	$16.91	$47.52	$23.49	$23.47	$20.86
Subsidy Per Trip	$32.31	$19.85	$17.23	$107.01	$15.34	$46.21	$22.02	$22.06	$16.65
Psgrs Per Vehicle Service Hr	4.0	6.6	6.9	1.3	7.8	2.7	5.9	5.7	6.8
Psgrs Per Vehicle Service Mi	0.2	0.3	0.6	0.1	0.5	0.2	0.3	0.4	0.3
Farebox Ratio	4.1%	7.3%	6.5%	1.2%	9.3%	2.7%	6.3%	6.0%	20.2%

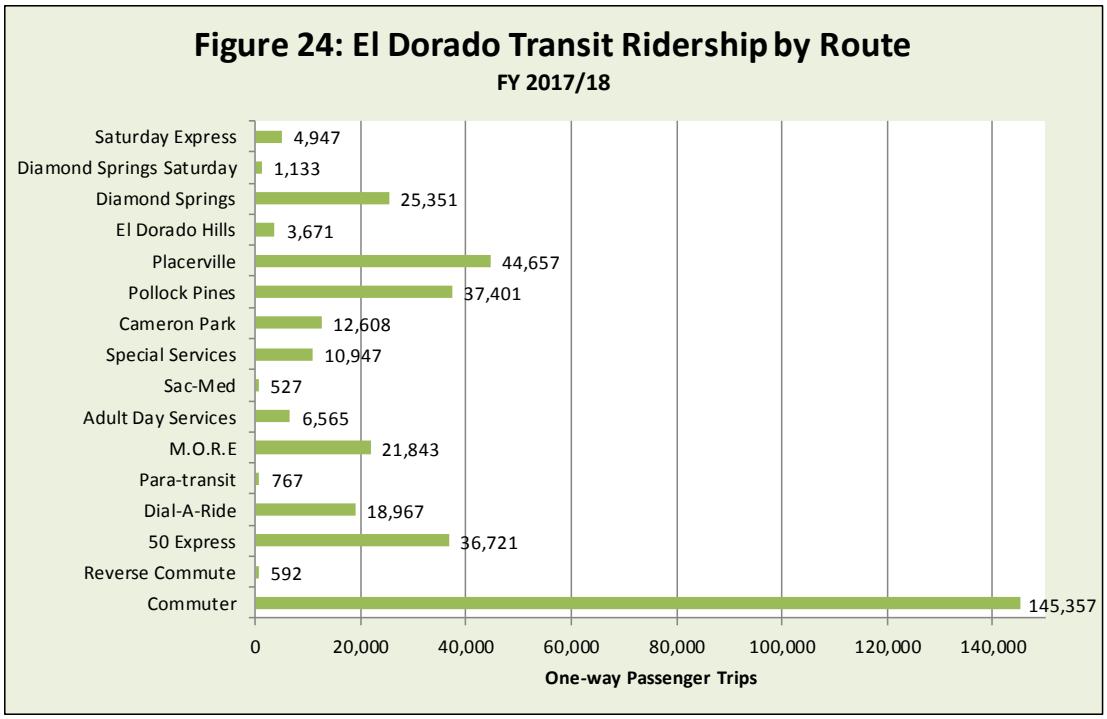
Note 1: Average fare is calcuated as the total annual fare by route divided by total passenger trips by route.
Note 3: Farebox ratio is the total annual fare revenue per route divided by the total allocated operating cost by route.
Source: EDCTA Administrative Operations Reports, Fiscal Year 2017 /2018.

TABLE 28: El Dorado Transit Operating Data and Performance Indicators
Urban, Demand Response and Special Services

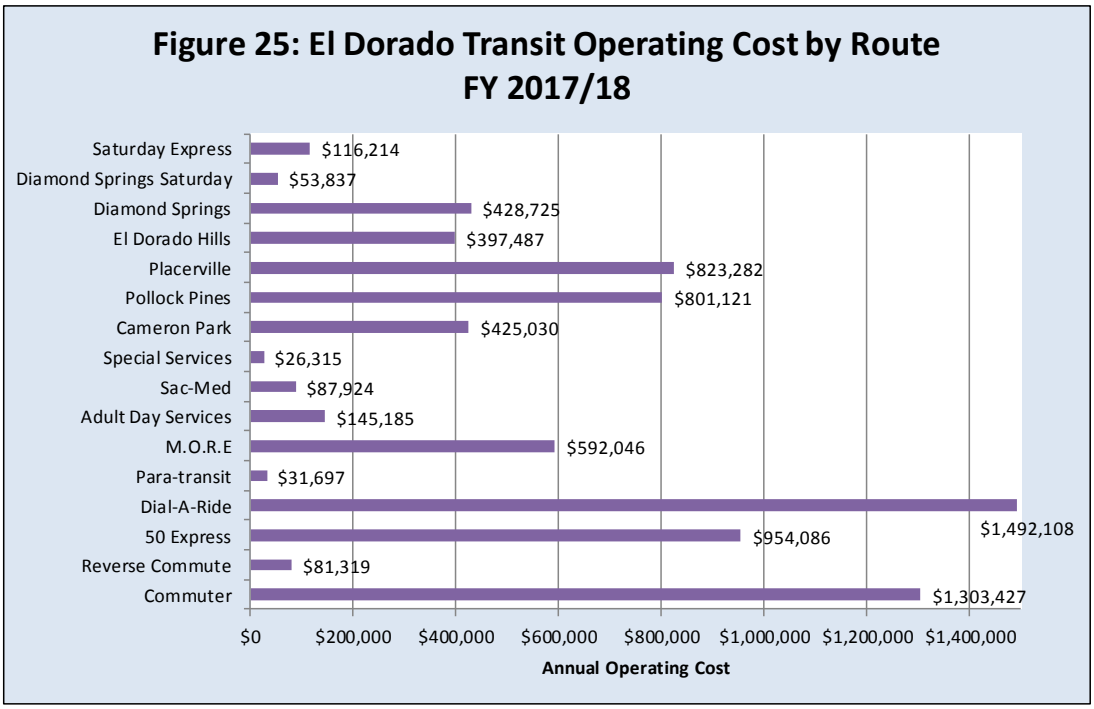
Fiscal Year 2017-2018

	Urban				Demand Response						
	Commuter	Reverse Commute	50 Express	**Total Urban**	Dial-A-Ride	Para-transit	M.O.R.E	Adult Day Services	Sac-Med	**Total Demand Response**	**Special Services**
Operating Data											
One-Way Passenger-Trips	145,357	592	36,721	**182,670**	18,967	767	21,843	6,565	527	**48,669**	**10,947**
Allocated Total Operating Cost	$1,303,427	$81,319	$954,086	**$2,338,833**	$1,492,108	$31,697	$592,046	$145,185	$87,924	**2,348,961**	**$26,315**
Farebox Revenues	$790,124	$2,925	$45,435	**$838,484**	$84,650	$1,686	$426,512	$18,245	$5,360	**536,453**	**$5,957**
Subsidy Required	$513,303	$78,394	$908,651	**$1,500,349**	$1,407,458	$30,011	$165,534	$126,940	$82,564	**1,812,508**	**$20,358**
Vehicle Service Hours	8,429	511	6,361	**15,301**	10,912	239	4,095	1,029	596	**16,871**	**204**
Vehicle Service Miles	257,191	17,208	173,325	**447,724**	195,741	3,596	96,008	21,606	15,207	**332,158**	**2,549**
Performance Indicators											
Average Fare [1]	$5.44	$4.94	$1.24	**$4.59**	$4.46	$2.20	$19.53	$2.78	$10.17	**$11.02**	**$0.54**
Operating Cost Per Trip	$8.97	$137.36	$25.98	**$12.80**	$78.67	$41.33	$27.10	$22.12	$166.84	**$48.26**	**$2.40**
Subsidy Per Trip	$3.53	$132.42	$24.74	**$8.21**	$74.21	$39.13	$7.58	$19.34	$156.67	**$37.24**	**$1.86**
Passengers Per Vehicle-Hr	17.2	1.2	5.8	**11.9**	1.7	3.2	5.3	6.4	0.9	**2.9**	**53.7**
Passengers Per Vehicle-Mi	0.6	0.0	0.2	**0.4**	0.1	0.2	0.2	0.3	0.0	**0.1**	**4.3**
Farebox Ratio	60.6%	3.6%	4.8%	**35.9%**	5.7%	5.3%	72.0%	12.6%	6.1%	**22.8%**	**22.6%**

Note 1: Average fare is calcuated as the total annual fare by route divided by total passenger trips by route.
Note 3: Farebox ratio is the total annual fare revenue per route divided by the total allocated operating cost by route.
Source: EDCTA Administrative Operations Reports, Fiscal Year 2017 /2018.



- **Allocated Operating Cost:** The systemwide operating cost in FY 2017 – 18 was $7,759,694. Allocating fixed costs by the proportion of vehicle-hours of service, $3,045,697 in operating funds was required for the local rural route services, $2,338,833 was required for urban services and $2,348,961 was required for the demand response services. The operating cost by route and service is presented in Figure 25.



- **Operating Subsidy:** As presented in Tables 27 and 28 subtracting the systemwide farebox revenues of $1,564,229 from total operating costs indicates that the total operating subsidy required to fund services was $6,195,576. The local and rural routes annual subsidy of $2.8 million represents roughly 46 percent of total operating subsidy Demand Response services annual operating subsidy of $1.8 million represents 30 percent while urban/commuter services subsidy is $1.5 million or 24 percent.

- **Farebox Recovery Ratio:** The financial efficiency of a system can be measured by the farebox recovery ratio, which is illustrated in Tables 27 and 28. The farebox recovery ratio is particularly important as a measurement for meeting the mandated minimums required for state Transportation Development Act funding. Mathematically, farebox ratio is fare revenue divided by operating costs. The systemwide farebox recovery ratio in FY 2017 – 18 was 20.2 percent, exceeding the 12.2 percent urban/rural blended farebox ratio required by TDA. The contracted MORE service has the highest farebox ratio (72 percent). With a high fare price and high ridership, the commuter service recoups just over 60 percent of operating costs at the farebox. The local rural routes have a lower fare price and a higher proportion of discounted riders. As such farebox ratio for the local rural routes span from 1.2 percent on the El Dorado Hills Route to 9.3 percent on the Diamond Springs Route.

- **Operating Cost per Passenger Trip:** Another measure of each service's financial efficiency is operating cost per one-way passenger trip. The systemwide operating cost per one-way passenger trip in FY 2017 – 18 was $20.86. The SAC-Med service has the highest operating cost per trip of $166.84 with the Commuter route with the lowest cost per trip of $8.97. Of the local rural routes, Diamond Springs and Placerville have the lowest operating cost per trip ($16.91 and $18.44, respectively). Operating cost per trip for the El Dorado Hills route was much greater at $108.28 per trip. DAR is relatively expensive with an operating cost per trip of $78.67.

- **Operating Subsidy per Passenger Trip:** When fare revenue is subtracted from the total operating cost and divided by the number of one-way passenger trips, the subsidy required per one-way passenger trip is calculated. This performance measure is particularly important, as it directly compares the most significant public "input" (public subsidy funding) with the most significant "output" (one-way passenger trips). The system as a whole required a subsidy of $16.79 per one-way passenger trip. As indicated in Figure 26, Sac- Med ($157.19), Reverse Commute ($138.80) and El Dorado Hills ($105.63) require the greatest annual subsidy. On the other end of the spectrum, Special Services (Fair Shuttle) only required a $3.36 per trip in operating subsidy. The Diamond Springs route has the lowest operating subsidy of $15.10 per trip for the local rural routes.

Passenger Trips per Vehicle-Hour of Service: An important measure of service effectiveness is "productivity," defined as the number of one-way passenger trips provided per vehicle service hour. As presented in Table 28, the system as a whole achieved a productivity of 6.7 one-way

Figure 26: El Dorado Transit Subsidy per Passenger Trip by Route FY 2017/18

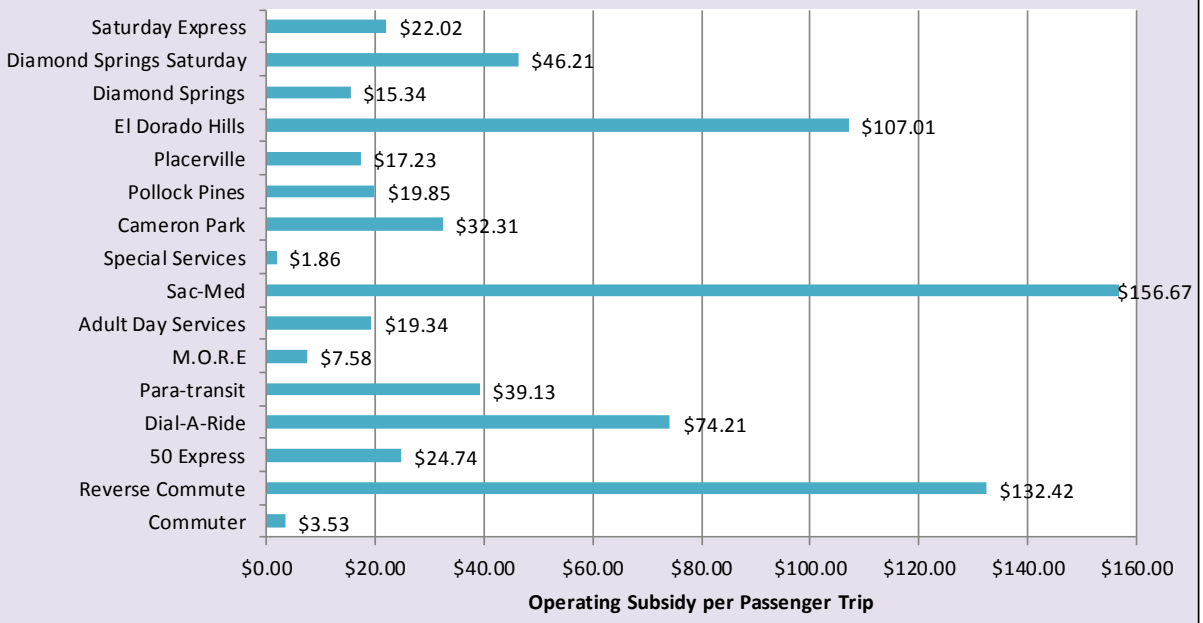
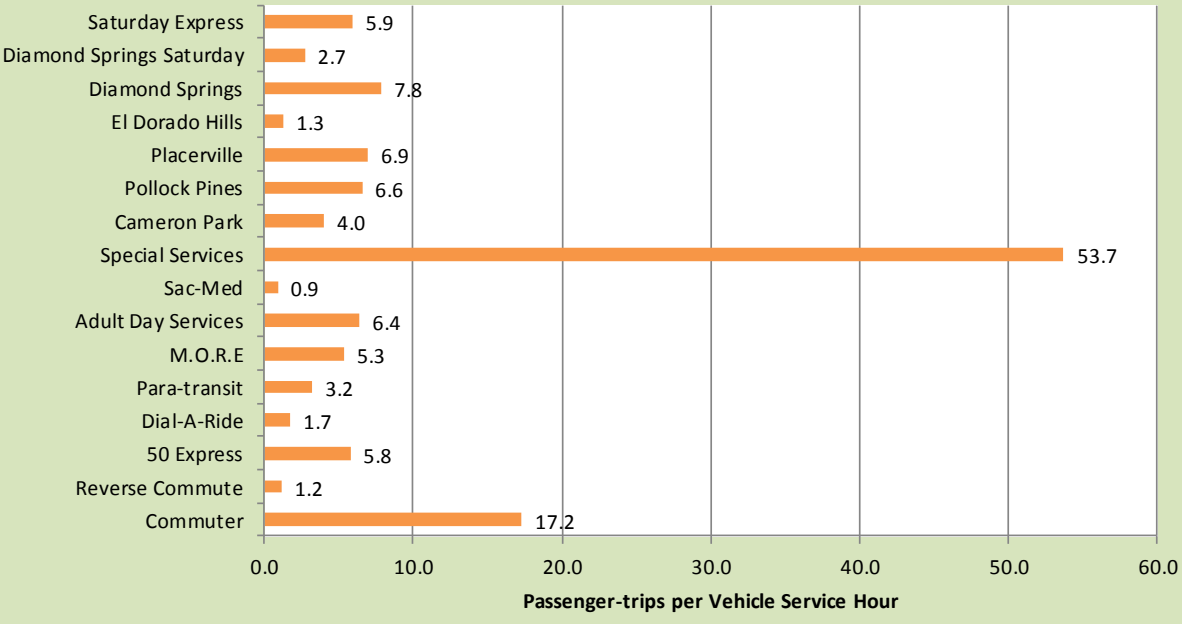


Figure 27: El Dorado Transit Passenger Trips per Vehicle Service Hour by Route FY 2017/18



passenger trips per vehicle service hour. Figure 27 shows that the Fair Shuttle boasted the highest productivity (53.7). However, as a special service with a relatively captive audience, the Fair Shuttle is the outlier. The Sacramento Commuter route was the second most productive with 17.2 passenger trips per hour of service. The Diamond Springs Route is the most productive of the local rural routes (7.8 trips per hour), followed closely by Placerville (6.9) and Pollock Pines (6.6). Interestingly, the Saturday Express Route (5.9) is more productive than the Diamond Springs Saturday Route (2.7). The contracted/subscription demand response services carry a relatively high number of passenger trips per hour (5 – 6) while Dial-A-Ride has a more standard demand response productivity level of 1.7 trips per hour. The Sac-MED route and the Reverse Commute service attained the lowest productivity figure (0.9 and 1.2 one-way passenger trips per vehicle service hour, respectively).

TRANSIT CAPITAL ASSETS

Transit Operations/Maintenance Facility

El Dorado Transit's operations and maintenance facility is located at 6565 Commerce Way in Diamond Springs. California State Proposition 116 and local transportation funds financed the acquisition of the office building, land, tenant improvement and construction of the maintenance facility. These facilities include a 4,999 square foot office building for the administrative and operations departments, as well as a 7,470 square foot maintenance facility. Reflecting El Dorado Transit operations, staff is on-site at this facility seven days a week. All El Dorado Transit's staff is based in this facility, which includes administrative offices, a transit dispatch center, operator's check-in locker room, and employee break room. The conference room is also utilized for transit driver classroom training.

The maintenance facility includes three maintenance bays, a drive-through bus wash, parts supply room, a mechanic's break room, and the Maintenance and Facilities Supervisor's office. This facility includes one in-ground bus lift and two portable lifts. The fully-fenced bus parking lot is striped to accommodate up to 62 vehicles. There is a bus cleaning area behind the shop that has a pump and recirculation system for cleaning engines. Fueling occurs off-site at Dawson Oil Company and Hunt & Sons.

El Dorado Transit Vehicle Fleet

As of October 2018, the El Dorado Transit vehicle fleet consisted of 45 revenue vehicles. As presented in Table 29, the revenue vehicles range in capacity from 5 to 57 passengers; all of the revenue vehicles are equipped with wheelchair lifts and securement positions. The average age of the revenue fleet is approximately 6 years, and the average accumulated mileage is 172,940 per revenue vehicle. A total of 23 revenue vehicles are eligible for replacement in the next five

TABLE 29: El Dorado Transit Vehicle Roster

#	Manufacture Year	Type	Seating Capacity: Ambu-latory	Seating Capacity: Wheel-chair	Service Used for	End of Useful Life	Mileage
606	2006	Bluebird bus	37	2	Commuter	2020	233,806
607	2006	Bluebird bus	37	2	Commuter	2020	308,044
608	2006	Bluebird bus	37	2	Commuter	2020	264,291
609	2006	Bluebird bus	37	2	Commuter	2020	295,748
610	2006	Bluebird bus	37	2	Commuter	2020	326,018
1001	2010	MCI coach	57	2	Commuter	2030	377,394
1002	2010	MCI coach	57	2	Commuter	2030	347,197
1003	2010	MCI coach	57	2	Commuter	2030	335,755
1004	2010	MCI coach	57	2	Commuter	2030	304,772
1005	2010	MCI coach	57	2	Commuter	2030	287,303
1006	2010	MCI coach	57	2	Commuter	2030	393,611
1007	2010	MCI coach	57	2	Commuter	2030	374,594
1008	2010	MCI coach	57	2	Commuter	2030	301,883
1009	2010	MCI coach	57	2	Commuter	2030	348,985
1202	2012	MCI coach	57	2	Commuter	2032	207,192
1401	2014	MCI coach	57	2	Commuter	2034	162,517
1801	2018	MCI coach	57	2	Commuter	2038	4,324
1802	2018	MCI coach	57	2	Commuter	2038	3,899
1803	2018	MCI coach	57	2	Commuter	2038	3,311
1804	2018	MCI coach	57	2	Commuter	2038	2,885
1805	2018	MCI coach	57	2	Commuter	2038	3,923
1013	2010	Dodge Caravan	5	1	Demand Response	2019	126,755
1101	2011	Dodge Caravan	5	1	Demand Response	2019	167,643
1301	2013	Dodge Caravan	5	1	Demand Response	2019	163,586
1302	2013	Dodge Caravan	5	1	Demand Response	2019	176,464
1303	2013	Dodge Caravan	5	1	Demand Response	2019	160,806
1304	2013	Dodge Caravan	5	1	Demand Response	2022	176,291
1501	2015	Dodge Caravan	5	1	Demand Response	2022	57,816
1502	2015	Dodge Caravan	5	1	Demand Response	2022	52,543
1503	2015	Dodge Caravan	5	1	Demand Response	2022	36,822
1504	2015	Dodge Caravan	20	1	Demand Response	2022	46,093
703	2007	Cutaway	26	2	Demand Response/Local Routes	2019	304,065
704	2007	Cutaway	26	2	Demand Response/Local Routes	2019	362,205
707	2007	Cutaway	26	2	Demand Response/Local Routes	2019	426,031
901	2009	Cutaway	26	2	Demand Response/Local Routes	2019	260,870
902	2009	Cutaway	26	2	Demand Response/Local Routes	2019	253,039
903	2009	Cutaway	26	2	Demand Response/Local Routes	2019	232,694
1601	2016	Cutaway	26	2	Demand Response/Local Routes	2025	37,749
1602	2016	Cutaway	26	2	Demand Response/Local Routes	2025	62,601
1603	2016	Cutaway	26	2	Demand Response/Local Routes	2025	58,348
1604	2016	Cutaway	26	2	Demand Response/Local Routes	2025	58,789
1605	2016	Cutaway	26	2	Demand Response/Local Routes	2025	71,318
1606	2016	Cutaway	26	2	Demand Response/Local Routes	2019	22,222
1607	2016	Cutaway	26	2	Demand Response/Local Routes	2025	52,298
1201	2012	Cutaway	26	2	Demand Response/Local Routes	2020	139,853
1701	2017	Gillig	31	2	Demand Response/Local Routes	2032	65,620
1702	2017	Gillig	31	2	Demand Response/Local Routes	2032	73,928
1703	2017	Gillig	31	2	Demand Response/Local Routes	2032	75,602
1704	2017	Gillig	31	2	Demand Response/Local Routes	2032	63,289
1705	2017	Gillig	31	2	Demand Response/Local Routes	2032	75,345
1706	2017	Gillig	31	2	Demand Response/Local Routes	2032	71,825

years, including 6 vehicles eligible for replacement in 2019. Over the past few years, there has been a steady uptick in the number of road calls. In FY 2017 – 18 a total of 168 road calls were made. This is an increase of 37 from the prior year and 59 from FY 2015 – 16. This underscores the importance of replacing transit vehicles as they reach the end of their useful life.

Table 30 displays local rural route span of service, frequency and number of buses required for weekday operations. Weekend service span and vehicle utilization is shown in Table 31 while commuter service is displayed in Table 32. By individual service category, up to 8 vehicles are in operation on the local/fixed routes at one time, 10 vehicles on the commuter service, and 13 vehicles for demand response services, when Sac Med is in operation. It is important to note that this excludes the necessary spare vehicles, and vehicles used for special services.

Table 30: Existing Weekday EDT Local Rural Route Service Plan

		Route						
		20 Placerville	30 Diamond Springs	40 Cameron Park	50 Express	60 Pollock Pines	70 Cameron Park / El Dorado Hills	
Monday - Friday	Start Time	6:00	6:00	6:20	6:00	8:00	6:20	
	6:00 AM	Hourly	Hourly	Hourly	Hourly	Hourly	Hourly	
	7:00 AM	Hourly	Hourly	Hourly	Hourly	Hourly	Hourly	
	8:00 AM	Hourly	Hourly	Hourly	Hourly	Hourly	Hourly	
	9:00 AM	Hourly	Hourly	Hourly	Hourly	Hourly	Hourly	
	10:00 AM	Hourly	Hourly	Hourly	Hourly	Hourly	Hourly	
	11:00 AM	Hourly	Hourly	Hourly	Hourly	Hourly	Hourly	
	12:00 PM	Hourly	Hourly	Hourly	Hourly	Hourly	Hourly	
	1:00 PM	Hourly	Hourly	Hourly	Hourly	Hourly	Hourly	
	2:00 PM	Hourly	Hourly	Hourly	Hourly	Hourly	Hourly	
	3:00 PM	Hourly	Hourly	Hourly	Hourly	Hourly	Hourly	
	4:00 PM	Hourly	Hourly	Hourly	Hourly	Hourly	Hourly	
	5:00 PM	Hourly	Hourly	Hourly	Hourly	Hourly	Hourly	
	6:00 PM	Hourly	Hourly	Hourly	Hourly	Hourly	Hourly	
	End Time	18:47	18:49	18:45	18:52	18:47	18:45	
Cycle Length (Min		60	60	60	60	60	60	

Number of Buses in Operation							**Total**
Weekday	2	1	1	1	2	1	8

Park and Ride Facilities

Western El Dorado County has a network of park-and-ride facilities in the US Highway 50 Corridor which facilitate multiple modes of transportation and make commuting easier. El Dorado Transit completed an updated Park-and-Ride Master Plan in September of 2017. The Master Plan identified policies, strategies, and implementation measures to meet goals.

Table 31: Weekend Local Fixed Routes Service Plan

		Route 25 Saturday Express	Route 35 Diamond Springs
Saturday	Start Time	9:00	9:00
	9:00 AM	Hourly	Hourly
	10:00 AM	Hourly	Hourly
	11:00 AM	Hourly	Hourly
	12:00 PM	Hourly	Hourly
	1:00 PM	Hourly	Hourly
	2:00 PM	Hourly	Hourly
	3:00 PM	Hourly	Hourly
	4:00 PM	Hourly	Hourly
	End Time	16:47	16:49
Cycle Length (Min)		55	55

Number of Buses in Operation			**Total**
Weekday	2	1	3

TABLE 32: Weekday Commuter Services

AM Run	**Bus 1**	**Bus 2**	**Bus 3**	**Bus 4**	**Bus 5**	**Bus 6**	**Bus 7**	**Bus 8**	**Bus 9**	**Bus 10**	**Bus 11**
Start Time	5:10	5:20	5:25	5:45	5:40	5:55	6:10	6:15	6:25	7:25	7:58
End Time	6:39	6:49	6:55	7:15	7:17	7:31	7:39	7:51	8:06	8:39	9:35
Total Run Time	1:29	1:29	1:30	1:30	1:37	1:36	1:29	1:36	1:41	1:14	1:37
PM Run	**Bus 1**	**Bus 2**	**Bus 3**	**Bus 4**	**Bus 5**	**Bus 6**	**Bus 7**	**Bus 8**	**Bus 9**	**Bus 10**	**Bus 11**
Start Time	14:46	15:13	15:42	15:44	16:00	16:24	16:26	16:28	16:46	17:16	18:00
End Time	15:18	15:45	17:16	16:57	17:49	17:56	17:49	17:48	17:24	17:54	18:25
Total Run Time	0:32	0:32	1:34	1:13	1:49	1:32	1:23	1:20	0:38	0:38	0:25

Table 33 lists the current park-and-ride lots within Western El Dorado County, indicating that overall the facilities currently provide a total of 1,064 parking spaces. While a majority is served by El Dorado Transit, only 5 of 18 facilities have bike lockers.

Bus Stops and Bus Shelters

El Dorado Transit continues to improve passenger amenities, including the placement of bus stop benches and shelters. There are currently twenty-seven bus stop locations with passenger shelters. Additionally, bus benches (without shelters) are provided at six bus stops throughout

TABLE 33: Western El Dorado County Existing Park-and-Ride Lots

Community	Location	Parking Spaces	Bike Lockers	Transit Serving Lot
Cameron Park Drive	Cambridge Road & US 50	73	Yes	EDT
Camino Heights	Sierra Blanca Drive	24	No	No
Cool	SE Corner of Highway 193 and Highway 49	14	No	No
Diamond Springs	Commerce Way	84	Yes	EDT
El Dorado Hills	White Rock Road and Latrobe Road	120	Yes	EDT
	Vine Street and Mercedes Lane			EDT
	Francisco Drive and Village Center Drive	20	No	No
Placerville	Fairgrounds (Placerville Dr.)	200	Yes	EDT
	Placerville Station (Mosquito Rd.)	130	Yes	EDT
Shingle Springs	State Route 49 / 193 Park-and-Ride	14	No	No
	Ponderosa Road and Wild Chaparral	111	No	EDT
	N Shingle Road	19	No	No
	Shingle Springs Dr.	19	No	No
	South Shingle Rd and Durock Rd S. of 50	57	No	No
Unincorporated	US 50 and Greenstone Road	22	No	No
	US 50 and Camino Heights Drive	24	No	No
	Total	**931**		

Source: Sacramento Area Council of Governments, EDCTA Park-and-Ride Master Plan 2017

the El Dorado Transit system. Table 34 provides a listing of existing bus stops with shelters and benches (within Western El Dorado County).

OTHER TRANSIT PROVIDERS IN WESTERN EL DORADO COUNTY

In addition to El Dorado Transit, there are several other transportation providers serving Western El Dorado County. Summary descriptions of the available transportation services are described below.

Senior Shuttle Program: Operated by the El Dorado County Health and Human Services Agency, this program assists adults 60 years and older with grocery shopping trips two to three times each week and monthly outings to Senior Nutrition Dining Centers. There are seven different Senior Dining Centers within Western El Dorado County: Placerville, Diamond Springs, Pollock Pines, Greenwood, Somerset, and El Dorado Hills. Using volunteer drivers, one van is used to

TABLE 34: El Dorado Transit Shelter and Bench Locations

Bus Stops with Shelters

4050 Sunset Lane (Shingle Springs)	Folsom Lake College, El Dorado Center (Placerville)
Big 5 on Placerville Drive (Placerville)	Forni Rd. and Lo-Hi Way (Placerville)
Broadway and Schnell School Road (Placerville)	Home Depot on Placerville Drive (Placerville)
Cambridge Road Park and Ride (Cameron Park)	Market Court (Shingle Springs)
Cameron Park Dr. and Green Valley Road (Cameron Park)	Missouri Flat Transfer Center (Diamond Springs)
Central Park and Ride (Diamond Spring)	Placerville Library (Placerville)
Coloma Court (Placerville)	Placerville Station Transfer Center (Placerville)
Cottonwood Senior Apts. (Placerville)	Prospector Plaza (Placerville)
El Dorado Hills Park and Ride (El Dorado Hills)	Regal Theaters (Placerville)
El Dorado Transit Offices (Diamond Springs)	Safeway Plaza at Pony Express Trail (Pollock Pines)
Safeway Plaza at Missouri Flat Road (Placerville)	Tunnel Street Apartments (Placerville)
Tractor Supply (Placerville)	Victory Mine Building (Diamond Springs

Bus Stops with Benches

Cold Springs Dental (Placerville)	Fowler Way (Placerville)
DMV, Placerville Office	Placerville Post Office
Eskaton Lincoln Manor (Placerville)	Pleasant Valley Rd. and Diamond Meadows Way

Source: El Dorado Transit BusStop Locations, Received from El Dorado County

transport seniors each month. The Senior Shuttle Program operates in Placerville, Diamond Springs, and El Dorado Hills.

Health and Human Services Agency, Mental Health: The Mental Health division of Health and Human Services Mental Health provides transportation assistance to its Full Service Partnership clients.

Snowline Hospice Volunteer Services: Snowline Hospice is a non-profit, community-based organization dedicated to meeting the unique physical, emotional, and spiritual needs of those who are nearing the end of their life. As part of the program, volunteers often provide transportation for clients to medical appointments.

Placerville Advocacy, Vocational, and Educational Services (PAVES): PAVES provides training in areas of self-help skills, advocacy, community integration, and pre-employment for adults with developmental disabilities. Volunteers provide transportation for clients.

The Gates Recovery Foundation: The Gates Recovery Foundation offers detoxification services, substance abuse counseling, and recovery programs to those individuals who suffer from alcohol or drug addiction. Volunteer transportation is provided.

United Cerebral Palsy (UCP) of Greater Sacramento: UCP provides adult day programs, transportation, in-home respite, independent living skills instruction, toy lending library, equine assisted therapy and sports program for people with cerebral palsy and other developmental

disabilities. Specialized door-to-door transportation services are provided for clients to educational or vocational programs.

County of El Dorado Health and Human Services Agency: Adult Protective Services (APS) is a program supervised by the California Department of Social Services and administered locally by the El Dorado County Health and Human Services Agency. It provides assistance to elderly and dependent adults who are functionally impaired, unable to meet their own needs or are victims of abuse, neglect or exploitation. In addition to crisis intervention, other emergency services can be provided such as food, transportation (vouchers for El Dorado Transit), shelter and referrals.

New West Haven (Assisted Living): New West Haven is a residential care facility for the elderly offering residents with assistance with the activities of daily living. The program includes arranging transportation to medical and dental appointments.

50 Corridor Transportation Management Association (TMA): The TMA promotes commuting alternatives by providing information for ridesharing and placement assistance to employers, individuals, developers and other interested organizations.

Taxi and Limousine Services: There are several taxicab companies serving Western El Dorado County that operate 24-hour service. Although their main service area is the greater Placerville area, they will take customers to destinations as far as South Lake Tahoe and the Sacramento International Airport. Base fares range from $4 for the first 1.5 miles to $8 for the first 3.2 miles, with a cost of $3 for each additional mile or fraction thereof. Fares to the Airport range between $160 and $170 or more depending on the pick-up location. In addition to taxicab companies, there are several limousine companies that serve Western El Dorado County. Furthermore, there are taxi companies within the City of Folsom which operate in El Dorado Hills and Cameron Park.

Marshall Medical Center Volunteer Driver Program: In January 2013, Marshall Medical Center initiated a volunteer driver program to provide transportation for patients of the Cancer Clinic in Cameron Park. Thompson Chevrolet donated a vehicle, which prompted the hospital to start the program. A Marshall Medical Center employee is the volunteer coordinator. This position screens volunteers to ensure they are capable of driving (healthy, DMV record check, insurance, etcetera). Screened volunteers are then signed up with a scheduler. Trips are provided to patients from residences to the clinic in Cameron Park. In 2018, 336 passenger trips were provided. Marshall Medical Center also provides Dial-A-Ride fares (although only occasionally since starting the volunteer driver program) as well as gas cards for low income patients.

Military Family Support Group Volunteer Transportation Program: In 2018, the Military Family Support Group offering transportation services to military veterans and their families. The program has since grown to include a ride coordinator, transportation manager, and six volunteer drivers. Their fleet includes one Dodge caravan (6 seats) and a 14 passenger bus with a wheelchair lift. They provide an average of 10 to 20 rides per week to those in need.

REGIONAL TRANSPORTATION SERVICES

Amtrak Thruway

Amtrak Thruway feeder bus service is provided daily from the Placerville Station Transit Center to the Sacramento Valley Amtrak station in downtown Sacramento and to the Stateline Transit Center at Stateline in Nevada. Eastbound on weekdays, an Amtrak Thruway bus departs Sacramento at 10:00 AM, arriving at Placerville Station at 11:00 AM, arriving at the South Lake Tahoe Transit Station at 12:20 PM and arriving at Kingsbury Grade at 12:35 PM (with weekend and holiday service operating 20 minutes later). Westbound, the Amtrak Thruway bus departs Kingsbury Grade at 2:00 PM, arriving at Placerville Station at 3:40 PM and arriving at Sacramento at 5:25 PM. By state law specific to this Thruway route, passengers can travel along this bus route without the need to purchase a ticket that includes a rail service leg.

OVERALL FINDINGS

In summary the following findings can be made from the review of background conditions and existing transit services:

- Transit dependent population pockets are located along the US 50 corridor as well as in the Pollock Pines area. These areas are well served by public transit.

- SACOG projections indicate that dwelling units will increase by 19 percent in Western El Dorado County by 2036 and employment will increase by 48 percent, particularly in El Dorado Hills. This will increase traffic in the western portion of the study area and increase the need for transit services over the long term.

- The communities of El Dorado Hills and Cameron Park areas will generate the most traffic over the next 25 years for all work and non-work related trips. Commuter demand to downtown Sacramento will not increase significantly over the long term.

- El Dorado Transit's rural route ridership base consists of residents with disabilities, elderly or no vehicle available. With the population aging, local rural services will become increasingly important for this segment of the population.

- Commuter ridership to Sacramento is the only service type that has grown since the last SRTP.

- It has proven difficult to develop a fixed route in El Dorado Hills as evidenced with a high operating cost per trip ($108) and low passengers per vehicle-hour (1.3).

- The Diamond Springs Route is the most productive of the local rural routes with 7.8 passenger trips per hour. This may be due to a high number of students using the route for transportation to/from school.

- Aside from the transfer centers, the Ponderosa Road Park and Ride and Folsom Lake College El Dorado Center have the highest number of average daily boardings for the local routes. The El Dorado Hills area generates the greatest number of commuter boardings.

- El Dorado Transit systemwide farebox ratio of 20 percent well exceeds the 12.2 percent minimum required by EDCTC and TDA.

- El Dorado Transit maintains good on-time performance for all services.

- Consultant observations and surveys indicate that overall passengers are happy with transit services. Increase frequency of service, expanded hours and Sunday service were common passenger comments on local routes. Commuters would like to see additional runs between Sacramento and El Dorado Hills.

Chapter 4
Service Alternatives

The basis for any transit plan is the development of an effective and appropriate service strategy. The types of service provided, their schedules and routes, and the quality of service can effectively determine the success or failure of a transit organization. The service plan provides a basis for capital requirements, funding strategies, as well as institutional and management strategies.

While the review of existing services in Technical Memorandum One applied a cost model for a previous year, for purposes of informing decision making regarding future services it is appropriate to apply a cost model based upon expected future costs. Based upon the preliminary FY 2019 – 20 budget, the following equation applies:

Operating Cost in 2019/20 = $1.69 X Total Vehicle-Miles +
$85.28 X Total Vehicle-Hours +
$2,748,435

These cost factors will be applied to the operating characteristics (hours of service and miles of service) identified in the service alternatives to estimate the cost impacts of each alternative.

Fixed-Route Alternatives

Before evaluating individual local fixed-route alternatives, it is useful to review some general transit planning principles:

- "Clock headways" are very beneficial to the ridership. This term refers to schedules that operate identically from hour to hour, with bus service at any particular stop at the same time each hour. This is much easier for passengers to remember and use the service (particularly for activity centers such as colleges that have regular hourly schedules). In effect, this means that routes should be designed for running times of 60 minutes, 30 minutes, etc. that can provide clock headways. A route modification that results in a 50-minute-long route, for example, is not effective.

- Transfers are a significant detriment to the attractiveness of a transit trip, as they increase travel time and inconvenience and (more importantly) they introduce uncertainty as to whether the transfer connection will be made. In particular, virtually no passengers will consistently take a transit trip that requires more than a single transfer. Table 35 presents a summary of the transfer activity reported by passengers in the onboard survey conducted as part of this study. A review of this data indicates a high level of transfer activity, with at least 40 percent of passengers on each individual

TABLE 35: Transfer Activity Between EDT Local Routes

Between Route	And Route 20	30	40	50	60	70	No Transfer	Total Transfer	Total
Number of Surveyed Passengers									
20		4	0	3	3	0	15	10	25
30	4		0	1	3	0	11	8	19
40	0	0		7	0	0	6	7	13
50	3	1	7		2	2	10	15	25
60	3	3	0	2		0	6	8	14
70	0	0	0	2	0		0	2	2
Total							48	25	73
Percent of Ridership on Each Route Transferring									
20		16%	0%	12%	12%	0%	60%	40%	100%
30	21%		0%	5%	16%	0%	58%	42%	100%
40	0%	0%		54%	0%	0%	46%	54%	100%
50	12%	4%	28%		8%	8%	40%	60%	100%
60	21%	21%	0%	14%		0%	43%	57%	100%
70	0%	0%	0%	100%	0%		0%	100%	100%

route transferring as part of their trip. Approximately 20 percent of all local route passengers transfer at Missouri Flat Transfer Center as part of their trip. Ensuring that these transfers can be as convenient as possible (by scheduling buses at transfer locations at the same time) and avoiding adding new transfers is an important consideration in any route reconfigurations.

20—Placerville Route

The Placerville Route currently consists of two buses operating along a 2-hour-long route, providing hourly service with timed transfers to Route 30, 50 and 60 at the Missouri Flat Transfer Center. This route serves 27 stops in each direction, of which 9 eastbound and 12 westbound are request stops (requiring a call at least 30 minutes in advance for a pick-up or asking the driver for a drop-off). Options considered for this route are discussed below.

<u>Reduce stops and use one bus</u>

Depending on the request stops actually requested, the existing route needs to operate at up to 13.2 miles per hour. This is a reasonable speed for planning any changes in the route, given the delays of operating on low-speed roads that are often congested.

As shown in Table 36, a review was conducted of the low-ridership stops (less than 3 boardings per weekday), focusing on those that require out-of-direction travel from the main (non-

TABLE 36: Route 20 Placerville Low Ridership Stops

Boxes = Paired Stops

Stop	Average Weekday Boardings EB	WB	Total	Out of Direction Travel Miles	Minutes	Minutes Saved by Direction EB	WB	Total	Runs per Day	Marginal Cost per Boarding
Hidden Springs Circle - (Request Stop)	0.2	0.1	0.3	0.8	4	4	4	8	0.6	$7.04
Midtown Mall - (Request Stop)	--	0.4	0.4	0.3	1	0	1	1	0.9	$1.93
Home Depot (Placerville Dr) - (Request Stop)	0.3	0.3	0.6	0.9	4	4	4	8	1.1	$7.21
Bee St and Coloma St - (Request Stop)	0.0	0.6	0.7	0.7	4	4	4	8	3.5	$8.64
El Dorado High School - (Request Stop)	0.2	0.9	1.0							
Clay St and New Jersey Way - (Request Stop)	--	0.7	0.7	1	3	0	3	3	2.9	$7.74
Cottonwood Senior Apartments- (Request Stop)	--	0.7	0.7							
Raley's (Placerville Dr)	0.7	0.4	1.0	0	0	0	0	0	--	--
Golden Center Dr	1.0	--	1.0	0	0	0	0	0	--	--
Upper Room	2.3	--	2.3	2.4	5	5	0	5	4.6	$11.17
Forni Rd and Lo-Hi Way	1.1	1.2	2.4	0	0	0	0	0	--	--
Tractor Supply (Broadway)	2.4	--	2.4	0	0	0	0	0	--	--
Regal Theater	--	2.8	2.8	0	0	0	0	0	--	--
Reduction if Service Eliminated to Low Ridership Stops										
Total Route						17	16	33		
Between Missouri Flat and Placerville Station						12	16	28		

request) stops. In addition to showing the average daily boardings, the out-of-direction miles and minutes of running time required to serve specific stops is shown. Note that some stops (shown in boxes) are pairs served along specific deviation route segments. Some low-ridership stops that are along the "no request" scheduled route between key stops do not require any deviation.

Substantial time (approximately 15 minutes in running time) could be saved through elimination of the low-ridership stops shown in Table 36 that require deviation to serve. However, the resulting route would still require approximately 45 minutes to operate. If the route were to be rescheduled for service every 45 minutes, ridership would benefit on one hand by the more frequent service but on the other hand the timed transfers between Route 20 and other routes would be lost (which impacts a substantial proportion of Route 20 ridership). In addition, the convenience of "clock headways" would be lost, as service times to individual stops would vary from run to run. Overall, this option would not save significant operating costs (as the daily vehicle-hours of service would remain unchanged) and a slight loss in ridership would occur. As a result, this option is not considered further.

Another option would be to reduce the length of Route 20 to that which can be accommodated by one vehicle on an hourly schedule. To continue to provide direct timed transfers to other routes and to provide clock headways, Route 20 would need to be reduced to approximately 13 miles in round-trip length. This would require elimination of service to many important Route 20 stops, including Health & Human Services, Placerville Library, Woodridge East Apartments, Placerville Senior Center, Woodman Circle and Broadway east of Mosquito Road. This would have a very significant detrimental impact on existing Route 20 ridership, eliminating stops

serving approximately 45 percent of all existing ridership. As a result, it is not considered further.

Eliminate Low Ridership Stops

Another option would be to eliminate the low-ridership on-demand stops. A key consideration is whether serving the ridership at these stops is consistent with the existing performance standard of expending no more than $15 per passenger trip. Applying the FY 2019 – 20 marginal operating cost equation to the daily miles and minutes of service required to serve each stop (or pair of stops if more than one stop is on a deviation route) and dividing by the average daily ridership yields the figures in the right-most column of Table 36. As shown, this marginal cost per passenger trip served ranges from $1.93 to $11.17. Significantly, these marginal costs are achieving the performance standard. As a result, serving all of these on-demand stops is consistent with the standard, so long as service can be provided within the hourly schedule and while providing on-time service.

Revise Routes 20 and 60 to Improve Connections at Placerville Station

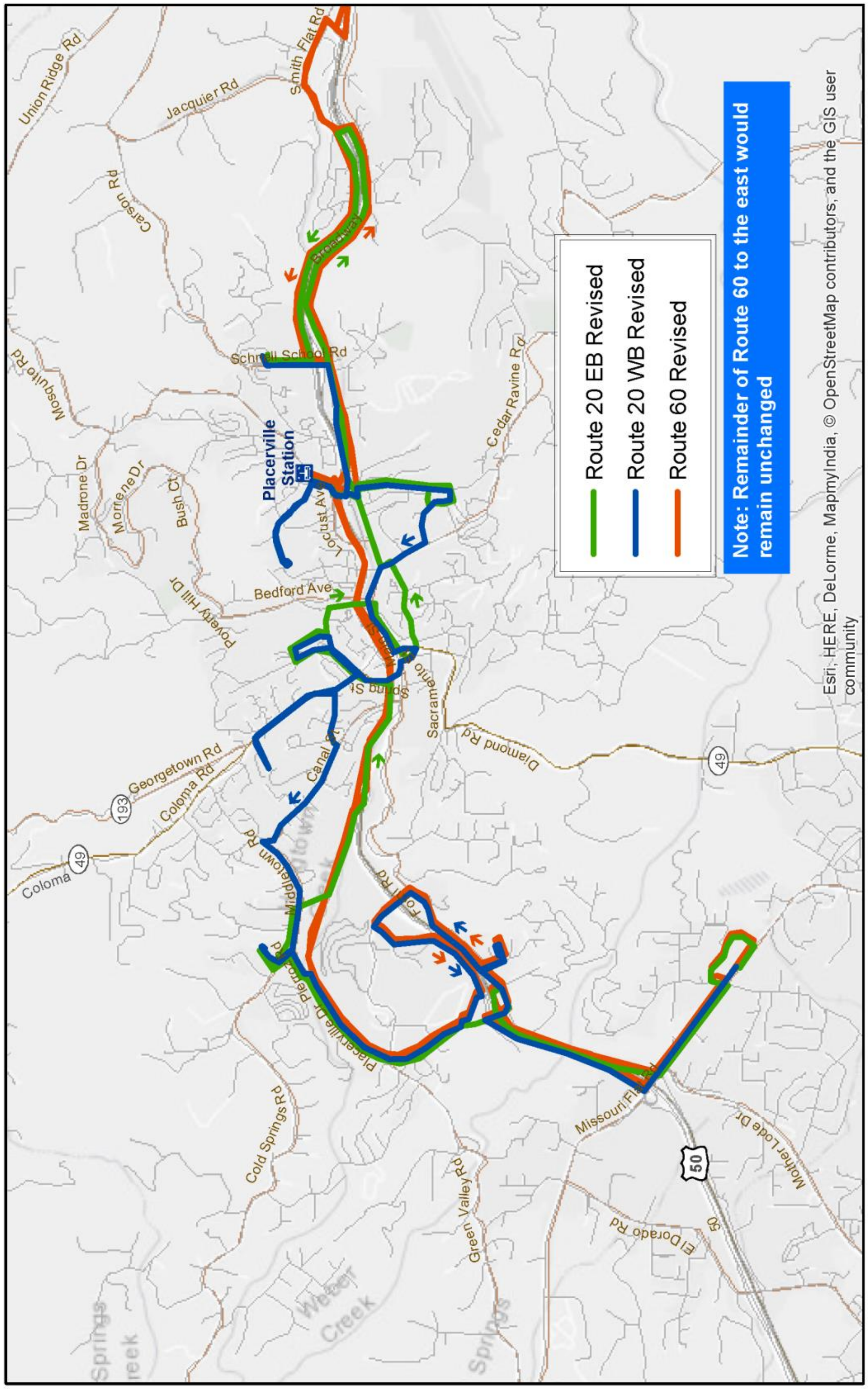
The existing Route 20 and Route 60 service plan does not provide good transfer opportunities at Placerville Station (the buses are not on-site at the same times, requiring waits of 11 to 30 minutes between buses), and provides inefficient overlap between the two routes on the upper Broadway corridor. The following alternative would address these deficiencies by revising the routes and scheduling both routes to serve Placerville Station at 30 minutes after the hour.

Specifically, the running time of Route 20 eastbound between Missouri Flat Transfer Center and Placerville Station would be reduced in order for eastbound Route 20 to serve Placerville Station at 30 minutes after the hour. This would require the eastbound route between Missouri Flat and Placerville Station to be no longer than approximately 7.5 miles in length. This in turn would require that service to Health & Human Services, Placerville Library and Big Lots be eliminated in the eastbound direction. Rather than eastbound travel on Middletown Road and Coloma Road, the eastbound Route 20 would use Cold Springs Road, Placerville Drive and US-50, turning left onto Spring Street towards the Senior Center. The existing eastbound route would then be served until Cedar Ravine Road, where the route would turn left (north) from Pacific Street and then right (east) on Main Street to Mosquito Road. A map showing this reduced route is shown in Figure 28.

After serving Placerville Station at 30 minutes after, eastbound Route 20 buses would then continue on to serve Marshall Hospital, East Broadway, Upper Room (every hour) and Woodman Circle. Westbound Route 20 would use the existing route and schedule back to Placerville Station and Missouri Flat Transfer Center.

Eastbound Route 60 would be modified to serve the stops at Forni Road/Lo Hi Way, Health & Human Services, Placerville Library and Big Lots (adding approximately 5 minutes). It would

Figure 28
Route 20 and Route 60 Revisions to Improve Connections at Placerville Station



arrive at Safeway Plaza in Pollock Pines at the top of the hour. After a 5-minute layover, the westbound departure would occur at 5 minutes after the hour. It would operate the same westbound route, except it would exit US-50 at Schnell School Road to serve the Broadway/Schnell School and Broadway/Carson Road stops before arriving in Placerville Station at 30 minutes after the hour. The westbound bus would then proceed on to Missouri Flat Transfer Center rather than operating the backtracking loop east on Broadway. The saved running time could be used to serve Big Lots, Placerville Library (Government Center) and Health & Human Services, arriving at the Transfer Center at 50 minutes past the hour.

As a result, both the Route 20 and Route 60 westbound buses would be at the Placerville Station at 30 minutes past the hour. Arriving westbound Route 60 passengers from Pollock Pines would be able to transfer to Route 20 to access local stops in eastern and central Placerville, and Route 20 passengers picked up in downtown Placerville can transfer to Route 60 for a quick trip to West Placerville and Missouri Flat Transfer Center (a 30 minute trip rather than the existing 45 minute trip). In the opposite direction, passengers picked up on the eastern loop of Route 20 would arrive at Placerville Station at 4 minutes past the hour, and have a relatively short, 16-minute layover before the departure of the eastbound Route 60 bus to Pollock Pines at 20 minutes past the hour. Table 37 presents the cost impacts of this alternative.

Ridership impacts will consist of both reductions due to loss of some service at some stops, as well as increased ridership due to better connections and shorter overall passenger trips. The overall impact on individual stops is as follows:

- The Forni Road/Lo Hi Way, Health & Human Services and Placerville Library stops, which currently are served by Route 20 in both directions, will instead be served by Route 60 in both directions as well as Route 20 in the westbound (but not eastbound) direction. This will improve access to these stops for Pollock Pines and Camino residents, in both directions. Placerville residents traveling to these stops will not be affected. Trips from these stops to other Placerville stops west of Placerville Station will require boarding Route 20 in the westbound direction and then riding through Missouri Flat, adding 27 minutes to the travel time.

- The existing Route 20 request service to Hidden Springs Apartments (eastbound only) would be eliminated.

- The Route 20 eastbound stops at Coloma Court, El Dorado High School (on request) and Coloma/Bee (on request) would be eliminated, though all stops would be served in the westbound direction (which is the direction with higher ridership).

- The Upper Broadway stops between Mosquito Road and Schnell School Road will be provided with the same two runs per hour as today. The Broadway/Airport and Upper Room stops would be served once per hour by Route 20 and once per hour by the

TABLE 37: Fixed Route and Rural Route Service Alternatives Analysis

	Run Parameters		Daily Service			Days per	Annual		Annual			Operating
	Hours	Miles	Runs	Hours	Miles	Year	Hours	Miles	Cost	Ridership	Fare Revenues	Subsidy
Revise Routes 20 & 60 To Improve Transfers												
Route 20	-	-1.6	13	0	-21	251	0	-5,221	-$8,800			
Route 60	-	0.1	13	0	1	251	0	326	$600			
Total							0	-4,895	-$8,200	3,600	*$5,000*	*-$13,200*
Extend Route 50X, Revise Routes 20 & 60												
Route 20 - Existing	2	23.8	13	26	309	251	6,526	77,525	$687,900			
Route 20 - Alt	1	11.3	13	13	147	251	3,263	36,863	$340,700			
Route 20 - Change	-1						-3,263	-40,662	-$347,200			
Route 50X - Change	1	11.3	12.5	12.5	141.3	251	3,138	35,454	$327,600			
Route 60	--	2.5	13	0	33	251	0	8,158	$13,800			
Total Net Change	0						-126	2,949	-$5,800	9,500	*$15,000*	*-$20,800*
Eliminate the First Route 20 Round Trip												
Route 20	2	23.8	-1	-2	-23.8	251	-502	-5,963	-$52,900	-500	*-$700*	*-$52,200*
Eliminate the Last Route 20 Westbound Run												
Total	--	--	-1	-0.833	-7.0	251	-209	-1,757	-$20,800	-200	*-$300*	*-$20,500*
Serve Eskaton Rather than Hidden Springs Circle On Request												
	--	**0.2**	**2.4**	**--**	**5.73**	**251**	0	1,438	$2,400	1,100	*$1,400*	*$1,000*
Sunday Express Service												
Fixed Route	1	19.5347	7	7	136.7	**51**	357	6,974	$42,300			
DAR			--	7	83.63	**51**	357	4,265	$37,700			
Total							714	11,239	$80,000	3,200	*$4,700*	*$75,300*
Eliminate 35 - Diamond Springs Saturday												
	1	**12.3565**	**-8**	-8	-98.9	**51**	-408	-5,041	-$43,300	-1,400	*-$1,800*	*-$41,500*
Operate Weekday Service Until 7 PM												
Route 20	**2**	**23.8**	**1**	2	23.76	**251**	502	5,963	$52,900			
Route 30	**1**	**15.0644**	**1**	1	15.06	**251**	251	3,781	$27,800			
Route 50X	**2**	**54.4961**	**1**	2	54.5	**251**	502	13,679	$66,000			
Route 60	**2**	**41.0884**	**1**	2	41.09	**251**	502	10,313	$60,300			
Additional DAR			--	1	17.94	**251**	251	4,502	$29,000			
Total							2,008	38,239	$236,000	6,300	*$8,600*	*$227,400*
Half-Hourly Weekday Service Frequency												
Route 20	**2**	**23.8**	**9**	18	213.8	**251**	4,518	53,671	$476,200	14,000	*$16,800*	*$459,400*
Route 30	**1**	**15.0644**	**8**	8	120.5	**251**	2,008	30,249	$222,500	8,100	*$12,700*	*$209,800*
Route 40	**1**	**16.7265**	**8**	8	133.8	**251**	2,008	33,587	$228,200	3,600	*$5,000*	*$223,200*
Route 50X	**2**	**54.4961**	**10**	20	545	**251**	5,020	136,785	$659,900	11,900	*$14,700*	*$645,200*
Route 60	**2**	**41.0884**	**10**	20	410.9	**251**	5,020	103,132	$602,900	13,100	*$20,600*	*$582,300*
Total							18,574	357,424	$2,189,700	50,700	*$69,800*	*$2,119,900*
Serve Additional Stops on Route 40												
	--	**0.4**	**13**	**--**	**5.2**	**251**	0	1,305	$2,200	6,000	*$8,400*	*-$6,200*
Saturday Route 40 Service												
	1	**19**	**9**	9	171	**51**	459	8,721	$53,900	600	*$800*	*$53,100*
Eliminate the Route 30 6:00 AM Run												
	1	**14.9**	**-1**	-1	-14.9	**251**	-251	-3,740	-$27,700	-150	*-$240*	*-$27,460*
Eliminate the Route 30 6:00 PM Run												
	1	**14.9**	**-1**	-1	-14.9	**251**	-251	-3,740	-$27,700	-400	*-$630*	*-$27,070*
Make Route 30 6:00 PM Run On Request Only												
		12	**-1**	-0.75	-12	**251**	-188	-3,012	-$21,200	-50	*-$80*	*-$21,120*
Route 60 6 AM Westbound & 7 AM Eastbound Runs												
	1.5	**23.8**	**1**	1.5	23.8	**251**	377	5,974	$42,200	1,100	*$1,700*	*$40,500*
Make the Route 60 Westbound Run On Request Only												
	-0.5	**-3.2**	**1**	-0.5	-3.2	**251**	-126	-803	-$12,100	0	*$0*	*-$12,100*
Operate Saturday Express 8:00 AM to 5:47 PM												
Earlier Hour	2	39.0694	1	2	39.07	51	102	1,993	$12,100	400	*$590*	*$11,510*
Later Hour	2	39.0694	1	2	39.07	51	102	1,993	$12,100	590	*$870*	*$11,230*
Total							204	3,985	$24,200	990	*$1,460*	*$22,740*
Saturday 50 Express Service - 1 Bus												
	2	**52.6**	**4**	8	210.4	51	408	10,730	$53,000	1,800	*$2,200*	*$50,800*
Saturday 50 Express Service - 2 Buses												
	2	**52.6**	**8**	16	420.8	51	816	21,461	$106,000	2,500	*$3,100*	*$102,900*
North County Lifeline Service												
	2	**67.4**	**2**	4	134.8	**52**	208	7,010	$29,600	600	*$3,600*	*$26,000*

eastbound Route 60, rather than two hourly service times on Route 60 (and the Route 20 service times in the 3 PM and 4 PM hour only). This would improve access to these stops from the remainder of Placerville throughout the day. Trips from Pollock Pines/Camino to these stops could be accomplished with a convenient direct transfer to Route 20 at Placerville Station, while trips back "up the hill" would still be provided on Route 60.

- The overall impact on transfer times will be mixed. Transfer times from Route 20 eastbound to Route 60 westbound, from Route 60 eastbound to Route 20 eastbound and from Route 60 westbound and Route 20 eastbound would all be reduced substantially (by at least 20 minutes). However, the key transfer from eastbound Route 20 to eastbound Route 60 (such as passengers traveling from downtown Placerville to Pollock Pines) would be increased by 20 minutes (from the existing 30 minutes to 50 minutes).

- Improved travel times would be provided between Missouri Flat and downtown Placerville. Eastbound Route 20 would take 20 minutes rather than the current 37. Westbound, catching Route 20 eastbound and transferring to Route 60 westbound at Placerville Station would provide a 30-minute travel time rather than the existing 45.

The overall impact on ridership is estimated to total 3,600 additional passenger trips per year.

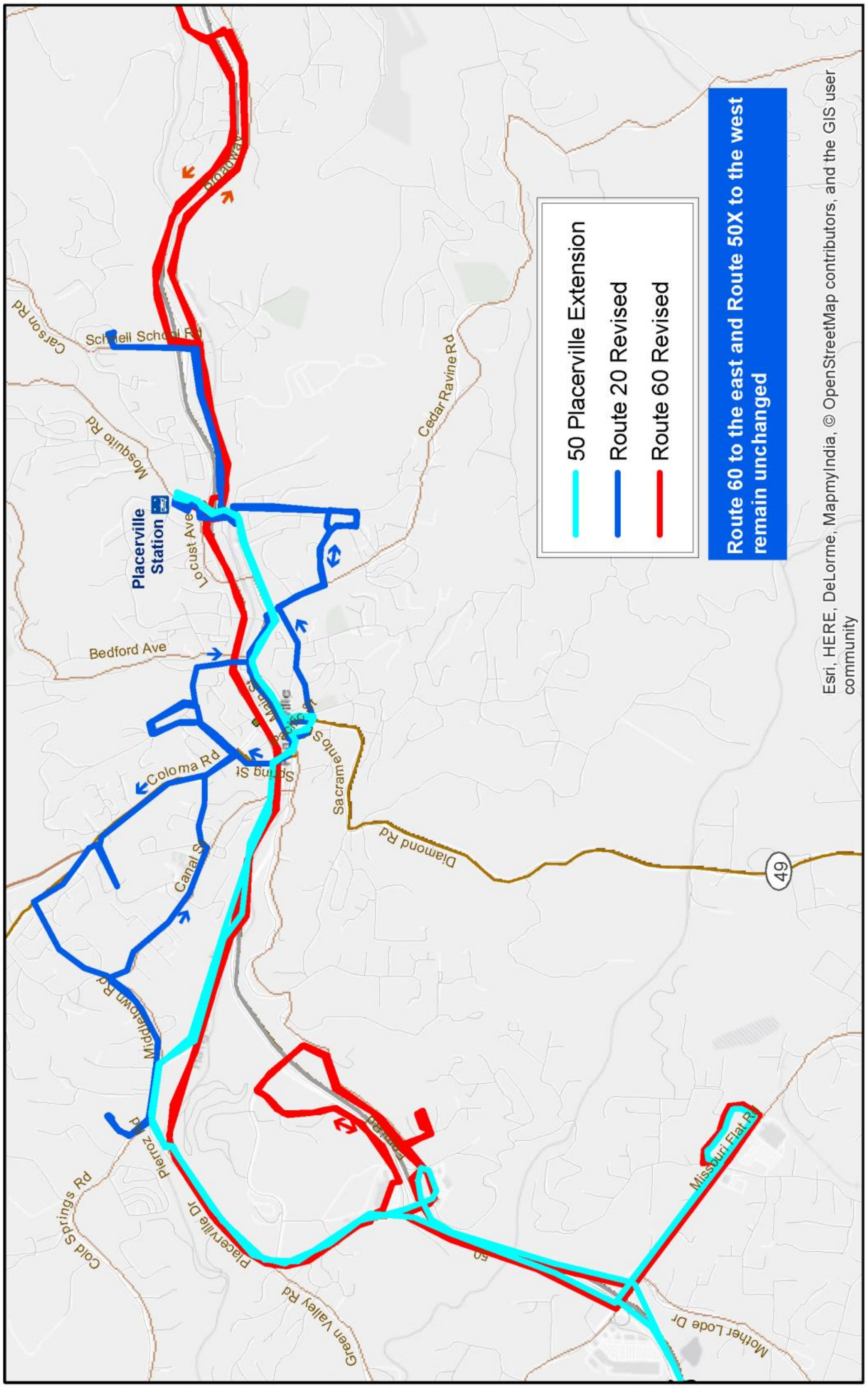
Extend Route 50 to Placerville Station and Revise Routes 20 and 60

With the growth in ridership on the 50X route, there is an increasing benefit in extending Route 50X east to Placerville Station. This would eliminate some of the need for passengers to transfer at Missouri Flat, providing better connections between Placerville and the communities to the west. Other changes to Routes 20 and 60 would be necessary to avoid unnecessary duplication and to improve connections. The alternative routes would be as follows and as shown in Figure 29:

- *Route 50X*—Extend east of Missouri Flat Transfer Center via Placerville Drive and US-50, serving stops at the Placerville DMV (on Cold Springs Road) and in downtown Placerville (Post Office, Old City Hall, Midtown Mall). A third bus would be used on the extended route. This bus would lay-over at Placerville Station from 20 minutes past the hour to 30 minutes past the hour. The existing schedule west of Missouri Flat Transfer Center would remain unchanged. Westbound departures from Placerville Station would be provided hourly from 6:30 AM to 5:30 PM, and eastbound arrivals in Placerville Station would be provided hourly from 6:20 AM to 6:20 PM[2].

[2] The first two eastbound arrivals would consist of buses starting service at Missouri Flat, while the last arrival would deadhead back to the transit operations facility.

Figure 29
Route 50X Extension to Placerville Station with Route 20 and Route 60 Modifications



- *Route 20*—The Placerville Route would be reduced to one bus serving the Placerville area between Woodridge East Apartments on the west and Woodman Circle on an hourly schedule. On-demand stops could also be served at M.O.R.E., Hidden Springs Circle, and Cottonwood Senior Apartments. (A second hourly on-demand stop at Marshall Hospital after the transfer time at Placerville Station if necessary to reduce total travel times). The resulting route would be 11.9 miles in length. This route would also be timed to arrive at Placerville Station at 20 minutes after the hour and departing at 30 minutes after the hour.

- *Route 60*—The Pollock Pines Route would be modified to serve the Health and Human Services stop and Placerville Library stop in both directions. The eastbound route would serve the upper Broadway corridor as currently provided, while the westbound route would exit Highway 50 at Schnell School Road, head east on Broadway to the Airport Road and Upper Room stops before returning westbound to Placerville Station. This schedule would result in an eastbound Route 60 bus at Placerville Station at 20 minutes past the hour, and a westbound Route 60 bus at 30 minutes past the hour.

This schedule would provide direct transfers between Routes 20, 50X and 60 at Placerville Station at 20 and 30 minutes past the hour. Route 50X and 60 would also serve Missouri Flat Transfer Center at the top of the hour (along with Route 30) to provide direct transfers.

While both Routes 50X and 60 would travel between the two transit centers at the same times (from the top of the hour to 20 minutes after in the eastbound direction and from 30 to 50 minutes after the hour in the westbound direction), Route 50X would serve downtown Placerville (and DMV) while Route 60 would serve the Government Center area.

As shown in Table 30, the overall realignment would reduce annual vehicle-hours and vehicle-miles slightly, resulting in a $5,800 reduction in annual operating costs. The number of buses needed to operate the service would remain unchanged, with the reduction of one bus on Route 20 offset by the addition of one bus on Route 50X.

This route realignment would have several impacts on ridership:

- Passengers traveling along the US-50 corridor through Missouri Flat (between El Dorado Hills-Shingle Springs and Placerville) would no longer need to transfer. This improves the dependability and convenience of transit system along the corridor. This is expected to increase ridership by 2,900 passenger trips per year.

Travel times for trips between Camino/Pollock Pines and various areas of Placerville (not served by Route 60) would be reduced substantially. As an example, a trip between Camino and downtown Placerville currently takes a full 59 minutes (including 40 minutes between buses) in the westbound direction, and 54 minutes (including a 30- minute wait between buses) in the eastbound direction. With this route realignment, these travel times would be reduced to 24

minutes westbound and 21 minute eastbound. An annual increase of 9,400 passengers would occur as a result of this alternative.

- Route 20 passengers currently traveling between stops not along the revised Route 50X/Route 60 routes and the Missouri Flat and Government Center areas would need to travel to Placerville Station to transfer to Routes 50X or 60. For Route 20 passengers in the upper Broadway area, this would not significantly impact overall travel times, as direct transfers to Placerville Station would provide ongoing trips in the same direction (and travel times for trips to/from the Government Center area would actually be reduced). However, some trips between the western portion of Placerville and Missouri Flat or Government Center would require longer travel times. A trip between Coloma Court and Missouri Flat, for example, currently requires 28 minutes eastbound and 35 minutes westbound. This would be increased to approximately 60 minutes eastbound and 50 minutes westbound (including a transfer a Placerville Station). This results in a loss of 2,800 passenger trips per year.

Overall, this realignment is forecasted to increase ridership by 9,500 passenger boardings per year. This in turn would increase fare revenues by $15,000 per year. Annual subsidy requirements would be reduced by $20,800 annually.

Serve Eskaton Placerville upon Request

The Eskaton Village Placerville senior housing area in southeastern Placerville consists of 152 units with independent residents (patio homes and cottages) as well as 68 units in assisted living or memory care units. The main drop-off area is a 0.6-mile drive south from the existing Route 20 along upper Broadway that includes a 250 foot gain in elevation. Serving this stop would require approximately 4 minutes of running time. Ridership can be estimated based on the observed ridership on Route 30 at the Eskaton Lincoln Manner. This facility, with 100 apartment units, generates 7.4 daily boarding and alightings per weekday with scheduled (not on-request) service.

It is probably not be possible to serve this stop without impacting the on-time reliability of the service except if other existing low-activity on-demand stops are eliminated. Considering the relative ridership and operating time, a reasonable option would be to eliminate on-request service to Hidden Springs Circle, which requires an equivalent 4 minutes to serve. This stop generates only 0.6 passenger trips (0.3 boardings and 0.3 alightings) per day. Over the course of a year, this shift would increase operating costs by $2,400 (through additional vehicle-miles) but increase ridership by 1,100. Considering the additional fares, subsidy would be increased by $900 per year.

Eliminate First Route 20 Round-trip

The first round-trip run (departing Missouri Flat Transfer Center at 6:00 AM and Woodman Circle at 7:00) serves an average of only 1.9 passenger trips per day. Eliminating this round-trip (while still operating the more productive westbound 6:00 AM departure) would save 2 hours and 24 miles of service per day. Over the course of the year, this would reduce operating costs by $52,900. While the loss of 500 passenger trips per year would reduce fare revenue by $700 per year, the total annual subsidy savings would still be $52,200.

Eliminate Route 20 6 PM Westbound Run

The final westbound run of Route 20 serves an average daily ridership of only 0.6 passenger trips. While the driver would still need to "deadhead" back to the operations facility in Diamond Springs, not operating in service would reduce running time by approximately 50 minutes and running distance by 7 miles. This would save $20,800 in annual operating costs and reduce ridership by 200 passenger trips per year, resulting in an overall reduction in operating subsidy of $20,500.

Replace Route 20 with Transportation Network Company (TNC) Service

Serving lower-demand areas and serving low-demand periods (such as evenings) have long been a challenge for public transit agencies. With the nationwide decline in public transit ridership, transit operators and public agencies are looking for new and innovative ways to provide public transit that will attract more riders at a lower cost. Contracting with Transportation Network Companies (TNCs) such as Lyft or Uber is seen by many as a potential solution. As an example, the Go Dublin program in Dublin, California provides subsidy for rides on three services (Uber POOL, Lyft Line, and DeSoto Cab) at a 50% rate up to a maximum of $5. This service subsidizes approximately 15,000 trips per year, at an average subsidy of $2.80 per trip.

A similar program in Placerville would face several problems:

- It is doubtful that TNC services have the available capacity to accommodate existing Route 20 ridership. There are times of the weekday when the two Route 20 buses are carrying up to 18 passengers in an hour. That would take at least 8 TNC vehicles to accommodate all these trips. This is more than the number of Uber/Lyft drivers that are typically on the road, on a weekday, in Placerville. While it is possible that the additional demand could "attract" additional drivers to serve the area, this would be uncertain.

- TNC services typically do not serve ADA trips. Uber/Lyft drivers don't have specific training in this, and don't have accessible vehicles. While there are ADA-compatible services in large urban areas, these services come at significantly higher costs. Without this, it is probable that a substantial proportion of existing Route 20 riders would shift over to DAR, increasing costs.

- Many paratransit riders, moreover, prefer service using consistent public transit drivers (that allow them to form a more stable relationship) than a TNC service where drivers change from day to day.

In sum, replacing Route 20 with TNC service would probably increase costs and/or reduce service to existing riders. There also is a high likelihood that adequate capacity would not be available.

As an aside, another service option would be "microtransit" by which transit vehicles are dispatched via requests received through an app. A nearby example is the SmaRT Ride operated in Citrus Heights. The challenge with microtransit is that it typically doesn't serve more than about 4 passenger trips per vehicle-hour, while the existing Placerville fixed route is currently serving 6.9. To serve the same number of passenger trips would require about a 75 percent increase in vehicle-hours. This would not be cost-effective.

Sunday Service

Providing service on Sundays has long been a common request. Experience in other similar areas that provide fixed-route transit service on Sundays indicates that the ridership generated on Sundays is approximately 30 percent lower than Saturday ridership. In light of the relative performance of the two routes operated on Saturday (25-Saturday Express and 35-Diamond Springs Saturday) a reasonable option would be to provide Sunday service on the Saturday Express route, but not the Diamond Springs Route as the latter does not meet existing performance standards on Saturday and carries only 2.7 passenger trips per vehicle-hour.

A reasonable operating plan would be to operate the Saturday Express (perhaps renamed the Weekend Express) route between 9 AM and 4 PM (one less run than on Saturday). Importantly, a DAR vehicle would also be required to provide ADA service. Overall, this option would cost on the order of $80,000 per year. Ridership generated by this service is estimated based on the Saturday ridership, the relative ridership by day seen in other similar areas and the proportion of transfers between the two existing Saturday routes to be 3,200 boardings per year. Subtracting the resulting $4,700 in additional fare revenues, $75,300 in additional subsidy funding would be required.

Eliminate Route 35-Diamond Springs Saturday Service

The Diamond Springs Saturday service (Route 35) carried 1,133 passengers in FY 2017 – 18 (or an average of approximately 23 boardings per day). This service carried only 2.7 passengers per vehicle service-hour, substantially below the local route standard of 5.0. Eliminating this route would reduce ridership by an estimated 1,400 passenger boardings per year (including boardings on Route 25 Saturday Express that would no longer transfer to Route 35. This would save a total of $41,500 in marginal operating subsidies.

Fixed-route service till 7:00 PM

The departure times last weekday runs on the various routes are currently as follows:

- Route 20—6:00 PM in both directions
- Route 30—6:00 PM
- Route 40—6:25 PM
- Route 50—6:00 PM westbound and 6:28 eastbound
- Route 60—6:00 PM in both directions

A requested improvement would be to provide slightly later service to provide more flexibility for travel at the end of the work day. Given these current service times, an option would be to operate one additional run on Routes 20, 30, 50 and 60, with departures at 7:00 PM. As shown in Table 3, the additional fixed-route service along with the extension in DAR service hours would incur an overall operating cost of $236,000 per year.

Ridership that would be generated by the extension of service is estimated based on existing EDT ridership, as well as a review of ridership in the 7 PM hour for similar systems. Considering that this additional ridership would also result in some additional ridership earlier in the day (as passengers who can now complete their trip choose to take new transit round-trips), the overall increase would be 6,300 additional passenger trips per year.

Half-Hourly Weekday Service

Providing transit service every half hour rather than every hour generates a substantial improvement in the overall attractiveness of a fixed-route service. In particular, employees with defined work start and stop times often find that hourly service can require leaving for work much earlier (if the hourly bus serves their worksite only a few minutes after their required start time) or a long wait after quitting time before the next bus home arrives.

Considering the existing ridership by hour of the various routes (as shown in Table 19 of Tech Memo 1), a reasonable span of service for the new half-hour run departure times would be as follows:

- Route 20—7:30 AM to 4:30 PM westbound and 8:30 AM to 3:30 PM eastbound
- Route 30—8:30 AM to 3:30 PM
- Route 40—8:30 AM to 3:30 PM
- Route 50—6:30 AM to 3:30 PM westbound and 7:30 AM to 4:30 PM eastbound
- Route 60—7:30 AM to 4:30 PM in both directions

The cost implications of half-hourly service are sobering. In addition to the additional 8 buses that would be needed in peak service, this option would increase annual operating costs by

almost $2.2 million. Ridership increases can be estimated using an elasticity analysis[3] to total 50,700 passenger trips per year. Subtracting the associated fare revenues, subsidy requirements would still increase by $2,119,000 per year.

Cameron Park

Eliminate Eastern Portion of Route and Increase Service on Remainder of Route

The eastern portion of the route (around the Ponderosa Road interchange and at Market Court) has relatively low ridership, averaging a total of only 11.5 passenger trips per day (21 percent of daily ridership). One option considered was the elimination of service east of Coach Lane, in order to provide half-hourly service on the remainder. However, this reduction in service would only save 16 minutes in running time, which is not sufficient to provide two runs an hour on the remainder of the route. In addition, this additional run each hour would not have any transfer opportunities to other runs, while operating a 45-minute run would eliminate most existing transfer opportunities to Route 50X as well as the convenience of clock headway scheduling. For these reasons, this option is not considered further.

Schedule Additional Stops

A review of existing stop locations indicates the potential to generate additional ridership along the existing route by establishing additional stops or service times:

- A new stop **at Cameron Park Drive south of Green Valley Road (northbound**) would allow northbound passengers to deboard and walk home or to the Cameron Park Plaza without having to walk back from the first stop in the area at Green Valley Road/La Crescenta Drive (or ride around the northern loop). There is an area on the east side of Cameron Park Drive just to the south of the entrance to Cameron Park Mobile Home Park (100 yards south of Green Valley Road) that can accommodate this stop. This would allow the Route 40 bus to better serve as a local circulator providing connections from residential areas and the Cameron Park Plaza commercial center in both directions.

- A new stop at **La Canada Drive and La Crescenta Drive** would serve nearby homes that are a long walk from the existing stop at La Crescenta Drive/Green Valley Road. The best location is probably on the north side of La Canada Drive just west of La Crescenta Drive.

- Similarly, a new stop a **La Canada Drive and Cimarron Road** would serve nearby homes, including the substantial number of apartments along this section of La Canada Drive

[3] This is a standard tool of transit analysis. Based on the principals of microeconomics, elasticity analysis uses data from similar systems that have implemented a specific change (such as increased service frequency) in the past to define how ridership varies with the change.

that are more than a quarter mile walk from the nearest stop on Cimarron Road. These latter two stops would increase the number of residences within the quarter-mile service area of the nearest stop by approximately 400.

- The current route serves the Cambridge Road and Shingle Springs areas and then proceeds northbound on Cameron Park Road to the Green Valley area. While the Bel Air Shopping Center area is directly served on the return (southbound) trip on Cameron Park Road (at the stops along Palmer Drive) in the northbound direction only a stop on Cameron Park Road north of Palmer Drive is served. Passengers from the southern area destined to Bel Air therefore must either ride the route for an additional 20 minutes to Green Valley Road and back, or walk 0.3 miles from the Cameron Park Road/Palmer Drive stop. Similarly, passengers returning from Bel Air to their residence to the north must make this walk, or ride the bus for an additional 40 minutes. If running time allows, the Bel Air stop should be served in the northbound direction, as well as southbound. In addition, consideration should be given to relocating the Marshall Medical stop from the eastern end of the complex (at Kevin Street) to the turnaround on the driveway at the western end and relocating the Bel Air Shopping Center stop approximately 100 feet to the west. This would allow the overall route to be shortened by roughly 0.5 miles in each direction, or 1.0 miles on each full round-trip.

- The central portion of Cameron Park (along the Airpark) is served by stops at Point Loma Road and Virada Road (on demand) in the northbound direction, but only by a stop at Meder Road in the southbound direction. This latter stop is at least a half-mile walk from many of the commercial establishments in the area. The existing **Camerado Drive/Virada Drive** stop should be served on-demand in the southbound direction, as well as the northbound direction, serving this area in the southbound direction while saving 12 minutes of unnecessary travel on the bus.

Overall, these stop/schedule modifications are expected to increase ridership by 6,000 passenger trips per year, generating $8,400 in fare revenues. The additional service on Palmer Drive (assuming relocation of the Marshall Medical stop) would add 0.4 miles per round-trip, increasing annual cost by $2,200. Overall, these modifications would reduce subsidy by $6,200 per year.

<u>Saturday Service</u>

The potential for Saturday service on Route 40 was evaluated, with one bus operating hourly service from 8:25 AM to 5:25 PM. This assumes Saturday service on Route 50, as roughly half of Route 40 ridership transfers. If Route 50 service consists of a single bus, westbound connections would be served at 8:20 AM, 10:20 AM, 12:20 PM, 2:20 PM and 4:20 PM, while eastbound connections would be served at 9:24 AM, 11:24 AM, 1:24 PM and 3:24 AM. The Route 40 bus would have a transfer to Route 50 each hour, but only in one or the other direction.

Ridership was estimated by reviewing the relative ridership per day on the existing EDT routes served on Saturday, as well as the ridership per hour. In addition, the reduction in ridership associated with limited connections to Route 50 was considered. Overall, only an estimated 600 passenger trips per year would be served (or roughly 12 per day). This option would incur an operating cost of $53,900 per year, and a subsidy requirement of $53,100.

Route 30 Diamond Springs

Eliminate 6 AM run

The 6:00 AM run of Route 30 serves an average of only 0.6 passenger boardings per weekday. Eliminating this run would reduce ridership by an estimated 150 per year, but would save $27,700 in annual operating costs.

Eliminate 6 PM run

The last weekday run of Route 30 also has relatively low ridership, averaging 1.6 boardings per weekday. Eliminating this run would reduce operating costs by $27,700 per year and reduce ridership by 400 per year, yielding a net reduction in operating subsidy of $27,070.

Make the 5 PM Run On Demand Only

Given the location of the Missouri Flat Transfer Center relative to the bus operations facility, another option would be to operate this last run of the day entirely on request for drop-offs, serving any passengers onboard at the beginning of the run and then returning directly to the operations facility. A review of ridership patterns on this run indicates that this would eliminate much of the running time and mileage, reducing operating cost by $21,200 per year while only reducing ridership by 50 passengers per year.

Route 60 Pollock Pines

Provide a 6 AM Westbound and 7 AM Eastbound Run

The first westbound run starting at 7:00 AM in Pollock Pines is the busiest run of the day on Route 60. Given this, a potential option would be operate an earlier round-trip, westbound at 6:00 AM and eastbound at 7:00 AM. However, fully 61 percent of the ridership on the 7 AM westbound run is traveling to Folsom Lake College, arriving around 7:45 AM for 8 AM classes. A review of class schedules, moreover, indicates there are no earlier classes prior to 8 AM. Absent this source of demand, ridership on an earlier run is estimated to be 1,100 passenger trips per year. Even though costs for this additional run would benefit from its ability to replace the existing deadhead run to start the 8:00 AM westbound run, costs would still equal $42,200 per year.

Make the 6 PM Westbound Run Request Only

At present, the final westbound run of Route 60 operates on a schedule, but only serves 0.2 passengers per day. A review of 2 weeks of ridership data indicates that these few passengers deboard the bus along Pony Express Trail. Operating directly back to the operations center (except for the infrequent times when a passenger requests service) would save a half-hour of running time and 3.2 miles of mileage. Over the course of the year, this would reduce operating costs by an estimated $12,100 with no impact on ridership.

El Dorado Hills

The El Dorado Hills area comprises a substantial population of approximately 29,300 residents, including 4,135 seniors, 2,275 persons with disabilities and 1,445 persons in low-income households. Public transit service is limited to commuter routes and the 50 Express route serving only the El Dorado Hills Town Center area. Providing effective public transit service to this community has proven to be challenging.

In October 2015, a demonstration taxi voucher program was launched. This consisted of vouchers available to seniors (age 60 and above) and persons with a disability, good for trips within the El Dorado Hills CSD area provided by a local taxi company. This program reached a peak usage of 191 trips in August 2016 (or approximately 6 trips per day), and declined to 124 by June of 2017. Due to low usage and issues with the contractor, the service was terminated in February of 2018.

A fixed-route service was also attempted, using a single bus operating an hourly service from 6:30 AM to 6:30 PM on weekdays. The route extended as far south as Carson Crossing Road and as far north as the Village Center on Green Valley Road. This was a modification made in January 2019 from a longer route also serving Cameron Park. This route was only serving approximately 180 passenger trips per month, or less than 1 passenger per hour. As a result, this service was eliminated in June, 2019. A previous attempt in FY 1997 – 98 to provide fixed-route service also resulted in very poor performance, serving approximately 3 passengers per day. These results reflect the challenging realities of fixed-route service in El Dorado Hills, particularly the low density of much of the residential areas and the discontinuous roadway network. As a result, a fixed route operating along collector roadways can only service stops within a convenient walk distance of a small proportion of the overall population.

The rise of Transportation Network Companies (TNCs) provides a new option to serve the residents of El Dorado Hills. As evidenced by similar programs in other communities[4], providing a public subsidy can help with local mobility challenges in a relatively cost-effective way. Specifically, residents enrolled in the program are provided with a discount code, which can

[4] For example, the City of Dublin California provides the Go Dublin! Program, which subsidizes half of the fare for trips within the city, up to a maximum subsidy amount of $5. Service is available through Lyft, Uber, or the local DeSoto Cab Company.

change from time to time for security reasons, that provides a discount for eligible trips. For a program in El Dorado Hills, reasonable parameters would be as follows:

- At least one trip-end would need to be within the El Dorado Hills CSD service area.
- Any trips outside of the TNC area could be limited to specific locations, such as Kaiser or other medical facilities in Folsom.
- Passengers wishing to use the subsidy program must provide the discount code. Distribution of this discount code could provide a check on total program costs.
- ADA trips would continue to be provided by EDT DAR.

A typical average Uber fare for trips following these guidelines is $9.00. If the passenger were to pay a fare consistent with the local fare on EDT services ($1.50), the typical subsidy per trip would be $7.50. Actual ridership would vary greatly depending on the specific constraints placed on the program, marketing efforts and the funds available to subsidize the program.

A reasonable initial budget for this program would be $50,000 per year. This would provide subsidy for 400 trips per month (or 4,800 per year) which is roughly double the ridership on previous services, as well as $14,000 for marketing costs. This could also be considered a pilot program for future expansion of TNC subsidy programs to other low-demand portions of western El Dorado County. This limited TNC program could be considered a "demonstration program," identified due to the low effectiveness of traditional transit service. It would also provide an opportunity to serve new developments in El Dorado Hills such as senior housing developments.

Saturday Express

Expand Saturday Express Service to 8:00 AM – 5:47 PM

At present, the first run of the Saturday Express departs both Missouri Flat and the Pollock Pines Safeway at 9:00 AM, while the last run on either end departs at 5:00 PM. These first and last runs are relatively productive (more than 10 passengers per hour) except for the eastbound 9:00 AM departure with only 4.0 passengers per hour. Overall, these figures indicate some potential demand for expanded hours of service.

Each hour of service would increase annual operating costs by $12,100 per year. Based on the existing Route 25 ridership pattern and the observed ridership on similar transit systems in these additional hours of service, the additional morning hour of service would increase ridership by 400 per year, while the additional afternoon service would increase ridership by 590 per year. Between both hours, ridership would increase by 990 passenger trips per year, requiring an increase in subsidy of $22,740.

US-50 Express Saturday route

Saturday fixed-route service is currently provided along the US-50 corridor between Missouri Flat and Pollock Pines (Route 25-50 Express) and in Diamond Springs (Route 35-Diamond Springs/El Dorado Saturday). A potential next step in expanding Saturday service would be to provide Saturday service on the US-50 Express Route.

A potential service plan would be to operate one bus from 9:00 AM to 5:00 PM, providing service every two hours in each direction (a total of four runs). This would cost $53,000 per year in operating costs.

Ridership can be estimated by considering the relative ridership on similar services (in particular, the Placer County Transit service connecting with RT Light Rail along the I-80 corridor), as well as the potential ridership generators along the 50 corridor. Some of the major ridership generators along the 50 Express Route have little or no activity on Saturdays, such as the two Folsom Lake College campuses and the major employers and medical facilities in Folsom. In addition, with no Route 40 service on Saturdays, passengers in Cameron Park/Shingle Springs would be limited to walking or driving to/from local destinations. However, this route would still be able to serve as a regional connection to the RT Gold Line Light Rail, and serve trips to/from El Dorado Town Center, Red Hawk Casino as well as connections to the other EDT Saturday local routes at Missouri Flat Transfer Center[5]. Considering these factors and the limitations of service every two hours, this option would generate approximately 1,800 passenger trips per year. Annual subsidy requirements would be $50,800.

Another option for the Saturday 50 Express service was also evaluated using a second bus to provide hourly service in both directions. This would double the cost (to $106,000 per year) but would only increase ridership by 700 passengers per year (to 2,500). Overall subsidy requirements would increase to $102,800.

COMPARISON OF LOCAL FIXED-ROUTE ALTERNATIVES

Table 38 presents a summary of the various local fixed-route alternatives. The ridership impacts of the alternatives, also shown in Figure 30, range from an increase of 50,700 (for half-hourly weekday service) to a reduction of 1,400 associated with elimination of Route 35 (Saturday Diamond Springs service). The remainder of the alternatives would generate modest increases (up to 9,500 for the extension of Route 50 to Placerville Station) or a slight decrease.

The operating subsidy impacts also vary widely, as shown in Table 38 and Figure 31. By far the most costly option would be half-hourly weekday service ($2.2 million), followed by weekday

[5] One option for the Saturday 50 Express service that could serve some additional passengers would be to not serve Folsom Lake College and instead use the running time to serve stops at the Cameron Park Shopping Center (Coach Lane) in both directions.

TABLE 38: EDT Local Route Service Alternatives Performance Analysis

Values Achieving Performance Standards by Adding Service Meeting Performance Standard Shaded in Green

Values Achieving Performance Standards by Eliminating Existing Service Not Meeting Standard Shaded in Blue

Values Achieving Performance Standards by Reducing Service or Subsidy While Increasing Ridership Shown in Purple

	Change From Existing Service						*Performance Analysis*		
	Net Annual Ridership	Net Annual Vehicle-Hrs	Net Annual Operating Cost	Net Annual Fare Revenue	Net Annual Operating Subsidy	Peak Vehicles	Psgr-Trips per Service-Hour	Marginal Subsidy per Psgr-Trip	Marginal Farebox Ratio
Minimum Local Route Performance Standard (1)							*5.00*	*< $15.00*	*10%*
Revise Routes 20 & 60 To Improve Transfers	3,600	0	-$8,200	$5,000	-$13,200	0	--	-$3.67	-61%
Extend Route 50X, Revise Routes 20 & 60	9,500	-126	-$5,800	$15,000	-$20,800	0	-75.7	-$2.19	-259%
Eliminate the First Route 20 Round Trip	-500	-502	-$52,900	-$700	-$52,200	0	1.0	$104.40	1%
Eliminate the Last Route 20 Westbound Run	-200	-209	-$20,800	-$300	-$20,500	0	1.0	$102.50	1%
Serve Eskaton Rather than Hidden Springs Circle On Request	1,100	0	$2,400	$1,400	$1,000	0	--	$0.91	58%
Sunday Express Service	3,200	714	$80,000	$4,700	$75,300	0	4.5	$23.53	6%
Eliminate 35 - Diamond Springs Saturday	-1,400	-408	-$43,300	-$1,800	-$41,500	0	3.4	$29.64	4%
Operate Weekday Service Until 7 PM	6,300	2,008	$236,000	$8,600	$227,400	0	3.1	$36.10	4%
Half-Hourly Weekday Service Frequency	50,700	18,574	$2,189,700	$69,800	$2,119,900	8	2.7	$41.81	3%
Serve Additional Stops on Route 40	6,000	0	$2,200	$8,400	-$6,200	0	--	-$1.03	382%
Saturday Route 40 Service	600	459	$53,900	$800	$53,100	0	1.3	$88.50	1%
Eliminate the Route 30 6:00 AM Run	-150	-251	-$27,700	-$240	-$27,460	0	0.6	$183.07	1%
Eliminate the Route 30 6:00 PM Run	-400	-251	-$27,700	-$630	-$27,070	0	1.6	$67.68	2%
Make Route 30 6:00 PM Run On Request Only	-50	-188	-$21,200	-$80	-$21,120	0	0.3	$422.40	0%
Route 60 6 AM Westbound & 7 AM Eastbound Runs	1,100	377	$42,200	$1,700	$40,500	0	2.9	$36.82	4%
Make the Route 60 Westbound Run On Request Only	0	-126	-$12,100	$0	-$12,100	0	0.0	--	0%
Operate Saturday Express 8:00 AM to 5:47 PM	990	204	$24,200	$1,460	$22,740	0	4.9	$22.97	6%
Saturday 50 Express Service - 1 Bus	1,800	408	$53,000	$2,200	$50,800	0	4.4	$28.22	4%
Saturday 50 Express Service - 2 Buses	2,500	816	$106,000	$3,100	$102,900	0	3.1	$41.16	3%

Note 1: Route 50X considered to be a local route.

evening service until 7:00 PM ($236,000 per year). Other alternatives would have a relatively modest impact on subsidy needs, while nine would reduce subsidy needs (by up to $52,900 for the elimination of the first weekday Route 20 trips).

FIGURE 30: Local Route Service Alternatives Annual Ridership Impact

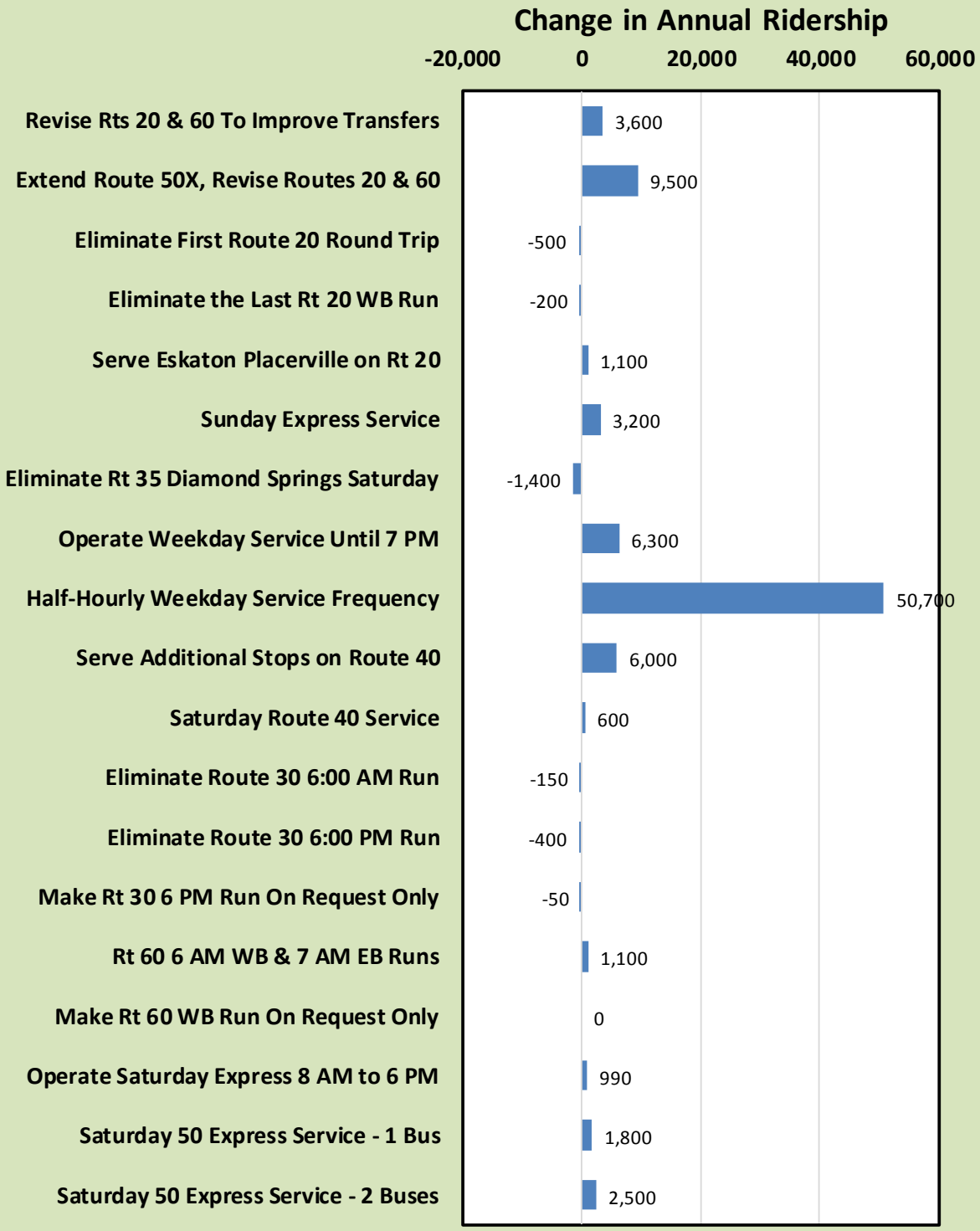
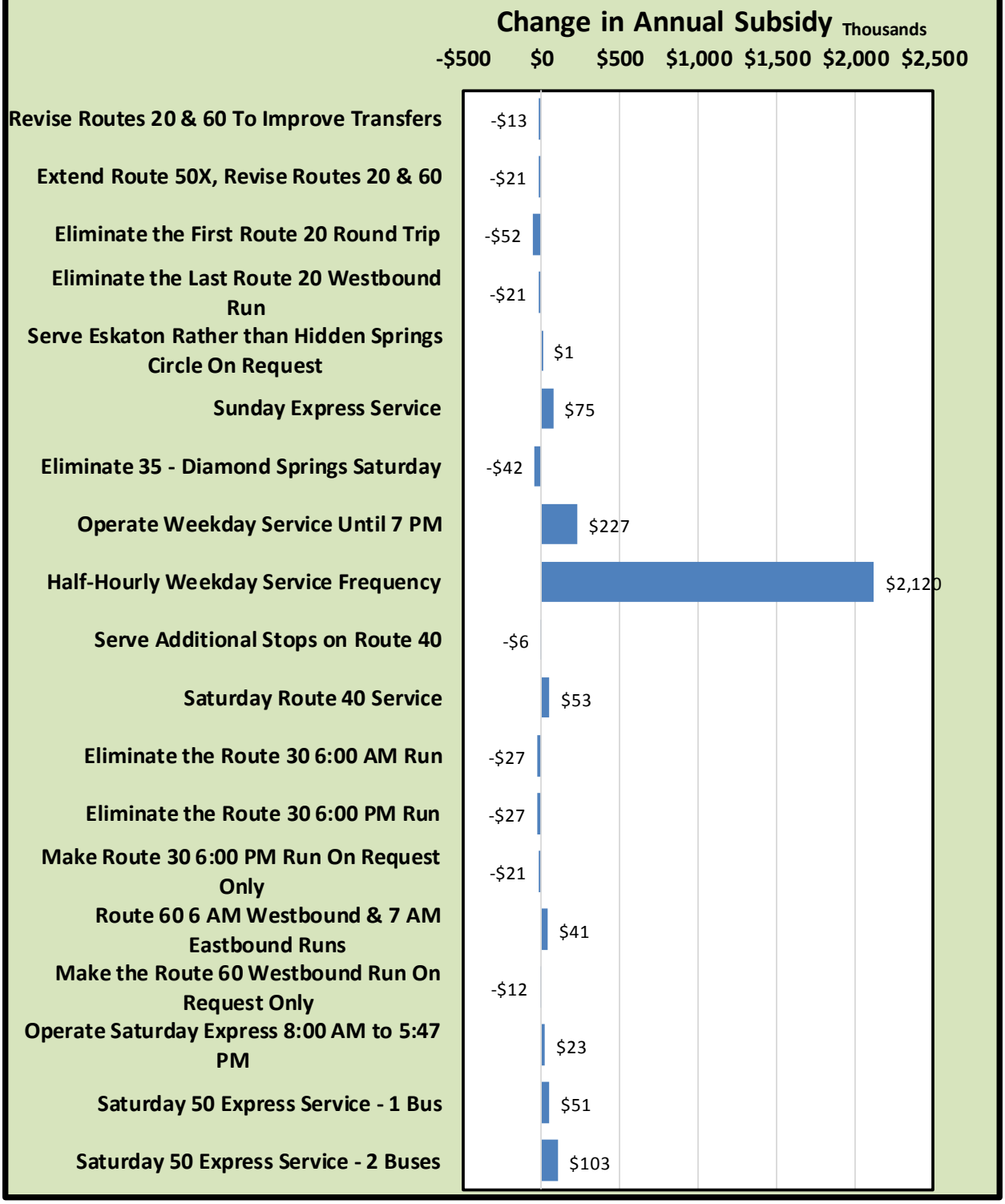


FIGURE 31: Service Alternatives Annual Operating Subsidy Impact



Fixed-Route Alternatives Performance Analysis

An analysis of the performance of the service alternatives is presented in right hand portion of Table 38. This considers the following key transit service performance measures.

Passenger Trips per Vehicle-Hour

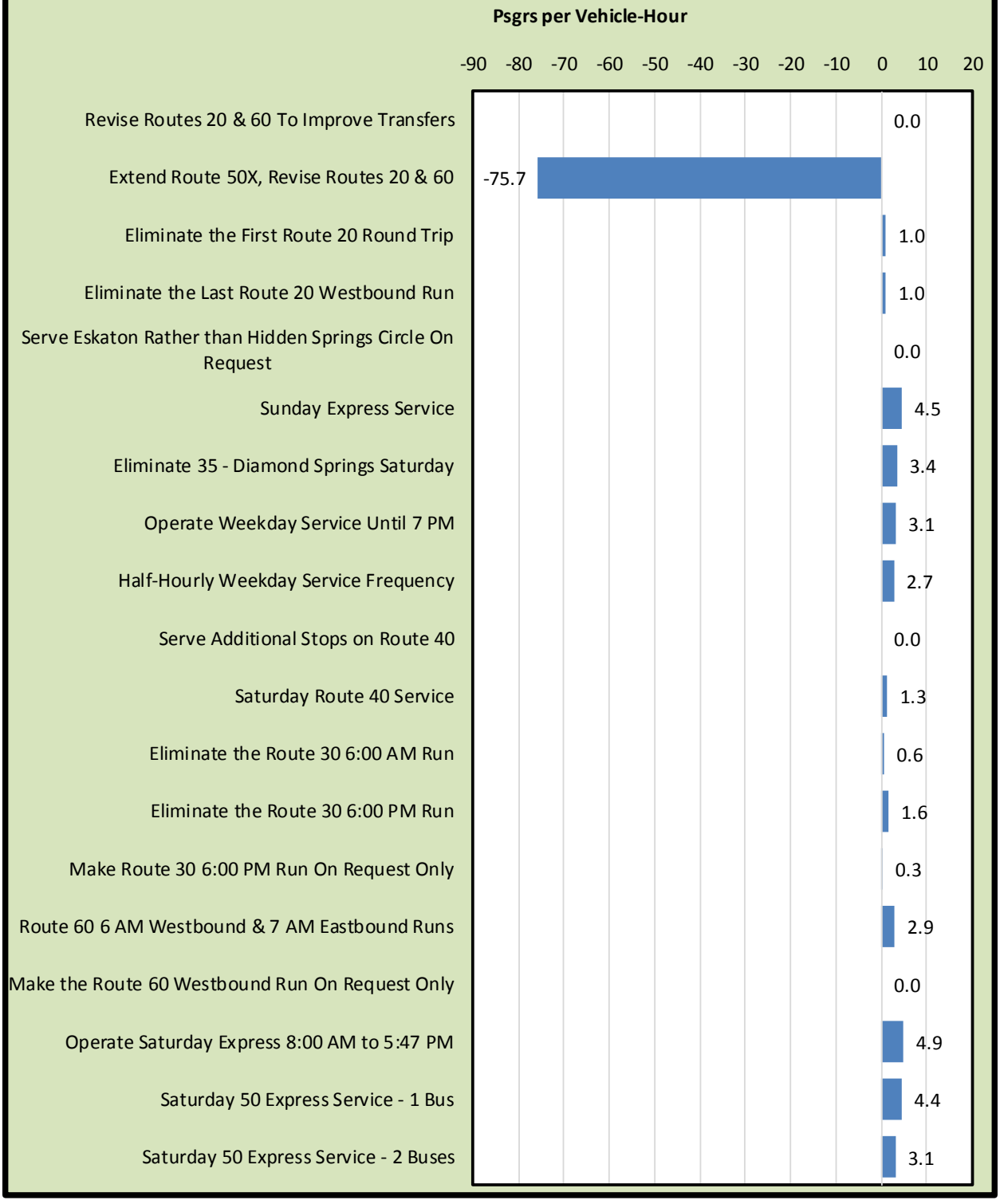
The marginal passenger trips per vehicle-hour are a key measure of the productivity of a transit service. Note that several of the alternatives do not result in a change in vehicle-hours, making this measure inapplicable. These values are charted in Figure 32. The results of this performance measure can be considered in the following categories:

- Some alternatives **increase ridership and increase vehicle-hours**, such as Sunday Express service. For these, a higher value reflects a "better" alternative, with more passengers served for every additional hour of service. The best of these alternatives is the expansion of the hours of Saturday Express service, which generates 4.9 passenger trips per vehicle-hour. This figure is just below the standard of 5.0. Other alternatives that perform relatively well (though not above the standard) are the Sunday Express service at 4.5 and the Saturday 50 Express service at 4.4.

- Other alternatives **decrease ridership and decrease vehicle-hours**, such as eliminating one or more of the Route 20 trips. This results in a positive value, but in this case a smaller number is "better" in that less ridership is lost for every hour of service eliminated. The best of these is making the last Route 60 westbound run request only, which reduces vehicle-hours while still serving all passengers. All of these alternatives are consistent with the 5.0 standard, in that the loss of ridership is less than 5.0 passenger trips per vehicle-hour. These are shaded in blue on Table 38, as they are consistent with the standard. The "worst" of these is the elimination of Route 35, which reduces ridership by 3.5 passengers for every hour eliminated.

- One alternative—the extension of Route 50 and revisions to Routes 20 and 60—**increases ridership and decreases vehicle-hours**. The value of -75.7 indicates that this option would increase ridership by 75.7 passengers for every vehicle-hour of service decrease—a very positive outcome. As such, it is consistent with the adopted standard.

FIGURE 32: Local Route Service Alternatives Passenger-Trips per Vehicle-Hour



Marginal Operating Subsidy per Passenger Trip

This measure directly relates the key public input (tax funding) to the key desired output (ridership). These results are shown in Figure 33, and can be summarized as follows:

- Of those options that **increase ridership and increase subsidy requirements**, a lower figure indicates a "better" alternative as it reflects a lower funding need per new passenger trip. As an example, serving Eskaton Placerville with Route 20 would only require $0.91 in subsidy per additional net passenger. As this is less than the standard of no more than $15.00, it is consistent with the standard (and is shaded in green in Table 38). None of the other alternatives in this category meet this standard. Saturday service on Route 40 (Cameron Park/Shingle Springs) is the least cost-effective, requiring $88.50 in subsidy for every new passenger trip.

- For those that **decrease ridership and decrease subsidy requirements**, a higher figure is better, in that it indicates a greater funding savings for every passenger trip eliminated. At the extreme, making the Route 30 6 PM run on-request is calculated to save $422.40 in subsidy for every passenger trip eliminated. All six of the alternatives that fall into this category generate more than the standard of $15.00 in savings per passenger trip, and thus are shaded in blue in Table 38.

- Both of the route revision alternatives in the Placerville area would **increase ridership while decreasing subsidy requirements**, resulting in a negative figure. Of these, extending Route 50X with revisions to Routes 20 and 60 are "better" than the revisions to Routes 20 and 60 only, as it both generates more ridership while it saves more subsidy. In addition, serving additional stops on Route 40 (Cameron Park) also falls into this category.

Marginal Farebox Ratio

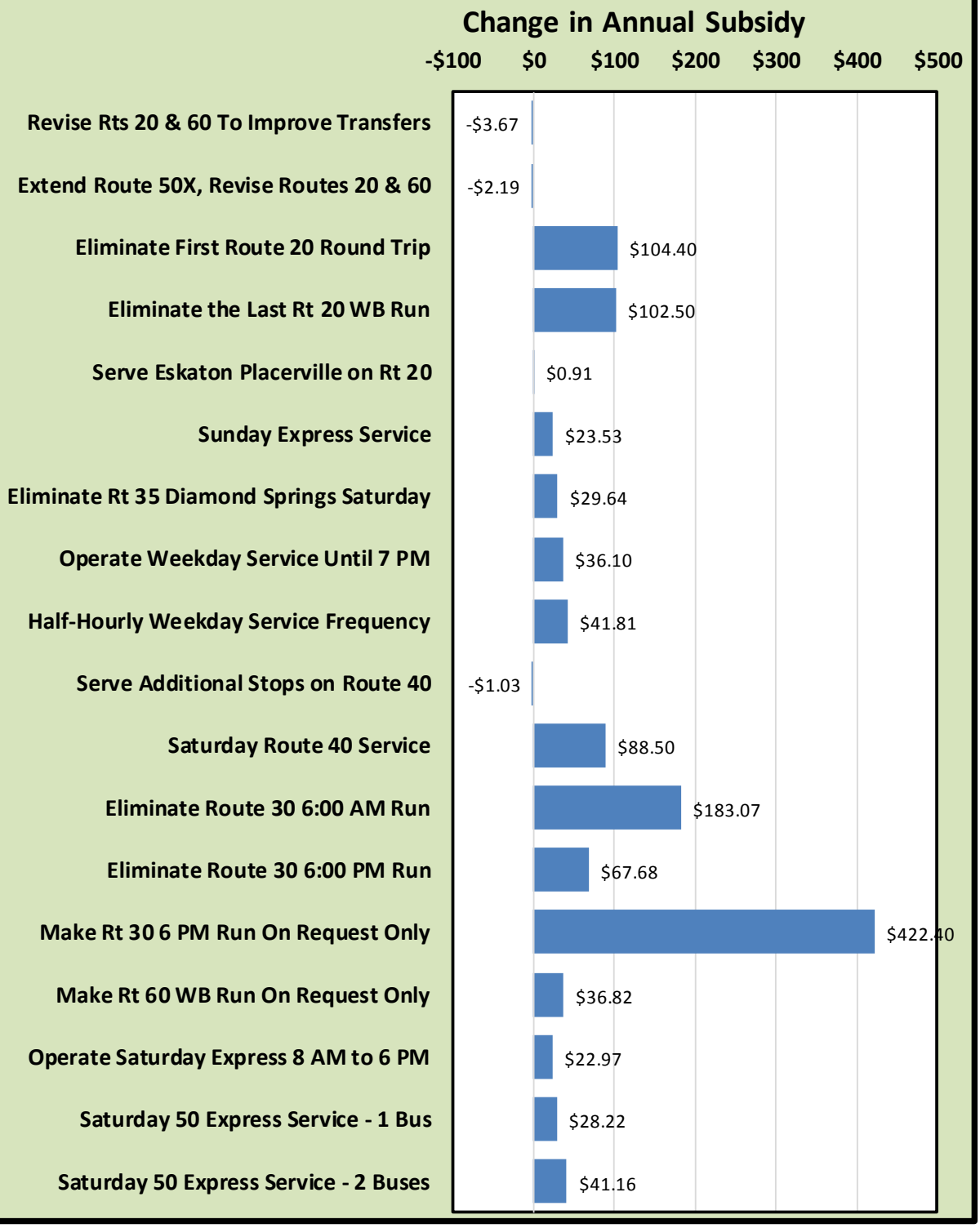
Finally, the marginal farebox ratio (marginal fare revenues divided by marginal operating costs) can be calculated. This is useful in assessing whether individual service alternatives help to attain the overall local farebox ratio standard of 10 percent:

- Of those that **increase both fare revenues and costs**, only serving Eskaton on Route 20 and serving additional stops on Route 40 provide a farebox return ratio exceeding the 10 percent standard.

- All of the alternatives that **decrease both fare revenues and costs** are consistent with the standard, as the farebox ratio is well below the 10 percent minimum standard.

- Those alternatives that **increase fare revenues while decreasing costs** are consistent with the standard, though this results in a negative ratio.

FIGURE 33: Local Route Service Alternatives Subsidy per Passenger-Trip



The above review provides useful information for making decisions regarding the individual routes, and ultimately the local fixed-route network as a whole. The appropriate alternatives to work into the overall plan will depend on the relative balance between the desire for ridership growth (or maintaining existing ridership for low-performing service elements) and the financial realities of available operating funding. It is also important to consider that there are many other factors (in particular, the ability to provide a dependable and safe transit service) beyond these financial and performance measures. In addition, there is a benefit in providing a consistent service that is easy to communicate and understand. Nonetheless, the following are key overall findings that result from this evaluation:

- Both of the options that would reconfigure routes in the Placerville area would benefit the system in that ridership would increase while costs and subsidies would decrease. While the impacts at specific stops merits careful consideration, overall extending Route 50X east to Placerville Station along with reducing Route 20 to one bus and revising Route 60 yields the greater ridership growth along with cost savings.

- The options that would substantially expand the local route service (half-hourly service, extending weekday service until 7 PM) fall significantly short of attaining any of the performance standards. Of the smaller increases, the best performer is the expansion of Saturday Express hours of service, which would generate 4.9 passenger trips per vehicle-hour and require $22.97 in subsidy per new passenger.

- All six of the alternatives that would reduce the hours of service are consistent with the standards. Of these, eliminating Route 35 (Saturday Diamond Springs service) would have the most significant impact on existing ridership (1,400 passenger trips per year), while the others would not reduce ridership by more than 500 passenger trips per year each.

- Adding new stops on Route 40 and serving Eskaton Placerville on Route 20 would be beneficial.

COMMUTER ALTERNATIVES

Additional AM Run to Sacramento Arriving around 8:00 AM and Additional PM Run to El Dorado County Departing around 5:00 PM

A common passenger request is for additional runs, particularly a run arriving around 8:00 AM in downtown Sacramento and a PM run departing around 5:00 PM. A summary of existing average passenger load over a busy month (January 2019) is shown in Table 39. As indicated, overall the Commuter Service is not close to capacity, averaging 50 percent of seating capacity in the AM and 49 percent in the PM. As shown in Table 40, these additional runs would incur an annual operating cost of $141,700 per year. While the additional schedule option would be a convenience for some passengers, overall the net ridership impact would be relatively modest,

TABLE 39: Summary of Commuter Passenger Load per Run

AM				PM			
	First Arrival Time in Sacramento	Average Load	% Of Capacity		First Departure Time in Sacramento	Average Load	% Of Capacity
1	6:11 AM	26.3	46%	1	2:46 PM	32.2	57%
2	6:21 AM	18.4	32%	2	3:13 PM	32.5	57%
3	6:27 AM	24.8	44%	3	3:42 PM	39.8	70%
4	6:47 AM	34.5	60%	4	3:44 PM	38.9	68%
5	6:49 AM	23.0	40%	5	4:00 PM	32.5	57%
6	7:03 AM	18.8	33%	6	4:24 PM	24.8	43%
7	7:11 AM	39.7	70%	7	4:26 PM	33.0	58%
8	7:23 AM	28.3	50%	8	4:28 PM	18.8	33%
9	7:38 AM	31.3	55%	9	4:46 PM	23.9	42%
10	8:11 AM	40.6	71%	10	5:16 PM	19.8	35%
11	9:07 AM	29.3	51%	11	6:00 PM	10.0	17%
	Average	28.6	50%			27.8	49%

Data for January, 2019 (Highest Ridership of 4 months evaluated)

TABLE 40: Commuter Service Alternatives Analysis

	Run Parameters		Daily Service			Days per Year	Annual		Annual Cost	Annual Ridership	Fare Revenues	Operating Subsidy
	Hours	Miles	Runs	Hours	Miles		Hours	Miles				
Additional AM and PM Commuter Runs												
AM Run	1.7	52	1	1.6833	52	251	423	13,052	$58,100			
PM Run	1.7	52	1	1.7	52	251	427	13,052	$58,500			
Additional Driver Deadhead				5		251			$25,100			
Total							849	26,104	$141,700	3,800	*$20,700*	*$121,000*
Serve University/65th	Stop 4X Daily											
	0.1	0.4	**4**	0.3333	2	251	84	402	$7,800	1,600	*$8,700*	*-$900*
Vanpool Program	--	--	--	--	--	251	--	--	$270,000	10,600	$28,000	*$242,000*

at approximately 3,800 passenger trips per year. Subtracting the additional fare revenue, operating subsidy would increase by an estimated $121,000 per year. An additional bus would also be required.

Mid-day Commuter Run

Some of the other commuter programs serving downtown Sacramento provide a mid-day run, in order to allow passengers to work half-days in either the morning or afternoon, and also provide convenient service for other trips to downtown Sacramento. As an example, Yuba-Sutter Transit operates two mid-day round-trip runs from Marysville/Yuba City that serve stops in downtown Sacramento around Noon and 2:00 PM. These runs in total average 41 passenger trips per day, split evenly between the two runs. Roughly one-third of this ridership consists of travel into downtown Sacramento in the mid-day, while the other two-thirds are for trips from downtown.

Unlike the Yuba-Sutter Transit example, El Dorado Transit commuter riders do have options to make mid-day trips, specifically using the RT Gold Line and EDT Route 50X. A mid-day EDT full Commuter round-trip, moreover, would incur an operating cost of approximately $96,000 per year. In light of this cost and the fact that few passenger requests for mid-day service have been made, this option is not considered further.

Service to the Sacramento Valley Train Station on Request

As the Capital Corridor and the San Joaquin rail services have expanded, Sacramento's rail station at 4th and H streets has become an increasingly important hub for Northern California regional intercity trips. This station is four blocks west (approximately a five-minute walk) of the nearest existing stop (at 8th and I Streets). Serving the train station on request would require a left turn on I Street, a right turn on 5th Street, a left turn into the bus loading area north of the station and then travel westbound on H Street to 8th Street. This would add approximately 5 minutes to the running time.

A review of ridership patterns indicate that 7 percent of AM ridership alights beyond this stop (and thus would be impacted by additional running time). In the PM, 25 percent of PM boardings occur prior to this stop, but the remaining passengers would also be impacted by delayed service to their stop. Ridership demand generated by the train station can be expected to be episodic (as it depends on the limited schedules of EDT commuter buses and the schedule of rail service) and there are other public transit opportunities for travel between this train station and Placerville (notably Amtrak Thruway buses from Placerville Station as well as the combination of RT light rail service). Unless a strong pattern of regular requests for service at specific times emerges, EDT commuter bus service directly to the train station is not recommended at this time.

Add a Stop at the University/65th Avenue RT Transit Station

The easternmost stops on the existing Commuter Route are at P and 30th (AM) and Q and 29th (PM). EDT buses pass close by other potential transit trip generators in east Sacramento, such as the California State University Sacramento campus and the UC Davis Medical Center area. While El Dorado residents could transfer to RT services in downtown and "backtrack" to these areas, this can add up to 30 – 40 minutes of travel time per direction. A stop on one or two EDT runs at the University/65th RT transit station could provide good connection opportunities to these other destinations. In addition to the LRT Gold Line, this stop is served by RT bus Route 26, 38, 65 and 81 as well as the Sacramento State Hornet bus route that provides service roughly every 15 minutes and directly to/from the CSUS campus.

Serving this stop would add approximately 5 minutes of running time and 0.4 miles per run. A reasonable scenario would be to serve this stop twice in the AM period and twice in the PM period (to provide some flexibility in travel times). To minimize the impact on existing passengers, it would be beneficial for runs with relatively low ridership to make this additional stop such as AM 6 and AM 11 as well as PM 6 and PM 11. Over the course of a year, this would increase operating costs by $7,800.

Ridership generated by this new stop is difficult to estimate and will depend upon marketing efforts. A reasonable planning estimate is 10 passenger trips per day or 2,500 over the course of a year. On the other hand, the additional five minutes of travel time would inconvenience existing passengers. Considering the existing ridership on the runs cited above and the typical ridership response to changes in travel time, this would eliminate an estimated 900 passenger trips per year. The net impact would therefore be an increase on the order of 1,600 per year. Considering the additional fare revenues, this could result in a small ($900) reduction in subsidy. This option could potentially be initiated on a demonstration basis, with ridership monitored to identify if a net benefit is provided.

As an aside, options for providing direct service by EDT buses to CSUS and/or the UC Davis Medical Center areas was considered but were found to add significantly to running time. These would either significantly impact existing passengers (if served as the buses enter and exit central Sacramento with full passenger loads) or require passengers to these destinations to "ride around" the downtown loop (in which case their travel times would be shorter if they were to transfer to RT services). This option was therefore not considered further.

Serve Potential New Commuter Corridors

EDT Commuter service could potentially be expanded to other corridors outside of the US-50/Downtown Sacramento corridor. As discussed in greater detail in Chapter 3, SACOG's regional travel demand model indicates the following existing (2012) number of daily total work tours (round trip) generated by persons living in western El Dorado County by employment location:

- Downtown Sacramento: 1,652
- Folsom—Arden/Arcade: 9,088
- Elk Grove—South Sacramento: 2,103
- Placer County: 5,895
- Rancho Cordova—East Sacramento: 9,733

An existing transit travel "mode share" was calculated for the El Dorado County-Downtown Sacramento corridor served by the existing EDT Commuter Service. Comparing the existing average daily round-trips conducted on EDT services (289) and the SACOG model estimate of 1,652 western El Dorado County residents commuting to work locations in downtown Sacramento, this mode share of commuters traveling by EDT service is estimated to be 17.5 percent.

Other work locations outside of the downtown Sacramento area have a much lower potential travel mode split. Downtown Sacramento is a particularly good transit market, for the following factors:

- A strong concentration of employment in a confined area that can be conveniently served, providing a high number of commuters the ability to walk no more than a few blocks to work.
- Employers (notably the State of California) that provide consistent hours of operation, flexibility in terms of setting specific commute times, and financial support for the purchase of transit passes.
- Parking fees that are a strong disincentive to auto use.
- HOV lanes that provide a travel time savings to transit riders (as well as carpoolers).

In comparison, other worksites in the region tend to have plenty of free parking, a dispersed suburban pattern of locations that requires either long transit travel times or transfers, bus service that faces the same delays as motorists and employers that do not subsidize bus passes. Due to these factors, the EDT transit service previously provided to Rancho Cordova worksites generated a transit mode split of approximately 0.3 percent. Even if a higher level of service were to be provided, a maximum mode share would be on the order of 0.5 percent. This factor is applied to the various non-downtown-Sacramento worksites.

When applying these mode-split percentages, the average weekday number of commuters that would use EDT services to other employment sites is calculated to be the following:

- Folsom—Arden/Arcade: 45
- Elk Grove – South Sacramento: 10
- Placer County: 29
- Rancho Cordova – East Sacramento: 48

Given the lower values for ridership potential and the substantial operating costs associated with new commuter runs (on the order of $120,000 per bus round-trip per year) as well as the difficulty in serving dispersed employment locations, establishing EDT service to new corridors is not recommended currently.

Vanpools to Non-Downtown Sacramento Work Locations

A cost-effective and more affordable option for western El Dorado County commuters (particularly with odd shift times) would be to participate in a vanpool program. The Sacramento Area Council of Governments (SACOG) oversees the well-established "Rideshare" program which helps facilitate carpool and vanpool formation. To form a vanpool, one person volunteers to be the primary driver/coordinator of the van. In exchange for taking on that responsibility, the driver sometimes does not pay towards the cost of the vanpool or pays a reduced cost. Riders usually meet at a designated pick-up location such as a park-and-ride lot or transit transfer point. Some vans have more than one pick-up point, while others do not. The same applies to drop-off points at the destination.

The riders share a fee that covers the cost of the vanpool lease and gas (or a personal vehicle may be used). The leasing price depends on the number of miles the vanpool travels each month, how many people are in the van and the vanpool vendor. All maintenance, license, and insurance costs are included in the lease. Vanpool information can be found at https://rideshare.511.org/vanpool/.

Another example is Placer County's vanpool program for commuters. Vehicles are leased from a private company and each vanpool relies on participants to serve as drivers. Service is available within Placer County and to other nearby destinations; in general, the participants use the service for commuting purposes to surrounding areas such as Sacramento, Rancho Cordova and West Sacramento. There are currently nine vanpools administered by Placer County Transit. This service carries 24,500 one-way passenger trips per year (or 50 round-trips per weekday) and costs on the order of $650,000. However, $68,000 of the costs are covered by passenger fares (26 percent), which are $130.00 per month.

A similar program in western El Dorado County program would serve approximately 10,600 one-way passenger trips per year. Depending on specific demand, it would consist of 3 to 4 vanpools, and require a subsidy of approximately $240,000 per year.

Increase the Potential Market for the Reverse Commuter Service

The Reverse Commuter Service currently consists of two eastbound runs in the AM commute period and two westbound runs in the PM commute period. These runs need to be operated to return the AM Commute bus drivers back to Diamond Springs and to transport the PM Commute drivers to their buses in Sacramento to start their runs (thereby minimizing the driver hours required for the Commute Service). The additional cost required to serve passengers on these runs is minimal. However, ridership in the reverse direction is low, averaging only 2.4 passenger trips per day over the four runs.

It may be possible to expand the potential market for this service at relatively low cost. Specifically, the Reverse Commute runs could be marketed to:

- Residents and visitors to Sacramento County looking for an enjoyable "day trip" to the Gold Rush Country (Placerville). If on-demand stops were offered in downtown Placerville (such as the Post Office) and potentially at Iron Point Light Rail Station, passengers could board in downtown or in Folsom and be delivered to downtown Placerville around 9 AM and 11 AM, and then picked up (on demand) around 2:00 PM and 4:20 PM for a return to Sacramento. This could be particularly attractive to conventioneers (and their families) attending conventions in downtown Sacramento.

- Similarly, an on-demand stop at Red Hawk Casino could serve passengers interested in a mid-day visit to the Casino of 3 to 7 hours in length.

The demand for this service (and thus cost) would depend greatly on the level of marketing. Optimally, marketing would be conducted in coordination with groups interested in expanding visitor activity, such as the Chamber of Commerce.

COMPARISON OF COMMUTER ROUTE ALTERNATIVES

A comparison and performance analysis for the Commute Route alternatives is shown in Table 41:

- At 19.1 **passenger trips per additional vehicle-hour,** serving the University/65th LRT station on a few runs per day exceeds the standard of 10.0 for commuter services. The additional AM and PM runs would only generate 4.5. This measure does not pertain to the vanpool program.

- Regarding **subsidy per passenger trip**, serving University/65th actually generates a negative value (which is a positive result) by reducing subsidy (fare revenues exceeds

TABLE 41: EDT Commuter Service Alternatives Performance Analysis

Values Achieving Performance Standards by Adding Service Meeting Performance Standard Shaded in Green

	Change From Existing Service						*Performance Analysis*		
	Net Annual Ridership	Net Annual Vehicle-Hrs	Net Annual Operating Cost	Net Annual Fare Revenue	Net Annual Operating Subsidy	Peak Vehicles	Psgr-Trips per Service-Hour	Marginal Subsidy per Psgr-Trip	Marginal Farebox Ratio
Minimum Commuter Route Performance Standard (1)							*10.00*	*< $5.00*	*50%*
Additional AM and PM Commuter Runs	3,800	849	$141,700	$20,700	$121,000	1	4.5	$31.84	15%
Serve University/65th Stop 4X Daily	1,600	84	$7,800	$8,700	-$900	0	19.1	-$0.56	112%
Vanpool Program	10,600	--	$270,000	$28,000	$242,000	0	--	$22.83	10%

marginal costs) and increasing ridership. Both the additional commuter runs and the vanpool program would require subsidy levels substantially higher than the maximum of $5.00 established for the commuter services.

- The **marginal farebox ratio** established for commuter services is a relatively high 50 percent. The service to University/65th meets this standard, while the other two options do not.

In summary, providing service to the University/65th LRT station meets the applicable standards and thus warrants consideration (perhaps on a demonstration basis). A vanpool program would not achieve current standards, but could be considered if there is a desire to expand the scope of EDT's commuter program to other employment areas. Finally, adding more runs to the existing Commuter Route would fall significantly short of achieving the standards.

RURAL SERVICE ALTERNATIVES

North County Rural Route

A common comment received through the course of this study is the need for at least minimal "lifeline" rural service connecting the northern portion of El Dorado County (Georgetown, Coloma, Cool and Pilot Hill) with services and shopping in Placerville. This would consist of a one-day-a-week service with morning and evening runs between this area and Placerville could also serve the Coloma area. Reservations would be required at least the day prior to service. This service would incur annual operating costs of approximately $29,600 per year, as shown in Table 37.

The potential ridership generated by this service can be evaluated based on the following considerations:

- A demonstration project serving this area was operated in 2001–02, which generated only a few passenger trips per day. Comparing trends in population since that time, total population has increased somewhat (by 16 percent), with senior population increasing by 10 percent and mobility limited and low income population virtually unchanged. The overall area has a substantial population of 15,638 residents (per US Census data). Residents of this area are disabled at a proportion equal to that of western El Dorado County as a whole (13 percent) and are more likely to be seniors (21 percent compared to a countywide average of 19 percent but are less likely to be low income (5 percent compared with 9 percent) or not have a vehicle in the household (1.4 percent compared with 1.8 percent).

- This service is similar to the Grizzly Flat service operated for many years before it was discontinued in 2017. It typically generated on the order of 5 one-way trips per day (2 to 3 round-trips per day). When a requirement was implemented requiring a minimum of 5 reservations, this minimum was rarely met and service typically did not operate. This service area has a population of approximately 3,000, with a relatively high proportion of low income residents (13 percent) and those without a vehicle (2.2 percent).

Overall, the ridership potential for a North County service is estimated to be approximately 600 passenger boardings per year, assuming a strong promotional effort. Assuming the same fare as previously charged for the Grizzly Flat service ($10 per one-way trip for general public and $5 for elderly, youth and persons with disabilities), this would require an operating subsidy of approximately $26,000 per year.

EDT Service to South Lake Tahoe

At present, public transportation travel between western and eastern El Dorado County is limited to the Amtrak Thruway bus service connecting Sacramento, Placerville, South Lake Tahoe and Stateline (Nevada). Unlike other routes on the Amtrak Thruway bus system, the route between Sacramento and South Lake Tahoe (serving Placerville) allows passengers to ride the bus service without the need for a connecting rail trip. One daily eastbound run departs Placerville at 11:00 AM, arriving in South Lake Tahoe at 12:30 PM, while the westbound departure from South Lake Tahoe is at 2:20 PM with arrival in Placerville at 3:40 PM. The one-way adult fare is $20.00. With a $40 round-trip cost and a schedule that does not allow a same day round-trip, the utility of this service for local travel is limited (though it does allow western El Dorado County residents to travel to South Lake Tahoe for overnight trips).

There has long been consideration of public transit service connecting the two ends of the county. One potential need that has been cited is for trips to county or court offices in Placerville that cannot be served in South Lake Tahoe, such as juveniles involved in the courts or probation system. While there is currently a Juvenile Detention Center in South Lake Tahoe,

Juvenile Detainees are required to be transported to court attended by an armed guard which requires separate transport. For this reason, there would be no benefit to provide public transit service for this need.

A reasonable service scenario would be for EDT buses to serve eastbound departures from Placerville at 7:00 AM and 4:00 PM, with westbound departures from the Stateline Transit Center at 9:00 AM and 6:00 PM. Stops could be served at the Central Transit Center in Diamond Springs, the El Dorado County Government Center (including the Fairgrounds Park-and-Ride), Placerville Station, Sierra-at-Tahoe (winter only), the South Y Transit Center, and the Stateline Transit Center. With a 2 hour and 30 minute round-trip running time, occurring twice daily, this would result in approximately 1,305 vehicle-hours per year for weekday service and 1,825 vehicle-hours if the service was to run daily. This would cost approximately $329,000 per year to operate, and would require at least one additional vehicle. It would also be impacted by winter roadway closures. For these reasons, and given the low ridership potential, this option is not considered further.

DIAL-A-RIDE ALTERNATIVES

Use Dial-A-Ride as Feeder to Fixed Routes

The concept of using a Dial-A-Ride service to provide "first-mile/last-mile" connections to fixed-local or commuter bus service can sound good in practice. However, transit agencies find that the practicalities of services are a challenge. The number of potential riders that would use both DAR and fixed-route services is limited, due to the lengthy travel times, cost and inconvenience of transfers, which is a particular challenge for persons using mobility device. Serving additional DAR trips is expensive given that the program is already at capacity during peak times, averaging $79 per passenger trip in FY 2017 – 18.

Volunteer Driver Program

Many transit services with difficult-to-serve mobility needs turn to volunteer driver programs to try to meet such needs, particularly for lower density areas. Programs often focus on medical trips, but often once established expand to include other essential trip purposes, such as grocery shopping or social service appointments. There are two major types of volunteer driver programs:

1. Volunteer Driver Programs that recruit a pool of volunteer drivers who generally receive mileage reimbursement. Most of these volunteers use their personal vehicle, but a few (such as Community Resources Connection, Eastern Madera County Escort Program) additionally provide agency vehicles which volunteers are trained to drive.

2. Mileage Reimbursement Programs that offer direct reimbursement to riders, who then pay their drivers (such as TRIP and VIP).

An overview of a handful of programs operating in California is provided below, and in Table 42:

- *TRIP (Riverside County):* Established in 1993, this is one of the most well-known volunteer driver programs. The Independent Living Partnership (ILP) oversees the program. Passengers needing transportation either contact TRIP directly or are referred to TRIP, and TRIP works with the rider to pair them with a driver (picked by the rider) and complete paperwork for the reimbursement. Family members are not reimbursed (TRIP believes if family can provide the transportation, they should do so willingly). Drivers are reimbursed at a rate below the IRS business rate but more than the IRS medical rate. All types of trips are provided, but 30 percent are medical and 20 percent are grocery. The ILP has an extensive website (www.ilpconnect.org) and consults with other entities wishing to establish a mileage reimbursement program. The website includes a recent survey of participants; this provides a good overview of program demographics and issues, and serves as a go-to source for exploring this type of program.

- *MyRides (Placer County):* This program is overseen by Seniors First, which recruits a pool of volunteer drivers to provide trips to residents in need. Volunteers use their own vehicles and are reimbursed. Trips are limited by volunteer availability and require a minimum of 14 days advanced notice.

- *Volunteer Incentive Program (San Joaquin County):* This is a relatively new program operated as part of Access San Joaquin operated by the San Joaquin CTSA. As with TRIP, drivers are recruited by the passengers (which can include family members). Currently, only medical trips are reimbursed, but the CTSA is exploring whether additional trip purposes should be included and how to cap the cost of the program.

- *Community Resources Connection (Sonoma County):* Operated by the Community ActionNetwork (CAN), this program includes mileage reimbursement with a pool of volunteer drivers, as well as a once-a-week medical trip from Gualala/Sea Ranch to Santa Rosa for medical trips. The weekly trip to Santa Rosa relies on volunteers trained to drive the CAN's van. Passengers are asked to make a donation to offset the cost of the program, and the Redwood Coast Medical Services helps support the program with a $5,000 annual donation.

- *Tehama County Medical Transportation Services (METS):* Under the direction of the Transit Manager in the Tehama County Department of Public Works, this is a volunteer driver program that serves medical transportation. The program has a part-time supervisor to oversee operations and about a dozen volunteer drivers. Drivers use their personal vehicles and are reimbursed at the federal IRS rate. Drivers are recruited by word-of-mouth. Ten-year DMV records are required but fingerprinting is not. Drivers are covered by Workman's Compensation Insurance. The Supervisor coordinates appointments and assigns trips to drivers, recruiting volunteers as well as record-

TABLE 42: Example Volunteer Driver Programs in California

Program Overview					Trip Parameters			Ridership		Financial				
			Volunteers											
Name	Year Started	Management or Oversight provided by...	Type	Number	Service Area	Eligibility	Trip Purpose	Annual Passenger Trips	Approx. # of Annual Participants	Cost to Passengers	Volunteer Reimbursement Rate	Annual Operating Cost	Funding Source	Miscellaneous Notes
TRIP	1993	Independent Living Partnership (ILP)	Recruited by rider	More or less equal to number of riders.	Riverside County	Seniors & disabled w/o transportation options	All types; 30% are medical, 20% grocery	119,555	1,200	None	$0.35/mi (below the IRS rate for business, above rate for medical)	$950,000	Local sales tax, 5310, OAA funds, local and municipal funds, and foundation grants	Offers software & advice for other entities to start their own program.
MyRides	1971	Seniors First (Placer County)	Volunteer with own car	60	Communities within Placer County based on volunteer availability.	County residents unable to use Transit	Medical, public services, essential needs	5,000	1,300	None	Federal IRS business mileage rate	$150,000	A4AA, Western Placer CTSA, private donations.	Min 14 advance request & up to 3 months. No WC, scooters, oxygen tanks
Volunteer Incentive Program (VIP)	2018	San Joaquin residents	Recruited by rider	More or less equal to number of riders.	San Joaquin CTSA	Open to All	Medical; plan to extend to other purposes	2,000 miles/yr	38 (new program)	None	Federal IRS medical mileage rate	NA	CTSA funds via LTF	Passenger and driver both apply and sign waivers. Looking at how to cap program.
Community Resources Connection	1999	Community Action Network	Volunteer with own car or agency van	20	Sea Ranch, Gualala - to Santa Rosa	Open to All	Medical trips	NA	80	Van by donation; Volunteers paid for fuel, tolls, parking	Paid by rider for fuel, tolls, parking	NA	Private donations, hospital grant, misc.	Requires 72 hr notice.
Tehama County Medical Transportation Services (METS)	1992	Tehama County	Volunteer with own car	10	Tehama & Nearby Counties (not Sacramento or Bay Area)	Ambulatory County residents w/no other means of transport	Medical trips	60,000-90,000 miles (trips not tracked)	150	Donation of $5 in county, $10 outside county.	Federal IRS business mileage rate	$65,000 (before donations)	NA	Requires 7 notice to schedule.
GTS Volunteer Medical Transport	1990's	Glenn Transit Services/Para-transit Services Office	Volunteer with own car	10	Glenn County	60+ or Permanent Disability or Low income	Medical appointments	700	200	None	50% of Federal IRS mileage rate	NA	NA	--
A1AA Volunteer Driver Program	NA	A1AA	Volunteer with own car	42	Throughout Humboldt County (depends on where volunteers are willing to go)	Aged 50 or over	Medical; now expanded to grocery	17,000-35,000 miles (trips not tracked)	100-200	None	$0.25/mi, or $0.50 for low income riders	Staff = $35,000; mileage $7,500. Ideal would be $65,000 budget.	AAA Grants	--
Eastern Madera County Escort Program	1988	Community Action Partnership of Madera County	Volunteer using agency van	2	Eastern Madera County, to Madera Co & Fresno Co	General public residents, emphasis on seniors 60+	Medical related trips	45,000-50,000 miles (trips not tracked)	50	None	$10/day plus mileage reimbursement	$20,000	LTF	24-hour advanced reservation is required, except for medical emergencies.

keeping and reimbursing drivers. Clients are asked for a $5.00 round trip donation within Tehama County or $10.00 round trip donation to Butte, Glenn, or Shasta Counties. There are 150 regular clients. The program provides between 60,000 to 90,000 reimbursed vehicle miles each year. While the program is for medical trips only, clients may do shopping in conjunction with picking up prescriptions at the driver's discretion. Clients must be ambulatory to use the service. Spouses or attendants may accompany the passenger if desired. Most of the clients are elderly, though some children and other adults use the service as well.

- *A1AA Volunteer Driver Program (Humboldt County):* This is a mileage reimbursement program in the Eel River Valley in Humboldt County for medical appointments. There are approximately 42 volunteers signed up to drive and approximately 200 repeat riders. Drivers are actively recruited by A1AA staff. The volunteers are trained (as well as retrained annually), must pass a background check and maintain a high level of insurance. The drivers are not drug-tested. The drivers' vehicles are inspected by A1AA staff. Drivers are reimbursed $0.25 per mile with an additional $0.25 per mile for those who are low income.

- *Eastern Madera County Escort Program:* The Escort Program has been in operation since 1988 as a demand-response, general public transportation service provided with volunteer drivers. The program provides trips for medical-related appointments in Madera and Fresno Counties to all residents but with an emphasis on serving senior residents 60 years and older and the disabled. A 24-hour advanced reservation is required, except for medical emergencies. Individuals requesting a ride are required to contact the program to schedule their trip. The system uses one vehicle (a 5-passenger van) and may carry one wheelchair. Volunteers are recruited, selected and trained by the Community Action Partnership of Madera County on an as-needed basis. The van driver is provided a stipend of $10.00 per day.

Volunteer driver programs can be useful in serving rural areas where budgets will not allow all areas to be served or where demand is so low and infrequent that regular service is not warranted. The biggest challenge in providing a volunteer driver program is finding, training, and maintaining a volunteer base (for programs which operate in this manner). Managing the volunteers requires extensive oversight, which can be provided by a half-time transit agency administrative position, or under the oversight of a volunteer organization or board.

Offering reimbursement directly to riders, who then pay their drivers, requires less day-to-day oversight but has a greater potential for abuse or fraud. However, this type of program requires far less effort by the sponsoring agency because it eliminates the need to find and train volunteers, and riders generally like being able to choose their own drivers. Additionally, scheduling and advance notice for trips are eliminated, making it a more flexible choice for riders.

Advantages of Volunteer Driver Programs

Volunteer Pool Programs

- An affordable option for agencies
- Meets mobility needs in areas difficult to serve with conventional transit
- Can often be supported by grants and donations

Driver Reimbursement Programs

- An affordable option for agencies
- Meets mobility needs in areas difficult to serve with conventional transit
- Riders have choice in drivers and scheduling

Disadvantages of Volunteer Driver Programs

Volunteer Pool Programs

- Difficult to sustain a pool of volunteers
  - Volunteers are often elderly and may become unable to drive
  - Volunteer burnout is high
  - Requires constant recruiting by sponsoring agency
- Usually requires passenger to schedule far in advance of needed trip
- Limited to when and where volunteers are willing to drive
- Cannot control driver/passenger interactions. Some programs find bias against more difficult passengers

Driver Reimbursement Programs

- Potential for abuse/fraud

If El Dorado Transit is interested in developing a volunteer driver program, they should contact multiple agencies with programs in place to further explore the pros and cons of each.

Coordination with Human Service Agencies

EDT services currently are significantly coordinated with the human service agencies of western El Dorado County. Unlike many other areas where individual small van services serve specific client groups, EDT services (notably the MORE, Adult Day Services and Dial-A-Ride services) already provide much of the social service mobility needs. It is noteworthy that the *SACOG Public Transit and Human Services Transportation Coordinated Plan*, updated in 2017, identifies no specific needs for EDT service expansion to serve individual social service entities. EDT should continue to work closely with local social service agencies to provide the efficiencies that a larger comprehensive service allows.

Expand Dial-A-Ride to Accommodate Growth in Demand

As discussed in more detail in the following chapter, the demand for Dial-A-Ride , paratransit and social service transportation services is forecasted to increase by 8 percent over the five-year short-range planning period. To assess whether adequate capacity exists to accommodate this growth in demand, driver logs over four days of service were evaluated (both weekdays and Saturday). Specifically, periods during the day were identified when adequate time was available within the individual driver's schedules (a minimum of 30 minutes, not a result of a cancellation and not used as a driver break). As shown in Table 43, a total of eight such available schedule slots were identified in weekdays, and four on Saturday. However, the majority of these slots were only available early or late in the day or over the lunch period. There are stretches of two to three hours in which no additional passengers can be reliably

TABLE 43: Analysis of Available Existing DAR Capacity

	Hour												
	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	
Average Ridership													
Weekday	0.3	5.0	6.7	7.0	7.3	5.7	5.3	3.7	3.7	5.0	4.3	0.0	
Saturday			5.0	5.0	3.0	1.0	2.0	4.0	0.0	1.0	4.0		
Vehicles in Service													
Weekday	0.3	2.7	4.7	5.0	5.0	5.0	5.0	5.0	5.0	4.7	3.3	1.7	
Saturday			2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		
Available Capacity for Additional Trips													
Weekday	0.3	0.0	0.3	0.3	1.3	0.0	0.7	1.7	1.0	1.3	0.7	0.3	8.0
Saturday			0.0	0.0	1.0	0.0	0.0	2.0	0.0	0.0	0.0	1.0	4.0

Source: Analysis of driver logs for 9/11/18-9/13/18 and 9/15/18.

accommodated. Given that service more than an hour from the desired travel time (often in peak periods) is not acceptable, the conclusion of this review is that there is no available capacity to accommodate ridership growth on the existing DAR system.

Accordingly, by 2024 one additional DAR van will need to be operated (increasing the peak in service to six on weekdays and 3 on Saturdays). An additional 8 hours of weekday service and 6 hours of Saturday service would be required. Over the course of a year, this additional service would increase operating costs by $267,700. The additional 1,560 passenger trips would generate $6,950 in fare revenues, yielding a net increase in operating subsidy of $260,750.

Due to the many "unknowns" associated with long-range projections, it is appropriate to consider long-range future conditions from a more general level (focusing on general services, rather than specific route details) than is considered for the short-range alternatives. This chapter first focuses on forecasts of potential ridership for EDT services. These estimates in turn are used to forecast service, fleet, and financial requirements.

RIDERSHIP FORECASTS

Local Route Ridership

Future changes in the demand for EDT local fixed-route services will be impacted by the following factors:

- Population Growth—As shown in Table 2 of Technical Memo One, overall population of western El Dorado County is forecasted to increase by 24 percent (36,590 persons) over the next 17 years. Most of this growth in the El Dorado Hills area (15,848) and the Cameron Park/Shingle Springs area (13,424).

- Aging of the Population—The California State Demographer prepares forecasts of population by county and by age. These forecasts, adjusted for western El Dorado County (excluding the Tahoe Basin) and adjusted to reflect the SACOG forecast totals, are shown in Table 44 and Figure 34. These figures indicated the following:

    - The total number of seniors ages 60 to 69 will ultimately decrease over the long-term planning period. From the 2015 figures, total seniors are forecasted to increase by approximately 8.2 percent by 2025 but will slowly decrease by approximately 32 percent by 2040.

    - Alternatively, seniors ages 70 and above (and thus more likely to rely on transit services such as Dial-A-Ride) will increase at a faster rate than total seniors with a growth in population between 2015 and 2040 of approximately 134 percent, or 29,649 residents.

As seniors make up a relatively small proportion of fixed-route patronage, the impact of this aging factor in overall demand is relatively small (3 percent).

- Fuel Costs—Gas prices have in the past had a substantial impact on the demand for transit service (particularly long-distance commuting). While we are currently in a

period of relatively high gas prices, advances in drilling technology, such as hydraulic fracturing, has helped to keep supplies up and costs down. Over the long term, moreover, the growth in electric vehicles and reduction in their costs can be expected to provide an alternative to gas-powered private vehicles and also reduce overall costs. No growth is assumed in transit ridership associated with an increase in effective per-mile fuel costs.

- Auto Use—Much of the demand for public transit services in large urban areas (such as downtown Sacramento) is a function of the overall cost and inconvenience of private auto travel. In particular, high rates of paid parking and limited parking availability in key activity or employment centers "drive" much of the demand for transit ridership in our large cities, along with congestion delays. None of these factors are expected to develop over the next twenty years in western El Dorado County. As a result, the private auto will remain a convenient and popular travel mode choice.

- TNC Technologies—Transportation Network Companies (TNCs), such as Lyft and Uber are becoming an increasingly important element of the transportation network, particularly in larger cities. While growth has been rapid over the last few years, the long-term role of TNC service is currently uncertain. To date, TNC services have been heavily subsidized by venture capitalists. In addition, changes in regulations and/or the economics of being a driver may increase TNC operating costs. Both of these factors may significantly increase fare levels, and thus limit the attractiveness of TNC riding as compared with using the El Dorado Transit services. Moreover, TNC services typically do not accommodate persons with disabilities, and particularly those using mobility devices. Many paratransit riders, moreover, prefer service using consistent public transit drivers (that allow them to form a more stable relationship) than a TNC service where drivers change from day to day. The replacement of Dial-A-Ride with a TNC program is not assumed in this analysis.

- Autonomous Private Vehicles—The technology for Autonomous Vehicles (AVs) is rapidly advancing. Within this plan period, it is reasonable to assume that the availability and cost of a private autonomous vehicle will be within the financial reach of many residents of western El Dorado County. For many persons unable to drive due to a disability, the availability of an autonomous vehicle that can provide a door-to-door trip can expand mobility options and reduce the need for transit ridership (particularly on Dial-A-Ride). Given the uncertainties as to how AV technology will develop, no change in ridership demand associated with this factor is included.

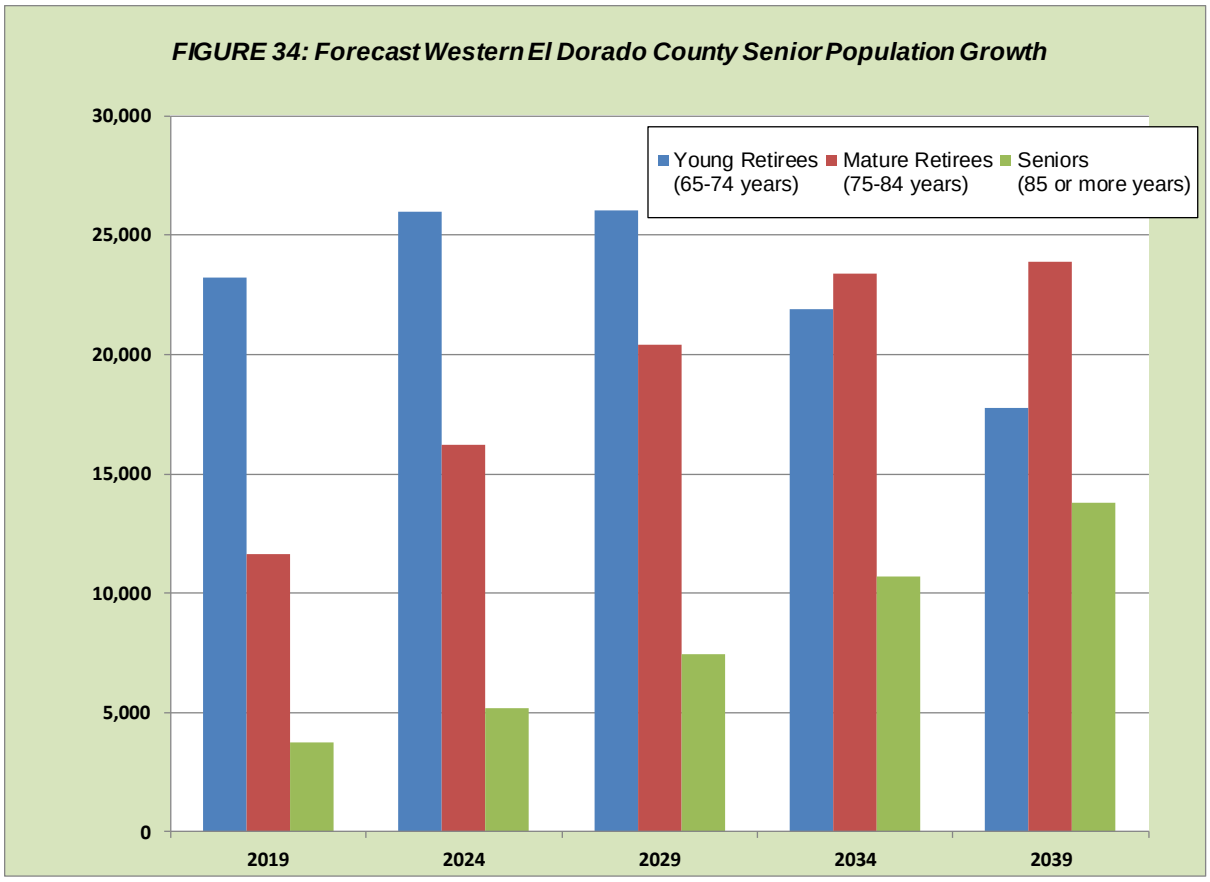
- Autonomous Transit Buses—AV technology could ultimately eliminate the driving element of existing transit drivers. However, transit drivers perform other tasks beyond driving, including collecting fares, providing a security function, as well as the crucial role of assisting passengers into and out of the vehicles and in settling and securing the

TABLE 44: Population Forecasts by Age

Year	Age Group									
	Total (All ages)	Preschool Age (0-4 years)	School Age (5-17 years)	College Age (18-24 years)	Working Age (25-64 years)	Young Retirees (65-74 years)	Mature Retirees (75-84 years)	Seniors (85 or more years)	Subtotal: 65 or More Years	Subtotal: 75 or more years
Population Forecast -- Western County										
2019	150,631	6,494	24,264	15,126	66,192	23,202	11,628	3,724	38,554	15,133
2024	155,775	7,202	22,102	15,249	63,842	25,991	16,233	5,157	47,381	21,423
2029	161,716	7,851	22,471	13,869	63,611	26,062	20,404	7,448	53,914	28,371
2034	168,016	8,461	24,374	12,321	66,899	21,897	23,377	10,687	55,961	35,271
2039	173,506	8,343	26,267	13,289	70,151	17,755	23,893	13,807	55,455	39,551
Growth From 2019										
2024	5,144	708	-2,163	123	-2,350	2,789	4,604	1,433	15,431	5,486
2029	11,084	1,357	-1,793	-1,257	-2,581	2,860	8,775	3,724	24,257	11,776
2034	17,385	1,967	110	-2,805	707	-1,305	11,748	6,963	30,790	18,724
2039	22,875	1,850	2,003	-1,837	3,959	-5,447	12,265	10,083	32,837	25,624
Percent Growth From 2019										
2024	3%	11%	-9%	1%	-4%	12%	40%	38%	40%	36%
2029	7%	21%	-7%	-8%	-4%	12%	75%	100%	63%	78%
2034	12%	30%	0%	-19%	1%	-6%	101%	187%	80%	124%
2039	15%	28%	8%	-12%	6%	-23%	105%	271%	85%	169%
Percent of Total Population										
2019	100%	4%	16%	10%	44%	15%	8%	2%	26%	10%
2024	100%	5%	14%	10%	41%	17%	10%	3%	30%	14%
2029	100%	5%	14%	9%	39%	16%	13%	5%	33%	18%
2034	100%	5%	15%	7%	40%	13%	14%	6%	33%	21%
2039	100%	5%	15%	8%	40%	10%	14%	8%	32%	23%

Source: California Department of Finance Demographic Research Unit, Report P-1 (Age), January 2013.

Adjusted to reflect western county only, based on 2010 Census characteristics of Tahoe Basin population.



passengers. Many passengers (particularly those more sensitive to security concerns) may well refuse to use a bus without the presence of a driver. There could be the potential to have a lower paid attendant on the vehicles to assist passengers rather than a higher paid driver, yielding some cost savings. However, in an urban system with a paid fare and many passengers needing assistance, fully unstaffed vehicles would not be appropriate.

- Future Development—As the region continues to evolve, commercial retail, civic and residential development will change the demand for local services. While actual development will depend on market forces and future landowner decisions, a review of currently available plans and discussions with Placer County Community Development staff indicates the following significant plans that could impact the local route system:

    - *Diamond Springs Area*—Three major developments are currently planned along the Diamond Springs route; El Dorado Senior Housing (147 dwelling units), Dorado Oaks (156 single family dwellings and 218 multifamily dwelling units) and Diamond Springs Village (80 dwelling units). These will not impact the route alignment as these developments are already located along the existing route. However, they can be expected to generate a modest increase in ridership, which this route has the capacity to accommodate.

- *El Dorado Hills Area*—The major residential developments along this route include Town Center West (200 dwelling units) and EDH 52 (146 hotel rooms). There are also two commercial developments, Montano and Saratoga. These developments are not expected to change demand sufficient to warrant a fixed route in El Dorado Hills.

- *Cameron Park Area*—There are two developments proposed along this route, Tilden Park (80 hotel rooms) and Cameron Ranch (41 single family dwellings). These developments are already located along the route and are not anticipated to increase ridership volume. In addition, there are other planned developments that are not located near an existing route. This includes The Vineyards (42 single family dwellings) and the Lime Rock Valley Specific Plan (800 single family dwelling units). Given their land use and configuration, neither of these two developments is expected to generate the need for additional local fixed-route service. The Village of Marble Valley Specific Plan area, however, consists of a total of 3,172 dwelling units centered approximately 1.2 miles southwest of theUS-50/Cambridge Drive interchange. It is envisioned to consist of a village center, two public schools and approximately 700 medium density residential units as well as 500 high-density residential units. This would warrant expansion of fixed-route service.

Commuter Ridership

The SACOG model forecasts of person-trip activity around the Sacramento Region are used to estimate ridership for work trip purposes external to El Dorado County. This analysis is summarized in Table 45, and consisted of the following steps:

- The SACOG SACMET work trip origin/destination tables were summarized, as shown in Chapter 2 of Technical Memorandum One. For purposes of this study, the available figures for 2012 and 2036 were interpolated to estimate values for 2019 and extrapolated to estimate values for 2039. These figures indicate that the level of commuting to downtown Sacramento will increase modestly (284 daily commuters, or 16 percent) over the next 20 years, with most of this growth (153 commuters) coming from El Dorado Hills followed by 78 coming from Cameron Park/Shingle Springs. A much larger growth in commuting is forecasted for work locations in eastern Sacramento County (Folsom to the Arden Arcade area) with 2,003, in the East Sacramento to Rancho Cordova area with 831 and in Placer County with 644.

TABLE 45: El Dorado County Resident Employee Transit Demand on Key Corridors External To El Dorado County

Employment Area	Daily W. El Dorado County Commuters by Work Location (1) 2012	2036	2019	2039	2019-2039	% Change 2019-2039	Transit Mode Share	2019 Daily EDT Commuters	Annual Transit Demand 2019	2039	Change 2019-2039	% Change 2019-2039	2039 2-Way Commuter Trips
Downtown Sacramento	1,652	1,993	1,751	2,036	284	16%	16.5%	289	145,281	168,852	23,571	16%	*336*
Subtotal by Residential Area in El Dorado County													
El Dorado Hills	*570*	*753*	623	776	153	24%	*16.5%*	*94*	*51,700*	64,358	12,658	24%	*128*
Cameron Park/Shingle Springs	*435*	*528*	462	540	77	17%	*16.5%*	*72*	*38,300*	44,761	6,461	17%	*89*
Diamond Springs	*94*	*132*	105	137	32	30%	*16.5%*	*16*	*8,700*	11,343	2,643	30%	*23*
Placerville	*164*	*224*	182	232	50	28%	*16.5%*	*27*	*15,100*	19,203	4,103	27%	*38*
Pollock Pines	*139*	*125*	135	123	-12	-9%	*16.5%*	*23*	*11,200*	10,223	-977	-9%	*20*
North County	*195*	*168*	187	165	-23	-12%	*16.5%*	*32*	*15,500*	13,655	-1,845	-12%	*27*
South County	*55*	*125*	75	134	58	77%	*16.5%*	*9*	*6,300*	11,094	4,794	76%	*22*
Other Sacramento Region Employment Areas													
Placer County	1,041	1,814	1,266	1,911	644	51%	0.5%	--	3,179	4,796	1,617	51%	*10*
Yolo County	142	170	150	174	23	16%	0.5%		377	435	59	16%	*1*
Yuba County	45	57	49	59	10	21%	0.5%		122	147	25	21%	*0*
Sutter County	22	26	23	27	3	14%	0.5%		58	67	8	14%	*0*
Natomas/N. Sacramento	1,246	1,566	1,339	1,606	267	20%	0.5%		3,362	4,031	669	20%	*8*
Folsom to Arden Arcade	3,616	6,019	4,317	6,319	2,003	46%	0.5%		10,835	15,862	5,026	46%	*32*
E. Sacramento to Rancho Cordova Area	898	1,895	1,189	2,020	831	70%	0.5%		2,984	5,069	2,085	70%	*10*
South Sacramento to Elk Grove	1,838	1,836	1,837	1,836	-2	0%	0.5%		4,612	4,608	-4	0%	*9*
Southeast Sacramento County	460	468	462	469	7	1%	0.5%		1,160	1,177	17	1%	*2*
	10,960	15,906	12,403	16,524	4,122	33%							

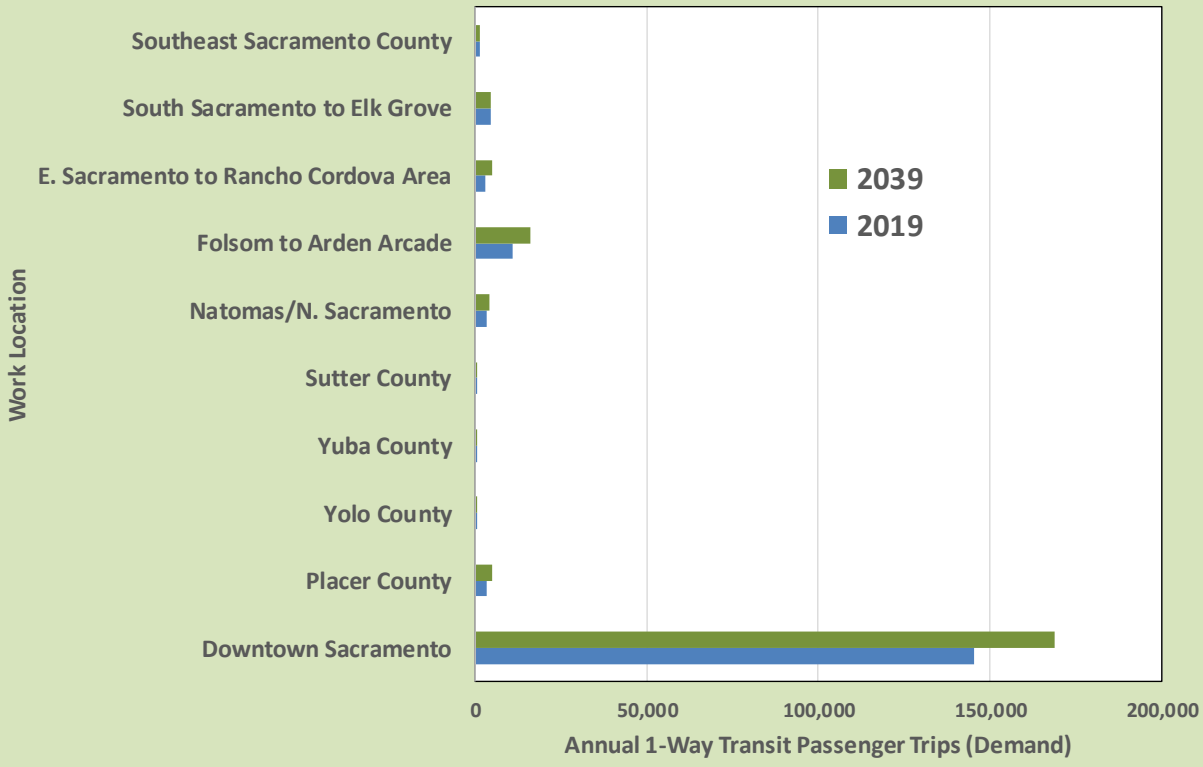
Source: SACOG SACSIM15 Regional Travel Demand Model for 2012 and 2036, interpolated to 2019 and extrapolated to 2039.

- As discussed in Chapter 2, the existing transit travel mode share for downtown Sacramento commuting (driven by employer subsidy programs and paid parking) is 16.5 percent, while that for other areas (reflecting free and abundant parking and the lack of subsidy programs) is 0.5 percent.

- As discussed above, there are a variety of factors that could impact the mode split figures over the coming twenty years. In addition, future changes in fares (or employer support of employee fare costs) could impact demand. For purposes of this analysis, no changes in mode split are assumed.

Multiplying the total daily commuters by the mode splits and multiplying by the days per year of service results in the annual demand for transit service as measured in one-way passenger trips, which are shown in the right portion of Table 45, for both 2019 and 2039. Figure 35 shows the annual demand by work location. This analysis indicates the following:

FIGURE 35: Annual El Dorado County Resident Commuter Transit Demand by Work Location



- Most of the overall growth in the demand for commuter service will be to/from Downtown Sacramento, totaling 63 percent of the total growth. This is equivalent to a 16 percent increase in demand. In rough terms, this indicates a need for the existing 11-run schedule to expand to 13 runs per day in each direction.

- The residence location of Sacramento Commuter demand will not change significantly. While residents from El Dorado Hills generate 36 percent of demand today, this figure will increase slightly to 38 percent in 2039.

- The percentage of growth in demand for commuting transit service to other destinations (notably Placer County and the east Sacramento area) is high. However, the overall demand remains at modest levels. On a daily basis, commuter bus service to these two areas would serve 10 commuters (20 one-way passenger trips) per day, which is not sufficient to warrant establishing new commuter routes.

- The highest demand outside of downtown Sacramento is for commuters to/from the eastern portion of Sacramento County, stretching from Folsom to the Arden/Arcade area, with 32 commuters per day by 2039. This may warrant modifications to the Sacramento Commuter service, such as some runs that stop at Iron Point light rail station or other locations to provide transfer opportunities to RT services and/or extension of RT bus service to a County Line Transit Center that provide connections.

In addition, commuter ridership will be impacted by planned High Occupancy Vehicle (HOV) lane expansion on the US-50 corridor. Specifically, the attractiveness of transit use along the US-50 corridor (particularly for Commuter Service) is impacted by the relative travel times between the unrestricted single-occupant travel lanes and the high-occupancy lanes used by the EDT buses. Just as ridership on the Commuter Service has benefited from the US-50 travel lanes east of Watt Avenue in recent years, the planned extension of the HOV lanes into downtown Sacramento (currently planned for completion by 2024) will encourage additional commuters to shift to the transit program. In addition, extension eastward from the current end of HOV lanes at Cameron Park Drive could also benefit transit ridership (though this would only benefit ridership boarding east of Cameron Park). A 10-percent increase in ridership starting in 2024 is included in the forecasts to reflect this factor.

Dial-A-Ride and Social Service Ridership

Ridership on the Dial-A-Ride , ADA service and social service transit services are forecasted to increase with overall population growth, as well as the increasing proportion of seniors (as discussed in detail above). As seniors make up a higher proportion of overall ridership, the aging of the overall population has a higher impact on future demand.

Summary of Ridership Forecasts

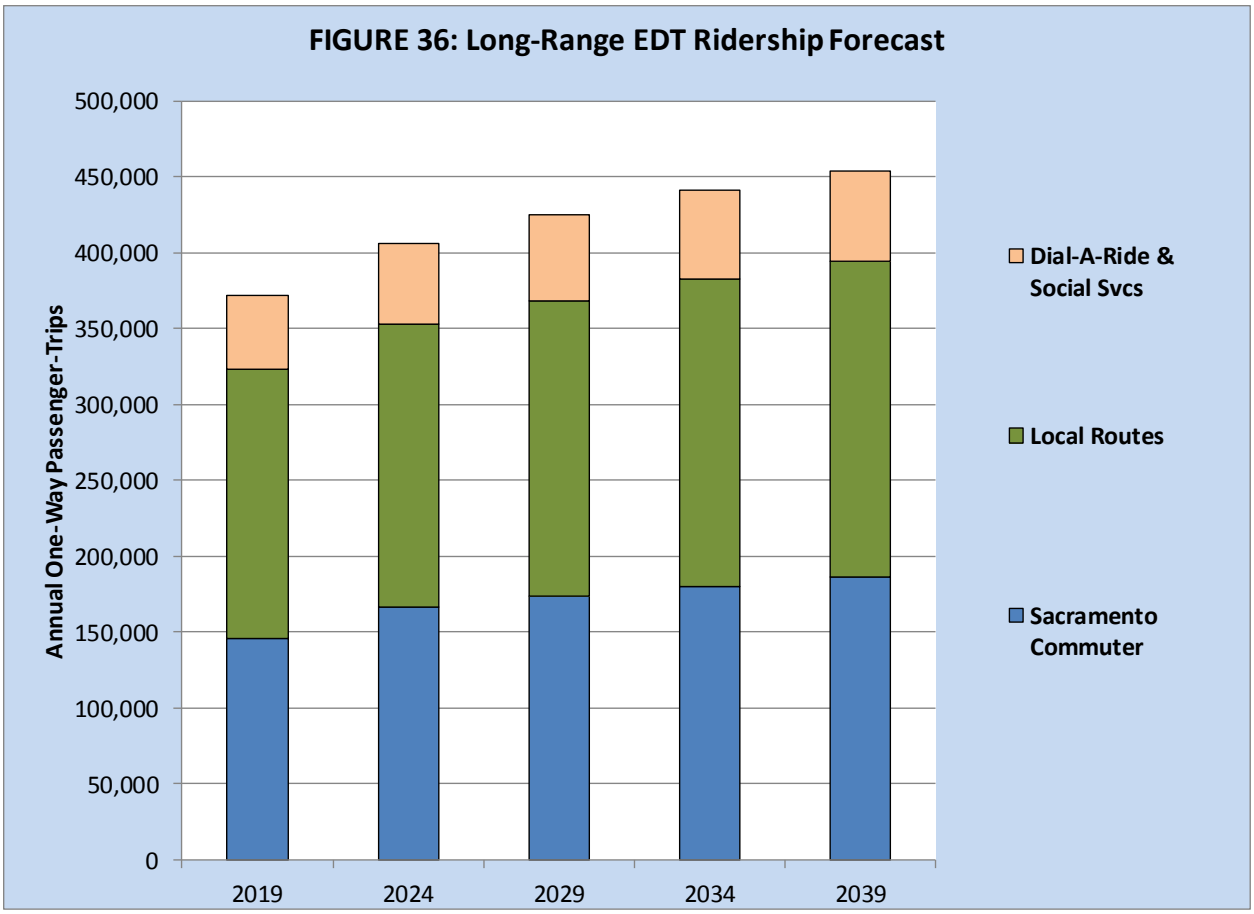
As shown in Table 46 and depicted in Figure 36, overall system ridership is forecasted to increase by 22 percent between 2019 and 2039 (82,300 annual passenger trips). Much of this growth is expected to occur in the next 10 years: ridership is forecasted to grow by 14 percent by 2029, or a total of 52,800 additional annual passenger trips. By service, the largest numeric

TABLE 46: Analysis of Long-Range El Dorado Transit Ridership

	Sacramento Commuter	Local Fixed Route (1)	Dial-A-Ride & Social Service (2)	Total EDT
Demand Parameter	*El Dorado -- Downtown Commute Demand*	*Population Factored for Growth in Seniors*	*Population Factored for Growth in Seniors*	
Demand Parameter Value				
2019	145,900	150,631	150,631	
2024	151,800	158,122	163,110	
2029	157,700	165,629	173,946	
2034	163,600	172,066	180,671	
2039	169,400	176,959	184,295	
Annual Ridership				
2019	145,900	177,400	48,700	372,000
2024	167,000	186,200	52,700	405,900
2029	173,500	195,100	56,200	424,800
2034	180,000	202,600	58,400	441,000
2039	186,300	208,400	59,600	454,300
Change In Ridership Over 2019				
2024	21,100	8,800	4,000	33,900
2029	27,600	17,700	7,500	52,800
2034	34,100	25,200	9,700	69,000
2039	40,400	31,000	10,900	82,300
Percent Change in Ridership Over 2019				
2024	14%	5%	8%	9%
2029	19%	10%	15%	14%
2034	23%	14%	20%	19%
2039	28%	17%	22%	22%

Note 1: Including US 50 and Seasonal Fixed Route Service.

Note 2: Including Sac-Med.



growth between 2019 and 2039 (40,400 annual passenger trips, or 49 percent of the total growth) is forecasted to occur on the commuter service, followed by 31,000 additional annual passengers on the local fixed-route service. On a percentage basis, the commuter service will grow by 28 percent, the DAR/Social Service programs will grow by 22 percent and local fixed-route service will grow by 17 percent.

Service Level and Financial Forecasts

The long-range ridership forecasts along with information regarding existing available capacity and the results of the alternatives analysis presented in Chapter 4 were used to forecast the service quantities and financial conditions over the long-range planning period. As is typical for long-range forecasts, this analysis does not consider the impacts of inflation (either on transit costs or on passenger revenues), but rather is conducted in current dollars. This provides a clearer indication of overall future financial conditions not clouded by assumptions regarding future inflation rates.

First, the annual vehicle service hour levels that would be required were forecasted, as shown in the top of Table 47. This reflects the following:

TABLE 47: Analysis of Long-Range EDT Service Requirements

Excluding Impacts of Inflation

	Service					Growth	
	Sacramento Commuter	Local Fixed Route (1)	Dial-A-Ride & Social Service (2)	**Fixed Cost**	**Total**	#	%
Vehicle-Hours							
2019	8,940	29,240	16,870		55,050	--	--
2024	8,940	29,110	18,270		56,320	1,270	2%
2029	9,790	32,260	19,780		61,830	6,780	12%
2034	10,640	32,260	21,420		64,320	9,270	17%
2039	10,640	32,260	23,190		66,090	11,040	20%
Total Operating Cost							
2019	$ 1,227,300	$ 3,415,700	$ 2,001,600	$ 2,748,400	$ 9,393,000	--	--
2024	$ 1,227,300	$ 3,400,500	$ 2,167,700	$ 2,748,400	$ 9,543,900	$ 150,900	2%
2029	$ 1,344,000	$ 3,768,500	$ 2,346,900	$ 2,748,400	$ 10,207,800	$ 814,800	9%
2034	$ 1,460,700	$ 3,768,500	$ 2,541,500	$ 2,748,400	$ 10,519,100	$ 1,126,100	12%
2039	$ 1,460,700	$ 3,768,500	$ 2,751,500	$ 2,748,400	$ 10,729,100	$ 1,336,100	14%
Farebox Revenues							
2019	$ 793,000	$ 234,700	$ 536,500		$ 1,564,200	--	--
2024	$ 907,700	$ 246,300	$ 580,600		$ 1,734,600	$ 170,400	11%
2029	$ 943,000	$ 258,100	$ 619,100		$ 1,820,200	$ 256,000	16%
2034	$ 978,300	$ 268,000	$ 643,400		$ 1,889,700	$ 325,500	21%
2039	$ 1,012,600	$ 275,700	$ 656,600		$ 1,944,900	$ 380,700	24%
Subsidy Required							
2019	$ 434,300	$ 3,181,000	$ 1,465,100	$ 2,748,400	$ 7,828,800	--	--
2024	$ 319,600	$ 3,154,200	$ 1,587,100	$ 2,748,400	$ 7,809,300	-$ 19,500	0%
2029	$ 401,000	$ 3,510,400	$ 1,727,800	$ 2,748,400	$ 8,387,600	$ 558,800	7%
2034	$ 482,400	$ 3,500,500	$ 1,898,100	$ 2,748,400	$ 8,629,400	$ 800,600	10%
2039	$ 448,100	$ 3,492,800	$ 2,094,900	$ 2,748,400	$ 8,784,200	$ 955,400	12%
Vehicles Required *(3)*							
2019	16	13	17		46	--	--
2024	16	13	19		48	2	4%
2029	17	14	20		51	5	11%
2034	18	14	21		53	7	15%
2039	18	14	21		53	7	15%

Note 1: Including US 50 and Seasonal Fixed Route Service

Note 2: Including Sac-Med

Note 3: Includes spares.

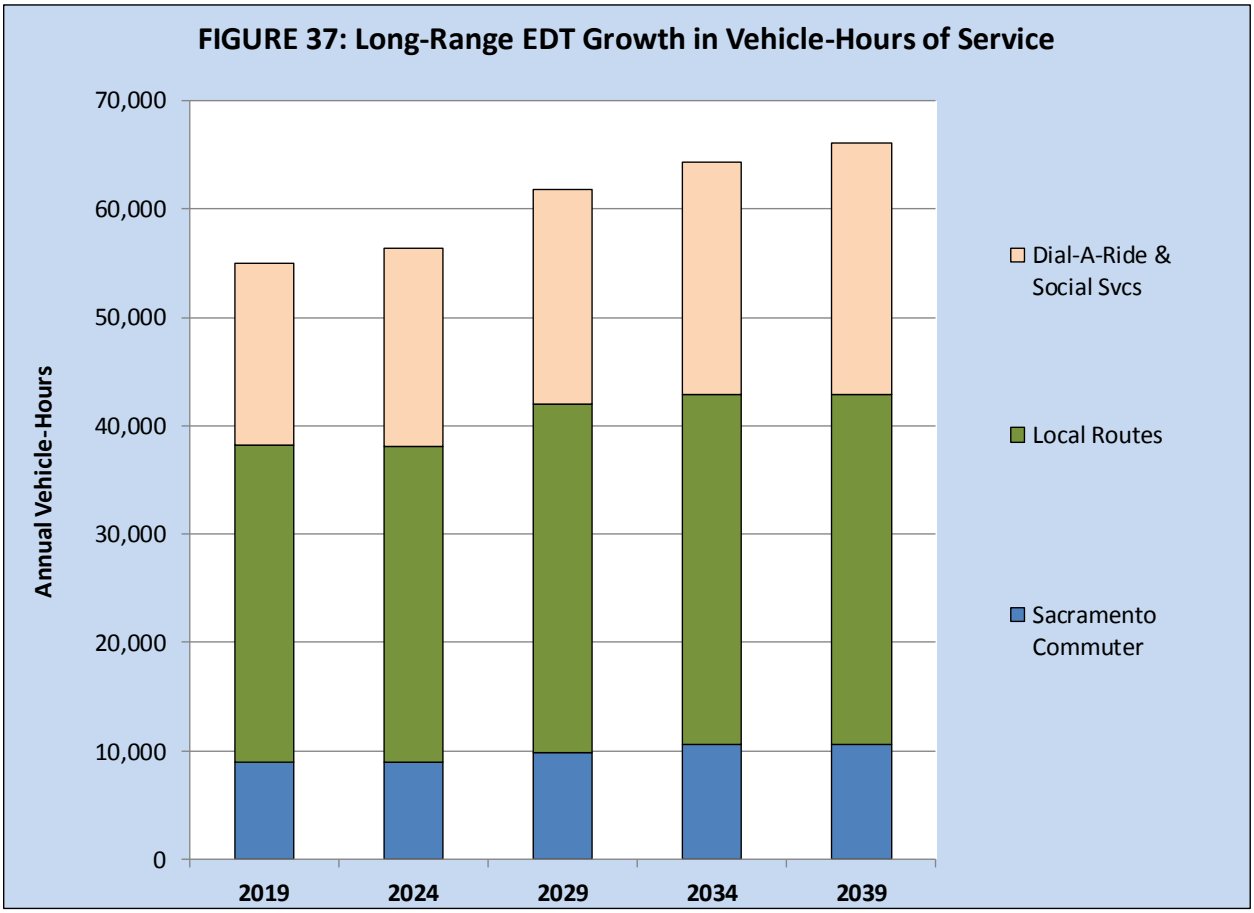
- For Dial-A-Ride service and Social Service programs, any significant change in passenger demand will generate a proportionate change in vehicle-hours of service, given the very limited available capacity.

- As discussed in Chapter 2, above, there is some existing capacity in the commuter service's 11 existing daily round-trips that can be used in the short-term to accommodate growth in demand. By 2029, however, demand is forecasted to grow to the point where one additional round-trip will be required, followed by a second additional round-trip by 2034.

- Regarding the local fixed routes, growth in the Cameron Park/Shingle Springs area will ultimately warrant serving this area with two routes rather than the existing one route. In addition, the extension of Route 50 and revisions to Routes 20 and 60 (as discussed in Chapter 2) is assumed to be implemented by 2024, thus reducing vehicle-hours.

In sum, EDT's annual vehicle-hours of service are forecasted to grow by 20 percent over the next 20 years. Most of this growth in service occurs after 2024. This is also shown graphically in Figure 37.

FIGURE 37: Long-Range EDT Growth in Vehicle-Hours of Service



Operating costs associated with each service were then estimated by factoring the existing operating cost by the growth in vehicle-hours identified for each service. Overall annual operating costs are forecasted to increase by $1,336,100 between 2019 and 2039 (exclusive of inflation), or a 20 percent increase over current levels. Of this total, the largest proportions are the $750,000 associated with expanded DAR and Social Service programs. By 2039, EDT's operating costs will be on the order of $10,729,100 per year.

The farebox revenues generated by each service can be estimated from the ridership forecasts, and assuming that the average fare revenue per one-way passenger trip (exclusive of inflation) remains constant. Overall, fare revenues are forecasted to increase by $380,700 per year, equivalent to a 24 percent increase over 2019 levels.

Subtracting the farebox revenue figures from the operating cost estimates yields the forecasts of operating subsidy requirements. Total annual subsidy is forecasted to increase by $955,400 over the long-range plan period, or 12 percent over current levels. DAR and Social Service program improvements along with local fixed-route improvements are expected to require the bulk of this additional subsidy, with subsidy for commuter services increasing only slightly.

Fleet Requirements

Finally, the annual vehicle service-hour forecasts can be used to estimate the EDT fleet requirements over the coming 22 years. These figures, as shown in the bottom portion of Table 47, include spares. As indicated, the total fleet required to operate all EDT services is forecasted to increase from 46 to 53, which is a 15 percent increase in fleet size. By 2039, four additional DAR/Social Service program vehicles will be needed, along with three additional commuter buses and one additional fixed-route bus. As demand on the Local Routes grows over the long term, moreover, the size of some of the replacement buses will need to increase from the current 26 passenger capacity.

Summary

In sum, there are factors such as population changes that can be expected to change demand for transit services in reasonably foreseeable ways. Other factors—notably the impact of autonomous vehicles and fuel costs—remains very uncertain over a long-range planning horizon. Overall ridership under this long-range plan is forecasted to increase by 22 percent, while the vehicle-hours of service will increase by 20 percent and the subsidy will increase by 12 percent. As ridership growth exceeds service or subsidy growth, the overall system efficiency will improve over the next twenty years.

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Chapter 6
Capital Alternatives

INTRODUCTION

The provision of public transit services requires a substantial investment in vehicles, facilities and equipment. This chapter presents the ongoing needs of the transit program as well as any potential new capital needs related to the service alternatives. In particular, this chapter discusses the vehicle replacement needs, facility needs (maintenance and operations), and passenger amenities needs (transit centers and bus stop improvements), and typical costs for these capital items.

FACILITIES

Bus Stop Improvements

Passenger facilities include all equipment and amenities that serve the passenger as they access the bus. This includes bus stop shelters, benches and signs, information kiosks, pedestrian crossing amenities and transfer centers. The quality of passenger amenities is a very important factor in a passenger's overall perception of a transit service. Depending on the trip, a passenger can spend a substantial proportion of their total time using the transit service waiting at their boarding location. If this is an uncomfortable experience, if it is perceived to be unsafe, or if it does not provide adequate protection from rain and inclement weather, the bus stop can be the deciding factor regarding a potential passenger's use of the transit system.

Criteria that should be considered in siting new bus shelters are as follows:

- Passenger activity—Shelters are typically considered to be warranted when 10 or more passengers board over the course of an average day. If passengers at a particular stop tend to be more sensitive to environmental conditions (such as a stop at a Senior Center or social service provider), a lower number is appropriate.

- The presence of existing shelter—A stop immediately adjacent to a commercial building with adequate roof overhang to provide protection from rain, for example, may not need an additional shelter.

- Spacing along the route—A long route segment of stops that individually do not warrant shelters could benefit from provision of a shelter, particularly if it is needed to provide at least one shelter for a defined residential or commercial activity area.

Transit systems serving small-to -mid-sized cities typically strive to provide seating (such as a bench) for stops that average 5 or more boardings per day and shelter for stops that average 10 or more boardings per day. Using the above criteria, an analysis of existing stops and their average daily ridership was performed with recommendations for potential bench and shelter locations as summarized in Table 48. As shown, only one shelter and one bench are being recommended.

TABLE 48: Recommended Bus Stop Improvements

Stop	Recommendation	Average Daily Boarding
Coach Lane & Rodeo Rd	Shelter	11.2
Upper Room	Bench	8.5

Providing space for a traditional bus bench can be a challenge at constrained locations. A popular option developed over recent years is seating that is part of the bus stop pole, such as the paired seats manufactured by Simme, LLC. These cost on the order of $600 per pair, depending on the need to improve the foundation of the sign pole. Transit systems that have installed this type of seating include Samtrans (San Mateo County), Sunline Transit (Palm Springs) and Rogue Valley Transit (Medford, Oregon).

Improvements to Missouri Flat Transit Center

The Missouri Flat Transfer Center, located along the west side of Missouri Flat Road just south of Forni Road, is the key transfer facility in the local route network. With approximately 134 boardings and alightings occurring daily, the Missouri Flat Transit Center is the most heavily used stop in the entire El Dorado Transit system. With this, the enhancement or expansion of the existing stop into a more designated 'transit center' is recommended. Currently, the stop consists of two 12-foot shelters, two (2) un-sheltered benches, and a 100 foot bus turn out that fits up to two or three buses at one time. There are a number of deficiencies and limitations to this facility:

- The limited bus parking capacity—The current length of the pullout limits the number of buses that can be on-site (providing direct transfers) and also requires drivers to wait for the departure of other buses at times. Optimally, this location could accommodate buses for up to four routes at a time (Diamond Springs, Placerville, 50 Express and Pollock Pines). In addition, space is needed for a fifth bus to allow trading out of vehicles. A total pullout length of approximately 250 feet would accommodate five buses with minimal interference between the individual bus travel paths while still not impacting the adjacent existing intersections.

- Lack of seating—The current shelters provide seating for only approximately 12 passengers, with some seating outside the shelters. Optimally, sheltered seating would

be provided for at least 30 passengers with roughly a comparable amount of seating outside the shelters for the many days when waiting in the sunshine is preferable.

- Lack of lighting—While there are individual solar-powered lights within the two shelters and street lighting at the center, lighting on the pedestrian paths to nearby businesses would also be beneficial.

Finally, the minimal landscaping and limited attractiveness of the facility does not provide a particularly positive image of the transit system to the community. In addition, the sprinkler system needs adjusting, and additional litter removal is needed.

There are two general options for provision of an enhanced transit center. One would be the provision of a new transit center on a separate property. As shown by the existing Placerville Station, a transit center off of the public right of way provides the opportunity for expanded bus capacity and amenities along with a more pleasant passenger experience. This would require purchase of property, construction of a building and access roadways and possible construction of a signal to provide access. This approach would incur a development and construction cost of several million dollars, along with ongoing increased maintenance costs. The other approach would be expansion of the existing site along Missouri Flat Road. There is adequate physical space in this location to accommodate the improvements listed above (though easements may be needed from adjacent parcels). Given the overall needs at this facility and the dramatically lower costs of improvements, this approach of improvements at the existing site is preferable.

Bass Lake Hills Park and Ride

Complete a 200-space facility with development responsible for complete right-of-way acquisition and construction of the first 100 spaces. The second 100 spaces would be funded by El Dorado Transit through future grant funds. The Bass Lake Hills Public Facility Financing Plan states that a site has been designated on the east side of Bass Lake Road adjacent to the historic Clarksville Toll Road. This facility, if developed as part of the Bass Lake Specific Plan, is intended to also serve as a parking area for the east-west pedestrian trail.

County Line Multimodal Transit Center

El Dorado Transit has outgrown the current passenger facilities in El Dorado Hills. The demand for parking has exceeded the capacity of the long-established lot on the northeast corner of Latrobe Road and White Rock Road. While a second lot (at Mercedes Lane/Vine Street) provides a short-term ability to accommodate more parking, this facility is leased and long-term use is not assured. In addition, serving two facilities increases the operating costs to EDT, and the lack of passenger amenities is a limitation on the attractiveness of the overall transit program.

The *County Line Multi-Modal Transit Center Study* was recently completed, which identified a desired facility program including a single, larger parking facility, electric vehicle charging stations, a passenger facility as well as improved accommodation of transit buses, transportation network company activity, bicyclists and pedestrians. Analysis of six potential sites yielded a recommendation to focus further study on two sites: Site 3 which is west of Latrobe Road, just south of the intersection of White Rock Road and Latrobe Road, Site 5 which is off of White Rock Road east of Latrobe Road, near the intersection of White Rock Road/Clarksville Crossing/Joerger Cutoff.

EDT staff is currently involved in the real estate acquisition process, working with land owners to define the best overall acquisition and development process. Additional detailed planning, engineering and environmental review work will need to be conducted over the next few years, along with the identification of sufficient funding.

Cambridge Road Park and Ride

The bus bay at the Cambridge Road Park-and-Ride is currently 60 feet in length (excluding the transitions on either end), which is not sufficient for two buses to use the stop at the same time without impinging on the travel lane or requiring the bus in the rear to wait until the bus in front departs. The useful length of this bay could be extended slightly by extending it south to the driveway into the park-and-ride lot, allowing arriving buses to transition into the bus bay while crossing the entrance to the driveway. While this could result in a bus parking close to the exit lane from the parking lot, the fact that exiting vehicles must turn right (due to the raised center median) avoids the issue of the bus blocking driver sight lines for oncoming vehicles from the north. This would extend the usable curb length to approximately 80 feet, thus allowing a larger bus and a smaller (Route 40) bus to share the loading zone, thereby making a useful interim step.

In the longer term, the 2017 *El Dorado Transit Park-and-Ride Master Plan* identifies the need for a new 80-space park-and-ride facility with better bus capacity. The existing facility would be designated for vanpool/carpool parking. The *Master Plan* identifies a total construction cost of $2.725 million, with construction beginning by 2021/22.

Cameron Park Park-and-Ride

A new 100-space park-and-ride has been identified for the Cameron Park Road interchange area in the *El Dorado Transit Park-and-Ride Master Plan*. This will be developed in coordination with interchange improvements and is scheduled in the plan for construction by 2023/24 with a total construction cost of $3.65 million.

Bicycle/Pedestrian Facilities

At one end of their trip or the other, virtually all transit passengers also travel on foot or by bicycle as part of their trip. A key element of a successful transit system, therefore, is a

convenient system of sidewalks and bikeways serving the transit stops. Additionally, by promoting non-motorized forms of transportation, EDT can help to reduce greenhouse gas emissions and other air pollutants. EDT should continue to work with the planning and public works departments of El Dorado County and the other jurisdictions in the region to review construction plans and schedule priorities for pedestrian and bicycle improvements to best coordinate with transit passenger needs. All existing EDT local route and commuter buses currently have bike racks. Transit related bicycle and pedestrian facilities should be included in the region's Regional Transportation Plan and Active Transportation Plan.

FLEET IMPROVEMENTS

Vehicle Replacement

As shown in Table 49, over the next five years, a total of 22 El Dorado Transit vehicles will warrant replacement: seven 26-passenger cutaways, ten 5-passenger Dodge Caravans and five 37-passenger Bluebird commuter buses.

TABLE 49: EDT 5-Year Fleet Replacement Schedule

Vehicle Number	Year of Manufacture	Type	Seat Capacity	Service Used for	Year of Replacement	Mileage
707	2007	Cutaway	26	Demand Response/Local Routes	2019	426,031
704	2007	Cutaway	26	Demand Response/Local Routes	2019	362,205
703	2007	Cutaway	26	Demand Response/Local Routes	2019	304,065
901	2009	Cutaway	26	Demand Response/Local Routes	2019	260,870
902	2009	Cutaway	26	Demand Response/Local Routes	2019	253,039
903	2009	Cutaway	26	Demand Response/Local Routes	2019	232,694
1302	2013	Dodge Caravan	5	Demand Response	2019	176,464
1101	2011	Dodge Caravan	5	Demand Response	2019	167,643
1301	2013	Dodge Caravan	5	Demand Response	2019	163,586
1303	2013	Dodge Caravan	5	Demand Response	2019	160,806
1013	2010	Dodge Caravan	5	Demand Response	2019	126,755
610	2006	Bluebird bus	37	Commuter	2020	326,018
607	2006	Bluebird bus	37	Commuter	2020	308,044
609	2006	Bluebird bus	37	Commuter	2020	295,748
608	2006	Bluebird bus	37	Commuter	2020	264,291
606	2006	Bluebird bus	37	Commuter	2020	233,806
1201	2012	Cutaway	26	Demand Response/Local Routes	2020	139,853
1304	2013	Dodge Caravan	5	Demand Response	2022	176,291
1501	2015	Dodge Caravan	5	Demand Response	2022	57,816
1502	2015	Dodge Caravan	5	Demand Response	2022	52,543
1504	2015	Dodge Caravan	5	Demand Response	2022	46,093
1503	2015	Dodge Caravan	5	Demand Response	2022	36,822

El Dorado Transit's fleet is currently a mix of diesel and gasoline fueled vehicles. The California Air Resource Board (CARB) has recently implemented new regulations (the "Innovative Clean Transit Regulation") that will ultimately require all public transit fleets in the state to use only Zero Emission Bus (ZEB) vehicles. ZEB technologies consist of Battery Electric Buses (BEBs) and hydrogen fuel cell buses. Of these two options, BEB technology is substantially more feasible for smaller transit agencies. The Innovative Clean Transit Regulation was approved on August 13, 2019 and went into effect October 1, 2019.

The regulation applies to all public transit agencies that own, lease, or operate buses with a gross vehicle weight rating greater than 14,000 lbs. According to the rule, cutaway buses will not be included in the initial implementation requirement as there are currently no ZEB Altoona-tested cutaway vehicles (as required to be eligible for federal funding), and it is unclear when a fully tested zero-emission cutaway will be available. Cutaway vehicles will be subject to the rule beginning January 1, 2026, if Altoona tested vehicles are available. There are also other potentially acceptable reasons to defer ZEB purchase requirements, including (1) infrastructure delays beyond a transit agency's control, (2) available ZEB range (mileage) that is not sufficient to meet daily running mileage needs, (3) available ZEB power is not sufficient for the grades operated by the transit agency and (4) financial hardship.

Specific timing of requirements depends on fleet size, which in turn is based on the number of buses in the active fleet in 2019. A large transit agency is defined as a transit agency that operates either in the South Coast or the San Joaquin Valley Air Basin and operates more than 65 buses in annual maximum service, or a transit agency that has at least 100 buses in annual maximum service in an urbanized area with a population of at least 200,000 as last published by the Bureau of Census before December 31, 2017. A small transit agency is defined as all other transit agencies that do not fit into the "large" category. By this definition, El Dorado Transit is a "small" transit agency.

For small transit agencies, the key requirements are (1) beginning on January 1, 2026 25 percent of all new bus purchases must be ZEB and (2) beginning on January 1, 2029 all transit fleet new bus purchases must be ZEBs. The purchase requirement applies only to the total number of NEW bus purchases in a calendar year, not used buses. Transit agencies may also take part in a "bonus credit" program, if there were ZEB buses in the fleet as of January 1, 2018. Bonus credits can be used to meet the ZEB bus purchase requirement until December 31, 2028 when the 100 percent zero emission bus purchase requirement goes into effect. Bonus credits cannot be used more than once.

Zero emission mobility options are also possible in lieu of meeting the required number of minimum ZEB bus purchases. ZEB mobility options include services using bicycles, scooters or other zero emission vehicles with a GVWR of 14,000 pounds or less. To participate in this option, the transit agency must track zero-emission passenger miles. One credit is equal to 180,000 zero-emission passenger miles per year for small transit agencies.

Transit agencies must submit a "Rollout Plan" to the CARB Executive Officer which outlines how the agency will achieve the goal of full transition to zero-emissions by 2040, types of buses to be purchased, schedule of construction for infrastructure facilities, training plan, funding sources and how ZEBs will be deployed in disadvantaged communities.

There are many substantial issues regarding implementation of these requirements, including the impact on facilities, vehicle costs, operating range, charging options and time-of-day charging strategies.

Battery-Electric Transit Vehicles

Technology and experience for battery-electric transit vehicles are still fairly new. Some larger transit systems and mid-sized system have purchased battery-electric buses, with many more on order. The closest existing BEB fleet to El Dorado County is the 17 buses at the San Joaquin RTD system in Stockton. Recharging BEB's can either occur at the fleet operations facility (generally overnight using a slow charging station) or along the route at stops where at least 10 minutes of time are available (using an overhead fast-charging technology). As an example of cost, Marin County recently purchased two battery-electric vehicles for $1.6 million. The cost includes purchase of the buses, GPS and fare collection equipment purchase and vehicle inspections.

Beyond the issue of cost, a key factor regarding battery electric buses is the potential range between charges. While buses with a range of 120-150 miles have been available for several years, some manufacturers have recently announced new technology that can operate up to 350 miles between charges—much more than EDT's daily mileage per bus. However, these claims do not reflect the requirements to also power onboard heating and cooling systems—an important consideration in western El Dorado County's hot summers.

Defining the appropriate ZEB strategy for EDT will require a detailed study of the operational, facility, capital cost and environmental options. This study should include the following:

- Review existing and planned services and schedules to identify the potential for on-route charging.

- Evaluate the transit centers and bus maintenance facility to identify the physical capacity to accommodate charging equipment and power supply.

- Assess the capacity of the existing electrical grid serving potential charging locations and identifying/costing any necessary upgrades to PG&E facilities.

- Assess impacts on maintenance staff and facilities as well as on-the-road service reliability.

The overall results of this study should be a ZEB implementation plan that minimizes costs, maintains a good quality of service to the passengers and achieves the environmental benefits of ZEB technology as it matures.

This chapter presents a review of potential changes to EDT's fare structure.

FARE ALTERNATIVES

Changes in Base Fares

The existing Local Route Service base fare ($1.50 per boarding) is consistent with the typical rate for other similar transit services in the region, such as Roseville Transit ($1.50), Yuba-Sutter Transit ($1.50) and Placer County Transit ($1.25). In light of the fact that ridership has declined in recent years and that overall EDT financial conditions are good, no change in existing Local Route Service fares are recommended.

A comparison of EDT's Commuter Service fares with that of other downtown Sacramento commuter bus services in the region is shown in Table 50. As indicated, the existing EDT base fare ($5.00 per one-way boarding and $180.00 per monthly pass) is higher than fares on any of the other peer services. In addition, the ridership response to the most recent EDT Commuter Service fare increases indicated a high sensitivity to fare increases. Additional base fare increases are not recommended under current conditions.

TABLE 50: EDT Commuter Route Fare Peer Comparison

	One-Way Fare	Monthly Pass
El Dorado Transit	$5.00	$180.00
Roseville Transit[1]	$3.25	$110.00
PCT Commuter[2]	$4.25	$131.25
Yuba Sutter Transit	$4.50	$135.00
YoloBus Route 45	$3.25	$121.00
Peer Average	**$3.81**	**$124.31**

Note 1: Different fares are charged for Roseville residents (shown) versus non-residents.
Note 2: Fare from Rocklin/Roseville

Consider Lowering the Existing Day Pass Price

At present, the El Dorado Transit local routes (Placerville, Cameron Park, Diamond Springs and Pollock Pines) have a $6.00 day pass available for purchase. At four times the cost of a single boarding ($1.50), it is relatively much more expensive than similar systems in the Sacramento region:

- Placer County Transit—$1.25 base fare, $2.50 24-Hour Pass (2.0 times base fare)
- Yuba Sutter Transit—$1.50 base fare, $3.00 daily Connect Card daily cap (2.0 times base fare)
- E-Tran (Elk Grove) —$2.25 base fare, $6.00 Daily Pass (2.7 times base fare)
- Yolobus—$2.25 base fare (non-express), $7.00 Daily Pass (3.1 times base fare)

One option would be to drop the cost of an EDT local route day pass to $3.50 for general public and $1.75 for seniors, persons with disabilities and K-12 students. Considering existing ridership and fare revenues, the proportion of local route passengers that transfer and the proportion that make round-trips (and thus would find the reduced day pass to be attractive), an elasticity analysis indicates that this option would increase total local fixed-route ridership by an estimated 5,900 boardings per year (a 5 percent increase). Reflecting both the reduction in fare per boarding and the increase in boardings, overall fare revenues would be reduced by roughly $25,000. Another option would be to decrease the pass price to $4.50 or the equivalent of three one-way trips. Ridership for this alternative would increase by 3,100 boardings per year (2.3 percent increase) while roughly $14,360 in fare revenues would be lost.

Another strategy would be to offer this reduced day pass only for Connect Card users. This would have the effect of encouraging the shift to Connect Card use. Ridership and revenue impacts would be lower than the figures cited above, but would depend on the success of this shift.

Consider Lowering the Monthly Pass Price to $50

The local route monthly pass rate is $60.00. This represents roughly a 10 percent discount for passengers who use El Dorado Transit frequently enough to get to work every day. El Dorado Transit's monthly pass rate is similar to Roseville Transit's 30 day pass ($58.00) but more expensive than Placer County Transit's 30 day pass ($37.50) and Yuba Sutter's 30 day pass ($30.00). Yuba Sutter requires that passengers purchase the 30 day pass using Connect Card.

One option to make public transit more attractive to frequent riders is lower the monthly pass rate to $50.00 or a 15 percent discount for frequent riders. An additional 5,400 one-way trips could be expected with a loss of $6,600 in fare revenue.

Chapter 8
Short-Range Transit Plan

This chapter presents the short-range plan for the period from Fiscal Year 2019 – 20 through 2023 – 24. Much of the background information and analysis regarding the various plan elements is presented in previous chapters; the reader is encouraged to refer to previous chapters for additional details. Plan elements are displayed graphically in Figure 38. Tables 51 – 53 identify estimates for operating costs, ridership and fare revenue impacts of each service plan element.

LOCAL FIXED ROUTE PLAN ELEMENTS

The local fixed route network provides scheduled services within El Dorado County. Note that Route 50X is considered part of the local fixed route network, for purposes of this discussion.

Extend Route 50X and Revise Routes 20 & 60

In order to expand on the success of the 50X route, improve transfer opportunities and increase efficiency on the Placerville Route, Route 50X will be extended eastward to the Placerville Station and revisions made to Routes 20 and 60 to avoid unnecessary duplication of service and improve transfer opportunities. Schedules for all three routes are presented in Table 54 – 56. Route revisions are currently planned as follows (though future detailed route planning may result in modifications):

- Route 50X—By adding a third bus to the route, service will extend east of Missouri Flat Transfer Center via Placerville Drive and US-50, serving stops at the Placerville DMV (on Cold Springs Road) and in downtown Placerville (Post Office, Old City Hall, Midtown Mall). A new stop will be considered on Pierroz Road, which could serve the apartments on Hidden Springs Circle (as this stop is eliminated from the revised Route 20). The 50X bus will layover at Placerville Station from 20 minutes past the hour to 30 minutes past the hour. The existing schedule west of Missouri Flat Transfer Center will remain unchanged. Westbound departures from Placerville Station will be provided hourly from 6:30 AM to 5:30 PM, and eastbound arrivals in Placerville Station will be provided hourly from 8:20 AM to 6:20 PM.

- Route 20—The Placerville Route will be reduced to one bus serving the Placerville area between Woodridge East Apartments (served by request only) and Woodman Circle on an hourly schedule. M.O.R.E. and Cold Springs Dental will be served as on-demand stops as well as the Hidden Springs Apartments via the new stop at Pierroz Road. Lastly, the revised Route 20 will serve Eskaton Placerville as a request stop. This route will be timed

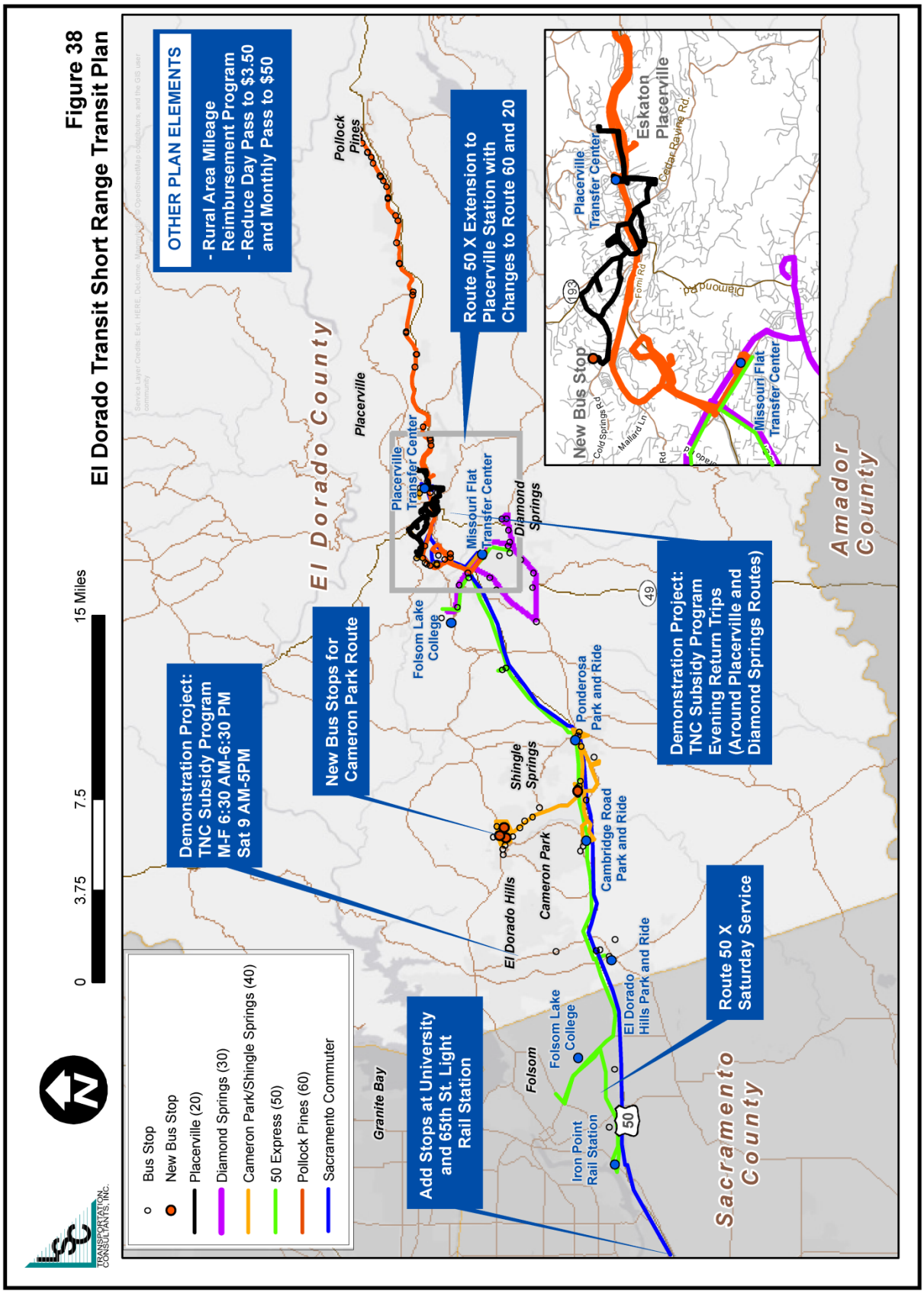
Figure 38
El Dorado Transit Short Range Transit Plan
OTHER PLAN ELEMENTS
- Rural Area Mileage Reimbursement Program
- Reduce Day Pass to $3.50 and Monthly Pass to $50
Demonstration Project: TNC Subsidy Program M-F 6:30 AM-6:30 PM Sat 9 AM-5PM
New Bus Stops for Cameron Park Route
Route 50 X Extension to Placerville Station with Changes to Route 60 and 20
Demonstration Project: TNC Subsidy Program Evening Return Trips (Around Placerville and Diamond Springs Routes)
Add Stops at University and 65th St. Light Rail Station
Route 50 X Saturday Service
Bus Stop
New Bus Stop
Placerville (20)
Diamond Springs (30)
Cameron Park/Shingle Springs (40)
50 Express (50)
Pollock Pines (60)
Sacramento Commuter
0
3.75
7.5
15 Miles
El Dorado County
Sacramento County
Amador County
Placerville
Pollock Pines
Diamond Springs
Shingle Springs
Cameron Park
El Dorado Hills
Folsom
Granite Bay
Placerville Transfer Center
Missouri Flat Transfer Center
Folsom Lake College
Ponderosa Park and Ride
Cambridge Road Park and Ride
El Dorado Hills Park and Ride
Iron Point Rail Station
Eskaton
New Bus Stop
Cold Springs Rd
Mallard Ln
Fomi Rd
Diamond Rd
Cedar Ravine Rd
193
49
50

Table 51: El Dorado Transit Short Range Transit Plan Operating Costs

Plan Element	Fiscal Year 2019-20	2020-21	2021-22	2022-23	2023-24
Base Case Operating Cost	*$9,592,900*	*$9,880,700*	*$10,177,100*	*$10,482,400*	*$10,796,900*
Local Fixed Route Service Plan Elements					
Extend Route 50X, Revise Routes 20 & 60	$0	$0	-$45,600	-$47,000	-$48,400
Route 40 Additional Stops	$0	$0	$2,330	$2,400	$2,480
Eliminate 6 AM Route 30 Run	$0	-$28,530	-$29,390	-$30,270	-$31,180
Make 6 PM Route 30 Run On Request	$0	-$21,840	-$22,490	-$23,170	-$23,860
Saturday 50 X	$0	$0	$0	$57,910	$59,650
El Dorado Hills TNC - Demonstration	$0	$39,750	$26,520	$27,320	$28,140
Evening Service TNC - Demonstration	$0	$0	$85,430	$73,580	$75,780
Subtotal Local Fixed Route	*$0*	*-$10,620*	*$16,800*	*$60,770*	*$62,610*
Commuter Route Service Plan Elements					
Add Stop at University and 65th	$0	$0	$8,280	$8,520	$8,780
Subtotal Commuter Route	*$0*	*$0*	*$8,280*	*$8,520*	*$8,780*
Rural Service Plan Elements					
Mileage Reimbursement Program	$0	$0	$0	$0	$0
Subtotal Rural Services	*$0*	*$0*	*$0*	*$0*	*$0*
Total Plan Elements	**$0**	**-$10,620**	**$25,080**	**$69,290**	**$71,390**
Percent Change	*0.0%*	*-0.1%*	*0.2%*	*0.7%*	*0.7%*
Total Operating Costs	***$9,592,900***	***$9,870,080***	***$10,202,180***	***$10,551,690***	***$10,868,290***

to arrive at Placerville Station at 20 minutes after the hour and departing at 30 minutes after the hour, thereby connecting with Route 50X and Route 60. Lastly, the span of service will be limited to 6:30 AM to 6:20 PM on weekdays.

- Route 60—The Pollock Pines Route will be modified to serve the Health and Human Services stop and Placerville Library stop in both directions. The eastbound route will serve the upper Broadway corridor as currently provided while the westbound route will exit Highway 50 at Schnell School Road, head east on Broadway to the Airport Road and Upper Room stops before returning westbound to Placerville Station. This schedule will result in an eastbound Route 60 bus at Placerville Station at 20 minutes past the hour and a westbound Route 60 bus at 30 minutes past the hour. To maximize efficiency, the last westbound run will be "on request" only.

As shown in Tables 54 through 56 direct transfers are possible between Routes 20, 50X and 60 at Placerville Station at 20 and 30 minutes past the hour. Route 50X and 60 will also serve Missouri Flat Transfer Center at the top of the hour (along with Route 30) to provide direct transfers between these routes. While both Routes 50X and 60 will travel between the two transit centers at the same times (from the top of the hour to 20 minutes after in the eastbound direction and from 30 to 50 minutes after the hour in the westbound direction),

Table 52: El Dorado Transit Short Range Transit Plan Ridership Estimates

Plan Element	Fiscal Year 2019-20	2020-21	2021-22	2022-23	2023-24
Base Case Systemwide Ridership	*372,000*	*378,800*	*385,600*	*392,400*	*399,100*
Local Fixed Route Service Plan Elements					
Extend Route 50X, Revise Routes 20 & 60	0	0	6,700	9,200	10,300
Route 40 Additional Stops	0	0	4,000	5,470	6,110
Eliminate 6 AM Route 30 Run	0	-150	-150	-150	-150
Make 6 PM Route 30 Run On Request	0	-50	-50	-50	-50
Saturday 50 X	0	0	0	1,200	1,650
El Dorado Hills TNC - Demonstration	0	0	3,660	5,020	5,600
Evening Service TNC - Demonstration	0	0	2,530	3,470	3,870
Subtotal Local Fixed Route	0	-200	16,690	24,160	27,330
Commuter Route Service Plan Elements					
Add Stop at University and 65th	0	0	1,070	1,460	1,630
Subtotal Commuter Route	*0*	*0*	*1,070*	*1,460*	*1,630*
Rural Service Plan Elements					
Mileage Reimbursement Program	0	550	550	550	550
Subtotal Rural Services	*0*	*550*	*550*	*550*	*550*
Fare Structure Changes					
Reduce Day Pass to $3.50	0	5,900	6,000	6,000	6,000
Reduce Local Route Monthly Pass to $50	0	5,400	5,400	5,500	5,500
Subtotal Fare Changes	*0*	*11,300*	*11,400*	*11,500*	*11,500*
Total Plan Elements	**0**	**11,650**	**29,710**	**37,670**	**41,010**
Percent Change	*0.0%*	*3.1%*	*7.7%*	*9.6%*	*10.3%*
Total Ridership	*372,000*	*390,450*	*415,310*	*430,070*	*440,110*

Route 50X will serve downtown Placerville (and DMV) and Route 60 will serve the Government Center area.

To provide time to define final schedules and stops, this plan element (along with many others) is planned for implementation in the 2021 – 22 Fiscal Year (starting in July 2021). This plan element will decrease annual operating subsidy by $54,500 in FY 2020 – 21. It typically takes three years for new or expanded services to reach their full potential. As a result of this plan element ridership will increase by 6,700 in FY 2021 – 22 and by 10,200 in FY 2023 – 24.

Serve Additional Stops on Route 40 (Cameron Park)

The following stops should be served along the existing the Cameron Park Route schedule in order to improve access to residential and commercial centers:

Table 53: El Dorado Transit Short Range Transit Plan Annual Fare Revenues

Plan Element	Fiscal Year 2019-20	2020-21	2021-22	2022-23	2023-24
Base Case Systemwide Fare Revenues	$1,564,000	$1,592,600	$1,621,200	$1,649,800	$1,677,900
Local Fixed Route Service Plan Elements					
Extend Route 50X, Revise Routes 20 & 60	$0	$0	$8,900	$12,200	$13,700
Route 40 Additional Stops	$0	$0	$560	$790	$900
Eliminate 6 AM Route 30 Run	$0	-$240	-$240	-$240	-$240
Make 6 PM Route 30 Run On Request	$0	-$80	-$80	-$80	-$80
Saturday 50 X	$0	$0	$0	$1,500	$2,000
Subtotal Local Fixed Route	$0	-$320	$9,140	$14,170	$16,280
Commuter Route Service Plan Elements					
Add Stop at University and 65th	$0	$0	$5,790	$7,930	$8,860
Subtotal Commuter Route	$0	$0	$5,790	$7,930	$8,860
Rural Service Plan Elements					
Mileage Reimbursement Program	--	--	--	--	--
Subtotal Rural Services	$0	$0	$0	$0	$0
Fare Changes					
Reduce Day Pass to $3.50	$0	-$25,340	-$25,450	-$25,570	-$25,680
Reduce Local Route Monthly Pass to $50	$0	-$6,650	-$6,680	-$6,710	-$6,740
Subtotal Fare Changes	$0	-$31,990	-$32,130	-$32,280	-$32,420
Total Plan Elements	**$0**	**-$32,310**	**-$17,200**	**-$10,180**	**-$7,280**
Percent Change	*0.0%*	*-2.0%*	*-1.1%*	*-0.6%*	*-0.4%*

Note: Does not include passenger fares for TNC services.

- Cameron Park Drive south of Green Valley Road (northbound)—This will allow northbound passengers to deboard and walk home or to the Cameron Park Plaza without having to walk back from the first stop in the area at Green Valley Road/La Crescenta Drive (or ride around the northern loop).

- La Canada Drive and La Crescenta Drive—This will serve nearby homes that are a long walk from the existing stop at La Crescenta Drive/Green Valley Road. The best location is probably on the north side of La Canada Drive just west of La Crescenta Drive.

- La Canada Drive and Cimarron Road—This stop will serve nearby homes, including the substantial number of apartments along this section of La Canada Drive that are more than a quarter mile walk from the nearest stop on Cimarron Road.

- Bel Air stop service in both directions and relocation of the Marshall Medical stop—Relocating the Marshall Medical stop from the eastern end of the complex (at Kevin Street) to the turnaround on the driveway at the western end and relocating the Bel Air Shopping Center stop approximately 100 feet to the west would allow the overall route to be shortened by roughly 0.5 miles in each direction, or 1.0 miles on each full round-trip, while still serving these destinations.

Table 54: Example Revised Route 20 Schedule

PM times are shown in **bold typeface**

20 PLACERVILLE												
T Placerville Station	6:30	7:30	8:30	9:30	10:30	11:30	**12:30**	**1:30**	**2:30**	**3:30**	**4:30**	**5:30**
Midtown Mall	R	R	R	R	R	R	**R**	**R**	**R**	**R**	**R**	**R**
Marshall Hospital	6:33	7:33	8:33	9:33	10:33	11:33	**12:33**	**1:33**	**2:33**	**3:33**	**4:33**	**5:33**
Fowler Way	R	R	R	R	R	R	**R**	**R**	**R**	**R**	**R**	**R**
Old Placerville City Hall	6:36	7:36	8:36	9:36	10:36	11:36	**12:36**	**1:36**	**2:36**	**3:36**	**4:36**	**5:36**
Placerville Post Office	6:37	7:37	8:37	9:37	10:37	11:37	**12:37**	**1:37**	**2:37**	**3:37**	**4:37**	**5:37**
Tunnel Street Apartments	6:43	7:43	8:43	9:43	10:43	11:43	**12:43**	**1:43**	**2:43**	**3:43**	**4:43**	**5:43**
Placerville Senior Center	6:44	7:44	8:44	9:44	10:44	11:44	**12:44**	**1:44**	**2:44**	**3:44**	**4:44**	**5:44**
Coloma Court	6:46	7:46	8:46	9:46	10:46	11:46	**12:46**	**1:46**	**2:46**	**3:46**	**4:46**	**5:46**
DMV	6:49	7:49	8:49	9:49	10:49	11:49	**12:49**	**1:49**	**2:49**	**3:49**	**4:49**	**5:49**
Woodbridge East Apartments	R	R	R	R	R	R	**R**	**R**	**R**	**R**	**R**	**R**
Cold Springs Dental	R	R	R	R	R	R	**R**	**R**	**R**	**R**	**R**	**R**
M.O.R.E. Workshop	R	R	R	R	R	R	**R**	**R**	**R**	**R**	**R**	**R**
Home Depot	6:54	7:54	8:54	9:54	10:54	11:54	**12:54**	**1:54**	**2:54**	**3:54**	**4:54**	**5:54**
El Dorado High School	R	R	R	R	R	R	**R**	**R**	**R**	**R**	**R**	**R**
Bee Street & Coloma Street	R	R	R	R	R	R	**R**	**R**	**R**	**R**	**R**	**R**
Tunnel Street Apartments	6:57	7:57	8:57	9:57	10:57	11:57	**12:57**	**1:57**	**2:57**	**3:57**	**4:57**	**5:57**
Placerville Senior Center	6:58	7:58	8:58	9:58	10:58	11:58	**12:58**	**1:58**	**2:58**	**3:58**	**4:58**	**5:58**
Old Placerville City Hall	7:03	8:03	9:03	10:03	11:03	**12:03**	**1:03**	**2:03**	**3:03**	**4:03**	**5:03**	**6:03**
Placerville Post Office	7:04	8:04	9:04	10:04	11:04	**12:04**	**1:04**	**2:04**	**3:04**	**4:04**	**5:04**	**6:04**
Pacific Street & Clark Street	7:05	8:05	9:05	10:05	11:05	**12:05**	**1:05**	**2:05**	**3:05**	**4:05**	**5:05**	**6:05**
Fowler Way	R	R	R	R	R	**R**	**R**	**R**	**R**	**R**	**R**	**R**
Marshall Hospital	7:08	8:08	9:08	10:08	11:08	**12:08**	**1:08**	**2:08**	**3:08**	**4:08**	**5:08**	**6:08**
3177 Turner Street	7:09	8:09	9:09	10:09	11:09	**12:09**	**1:09**	**2:09**	**3:09**	**4:09**	**5:09**	**6:09**
Eskaton Placerville	R	R	R	R	R	**R**	**R**	**R**	**R**	**R**	**R**	**R**
Tractor Supply	7:12	8:12	9:12	10:12	11:12	**12:12**	**1:12**	**2:12**	**3:12**	**4:12**	**5:12**	**6:12**
Woodman Circle	7:14	8:14	9:14	10:14	11:14	**12:14**	**1:14**	**2:14**	**3:14**	**4:14**	**5:14**	**6:14**
Broadway/Schnell School Rd.	7:15	8:15	9:15	10:15	11:15	**12:15**	**1:15**	**2:15**	**3:15**	**4:15**	**5:15**	**6:15**
Broadway/Carson Rd.	7:16	8:16	9:16	10:16	11:16	**12:16**	**1:16**	**2:16**	**3:16**	**4:16**	**5:16**	**6:16**
Clay St. & New Jersey Way	R	R	R	R	R	**R**	**R**	**R**	**R**	**R**	**R**	**R**
Cottonwood Senior Apartments	R	R	R	R	R	**R**	**R**	**R**	**R**	**R**	**R**	**R**
T Placerville Station	7:19	8:19	9:19	10:19	11:19	**12:19**	**1:19**	**2:19**	**3:19**	**4:19**	**5:19**	**6:19**

Table 55: Example Revised Route 50X Schedule

PM times are shown in **bold typeface**

50X - 50 EXPRESS													
T Placerville Station	--	6:30	7:30	8:30	9:30	10:30	**11:30**	**12:30**	**1:30**	**2:30**	**3:30**	**4:30**	**5:30**
Midtown Mall	--	R	R	R	R	R	**R**	**R**	**R**	**R**	**R**	**R**	**R**
Old Placerville City Hall	--	6:34	7:34	8:34	9:34	10:34	11:34	**12:34**	**1:34**	**2:34**	**3:34**	**4:34**	**5:34**
Placerville Post Office	--	6:35	7:35	8:35	9:35	10:35	11:35	**12:35**	**1:35**	**2:35**	**3:35**	**4:35**	**5:35**
DMV	--	6:40	7:40	8:40	9:40	10:40	11:40	**12:40**	**1:40**	**2:40**	**3:40**	**4:40**	**5:40**
Regal Theaters	--	6:43	7:43	8:43	9:43	10:43	11:43	**12:43**	**1:43**	**2:43**	**3:43**	**4:43**	**5:43**
T Missouri Flat Transfer Center	6:00	7:00	8:00	9:00	10:00	11:00	**12:00**	**1:00**	**2:00**	**3:00**	**4:00**	**5:00**	**6:00**
Tribal Health	R	R	R	R	R	R	**R**	**R**	**R**	**R**	**R**	**R**	**R**
Red Hawk Casino	6:10	7:10	8:10	9:10	10:10	11:10	**12:10**	**1:10**	**2:10**	**3:10**	**4:10**	**5:10**	**6:10**
Ponderosa Park and Ride	R	R	R	R	R	R	R	R	R	R	R	**R**	R
Cambridge Park and Ridge	6:20	7:20	8:20	9:20	10:20	11:20	**12:20**	**1:20**	**2:20**	**3:20**	**4:20**	**5:20**	**6:20**
El Dorado Hills Park and Ride	6:31	7:31	8:31	9:31	10:31	11:31	**0:31**	**1:31**	**2:31**	**3:31**	**4:31**	**5:31**	**6:31**
Iron Point Light Rail Station	6:48	7:48	8:48	9:48	10:48	11:48	**0:48**	**1:48**	**2:48**	**3:48**	**4:48**	**5:48**	**6:48**
Iron Point Rd and Prairie City Rd	6:51	7:51	8:51	9:51	10:51	11:51	**0:51**	**1:51**	**2:51**	**3:51**	**4:51**	**5:51**	**R**
Kaiser Folsom	R	R	R	R	R	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**
Broadstone Pkwy and Palladio Pkwy	R	R	R	R	R	R	R	R	R	R	R	**R**	**R**
Folsom Lake College/Folsom	7:03	8:03	9:03	10:03	11:03	**12:03**	**1:03**	**2:03**	**3:03**	**4:03**	**5:03**	**6:03**	**R**
El Dorado Hills Park and Ride	7:14	R	R	R	R	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**
Cambridge Park and Ridge	7:24	8:24	9:24	10:24	11:24	**12:24**	**1:24**	**2:24**	**3:24**	**4:24**	**5:24**	**6:24**	**R**
Ponderosa Park and Ride	R	R	R	R	R	R	R	R	R	R	R	**R**	**R**
Tribal Health	R	R	R	R	R	R	R	R	R	R	R	**R**	**R**
Red Hawk Casino	7:35	8:35	9:35	10:35	11:35	**12:35**	**1:35**	**2:35**	**3:35**	**4:35**	**5:35**	**R**	**R**
Folsom Lake College/EDC	R	--	--	--	--	--	--	--	--	--	--	--	--
T Missouri Flat Transfer Center	8:00	9:00	10:00	11:00	12:00	**1:00**	**2:00**	**3:00**	**4:00**	**5:00**	**6:00**	**R**	--
Big 5 (Placerville Drive)	8:07	9:07	10:07	11:07	12:07	**1:07**	**2:07**	**3:07**	**4:07**	**5:07**	**6:07**	--	--
DMV	8:09	9:09	10:09	11:09	12:09	**1:09**	**2:09**	**3:09**	**4:09**	**5:09**	**6:09**	--	--
Placerville Post Office	8:13	9:13	10:13	11:13	12:13	**1:13**	**2:13**	**3:13**	**4:13**	**5:13**	**6:13**	--	--
Old Placerville City Hall	8:15	9:15	10:15	11:15	12:15	**1:15**	**2:15**	**3:15**	**4:15**	**5:15**	**6:15**	--	--
T Placerville Station	8:19	9:19	10:19	11:19	12:19	**1:19**	**2:19**	**3:19**	**4:19**	**5:19**	**6:19**	--	--

Table 56: Example Revised Route 60 Schedule

PM times are shown in **bold typeface**

60 Pollock Pines Eastbound											
T Missouri Flat Transfer Station	8:00	9:00	10:00	11:00	**12:00**	**1:00**	**2:00**	**3:00**	**4:00**	**5:00**	**6:00**
Forni Road and Lo Hi Way	8:05	9:05	10:05	11:05	**12:05**	**1:05**	**2:05**	**3:05**	**4:05**	**5:05**	**6:05**
Health and Human Services (Briw Rd)	R	R	R	R	**R**	**R**	**R**	**R**	**R**	**R**	**R**
Ray Lawyer Dr Park and Ride	R	R	R	R	**R**	**R**	**R**	**R**	**R**	**R**	**R**
Placerville Library	8:08	9:08	10:08	11:08	**12:08**	**1:08**	**2:08**	**3:08**	**4:08**	**5:08**	**6:08**
Big Lots (Fair Lane)	8:09	9:09	10:09	11:09	**12:09**	**1:09**	**2:09**	**3:09**	**4:09**	**5:09**	**6:09**
Big 5 (Placerville Drive	8:11	9:11	10:11	11:11	**12:11**	**1:11**	**2:11**	**3:11**	**4:11**	**5:11**	**6:11**
M.O.R.E. Workshop	R	R	R	R	**R**	**R**	**R**	**R**	**R**	**R**	**R**
Home Depot	8:12	9:12	10:12	11:12	**12:12**	**1:12**	**2:12**	**3:12**	**4:12**	**5:12**	**6:12**
T Placerville Station	8:19	9:19	10:19	11:19	**12:19**	**1:19**	**2:19**	**3:19**	**4:19**	**5:19**	**6:19**
Tractor Supply	8:22	9:22	10:22	11:22	**12:22**	**1:22**	**2:22**	**3:22**	**4:22**	**5:22**	**6:22**
Broadway and Airport Rd	8:25	9:25	10:25	11:25	**12:25**	**1:25**	**2:25**	**3:25**	**4:25**	**5:25**	**6:25**
Upper Room	8:26	9:26	10:26	11:26	**12:26**	**1:26**	**2:26**	**3:26**	**4:26**	**5:26**	**6:26**
Smith Flat Rd and School Rd	R	R	R	R	**R**	**R**	**R**	**R**	**R**	**R**	**R**
Hwy 50 and Paul Bunyan	R	R	R	R	**R**	**R**	**R**	**R**	**R**	**R**	**R**
Camino Heights PnR	R	R	R	R	**R**	**R**	**R**	**R**	**R**	**R**	**R**
All Existing Eastbound Stops Along Carson Road and Pony Express Trail 4 Minutes Behind Current Schedule											
Safeway Plaza	8:59	9:59	10:59	11:59	**12:59**	**1:59**	**2:59**	**3:59**	**4:59**	**5:59**	**R**

60 Pollock Pines Westbound												
Safeway Plaza	6:59	7:59	8:59	9:59	10:59	**11:59**	**12:59**	**1:59**	**2:59**	**3:59**	**4:59**	**5:59**
All Existing Westbound Stops Along Carson Road and Pony Express Trail On Current Schedule												
Camino Heights PnR	R	R	R	R	R	R	**R**	**R**	**R**	**R**	**R**	**R**
Smith Flat Rd and School Rd	R	R	R	R	R	R	**R**	**R**	**R**	**R**	**R**	**R**
Broadway and Airport Rd	7:22	8:22	9:22	10:22	11:22	**12:22**	**1:22**	**2:22**	**3:22**	**4:22**	**5:22**	**R**
Upper Room	7:23	8:23	9:23	10:23	11:23	**12:23**	**1:23**	**2:23**	**3:23**	**4:23**	**5:23**	**R**
Broadway and Schnell School Rd	7:26	8:26	9:26	10:26	11:26	**12:26**	**1:26**	**2:26**	**3:26**	**4:26**	**5:26**	**R**
Broadway and Carson Road	7:27	8:27	9:27	10:27	11:27	**12:27**	**1:27**	**2:27**	**3:27**	**4:27**	**5:27**	**R**
T Placerville Station	7:28	8:28	9:28	10:28	11:28	**12:28**	**1:28**	**2:28**	**3:28**	**4:28**	**5:28**	**R**
M.O.R.E. Workshop	R	R	R	R	R	**R**	**R**	**R**	**R**	**R**	**R**	**R**
Regal Theaters	7:35	8:35	9:35	10:35	11:35	**12:35**	**1:35**	**2:35**	**3:35**	**4:35**	**5:35**	**R**
Forni Road and Lo Hi Way	7:41	8:41	9:41	10:41	11:41	**12:41**	**1:41**	**2:41**	**3:41**	**4:41**	**5:41**	**R**
Ray Lawyer Dr Park and Ride		R	R	R	R	**R**	**R**	**R**	**R**	**R**	**R**	**R**
Health and Human Services (Briw Rd)	7:42	8:42	9:42	10:42	11:42	**12:42**	**1:42**	**2:42**	**3:42**	**4:42**	**5:42**	**R**
Placerville Library	7:44	8:44	9:44	10:44	11:44	**12:44**	**1:44**	**2:44**	**3:44**	**4:44**	**5:44**	**R**
Big Lots (Fair Lane)	7:45	R	R	R	R	**R**	**R**	**R**	**R**	**R**	**R**	**R**
Folsom Lake College/EDC	R	--	--	--	--	--	--	--	--	--	--	--
T Missouri Flat Transfer Station	7:50	8:50	9:50	10:50	11:50	**12:50**	**1:50**	**2:50**	**3:50**	**4:50**	**5:50**	**6:50**

- Camerado Drive/Virada Drive stop—This should be served on-demand in the southbound direction, as well as the northbound direction, serving this area in the southbound direction while saving 12 minutes of unnecessary travel on the bus.

This plan element is anticipated to cost an additional $2,200 per year in operating costs as well as $3,900 in capital costs to construct new stops. Around 4,000 new passenger-trips would manifest during the first year of implementation with an additional 6,500 new trips by the end of the planning period. This plan element will be implemented in FY 2021 – 22.

Eliminate 6 AM Diamond Springs (Route 30) Run

The 6:00 AM run of Route 30 serves an average of only 0.6 passenger boardings per weekday. Eliminating this run will reduce ridership by an estimated 150 per year (roughly one passenger every other day) but would save $27,700 in annual operating costs. This plan will be implemented in FY 2020 – 21.

Make 6 PM Diamond Springs Run On-Request

To reduce operating costs, the last Route 30 run of the day will be entirely on request for drop-offs, serving any passengers onboard at the beginning of the run and then returning directly to the operations facility. A review of ridership patterns on this run indicates that this will eliminate much of the running time and mileage, reducing operating cost by $21,200 per year while only reducing ridership by 50 passengers per year. Only 1 passenger per week currently boards this run after its departure from the Missouri Flat transfer point. This plan will be implemented in FY 2020 – 21.

Saturday 50 X Service—1 Bus

Although operating transit service along the 50X route on Saturdays will not perform as well as the other plan elements, public and stakeholder input indicated a need to expand Saturday service along the US 50 corridor. This will provide weekend mobility options to residents in the El Dorado Hills and Cameron Park area as well as increase connectivity to regional transit operations and make existing Saturday services more effective. Therefore, this plan recommends beginning Saturday 50X service in FY 2022 – 23.

Under this plan one bus will operate from 9:00 AM to 5:00 PM, providing service every two hours in each direction (a total of four runs per day). This will cost $59,000 per year in operating costs and will add just fewer than 2,000 one-way passenger trips by the end of the planning period.

Demonstration Projects

The following new services are included in this plan as “demonstration projects.” While there is a good potential that these services will fill important mobility needs, there is also uncertainty as to the operational/management requirements and overall effectiveness. The ridership and costs of these services should be monitored monthly and services modified to address any issues. After a minimum of 12 months of service, the effectiveness should be reviewed to determine if the service is on track to meet expectations, and whether the plan element should be modified, eliminated or made a permanent part of the El Dorado Transit service.

TNC Service in El Dorado Hills

El Dorado Hills is a growing community in El Dorado County. However, fixed route service in the community has proven to not be cost effective. As part of a demonstration project (at least one year), El Dorado Transit should partner with one or more TNCs (Transportation Network Companies), to provide a public transit option in El Dorado Hills. Similar to the established Go Dublin program in the Bay Area, El Dorado Transit would pay for half of the TNC fare up to $5.00 per one-way trip. Potential passengers would apply for the program with El Dorado Transit and be provided with a "discount code" for a TNC. Passengers can apply the discount code when they request an eligible TNC ride in El Dorado Hills. The TNC would track the rides taken under the discount code and bill El Dorado Transit for the difference between what the passenger paid and the actual cost of the trip.

It is important to set parameters or guidelines for this type of service to prevent abuse of discounted TNC rides. The following outlines recommended guidelines for the program:

- At least one trip-end must be within the El Dorado Hills CSD service area.
- Passengers needing to travel out of El Dorado Hills could do so, but the maximum trip reimbursement would be $5.00.
- The discount code would only be valid during the days/hours of El Dorado Transit fixed routes:
    - Monday through Friday, 6:30 AM – 6:30 PM
    - Saturdays, 9:00 AM – 5:00 PM
- ADA trips would continue to be provided by EDT DAR.

A typical average Uber fare for trips following these guidelines is $9.00. If El Dorado Transit were to pay for half the fare, the typical subsidy per trip would be $4.50. With an initial budget of $25,000 for one year, roughly 5,500 trips per year could be provided (roughly 18 trips per day). The Go Dublin TNC program in Dublin, California carries over 12,000 trips per year. The main attractor for the Dublin program is transportation to the BART station. Although El Dorado Hills has access to commuter service into Sacramento, it is reasonable that El Dorado Hills would not achieve the same level of ridership as Dublin. Therefore 5,500 trips per year is a reasonable ridership goal, initially. Actual ridership would vary greatly depending on the specific constraints placed on the program, marketing efforts and the funds available to subsidize the program. As this is a new type of service, marketing would be crucial to the success of the project, and therefore an additional $14,000 should be set aside for marketing costs. It will also be important for El Dorado Transit to be flexible with this type of service and make changes to the program guidelines if abuse is noticed or passengers are not using the service. Given that El

Dorado Hills does not currently have local transit service; this program will be implemented in FY 2020 – 21.

Partnering with a TNC does bring some challenges. As Uber and Lyft are private companies, they are sensitive to providing information such as the number of passenger-trips. As a public transit agency, El Dorado Transit must collect and report this type of data. It will be important to include in the partnership agreement a data collection process which is agreeable to both parties. Additionally, using a third party contractor instead of trained public transit drivers, makes it more difficult for EDT to ensure that appropriate and safe service is provided. One final caution regarding contracting with TNCs is the recent passage of Assembly Bill (AB) 5. This new state legislation, reclassifies some "independent contractors" as "employees" who could then receive benefits and protections from labor laws. As TNC drivers are typically considered contractors, the law could increase labor costs for TNCs and result in higher prices to the consumer. Over the long-term this could reduce the cost effectiveness of partnering with a TNC. Regardless of these challenges, partnering with TNCs offers passengers greater flexibility in trip planning and "innovative" ways to ride public transit.

Evening TNC Service for Local Fixed Route Riders

Another recommended TNC demonstration program is to use TNC service to expand the hours of transit service through the early evening. The objective of the program would be to provide a return ride home for passengers using existing EDT services to access employment or school in the Placerville/Diamond Springs area. To do this, passengers who purchase a monthly pass would be provided with a discount code for Uber/Lyft trips in the early evening. As this TNC option is designed to provide a "ride home" for existing passengers, the cost of the TNC trip to the passenger would be the cost of a regular fixed route fare ($1.50 for the general public). However, there would need to be limitations on distances travelled and hours of service:

- TNC evening return trips should be limited to an area within one mile of the Placerville and Diamond Springs routes up to a maximum reimbursement of $10.00. Alternatively, trips could be limited to certain origin points such as Folsom Lake College—El Dorado Campus or major employment centers.

- TNC evening return trips would only be available between 6:00 PM and 10:00 PM Monday through Friday.

After reviewing ridership by hour levels generated from evening fixed route services in similar areas, it is anticipated that roughly 3,800 trips will result annually from this program when it reaches full potential. The average Uber fare between transit activity centers in the Placerville/Diamond Springs area is around $8.00 per trip. This equates to an average subsidy per trip of $6.50 for total annual operating subsidy of $24,700. Lessons learned from other transit agencies who have undertaken TNC partnerships is that marketing is crucial to the

program's success. Therefore and additional $14,000 for marketing will be required during the first year of the program.

An important element to consider as part of this demonstration project is how ADA paratransit service requirements will be met. El Dorado Transit ADA paratransit service ends at 7:00 PM in Placerville and Diamond Springs. Therefore, El Dorado Transit would need to provide comparable service between the hours of 7:00 PM and 10:00 PM Monday through Friday as part of this demonstration project. Ideally, a separate agreement with a taxi company that has ADA accessible vehicles would solve the issue for minimal costs as costs would not be incurred unless an ADA passenger requested a ride. However, El Dorado Transit has made attempts to partner with taxi companies in the past, and there are few to no taxi companies willing to accept such a contract. Therefore, El Dorado Transit will need to have an on-call driver to provide ADA service between 7:00 PM and 10:00 PM. Passengers needing an ADA accessible vehicle must call the prior day to make reservations. If no reservations are made, the driver and vehicle would not be required. However, to be conservative, the annual operating cost of $42,600 for one paratransit van is assumed for an average of two hours each service day. This increases the total operating subsidy to $67,600. This program will be implemented in FY 2021 – 22.

COMMUTER ROUTE PLAN ELEMENTS

Demonstration Project—Add a Stop at University and 65th Sacramento RT Station

In order to provide connections to greater employment centers, college and medical facilities, a stop should be added at the University and 65th RT station on two of the Sacramento Commuter runs. This would provide connections to California Sacramento State University and the UC Davis Medical Center as well as connections to the LRT Gold Line, RT bus Route 26, 38, 65 and 81 as well as the Sacramento State Hornet bus. As part of a demonstration project, the 6 AM, 11 AM, 6 PM and 11 PM commuter runs will deviate 0.4 mile off of US 50 on 65th street to serve the transfer station. It is estimated that an additional 900 passenger-trips would result and save around $900 per year in operating subsidy (after accounting for increased fare revenue).

This plan element will be implemented in FY 2021 – 22. El Dorado Transit will need to monitor ridership at the new stop closely as well as compare ridership on the overall run to previous years. After at least a year of offering the stop at University and 65th, ridership activity should be reviewed and a survey of passengers conducted. If an overall loss in ridership on these runs (considering existing ridership that may shift to other runs) is found and there is a consensus among passengers that the stop results in an overall reduction in the effectiveness of the service, the stop should be eliminated or the service modified. Marketing at Cal State Sacramento, UC Davis Medical Center and other potential employment centers will determine the success of this project.

RURAL SERVICE PLAN ELEMENTS

Mileage Reimbursement Program

A volunteer driver program is a cost effective strategy to meet mobility needs in low density areas. This could work well in areas such as Garden Valley or Georgetown where fixed route transit has proven inefficient. As discussed in previous chapters, there are two types of volunteer driver programs: volunteer driver and mileage reimbursement. The former would require El Dorado Transit to dedicate a substantial amount of staff time recruiting and processing volunteers as well as matching volunteers with passengers. For a mileage reimbursement program, passengers recruit their own volunteers. This significantly reduces administrative staff time. Therefore, the mileage reimbursement program is recommended as part of this plan.

For a mileage reimbursement program, participants must fill out an application to join the program. Eligibility criteria could include:

- Over age 65
- Disabled
- Low-income
- Unable to use fixed route/DAR services or they are not available for this trip

Once enrolled in the program, passengers will find a volunteer and request approval for mileage reimbursement from EDT. Eligible trip purposes include:

- Medical/dental
- Pharmacy
- Grocery store
- Trips must begin and end in El Dorado County with the exception of a few medical facilities in Folsom/Sacramento

EDT will pay the passenger at the rate of $0.58 per mile (the current IRS reimbursement rate), and the passenger will be responsible for paying the driver. Initially, a total of $5,000 in TDA funds could be made available for reimbursements. Assuming an average trip distance of 15 miles, roughly 550 trips could be provided annually. If the program is successful and budget available, additional funds could be set aside for this program in the future. As with all plan elements, marketing the availability of the program will be important. In this case, social service

agencies could do the majority of marketing and outreach for the program. Marketing to the public at large could consist of information on the website and buses.

Coordination with Human Service Agencies

EDT services currently are significantly coordinated with the human service agencies of western El Dorado County. The notable example is the contracted services with MORE and Adult Day Services. An important part of maintaining mobility for residents in rural El Dorado County, particularly as the population ages, is to continue to provide access to social and medical services. As discussed above, it is challenging and not cost efficient for El Dorado Transit to transport every resident to services in Placerville at different times. The mileage reimbursement program will help with this aspect, but continuing to work closely with local social service agencies to group appointments, sessions, etcetera, which would make public transit more cost effective, will become increasingly important over both the short-term and long-term planning period.

CHANGES TO THE FARE STRUCTURE

Analysis presented in previous chapters indicates that El Dorado Transit's base fare for both local and commuter services is similar to that of other agencies. Given this fact, and that additional passenger revenue is not crucial to attaining financial requirements, no increase in the base fare is recommended. However, El Dorado Transit's day pass and monthly pass are higher than some other agencies. The following modifications are recommended to increase ridership and productivity, while maintaining budgetary constraints.

Reduce Day Pass Price to $3.50

The day pass price should be reduced from the current $5.00 to $3.50. Pricing the day pass to roughly 2.3 times a one-trip fare would not only encourage transit use but be beneficial to transit dependent riders on a fixed income. Reducing the EDT local route day pass to $3.50 for general public and $1.75 for seniors, persons with disabilities and K – 12 students would decrease fare revenues by roughly $25,000 per year, but 5,900 passenger-trips could be gained annually.

Lower Monthly Pass Rate to $50

The local route monthly pass rate should be reduced from the current $60 for general public and $30 for elderly/disabled/students to $50/$25. This will bring EDT services in line with typical transit pass rates in the region, which provide approximately a 15 percent discount for frequent riders. An additional 5,400 one-way trips could be expected with a loss of $6,600 in fare revenue annually.

CAPITAL PLAN

The following capital improvements (Table 57) will be required in the short-term planning period:

Table 57 : El Dorado Transit Short Range Capital Plan

Plan Element	Fiscal Year 2019-20	2020-21	2021-22	2022-23	2023-24	5-Year Plan Total
Vehicle Purchases						
Number of Buses -- Replacement						
Van	0	0	5	0	0	
Local Fixed Route Bus	0	6	0	0	0	
Commuter Bus	0	0	0	0	0	
Staff vehicle	0	0	3	0	0	
Total Cost (1)	$0	$2,800,000	$944,200	$0	$0	$3,744,200
Number of Buses -- Expansion						
Paratransit Van					1	
Total Cost (1)	$0	$0	$0	$0	$180,080	$180,080
Bus Stop Improvement Program	$0	$4,200	$300	$8,800	$0	$13,300
Missouri Flat Transit Center Improvements	--	--	--	$310,100	--	$310,100
Cambridge Road Park and Ride Improvements			$200,000			$200,000
Placerville Station Improvements		$200,000				$200,000
Operations and Maintenance Facility Improvements					$40,000	$40,000
Total Capital Plan Elements	**$0**	**$3,004,200**	**$1,144,500**	**$318,900**	**$220,080**	**$4,687,680**

Note 1: All costs include 3 percent annual inflation.

Source: LSC Transportation Consultants, Inc., EDT Capital Improvement Plan

- **Fleet Replacement and Expansion**—Over the next five years, El Dorado Transit will need to replace 6 local fixed route buses, 5 mini-vans and 3 staff vehicles. By the end of the short-term planning period, an additional DAR vehicle will need to be added to the fleet to meet increased demand.

- **Bus Stop Improvements**—Plan elements include three new bus stops along the Cameron Park Route:

    - Cameron Park Drive south of Green Valley Road (northbound)

    - La Canada Drive and La Crescenta Drive

    - La Canada Drive and Cimarron Road

- Bel Air stop service in both directions and relocation of the Marshall Medical stop

- Camerado Drive/Virada Drive stop

Additionally, one new on-demand stop sign at Eskaton in Placerville is recommended as one of the service plan elements. A new stop is recommended on Pierroz Road for a new stop close to the Hidden Springs Apartments as well as one on the Cameron Park route. Passenger boarding by stop data shows that a new shelter is warranted at the stop on Coach Lane & Rodeo Drive (Cameron Park Route) and a bench at the Upper Room in Placerville.

- **Missouri Flat Transit Center Improvements**—In order to accommodate five buses at the primary EDT transfer point, the bus pullout length should be expanded to roughly 250 feet. This will require easements from neighboring property owners.

- **Placerville Station Transit Center Improvements**—The route revisions will result in three buses onsite at peak times at Placerville Station. The existing passenger loading area and adjacent parking areas will need to be reconfigured in order to provide a loading bay for the third bus, thereby potentially reducing driveways accessing the parking area and/or the number of parking spaces.

- **County Line Transit Center**—Efforts are ongoing to establish a multimodal transit center/fueling station in the El Dorado Hills area near the Sacramento County Line. This project is not included in the Capital Plan as a final site, and costs have yet to be determined.

- **Cambridge Road Park and Ride**—In the short-term the bus bay at the Cambridge Road Park and Ride should be extended to 80 feet to accommodate two buses. These improvements may occur over the next five years. Over the long-term, the El Dorado Transit Park-and-Ride Master Plan identifies a new 80-space park-and-ride facility with better bus capacity. A new Park and Ride is not yet funded and therefore not included in this capital plan.

- **Bass Lake Hills Park and Ride** – At a minimum a 100 space Park and Ride will be constructed and funded through new development on the east side of Bass Lake Road adjacent to Clarksville Toll Road. An additional 100 spaces will be funded through El Dorado Transit, if available over the long term.

Battery Electric Bus Readiness and Rollout Study

The California Air Resources Board (CARB) recently revised the Innovative Clean Transit Rule intended to reduce the greenhouse gas emissions of California's transit fleets. Current

regulations require that 25 percent of new bus purchases for small transit agencies (such as El Dorado Transit) be Zero Emission Bus such as Battery Electric Bus (BEB) technology, beginning on January 2, 2026. If BEB technology has not advanced to a point where it is available on smaller "cutaway" buses, which have passed standard bus testing procedures, cutaway vehicles are exempt from the new rule. By 2029, all new bus purchases will be required to be zero emissions technology.

Though BEB technologies are advancing rapidly, there are many factors that need to be evaluated before the right strategy to comply with this rule can be identified, including the following:

- Appropriate charging technologies: slow charge (overnight in the storage yard) versus fast charge (at layover points along the routes)
- Impacts on existing maintenance/storage facilities
- Impacts on transit centers
- Operating range, particularly given the power demands of air conditioning, heating and climbing grades
- Cost implications of charging during peak vs. off-peak periods
- Impact on the regional electricity grid

A BEB Readiness Study and Implementation Plan should analyze the above factors and be conducted by 2022 so that there is sufficient time to apply for grants to make the needed infrastructure changes for new electric buses. This study could cost on the order of $150,000.

Improvements to Operations and Maintenance Facility

Overall the existing Operations and Maintenance facility in Diamond Springs is sufficient for the short-term. However, an electric vehicle fleet will require more space for vehicle parking and recharging. One strategy to address this over the short term is to change the employee parking area into transit vehicle parking. As the adjacent Central Park and Ride lot does not reach capacity, employees would park in this lot.

FINANCIAL PLAN

The service and capital improvements in Tables 51 – 53 and 57 will be fully funded through this financial plan (Table 58). The following methodology was used in developing this plan:

Table 58: El Dorado Transit Financial Plan

	Fiscal Year					5-Year Plan Total
	2019-20	**2020-21**	**2021-22**	**2022-23**	**2023-24**	
OPERATING PLAN						
Operating Costs						
Base Case Costs	$9,592,900	$9,880,700	$10,177,100	$10,482,400	$10,796,900	$50,930,000
Operating Plan Elements (From Table 51)	$0	-$10,620	$25,080	$69,290	$71,390	$155,140
Total Operating Costs	**$9,592,900**	**$9,870,080**	**$10,202,180**	**$10,551,690**	**$10,868,290**	**$51,085,140**
Operating Revenues1						
Passenger Fares (From Table 53)	$1,564,000	$1,560,290	$1,604,000	$1,639,620	$1,670,620	$8,038,530
TDA (LTF)	$5,240,291	$5,397,500	$5,559,420	$5,726,210	$5,897,990	$27,821,410
TDA (STA)	$2,039,334	$2,100,510	$2,163,530	$2,228,440	$2,295,290	$10,827,100
Interest Income	$50,000	$51,500	$53,050	$54,640	$56,280	$265,470
FTA 5311	$509,322	$519,510	$529,900	$540,500	$551,310	$2,650,540
Advertising and Misc. Revenue	$14,400	$14,830	$15,280	$15,740	$16,210	$76,460
LCTOP	$331,772	$341,730	$351,980	$362,540	$373,410	$1,761,430
FTA 5307 (Preventative Maintenance)	$250,000	$255,000	$260,100	$265,300	$270,610	$1,301,010
Total Operating Revenues	**$9,999,120**	**$10,240,870**	**$10,537,260**	**$10,832,990**	**$11,131,720**	**$52,741,950**
Annual Balance: Transfer to Capital Fund	$406,220	$360,170	$360,160	$350,590	$334,820	
CAPITAL PLAN						
Capital Plan Elements (From Table 57)	$0	$3,004,200	$1,144,500	$318,900	$220,080	$4,687,680
Capital Revenues						
Capital Fund	$0	$574,120	$189,060	$68,820	$0	$832,000
FTA (5311,5339,5310, 5307)	$0	$2,180,000	$705,360	$0	$0	$2,885,360
STA (State of Good Repair)	$242,800	$250,080	$250,080	$250,080	$250,080	$1,243,120
Total Capital Fund Revenues	**$242,800**	**$2,430,080**	**$955,440**	**$250,080**	**$250,080**	**$4,128,480**
Capital Fund Balance						
Beginning Balance	$1,461,226	$2,110,246	$1,896,296	$2,067,396	$2,349,166	
Income -- Transfer from Operating Revenu	$406,220	$360,170	$360,160	$350,590	$334,820	
Income -- Net Capital Revenue	$242,800	-$574,120	-$189,060	-$68,820	$30,000	
Outflow	$0	-$574,120	-$189,060	-$68,820	$0	
Ending Balance	$2,110,246	$1,896,296	$2,067,396	$2,349,166	$2,683,986	

- First, forecasts of annual operating and administrative costs were developed, as presented in Table 51 for FY 2019 – 20 through FY 2023 – 24. "Base case" operating and administrative cost forecasts were estimated based on the EDT FY 2019 – 20 adopted budget. A three percent annual inflation rate is applied to estimate base case costs in the absence of any change in service levels. Next, operating and administrative cost/savings impacts were identified for each SRTP element, based upon the analyses presented in previous sections of this document, and consistent with the implementation plan presented below. These costs were also factored to reflect the assumed rate of inflation. Operating and administrative costs by the fifth year of the plan will total approximately $10,868,290, which is 0.7 percent over the base-case cost of $10,796,900.

- Next, ridership for each SRTP element was estimated, as presented in Table 52. The "base case" ridership reflects expected ridership assuming no changes in service. A

conservative rate of ridership increase of 0.4 percent annually is assumed, based on population forecasts. The ridership impact of each plan element (including the fare modifications) is then identified and summed. As new services do not immediately attain the full potential ridership, ridership on new services is factored to reflect two-thirds of potential ridership in the first year of service and 90 percent of potential ridership in the second year. For elements which eliminate service or raise fares, full ridership impact is assumed the first year of implementation. By FY 2023 – 24, ridership is forecast to equal 440,290 one-way passenger-trips per year, which is 41,190 over the base case forecast of 399,100. This indicates that the plan will result in a 10.3 percent increase in ridership by the end of the plan period.

- Based on the ridership figures presented in Table 52, the estimated farebox revenues are presented in Table 53. Again, these figures reflect the impacts of the fare modifications. As presented, the base case (assuming not plan elements implemented) farebox revenues for FY 2023 – 24 are estimated at $1,677,900. Implementation of the SRTP elements will decrease FY 2023 – 24 farebox revenues by $7,080, which is equal to a 0.4 percent decrease.

- The next element necessary in the development of the SRTP is estimation of the capital cost for vehicles, passenger amenities, passenger facility improvements and operating equipment, as shown in Table 58 for each year of the Short-Range Transit Plan period. It should be noted that an annual inflation rate of 3.0 percent is reflected in these figures. Based on the capital plan, which appears above, the capital costs total $4,687,680 over the five-year period.

The results of Tables 51 – 57 were used to develop the Financial Plan, as presented for each of the five years of the Short-Range Transit Plan period in Table 58. In addition to passenger fare revenues, this Financial Plan incorporates the following funding sources:

- Local Transportation Funds (LTF) are the key local source of transit operating funds, currently generating roughly two-thirds of the funds used to operate services. These funds are assumed to increase with inflation (3 percent per year).

- State Transit Assistance (STA) funding is assumed to increase with inflation by 3 percent per year from the current level.

- Federal Transit Administration (FTA) funds are based on current estimates and are assumed to increase by 2 percent per year in subsequent years (similar to historical growth).

- Advertising and other and miscellaneous revenues are assumed to increase with the assumed 3 percent rate of inflation.

The financial plan presented in Table 58 first considers operating costs and revenues. Excess operating funds are then allocated to the Capital Fund. In each fiscal year, total operating funds exceed operating costs by at least $300,000.

As presented in the bottom portion of Table 58 this analysis indicates that positive fund balances can be maintained through the plan period for the Capital Fund, increasing each year to an ending balance in FY 2023 – 24 of $1,542,350. This will leave El Dorado Transit's finances in a good position to provide local match for capital investments subsequent to the five-year short-range transit plan. In particular, these funds will be needed to convert the fleet to zero-emissions vehicles.

SHORT-RANGE IMPLEMENTATION PLAN

FY 2019 – 20

- Plan new stop near Pierroz Rd for Hidden Springs and Woodridge East Apartments
- Plan additional Route 40 stops
- Contact TNCs to discuss potential TNC subsidy programs
- Apply for grant funding for ZEB Bus Rollout Study
- Apply for grant funding to replace local fixed route vehicles
- Coordinate with Sacramento RT to place bus stop sign at University and 65th Light Rail Station
- Prepare plans for Missouri Flat, Placerville Station and Cameron Park transit center improvements

FY 2020 – 21

- Plan new stop near Pierroz Rd for Hidden Springs and Woodridge East Apartments
- Construct additional Route 40 stops
- Route 30—Eliminate 6 AM Run
- Route 30—Make 6 PM Run "On Request"
- Construct Placerville Station transit center improvements

- Reduce Day Pass Price to $3.50
- Reduce Local Route Monthly Pass Price to $50
- El Dorado Hills TNC Subsidy Demonstration Program
- Conduct ZEB Bus Rollout Study
- Purchase 6 local fixed route buses
- Discuss mileage reimbursement program with social service agencies
- Market changes and new services

FY 2021 – 22

- Extend Route 50X, revise Routes 20 & 60
- Place bus stop sign at Eskaton Placerville
- Mileage Reimbursement Program for rural areas
- Sacramento Commuter—add a market stop at University and 65th Light Rail Station, begin ridership monitoring program
- TNC Subsidy Program—evening "Return Trip" service
- Purchase 5 DAR vehicles and 3 staff vehicles
- Construct a shelter at Coach Lane and Rodeo Road
- Construct bench at the Upper Room stop in Placerville
- Market changes and new services
- Extend bus bay at Cambridge Road Park and Ride

FY 2022 – 23

- Route 50X Saturday Service
- Extend bus bay at Missouri Flat Transit Center

- Monitor TNC Subsidy Programs
- Apply for grant funding for DAR vehicle replacement

FY 2023 – 24

- Monitor Saturday service on 50X route
- Apply for grant funding for new DAR van
- Purchase a new DAR van
- Add additional parking for larger ZEB fleet

SERVICE PLAN

Based on the analyses presented in previous chapters, the long-range plan for transit services in western El Dorado County is presented below. As there is a high degree of uncertainty regarding long-term population projections and forecasts of funding availability, this plan focuses on general strategies for service. A summary of long-range ridership, service, financial and fleet forecasts is presented in Table 59 based upon the analysis presented in Chapter 4 (above). Overall, these forecasts indicate the following:

- For Dial-A-Ride service and Social Service programs, any significant change in passenger demand will generate a proportionate change in vehicle-hours of service, given the very limited available capacity. This will require a 43 percent expansion in these services over the next 20 years.

- As discussed in Chapter 4, above, there is some existing capacity in the commuter service's 11 existing daily round-trips that can be used in the short-term to accommodate growth in demand. By 2029, however, demand is forecasted to grow to the point where one additional round-trip will be required, followed by a second additional round-trip by 2034.

- Regarding the local fixed routes, growth in the Cameron Park/Shingle Springs area will ultimately warrant serving this area with two routes rather than the existing one route. Beyond that (and barring significant changes such as a large increase in the cost of auto travel), no significant expansions in local services are expected to be warranted.

TABLE 59: Summary of Long-Range Transit Requirements

Excluding Impacts of Inflation

	Annual Ridership	Annual Vehicle Hours of Service	Annual Operating Costs	Annual Subsidy Requirements	Total Fleet Size
2019	372,000	54,100	$9,592,900	$7,828,800	46
2024	440,110	54,500	$10,868,290	$7,855,900	48
2029	465,780	61,830	$10,226,700	$8,437,400	51
2034	481,980	64,320	$10,538,000	$8,681,800	53
2039	495,380	66,090	$10,748,000	$8,838,600	53
Growth from 2019 to 2039	**33%**	**22%**	**12%**	**13%**	**15%**

As presented in Table 59, systemwide ridership is expected to grow by 33 percent over the next 20 years with the implementation of short-range transit plan elements. Annual operating costs are expected to increase by 12 percent (excluding the impacts of inflation). It is expected that the El Dorado Transit fleet will need to increase to 53 vehicles from 46, not accounting for any additional vehicles required to operate the same level of service with a zero emission fleet.

CAPITAL PLAN

Beyond the ongoing need to replace aging vehicles, the following are the key capital improvements needed over the coming 20 years:

- The biggest change that will need to occur over the long-term is to transition to a zero emission fleet. In 2025, 6 cutaway vehicles will have reached the end of their useful life and be eligible for replacement. If these vehicles are replaced in 2025, they could be replaced with clean diesel vehicles. If Altoona tested ZEB cutaways are available in 2026, the cutaways must be replaced with battery-electric vehicles (if replaced in 2026). In 2032, another group of 6 local fixed route buses will be due for replacement. All of these will need to be ZEBs. As identified in the Short-Range Transit Plan, EDT will need to develop a roll-out plan for the purchase of infrastructure required to support an all ZEB fleet. This plan should provide further guidance on vehicle replacement and corresponding infrastructure needs.

- Cambridge Road Park and Ride—As the western portion of the county grows a new 80 space Park and Ride should be constructed. The El Dorado Transit Park and Ride Master Plan identifies a total construction cost of $2.725 million for this project.

- County Line Transit Center—Planning is underway for the County Line Multimodal Transit Center. This will likely be constructed near White Rock Road in El Dorado Hills. The project will include a single, larger parking facility, electric vehicle charging stations, a passenger facility as well as improved accommodation of transit buses, transportation network company activity, bicyclists and pedestrians. This facility will provide more Park and Ride capacity for El Dorado Hills. Given the large scope of this project and the unknowns, such as acquiring land and receiving grant funding, this project is assumed for the long-term planning period.

- Bass Lake Hills Park and Ride – The additional 100 spaces will be constructed and funded by El Dorado Transit. An exact location has not yet been determined but likely on the east side of Bass Lake Hills Road near the Clarksville Toll Road.

Continue Providing Public Transit Services through El Dorado Transit

The El Dorado County Transit Authority has proven to be a stable and cost-effective means of providing regional transit services both in Western El Dorado County and connecting to Sacramento County. It takes advantage of the "economies of scale" that come with combining transit systems under "one roof", and the Board has been effective in ensuring equitable allocation of transit resources. EDT should remain the institutional structure for public transit services in western El Dorado County, as opposed to several separate transit programs operated by individual jurisdictions.

Continue to Coordinate and Partner with Other Regional Transit Services

With growth in both western El Dorado County and eastern Sacramento County, the coming years will see an increasing need for transit service over the El Dorado county line. El Dorado Transit and EDCTC should continue to be active partners with other transit services in matters of regional fares, financing and service planning. This includes services in the Sacramento region as well as the Tahoe Transportation District in the eastern portion of the county.

Keep Pace with Changes in Technologies and Social Media

Like much of modern society, the public transit industry is seeing substantial changes associated with communications technologies and services.

- Autonomous Private Vehicles—The technology for Autonomous Vehicles (AVs) is rapidly advancing. Within this plan period, it is reasonable to assume that the availability and cost of a private autonomous vehicle will be within the financial reach of many residents of western El Dorado County. For many persons unable to drive due to a disability, the availability of an autonomous vehicle that can provide a door-to-door trip can expand mobility options and reduce the need for transit ridership, particularly on Dial-A-Ride. Given the uncertainties as to how AV technology will develop, no change in ridership demand associated with this factor is included.

- Autonomous Transit Buses—AV technology could ultimately eliminate the driving element of existing transit drivers. However, transit drivers perform other tasks beyond driving, including collecting fares, providing a security function as well as the crucial role of assisting passengers into and out of the vehicles and in settling and securing the passengers. Many passengers (particularly those more sensitive to security concerns) may well refuse to use a bus without the presence of a driver. There could be the potential to have a lower paid attendant on the vehicles to assist passengers rather than a higher paid driver, yielding some cost savings. However, in an urban system with a paid fare and many passengers needing assistance, fully unstaffed vehicles would not be

appropriate. At this point, there are no autonomous transit buses on public streets. It is possible that over the next 20 years autonomous transit buses could be used for certain straight forward route but it is not likely that the entire system will be autonomous.

LONG-RANGE FINANCIAL PLAN

Future Impacts of Expansion in Sacramento Urbanized Area

Federal Transit Administration funding programs differ between those available in urbanized areas (as defined by the US Census) and in rural, non-urbanized areas. At present, the Sacramento Urbanized Area extends into western El Dorado County along the US 50 corridor as far east as western Diamond Springs. As has happened after decennial censuses in 2000 and 2010, this boundary can be expected to expand eastward after censuses in 2020 and 2030. This in turn reduces El Dorado Transit's potential funding through the rural transit programs (that are more flexible) and increases potential funding through the urban programs (that are less flexible). While this has an impact on overall long-term financial strategies, the relatively slow rate of population growth (compared to the previous 20-year period) suggests that this shift in funding will be less of an issue going forward. Regardless, it is important for El Dorado Transit to actively participate in regional efforts to provide equitable and flexible federal transit funding. In addition, both El Dorado Transit and EDCTC will actively participate in regional decision-making regarding allocation of 5307 funding to ensure that the smaller transit organizations receive an equitable share of this key federal funding source.

Long-Range Fare Changes to Address Inflation

Over the long term, even the relatively modest current rates of inflation can substantially reduce the value of current transit fares. State regulations require that El Dorado Transit passenger fares cover 12.2 percent of the program's operating cost. To address this requirement as well as to provide an important source of funding, fare increases keeping pace with inflation will be necessary within the long-range planning period.

Discretionary Grant Funding

As shown in Table 58, operating cost will grow at a faster rate than fare revenue from passengers and recurring funding sources. Therefore, it is essential for El Dorado Transit to continue to aggressively pursue discretionary funding sources for capital improvements and operations.

Chapter 10

Greenhouse Gas Impacts, Climate Preparedness and Sustainability

Beyond the straightforward mobility goals of a public transit program, transit services are important in achieving a range of other goals. In particular, there is a strong and growing interest in transit's role in implementing climate change strategies, reducing greenhouse gas emissions, making communities more resilient and able to address the impacts of climate change as well as improving the overall sustainability of the transportation sector. This chapter evaluates the Greenhouse Gas (GHG) impacts of the Short-Range Transit Plan as well as describes how the plan increases climate preparedness efforts and promotes sustainability.

GREENHOUSE GAS EMISSIONS IMPACTS

California has established a goal to reduce GHG emissions to 40 percent below 1990 levels by 2030. As of 2018, Vehicle Miles Travelled (VMT) became the preferred metric for assessing transportation impacts for California Environmental Quality Act (CEQA) purposes. GHG emissions are measured in metric tons of carbon dioxide (CO_2). The California Air Resources Board developed a GHG emissions calculator for the Low Carbon Transit Operations Program (LCTOP). This calculator was used in combination with trip purpose data from the on-board surveys and average trip length data from the National Travel Household Survey to estimate impacts of each service plan element on VMT and corresponding GHG emission reductions.

Table 60 displays the results of the analysis. The service plan elements which eliminate service will increase VMT slightly. The TNC subsidy programs will add to VMT and GHG emissions as the TNC driver must drive to the passenger pick up point, thereby adding an additional trip. Overall, however, at full implementation the transit improvements will reduce VMT by 58,500 per year and reduce GHG emissions by 26 metric tons of CO_2 per year. In particular, the revisions to Route 20, 50 and 60 will yield relatively large reduction of 50,400 VMT and 23 metric tons of greenhouse gases per year.

Considering the number of years within the 5-year SRTP plan period that the various service elements will be in place, over the SRTP period the total VMT is expected to decrease by 230,490. This will result in a decrease of 104 metric tons of CO_2 in GHG emissions.

ZERO EMISSION BUS IMPACTS

Over the long term, El Dorado Transit ridership is anticipated to increase by 33 percent or 123,560 one-way passenger trips over the next twenty years. This could reduce GHG emissions by 8,000 metric tons of CO_2 over the twenty year period. A significant impact on GHG emissions over the long term will be the conversion of the fleet from diesel to battery electric buses.

Table 60: VMT and GHG Impacts from El Dorado Transit Short Range Transit Plan - Service Plan Elements

Plan Element	Annual Impact at Full Implementation: Ridership	Annual Impact at Full Implementation: Net VMT	Annual Impact at Full Implementation: GHG Impact (Metric Tons CO_2)	Total Impact Over 5 Year Planning Period: VMT Impact	Total Impact Over 5 Year Planning Period: GHG Impact (Metric Tons CO_2)
Extend Route 50X, Revise Routes 20 & 60	10,100	-50,388	-23	-201,552	-90
Route 40 Additional Stops	6,000	-7,870	-4	-31,481	-14
Eliminate 6 AM Route 30 Run	-150	390	0.25	1,560	1
Make 6 PM Route 30 Run On Request	-50	130	0	520	0
Saturday Route 50X Service	1,800	-5,515	-2	-16,544	-7
El Dorado Hills TNC - Demonstration	2,800	2,800	1	11,200	4
Evening Service TNC - Demonstration	1,935	1,935	0.75	5,805	2.25
Total	**22,435**	**-58,518**	**-26**	**-230,492**	**-104**

Source: CARB LCTOP Benefits Calculator, El Dorado On-board Surveys, National Household Travel Survey, EPA Green Vehicle Guide

Using the LCTOP model, it is estimated that roughly 51,500 **additional** metric tons of CO_2 in GHG emissions will be reduced over the life of the new BEB fleet.

CLIMATE PREPAREDNESS

The two key impacts of climate change expected over the 20-year, long-range planning period are growing frequency/intensity of wildfire and the increase in extreme weather events. El Dorado Transit should be prepared for these impacts.

- Climate change has already increased the potential and explosiveness of wildfires in California. This is expected to continue. Public transit has a role in helping with emergency evacuations, particularly for residents without a vehicle or needing

assistance. El Dorado Transit currently coordinates with the County Office of Emergency Services in terms of emergency preparedness. This practice should continue.

- As identified in SACOG's Sacramento Region Transportation Climate Adaptation Plan, rising temperatures and more severe rain storms will decrease comfort for passengers as they are waiting for public transit. Over the long-term, El Dorado Transit may need to increase the number of bus shelters at bus stops. Roadways will likely degrade at a faster rate, causing increased wear and tear on transit vehicles. Higher temperatures will also have a negative impact on transit vehicle engines. El Dorado Transit will need to ensure that vehicles are replaced in time to maintain a safe fleet.

SUSTAINABILITY

The short- and long-range transit plan elements encourage sustainable land use patterns in El Dorado County by providing economical transportation within community centers and along the US 50 corridor. The Sacramento Commuter Service has the greatest positive impact on the environment as it provides a convenient alternative to commuting to downtown Sacramento. The Short-Range Plan includes an element to add an additional stop at employment centers outside of downtown Sacramento. This will encourage more El Dorado County residents to reduce their VMT by commuting by bus.

Public transit increases the attractiveness and economic competitiveness of a community if there is good access to employment, college and schools. The long-range transit plan takes into account future growth patterns. El Dorado Transit will continue to work with County and City planning departments to ensure that large developments have access to public transit.

Overall, the Short and Long-Range Transit Plans will help meet state and federal climate change goals in the following ways:

- VMT driven by El Dorado County residents will be reduced slightly as short-range and long-range plan elements increase ridership.

- The greatest impact on GHG emissions will be derived from conversion of the El Dorado Transit fleet to BEB's (51,500 metric tons of CO2 per year).

- Riding public transit can encourage residents to walk/bike to the bus, thereby increasing overall active transportation and health of the region.

- The availability of public transit is a key component in emergency evacuations, which will become increasingly more likely over the next twenty years. In particular, the fact that EDT's drivers are well-trained in serving persons with disabilities is an important resource in safely evacuating area residents that are most at-risk. The growth in the DAR services and fleet will expand the ability to evacuate residents unable to drive.

- The short- and long-range capital plans ensure that transit vehicles and infrastructure will be maintained as needed so that the public transit system is preserved for generations to come.

At a broader level, this transit plan will expand the ability of western El Dorado County residents to achieve a wholly or partial car-free lifestyle. In particular, the provision of Saturday Route 50X service and growth in the Commuter Service will expand the ability for a household to do without a car (or a second car).

Appendix A
Census Tract Reference Map

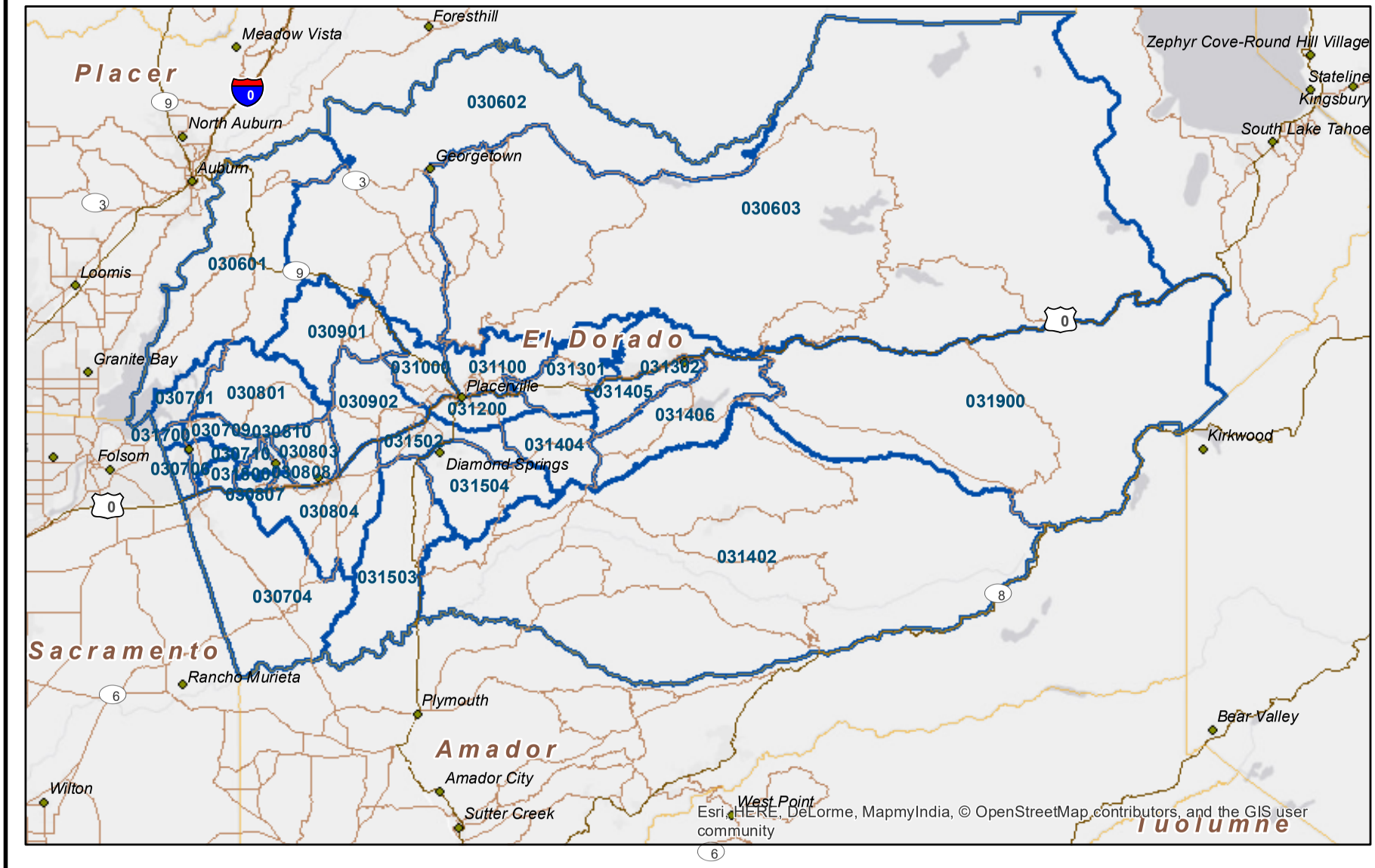

Figure X
Western El Dorado County Census Tracts

Appendix B
Sacramento Area Counsel of Government Origins/Destinations Tables

Table B-1: 2012 Western El Dorado County Weekday Tours - All Trips

	El Dorado Hills	Cameron Park - Shingle Springs	Pilot Hill	Coloma - Lotus	Diamond Springs	Placerville	Pollock Pines	Mt Aukum - Grizzly Flat	George-town	El Dorado High Country	Placer County	Yolo County	Yuba County	Sutter County	Down-town Sac	Natomas /N. Sac	Folsom to Arden Arcade	East Sac to Rancho Cordova Area	South Sac to Elk Grove	Southeast Sac County
El Dorado Hills	23,579	2,754	13	184	94	1,035	46	5	48	1	5,129	417	4	8	1,056	3,933	15,844	7,850	1,776	186
Cameron Park - Shingle Springs	5,334	17,524	24	580	329	3,578	105	12	90	11	2,815	299	4	3	779	2,373	8,309	5,577	1,138	130
Pilot Hill	352	147	1,047	85	19	303	18	0	258	33	3,831	25	5	11	88	473	868	441	95	11
Coloma - Lotus	925	2,133	72	1,318	144	2,190	73	3	310	20	1,277	59	1	0	170	464	1,676	1,150	249	30
Diamond Springs	465	1,104	6	108	3,470	6,823	429	286	81	13	560	81	1	2	177	568	1,377	1,268	296	19
Placerville	617	1,348	17	185	781	21,329	460	28	178	28	918	88	1	2	279	701	1,922	1,730	394	50
Pollock Pines	448	782	10	94	1,150	6,281	9,177	197	109	68	746	72	0	3	218	585	1,447	1,359	303	13
Mt Aukum - Grizzly Flat	149	269	0	32	630	1,418	358	2,964	19	7	215	28	0	0	69	192	421	402	107	7
Georgetown	241	486	95	262	131	1,978	118	5	3,629	223	1,426	39	6	2	95	293	549	459	123	14
El Dorado High Country	69	131	20	26	63	1,078	176	19	575	662	302	14	0	0	40	92	212	189	50	3
Placer County	1,320	450	230	77	33	457	29	0	173	18	372,002	4,364	1,817	1,211	9,476	65,254	40,450	26,822	9,087	297
Yolo County	148	41	0	2	4	60	6	0	7	1	3,112	211,698	124	339	18,587	22,167	7,615	15,812	16,064	247
Yuba County	38	12	2	0	0	18	4	0	12	3	6,369	1,089	63,826	20,175	1,408	3,514	1,353	1,451	1,097	29
Sutter County	17	6	0	3	0	6	0	0	2	0	2,930	2,237	21,469	103,035	1,209	2,854	870	1,099	770	12
Downtown Sacramento	21	8	0	0	1	3	0	0	1	0	444	2,121	4	15	23,603	4,510	2,247	6,893	5,778	61
Natomas/N. Sacramento	1,438	558	12	25	22	410	17	3	21	3	62,206	21,774	283	628	32,829	325,633	81,580	53,538	28,779	779
Folsom - Arden Arcade	5,590	1,640	24	75	97	1,302	84	2	55	6	30,702	6,425	86	146	15,064	78,572	197,251	68,439	20,850	1,021
East Sacramento - Rancho Cordova Area	952	427	2	19	30	387	17	0	26	3	6,236	7,465	48	83	21,794	22,447	31,528	141,081	43,302	1,380
South Sacramento - Elk Grove	1,297	674	8	40	51	846	66	2	31	12	8,855	30,711	357	782	53,067	38,252	26,850	81,397	444,658	8,391
Southeast Sacramento County	738	333	3	14	29	290	18	1	7	1	1,131	2,338	34	82	3,166	2,606	3,363	6,813	15,728	29,463

Source: SACOG Regional Travel Demand Model (SACSIM15)

Table B-2: 2012 Western El Dorado County Weekday Tours - Work Trips

	El Dorado Hills	Cameron Park - Shingle Springs	Pilot Hill	Coloma - Lotus	Diamond Springs	Placerville	Pollock Pines	Mt Aukum - Grizzly Flat	George-town	El Dorado High Country	Placer County	Yolo County	Yuba County	Sutter County	Downtown Sac	Natomas /N. Sac	Folsom to Arden Arcade	East Sac to Rancho Cordova Area	South Sac to Elk Grove	Southeast Sac County
El Dorado Hills	1,569	444	1	15	32	347	20	1	16	0	1,757	199	1	5	570	1,353	3,487	3,431	823	47
Cameron Park - Shingle Springs	796	1,088	3	45	58	837	41	3	19	5	1,030	168	0	1	435	907	2,325	2,494	505	46
Pilot Hill	81	37	12	11	7	75	6	0	42	5	810	13	0	6	45	160	280	216	40	3
Coloma - Lotus	155	213	5	39	26	428	18	0	28	7	422	28	0	0	100	161	526	554	112	11
Diamond Springs	134	186	2	15	134	807	73	6	9	1	251	45	1	1	94	256	524	672	144	11
Placerville	211	348	5	23	142	2,516	141	8	59	11	480	54	1	1	164	349	821	990	194	25
Pollock Pines	200	235	4	18	153	1,295	617	23	34	12	376	46	0	1	139	295	639	782	143	5
Mt Aukum - Grizzly Flat	58	91	0	8	71	333	55	90	7	3	108	13	0	0	39	88	202	247	55	4
Georgetown	90	124	7	18	30	425	28	1	255	20	569	13	4	2	50	137	200	239	61	9
El Dorado High Country	23	37	3	4	9	226	24	3	50	29	92	8	0	0	16	45	84	108	26	0
Placer County	472	172	48	22	18	214	15	0	69	11	55,252	2,275	356	403	5,253	19,894	13,756	13,063	4,276	125
Yolo County	80	21	0	0	1	33	5	0	1	1	1,518	25,431	53	149	7,134	8,441	2,996	6,205	4,666	96
Yuba County	19	4	1	0	0	11	4	0	5	1	3,149	652	6,221	3,521	859	1,899	683	858	584	13
Sutter County	14	3	0	1	0	4	0	0	0	0	1,389	1,147	5,557	15,666	724	1,371	399	607	390	10
Downtown Sacramento	12	5	0	0	1	2	0	0	0	0	204	739	1	11	5,704	1,748	925	2,091	1,562	38
Natomas/N. Sacramento	700	267	5	16	10	220	12	1	12	3	15,423	8,252	116	365	13,092	36,129	18,515	22,415	10,185	423
Folsom to Arden Arcade	2,005	742	10	43	50	671	55	2	34	4	8,530	3,102	44	95	7,168	14,472	24,209	25,510	8,431	513
East Sacramento to Rancho	423	203	2	10	14	211	13	0	19	3	2,066	3,368	29	61	8,708	5,885	6,117	20,955	12,742	647
South Sacramento to	764	412	4	21	33	522	46	2	23	11	4,427	14,820	218	539	23,947	14,389	8,532	20,343	44,122	3,636
Southeast Sacramento	192	112	2	5	11	126	8	0	3	1	462	1,210	21	62	1,662	816	636	1,693	3,174	2,797

Source: SACOG Regional Travel Demand Model (SACSIM15)

Table B-3: 2036 Western El Dorado County Weekday Tours - All Trips

	El Dorado Hills	Cameron Park - Shingle Springs	Pilot Hill	Coloma - Lotus	Diamond Springs	Placerville	Pollock Pines	Mt Aukum - Grizzly Flat	George-town	El Dorado High Country	Placer County	Yolo County	Yuba County	Sutter County	Downtown Sac	Natomas /N. Sac	Folsom to Arden Arcade	East Sac to Rancho Cordova Area	South Sac to Elk Grove	Southeast Sac County
El Dorado Hills	32,196	4,674	28	169	138	1,283	53	3	42	3	7,346	622	11	23	1,355	5,153	23,617	10,518	2,204	241
Cameron Park - Shingle Springs	7,912	25,301	11	538	411	3,937	136	8	124	9	3,824	438	4	5	941	2,899	10,947	6,750	1,382	136
Pilot Hill	424	179	1,085	83	21	351	22	0	211	24	4,325	41	7	12	88	507	953	451	121	9
Coloma - Lotus	1,113	2,811	47	1,190	171	2,363	84	3	281	16	1,493	80	5	8	142	527	1,734	1,120	270	22
Diamond Springs	825	1,697	8	117	4,634	8,892	508	285	92	22	783	103	0	4	233	679	1,725	1,480	398	27
Placerville	945	2,064	13	204	1,007	24,526	521	21	155	41	1,284	124	0	5	393	919	2,313	1,771	482	37
Pollock Pines	622	1,138	10	88	1,403	7,053	10,039	179	145	74	877	98	1	6	223	655	1,596	1,457	325	20
Mt Aukum - Grizzly Flat	221	370	2	24	712	1,648	402	2,975	26	6	247	36	0	0	76	213	484	432	113	11
Georgetown	341	691	84	243	145	2,364	114	8	4,024	278	1,713	33	7	5	77	316	736	588	132	8
El Dorado High Country	144	256	21	38	113	1,514	220	16	533	893	392	23	1	0	43	120	332	269	65	5
Placer County	2,611	896	206	88	57	606	25	0	164	20	559,909	7,366	2,191	2,000	12,244	102,934	49,093	32,394	12,467	324
Yolo County	219	87	1	2	4	54	2	0	1	0	4,646	293,671	247	471	34,525	31,910	9,272	19,364	22,739	296
Yuba County	62	21	7	2	2	9	0	0	3	0	9,761	1,606	87,218	26,558	1,908	4,996	1,525	1,643	1,328	15
Sutter County	30	11	0	1	0	5	0	0	4	0	6,300	3,464	27,774	136,520	2,154	7,694	1,471	1,719	1,667	29
Downtown Sacramento	59	22	0	0	1	5	2	0	0	0	890	9,357	10	43	62,646	11,636	4,041	10,297	10,398	94
Natomas/N. Sacramento	1,987	681	13	24	25	302	13	0	26	3	79,446	32,755	451	1,187	46,182	420,746	89,843	58,886	35,031	753
Folsom to Arden Arcade	12,846	3,307	32	83	149	1,393	81	1	49	4	39,933	8,978	153	234	18,520	98,952	247,622	85,943	24,494	1,169
East Sacramento to Rancho Cordova Area	2,776	1,144	6	23	67	580	31	0	12	2	11,739	13,646	78	179	33,660	36,957	55,046	246,992	70,667	2,548
South Sacramento to Elk Grove	1,655	852	2	16	75	558	36	0	21	4	10,372	40,866	329	631	67,638	52,388	33,294	105,817	567,519	9,563
Southeast Sacramento County	805	418	1	12	26	236	19	0	1	0	1,214	2,921	14	45	2,981	3,529	4,087	8,457	21,550	39,266

Source: SACOG Regional Travel Demand Model (SACSIM15)

= Within El Dorado County

Table B-4: 2036 Western El Dorado County Weekday Tours - Work Trips

	El Dorado Hills	Cameron Park - Shingle Springs	Pilot Hill	Coloma - Lotus	Diamond Springs	Placerville	Pollock Pines	Mt Aukum - Grizzly Flat	George-town	El Dorado High Country	Placer County	Yolo County	Yuba County	Sutter County	Down-town Sac	Natomas /N. Sac	Folsom - Arden Arcade	East Sac to Rancho Cordova Area	South Sac - Elk Grove	Southeast Sac County
El Dorado Hills	2,828	796	2	17	30	428	16	0	6	1	2,757	301	7	13	753	1,934	4,700	4,521	957	64
Cameron Park - Shingle Springs	1,493	1,875	1	34	104	1,063	40	1	36	4	1,545	225	2	4	528	1,229	2,997	3,052	648	59
Pilot Hill	112	56	19	8	5	105	9	0	38	2	942	14	1	4	49	200	287	223	60	7
Coloma - Lotus	217	320	4	34	21	485	22	1	26	3	518	36	1	1	76	200	494	548	128	8
Diamond Springs	301	342	0	18	264	1,178	85	4	26	6	397	54	0	1	132	318	619	826	190	10
Placerville	384	578	3	22	192	3,270	134	2	48	9	667	65	0	3	224	460	945	1,007	261	19
Pollock Pines	279	345	1	17	207	1,485	706	17	41	7	466	59	0	4	125	339	681	840	192	10
Mt Aukum - Grizzly Flat	113	108	0	6	87	385	58	113	4	1	128	24	0	0	43	111	194	242	70	3
Georgetown	133	170	13	16	41	526	33	2	276	28	626	24	4	3	43	147	287	295	64	4
El Dorado High Country	62	64	2	4	20	304	39	2	51	31	159	12	0	0	20	58	119	150	28	3
Placer County	1,035	372	31	20	20	253	14	0	57	12	92,031	3,631	586	640	6,449	31,671	15,949	15,335	5,552	140
Yolo County	98	39	0	2	1	27	2	0	1	0	2,393	35,386	133	213	12,048	12,341	3,518	7,530	6,426	129
Yuba County	33	13	3	1	1	5	0	0	1	0	4,873	898	9,406	5,183	1,171	2,742	746	948	715	12
Sutter County	16	6	0	0	0	2	0	0	2	0	2,663	1,618	7,581	22,241	1,104	2,740	583	859	692	17
Downtown Sacramento	35	12	0	0	1	5	2	0	0	0	390	2,352	6	21	15,100	3,468	1,410	3,219	2,545	52
Natomas/N. Sacramento	996	349	8	12	15	163	8	0	14	1	20,318	11,968	216	504	18,415	54,846	20,018	24,877	11,782	374
Folsom to Arden Arcade	3,829	1,372	13	19	68	650	40	0	27	1	11,279	4,224	80	132	8,600	19,892	29,529	32,073	9,384	503
East Sacramento - Rancho Cordova	1,047	473	3	8	30	305	18	0	10	1	3,805	5,829	42	117	13,298	9,876	10,011	39,601	18,605	851
South Sacramento - Elk Grove	938	488	1	9	45	323	19	0	11	2	5,129	18,863	194	408	29,996	20,766	10,969	29,487	63,480	3,916
Southeast Sacramento County	231	139	1	2	7	82	6	0	0	0	479	1,508	12	31	1,441	1,267	901	2,405	4,963	4,704

Source: SACOG Regional Travel Demand Model (SACSIM15)

Appendix C
Boarding and Alighting Data

Table A: Route 20 Placerville Westbound Boardings

Stops	2017-2018 Ridership	2017-2018 Average Daily
Old Placerville City Hall	2,810	11
Placerville Station Transfer Center	2,261	9
Woodman Circle	1,511	6
Placerville Post Office	1,400	6
DMV (Placerville Office)	1,137	5
Broadway and Schnell School Rd	1,098	4
Big Lots	955	4
Coloma Court	900	4
Tunnel St Apartments	846	3
Broadway and Carson Rd	780	3
Woodridge East - (Request Stop)	723	3
Marshall Hospital	696	3
Regal Theater	696	3
Placerville Library	632	3
Missouri Flat Transfer Center	539	2
Placerville Senior Center	521	2
MORE Workshop -(Request Stop)	420	2
Human Services (Briw Rd)	337	1
Forni Rd and Lo-Hi Way	300	1
El Dorado County Fairgrounds Park & Ride -(Request Stop)	267	1
El Dorado High School - (Request Stop)	214	1
Cottonwood Senior Apartments- (Request Stop)	174	1
Clay St and New Jersey Way - (Request Stop)	172	1
Bee St and Coloma St - (Request Stop)	161	1
Fowler Way - (Request Stop)	139	1
Midtown Mall-(Request Stop)	110	0.4
Raley's (Placerville Dr)	88	0.4
Home Depot (Placerville Dr) - (Request Stop)	67	0.3
Ridgecrest Apartments - (Request Stop)	32	0.1
Hidden Springs Circle - (Request Stop)	28	0.1
Placerville Snowline Hospice - (Request Stop)	15	0.1
Woodridge Court - (Request Stop)	7	0.0
	20,036	**80**

Source: Fiscal Year 2017-2018 El Dorado Transit Driver Counts

Table B: Route 20 Placerville Eastbound Boardings

Stops	2017-2018 Total Ridership	2017-2018 Average Daily
Missouri Flat Transfer Center	8,255	33
Old Placerville City Hall	1,407	6
MORE Workshop -(Request Stop)	1,188	5
Cold Springs Dental	1,065	4
Big Lots	908	4
Big 5 (Placerville Dr)	823	3
Placerville Post Office	820	3
Placerville Library	627	3
Tractor Supply (Broadway)	595	2
Upper Room	570	2
Coloma Court	554	2
Placerville Senior Center	504	2
Placerville Station Transfer Center	468	2
Tunnel St Apartments	455	2
Human Services (Briw Rd)	439	2
Marshall Hospital	403	2
Forni Rd and Lo-Hi Way	286	1
Golden Center Dr	261	1
Woodridge East - (Request Stop)	223	1
Raley's (Placerville Dr)	164	1
El Dorado County Fairgrounds Park & Ride -(Request Stop)	160	1
Home Depot (Placerville Dr) - CALL FOR PLACERVILLE SHUTTLE	73	0
Hidden Springs Circle - (Request Stop)	45	0
El Dorado High School - (Request Stop)	44	0
Pacific St and Clark St	32	0
Fowler Way - (Request Stop)	30	0
3177 Turner St	22	0
Broadway and Point View Drive	20	0
Woodridge Court - (Request Stop)	20	0
Ridgecrest Apartments - (Request Stop)	13	0
Bee St and Coloma St - (Request Stop)	12	0
Cottonwood Senior Apartments- (Request Stop)	10	0
Clay St and New Jersey Way - (Request Stop)	3	0
M.O.R.E*** (Request Stop)	0	
Total	**20,499**	**82**

Source: Fiscal Year 2017-2018 El Dorado Transit Driver Counts

Table C: Route 30 Diamond Springs Boardings

Stops	2017-2018 Total Ridership	2017-2018 Average Daily
Missouri Flat Transfer Center	7,593	30
Folsom Lake College, El Dorado Center	5,300	21
Prospector Plaza	1,513	6
Victory Mine Bldg	1,395	6
Pleasant Valley Road and Oro Lane	1,128	5
Eskaton LincoLane Manor	956	4
Pleasant Valley Road and Church St	873	4
Pleasant Valley Road and Patterson Drive	579	2
Pearl Place and Courtside Drive	552	2
Pleasant Valley Road and Diamond Meadows Way	424	2
Safeway Plaza (Missouri Flat Road)	314	1
Safeway Plaza (Missouri Flat Road) - CALL FOR BUS	311	1
Mother Lode Drive and BlanchaRoad Road (South)	294	1
Independence High School	270	1
Missouri Flat Storage Depot	247	1
El Dorado Transit Offices - CALL FOR BUS	246	1
Mother Lode Drive. and Pleasant Valley	158	1
Green Valley Community Church - CALL FOR BUS	43	0
Fruit Growers	39	0
Missouri Flat Road and El Dorado Road	32	0
Lions Hall - CALL FOR BUS	22	0
Mother Lode Drive and BlanchaRoad Road (South) - CALL FOR BUS	17	0
Mother Lode Drive and BlanchaRoad Road (North) - CALL FOR BUS	8	0
Golden Center Drive	7	0
Child Development Center	4	0
Panther Lane - CALL FOR BUS	2	0
Golden Center Ct (Building #1) - CALL FOR BUS	0	0
Total	**22,327**	**90**

Source: Fiscal Year 2017-2018 El Dorado Transit Driver Counts

Table D: Route 40 Cameron Park / Shingle Springs Boardings

Stops	2017-2018 Total Ridership	2017-2018 Average Daily
Coach Lane and Rodeo Road	2,560	10
Ponderosa Road Park & Ride	2,140	9
Cameron Park Drive and Green Valley Road	1,364	5
Market Court	1,083	4
Palmer Drive West	999	4
Cimmarron Road and Cambridge Road	792	3
Cambridge Road and Green Valley Road	541	2
4050 Sunset Lane	470	2
La Crescenta Drive and Green Valley Road	349	1
Palmer Drive and Ponte Marino	223	1
Cameron Park Drive and Meder Road (Airpark Center)	132	1
Durock Road and Presley Lane	126	1
Palmer Drive and Kevin St (Marshall Medical)	106	0
Cimmarron Road and La Canada	77	0
Cameron Park Drive and Palmer Drive	73	0
Cameron Park Drive and Point Loma (Airpark Liquor)	64	0
Mother Lode Drive and South Shingle Road	64	0
Camerado Drive and Virada Road	37	0
Cambridge Road Park and Ride	36	0
Alhambra Drive and Cameron Park Drive	17	0
Greenwood Lane and Meadow Lane	0	0
Total	**11,253**	**45**

Source: Fiscal Year 2017-2018 El Dorado Transit Driver Counts

Table E: Route 50 Express

Stops	2017-2018 Total Ridership	2017-2018 Average Daily
Missouri Flat Transfer Center	10,502	42
Iron Point Light Rail Station	7,583	30
Ponderosa Road Park & Ride	4,083	16
El Dorado Hills Park & Ride	3,826	15
Red Hawk Casino	2,976	12
Cambridge Road Park and Ride	2,948	12
FLC - Folsom Campus	2,541	10
Intel Folsom Campus	716	3
Coach Lane and Rodeo Road	335	1
Shingle Springs Tribal Health - CALL FOR BUS	300	1
Kaiser Permanente	157	1
Folsom Lake College, El Dorado Center	35	0
Central Transit Center	13	0
Total	**36,015**	**145**

Source: Fiscal Year 2017-2018 El Dorado Transit Driver Counts

Table F: Route 60 Pollock Pines Westbound Boardings

Stops	2017-2018 Total Ridership	2017-2018 Average Daily
Safeway Plaza (Pony Express Trail)	4,142	17
Placerville Station Transfer Center	1,163	5
Pony Express Trail and Blair Road -West	1,029	4
Pony Express at Kimberly Lane	987	4
Carson Road and Larsen Driveive	903	4
Missouri Flat Transfer Center	899	4
Pony Express at Mace Road	843	3
Upper Room	843	3
Pony Express Trail and Sanders Driveive	824	3
Broadway and Schnell School Road	624	3
Pony Express At Gilmore Street	619	2
Pony Express and Ridgeway - East	550	2
Broadway and Carson Road	492	2
Pony Express Trail and Willow Street	441	2
Pony Express At Alder Road -West	426	2
Camino Heights Park and Ride - CALL FOR BUS	405	2
Tractor Supply (Broadway	338	1
Regal Theater	322	1
Carson Road and Highway 50 (West)	236	1
Broadway and Airport Road	102	0
Pony Express Trail and Crystal Springs (West)	100	0
Smith Flat Road and School Street (West)	63	0
Folsom Lake College, El Dorado Center	10	0
Total	**16,361**	**66**

Source: Fiscal Year 2017-2018 El Dorado Transit Driver Counts

Table G: Route 60 Pollock Pines Eastbound Boardings

Stops	2017-2018 Total Ridership	2017-2018 Average Daily
Missouri Flat Transfer Center	6,820	27
Placerville Station Transfer Center	2,848	11
Tractor Supply (Broadway	1,842	7
Big 5 (Placerville Drive)	1,288	5
Upper Room	793	3
Home Depot	444	2
Pony Express Trail and Trap Lane	379	2
Sportsman's Hall	366	1
Camino Post Office	299	1
Golden Center Drive	219	1
Camp Snowline	212	1
Pony Express at Mace Road	197	1
Pony Express at Blair Road - East	196	1
Pollock Pines Post Office	182	1
Carson Road and Hwy 50	175	1
Highway 50 and Paul Bunyon- CALL FOR BUS	170	1
Broadway and Airport Road	168	1
Pony Express and Ridgeway - West	121	0
Pony Express at School Street	119	0
Smith Flat Road and School Street (East)	44	0
Pony Express Trail and Crystal Springs (East)	38	0
Safeway Plaza (Pony Express Trail)	24	0
Camino Heights Park and Ride - CALL FOR BUS	23	0
Carson and Pony Express	19	0
Pony Express Trail and Oak Street	16	0
Pony Express Court	12	0
Total	**17,014**	**68**

Source: Fiscal Year 2017-2018 El Dorado Transit Driver Counts

Table H: Route 70 Cameron Park / El Dorado Hills Boardings

Stops		2017-2018 Total Ridership	2017-2018 Average Daily
Cameron Park Drive and Green Valley Road		621	2
Cambridge Road Park and Ride		565	2
El Dorado Hills Park & Ride		535	2
Cambridge Road and Green Valley Road		337	1
Cimmarron Road and Cambridge Road		275	1
Town Center (Vine Street and Town Center)		242	1
Cameron Park Library - CSD		206	1
El Dorado HIlls Library		152	1
Raley's Shopping Center (Park Drive)		116	0
Parkdale Lane and Bass Lake Road		112	0
2230 Valley View Pkwy		90	0
White Rock Road and Keagles Lane		45	0
Cameron Park Lake		31	0
Greenwood Lane and Meadow Lane		2	0
	Total	**3,329**	**13**

Source: Fiscal Year 2017-2018 El Dorado Transit Driver Counts

Table I: Commuter 1 AM Boardings

Stops	2017-2018 Total Ridership	2017-2018 Average Daily
El Dorado Hills Park & Ride	2,592	10
Ponderosa Road Park & Ride	1,676	7
EDC Fairgrounds Park & Ride	768	3
Central Transit Center	434	2
P Street at 30th Street	7	0
P Street at 21st Street	6	0
5th Street at P Street	3	0
P Street at 24th Street	3	0
8th Street at I Street	2	0
15th Street at K Street	1	0
P Street at 16th Street	1	0
5th Street at N Street	0	0
8th Street at Capitol Mall	0	0
9th Street at L Street	0	0
9th Street at N Street	0	0
H Street at 11th Street	0	0
H Street at 14th Street	0	0
L Street at 14th Street	0	0
P Street at 11th Street	0	0
P Street at 13th Street	0	0
P Street at 9th Street	0	0
Total	5,493	22

Source: Fiscal Year 2017-2018 El Dorado Transit Driver Counts

Table J: Commuter 2 AM Boardings

Stops	2017-2018 Total Ridership	2017-2018 Average Daily
El Dorado Hills Park & Ride	2,603	10
Cambridge Road Park and Ride	1,429	6
EDC Fairgrounds Park & Ride	289	1
Central Transit Center	224	1
P Street at 30th Street	6	0
P Street at 16th Street	4	0
5th Street at N Street	3	0
8th Street at I Street	3	0
9th Street at L Street	3	0
P Street at 11th Street	1	0
P Street at 13th Street	1	0
15th Street at K Street	0	0
5th Street at P Street	0	0
8th Street at Capitol Mall	0	0
9th Street at N Street	0	0
H Street at 11th Street	0	0
H Street at 14th Street	0	0
L Street at 14th Street	0	0
P Street at 21st Street	0	0
P Street at 24th Street	0	0
P Street at 9th Street	0	0
Total	4,566	18

Source: Fiscal Year 2017-2018 El Dorado Transit Driver Counts

Table K: Commuter 3 AM Boardings

Stops	2017-2018 Total Ridership	2017-2018 Average Daily
Cambridge Road Park and Ride	2,005	8
Ponderosa Road Park & Ride	1,446	6
Placerville Station Transfer Center	1,015	4
Central Transit Center	197	1
P Street at 21st Street	8	0
P Street at 30th Street	6	0
P Street at 9th Street	1	0
15th Street at K Street	0	0
5th Street at N Street	0	0
5th Street at P Street	0	0
8th Street at Capitol Mall	0	0
8th Street at I Street	0	0
9th Street at L Street	0	0
9th Street at N Street	0	0
H Street at 11th Street	0	0
H Street at 14th Street	0	0
L Street at 14th Street	0	0
P Street at 11th Street	0	0
P Street at 13th Street	0	0
P Street at 16th Street	0	0
P Street at 24th Street	0	0
Total	4,678	19

Source: Fiscal Year 2017-2018 El Dorado Transit Driver Counts

Table L: Commuter 4 AM Boardings

Stops	2017-2018 Total Ridership	2017-2018 Average Daily
El Dorado Hills Park & Ride	6,600	27
Central Transit Center	733	3
Cambridge Road Park and Ride	333	1
P Street at 30th Street	32	0
P Street at 21st Street	2	0
5th Street at N Street	0	0
5th Street at P Street	0	0
8th Street at Capitol Mall	0	0
8th Street at I Street	0	0
9th Street at L Street	0	0
9th Street at N Street	0	0
H Street at 11th Street	0	0
H Street at 14th Street	0	0
L Street at 14th Street	0	0
P Street at 11th Street	0	0
P Street at 13th Street	0	0
P Street at 16th Street	0	0
P Street at 24th Street	0	0
P Street at 9th Street	0	0
Total	**7,700**	**31**

Source: Fiscal Year 2017-2018 El Dorado Transit Driver Counts

Table M: Commuter 5 AM Boardings

Stops	2017-2018 Total Ridership	2017-2018 Average Daily
Ponderosa Road Park & Ride	3,097	12
EDC Fairgrounds Park & Ride	1,125	5
Central Transit Center	241	1
P Street at 30th Street	93	0
P Street at 21st Street	10	0
P Street at 16th Street	8	0
H Street at 11th Street	6	0
P Street at 13th Street	6	0
8th Street at Capitol Mall	3	0
P Street at 11th Street	2	0
P Street at 9th Street	2	0
15th Street at K Street	1	0
5th Street at N Street	1	0
H Street at 14th Street	1	0
5th Street at P Street	0	0
8th Street at I Street	0	0
9th Street at L Street	0	0
9th Street at N Street	0	0
L Street at 14th Street	0	0
P Street at 24th Street	0	0
Total	**4,596**	**18**

Source: Fiscal Year 2017-2018 El Dorado Transit Driver Counts

Table N: Commuter 6 AM Boardings

Stops	2017-2018 Total Ridership	2017-2018 Average Daily
Cambridge Road Park and Ride	3,772	15
Placerville Station Transfer Center	698	3
EDC Fairgrounds Park & Ride	476	2
Central Transit Center	126	1
P Street at 21st Street	6	0
P Street at 9th Street	5	0
5th Street at P Street	2	0
8th Street at I Street	1	0
9th Street at L Street	1	0
9th Street at N Street	1	0
H Street at 11th Street	1	0
L Street at 14th Street	1	0
P Street at 16th Street	1	0
15th Street at K Street	0	0
5th Street at N Street	0	0
8th Street at Capitol Mall	0	0
H Street at 14th Street	0	0
P Street at 11th Street	0	0
P Street at 13th Street	0	0
P Street at 24th Street	0	0
P Street at 30th Street	0	0
Total	**5,091**	**20**

Source: Fiscal Year 2017-2018 El Dorado Transit Driver Counts

Table O: Commuter 7 AM Boardings

Stops	2017-2018 Total Ridership	2017-2018 Average Daily
El Dorado Hills Park & Ride	7,137	29
Ponderosa Road Park & Ride	1,016	4
Central Transit Center	586	2
Vine and Mercedes Park & Ride	41	0
P Street at 30th Street	3	0
5th Street at P Street	2	0
15th Street at K Street	0	0
5th Street at N Street	0	0
8th Street at Capitol Mall	0	0
8th Street at I Street	0	0
9th Street at L Street	0	0
9th Street at N Street	0	0
H Street at 11th Street	0	0
H Street at 14th Street	0	0
L Street at 14th Street	0	0
P Street at 11th Street	0	0
P Street at 13th Street	0	0
P Street at 16th Street	0	0
P Street at 21st Street	0	0
P Street at 24th Street	0	0
P Street at 9th Street	0	0
Total	**8,785**	**35**

Source: Fiscal Year 2017-2018 El Dorado Transit Driver Counts

Table P: Commuter 8 AM Boardings

Stops	2017-2018 Total Ridership	2017-2018 Average Daily
Cambridge Road Park and Ride	3,646	15
EDC Fairgrounds Park & Ride	1,651	7
Central Transit Center	555	2
P Street at 16th Street	14	0
P Street at 9th Street	10	0
P Street at 13th Street	5	0
P Street at 30th Street	4	0
P Street at 11th Street	3	0
8th Street at Capitol Mall	2	0
H Street at 11th Street	1	0
P Street at 24th Street	1	0
15th Street at K Street	0	0
5th Street at N Street	0	0
5th Street at P Street	0	0
8th Street at I Street	0	0
9th Street at L Street	0	0
9th Street at N Street	0	0
H Street at 14th Street	0	0
L Street at 14th Street	0	0
P Street at 21st Street	0	0
Total	**5,892**	**24**

Source: Fiscal Year 2017-2018 El Dorado Transit Driver Counts

Table Q: Commuter 9 AM Boardings

Stops	2017-2018 Total Ridership	2017-2018 Average Daily
El Dorado Hills Park & Ride	2,742	11
Vine and Mercedes Park & Ride	2,046	8
Ponderosa Road Park & Ride	1,383	6
Placerville Station Transfer Center	1,379	6
Central Transit Center	398	2
P Street at 21st Street	8	0
8th Street at I Street	3	0
P Street at 24th Street	2	0
H Street at 11th Street	1	0
P Street at 30th Street	1	0
15th Street at K Street	0	0
5th Street at N Street	0	0
5th Street at P Street	0	0
8th Street at Capitol Mall	0	0
9th Street at L Street	0	0
9th Street at N Street	0	0
H Street at 14th Street	0	0
L Street at 14th Street	0	0
P Street at 11th Street	0	0
P Street at 13th Street	0	0
P Street at 16th Street	0	0
P Street at 9th Street	0	0
Total	**7,963**	**32**

Source: Fiscal Year 2017-2018 El Dorado Transit Driver Counts

Table R: Commuter 10 AM Boardings

Stops	2017-2018 Total Ridership	2017-2018 Average Daily
El Dorado Hills Park & Ride	4,452	18
Vine and Mercedes Park & Ride	4,116	17
P Street at 30th Street	6	0
L Street at 14th Street	5	0
P Street at 21st Street	1	0
15th Street at K Street	0	0
5th Street at N Street	0	0
5th Street at P Street	0	0
8th Street at Capitol Mall	0	0
8th Street at I Street	0	0
9th Street at L Street	0	0
9th Street at N Street	0	0
H Street at 11th Street	0	0
H Street at 14th Street	0	0
P Street at 11th Street	0	0
P Street at 13th Street	0	0
P Street at 16th Street	0	0
P Street at 24th Street	0	0
P Street at 9th Street	0	0
Total	**8,580**	**34**

Source: Fiscal Year 2017-2018 El Dorado Transit Driver Counts

Table S: Commuter 11 AM Boardings

Stops	2017-2018 Total Ridership	2017-2018 Average Daily
Vine and Mercedes Park & Ride	2,515	10
El Dorado Hills Park & Ride	1,133	5
EDC Fairgrounds Park & Ride	909	4
Ponderosa Road Park & Ride	816	3
Cambridge Road Park and Ride	387	2
P Street at 16th Street	18	0
8th Street at I Street	3	0
L Street at 14th Street	3	0
P Street at 30th Street	3	0
5th Street at P Street	2	0
H Street at 14th Street	1	0
P Street at 24th Street	1	0
P Street at 9th Street	1	0
15th Street at K Street	0	0
5th Street at N Street	0	0
8th Street at Capitol Mall	0	0
9th Street at L Street	0	0
9th Street at N Street	0	0
H Street at 11th Street	0	0
P Street at 11th Street	0	0
P Street at 13th Street	0	0
P Street at 21st Street	0	0
Total	**5,792**	**23**

Source: Fiscal Year 2017-2018 El Dorado Transit Driver Counts

Table T: Commuter 1 PM Boardings

Stops	2017-2018 Total Ridership	2017-2018 Average Daily
Q Street at 29th Street	1,068	4
H Street at 11th Street	911	4
L Street at 14th Street	825	3
9th Street at N Street	789	3
Q Street at 16th Street	608	2
9th Street at P Street	579	2
9th Street at L Street	492	2
Q Street at 13th Street	474	2
15th Street at K Street	254	1
5th Street at N Street	213	1
5th Street at P Street	188	1
8th Street at I Street	185	1
H Street at 14th Street	61	0
8th Street at Capitol Mall	59	0
Q Street at 21st Street	56	0
El Dorado Hills Park & Ride	23	0
Cambridge Road Park and Ride	9	0
Q Street at 23Road Street	4	0
EDC Fairgrounds Park & Ride	2	0
Ponderosa Road Park & Ride	0	0
Vine and Mercedes Park & Ride	0	0
Total	6,800	27

Source: Fiscal Year 2017-2018 El Dorado Transit Driver Counts

Table U: Commuter 2 PM Boardings

FY 2017-18

Stops	Passengers On	Average Daily
H Street at 11th Street	1,132	5
9th Street at N Street	854	3
9th Street at P Street	681	3
L Street at 14th Street	670	3
Q Street at 13th Street	663	3
Q Street at 29th Street	531	2
9th Street at L Street	523	2
8th Street at I Street	342	1
8th Street at Capitol Mall	273	1
Q Street at 16th Street	266	1
15th Street at K Street	247	1
H Street at 14th Street	182	1
5th Street at N Street	181	1
5th Street at P Street	167	1
Q Street at 21st Street	37	0
Ponderosa Road Park & Ride	10	0
Cambridge Road Park and Ride	8	0
EDC Fairgrounds Park & Ride	8	0
Central Transit Center	2	0
El Dorado Hills Park & Ride	1	0
Placerville Station Transfer Center	0	0
Vine and Mercedes Park & Ride	0	0
Total	6,778	27

Source: Fiscal Year 2017-2018 El Dorado Transit Driver Counts

Table V: Commuter 3 PM Boardings

Stops	2017-2018 Total Ridership	2017-2018 Average Daily
H Street at 11th Street	1,242	5
Q Street at 16th Street	1,012	4
9th Street at N Street	959	4
9th Street at P Street	936	4
L Street at 14th Street	855	3
9th Street at L Street	673	3
Q Street at 13th Street	527	2
5th Street at N Street	426	2
Q Street at 29th Street	417	2
15th Street at K Street	336	1
8th Street at I Street	232	1
5th Street at P Street	226	1
8th Street at Capitol Mall	94	0
Cambridge Road Park and Ride	40	0
Q Street at 21st Street	38	0
Q Street at 23Road Street	31	0
EDC Fairgrounds Park & Ride	30	0
H Street at 14th Street	26	0
Ponderosa Road Park & Ride	22	0
Central Transit Center	1	0
Total	**8,123**	**33**

Source: Fiscal Year 2017-2018 El Dorado Transit Driver Counts

Table W: Commuter 4 PM Boardings

Stops	2017-2018 Total Ridership	2017-2018 Average Daily
9th Street at N Street	1,727	7
Q Street at 16th Street	977	4
9th Street at P Street	865	3
Q Street at 29th Street	623	3
5th Street at N Street	599	2
Q Street at 13th Street	469	2
L Street at 14th Street	428	2
9th Street at L Street	389	2
5th Street at P Street	326	1
8th Street at I Street	274	1
H Street at 11th Street	236	1
15th Street at K Street	198	1
H Street at 14th Street	88	0
Q Street at 23Road Street	72	0
8th Street at Capitol Mall	37	0
Placerville Station Transfer Center	29	0
Q Street at 21st Street	25	0
Vine and Mercedes Park & Ride	3	0
El Dorado Hills Park & Ride	1	0
Central Transit Center	0	0
Total	**7,366**	**30**

Source: Fiscal Year 2017-2018 El Dorado Transit Driver Counts

Table X: Commuter 5 PM Boardings

Stops	2017-2018 Total Ridership	Average Daily
H Street at 11th Street	922	4
Q Street at 16th Street	833	3
9th Street at P Street	810	3
9th Street at N Street	753	3
9th Street at L Street	683	3
Q Street at 29th Street	573	
8th Street at I Street	484	2
5th Street at N Street	393	2
L Street at 14th Street	362	1
15th Street at K Street	361	1
Q Street at 13th Street	294	1
5th Street at P Street	250	1
H Street at 14th Street	182	1
El Dorado Hills Park & Ride	83	0
8th Street at Capitol Mall	77	0
Central Transit Center	42	0
Q Street at 21st Street	20	0
Vine and Mercedes Park & Ride	15	0
Cambridge Road Park and Ride	13	0
Q Street at 23Road Street	11	0
EDC Fairgrounds Park & Ride	5	0
Ponderosa Road Park & Ride	4	0
Total	**7,170**	**26**

Source: Fiscal Year 2017-2018 El Dorado Transit Driver Counts

Table Y: Commuter 6 PM Boardings

Stops	2017-2018 Total Ridership	2017-2018 Average Daily
H Street at 11th Street	625	3
9th Street at P Street	609	2
9th Street at N Street	598	2
8th Street at Capitol Mall	519	2
Q Street at 13th Street	514	2
L Street at 14th Street	405	2
15th Street at K Street	378	2
9th Street at L Street	327	1
Q Street at 16th Street	317	1
8th Street at I Street	315	1
H Street at 14th Street	283	1
5th Street at P Street	229	1
5th Street at N Street	159	1
Q Street at 29th Street	151	1
Q Street at 21st Street	37	0
EDC Fairgrounds Park & Ride	10	0
Central Transit Center	4	0
Q Street at 23Road Street	4	0
Cambridge Road Park and Ride	1	0
Total	**5,485**	**22**

Source: Fiscal Year 2017-2018 El Dorado Transit Driver Counts

Table Z: Commuter 7 PM Boardings

Stops	2017-2018 Total Ridership	2017-2018 Average Daily
H Street at 11th Street	1,280	5
9th Street at L Street	872	4
9th Street at N Street	744	3
9th Street at P Street	649	3
5th Street at N Street	609	2
8th Street at I Street	485	2
Q Street at 29th Street	454	2
15th Street at K Street	453	2
L Street at 14th Street	425	2
H Street at 14th Street	417	2
8th Street at Capitol Mall	249	1
Q Street at 23Road Street	211	1
Q Street at 16th Street	193	1
5th Street at P Street	186	1
Q Street at 21st Street	126	1
Q Street at 13th Street	113	0
Vine and Mercedes Park & Ride	9	0
Central Transit Center	7	0
El Dorado Hills Park & Ride	0	0
Total	**7,482**	**30**

Source: Fiscal Year 2017-2018 El Dorado Transit Driver Counts

Table AA: Commuter 8 PM Boardings

Stops	2017-2018 Total Ridership	2017-2018 Average Daily
H Street at 11th Street	705	3
9th Street at N Street	495	2
Q Street at 16th Street	417	2
9th Street at P Street	412	2
9th Street at L Street	372	1
8th Street at Capitol Mall	366	1
5th Street at N Street	285	1
L Street at 14th Street	249	1
Q Street at 13th Street	226	1
5th Street at P Street	208	1
Q Street at 21st Street	177	1
15th Street at K Street	162	1
Q Street at 29th Street	132	1
8th Street at I Street	88	0
H Street at 14th Street	37	0
Central Transit Center	21	0
Placerville Station Transfer Center	16	0
Ponderosa Road Park & Ride	16	0
Q Street at 23Road Street	8	0
Total	**4,392**	**18**

Source: Fiscal Year 2017-2018 El Dorado Transit Driver Counts

Table BB: Commuter 9 PM Boardings

Stops	2017-2018 Total Ridership	2017-2018 Average Daily
9th Street at N Street	822	3
9th Street at P Street	807	3
9th Street at L Street	699	3
L Street at 14th Street	518	2
H Street at 11th Street	438	2
Q Street at 16th Street	380	2
15th Street at K Street	258	1
Q Street at 13th Street	246	1
Q Street at 29th Street	232	1
5th Street at N Street	210	1
8th Street at I Street	194	1
H Street at 14th Street	111	0
Q Street at 21st Street	87	0
El Dorado Hills Park & Ride	69	0
5th Street at P Street	58	0
Central Transit Center	41	0
8th Street at Capitol Mall	34	0
Q Street at 23Road Street	15	0
Cambridge Road Park and Ride	6	0
Ponderosa Road Park & Ride	4	0
EDC Fairgrounds Park & Ride	1	0
Placerville Station Transfer Center	1	0
Vine and Mercedes Park & Ride	0	0
Total	**5,231**	**21**

Source: Fiscal Year 2017-2018 El Dorado Transit Driver Counts

Table CC: Commuter 10 PM Boardings

Stops	2017-2018 Total Ridership	2017-2018 Average Daily
9th Street at L Street	628	3
H Street at 11th Street	500	2
5th Street at P Street	485	2
H Street at 14th Street	476	2
8th Street at I Street	464	2
5th Street at N Street	405	2
9th Street at N Street	292	1
L Street at 14th Street	268	1
9th Street at P Street	215	1
Q Street at 29th Street	186	1
15th Street at K Street	148	1
Q Street at 16th Street	104	0
8th Street at Capitol Mall	66	0
Q Street at 13th Street	61	0
El Dorado Hills Park & Ride	37	0
Q Street at 21st Street	37	0
Central Transit Center	35	0
Vine and Mercedes Park & Ride	17	0
Ponderosa Road Park & Ride	8	0
Cambridge Road Park and Ride	5	0
Q Street at 23Road Street	4	0
EDC Fairgrounds Park & Ride	2	0
Placerville Station Transfer Center	0	0
Total	**4,443**	**18**

Source: Fiscal Year 2017-2018 El Dorado Transit Driver Counts

Table DD: Commuter 11 PM Boardings

Stops	2017-2018 Total Ridership	2017-2018 Average Daily
Q Street at 29th Street	413	2
9th Street at L Street	293	1
9th Street at N Street	272	1
9th Street at P Street	218	1
L Street at 14th Street	180	1
H Street at 11th Street	169	1
5th Street at N Street	168	1
8th Street at I Street	126	1
15th Street at K Street	100	0
Q Street at 21st Street	56	0
Q Street at 13th Street	29	0
8th Street at Capitol Mall	25	0
Central Transit Center	25	0
Q Street at 16th Street	24	0
H Street at 14th Street	19	0
5th Street at P Street	14	0
El Dorado Hills Park & Ride	11	0
Vine and Mercedes Park & Ride	4	0
Cambridge Road Park and Ride	0	0
EDC Fairgrounds Park & Ride	0	0
Placerville Station Transfer Center	0	0
Ponderosa Road Park & Ride	0	0
Q Street at 23Road Street	0	0
Total	**2,146**	**9**

Source: Fiscal Year 2017-2018 El Dorado Transit Driver Counts