San Luis Obispo Regional Transit Authority

Short Range Transit Plans

Working Paper 4: Service Alternatives

Prepared forthe

Regional Transit Authority

July 23, 2024

Prepared by LSC Transportation Consultants

San Luis Obispo Regional Transit Authority

Short Range Transit Plans

Working Paper 4: Service Alternatives

Prepared for
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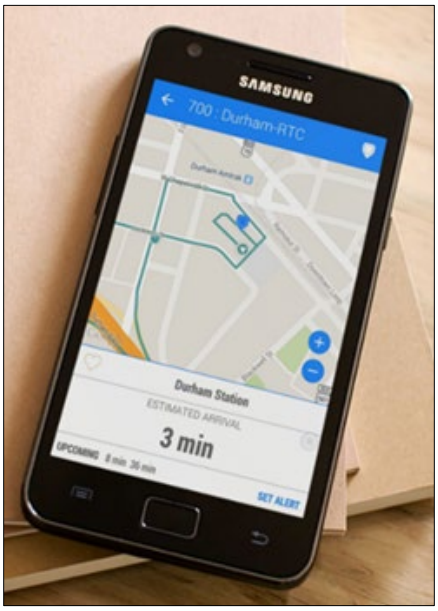
INTRODUCTION

The San Luis Obispo Regional Transit Authority (RTA) and San Luis Obispo Transit (SLO Transit) are the two largest public transit providers in San Luis Obispo County. The two agencies have retained LSC Transportation Consultants, Inc. to prepare the 2024 update to each agency's respective Short Range Transit Plan (SRTP). The effort to update the two SRTPs, including interim working papers and project meetings, is being coordinated by both agencies, however, the planning effort will ultimately result in two separate SRTPs as final deliverables.

This document, *Working Paper Four: Transit Operations Plans* (WP4) presents potential changes to RTA and SLO Transit services that 1) address the strengths and weaknesses of the respective transit programs, and 2) modify services to better meet community needs. All service alternatives for both RTA and SLO Transit are then evaluated using the performance standards recommended in WP2 to determine which options would be the most effective at increasing ridership and improving cost efficiency. Ultimately, the preferred alternatives for each agency will be developed into seven-year service plans.

BACKGROUND ON MICROTRANSIT



Several of the alternatives considered in WP4 propose microtransit. Microtransit utilizes the app-based technology developed for transportation network companies (such as Uber and Lyft) to provide real-time, on-demand transit service. In recent years, many public transit agencies have begun using microtransit to provide transit coverage over areas not served efficiently by fixed routes. Microtransit has also been found to be effective in areas with high demand for short trips.

Most microtransit passengers request rides and pay fares through an app downloaded on their smartphone or computer. To ensure equitable accommodation, most agencies typically allow rides to be requested directly over the phone as well. Unlike traditional dial-a-ride services, microtransit does not require 24-hour or more advance reservations; passengers can request microtransit rides whenever they like during service hours. Once a ride has been requested, a routing algorithm assigns the request to a specific bus operator/vehicle, and the passenger is provided with an estimated service time. Requirements of the Americans with Disabilities Act (ADA) are met by ensuring enough accessible vehicles are available for those who need them. Microtransit is a shared-ride service, therefore multiple passengers may ride together at the same time.

For RTA and SLO Transit, the cost of obtaining and maintaining microtransit software would be determined through an RFP process. The annual cost of microtransit technology would vary depending on the number of vehicle licenses procured, however, it is estimated the annual cost would be $4,500 per vehicle based on available data. This annual per-vehicle fee has been added to the marginal operating cost estimates of all microtransit alternatives considered in this report. Microtransit start-up costs will be accounted for in the RTA and SLO Transit financial plans.

Chapter 2

RTA SERVICE ALTERNATIVES

INTRODUCTION

This chapter considers potential service alternatives for the RTA to implement over the next five to seven years. The service elements presented in this chapter are designed "a la carte"; each alternative is evaluated as a stand-alone option, though when combined, the overall impacts may vary. The combined impacts of the elements included in the final service plan will be presented in the Draft RTA SRTP.

Note: *RTA Bus* [Photo], sourced from Transit.Wiki.

The discussion of RTA alternatives is generally organized by service area. First, alternatives for the RTA regional routes are presented. This is followed by options for the local Paso Robles services. Alternatives for the local South County services are presented thereafter. Strategies to improve Runabout will be included in a separate memo (Coordination between RTA and SLO Transit). For each alternative, the potential impacts on ridership, service levels, and marginal operating costs are estimated. At the end of the chapter, the alternatives are assessed using the newly recommended performance standards developed in WP2.

Ridership and cost estimates for the various alternatives assume implementation in FY 2025-26, and are based on the following parameters:

1. The projected RTA FY 2025-26 operating budget and service levels were used to estimate the marginal (not including fixed costs) operating costs of each existing service assuming no change to service levels ("status quo" scenario). The per-hour and per-mile costs were then used to estimate the cost impacts of the alternatives per the following equation:

   Change in RTA Marginal Operating Cost = $71.53 X Change in Vehicle Revenue Service Hours + $2.09 X Change in Vehicle Service Miles

   Note that fixed costs are not included in the alternative analysis as operating costs such as administrative staff salaries and utilities will not change if transit service is increased or decreased. Fixed costs will be added back in to "Total Operating Costs" in the service and financial plan.

2. Ridership estimates are based on projected full-year FY 2023-24 ridership, expected population growth in San Luis Obispo County during the next two years, ridership data from peer systems, and standard transit demand elasticity factors, depending on the alternative. Elasticity is an economic term which measures the change in behavior of one variable in response to the change in a related variable. For example, if service levels are doubled, historical data has shown that ridership will not double, but rather increase by around 47 percent. Elasticity factors vary for different variables such as headways, total travel time or transfer time. Variation has also been

found in urban areas vs. suburban areas or during peak or non-peak periods. *The Transit Cooperative Research Program (TCRP) Report 95 Traveler Response to Transportation System Changes Chapter 9 – Transit Scheduling and Frequency* is a good resource for transit elasticity factors.

3. Service was assumed to include 180 academic year weekdays, 81 non-academic year weekdays, 52 Saturdays, and 52 Sundays unless otherwise noted.

REGIONAL SERVICE ALTERNATIVES

The potential impacts of the RTA regional service alternatives are summarized in Table 1. The analyses assume an average fare of $1.29 per passenger-trip. Service alternatives for the RTA regional routes (9, 10, 12, 14, and 15) were designed to increase ridership, improve service quality, and maximize cost efficiencies. Alternatives were also developed to address passenger requests; regional passengers indicated in the onboard survey a strong desire for additional weekend service, later evening service, and more frequent service.

Express Service During Peak Hours

Before the COVID-19 pandemic, RTA operated express runs of Routes 9 and 10 to reduce travel times for people commuting to and from San Luis Obispo. Additionally, Route 14 functioned as an express alternative for passengers traveling between San Luis Obispo and Cuesta College, which also had the intended effect of improving Route 12 on-time performance. RTA has significantly cut back express service in the last few years due to low ridership and the nationwide bus operator shortage, which has made it difficult to meet staffing requirements. This section presents alternatives for reinstating express runs on Routes 9 and 10.

Route 9

Currently, RTA operates one Route 9 express run each weekday (the 6:21 southbound departure from San Miguel). The express run serves the following stops:

- Mission at 14th in San Miguel
- North County Transit Center in Paso Robles
- Las Tablas Park-and-Ride in Templeton
- Atascadero Transit Center
- Kennedy Library at Cal Poly
- Government Center in San Luis Obispo

This run provides a travel time between Paso Robles (Pine at 8th) and San Luis Obispo (Government Center) of 52 minutes, compared with 1 hour 13 minutes for the non-express runs (Adding one additional southbound express run from Paso Robles to San Luis Obispo in the morning and one northbound express run back to Paso Robles in the afternoon would increase RTA service levels by 500 vehicle service hours and 16,300 vehicle service miles per year based on the route length and run time). The two express runs would also require RTA to deploy one additional bus during peak hours.

It is estimated that adding two Route 9 express runs would increase weekday ridership by 3,600 passenger-trips per year. This value was derived by first determining the proportion of Route 9 weekday ridership that occurs at the express stops during the peak travel periods of 6:00 AM to 8:00 AM and 3:00 PM to 7:00 PM. Then, elasticity analyses were conducted to determine how increasing service frequency and reduced in-vehicle travel time through the addition of express runs would impact ridership in both the southbound and northbound directions. As there is greater ridership during the afternoon compared to the morning, adding an afternoon express run would have a greater ridership impact (increase of 3,200 passenger-trips per year) compared to adding another morning express run (increase of 400 passenger-

trips per year). The additional ridership served by the two runs would generate $4,700 in fare revenue, therefore the marginal operating subsidy of the new Route 9 express runs would be $66,300.

Table 1: RTA Regional Routes - Service Alternatives Summary

	Annual Impacts						
	Ridership	Service Hours	Service Miles	Marginal Operating Cost	Fare Revenues [2]	Operating Subsidy	Additional In-service Bus Needed
Status Quo[1]							
Route 9	161,700	13,100	329,700	$1,627,100	$208,800	$1,418,300	
Route 10	152,100	11,300	318,100	$1,474,100	$196,400	$1,277,700	
Route 12	119,100	7,100	187,700	$900,700	$153,800	$746,900	
Route 14	1,500	130	3,000	$15,600	$600	$15,000	
Route 15	12,600	3,200	99,600	$437,400	$16,300	$421,100	
Regional Service Alternatives - Change from Status Quo [3]							
Implement Express Service During Peak Hours							
Route 9 - One Additional AM Run, One PM Run	3,600	500	16,300	$69,900	$4,600	$65,300	1
Route 10 - One AM Run, One PM Run	3,100	600	18,100	$80,800	$4,000	$76,800	1
Increase Weekday Service Frequency							
Route 9 - 6:00 AM - 9:00 AM, 4:00 PM - 7:00 PM	16,600	3,900	90,400	$468,200	$21,400	$446,800	3
Route 10 - 6:00 AM - 9:00 AM, 4:00 PM - 7:00 PM	23,300	3,800	116,700	$516,100	$30,100	$486,000	3
Route 12 - 30 Min Frequency 7:00 AM - 6:30 PM	34,700	5,700	121,400	$661,800	$44,800	$617,000	2
Route 12 - Addl Run Every 2 Hrs 6:03 AM - 6:03 PM	21,200	3,700	77,300	$426,500	$27,400	$399,100	1
Re-Establish Route 14 Service on School Weekdays							
Route 14 - 8:25 AM - 4:25 PM	18,400	2,100	55,500	$266,400	$7,400	$259,000	1
Increase Saturday Service							
Route 9 - Add 1 RT	1,700	200	3,300	$21,200	$2,200	$19,000	1
Route 10 - Add 1 RT	1,700	200	3,900	$22,500	$2,200	$20,300	1
Route 12 - 1 Hr. Frequency	2,600	400	12,400	$54,600	$3,400	$51,200	1
Increase Sunday Service							
Route 9 - 5 Round Trips / Day	700	300	6,600	$35,300	$900	$34,400	0
Route 10 - 5 Round Trips / Day	700	300	7,700	$37,600	$900	$36,700	0
Route 12 - Operate Sat. Schedule	200	50	800	$5,300	$300	$5,000	0
Route 9 Mid-Day Service to Cal Poly	400	0	800	$1,700	$500	$1,200	0
New Regional Route to Santa Maria - Guadalupe - Grover Beach - Price Canyon - SLO							
New Regional Route - 2 Round Trips / Day	4,300	1,800	44,300	$221,500	$5,600	$215,900	1
New Direct Express runs between Los Osos and San Luis Obispo Weekdays	800	500	17,330	$72,000	$1,033	$71,000	1

Note 1: Status Quo operations are based on projected FY 2025-26 operating parameters per the RTA FY 2024-25 Budget Assumptions Report, FY 2023-24 ridership, and expected population growth.
Note 2: Assumes an average fare per boarding of $1.29 on Routes 9, 10, 11, 12, and 15. Route 14 based on average fare paid for limited service in FY 22-23 and does not include fare agreement with Cuesta College.
Note 3: Parameters and costs represent change over existing services. Estimates represent marginal costs and do not include fixed costs.

Route 10

RTA is not currently operating any Route 10 express runs. When RTA previously provided Route 10 express runs, the following stops were served:

- Santa Maria Transit Center
- Tefft at Carrillo, Nipomo
- El Camino Real at Halcyon, Arroyo Grande
- Pismo Beach Premium Outlets
- Government Center, San Luis Obispo
- Kennedy Library, Cal Poly

It is assumed that if Route 10 express service were reinstated, the same stops would be served. This would provide a running time between the Santa Maria Transit Center and the Government Center in San Luis Obispo of 55 minutes, compared with the typical run time of 1 hour 14 minutes. Given the route length and run time, adding one morning express run and one afternoon express run on weekdays would increase service levels by 600 vehicle service hours and 18,100 vehicle service miles per year. Similar to the Route 9 express service alternative discussed previously, reinstating Route 10 express service would require RTA to deploy an additional vehicle during peak hours.

Route 10 express ridership was estimated using the same methodology as the Route 9 express service alternative; based on existing ridership patterns and the proposed increase to service frequency and reduced travel time, it is expected that operating two Route 10 express runs per weekday would increase annual ridership by 3,100 passenger-trips. The afternoon run would carry more passenger-trips per year (2,300) compared to the morning run (800). The increases in both service levels and fare revenue mean the annual marginal operating subsidy of Route 10 express service would be $78,800 per year.

Increase Service Frequency

Research has verified that increasing service frequency positively impacts transit ridership. Additionally, many regional passengers (30 percent) requested more frequent service during the onboard passenger survey, further suggesting that increasing service frequency would benefit ridership. Given the desire to grow ridership, options for increasing service frequency along the Route 9, Route 10, and Route 12 service corridors were considered. The following alternatives do not propose any additional express runs.

Route 9

On weekdays, Route 9 runs hourly except for the first hour of the service day. RTA could operate Route 9 every half-hour during peak travel periods (6:00 AM to 9:00 AM and 4:00 PM to 7:00 PM) to increase ridership. This alternative would increase service frequency only to regular stops between Cuesta College North and San Luis Obispo; service to San Miguel and Cal Poly would remain unchanged.

To provide half-hourly service, RTA would need to operate five additional southbound runs and six additional northbound runs per day and deploy three additional buses. This would result in service levels increasing by 3,900 vehicle service hours and 90,400 vehicle service miles per year. Ridership would grow by 16,600 passenger-trips annually based on the proportion of ridership activity that occurs during peak

weekday travel periods and standard elasticity factors. The net financial impact of running half-hourly service during peak periods would be a $446,800 increase to the Route 9 marginal operating subsidy.

Route 10

Route 10 runs hourly on weekdays. If the RTA were to provide half-hourly service on Route 10 during peak travel periods (6:00 AM to 9:00 AM and 4:00 PM to 7:00 PM), six additional runs would be required in both the northbound and southbound directions each day. The extra runs would require three additional vehicles in operation, causing service levels to increase by 3,800 vehicle service hours and 116,700 vehicle service miles per year. Given the proportion of Route 10 ridership activity that occurs during peak weekday travel periods and standard elasticity factors, ridership would increase by about 23,300 passenger-trips annually. The financial impact would be a net increase to the Route 10 marginal operating subsidy of $486,000.

Route 12 – 30 Minute Frequency on Weekdays

Route 12 service could be improved to 30-minute headways during the portion of the day with the greatest ridership between approximately 7:00 AM and 6:30 PM on weekdays (throughout the year) to grow ridership. This would require 11 additional daily departures from the Government Center (hourly from 7:03 AM through 5:03 PM). An elasticity analysis on current weekday ridership indicates that the improved frequency would generate a ridership increase of approximately 34,700 passenger-trips per year. The running time of the route is 1 hour 27 minutes per round-trip, requiring 2 hours of bus operator time per round-trip including layover. This improvement would require two additional buses in operation and incur an annual operating subsidy of $617,000.

Route 12 – Additional Run Every 2 Hours on Weekdays

Given the high cost of providing consistent half-hourly service on Route 12, another option was considered that would operate one additional bus providing departures every 2 hours. While ridership is busy early and late in the day (with ridership of 40 passengers on the 6:33 AM run and 33 on the 6:33 PM run), it is also high during the middle of the day, with all runs between 10:33 AM and 2:33 PM departures carrying at least 32 passengers. This indicates a need for a service improvement throughout the day, rather than one focused solely on the traditional AM and PM commute periods. One option that provides this improvement would be to add a third bus to Route 12 service that operates round trips every other hour, specifically at 6:07 AM, 8:07 AM, 10:07 AM, 12:07 PM, 2:07 PM, 4:07 PM and 6:07 PM. While this would not provide convenient connections with other RTA routes, it would provide good connections from SLO Transit Routes 1A and 2A, as well as good connections to SLO Transit Routes 1B, 2B and 3B.

Considering existing Route 12 ridership during this weekday service period and the benefits of increasing frequency from two departures every two hours to three departures every two hours, this option would increase ridership by 21,200 annually. Total operating subsidy would be increased by $399,100.

New Direct "Express" service between Los Osos and SLO

A common on-board survey request was a more direct transit connection between Los Osos and SLO. According to Census data for 2021, approximately 21 percent of employed residents living in Los Osos work in the City of San Luis Obispo and 10 percent work in Morro Bay. Travel time by car is around 20 minutes. Route 12 makes the connection between these two communities on an hourly basis between 6:30 AM and 8:30 PM. However, the bus stops in Morro Bay and Questa College along the way, making a one-way trip from Los Osos to the Government Center take around 39 minutes.

One option to consider, while limiting costs and duplication with other services, is to implement two "Express Runs" per day during commute periods on weekdays only which provide a direct connection between Los Osos and the Government Center. Using a separate bus and driver from Route 12, the new service would begin at the Government Center at 6:50 AM and reach Santa Ysabel & 15th in Los Osos at 7:15 AM. The bus would travel along LOVR and arrive at the Government Center at 7:44 AM with a potential stop on South Higuera Street. This will allow for a timed connection to SLO Transit Route 4B to access Cal Poly. The return trip would depart the Government Center at 5:06 PM to allow for transferring SLO Transit passengers and reach Santa Ysabel & 15 at 5:31 PM. This option would save around 10 minutes in travel time between Santa Ysabel & 15th and the Government Center over Route 12.

According to the on-board surveys roughly 12% of Route 12 riders travel between Los Osos and San Luis Obispo. This factor was applied to average daily ridership on Route 12 generated from Los Osos during peak commute periods in order to estimate the increase in ridership. It is estimated that this alternative would carry an additional 900 trips per year for an annual operating subsidy of $70,000. This option would require an additional in-service vehicle and driver.

Re-Establish Route 14 Service on Weekdays During the School Year

A way to expand service along the Route 12 corridor and to help improve Route 12 on-time performance would be to re-establish more consistent Route 14 service between the Government Center and Cuesta College. Increasing Route 14 service would be an efficient use of resources, as the portion of Route 12 between the Government Center and Cuesta College serves higher passenger-loads compared to other portions of the route. Route 14 was suspended due to the shift to online classes during the COVID-19 pandemic, except for a single daily northbound run departing the Government Center at 7:30 AM and arriving at Cuesta College at 7:48 AM[1].

Potential ridership was evaluated by assessing existing ridership on Route 12 deboarding on northbound runs between Santa Rosa and Murray (the first stop north of Government Center) and Cuesta College or boarding in the southbound directions at the stops from Cuesta College to Santa Rosa and Murray. This indicated that 33 percent of total Route 12 ridership (during the school year) consists of passengers riding only within the segment between Government Center and Cuesta College.

A single bus could provide two half-hour round trips each hour between the Government Center and Cuesta College, which along with existing Route 12 runs would provide three departures per hour in each direction. A review of existing ridership indicates that an eight-hour span of service (from 8:25 AM to 4:25

[1] This run is operated as part of a bus operator shift after completing a southbound Route 9 run to help meet the travel needs of Achievement House clients in lieu of using Runabout services.

PM) would be most effective, as 81 percent of ridership occurs during this period. An elasticity analysis indicates that overall ridership would increase by 18,400 passenger-trips per year. RTA's operating subsidy requirements would increase by $243,100 annually. Note that if Cuesta College shifts to more in-person classes in the future, ridership could potentially grow further.

Expand Weekend Service

RTA currently provides limited weekend regional service; in general five roundtrips are offered on Saturdays and three on Sundays. Additional weekend service was one of the top requested service improvements during public outreach and was the most requested improvement by regional passengers who participated in the onboard survey. One of the challenges in providing weekend service is finding additional bus operators. Weekend shifts can be seen as less desirable and therefore, RTA has recently offered a $4 per hour bonus for weekend shifts. This section explores options to expand regional service on both Saturdays and Sundays.

Route 9

Saturday

Route 9 Saturday service consists of five daily roundtrips operated every two to three hours. If Saturday service were increased to be every two hours, with the first southbound bus leaving San Miguel at 7:16 AM and the last northbound bus arriving in Paso Robles at 9:03 PM, RTA would need to operate one additional roundtrip per day. The switch to a more generally two-hour headway would cause Route 9 Saturday ridership to increase by 1,700 passenger-trips per year. Additionally, 200 vehicle service hours and 3,300 vehicle service miles would be required annually. The growth in fare revenue combined with the increase in marginal operating cost would result in the Route 9 marginal operating subsidy increasing by $19,000.

Sunday

Route 9 Sunday service currently consists of three daily roundtrips. Operating the current Saturday service schedule (five roundtrips per day) on Sundays would cause ridership to grow by 700 passenger-trips per year. The additional trips would require 300 vehicle service hours and 6,600 vehicle service miles annually, requiring an annual marginal operating subsidy of $34,400.

Route 10

Saturday

Currently, five Route 10 roundtrips are provided each Saturday, with service provided on a two- to three-hour frequency depending on the time of day. Increasing Route 10 Saturday service to be every two hours, with the first northbound bus leaving Santa Maria at 8:14 AM and the final southbound bus arriving back in Santa Maria at 8:43 PM, would require one additional Route 10 roundtrip to be operated per day. This additional Saturday service would cause ridership to grow by 1,700 passenger-trips annually. The service enhancement would require a marginal operating subsidy of $20,300 based on the increases to both passenger fares and service levels.

Sunday

Similar to Route 9, RTA operates three roundtrips of Route 10 on Sundays. If RTA were to instead operate the current Route 10 Saturday service schedule (five roundtrips per day) on Sundays, ridership would increase by 700 passenger-trips per year. The marginal operating subsidy for Route 10 Sunday service would increase by $36,700 per year given the increases to both service levels and passenger fare revenue.

Route 12

Saturday

Similar to Route 9 and 10 Saturday schedule, Route 12 has five round-trips per day. However, in order to better direct connection with Route 15 in both directions, the Route 12 bus makes an additional loop around Los Osos before travelling back to Morro Bay and SLO. As part of an alternative to increase frequency on Saturdays, the Route 12 Saturday schedule could be modified to provide hourly service along the whole route from 8:33 AM to 9:06 PM, similar to the weekday schedule but for a shorter service span. This would equate to twelve full loops being operated per Saturday, or an increase of seven roundtrips between San Luis Obispo and Morro Bay and two runs of the Los Osos Loop per day. This modification would increase service levels by 400 vehicle service hours and 12,400 vehicle service miles per year. Analysis indicates Saturday ridership would increase by 2,600 passenger-trips per year given the different increases to service frequency along the different route segments and the proportion of ridership activity that typically occurs along each segment. Operating Route 12 hourly on Saturdays would require $51,200 in marginal operating subsidy.

Sunday

On Sundays, Route 12 completes five roundtrips between San Luis Obispo and Morro Bay and serves the Los Osos Loop six times. RTA could instead operate the existing Route 12 Saturday schedule on Sundays. This alternative would not impact service frequency between San Luis Obispo and Morro Bay but would increase service to the Los Osos Loop from six trips to ten trips per day. The impact on service levels would be minimal; service hours would increase by only 50 and service miles by only 800 per year. As service would be increased along only one segment of Route 12, ridership would increase by only 200 passenger-trips per year. The Route 12 marginal operating subsidy would increase by $5,000 annually based on the expected increases to both service levels and fare revenues.

Increase Route 9 Service to Cal Poly

Direct RTA service to the Cal Poly campus from North County is currently limited: southbound service is provided to Cal Poly on three-morning runs (arriving at 7:12 AM, 7:18 AM, and 8:12 AM) and on four-afternoon runs (arriving at 2:17 PM, 3:17 PM, 4:17 PM, and 6:17 PM). These runs all serve Cal Poly before continuing on to the Government Center. In the northbound direction, only one run (the last run of the day) serves Cal Poly, departing the Government Center at 8:33 PM and serving Cal Poly at 8:40 PM. Other than this last run, passengers departing Cal Poly and traveling north to Atascadero and Paso Robles must catch the previous southbound RTA run at the campus before heading northbound. This adds 14 minutes of travel time that would be avoided if more direct Route 9 northbound service was provided to the

campus. Given the importance of Cal Poly as a transit generator, it is worth considering different means of expanding Route 9 service to the campus.

Boarding and alighting counts, conducted by LSC during the onboard survey effort, indicate that typical weekday, Route 9 ridership activity at Cal Poly consists of 10 morning alightings and 11 afternoon boardings, all on southbound runs. This is equal to 3.8 percent of all Route 9 daily boardings during the Cal Poly academic year, which is equivalent to approximately 4,500 passengers per year.

Adding a southbound stop at Cal Poly adds 10 minutes of running time, while adding a northbound stop adds 11 minutes of running time. Existing bus operator schedules were reviewed to consider possible additional runs that could serve Cal Poly:

- One option would be to add a Cal Poly stop at 1:40 PM on the northbound run departing Government Center at 1:33 PM. This would increase the travel time by 11 minutes for 3,000 existing annual riders on this run. It would also result in an arrival at the North County Transit Center at 2:51 PM, missing the departure of the Route A run at 2:45 PM, as well as breaking up the regular clock headway of Route 9. For these reasons, this option is not considered further.

- A stop could be provided on Bus Operator Shift 95 at 10:16 AM on the southbound departing Cuesta College in Paso Robles at 8:55 AM. As this run is operated by a bus operator shift that then transitions to the extra board, there is no issue with layover times. This would increase travel times for 1,700 existing passengers by 10 minutes, which is estimated to reduce existing ridership by 200 boardings per year. Based on existing Cal Poly ridership patterns, 400 new passengers would be served, yielding a net increase of 200 passengers per year.

- Another option would be to include a stop at 12:17 PM on the southbound trip departing Cuesta College in Paso Robles at 10:55 AM (Driver Shift 94). This would delay the arrival at the Government Center to 12:28 PM, providing a layover of 5 minutes before the 12:33 PM Route 9 northbound departure. As this would reduce layover time that is already included in existing vehicle service hours, there would be no change in operating cost. A loss of 200 existing passengers would result due to the longer travel time, but the additional Cal Poly ridership is expected to be slightly higher (600 additional boardings per year), yielding a net increase of 400 passenger-trips per year.

- A final option would be to add a 7:40 PM stop at Cal Poly on the northbound run departing the Government Center at 7:33 PM. Given the low ridership at Cal Poly on the existing evening run at 8:40 PM, this option would yield a net reduction in total ridership.

In sum, the best potential option to expand direct service to the Cal Poly campus would be to add a southbound stop at 12:17 PM. This would provide mid-day service between the 8:12 AM service time and the 2:17 PM service time. The additional vehicle mileage would increase annual operating costs by $1,700, while the additional $500 in passenger fare revenue would result in a net increase in operating subsidy of $1,200 per year.

New Route 16 Regional Service (Santa Maria- Guadalupe – Grover Beach – Price Canyon – San Luis Obispo)

The San Luis Obispo Council of Governments (SLOCOG) has indicated there is a need for direct transit connections from Guadalupe, in Santa Barbara County, to San Luis Obispo County. To meet this need, RTA could operate a new, regional route between Santa Maria and San Luis Obispo. The new route, referred to as Route 16, would serve a different corridor than Route 10, traveling through southwest San Luis Obispo County, Grover Beach, and Price Canyon enroute to San Luis Obispo, as shown in Figure 1.
A sample schedule for this service is presented in Table 2.

Figure 1:
Potential RTA Regional Route 16

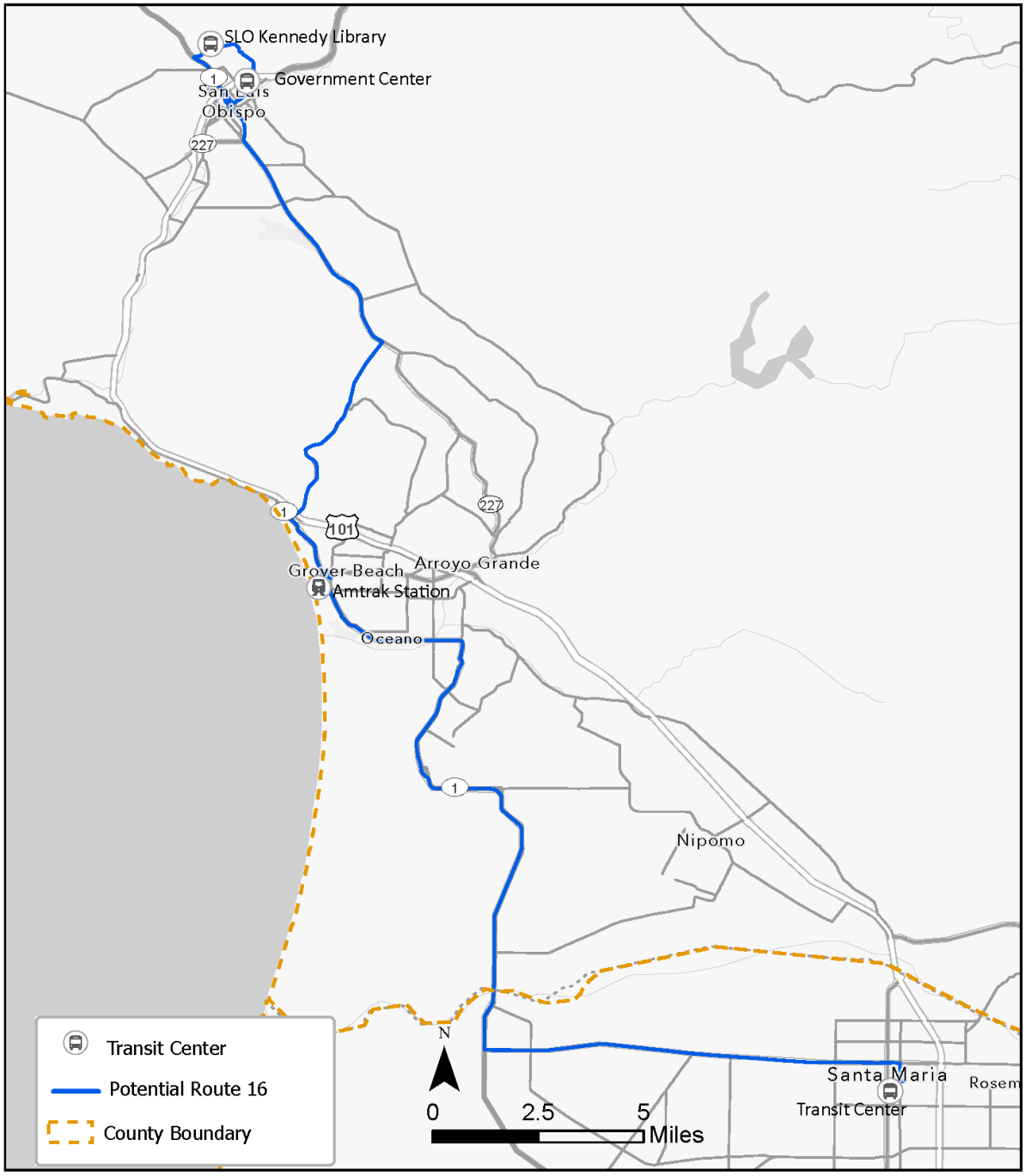


Table 2: Example New RTA Route 16 Schedule

Northbound		Southbound	
Bus Stops	Time Points (Minutes After the Hour)	Bus Stops	Time Points (Minutes After the Hour)
Santa Maria Transit Center	0:00	**SLO Government Center**	0:00
Guadalupe Amtrak Station	0:18	San Luis Airport	0:14
Guadalupe St and Olivera Street	0:20	Edna Road and Los Ranchos Road	0:18
Ralcoa Way (Callender)	0:28	Edna	0:21
The Treasure Barn Vintage	0:33	Price Canyon Road and Lemoore Ave	0:29
Highway 1 and 25th (Oceano)	0:38	Dolliver and Frady (Pismo Beach)	0:34
Highway 1 and 21st (Oceano)	0:39	Highway 1 and Le Sage (Grover Beach)	0:35
Grover Beach Amtrak Station	0:45	Grover Beach Amtrak Station	0:36
Highway 1 and Le Sage (Grover Beach)	0:46	Highway 1 and 21st (Oceano)	0:42
Dolliver and Frady (Pismo Beach)	0:47	Highway 1 and 25th (Oceano)	0:43
Price Canyon Road and Lemoore Ave	0:52	The Treasure Barn Vintage	0:48
Edna	1:00	Ralcoa Way (Callender)	0:53
Edna Road and Los Ranchos Road	1:04	Guadalupe St and Olivera Street	1:01
San Luis Airport	1:10	Guadalupe Amtrak Station	1:03
SLO Government Center	1:25		
Cal Poly Kennedy Library	1:32		
SLO Government Center	1:42	**Santa Maria Transit Center**	1:21
13-Minute Layover		13-Minute Layover	

To determine potential ridership, first the number of new households within 0.25 miles of fixed route service was identified. Then, the average number of rides completed on the RTA regional routes per San Luis Obispo County household per year was applied to the number of houses newly being served by transit to estimate the annual ridership generated by expanding the RTA service area. Then, to determine potential commuter ridership, the number of residents commuting between San Luis Obispo County and Guadalupe was identified from a recent Santa Barbara County Association of Governments report.[2] As there is no direct connection between Routes 27/28 and Route 10 in Oceano, commuters between Oceano – SLO and Oceano and Santa Maria were also considered. The total number of work trips between jurisdictions per year was determined by multiplying the number of commuting residents by two work trips per day and 261 weekdays per year. It was assumed based on typical transit mode split factors and the characteristics of the service that 1 percent of the total work trips would be served by the new Route 16. Finally, the two values (ridership generated by expanding the service area and potential commuter ridership) were summed to project full-year Route 16 ridership. The total estimate was factored down to account for service only being provided twice per day. In sum, calculations suggest that the new RTA Route 16 would serve 4,300 passenger-trips per year.

[2] Santa Barbara County Association of Governments. (January 2024). *Understanding Regional Travel Patterns.* [PDF]. https://www.sbcag.org/wp-content/uploads/2024/01/UnderstandingRegionalTravelPatterns.pdf

Operating two roundtrips per weekday would require 1,800 vehicle service hours and 44,300 vehicle service miles annually. Assuming that Route 16 would have the same average fare as the other RTA regional routes, ridership would generate $5,600 in fare revenue per year, therefore the annual marginal operating subsidy would be $215,900. The service would require RTA to deploy an additional vehicle on weekdays.

Cal Poly Academic Schedule Changes

Cal Poly classes generally begin at 10 minutes or 40 minutes past the hour and end at the top of the hour or bottom of the hour. This is referred to as "Cal Poly" time. In conjunction with the move from a quarter system to a semester system, Cal Poly will be "sunsetting" Cal Poly time beginning Fall of 2026. As this change will occur within the time period of this transit plan, it is worth a discussion of how this might affect public transit.

RTA Route 9 arrives at Cal Poly from North County at :17 or :12 minutes past the hour. As the class schedule is currently, students arrive just after some classes begin, 10 minutes after. Therefore, transit connections in this direction will improve with the sunset of Cal Poly Time. For the return trip, there is also sufficient time to catch southbound Route 9 at the Cal Poly library before it travels to the Government Center and switches to the Northbound direction.

Route 10 does not travel directly to Cal Poly but has reasonable connections with SLO Transit Routes 3 and 4, the most direct routes to/from campus. SLO Transit is discussed below.

Route 12 serves Cal Poly once in the morning at 7:03 AM. This would not give a student sufficient time to get to class at the top of the hour after the sunset of Cal Poly time. If this run is shifted 10 minutes earlier, then Questa College students would be arriving at Questa at 6:43 AM instead of 6:53 AM. This is a reasonable cushion before a class which begins at the top of the hour. However, this would increase driver layover time at the Government Center at the end of this run each weekday by 10 minutes or roughly $3,000 per year.

SLO Transit routes have greater frequency with arrival/departure times at the Cal Poly Campus as follows:

Kennedy Library

:00 and :40 in the morning and :55 in the afternoon (Route 3A)

:56 after in the morning and :56 and :11 after in the afternoon (Route 3B)

Performing Arts Center

:06, :21, :36 and :51 (Route 4A)

:07, :22, :37, and :52 (Route 4B)

With the sunset of Cal Poly time, Route 3B passengers will have difficulty getting to a class on time which begins at the top of the hour in the morning. However, it is more likely that students use Route 3B for their return trip home, in which case :11 after the hour is appropriate. Otherwise, with multiple arrivals/departures at Cal Poly during one given hour, connections to classes beginning at the top or bottom of the hour can be made.

Because most students do not attend the university for all 4 quarters, the move to a semester system will likely increase the number of days which most students are on campus. This will increase vehicle hours and miles for routes which have greater frequency during the academic year. Ridership projections in the Draft Plan will take this change into account.

Additional Route 10 Service Alternatives

Historically, the City of Santa Maria has helped subsidize Route 10 service with Federal Transit Administration (FTA) Section 5307 funds. The Santa Maria City Council voted in April 2024 to stop providing funds for Route 10 operations and instead directed staff to operate SMRT services between the cities of Santa Maria and San Luis Obispo. In FY23-24, the city authorized a pass-through of $255,090 in FTA Section 5307 funds. Given this funding reduction, multiple alternatives to reduce Route 10's operating costs are considered. These alternatives are detailed in Table 3.

Table 3: RTA Route 10 - Service Alternatives Summary

	Annual Service						
	Ridership	Service Hours	Service Miles	Marginal Operating Cost	Fare Revenues [2]	Operating Subsidy	Additional Buses Needed
Status Quo[1]							
Route 9	161,700	13,100	329,700	$1,627,100	$197,300	$1,429,800	
Route 10	152,100	11,300	318,100	$1,474,100	$238,400	$1,235,700	
Route 12	119,100	7,100	264,200	$1,060,900	$125,200	$935,700	
Route 14	1,500	130	165,100	$354,900	$600	$354,300	
Route 15	12,600	3,200	99,600	$437,400	$17,200	$420,200	
Regional Service Alternatives - Change from Status Quo [3]							
Provide Route 10 Southbound 6:03 AM Run	3,600	213	2,140	$19,700	$5,600	$14,100	
End Route 10 Southbound Service in Nipomo	-27,500	-3,200	-93,400	-$424,400	-$43,100	-$381,300	
Streamline Route 10 in Santa Maria - All Runs	-2,200	--	-13,700	-$28,700	-$3,400	-$25,300	
Streamline Route 10 in Santa Maria - All But 2 Weekday Runs	-1,700	--	-12,900	-$27,000	-$2,700	-$24,300	
Eliminate Route 10 8:33 PM Southbound Trip	-3,500	-460	-17,900	-$70,400	-$5,500	-$64,900	
End Route 10 7:33 PM and 8:33 PM Southbound Trips in Nipomo	-3,300	-200	-6,200	-$27,300	-$5,200	-$22,100	

Note 1: Status Quo operations are based on FY 2025-26 projected operating parameters detailed in Table 1.

Note 2: Assumes an average fare per boarding of $1.29 on Routes 10.

Note 3: Parameters and costs represent change over existing services. Estimates represent marginal costs and do not include fixed costs.

Provide Route 10 Service on Earlier Weekday Southbound Run

The first daily weekday southbound Route 10 run under the current schedule departs San Luis Obispo at 6:33 AM and arrives at the Santa Maria Transit Center at 7:43 AM. While this may be early enough for San Luis Obispo County residents reporting to work at 8:00 AM in downtown Santa Maria, it does not serve earlier work start times in downtown or access for 8:00 AM start times for those needing to transfer to SMRT routes to reach other work locations.

RTA currently "deadheads" two buses from the operations facility in San Luis Obispo to Santa Maria to start the first two northbound Route 10 runs (at 6:14 AM and 7:14 AM). One option would be to operate the latter of these runs in passenger service. Rather than leaving the operations facility at 6:34 AM to deadhead to Santa Maria, the bus operator would instead depart at 5:45 AM and travel to the SLO Government Center to start a southbound scheduled run at 6:03 AM. This run would serve all Route 10 stops, including service to Arroyo Grande at 6:36 AM and Nipomo at 6:49 AM, before arriving at the Santa Maria Transit Center at 7:13 AM. If the new departure were delayed by 25 minutes until 6:28 AM, there could be a direct connection to Routes 21 and 24 at the Pismo Outlets at 6:55 AM; however, this would only allow 18 minutes for the bus to get to the Santa Maria Transit Center in time to turn around and start the 7:14 AM northbound departure. This would not be sufficient time.

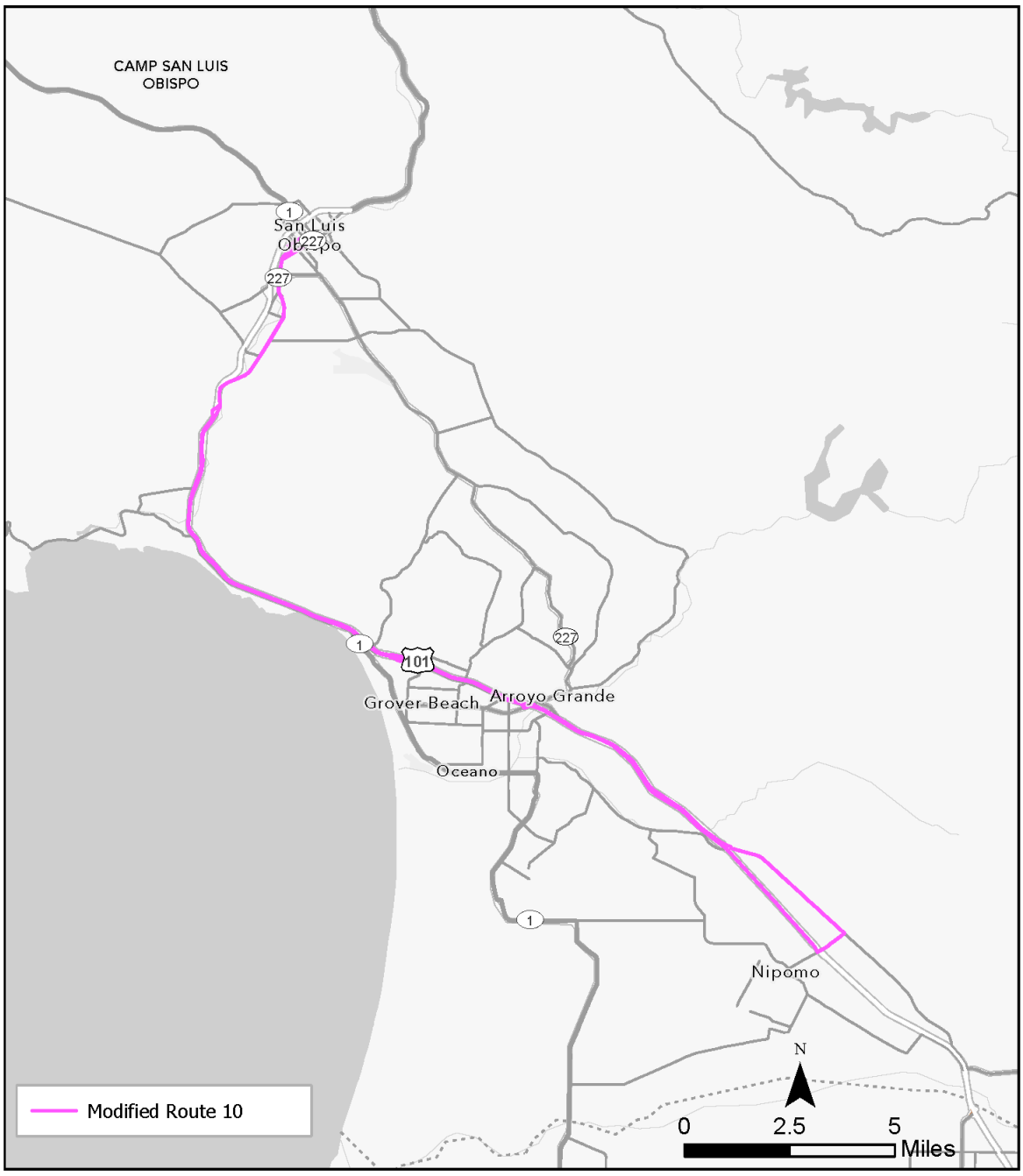
This option would add 49 minutes of bus operator time to each run, as well as 8.2 miles of travel distance. Over the course of a year, this would result in an increase in operating cost of $19,700. Considering the hourly ridership for earlier transit services in the region and adjusting for the fact no connections would be made with South County Routes or SLO Transit, this earlier run would serve approximately 3,600 additional passenger-trips annually. Subtracting the $5,600 in increased fare revenue generated, this option would increase the annual operating subsidy by $14,100.

As an aside, consideration was also given to operating the first deadhead run in passenger service. However, this would result in a southbound departure from San Luis Obispo at 5:03 AM, arriving in Santa Maria at 6:13 AM. Considering hourly ridership demand in the region, ridership on this very early run would be low and not warrant the additional operating cost. As a result, this option is not considered further.

End Route 10 in Nipomo

Route 10 could be truncated to provide service only between San Luis Obispo and Nipomo, as depicted in Figure 2. Eliminating service between Nipomo and Santa Maria would negatively impact ridership; based on boarding by stop data and the proportion of ridership that typically occurs on weekdays, Saturdays, and Sundays, it is estimated that cutting service to Santa Maria would cause Route 10 ridership to decline by 27,500 passenger-trips per year (or 18 percent), prompting a loss of $43,100 in fare revenue. Despite the loss in fare revenue, ending Route 10 service in Nipomo would still significantly reduce the annual marginal operating subsidy (-$381,300) due to the sharp cut in service levels.

Figure 2
Route 10 Ending in Nipomo



Streamline Route 10 in Santa Maria

A more moderate approach to reducing Route 10's operating requirements would be to streamline service within Santa Maria, as shown in Figure 3. As depicted, Route 10 would continue to serve Allan Hancock College enroute to the Santa Maria Transit Center, however, service to Marian Medical Center and the Amtrak bus stop would be cut. The routing change would yield marginal operating subsidy savings on the order of $25,700 per year due to the reductions to route length. It would reduce route running time by approximately 4 minutes. As this is not enough of a reduction to reduce the schedule (while providing convenient hourly headways), it would not reduce overall vehicle-hours of service. It is likely that some passengers who currently utilize the Marian Medical Center and Amtrak stops would switch to another Route 10 stop in Santa Maria, therefore it is estimated that this alternative would cause ridership to decline by only 2,200 passenger-trips per year.

Streamline Route 10 in Santa Maria Except for Two Runs Each Weekday

Alternatively, some runs on weekdays could retain service to Marian Regional Medical Center and the Cypress/Nicholson stops in order to allow some direct access to the medical center for San Luis Obispo County residents as well as serve residents of the adjacent neighborhoods who may work in San Luis Obispo County. While the specific runs to be retained would need to be defined by more extensive passenger boarding counts, a reasonable scenario would be to provide service to these two stops along the existing route on the southbound run departing Santa Maria northbound at 8:14 AM and the southbound run departing San Luis Obispo at 5:33 PM. This is estimated to reduce the ridership loss to 1,700 passenger-trips per year, while still generating $24,300 in annual operating subsidy savings.

Eliminate Route 10 8:33 PM Southbound Trip

As is typical with many transit services, Route 10 ridership activity wanes throughout the evening; the final Route 10 southbound trip (8:33 PM departure from the Government Center) serves an average of 13 passenger-trips, far fewer than earlier departures which serve upwards of 30 passenger-trips. Cutting the weekday 8:33 PM southbound departure would eliminate 300 vehicle service hours and 9,800 vehicle service miles annually. As this bus deadheads back to San Luis Obispo from Santa Maria, including this long deadhead run results in a total reduction of 460 vehicle-hours and 12,900 vehicle-miles. Ridership would decline by 3,500 passenger-trips, as it is likely about half of the riders typically served on the final southbound run would not be able to shift their schedules and would instead find an alternative mode of transportation. Eliminating the one run would yield $64,900 in marginal operating subsidy savings by reducing service levels more than fare revenues.

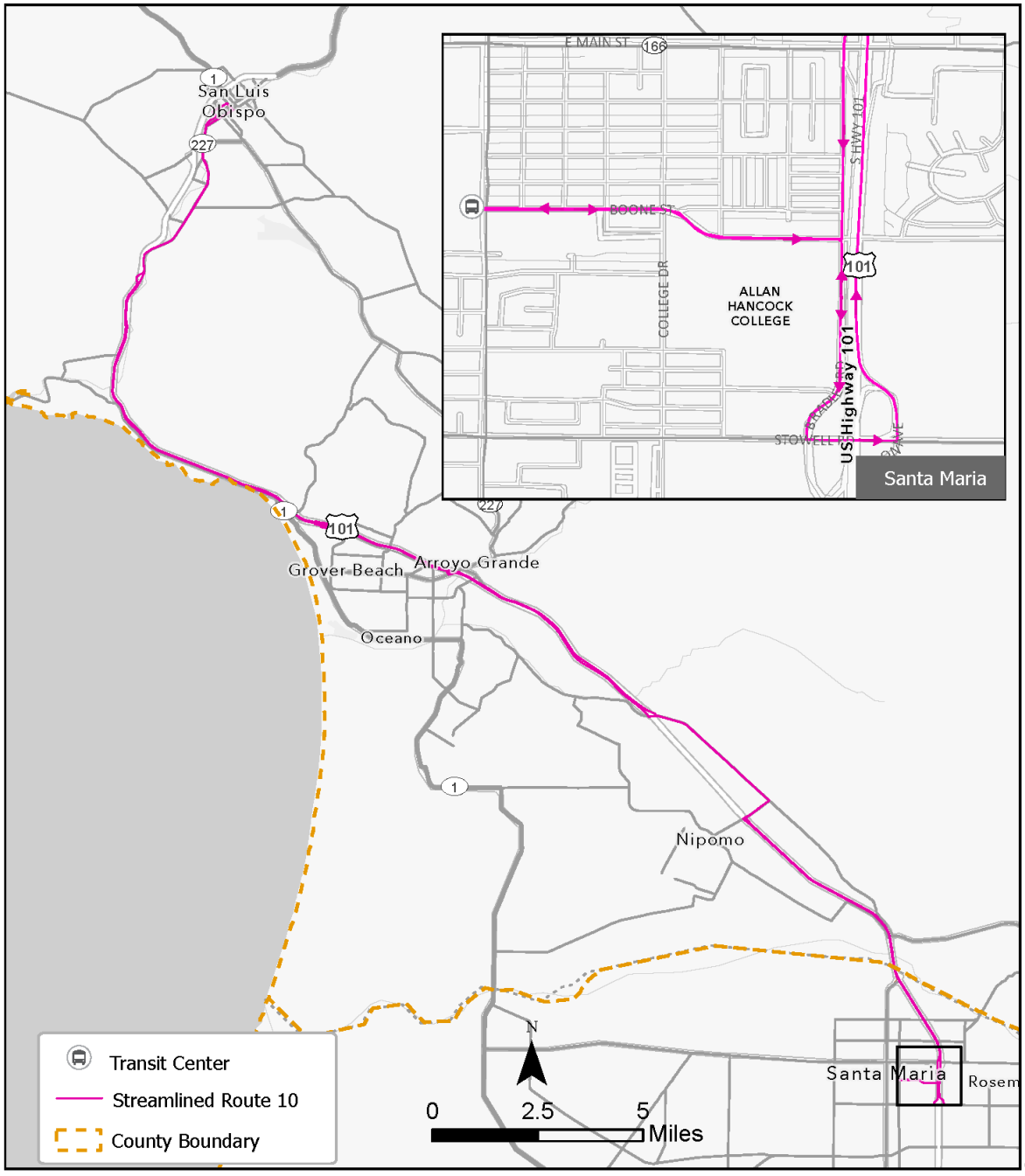
End Route 10 7:33 PM and 8:33 PM Southbound Trips in Nipomo

One factor behind the drop in Route 10 ridership activity during the later evening hours is that the final two southbound departures (7:33 PM and 8:33 PM) do not arrive at the Santa Maria Transit Center until 8:43 PM and 9:43 PM, well after Santa Maria Regional Transit (SMRT) fixed route operations have ceased for the day, and thus making it impossible for passengers who rely on SMRT to get to their final destinations. As the final two Route 10 southbound departures do not provide meaningful connections to

SMRT, RTA could instead terminate the runs in Nipomo. This would eliminate 200 vehicle service hours and 6,200 vehicle service miles per year.

Ending the 7:33 PM and 8:33 PM southbound trips in Nipomo would cause ridership to decrease by 3,300 passenger trips per year. This estimate is derived from boarding and alighting data by stop, which indicates that there are typically 12 passengers who alight in Santa Maria on the final two southbound runs. It is assumed that half of these riders would be unable to shift their schedules, and therefore would be unlikely to ride Route 10 to or from San Luis Obispo. The net impact of this alternative would be a $22,100 reduction to the RTA marginal operating subsidy.

Figure 3
Streamlined Route 10 in Santa Maria



PASO ROBLES ALTERNATIVES

RTA operates multiple local transit services within and around Paso Robles, including the bidirectional Routes A and B, the Paso Robles DAR, and the Templeton/Shandon DAR. The local Paso Robles fixed routes have experienced significant ridership increases in recent years; Routes A and B were the most productive RTA services in FY 2022-23, carrying about 21 passenger-trips per hour. While the Paso Robles services perform well, there are still alternatives that could further increase ridership and address passenger needs. In particular, the Paso Robles passengers who participated in the onboard survey requested additional Sunday service (48 percent of surveyed passengers), additional Saturday service (37 percent), and later evening service (21 percent). Additionally, Paso Robles has several planned development projects on the horizon, mainly in the eastern portion of the city.

This section discusses alternatives focused on the local Paso Robles transit services. The impacts of the various service alternatives are summarized in Table 4 and assume the following average fares per boarding: $1.05 on Paso Robles Routes A and B, $2,73 on the Paso Robles DAR, and $1.56 on the Templeton/Shandon DAR.

Table 4: RTA Paso Robles Services - Service Alternatives Summary

	Change In Annual Service						
	Ridership	Service Hours	Service Miles	Marginal Operating Cost	Fare Revenues [2]	Operating Subsidy	Additional Buses Needed
Status Quo[1]							
Paso Robles Route A	59,400	2,700	35,600	$267,600	$62,300	$205,300	
Paso Robles Route B	64,100	3,100	41,900	$309,400	$67,300	$242,100	
Paso Robles DAR	2,200	1,500	12,200	$132,800	$6,000	$126,800	
Shandon/Templeton DAR	20	15	80	$1,500	$30	$1,470	
Paso Robles Service Alternatives - Change from Status Quo [3]							
New Paso Robles Route C							
Mon - Fri, 7:15 AM - 6:35 PM	7,000	3,100	38,800	$303,000	$7,300	$295,700	1
Paso Robles High School and Daniel Lewis Middle School Tripper							
One AM Trip and One PM Trip, Mon - Fri - Academic Year	2,300	200	2,600	$19,700	$2,400	$17,300	1
Expand Weekend Service							
Add Saturday Route A Service, 8:00 AM - 8:00 PM	5,700	500	6,700	$49,800	$6,000	$43,800	1
Add Sunday Route B Service, 9:00 AM - 5:00 PM	4,400	400	5,300	$39,700	$4,600	$35,100	1
Extend Route B until 9:00 PM on Weekdays	2,300	500	6,600	$49,600	$2,400	$47,200	0
Convert Paso Robles DAR to Microtransit [4]	200	-	1,100	$6,800	$500	$6,300	0
Convert Shandon/Templeton DAR to Microtransit [4]	1	-	-	$4,500	$2	$4,500	0

Note 1: Status Quo operations are based on FY 2025-26 projected operating parameters detailed in Table 1.

Note 2: Assumes an average fare per boarding of $1.05 per passenger on Paso Robles Routes A and B, $2.73 per passenger on the Paso Robles DAR, and $1.56 per passenger on the Shandon/Templeton DAR.

Note 3: Parameters and costs represent change over existing services. Estimates represent marginal costs and do not include fixed costs.

Note 4: Assumes same fare as existing DAR. Costs include $4,500/year for app license for one vehicle.

Paso Robles Route C

There are several developments within Paso Robles which are not served by Routes A/B, including communities in northeast Paso Robles and the future Olsen South-Chandler Ranch development. While northeast Paso Robles is served by the Paso Robles DAR, the DAR service capacity is limited. To expand transit access and meet the transit needs of a growing community, RTA could introduce a new fixed route (Route C) to serve northeastern Paso Robles and the Olsen South-Chandler Ranch development, as shown in Figure 4. Route C would start and end at the North County Transit Center (NCTC) like the other local Paso Robles fixed routes. A sample schedule for Route C, designed to facilitate transfers between Routes B and C, is shown in Table 5.

If RTA initiated a new Route C service with the routing structure and schedule presented, and provided service from 7:15 AM to 7:02 PM, Route C would require 3,100 vehicle service hours and 38,800 vehicle service miles per year at a marginal operating cost of $303,000. Once the Olsen South-Chandler Ranch development is built out, there will be about 760 homes within 0.25 miles of Route C bus stops that are not within 0.25 miles of Routes A/B. To determine the potential ridership that would be generated by these homes, the per capita ridership rate observed on Routes A/B was applied to the population living within the new service area. A factor was then applied to reflect that the population within the expanded service area is less transit dependent compared to other areas of Paso Robles. These calculations yielded a ridership estimate of 7,000 passenger-trips provided per year. Assuming that the Route C average fare per boarding would be similar to what is observed on Routes A/B, fare revenue would increase by $7,300 per year, meaning the annual marginal operating subsidy for the new Route C would be $295,700. RTA would need to deploy an additional vehicle to operate the new route.

Airport Area Development Project

The City of Paso Robles has plans to develop the area northeast of SR 46 at Union St. near the airport. There is the potential for 4,000,000 square feet of commercial/industrial uses that would provide 3,000 jobs. RTA does not currently serve this area. In order to access the new development, RTA buses would need to cross SR 46 at Union Road, which is an unsignalized intersection at a divided highway. The City has applied for Trade Corridor Enhancement Program (TCEP) grant funds to build an overpass at this intersection. Until this improvement is constructed, RTA buses cannot safely cross SR 46.

It is not likely that new development and roadway improvements would be constructed during this transit planning period. Additionally, airport developments with a significant amount of industrial uses are not typically large transit generators. For example, land uses near the San Luis Obispo Airport generate anywhere from 0 to 5 average daily boardings. Therefore, service to the area is not recommended until roadway improvements and a significant level of development has occurred. RTA should continue to monitor progress of development near the Paso Robles Airport for the need for transit service.

Paso Robles High School and Daniel Lewis Middle School Tripper Service

Ridership on Routes A and B drastically increased after the City suspended school bus service in 2021. Schools start and end at specific times, therefore most student ridership is concentrated on the trips that occur right before and after the school day. The concentration of student ridership on just a few runs throughout the day can result in overcrowding conditions onboard. This can discourage general public

passengers. Bus operators also often need to turn people away on these runs due to crowding, forcing people to either wait for the next bus or find another transportation alternative.

To alleviate overcrowding concerns and to better serve both student and non-student passengers alike, RTA could implement a supplemental tripper service to Paso Robles High School and Daniel Lewis Middle School. A sample school tripper schedule, designed to serve the two schools on regular bell schedule days, is detailed in Table 6. The schedule would need to be modified depending on the day of week to align with the various bell schedules at the two schools.

Operating two tripper runs per school day would increase RTA service levels by 200 vehicle service hours and 2,600 vehicle service miles annually. The additional capacity that would result from operating the tripper service would prompt a small increase in ridership of about 9 passenger-trips per day. Another 4 trips per day could result from the addition of another run. This equates to 2,300 passenger-trips per year, across Routes A, B, and the trippers. The marginal operating subsidy for the service would be $17,300. RTA would need to deploy an additional vehicle to operate the school tripper.

Figure 4
Potential Paso Robles Route C

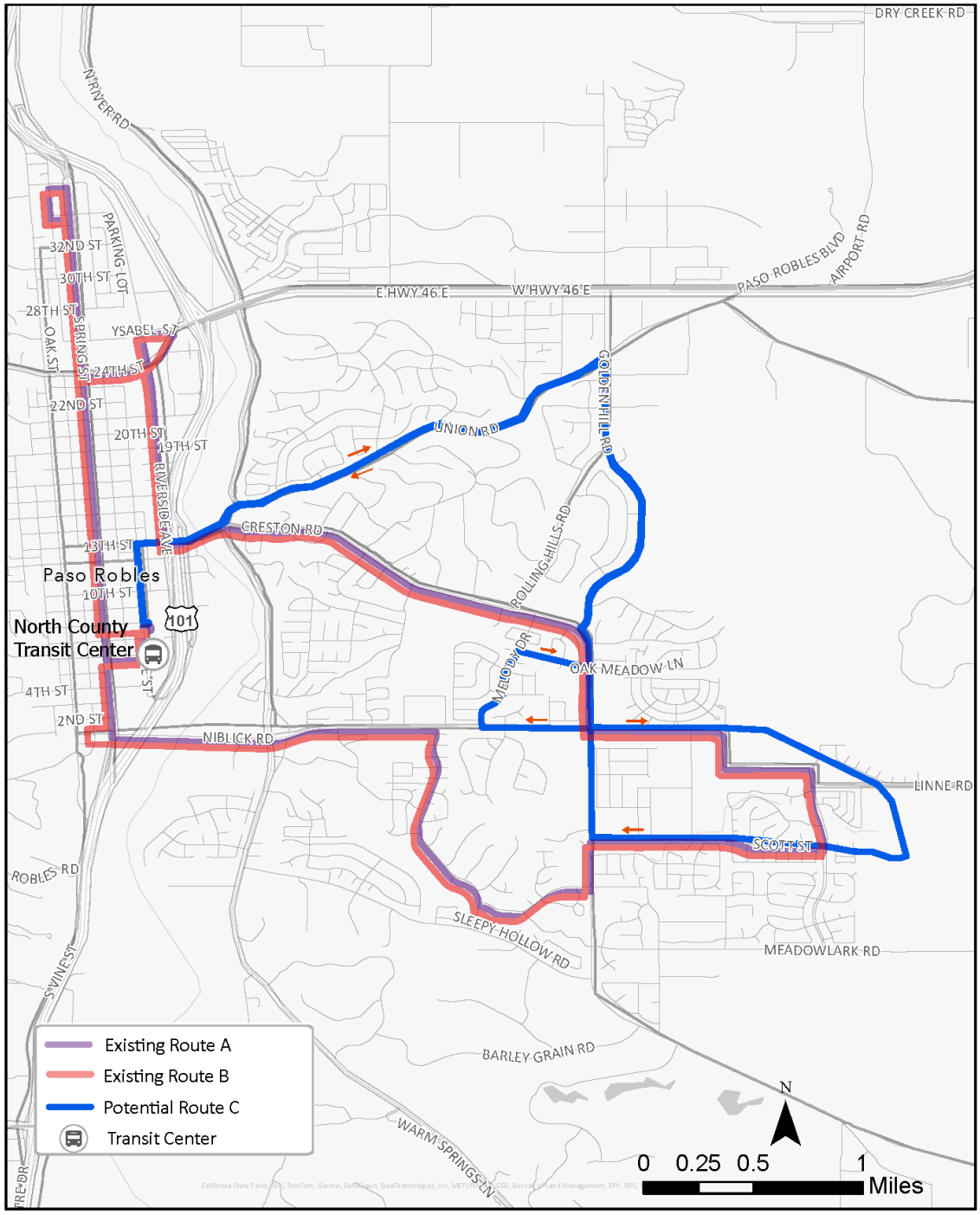


Table 5: Example Paso Robles Route C Schedule

New Route C	
Bus Stops	Time Points (Minutes After the Hour)
North County Transit Center	0:15
Pine St at 13th St	0:19
Union Rd at Riverglen Dr	0:23
Union Rd at Skyview Dr	0:24
Union Rd at Kleck Rd	0:25
Union Rd at Montebello Oaks Dr	0:27
Golden Hill Rd at Almendra Ct	0:29
Golden Hill Rd at Rolling Hills Rd	0:30
Golden Hill Rd at Vista Cerro Dr	0:31
Golden Hills Road at Williams Plaza	0:33
Creston Rd at Oak Meadow Ln	0:34
Sherwood Rd at Creston Rd	0:36
Sherwood Rd at Quail Run	0:37
Scott St at Westfield Rd	0:41
Scott St at Paso Robles Senior Center	0:42
Niblick Rd at Melody Dr	0:45
Melody Dr at Lana St	0:47
Creston Rd at Oak Meadow Ln	0:48
Golden Hill Rd at Red River Dr	0:49
Golden Hill Rd at Vista Cerro Dr	0:50
Golden Hill Rd at Rolling Hills Rd	0:51
Golden Hill Rd at Ardmore Rd	0:52
Union Rd at Montebello Oaks Dr	0:54
Union Rd at Kleck Rd	0:55
Union Rd at Skyview Dr	0:56
Union Rd at Riverglen Dr	0:58
Pine St at 13th St	1:00
North County Transit Center	1:02
13-Minute Layover	

Table 6: Example Paso Robles School Tripper Schedule

		Tripper
Morning	Spring at 34th	7:55 AM
	Creston at Nickerson: Daniel Lewis Middle Scho	8:05 AM
	Creston at Sherwood	8:09 AM
	Fontana at Linne	8:11 AM
	Stoney Creek at Creston: Dry Creek Apartments	8:18 AM
	Niblick at Bearcat: Paso Robles High School	8:23 AM

		Tripper
Afternoon	Creston at Nickerson: Daniel Lewis Middle Scho	3:17 PM
	Creston at Sherwood	3:21 PM
	Fontana at Linne	3:23 PM
	Stoney Creek at Creston: Dry Creek Apartments	3:30 PM
	Niblick at Bearcat: Paso Robles High School	3:35 PM
	North County Transit Center	3:42 PM

Note: Schedule presented is designed to serve Daniel Lewis Middle School and Paso Robles High School on regular bell schedule days. Schedule would need to be modified depending on bell schedules.

Expand Weekend Service

Reinstate Route A Saturday Service – 7:45 AM – 5:35 PM

Saturday service is currently limited to Route B, which can result in long in-vehicle travel times for travel in the clockwise direction. To expand weekend service, RTA could reinstate Route A on Saturdays during similar hours as Route B (from 7:45 AM to 5:35 PM) to match pre-pandemic service levels. This would increase service levels by 500 vehicle service hours and 6,600 vehicle service miles annually. Based on Route A's weekday ridership, the proportion of Route A trips that occur during the proposed service hours, and the ratio of Saturday to weekday ridership on Route B, it is expected that operating Route A on Saturdays would increase ridership by 5,700 passenger-trips per year. The marginal operating subsidy would be $74,100 based on the expected service levels and fare revenues.

Route B Sunday Service – 9:15 AM – 5:05 PM

RTA could begin providing Sunday service in Paso Robles by operating Route B from 9:15 AM to 5:05 PM. Based on the proposed hours, this alternative would require 400 vehicle service hours and 5,300 vehicle service miles per year. It is estimated that the Route B Sunday service would provide about 4,400 passenger-trips per year based on current Route B weekday ridership and the ratio of Sunday to weekday ridership observed on other RTA services. This alternative would require a $59,900 annual marginal operating subsidy due to the increase in service levels and fare revenues.

Extend Route B Service Until 9:00 PM on Weekdays

One of the most common requests made by Paso Robles passengers during public outreach was for later service. To meet this need, Route B could be extended until 9:00 PM, or the equivalent of two extra round trips, on weekday nights. Annually, this would require 500 vehicle service hours and 6,600 vehicle service miles. The additional evening service would serve about 2,200 passenger-trips per year based on existing Route B weekday ridership and the ratio of daytime to evening ridership observed on other transit services in California. Extending Route B to 9:00 PM on weekdays would require an annual marginal operating subsidy of $77,600.

Introduce Microtransit Technology to Existing DARs

RTA already operates general public demand response services in the Paso Robles area: the Paso Robles DAR is available from 7:00 AM to 1:00 PM on weekdays, and the Templeton/Shandon DAR is available from 8:00 AM to 5:00 PM on Mondays, Wednesdays, and Fridays in Shandon and Tuesdays and Thursdays in Templeton. The Paso Robles DAR serves about 2,200 passenger-trips per year, while the Templeton/Shandon DAR serves only 20 passenger-trips per year.

In recent years, many public transit agencies have introduced microtransit to provide a real-time, on-demand transit option. Depending on the agency, microtransit is either introduced as an entirely new service or it is introduced as an improvement to an existing service. Placer County Transit recently implemented this type of technology upgrade; Placer County Transit rebranded the existing DAR as “GO South Placer” with the rollout of the new microtransit phone app. Since the introduction of microtransit technology, the GO South Placer zones have seen, on average, ridership increase by an additional 7 percent over the systemwide average ridership growth.

RTA could procure microtransit software and convert the existing Paso Robles and Templeton/Shandon DARs into microtransit services. In this scenario, the microtransit app would allow passengers to request trips whenever they want during service hours, but passengers would potentially have to wait longer for a ride depending on the volume of requests. It is expected the Paso Robles DAR annual ridership would increase at a similar rate to what has been observed in Placer County, or by about 200 passenger-trips, during the first year of operations. It should be noted that ridership would likely increase further the following year, as research has found there is often greater ridership growth during the second year of operating a new transit service due to increased public awareness. Service would continue to be provided with one vehicle, therefore adding microtransit technology would not increase vehicle service hours. The increase in ridership would require an additional 1,100 vehicle service miles per year. The cost of the microtransit license and the increase in vehicle service miles would cause the marginal operating subsidy

to increase by $6,300. This assumes the same fare structure as the current Paso Robles DAR: $5 for the general public and $2.50 for seniors and the disabled.

As previously mentioned, the Templeton/Shandon DAR provides very few passenger-trips per year. Given the low utilization, adding microtransit technology is expected to have negligible impacts on ridership or service levels, therefore the marginal operating subsidy would be equal to the cost of the microtransit license, or $4,500.

SOUTH COUNTY ALTERNATIVES

In south San Luis Obispo County, RTA operates four local fixed routes (21, 24, 27, and 28) in the Five Cities area and the Nipomo DAR. Service alternatives for the South County area are presented in this section, with the various impacts summarized in Table 7. The service alternatives were developed to increase the productivity of existing services and address passenger needs as identified during public outreach. Of the South County fixed route passengers who participated in the onboard survey, the top requested improvements were later evening service (39 percent of respondents), additional Saturday service (36 percent), and additional Sunday service (29 percent). The Nipomo DAR passengers surveyed indicated high satisfaction with the service and did not request any specific improvements, however, alternatives are considered to grow ridership even further. The analyses presented in this section assume an average fare per boarding of $0.80 on the South County fixed routes and $1.56 on the Nipomo DAR.

Realign Fixed Routes to Serve Grover Beach Train Station as Primary Transfer Point

The previous South County SRTP (2019) considered realigning the local fixed routes to instead serve the Grover Beach Train Station as the main transfer point. Benefits of this routing shift would be improved access to the train station and regional Amtrak services, as well as to the commercial area along the western end of Grand Avenue. Before the routes could be realigned, however, the train station parking lot may need to undergo upgrades to provide for easy ingress/egress of the four RTA buses and Amtrak Thruway bus. Currently, the Grover Beach Train Station bus loading area consists of approximately 200 feet of straight curb. While this may technically allow enough space for the five buses, the vehicles would need to pull in fairly close behind one another. As such, it would be difficult for a vehicle to depart prior to the one in front of it.

As discussed in the 2019 SRTP, making the Grover Beach Train Station the primary fixed route transfer point in the South County area would require Routes 21 and 24 to extend from Highway 1/Grand Avenue south to the station, an extension of only 0.3 miles. The 2019 SRTP recommended that Routes 27 and 28 serve the station using Farroll Avenue and 4th Street between Farroll/13th and Grand Avenue. This realignment would add 1.1 miles to Route 27 and 1.1 miles to Route 28. Despite the extra distance required per run, the modifications would still allow all four routes to complete one run per hour, meaning there would be no impact to vehicle service hours. In all, switching the main transfer hub to Grover Beach Train Station would increase annual vehicle service miles by 12,000, increasing the RTA marginal operating cost by $25,100.

Table 7: RTA South County Services - Service Alternatives Summary

	Change In Annual Service						
	Ridership	Service Hours	Service Miles	Marginal Operating Cost	Fare Revenues [2]	Operating Subsidy	Additional Buses Needed
Status Quo[1]							
Route 21	50,100	3,800	74,100	$426,900	$35,400	$391,500	
Route 24	50,800	3,900	57,100	$398,500	$41,000	$357,500	
Route 27	26,800	3,000	39,600	$297,500	$24,400	$273,100	
Route 28	56,600	3,900	53,400	$390,700	$47,900	$342,800	
Nipomo DAR	9,100	3,500	25,900	$366,000	$14,200	$351,800	
South County Service Alternatives - Change from Status Quo [3]							
Realign Routes to Serve Grover Beach Train Station as Primary Transfer Point							
Route 21	-	-	1,400	$2,900	-	-	
Route 24	-	-	1,400	$2,900	-	-	
Route 27	-	-	3,800	$8,000	-	-	
Route 28	-	-	5,400	$11,300	-	-	
Net Impact	*-1,600*	*0*	*12,000*	*$25,100*	*-$1,300*	*$26,400*	*0*
Realign Routes to Serve Walmart as Primary Transfer Point							
Route 21	-200	-	0	$0	-$141	-	0
Route 24	-300	-	0	$0	-$242	-	0
Route 27	-	-	0	$0	-	-	0
Route 28	-	-	0	$0	-	-	0
Route 10	0	-	-400	-$800	$0	-	0
Net Impact	*-500*	*0*	*-400*	*-$800*	*-$400*	*-$400*	*0*
Arroyo Grande High School Tripper Service							
One AM Trip and One PM Trip, Mon - Fri - Academic Year	1,100	300	2,200	$26,100	$900	$25,200	1
Operate Route 27 on Saturdays - 7:30 AM - 8:15 PM	4,200	500	5,100	$46,400	$3,400	$43,000	1
Extend Routes 21 and 28 until 9:00 PM on Weekdays							
Route 21	700	400	5,900	$41,000	$600	$40,400	
Route 28	900	300	2,800	$27,300	$700	$26,600	
Net Impact	*1,600*	*700*	*8,700*	*$68,300*	*$1,300*	*$67,000*	*0*
Evening "Five Cities" Microtransit Service [4]							
Mon - Fri, 6:00 PM - 10:00 PM	-3,200	1,300	16,250	$145,000	-$5,100	$150,100	0
Mon - Fri, 7:00 PM - 10:00 PM	1,500	1,300	16,250	$145,000	$2,400	$142,600	0
Convert Nipomo DAR to Microtransit [4]	600	-	1,700	$13,500	$1,000	$12,500	0

Note 1: Status Quo operations are based on FY 2022-23 parameters and projected FY 2025-26 ridership. This table only includes status quo data for the RTA services in the south county area.

Note 2: Assumes an average fare per boarding of $0.80 on Routes 21 - 28 and $1.56 on the Nipomo DAR.

Note 3: Parameters and costs represent change over existing services. Estimates represent marginal costs and do not include fixed costs.

Note 4: Assumes a general microtransit fare of $3.00 per one-way trip, or an average fare of $1.61 per passenger. Costs include $4,500/year for app license for one vehicle.

Another key point is that Routes 21 and 24 are timed to provide direct connections to Route 10 at Pismo Beach Premium Outlets at the top of the hour. To maintain this timed transfer opportunity and shift the routes to Grover Beach Train Station, Route 24 would need to be shifted 4 minutes later so that the bus arrived at the outlets 59 minutes after the hour and departed the outlets 14 minutes after the hour. The slight change to the Route 24 schedule and shifts to the other three schedules would result in the routes serving Grover Beach Train Station at the following times: Route 21 would arrive 33 minutes after the hour, Route 24 at 29 minutes, and Routes 27 and 28 at 20 minutes. Routes 27 and 28 would depart the hub 35 minutes after the hour to provide an adequate bus operator break and connections to both Routes 21 and 24. Routes 21 and 24 would depart the Grover Beach Train Station at 36 minutes after the hour.

The proposed routing changes would eliminate service to a few stops along 13th in Grover Beach, however, the eliminated ridership would be offset by new ridership in the area west of 9th Street and south of Seabright Avenue. Ridership would still be negatively impacted by the routing change, however, as the Grover Beach Train Station is not as accessible as Ramona Garden Park; there are approximately 800 residences within a five-minute walk of Ramona Garden, and the commercial businesses along Grand Avenue between 7th and 12th Streets are also nearby. Comparatively, Grover Beach Train Station is surrounded by the Grand Junction and Beach Place multiuse areas along the south side of Grand Avenue and west of 4th Street, low-density commercial uses on the north side of Grand Avenue, a few residences behind the commercial uses, and a hotel. The less convenient location of Grover Beach Train Station compared to Ramona Garden Park would prompt a loss of 1,600 passenger-trips per year.

Realign Fixed Routes to Serve Walmart as Primary Transfer Point

While all four local South County fixed routes serve the Walmart in Arroyo Grande, the routes serve the Walmart at different times: Route 28 serves Walmart at 4 minutes after the hour, Route 21 at 13 minutes, Route 27 at 43 minutes, and Route 24 at 46 minutes. Stakeholders have suggested RTA shift the South County fixed routes so that Walmart is the primary transfer point instead of Ramona Garden. Walmart is a major transit generator and employment location for residents regionwide. As such, shifting the transfer point to Walmart was considered as part of this alternative. Table 8 shows how all four route schedules could be shifted so that the buses depart from Walmart at the top of the hour.

Currently, Routes 21 and 24 provide timed transfer opportunities to the regional Route 10, both southbound and northbound, at the Pismo Beach Premium Outlets at the top of the hour. Route 10 does not currently serve Walmart. Shifting the schedules to have Walmart be the main transfer hub would eliminate an important timed connection; passenger survey data indicated a significant number of passengers transfer between Routes 21 and 24 and Route 10 at the outlets. To ensure South County passengers can continue to make a seamless connection to Route 10, Route 10 could be modified to serve Walmart instead of the Pismo Beach Outlets. Shifting Route 10 service to Walmart would have differing impacts depending on the direction of travel due to the configuration of access to and from US 101: serving Walmart in the northbound direction would eliminate 1 minute and 0.3 miles per run, but in the southbound direction would add 4 minutes and 0.3 miles.

Table 8: Example South County Fixed Route Schedules with Walmart as Primary Transfer Point

	Local South County Routes			
	21	24	27	28
Walmart	*12:00 PM*	*12:00 PM*	--	--
Grand at Elm	12:08 PM	--	--	--
Ramona Garden	12:16 PM	12:28 PM	--	--
Dolliver at Pomeroy	12:22 PM	--	--	--
Pismo Beach City Hall	12:26 PM	--	--	--
Premium Outlets	12:38 PM	12:09 PM	--	--
Arroyo Grande City Hall	--	12:39 PM	--	--
Walmart	*12:46 PM*	*12:46 PM*	--	--
Walmart	--	--	*12:00 PM*	*12:00 PM*
Arroyo Grande High School	--	--	12:07 PM	12:34 PM
Elm at The Pike	--	--	12:13 PM	12:28 PM
19th at Wilmar	--	--	12:17 PM	12:23 PM
Air Park Drive/Oceano Airport	--	--	12:21 PM	12:19 PM
Ramona Garden	--	--	12:30 PM	12:10 PM
Walmart	--	--	*12:41 PM*	*12:42 PM*

Given the expected impacts on travel time and distance, it is assumed that Route 10 northbound service could shift to serve Walmart at the top of the hour with no other schedule changes required. Route 10 southbound service schedule, however, would need to be shifted. Route 10's schedule has been designed to provide timed connections with the other RTA regional routes in San Luis Obispo during a five-minute layover period. This means that shifting the Route 10 schedule to accommodate the four extra minutes of travel time in the southbound direction would require either reducing the layover in San Luis Obispo from the current 5 minutes (which would reduce the service's ability to maintain the schedule) or reduce the layover in Santa Maria from the existing 31 minutes to 27 minutes (which is preferable).

Modifying the South County local fixed routes so that Walmart serves as the primary transfer point would have no impact on service levels, and therefore no impact on marginal operating costs. The routing shift would impact transfer wait times from Routes 21/24 to Route 10 slightly. Additionally, this option relocates the transfer hubs to an area with less residential density. In all, the negative impacts on service quality and access would cause RTA ridership to decline by 500 passenger-trips per year. The loss in ridership would trigger a subsequent loss in fare revenue that would negate the cost savings from reducing Route 10 northbound mileage, meaning the net cost impact of shifting the South County transfer hub to Walmart would be a $800 increase to the marginal operating subsidy.

The bus stop at Walmart also does not have adequate curb space to accommodate five buses, therefore capital upgrades would be necessary before the routes could be modified.

Arroyo Grande High School Tripper Service

Previously, RTA operated supplemental tripper runs during the school year to serve Arroyo Grande High School (AGHS) at the regular bell times. The tripper service consisted of one morning run of Route 28 and one afternoon run of Route 27, and both runs typically served upwards of 25 passenger-trips. While productive, as well as successful at reducing crowding on normal runs, the AGHS trippers were suspended in March 2020 as a result of the COVID-19 pandemic. The trippers have yet to be reinstated due to a lack of bus operators.

If RTA reinstated the tripper runs, the schedule would be similar to that shown in Table 9. The exact schedule would vary by day depending on the AGHS bell times. Operating two tripper runs per weekday during the academic year would increase service levels by 300 vehicle service hours and 2,200 vehicle service miles annually. RTA would serve an additional 1,100 passenger-trips annually across the trippers, Route 27, and Route 28 by increasing service capacity onboard. This equates to an additional 6 passenger-trips per school day. The marginal operating subsidy for the AGHS trippers would be $25,200 based on anticipated service levels, ridership, and fare revenue.

Table 9: Example Arroyo Grande High School Tripper Schedule

		Route 28 Tripper	
		Mon	Tues - Fri
Morning	Ramona Garden	8:40 AM	8:00 AM
	Air Park Drive / Oceano Airport	8:49 AM	8:09 AM
	Wilmar at 18th	8:53 AM	8:13 AM
	Elm at The Pike	8:57 AM	8:17 AM
	Arroyo Grande High School	9:03 AM	8:23 AM
		Route 27 Tripper	
		Mon - Fri	
Afternoon	Arroyo Grande High School	3:35 PM	-
	Elm at The Pike	3:55 PM	-
	19th at Wilmar	4:01 PM	-
	Air Park Drive/Oceano Airport	4:06 PM	-
	Ramona Garden	4:14 PM	-

Note: Schedule presented has been updated from previous Arroyo Grande High School Tripper service based on the 2023-24 bell schedule.

Additional Weekday Evening Service

The service improvement most requested by local South County fixed route passengers was later evening service. In this section, options for providing later evening transit service in the South County area are presented.

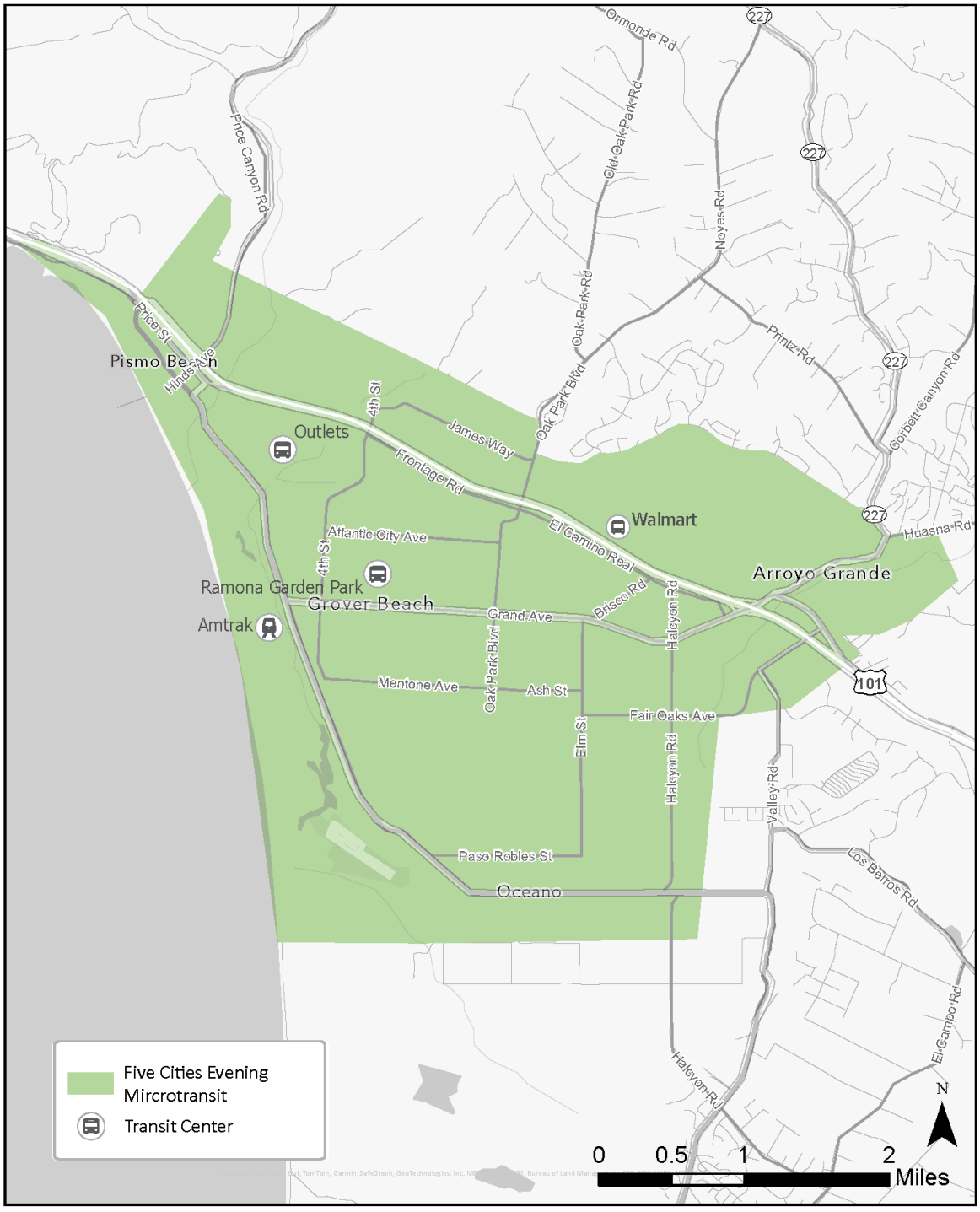
Extend Routes 21 and 28 Until 9:00 PM

RTA could extend Route 21 and 28 operations until 9:00 PM on weekdays to provide a regular, later-evening transit option for residents. In this scenario, Route 21 would complete an extra run and a half per day, ending service at 8:51 PM at the Pismo Beach Premium Outlets. Route 28 would have one extra run per day, ending service at 9:14 PM at Ramona Garden. Extending both Routes 21 and 28 would cause service levels to increase by a combined 700 vehicle service hours and 8,700 vehicle service miles per year. The extra evening runs would serve 1,600 passenger-trips based on typical ridership during the 7:00 PM hour on the two routes and the average change in ridership observed between the 7:00 PM and 8:00 PM hours on other transit systems. Extending operations on Routes 21 and 28 would require an annual marginal operating subsidy of $67,000.

"Five Cities" Microtransit Service

RTA could operate an evening microtransit service throughout the Five Cities area to help residents with later work shifts or other commitments get where they need to go. The potential Five Cities microtransit service area is shown in Figure 5. Two possible microtransit service spans were evaluated: 6:00 PM to 10:00 PM and 7:00 PM to 10:00 PM. In both scenarios, it is assumed that fixed route service would end before microtransit service operations began. It is also assumed that the microtransit vehicles would serve an average of four passenger-trips per hour, based on the typical productivity of demand response services and microtransit performance data from other regions in California.

Figure 5
Five Cities Evening Microtransit Service Area



To estimate ridership, the ratio of daytime ridership to evening ridership was calculated for peer systems which offer evening services from 6:00 PM to 10:00 PM. Then, the ratio was applied to the typical daytime ridership observed on Routes 21, 24, 27, and 28. Ridership estimates were constrained based on the assumed hourly capacity per van of four passenger-trips. As this alternative considers replacing fixed route service for either the final one or two hours of the service day, the microtransit ridership estimates were also compared to the existing fixed route ridership by hour to determine whether operating an evening microtransit service would have a net positive or negative impacts on ridership.

To ensure costs remain constrained, RTA would only operate a maximum of four microtransit vehicles per hour, or the same number of vehicles as currently utilized by the four local South County fixed routes. Ridership estimates by hour indicate that to meet demand and ensure reasonable wait times, RTA would need to operate four vehicles in the 6:00 PM and 7:00 PM hours. Service could then taper off in the last two hours of the service day; only three vehicles would be needed for the 8:00 PM hour, and only two vehicles would be needed for the final hour of the day. However, because microtransit vehicles can only serve about 4 passenger-trips per hour, replacing the existing fixed routes with microtransit beginning at 6:00 PM would cause a loss in ridership of -3,200 passenger-trips per year. Operating microtransit from 7:00 PM to 10:00 would cause ridership to increase by a net of 1,500 passenger-trips per year by adding more additional riders in the 8:00 PM and 9:00 PM hours than riders eliminated in the 7:00 PM hour.

Both options would increase RTA service levels by 1,300 vehicle service hours and 16,250 vehicle service miles per year. These estimates assume the previously described phase down in the number of vehicles in service throughout the evening and an average travel speed of 12.5 miles per hour. The marginal operating subsidy for the 6:00 PM to 10:00 PM microtransit service would be $150,100 while the subsidy for the 7:00 PM to 10:00 PM option would be $142,600 due to the differing impacts on ridership and fares. Runabout and Nipomo DAR vehicles could be used for this service.

Introduce Microtransit Technology to Nipomo DAR

To enhance the existing Nipomo DAR, RTA could add microtransit technology. The impacts of adding microtransit technology would be similar to those previously mentioned under the discussion about adding microtransit technology to the Paso Robles or Shandon/Templeton DARs: Nipomo passengers would be able to request rides on-demand, however, they may end up needing to wait longer for a ride depending on the volume of ride requests at the time. Ridership would grow slightly during the first year of operations (+600 passenger-trips) thanks to the increased convenience. There would be no impact to vehicle service hours, as the small increase in ridership could be accommodated by the existing bus operators. Vehicle service miles would increase by 1,700 per year due to the increased ridership. Based on the impacts to passenger fares and service levels, as well as the cost of one microtransit license, converting the Nipomo DAR to a microtransit service would increase the annual marginal operating subsidy by $12,500. If demand increased to the point where an additional vehicle was required, the subsidy increase would be much more substantial. For example, the marginal operating cost of adding another vehicle for 8 hours a day on weekdays would be over $200,000.

Expand Weekend Service

Additional weekend service was one of the most popular requests during the onboard passenger survey. As Routes 21, 24, and 28 already operate on both Saturdays and Sundays, adding Route 27 weekend service was considered.

Route 27 Saturday Service – 7:30 AM – 8:15 PM

If Route 27 was operating on Saturdays during similar hours as Route 28 (7:30 AM to 8:15 PM), RTA service levels would increase by 500 vehicle service hours and 5,100 vehicle service miles annually. The Saturday Route 27 service would provide approximately 4,200 passenger-trips per year based on average Route 27 weekday ridership and the average ratio of weekday to Saturday ridership observed on the other South County routes. The additional ridership would generate $3,400 in fare revenue, therefore the annual marginal operating subsidy would be $43,000. Route 27 Saturday service would require an additional bus operator and vehicle.

ALTERNATIVES PERFORMANCE ANALYSIS

To evaluate the relative performance of the RTA service alternatives, each alternative's impacts on ridership, marginal operating cost, passengers carried per vehicle service hour, and marginal operating cost per passenger were compared. The following performance analysis is grouped generally by RTA service area. Analysis findings are summarized in Tables 10 through 12 and Figures 6 through 9. Alternatives with performance that would meet standards are highlighted in green.

Table 10: RTA Regional Routes - Service Alternatives Performance Analysis

	Net Impact					
	Annual Ridership	Service hours	Service Miles	Annual Marginal Operating Cost [1]	Passenger-Trips per Vehicle Service Hour	Marginal Op. Cost per Passenger-Trip
Implement Express Service During Peak Hours						
Route 9 - One Additional AM Run, One PM Run	3,600	500	16,300	$69,900	7.2	$19.42
Route 10 - One AM Run, One PM Run	3,100	600	18,100	$80,800	5.2	$26.06
Increase Weekday Service Frequency						
Route 9 - 6:00 AM - 9:00 AM, 4:00 PM - 7:00 PM	16,600	3,900	90,400	$468,200	4.3	$28.20
Route 10 - 6:00 AM - 9:00 AM, 4:00 PM - 7:00 PM	23,300	3,800	116,700	$516,100	6.1	$22.15
Route 12 - 30 Min Frequency 7:00 AM - 6:30 PM	34,700	5,700	121,400	$661,800	6.1	$19.07
Route 12 - Addl Run Every 2 Hrs 6:03 AM - 6:03 PM	21,200	3,700	77,300	$426,500	5.7	$20.12
Re-Establish Route 14 Service on School Weekdays	18,400	2,100	55,500	$266,400	8.8	$14.48
Increase Saturday Service						
Route 9 - Add 1 RT	1,700	200	3,300	$21,200	8.5	$12.47
Route 10 - Add 1 RT	1,700	200	3,900	$22,500	8.5	$13.24
Route 12 - 1 Hr. Frequency	2,600	400	12,400	$54,600	6.5	$21.00
Increase Sunday Service						
Route 9 - 5 Round Trips / Day	700	300	6,600	$35,300	2.3	$50.43
Route 10 - 5 Round Trips / Day	700	300	7,700	$37,600	2.3	$53.71
Route 12 - Operate Sat. Schedule	200	50	800	$5,300	4.0	$26.50
Route 9 Mid-Day Service to Cal Poly	400	0	800	$1,700	--	$4.25
New Regional Route to Santa Maria - Guadalupe - Grover Beach - Price Canyon - SLO	4,300	1,800	44,300	$221,500	2.4	$51.51
Provide Route 10 Southbound 6:03 AM Run	3,600	213	2,140	$19,700	16.9	$5.47
End Route 10 Southbound Service in Nipomo	-27,500	-3,200	-93,400	-$424,400	8.6	$15.43
Streamline Route 10 in Santa Maria - All Runs	-2,200	0	-13,700	-$28,700	--	$13.05
Streamline Route 10 in Santa Maria - All But 2 Weekday Runs	-1,700	0	-12,900	-$27,000	--	$15.88
Eliminate Route 10 8:33 PM Southbound Trip	-3,500	-460	-17,900	-$70,400	7.6	$20.11
End Route 10 7:33 PM and 8:33 PM Southbound Trips in Nipomo	-3,300	-200	-6,200	-$27,300	16.5	$8.27
New Direct Express Runs between Los Osos and San Luis Obispo Weekdays	900	500	17,330	$72,000	1.8	$80.00
Alternatives meeting performance standards shaded in green. Note that alternatives meet standards by increasing ridership at a greater rate than costs, eliminating a service not meeting standards, or increasing ridership while decreasing costs.				Recommended Performance Standards	13.6	$13.55

Note 1: Does not include fixed costs

Table 11: RTA Paso Robles Services - Service Alternatives Performance Analysis

	Net Impact					
	Annual Ridership	Service hours	Service Miles	Marginal Operating Cost [1]	Passenger-Trips per Vehicle Service Hour	Marginal Op. Cost per Passenger-Trip
New Paso Robles Route C	7,000	3,100	38,800	$303,000	2.3	$43.29
Paso Robles High School and Daniel Lewis Middle School Tripper	2,300	200	2,600	$19,700	11.5	$8.57
Expand Weekend Service						
Add Saturday Route A Service, 8:00 AM - 8:00 PM	5,700	500	6,700	$49,800	11.4	$8.74
Add Sunday Route B Service, 9:00 AM - 5:00 PM	4,400	400	5,300	$39,700	11.0	$9.02
Extend Route B until 9:00 PM on Weekdays	2,300	500	6,600	$49,600	4.6	$21.57
Convert Paso Robles DAR to Microtransit	200	-	1,100	$6,800	-	$34.00
Convert Shandon/Templeton DAR to Microtransit	1	-	-	$4,500	-	$4,500.00
Alternatives meeting performance standards shaded in green. Note that alternatives meet standards by increasing ridership at a greater rate than costs, eliminating a service not meeting standards, or increasing ridership while decreasing costs.				Recommended Performance Standards	14.9	$11.32

Note 1: Does not include fixed costs

Note 2: Alternatives meet standards by eliminating a service not meeting standards, increasing ridership a greater rate than costs, or increasing ridership while decreasing costs.

Table 12: RTA South County Services - Service Alternatives Performance Analysis

	Net Impact					
	Annual Ridership	Service hours	Service Miles	Annual Marginal Operating Cost [1]	Passenger-Trips per Vehicle Service Hour	Marginal Op. Cost per Passenger-Trip
Realign Routes to Serve Grover Beach Train Station as Primary Transfer Point	-1,600	-	12,000	$25,100	-	-$15.69
Realign Routes to Serve Walmart as Primary Transfer Point	-500	-	-400	-$800	-	$1.60
Arroyo Grande High School Tripper Service	1,100	300	2,200	$26,100	3.7	$23.73
Operate Route 27 on Saturdays	4,200	500	5,100	$46,400	8.4	$11.05
Extend Routes 21 and 28 until 9:00 PM on Weekdays						
Route 21	700	400	5,900	$41,000	1.8	$58.57
Route 28	900	300	2,800	$27,300	3.0	$30.33
Evening "Five Cities" Microtransit Service						
Mon - Fri, 6:00 PM - 10:00 PM	-3,200	1,300	16,250	$145,000	-2.5	-$45.31
Mon - Fri, 7:00 PM - 10:00 PM	1,500	1,300	16,250	$145,000	1.2	$96.67
Convert Nipomo DAR to Microtransit	600	-	1,700	$13,500	-	$22.50
Alternatives meeting performance standards shaded in green. Note that alternatives meet standards by increasing ridership at a greater rate than costs, eliminating a service not meeting standards, or increasing ridership while decreasing costs.				Recommended Performance Standards	14.9	$11.66

Note 1: Does not include fixed costs

Figure 6: RTA Service Alternatives - Impact on Annual Ridership

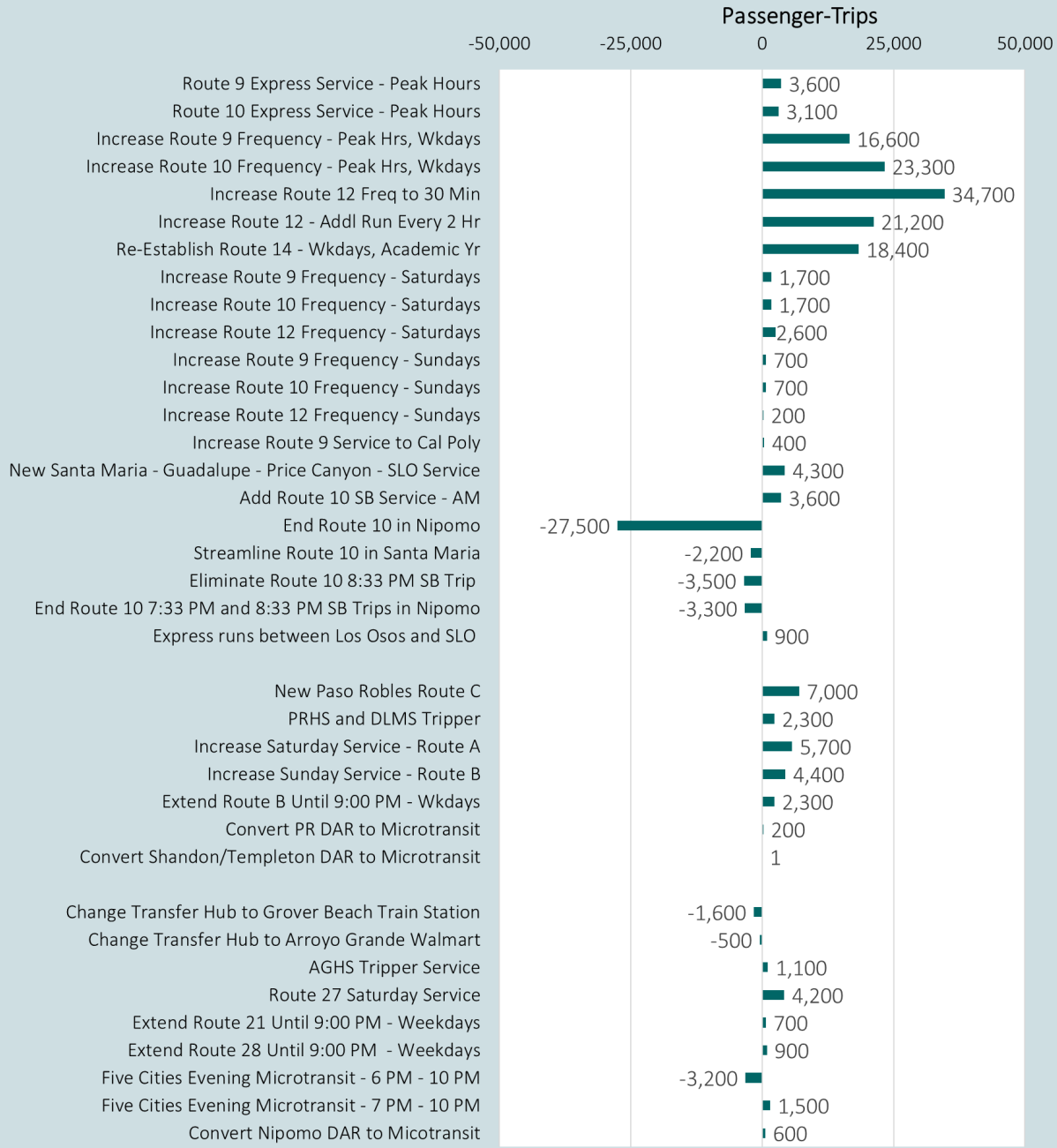


Figure 7: RTA Service Alternatives - Impact on Annual Marginal Operating Cost

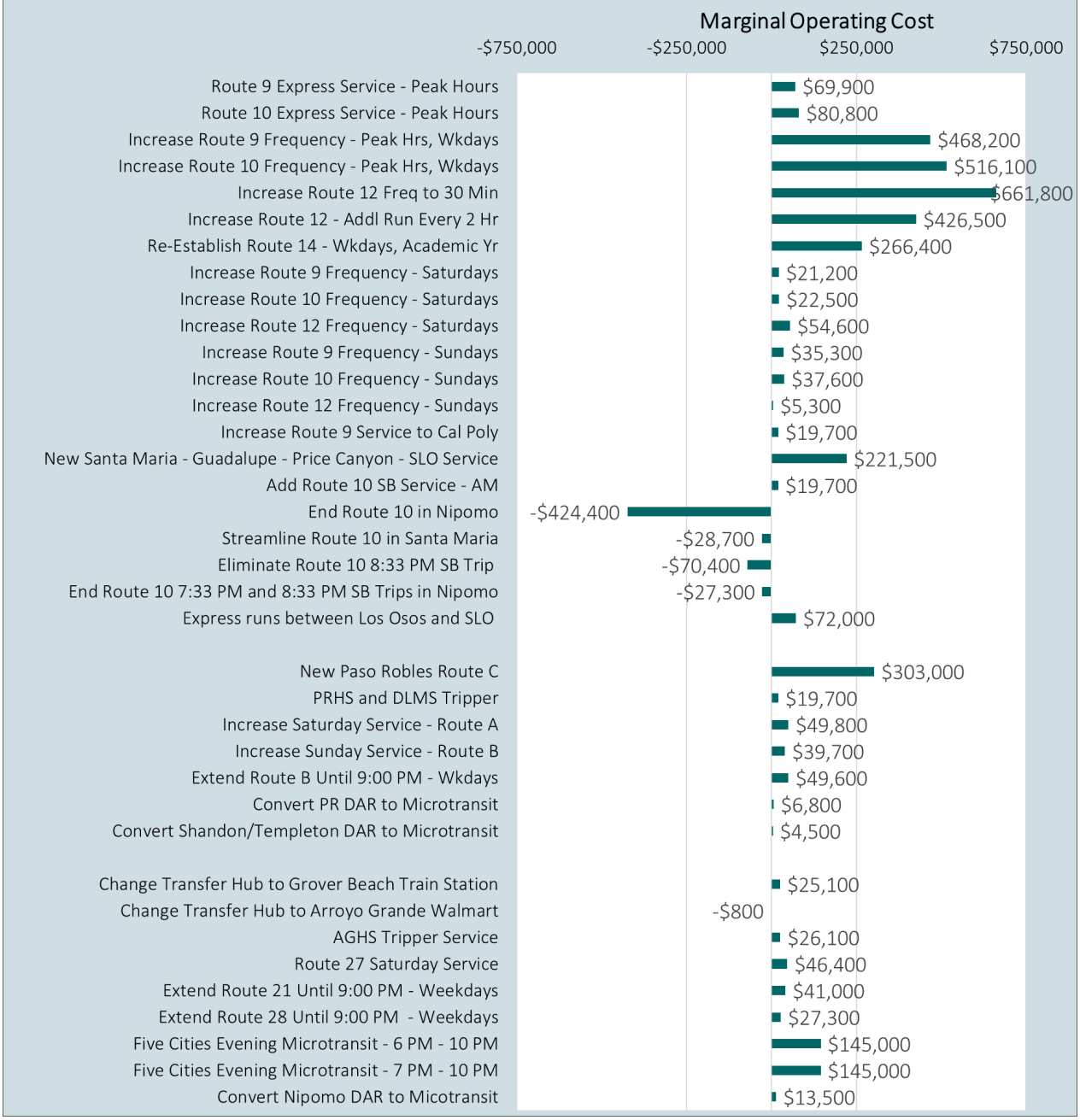


Figure 8: RTA Service Alternatives - Passenger-Trips per Vehicle Service Hour

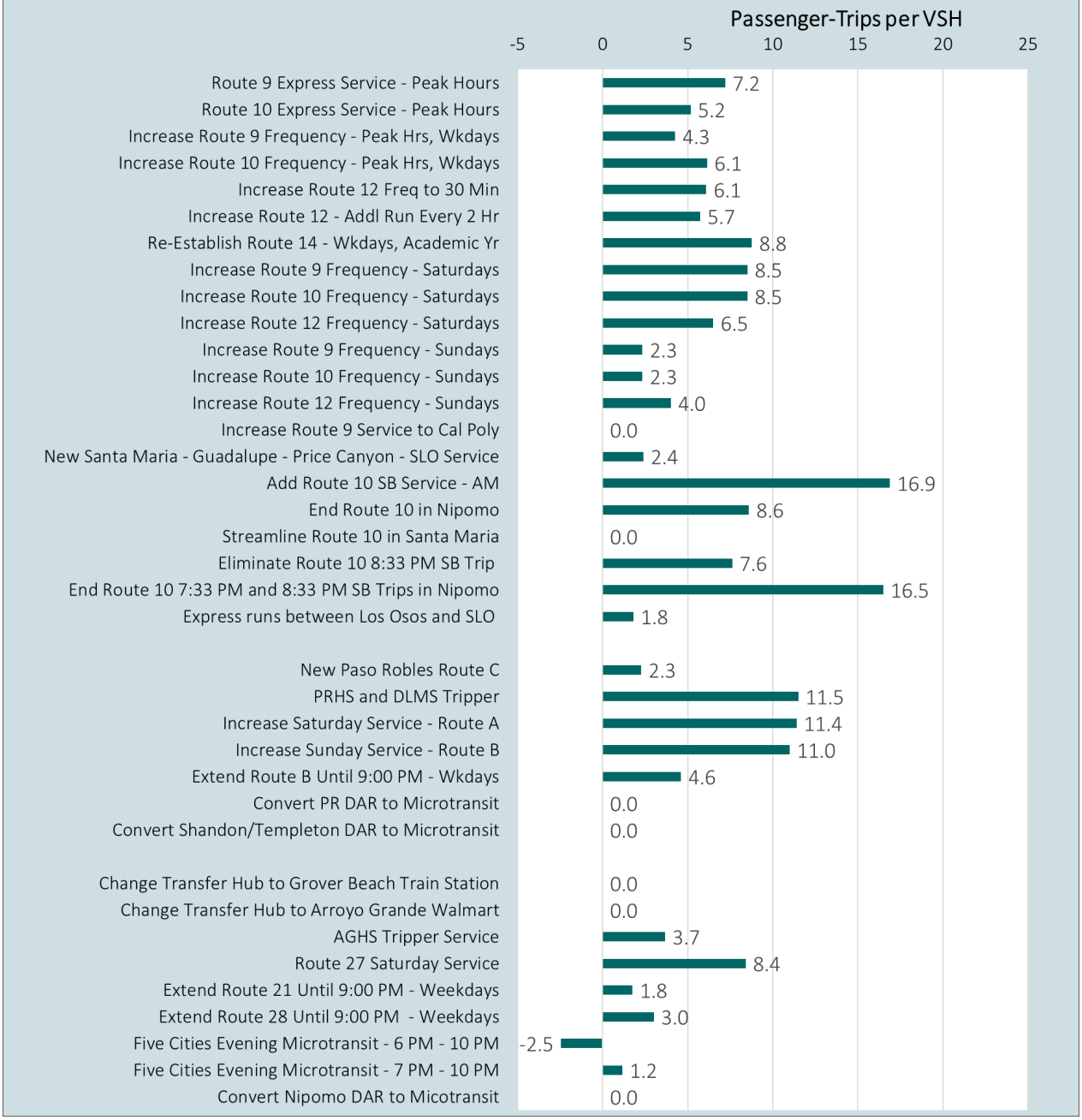
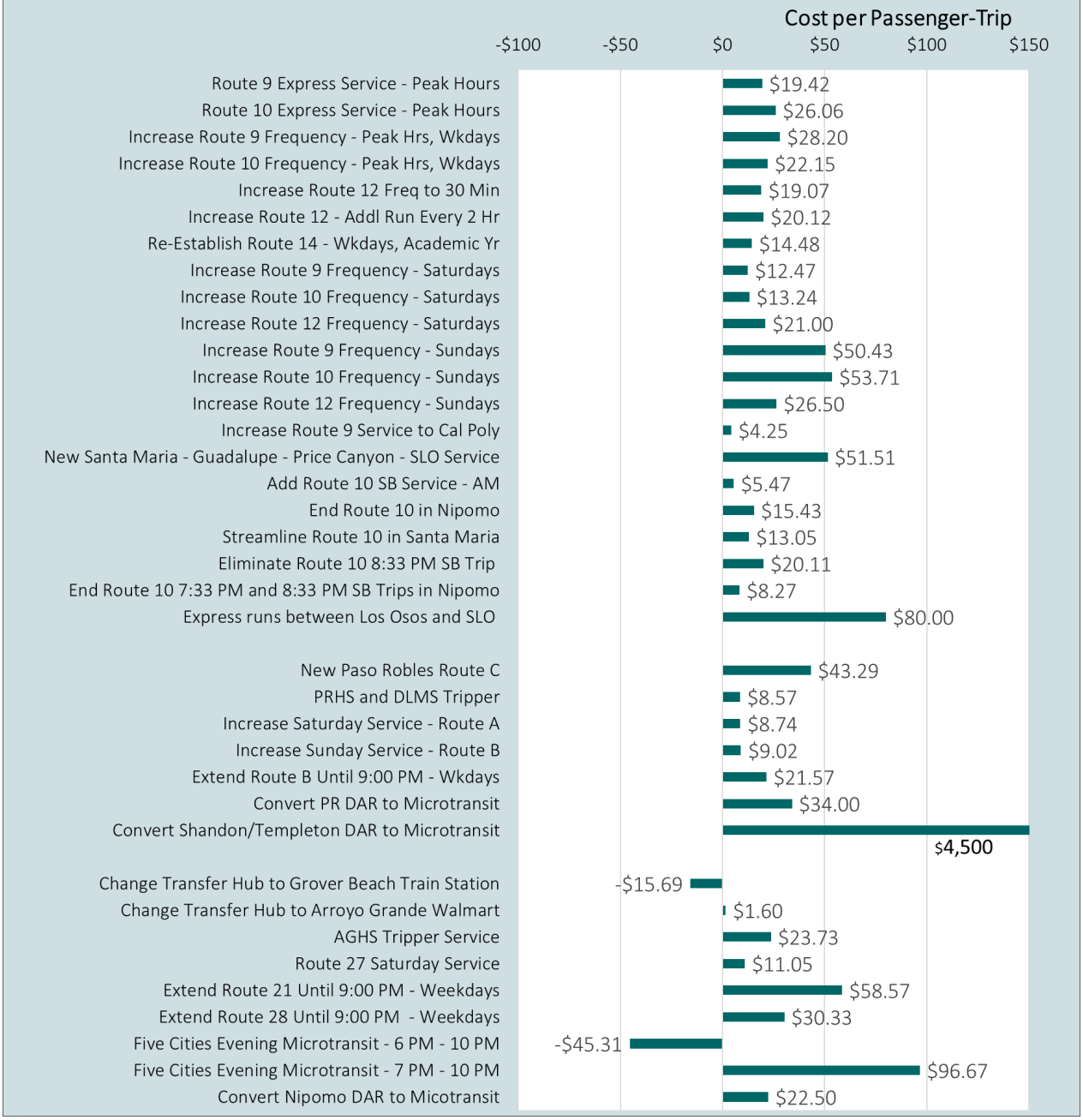


Figure 9: RTA Service Alternatives - Marginal Operating Cost per Passenger-Trip



Comparison of Regional Service Alternatives

Table 10 and Figures 6 through 9 show the relative performance of the regional service alternatives. The ridership impacts range from an increase of 34,700 passenger-trips (increasing Route 12 weekday service frequency) to a loss of 27,500 passenger-trips (ending Route 10 service in Nipomo). Other alternatives which would result in relatively large ridership increases include increasing Route 10 peak-period

frequency on weekdays (23,300), operating additional Route 12 runs every other hour (21,200), re-establishing Route 14 (18,400) and increasing Route 9's peak-period frequency on weekdays (16,600).

The cost impacts also would range significantly, with the option to end Route 10 service in Nipomo providing the greatest annual cost savings (-$424,400) and the options to increase weekday service frequency on Routes 9, 10, and 12 requiring the greatest cost increases (upwards of $468,000).

The marginal number of passenger-trips provided per hour of service is a good indicator of the relative productivity of the different alternatives. Based on this metric, adding an earlier Route 10 southbound run is the most productive (16.9)[3] followed by re-establishing Route 14 service (8.8). Implementing a two-hour headway on Routes 9 and 10 on Saturdays would also be productive. Ending Route 10 service in Nipomo and eliminating the 8:33 PM Route 10 southbound trip would meet standards by eliminating unproductive service hours. Adding mid-day Route 9 service to Cal Poly and streamlining Route 10 in Nipomo would not impact service hours, therefore this metric does not apply.

Alternatives that would meet performance standards by increasing ridership at a relatively low cost include increasing Saturday service frequency on Routes 9 and 10 and adding mid-day Route 9 service to Cal Poly. The options that would be most expensive per passenger-trip added would be implementing the new, regional Route 16 ($105.48) and express runs between Los Osos and SLO ($90).

Comparison of Paso Robles Service Alternatives

The service alternatives considered for the local Paso Robles services are compared in Table 11 and Figures 6 through 9. As shown, converting the Paso Robles and Shandon/Templeton DARs into microtransit services would have the smallest impact on ridership (1 to 200 additional passenger-trips), while implementing a new Route C service would have the greatest impact (+7,000 passenger-trips). Similarly, adding microtransit technology to the two DARs would have the least impact on costs (an increase of $4,500 to $6,800 annually), while operating Route C would have the greatest cost impact (+$303,000).

Expanding local weekend service would be the most productive service enhancement: Route A would serve 11.4 passenger-trips per hour on Saturdays, and Route B would serve 11.0 passenger-trips per hour on Sundays. While these new weekend services would not technically meet standards, they would still be rather productive for weekend services. Adding new weekend service options would also be cost-efficient service enhancements, as the cost would be less than $11.32 per passenger-trip added. A School Tripper would also be cost-effective ($8.57). While none of the other alternatives would likely meet productivity or cost standards during the first year of operations, it is important to consider other benefits that are provided, such as transit access.

Comparison of South County Service Alternatives

The performance of the South County service alternatives is presented in Table 12 and Figures 6 to 9. The best options in regard to ridership would be to operate Route 27 on Saturdays (+4,200 passenger-trips per year), operating an evening microtransit service from 7:00 PM to 10:00 PM (+1,500 passenger-trips), and reinstating the AGHS tripper service (+1,100 passenger-trips). Moving the South County transfer hub

[3] This result is in part due to the fact that RTA currently operates a deadhead southbound run.

from Ramona Garden Park to either Grover Beach Train Station or Walmart and operating microtransit from 6:00 PM to 10:00 PM would negatively impact ridership. Operating an evening microtransit service would add the most costs per year ($145,000), while moving the primary South County transfer hub would result in slight cost savings. All the other alternatives would have more moderate impacts on costs.

As route realignments would not impact vehicle service hours, there is no way to assess ridership changes per hour of service impacted. Of the alternatives that would increase service levels, running Route 27 on Saturdays would be the most productive alternative (8.4 passenger-trips per hour). Operating microtransit from 6:00 PM to 10:00 PM would be the least productive alternative, as the net impact would be a reduction in ridership despite increasing service levels.

The significance of the marginal cost per passenger-trip varies depending on the alternatives. Realigning the routes to serve Grover Beach Train Station as the primary transfer point and operating an evening microtransit service from 6:00 PM to 10:00 PM would increase costs but cause a loss in ridership. Realigning the routes to serve Walmart would result in slight savings of $1.60 per passenger-trip lost. All the other alternatives would increase both costs and ridership, therefore the values shown represent additional costs required per new passenger-trip. Of these options, the most cost-effective would be operating Route 27 on Saturdays ($11.05 per passenger-trip) and converting the Nipomo DAR into a microtransit service ($22.50). Although none of the alternatives are projected to meet either productivity or cost performance standards in the first year of operations, there are other benefits, such as expanded hours, more direct service options, and improved onboard safety that should still be considered when evaluating the different alternatives.

Comparison with Performance Standards / Conclusions

The results of the performance analysis can be compared with the standards identified in Working Paper 2 as a guideline to defining those service alternatives that meet or exceed standards. Those results shaded in Table 10 indicate service alternatives that meet the standard of at least 13.6 passenger-trips per vehicle-hour of service or a maximum of $11.66 in operating subsidy per passenger-trip. A review of these results as well as other considerations as discussed above yields the following list of alternatives that clearly merit consideration in the plan development:

- Provide a mid-day stop at Cal Poly on Route 9.
- Convert one of the existing Route 10 southbound deadhead runs into a 6:03 AM southbound Route 10 scheduled run.
- Increase Route 9 Saturday service frequency
- Increase Route 10 Saturday service frequency
- Provide Paso Robles Route A service on Saturdays
- Provide Paso Robles Route B service on Sundays
- Provide tripper service to Paso Robles High School and Daniel Lewis Middle School
- Provide Route 27 service on Saturdays

In addition, there are some other service alternatives that could be considered in the plan pending further discussion and evaluation of overall funding availability:

- Re-establish Route 14 service
- Streamline Route 10 service in Santa Maria, all but 2 weekday runs
- Eliminate the Route 10 8:33 PM southbound run