



CITY OF LODI 2019 SHORT RANGE TRANSIT PLAN UPDATE

Prepared for
City of Lodi
Transit Division
Lodi, California

City of Lodi

2019 Short Range Transit Plan

UPDATE

Prepared for the

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Executive Summary
City of Lodi Short Range Transit Plan 2019-2029
Prepared by LSC Transportation Consultants, Inc.
July 17, 2019

This document presents a ten-year Short-Range Transit Plan (SRTP) developed for the City of Lodi's transit program. A SRTP is intended to provide a detailed business plan to guide improvements to the transit organization and is also important to qualify for state and Federal funding. It includes a review of demographics and transit needs, a series of surveys and ridership counts, a review of the effectiveness and efficiency of existing services, analysis of a wide range of options, and the results of public input processes. The resulting SRTP provides operational, capital and institutional plans, including an implementation plan.

SURVEYS AND DATA COLLECTION

This SRTP study included surveys of Lodi fixed Routes 1-5 and VineLine Dial-a-Ride (DAR), which yielded a total of 174 completed surveys. Surveys detailed passenger ridership characteristics, trip patterns, and opinions regarding services and desired improvements. On-time performance and boarding and alighting data were also collected on all daily runs of Routes 1–5. A community survey seeking input on transit needs and use was widely advertised, but resulted in only 20 participants.

EXISTING DEMOGRAPHICS

The population of Lodi, per the 2018 US Census estimates, was 67,121. In 2017 (latest year for more detailed data), the total number of **households without vehicles** was 713, or 3.2 percent of all households. **Youth** (persons 5 to 17 years of age) total 12,912, or 20 percent of total population. **Elderly** persons over age 65 total 8,943 (13.9 percent). There are a total of 10,627 **low income persons** living in Lodi (16.5 percent of total population). Persons who indicate they have **limited mobility** total 10,421, or 16.2 percent of total population. The SRTP provides graphics showing the areas with relatively high concentrations of transit dependent populations.

OVERVIEW OF LODI TRANSIT

Lodi Transit is a service provided through the City of Lodi, offering fixed route services, express routes, and general public DAR service and Americans with Disabilities Act (ADA) paratransit throughout the city. Management, marketing, planning and vehicle maintenance are provided by City employees, while day-to-day operations are provided by a private contractor. The City Council is the decision-making body.

The fixed route service consists of up to 8 buses at a time operating a total of 8 bus routes on weekdays (including 3 Express Routes) and 4 on weekends. Service is generally provided from 6:30 AM to 7:30 PM weekdays, with express service starting at 6:10 AM. Saturday service

operates from 7:30 AM to 9:30 PM, and from 8:30 AM to 4:30 PM on Sundays. Ridership on the fixed route service in Fiscal Year (FY) 2017/18 was 270,503 boardings, which is a 34 percent increase from ridership in FY 2011/12 (at a time when many systems have been losing ridership). The transit system is achieving performance standards set by San Joaquin Council of Governments (SJCOG), but does not have established goals and objectives (which are therefore recommended in this plan).

The DAR program provides curb-to-curb public transit and ADA paratransit service throughout the City. Service encompasses all of the hours of local fixed route service. Up to eight vehicles are in operation at peak times. Ridership in FY 2017/18 was 31,163 passengers, reflecting a 13 percent reduction from FY 2011/12. This reflects efforts to encourage more passengers to use fixed routes in lieu of the less efficient DAR (which carries fewer passengers per hour, thus is more costly per passenger-trip).

SHORT RANGE TRANSIT PLAN ELEMENTS

Service Plan

The service plan focuses on **realignment of Routes 1-5** to increase service area and improve scheduling. The main features of the recommended realignment include:

- Route 1 detours east from Lower Sacramento Road to serve the neighborhood around Henry Glaves, Jr. Park.
- Routes 1 and 2 are rerouted out of the Safeway parking lot for increased safety.
- Route 3 serves the Buena Vista loop currently served by Route 5 to free up time on that route, and would no longer serve the Century Blvd loop south of Kettleman Lane, which would be covered by Route 4. This provides more convenient service to passengers in the Buena Vista loop area (who currently have to ride all of Route 5). Additionally, Route 3 will no longer serve the area east of Ham Lane between Lockeford Street and Elm Street. Passengers in this area will still be within two blocks of Route 1 or 3.
- Route 4 is shifted off of Ham Lane to serve the Route 3 area.
- The Buena Vista Loop is dropped from Route 5 so that it has time to serve the growing area of Reynolds Ranch. The DMV would still be served on-demand, but the schedule would operate as if it is not served to speed travel for the large majority of passengers. While this will occasionally delay the route's arrival at the Transit Center, this deviation currently occurs on only 3% of runs and does not affect opportunities for transfers.

Another service recommendation is to **eliminate the final 3:30 PM run on Sundays**, which has a very low productivity. While 1,090 passenger trips would be lost, this saves the transit system \$13,850 each year.

The service plan is shown in Figure E-1. Ridership is forecast to increase by 8.3 percent in the first year of the plan (25,000 new boardings), rising to 12.8 percent (41,000 new boarding) in the long-term. Significantly, the percentage ridership increase is more than twice the percentage increase in operating cost, indicating a substantial improvement in the overall cost efficiency of the transit program.

Capital Plan

The plan calls for extensive capital investments, as follows:

- Bus Purchases – Lodi will need to replace 15 fixed route vehicles and 23 fixed route/DAR vehicles in the plan period. The cost of vehicles over the plan period is estimated at \$20,149,000. Starting in 2026, vehicles will be Battery Electric Buses, per State requirements.
- Automatic Vehicle Location (AVL) technology should be provided on future bus purchases.
- A large bus stop improvement program to improve shelters and accessibility to stops is planned for 2020/21, and replacement of five shelters every four years is included in the plan. This is projected to cost a total \$664,000 over the plan period. In the Reynolds Ranch area, two stops are already available (with pullouts and shelters) along Reynolds Ranch Parkway just to the south of Rocky Way and Lebaron Boulevard, though a stop on Rocky Way closer to Costco and Dick’s Sporting Goods should also be considered.
- Online fare purchasing software and continued maintenance is recommended (starting in 2022/23), adding \$235,000 over the plan period.
- The Sunset Village Hub will need to be planned and engineered, and the cost is yet to be determined.

The total cost of capital equipment over the plan period is estimated at \$21,361,000, not including the Sunset Village Hub.

Marketing/Institutional Plan

Numerous marketing strategies are identified in the plan, with recommendations to increase the marketing budget in order to implement the strategies. The increased budget can be used through the contract, or through a part-time position with the City of Lodi.

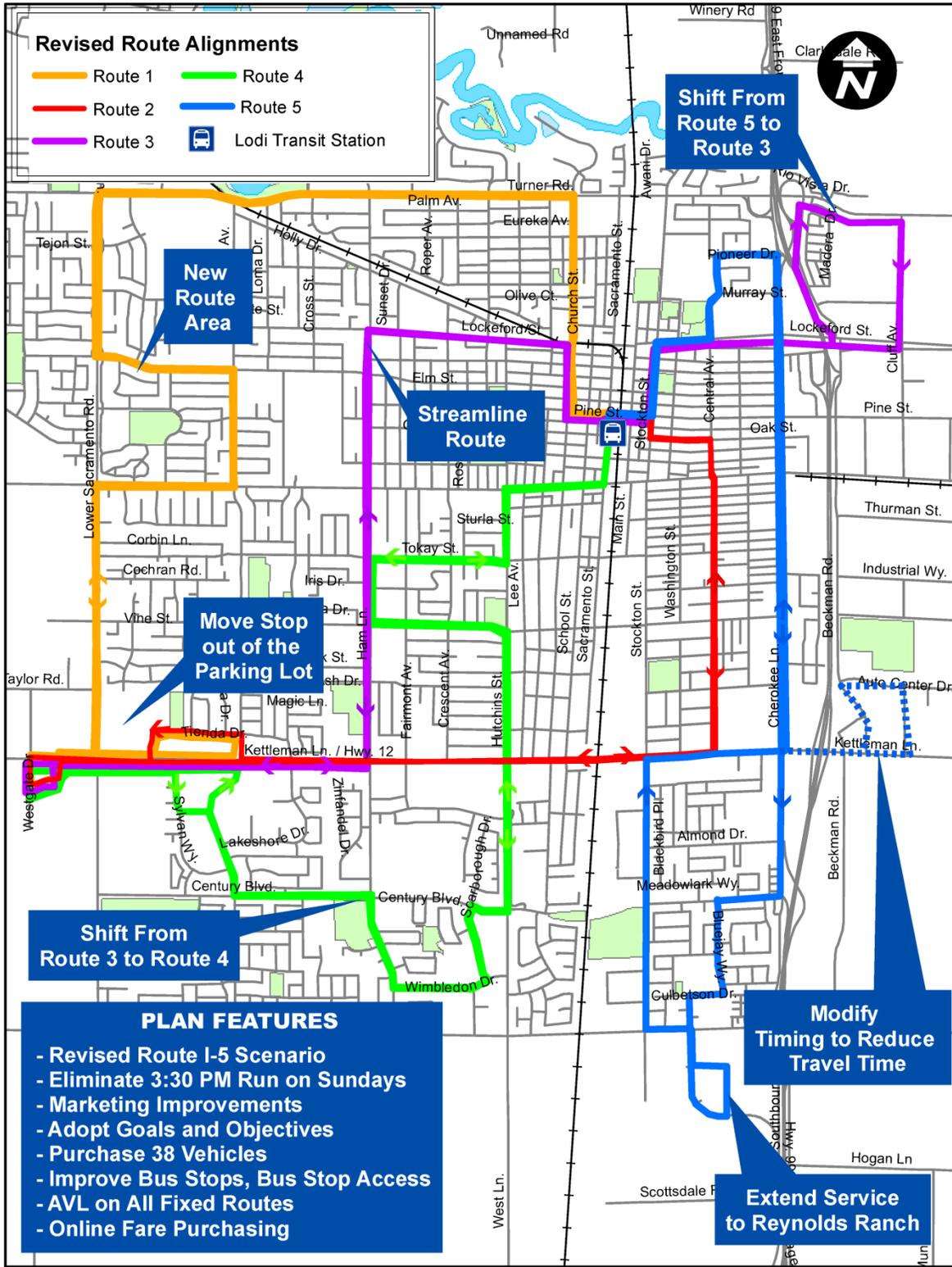
The City of Lodi staff should review and adopt goals, objectives and standards presented in the plan. The City should also consider operating RTD routes 23, 723 and 93, all of which serve Lodi. This will require ascertaining true costs of the routes as well as revenue implications. The City of Lodi has been discussing inter-agency agreements and options for cost-sharing with RTD, but until reliable cost estimates can be ascertained, no changes are recommended.



0 0.25 0.5 1 Miles

Figure E-1

Lodi SRTP Features



Financial Plan

The overall impact of this plan will be to increase operating costs by \$120,000 to \$250,000 per year (or 5.2 percent) over the plan period, with much of the increase attributed to a larger marketing budget and an increased bus stop maintenance budget.

The total costs for vehicle purchases over the next ten years will be on the order of \$20 Million, with an additional \$1.2 Million needed for AVL, bus stop improvements and fare payment software and maintenance.

While it will not significantly impact the revenues collected, Lodi should eliminate transfers and instead offer a day pass to passengers. This will provide increased convenience for passengers and operators, speed up the boarding process, and reduce the potential for conflicts between passengers and staff over transfer issues. Additionally, discounted student fares and monthly student passes will be considered, potentially supported partially through LCTOP funds.

Summary

Overall, under this SRTP ridership is forecast to increase by 12.8 percent, while costs increase by 5.3 percent (due largely to increased marketing and added inflation). Ridership per passenger hour improves from 8.7 systemwide to 9.4 and service coverage and quality is improved through the route realignment. The plan recommends adopting goals, objectives and standards, identifies a robust marketing program, addresses warranted capital improvements and outlines a balanced budget for the plan period. In summary, it will enhance the effectiveness of the City's transit program, improve the quality of transit services to Lodi residents and guide improvements over the next ten years.

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INTRODUCTION

Public transportation is an important service in the City of Lodi. Transit services provide mobility to residents, including access to important educational, medical, recreational, social and economic services and opportunities. In addition to being important to the quality of life of residents in the City and beyond, public transit services assist in the functioning of educational programs, public and private employers, and social service programs throughout the region.

The City of Lodi, aware of the importance of transportation issues, has retained LSC Transportation Consultants, Inc., to prepare an update to the current Short Range Transit Plan, which was last updated in 2013. This study was conducted to assess transit and related transportation issues in the City of Lodi and to provide a “road map” for improvements to the public transit program over the upcoming five years. This was accomplished through the review of existing transit conditions and evaluation of operations, as well as through public outreach via onboard surveys and community-based meetings. A wide range of alternatives were evaluated in order to provide a comprehensive strategy of short-range service, capital, and institutional improvements, with a supporting financial and implementation plan.

STUDY AREA

The City of Lodi is located in San Joaquin County, approximately 16 miles north of Stockton and 36 miles south of Sacramento, as shown in Figure 1. The area is part of California’s Central Valley, and is known for its wine grape growing and production industry. The City is bounded by the Mokelumne River to the north, and a greenbelt area of rural land to the south. US Highway 99 is the major roadway running north-south through the City, connecting it with Stockton and the Sacramento area. Rail lines also run through Lodi, which provides transportation for both passengers (Amtrak) and industry.

POPULATION

Population Trends: Historic and Projected Population

According to the US Census Bureau’s American Community Survey, the 2018 population for the City of Lodi was 67,121 persons. This represents a change of 3,666 persons, or 5.8 percent, since the 2010 US Census. The population is anticipated to grow by 1.5 percent by 2020 to

Figure 1
City of Lodi Location Map



Legend:
 City Limits

Table 1: Historical and Projected Population

City of Lodi

	Historical					Projected		
	1980	1990	2000	2010	2018	2020	2030	2040
City of Lodi	35,221	51,900	57,011	62,134	67,121	69,237	79,115	88,062
Annual Percent Growth	2.1%	4.0%	0.9%	0.9%	0.8%	0.3%	1.3%	1.1%
Growth Over Previous Period	19%	32%	9%	8%	7%	3%	14%	11%
San Joaquin County	347,342	480,628	563,598	685,306	758,744	782,662	894,330	995,469
Annual Percent Growth	1.8%	3.3%	1.6%	2.0%	2.1%	0.6%	1.3%	1.1%
Growth Over Previous Period	19%	38%	17%	22%	11%	3%	14%	11%
California Population	23.8 M	29.8 M	33.9 M	37.3 M	39.8 M	40.7 M	44.0 M	46.9 M
Annual Percent Growth	1.7%	2.3%	1.3%	1.0%	0.6%	0.2%	0.8%	0.6%
Growth Over Previous Period	19%	25%	14%	10%	7%	2%	8%	7%

Source: California Department of Finance Demographic Research Unit

Note 1: City of Lodi population forecasts for 2020, 2030, and 2040 were calculated by applying the 2018 ratio of the City of Lodi to San Joaquin County population

69,237, based on forecasts from the San Joaquin Council of Governments. Table 1 illustrates county and city historical population rates over time as well as predictions through 2040.

Transit Dependent Population

A review of current population and demographic characteristics is presented in Table 2 and the discussion below. Data is provided for each of the population subsets that are considered to be “transit dependent”. In other words, these groups tend to rely more on public transportation for their mobility needs based on age, income status, or the lack of private vehicles available to them. Understanding the population trends, as well as where in the City of Lodi these persons are located, can help better define transit needs and determine if the transit program is serving these groups.

Note that Table 2 includes data at the US Census tract level as well as for the City of Lodi. The total figures differ between the two based on data availability, and due to the fact that some census tracts are only partially within the city limits. While figures differ, total percentages for each group generally show little to no variation.

Youth Population

According to the 2012-2016 American Community Survey, 26.6 percent of the census tract study area population was considered youth. For the purposes of this study, youth are defined

Table 2: City of Lodi Demographic Characteristics by Census Tract

Census Tract	Total Population		Youth (Ages 5-17)		Senior (65 & Over)		Mobility Limited		Low Income		Zero Vehicle Households	
	#	% of Census Tract	#	% of Census Tract	#	% of Census Tract	#	% of Census Tract	#	% of Census Tract	#	% of Census Tract
41.02 ¹	8,340	30.2%	2,515	16.0%	1,338	785	9.4%	993	11.9%	2,373	86	3.6%
41.04	3,633	22.2%	806	17.1%	621	372	10.2%	186	5.1%	1,282	41	3.2%
41.05 ¹	2,823	25.2%	711	20.2%	469	235	8.3%	503	17.8%	1,851	25	1.4%
42.01	6,218	23.7%	1,474	42.1%	1,254	890	14.3%	516	8.3%	2,519	24	1.0%
42.02	1,629	16.6%	270	15.0%	686	303	18.6%	106	6.5%	668	30	4.5%
42.03	4,220	21.3%	899	11.5%	632	668	15.8%	878	20.8%	1,428	68	4.8%
42.04	3,008	22.5%	677	17.4%	347	472	15.7%	427	14.2%	1,304	82	6.3%
43.02	5,923	20.7%	1,224	23.9%	1,033	1,045	17.6%	731	12.3%	2,173	102	4.7%
43.03	4,998	26.4%	1,043	11.4%	1,197	546	10.9%	353	7.1%	1,940	68	3.5%
43.05	5,999	26.2%	1,584	14.2%	684	743	12.4%	732	12.2%	2,203	93	4.2%
43.07	4,001	23.2%	1,049	12.5%	568	479	12.0%	447	11.2%	1,531	41	2.7%
43.08	1,269	30.7%	295	9.0%	159	143	11.3%	1,176	92.7%	1,247	45	3.6%
44.02	5,486	36.8%	1,682	5.0%	491	563	10.3%	645	11.8%	1,699	32	1.9%
44.03	3,882	32.4%	1,429	16.5%	194	268	6.9%	1,191	30.7%	1,078	81	7.5%
44.04	3,741	30.9%	1,213	3.7%	289	391	10.5%	1,418	37.9%	1,002	49	4.9%
45.01	2,600	35.7%	804	14.6%	429	395	15.2%	283	10.9%	905	48	5.3%
45.02	4,243	26.6%	1,515	13.9%	156	390	9.2%	1,562	36.8%	1,198	69	5.8%
Total Census Tracts	72,013	20.0%	19,190	14.6%	10,547	8,688	12.1%	12,147	16.9%	26,401	984	3.7%
Total City of Lodi	64,403	20.0%	12,912	13.9%	8,943	10,421	16.2%	10,627	16.5%	22,454	713	3.2%

Source: US Census 2013 - 2017 American Community Survey. Note 1: Only a portion of census tract is within the City of Lodi.

as persons who are between 5 and 17 years of age. City of Lodi totals (rather than by census tract) show a youth population of 12,912, which is 20 percent of the total population. The highest youth concentrations, as shown in Figure 2, are located in Census Tracts 44.03, 44.04, and 45.02, all in the eastern portion of the city. This population group has declined by approximately 8 percent since the 2010 U.S. Census.

Senior Population

Another important group for transit services is the senior population, defined as persons age 65 and older. Information from the *2012-2016 American Community Survey shows*, at the Census Tract level, that 14.6 percent of population is considered senior. The data for the City of Lodi shows a slightly smaller figure of 13.9 percent. This reflects a slight (2 percent) reduction since 2010. The highest concentrations of senior persons are located in Census Tracts 41.04, 42.02, and 43.03, as shown in Figure 3.

Low Income Population

Low income persons are defined by the poverty status reported in the US Census, which are those persons who have been living below the poverty line for the last 12 months. Data by census tract indicates that approximately 16.9 percent of the City's population is considered low income, as shown in Table 2. At the city level, this figure is slightly lower, at 16.5 percent. This citywide figure has increased by 9 percent since the 2010 U.S. Census. The areas within the City of Lodi with the highest concentrations include Census Tracts 42.03, 43.08, 44.04, and 45.02. This information is presented in Figure 4.

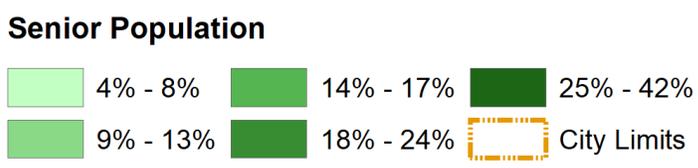
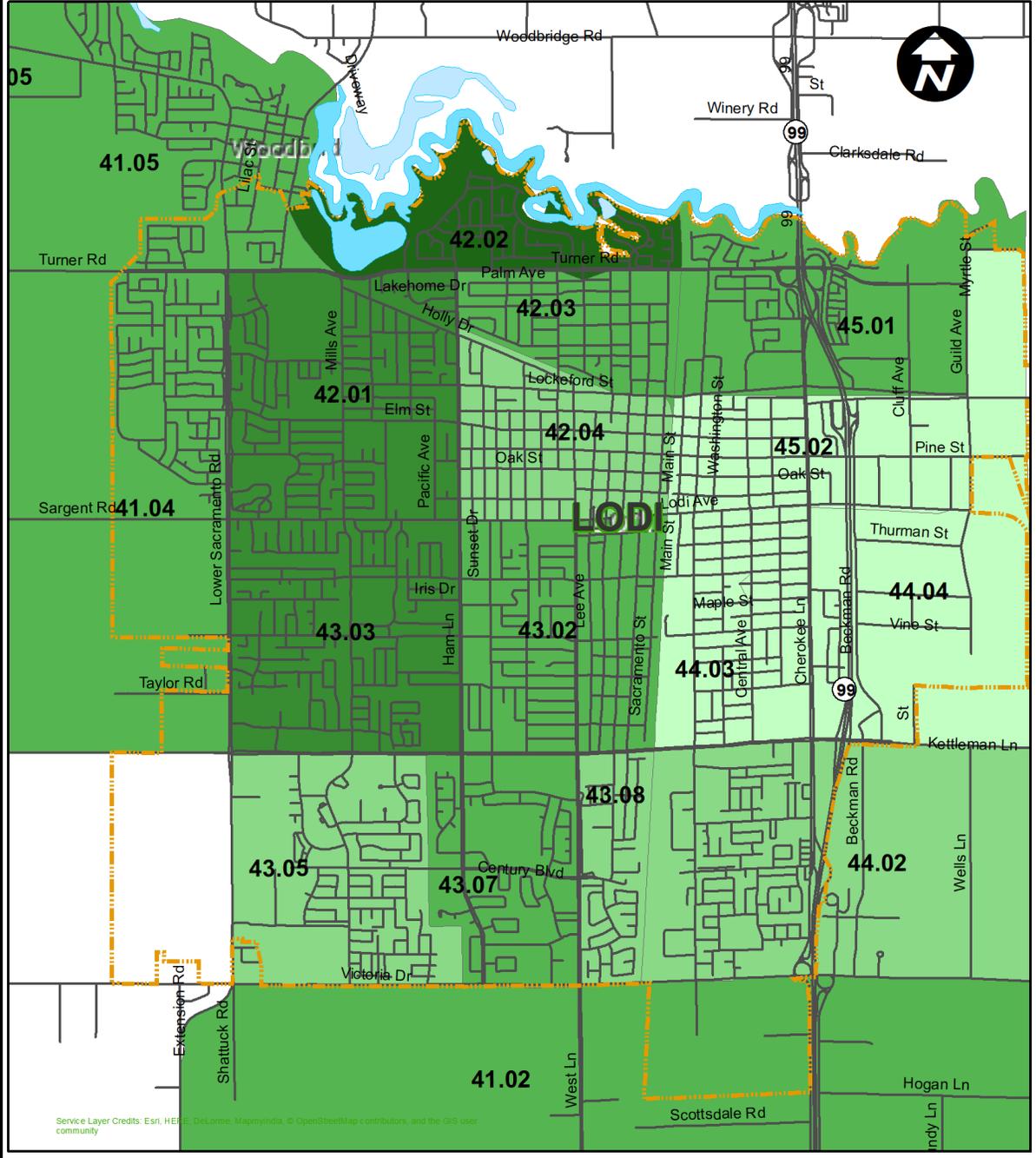
Zero Vehicle Households

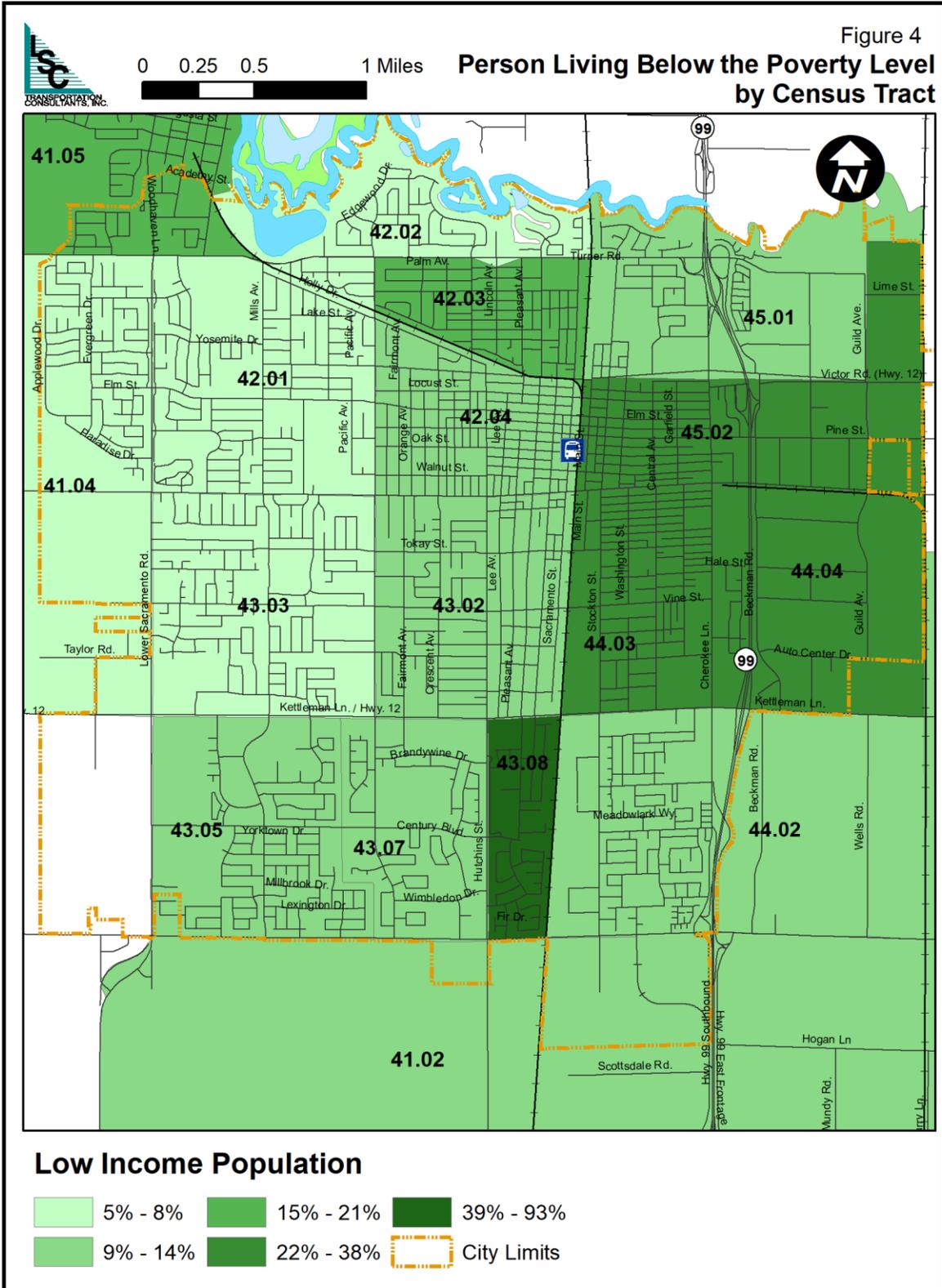
Households that do not have a vehicle available for use typically are more reliant on public transportation. As shown in Table 2, roughly 3.7 percent of the households in the study area do not have a vehicle available, when looking at data at the Census Tract level. For the City of Lodi, the figure is lower, at 3.2 percent. Both represent a decrease from the last Short Range Transit Plan, which noted that 6.5 percent of households had no vehicles. The citywide figure is half that reported in the 2010 U.S. Census. As shown in Figure 5, the highest concentrations of zero vehicle households are located in Census Tracts 42.04, 45.01, and 45.02, which are all near the north eastern part of Lodi.



0 0.35 0.7 1.4 Miles

Figure 3
Senior Population by Census Tract

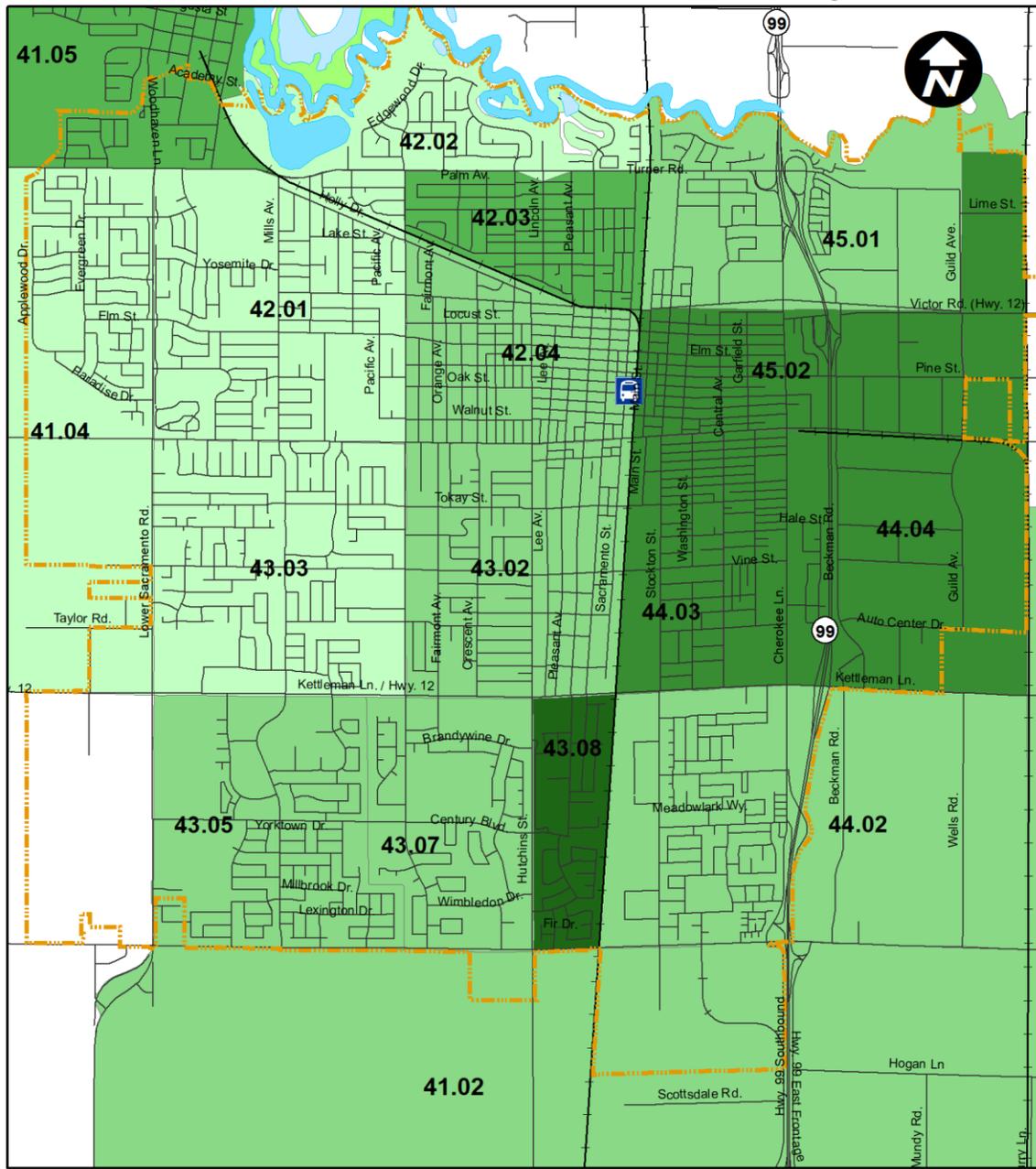






0 0.25 0.5 1 Miles

Figure 5
**Person Living Below the Poverty Level
 by Census Tract**



Low Income Population



Mobility Limited Population

Data for mobility limited persons is available at the City level from the *2012-2016 American Community Survey*, as shown in Table 2 and Figure 6. Approximately 10,421 persons in Lodi, or 16.2 percent, have a disability that limits a person's mobility and potential to use public transportation. The overall total has decreased from the previous 2013 Short- and Long-Range Transit Plan that reported a total of 11,789 persons.

ECONOMIC FACTORS

Employment by Census Block Group

According to the *2012-2016 American Community Survey*, the unemployment rate for the City of Lodi was 9.7 percent, as shown in Table 3. Data at the census tract level is slightly lower, at 9.4 percent. The City of Lodi's rate is higher than both the state of California (4 percent), and San Joaquin County as a whole (5.2 percent). Areas within the City of Lodi with the highest concentrations of unemployed residents are found in Census Tracts 42.03, 43.02, 43.08, and 44.03 (within the Downtown area) and 45.01 and 45.02 (within the northeastern portion of the city). Not surprisingly, both tracts 44.03 and 45.02 are also where the higher concentrations of low income residents are located.

The Lodi Unified School District is the top employer within the City, as shown in Table 4, followed by Pacific Coast Producers (food canning business) and the Lodi Health Hospital. Other top employers include Blue Shield of California, and Walmart.

Commute Patterns

Table 5 illustrates where City of Lodi residents work, drawn from the US Census 2015 Longitudinal Employer Household Dynamics. In reviewing this data, it is important to consider that it includes data for employees that do not necessarily report to work on a daily or consistent basis, and can include persons who have a permanent residence in one location, but stay elsewhere during their work week. Nevertheless, it provides the best available picture of commuting patterns. The top portion of the table presents information about where residents of the City of Lodi work, while the lower portion shows where people live that work within the City of Lodi.

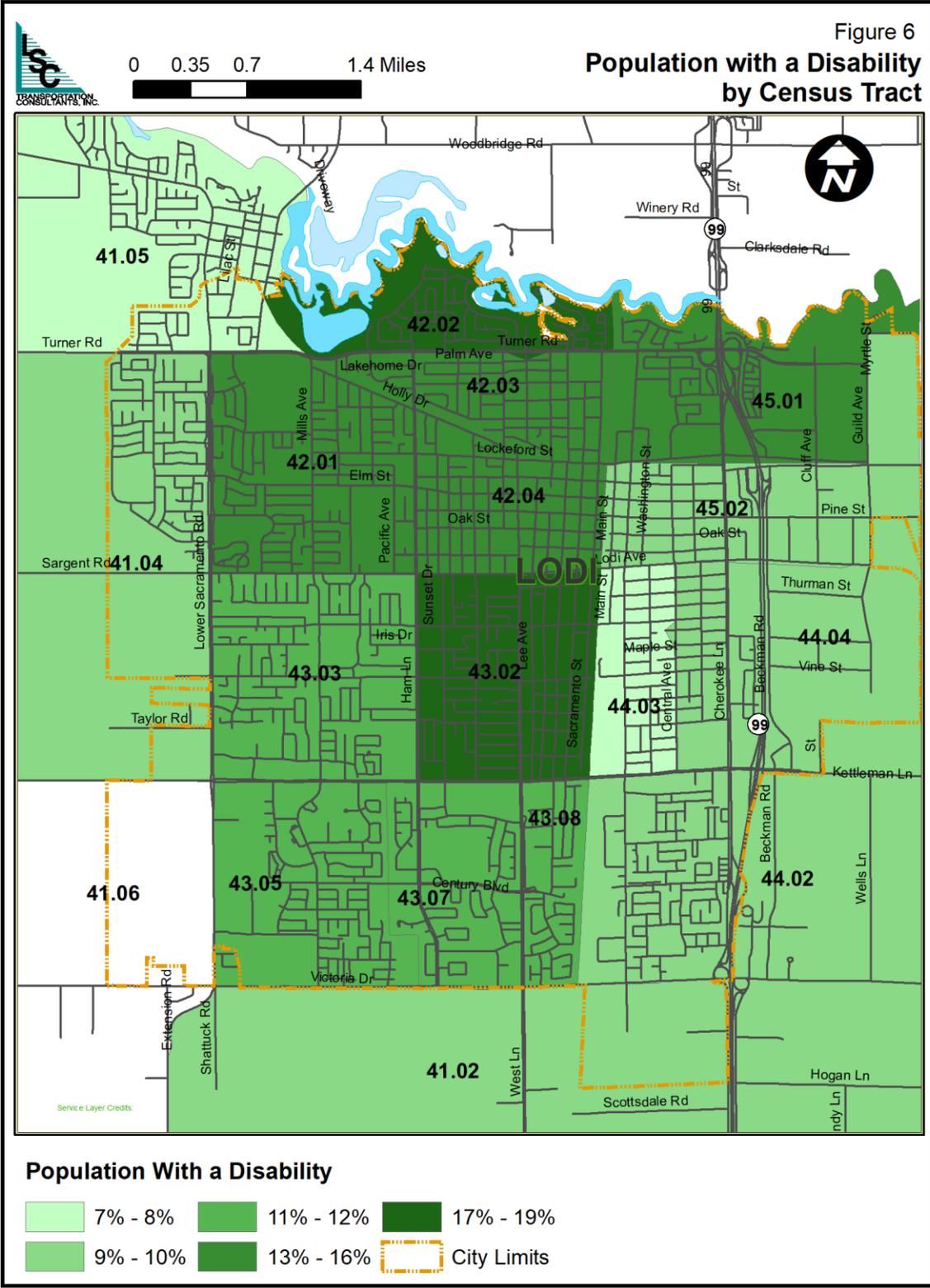


Table 3: City of Lodi Employment Status, 2016

Census Tract	Population			Unemployment Rate	Not in Labor Force
	In Labor Force	Population Employed	Population Unemployed		
41.02	3,418	1,921	209	6.1%	2,298
41.04	1,717	965	110	6.4%	1,144
41.05	2,454	1,438	221	9.0%	1,345
41.06	857	481	93	10.9%	506
42.01	3,301	2,100	162	4.9%	1,619
42.02	613	248	55	9.0%	767
42.03	1,836	981	215	11.7%	1,199
42.04	1,896	1,276	167	8.8%	673
43.02	2,695	1,299	367	13.6%	2,135
43.03	2,077	985	170	8.2%	1,925
43.05	2,891	1,674	249	8.6%	1,669
43.07	1,908	1,174	118	6.2%	1,001
43.08	2,030	1,232	238	11.7%	921
44.02	2,524	1,497	202	8.0%	1,389
44.03	1,869	1,037	334	17.9%	891
44.04	1,626	918	176	10.8%	938
45.01	1,191	655	142	11.9%	718
45.02	1,768	1,027	207	11.7%	919
Total Census Tracts	36,671	20,907	3,433	9.4%	22,057
Total City of Lodi	30,241	17,117	2,933	9.7%	17,914

Source: 2012 - 2016 American Community Survey 5-Year Estimates

Where Lodi Residents Work

As shown in Table 5, 59.5 percent of employed residents in the City of Lodi work within San Joaquin County. Of the employed population, approximately 23.9 percent of Lodi residents work within Lodi, while 18.3 percent commute to Stockton, and only 2.8 percent commute to Sacramento. This data indicates that many jobs are located close to where residents live, resulting in shorter commute trips and less need for long distance commute travel to larger urban areas.

Where Persons Employed in Lodi Live

Most workers (63 percent) live in San Joaquin County. Roughly 27.3 percent of persons that work in Lodi also live in the City, while 20.9 percent commute in from Stockton, and 3.4 percent

Table 4: Top Employers, City of Lodi

Employer	Number of Employees
Lodi Unified School District	3,026
Pacific Coast Producers	1,630
Lodi Health Hospital	1,384
Blue Shield of California	858
WalMart	487
TreeHouse	485
City of Lodi	393
Farmers and Merchants Bank of Central California	335
Costco	237
Target	142

Source: 2017 Comprehensive Annual Financial Report, City of Lodi

commute from Galt. Residents from neighboring communities, such as Elk Grove and Woodbridge, also commute into Lodi – roughly 2.1 percent and 1.8 percent of workers, respectively.

In comparing these commute patterns, it is worth noting that commuting between Lodi and Stockton is relatively balanced, with only 3 more Lodi residents commuting to work in Stockton than Stockton residents commuting to work in Lodi. The majority of those commuting between Lodi and Sacramento consists of Lodi residents commuting north (723) versus the 469 of those commuting to Lodi from Sacramento. In addition, more Galt residents work in Lodi (767) than Lodi residents work in Galt (246).

ACTIVITY CENTERS

Activity centers in the City of Lodi which are likely to generate trips (and potentially transit ridership) are shown in Figure 7. Many of the commercial activity centers are located along the major commercial road of Kettleman Lane, including the Super Walmart and Lowes Home Improvement at Westgate Drive, the Safeway at South Lower Sacramento Road, and the Target at Tienda Drive. Local schools are also high-transit generators, as well medical facilities and several higher density housing areas.

Table 5: City of Lodi Commute Pattern Data, 2015

Where Lodi Residents Commute To...					
Job Counts in Counties			Job Counts in Cities/Towns		
	# Persons	% of Total		# Persons	% of Total
San Joaquin County, CA	15,153	59.5%	Lodi, CA	6,093	23.9%
Sacramento County, CA	2,158	8.5%	Stockton, CA	4,663	18.3%
Alameda County, CA	1,125	4.4%	Sacramento, CA	725	2.8%
Stanislaus County, CA	1,074	4.2%	San Francisco, CA	504	2.0%
Santa Clara County, CA	763	3.0%	Modesto, CA	493	1.9%
Contra Costa County, CA	716	2.8%	San Jose, CA	353	1.4%
San Francisco County, CA	504	2.0%	Elk Grove, CA	342	1.3%
San Mateo County, CA	355	1.4%	Tracy, CA	318	1.2%
Los Angeles County, CA	349	1.4%	Galt, CA	246	1.0%
Solano County, CA	349	1.4%	Lockeford CDP, CA	221	0.9%
All Other Locations	2,906	11.4%	All Other Locations	11,494	45.2%
<i>Total Number of Jobs</i>	<i>25,452</i>	<i>100.0%</i>	<i>Total Number of Jobs</i>	<i>25,452</i>	<i>100.0%</i>

Where Lodi Employees Commute From...					
County of Residence for Workers			City/Town of Residence for Workers		
	# Workers	% of Total		# Workers	% of Total
San Joaquin County, CA	14,043	63.0%	Lodi, CA	6,093	27.3%
Sacramento County, CA	2,813	12.6%	Stockton, CA	4,660	20.9%
Stanislaus County, CA	717	3.2%	Galt, CA	767	3.4%
Alameda County, CA	466	2.1%	Sacramento, CA	469	2.1%
Contra Costa County, CA	460	2.1%	Elk Grove, CA	458	2.1%
Santa Clara County, CA	327	1.5%	Woodbridge CDP, CA	412	1.8%
Solano County, CA	302	1.4%	Modesto, CA	249	1.1%
Calaveras County, CA	286	1.3%	Lockeford CDP, CA	219	1.0%
Placer County, CA	269	1.2%	San Jose, CA	190	0.9%
Fresno County, CA	187	0.8%	Manteca, CA	179	0.8%
All Other Locations	2,426	10.9%	All Other Locations	8,600	38.6%
<i>Total Number of Workers</i>	<i>22,296</i>	<i>100.0%</i>	<i>Total Number of Workers</i>	<i>22,296</i>	<i>100.0%</i>

Source: US Census Bureau LEHD Database, 2015 CDP = Census Data Place

Social Service Agencies and Services for Seniors and Disabled

Clientele of social service agencies and programs are potentially highly transit dependent. Major programs serving the elderly and persons with disabilities are listed below:

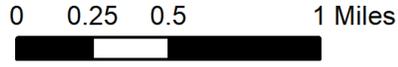
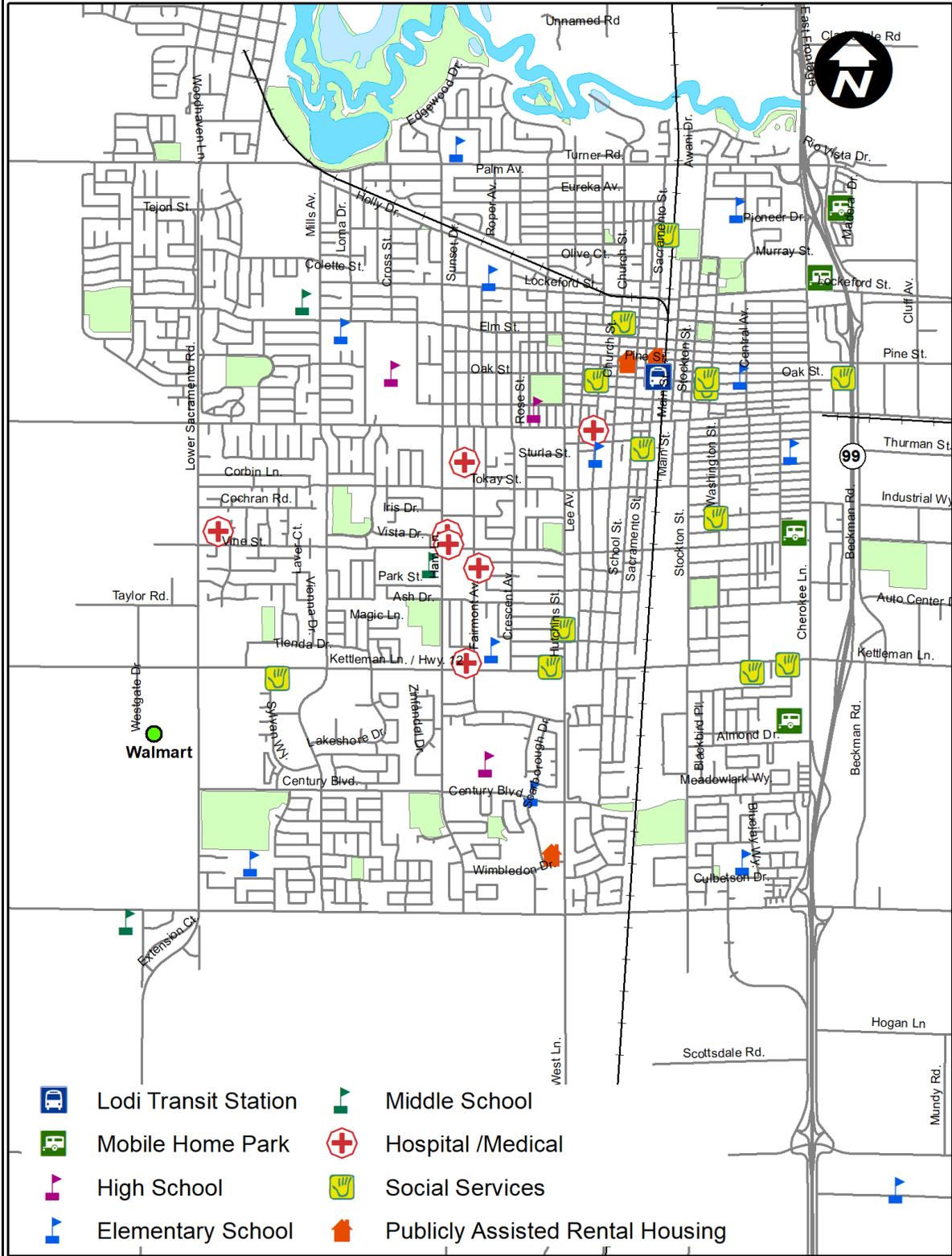


Figure 7
Activity Centers



- LOEL Senior Center, located at 105 South Washington Street, offers programs that support seniors' nutritional, social, and housing needs, in partnership with the community. Lunches are served on site Monday through Friday at 11:30 AM, and the center operates a meals-on-wheels program as well.
- Adventist Health Lodi Memorial's Adult Day Services is a licensed program at Hutchins Street Square for older and disabled adults who cannot fully care for themselves. The program provides care and support through day programs, as well as referral to other programs and services for older and disabled adults and their caregivers.
- Valley Mountain Regional Center (VMRC) serves children and adults with developmental disabilities in San Joaquin, Stanislaus, Amador, Calaveras and Tuolumne counties. The center offers diagnosis and assessment services, and ongoing support and services for individuals found to have a developmental disability which began before the age of 18 and is a substantial handicap. The closest office is in Stockton, but a number of clients reside and work in Lodi.
- Lodi Community Service Center, located at 415 South Sacramento Street, offers a variety of programs to support residents of Lodi, including family support services, activities for seniors, classes for community members, educational support and food support.
- EA Family Services, 525 W Kettleman Lane, offers family support services including substance abuse counseling, foster care placement and other services.
- Council of Spanish Speaking, 498 E Kettleman Lane, offers support for Spanish speakers.
- El Concilio, at 2150 W Kettleman Lane, is a non-profit community based organization offering a variety of services across eight departments to high-risk youth, infants, families, and adults representing, primarily, the Hispanic population of the Central Valley.
- Lodi House, at 801 S Washington St, provides support, counseling and shelter to homeless women and children to assist them toward gaining independence.
- Women's Center-Youth & Family Services, 29 S Washington St, is a safe haven for vulnerable populations in Lodi. They provide free, confidential services and shelters

specifically designed to meet the needs of homeless, runaway youth, and survivors of domestic violence, sexual assault and human trafficking.

- Public Health Services San Joaquin County, at 300 W Oak Street in Lodi, offers health services and programs.
- Spread Your Wings Inc. located at 118 N Church Street, provides Supported Living Services to persons with developmental disabilities.
- California Human Development, 631 E Oak Street, is a non-profit organization which offers a variety of services (job training, affordable housing referrals, and disability services, substance abuse assistance) to low income individuals and families.
- Salvation Army, located at 622 N Sacramento Street, provides meals for homeless.
- Drug Rehab Lodi, at 400 E Kettleman Lane, offers addiction recovery programs.

Hospitals, Medical Clinics and Medical Offices

Adventist Health Memorial Hospital is the major hospital in Lodi, with several locations. Medical facilities include:

- Adventist Health Lodi Memorial Hospitals, 2415 W Vine Street and 975 S Fairmont
- Kettleman Care Center, 1335 S Fairmont Avenue
- Fairmont Rehabilitation Hospital, 950 S Fairmont Ave, is a skilled nursing facility
- Family Medicine, Ham Care Center, 830 S Ham Lane
- Tokay Specialty Care, 515 S Fairmont Avenue
- Lodi Avenue Care Center, 300 W Lodi Avenue P
- Lodi Memorial Hospital Urgent Care, located at 1235 W. Vine Street (includes a methadone clinic)

Lodi Unified School District

The Lodi Unified School District serves approximately 13,500 students at 15 elementary schools and K-8 schools, 3 middle schools, and 3 high schools, as well as an independent study/home study option. The school district only provides transportation for qualified individuals with disabilities. As a result, many students ride GrapeLine routes, particularly the express routes.

Elementary and K-8 Schools (approximately 7,400 students) include:

- Beckman, 221 Scarborough Drive, Lodi; 681 students (K-6)
- Clyde Needham, 420 S Pleasant Avenue, Lodi; 355 students (K-6)
- Ellerth E. Larson, 2375 Giannoni Way, Lodi; 796 students (K-6)
- Erma Reese, 1800 W Elm Street, Lodi; 648 students (K-6)
- George Washington, 831 W Lockeford Street, Lodi; 448 students (K-6)
- Heritage, 509 Eden Street, Lodi; 515 students (K-6)
- Joe Serna Jr. Charter, 19 S Central Street, Lodi; 348 students (K-8)
- Lakewood 1100 N Ham Lane, Lodi; 553 students (K-6)
- Lawrence, 721 Calaveras Street, Lodi; 563 students (K-6)
- Leroy Nichols, 1301 S Crescent Avenue, Lodi; 369 students (K-6)
- Live Oak, 5099 Bear Creek Road, Lodi; 296 students (K-6)
- Lois Borchardt, 375 Cuberston Drive, Lodi; 854 students (K-6)
- Turner Academy, 13520 E Live Oak Road, Lodi; 25 students (2-8)
- Vinewood, 1600 W Tokay Street, Lodi; 566 students (K-6)
- Woodbridge, 1290 Lilac Street, Lodi; 386 students (K-6)

Middle Schools (approximately students 1,800 students) include:

- Henderson, 13451 N. Extension Road, Lodi; 60 students (7-8)
- Lodi, 945 S Ham Lane, Lodi; 891 students (7-8)
- Millswood, 233 North Mills Avenue, Lodi; 848 students (7-9)

High Schools (approximately 4,300 students) include:

- Liberty, 660 West Walnut Street, Lodi; 120 students (11-12)
- Lodi, 3 South Pacific Avenue, Lodi; 2,128 students (9-12)
- Tokay, 1111 West Century Boulevard, Lodi; 2,057 students (9-12)

Residential Areas

Residential neighborhoods are dispersed throughout Lodi, but some of the higher density and multi-family housing are listed below:

- Large Apartment Complexes
 - The Fountains Apartments, 1516 Sylvan Way

- Sand Creek Apartments, 1701 S Mills Avenue
 - Four Seasons, 1600 Larson Road
 - Kettleman Court Apartment, 931 W Kettleman Lane
 - Orange Grove Apartments, 310 S Orange Avenue
 - Tokay Villa Apartments, 1720 S Hutchins Street
 - Tuscany Ridge, 1830 S Hutchins Street
 - Vintage West Apartments, 1826 S Hutchins Street
 - Pine Grove Apartments, 619 N Church Street
 - Meritage Apartments, 2440 W Turner Road
 - Wimbledon Square Apartments, 602 Wimbledon Drive
- Mobile home parks
 - Casa de Lodi, 812 E Turner Road
 - Shady Acres, 621 E Lockeford Street
 - Palms, 845 S Cherokee Lane
 - Almond Drive Mobile Estates, 471 Almond Drive
- Publicly Assisted Rental Housing
 - Creekside South Apartments, 601 Wimbledon Drive , Section 8, 40 units
 - Lodi Hotel, 7 South School Street, Senior Housing, 75 units
 - Bethel Gardens Senior Apartments, 701 S Ham Lane, 24 units
 - LOEL Gardens, various locations, 14 units
 - Harney Lane Migrant Center, 14320 E Harney Lane, Migrant Housing/Farmworkers, 94 units

Commercial Centers

Lodi has several commercial districts, including the downtown area between Elm Street and Lodi Avenue (north to south) and Church and South Sacramento Streets (west to east). Additionally, there are extensive commercial businesses along Kettleman Lane between Lower Sacramento Road on the west (Walmart Super Store, Safeway, Lowes Home Improvement, Staples and numerous other stores and restaurants) to Church Street on the east end.

Planned Development Projects in Lodi

Development is expected in Lodi in the next five years, however most projects are still in a pre-application phase, and project details are limited. In general, development is planned in the Cranes Landing area, southwest of the City (north of Kettleman Lane, east of South Lower Sacramento Street), and Reynolds Ranch (south of Harney Lane and east of Reynolds Ranch Parkway).

Evaluation of Current Transit Services

BACKGROUND

The City of Lodi began operating transit services in April 1978 on a demand response basis through a contract with a local taxi company. The City then assumed control of the dial-a-ride program in 1992 and added a fixed route service in November 1994. The fixed route service is called GrapeLine, and the demand response Dial-a-Ride is called VineLine, and includes American's with Disabilities Act (ADA) Paratransit service. Both are operated seven days a week. Operation of the transit program is carried out through a contractor (presently MV Transportation, Inc.). Maintenance, fueling and overall administration is provided by the City of Lodi's Public Works Department, Fleet Maintenance Division.

GOVERNANCE

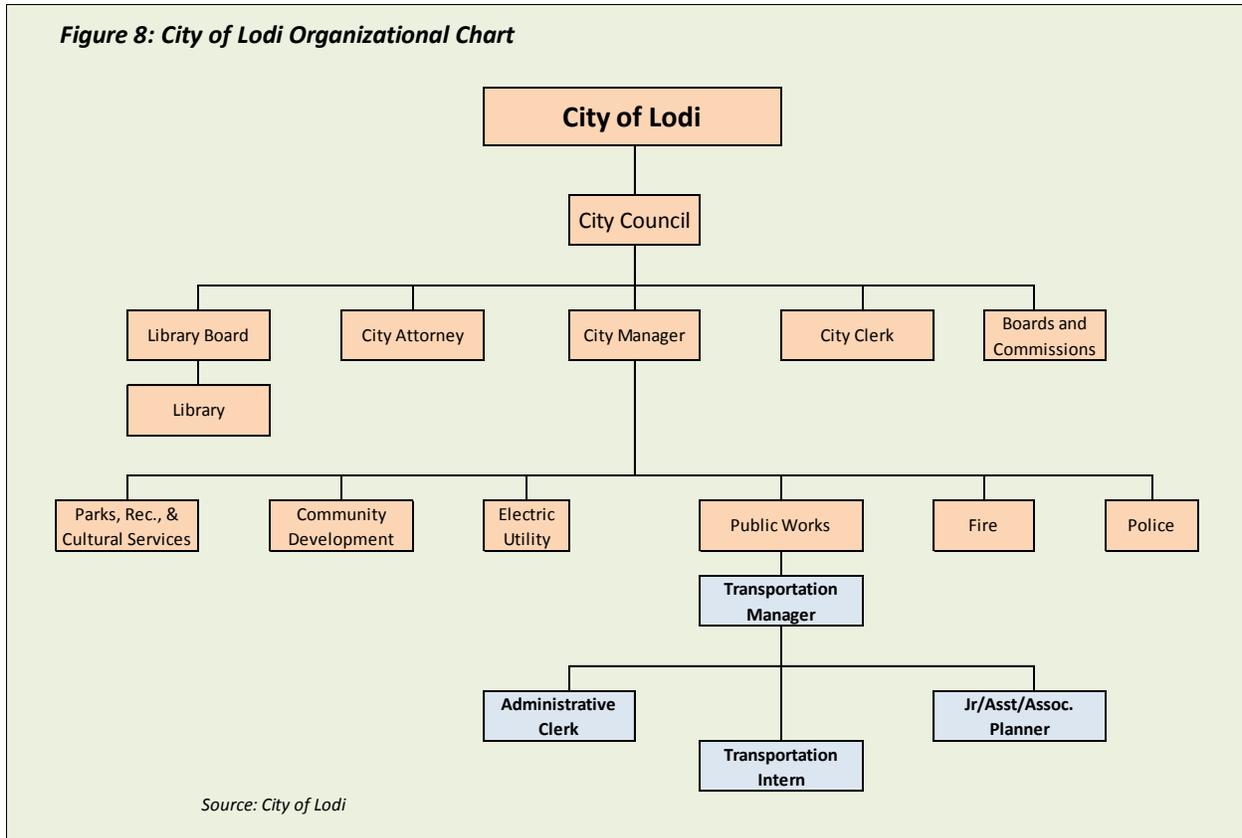
The City of Lodi was incorporated in 1906 as a General Law City and has a Council-Manager form of government. The City Council serves as the principal legislative body and each councilmember is elected for a four-year term. Regular meetings of the City Council are convened on the first and third Wednesdays of each month at 7:00 PM at Carnegie Forum located at 305 West Pine Street. The Mayor and Mayor Pro Tempore are chosen by the members of the City Council annually. The Mayor presides at Council meetings and acts as the ceremonial head of the City. The Mayor Pro Tempore serves as Mayor in the absence of the Mayor. The City Council establishes local laws, sets policies, approves programs, appropriates funds, and supervises the operations of City government. The Council also appoints the following City positions: City Manager, City Attorney, and City Clerk. A broader city organizational chart is show in Figure 8.

Organizational Structure

Transit Staffing

Transit services are administered through the City of Lodi's Public Works Department. Transit staff consists of the Transportation Manager and a Transportation Planner, as well as an administrative clerk shared by the department. The Transportation Manager, with assistance from the Transportation Planner, administers all activities related to the safe and efficient operation of the City's public transit system, including:

Figure 8: City of Lodi Organizational Chart



- Oversight of operations contract, and capital improvement and assets program to ensure compliance with FTA regulatory requirements for transit-related functions, programs and projects.
- Collect, analyze and interpret operational data to monitor system performance, for adherence to regulatory requirements and reporting to State and Federal agencies.
- Manage third party contracts for services, materials and supplies.
- Ensure all transit projects, property and facilities are maintained in a state of good repair.
- Plan, coordinate and implement operational, financial and capital elements of the Short Range Transit Plan.
- Administer all Federal and State grants, claims, reimbursement requests and annual reports.

- Work closely with local transit agencies and others to support transit coordination and funding efforts.

The City contracts with MV Transportation for the day-to-day operation of the transit services. The Contractor does the hiring, training, licensing, and certification of drivers, and drivers are employees of the Contractor. Additionally, the Contractor is responsible for scheduling Dial-A-Ride trip requests. The current contract was signed into agreement on June 8, 2017 for the period from July 1, 2017 to June 30, 2020, with the option for two one-year extensions.

CITY OF LODI TRANSIT SERVICES

Transit services operated on behalf of the City of Lodi include five fixed routes (Routes 1 through 5), three express routes (Express 1, 2, and 6), four weekend routes (Routes 1/30, 2/22, 34, and 5/31), a demand response service available to the general public, and ADA paratransit services. These services are presented and evaluated below.

GRAPELINE FIXED ROUTES

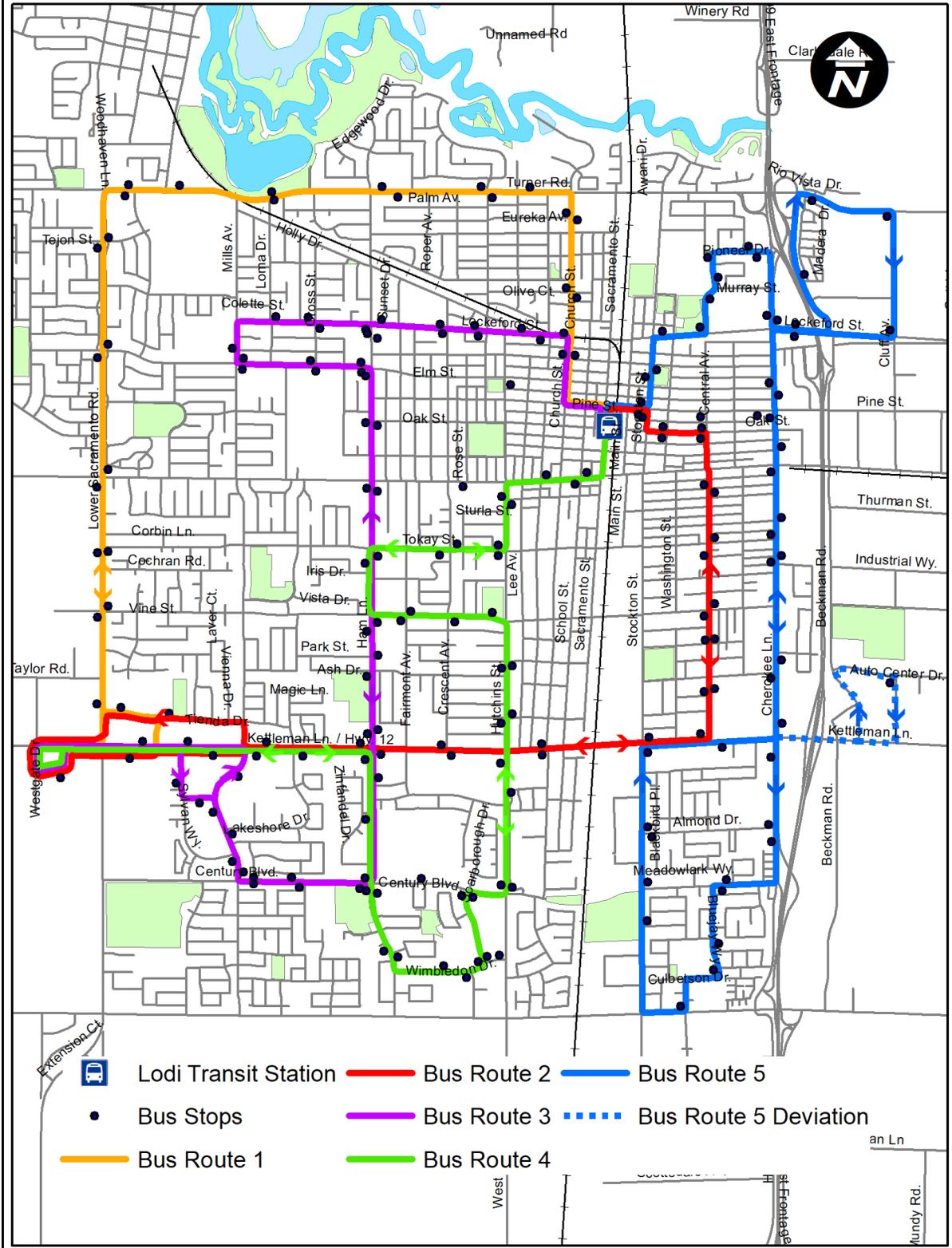
In general, the regular fixed route service (GrapeLine) is offered from 6:30 AM to 7:20 PM, while the express routes begin service as early as 6:10 AM. Below is a brief description of the weekday GrapeLine services, which are depicted in Figure 9.

- **Route 1** – This route operates between 6:30 AM and 7:15 PM Monday through Friday and serves the northeastern portion of Lodi. Service begins at Lodi Transit Station and travels to Kettleman Lane via Turner Road and Lower Sacramento Road, at which point it turns around and travels back to Lodi Transit Station. The route operates on hourly headways and takes roughly 45 minutes to complete. Major stops along this route include the shopping destinations (Lowe’s, Target, Safeway, and Raley’s). Transfers to San Joaquin RTD Routes 23, 723, and 93 are available at the Kettleman Lane and Tienda Drive stop (Safeway/Target/Staples) and at the Lodi Transit Station. SCT/Link transfers can be made at Lodi Transit Station.
- **Route 2** – Route 2 serves the Central Avenue and Kettleman Lane corridors in the City, with service between 6:30 AM and 7:16 PM on hourly headways. The terminus of this route in the outbound direction is the shopping center at Kettleman Lane and Tienda Drive; connections can be made to other GrapeLine routes here, as well as to San Joaquin RTD Routes 23, 723, and 93. Additionally, connections can be made at Lodi Transit Station (SCT/Link and RTD) and the transfer point at Ham Lane.



0 0.25 0.5 1 Miles

Figure 9
Weekday Grapeline Routes



- **Route 3** – Service on Route 3 is between 6:30 AM and 7:17 PM, with hourly headways. The route travels primarily on Lockeford Street, Ham Lane and Kettleman Lane, as shown in Figure 9. Transfers to RTD and other GrapeLine routes are available at the shopping center at Tienda Drive and Kettleman Lane, at the Ham Lane transfer point and Lodi Transit Station.
- **Route 4** – This route operates from 6:30 AM to 7:19 PM with hourly service between Lodi Transit Station and Kettleman Lane and Lower Sacramento Road. Route 4 serves the Hutchins Street corridor, as well as the Wimbledon Lane neighborhood in southern Lodi, Ham Lane, and Kettleman Lane. The route terminates at the Tienda Drive and Kettleman Lane shopping area, where transfers to RTD and other GrapeLine routes can be made.
- **Route 5** – This route serves the eastern portion of the Lodi, serving the Cherokee Lane corridor and beyond. Service is available between 6:30 AM and 7:19 PM, beginning at Lodi Transit Station. The outbound route ends at Kettleman Lane and Central Avenue, before heading back to the transit center. Transfers to other GrapeLine routes, RTD and SCT/Link are available at Lodi Transit Station.

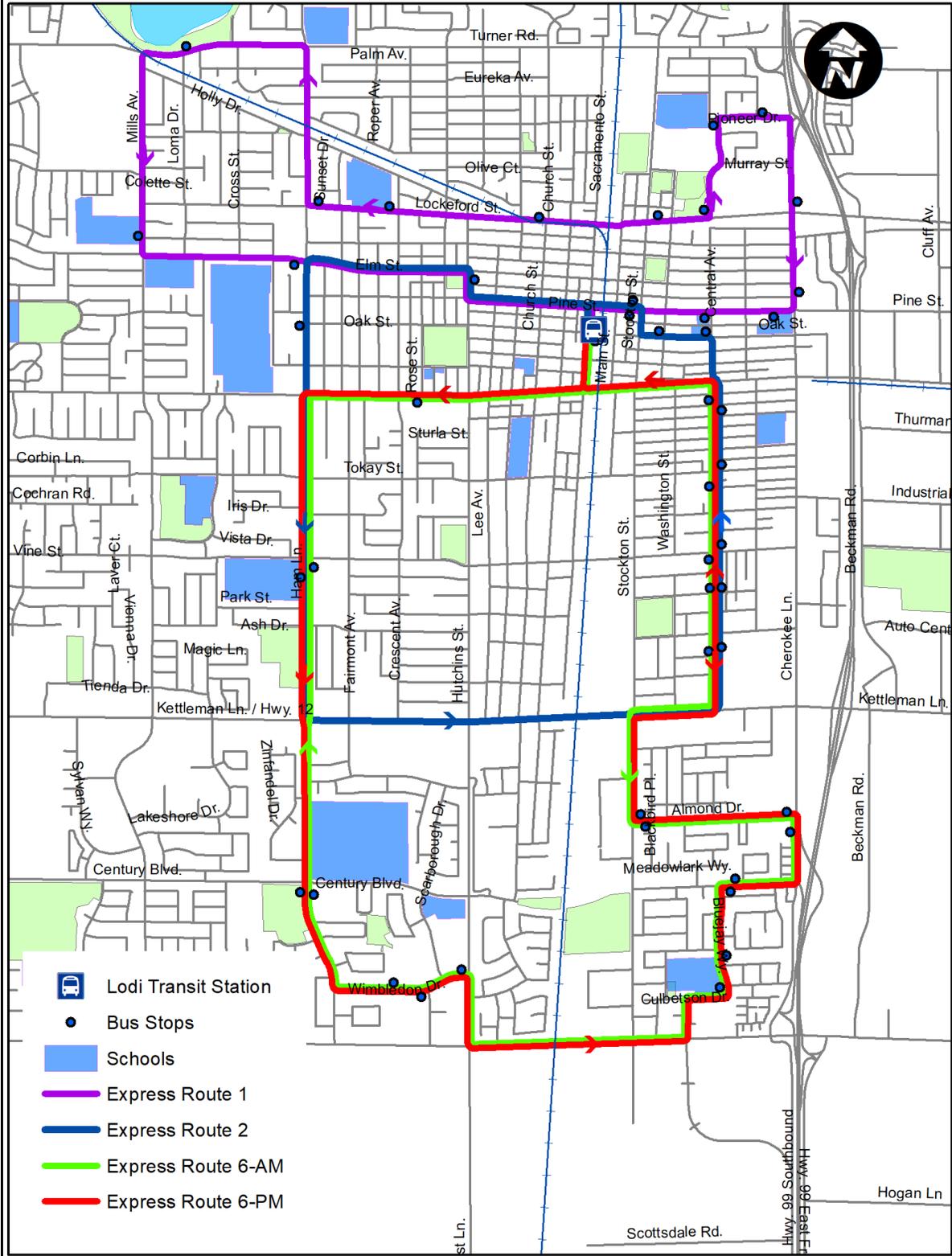
On weekdays, four express routes are also operated, as described below. All express routes serve the Lodi Transit Station, where transfers to other weekday routes are possible. Express routes are shown in Figure 10.

- **Express 1** – The Express 1 route offers service between Lodi Transit Station in downtown and Elm Street/Ham Lane, serving the northern portion of the City of Lodi. Morning departures from Lodi Transit Station occur at 6:10 AM, 6:45 AM, and 7:20 AM, while afternoon departures from the Millswood School are at 2:35 PM and 3:10 PM.
- **Express 2** – The Express 2 route serves Central Lodi, traveling down Kettleman Lane, Central Avenue, Pine Street, Elm Street, and Ham Lane. The morning runs depart Central Avenue and Cypress Street at 6:13 AM, 6:35 AM, 6:58 AM, and 7:30 AM, and departures from Ham Lane and Oak Street leave at 2:18 PM and 2:50 PM.
- **Express 6** – This route travels between Central Avenue / Hilborn Street and Lodi Transit Station, serving central and southern Lodi. Three departures in morning occur at 6:15 AM, 6:45 AM, and 7:20 AM at Central Avenue / Hilborn Street. One afternoon departure begins at Ham Lane / Century Street at 2:20 PM and the second at Ham Lane / Vine Street at 2:50 PM.



0 0.2 0.4 0.8 Miles

Figure 10
Grapeline Express Routes



Weekend service is comprised of four routes throughout the City, and is offered on Saturdays and Sundays. Each route serves Lodi Transit Station in downtown. All weekend services are shown in Figure 11.

- **Route 1/30** – This route operates between 7:30 AM and 9:15 PM on Saturdays and between 8:30 AM and 4:15 PM on Sundays. Service begins at Lodi Transit Station and travels to the shopping areas at Kettleman Lane and Lower Sacramento Road. The route covers the same areas as the weekday Route 1, only during fewer hours.
- **Route 2/22** – This route operates between 7:30 AM and 9:16 PM on Saturdays and 8:30 AM and 4:16 PM on Sundays. The route’s service area is the same as that of the weekday Route 2.
- **Route 34** – This route operates between 7:30 AM and 9:22 PM on Saturdays and between 8:30 AM and 4:22 PM on Sundays. The route travels from Lodi Transit Station to the Kettleman Lane / Lower Sacramento Road shopping area.
- **Route 5/31** – Route 5/31 serves the same areas as weekday Route 5 within fewer operating hours. The service is available between 7:30 AM and 9:19 PM on Saturdays and between 8:30 AM and 4:19 PM on Sundays.

GRAPELINE GENERAL PUBLIC DIAL-A-RIDE & VINELINE ADA PARATRANSIT

Door-to-door demand response services are available in the City of Lodi through the Dial-A-Ride service (DAR, offered to the general public) and the VineLine paratransit service (available to ADA eligible passengers). DAR operates within the Lodi city limits and unincorporated areas of Woodbridge and also serves the Arbor Mobile Home Park, AM Market, Houston School in Acampo, and Villa Cerezos Mobile Home Park located south of the city limits. VineLine ADA Paratransit operates within the city limits of Lodi. Both services operate during the same days and hours as the fixed route.

Reservations are required at least one day in advance, but not more than fourteen days in advance. GrapeLine DAR and VineLine passengers can call and leave a message for a next day reservation when the office is closed during a holiday. Subscription reservations are permitted so long as subscription reservations do not exceed fifty percent of all reservations, per the ADA. Personal Care Attendants are permitted to travel with an ADA certified passenger free of charge, and ADA passengers may also have one companion ride for the regular one-way fare.

On average, five vehicles are in service, with a maximum of eight vehicles operated at peak times, and as few as one or two in off-peak times.

FARE STRUCTURE

GrapeLine Fixed Route and Express Route Fares

One-way fares for general public are \$1.25 and discount fares (senior/disabled/Medicare) are \$0.60 per one-way trip. Monthly passes are available at \$44.00 for general public and \$22.00 for senior/disabled/Medicare, and 10-ride tickets are \$12.50 for general public and \$6.00 for senior/disabled/Medicare.

GrapeLine DAR and VineLine Fares

Fares for senior, disabled and Medicare passengers are \$2.00 for a one-way trip, and a 10-ride pass is \$16.00 within the City and \$31.00 outside city limits. General public passengers pay a fare of \$7.00 per one-way trip, or can obtain a 10-ride pass for \$66.50.

TRANSIT CAPITAL ASSETS

GrapeLine / VineLine Fleet

As shown in Table 6, the Lodi transit program has a total of 24 vehicles in the fleet, including 11 designated for fixed route service, and 13 which are used in either fixed route or demand responsive service. The demand response vehicles have 13 seats and one wheelchair position, although additional seats may be moved to accommodate up to three wheelchairs. The fixed route vehicles range in capacity from 16 to 24 seats, with one or two wheelchair positions. All vehicles have a two-capacity bike rack and are fueled by compressed natural gas (CNG). Vehicles are fueled and maintained at City facilities.

Based on the age and mileage of the vehicles, all of the vehicles are due to reach the end of their expected life as defined by the Federal Transit Administration (FTA) during the plan period. Therefore, an aggressive capital replacement plan will be needed, although spare vehicles are used beyond their expected life span.

Bus Stops and Amenities

Systemwide, the GrapeLine transit system has a total of 184 bus stops. Of these, 106 stops do not have passenger amenities, 49 stops have benches, and 27 stops have a shelter and bench.

Table 6: City of Lodi Transit Vehicle Fleet Inventory

Vehicle ID #	Year	Make	Model ¹	Length	Wheelchair Capacity	Service	Odometer Oct. 2018 ²	Date In Service	Replacement Year
10-006	2009	FORD	Starcraft	24'	16+1WC; 4+4 WC	Fixed Route	152,434	Mar-09	2019/2024
10-007	2009	FORD	Starcraft	24'	16+1WC; 4+4 WC	Fixed Route	<i>118,820</i>	Mar-09	2019/2024
10-008	2009	FORD	Starcraft	24'	16+1WC; 4+4 WC	Fixed Route	<i>126,560</i>	Mar-09	2019/2024
10-009	2009	FORD	Starcraft	24'	16+1WC; 4+4 WC	Fixed Route	131,554	Mar-09	2019/2024
10-030	2012	EL DORADO	EZ Rider	32'	24+2WC; 30+0WC	Fixed Route	141,838	Jul-12	2023
10-031	2012	EL DORADO	EZ Rider	32'	24+2WC; 30+0WC	Fixed Route	171,977	Jul-12	2023
10-032	2012	EL DORADO	EZ Rider	32'	24+2WC; 30+0WC	Fixed Route	153,242	Jul-12	2023
10-033	2012	EL DORADO	EZ Rider	32'	24+2WC; 30+0WC	Fixed Route	154,427	Jul-12	2023
10-034	2012	EL DORADO	EZ Rider	32'	24+2WC; 30+0WC	Fixed Route	198,245	Jul-12	2023
10-035	2012	EL DORADO	EZ Rider	32'	24+2WC; 30+0WC	Fixed Route	55,680	Jul-12	2023
10-050	2001	CHAMPLAIN	TROLLEY	45'	40+1WC; 36+2WC	Fixed Route	<i>162,504</i>	Mar-01	2013
10-051	2014	CHEVROLET	ARBOC	26'	13+1WC: 9+3WC	DAR/Fixed Route	58,434	Apr-15	2020/2025
10-052	2014	CHEVROLET	ARBOC	26'	13+1WC: 9+3WC	DAR/Fixed Route	61,503	Apr-15	2020/2025
10-053	2014	CHEVROLET	ARBOC	26'	13+1WC: 9+3WC	DAR/Fixed Route	60,777	Apr-15	2020/2025
10-054	2014	CHEVROLET	ARBOC	26'	13+1WC: 9+3WC	DAR/Fixed Route	58,890	Apr-15	2020/2025
10-055	2014	CHEVROLET	ARBOC	26'	13+1WC: 9+3WC	DAR/Fixed Route	56,944	Apr-15	2020/2025
10-056	2015	CHEVROLET	ARBOC	26'	13+1WC: 9+3WC	DAR/Fixed Route	62,495	Apr-15	2020/2025
10-057	2014	CHEVROLET	ARBOC	26'	13+1WC: 9+3WC	DAR/Fixed Route	57,193	Apr-15	2020/2025
10-058	2014	CHEVROLET	ARBOC	26'	13+1WC: 9+3WC	DAR/Fixed Route	52,457	Apr-15	2020/2025
10-059	2014	CHEVROLET	ARBOC	26'	13+1WC: 9+3WC	DAR/Fixed Route	56,541	Apr-15	2020/2025
10-060	2014	CHEVROLET	ARBOC	26'	13+1WC: 9+3WC	DAR/Fixed Route	53,917	Apr-15	2020/2025
10-061	2014	CHEVROLET	ARBOC	26'	13+1WC: 9+3WC	DAR/Fixed Route	45,794	Apr-15	2020/2025
10-062	2014	CHEVROLET	ARBOC	26'	13+1WC: 9+3WC	DAR/Fixed Route	47,710	Apr-15	2020/2025
10-063	2014	CHEVROLET	ARBOC	26'	13+1WC: 9+3WC	DAR/Fixed Route	46,964	Apr-15	2020/2025

Note 1: All buses are CNG-fueled and each has a 2-capacity bike rack.
 Note 2: Mileage date is October 2018 for all vehicles except those listed in italics, which are from June, 2018.
 Source: City of Lodi Transit, Dec. 2018

In addition to the Lodi Transit Station (discussed below), a secondary transfer hub is located on Kettleman Lane and Lower Sacramento Road. RTD’s transfer locations are in the vicinity of Lodi GrapeLine’s transfer point, at Kettleman Lane / Tienda Drive, as well as at Ham Lane / Lodi Ave. The shared stops are located at Lodi Transit Station and Ham Lane / Lodi Avenue.

Lodi Transit Station

The Lodi Transit Station is located in downtown Lodi, on the corner of South Sacramento Street and West Pine Street. The station not only serves as the main transit transfer point for GrapeLine and Dial-A-Ride / VineLine, but also for SCT/Link, and San Joaquin RTD routes that operate in Lodi. Greyhound does not offer regular service, but stops at the Lodi Transit Station by request. Additionally, the station serves as an Amtrak stop along the *San Joaquins* route,

served daily by two trains and four buses in the northbound direction as well as two trains and three buses in the southbound direction. The station has an indoor waiting area with seating and restrooms, as well as outdoor seating that is both covered and uncovered. Parking is available at the transit center and at the parking structure located across Pine Street. Tickets are sold on-site for both transit and Amtrak services. The station is also the location of MV Transportation (the contractor's) operations offices. All dispatch and operation activities are carried out here, including daily farebox reconciliation, as well as space for a driver break room.

Bicycle Facilities

GrapeLine buses are equipped with two-bike capacity bike racks. Additionally, there are u-shaped bike racks which accommodate up to eight bicycles at the Transit Station. The *City of Lodi Bicycle Master Plan (2017)* shows existing and proposed bicycle paths, lanes and routes, which enhance mobility options in the City.

TRANSIT RIDERSHIP TRENDS

Annual Ridership

Table 7 and Figures 12 and 13 show ridership trends by service for the past seven years. As shown, the ridership varied from a high of 305,475 in 2016-17 to a low of 213,547 in 2011-12. Ridership on the GrapeLine has been increasing, with a small 0.9 percent decrease last year (2016/17 to 2017/18). The GrapeLine/DAR dropped from 35,301 to between 31,000 and 32,500 over the past few years, maintaining fairly steady ridership, as shown in Figure 13.

Ridership by Month

Table 8 and Figure 14 show ridership by month on the GrapeLine and VineLine services for 2017-18. As indicated, ridership on the GrapeLine fixed route service peaks in the fall and spring, reflecting the high use by students. Ridership on the GrapeLine DAR/VineLine is much more even throughout the year.

Ridership by Weekday Versus Weekends

Ridership data is tracked by weekday versus Saturday and Sunday. The average daily ridership by service type is shown in Figure 15. As indicated, system wide weekday ridership is approximately twice Saturday ridership, and approximately three times Sunday ridership.

Table 7: GrapeLine & VineLine Ridership by Year

Service	Fiscal Year						
	FY 11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17	FY 17/18
Fixed Route - GrapeLine							
Weekday	164,214	170,757	187,357	214,807	215,290	232,339	227,699
Saturday	10,448	11,039	17,065	22,298	21,384	26,061	26,991
Sunday	3,584	4,908	8,092	11,899	14,083	14,590	15,813
<i>Total</i>	178,246	186,704	212,514	249,004	250,757	272,990	270,503
Dial A Ride - VineLine							
Weekday	31,321	28,583	27,994	27,582	25,816	27,427	26,060
Saturday	2,143	1,681	1,853	2,132	2,565	2,729	2,666
Sunday	1,837	1,851	2,530	2,707	2,728	2,329	2,437
<i>Total</i>	35,301	32,115	32,377	32,421	31,109	32,485	31,163
Systemwide Totals							
Weekday	195,535	199,340	215,351	242,389	241,106	259,766	253,759
Saturday	12,591	12,720	18,918	24,430	23,949	28,790	29,657
Sunday	5,421	6,759	10,622	14,606	16,811	16,919	18,250
<i>Total</i>	213,547	218,819	244,891	281,425	281,866	305,475	301,666

Source: City of Lodi, "Ridership and Revenue Hours.xls"

Figure 12: GrapeLine Fixed Route Ridership by Year

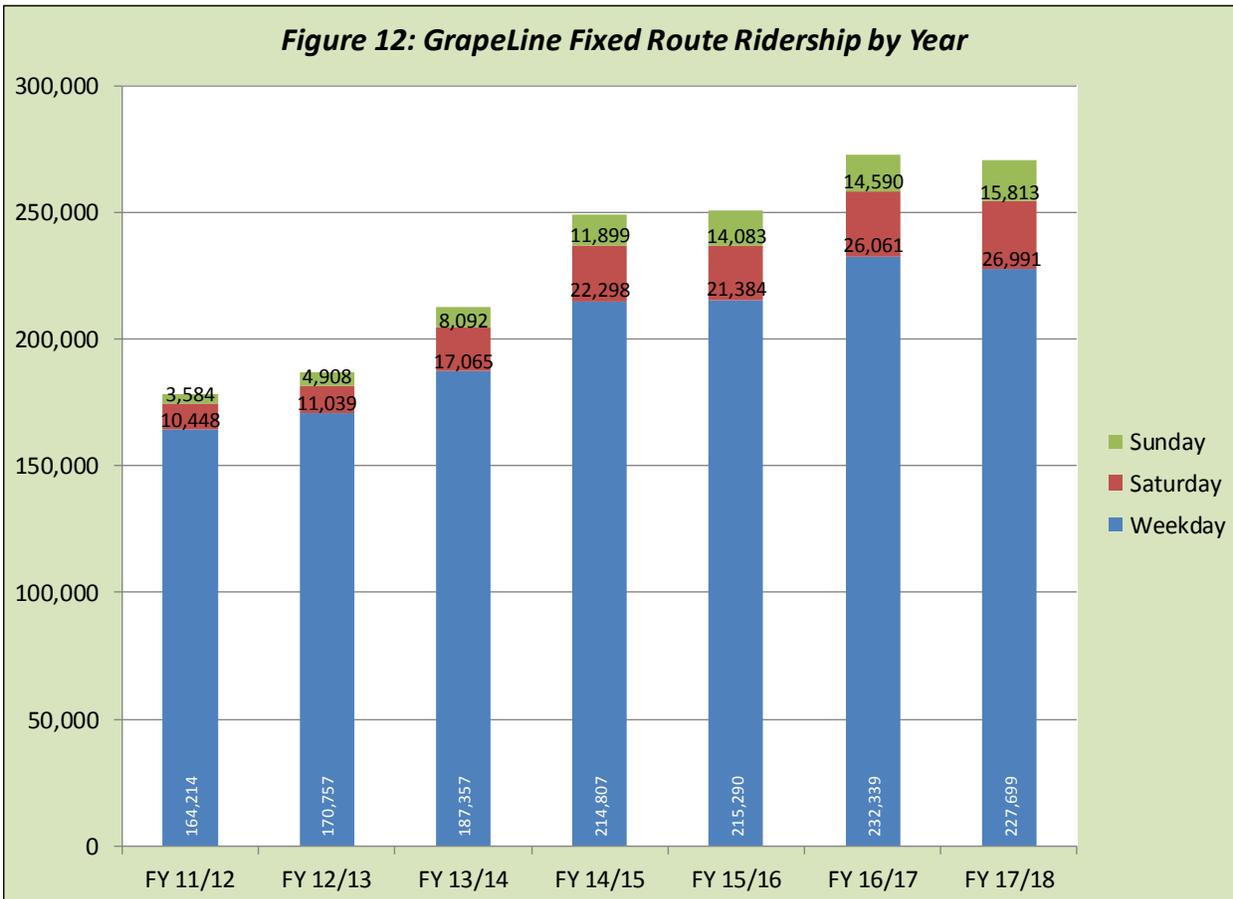


Figure 13: Grapeline DAR and VineLine Ridership by Year

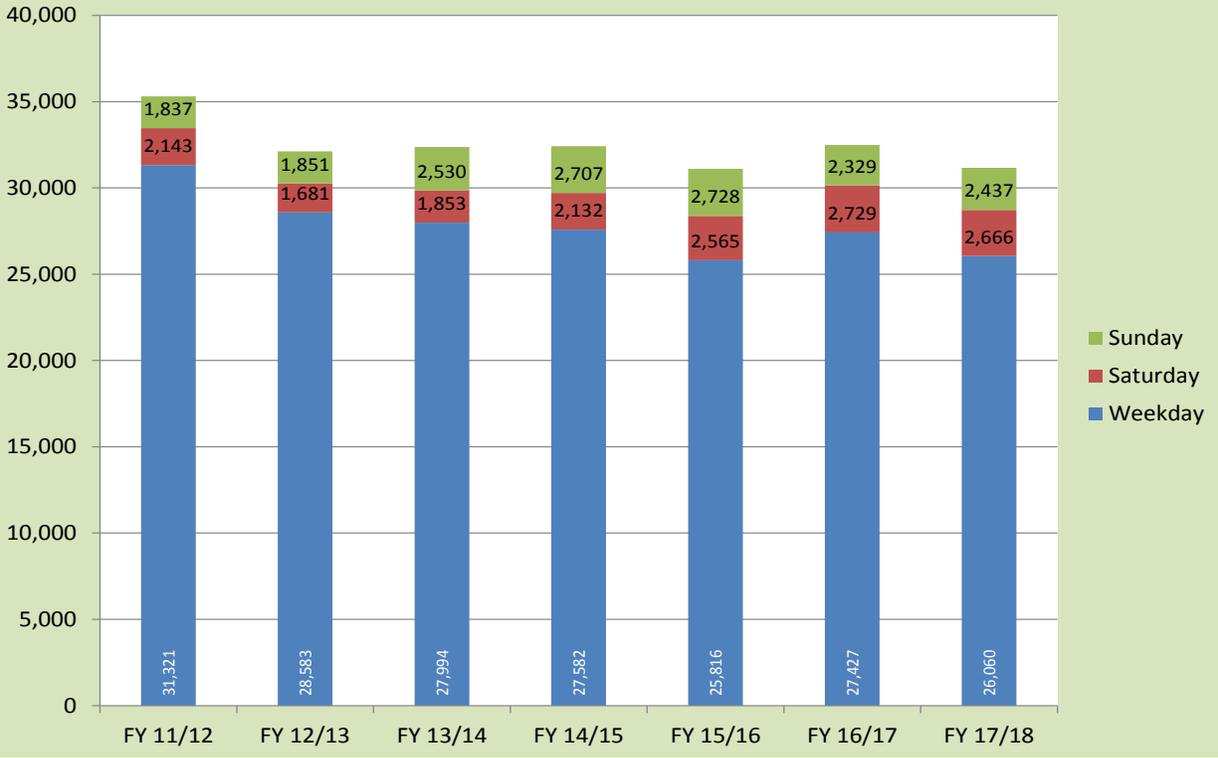


Table 8: Historical Ridership by Month

Month	Fixed Route - Grapeline				DAR - VineLine			
	FY15-16	FY16-17	FY17-18	% Change in 3 years	FY15-16	FY16-17	FY17-18	% Change in 3 years
July	19,112	20,898	20,412	6.8%	2,702	2,794	2,779	2.8%
August	23,121	27,088	26,259	13.6%	2,768	2,965	3,096	11.8%
September	23,252	25,522	25,845	11.2%	2,696	2,870	2,921	8.3%
October	22,679	22,391	23,935	5.5%	2,733	2,603	2,793	2.2%
November	18,007	22,075	21,805	21.1%	2,272	2,463	2,500	10.0%
December	18,705	21,864	21,940	17.3%	2,357	2,411	2,282	-3.2%
January	18,474	18,928	20,600	11.5%	2,420	2,515	2,473	2.2%
February	21,029	19,414	21,822	3.8%	2,473	2,402	2,367	-4.3%
March	20,698	23,192	21,355	3.2%	2,688	2,950	2,523	-6.1%
April	23,248	23,876	22,319	-4.0%	2,739	2,782	2,397	-12.5%
May	22,207	26,483	24,251	9.2%	2,488	2,919	2,517	1.2%
June	20,225	21,259	19,960	-1.3%	2,773	2,811	2,515	-9.3%
Monthly Average	20,896	22,749	22,542	7.9%	2,592	2,707	2,597	0.2%
Total Ridership	250,757	272,990	270,503	7.9%	31,109	32,485	31,163	0.2%
Systemwide Ridership by Year	281,866	305,475	302,988	7.5%				

Source: City of Lodi, Fall 2018

Figure 14: GrapeLine and VineLine Ridership by Month

FY 2017-18

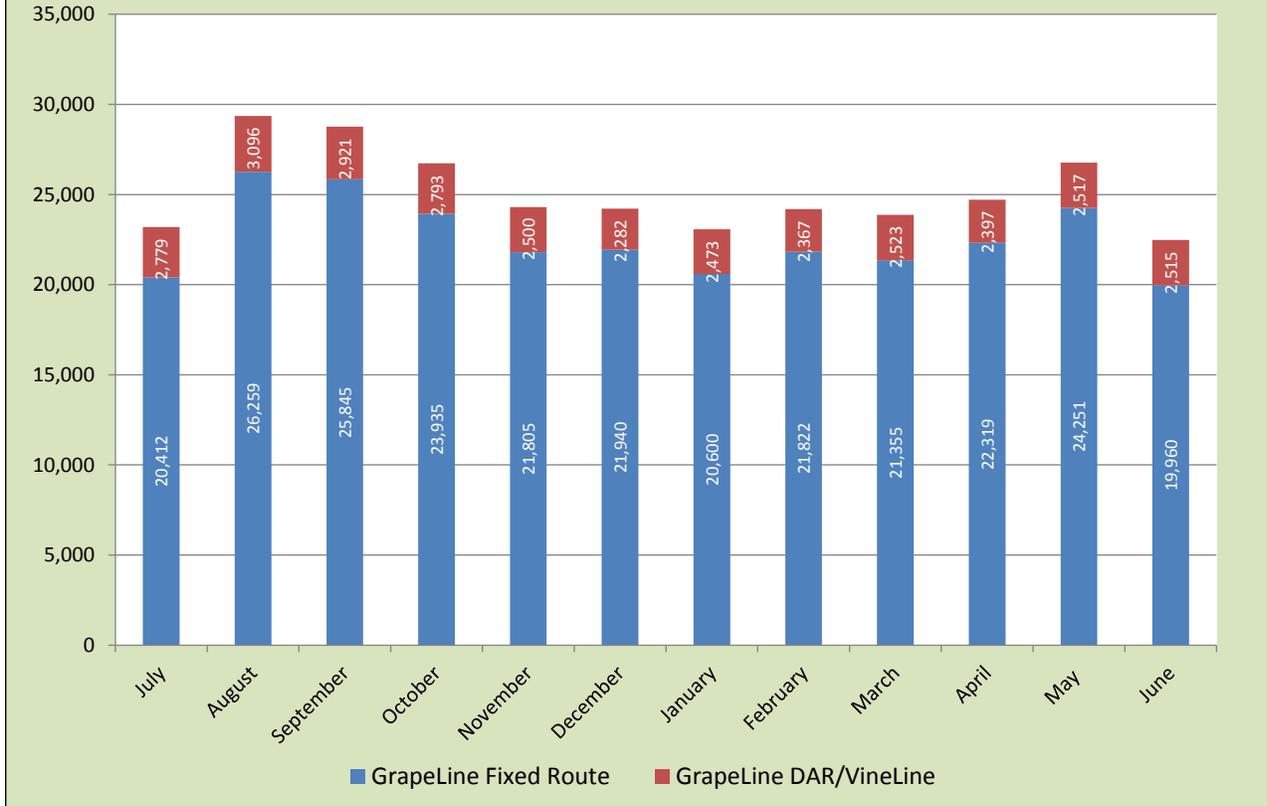
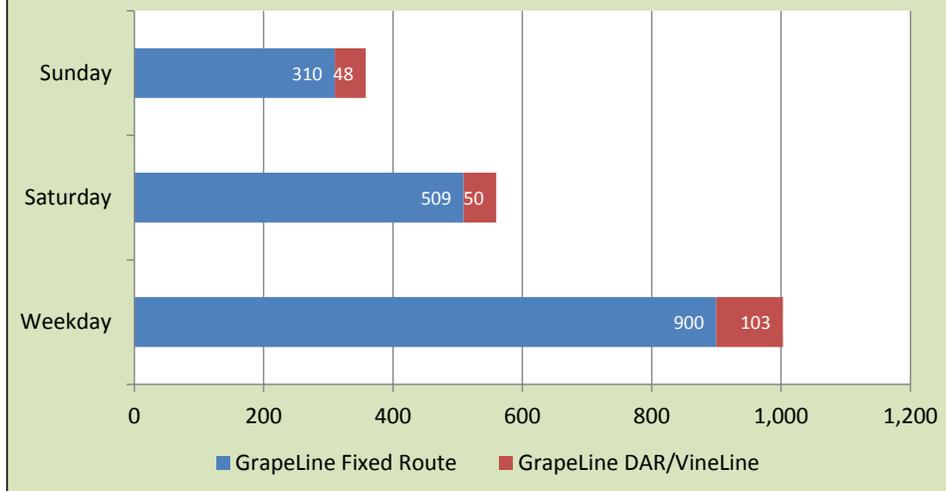


Figure 15: Average Daily Ridership by Weekday versus Weekend, FY 2017-18



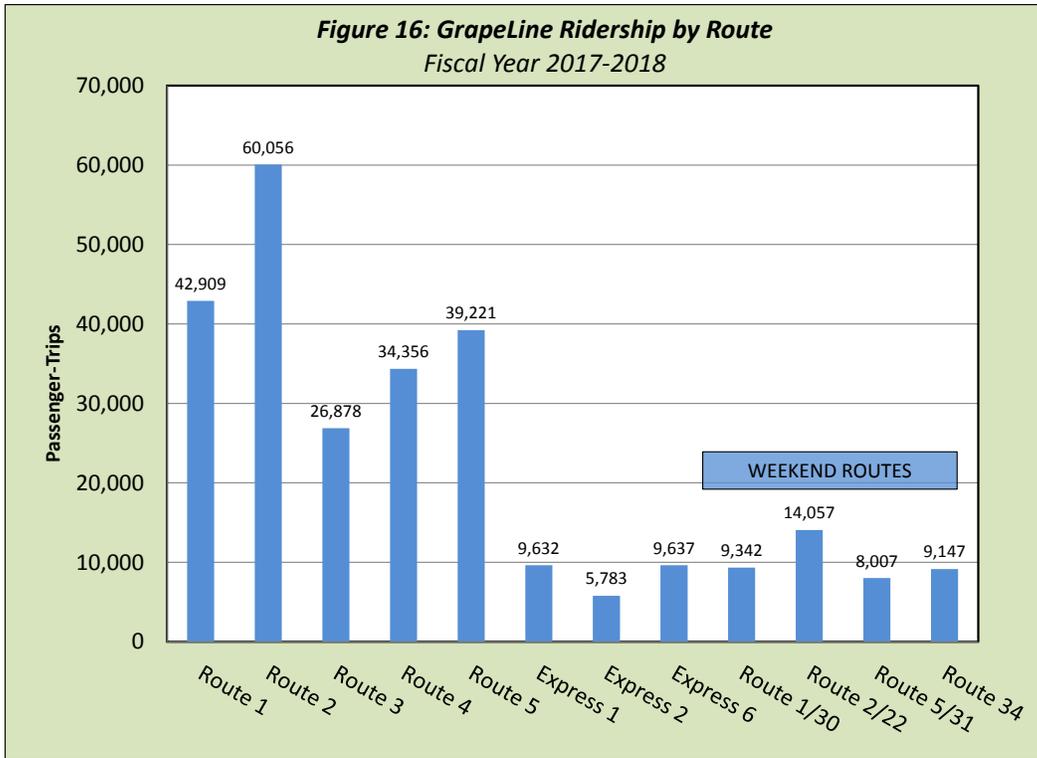
The discrepancy is slightly higher on the GrapeLine Fixed Routes, but on the GrapeLine DAR/VineLine, Saturdays and Sundays both averaged approximately half of weekday service (48 trips on Sundays, 50 on Saturdays, and 103 on weekdays).

Ridership by Route

Table 9 and Figure 16 show ridership by route for Fiscal Year 2017-2018. Approximately 85 percent of ridership occurs on the weekday routes versus 15 percent on the weekend routes. On weekdays, 11 percent of the ridership occurs on the express routes. Among the regularly scheduled Routes 1 through 5, Route 2 carried the most passengers (60,056), followed by Route 1 (42,909), and Route 5 (39,221).

For a quick comparison, the passengers carried per revenue hour of service are also depicted in Table 9. As shown, Express 1, which is a short route serving students, carried the most passengers per hour at 29.9. The next most productive was Route 2, which carried 18.7 passengers per hour.

Table 9: GrapeLine Ridership by Route			
<i>Fiscal Year 2017-2018</i>			
Route	Ridership	% of Total Ridership	Passengers per Vehicle Service Hour ¹
<i>Weekday</i>			
Route 1	42,909	15.9%	13.4
Route 2	60,056	22.3%	18.7
Route 3	26,878	10.0%	8.3
Route 4	34,356	12.8%	10.7
Route 5	39,221	14.6%	12.1
Express 1	9,632	3.6%	29.9
Express 2	5,783	2.1%	9.6
Express 6	9,637	3.6%	15.6
<i>Subtotal: Weekday</i>	<i>228,472</i>	<i>84.9%</i>	<i>12.9</i>
<i>Weekend</i>			
Route 1/30	9,342	3.5%	6.7
Route 2/22	14,057	5.2%	12.7
Route 5/31	8,007	3.0%	7.3
Route 34	9,147	3.4%	8.2
<i>Subtotal: Weekend</i>	<i>40,553</i>	<i>15.1%</i>	<i>8.6</i>
Total Ridership	269,025	100.0%	12.0
<small>Note 1: Based on hours reported in "PMT Spreadsheet 2017_Updated 7-18-2017.xls" Source: City of Lodi, 2018</small>			



ON TIME PERFORMANCE

On-time performance is tracked through DoubleMap software for the GrapeLine fixed route service. Performance is recorded for all timed stops throughout the day. On-time is defined as never early, and no more than 5 minutes late. The data, summarized monthly in Table 10, indicates the fixed route services performed on time over 92 percent of the time, with the lowest performance in September at 88.4 percent, and the highest at 95.9 percent in March.

The contract with MV asks that the contractor “strive to a minimum 95% of departures within 0 to 5 minutes after published or scheduled time points,” which is a fairly high standard to meet. GrapeLine DAR and VineLine on-time performance is tracked through Trapeze software, and also reported monthly, as shown in Table 10. On-time is defined as no more than 20 minutes late from the scheduled pick up time. The DAR services perform on time over 99 percent of the time. The contract with MV asks that the contractor shall “strive to a minimum 95 percent of departures within a 30 minute window (10 minutes prior or 20 minutes after a scheduled pick up).”

Table 10: GrapeLine On-Time Performance

Fiscal Year 2017-2018

Month	Fixed Route ¹	GrapeLine DAR ²	VineLine ²
July	92.2%	99.7%	99.7%
August	89.8%	99.7%	99.5%
September	88.4%	99.0%	98.4%
October	89.0%	99.1%	99.4%
November	89.7%	99.7%	99.7%
December	93.0%	100.0%	99.7%
January	95.2%	98.6%	99.6%
February	94.6%	99.3%	99.4%
March	95.9%	98.3%	99.4%
April	94.8%	99.3%	99.4%
May	93.7%	99.2%	99.6%
June	94.7%	99.3%	99.3%
Average	92.6%	99.3%	99.4%

Note 1: Tracked through DoubleMap at all timed stops.
Note 2: Tracked through Trapeze

LODI TRANSIT FINANCES

Revenues

Table 11 presents the revenues for the City of Lodi’s transit program. As shown, the total budgeted revenues for Fiscal Year 2017-2018 were \$7,338,440, which includes both capital and operating funding sources, particularly at the Federal level. Federal funding, such as FTA grants, accounted for 34.6 percent of all revenues. Additionally, 54.7 percent of revenues were from State sources, including Transportation Development Act funds (TDA), Proposition 1B, and State Special Grants. Local funding – fares and Greyhound Ticket commissions– comprised 3.1 percent of the revenues, while other funding totaled 7.4 percent, including 5.5 percent from Measure K, which is a countywide sales tax to fund transit.

Expenses

Estimated 2017-18 expenses related to the City of Lodi transit program are shown in Table 12. Operating expenses for the year were \$3,431,520 and capital expenses were estimated at \$2,151,120, for a total transit expense of \$5,582,640. The primary operating expense is for the transportation services, which included the \$1,960,000 contract with MV Transportation, plus vehicle maintenance costs estimated at \$384,000, and fuel costs of \$151,350.

Table 11: City of Lodi Budgeted Transit Revenues

Fiscal Year 2017-2018

Source	Dollar Amount	Percent of Total
Local Funds		
Transit Fare: Dial-A-Ride	\$60,000	0.8%
Transit Fare: Fixed Route	\$160,000	2.2%
Damage to Property	\$10,000	0.1%
CNG Fuel	\$5,000	0.1%
Greyhound Ticket Commission	\$5,000	0.1%
<i>Subtotal</i>	<i>\$240,000</i>	<i>3.3%</i>
State Funds		
Transportation Development Act	\$2,850,000	38.8%
Proposition 1B	\$1,014,000	13.8%
State Transit Assistance	\$150,000	2.0%
<i>Subtotal</i>	<i>\$4,014,000</i>	<i>54.7%</i>
Federal Funds		
Federal Grants	\$2,540,000	34.6%
Miscellaneous Revenue		
Investment Earnings	\$27,690	0.4%
Reimbursable Charges	\$1,050	0.0%
Revenue: Other	\$100,000	1.4%
Measure K Reimb. Operating	\$400,000	5.5%
Solar Revenue	\$15,700	0.2%
<i>Subtotal</i>	<i>\$544,440</i>	<i>7.4%</i>
Total Revenue	\$7,338,440	100.0%

Source: 2017_2018 TransitBudget.pdf - City of Lodi Transit Budget

REVIEW OF PERFORMANCE STANDARDS

The City of Lodi is not required to meet annual farebox recovery ratio standards, which is typically 10 percent systemwide in rural areas and 20 percent in urbanized areas. Instead, under agreement with the San Joaquin Council of Governments (SJCOG) as the Regional Transportation Planning Agency, the Lodi transit system must meet other TDA standards, as shown in Table 13 below. These measures are used by SJCOG and the City of Lodi to gauge how

**Table 12: City of Lodi Fiscal Year 2017-2018
Expenses**

Line Item	Total (Actual)
Operating	
Personnel Expenses	
Salaries and Wages	\$261,150
Fringe Benefits	\$141,040
<i>Subtotal</i>	<i>\$402,190</i>
Transportation Services	
Purchased Transportation Service	\$1,960,000
Repairs to Vehicles	\$384,000
Fuels / Lubricants	\$151,350
Repairs to Machines and Equipment	\$27,000
Other	\$394,980
<i>Subtotal</i>	<i>\$2,917,330</i>
Other	
Insurances Total	\$112,000
<i>Subtotal</i>	<i>\$112,000</i>
Total Operating Costs	\$3,431,520
Capital	
Capital Projects	\$2,101,120
Machinery and equipment	\$50,000
Vehicles	\$0
Capitalized Expenditures	\$0
Total Capital Costs	\$2,151,120
Total Transit Costs	\$5,582,640
Note: Transfer Out total = \$177,800.	
Source: City of Lodi Department of Finance	

transit is performing. The baseline performance measures were established in based on 2016-17 Performance Audit Reports, with CPI and other factors included, as noted in the table.

The City of Lodi was required to keep operating costs below \$142.25 per hour for 2017-18, with subsidies no more than \$18.12 per passenger trip. Additionally, the transit system was required to carry a minimum of 7.5 passenger trips per hour of service. These and other performance measures are evaluated below.

Table 13: City of Lodi TDA Performance Measures

Performance Objectives ¹	Baseline Year ⁵	Targeted Years			Maximum	
	FY 2013-2014	FY 2015-16	FY 2016-17	FY 2017-18	+5%	-5%
Cost per Vehicle Hour Targets ²	\$131.82	\$135.14	\$138.61	\$142.25	\$149.36	--
Passengers per Hour Targets ³	7.4	7.4	7.5	7.5	--	7.1
Subsidy per Passenger-Trip Targets ⁴	\$17.01	\$17.36	\$17.73	\$18.12	\$19.03	

Note 1: Performance targets are based on Audited FY 2013/14 TDA Reports

Note 2: The Cost/Hour target is calculated by forecasting future operating cost based on the projected CPI values provided by the California Department of Finance and dividing by the Revenue Hours. Revenue hours are status quo.

Note 3: The Passenger / Hour target is calculated by forecasting future ridership based on average annual population growth. Revenue hours are status quo.

Note 4: Subsidy / Passenger is calculated using the inflated operating cost less projected farebox revenue, Federal Grants, Local Support and/or Measure K divided by the projected ridership.

Note 5: 2013/14 TDA Claim data is shown for a baseline comparison.

Source: City of Lodi Transit, 2018

System Performance Evaluation

To gain further insight into the efficiency and effectiveness of Lodi transit services, the ridership and operating data were analyzed on a service category basis. Ridership and operating statistics for FY 2017-2018 were reviewed to identify average passenger activity, fares, and operating quantities. Fares can then be subtracted to identify the average daily subsidy required to fund each service. This data can be used to evaluate a number of productivity and service measures, including those in Table 13, as well as additional measures found useful, as described below.

The operating data shown in Table 14 was derived from the City of Lodi reports. The operating cost and fare data was based on estimated expenses. This was done for both fully allocated operating costs (to compare with SJCOG’s performance requirements) and marginal operating costs (which reflect performance based on service quantities).

An important measure of service effectiveness is productivity, defined as the number of one-way **passenger-trips provided per vehicle revenue hour**. As shown in the table and Figure 17, the system as a whole achieved a productivity of 8.7 one-way passenger-trips per vehicle revenue hour (compared to 7.5 as the minimum target in Table 13). The average on the GrapeLine was 11.9 and 2.7 on the Dial-A-Ride / VineLine service.

Another measure of service effectiveness is the number of one-way **passenger-trips provided per vehicle revenue mile**. The systemwide average during the fiscal year was 0.8 one-way

Table 14: City of Lodi Transit Operating Data and Performance Indicators

Fiscal Year 2017-2018

	DAR: VineLine	Fixed Route: GrapeLine	System-wide
Operating Data			
One-Way Passenger Trips	31,163	270,503	301,666
Vehicle Revenue Hours	11,736	22,759	34,496
Vehicle Revenue Miles	108,661	260,803	369,464
Fully Allocated Operating Costs ¹	\$1,142,816	\$2,288,704	\$3,431,520
Marginal Operating Costs ²	\$824,302	\$1,671,048	\$2,495,350
Farebox Revenues	\$62,000	\$129,300	\$191,300
Performance Indicators			
Trips Per Vehicle Revenue-Hour	2.7	11.9	8.7
Trips Per Vehicle Revenue-Mile	0.3	1.0	0.8
Average Fare	\$1.99	\$0.48	\$0.63
<u>Fully Allocated Cost & Subsidy Performance ¹</u>			
Operating Cost per Hour	\$97.37	\$100.56	\$99.48
Operating Cost Per Passenger Trip	\$36.67	\$8.46	\$11.38
Subsidy Per Trip	\$34.68	\$7.98	\$10.74
<u>Marginal Operating Cost & Subsidy Performance ²</u>			
Marginal Operating Cost per Hour	\$70.23	\$73.42	\$72.34
Marginal Operating Cost Per Passenger	\$26.45	\$6.18	\$8.27
Marginal Subsidy Per Trip	\$24.46	\$5.70	\$7.64
Note 1: Operating costs based on total costs, allocated to DAR versus Fixed Routes based on hours and miles of service. See Table 12 for details.			
Note 2: Marginal operating costs are those costs which vary by service quantity, such as per-hour or per mile costs; excludes fixed costs.			
Source: City of Lodi Transit, 2018 (FY 17/18 City Budget document); LSC Transportation Consultants, Inc.			

passenger-trips per vehicle service mile. This measure was 1.0 on the GrapeLine fixed routes, and 0.3 on the DAR.

The **operating cost per revenue hour** is useful for monitoring fluctuations in costs, but often the transit system has limited control over this measure. As shown in Table 14, the cost per revenue hour averaged \$99.48 systemwide, which is significantly under the target amount of \$142.25. The cost is slightly higher per hour for GrapeLine than for VineLine services based on the fact that more miles per hour of service are operated on the fixed routes. **Marginal operating cost per revenue hour** is \$70.23 for DAR and \$73.42 for fixed route services.

The financial efficiency of a transit system can be measured by the **operating cost per passenger-trip**, as presented in the bottom portion of Table 14. The systemwide operating cost

Figure 17: Passenger Trips Per Vehicle Revenue-Hour

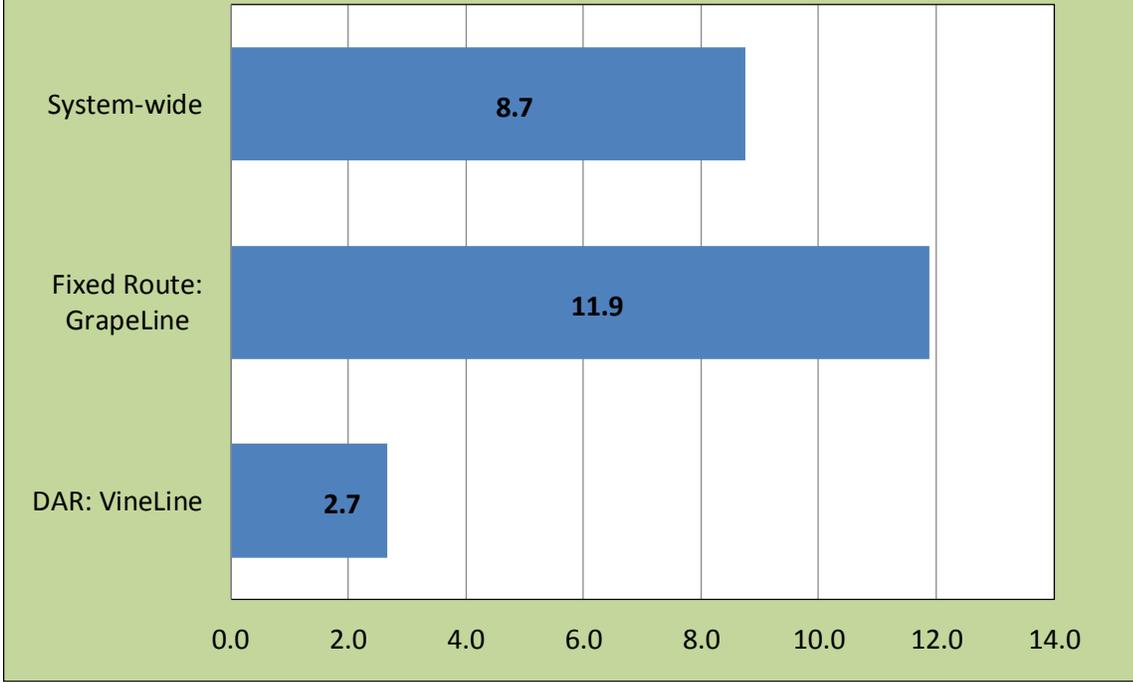
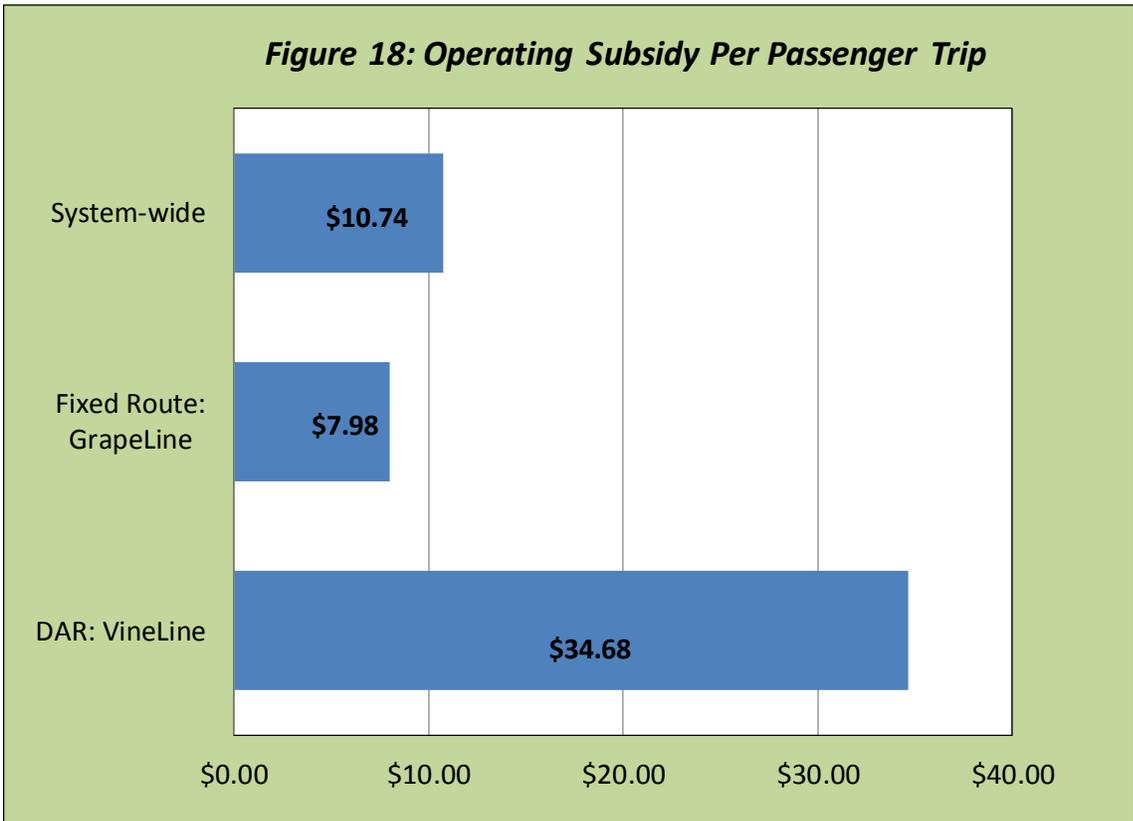


Figure 18: Operating Subsidy Per Passenger Trip



per passenger-trip in FY 2017-2018 was \$11.38. The GrapeLine service performed at an average of \$8.46 per passenger-trip, while the Dial-A-Ride / VineLine services performed at a cost of \$36.67 per hour of service. It is typical for a DAR to operate less cost efficiently than a fixed route. **Marginal operating cost per passenger-trip** is \$26.45 for DAR and \$6.18 for fixed route services.

When fare revenue is subtracted from the total operating cost and divided by the number of one-way passenger-trips, the **subsidy required per 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” (passenger-trips). The system as a whole required a subsidy of \$10.74 per passenger-trip. As shown in the table and Figure 18, the GrapeLine routes had a subsidy per trip of \$7.98, while the Dial-A-Ride / VineLine service had a subsidy per trip of \$34.68. (This is also one of the measures tracked by SJCOG—but on a systemwide basis, with a target of \$18.12 subsidy per passenger trip.) The **marginal subsidy required per passenger-trip** is \$24.46 for DAR and \$5.70 for fixed route services.

OTHER TRANSIT PROVIDERS IN THE LODI AREA

A number of transit providers operate in the region and provide important connections to Lodi from regional and inter-regional areas. These are described below.

South County Transit / Link

SCT/Link, or South County Transit, generally serves southern Sacramento County SCT/Link. Route 99 provides corridor service along Highway 99 between Sacramento and Lodi. Service is provided hourly, with departures from the Lodi Transit Station between 5:45 AM and 6:45 PM. This route stops at Galt City Hall, Elk Grove Consumnes River College, and the South

Sacramento Kaiser hospital. General public fares between Lodi and Galt are \$2.00, while senior/disabled/Medicare and student fares are \$1.00. Trips to Elk Grove and Sacramento are \$4.00 for the general public and \$2.00 for senior/disabled/Medicare and students.

Greyhound

Greyhound operates intercity bus service along State Route (SR) 99 into Lodi as part of the route connecting Sacramento with Los Angeles. Two northbound and two southbound trips depart daily. Buses do not stop in Lodi unless a passenger has a reservation to be picked up, or if a passenger requests to alight in Lodi. One-way fares range from \$7 to \$23 depending on the distance and type of passenger.

Greyhound also has a package service in Lodi, but not in Stockton (which is the nearest location with regularly scheduled stops). Lodi Transit makes a small commission from handling packages, but the transit contractor earns 87 percent of the commission and the City of Lodi earns just 13 percent. This earns the City approximately \$5,000 in revenue annually. The GrapeLine dispatch staff answers calls for Greyhound, and reports that they receive many calls intended for Stockton because that phone line often is unanswered. The benefit to Lodi of offering package service is therefore diminished.

Amtrak San Joaquins

The Amtrak *San Joaquins* route operates between the southern terminus of Bakersfield (with connecting bus service to Los Angeles) and northern terminus of Sacramento, running through Lodi. In Lodi, there are four southbound trips daily (two trains, and two thruway buses), and six northbound trips daily (three trains, and three thruway buses). Fares to Bakersfield are approximately \$40 one way, and fares to Sacramento are \$9.75.

San Joaquin Regional Transit District

The San Joaquin Regional Transit District (RTD) provides public transit services in the Stockton Metropolitan Area, as well as Intercity, Interregional, and Rural Transit Services countywide. Below is a description of services as they pertain to Lodi.

Fixed Routes Serving Lodi

The San Joaquin RTD transit system operates three routes providing service to Lodi – Route 23, Route 723 and Route 93:

- Weekday service is provided through **Route 23**, with eight daily departures from the Lodi Transit Station outbound to Stockton. Hours of operation are between 6:00 AM and 6:29 PM. The inbound bus from Stockton arrives in Lodi seven times per day. The route serves not only the Lodi Transit Station, but also the Ham Lane / West Lodi Avenue and Kettleman Lane / Tienda Drive transfer points. Ridership on the route in 2017-18 was 38,288 passenger trips based on data provided by RTD, which is an average of 152 passenger trips per weekday, or 10.1 per run.
- **Route 723** is the weekend version of Route 23 with an identical service area in Lodi. Service is provided between 8:50 AM and 5:13 PM with eight arrivals into Lodi and seven departures to Stockton from Lodi. Ridership in 2017 – 18 was 5,443 passenger trips, which is an average of 54 passenger trips per weekend day, or 3.6 per run.

- The final route serving Lodi, **Route 93**, is a part of the Hopper system. Like the other routes, major transfer points are located at the Transit Station, Ham Lane / West Lodi Avenue, and Kettleman Lane / Tienda Drive. There are nine daily arrivals into Lodi and seven departures, with service between 5:00 AM and 8:56 PM. This route is designed as a commuter route between Lodi and Stockton. Ridership in 2017-18 was 31,462 passenger trips according to RTD, which is an average of 25 passenger trips per weekday, or 7.8 per run.

General public fares for Intercity and Hopper services are \$1.50, and discount fares are \$0.75 per one-way trip.

Access San Joaquin

Access San Joaquin is the Consolidated Transportation Services Agency (CTSA) for San Joaquin County. The CTSA was formed by local transit agencies and the SJCOG in October 2018. The CTSA is funded with 2 percent of the LTF funding allocation for the region (approximately \$550,000). The local agencies that participate in the CTSA include:

- | | |
|-------------------------|-------------------|
| – Escalon eTrans | – Manteca Transit |
| – Ripon Blossom Express | – Tracy Tracer |
| – City of Lathrop | – RTD |
| – Lodi GrapeLine | |

Access San Joaquin includes several programs designed to provide flexible options for increased mobility, particularly for rural areas, off peak times, and for passengers with mobility limitations. Additionally, Access San Joaquin provides ADA eligibility screening on behalf of all member transit agencies. ADA eligible passengers can then receive and use the Access Pass (identifying them as an ADA-eligible passenger). Non-ADA seniors and disabled passengers can also apply for the Discount Fare Card through Access San Joaquin, which identifies them to all member transit agencies. This processing has reduced the redundancy of screenings in the County. The programs operated by Access San Joaquin are described below.

RTD Go!

RTD Go! is a partnership between RTD and Uber which allows RTD to extend service hours, provide more mobility options, and add public transit connectivity to residents living in towns such as Escalon, Linden, and Lockeford. This service allows RTD to test an innovative service delivery model in sections of the county where traditional bus service is typically not practical. The service was established in July 2017.

Passengers can save 50 percent (up to \$5.00 off per ride) when riding with Uber. RTD Go! is available in San Joaquin County, Monday through Friday. Passengers just need to enter a discount promo code on the Uber app. In order to qualify for the subsidy, trips have to meet one of the following criteria:

1. Trips originate or end outside the normal RTD service area from 4:00 AM until 10:00 AM and 4:00 PM until 10:00 PM or,
2. Trips originate or end at one of 11 transit centers from 4:00 AM until 10:00 AM and from 4:00 PM until 10:00 PM The transit centers include:
 - Lodi Transit Station
 - Hammer Transfer Station (Stockton)
 - Mall Transfer Station (Stockton)
 - Downtown Transit Center (Stockton)
 - Tracy Transit Center (Tracy)
 - Manteca Transit Center (Manteca)
 - ACE Train Stations (Stockton, Lathrop, Tracy)
 - Amtrak Train Station (Stockton)
 - San Joaquin General Hospital (French Camp)

The idea behind the eligibility was to provide service in underserved areas, while also encouraging connections to fixed route public transit services. The result is that there are a mix of trips which are provided strictly outside of cities, and those which originate outside of the cities to connect to transit hubs. Uber does not provide specific trip origin/destination data, but does provide heat maps of boarding/alighting locations.

For individuals who are unable to use Uber due to physical disabilities or other limitations, RTD offers other options by (cash options for those who cannot use the app, or accessible vehicles for those who need them). For qualifying trips, passengers pay a flat rate of \$10.00 per trip. Tipping is not expected or required.

In the first year, the monthly subsidy averaged approximately \$13,600, with an average of 3,178 passenger trips provided each month.

Van Go!

Van Go! is an on-demand, ADA-accessible, rideshare program available for those residing in underserved areas. Van Go! currently operates in areas such as Victor, Linden, Clements and

Lockeford with a free transfer to the fixed route system. Van Go! provides dial-a-ride style trips for passengers in areas of the county with limited public transportation options, 7 days per week between 8:00 AM to 5:00 PM. As the service is fairly new (initiated in October 2018), an introductory low fare of \$5.00 per one-way trip was offered, but this was dropped even further to \$2.00 per ride (including shared rides for up to four passengers riding between the same origin/destination) on January 5, 2019.

The service was initiated with six leased vehicles, but with the purchase of fourteen additional vehicles, the service will expand to serve the entire county beginning March 25, 2019.

Additional elements of the service include:

- Connected Service which will pick up and drop off passengers, and allow a transfer with fixed route buses to continue longer trips.
- Transfers are free to fixed-route bus service, excluding commuter buses.
- Rural Pick Up allows you to travel anywhere within the RTD Van Go! service area.
- Vehicles are accessible and can transport wheelchairs. Drivers are professionally trained, licensed, and prepared to help.
- Weekend & holiday service is available when other transportation services are closed.
- As a ridesharing service, passengers are likely to share the van with other passengers en route to their destinations.

Volunteer Incentive Program

Another opportunity for residents to increase mobility is the Volunteer Incentive Program (VIP). This is a mileage reimbursement program to allow residents to arrange medical trips with friends or family. The passenger and driver both apply and sign waivers, and upon processing, the passenger is eligible to receive reimbursement for medical trips at the IRS mileage rate (currently \$0.545/mile). Currently, 38 individuals are enrolled. The program may expand to serve other trip purposes, but details of how this expansion could be established are still being explored. Issues such as potentially setting a per-person cap, a spending cap, or some other form of controlling the program, as well as trip validation, need to be considered.

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GOALS, OBJECTIVES AND POLICY STATEMENTS

An important element in the success of any organization is a clear and concise set of goals and objectives, as well as the performance measures and standards needed to attain them. This can be particularly important for a public transit agency, for several reasons:

- Transit goals can be inherently contradictory. For instance, the goal of maximizing cost effectiveness can tend to focus services on the largest population centers, while the goal of maximizing the availability of public transit services can tend to disperse services to outlying areas. To best meet its overall mission, a public transit agency must therefore be continually balancing the trade-offs between goals. Adopting policy statements also allows a discussion of community values regarding transit issues that is at a higher level of discussion than is possible when considering case-by-case individual issues.
- As a public entity, a public transit organization is expending public funds, and therefore has a responsibility to provide the public with transparent information on how funds are being spent and how well it is doing in meeting its goals. Funding partners also have a responsibility to ensure that funds provided to the transit program are being used appropriately. The transit organization therefore has a responsibility to provide information regarding the effectiveness and efficiency by which public funds are being spent.
- An adopted set of goals and performance standards helps to communicate the values of the transit program to other organizations, to the public, and to the organization staff.

Status of Transit Goals in Lodi

Currently, the City of Lodi does not have any written goals, objectives or standards beyond those performance standards required by SJCOG in lieu of meeting the minimum farebox ratio, and standards included in the transit operations contract which it uses to hold the transit operator accountable to provide a high level of service. Furthermore, goals, objectives and standards were not addressed in previous SRTPs. However, direction for all transit systems in San Joaquin County can be taken, in part, from the Regional Transit Systems Plan (RTSP) which

was adopted by SJCOG in November 2016. This chapter therefore reviews the regional goals and objectives, and makes recommendations for standards.

REGIONAL TRANSIT VISION, GOALS AND OBJECTIVES

San Joaquin County's Transit Vision

A good source of direction for identifying transit goals for Lodi is to review the SJCOG's Regional Transit Systems Plan (RTSP), adopted in November, 2016. This document articulates the regional transit vision, which can provide guidance for developing goals. The vision statement proclaims:

"Provide a public transportation system that delivers mobility for San Joaquin County residents who are transit dependent and offers a viable option for those who are car dependent."

The regional transit vision is intentionally broad and was developed with input from transit providers throughout the County, including from the City of Lodi. Lodi could adopt a similar, local vision statement by replacing "San Joaquin County" with "City of Lodi."

Regional Transit Goals

In addition, six regional goals were identified, including:

1. Implement effective ridership programs countywide such as continuing work toward the implementation of San Joaquin County 511; incorporation of San Joaquin County transit routes into Google transit; and the addition of global positioning units on buses to enable real time transit information to be collected.
2. Develop a transit system which addresses to the greatest extent possible the needs for air quality and congestion management.
3. Provide a transit system serving county residents which is efficient and cost-effective.
4. Provide an emphasis on the multimodal nature and intermodal opportunities in San Joaquin County.
5. Explore the opportunities for extending services into additional travel markets.

6. Provide a mechanism whereby service is responsive to local needs to enhance the opportunities for all county riders.

These goals are appropriate for Lodi as well, particularly Goals 2-6.

Regional Transit Objectives

Objectives are developed in support of goals. Objectives in the Regional Transit Systems Plan can be paraphrased as follows:

- An objective to develop alternative transportation modes in a viable, cost effective manner, including green technologies.
- Maintenance of the existing transit system—transit systems must prioritize preventative maintenance. sustain the system is similar to the maintenance of the roadway
- Community interconnectivity (between and within urban and rural areas), through enhanced safe, coordinated inter- and intraregional transit connections to and from urbanized and rural areas.
- Integrating transit with supportive land use development strategies to improve transit viability, air quality and public health.
- Addressing the needs of an aging and transit dependent population. Adequate transit service for aging and disabled citizens is an essential part of an effective public transit system.
- Create a 3C public involvement process that is Comprehensive, Cooperative, and Continuous: Transit planning must be facilitated through an open, inclusive process involving the public, local public transit providers, and stakeholders from other jurisdictions.

The overarching theme is that an investment in transit is an investment in the region's economic prosperity and longevity. This is true for the City of Lodi as well.

RECOMMENDED GOALS, OBJECTIVES AND STANDARDS

The City of Lodi should consider the vision statement and objectives (listed above) as part of its own. Additionally, GrapeLine should formally adopt goals, objectives and standards which will guide it toward achieving the vision. Some of Lodi's objectives and standards are already required by the Transportation Development Act and/or by the Regional Transportation Planning Agency. Additionally, the contract with the transit operator includes performance

standards which are used to achieve objectives. Drawing from these three sources, goals, objectives and standards for GrapeLine are recommended, below, and presented in Table 15. Table 15 also highlights which measures meet current minimum standards; which meet target standards; and which do not meet either the target or minimum.

Recommended Goals, Objectives and Standards

- 1) **System Safety Goal**: GrapeLine and VineLine will operate services in a safe manner.
 - a) **Objective**: Service will be provided with zero or a limited number of preventable accidents.
 - i) **Safety Standard**: The service shall operate a minimum of 50,000 total revenue miles between preventable accidents, with a target objective of 100,000 between all accidents.¹

- 2) **System Accessibility Goal**: Provide transit service to residents and visitors of Lodi to the maximum extent feasible with available resources, particularly to those who may be transit dependent.
 - a) **Objective**: Fixed Route Service shall be provided within walking distance (1/4 mile) of activity centers and residences.
 - i) **Fixed Route Coverage Standard**: Fixed route service shall be provided within ¼ mile operating distance of 85 percent of activity centers and residences in Lodi on weekdays and 75 percent on weekends.²
 - ii) **Express Route Coverage Standard**: Express routes shall be provided within ¼ mile operating distance of all public middle schools and high schools in Lodi during general bell times in the morning and afternoon. Express routes shall operate within ¼ mile operating distance of 75 percent of residences during these same hours.

¹ This standard is reflected in the service contract. The industry standard is typically 100,000 miles between preventable accidents. The minimum standard should be 50,000 miles between preventable accidents with a target objective of 100,000 between all accidents.

² These standards are an extension of the standard in the operating contract which states “Seventy-five (75) percent of all residents in the service area are within a one-quarter mile walk of all regular Weekday, Express and Weekend transit bus stops.” It is recommended this objective and measures should be provided for weekday versus express, and should reflect recent performance.

Table 15: Recommended Performance Standards for Lodi GrapeLine & VineLine

Shading Indicates Does Not Meet Minimum Standard
 Shading Indicates Meets Minimum Standard But Not Target Objective
 Shading Indicates Meets Target Objective

Standards and Measures	Fixed Route			GrapeLine DAR & VineLine Paratransit		
	Minimum	Target	Current Status	Minimum	Target	Current Status
<i>Safety Standard</i>						
Miles between Accidents ¹	50,000 Miles Between Accidents	100,000 Miles Between Accidents	100,000+	50,000 Miles Between Accidents	100,000 Miles Between Accidents	100,000+
<i>System Accessibility Standard</i>						
Within 1/4 mile of activity centers	85% weekdays		85%			
	75% weekends		80%			
Within 1/4 mile of schools at bell times	75% weekdays		80%			
Headways	1 hr	30 min	30-60 min.			
<i>Service Quality Standards</i>						
On-time Performance ²	90% of trips no later than 5 minutes behind schedule, no early departures	95% of trips no later than 5 minutes behind schedule, no early departures	Data needs improved tracking	90% of trips no later than 10 minutes behind schedule, no early departures	85% of trips no later than 10 minutes behind schedule, no early departures	Data needs improved tracking
Miles between Road Calls ³	15,000 Miles Between Road Calls	30,000 Miles Between Road Calls	TBD	15,000 Miles Between Road Calls	30,000 Miles Between Road Calls	TBD
Minimize Missed Trips ^{1,3}	95% completed within 15 min. of scheduled time	100% completed within 15 min. of scheduled time	Standard met	95% completed within 20 min. of scheduled time	100% completed within 20 min. of scheduled time	Standard met
Achieve High Customer Satisfaction ¹	Less than 10 valid customer/passenger complaints per month		TBD	Systemwide standard		
<i>Service Effectiveness Standard</i>						
Passengers per Vehicle Service Hour ^{1,4}	7.5	11.0	11.9	2.7	3.0	2.7
<i>Service Efficiency Standards</i>						
Cost Control Standard ⁴	\$142.25	\$100.00	\$100.56	\$142.25	\$100.00	\$97.37
Marginal Subsidy per Passenger Trip ³	\$5.75	\$5.00	\$5.70	\$24.00	\$22.00	\$24.46
Farebox Return Ratio ⁵	5.0%	10.0%	5.6%	5.0%	10.0%	5.4%

Note 1: Standard as identified in contract.

Note 2: Contract specifies 95%, which is appropriate as a target, but a lower minimum is suggested. Data is not well tracked LSC Consultants suggested service standard. Service agreement sets a minimum standard of 15.0 psgrs/hour on the Trolley, but LSC

Note 3: Consultant recommendation.

Note 4: Per SJCOG performance standard.

Note 5: Lodi is not required to meet a minimum farebox return ratio, but establishing a standard encourages efficiency. (Figures listed are fully-allocated, not marginal)

Source: Monthly Reports, TPAs

TBD = To be determined

- b) Objective: Transit vehicles shall operate at a frequency to provide reasonable access to residences and activity centers throughout Lodi.

- i) Headway Standard: Vehicle headways shall operate a minimum of 1.0 hour for regular weekday and weekend service, with a target of 30 minutes.³
- 3) **Service Quality Goal**: Ensure that all transit services can be provided in a manner which maximizes productivity and at the same time maximizes customer service.
- a) Objective: Operate services on-time.
 - i) Fixed Route On-time Performance Standard: City buses will operate on-time 90 percent on-time at a minimum, with a target of 95 percent of the time. On-time as defined as never departing early and departing no more than 5 minutes late from any scheduled and published departure time.⁴
 - ii) Dial-a-Ride On-time Performance Standard: Dial-a-Ride and complementary paratransit buses shall operate 85 percent of the time at a minimum, with a target on-time performance of 90 percent. On-time performance is defined as serving a trip within a 30 minute pick-up window (10 minutes prior or 20 minutes after a scheduled pick up time).⁴
 - b) Objective: Minimize the number of road calls.
 - i) Road Call Standard: Operate a minimum standard of 15,000 miles between road calls for all buses in the fleet that are within their normal useful life is suggested. A target objective would be 30,000 miles between road call for all buses in the fleet that are within their normal useful life.⁵
 - c) Objective: Minimize the number of missed trips
 - i) Fixed Route Missed Trip Standard: The target standard should be to complete 100 percent of all scheduled trip, with a minimum of 95 percent of all scheduled trips completed. Any fixed route trip operating 15 minutes or more behind the scheduled time shall be considered a “missed trip”⁶.

³ Per current contract.

⁴ Current contract specifies 95% which is generally met, but surveys indicated there may be issues. On-time performance should be sporadically confirmed through manual checks at time points.

⁵ This is a newly recommended objective and standard to support reliability.

⁶ Contract specifies 100 percent of all scheduled trips should be completed for Fixed Route and DAR. This should be the target standard, but a lesser minimum standard is recommended.

- ii) DAR Missed Trip Standard: Complete 100 percent of all scheduled trips. Any demand response vehicle that is more than 20 minutes late for a scheduled pickup time shall be considered a missed trip.
- d) Objective: Grapeline and Vineline will achieve high customer satisfaction.
 - i) Customer Complaints Standard: The total number of valid customer/passenger complaints shall not exceed 10 per month.⁷
- 4) **Service Effectiveness Goal**: Grapeline and Vineline services shall be operated in a productive manner.
 - a) Objective: Grapeline and Vineline will carry a minimum number of passengers per revenue hour of service.
 - i) Fixed Route Productivity Standard: The minimum standard for measuring productivity as measured in passengers per vehicle revenue hour shall be 7.5, with a target of 11.0 passengers carried per passenger hour.⁸
 - ii) Dial-a-Ride Productivity Standard: The minimum standard shall be 2.7, with a target minimum of 3.0 passengers carried per passenger hour.
 - iii) Express Route Productivity Standard: The minimum standard shall be 15.0, with a target minimum of 18.0 passengers carried per passenger hour.
 - iv) Systemwide Productivity Standard: The minimum standard shall be 7.5, with a target minimum of 8.0 passengers carried per passenger hour.
- 5) **Cost Efficiency Goal**: Provide transit services that are financially sustainable within existing local, state and federal funding programs and regulations in a cost-efficient manner.
 - a) Objective: Operate transit services at a maximum cost per hour of service.

⁷ Per contract.

⁸ These standards are derived from 1) the requirement established by SJCOG to carry 7.5 passengers per hour and 2) the contract standard of 2.75 passengers per service hour. Additionally, standards are suggested based on current performance, as follows: Fixed Route 2017-18 productivity averaged 11.7 passengers per hour for GrapeLine fixed routes (weekdays and weekends); 2017-18 Express routes averaged 16.3 passengers per hour; DAR averaged 2.7 passenger trips per revenue hour for the past five years.

- i) Cost Control Standard: The cost per vehicle revenue hour shall not exceed \$142.25 annually, adjusted by the consumer price index for increased fuel costs. The target cost shall be no more than \$100.00 per hour.⁹

- ii) Cost Effectiveness Standard: The marginal subsidy per passenger trip should not exceed \$7.75 per passenger trip (2017-18 dollars), adjusted for inflation. Subsidy per passenger trip shall be calculated by determining marginal operating costs (contract costs, fuel costs, vehicle maintenance costs) and subtracting fare revenues. Minimum standards and targeted standards for each service category are suggested are as follows:
 - Fixed Route: maximum \$5.75 subsidy per passenger trip; target \$5.00 subsidy per passenger trip.

 - Dial-a-Ride: maximum \$24.00 subsidy per passenger trip; target \$22.00 subsidy per passenger trip.¹⁰

Service Monitoring

In order to ensure performance standards are effective, they must be monitored. Data required to review each performance measure is provided by the contractor in a monthly report.

On at least an annual basis, a Transit Performance Summary Report should be prepared and provided to City Council. This should include current data regarding each of the performance measures and standards, as well as targets and recent 3- to 5-year trends.

Summary

Adopting goals, objectives and standards is an effective way to ensure Lodi's transit system is adhering to the values of the community it serves. Often, developing goals, objectives and standards is an iterative process which requires a review of current measures against the values of the community and the desired outcome. As conditions change each year, so should the standards be reviewed to ensure they are appropriate. They should be established to encourage improvement, but they should be realistic as well.

⁹ The \$142.25 standard was established by the SJCOG (for 2017-18). The \$100.00 is suggested to reflect current conditions (in 2017-18, the cost was \$99.48 per hour as shown in Table 14).

¹⁰ Fixed Route subsidy per passenger trip was \$5.70 in 2017-18, and DAR was \$24.46 (per Table 14).

ONBOARD PASSENGER SURVEYS AND RIDE CHECKS

In mid-November, 2018, onboard surveys were conducted on all Grapeline local fixed routes (excluding the express routes). All runs of a full weekday (though not all on the same day) were surveyed on routes 1 through 5. Surveys were also conducted on the Dial-a-Ride by the driver at this time, and additionally by a trained surveyor in early December 2018.

As part of the survey effort, three types of surveys were conducted:

- Onboard Passenger Surveys – a one page (English on one side, Spanish on the reverse side) questionnaire with questions about travel patterns, passenger demographics, and opinions on service and desired improvements.
- Boarding and alighting counts – all passengers boarding and alighting were counted at each stop, for each run of each route.
- On-time Performance – departure times were recorded at all major time points, as well as arrival times at the Transit Depot.

This chapter provides an analysis of the survey results.

GRAPELINE FIXED ROUTE PASSENGER SURVEY RESULTS

A total of 163 surveys were completed on routes 1 through 5, which represents approximately 23 percent of the total boardings for the period observed. Not all passengers completed every question, so the number of responses per question is listed as appropriate. On a route by route basis, participants included:

- Route 1: 46 respondents (4 in Spanish)
- Route 2: 40 respondents (8 in Spanish)
- Route 3: 32 respondents (5 in Spanish)
- Route 4: 25 respondents (5 in Spanish)
- Route 5: 19 respondents (5 in Spanish)
- Unspecified: 1 respondent (in Spanish)

A total of 28 surveys (17 percent) were completed in Spanish, and the remainder in English.

Passenger Profile

- Passengers are largely “transit dependent.” Most (80 percent) do not have a car available and only 2 percent said they would drive themselves if transit were not available (43 percent would walk, and 11 percent would not make the trip).
- Passengers use GrapeLine for all types of trips, but most commonly for school or college (25 percent of responses) and work (21 percent of responses).
- Passengers who use the GrapeLine ride daily (44 percent) or 2-4 times per week (41 percent). Only 15 percent of riders use the service less often.
- 5 percent of survey respondents used the wheelchair lift to board or exit the bus (of 142 who responded to the question)
- 19.1 percent of passengers were seniors over 61 (including 4 percent over the age of 74); 26 percent were youths, and 54 percent were adults ages 25 to 61. A total of 152 answered this question.

Trip Patterns

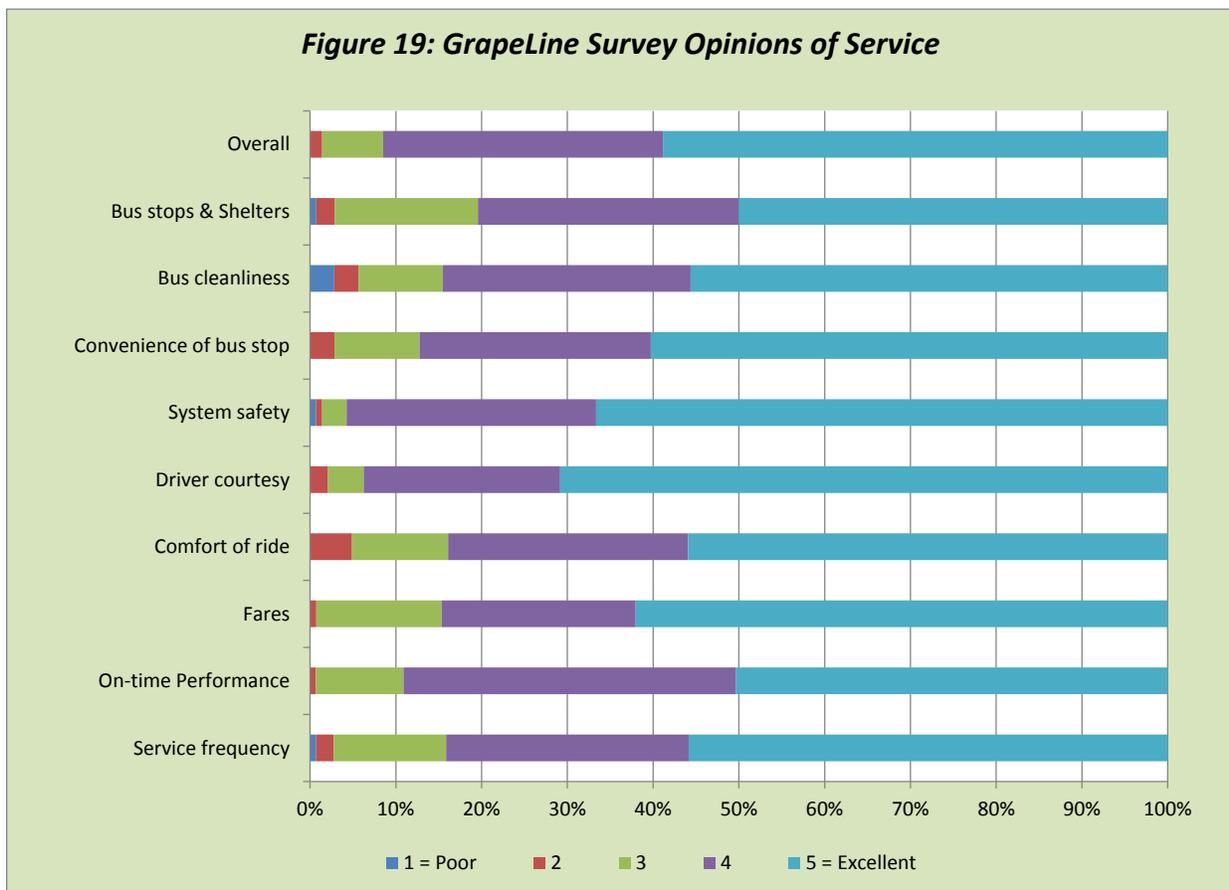
- Passengers travel to and from many origins and destinations, but activity is strongest at the following activity centers:
 - Lodi Transit Station (35 of 143 who answered said they boarded here, or 24 percent)
 - Central Avenue (25 passengers boarded at various locations)
 - Kettleman Lane (12 passengers boarded at various locations along Kettleman)
 - Midway Transit Station (6 passengers boarded at this location)

- The majority of passengers walks to get to and from stops (76 percent) or transferred from another route (14 percent, including 8 percent from GrapeLine routes and 6 percent from RTD).

Passenger Opinions

Passengers were asked to rate the transit system on a scale of 1 (poor) to 5 (excellent) on various service characteristics. Responses are depicted in Figure 19. In all, passengers have a high opinion of the transit program -- 87 percent of responses were ranked as 4 (good) or 5 (excellent), and the overall service ranked an average of 4.5 out of 5.0. A total of 91 percent of

respondents indicated they considered overall GrapeLine service to be “excellent” or “good”. The highest ranked factors included driver courtesy and system safety (both at 4.6). Lowest ranking were comfort of the buses, bus cleanliness and bus stops (all at 4.3), but these were all still “good.”



Desired Improvements

Passengers were asked to list specific improvements they would like to see in an open-ended format. A total of 90 passengers provided comments, with some providing multiple comments. The categories of comments are presented in Table 16. The most frequent comment was to compliment the system overall (17 of 112 comments, with another 10 compliments aimed at drivers). In terms of improvements, the most often requested improvement was for an extended span of service (14 requests for earlier or later in the day, or more weekend service), and greater frequency (12 comments). Passengers also asked for fare improvements (7 comments regarding lower fares or day passes), and another 7 regarding passenger accommodations, such as improved ability to request a deboarding stop. A full list of comments is included in Appendix A.

Table 16: GrapeLine Surveys: Desired Improvements and Other Comments	
Category	Comments or Requests
Compliment (General)	17
Span of Service	14
Frequency	12
Compliment (Drivers)	10
Fares	7
Passenger Accomodation	7
Bus Cleanliness	6
Fine As Is	6
On-Time Performance	6
Area Served	5
Bus Stops	5
Bus Comfort	4
Complaint About Passengers	4
Driver Complaint	3
Customer Service	2
Driving Issue	2
Better Connection	1
Miscellaneous	1
Total Comments	112
<i>Source: Onboard surveys conducted mid-November, 2018</i>	

GRAPELINE DAR/VINELINE PASSENGER SURVEY RESULTS

A total of just 3 surveys were completed on the GrapeLine DAR / VineLine services in mid-November, so additional survey efforts were conducted in early December to increase the

number of responses, with just 10 additional surveys collected. Not all passengers completed every question, so the number of responses per question is listed as appropriate. Highlights of the survey include:

- 6 of the survey respondents had a subscription reservation and 4 reserved 4 to 7 days in advance.
- 5 respondents were using the service for medical or dental trips, and other purposes were varied.
- Only 1 of the 13 passengers said they had a car available to make the trip, and a third used the wheelchair lift to board. Moreover, more than half said they would not make the trip if service were not available. These factors indicate a high level of transit dependency.
- The majority (9 of 13) said they use the service 2-4 times per week.
- 10 were seniors, including 6 who were 75 years or older, and 3 were aged 25 to 61.
- Passengers were asked to list specific improvements they would like to see. Several of the comments were compliments relating to considerate, helpful and friendly drivers, but suggestions included:
 - Pick-ups should be more on time
 - Service should start earlier in the morning
- Passengers were asked to rank services on a scale of 1 (poor) to 5 (excellent), and the majority rated most factors “5”, as indicated in Figure 20, below. Scores averaged from 4.7 to 5.0, with overall service ranking 4.8, and the overall average score was 4.9. The two lowest scores were for on-time performance and reservation procedures, but still these scored 4.7 each.

ON-TIME PERFORMANCE CHECKS

On-time performance is tracked through DoubleMap on the fixed routes, but as an added measure, surveyors also tracked departure times at approximately 75 percent of time points over the equivalent of a full day of operations. As shown in Table 17, on-time performance varied from a low of 65.4 percent on Route 3, to a high of 94.9 percent on Route 4. This data is

essentially a “snap shot” of performance. On Route 3, the bus was delayed in the mid-afternoon, and was not able to recover until the last run of the day.

It should be noted that the bus departed stops early 12.5 percent of the time on Route 5, which led to a 75 percent overall on-time performance. Overall, 4.9 percent of departures were early, and most of these were recorded at mid-route at the transfer point. While this indicates a need for drivers to avoid running ahead of schedule, it also indicates that schedules should be reviewed to reduce the scheduled running time so that services operating on-time or within the on-time window.

Due to the survey data varying from regularly reported DoubleMap data, it is recommended sporadic checks of on-time performance should be conducted by City staff, and if data discrepancies continue, errors should be resolved.

PASSENGER BOARDING AND ALIGHTING COUNTS

As part of the survey effort, passengers were counted as they boarded or exited the bus at all stops. This data is presented in detail in Appendix B, and highlighted below.

Passenger Activity by Stop - Boardings and Alightings

Boardings and Alightings

Boarding and alighting data was recorded at every stop of all runs throughout the survey effort. The stops with the highest passenger activity by route are listed in Table 18. Not surprisingly, nearly a quarter (22 percent) of all boardings takes place at the Lodi Transit Station. The Super Walmart and Kettleman Lane/Lower Sacramento Road (BevMo) stops generate 6 and 8 percent of boardings respectively.

Figure 20: Survey Ranking of Dial-A-Ride

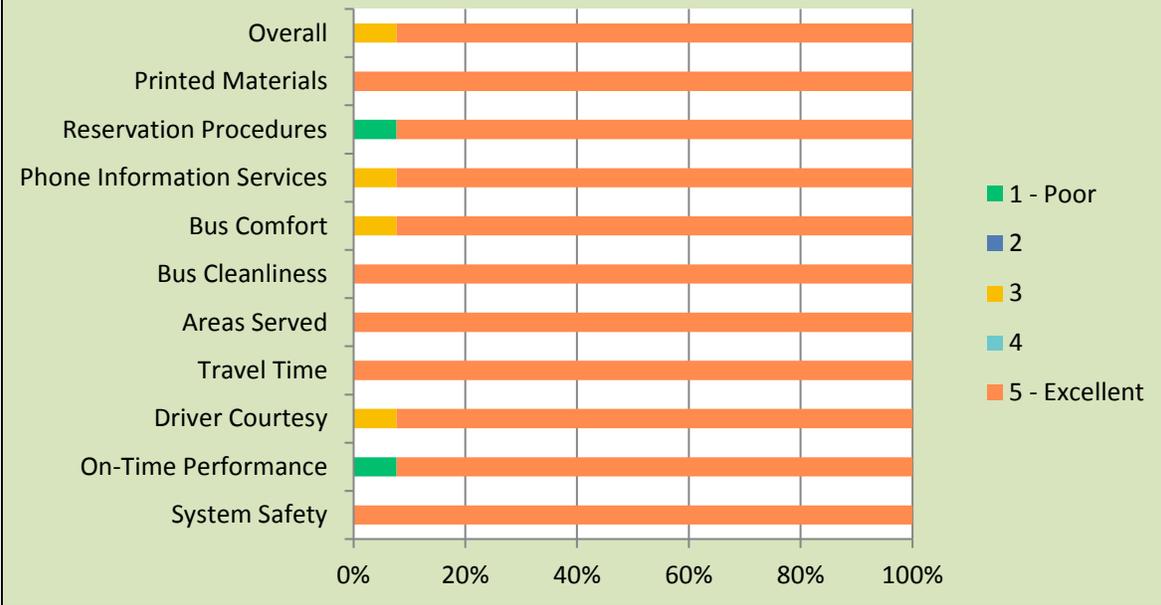


Table 17: On-Time Performance from Survey Data

On-Time Sum	Route					All
	1	2	3	4	5	
Time Points	143	130	130	130	130	663
Recorded	97	110	124	99	80	510
Early	2	7	2	4	10	25
5+ late	4	17	31	1	9	62
10+ late	3	10	10	0	1	24
On-Time	88	76	81	94	60	399

Early	2.1%	6.4%	1.6%	4.0%	12.5%	4.9%
5+ late	4.1%	15.5%	25.0%	1.0%	11.3%	12.2%
10+ late	3.1%	9.1%	8.1%	0.0%	1.3%	4.7%
On-Time	90.7%	69.1%	65.3%	94.9%	75.0%	78.2%

Source: Ride Checks conducted mid-November, 2018.

Table 18: Bus Stops with Highest Boarding and Alighting Activity by Route - Average Daily

Bus Stop	Surveyed Activity		
	Boardings	Alightings	
Route 1	1 Lodi Transit Station	22	16
	2 Super Walmart	15	9
	3 Church St & Olive Ct.	7	6
	4 Kettleman Ln & Lower Sac Rd (Bevmo)	6	14
	5 Safeway	6	1
	6 Church and Locust	6	5
	7 Woodlake Plaza	4	6
	8 Turner E/ Parkview (Lodi Lake)	4	5
	9 Turner W/ Edgewood	3	3
	10 Lower Sacramento Street/ Lodi	2	8
Route 2	1 Central at Hilborn	24	0
	2 Kettleman Ln & Lower Sac Rd (Bevmo)	22	4
	3 Lodi Transit Station	18	13
	4 Kettleman at Church	14	6
	5 Kettleman at Ham	11	3
	6 Kettleman / Super WalMart	10	2
	7 Central Ave at Cypress	8	12
	8 Central at Mission	7	6
	9 Kettleman E/ Crescent	7	4
	10 Central at Vine	6	6
Route 3	1 Lodi Transit Station	24	19
	2 Ham and Lodi	11	9
	3 Church & Locust	11	7
	4 Elm / Ham	9	5
	5 Lockeford at Crescent	9	1
	6 Ham at Tokay	9	0
	7 Ham / Vine (Lodi Middle School)	7	0
	8 Lockeford / Ham (In-Shape)	6	0
	9 Kettleman/Lower Sacramento (Bevmo)	5	4
	10 Lockeford & Church	5	0
Route 4	1 Lodi Transit Station	21	9
	2 Ham at Century	4	2
	3 Hutchins at Lodi (SW) (Java Stop)	3	3
	4 Scarborough at Century	3	3
	5 Hutchins/Century	3	0
	6 Super WalMart	2	5
	7 Ham at Tokay	2	2
	8 Kettleman / Lower Sacramento (Bevmo)	2	1
	9 Scarborough at Wimbledon	1	5
	10 Vine at Fairmont	1	4
Route 5	1 Lodi Transit Station	26	18
	2 Cherokee and Tokay	5	2
	3 Bluejay/Schaffer	4	4
	4 Century at Sandpiper	4	0
	5 Cherokee & Kettleman (Pep Boys)	3	2
	6 Stockton and Locust at Hale Park	3	1
	7 Cherokee at Eden	2	4
	8 Pioneer and Golden	2	4
	9 Cherokee and Almond	2	3
	10 Calaveras at Lockeford	2	2

Source: LSC Transportation Consultants, Inc. Survey counts conducted in November, 2018.

INTRODUCTION

This chapter examines the potential transit needs in Lodi by reviewing public comments on unmet needs, examining the existing level of service, and reviewing survey responses.

Unmet Transit Needs Findings

Each year, SJCOG conducts Unmet Transit Needs (UTN) hearings. Lodi is one of the areas included in these hearings. The process is intended to encourage San Joaquin County residents to inform SJCOG of any public transportation needs they have which they feel are not being met. SJCOG then reviews the comments and determines which comments meet the definition of unmet transit need, and which of those needs are reasonable to meet.

The past three fiscal year (FY) UTN reports have indicated no unmet transit needs within the City of Lodi. In SJCOG's UTN FY 2016-2017 report, one unmet transit need was identified. The unmet transit need was a request for service to the Deshmesh Darbar Sikh Temple on West Lane and Armstrong Road, south of Harney Lane. However, it was ultimately determined to be "unreasonable" due to lack of public support. The UTN findings for FY 2017-2018 and FY 2018-2019 identified no unmet transit needs, and the Draft UTN report for 2019-20 indicates no unmet transit needs.

Student Transportation

Outside of the unmet needs hearings process, there has been discussion regarding whether students' transportation needs are being met in east Lodi. The Lodi Unified School District years ago discontinued transportation services for students, except for those with disabilities. The City of Lodi provides express routes, which are primarily designed to accommodate school transportation. The express routes cover the core areas of the city.

Two routes serve Central Avenue, which is within a quarter mile (considered walking distance) of much of the area of concern. The area between South Cherokee Lane and State Route 99, north of Kettleman Lane and south of Hale Road, is between 0.25 and 0.39 miles from the current routes on Central Avenue. However, this area has a low youth population and very few zero-vehicle households. Nonetheless, extra efforts should be made to reach out to the student population during the next UTN process to ensure reasonable needs are met.

Unmet “Needs” Identified Through Survey Responses

The onboard surveys included questions regarding what transit improvements passengers would like to see. While the requests identify interest, they do not represent actual demand but should potentially be explored in the next phase of this SRTP (alternatives analysis). The findings from surveys are reiterated below.

- Longer span of service (14 comments)
 - 5 passengers want both earlier and later hours
 - 5 passengers want later hours
 - 4 passengers want earlier hours
 - 3 want longer hours on weekends
 - 1 wants longer hours on Sunday
- Increased frequency, such as half-hourly service, or simultaneous departures at the Transit Station and the midway transfer point (12 requests).
- Improved on-time performance (6 comments, although on-time performance records show an average of 92.6 percent on-time performance on fixed routes)
- Fare improvements (4 want lower fares or discounts, and 2 want day passes, and one wanted transfers to have a longer validity)
- Better (more) shelter, and lighting at stops (5 comments)

LEVEL OF EXISTING SERVICE

Span of Service

GrapeLine services are available generally from 6:30 AM to 7:15 PM, and later on Friday and Saturday evenings, and shorter on Sundays. This is a reasonable span of service for a small city. However, it may not meet the needs of individuals who work beyond these hours, or for people who wish to attend evening activities. The fact that service is provided on Sundays is commendable, as many transit programs serving cities of similar size do not.

Coordination

The level of coordination among transit providers affects the level of transit access for riders. The City of Lodi, San Joaquin RTD and Sac RT all coordinate with one another to some extent.

Coverage

The GrapeLine Dial-a-Ride service is open to the general public, which means the existing transit coverage essentially includes the entire City of Lodi. However, for those who find it more convenient to use fixed route (with no reservations required) the service area is generally considered to equal ¼ mile of a fixed route (which is walking distance for the average pedestrian). Given this measure, the fixed route covers an estimated 85 percent of the entire city on weekdays, and 80 percent on weekends, as discussed below.

Populations Not Well-Served by Transit

It is useful for purposes of this study to review how well existing transit routes serve the various portions of the study area. A quarter mile is generally considered a reasonable walking distance in the transit industry. The City of Lodi's topography is very flat which allows for easy walking access to bus stops.

Areas within a quarter mile of existing weekday and weekend GrapeLine fixed routes are shown in Figures 21 and 22. While the City of Lodi is served by VineLine / Dial-a-Ride, this analysis only considers GrapeLine fixed route service. Note that this analysis assumes an even distribution of population groups throughout the census tract.

Weekdays

Using Figure 21 and population data for each census tracts, Tables 19 to 21 show the estimated proportions or households being served by GrapeLine weekday service. Table 19 shows the total population of each census tract, and estimates for the proportion that are within ¼ mile versus those not within the coverage area. As indicated, it is estimated 85 percent of the population is within the weekday service area. The areas with the least amount of coverage in terms of total people not served include Census Tracts 42.01 (around Vinewood Park), 43.05 (near Walmart), 41.04 (near Peterson Park), and 45.02 (east of the Transit Station).

Table 19: GrapeLine Weekday Coverage for Total Population

Census Tract	Total Population					Persons/sq. mile Not in Transit Area
	Total	Served by GrapeLine		Not Served		
		#	%	#	%	
41.02 ¹	8,340	7,923	95%	417	5%	364
41.04	3,633	2,180	60%	1,453	40%	464
41.05 ¹	2,823	1,129	40%	1,694	60%	464
42.01	6,218	4,974	80%	1,244	20%	1,173
42.02	1,629	1,222	75%	407	25%	727
42.03	4,220	4,136	98%	84	2%	206
42.04	3,008	2,707	90%	301	10%	510
43.02	5,923	5,331	90%	592	10%	681
43.03	4,998	4,248	85%	750	15%	750
43.05	5,999	4,499	75%	1,500	25%	1,704
43.07	4,001	3,921	98%	80	2%	129
43.08	1,269	1,244	98%	25	2%	88
44.02	5,486	5,212	95%	274	5%	163
44.03	3,882	3,300	85%	582	15%	1,493
44.04	3,741	3,367	90%	374	10%	249
45.01	2,600	2,340	90%	260	10%	271
45.02	4,243	3,182	75%	1,061	25%	1,657
Total	72,013	60,914	85%	11,099	15%	573

Note 1: It is estimated only 5% of this census tract is within City Limits.

Source: US Census (see Table 2); LSC Transportation Consultants, Inc.

The proportion of transit dependent being served is similar to that of the total population, although only 83 percent of seniors are served, while 87 percent of low income populations are served, as shown in Tables 20 and 21. Higher proportions of potentially transit-dependent that are underserved include the seniors in the Lake Park area and low income residents east of the transit station.

Weekends

The same exercise was performed using coverage on weekends, as shown in Figure 22, with results depicted in Tables 22 to 24. On weekends, 80 percent of the total population is estimated to be within a quarter mile of a transit route. Only 79 percent of seniors and zero vehicles are estimated to be covered by transit.

Table 20: GrapeLine Weekday Coverage for Elderly and Low Income Population

Census Tract	Elderly (65+) Population ²						Low Income					
	Total	Served by GrapeLine		Not Served		Persons/sq. mile Not in Transit Area	Total	Served by GrapeLine		Not Served		Persons/sq. mile Not in Transit Area
		#	%	#	%			#	%	#	%	
41.02 ¹	67	64	95%	3	5%	3	50	47	95%	2	5%	2
41.04	621	373	60%	248	40%	79	186	112	60%	74	40%	24
41.05 ¹	469	188	40%	281	60%	77	503	201	40%	302	60%	83
42.01	1,254	1,003	80%	251	20%	237	516	413	80%	103	20%	97
42.02	686	515	75%	172	25%	306	106	80	75%	27	25%	47
42.03	632	619	98%	13	2%	31	878	860	98%	18	2%	43
42.04	347	312	90%	35	10%	59	427	384	90%	43	10%	72
43.02	1,033	930	90%	103	10%	119	731	658	90%	73	10%	84
43.03	1,197	1,017	85%	180	15%	180	353	300	85%	53	15%	53
43.05	684	513	75%	171	25%	194	732	549	75%	183	25%	208
43.07	568	557	98%	11	2%	18	447	438	98%	9	2%	14
43.08	159	156	98%	3	2%	11	1,176	1,152	98%	24	2%	81
44.02	491	466	95%	25	5%	15	645	613	95%	32	5%	19
44.03	194	165	85%	29	15%	75	1,191	1,012	85%	179	15%	458
44.04	289	260	90%	29	10%	19	1,418	1,276	90%	142	10%	95
45.01	429	386	90%	43	10%	45	283	255	90%	28	10%	29
45.02	156	117	75%	39	25%	61	1,562	1,172	75%	391	25%	610
Total	9,276	7,640	82%	1,636	18%	84	11,204	9,522	85%	1,682	15%	87

Note 1: It is estimated only 5% of this census tract is within City Limits.

Source: US Census (see Table 2); LSC Transportation Consultants, Inc.

Table 21: GrapeLine Weekday Coverage for Youths and Zero Vehicle Households

Census Tract	Youth Population ²						Zero-Vehicle Households ³					
	Total	Served by GrapeLine		Not Served		Persons/sq. mile Not in Transit Area	Total	Served by GrapeLine		Not Served		HH/sq. mile Not in Transit
		#	%	#	%			#	%	#	%	
41.02 ¹	126	119	95%	6	5%	5	86	69	95%	4	5%	4
41.04	806	484	60%	322	40%	103	41	25	60%	16	40%	5
41.05 ¹	711	284	40%	427	60%	117	25	10	40%	15	60%	4
42.01	1,474	1,179	80%	295	20%	278	24	19	80%	5	20%	5
42.02	270	203	75%	68	25%	121	30	23	75%	8	25%	13
42.03	899	881	98%	18	2%	44	68	67	98%	1	2%	3
42.04	677	609	90%	68	10%	115	82	74	90%	8	10%	14
43.02	1,224	1,102	90%	122	10%	141	102	100	90%	2	10%	2
43.03	1,043	887	85%	156	15%	156	68	58	85%	10	15%	10
43.05	1,584	1,188	75%	396	25%	450	93	70	75%	23	25%	26
43.07	1,049	1,028	98%	21	2%	34	41	40	98%	1	2%	1
43.08	295	289	98%	6	2%	20	45	44	98%	1	2%	3
44.02	1,682	1,598	95%	84	5%	50	32	21	95%	11	5%	7
44.03	1,429	1,215	85%	214	15%	550	81	69	85%	12	15%	31
44.04	1,213	1,092	90%	121	10%	81	49	37	90%	12	10%	8
45.01	804	724	90%	80	10%	84	48	43	90%	5	10%	5
45.02	1,515	1,136	75%	379	25%	592	69	52	75%	17	25%	27
Total	16,801	14,017	83%	2,784	17%	144	984	819	83%	152	15%	8

Note 1: It is estimated only 5% of this census tract is within City Limits.

Source: US Census (see Table 2); LSC Transportation Consultants, Inc.



0 0.25 0.5 1 Miles

Figure 22
Weekend GrapeLine Routes
1/4 Mile Service Areas

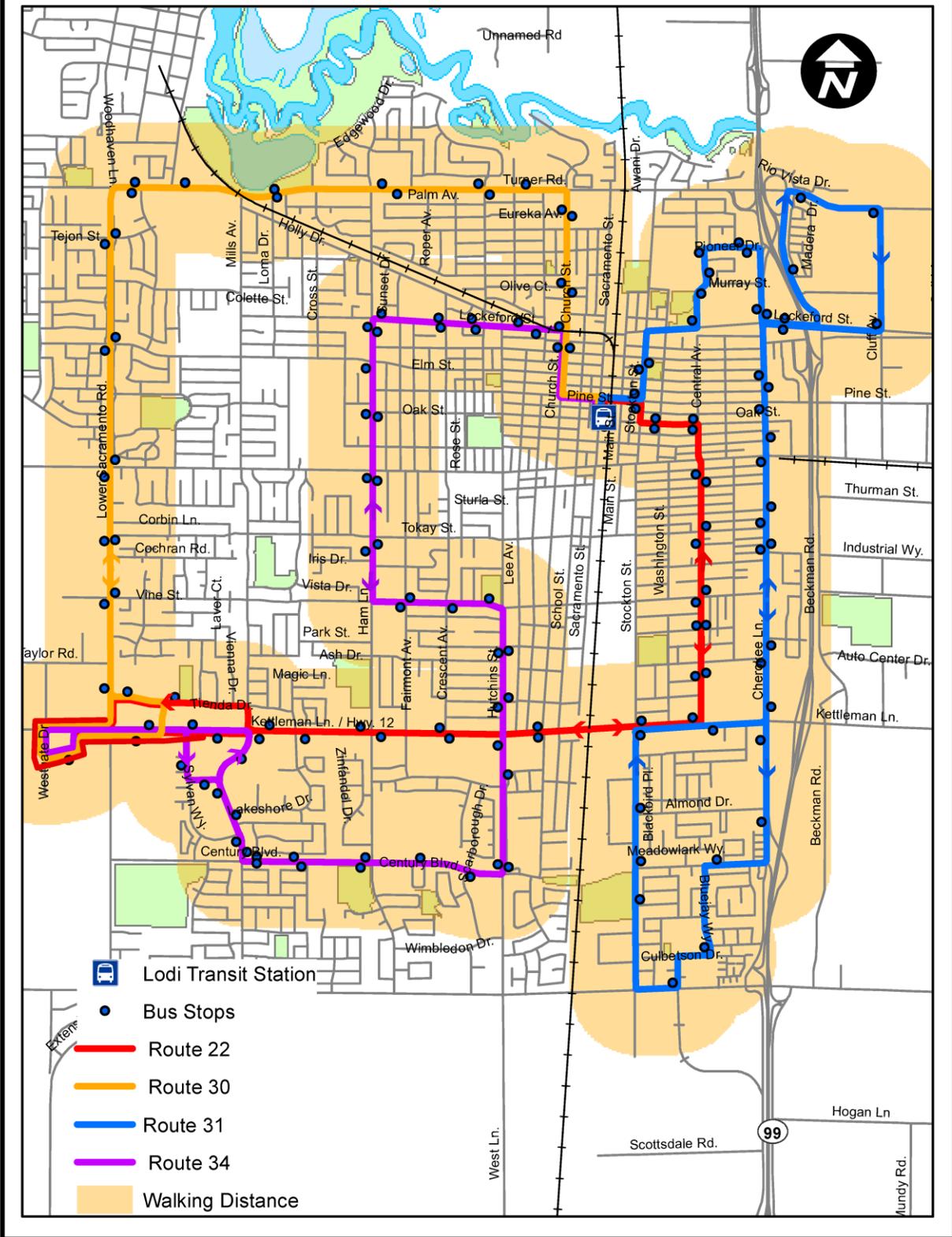


Table 22: Grapeline Weekend Coverage for Total Population

Census Tract	Total Population					
	Total	Served by Grapeline		Not Served		Persons/sq. mile Not in Transit Area
		#	%	#	%	
41.02 ¹	8,340	7,923	95%	417	5%	364
41.04	3,633	2,180	60%	1,453	40%	464
41.05 ¹	2,823	565	20%	2,258	80%	619
42.01	6,218	3,731	60%	2,487	40%	2,346
42.02	1,629	1,222	75%	407	25%	727
42.03	4,220	4,178	99%	42	1%	103
42.04	3,008	2,557	85%	451	15%	765
43.02	5,923	5,035	85%	888	15%	1,021
43.03	4,998	3,998	80%	1,000	20%	1,000
43.05	5,999	4,499	75%	1,500	25%	1,704
43.07	4,001	3,921	98%	80	2%	129
43.08	1,269	1,244	98%	25	2%	88
44.02	5,486	5,212	95%	274	5%	163
44.03	3,882	3,106	80%	776	20%	1,991
44.04	3,741	2,619	70%	1,122	30%	748
45.01	2,600	2,340	90%	260	10%	271
45.02	4,243	3,182	75%	1,061	25%	1,657
Total	72,013	57,510	80%	14,503	20%	749

Note 1: It is estimated only 5% of this census tract is within City Limits.
 Source: US Census (see Table 2); LSC Transportation Consultants, Inc.

Table 23: Grapeline Weekend Coverage for Elderly and Low Income Population

Census Tract	Elderly (65+) Population ²						Low Income					
	Total	Served by Grapeline		Not Served		Persons/sq. mile Not in Transit Area	Total	Served by Grapeline		Not Served		Persons/sq. mile Not in Transit Area
		#	%	#	%			#	%	#	%	
41.02 ¹	1,338	1,271	95%	67	5%	58	993	943	95%	50	5%	43
41.04	621	373	60%	248	40%	79	186	112	60%	74	40%	24
41.05 ¹	469	94	20%	375	80%	103	503	101	20%	402	80%	110
42.01	1,254	752	60%	502	40%	473	516	310	60%	206	40%	195
42.02	686	515	75%	172	25%	306	106	80	75%	27	25%	47
42.03	632	626	99%	6	1%	15	878	869	99%	9	1%	21
42.04	347	295	85%	52	15%	88	427	363	85%	64	15%	109
43.02	1,033	878	85%	155	15%	178	731	621	85%	110	15%	126
43.03	1,197	958	80%	239	20%	239	353	282	80%	71	20%	71
43.05	684	513	75%	171	25%	194	732	549	75%	183	25%	208
43.07	568	557	98%	11	2%	18	447	438	98%	9	2%	14
43.08	159	156	98%	3	2%	11	1,176	1,152	98%	24	2%	81
44.02	491	466	95%	25	5%	15	645	613	95%	32	5%	19
44.03	194	155	80%	39	20%	99	1,191	953	80%	238	20%	611
44.04	289	202	70%	87	30%	58	1,418	993	70%	425	30%	284
45.01	429	386	90%	43	10%	45	283	255	90%	28	10%	29
45.02	156	117	75%	39	25%	61	1,562	1,172	75%	391	25%	610
Total	10,547	8,313	79%	2,234	21%	115	12,147	9,804	81%	2,343	19%	121

Note 1: It is estimated only 5% of this census tract is within City Limits.
 Source: US Census (see Table 2); LSC Transportation Consultants, Inc.

Table 24: GrapeLine Weekend Coverage for Youths and Zero Vehicle Households

Census Tract	Youth Population ²						Zero-Vehicle Households ³					
	Total	Served by GrapeLine		Not Served		Persons/sq. mile Not in Transit Area	Total	Served by GrapeLine		Not Served		HH/sq. mile Not in Transit Area
		#	%	#	%			#	%	#	%	
41.02 ¹	2,515	2,389	95%	126	5%	110	4	1	95%	0	5%	0
41.04	806	484	60%	322	40%	103	41	25	60%	16	40%	5
41.05 ¹	711	142	20%	569	80%	156	25	5	20%	20	80%	5
42.01	1,474	884	60%	590	40%	556	24	17	60%	10	40%	9
42.02	270	203	75%	68	25%	121	30	23	75%	8	25%	13
42.03	899	890	99%	9	1%	22	68	67	99%	1	1%	2
42.04	677	575	85%	102	15%	172	82	70	85%	12	15%	21
43.02	1,224	1,040	85%	184	15%	211	102	87	85%	15	15%	18
43.03	1,043	834	80%	209	20%	209	68	41	80%	14	20%	14
43.05	1,584	1,188	75%	396	25%	450	93	70	75%	23	25%	26
43.07	1,049	1,028	98%	21	2%	34	41	40	98%	1	2%	1
43.08	295	289	98%	6	2%	20	45	44	98%	1	2%	3
44.02	1,682	1,598	95%	84	5%	50	32	19	95%	2	5%	1
44.03	1,429	1,143	80%	286	20%	733	81	65	80%	16	20%	42
44.04	1,213	849	70%	364	30%	243	49	34	70%	15	30%	10
45.01	804	724	90%	80	10%	84	48	41	90%	5	10%	5
45.02	1,515	1,136	75%	379	25%	592	69	52	75%	17	25%	27
Total	19,190	15,397	80%	3,793	20%	196	902	699	77%	175	19%	9

Note 1: It is estimated only 5% of this census tract is within City Limits.
 Source: US Census (see Table 2); LSC Transportation Consultants, Inc.

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Service Alternatives and Recommendations

INTRODUCTION

This chapter presents an evaluation of service alternatives to improve transit in Lodi. The service alternatives were developed in response to data presented in previous chapters, as well feedback received through public outreach efforts and staff meetings. After review, the alternatives which perform best and best meet the goals and objectives of the transit system are recommended.

To evaluate the cost impacts of various alternatives, a marginal cost estimation equation was developed. This is based upon the projected service quantities and costs for FY 2018-19. Costs are assigned to the service quantity – revenue vehicle-hours of service or revenue vehicle-miles of service – that most closely drives the expense. Driver salary costs, for example, are a factor of revenue vehicle-hours, while fuel costs are a factor of vehicle-miles. The resulting equation is as follows:

$$\begin{aligned} \text{Marginal Operating Cost Impact} = & \\ & \$41.21 \times \text{Change in Revenue Vehicle-Hours of Service} + \\ & \$1.49 \times \text{Change in Revenue Vehicle-Miles of Service} \end{aligned}$$

Note that this considers the marginal costs only – those costs that would vary directly as service levels change – and do not reflect fixed costs (such as management costs and facility costs). For most alternatives, fixed costs would not change.

EVALUATION OF FIXED ROUTE SERVICE ALTERNATIVES

Span of Service Alternatives

The span of service alternatives below were developed in response to the observed hourly ridership or in response to requests for improvements from the onboard survey efforts.

Eliminate Weekday Service in the 6:30 AM hour on Routes 1-5

Under this alternative, the first round-trip of the day would be eliminated on Routes 1 through 5, with weekday service starting instead at 7:30 AM. The initial 6:30 AM run carries only 3.1 percent of the average weekday ridership, or an average of 4.9 passenger trips per hour versus

an average of 9.4 per hour between 7:30 AM, or an overall average of 12.3 passenger trips per hour. Because the express service would be operated, the DAR would need to continue service starting at 6:10 AM, so there would be no reduction in DAR. The fixed route service reductions would result in a loss of 7,800 passenger trips annually, and a reduction in fares of \$3,800, resulting in a reduction in annual subsidy of \$69,400, as shown in Table 25.

Eliminate Weekday Service in the 6:30 PM hour on Routes 1-5

Similar to early morning, the last run of the day carries only 3.4 percent of the average daily ridership, or 5.5 passenger trips per hour. Eliminating these runs on Routes 1 – 5, as well as the complementary DAR, would result in a loss of 9,040 passenger trips annually, and a reduction in fares of \$4,800, resulting in a reduction in annual subsidy of \$82,400, as shown in Table 25.

Eliminate Saturday 7:30 AM Runs

A total of 19 passengers are served during this hour (4.8 passenger-trips per vehicle-hour), which is only 3.9 percent of Saturday ridership. Eliminating the first hour of service on the weekend runs, as well as the first hour of complementary DAR, would result in a loss of 1,330 passenger trips annually, and a reduction in fares of \$800, resulting in a reduction in annual subsidy of \$13,700, as shown in Table 25.

Eliminate Saturday Evening Service After 6:30 PM

The last three hours of Saturday service carry 54 passengers (11 percent of the total average Saturday ridership), which is only 4.5 passengers per vehicle-hour. Eliminating fixed route and complementary DAR after 6:30 PM would result in a loss of 3,830 passenger trips annually, and a reduction in fares of \$1,900, thereby eliminating \$41,400 in annual subsidy, also shown in Table 25.

Eliminate Last Hour (3:30 PM) Runs on Sundays

The 3:30 PM runs carry a total of 16.3 passenger-trips per Sunday on average (4.1 passenger-trips per vehicle-hour), which is only 5.5 percent of the ridership over the eight runs operated on Sundays. Eliminating the last hour of Sunday service would result in a loss of 1,090 passenger trips annually, and a reduction in fares of \$650, resulting in a reduction in annual subsidy of \$13,850, as shown in Table 25.

Table 25: Fixed Route Service Alternatives Analysis

	Run Parameters		Daily Service			Days per Year	Annual		Annual Cost	Ridership	Fare Revenues	Operating Subsidy
	Hours	Miles	Runs	Hours	Miles		Hours	Miles				
Eliminate Weekday Service in the 6:30 AM Hour on Routes 1-5												
Route 1	1.0	10.7	-1	-1	-11	254	-254	-2,718	-\$14,500	-1,300	-\$600	-\$13,900
Route 2	1.0	8.7	-1	-1	-9	254	-254	-2,210	-\$13,800	-2,000	-\$1,000	-\$12,800
Route 3	1.0	12.2	-1	-1	-12	254	-254	-3,099	-\$15,100	-1,300	-\$600	-\$14,500
Route 4	1.0	12.0	-1	-1	-12	254	-254	-3,048	-\$15,000	-1,000	-\$500	-\$14,500
Route 5	1.0	11.5	-1	-1	-12	254	-254	-2,921	-\$14,800	-2,200	-\$1,100	-\$13,700
Total							-1,270	-13,995	-\$73,200	-7,800	-\$3,800	-\$69,400
Eliminate Weekday Service in the 6:30 PM Hour on Routes 1-5												
Route 1	1.0	10.7	-1	-1	-11	254	-254	-2,718	-\$14,500	-1,300	-\$600	-\$13,900
Route 2	1.0	8.7	-1	-1	-9	254	-254	-2,210	-\$13,800	-2,500	-\$1,200	-\$12,600
Route 3	1.0	12.2	-1	-1	-12	254	-254	-3,099	-\$15,100	-900	-\$400	-\$14,700
Route 4	1.0	12.0	-1	-1	-12	254	-254	-3,048	-\$15,000	-1,000	-\$500	-\$14,500
Route 5	1.0	11.5	-1	-1	-12	254	-254	-2,921	-\$14,800	-3,000	-\$1,400	-\$13,400
DAR	1.0	9.3	-1	-1	-9	254	-254	-2,352	-\$14,000	-340	-\$700	-\$13,300
Total							-1,524	-16,347	-\$87,200	-9,040	-\$4,800	-\$82,400
Eliminate Saturday 7:30 AM Runs												
Route 1/30	1.0	10.7	-1	-1	-11	51	-51	-546	-\$2,900	-400	-\$200	-\$2,700
Route 2/22	1.0	8.7	-1	-1	-9	51	-51	-444	-\$2,800	-300	-\$100	-\$2,700
Route 34	1.0	12.0	-1	-1	-12	51	-51	-612	-\$3,000	-100	\$0	-\$3,000
Route 5/31	1.0	11.2	-1	-1	-11	51	-51	-571	-\$3,000	-400	-\$200	-\$2,800
DAR	1.0	9.3	-1	-1	-9	51	-51	-472	-\$2,800	-130	-\$300	-\$2,500
Total							-255	-2,645	-\$14,500	-1,330	-\$800	-\$13,700
Eliminate Saturday Evening Service After 6:30 PM												
Route 1/30	1.0	10.7	-3	-3	-32	51	-153	-1,637	-\$8,700	-700	-\$300	-\$8,400
Route 2/22	1.0	8.7	-3	-3	-26	51	-153	-1,331	-\$8,300	-1,000	-\$500	-\$7,800
Route 34	1.0	12.0	-3	-3	-36	51	-153	-1,836	-\$9,000	-1,000	-\$500	-\$8,500
Route 5/31	1.0	11.2	-3	-3	-34	51	-153	-1,714	-\$8,900	-1,100	-\$500	-\$8,400
DAR	1.0	9.3	-3	-3	-28	51	-153	-1,417	-\$8,400	-30	-\$100	-\$8,300
Total							-765	-7,934	-\$43,300	-3,830	-\$1,900	-\$41,400
Eliminate Sunday 3:30 PM Runs												
Route 1/30	1.0	10.7	-1	-1	-11	51	-51	-546	-\$2,900	-300	-\$100	-\$2,800
Route 2/22	1.0	8.7	-1	-1	-9	51	-51	-444	-\$2,800	-200	-\$100	-\$2,700
Route 34	1.0	12.0	-1	-1	-12	51	-51	-612	-\$3,000	-400	-\$200	-\$2,800
Route 5/31	1.0	11.2	-1	-1	-11	51	-51	-571	-\$3,000	-100	-\$50	-\$2,950
DAR	1.0	9.3	-1	-1	-9	51	-51	-472	-\$2,800	-90	-\$200	-\$2,600
Total							-255	-2,645	-\$14,500	-1,090	-\$650	-\$13,850
Weekday Evening Service Until 9:30 PM on Routes 1-5												
Route 1	1.0	10.7	2	2	21	254	508	5,436	\$29,000	2,500	\$1,200	\$27,800
Route 2	1.0	8.7	2	2	17	254	508	4,420	\$27,500	2,400	\$1,100	\$26,400
Route 3	1.0	12.2	2	2	24	254	508	6,198	\$30,200	1,100	\$500	\$29,700
Route 4	1.0	12.0	2	2	24	254	508	6,096	\$30,000	1,400	\$700	\$29,300
Route 5	1.0	11.5	2	2	23	254	508	5,842	\$29,600	1,300	\$600	\$29,000
DAR	1.0	9.3	2	2	19	254	508	4,703	\$27,900	370	\$700	\$27,200
Total							3,048	32,694	\$174,200	9,070	\$4,800	\$169,400
Route Realignment Scenario												
Route 1	0.0	1.9	13	0	25	254	0	6,274	\$9,300			
Route 3	0.0	0.0	13	0	0	254	0	0	\$0	21,500	\$10,300	
Route 4	0.0	0.0	13	0	0	254	0	0	\$0			
Route 5	0.0	0.2	13	0	3	254	0	660	\$1,000			
Route 1/30 - Sat	0.0	1.9	14	0	27	254	0	6,756	\$10,100	400	\$200	
Route 1/30 - Sun	0.0	1.9	8	0	15	254	0	3,861	\$5,800	200	\$100	
Total							0	17,551	\$26,200	21,700	\$10,400	\$15,800
Half-Hourly Weekday Route 2 Service												
Route 2	1.0	8.7	12	12	104	254	3,048	26,518	\$165,100	22,600	\$10,800	\$154,300
Combine Routes 3 and 4 on Weekdays												
Route 3	1.0	12.20	-13	-13	-159	254	-3,302	-40,284	-\$196,100			
Route 4	1.0	12.00	-13	-13	-156	254	-3,302	-39,624	-\$195,100			
Route 34	1.0	12.00	13	13	156	254	3,302	39,624	\$195,100			
Total							-3,302	-40,284	-\$196,100	-19,800	-\$9,500	-\$186,600
Eliminate On-Call Stop at Pixley Parkway on Route 5												
Route 5	0.00	1.5	-1.2	0	-2	254	0	-457	-\$700	2,300	\$1,100	-\$1,800

Extend Weekday Service to 9:30 PM on Weekdays

A common request on passenger surveys was for service later into the evening, particularly on weekdays. An analysis of the ridership indicates that doing so would increase ridership by 9,070 passenger trips annually and generate \$4,800 in fare revenues (including DAR, which would need to be extended as well). The estimated subsidy would be \$169,400, as shown in Table 25.

Route Alternatives

Route Realignment to Provide Service to Reynolds Ranch, Improve Service to Northeast Lodi, and Expand Service Area in West Lodi

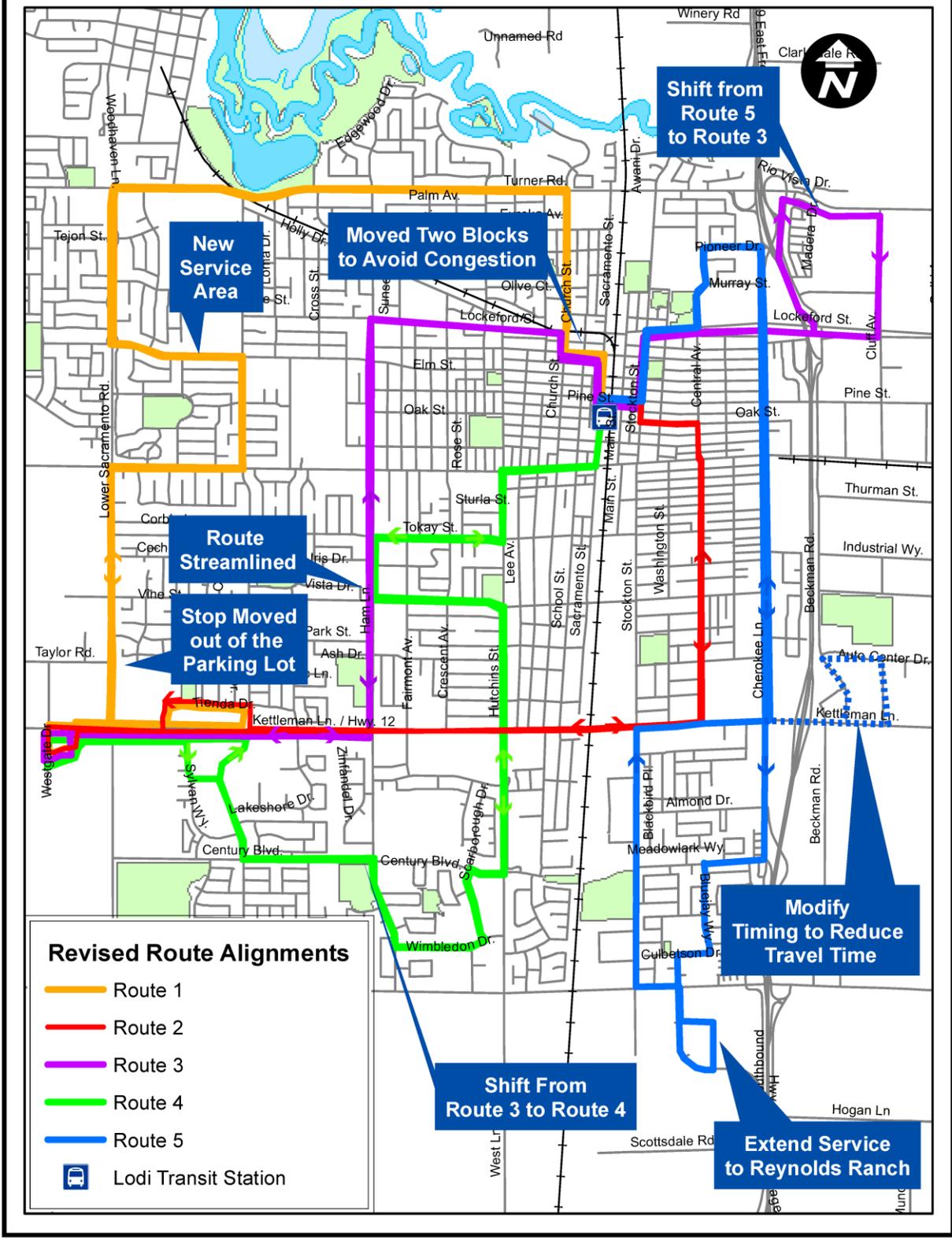
There are several areas that could be provided with new or expanded service on weekdays without adding additional buses:

1. Provide service to the Reynolds Ranch area (south of Harney Lane and west of SR 99). This area includes Costco, Home Depot, Blue Shield of California and is rapidly developing with residential uses as well as additional commercial trip generators.
2. Provide better service to the northeast portion of Lodi (east of SR 99 and north of SR 12) currently served by a loop on Route 5. As this loop is only served in one direction (inbound to the Transit Center), passengers must currently ride for 41 minutes to travel between the Transit Center and this area ... a trip of only 1.3 miles.
3. Expand service area in western Lodi. As shown in Figure 21 in Chapter 2, the area centered on the intersection of West Lodi Avenue and South Mills Avenue is up to a half-mile walk to the nearest bus stop.

A revised route map that provides these improvements is shown in Figure 23. The route modifications would consist of the following:

- The service to northeast Lodi would be dropped from Route 5. This provides running time for Route 5 to be extended further south into the Reynolds Ranch area, with a terminal loop around Rock Lane and Reynolds Ranch Parkway. (As this area develops, the route could be modified to serve new land uses in this area). The resulting route would be 11.4 miles in length.

The northeast Lodi area would instead be served by an extension of Route 3. This extension would depart the Downtown Transit Center along the Route 5 alignment



as far as the Calaveras/Lockeford intersection. The bus would then continue east over SR 99 and serve the existing Route 5 loop (Beckman, Turner, and Cluff), returning westbound on E. Lockeford Street and following the Route 5 alignment south on Stockton Street and west on Pine Street to the Transit Center. This would greatly reduce the overall travel time for trips between northeast Lodi and the Transit Center (and on to other destinations) and would also provide two different departure times from the Transit Center to various stops in northeast Lodi every hour.

Two other changes would be made to Route 3 to provide the running time needed to serve northeast Lodi:

- First, the route segment west of Ham Lane between Lockeford Street and Elm Street would be eliminated. Stops generating ridership in this segment would instead be served by Route 1, as discussed below.
- In addition, service would be eliminated south of West Kettleman Lane. Instead, West Kettleman Lane would be used between S. Ham Lane and Sylvan Way. This southern area would instead be served by Route 4, as discussed below.

The resulting new Route 3 would be 12.2 miles in length – identical to the existing route length. However, it would require Route 3 to cross the train tracks, which could result in occasional delays. Trains sporadically delay traffic in Lodi as there are only 3 streets which provide access under or over the train tracks (Harney Lane, Kettleman Lane and Turner Road).

- Route 2 would be modified to move the route out of the Safeway Parking Lot. Parking lots generate a high level of vehicle and pedestrian conflict, and should be avoided when possible. Instead, after serving the westbound stop at Crane Landing, the route would continue on Tienda Drive to return to Kettleman Lane. The Cranes Landing stop is just 0.20 mile from the Safeway stop. The majority of passengers would shift to the Cranes Landing stop, but still this would result in a loss of an estimated 400 passenger trips annually, or less than one percent of the Route 2 ridership.
- Route 4 would be shifted off of S. Ham Lane between W. Kettleman Lane and W. Century Boulevard to serve the existing Route 3, via W. Century Boulevard, South Mills Avenue, Sylvan Way and Sand Creek Drive. The stops along W. Kettleman Lane would still be served by Routes 2 and 3. The only stops that would lose all service are along S. Ham Lane northbound at Chianti Drive (which serves 2.7 passengers per day, based on surveys) and southbound at Burgundy Lane (which does not serve any passengers on an average).

However, as the Chianti Drive stop is 0.1 mile from stops on Kettleman Lane, the loss of ridership would be less than 140 annually. This revised route would be 12.0 miles in length (the same as the existing route).

- Finally, Route 1 would be stay northbound on Sacramento Street to Locust Street, where it would turn west, so that the route avoids vehicle and pedestrian traffic in the downtown core along Pine and Church Streets (no stops are served in this section anyway). The route would be modified along Lower Sacramento Road to jog east on West Elm Street, south on South Mills Avenue and west on West Lodi Avenue to regain the existing route on Lower Sacramento Road. This would serve the existing passenger activity around the West Elm/South Mills intersection, and also expand service to the neighborhoods around the South Mills/West Lodi intersection (which currently are too far a walk from an existing stop to be effectively served by the fixed routes). Finally, to avoid serving the Safeway Parking Lot, the route would go north on Mills Avenue instead of Tienda Drive, and return to Kettleman Lane on Tienda Drive (as with Route 2, above). An additional stop could be placed on Lower Sacramento Road just north of the driveway entrance to Safeway, which would allow passengers to still board and alight in close proximity to the west end of the shopping mall. With these changes, Route 1 would still be 12.6 miles in length, which can be effectively operated in an hour.

The route realignment would not change the operating hours, but it would increase the mileage adding an annual estimated cost of \$26,200. The improvements are expected to generate an estimated 21,500 passenger trips annually, generating \$10,600 additional fare revenue. This would result in a subsidy of \$15,600.

Half Hourly Weekday Service on Route 2

Route 2 is the most popular GrapeLine Route. With 60,000 riders per year, its ridership is 40 percent higher than the next busiest route (Route 1), and it carries 18.7 passenger-trips per run. Half-hourly service is found to be substantially more convenient for passengers, as it expands the options to minimize total travel times. A potential “next step” in improving GrapeLine service quality would therefore be to provide half-hourly service on Route 2. A second bus would depart the Lodi Transit Station on the hour starting at 7:00 AM and ending at 6:53 PM. It should also be noted that, at 8.7 miles in total length, there is available running time on Route 2 to serve additional development south and west of the Super Walmart.

This alternative would cost an additional \$165,100 annually, and generate 22,600 in additional passenger trips. Fare revenues would total \$10,800, for a subsidy of \$154,300.

Combine Routes 3 and 4, Operating the Weekend Route 34 on Weekdays

Routes 3 and 4 have the lowest ridership of the five weekday fixed routes, carrying only 23 percent of the total weekday fixed route ridership between the two routes. They carry only 8.3 and 10.7 passenger-trips per vehicle hour, respectively. One option to improve overall efficiency (and potentially to provide funding for other service improvements) would be to combine these routes, operating the Route 34 alignment seven days a week.

This alternative would reduce costs by \$196,100 annually, and would result in a loss of 19,800 passenger trips. The subsidy would be reduced by \$186,100 annually.

Revise Schedule for On-Demand Stop on Route 5

The deviation on Route 5 is served by request. If there is no request, the driver parks the vehicle for approximately 5 minutes prior to the deviation in order not to get ahead of the schedule. An analysis of the deviations requested on Route 5 in November and December of 2018 indicate that there were 20 deviations over 650 weekday runs, or just 3 percent of all Route 5 weekday runs. Rather than delaying the bus on all runs on the off-chance that a deviation will be requested, a more appropriate way to serve the route would be to devise the schedule assuming no deviation, and note on the brochure and web page that Route 5 may be up to 5 minutes late on occasions when a deviation is requested. This will result in Route 5 being delayed by 5 minutes 3 percent of the time, but will ultimately provide a more convenient trip for the majority of passengers.

Drop On-call Stop on Route 5

Another option to consider is the elimination of the on-call service on Route 5. This would provide greater consistency in operating the route. However, maintaining the deviation meets the needs of some residents to access the DMV, with little inconvenience to the remaining passengers if the route is scheduled as mentioned above.

COMPARISON OF EVALUATED FIXED ROUTE ALTERNATIVES

The ridership impacts of the alternatives presented in Table 26 and Figure 24 range from an increase of 22,600 (for increasing Route 2 to half-hourly service on weekdays) and 21,500 (for the Route realignment) to a reduction of 19,800 (for combining Routes 3 and 4 on weekdays).

Table 26: GrapeLine Service Alternatives Performance Analysis

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

Values Achieving Recommended Performance Standards by Modifying Service to Reduce Service While Increasing Ridership Shaded in Blue

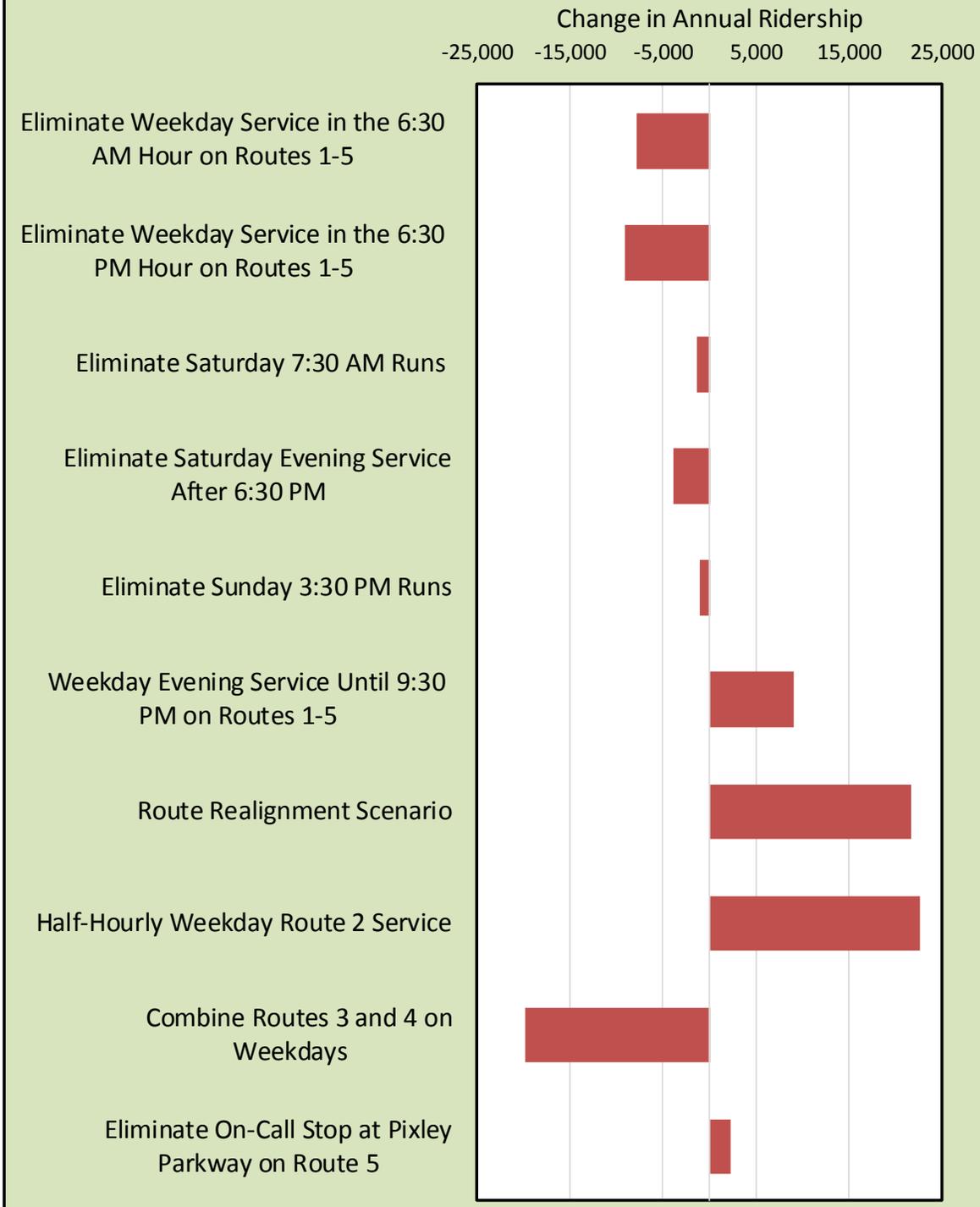
	Change From Existing Service				
	Net Annual Ridership	Net Annual Operating Subsidy	Psgr-Trips per Service-Hour	Marginal Subsidy per Psgr-Trip	Marginal Farebox Ratio ¹
Minimum Fixed Route Performance Standard			7.50	< \$5.75	NA
Minimum DAR Performance Standard			2.70	< \$24.00	NA
Eliminate Weekday Service in the 6:30 AM Hour on Routes 1-5	-7,800	-\$69,400	6.1	\$8.90	5%
Eliminate Weekday Service in the 6:30 PM Hour on Routes 1-5	-9,040	-\$82,400	5.9	\$9.12	6%
Eliminate Saturday 7:30 AM Runs	-1,330	-\$13,700	5.2	\$10.30	6%
Eliminate Saturday Evening Service After 6:30 PM	-3,830	-\$41,400	5.0	\$10.81	4%
Eliminate Sunday 3:30 PM Runs	-1,090	-\$13,850	4.3	\$12.71	4%
Weekday Evening Service Until 9:30 PM on Routes 1-5	9,070	\$169,400	3.0	\$18.68	3%
Route Realignment Scenario	21,700	\$15,800	--	\$0.73	40%
Half-Hourly Weekday Route 2 Service	22,600	\$154,300	7.4	\$6.83	7%
Combine Routes 3 and 4 on Weekdays	-19,800	-\$186,600	6.0	\$9.42	5%
Eliminate On-Call Stop at Pixley Parkway on Route 5	2,300	-\$1,800	--	-\$0.78	-157%

Note 1: Marginal fare revenues divided by marginal operating cost. There is no standard for marginal farebox; this is a relative performance indicator.

Another alternative with relatively high potential to increase ridership is additional hours of evening service (9,070), but this alternative also comes with the highest cost.

The operating subsidy impacts also vary widely, as shown in Table 25 and Figure 25. The most costly options would be evening service until 9:30 PM (\$169,400 per year), and half-hourly service on Route 2 (\$154,300). On the other hand, combining Routes 3 and 4 on weekdays would save \$186,800 annually and eliminating weekday service after 6:30 PM would save \$82,400.

**Figure 24: Service Alternatives
Annual Ridership Impact**

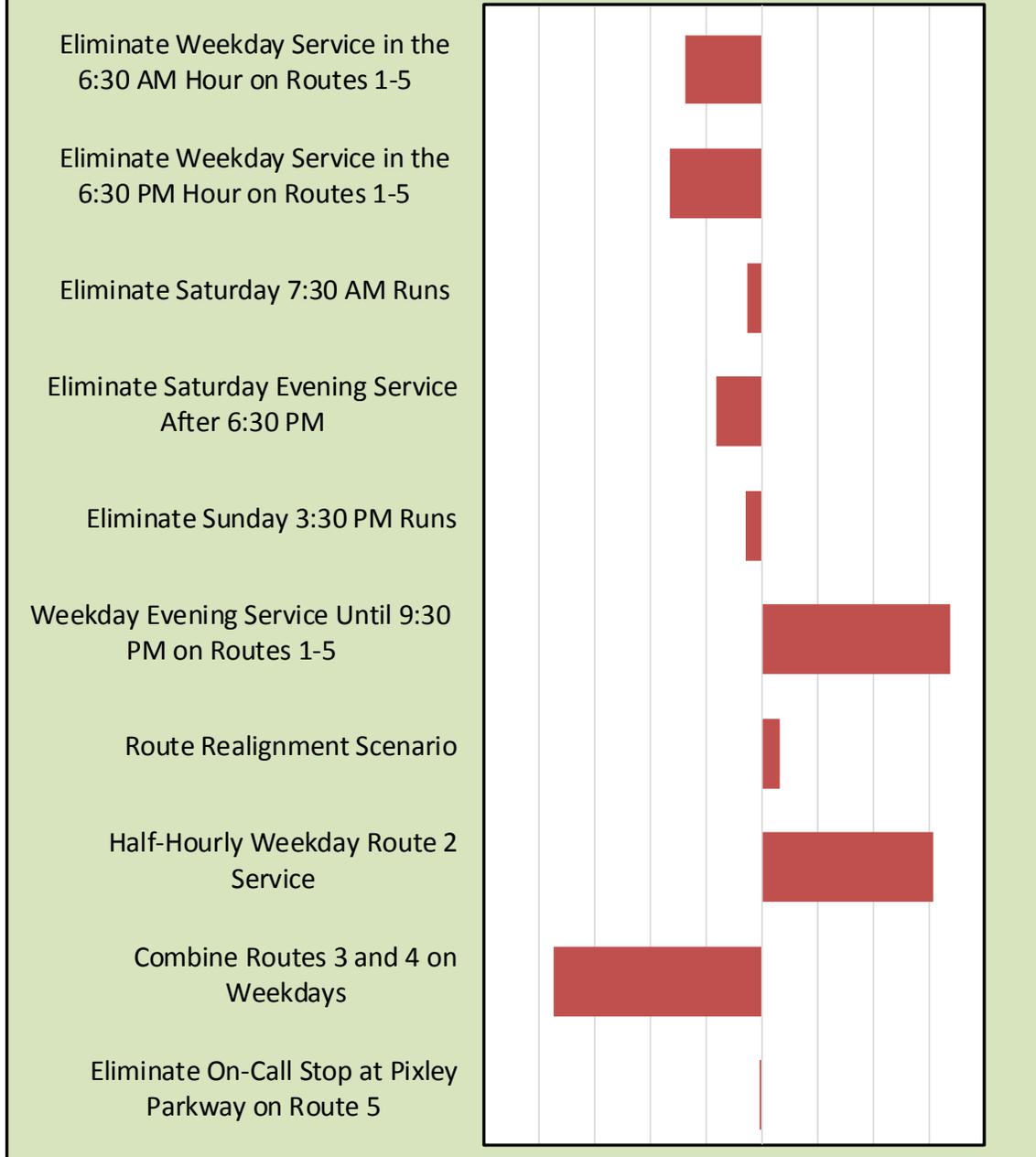


The impact of the service alternatives on the required transit fleet size is modest. Increasing Route 2 to half-hourly would increase the number of buses in operation at peak times by one, while combining Routes 3 and 4 would reduce the number of buses in operation by one.

**Figure 25: Service Alternatives
Annual Operating Subsidy Impact**

Thousands

Change in Annual Subsidy
-\$250 -\$200 -\$150 -\$100 -\$50 \$0 \$50 \$100 \$150 \$200



Fixed Route Alternatives Performance Analysis

An analysis of the performance of the service alternatives is presented in Table 26. 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 the route realignment and elimination of the on-call stop do not result in a change in vehicle-hours, making this measure inapplicable.

Of the other alternatives, some yield a positive value resulting from a reduction in ridership divided by a reduction in vehicle-hours. In these cases, a low figure is preferred in that it reflects a relatively low loss in ridership for every vehicle-hour saved. For instance, eliminating evening service after 6:30 PM on weekdays only reduces ridership by 3.0 for every hour of service saved, whereas reducing morning service in the 6:30 AM reduces ridership by 6.1 passenger trips per hour of service.

Other alternatives showing a positive value reflect an increase in ridership divided by an increase in vehicle-hours. In this case, a larger value reflects a “better” alternative as it indicates higher ridership for every additional vehicle-hour operated. Therefore, increasing Route 2 service to half-hourly (which would generate 7.4 passengers per hour) is a better impact than combining routes 3 and 4 weekdays (which would generate 6.0 passengers per hour). However, neither of these options meets the desired 7.5 passenger trips per hour discussed in the goals chapter. Those alternatives achieving suggested standards are shown in Table 26 in green shading.

Marginal Subsidy per Passenger-Trip

This measure directly relates the key public input (funding) to the key desired output (ridership). The results exhibit the same pattern as the previous performance measure. The best of those alternatives that increase ridership is eliminating the stop on Route 5, which results in an increase of 2,300 passenger trips annually, without any additional costs. This therefore results in a reduced marginal subsidy of \$0.78 per passenger trip. The next best is the route realignment, which results in a marginal subsidy of just \$0.73 per passenger trip. Half hourly service on Route 2 would require \$6.83 in marginal subsidy per passenger trip, which is higher than the fixed route marginal subsidy of \$5.70 and does not meet the suggested standard of \$5.75 per passenger-trip.

All of the alternatives which reduce service would lower the subsidy by more than \$8.50, and therefore would meet the suggested standards.

RECOMMENDATIONS FOR FIXED ROUTE SERVICE

The above review provides useful information for making decisions regarding the individual routes, and ultimately the Lodi GrapeLine 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 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. Nonetheless, the following are key overall findings that result from this evaluation:

- The Route Realignment is a clear benefit with regards to overall ridership, in that it results in a significant increase in ridership (a 10 percent increase over the current sum of fixed routes), while requiring a small increase in subsidy requirements (\$15,800). The revision also expands the area of transit service.
- Increasing Route 2 to half-hourly service offers a positive ridership impact, but at a high subsidy (\$154,200). Providing this enhanced service over a portion of the day (such as 9 AM to 5 PM) would be more effective.
- Eliminating the last run on Sundays offers the best reduction in subsidy (a savings of \$12.71 per passenger trip lost).
- Combining Routes 3 and 4 on weekdays offers the greatest cost savings (elimination of \$186,600 subsidy), but at a significant ridership loss (19,800 passenger trips). If cost reduction is desirable, the best options would be to eliminate Sunday service after 3:30 PM or Saturday service after 6:30 PM.

Based on these findings, as well as survey results and staff feedback, the recommended service alternatives to include in the five year plan are as follow:

- Implement the Route 1-5 realignment.
- Eliminate the last run of service on Sundays.
- Adjust the Route 5 on-call stop schedule to assume the stop will not be served, which will result in delays just 3 percent of runs.
- Provide half-hourly Route 2 service over the core hours on weekdays.

GRAPELINE DAR AND VINELINE SERVICE REVIEW AND RECOMMENDATIONS

The current City of Lodi GrapeLine General Public DAR and VineLine ADA paratransit programs have been reviewed, and aspects of the programs that are performing well, in addition to areas that could use improvement, have been identified. Below is a discussion of current operations and DAR/paratransit-related activities, followed by recommendations for improvements.

Use of Technology

Trapeze software is used by Lodi DAR and paratransit staff to book trips, create driver manifests, dispatch and track vehicles, automate trip reminders, capture trip data, and provides standardized reports. This program is required as part of the Lodi operating contract for services with MV Transportation and appears to be functioning adequately.

Coordinating Eligibility, Functional Assessments, and Travel Training

The new Access San Joaquin (ASJ) program, operated by the San Joaquin Regional Transit District (RTD), is an innovative approach to eligibility, assessment, and travel training. By coordinating the transit providers in San Joaquin County, including the City of Lodi, through this CSTA, Lodi should benefit from a more consistent eligibility process combined with functional assessments and travel training that should help get more passengers moving onto fixed route services. ASJ has a laudable goal of improving transportation services to seniors, individuals with disabilities and those residing in outlying areas of the County.

ASJ, and several of its services, became available on October 1, 2018. Passengers benefit from still being able to use the current Lodi transit services that they are accustomed to but with the advantage of having additional options for improved mobility extending beyond Lodi's boundaries. Service information and certification for new and existing passengers is now centralized through a standardized, in-person functional assessment. Once a passenger is ADA-certified, they are granted ridership privileges within each jurisdiction in the County based on their ADA fare structure. This is beneficial for passengers and agencies alike. Lodi staff noted that ASJ has been very positive for the ADA certification process by eliminating Lodi staff time associated with ADA certification.

Performance Monitoring and Standards

A review of GrapeLine/VineLine data reveals:

- On-time performance of over 99 percent on-time for both DAR and paratransit

- Productivity of 2.7 passengers per hour for combined DAR and paratransit
- Subsidy of \$34.68 per passenger trip for combined DAR and paratransit
- Trip denial rates of 2.26% for general public DAR and 1.35% for ADA paratransit (2017-18 data)
- Long trips over 60 minutes make up 0.08% of all DAR and ADA trips (2017-18 data)
- No shows and cancellations combined make up 9.5% of total DAR and paratransit trips (sampling of driver logs from December 1-14, 2018)
- 35 rider suspensions in 2016 and 52 in 2017 (according to staff)

All of these performance measures are deemed to be acceptable, except for the no-show and trip cancellation rate of 9.5%, which is relatively high. When discussed with staff, it is believed that this time period was not representative of the overall cancellation rate and was an anomaly not indicative of the normal cancellation rate.

Compliance and Accessibility

All indications are that Lodi DAR and ADA paratransit are ADA compliant. All services, procedures, and processes appear to be compliant and accessible. The new Access San Joaquin coordination program should improve and enhance consistency of the eligibility and assessment process. Often times a lack of consistency of determining eligibility through assessment is an issue for transit agencies. The ASJ has in-depth functional assessment and in-person interview, which helps ensure equity and access for ADA clients.

Policies and Procedures

Lodi has a strong set of policies and procedures, codified in the ADA Paratransit Eligible Rider's Information Book and the Dial-a-Ride General Public Demand Response Service Rider's Information Book. These policies define agency rules, rider responsibilities, and general information including:

- Service areas and hours, fares
- How to schedule a ride
- Guest and companion policy

- Cancellations, no-show definitions and penalties
- Service animals
- Rider and driver responsibilities
- Suspensions and appeals process

The policies are generally easy to understand and well stated. According to staff, there has been consideration of eliminating subscription trips, which could help reduce cancellations, but it has not been implemented due to the potential negative impact on riders.

Staffing

The transit operations contract with the contractor defines staffing levels for delivery of DAR and paratransit services. These staffing levels appear to be appropriate and maintained by the contractor.

Recommendations

Based on LSC's review of DAR and ADA paratransit, the following recommendations should be considered to help improve the efficiency, effectiveness, and utilization. Recommendations include:

1. Continue to assess weekend DAR service ridership and continue to look for opportunities to combine weekend ADA routes, where possible.
 - Staff noted that they continue to evaluate routes and vehicle needs but that ridership is highly variable and fluctuates. In the past, routes have been eliminated due to low performance but have had to be reinstated when ridership increased.
2. Through long-term participation in ASJ, continue to move more DAR and ADA paratransit passengers to fixed-route services where appropriate and possible. Continue to regularly coordinate with ASJ and monitor client satisfaction with the ASJ process.
 - With 85% geographical coverage on weekdays and 80% on weekends, the GrapeLine fixed route system is well-positioned to replace trips currently operated as DAR or paratransit.
3. Track cancellations and no-shows over a longer period of time. If rate is consistently higher than 5%, consider tactics to reduce number of cancellations and no-shows.

- Institute a multi-step verification process that confirms trip details with passenger at least two times during booking process.
 - Ensure new passengers understand trip pickup windows.
 - Adopt stricter suspension policies – current policy suspends passengers for one week who receive four notices of no-show/late cancellation within six months, and those no shows/late cancellations represent at least 10% of their total scheduled trips. A new policy could suspend passengers for a period of 10 days who have three notices within a six-month rolling time period and cancellations.
 - Confirm proper operation of the computer aided dispatch (CAD) system with proactive calling of passengers for next day service with an option to cancel the trip at the end of the call.
 - Confirm proper operation of the CAD system ability to have passengers call an automated line for real-time status update of estimated ETA.
 - Consider changes to subscription trips including possibly reducing or dropping individual subscription trips if they are canceled or no-showed more than twice and require a 30-day trip history before considering a new subscription trip.
4. Manual review of automatically generated schedules to help catch conflicts and issues
- As part of regular daily practice, trip route assignments should be double-checked with a manual review – a more in-depth quarterly review should occur on a sampling of driver manifests to help proactively identify issues.
5. Enhanced service monitoring
- Consider on-street driver observation, reservations observation and sampling, secret rider programs.
6. Centralized call center for reservations
- This is something to evaluate long-term as a potential offshoot of ASJ.

7. Coordination of services in outlying areas of City of Lodi and surrounding communities.
 - Continued collaboration with RTD and other transportation services should continue to occur with goal of identifying ways to operate service more efficiently.

8. Continue to seek additional revenue sources for DAR and paratransit
 - Consider private fundraising and donors to support critical access services and service enhancements or capital support.

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.

TRANSIT VEHICLES

Fleet Improvement Plan

Upgrading the transit fleet is a crucial element in sustaining a transit service. All of the current City transit fleet will reach the end of their recommended life span by 2023. Depending on the useful life of the vehicles, some vehicles will require multiple replacements between now and the 2028/29 fiscal year. Over the ten years addressed in this plan (2019/20 to 2028/29), a total of 36 transit vehicles will need to be replaced. Before the costs associated with these acquisitions can be defined, it is important to define a strategy to address the statewide shift to zero-emission bus technology.

Zero Emission Bus Technology

Lodi's transit fleet is currently fueled by Compressed Natural Gas (CNG). While the transition from traditional fuels to CNG has reduced the transit system's environmental impacts, the California Air Resource Board (CARB) is in the process of developing new regulations (the "Transit Fleet Rule") that are expected to 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. As hydrogen fuel is not cost-effective for smaller transit systems, this effectively requires a shift to BEB transit vehicles. In December 2018, CARB published the most recent proposed revisions to the Transit Fleet Rule. As a system operating less than 65 peak vehicles, the GrapeLine is considered a "small transit agency" for purposes of the Rule. Key milestones for small transit agencies are currently drafted as follows:

- Starting January 1, 2026, 25 percent of total new bus purchases in a calendar year must be ZEBs. As the rules allow rounding to the nearest integer, purchases of at least 2 vehicles in a year require purchase of a ZEB.
- Starting January 1, 2029, all new bus purchases must be ZEBs.

Importantly for Lodi, the draft regulations require certain findings to be met for purchase of cutaway vehicles. In the current Lodi fleet, the Ford Starcraft and Chevrolet Arboc vehicles are considered cutaways. At present, there are no vehicles in this class that have been certified by the Federal Transit Administration’s testing program, located in Altoona, Pennsylvania. As only vehicles that have passed “Altoona Testing” can be purchased with federal funds, the CARB draft Fleet Rule indicates that ZEB vehicles are only required for cutaway vehicle purchases if ZEB cutaway vehicles have passed this testing.

CARB Rollout Plan

Transit agencies must submit a “Zero-Emission Bus Rollout Plan” to CARB, detailing the type and schedule of vehicles to be purchased, charging station equipment, funding sources, and other requirements. This must be submitted and approved by July 1, 2023.

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 any more on order. The closest existing BEB fleet to Lodi 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 vehicle cost, a key factor regarding battery electric buses is the potential range between charges. Buses with a range of 120-150 miles have been available for several years, which is consistent with a full day of service on the Vineline routes. However, these claims do not reflect the requirements to also power onboard heating and cooling systems – an important consideration in Lodi’s hot summers. Some manufacturers have recently announced new technology that can operate up to 350 miles between charges.

A ZEB fleet will also require charging equipment. These can take the form of slow-charge stations at the vehicle storage facility (for charging overnight) or fast-charge facilities at the Transit Center, which typically require 10 minutes to provide sufficient charge for an hour’s

operation. Identifying the appropriate charging strategy and location requires addressing a number of issues:

- Is there adequate space for charging equipment to be installed at the Transit Center and/or the vehicle storage area?
- Would fast-charging during the operating day be possible without delaying transit routes?
- Other transit systems have found that providing adequate charging capacity requires very extensive upgrades in the electrical system both on-site as well as in nearby power substations and supply lines, such as an upgrade from a 240 volt service to a 480 volt service. What is the electrical supply available at the two locations, and what are the cost implications of any necessary system upgrades?
- For major power users (such as a transit system with full BEB fleets), electrical rates typically vary by load and by time of day. What are the long-term operating cost impacts of various charging scenarios?

Defining the best BEB strategy for the Lodi transit program will require a detailed study, focusing on the electrical engineering and cost implications of the charging options. The overall results of this study should be a BEB implementation plan that minimizes costs to the local jurisdictions, maintains a good quality of service to the passengers and achieves the environmental benefits of BEB technology as it matures.

Recommended Transit Fuel Strategy

There are several reasons why the City of Lodi should take a “go slow” strategy with regards to the initial implementation of BEBs for the GrapeLine system:

- At present, there are no available smaller vehicles that have met Federal testing requirements that are of an appropriate size for Lodi’s services.
- The BEB industry is changing very rapidly, both in terms of the available technology as well as the individual manufacturers.
- As a smaller system, Lodi can less afford to expend funds on changing technologies than can larger transit systems. It is better to monitor the experience of larger transit systems with BEBs over the next few years and learn from this experience.

- Implementing the appropriate charging systems will take time for analysis and construction, as well as working with the utility company.

Fleet Spare Ratio

The number of spares required to operate a transit system is no more than 35 percent of the fleet, based on category of use. The five fixed routes, two express routes and occasional trolley service total a peak need for eight vehicles in fixed route service, thereby requiring three spares. Likewise, based on two weeks of DAR logs, the peak number of DAR vehicles in service is eight, also requiring three spares. The total fleet requirement at current service levels is twenty-two vehicles. However, while no specific service expansion has been identified, it is probable that service will need to be expanded to accommodate growth in Lodi, as seniors age and as the residential and commercial areas grow, particularly in the south. Therefore, the replacement plan includes one expansion vehicle for dial-a-ride in 2023/24 and one for fixed route in 2025/26, bringing the fleet to twenty four (considering the five Glavals being acquired February 2019, and four Starcrafts being retired).

Total Fleet Improvement Costs

Based on the discussion above, the first ZEB purchases are planned to not occur until 2026/27. After that date, all purchases are assumed to be ZEB (minimizing the period when Grapeline is incurring the costs of providing fueling and maintenance for both electric and CNG vehicles). This assumes that by 2026/27, there are smaller vehicles of appropriate size that have passed the Federal testing program. BEB vehicles currently cost on the order of \$200,000 above the CNG vehicle price. Including an inflation factor of 2.3 percent per year, over the coming 10-year planning period the total cost of vehicle purchases is estimated to equal \$18,021,000, as shown in Table 27. As most capital grants require a 20 percent match, this equates to \$3,604,200 of local funds over the ten year period.

PASSENGER FACILITIES

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

Table 27: Fleet Requirements												10-Year Plan Total
<i>In Thousands</i>												
Plan Element	Plan Period (by Fiscal Year)											
	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	
Fixed Route Vehicles												
Fuel	CNG					CNG					ZEB	
Number of Buses	5	0	0	0	0	11	0	0	0	0	4	15
Total Cost ⁽¹⁾	\$993	\$0	\$0	\$0	\$0	\$2,516	\$0	\$0	\$0	\$0	\$2,128	\$4,644
Fixed Route / DAR Vehicles												
Fuel	CNG			CNG			CNG			ZEB		
Number of Vehicles	0	0	5	6	0	0	0	6	6	0	0	23
Total Cost ⁽¹⁾	\$0	\$0	\$2,766	\$3,419	\$0	\$0	\$0	\$3,848	\$5,473	\$0	\$0	\$15,505
Trolley												
Fuel	CNG											
Number of Vehicles	1	0	0	0	0	0	0	0	0	0	0	0
Total Cost ⁽¹⁾	\$260	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Vehicle Needs	\$1,253	\$0	\$2,766	\$3,419	\$0	\$2,516	\$0	\$3,848	\$5,473	\$0	\$2,128	\$20,149
<small>Note 1: All costs include 2.3 percent annual inflation, in thousands of dollars. Source: LSC Transportation Consultants, Inc.</small>												

unsafe, or if it does not provide adequate protection from winter rain or summer sun, the bus stop can be the deciding factor regarding a potential passenger’s use of the transit system.

As with many communities in California, Lodi has been experiencing an increase in vandalism and loitering at bus stops, and it is increasingly difficult to keep bus stops clean and absent of encampments and illicit activities. This makes it even more difficult to attract discretionary riders to transit. The transit station is staffed and highly visible, so transit staff is able to address issues at this location, although it is a constant effort. Other more remote locations experience higher levels of degradation. The approach to passenger improvements therefore needs to address the type of structures used (vandal proof) as well as the maintenance and monitoring of structures.

Bus Stop Improvements

Benches and shelters purchased for transit should have vandal-resistant designs, such as metal mesh rather than Plexiglas or plastic screens, solid metal benches with arm rests to discourage laying down, and lighting with vandal-proof housing.

A review of bus stop activity (from boarding and alighting counts) and a cursory field review of passenger amenities identified bus stops which warrant improvements, as shown in Table 28. As part of the overall improvements, sidewalk access within the vicinity of bus stops should be improved as well. In addition the following observations were made:

Table 28: Bus Stop Deficiencies and Recommended Improvements

Stop	Route	Deficiency / Issue	Recommended Improvement
Church / Olive Court SB	1	No lighting or seating	Add lighting fixture, possibly bench
Church / Eureka NB	1	Inadequate distance available for wheelchair boardings/alightings	Install wheelchair pad
Church / Eureka SB	1	No opportunity for wheelchair loading	Install wheelchair pad
Lakewood School EB	1	No bench or seating available, no pedestrian crossing protection	Install bench, move stop to just east of Ham Lane
Lower Sacramento Rd / Lodi St	1	No opportunity for wheelchair loading	Install wheelchair pad
Turner / Lower Sacramento Rd	1	Stop blocks one travel lane	Install bus pullout area, if feasible
Central / Cypress NB	2	No opportunity for wheelchair loading	Install wheelchair pad
Central / Hillborn NB	2	No seating	Warrants bench
Central / Mission NB	2	No opportunity for wheelchair loading	Install wheelchair pad
Oak / Washington WB	2	No opportunity for wheelchair loading, bench installed on sidewalk	Install wheelchair pad, move bench
Century / Ham EB & WB	3	No opportunity for wheelchair loading	Need wheelchair pads
Church & Locust SB	3	No shelter	Shelter is warranted
Ham / Tokay NB	3	No opportunity for wheelchair loading	Needs wheelchair pad
Tokay Near Crescent WB	4	1/2+ miles between stops	Establish new stops on both sides
Vine St E of Fairmont Avenue WB	4	No opportunity for wheelchair loading	Needs wheelchair pad
Scarborough N. of Wimbledon, NB	4	No opportunity for wheelchair loading	Need wheelchair pad
Ham S. of Century SB	4	No opportunity for wheelchair loading	Needs wheelchair pad

Source: LSC Transportation Consultants, Inc.

- Several of the existing stops lack proper landing pads for ADA accessibility. Where feasible, wheelchair pads should be installed.
- The stop at Turner / Lower Sacramento would benefit from a pullout.
- Future land development plans should be reviewed and pullouts recommended if appropriate.

It is estimated the cost of these improvements would be approximately \$111,700 in today’s dollars.

Improved Bus Stop Maintenance

Maintenance of all city-owned equipment is the responsibility of the City of Lodi. The contractor has informally assisted with maintenance of the bus stops at the Transit Depot, and will bring attention to City staff of egregious conditions—but often the bus stops are a low priority for City staff. The City should consider either including bus stop maintenance in its operations contract, hiring a private contractor to routinely maintain bus stops, or developing a

more rigorous schedule of maintenance for City staff. GrapeLine should set the following maintenance standards:

- A minimum schedule for regular cleaning of stops and shelters.
- A maximum time before major maintenance (such as replacement of broken lights or shelter panels) must be performed.
- A maximum time before maintenance of health concerns are addressed (such human waste, drug paraphernalia, etc.).
- A schedule for regular inspection of bus stops and shelters (at least quarterly, but preferably monthly), with a consistent report format used to present inspection results.

The cost of a regular maintenance contract is estimated at between \$20,000 annually. Furthermore, transit staff and passengers should not hesitate to call Lodi police to report incidents of drug activity, passenger harassment or vandalism at bus stops.

Sunwest Village Transit Hub

The Sunwest Village shopping center (including the Super Walmart) has grown into the busiest transit activity generator in the southwest Lodi commercial district. At present, it serves 127 passenger-trips (total of boardings and alightings) per weekday, compared with only 58 passenger-trips at the existing Kettleman / Lower Sac transfer point (adjacent to Sunwest Plaza). Passengers would be better served if the Sunwest Village stop were expanded to provide capacity for bus layovers (approximately 200 feet of curb space) along with additional shelter space for the passengers.

TECHNOLOGY

Automatic Vehicle Location

Automatic Vehicle Location (AVL) is technology which identifies and transmits the geographic location of the vehicle. Most AVL systems, including that used by GrapeLine, are satellite Global Positioning System (GPS) based. AVL allows the transit system to track schedule adherence and transit travel patterns (through the DoubleMap app), as well as collect extensive data useful in planning services. Systematic updates to software and hardware for GrapeLine's AVL system are continuously needed, and thus need to be included in the five-year SRTP capital plan. The cost per vehicle is typically approximately \$8,000.

“DoubleMap” – Mobile Trip Planning and Information

Similar to apps such as NextBus and ETASpot, “DoubleMap” is an online application available to passengers to plan trips, track bus locations and projected arrival times, view or receive system alerts, and access route maps and schedules. DoubleMap can be accessed through a mobile app or through a desktop browser at <http://lodi.doublemap.com/map/>. Lodi began implementing DoubleMap approximately three years ago, but the program is not fully functional: repetitive issues are still being addressed before final project acceptance. The fixed route vehicles are equipped with DoubleMap, but not the Dial-a-Ride vehicles. New vehicles will need to be equipped as they are purchased.

Online Fare Payment Software

In a wired society, more people are looking for online payment options, and transit fares are no exception. The ability for passengers to pay for a fare online potentially saves them time, provides a simple, secure payment method, and increases the likelihood that they will use transit. Currently, GrapeLine passengers are limited to paying for fares on the bus, at several locations around town, or by mail.

In order for Lodi to establish online payment, GrapeLine would need to acquire software enabling payments to be made. As an example, RouteMatch provides a payment app using a third party to process credit card payments. The transit administrator can set up payment accounts on behalf of passengers, or passengers can set up accounts themselves and add money. Developing a program for the specific needs of a transit agency is not typically a turn-key product, and can take many months of planning and staff time. A recent proposal identified a cost for fifteen vehicles of \$57,000 for the first year of operation, and \$11,000 maintenance for each subsequent year, as well as a fee on processing each transaction (in the range of 3% of the transaction totals). Lodi would likely face similar costs to implement online payments, which would ultimately be a benefit to the passengers and administrators.

As a precursor to full online payment, the City should consider selling passes on the buses as a convenience to passengers.

INTRODUCTION

Transit funding is obtained from multiple sources, with the most prominent being from Federal and State grant and other programs. Transit funding (not including passenger revenues), particularly in California, can be complicated due to the many available sources. The following is a summary of the potentially available funding sources to Lodi Transit, and an overview of the status of the funding source, where applicable.

FEDERAL FUNDING SOURCES

The Federal Transportation Administration has several grant programs available to transit agencies for both operating and capital assistance. Eligibility in many programs is dependent upon population, distinguishing between “urban” and “non-urbanized” areas for funding allocations. Those applicable to the City of Lodi are FTA 5307, 5310 and 5339 as well as the Congestion Management Air Quality program; each of these is discussed in detail below.

FTA Section 5307 Urbanized Area Formula Grants

The largest of FTA’s grant programs, the Section 5307 program provides grants to urbanized areas (50,000 population or more per the US Census) to support public transportation. This program will fund up to 50 percent of operating costs (requiring a 50 percent “local match”) and up to 80 percent of capital costs except for capital costs for ADA compliance, Clean Air Act compliance or for bicycle-related projects. Funding is distributed by formula based on the level of transit service provision, population, and other factors. Lodi regularly utilizes FTA 5307 funds each year as part of its transit operating budget.

FTA Section 5310 Enhanced Mobility of Seniors and Individuals with Disabilities

FTA funds are also potentially available through the Section 5310 Elderly and Persons with Disabilities Program (largely vehicles), which is administered by Caltrans. This program is designed to improve the mobility of seniors and disabled persons, and monies are apportioned based on population. FTA 5310 requires a 50 percent local match for operating expenses, and a 20 percent match for capital expenses.

FTA Section 5339 Bus and Bus Facilities

The FTA 5339 grants for Buses and Bus Facilities is a Federal grant program to replace, rehabilitate and purchase buses and related equipment, to construct bus-related facilities (including technological changes or innovations) or to modify low or no emission vehicles or facilities. Funding is provided through formula allocations and competitive grants. A sub-program provides competitive grants for bus and bus facility projects that support low and zero-emission vehicles. Lodi has applied for and has been awarded a 5339 grant for the purchase of vehicles and transit facility improvements, and has found this to be an increasingly reliable source for capital purchases. Lodi plans to use 5339 funds (pooled from Manteca, Lodi and Tracy) to fund a large bus shelter and ADA accessibility improvement project in 2020/21.

Congestion Mitigation and Air Quality (CMAQ) Improvement Program

The CMAQ program provides a flexible funding source to State and local governments for transportation projects and capital programs to help meet the requirements of the Clean Air Act. Funding is available to reduce congestion and improve air quality for areas that do not meet the National Ambient Air Quality Standards for ozone, carbon monoxide, or particulate matter (nonattainment areas) and for former nonattainment areas that are now in compliance (maintenance areas). This funding source has been used by Lodi in previous years to purchase CNG vehicles.

STATE FUNDING SOURCES

Transportation Development Act - Local Transportation Funds (LTF)

A mainstay of funding for transit programs in California is provided by the Transportation Development Act (TDA). The major portion of TDA funds are provided through the Local Transportation Fund (LTF). These funds are generated by a 1/4 cent statewide sales tax, returned to the county of origin. The returned funds must be spent for the following purposes:

- Two percent may be provided for bicycle and pedestrian facilities per TDA statues.
- The remaining funds must be spent for transit and paratransit purposes, unless a finding is made by the SJCOG that no unmet transit needs exist that can be reasonably met. (Article 4 or 8)

- If the SJCOG determines that there are no unmet needs that are reasonable to meet, remaining LTF funds can be spent on roadway construction and maintenance projects. (Article 8)

The City of Lodi used \$2,284,000 of LTF in 2017-18, and \$2,323,128 has been apportioned for 2018-19 for Article 4 or 8.

Transportation Development Act - State Transit Assistance (STA) Funds

In addition to LTF funding, the TDA includes a State Transit Assistance (STA) funding mechanism. The sales tax on gasoline is used to reimburse the state coffers for the impacts of the 1/4 cent sales tax used for LTF. Any remaining funds (or “spillover”) are available to the counties for local transportation purposes.

Annually, SJCOG apportions STA funds to eight claimants. The apportionment for Lodi for the 2018-19 FY is total \$24,063 (compared to \$150,000 in 2017-18), due to STA funds diverted to support a Non-Emergency Medical Transportation need identified by SJCOG.

Low Carbon Transit Operations Program (LCTOP)

The Low Carbon Transit Operations Program (LCTOP) is an element of the Transit, Affordable Housing, and Sustainable Communities Program established by the California Legislature in 2014 by Senate Bill 862, and renewed in November 2018 via the ballot. The LCTOP was created to provide operating and capital assistance for transit agencies to reduce greenhouse gas emission and improve mobility, with a priority on serving disadvantaged communities.

Approved projects in LCTOP support new or expanded bus or rail services, expand intermodal transit facilities, and may include equipment acquisition, fueling, maintenance and other costs to operate those services or facilities, with each project reducing greenhouse gas emissions. For agencies whose service area includes disadvantaged communities, at least 50 percent of the total moneys received shall be expended on projects that will benefit disadvantaged communities. Five percent of the annual auction proceeds in the Greenhouse Gas Reduction Fund (Fund) are allocated for LCTOP (starting in 2015-16).

The amount available to Lodi has been less than \$5,000, so no applications for this funding have been submitted and the funds have been relinquished to RTD. However, Lodi plans to request LCTOP funds for 2018-19 to use to subsidize student fare discounts. Another strategy Lodi might consider in the future is pooling LCTOP funds with smaller jurisdictions, and taking turns

amongst those jurisdictions to use the funds to address issues which are eligible to be funded by LCTOP.

SB 1 State of Good Repair

In April, 2017, Senate Bill 1 (Beall and Frazier), a landmark transportation funding package, was signed into law. This measure was in response to California's significant funding shortfall to maintain the state's multimodal transportation network. SB 1 increased several taxes and fees to raise over \$5 billion annually in new transportation revenues. SB 1 prioritizes funding towards maintenance and rehabilitation and safety improvements on state highways, local streets and roads, and bridges and to improve the state's trade corridors, transit, and active transportation facilities. In addition, an estimated \$350 million will be available in public transit funding each year. Approximately \$250 million will be added to the State Transit Assistance Program, and \$105 million will be available through the State of Good Repair (SGR) program annually.

For the San Joaquin region, \$359 million will be available over the next ten years for "Fix It First" efforts to address local deferred maintenance. Lodi receives a small annual allocation (\$4,449), and a larger portion (\$78,000) of the regional share allocated to the SJCOG. Lodi plans to use revenues from SB 1 to upgrade lighting in the parking structure, make structural repairs at the Transit Station, and possibly replace pavers in the parking lot.

Proposition 1B

PTMISEA Funding

On November 7, 2006, California voters approved Proposition 1B, the Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006, which authorized the issuance of \$19.925 billion in general obligation bonds to invest in high-priority improvements to the state's surface transportation system and to finance strategies to improve air quality. Among the programs contained in Proposition 1B is the \$3.6 billion Public Transportation Modernization, Improvement, and Service Enhancement Account (PTMISEA).

PTMISEA funds may be used for transit rehabilitation, safety, or modernization improvements; capital service enhancements or expansions; new capital projects; bus rapid transit improvements; or rolling stock (buses and rail cars) procurement, rehabilitation, or replacement. Funds in this account are appropriated annually by the Legislature to the State Controller's Office for allocation in accordance with PUC formula distributions: 50% allocated to Local Operators based on fare-box revenue and 50% to Regional Entities based on Population.

In Fiscal Year 2017-18 the City of Lodi received \$200,000 in Prop1B funding for farebox replacement of upgrades.

TSSSDRA Funding

The Transit Safety, Security, and Disaster Response Account (TSSSDRA) funding account was created by Proposition 1B, the Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006. TSSSDRA funding is available for capital expenditures that provide an increased protection against a security or safety threat, increase the capacity of transit operators to develop disaster response transportation systems that can respond in the event of an emergency, or other allowable costs under California Government Code 16727 (a). TSSSDRA funding to SJCOG and local transit operators is allocated annually based on the State Transit Assistance formula found in PUC Section 99313 (population based) and Section 99314 (fare revenue based), respectively. Lodi has used this program for Fareboxes, AVLS, Security Fencing Project, and Security Cameras. Lodi has carry-over funds, but this program sunsets in March 2019.

LOCAL FUNDING SOURCES

Measure K

Measure K (Transportation Tax Fund) was a bond measure passed by San Joaquin County voters for a sales tax increase of one-half of one percent for transportation improvements. The funds are used for improvements that are included in the 2-year transportation expenditure plan, and include street repairs, safety and operational improvements, and promotion of bus services, to name a few. The revenues collected are distributed by the SJCOG to the local jurisdictions. In Fiscal Year 2018-19, the City of Lodi expects to receive an estimated \$400,000 from Measure K.

Advertising Revenues

Many transit systems typically use advertising on their vehicles and at passenger facilities to raise additional revenue. Advertising on the outside of buses raises the most revenue, followed by advertising at shelters or on benches. Interior advertisement on buses may bring in significant revenue in urban and smaller urban areas. One reason advertising on buses is so attractive to advertisers is that buses are highly visible and provide a “traveling” advertisement, while it can also be used by the transit system to “brand” itself. Lodi receives advertising revenue of approximately \$40,000 annually. This amount can be deducted from overall operating costs, which has the impact of helping to meet performance objectives.

Passenger Revenues

An important source of funding for Lodi Grapeline and VineLine is passenger fares. Grapeline currently generates an estimated 8 percent farebox return ratio (the percentage of operating cost covered by fare revenue). This is less than the typically required 10 percent, but has been approved by the SJCOG as long as Grapeline meets certain performance standards (see Chapter 3). Nonetheless, maintaining or increasing the farebox return ratio is desirable. The farebox return ratio is improved through a few scenarios. Either 1) cost efficiency is improved so that fare revenues represent a higher percentage based on operating cost savings, or 2) fare revenues are increased, usually through increased ridership and/or increased prices, or 3) both operating costs are lowered and revenue increased.

Base Cash Fares

Lodi Grapeline cash fares for fixed route service are \$1.25 for the general public and \$0.60 for seniors, disabled and Medicaid holders. While some surveyed passengers called for reduced fares, the low farebox return ratio would suggest the fares are reasonable or potentially too low. Among peers (Cities of Petaluma, Porterville, Madera, Tracy, Vacaville and Turlock—which are all a similar size in population), the average base cash fare is \$1.31 on fixed routes. An increase in fares to \$1.50/\$0.75 on the Lodi fixed routes would likely result in a small loss of ridership, and a gain in revenue. Unless it becomes important for Lodi to increase its farebox ratio, a fare increase is not currently recommended.

Another consideration in establishing the base fare is that multiple transit providers in the area (Manteca, Tracy, RTD) are exploring the potential of offering a regional fare card that would be valid on all transit systems. Having an equivalent base cash fare on the various systems would simplify this process.

Day Pass with Eliminated Transfer

Lodi Grapeline currently does not offer a day pass, as was mentioned on onboard surveys. Transfers are offered and valid for two hours after use, and some passengers use these to make a round-trip, although the intent is to allow the passenger to make a connection to a second bus for a complete one-way trip. Transfers can be cumbersome for the passenger and operator, and can result in abuse. An alternative to consider is eliminating transfers altogether, and offering a day pass. Most day passes are offered at the equivalent of two one-way trips, or \$2.50 in Lodi. A day pass at this cost would be an advantage to passengers making more than a one-way trip, and would be a greater convenience to the transit system.

Offering day passes at twice the cash fare typically has the following impacts:

- Most passengers who make more than one trip in a day but don't buy 31-day passes will purchase a day pass
- Some passengers will increase the number of trips they make in a day if a day pass is available
- Some passengers will continue to purchase one-way cash fares
- The convenience of loading passengers more quickly (by having fewer cash transactions and no transfer transactions) has a positive impact on productivity

In general, day passes do not result in a loss of fare revenue and improve the overall efficiency of fare handling and thus boarding times. Provision of a day pass with elimination of transfers is recommended.

Discounted Youth Fares

Similar transit systems typically provide discounted fares (such as half-fare) on fixed-route services for youth age 5 to 18, or for students of the local K-12 schools. If new funding sources were available to offset the loss of farebox revenue, provision of a discounted fare could encourage additional ridership (estimated to be on the order of 5 percent of total fixed route ridership), better serve this important element of the Lodi community and help to encourage a transit-riding habit in the future.

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Marketing Strategies and Institutional Issues

MARKETING INTRODUCTION

Transit marketing is a challenge for most small transit systems due to the limited staff and budget available. Lodi is no exception. Marketing tools to make the most of available resources are discussed below.

Marketing Tools

Branding

Transit vehicles and bus stops/amenities are a transit system's form of "packaging." They are the most visible and cheapest communication tool. The image they create is a reflection of how the public views the transit system.

Lodi Transit uses white buses with a solid purple stripe (representing wine grapes) and a smaller green stripe (the vine). Given the names "GrapeLine" and "VineLine," these colors are appropriate and easily relatable to the names and the area. The GrapeLine Logo also has a clump of grapes and the name "Grape" in purple and "Line" in purple or green. The designs are bold, simple, attractive and catchy. The GrapeLine logo is posted on the bus stop signs, making them easily recognizable. In this way, branding has been successful.

Passenger Information/Riders Guide

There are four printed guides for Lodi Transit: one for weekend service; one for weekday service; one for express service; and one for DAR. Upon visiting the transit center, only the weekday brochure was displayed, which could mislead a prospective passenger regarding the availability of weekend or express service. Unless all brochures are prominently displayed, the information for all three services should be contained in one brochure. The brochures themselves are color-coded by route and easy to read. They include an icon for DoubleMap, basic rules for riding, fares, transfer policy, holiday schedule, and contact information.

Passenger Information/Online Information:

The Lodi Transit website is comprehensive in providing the range of information needed by passengers (and potential passengers) to understand the transit system. It also includes the

various policies required by state and federal requirements, and promotes public participation (including review of transit plans). A highlight of the website is the availability of the DoubleMap real-time bus location information. However, the website is not organized in a way that easily leads users to the key information needed for using the system (particularly for first-time users): routes, schedules and fares. It also is not well designed for use on a smartphone (which is an increasingly more common way for persons to access a website, particularly when traveling). The user must scroll down past the information regarding the calendar, SRTP and contacts before getting to a menu that provides a link to schedules, maps and fares. Specific recommendations regarding the website are as follows:

- The City should consider developing a stand-alone website for the transit program (with a link provided on the City's site). This frees the design from following the overall City site criteria, allowing more flexibility to tailor the page to the unique requirements of a transit site. Good examples of transit websites can be found at www.catabus.com and www.breckfreeride.com.
- Provide prominent feature/icon buttons for quick access to the key information desired by passengers: bus schedules/maps, the DoubleMap real-time information, fare and pass information, and ADA service information.
- Detailed information can be provided through a navigation ribbon with drop-down options, organized in the following categories: About Us (contact info, hours, advertising opportunities, history of the station, partner agencies), Rider Resources (rider responsibilities, ADA policies, parking, etc.), Tickets and Passes (detailed information on discounts and purchasing options), Plans and Policies (Title VI policies, SRTP, etc.) and Schedules and Maps. While some of these categories are duplicates of the icon buttons, this is by design to ensure that passengers have ready access to the key information.

A redesign of the site is recommended that will provide easier access to the more crucial information, highlight the DoubleMap availability and provide a design more suited for use on a smartphone.

Testimonial Advertising

Transit systems inevitably have grateful passengers. The transit City should let the rider tell their story. This can be done as a newspaper story, as part of a flyer or poster, or as a radio spot. The operator should identify regular passengers on the transit system (a single mom, a student, a disabled passenger, a local leader, etc.) and ask why they ride, what they like about the service, and how transit personally helps them. Sharing this with the public can be

inspirational and put the transit system in a positive light. In particular this can be helpful in showcasing the benefits to students and commuters riding transit.

Public Presentations

Public speaking is the ultimate low cost marketing tool. It shows confidence in your message and is a great image builder (if done well). It puts a face on the transit organization. It can be done interactively so that the speaker can answer questions and convey customized information. The target audience would likely be seniors, students, social service program clients, and employee groups. Presentations to schools and Delta College, businesses, employers, social services, senior residences, senior centers, and neighborhood associations would therefore be appropriate. The presentation can be tailored for non-users as well. Speaking to members of civic and business organizations enables the transit agency to set up an identity as part of the community. It is also useful to present to decision makers and elected officials to maintain a positive image.

Bus Displays

The information on internal bulletin display boards on the buses and trolley are highly visible to passengers. It is important that the information contained within these displays is attractive, informative and quickly conveys information.

DoubleMap App

The DoubleMap app is a marketing tool in itself, but also leads to increased opportunities to “brag” about the convenience of Lodi Transit. DoubleMap is used to display bus tracking for the fixed routes in a large display in the Lodi Transit Station, which enables passengers to wait inside the building until the bus is in the vicinity. This opportunity can also be used to display positive images and information about the transit program.

Social Media

Mirroring the rest of society, transit services are increasingly using social media as part of a comprehensive marketing strategy. Social media is found by transit agencies to be particularly useful in communicating with existing riders (keeping “brand loyalty” by distributing real-time information about services, in particular), as well as distributing general service information. It has been found to be relatively effective in reaching everyday riders (such as commuters) as well as students/young adults, and moderately effective in reaching minorities, persons with disabilities, and seniors.

One potential issue with social media is concern over loss of control of the conversation, as the public responds to social media posts in negative or inappropriate ways. This can be controlled by focusing social media efforts on “outgoing” messages (such as real-time service information bulletins), and posting a policy to only respond to comments received through more controlled channels, such as phone calls or email.

A more significant issue is the staff time needed to conduct social media marketing. Given the limited funding available to Lodi GrapeLine and the competing funding needs, it would be important that any efforts at enhancing social media be limited to no more than a few hours per week of staff time.

Coordination with RTD

Transit programs are enhanced when one can make successful connections to another. Lodi Transit should continue to work in coordination with the San Joaquin Regional Transit District (RTD) to enhance service at the local and regional levels. Coordination efforts should include facilitating transfers at Lodi Station and sharing information about each providers’ services (links to providers are included on the Lodi web page, and brochures are available in the Depot). The more information operators and staff know about each other’s services, they are better they are able to inform the public about regional and local connections.

Summary of Marketing Strategies

Marketing of small urban transit systems is almost always underfunded due to limited funds, and Lodi is no exception. The transit program must make the best use of funding to maximize its message at the lowest cost and with limited administrative staff available for the tasks. The most cost-effective marketing efforts discussed in this chapter include:

- Continued branding and upkeep of vehicles and bus stops to ensure a positive image of transit.
- Maintenance of the website to ensure information is current and easily navigable
- Continue publishing and making available print materials, particularly at senior housing, social service agencies and other locations which serve transit dependent populations
- Regular messaging through social media and DoubleMap

- Testimonial articles and/or radio spots
- Outreach to schools and senior centers

Transit marketing experts generally recommend that 2 to 5 percent of a transit program’s budget be spent on marketing, but few transit systems prioritize marketing to this extent. The City of Lodi’s transit marketing budget is approximately \$5,000, and approximately \$4,500 is included for the contractor to engage in marketing. This is just 0.29 percent of the operating budget. However, administrative staff engages in outreach activities, and some printing costs might be considered marketing as well. Two percent of the budget would total approximately \$68,000 for marketing.

INSTITUTIONAL ISSUES

Lodi’s transit system has successfully operated as a division of the City’s Public Works Department since its inception. Given the overall success and effectiveness of this institutional arrangement, no changes in the institutional structure of the existing service are recommended. However, there is an institutional issue regarding RTD services to Lodi, as presented below.

Funding and Operation of Hopper and Commuter Routes Serving Lodi

Currently, RTD operates and funds Hopper Routes 23 (weekdays) and 723 (weekends), and commuter Route 93. These routes provide connections between Stockton and Lodi, and are a benefit to travelers from both locations. RTD pays for the service through its own funding mechanisms and through fare revenues. RTD has suggested that due to increasing costs and equity issues, they may ask Lodi to contribute to cover the cost of the service. This raises the question of whether the City would be better served by providing (through its service contractor) some or all of the existing RTD routes serving Lodi, rather than providing additional funding for RTD service. Before any changes are made in the current institutional arrangements, several factors merit consideration:

- Is the service currently successful? What are the ridership and performance trends?
- Does the service benefit Stockton or Lodi residents to a greater extent? Would it be fair to require a 50-50 share, or some other formula?
- What are the current costs (marginal and fully allocated) that RTD pays for these routes?

- What would Lodi’s operating costs (marginal and fully allocated) total? Does this result in a cost savings compared to the RTD’s costs?
- If Lodi were to operate the routes instead of RTD...
 - How much of the revenue RTD receives would be “portable” to Lodi? For example, some grants may be specific to RTD.
 - How would services be marketed? As part of GrapeLine, or RTD?
 - Would RTD continue to provide buses for the service, or would the City of Lodi need to purchase additional buses?
 - How would Lodi’s transit contractor drivers communicate with RTD dispatchers regarding service interruptions and need for transfers in Stockton?
 - Who would own the farebox revenues? Would fare levels on the service be maintained at the current level?
 - How would taking on this service affect the City of Lodi’s systemwide performance? Could this reduce the performance to the level where other changes to attain overall performance would need to be considered?
- Some of the RTD services to Lodi are operated outside of the existing GrapeLine service hours, such as the Route 93 service until 8:56 PM. What additional costs would be incurred by the City’s contractor (such as additional Dispatcher costs) to serve these extended hours?

At a minimum, these questions would need to be explored before considering shifting operations. Early indications are that the City of Lodi’s operating costs are lower than those of RTD’s. The RTD SRTP identifies a cost per hour of \$158.96 (fully allocated), whereas Lodi’s costs in the same year were \$99.48 per hour (see Table 14). The marginal operating costs of the Hopper and Commuter services would need to be explored as well as other factors listed above before a recommendation can be made.

INTRODUCTION

The following plan presents service enhancements, capital improvements, management plan elements and marketing and financial strategies to enhance public transit services in Lodi, within the constraints of realistic funding projections. It is based on a review of existing transit service and demand conditions, analysis of a wide range of alternatives, as well as public input. (A summary of public input opportunities provided in this study is included in Appendix C.) This chapter presents the individual plan elements in brief, based on the substantial discussions presented in previous chapters; the reader is encouraged to refer to previous chapters for additional background on the plan elements. The overall plan features are presented graphically in Figure 26.

SERVICE PLAN

The recommended service enhancements are listed below and depicted in Figure 26.

Fixed Route Service Recommendations

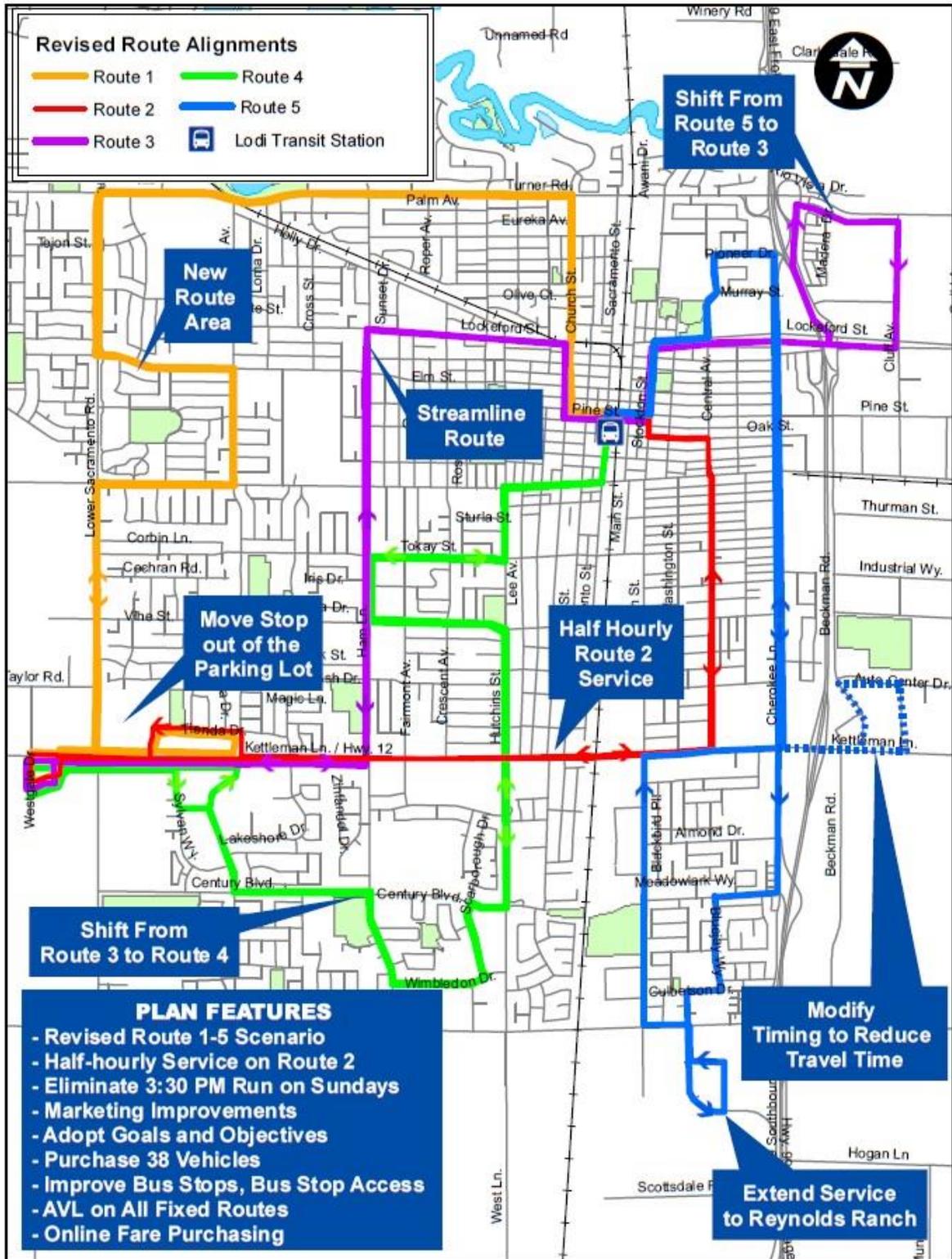
As discussed in detail below, the following fixed route service plan is recommended as a demonstration project that should be implemented and monitored for a minimum of six months:

- Route 1 should be realigned to jog off of Lower Sacramento Road on West Elm Street to better serve ridership in the neighborhoods around the South Mills/West Lodi intersection and to provide running time on Route 3 to extend that route (as discussed below). To avoid the delay and hazard of traveling through the Safeway parking lot, the route should go north on Mills Avenue instead of Tienda Drive and return to Kettleman Lane on Tienda Drive. An additional stop should be placed on Lower Sacramento Road just north of the Safeway driveway to allow passengers to still board and alight in close proximity to the west end of the shopping mall. With these changes, Route 1 would still be 12.6 miles in length, which can be effectively operated in an hour. This modification provides running time on Route 3 needed to in turn allow Route 5 to be extended to Reynolds Ranch.



0 0.25 0.5 1 Miles

Figure 26
Lodi SRTP Features



- Route 2 should also be modified to move the route out of the Safeway parking lot. In addition, a second bus should be used to provide weekday half-hourly service on this popular route, with new departures from the Transit Center on the hour from 9 AM through 4 PM (ending the new service at 5 PM). In addition to providing more convenient service for Route 2 riders, it will improve options for transfers to Route 3 at the Transit Center, and improve options for transfers to and from Routes 1, 3, 4 and 5 at the Kettleman and Lower Sacramento Stop.
- Route 3 should be extended to serve the northeast Lodi area, in order to provide more convenient service to this area, and to allow Route 5 service to shift from this area to the Reynolds Ranch area. This extension should depart the Downtown Transit Center along the Route 5 alignment as far as the Calaveras/Lockeford intersection. The bus should then continue east over SR 99 and serve the existing Route 5 loop (Beckman, Turner and Cluff), returning westbound on E. Lockeford Street and following the Route 5 alignment south on Stockton Street and west on Pine Street to the Transit Center. This will greatly reduce the overall travel time for trips between northeast Lodi and the Transit Center (and on to other destinations) currently provided by Route 5 and will also provide two different departure times from the Transit Center to various stops in northeast Lodi every hour. To provide the running time needed for this extension, Route 3 should travel along Ham Lane between Elm Street and Lockeford Street (rather than jogging west to Mills Avenue), with the area along Mills Avenue instead served by Route 1. In addition to shortening the route length, this will bypass much of the school traffic in the area. In addition, service should be eliminated south of West Kettleman Lane. Instead, West Kettleman Lane should be used between S. Ham Lane and Sylvan Way, with service to this southern area provided by Route 4, as discussed below.
- Route 4 should be shifted off of S. Ham Lane between W. Kettleman Lane and W. Century Boulevard to serve the existing Route 3 stops in this area, via W. Century Boulevard, South Mills Avenue, Sylvan Way and Sand Creek Drive. The stops along W. Kettleman Lane would still be served by Routes 2 and 3. The only stops that would lose all service are along S. Ham Lane northbound at Chianti Drive (which serves 2.7 passengers per day, based on surveys) and southbound at Burgundy Lane (which does not typically serve any passengers). However, as the Chianti Drive stop is only a walk of a few minutes from stops on Kettleman Lane, the loss of ridership would be less than 140 passenger-trips annually. This revised route would be 12.0 miles in length (the same as the existing route).
- Route 5 should be extended southward to provide stops in the Reynolds Ranch area, with a terminal loop around Rocky Lane and Reynolds Ranch Parkway. Specifically, the

route should travel south on Reynolds Ranch Parkway, turn left (north) on the road west of Home Depot, left on Rocky Way and right onto Reynolds Ranch Parkway northbound. This rapidly-growing area is both a commercial center and employment center (with employees at both stores and at Blue Shield), and also includes the Revel Lodi senior community and nearby residential neighborhoods. (As this area develops, the route could be modified to serve new land uses in this area). The running time needed to make this extension is provided by shifting the northwest Lodi service to Route 1, as discussed above.

While the existing Route 5 on-call stop serving the DMV office on Pixley Parkway should continue to be served, the published schedule should be revised to reflect the running time without the deviation. This deviation on Route 5 is served only 10 percent of the time. Instead of the vehicle waiting curbside in the middle of the route when the stop is not requested, the route should be scheduled as if a deviation is not requested, simply operating behind schedule for the once-a-day-on-average runs where a deviation is requested. This will provide improved service quality for the majority of the runs. A note should be added to the schedule that due to occasional deviation requests, the bus may operate up to 5 minutes after the published time, but will still allow passengers to transfer to other routes at the Transit Center.

- Slightly Modify Weekend Fixed Routes: The weekend routes should remain unchanged, with the exception of the revisions to Routes 1/30 and 2/22 to avoid traveling through the Safeway/Target Shopping Center and that the loop south of Harney Lane to serve Reynolds Ranch should be added to Route 5/31. As the resulting Route 5/31 would still be 12.0 miles in length and as the DMV on-call service is not available on weekends, the route can still be reliably operated in an hour.
- Eliminate the 3:30 Runs on Sunday: The low productive 3:30 PM runs should be eliminated on Sundays, in order to improve overall service productivity. While it will result in a loss of roughly 20 passenger-trips per Sunday, it will save \$13,850 in public operating subsidy.

These fixed-route modifications (with the exception of the reduction in Sunday service) should be implemented for a minimum of six months on a demonstration basis. This reflects that ridership response may differ from the forecasts prepared in this study, and that operational issues may arise. Over this demonstration period, ridership and operational data should be collected, monitored and analyzed to address the following key questions:

- Is new ridership being generated by the extension of service to the Reynolds Ranch area? (At the end of six months, weekday passenger trips to or from these new stops should total at least 20.)
- Is new ridership being generated by the half-hourly service on Route 2? (At the end of six months, average weekday ridership on Route 2 should be increased by at least 40 passenger boardings.)
- Can the revised routes be operated with adequate on-time reliability, and provide adequate driver break time? (There should be no reduction in overall on-time reliability.)
- Have the modifications improved the service to the passengers? (After six months, a short on-board passenger survey should be conducted to identify whether the majority of ridership feel the modifications have either been a benefit or have resulted in no net change in the service.)

Depending on the results of these monitoring efforts, the following could occur:

- The fixed-route modifications continue as implemented.
- Changes in the modifications could be analyzed and implemented to address specific issues, or to improve on the modifications.
- The service could revert back to the existing plan.

GrapeLine DAR and VineLine Service Recommendations

In addition to these improvements to GrapeLine fixed routes, Chapter 6 outlines improvements to policies and operations of the VineLine and GrapeLine DAR program which should be followed. Included among those recommendations are:

- Continue to assess weekend DAR service ridership and continue to look for opportunities to combine weekend ADA routes, where possible.
- Through long-term participation in Access San Joaquin (ASJ), continue to move more DAR and ADA paratransit passengers to fixed-route services where appropriate and possible. Continue to regularly coordinate with ASJ and monitor client satisfaction with ASJ process.

- If cancellations and no-shows rate is consistently higher than 5%, consider strategies to reduce number of cancellations and no-shows. (See Chapter 6 for details)
- Manual review of automatically generated schedules to help catch conflicts and issues.
- Enhanced service monitoring.
- Centralized call center for reservations; evaluate long-term as a potential offshoot of ASJ.
- Coordination of services in outlying areas of City of Lodi and surrounding communities.
- Continue to seek additional revenue sources for DAR and paratransit.

Service Plan Impacts

Table 29 depicts the annual operating cost for Grapeline, including the base case cost plus additional recommendations. The costs assume a 2.3 percent annual inflation rate. As shown, the various plan elements will add \$120,000 to the first year of the plan period (a 3.5 percent increase over the base case), rising to a \$250,000 increase (5.9 percent) in the final year of the ten-year plan.

Plan Element	Fiscal Year										10-Year Plan Total
	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	
Base Case Operating Cost ⁽¹⁾	\$3,432	\$3,510	\$3,591	\$3,674	\$3,758	\$3,845	\$3,933	\$4,024	\$4,116	\$4,211	\$38,094
Service Plan Elements											
Route Realignment	\$26	\$27	\$27	\$28	\$29	\$29	\$30	\$31	\$31	\$32	\$291
Half-Hourly Route 2 Service 9AM-5PM	\$110	\$113	\$115	\$118	\$121	\$123	\$126	\$129	\$132	\$135	\$1,222
Eliminate Sunday 3:30 PM Runs	-\$15	-\$15	-\$15	-\$16	-\$16	-\$16	-\$17	-\$17	-\$17	-\$18	-\$161
Subtotal: Service Plan Elements	\$120	\$120	\$130	\$130	\$130	\$140	\$140	\$140	\$150	\$150	\$1,350
Percent Change	3.5%	3.4%	3.6%	3.5%	3.5%	3.6%	3.6%	3.5%	3.6%	3.6%	3.5%
Additional Activities ⁽²⁾											
Increased Marketing	\$0	\$63	\$66	\$67	\$69	\$70	\$72	\$73	\$75	\$77	\$631
Increased Bus Stop Maintenance	\$0	\$20	\$20	\$21	\$21	\$22	\$22	\$23	\$23	\$24	\$197
Subtotal	\$0	\$80	\$90	\$90	\$90	\$90	\$90	\$100	\$100	\$100	\$830
Total Operating Cost ⁽²⁾	\$3,552	\$3,710	\$3,811	\$3,894	\$3,978	\$4,075	\$4,163	\$4,264	\$4,366	\$4,461	\$1,350
Percent Change	3.5%	5.7%	6.1%	6.0%	5.9%	6.0%	5.8%	6.0%	6.1%	5.9%	
Note 1: Per 2019/20 draft budget; includes variable and fixed operating costs; assumes 2.3% annual inflation. Note 2: Assumes additional activities are implemented in 2020/21. Source: LSC Transportation Consultants, Inc.											

Ridership projections for all alternatives are based on the demographics of the area as well as historical ridership trends, peer system comparisons and studies of how ridership has responded in similar systems to similar changes. Typically, it takes two years for expanded services to reach full ridership potential if the service is well advertised. The base ridership is expected to increase by approximately half the rate of population growth in the area (0.065 percent annually) reflecting trends in the past several years. The resulting ridership forecasts are shown in Table 30. Ridership is forecast to increase by 8.3 percent in the first year of the plan (25,000 new boardings), rising to 12.8 percent (41,000 new boarding) in the long-term. Significantly, the percentage ridership increase is more than twice the percentage increase in operating cost, indicating a substantial improvement in the overall cost efficiency of the transit program.

Plan Element	Fiscal Year										10-Year Plan Total
	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	
Base Case⁽¹⁾											
Fixed Route	272	274	276	278	280	282	283	285	287	289	2,807
DAR	31	32	32	32	32	32	33	33	33	33	323
Total	304	306	308	310	312	314	316	318	320	323	3,130
Service Plan Elements											
Route Realignment	14	20	22	22	22	22	23	23	23	23	214
Half-Hourly Route 2 Service 9AM-5PM	12	16	18	19	19	19	19	19	19	19	180
Eliminate Sunday 3:30 PM Runs	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-11
Total	25	35	39	40	40	40	40	41	41	41	383
Percent Increase	8.3%	11.5%	12.8%	12.2%							
Total Ridership	329	341	347	349	352	354	357	359	361	364	3,513
<small>Note 1: Base case ridership assumed to grow at half the pace of population growth (0.67% annually). Source: LSC Transportation Consultants, Inc.</small>											

Table 31 shows the estimated fare revenue, based on the projected ridership. The added passengers increase farebox revenues by \$12,000 in the first year of the plan, rising to \$20,000 per year by the end of the plan period (an 8.3 percent increase).

CAPITAL IMPROVEMENTS

Transit services require ongoing capital investment in facilities and rolling stock. Capital investments in both vehicles and passenger amenities can also attract additional riders, while improving the quality of service and safety/security of existing riders. In addition, investment in ongoing maintenance of passenger amenities will address some of the issues of vandalism at stops, and investment in fareboxes and DoubleMap will benefit customers and operators. The Capital Plan is presented in Table 32, and discussed below.

Table 31: Lodi SRTP Estimated Annual Farebox Revenues											
<i>Numbers in Thousands</i>											
Plan Element	Fiscal Year										10-Year Plan Total
	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	
Base Case ⁽¹⁾											
Fixed Route	\$161	\$162	\$163	\$164	\$165	\$167	\$168	\$169	\$170	\$171	\$1,660
DAR	\$60	\$61	\$61	\$62	\$62	\$62	\$63	\$63	\$64	\$64	\$623
Total	\$221	\$223	\$224	\$226	\$227	\$229	\$231	\$232	\$234	\$235	\$2,283
Service Plan Elements											
Route Realignment	\$7	\$9	\$11	\$11	\$11	\$11	\$11	\$11	\$11	\$11	\$103
Half-Hourly Route 2 Service 9AM-5PM	\$6	\$8	\$9	\$9	\$9	\$9	\$9	\$9	\$9	\$9	\$86
Eliminate Sunday 3:30 PM Runs	-\$1	-\$1	-\$1	-\$1	-\$1	-\$1	-\$1	-\$1	-\$1	-\$1	-\$7
<i>Subtotal: Service Plan Elements</i>	<i>\$12</i>	<i>\$17</i>	<i>\$19</i>	<i>\$20</i>	<i>\$182</i>						
<i>Percent Increase</i>	<i>5.4%</i>	<i>7.5%</i>	<i>8.3%</i>	<i>8.0%</i>							
Net Farebox Revenues	\$233	\$240	\$243	\$245	\$246	\$248	\$250	\$251	\$253	\$255	\$2,465
Note 1: Base case ridership assumed to grow at half the pace of population growth (0.67% annually).											
Source: LSC Transportation Consultants, Inc.											

Table 32: Lodi GrapeLine & VineLine SRTP Capital Plan											
<i>Numbers in Thousands</i>											
Plan Element	Fiscal Year										10-Year Plan Total
	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	
Total Vehicle Needs											
Number of Buses	0	5	6	0	11	0	6	6	0	4	38
Total Cost ⁽¹⁾	\$0	\$2,766	\$3,419	\$0	\$2,516	\$0	\$3,848	\$5,473	\$0	\$2,128	\$20,149
AVL on Fixed Route Vehicles	\$0	\$41	\$49	\$0	\$91	\$0	\$49	\$49	\$0	\$33	\$313
Bus Stop Improvement Program	\$0	\$570	\$0	\$0	\$0	\$45	\$0	\$0	\$0	\$49	\$664
Fare Payment Software & Maintenance	\$0	\$0	\$0	\$125	\$17	\$18	\$18	\$19	\$19	\$20	\$235
Sunset Village Transit Hub	\$0	\$0	TBD	TBD	\$0	\$0	\$0	\$0	\$0	\$0	TBD
Total Capital Plan Elements	\$0	\$3,377	\$3,468	\$125	\$2,623	\$63	\$3,915	\$5,541	\$19	\$2,230	\$21,361
Note 1: All costs include 3 percent annual inflation. Bus stop improvement and passenger accessibility planned for 2020/21; assumes \$50,000 investment (plus inflation) in bus stop improvements annually thereafter.											
Source: LSC Transportation Consultants, Inc. TBD = To Be Determined											

- **Vehicles:** Lodi will need to replace 15 fixed route vehicles and 23 fixed route/DAR vehicles in the plan period. The cost of vehicles over the plan period is estimated at \$20,149,000. Starting in 2026, vehicles will be Battery Electric Buses, per State requirements.
- **AVL Technology:** To enhance services, it is recommended that the fixed route vehicles be equipped with AVL technology, which will add an estimated \$8,000 per vehicle. As shown in Table 32, this will add an estimated \$313,000 in capital cost over the plan period.

- Bus Stop Improvements: A large bus stop improvement program to improve shelters and accessibility to stops is planned for 2020/21, and replacement of five shelters every four years is included in the plan. This is projected to cost a total \$664,000 over the plan period. In the Reynolds Ranch area, two stops are already available (with pullouts and shelters) along Reynolds Ranch Parkway just to the south of Rocky Way and Lebaron Boulevard, though a stop on Rocky Way closer to Costco and Dick's Sporting Goods should also be considered.
- Online fare purchasing software and continued maintenance is recommended (starting in 2022/23), adding \$235,000 over the plan period.
- The Sunset Village Hub will need to be evaluated and engineered, and the cost is yet to be determined.

The total cost of capital equipment over the plan period is estimated at \$21,361,000, as shown in Table 32.

MARKETING PLAN

The marketing ideas outlined in Chapter 9 should be implemented, with the priorities to include:

- Continued branding and upkeep of vehicles and bus stops to ensure a positive image of transit.
- Continued updates to the website to optimize navigation to key information and to improve compatibility with smartphones.
- Continue publishing and making available print materials, particularly at senior housing, social service agencies and other locations which serve transit dependent populations.
- Regular messaging through social media and DoubleMap.
- Outreach to schools and senior centers.
- Enhanced use of social media.

Marketing is currently under-funded, and the marketing budget should be increased to approximately 2 percent of the total budget, or an additional \$63,000 beginning in Fiscal Year 2020-21, as shown in Table 29. The increased funding could be used by Lodi staff for increased outreach and social media activities, potentially with a part time position, or increased through a larger role by the contractor.

INSTITUTIONAL PLAN

Adopt Updated Goals and Performance Measures

The City of Lodi staff should review goals, objectives and standards presented in Chapter 3 and Table 15, and adopt performance measures which are in line with current operating conditions while still providing appropriate incentives to improve services.

Explore City of Lodi Operation of Hopper and Commuter Routes

Routes 23, 723 and 93 all serve both Lodi and Stockton and are currently provided by RTD. Lodi should explore the costs (including capital costs) and other issues associated with the City operating the services instead of RTD. Chapter 9 lists numerous considerations for undertaking this analysis.

FINANCIAL PLAN

Modifications to the Fare Structure

A day-pass is recommended, along with elimination of transfers. This will have a negligible impact on revenues, but will improve rider convenience and eliminate potential abuse of transfers.

In addition, Lodi should consider providing discounted fares for local students, using new funding sources. This is common in many other transit systems, and can be effective in expanding ridership, helping solve traffic issues around school bell times and helping to encourage a new generation of transit users.

Rely on a Wide Range of Sources to Fund Transit Services and Capital Improvements

The results of Tables 29 through 32 were used to develop the Financial Plan, as presented for each of the ten years of the Short Range Transit Plan period in Table 33. In addition to passenger fare revenues, this Financial Plan incorporates the following funding sources:

- FTA Section 5307, Urban funds for ongoing operating costs.
- Local Transportation Funds for ongoing operating costs.
- Measure K to subsidize ongoing operating costs.
- Miscellaneous revenues (Advertising, CNG sales, etc.) for ongoing operating costs.
- Local Transportation Funds are also used for facility and bus stop improvements.

The FTA 5339 Formula Capital Program is the key source of funding for vehicle purchases and technology improvements, as well as passenger amenities. TDA funds are also used for capital purposes.

As shown in Table 33, both the operating financial plan and the capital financial plan are balanced in each of the plan years. While the annual total LTF requirements will vary over the plan period, it will remain within the total LTF available to the City of Lodi. LTF revenues will cover approximately 37 to 39 percent of operating costs each year, while FTA 5307 will cover approximately 39 percent of operating costs. Fare revenues will cover approximately 6.2 percent each year, compared to approximately 5.6 percent currently.

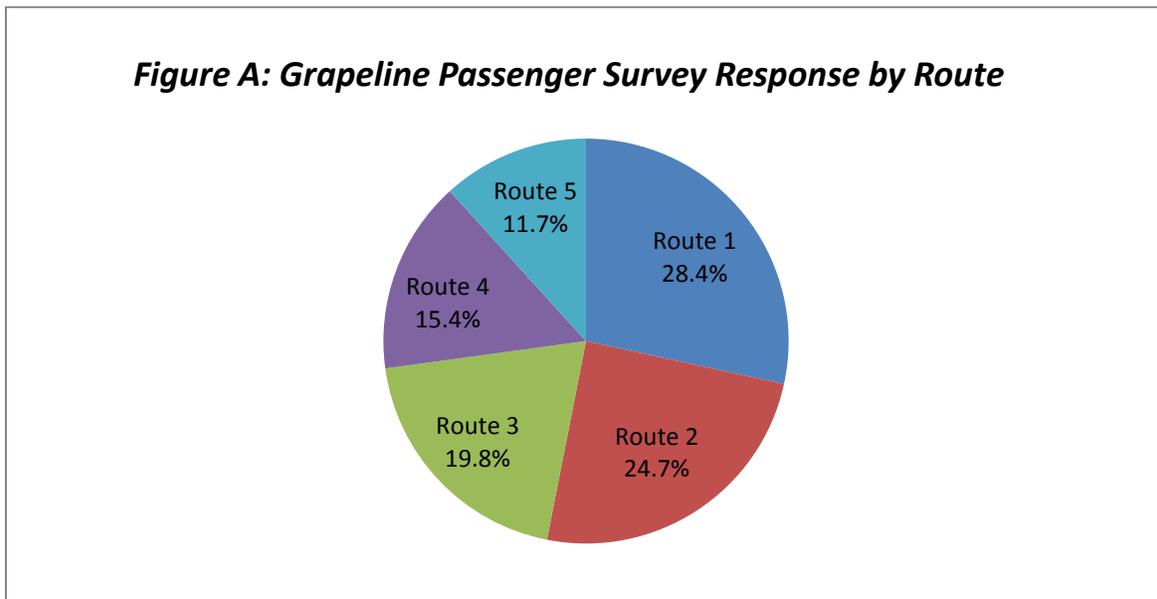
Lodi Short Range Transit Plan Appendix A: Onboard Survey Results

Onboard passenger surveys were conducted in mid-November and early December, 2018 on Grapeline Routes 1 through 5 and Vineline/Dial-A-Ride services. During selected surveying days, the passenger surveys were handed out and collected by trained surveyors. The results of the survey effort are provided in this appendix, with highlights provided in the text of the Short Range Transit Plan.

The survey instruments consisted of a one-page questionnaire in English on one side and Spanish on the reverse side, printed on card stock. The surveys included a simple introduction, with 14 questions on the Grapeline routes and 13 questions on the Vineline Dial-a-Ride.

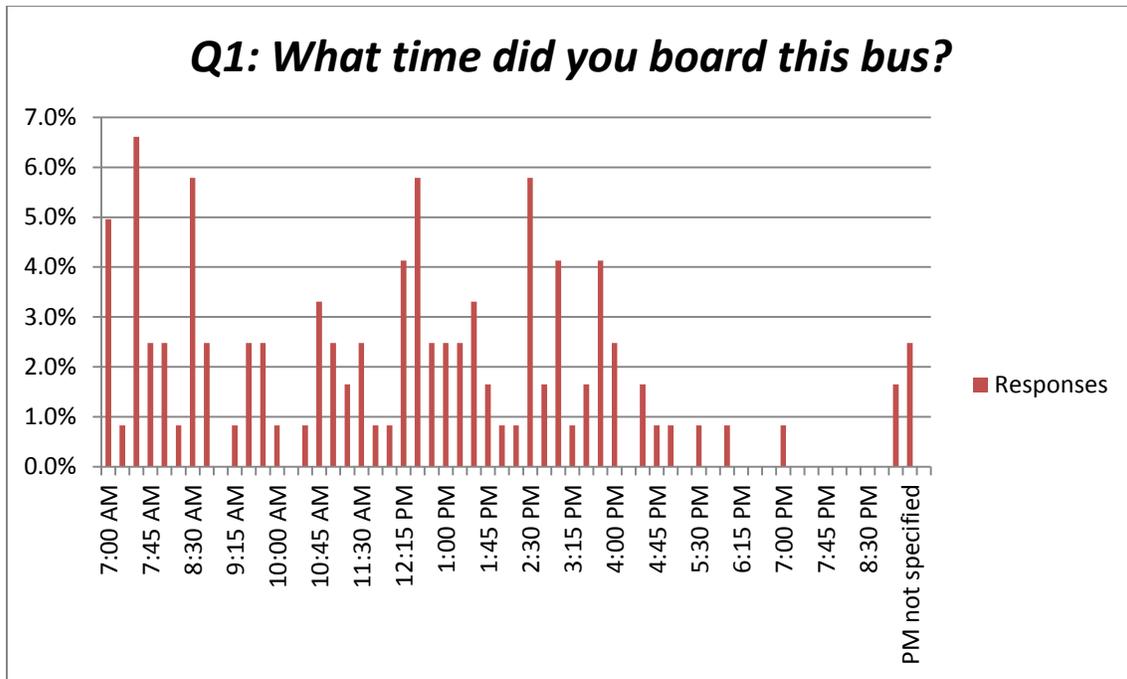
Lodi Grapeline Fixed Route Survey Results

A total of 163 passengers participated in the survey (28 in Spanish and 133 in English). Not all respondents answered all questions, but some provided multiple answers (when the survey allowed). Of those surveyed, 28.4 percent were riding Route 1, 24.7 percent on Route 2, 19.8 percent on Route 3, 15.4 percent on Route 4, and 11.7 percent on Route 5.



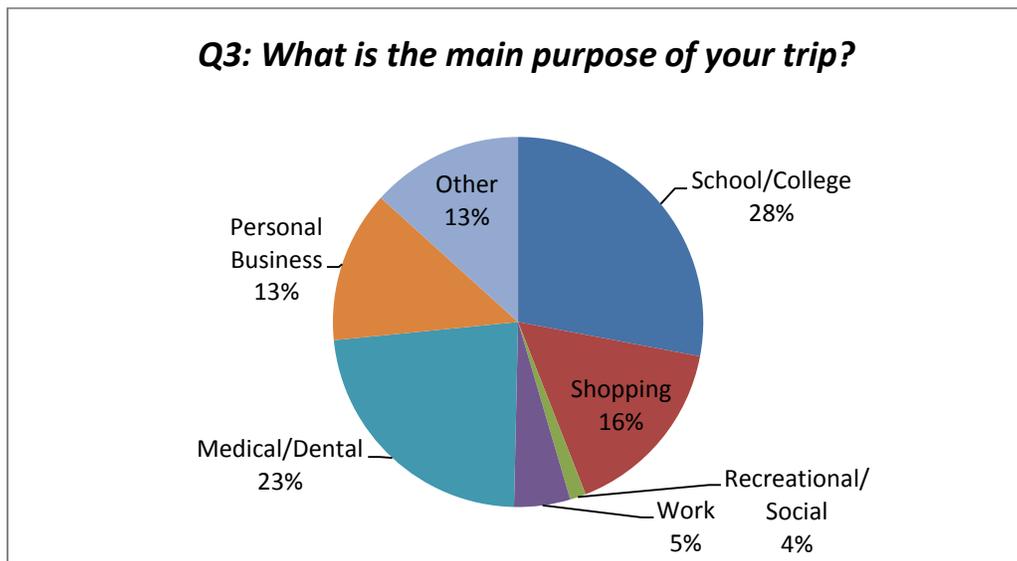
Each question (Q) below notes the number of individual and multiple responses collected during the survey process.

Q1. Time of Boarding (121 individual responses): The highest rate of response was in the morning, especially the second run of the day. Very few passengers answered in the late afternoon or evening.

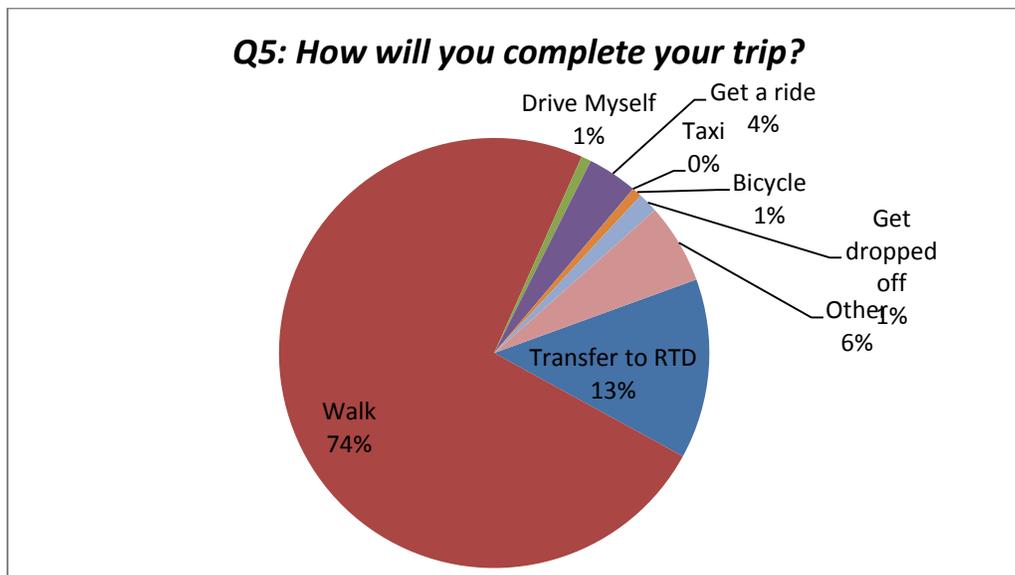
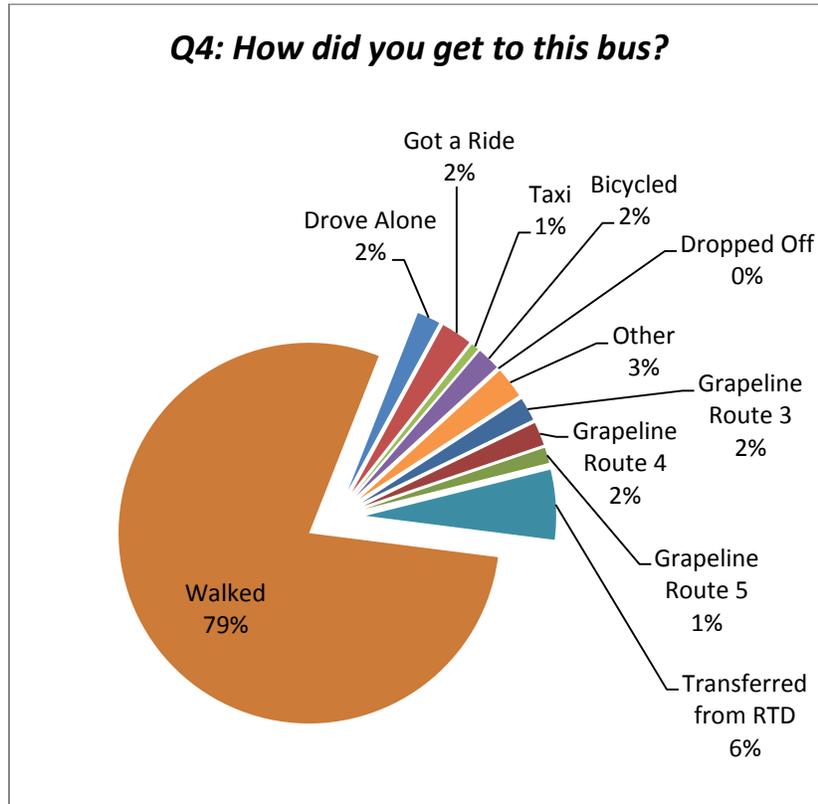


Q2. Boarding locations (169 individual responses): Boarding locations were concentrated at several key stops: the Lodi Transit Center (nearly a quarter of all boardings), Kettleman Lane and Lower Sacramento Road (7 percent of boardings), and the Super Walmart (6 percent of all boardings).

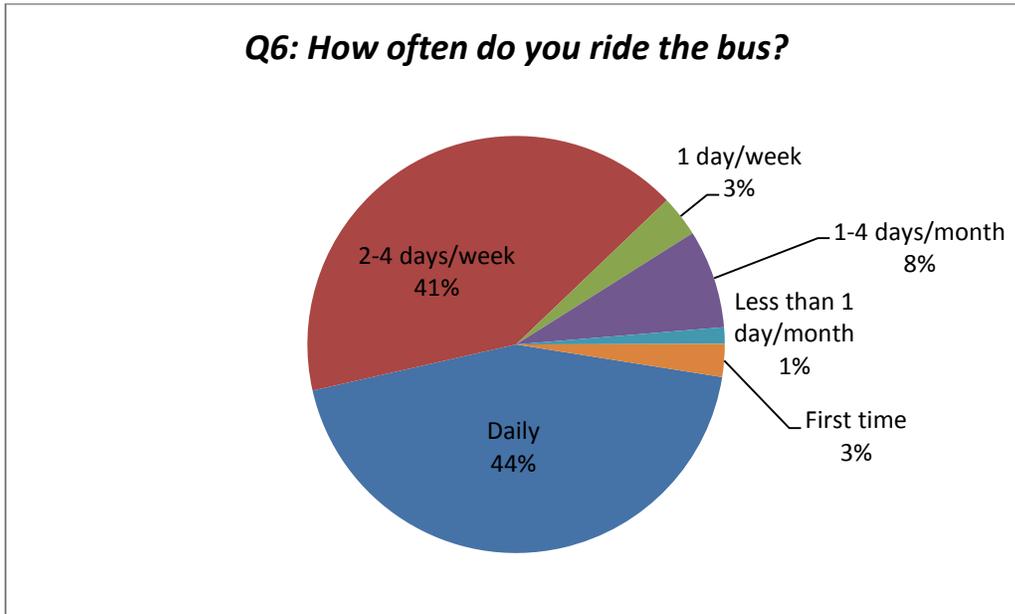
Q3: Trip Purpose (143 responses): The surveys suggest that most passengers use the service to attend school or college (28 percent), get to medical appointments (23 percent), go shopping (16 percent), tend to personal business (13 percent), and get to work (5 percent), Only 1 percent of those surveyed were using transit to get to the senior center.



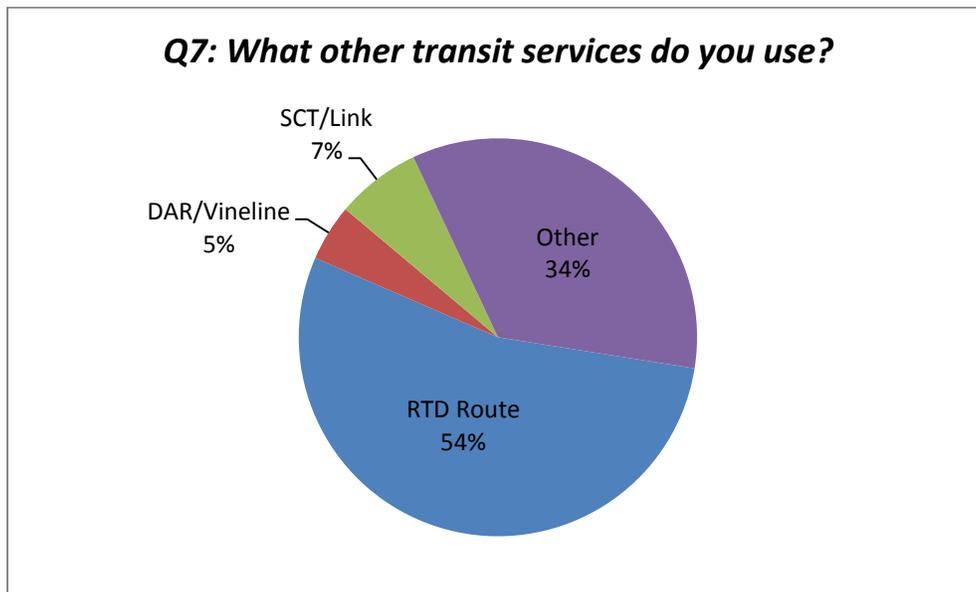
Q4 (152 responses) and Q5 (133 responses). Mode to and from stops: Over three-quarters (79 percent) of the respondents walked to the bus stop, a collective 14 percent transferred from another Grapeline route, and 6 percent transferred from San Joaquin RTD. To complete their trip, 64 percent of respondents noted they would walk, while 13 percent would transfer to San Joaquin RTD.



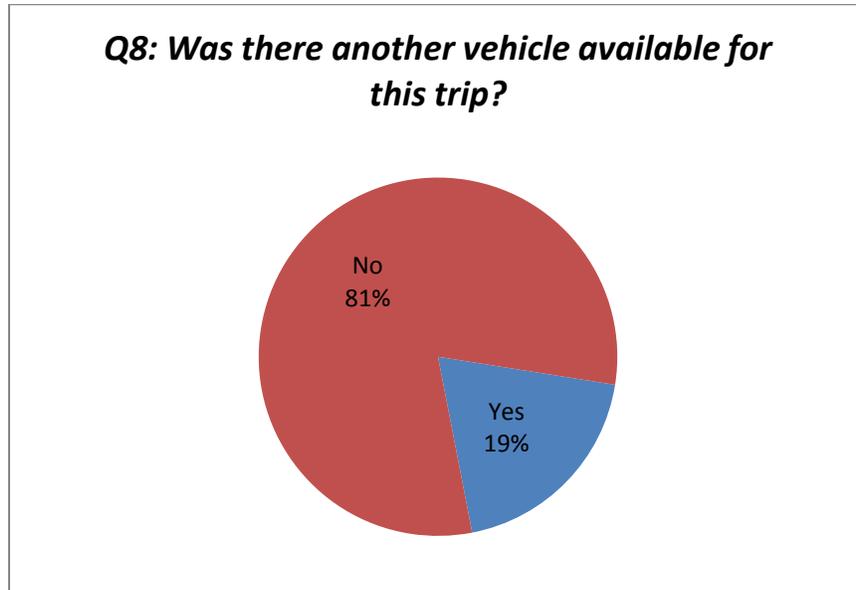
Q6. Frequency of Use (157 responses): Most passengers are considered regular riders with 44 percent of respondents riding the bus daily, and 41 percent riding the bus 2 – 4 days/week. Approximately 8 percent ride transit 1 – 4 days/month and 3 percent only 1 day per week. The remaining 4 percent surveyed was either riding transit for the first time or only ride the bus less than 1 day per month.



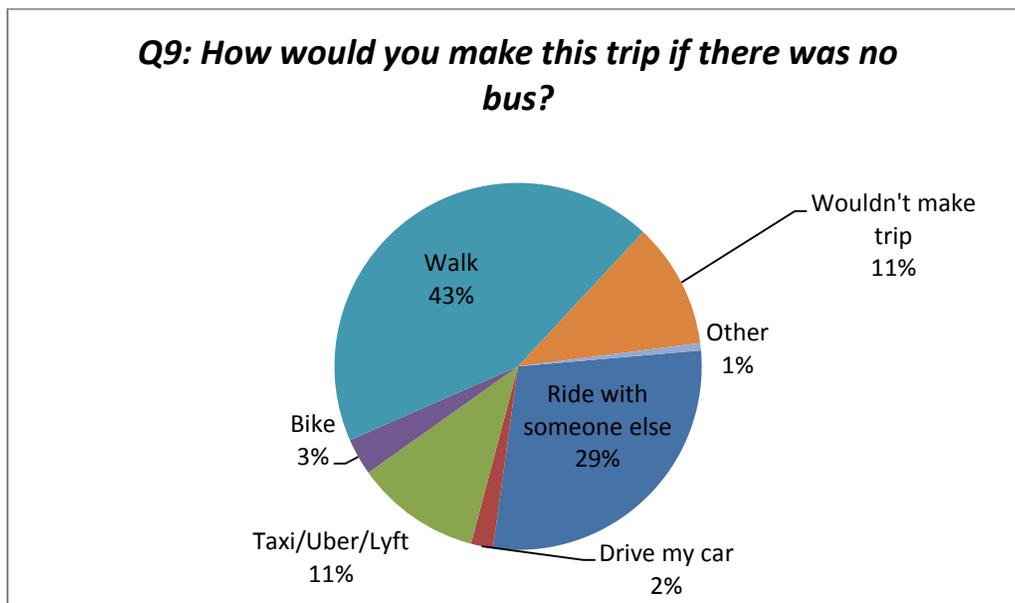
Q7: Other Transit Services (87 responses): Fifty-four percent of passengers say they use San Joaquin RTD transit services in addition to GrapeLine. Another 5 percent use Dial-A-Ride / Vineline, 7 percent use SCT/Link, and 34 percent stated “other”.



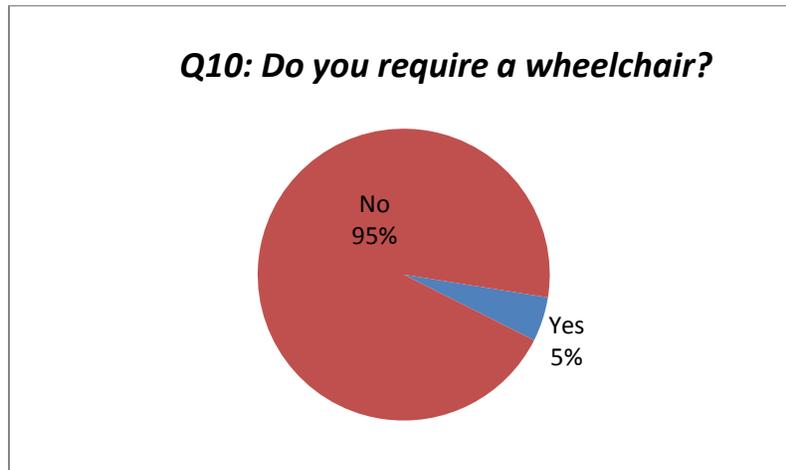
Q8. Vehicle Availability (144 responses): The vast majority of passengers do not have access to a vehicle. Roughly 81 percent of respondents indicated that there was no vehicle available to use for their trip.



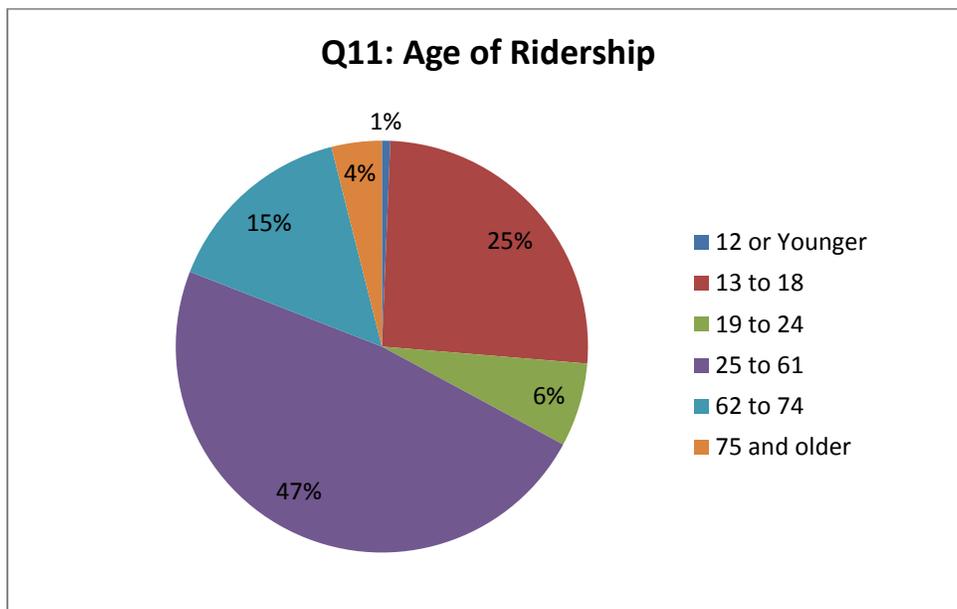
Q9. Transportation Options (154 responses): If transit was not available, 43 percent of the respondents would have completed their trip by walking and 11 percent would not have made the trip. Another 29 percent would have received a ride from someone else, 3 percent would have used a bicycle, and 11 percent would have used taxi, Uber, or Lyft services.



Q10: Use of mobility device (142 responses): Seven individuals (5 percent) said they use the wheelchair lift to board or exit the bus.

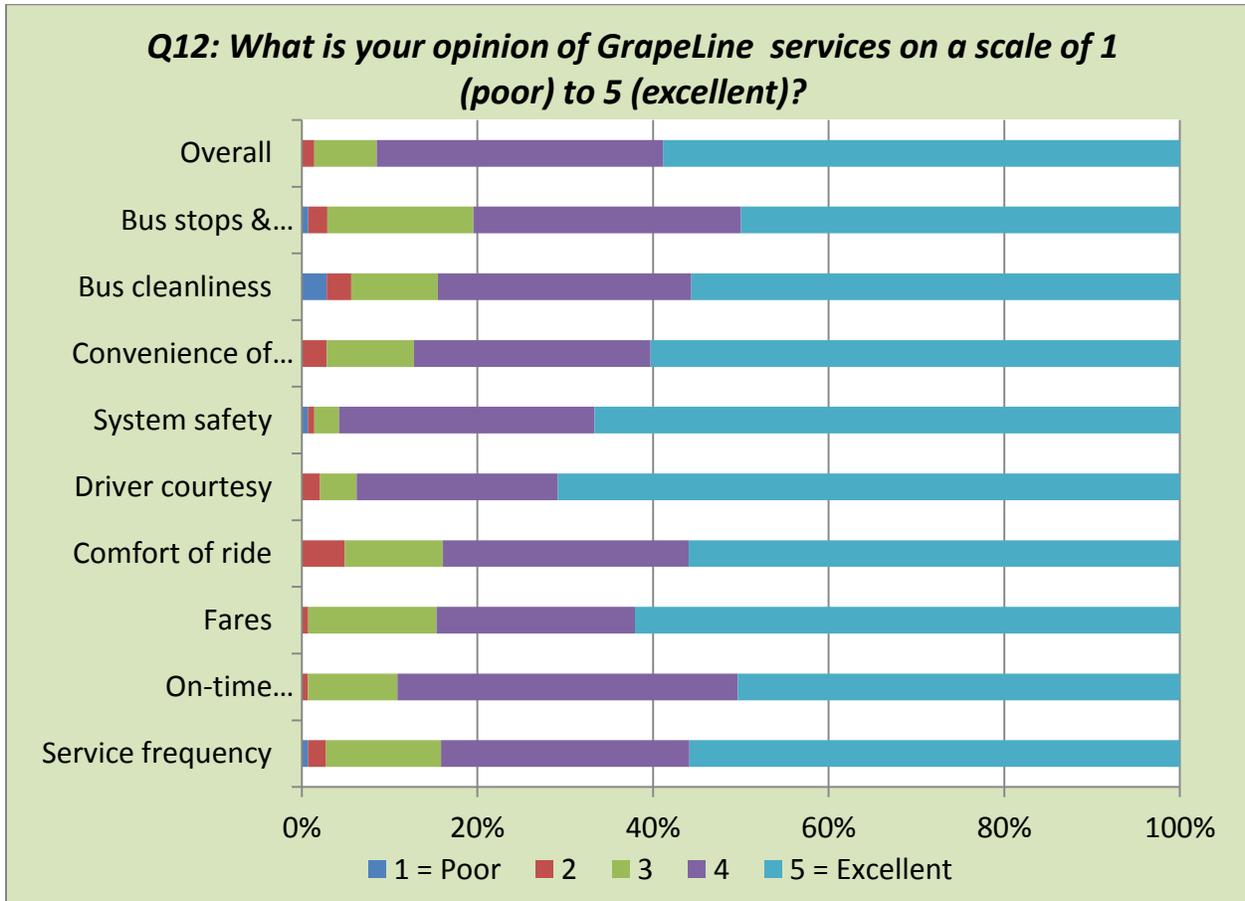


Q11: Passengers by Age Group (128 responses): Over one-half of respondents (59 percent) were between the ages of 25 and 61 years old. Twenty percent are considered seniors (age 62 years and older). Another 9 percent were between 19 and 24 years of age, 7 percent between 13 and 18 years of age and 2 percent are youths under the age of 12 years.



Q12. Ranking of Services (137 to 147 responses per ranking): Passengers were asked to rate the transit system on a scale of 1 (poor) to 5 (excellent) on various service characteristics. Riders were generally satisfied with all aspects of the service with an overall average ranking of 4.5. Passengers were particularly positive on the driver courtesy factor, with 93.8 percent indicating a “4” or “5.”

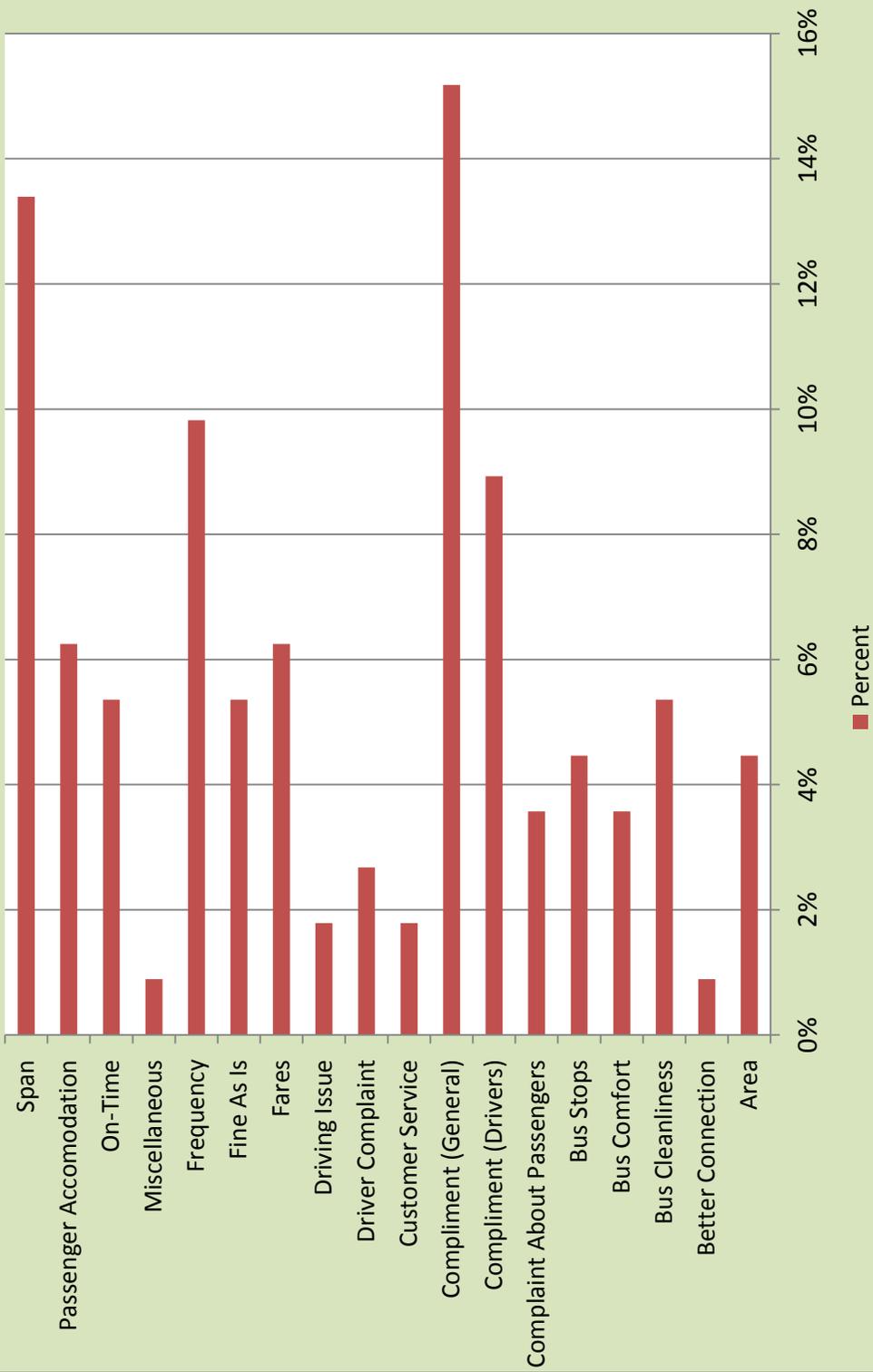
Overall, respondents feel that Grapeline is a well-run system and is meeting passenger needs. Approximately 58.9 percent of respondents rated Lodi Transit as “excellent”, and 32.6 percent rate the transit as “good”, with the remaining 8.5 percent marked overall as “fair” and “poor.”



Q13: What suggestions would you make to improve the Grapeline service? (112 Respondents)

Passengers were asked to list specific improvements they would like to see in an open-ended format. The most frequent comments regarded general compliments about the service and the drivers (24 percent). Other suggested improvements referenced service frequency, timeliness, and bus cleanliness. The graph below shows passenger comments by category and percent.

Q13: What suggestions would you make to improve the Grapeline service



City of Lodi Vinline / Dial-a-Ride Survey Results

A total of 13 passengers participated in the survey (all in English). Each question summarized below notes the number of individual and multiple responses.

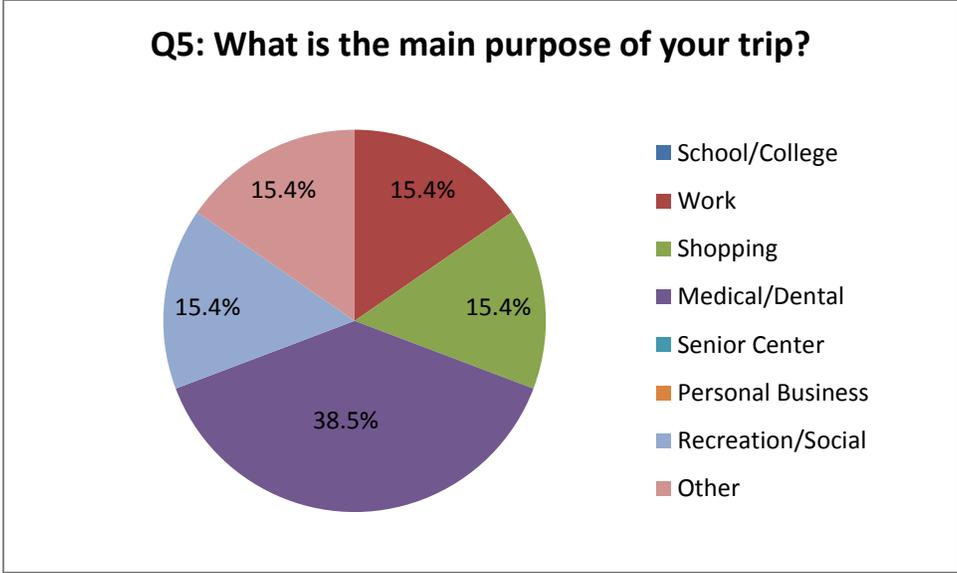
Q1 & Q2. Date and Time of Boarding (12 responses): All of the respondents answered surveys over the months of November and December, 2018. Of the 12 respondents, 9 people boarded between 7:45 AM and 11:40 AM, with 3 people boarding in the afternoon between 1:00 PM and 2:30 PM.

Q3. Reservation Timing (12 responses): Out of those who responded, 9 people requested rides between 7:45 AM and 11:40 AM with 8 of these requested AM rides terminating between 12:00 PM and 4:00 PM.

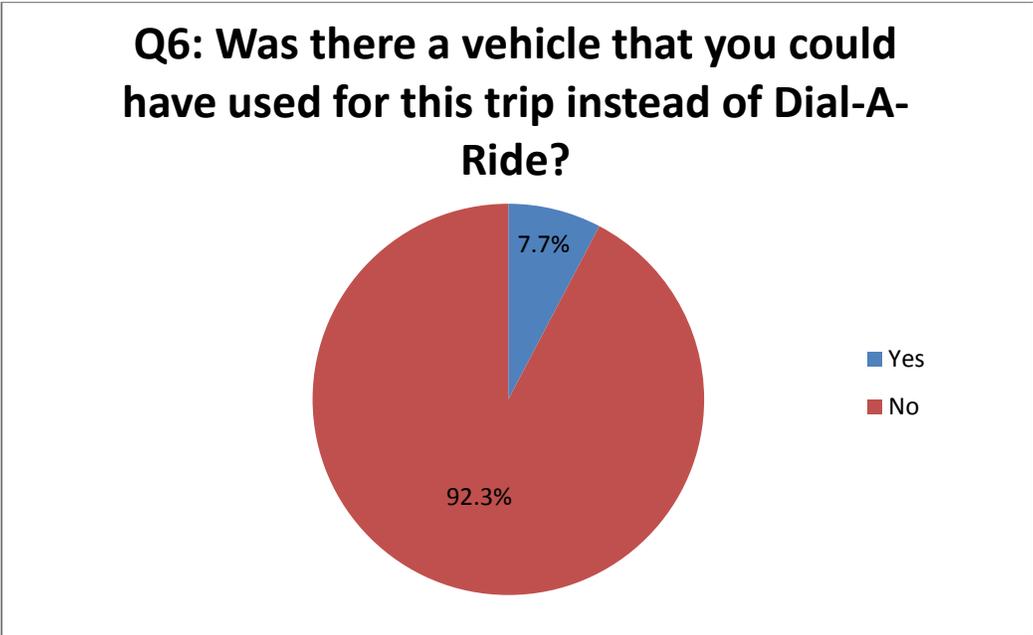
Q4: Reservation Method (13 responses): The majority of people surveyed were either reserving 4-7 days in advance (30.8 percent) or reserving through subscription (46.2 percent). The remaining people were booking their reservation 1, 2, and 3 days in advance



Q5: Trip Purpose (13 responses): Of those surveyed, 38.5 percent were using the Dial-A-Ride service to get to their medical or dental appointment. The remaining people were using the service for school/college, shopping, recreation/social, or other. Trip purposes listed under “other” included hair salon and Person Centered Services.

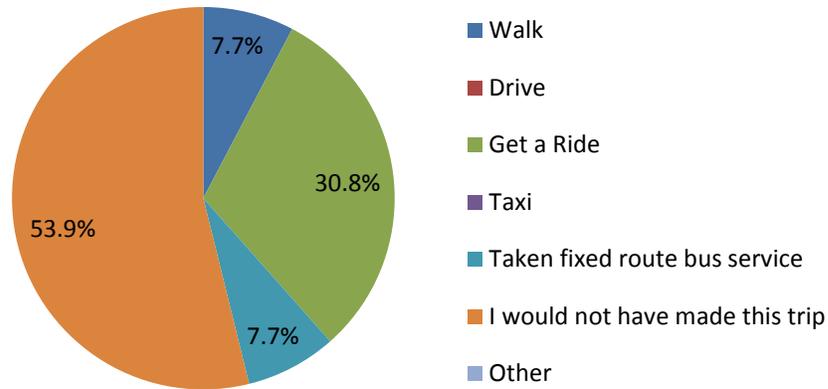


Q6. Vehicle Availability (13 individual responses): Only 7 percent of those surveyed had a vehicle they could use instead of Dial-A-Ride.



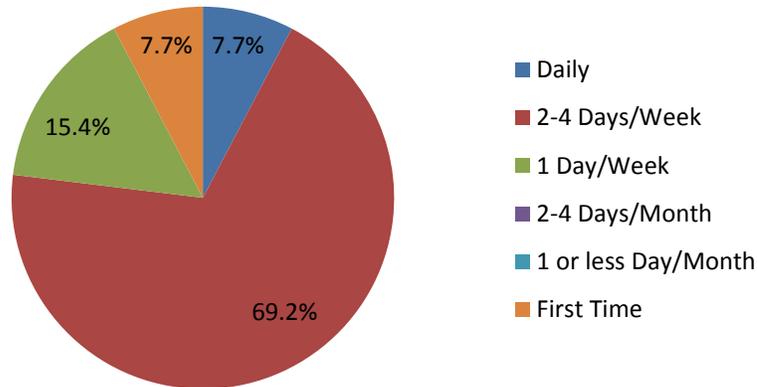
Q7 Alternative options (13 responses). Just over half of respondents (53.9 percent) said they would not be able to make their trip if it wasn't for the Dial-A-Ride service, while 30.8 percent said they could get a ride with someone else.

Q7: If the Dial-A-Ride service was not available, how would you have made this trip?



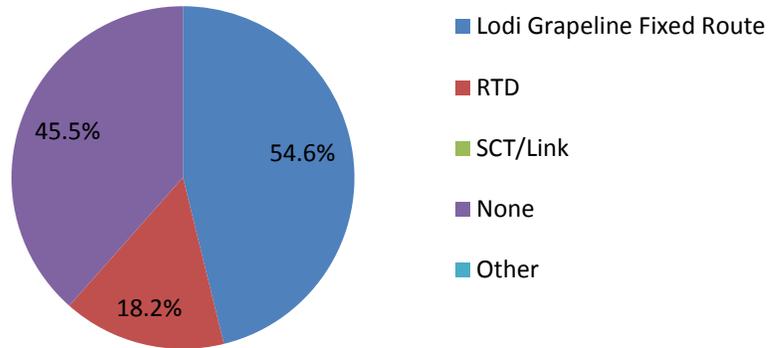
Q8: Frequency of Use (13 responses): A majority of those surveyed use the Dial-A-Ride service 2 to 4 times per week (69.2 percent). Another 15.4 percent use the service at least 1 day a week.

Q8: How often do you use Dial-A-Ride services?



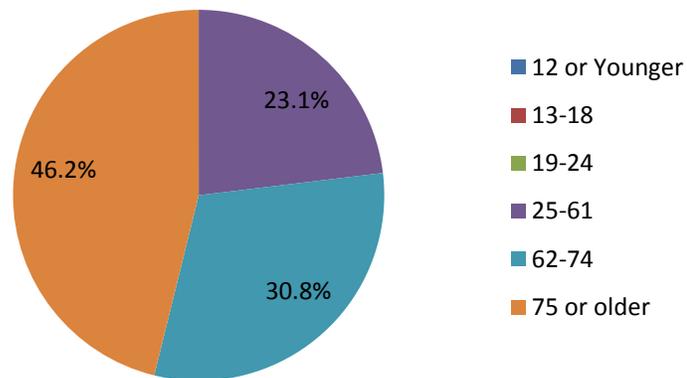
Q9: Other Transit Services Used (11 responses): Of those surveyed, 54.6 percent claimed to use the Lodi GrapeLine fixed route service with another 18.2 percent reporting that they use RTD services. Another 45.5 percent of those surveyed said that they do not use other forms of transit services.

Q9: Do you use any of the following area transit services?



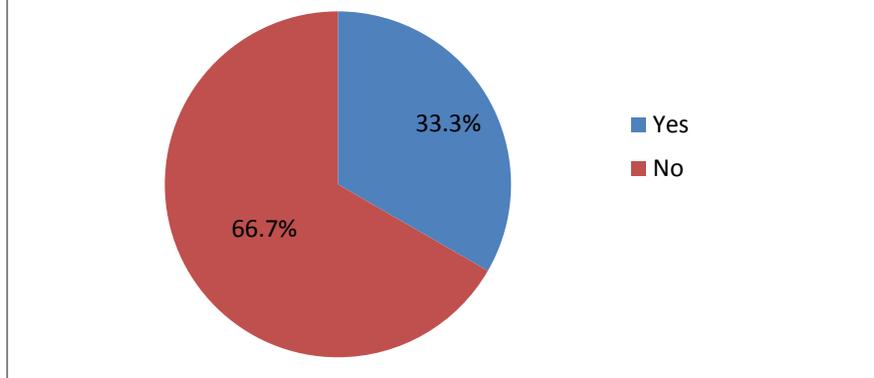
Q10: Ridership Age (13 responses): No one younger than 25 was surveyed. All respondents were between the ages of 25 to 61 (23.1 percent), 62 to 74 (30.8 percent), or 75 and older (46.2 percent).

Q10: What is your age?



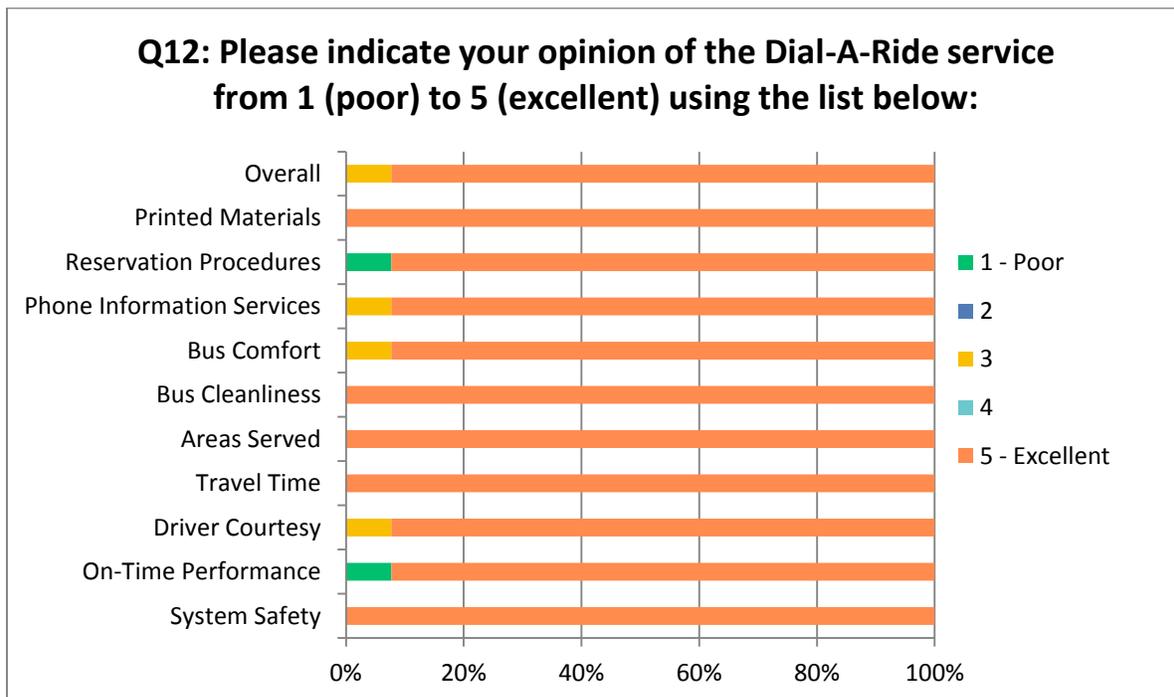
Q11. Use of Wheelchair Lift (12 responses): Approximately one-third of those surveyed require a wheelchair lift to board or exit the bus, while the remaining 66.7 percent did not need wheelchair lift services.

Q11: Do you require a Wheelchair Lift to board or exit bus?



Q12. Ranking of Services (13 passengers responded on rankings): Passengers were asked to rate the transit system on a scale of 1 (poor) to 5 (excellent) on various service characteristics. In all, 95.6 percent of responses were ranked as 5 (excellent), and the overall service ranked an average of 4.9.

Q12: Please indicate your opinion of the Dial-A-Ride service from 1 (poor) to 5 (excellent) using the list below:



Q13. Desired Improvements (5 responses): Passengers were asked to list specific improvements they would like to see, in an open-ended format. Only 5 responded, and only two comments suggested pick-ups be more on time and starting earlier in the morning. The other three comments included compliments related to considerate, helpful, and friendly drivers.

Lodi Short Range Transit Plan Appendix B: Boarding and Alighting Data

Grapeline Route 1 Boarding and Alighting / On-Time Performance

Surveyed November 14-16, 2018

Run Start Time	6:30 PM				TOTALS	
	On	Off	Departure Time		On	Off
Passenger Count			Sched.	Actual		
Passengers on at start of run						
Lodi Transit Station (departure)	1		0:30	6:31	22	10
Church N/ Locust					6	0
Church St & Olive Ct.			0:33		5	3
Church S/ Eureka					0	3
Turner E/ Lincoln Av (Wine Coun)					0	1
Turner W/ Edgewood					3	3
Turner Rd & Ham Ln			0:36		3	0
Turner E/ Parkview (Lodi Lake)					4	5
Turner E/ Lower Sacramento		1			1	7
Woodlake Plaza			0:40		4	6
Lower Sacramento S/ Tejon					0	0
Lower Sacramento S/ Elm					0	0
Lower Sacramento S/ Lodi			10:33		2	8
Lower Sacramento S/ Tokay					0	0
Lower Sacramento S/ Vine					1	7
Lower Sacramento N/ Kettleman (Lowes)					0	5
Super Walmart	11				15	9
Kettleman Ln & Lower Sac Rd (Bevmo)			0:00	7:00	6	14
Safeway					6	1
Lower Sacramento N/ Vine					0	0
Lower Sacramento S/ Tokay					0	0
Lower Sac Rd & Lodi Av		1	0:04	7:06	3	1
Lower Sacramento N/ Elm					2	1
Lower Sacramento N/Tejon					1	0
Turner Rd & Lower Sac Rd			0:06		0	2
Turner W/ Loma					2	1
Turner Rd & Ham Ln			0:10		0	1
Turner E/ California					0	0
Church N/ Eureka					1	3
Chrch St & Olive Ct.			0:12		2	3
Church n/ Locust (Library)					0	5
Lodi Transit Center (record arrival)			0:15		0	16
Passengers on at end of run						
Total					89	115

Grapeline Route 2 Boarding and Alighting / On Time Performance

Surveyed November 14, 2018

Run Start Time	6:30 AM				7:30 AM			
	On	Off	Departure Time		On	Off	Departure Time	
Passengers on at start of run			Sched.	Actual			Sched.	Actual
Lodi Transit Center (departure)			0:30	6:34	3		0:30	7:30
Stockton at Pine					1			
Oak at Washington			0:32	6:36			0:32	7:33
Central at Oak					2			
Central at Hilborn	2		0:35	6:40		3	0:35	7:35
Central at Harold	4							
Central at Vine								
Central at Mission					1			
Central at Cypress Street			0:38	6:44			0:38	7:41
Kettleman at Central		1						
Kettleman /Stockton								
Kettleman at Church								
Kettleman W/ Crescent			0:42	6:49			0:42	7:44
Kettleman at Ham		4				2		
Kettleman W/ Lakeshore								
Tienda Dr at Roget Park						1		
Safeway								
Kettleman / Super WalMart								
Kettleman Ln & Lower Sac Rd (Bevmo)			0:00	6:57	1		0:00	8:00
Kettleman at Sylvan								
Kettleman at Mills								
Kettleman at Lakeshore								
Kettleman at Ham (IHOP)		1			1			
Kettleman E/ Crescent			0:04	7:03			0:04	8:05
Kettleman at Church					1	1		
Kettleman E/ Stockton								
Central Ave at Cypress			0:09	7:08			0:09	8:08
Central at Mission								
Central at Vine								
Central at Tokay								
Central at Hilborn			0:12	7:11			0:12	8:13
Oak at Central					1	1		
Oak at Washington			0:14	7:14			0:14	8:17
Pine at Stockton								
Lodi Transit Center (record arrival)				7:16				8:19
Passengers on at end of run		0				1		
Total	6	6			10	10		

Grapeline Route 2 Boarding and Alighting / On Time Performance

Surveyed November 14, 2018

Run Start Time	8:30 AM				9:30 AM			
	On	Off	Departure Time		On	Off	Departure Time	
Passengers on at start of run			Sched.	Actual	2		Sched.	Actual
Lodi Transit Center (departure)	2		0:30	8:31	4		0:30	9:34
Stockton at Pine								
Oak at Washington			0:32	8:34		3	0:32	9:36
Central at Oak								
Central at Hilborn	1		0:35	8:36			0:35	9:39
Central at Harold								
Central at Vine	2							
Central at Mission	1				2			
Central at Cypress Street	2		0:38	8:40			0:38	9:42
Kettleman at Central		1						
Kettleman /Stockton		1						
Kettleman at Church								
Kettleman W/ Crescent	1	1	0:42	8:47		3	0:42	9:46
Kettleman at Ham								
Kettleman W/ Lakeshore						1		
Tienda Dr at Roget Park		3						
Safeway		1						
Kettleman / Super WalMart		1				1		
Kettleman Ln & Lower Sac Rd (Bevmo)			0:00	9:04			0:00	9:00
Kettleman at Sylvan								
Kettleman at Mills								
Kettleman at Lakeshore								
Kettleman at Ham (IHOP)					1			
Kettleman E/ Crescent	2		0:04	9:08			0:04	9:05
Kettleman at Church	2				1			
Kettleman E/ Stockton								
Central Ave at Cypress	2	1	0:09	9:14	1		0:09	9:10
Central at Mission					2			
Central at Vine	2							
Central at Tokay	3							
Central at Hilborn	4		0:12	9:23		1	0:12	9:16
Oak at Central	2	1				1		
Oak at Washington			0:14	9:26			0:14	9:19
Pine at Stockton						1		
Lodi Transit Center (record arrival)				9:31				10:22
Passengers on at end of run	14				2			
Total	40	10			13	11		

Grapeline Route 2 Boarding and Alighting / On Time Performance

Surveyed November 14, 2018

Run Start Time	10:30 AM				12:30 PM			
	On	Off	Departure Time		On	Off	Departure Time	
Passengers on at start of run			Sched.	Actual	2		Sched.	Actual
Lodi Transit Center (departure)	2		0:30	10:30	1		0:30	12:42
Stockton at Pine								
Oak at Washington		1	0:32	10:32	1	2	0:32	12:40
Central at Oak					1			
Central at Hilborn			0:35	10:34	1		0:35	12:44
Central at Harold								
Central at Vine	3							
Central at Mission								
Central at Cypress Street		2	0:38	10:40			0:38	12:47
Kettleman at Central								
Kettleman /Stockton								
Kettleman at Church					1			
Kettleman W/ Crescent			0:42	10:44			0:42	12:55
Kettleman at Ham		1				2		
Kettleman W/ Lakeshore								
Tienda Dr at Roget Park					1			
Safeway		1				1		
Kettleman / Super WalMart	2				3	1		
Kettleman Ln & Lower Sac Rd (Bevmo)	1		0:00	10:58	5	1	0:00	1:05
Kettleman at Sylvan								
Kettleman at Mills								
Kettleman at Lakeshore								
Kettleman at Ham (IHOP)						1		
Kettleman E/ Crescent			0:04	11:04	2		0:04	1:14
Kettleman at Church		1			3			
Kettleman E/ Stockton								
Central Ave at Cypress	3		0:09	11:09		1	0:09	1:22
Central at Mission		1				3		
Central at Vine								
Central at Tokay						1		
Central at Hilborn		2	0:12	11:13		3	0:12	1:26
Oak at Central	3					1		
Oak at Washington			0:14	11:16	1		0:14	1:29
Pine at Stockton								
Lodi Transit Center (record arrival)				11:17				1:33
Passengers on at end of run	5				4			
Total	19	9			24	17		

Grapeline Route 2 Boarding and Alighting / On Time Performance

Surveyed November 14, 2018

Run Start Time	1:30 PM				2:30 PM			
	On	Off	Departure Time		On	Off	Departure Time	
Passengers on at start of run			Sched.	Actual			Sched.	Actual
Lodi Transit Center (departure)	4		0:30	1:36	4		0:30	2:30
Stockton at Pine								
Oak at Washington			0:32	1:38			0:32	2:32
Central at Oak								
Central at Hilborn			0:35	1:41			0:35	2:33
Central at Harold								
Central at Vine						1		
Central at Mission		1						
Central at Cypress Street		1	0:38	1:44			0:38	2:37
Kettleman at Central		1				1		
Kettleman /Stockton								
Kettleman at Church						1		
Kettleman W/ Crescent			0:42	1:49	2		0:42	2:47, 1handic
Kettleman at Ham								
Kettleman W/ Lakeshore						2		
Tienda Dr at Roget Park		1						
Safeway						1		
Kettleman / Super WalMart					2			
Kettleman Ln & Lower Sac Rd (Bevmo)			0:00	2:00	5	1	0:00	3:07
Kettleman at Sylvan								
Kettleman at Mills								
Kettleman at Lakeshore								
Kettleman at Ham (IHOP)					5			
Kettleman E/ Crescent	1		0:04	2:05	1		0:04	3:13
Kettleman at Church					2	1		
Kettleman E/ Stockton		1						
Central Ave at Cypress			0:09	2:10		2	0:09	3:18
Central at Mission						1		
Central at Vine						1		
Central at Tokay	3							
Central at Hilborn			0:12	2:13	1	3	0:12	3:20
Oak at Central						1		
Oak at Washington			0:14	2:16		2	0:14	3:24
Pine at Stockton								
Lodi Transit Center (record arrival)				2:16		2		3:26
Passengers on at end of run	3							
Total	11	5			22	20		

Grapeline Route 2 Boarding and Alighting / On Time Performance

Surveyed November 14, 2018

Run Start Time	3:30 PM				4:30 PM			
	On	Off	Departure Time		On	Off	Departure Time	
Passengers on at start of run			Sched.	Actual			Sched.	Actual
Lodi Transit Center (departure)	3		0:30	3:30	1		0:30	4:31
Stockton at Pine								
Oak at Washington			0:32	3:33			0:32	4:33
Central at Oak								
Central at Hilborn			0:35	3:36			0:35	4:35
Central at Harold					1			
Central at Vine		1						
Central at Mission								
Central at Cypress Street		1	0:38	3:38			0:38	4:39
Kettleman at Central								
Kettleman /Stockton	1							
Kettleman at Church	1	1			1	1		
Kettleman W/ Crescent	1		0:42	3:45			0:42	4:45
Kettleman at Ham								
Kettleman W/ Lakeshore								
Tienda Dr at Roget Park								
Safeway		3			1	1		
Kettleman / Super WalMart	2				2			
Kettleman Ln & Lower Sac Rd (Bevmo)	8		0:00	3:03, transfer	2	1	0:00	5:00
Kettleman at Sylvan								
Kettleman at Mills								
Kettleman at Lakeshore								
Kettleman at Ham (IHOP)					1	1		
Kettleman E/ Crescent	1		0:04	4:06	1	2	0:04	5:12
Kettleman at Church	2							
Kettleman E/ Stockton								
Central Ave at Cypress	1	1	0:09	4:17			0:09	5:16
Central at Mission								
Central at Vine								traffic
Central at Tokay		1				1		
Central at Hilborn	7		0:12	4:21	2	1	0:12	5:22
Oak at Central								traffic
Oak at Washington			0:14	4:22			0:14	5:25
Pine at Stockton		2						
Lodi Transit Center (record arrival)				4:24				5:28
Passengers on at end of run		3						
Total	27	13			12	8		

Grapeline Route 2 Boarding and Alighting / On Time Performance

Surveyed November 14, 2018

Run Start Time	6:30 PM				TOTALS	
	On	Off	Departure Time		On	Off
Passengers on at start of run			Sched.	Actual		
Lodi Transit Center (departure)	0		0:30	6:33	24	0
Stockton at Pine					1	0
Oak at Washington			0:32	6:35	1	6
Central at Oak					3	0
Central at Hilborn			0:35	6:37	4	3
Central at Harold					5	0
Central at Vine					5	2
Central at Mission					4	1
Central at Cypress Street			0:38	6:38	2	4
Kettleman at Central					0	4
Kettleman /Stockton					1	1
Kettleman at Church					3	3
Kettleman W/ Crescent			0:42	6:42	4	4
Kettleman at Ham					0	9
Kettleman W/ Lakeshore					0	3
Tienda Dr at Roget Park					1	5
Safeway					1	8
Kettleman / Super WalMart					11	3
Kettleman Ln & Lower Sac Rd (Bevmo)	1		0:00	7:00	22	4
Kettleman at Sylvan					0	0
Kettleman at Mills					0	0
Kettleman at Lakeshore					0	0
Kettleman at Ham (IHOP)					8	3
Kettleman E/ Crescent	2		0:04	7:04	10	2
Kettleman at Church					11	3
Kettleman E/ Stockton		1			0	2
Central Ave at Cypress		1	0:09	7:11	7	6
Central at Mission					2	5
Central at Vine		1			2	2
Central at Tokay					6	3
Central at Hilborn			0:12	7:14	14	10
Oak at Central					6	5
Oak at Washington			0:14	7:16	1	2
Pine at Stockton					0	3
Lodi Transit Center (record arrival)						
Passengers on at end of run						
Total	3	3			159	106

Grapeline Route 3 Boarding and Alighting / On Time Performance

Surveyed November 14, 2018

Run Start Time	6:30 AM				7:30 AM			
	On	Off	Departure Time		On	Off	Departure Time	
Passenger Count			Sched.	Actual			Sched.	Actual
Passengers on at start of run								
Lodi Transit Center (departure)			0:30	6:30	4		0:30	
Church & Locust	2							
Lockeford & Church					3			
Lockeford / Hutchins (Buy 4 Less)								
Lockeford / California								
Lockeford / Crescent								
Lockeford / Ham			0:34	6:34	2	3	0:34	7:35
Lockeford / Cross								
Lockeford / Loma								
Mills at Millwood School						2		
Elm / Mills						2		
Elm / Cross								
Elm / Ham (Walgreens)		1						
Ham and Oak								
Ham and Lodi			0:40	6:42			0:40	7:45
Ham / Tokay						1		
Ham / Vine (Lodi Middle School)								
Ham / Cardinal								
Ham / Kettleman (North)			0:43	6:45			0:43	7:49
Ham/Kettleman (South)								
Ham / Burgundy								
Century / Ham		1						
Century / Sorrel								
Century East of Mills								
Mills / Century (Mills North of Century)	1		0:46	6:48			0:46	7:51
Mills at Lakeshore								
Mills North of Sand Creek								
Kettleman/Sylvan			0:00	7:00			0:00	8:01
Kettleman Lane/Lower Sacramento (Coco's)								
Super Walmart								
Kettleman/Lower Sacramento (Bevmo)			0:00	1				
Sylvan / Lupine								
Sand Creek / Sylvan								
Mills / Sand Creek								
Mills at Sylvan								
Century East of Mills								
Century at Meadowbrook								
Century at Ham		1						
Ham at Chianti								
Ham / Kettleman			0:04	7:08			0:04	8:05
Lodi Memorial Hospital - Ham at Park								
Ham at Vine								
Ham at Tokay								
Ham at Lodi			0:07	7:10			0:07	8:08
Ham at Oak								
Elm / Ham								
Elm / Cross					1			
Elm / Mills								
Lockeford / Cross								
Lockeford / Ham (In-Shape)			0:14	7:17	1		0:14	8:15
Lockeford at Crescent						1		
Lockeford at California								
Lockeford / Pleasant								
Church & Locust						1		
Lodi Transit Center (record arrival)			0:17	7:22			0:17	
Passengers on at end of run						1		
Total	3	3			11	11		

Grapeline Route 3 Boarding and Alighting / On Time Performance

Surveyed November 14, 2018

Run Start Time	8:30 AM				9:30 AM			
	On	Off	Departure Time		On	Off	Departure Time	
Passengers on at start of run			Sched.	Actual			Sched.	Actual
Lodi Transit Center (departure)			0:30	8:30	6		0:30	9:35
Church & Locust								
Lockeford & Church								
Lockeford / Hutchins (Buy 4 Less)								
Lockeford / California	1							
Lockeford / Crescent						2		
Lockeford / Ham			0:34	8:35		1	0:34	9:40
Lockeford / Cross								
Lockeford / Loma								
Mills at Millwood School								
Elm / Mills								
Elm / Cross								
Elm / Ham (Walgreens)					1			
Ham and Oak								
Ham and Lodi			0:40	8:42		2	0:40	9:47
Ham / Tokay								
Ham / Vine (Lodi Middle School)								
Ham / Cardinal								
Ham / Kettleman (North)			0:43	8:44			0:43	9:50
Ham/Kettleman (South)								
Ham / Burgundy								
Century / Ham								
Century / Sorrel								
Century East of Mills								
Mills / Century (Mills North of Century)			0:46	8:47			0:46	9:51
Mills at Lakeshore								
Mills North of Sand Creek								
Kettleman/Sylvan			0:00	9:01		1	0:00	9:54
Kettleman Lane/Lower Sacramento (Coco's)								
Super Walmart								
Kettleman/Lower Sacramento (Bevmo)	1	1						
Sylvan / Lupine								
Sand Creek / Sylvan								
Mills / Sand Creek					1			
Mills at Sylvan					1			
Century East of Mills								
Century at Meadowbrook								
Century at Ham								
Ham at Chianti					1			
Ham / Kettleman			0:04	9:05			0:04	9:07
Lodi Memorial Hospital - Ham at Park								
Ham at Vine								
Ham at Tokay	2							
Ham at Lodi		1	0:07	9:10	2	1	0:07	10:12
Ham at Oak								
Elm / Ham								
Elm / Cross								
Elm / Mills								
Lockeford / Cross								
Lockeford / Ham (In-Shape)			0:14	9:14	2		0:14	10:19
Lockeford at Crescent								
Lockeford at California						2		
Lockeford / Pleasant								
Church & Locust						1		
Lodi Transit Center (record arrival)			0:17				0:17	10:25
Passengers on at end of run		2			3			
Total	4	4			17	10		

Grapeline Route 3 Boarding and Alighting / On Time Performance

Surveyed November 14, 2018

Run Start Time	10:30 AM				11:30 AM			
	On	Off	Departure Time		On	Off	Departure Time	
Passengers on at start of run			Sched.	Actual			Sched.	Actual
Lodi Transit Center (departure)	1		0:30	10:31	3		0:30	11:31
Church & Locust								
Lockeford & Church								
Lockeford / Hutchins (Buy 4 Less)						1		
Lockeford / California		1			1			
Lockeford / Crescent								
Lockeford / Ham			0:34	10:36			0:34	11:40
Lockeford / Cross								
Lockeford / Loma						1		
Mills at Millwood School								
Elm / Mills						1		
Elm / Cross								
Elm / Ham (Walgreens)					3			
Ham and Oak								
Ham and Lodi	1		0:40	10:40			0:40	11:52
Ham / Tokay								
Ham / Vine (Lodi Middle School)					5			
Ham / Cardinal						5		
Ham / Kettleman (North)			0:43	10:43			0:43	11:57
Ham/Kettleman (South)								
Ham / Burgundy						1		
Century / Ham					2			
Century / Sorrel								
Century East of Mills								
Mills / Century (Mills North of Century)			0:46	10:47			0:46	12:00
Mills at Lakeshore								
Mills North of Sand Creek		1						
Kettleman/Sylvan			0:00	11:01			0:00	
Kettleman Lane/Lower Sacramento (Coco's)								
Super Walmart					1	2		
Kettleman/Lower Sacramento (Bevmo)								
Sylvan / Lupine								
Sand Creek / Sylvan								
Mills / Sand Creek								
Mills at Sylvan								
Century East of Mills								
Century at Meadowbrook								
Century at Ham					1			
Ham at Chianti	1				1			
Ham / Kettleman			0:04	11:07			0:04	12:15
Lodi Memorial Hospital - Ham at Park								
Ham at Vine								
Ham at Tokay	1							
Ham at Lodi			0:07	11:12	1		0:07	12:19
Ham at Oak								
Elm / Ham		1			2	2		
Elm / Cross								
Elm / Mills								
Lockeford / Cross								
Lockeford / Ham (In-Shape)			0:14	11:18	2		0:14	12:27
Lockeford at Crescent	1				6			
Lockeford at California						1		
Lockeford / Pleasant						1		
Church & Locust						3		
Lodi Transit Center (record arrival)			0:17	11:25			0:17	12:34
Passengers on at end of run		2				8		
Total	5	5			28	26		

Grapeline Route 3 Boarding and Alighting / On Time Performance

Surveyed November 14, 2018

Run Start Time	12:30 PM				1:30 PM			
	On	Off	Departure Time		On	Off	Departure Time	
Passengers on at start of run			Sched.	Actual			Sched.	Actual
Lodi Transit Center (departure)			0:30	12:38	7		0:30	1:37
Church & Locust								
Lockeford & Church								
Lockeford / Hutchins (Buy 4 Less)								
Lockeford / California								
Lockeford / Crescent	1							
Lockeford / Ham			0:34	12:43		1	0:34	1:41
Lockeford / Cross								
Lockeford / Loma								
Mills at Millwood School								
Elm / Mills								
Elm / Cross								
Elm / Ham (Walgreens)								
Ham and Oak								
Ham and Lodi			0:40	12:49	3		0:40	1:46
Ham / Tokay	2					5		
Ham / Vine (Lodi Middle School)								
Ham / Cardinal								
Ham / Kettleman (North)			0:43	12:57			0:43	1:50
Ham/Kettleman (South)								
Ham / Burgundy								
Century / Ham								
Century / Sorrel								
Century East of Mills	1					1		
Mills / Century (Mills North of Century)			0:46	12:54			0:46	1:53
Mills at Lakeshore		3						
Mills North of Sand Creek		1				1		
Kettleman/Sylvan			0:00	1:07			0:00	2:02
Kettleman Lane/Lower Sacramento (Coco's)								
Super Walmart						2		
Kettleman/Lower Sacramento (Bevmo)								
Sylvan / Lupine								
Sand Creek / Sylvan	1							
Mills / Sand Creek								
Mills at Sylvan		1						
Century East of Mills								
Century at Meadowbrook								
Century at Ham								
Ham at Chianti					1			
Ham / Kettleman			0:04	1:13			0:04	2:08
Lodi Memorial Hospital - Ham at Park								
Ham at Vine								
Ham at Tokay	1				5			
Ham at Lodi	1		0:07	1:17			0:07	2:15
Ham at Oak								
Elm / Ham					1			
Elm / Cross								
Elm / Mills						1		
Lockeford / Cross								
Lockeford / Ham (In-Shape)			0:14	1:23			0:14	2:21
Lockeford at Crescent	2							
Lockeford at California					1			
Lockeford / Pleasant								
Church & Locust								
Lodi Transit Center (record arrival)			0:17				0:17	
Passengers on at end of run		4						
Total	9	9			18	11		

Grapeline Route 3 Boarding and Alighting / On Time Performance

Surveyed November 14, 2018

Run Start Time	2:30 PM				3:30 PM			
	On	Off	Departure Time		On	Off	Departure Time	
Passengers on at start of run			Sched.	Actual			Sched.	Actual
Lodi Transit Center (departure)			0:30	2:35			0:30	3:32
Church & Locust	4				5			
Lockeford & Church	2							
Lockeford / Hutchins (Buy 4 Less)						2		
Lockeford / California								
Lockeford / Crescent								
Lockeford / Ham		2	0:34	2:42			0:34	3:38
Lockeford / Cross								
Lockeford / Loma								
Mills at Millwood School								
Elm / Mills		2						
Elm / Cross								
Elm / Ham (Walgreens)					1			
Ham and Oak								
Ham and Lodi			0:40	2:48	3	1	0:40	3:46
Ham / Tokay		1						
Ham / Vine (Lodi Middle School)					1			
Ham / Cardinal								
Ham / Kettleman (North)			0:43				0:43	
Ham/Kettleman (South)				2:51		1		3:50
Ham / Burgundy								
Century / Ham	1							
Century / Sorrel								
Century East of Mills						1		
Mills / Century (Mills North of Century)			0:46	2:55			0:46	3:53
Mills at Lakeshore								
Mills North of Sand Creek								
Kettleman/Sylvan			0:00				0:00	3:55
Kettleman Lane/Lower Sacramento (Coco's)						3		
Super Walmart								
Kettleman/Lower Sacramento (Bevmo)		1				1		
Sylvan / Lupine								
Sand Creek / Sylvan								
Mills / Sand Creek								
Mills at Sylvan								
Century East of Mills								
Century at Meadowbrook								
Century at Ham								
Ham at Chianti								
Ham / Kettleman			0:04	3:14			0:04	4:08
Lodi Memorial Hospital - Ham at Park								
Ham at Vine								
Ham at Tokay								
Ham at Lodi			0:07	3:18			0:07	4:10
Ham at Oak								
Elm / Ham								
Elm / Cross					1			
Elm / Mills	3				1			
Lockeford / Cross								
Lockeford / Ham (In-Shape)	1		0:14	3:25			0:14	4:16
Lockeford at Crescent								
Lockeford at California								
Lockeford / Pleasant		3						
Church & Locust						1		
Lodi Transit Center (record arrival)			0:17	3:31			0:17	4:22
Passengers on at end of run	2				2	2		
Total	13	9			14	12		

Grapeline Route 3 Boarding and Alighting / On Time Performance

Surveyed November 14, 2018

Run Start Time	4:30 PM				5:30 PM			
	On	Off	Departure Time		On	Off	Departure Time	
Passengers on at start of run	1		Sched.	Actual			Sched.	Actual
Lodi Transit Center (departure)	1		0:30	4:32	1		0:30	5:32
Church & Locust						1		
Lockeford & Church								
Lockeford / Hutchins (Buy 4 Less)								
Lockeford / California								
Lockeford / Crescent								
Lockeford / Ham		1	0:34	4:38			0:34	5:37
Lockeford / Cross								
Lockeford / Loma								
Mills at Millwood School								
Elm / Mills								
Elm / Cross								
Elm / Ham (Walgreens)					1			
Ham and Oak								
Ham and Lodi		1	0:40	4:44			0:40	5:42
Ham / Tokay								
Ham / Vine (Lodi Middle School)	1							
Ham / Cardinal								
Ham / Kettleman (North)			0:43				0:43	
Ham/Kettleman (South)				4:49				5:45
Ham / Burgundy								
Century / Ham								
Century / Sorrel								
Century East of Mills								
Mills / Century (Mills North of Century)			0:46	4:51			0:46	5:48
Mills at Lakeshore								
Mills North of Sand Creek								
Kettleman/Sylvan			0:00	4:53			0:00	5:49
Kettleman Lane/Lower Sacramento (Coco's)		1						
Super Walmart								
Kettleman/Lower Sacramento (Bevmo)	3					1		
Sylvan / Lupine								
Sand Creek / Sylvan								
Mills / Sand Creek								
Mills at Sylvan								
Century East of Mills								
Century at Meadowbrook								
Century at Ham								
Ham at Chianti								
Ham / Kettleman			0:04	5:07			0:04	6:07
Lodi Memorial Hospital - Ham at Park								
Ham at Vine								
Ham at Tokay								
Ham at Lodi		3	0:07	5:10			0:07	6:08
Ham at Oak								
Elm / Ham								
Elm / Cross								
Elm / Mills								
Lockeford / Cross								
Lockeford / Ham (In-Shape)			0:14	5:15			0:14	6:13
Lockeford at Crescent								
Lockeford at California								
Lockeford / Pleasant								
Church & Locust								
Lodi Transit Center (record arrival)			0:17	5:20			0:17	6:17
Passengers on at end of run	0				0			
Total	5	6			2	2		

Grapeline Route 3 Boarding and Alighting / On Time Performance

Surveyed November 14, 2018

Run Start Time	6:30 PM				Total	
	On	Off	Departure Time		On	Off
Passenger Count			Sched.	Actual		
Passengers on at start of run						
Lodi Transit Center (departure)	1		0:30	6:32	24	0
Church & Locust					11	1
Lockeford & Church					5	0
Lockeford / Hutchins (Buy 4 Less)					0	3
Lockeford / California					2	1
Lockeford / Crescent					1	2
Lockeford / Ham			0:34	6:36	2	8
Lockeford / Cross					0	0
Lockeford / Loma		1			0	2
Mills at Millwood School					0	2
Elm / Mills					0	5
Elm / Cross					0	0
Elm / Ham (Walgreens)					6	1
Ham and Oak					0	0
Ham and Lodi			0:40	6:41	7	4
Ham / Tokay					2	7
Ham / Vine (Lodi Middle School)					7	0
Ham / Cardinal					0	5
Ham / Kettleman (North)			0:43		0	0
Ham/Kettleman (South)				6:44	0	1
Ham / Burgundy					0	1
Century / Ham					3	1
Century / Sorrel					0	0
Century East of Mills					1	2
Mills / Century (Mills North of Century)			0:46	6:47	1	0
Mills at Lakeshore					0	3
Mills North of Sand Creek					0	3
Kettleman/Sylvan			0:00	6:50	0	1
Kettleman Lane/Lower Sacramento (Coco's)					0	4
Super Walmart					1	4
Kettleman/Lower Sacramento (Bevmo)	1				5	4
Sylvan / Lupine					0	0
Sand Creek / Sylvan					1	0
Mills / Sand Creek					1	0
Mills at Sylvan					1	1
Century East of Mills					0	0
Century at Meadowbrook					0	0
Century at Ham					1	1
Ham at Chianti					4	0
Ham / Kettleman			0:04	7:07	0	0
Lodi Memorial Hospital - Ham at Park					0	0
Ham at Vine					0	0
Ham at Tokay					9	0
Ham at Lodi			0:07	7:08	4	5
Ham at Oak					0	0
Elm / Ham		1			3	4
Elm / Cross					2	0
Elm / Mills					4	1
Lockeford / Cross					0	0
Lockeford / Ham (In-Shape)			0:14	7:12	6	0
Lockeford at Crescent					9	1
Lockeford at California					1	3
Lockeford / Pleasant					0	4
Church & Locust					0	6
Lodi Transit Center (record arrival)			0:17	7:16	0	0
Passengers on at end of run	0				7	19
Total	2	2			131	110

Graveline Route 4 Boarding and Alighting / On Time Performance

Surveyed November 13 and 14, 2018

Run Start Time	6:30 AM				7:30 AM			
	On	Off	Departure Time		On	Off	Departure Time	
Passenger Count			Sched.	Actual			Sched.	Actual
Passengers on at start of run								
Lodi Transit Center (departure)			0:30	6:30	2		0:30	7:30
Lodi at School (Pizza Hut)								
Lodi at Alley / Church								
Hutchins at Lodi (SW) (Java Stop)	1		0:33	6:36			0:33	7:33
Tokay at Hutchins								
Tokay at Crescent								
Ham at Tokay								
Vine at Fairmont (Lodi Mem Hospital)			0:37	6:40			0:37	7:37
Vine at Crescent								
Hutchins at Park								
Hutchins at Tamarack								
Hutchins at Kettleman			0:41	6:42			0:41	7:41
Hutchins at Century		1						
Scarborough at Century					1			
Scarborough at Wimbledon								
Wimbledon W/ Ham(school)								
Ham at Port Chelsea								
Ham at Century								
Ham at Chianti			0:45	6:49			0:45	7:46
Kettleman at Ham								
Kettleman / Lakeshore								
Kettleman / Sylvan								
Super WalMart						1		
Kettleman / Lower Sacramento (Bevmo)	2		0:00	7:00			0:00	8:00
Kettleman / Sylvan								
Kettleman / Mills								
Kettleman / Lakeshore								
Ham and Kettleman								
Ham at Century		1	0:04	7:04	3		0:04	8:05
Ham at Deerfield								
Wimbledon at Winchester								
Scarborough at Wimbledon	1					3		
Century at Scarborough								
Hutchins/Century	2							
Hutchins at Mendocino			0:08	7:10			0:08	8:09
Hutchins at Tamarack								
Hutchins at Park								
Vine at Hutchins (American Legion Park)					1			
Vine at Fairmont		3	0:12	7:14			0:12	8:14
Ham at Tokay						2		
Tokay at Crescent								
Tokay/Hutchins								
Hutchins / Chestnut		1	0:16	7:18			0:16	8:17
Lodi at School (Longs)								
Lodi Transit Center (record arrival)			0:19	7:21			0:19	8:21
Passengers on at end of run					1			
Total	6	6			8	6		

Grapeline Route 4 Boarding and Alighting / On Time Performance

Surveyed November 13 and 14, 2018

Run Start Time	8:30 AM				11:30 AM			
	On	Off	Departure Time		On	Off	Departure Time	
Passenger Count			Sched.	Actual			Sched.	Actual
Lodi Transit Center (departure)	1		0:30	8:31	3		0:30	11:32
Lodi at School (Pizza Hut)								
Lodi at Alley / Church								
Hutchins at Lodi (SW) (Java Stop)			0:33	8:33	1		0:33	11:36
Tokay at Hutchins								
Tokay at Crescent								
Ham at Tokay								
Vine at Fairmont (Lodi Mem Hospital)		1	0:37	8:38	1	2	0:37	11:42
Vine at Crescent								
Hutchins at Park								
Hutchins at Tamarack								
Hutchins at Kettleman			0:41	8:41		2	0:41	11:46
Hutchins at Century								
Scarborough at Century								
Scarborough at Wimbledon								
Wimbledon W/ Ham(school)								
Ham at Port Chelsea								
Ham at Century								
Ham at Chianti			0:45	8:47			0:45	11:51
Kettleman at Ham								
Kettleman / Lakeshore								
Kettleman / Sylvan								
Super WalMart					1	1		
Kettleman / Lower Sacramento (Bevmo)			0:00	9:00			0:00	12:00
Kettleman / Sylvan								
Kettleman / Mills								
Kettleman / Lakeshore								
Ham and Kettleman								
Ham at Century			0:04	9:05			0:04	12:05
Ham at Deerfield								
Wimbledon at Winchester								
Scarborough at Wimbledon								
Century at Scarborough								
Hutchins/Century					1			
Hutchins at Mendocino			0:08	9:08		1	0:08	12:11
Hutchins at Tamarack								
Hutchins at Park								
Vine at Hutchins (American Legion Park)								
Vine at Fairmont			0:12	9:12			0:12	12:16
Ham at Tokay								
Tokay at Crescent								
Tokay/Hutchins								
Hutchins / Chestnut			0:16	9:16		1	0:16	12:20
Lodi at School (Longs)								
Lodi Transit Center (record arrival)			0:19	9:20		1	0:19	12:25
Passengers on at end of run								
Total	1	1			7	8		

Grapeline Route 4 Boarding and Alighting / On Time Performance

Surveyed November 13 and 14, 2018

Run Start Time	12:30 PM				2:30 PM			
	On	Off	Departure Time		On	Off	Departure Time	
Passenger Count			Sched.	Actual			Sched.	Actual
Lodi Transit Center (departure)	5		0:30	12:30	1		0:30	2:32
Lodi at School (Pizza Hut)								
Lodi at Alley / Church								
Hutchins at Lodi (SW) (Java Stop)			0:33	12:34			0:33	2:34
Tokay at Hutchins		1						
Tokay at Crescent								
Ham at Tokay								
Vine at Fairmont (Lodi Mem Hospital)			0:37	12:39			0:37	2:39
Vine at Crescent								
Hutchins at Park								
Hutchins at Tamarack								
Hutchins at Kettleman			0:41	12:40			0:41	2:43
Hutchins at Century								
Scarborough at Century		1			2			
Scarborough at Wimbledon		1						
Wimbledon W/ Ham(school)								
Ham at Port Chelsea								
Ham at Century								
Ham at Chianti	1		0:45	12:49			0:45	2:50
Kettleman at Ham								
Kettleman / Lakeshore								
Kettleman / Sylvan								
Super WalMart		2			1	1		
Kettleman / Lower Sacramento (Bevmo)		1	0:00	12:59			0:00	3:00
Kettleman / Sylvan								
Kettleman / Mills								
Kettleman / Lakeshore								
Ham and Kettleman								
Ham at Century			0:04	1:04			0:04	3:05
Ham at Deerfield								
Wimbledon at Winchester								
Scarborough at Wimbledon								
Century at Scarborough								
Hutchins/Century								
Hutchins at Mendocino			0:08	1:09			0:08	3:10
Hutchins at Tamarack								
Hutchins at Park								
Vine at Hutchins (American Legion Park)								
Vine at Fairmont			0:12	1:13		1	0:12	3:14
Ham at Tokay								
Tokay at Crescent								
Tokay/Hutchins								
Hutchins / Chestnut			0:16	1:17		1	0:16	3:23
Lodi at School (Longs)						1		
Lodi Transit Center (record arrival)			0:19	1:21		4	0:19	3:28
Passengers on at end of run								
Total	6	6			4	8		

Grapeline Route 4 Boarding and Alighting / On Time Performance

Surveyed November 13 and 14, 2018

Run Start Time	3:30 PM				4:30 PM			
Passenger Count	On	Off	Departure Time		On	Off	Departure Time	
Passengers on at start of run			Sched.	Actual			Sched.	Actual
Lodi Transit Center (departure)	3		0:30	3:32	2		0:30	4:32
Lodi at School (Pizza Hut)								
Lodi at Alley / Church		1						
Hutchins at Lodi (SW) (Java Stop)	1	2	0:33	3:36			0:33	4:34
Tokay at Hutchins								
Tokay at Crescent								
Ham at Tokay	2							
Vine at Fairmont (Lodi Mem Hospital)			0:37	3:41			0:37	4:38
Vine at Crescent								
Hutchins at Park						1		
Hutchins at Tamarack								
Hutchins at Kettleman		1	0:41	3:44			0:41	4:42
Hutchins at Century		1						
Scarborough at Century								
Scarborough at Wimbledon								
Wimbledon W/ Ham(school)								
Ham at Port Chelsea								
Ham at Century						1		
Ham at Chianti			0:45	3:48			0:45	4:48
Kettleman at Ham								
Kettleman / Lakeshore								
Kettleman / Sylvan								
Super WalMart								
Kettleman / Lower Sacramento (Bevmo)			0:00	3:54			0:00	4:50
Kettleman / Sylvan								
Kettleman / Mills								
Kettleman / Lakeshore								
Ham and Kettleman								
Ham at Century	1		0:04	4:04			0:04	5:06
Ham at Deerfield								
Wimbledon at Winchester								
Scarborough at Wimbledon		1						
Century at Scarborough								
Hutchins/Century								
Hutchins at Mendocino			0:08	4:09			0:08	5:10
Hutchins at Tamarack								
Hutchins at Park								
Vine at Hutchins (American Legion Park)								
Vine at Fairmont			0:12	4:13	1		0:12	5:13
Ham at Tokay								
Tokay at Crescent								
Tokay/Hutchins						1		
Hutchins / Chestnut			0:16	4:16			0:16	5:19
Lodi at School (Longs)	1							
Lodi Transit Center (record arrival)		2	0:19	4:20		2	0:19	5:22
Passengers on at end of run								
Total	8	8			4	4		

Grapeline Route 4 Boarding and Alighting / On Time Performance

Surveyed November 13 and 14, 2018

Run Start Time	5:30 PM				6:30 PM				Total	
Passenger Count	On	Off	Departure Time		On	Off	Departure Time		On	Off
Passengers on at start of run			Sched.	Actual			Sched.	Actual		
Lodi Transit Center (departure)	4		0:30	5:33			0:30	6:32	21	0
Lodi at School (Pizza Hut)									0	0
Lodi at Alley / Church					1				1	1
Hutchins at Lodi (SW) (Java Stop)		1	0:33	5:36			0:33	6:36	3	3
Tokay at Hutchins									0	1
Tokay at Crescent									0	0
Ham at Tokay									2	0
Vine at Fairmont (Lodi Mem Hospital)			0:37	5:40			0:37	6:38	1	3
Vine at Crescent									0	0
Hutchins at Park									0	1
Hutchins at Tamarack									0	0
Hutchins at Kettleman			0:41	5:43			0:41	6:41	0	3
Hutchins at Century									0	2
Scarborough at Century		2							3	3
Scarborough at Wimbledon									0	1
Wimbledon W/ Ham(school)									0	0
Ham at Port Chelsea									0	0
Ham at Century									0	1
Ham at Chianti			0:45	5:49			0:45	6:45	1	0
Kettleman at Ham		1							0	1
Kettleman / Lakeshore									0	0
Kettleman / Sylvan									0	0
Super WalMart									2	5
Kettleman / Lower Sacramento (Bevmo)			0:00	5:57			0:00	6:49	2	1
Kettleman / Sylvan									0	0
Kettleman / Mills									0	0
Kettleman / Lakeshore									0	0
Ham and Kettleman									0	0
Ham at Century			0:04	6:05			0:04	7:08	4	1
Ham at Deerfield									0	0
Wimbledon at Winchester									0	0
Scarborough at Wimbledon									1	4
Century at Scarborough									0	0
Hutchins/Century									3	0
Hutchins at Mendocino			0:08	6:09			0:08	7:11	0	1
Hutchins at Tamarack									0	0
Hutchins at Park									0	0
Vine at Hutchins (American Legion Park)									1	0
Vine at Fairmont			0:12	6:12			0:12	7:14	1	4
Ham at Tokay									0	2
Tokay at Crescent									0	0
Tokay/Hutchins									1	0
Hutchins / Chestnut			0:16	6:15			0:16	7:17	0	3
Lodi at School (Longs)									1	1
Lodi Transit Center (record arrival)			0:19	6:19			0:19	7:19	0	9
Passengers on at end of run										
Total	4	4			1	0			48	51

Grapeline Route 5 Boarding and Alighting / On Time Performance

November 13 and 14, 2018

Run Start Time	6:30 AM				8:30 AM			
Passenger Count	On	Off	Departure Time		On	Off	Departure Time	
Passengers on at start of run			Sched.	Actual			Sched.	Actual
Lodi Transit Center (departure)	1		0:30	7:30	4		0:30	8:31
Stockton and Locust at Hale Park								
Calaveras and Murray								
Calaveras and Sonora								
Pioneer and Golden			0:34				0:34	8:34
Cherokee and Lockeford								
Cherokee and Elm			0:36	7:36			0:36	8:36
Cherokee and Pine								
Cherokee and Lodi			0:38	7:40			0:38	8:37
Cherokee and Tokay	3					1		
Cherokee and Hale at Star Market						1		
Cherokee and Poplar						2		
Autocenter & Pixley Parkway (DMV)								
Cherokee & Kettleman (Pep Boys)								
Cherokee and Almond	2		0:45	7:46			0:45	8:45
Century at Sandpiper								
Bluejay/Schaffer								
Melby & Harney		3						
Stockton/Idlewild								
Stockton and Century			0:00	8:00			0:00	9:00
Stockton at Almond								
Kettleman at Stockton								
Kettleman at Central			0:02	8:02	1		0:02	9:04
Cherokee at Kettleman								
Cherokee at Delores								
Cherokee at Hale						1		
Cherokee at Eden			0:07	8:06			0:07	9:07
Cherokee & from Walnut N of Lodi								
Cherokee at Elm								
Lockeford at Cherokee								
Beckman at Buena Vista		1						
Turner at Beckman			0:11	8:11	1		0:11	9:11
Turner at Cluff								
Cluff at Lockeford								
Lockeford at Cherokee								
Cherokee at Lockeford								
Pioneer at Golden		2	0:14	8:15	1		0:14	9:16
Calaveras at Pioneer								
Calaveras at Lockeford								
Stockton at Elm (Locust)	1				1			
Pine/Stockton								
Lodi Transit Center (record arrival)		4		8:22				9:22
Passengers on at end of run								
Total	7	10			8	5		

Grapeline Route 5 Boarding and Alighting / On Time Performance

November 13 and 14, 2018

Run Start Time	9:30 AM				10:30 AM			
Passenger Count	On	Off	Departure Time		On	Off	Departure Time	
Passengers on at start of run			Sched.	Actual			Sched.	Actual
Lodi Transit Center (departure)	1		0:30	9:35			0:30	10:31
Stockton and Locust at Hale Park								
Calaveras and Murray								
Calaveras and Sonora								
Pioneer and Golden			0:34	9:37			0:34	10:36
Cherokee and Lockeford								
Cherokee and Elm			0:36	9:41			0:36	10:37
Cherokee and Pine								
Cherokee and Lodi			0:38	9:42	1		0:38	10:39
Cherokee and Tokay								
Cherokee and Hale at Star Market								
Cherokee and Poplar					1			
Autocenter & Pixley Parkway (DMV)								
Cherokee & Kettleman (Pep Boys)	2							
Cherokee and Almond			0:45	9:47			0:45	10:45
Century at Sandpiper								
Bluejay/Schaffer		1						
Melby & Harney								
Stockton/Idlewild								
Stockton and Century			0:00	10:01	1		0:00	10:59
Stockton at Almond								
Kettleman at Stockton	2							
Kettleman at Central			0:02	10:03	1		0:02	11:01
Cherokee at Kettleman								
Cherokee at Delores								
Cherokee at Hale								
Cherokee at Eden		2	0:07	10:10		1	0:07	11:08
Cherokee & from Walnut N of Lodi								
Cherokee at Elm								
Lockeford at Cherokee					1			
Beckman at Buena Vista								
Turner at Beckman	1		0:11	10:16			0:11	11:12
Turner at Cluff								
Cluff at Lockeford								
Lockeford at Cherokee								
Cherokee at Lockeford								
Pioneer at Golden			0:14	10:20	1		0:14	11:16
Calaveras at Pioneer								
Calaveras at Lockeford						2		
Stockton at Elm (Locust)								
Pine/Stockton								
Lodi Transit Center (record arrival)		2		10:25		3		11:22
Passengers on at end of run								
Total	6	5			6	6		

Grapeline Route 5 Boarding and Alighting / On Time Performance

November 13 and 14, 2018

Run Start Time	11:30 AM				12:30 PM			
	On	Off	Departure Time		On	Off	Departure Time	
Passenger Count			Sched.	Actual			Sched.	Actual
Lodi Transit Center (departure)	5		0:30	11:30	4		0:30	12:37
Stockton and Locust at Hale Park						1		
Calaveras and Murray		3				1		
Calaveras and Sonora								
Pioneer and Golden			0:34	11:34		2	0:34	12:40
Cherokee and Lockeford								
Cherokee and Elm			0:36	11:36			0:36	12:45
Cherokee and Pine		1						
Cherokee and Lodi			0:38	11:38			0:38	12:45
Cherokee and Tokay	2					1		
Cherokee and Hale at Star Market						1		
Cherokee and Poplar								
Autocenter & Pixley Parkway (DMV)								
Cherokee & Kettleman (Pep Boys)						1		
Cherokee and Almond			0:45	11:44			0:45	12:52
Century at Sandpiper					4			
Bluejay/Schaffer		2			4			
Melby & Harney								
Stockton/Idlewild								
Stockton and Century			0:00	11:50			0:00	1:00
Stockton at Almond								
Kettleman at Stockton								
Kettleman at Central			0:02	12:03			0:02	1:01
Cherokee at Kettleman								
Cherokee at Delores								
Cherokee at Hale						4		
Cherokee at Eden	1		0:07	12:07			0:07	1:05
Cherokee & from Walnut N of Lodi								
Cherokee at Elm								
Lockeford at Cherokee								
Beckman at Buena Vista								
Turner at Beckman		1	0:11	12:14			0:11	1:11
Turner at Cluff								
Cluff at Lockeford								
Lockeford at Cherokee								
Cherokee at Lockeford								
Pioneer at Golden			0:14	12:19			0:14	1:14
Calaveras at Pioneer	2							
Calaveras at Lockeford	1				1			
Stockton at Elm (Locust)		2						
Pine/Stockton								
Lodi Transit Center (record arrival)	1	3		12:29				1:21
Passengers on at end of run								
Total	12	12			13	11		

Grapeline Route 5 Boarding and Alighting / On Time Performance

November 13 and 14, 2018

Run Start Time	1:30 PM				5:30 PM			
	On	Off	Departure Time		On	Off	Departure Time	
Passenger Count			Sched.	Actual			Sched.	Actual
Lodi Transit Center (departure)	8		0:30	1:34	2		0:30	5:30
Stockton and Locust at Hale Park	2							
Calaveras and Murray								
Calaveras and Sonora	2	1						
Pioneer and Golden			0:34	1:44			0:34	5:34
Cherokee and Lockeford		3						
Cherokee and Elm		1	0:36	1:47			0:36	5:36
Cherokee and Pine								
Cherokee and Lodi			0:38	1:48			0:38	5:38
Cherokee and Tokay								
Cherokee and Hale at Star Market								
Cherokee and Poplar								
Autocenter & Pixley Parkway (DMV)								
Cherokee & Kettleman (Pep Boys)	1	1						
Cherokee and Almond		2	0:45	1:53		1	0:45	5:42
Century at Sandpiper								
Bluejay/Schaffer		1						
Melby & Harney								
Stockton/Idlewild								
Stockton and Century			0:00	1:59			0:00	6:00
Stockton at Almond								
Kettleman at Stockton								
Kettleman at Central			0:02	2:04			0:02	
Cherokee at Kettleman								
Cherokee at Delores								
Cherokee at Hale	1							
Cherokee at Eden		1	0:07	2:08	1		0:07	6:07
Cherokee & from Walnut N of Lodi								
Cherokee at Elm								
Lockeford at Cherokee								
Beckman at Buena Vista								
Turner at Beckman			0:11	2:12		1	0:11	6:11
Turner at Cluff								
Cluff at Lockeford								
Lockeford at Cherokee								
Cherokee at Lockeford								
Pioneer at Golden			0:14	2:16			0:14	6:14
Calaveras at Pioneer								
Calaveras at Lockeford								
Stockton at Elm (Locust)								
Pine/Stockton								
Lodi Transit Center (record arrival)		3		2:22				6:19
Passengers on at end of run						1		
Total	14	13			3	2		

Grapeline Route 5 Boarding and Alighting / On Time Performance

November 13 and 14, 2018

Run Start Time	6:30 PM			Total		
Passenger Count	On	Off	Departure Time		On	Off
Passengers on at start of run			Sched.	Actual		
Lodi Transit Center (departure)			0:30	6:30	25	0
Stockton and Locust at Hale Park	1				3	1
Calaveras and Murray					0	4
Calaveras and Sonora					2	1
Pioneer and Golden			0:34		0	2
Cherokee and Lockeford		1			0	4
Cherokee and Elm			0:36		0	1
Cherokee and Pine					0	1
Cherokee and Lodi			0:38		1	0
Cherokee and Tokay					5	2
Cherokee and Hale at Star Market					0	2
Cherokee and Poplar					1	2
Autocenter & Pixley Parkway (DMV)					0	0
Cherokee & Kettleman (Pep Boys)					3	2
Cherokee and Almond			0:45		2	3
Century at Sandpiper					4	0
Bluejay/Schaffer					4	4
Melby & Harney					0	3
Stockton/Idlewild					0	0
Stockton and Century	1		0:00	7:00	2	0
Stockton at Almond					0	0
Kettleman at Stockton					2	0
Kettleman at Central			0:02		2	0
Cherokee at Kettleman					0	0
Cherokee at Delores					0	0
Cherokee at Hale					1	5
Cherokee at Eden			0:07		2	4
Cherokee & from Walnut N of Lodi					0	0
Cherokee at Elm					0	0
Lockeford at Cherokee					1	0
Beckman at Buena Vista					0	1
Turner at Beckman			0:11		2	2
Turner at Cluff					0	0
Cluff at Lockeford					0	0
Lockeford at Cherokee	1				1	0
Cherokee at Lockeford					0	0
Pioneer at Golden			0:14		2	2
Calaveras at Pioneer					2	0
Calaveras at Lockeford					2	2
Stockton at Elm (Locust)					2	2
Pine/Stockton					0	0
Lodi Transit Center (record arrival)				7:18	1	15
Passengers on at end of run		2			0	3
Total	3	1			72	65

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Lodi Short Range Transit Plan Appendix C: Lodi SRTP Outreach

Public Outreach for the Lodi Short Range Transit Plan

INTRODUCTION

Public outreach was an important part of this Short Range Transit Plan process and took place through a myriad of efforts, including:

- Kick-off Meeting, and periodic meetings with City Staff and MV Staff
- Stakeholder Interviews
- Onboard Passenger Surveys (summarized in Appendix A)
- MV Driver Meetings
- Public Workshops
- A City Council “Shirtsleeve Session”
- A presentation of the Draft Final Report to City Council

Additionally, work products were developed throughout the study process and delivered to staff for review and feedback. Through this iterative process, City staff ensured the final work product has reflects the planning goals of the City of Lodi.

This Appendix provides an overview of the outreach conducted for the study.

Stakeholder Interviews

Stakeholders were identified at the kick-off meeting and were chosen to represent a broad spectrum of the community who might be interested in transit. This included Council Members, school district staff, the senior center staff, et cetera. Each identified stakeholder was contacted through phone calls and/or emails up to three times. Stakeholders were informed their interviews would be anonymous to give them freedom to express their opinions. Of 18 stakeholders, 5 chose to participate. Findings from the interviews indicated:

- Stakeholders generally were not well versed in Lodi transit services, but generally received positive feedback from constituents about the services they were receiving. (This is consistent with the positive feedback from onboard surveys as well).
- One stakeholder was concerned that students, particularly low income students and particularly those in the eastern area of Lodi, have to walk to school through rough neighborhoods and may feel unsafe. It was shared with the stakeholder that the Express Routes serve much of this area, but there may be small pockets of neighborhoods which are slightly more than a convenient ¼ mile walking distance.
- The main concern of staff at the LOEL Senior Center was getting information about transportation options to seniors. The Center receives several calls per day with

transportation requests and they are usually referred to Lodi's DAR or RTD. Making sure the Senior Center staff is knowledgeable about transit options is very important. This includes local service and regional service (such as for doctor appointments in Stockton).

- There are no problems getting seniors to the center for activities, programs and services. Most use DAR.
- Person Centered Services had a very specific concern about reservation times, but generally find transit services to work well for their clientele.

City of Lodi Staff and MV Transportation Staff Meetings

The project kick-off meeting was held on October 8, 2018 between City of Lodi staff, MV Transportation staff, and Consultant staff. The foundation for the study process was established and goals identified at the kick-off meeting. Issues and concerns brought to the forefront at the kick-off meeting included:

- Lodi is conducting the SRTP early to be on same timeline as SJCOG. Look at big picture issues. Want to make service efficient/effective.
- Important Issues include:
 - Coordinate plan (as appropriate) with San Joaquin COG's new format.
 - Growth in new areas - Reynolds Ranch Parkway (behind Costco, new apartments, new senior housing); Crane's Landing; Southwest area (future housing developments); Do any areas warrant a new route?
 - City staff is limited; Transportation Manager and Transportation Planner (Transit only); Administrative staff shared with other departments (50% transit).
 - Support for Lodi Transit and staff is good.
 - In lieu of minimum farebox ratio, GrapeLine adheres to other performance standards set by SJ COG (revised every three years)—including passengers/hour, revenue/hour, cost/revenue hour.
 - Driver pool is good. Strong starting pay.
 - A study of a transit center at Super Walmart is being planned.

- TNCs are limited in Lodi. VanGo is a new service implemented to address rural mobility issues in the County.
- Operational Observations:
 - Demand on Route 5 Pixley Drive loop is unpredictable.
 - Ridership is down slightly; lots of student use.
 - SJ RTD runs three routes in Lodi. How do these impact Lodi service and demand? There are no fare agreements.
 - Boarding and alighting issues can delay routes. Wheelchair loading can cause issues (using inefficient mechanical system).
 - School times slow buses down, as do railroad crossings.
 - Route 3 especially runs into school traffic.
 - Special events: Grape Festival – lots of ridership. Thursday Farmers Market might stay open later (but maybe not a large transit dependent population?).
 - Passenger satisfaction survey: there are a high number of DAR cancellations.
- Capital and Other Factors:
 - Bus stop maintenance is an issue; lots of vagrancy, vandalism at stops and at transit center. Advertising panels are routinely vandalized.
 - Technical – using DoubleMap. Need to install on new buses.
 - Google analytics; can provide data on percent of new users versus repeat users.
 - Fares are \$1.25. Is a monthly pass appropriate? Should transfers be free or pay? Day passes? Student fares?

- Passes are sold at transit center, City hall, and by mail. Would like to sell them online.
- Zero emission vehicles; lots of hurdles. Expensive to purchase, charging. Just adapting to CNG, also RNG.
- Emergency assistance becomes limited with CNG and electric due to dependence on the grid.
- Lodi has until 2020 to improve existing stops (current funding source). Important to provide bench/shelter at senior facilities.
- Vehicles are maintained at the City corporation yard. City vehicles are maintained there too and PD/Fire have priority. When vehicles need serving, they're parked head in; when they're done, they're parked head out.
- Currently in the second year of a three year (plus one plus one) contract with MV.
- Currently working on a transit website update.¹

Members of Lodi staff, MV staff and LSC staff met subsequent to the kick-off three times, and Lodi staff and LSC staff conferred regularly through emails, phone calls, and monthly written status reports. Combined with review of study documents, there was a high degree of interaction among City staff and Consultant staff.

Driver Meetings

Transit Operators often have unique insight from driving the routes. They are able to make operational observations regarding route effectiveness, and they continually receive feedback from passengers in the form of complaints, compliments and requests. To learn what insight the drivers had, consultant staff met with drivers at several safety meetings. Drivers tended to concentrate on operational concerns rather than planning issues, but comments pertinent to this planning process included:

- Route realignments should consider school congestion.
- Consideration of transfers at locations midway along the routes.
- Higher frequency is needed on Route 2.

¹ The website update was completed mid-way through the SRTP process.

Public Workshops

At the stage in the study where conceptual service plans were developed, these were presented at a series of public workshops. A flyer for the meetings was widely distributed. The venues were chosen in hopes of maximizing participation by residents and particularly transit dependent populations. An overview of the outreach is below:

- A 10:30 AM meeting was held at the Senior Center (3 attendees). The Consultant gave an overview of the project and displayed maps of potential service changes. Participants were invited to comment and bring up their concerns about the ideas presented. Comments included:
 - Request to have service go to Reynolds Ranch.
 - Request for a red curb at Blue Jay and Schafer to prevent parking at the bus stop in order to help a blind passenger better access the bus.
 - Request for Route 5 not to stop and wait mid-route if it does not serve DMV.
- At 2:00 PM a meeting was held at the library. Despite widely available advertising, no one attended.
- An information booth was staged at the Transit Center from 5:00 to 6:00 PM. Maps of potential service changes were displayed and comment cards were available. Passersby were encouraged to engage in a conversation regarding their interest in and use of public transit. Three members of the public participated. Comments included:
 - Positive feedback on service ideas.
 - Would like a day trip to Lake Tahoe.
 - Not super familiar with existing service (new resident) but ideas seem good.
 - One said she loved the idea of a day pass, and another said she liked the idea, but not the possibility of getting rid of free transfers.
 - One participant said she wished the multi-use tickets would offer a discounted fare.

City Council Shirtsleeve Session

Soon after the conceptual service plan had been presented at public workshops, the service plan was presented at a City Council Shirtsleeve session. Council members asked a few questions about the service plan, and asked for some minor follow-up, including:

- What is the actual percent of the youth population which uses the Express Routes? (Approximately one percent.)
- What are the ridership trends on RTD? What are RTD's costs per passenger hour? (Efforts were undertaken to obtain this data, but it has been provided system-wide, and not by route, and therefore not useful for evaluating services RTD provides between Lodi and Stockton.)

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