

February 2009



CITY OF LODI SHORT RANGE TRANSIT PLAN

FY 2008/09-FY 2017/18

EXECUTIVE SUMMARY



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Executive Summary

This report presents a ten-year plan for Lodi's GrapeLine transit system. To prepare the plan, the consultant evaluated existing transit services, analyzed demographic conditions and trends, and solicited input from passengers, community members, community stakeholders and transit operations staff. The information gathered during early phases of the project was then used, in conjunction with field observations, to develop a recommended service plan that best serves Lodi residents' transit needs over the next ten years. In addition to recommending service changes, the consultant recommends several marketing strategies targeted at increasing ridership and system awareness. Finally, a capital and financial plan identifies all of the capital and operating expenditures and revenues needed to support the recommended plan.

Community Profile

In 2000, Lodi's population was approximately 57,000. Lodi has grown over 10% since 2000 and has an estimated population of over 63,000 in 2009. Population densities are highest in the eastern half of the city with the highest densities located along the Central Avenue corridors. All denser areas in the City are served directly by GrapeLine. Employment density is concentrated Downtown and near the large retail core at Lower Sacramento Road and Kettleman Lane. Additional employment density is located along the industrial portion of Stockton Street and east of Highway 99.

New retail and residential development will be concentrated south of Kettleman Lane. The Southwest Gateway Development, south of Kettleman Lane along Lower Sacramento Road, will feature mostly low and medium density housing and a Walmart Supercenter. Reynolds Ranch, at Highway 99 and Harney Lane, will include a large retail complex and mostly senior housing. Additional housing is planned near Raley's and additional retail and commercial space is planned in the South Hutchins Annex at Hutchins Street and Harney Lane.

GrapeLine System Overview

GrapeLine currently operates five weekday Fixed-Routes, three student-focused Express Routes, and a general public Dial-A-Ride service. On weekends, four Fixed-Routes and the Dial-A-Ride operate. Service is provided from 6:15 AM to 6:54 PM on weekdays and 7:45 AM to 3:09 PM on weekends.

Existing GrapeLine service is illustrated in Figure ES-1.

In addition to GrapeLine, Lodi is served by many regional services, all connecting at Lodi Station.

- San Joaquin Regional Transit District (RTD) offers three routes, Routes 23, 24, and 93, between Lodi and Stockton.
- South County Transit (SCT/LINK) provides two routes in Lodi, the Highway 99 Express to Galt, Elk Grove, and Sacramento and the Delta Route connecting Lodi to Galt via Ryde, Walnut Grove, and Locke.
- Calaveras Transit operates one route between Lodi and San Andreas in Calaveras County.
- Rio Vista Delta Breeze's Route 53 provides service to Lodi once a week connecting Lodi, Terminous, Flag City, and Rio Vista.

- Amtrak's San Joaquins Route provides rail service between Bakersfield, Sacramento, and Oakland.
- Greyhound offers direct bus service between Sacramento and Bakersfield from Lodi.

GrapeLine also offers a general public, door-to-door, Dial-A-Ride service. The service provides coverage throughout Lodi, Acampo, and Woodbridge. Dial-A-Ride operates seven days a week with varying service hours. Service with a reservation is available from 6:15 AM to 9:00 PM on weekdays, 7:45 AM to 6:00 PM on Saturdays, and Sundays from 7:45 AM to 4:00 PM. Without a reservation, service availability is more limited.

GrapeLine offers a cash fare, 10-ride pass, and monthly pass. The general Fixed-Route fare is \$1.00 and \$0.50 for seniors and passengers with disabilities. Dial-A-Ride fares are \$1.50 for seniors and passengers with disabilities and \$5.00 for the general public.

System Performance

Fixed-Route ridership has declined 44% since FY 2002/03. Staff attributes the decline to a fare increase in 2005, tightening of the fare and transfer policies, and inaccurate passenger counting in previous fiscal years. Staff reports that ridership is expected to increase in FY 2008/09. The Fixed-Route farebox recovery ratio, or the proportion of Fixed-Route operating costs paid for by passenger fares, has increased significantly (45%) since FY 2002/03 despite declining ridership.

The number of Fixed-Route passengers per revenue hour declined between FY 2002/03 and FY 2007/08 by 38% from 18.4 passengers per hour to 11.4. Operating cost per hour declined slightly during the last six years due to operating costs decreasing faster than revenue hours. Despite declining costs however, the operating cost per passenger increased to \$4.88 in FY 2007/08 from \$3.17 in FY 2002/03 because of the large decrease in total ridership.

As we saw with Fixed-Route service, Dial-A-Ride ridership and operating cost decreased over the last six years. Because Dial-A-Ride is more expensive per passenger to operate than Fixed-Route service, a decline in Dial-A-Ride ridership is viewed positively. With declining costs, the operating cost per revenue hour fell from \$55.90 in FY 2002/03 to \$47.86 in FY 2007/08. The operating cost per passenger, however, has increased from \$16.73 in FY 2002/03 to \$20.93 in FY 2007/08. Service efficiency has also suffered with Dial-A-Ride carrying only 2.3 passengers per hour in FY 2007/08 compared to 3.3 passengers per hour in FY 2002/03. This suggests that too many Dial-A-Ride vehicles may be in operation relative to the service demand level.

In order to more accurately gauge boarding patterns and on-time performance, the consulting team performed a ridecheck on all GrapeLine Fixed-Routes, and on all San Joaquin RTD routes that serve Lodi (just the portion of the routes within the city). Chapter 3 of the report presents boarding counts by stop and by trip, and on-time performance data based on the results of the ridecheck.

Fixed-Route Passenger Surveys

In conjunction with the ridecheck, Nelson\Nygaard conducted an on-board passenger survey. All GrapeLine Fixed-Route passengers were offered surveys, as were RTD riders boarding or alighting in Lodi. An on-board survey is the best way to obtain reliable information about current riders and their travel choices. The passenger survey asked detailed questions about how each passenger completes his or her trip and opinions on the existing services. The survey also collected information on riders' personal characteristics, such as age, income, and employment status.

Overall, the survey revealed that passengers are pleased with GrapeLine services. A large portion (84%) rated the service as "good" or "excellent". Although most thought highly of the service, improvements were requested including more weekend service and later evening service.

Most passengers are using the service to travel between home, work, and shopping. A majority of passengers (72%) responded that they walk to their bus stop and from their bus stop to their destination. Almost 80% of respondents stated that they made less than \$25,000 per year.

The survey of RTD passengers in Lodi revealed that 21% of respondents used RTD service exclusively within the City of Lodi. This suggests that RTD offers a service in Lodi which GrapeLine does not. Everyone else surveyed on RTD was traveling between two cities. Of the

trips with an origin or destination outside of Lodi, a majority (64%) were between Stockton and Lodi. This connection is the focal point of all current RTD routes in Lodi. A smaller number of trips were between Lodi and Thornton (12%) and Lodi and French Camp (3%).

Stakeholder Input

Public Outreach Meetings

In addition to the passenger survey, the consultant conducted interviews with community stakeholders. City of Lodi staff identified stakeholders that could reflect the concerns of the community at large. While these individuals were not expected to represent the concerns of all residents, they were relied upon to describe the “pulse of the community.”

Stakeholders identified what they thought GrapeLine’s top priorities should be in the next five to ten years. These included:

- Expand Dial-A-Ride service to more rural areas
- Offer longer service hours
- Provide better service to major employers and new developments
- Maintain on-demand Dial-A-Ride service and current passenger fare

In addition to the identified top priorities for the service, stakeholders mentioned that GrapeLine should consider partnering with local wineries to offer a shuttle service connecting local wineries and seek ways to improve advertising and market to visitors. Stakeholders were pleased with the level and quality of the service.

Marketing Plan

The report includes a review of GrapeLine’s current marketing materials and outreach efforts. Based on the results of that analysis, the following marketing strategies are recommended as part of a program to increase awareness of GrapeLine and to make GrapeLine more user-friendly:

- Signage enhancements
- Information and advertising campaign
- Improve the schedule brochure
- Update the website
- Employer outreach
- Summer bus pass

Figure ES-2 provides detailed information on the cost, timing, and outcome of each strategy.

Figure ES-2 Summary of Recommended Program

Strategy	Outcome	Cost	Timing
Signage Enhancements	Vehicle and bus stop signs	One time: Up to \$10,000 for significant enhancements to signage	When service recommendations are implemented
Information and Advertising Campaign	Print ads, press releases, public speaking engagements, etc.	Ongoing: \$1,000 to \$2,000 for print ads; up to \$5,000 for direct mail campaign	Immediate and ongoing
Improve the Schedule Brochure	New color brochure with information about transit services	One time: Up to \$10,000 for design, development, printing and distribution; Ongoing: Up to \$5,000 for revisions and reprints	When service recommendations are implemented
Update the Website	Enhanced, accessible website	One time: \$500 to \$4,000 for small scale overhaul of website	Immediate and ongoing
Employer Outreach	Meetings and program coordination with employers	Ongoing: N/A	Immediate and ongoing
Summer Bus Pass	Summer student pass	Ongoing: Up to \$1,000 per printing depending on quantity	Immediate and ongoing

Goals, Objectives, Measures and Standards

Lodi's General Plan is the primary document guiding city policies on land use and transportation, including the role of public transit in meeting mobility needs. While the General Plan serves as the City's guide, GrapeLine should have its own internal set of goals, objectives, measures, and standards to evaluate and monitor transit service, and prior to the creation of this plan GrapeLine had not yet developed any.

The consulting team recommends that the system organize goals and objectives into two categories: Service Design and Service Delivery. Recommended goals, objectives, measures, and standards are presented in Figure ES-3.

Figure ES-3 Recommended Goals, Objectives, Measures, and Standards

Goals	Objectives	Measurements	Standards	FY 2006/07 Performance	FY 2007/08 Performance	FY 2008/09 Target
Service Design						
1. Develop and implement a transit system which balances the need to maximize ridership with the need to provide at least a minimal level of service to most residents	1. Design services with an emphasis towards maximizing ridership and productivity	a. Passengers/Revenue Hour	Fixed-Route: minimum of 10.0 passengers/hour Dial-A-Ride: minimum of 2.3 passengers/hour	Fixed-Route: 12.0 Dial-A-Ride: 2.4	Fixed-Route: 11.3 Dial-A-Ride: 2.1	Fixed-Route: 12.0 Dial-A-Ride: 2.5
	2. Increase system ridership at or above the rate of population growth	a. Annual change in ridership	Annual increase in Lodi population	Population: Increase of ~1.4% annually since 2000 Ridership: Decline of 8%	Population: Increase of ~1.4% annually since 2000 Ridership: Decline of 6%	1.4% increase in ridership
	3. Work towards making new developments more transit supportive	a. Review development plans and provide input to developers at an early stage	Measured by developer inclusion of transit amenities, pedestrian walkways, higher density housing, and/or developer contribution of funding to transit	Yes	Yes	Review all major development plans

Goals	Objectives	Measurements	Standards	FY 2006/07 Performance	FY 2007/08 Performance	FY 2008/09 Target
Service Design (continued)						
	4. Provide transit service coverage to most residential and commercial developments in Lodi	a. Number of residential units and commercial development within 3/4 miles of a transit route	90% of residential and commercial development within 3/4 miles of a transit route in the city limits	Meets criteria	Meets criteria	Continue to provide adequate coverage throughout the city
2. Develop and implement a transit system which seeks to maximize passenger convenience	1. Move towards higher frequency services (headways <= 30 minutes) on high ridership routes	a. Number of routes with 30 minute service	Development of one or more routes with 30 minute headways by FY 2010/11 Minimum service frequency of 60 minutes	All routes currently at 45 minute frequencies	Continue at 45 minute frequencies	Continue at 45 minute frequencies
Service Delivery						
1. Maximize the efficient and effective use of the available financial resources	1. Operate in a manner which maximizes performance	a. Operating Cost/Passenger	Combined: maximum of \$10.83 Fixed-Route: maximum of \$5.00 Dial-A-Ride: maximum of \$22.00	Combined: \$7.67 Fixed-Route: \$4.53 Dial-A-Ride: \$19.33	Combined: \$8.29 Fixed-Route: \$4.88 Dial-A-Ride: \$20.93	Combined: established by SJCOG Fixed-Route: \$4.50 Dial-A-Ride: \$20.50
		b. Operating Cost/Revenue Hour	Fixed-Route: maximum of \$60.00 Dial-A-Ride: maximum of \$50.00	Fixed-Route: \$54.53 Dial-A-Ride: \$45.77	Fixed-Route: \$55.57 Dial-A-Ride: \$47.86	Fixed-Route: \$55.00 Dial-A-Ride: \$46.00

Goals	Objectives	Measurements	Standards	FY 2006/07 Performance	FY 2007/08 Performance	FY 2008/09 Target
<i>Service Delivery (continued)</i>						
		c. Farebox Recovery Ratio	Fixed-Route: minimum of 20% (including Measure K) Dial-A-Ride: minimum of 10%	Fixed-Route: 23.8% (14.8% without Measure K) Dial-A-Ride: 8.2%	Fixed-Route: 22.4% Dial-A-Ride: 7.5%	Fixed-Route: 20% Dial-A-Ride: 10%
2. Consistently earn the highest praise from our passengers	1. Operate a reliable and safe service	a. Preventative maintenance program	100% of PMs completed within 10% of scheduled mileage	Fixed-Route: 100% Dial-A-Ride: 100%	Fixed-Route: 100% Dial-A-Ride: 100%	Fixed-Route: 100% Dial-A-Ride: 100%
		b. # of roadcalls	Fixed-Route: Less than 1 per 15,000 revenue miles Dial-A-Ride: Less than 1 per 15,000 revenue miles	Fixed-Route: N/A Dial-A-Ride: N/A	Fixed-Route: N/A Dial-A-Ride: N/A	Fixed-Route: <1 per 15,000 miles Dial-A-Ride: <1 per 15,000 miles
		c. On-time performance	Fixed-Route: 95% of scheduled departures on-time or less than 5 minutes late Dial-A-Ride: 95% of pick-ups within 45 minute window	Fixed-Route: 73% (ridecheck data) Dial-A-Ride: N/A	Fixed-Route: N/A Dial-A-Ride: N/A	Fixed-Route: 95% Dial-A-Ride: 95%
		d. Dial-A-Ride service denials	Zero ADA annual denials	N/A	N/A	Zero ADA denials

Goals	Objectives	Measurements	Standards	FY 2006/07 Performance	FY 2007/08 Performance	FY 2008/09 Target
<i>Service Delivery (continued)</i>						
	2. Maximize passenger comfort	a. Passenger load factors	Fixed-Route: maximum peak load-125%, maximum off-peak load-100%	N/A	N/A	Maximum peak load <125% Maximum off-peak load <100%
		b. Vehicle Cleanliness Program	All buses will be swept daily. All buses will have their exterior washed once/week. Graffiti and interior damage will be repaired and removed immediately. Buses will be detailed every 3,000 miles.	N/A	N/A	100% of buses swept daily, cleaned weekly, and detailed in specified time period. Graffiti and damage removed immediately.
		c. Driver pre-trip vehicle inspections	No equipment shall leave the yard with damaged seats, windows, heating/ventilation, pull cords, radios, or headsigns.	N/A	N/A	Vehicles leave yard in good operating condition.
		d. Bus stop maintenance program	Every stop will have a readable sign with basic route information. Each stop will be physically checked, cleaned, and any damage removed at least once/week.	N/A	N/A	All stops checked weekly.

Goals	Objectives	Measurements	Standards	FY 2006/07 Performance	FY 2007/08 Performance	FY 2008/09 Target
<i>Service Delivery (continued)</i>						
	3. Provide high quality and readily available information and marketing services	a. Customer Service Program	All customer service calls will be answered within three minutes. All complaints will be investigated within 72 hours.	N/A	N/A	100% of calls answered within five minutes and 100% of complaints investigated within 72 hours.
		b. Maps, brochures, and displays	Regularly provide a user-friendly map and brochure for distribution to the general public and public agencies. Create user friendly information displays at Lodi Station.	N/A	N/A	Create a new map and schedule brochure that more clearly presents routes and information.

Service Plan

Transit planning often centers on a tradeoff between two competing goals: Coverage and Productivity.

The Social Service Objective and the Coverage Strategy

Some people believe that transit is a social service which, like other social service agencies goes wherever people need it. Since there are isolated people with mobility needs scattered everywhere, this belief tends to produce systems that scatter their service very thinly, providing a little bit of service everywhere. Many agencies are designed solely on this principle, providing Dial-A-Ride service that goes anywhere in the area or hourly one-way Fixed-Routes that cover the city but involve circuitous rides. The downside is that if you try to provide service everywhere then you probably cannot afford to run good service anywhere, and thus will never generate significant levels of ridership. From this standpoint, which we call the Coverage-Based Strategy, ridership is simply not transit's highest goal. The highest goal is to get to people who are "stranded", wherever they may be.

The Ridership Objective and the Productivity Strategy

Some people believe that transit's purpose is simply to move as many people as possible as cost-effectively as possible. High ridership tends to translate into higher impacts of vehicle trip reduction. It also brings in higher fares. The Productivity Strategy states "deploy service for the maximum possible ridership." This strategy does not spread service out equally, but concentrates it where demand is greatest: high density corridors and centers where the automobile is at a disadvantage.

Based on operational issues and feedback from staff and the community, consulting staff has identified two service alternatives—coverage based and productivity based.

Coverage-Based Alternative

The coverage-based system focuses on maintaining the current level of service coverage throughout the city. The proposed route structure streamlines the current routes, reduces route redundancy, and extends service to Reynolds Ranch once the development is complete.

Two separate maps are presented for the coverage-based alternative—one for service within the next one to two years and one for service in two or more years. Maps are illustrated in Figures ES-4 and ES-5.

Route 1

Route 1 service will remain unchanged in Alternative 1. The schedule is updated to reflect current operating times and improve on-time performance. Updated timetables for all routes are located in Appendix C.

The new Westside Development is planned west of Lower Sacramento Road between Lodi Avenue and Vine Street and is located adjacent to Route 1. A majority of the housing in the development is planned to be low density housing. A small area is zoned as high density development and is located next to the Raley's Shopping Center where Route 1 currently operates. The consulting team does not recommend extending Route 1 service to directly serve the development.

development is planned to be low density housing. A small area is zoned as high density development and is located next to the Raley's Shopping Center where Route 1 currently operates. The consulting team does not recommend extending Route 1 service to directly serve the development.

If direct service is demanded, Route 1 could be rerouted with little effect on the schedule to serve the high density and medium density housing directly via Lodi Avenue, the main arterial in the development, and Tokay Street. Both Lodi Avenue and Tokay Street at Lower Sacramento Road are controlled intersections.

Route 2

Route 2 is currently the most productive GrapeLine route. During the ridecheck effort the route carried an average of 18 passengers per hour, more than any other route. No routing changes are proposed.

Route 3

Route 3 provides direct service to Millswood Middle School, Lodi Middle School, and Tokay High School. The route performs very well during school bell times but poorly throughout the remainder of the day. Poor performance may be due to confusing one-way service through downtown and along Century Boulevard and Wimbledon Drive and lack of service to major retail hubs such as the Walmart, Safeway, and Target at Kettleman Lane and Lower Sacramento Road.

In order to simplify the route structure and give the route a midday purpose, Route 3 has been streamlined through Downtown and extended to Kettleman Lane and Lower Sacramento Road. In Downtown, the route will follow Pine Street and Church Street to Lockeford Street. This will eliminate confusing one-way service on Walnut and Oak Streets and provide a faster trip along Lockeford Street, directly serving the Buy 4 Less. From Lockeford Street, the route follows the same alignment as the current route until Ham Lane and Century Boulevard. Instead of performing a one-way loop on Century Boulevard and Wimbledon Drive, the route follows the western portion of Century Boulevard and Mills Avenue to access shopping on Kettleman Lane. The abandoned section of Route 3 is covered by the proposed Route 4 changes.

Route 4

Route 4 has been updated to reduce route redundancy and confusing one-way service. The proposed route uses Stockton Street to access Lodi Avenue, providing direct service to the Smart & Final. Instead of serving Fairmont Avenue which is one block away from Ham Lane and Route 3, the proposed route serves Hutchins Street to Century Boulevard. This alignment serves high density apartments directly and avoids narrow streets like Fairmont Avenue and portions of Church Street where operating a 40' vehicle can be difficult. From Century Boulevard, the proposed alignment directly serves the Century Christian School and Beckman Elementary School on Scarborough Drive, high density housing on Wimbledon Drive, and continues on Ham Lane and Kettleman Lane to the Walmart and Target shopping centers. All abandoned portions of Route 4 are within a quarter of a mile of a transit route.

Once the South Hutchins Annex is completed, Route 4 will be rerouted to serve the shopping center outbound via Hutchins Street, Harney Lane, and Winchester Street. Route 4 will only serve the shopping center in the outbound direction due to turn restrictions and safety issues posed by providing inbound service.

Route 5

The proposed Route 5 discontinues service east of Highway 99 where few boardings occur. During the ridecheck effort, only one boarding was recorded. The route is streamlined through the northeastern neighborhood and follows Cherokee Lane to Almond Drive, Kettleman Lane, and Stockton Street. The updated routing will provide a faster and less circuitous service to core passengers along the Cherokee Lane corridor. The updated route schedule will have surplus time.

Once retail and senior housing has opened in Reynolds Ranch, Route 5 should be reconfigured to serve the development. The proposed route will bypass Almond Drive and use Stockton Street to access the development. The extra time built into the schedule will allow Route 5 to serve the Reynolds Ranch development.

Lodi Unified School District

Because GrapeLine carries a large number of student passengers, consulting staff recommends that City and School District staff maintain close communications with each other to ensure that the best level of service is being offered to the student population. While GrapeLine is a general public service and must remain that way, the student-focused Express Routes should be updated annually with changes in school scheduling to better accommodate the student population.

Abandoned Segments

For most riders, this service alternative will provide a clear improvement in bus service by providing service to more activity centers, creating simpler routing, and eliminating most confusing one-way routing. However, the plan does eliminate service in a few low ridership and/or low density areas.

The general transit/walking distance “rule of thumb” is that a person will walk about one-quarter mile to reach a bus stop. Many existing passengers who currently board the bus along segments proposed for elimination will still be within a one-quarter mile walk of a bus route and thus it is assumed that these will be “retained” passengers (i.e., they will still ride GrapeLine). However, there are areas where existing passengers will no longer be within one-quarter mile of a route (east of Highway 99 and near Almond Drive and Cherokee Lane). Our analysis reveals that these areas only accounted for seven passenger boardings during the ridecheck (less than 1% of daily ridership). This suggests that very few passengers will be adversely impacted by the coverage-based alternative.

Service to the Safeway/Target Parking Lot

The proposed 2+ Year Coverage-Based Alternative eliminates service from the Safeway/Target parking lot. Routes 1-4 will instead serve the planned transit turnaround at the Walmart Supercenter which will provide layover space and passenger amenities for passengers. Service in parking lots is generally not recommended due to low traffic speeds, which significantly slow routes and inconvenience passengers, and high pedestrian traffic. The planned routes will serve the current RTD bus stop at Kettleman Lane and Lower Sacramento Road in front of Coco's

Restaurant. The RTD stop is located approximately 0.10 miles¹ (500 feet) from the Target and Safeway storefronts.

While this may adversely affect older passengers², it should be noted that GrapeLine does not offer storefront service to any other shopping centers including Walmart which is set further back from Kettleman Lane than Safeway and Target and hence requires a longer walk. Dial-A-Ride service will continue to provide service directly to the storefronts.

The consulting team recommends working with the shopping center owner to ensure better pedestrian access between the transit stop and the Target and Safeway stores. City staff should also consider opening a dialogue with other shopping center owners around Lodi to improve pedestrian access.

¹ At an average walking speed of 2-3 miles per hour, passengers would need to walk 2-3 minutes to access the Target and Safeway stores.

² The 2007 Passenger Survey results show that only 9% of GrapeLine Fixed-Route passengers are 65 years old and up.

Figure ES-4

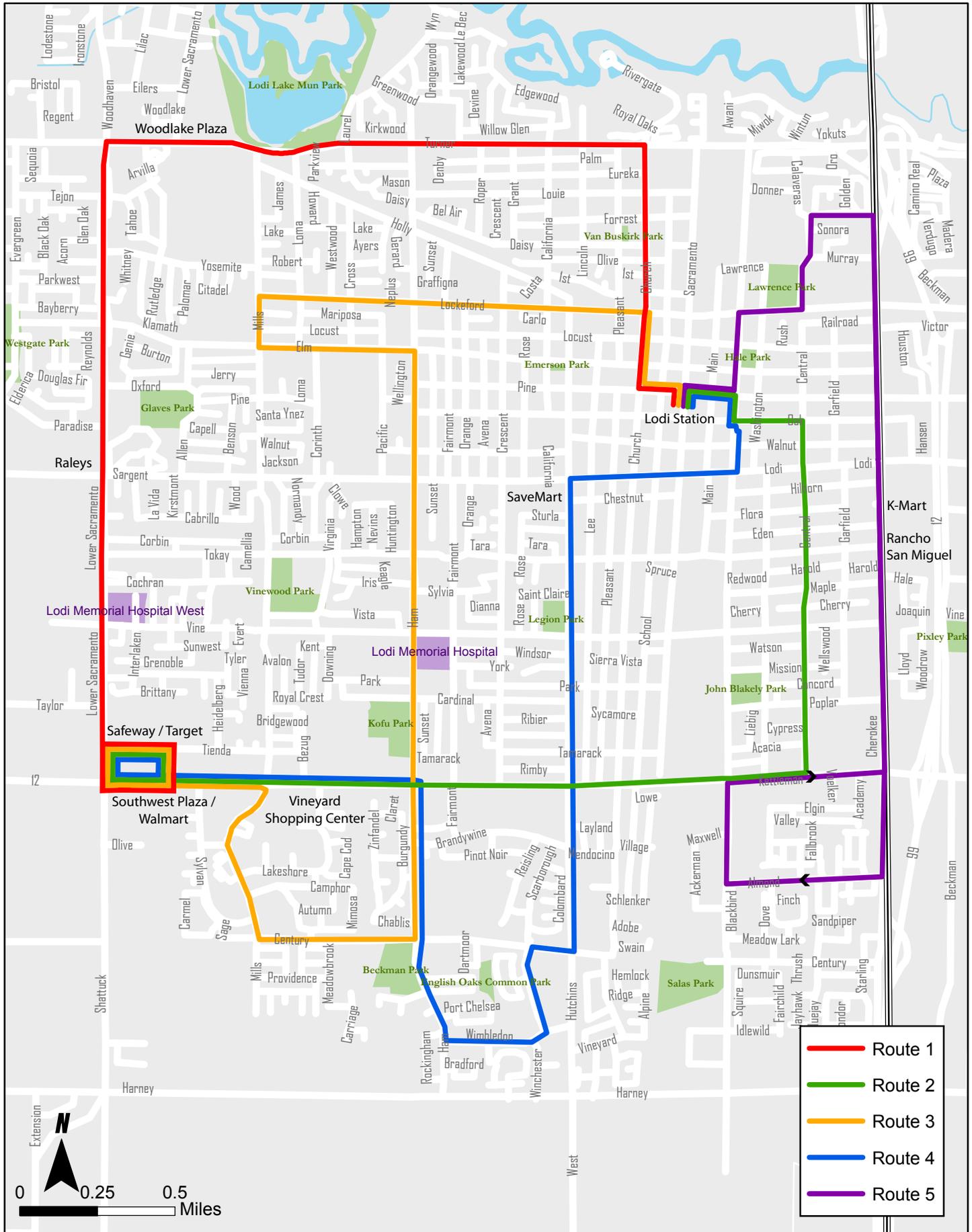
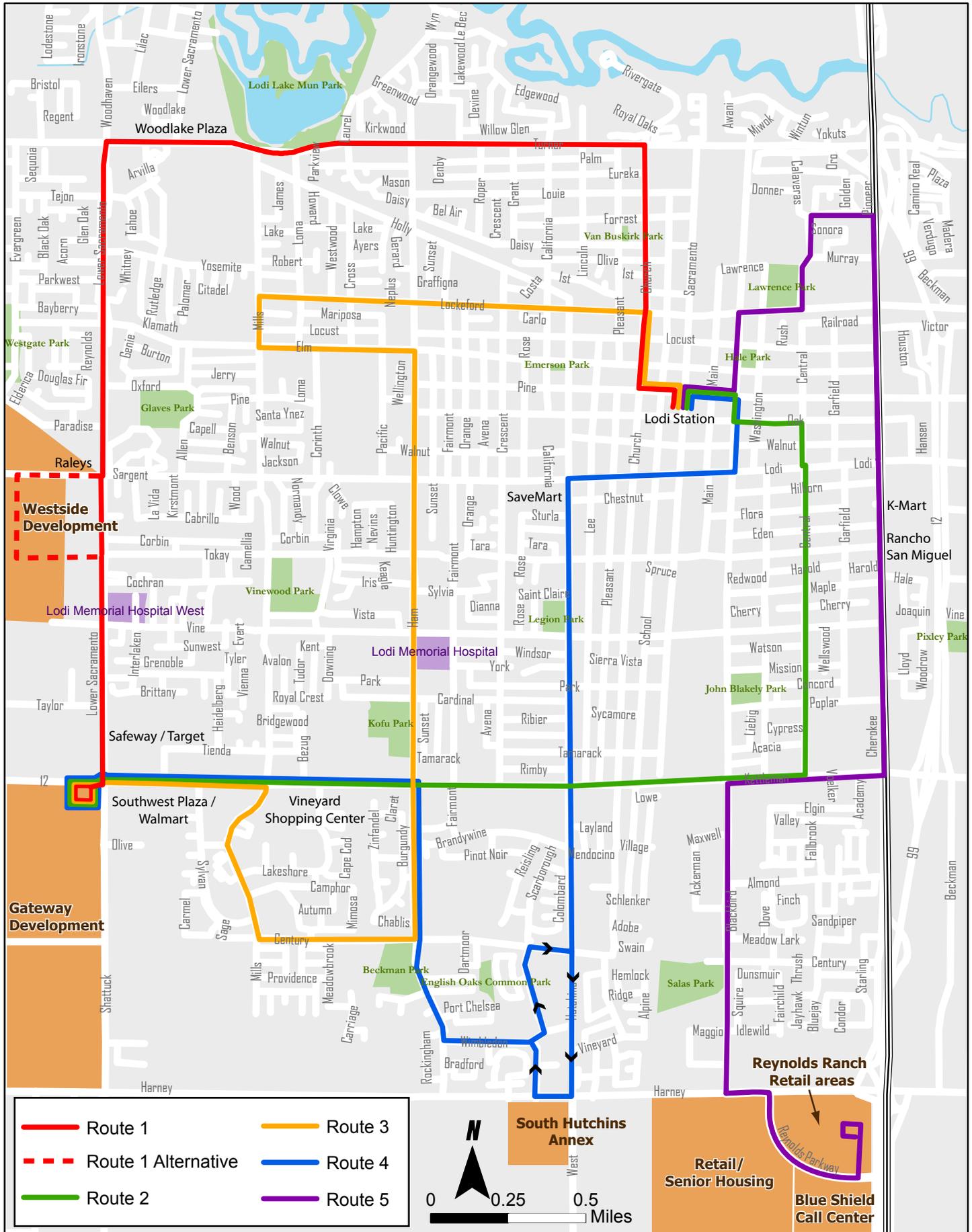


Figure ES-5 ; fUdY@bY7 cJ YfUj Y!6 UgYX'5`hYfbUjY Y'&Z'MYUfg



Productivity-Based Alternative

This alternative focuses on providing an increased level of service to high ridership corridors. In this alternative, routes are structured to provide 30-minute service on highly productive corridors and hourly service on unproductive corridors. Roundtrip cycle times are increased from 45 to 60 minutes. Service is discontinued in areas with low ridership. The scenario assumes a higher level of service hours.

Route 1

Route 1 will be discontinued in this service alternative. Portions of Route 1 will be served by Routes 2 and 3.

Route 2

Route 2 will follow the same alignment as it currently operates. With the additional running time added, the route will serve Lower Sacramento Road between the new Walmart Supercenter and Raley's. Because Route 2 currently has the highest ridership, 30-minute service is recommended.

Route 3

Route 3 has been reconfigured to focus on the Ham Lane corridor. The route will travel on Church Street from Lodi Station to Turner Road and follow Ham Lane to Kettleman Lane. From Kettleman Lane, the route serves the Walmart Supercenter. With a 60-minute roundtrip run time, the route will be able to serve the Gateway neighborhood south of Walmart and the proposed community center on Lower Sacramento Road. Since a road network has not been finalized, no alignment is proposed through the development.

The current Route 3 configuration serves as the school connector route providing direct service to Millswood Middle School, Lodi Middle School, and Tokay High School and traveling close to Lodi High School. As a result of this service model, Route 3 has low ridership throughout the day except during school bell times. The proposed route changes the focus from students to the general public and provides faster service along the Ham Lane corridor connecting passengers to the shopping nexus at Kettleman Lane and Lower Sacramento Road. School tripper service will remain at bell times to transport students who attend Millswood Middle School and Tokay High School which are no longer directly on the route. Sixty-minute service is recommended on the route.

Route 4

The proposed Route 4 combines the coverage scenario Route 4 with the portion of Route 3 discontinued south of Kettleman Lane. Instead of continuing on Ham Lane to Kettleman Lane as in the coverage scenario, the proposed route follows Century Boulevard to Mills Avenue to connect to the Walmart stop on Kettleman Lane. Thirty-minute service is recommended on the corridor.

Route 5

Route 5 will remain the same as the coverage scenario recommendation. Service frequency will be decreased from 45 minutes to 60 minutes to allow for more recovery time and to "loosen" up the schedule.

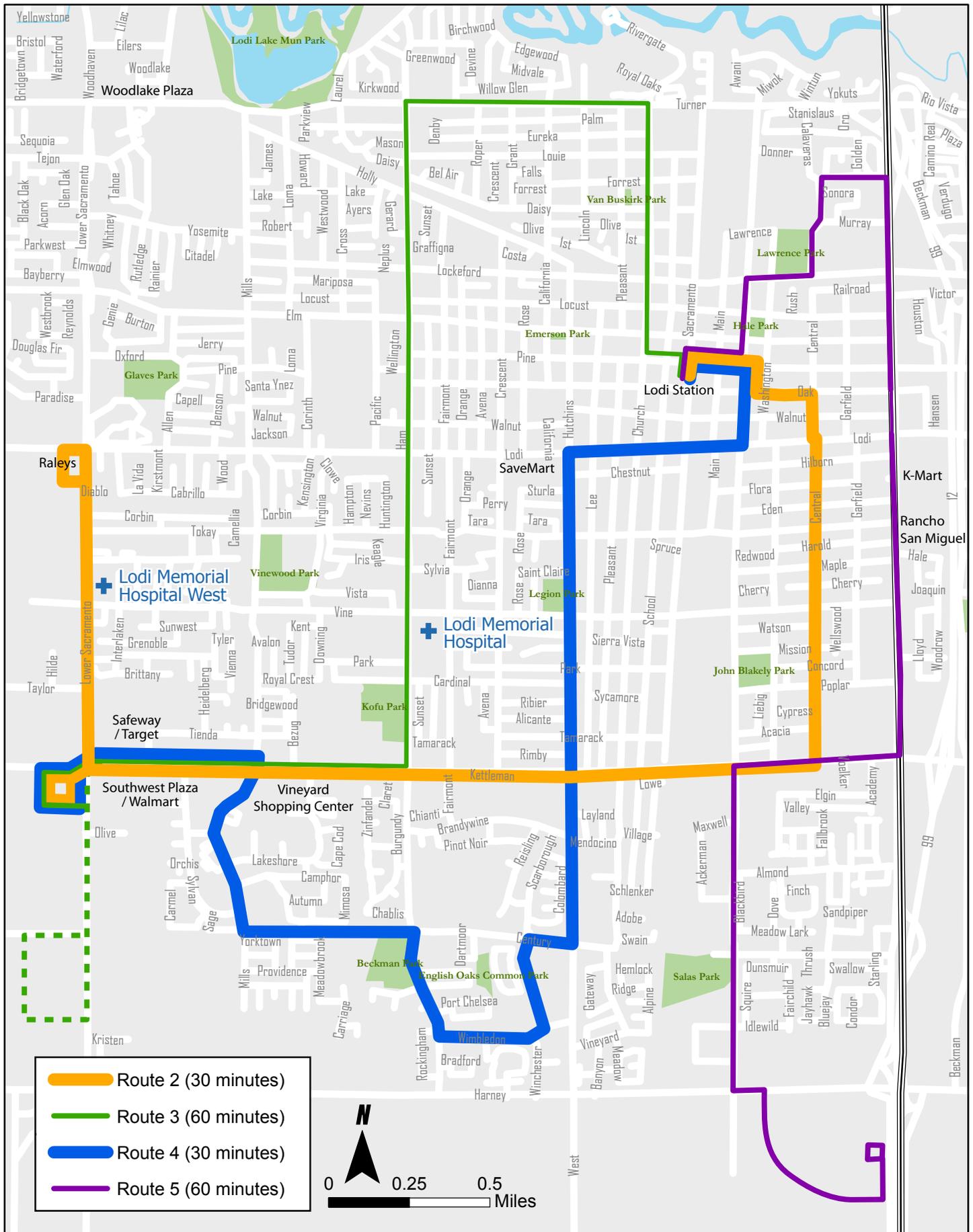
Abandoned Segments

The productivity scenario focuses on providing increased service frequency to areas where ridership is high. As a result, some coverage is lost in the northwest portion of Lodi and service frequencies decrease on two routes.

As stated previously, the general transit/walking distance “rule of thumb” is that a person will walk about a quarter of a mile to reach a bus stop. Many existing passengers who currently board the bus along segments proposed for elimination will still be within a quarter of a mile or less walk of another bus route and thus it is assumed that these will be “retained” passengers. There are, however, a few areas where existing passengers will no longer be within a quarter of a mile of a route. The impacted areas include the area east of Highway 99, Almond Drive, Millswood Middle School, and Lower Sacramento Road at Turner Road.

Overall a total of 43 boardings would fall outside of the quarter mile buffer, 5% of daily boarding activity. Millswood Middle School would still benefit from direct service via express routes and all passengers would continue to have access to GrapeLine’s general public Dial-A-Ride service.

Figure ES-6 Productivity-Based Scenario



Dial-A-Ride Service Plan

Nelson\Nygaard has assumed that throughout the ten-year planning horizon GrapeLine will continue to operate status quo Dial-A-Ride service. The number of passengers carried per revenue hour has declined 30% from 3.3 passengers per hour to 2.3 passengers per hour over the last six years. This suggests that the level of service provided does not match the passenger demand. With declining ridership, it is recommended that GrapeLine review their staffing plan for Dial-A-Ride to make the service more efficient.

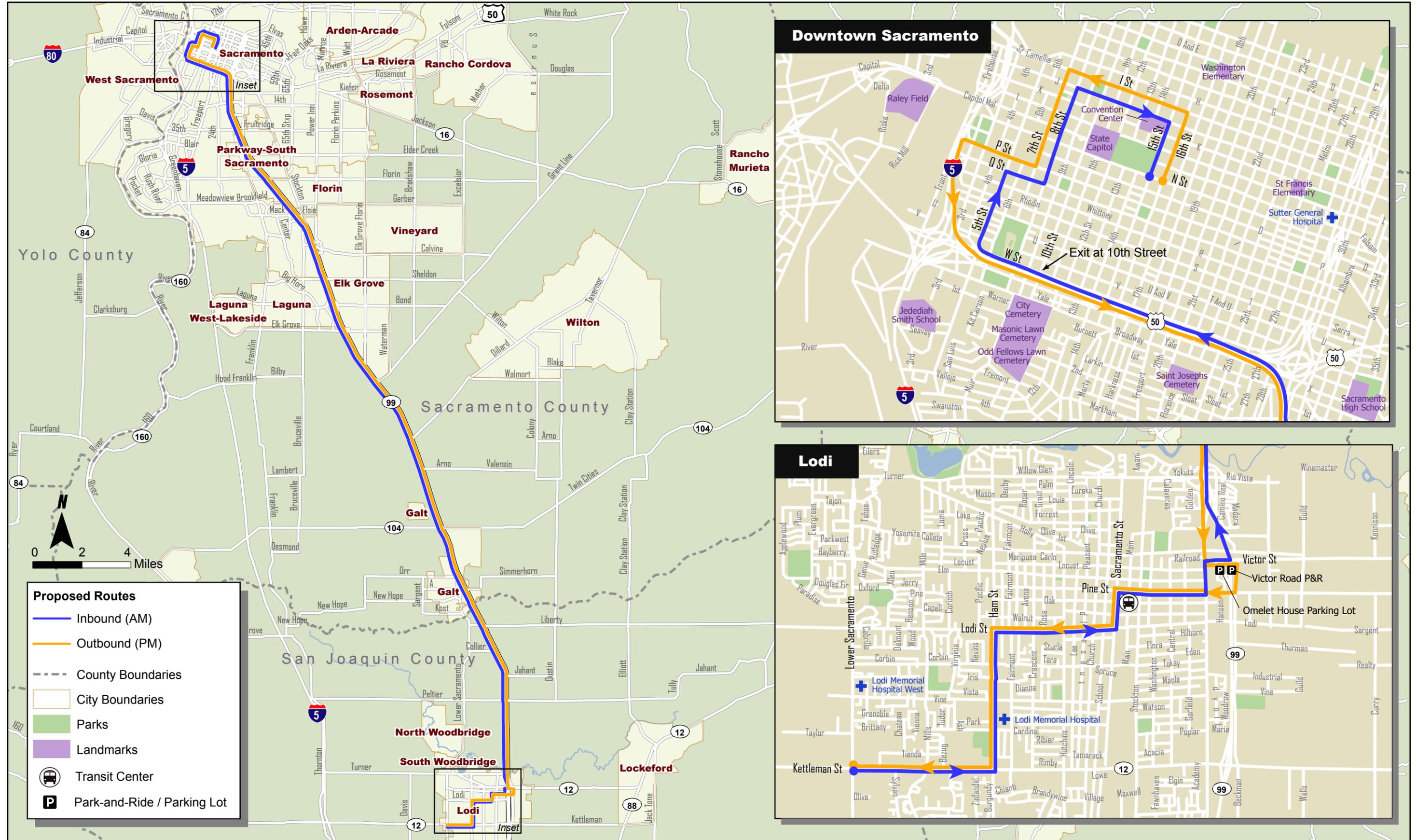
Commuter Service

In order to better serve Lodi commuters, the consulting team was asked to develop a commuter route concept between Lodi and Sacramento.

To maximize service frequency and convenience for passengers, Lodi GrapeLine should structure commuter services to mirror RTD. RTD Route 163 connects Stockton and Lodi to Sacramento. The proposed GrapeLine commuter route would serve the same RTD stops in Lodi and provide service to the Transit Center and Kettleman Lane and Lower Sacramento Road. No other stops will be provided in Lodi to minimize the travel time and concentrate ridership. In Sacramento, the route will follow the same alignment as Route 163 and serve the same stops.

In order to proceed with the conceptual commuter service, GrapeLine staff will need to review funding details, service provisions with RTD, and assess ridership potential. Until these steps have been completed, implementing the conceptual commuter service is not recommended. Detailed schedules, costs, and operating options are presented in Chapter 9.

Figure ES-7 Conceptual Lodi GrapeLine Commuter Route



Weekend Service

GrapeLine weekend service is similar to weekday service. Routes 2, 3, and 4 operate as Routes B, C, and D. Route A operates as a large one-way counter-clockwise loop, combining segments of Routes 1 and 5. All routes run on 45-minute frequencies. Passengers living on Routes 1 and 5 are inconvenienced on weekends by the configuration of Route A. One-way loops lead to long travel times and discourage ridership, especially if a passenger's destination is in the opposite travel direction. In order to provide a convenient service to all GrapeLine riders, consulting staff recommends modifying weekend service.

Route 1

Reinstate Route 1 in order to restore two-way service on Lower Sacramento Road and Turner Road. Designate as Route 1 to maintain route consistency with weekday service.

Route 2

Discontinue service in favor of Routes 6 and 7. See below.

Route 3

Discontinue service in favor of Routes 6 and 7.

Route 4

Discontinue service in favor of Routes 6 and 7.

Route 5

Implement updated Route 5 serving Reynolds Ranch to restore two-way service along the Cherokee Lane corridor. Designate as Route 5 to maintain route consistency with weekday service.

Routes 6 and 7

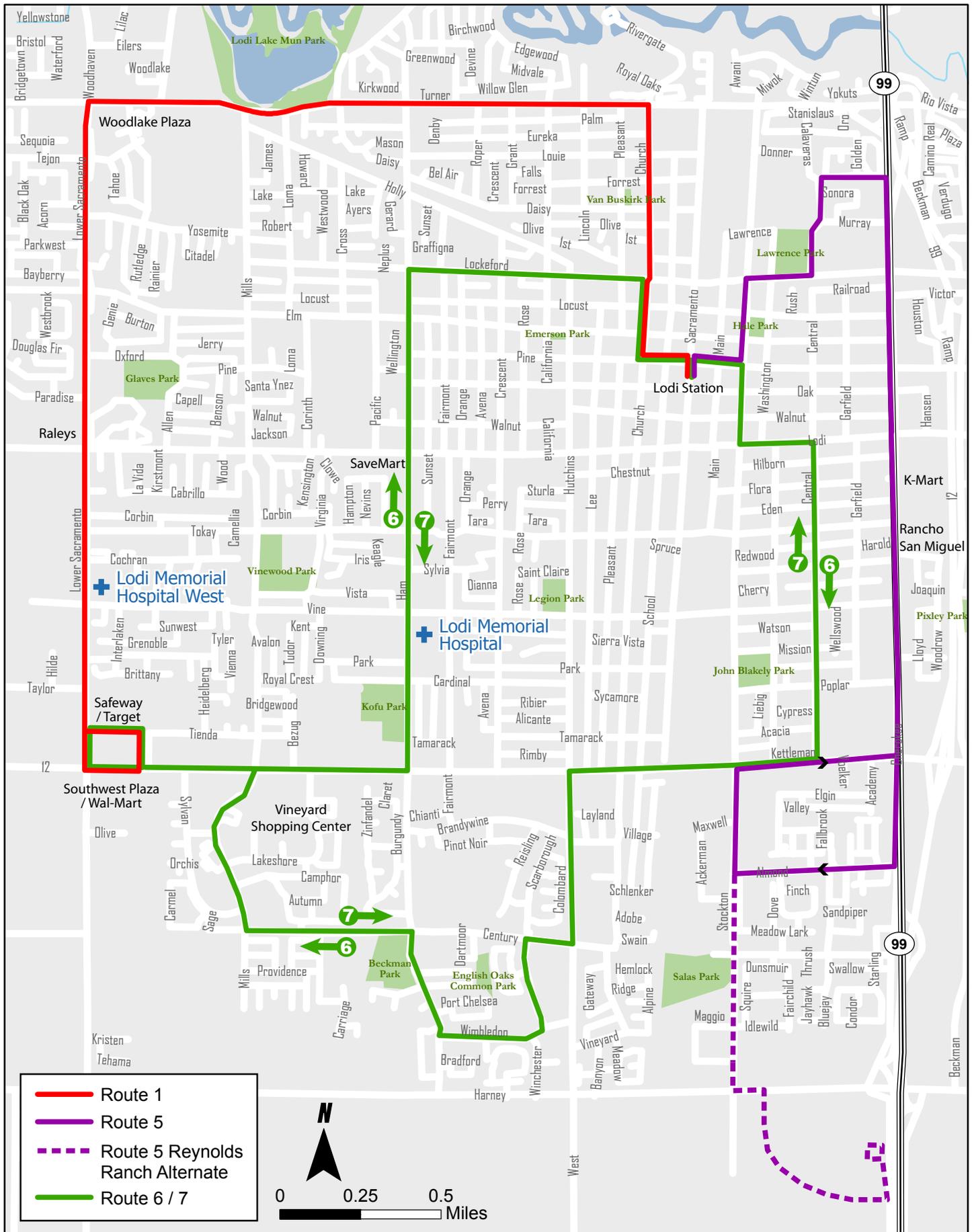
To maintain service coverage throughout the city, the consulting team recommends combining segments of Routes 2, 3, and 4. The proposed route would primarily operate on Lockeford Street, Ham Lane, Kettleman Lane, Mills Avenue, Wimbledon Drive, Hutchins Street, and Central Avenue. Service would be discontinued on route segments near Millswood Middle School, on Hutchins Street between Kettleman Lane and Lodi Avenue, and parts of Lodi Avenue. Route 6 would operate the route in a clockwise loop and Route 7 in a counter-clockwise loop. The routes would operate on 45 minute frequencies.

Service Hours Expansion

Currently weekend service experiences low demand. While weekend service traditionally draws fewer passengers than weekday service, GrapeLine's low demand may also be a result of the limited weekend schedule. GrapeLine weekend service operates from 7:45 AM to 3:09 PM. While the service span nicely accommodates an eight-hour driver shift, the service span may not offer enough convenience to passengers who work, run errands, or visit family or friends. In addition, one of the most requested service improvements on the 2007 Passenger Survey was more weekend service.

With low service demand, permanently implementing expanded weekend service may not be warranted. However, GrapeLine should consider a trial expansion of hours to assess if longer service hours are well utilized and increase overall ridership. The consulting team recommends adding four additional trips to the weekend schedule for a three to four month trial period. As a result, weekend service would terminate at 6:15 PM.

Figure ES-8 GrapeLine Weekend System Map



Service Plan Summary

Figure ES-9 summarizes the proposed alternatives and expansions. All costs are based on the GrapeLine FY 2007/08 operating cost per revenue hour and assume GrapeLine will operate the proposed commuter service in-house.

Figure ES-9 Fixed-Route Service Alternative Summary

	Estimated Annual Revenue Hours	Peak Vehicles	Estimated Cost [†]
Coverage Alternative*	21,500	8	\$1,194,755
Productivity Alternative*	24,900	9	\$1,383,693
Commuter Service	3,000	2	\$166,710
Weekend Expansion	1,250	4	\$69,463

*Includes status quo weekend service

[†]Cost estimates based on the FY 2007/08 operating cost per revenue hour

Financial and Capital Plan

Revenue Sources

GrapeLine receives funding from a variety of sources. Federal Transit Administration (FTA) Section 5307 grants and Transportation Development Act (TDA) funds account for a large majority of GrapeLine revenues. Other funding sources include passenger fares and Measure K.

Financial Plan

A key objective of the financial plan is to ensure that the recommended service enhancements and corresponding required capital and supporting needs are affordable and financially sustainable. The ten-year operating cost and revenue projections presented in this report demonstrate that this financial objective is met. Figure ES-10 presents the estimated service hours and operating costs for Fixed-Route alternatives and Dial-A-Ride service.

Figure ES-9 Operating Plan

	FY 2008/09	FY 2009/10	FY 2010/11	FY 2011/12	FY 2012/13	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18
Estimated Revenue Service Hours										
Fixed-Route										
Coverage-Based Alternative*	21,500	21,500	21,500	21,500	21,500	21,500	21,500	21,500	21,500	21,500
Productivity-Based Alternative*	21,500	21,500	21,500	24,900	24,900	24,900	24,900	24,900	24,900	24,900
Commuter Service	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
Weekend Expansion	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250
Dial-A-Ride	28,500	28,500	28,500	28,500	28,785	29,073	29,364	29,657	29,954	30,253
Estimated Service Costs[†]										
Fixed-Route										
Coverage-Based Alternative*	\$1,230,525	\$1,267,441	\$1,305,464	\$1,344,628	\$1,384,967	\$1,426,516	\$1,469,311	\$1,513,391	\$1,558,792	\$1,605,556
Productivity-Based Alternative*	\$1,230,525	\$1,267,441	\$1,305,464	\$1,557,267	\$1,603,985	\$1,652,104	\$1,701,668	\$1,752,718	\$1,805,299	\$1,859,458
Commuter Service	\$171,701	\$176,852	\$182,158	\$187,623	\$193,251	\$199,049	\$205,020	\$211,171	\$217,506	\$224,031
Weekend Expansion	\$71,542	\$73,688	\$75,899	\$78,176	\$80,521	\$82,937	\$85,425	\$87,988	\$90,627	\$93,346
Dial-A-Ride	\$1,405,062	\$1,447,214	\$1,490,631	\$1,535,350	\$1,597,224	\$1,661,592	\$1,728,555	\$1,798,215	\$1,870,683	\$1,946,072

[†]Service costs based on the FY 2007/08 operating cost per hour increasing at 3% annually

*Alternatives include status quo weekend service

Performance Measures

With the proposed streamlined-coverage and productivity alternatives, passengers per revenue hour reverses its downward trend and begins to increase. Cost productivity measures increase at a slower rate than in past years due to increasing ridership. The farebox recovery ratio, however, declines in the alternatives because no fare increase is programmed. Increasing fares will improve the farebox recovery ratio but will also have a negative effect on ridership.

Coverage-Based Alternative assumptions:

- Status quo service hours through the lifespan of the plan.
- Proposed route changes are implemented in FY 2009/10.
- Fixed-Route ridership increases 5% in FY 2008/09 based on current trend, 3% annually in FY 2009/10 and FY 2010/11, and at 1.5% through the life of the plan.
- Dial-A-Ride ridership declines slightly in FY 2008/09 and FY 2009/10. Ridership increases at 1% starting in FY 2010/11.
- No fare increase.
- Farebox revenues are based on the projected ridership and the average fare per passenger in FY 2007/08.

Productivity-Based Alternative

- Coverage-based alternative operates through FY 2010/11. New productivity-based service is implemented in FY 2011/12.
- Fixed-Route ridership increases 5% in FY 2008/09 based on current trend and 3% in FY 2009/10 and FY 2010/11.
- Ridership declines in FY 2011/12 with the implementation of the new service and increases at 5% in the subsequent two years because of the increased convenience provided to passengers with higher frequency routes. Ridership increases at a slower rate after FY 2013/14.
- Dial-A-Ride ridership declines slightly in FY 2008/09 and FY 2009/10. Ridership increases at 1% starting in FY 2010/11.
- No fare increase.
- Farebox revenues are based on the projected ridership and the average fare per passenger in FY 2007/08.

Based on the proposed service alternatives, ridership and key performance indicators are presented in Figures ES-11 and ES-12.

Figure ES-10 Coverage-Based Alternative Key Performance Indicators

	FY 2007/08	FY 2008/09	FY 2009/10	FY 2010/11	FY 2011/12	FY 2012/13	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18
Ridership											
Fixed-Route	241,972	254,071	261,693	269,543	273,587	277,690	281,856	286,084	290,375	294,731	299,151
Dial-A-Ride	65,202	64,550	63,904	64,544	65,189	65,841	66,499	67,164	67,836	68,514	69,199
Farebox Revenues											
Fixed-Route	\$161,969	\$170,067	\$175,169	\$180,425	\$183,131	\$185,878	\$188,666	\$191,496	\$194,368	\$197,284	\$200,243
Dial-A-Ride	\$102,439	\$101,414	\$100,400	\$101,404	\$102,418	\$103,442	\$104,477	\$105,521	\$106,577	\$107,642	\$108,719
Passengers/Revenue Hour											
Fixed-Route	11.4	11.8	12.2	12.5	12.7	12.9	13.1	13.3	13.5	13.7	13.9
Dial-A-Ride	2.3	2.3	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Operating Cost/Passenger											
Fixed-Route	\$4.88	\$4.84	\$4.84	\$4.84	\$4.91	\$4.99	\$5.06	\$5.14	\$5.21	\$5.29	\$5.37
Dial-A-Ride	\$20.93	\$21.77	\$22.65	\$23.09	\$23.55	\$24.26	\$24.99	\$25.74	\$26.51	\$27.30	\$28.12
Combined	\$8.29	\$8.27	\$8.34	\$8.37	\$8.50	\$8.68	\$8.86	\$9.05	\$9.24	\$9.44	\$9.64
Subsidy/Passenger											
Fixed-Route	\$4.21	\$4.17	\$4.17	\$4.17	\$4.25	\$4.32	\$4.39	\$4.47	\$4.54	\$4.62	\$4.70
Dial-A-Ride	\$19.36	\$20.20	\$21.08	\$21.52	\$21.98	\$22.69	\$23.42	\$24.17	\$24.94	\$25.73	\$26.55
Farebox Recovery Ratio											
Fixed-Route	13.7%	13.8%	13.8%	13.8%	13.6%	13.4%	13.2%	13.0%	12.8%	12.7%	12.5%
Dial-A-Ride	7.5%	7.2%	6.9%	6.8%	6.7%	6.5%	6.3%	6.1%	5.9%	5.8%	5.6%

Figure ES-11 Productivity-Based Alternative Key Performance Indicators

	FY 2007/08	FY 2008/09	FY 2009/10	FY 2010/11	FY 2011/12	FY 2012/13	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18
Ridership											
Fixed-Route	241,972	254,071	261,693	269,543	261,457	274,530	288,257	294,022	299,902	305,900	312,018
Dial-A-Ride	65,202	64,550	63,904	64,544	65,189	65,841	66,499	67,164	67,836	68,514	69,199
Farebox Revenues											
Fixed-Route	\$161,969	\$170,067	\$175,169	\$180,425	\$175,012	\$183,762	\$192,951	\$196,810	\$200,746	\$204,761	\$208,856
Dial-A-Ride	\$102,439	\$101,414	\$100,400	\$101,404	\$102,418	\$103,442	\$104,477	\$105,521	\$106,577	\$107,642	\$108,719
Passengers/Revenue Hour											
Fixed-Route	11.4	11.8	12.2	12.5	12.2	12.8	13.4	13.7	13.9	14.2	14.5
Dial-A-Ride	2.3	2.3	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Operating Cost/Passenger											
Fixed-Route	\$4.88	\$4.84	\$4.84	\$4.84	\$5.14	\$5.04	\$4.95	\$5.00	\$5.05	\$5.10	\$5.15
Dial-A-Ride	\$20.93	\$21.77	\$22.65	\$23.09	\$23.55	\$24.26	\$24.99	\$25.74	\$26.51	\$27.30	\$28.12
Combined	\$8.29	\$8.27	\$8.34	\$8.37	\$8.82	\$8.76	\$8.70	\$8.85	\$9.01	\$9.16	\$9.32
Subsidy/Passenger											
Fixed-Route	\$4.21	\$4.17	\$4.17	\$4.17	\$4.47	\$4.38	\$4.28	\$4.33	\$4.38	\$4.43	\$4.48
Dial-A-Ride	\$19.36	\$20.20	\$21.08	\$21.52	\$21.98	\$22.69	\$23.42	\$24.17	\$24.94	\$25.73	\$26.55
Farebox Recovery Ratio											
Fixed-Route	13.7%	13.8%	13.8%	13.8%	13.0%	13.3%	13.5%	13.4%	13.3%	13.1%	13.0%
Dial-A-Ride	7.5%	7.2%	6.9%	6.8%	6.7%	6.5%	6.3%	6.1%	5.9%	5.8%	5.6%

Capital Plan

GrapeLine has over \$10 million in capital projects scheduled over the next ten years. The primary capital need will be vehicle purchases. Approximately \$6 million is required to fund vehicle purchases. The capital projects, their costs, and proposed funding sources are presented in Figure ES-13.

Capital Plan assumptions:

- Vehicle prices are based on Bay Area Metropolitan Transportation Commission (MTC) projections, increasing at 3.5% annually
- The major bus purchase scheduled for FY 2011/12 will be funded by CMAQ (88.5%) and TDA (11.5%)
- Transit security upgrades, solar power project, and bus stop shelters and amenities scheduled for FY 2009/10 will be funded through Proposition 1B or the Economic Stimulus Package
- On all other projects, FTA 5307 will provide 80% of the funding and TDA will provide the 20% local match

Capital projects are detailed in Chapter 10.

Figure ES-12 Capital Plan

	FY 2008/09	FY 2009/10	FY 2010/11	FY 2011/12	FY 2012/13	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	Total
CAPITAL EXPENSES											
Vehicle Replacement			\$263,052	\$3,638,337	\$187,859	\$486,084		\$312,423	\$862,289	\$223,117	\$5,973,162
<i># of Vehicles</i>			<i>3 cutaways</i>	<i>6 buses + 8 cutaways</i>	<i>2 cutaways</i>	<i>5 cutaways</i>		<i>3 cutaways</i>	<i>8 cutaways</i>	<i>2 cutaways</i>	<i>37 total vehicles</i>
Facility Upgrades				\$200,000	\$200,000		\$200,000		\$200,000		\$800,000
Transit Security Automated Fareboxes		\$510,000									\$510,000
Transit Maintenance Shop Solar Power Project		\$1,000,000									\$1,000,000
Transit Bus Stop Shelters and Amenities		\$25,000									\$25,000
Transit Facilities Security System		\$775,000									\$775,000
Transit Shop Safety & Security Project			\$135,000								\$135,000
Technology Upgrade					\$60,000						\$60,000
Bicycle Support Program			\$75,000								\$75,000
Transit Shop Expansion									\$450,000	\$450,000	\$900,000
Total Capital Expenses	\$0	\$2,310,000	\$473,052	\$3,838,337	\$447,859	\$486,084	\$200,000	\$312,423	\$1,512,289	\$673,117	\$10,253,162
CAPITAL REVENUES											
FTA Section 5307			\$378,442	\$160,000	\$358,287	\$388,867	\$160,000	\$249,939	\$1,209,831	\$538,494	\$3,443,860
TDA			\$94,610	\$458,409	\$89,572	\$97,217	\$40,000	\$62,485	\$302,458	\$134,623	\$1,279,374
CMAQ Grant				\$3,219,928							\$3,219,928
Proposition 1B/Economic Stimulus Package		\$2,310,000									\$2,310,000
Total Capital Revenues	\$0	\$2,310,000	\$473,052	\$3,838,337	\$447,859	\$486,084	\$200,000	\$312,423	\$1,512,289	\$673,117	\$10,253,162

Summary

GrapeLine will have ample funding to provide all proposed services and fund all capital projects. The summary table shows the projected annual expenditures for each Fixed-Route alternative, Dial-A-Ride and capital projects and the projected revenues. GrapeLine will have to use reserve funds in FY 2016/17 to fund the transit shop expansion project.

Figure ES-14 on the following page summarizes all costs and revenues.

Figure ES-13 Operating and Capital Plan Summary

	FY 2008/09	FY 2009/10	FY 2010/11	FY 2011/12	FY 2012/13	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18
Expenditures										
Operations										
Coverage-Based Alternative	\$2,635,588	\$2,714,655	\$2,796,095	\$2,879,978	\$2,982,191	\$3,088,108	\$3,197,866	\$3,311,606	\$3,429,476	\$3,551,628
Productivity-Based Alternative	\$2,635,588	\$2,714,655	\$2,796,095	\$3,092,617	\$3,201,209	\$3,313,697	\$3,430,222	\$3,550,933	\$3,675,983	\$3,805,530
Capital	\$0	\$2,310,000	\$473,052	\$3,838,337	\$447,859	\$486,084	\$200,000	\$312,423	\$1,512,289	\$673,117
Total Expenditures Coverage-Based Alternative	\$2,635,588	\$5,024,655	\$3,269,147	\$6,718,315	\$3,430,050	\$3,574,193	\$3,397,866	\$3,624,029	\$4,941,765	\$4,224,745
Total Expenditures Productivity-Based Alternative	\$2,635,588	\$5,024,655	\$3,269,147	\$6,930,954	\$3,649,068	\$3,799,781	\$3,630,222	\$3,863,356	\$5,188,271	\$4,478,647
Revenues										
Fare Revenue										
Coverage-Based Alternative	\$264,408	\$271,482	\$275,570	\$281,829	\$285,549	\$289,320	\$293,143	\$297,018	\$300,945	\$304,926
Productivity-Based Alternative	\$264,408	\$271,482	\$275,570	\$281,829	\$277,430	\$287,205	\$297,427	\$302,331	\$307,322	\$312,403
Non-Fare Revenue	\$3,513,364	\$5,893,031	\$3,654,092	\$6,946,502	\$3,800,505	\$3,875,915	\$3,952,834	\$4,031,290	\$4,111,316	\$4,192,942
Total Expenditures Coverage-Based Alternative	\$3,777,772	\$6,164,513	\$3,929,661	\$7,228,331	\$4,086,054	\$4,165,235	\$4,245,976	\$4,328,308	\$4,412,261	\$4,497,869
Total Expenditures Productivity-Based Alternative	\$3,777,772	\$6,164,513	\$3,929,661	\$7,228,331	\$4,077,935	\$4,163,120	\$4,250,261	\$4,333,621	\$4,418,639	\$4,505,346
Balance										
Annual Surplus (Deficit) Coverage-Based Alternative	\$1,142,184	\$1,139,858	\$660,514	\$510,016	\$656,004	\$591,043	\$848,110	\$704,278	(\$529,503)	\$273,124
Cumulative Funding in Reserves	--	\$2,282,042	\$2,942,556	\$3,452,572	\$4,108,576	\$4,699,619	\$5,547,730	\$6,252,008	\$5,722,505	\$5,995,628
Annual Surplus (Deficit) Productivity-Based Alternative	\$1,142,184	\$1,139,858	\$660,514	\$297,377	\$428,867	\$363,339	\$620,039	\$470,265	(\$769,633)	\$26,698
Cumulative Funding in Reserves	--	\$2,282,042	\$2,942,556	\$3,239,933	\$3,668,800	\$4,032,139	\$4,652,178	\$5,122,443	\$4,352,810	\$4,379,508