

TransitRenewal 2012-2017
Service Implementation for TransitAction



 **Regional Transit**

TransitRenewal Draft Report

Prepared by:



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1. Introduction

The 2011-2012 Sacramento Regional Transit Comprehensive Operational Analysis, commonly known as “TransitRenewal”, includes a review of existing market conditions and transit service and aims to position the RT network to sustainably meet future transit demand within the service area. Sustainability is the method of using a resource without depleting or damaging it for future use. Sustainable transit planning focuses on meeting transit needs of the present without compromising the ability of future generations to meet such needs¹. TransitRenewal responds to changing economic circumstances and RT’s new financial realities. In 2010, RT implemented substantial service reductions which included discontinuing several bus routes, reducing service levels, and reducing spans. TransitRenewal responds to RT’s plan to regain previous FY 2010 service levels and intends to identify core areas of the RT system where investment will have a maximum benefit, and will guide RT to a more financially sustainable future.

¹ Source: Transportation Research Board of the National Academies, Conference Proceedings 37: Integrating Sustainability into the Transportation Planning Process



2. RT Market Analysis

The Market Assessment is a key component of TransitRenewal. The analysis will help RT to analyze and understand current and future transit market needs within the RT service area. It will identify existing regional and local market opportunities where additional transit investment may be warranted in order to grow ridership in the near and long terms.

The Sacramento Regional Transit District (RT) provides multi-modal transportation service throughout Sacramento County. The system consists of approximately 69 routes and 37.4 miles of light rail covering a 418 square-mile service area. Bus and light rail operate 365 days a year with buses operating between 5:00 a.m. to 9:00 p.m. and light rail trains operating from 4:00 a.m. to 9:00 p.m. There are 47 light rail stations, 31 bus and light rail transfer centers, 18 park-and-ride lots, and over 3,500 bus stops throughout Sacramento County.

This task is intended to address important questions concerning:

- **Community Profile:** What are the key themes regarding the population, employment, and demographics of the RT service area? How do these themes relate to transit service?
- **Travel Patterns:** What are the region's overall travel patterns? Are there new areas where transit holds the potential to attract demand from major travel patterns?
- **Key Destinations:** What are the region's key generators of travel (employment, education, retail/commercial, medical, social service, etc.)? How can transit best serve these markets? How do these correlate with travel patterns and the location of population and employment densities?
- **Future Developments:** Where are future developments expected, and how can transit effectively serve them? Can transit planning be more closely linked with the planning and implementation of these developments?



2.1 Sustainable Planning Strategies

Several key documents play an integral role in preparing and shaping Sacramento for the future. Each of these documents share a focus on connecting transit planning with land use planning with the hope of creating a sustainable region for both today and the future. In addition, coordinating land use development with transit will also result in more effective and efficient services for RT. Below are brief discussions of each relevant document:

- ***Transit for Livable Communities TLC (2002)*** – A land use planning project approved and implemented by RT intended to encourage development around 21 of RT’s light rail stations and foster public support for Transit Oriented Development (TOD). The TLC recommended land use plans, emphasized walkable design, higher density development, and mixed land uses, all intended to support growing communities at each station while encouraging transit use.
- ***Preferred Blueprint Scenario 2050 (2004)*** – Vision produced by SACOG in reaction to continued sprawl and significant forecasted increases in population, employment, and households as well as an aging population in the Sacramento region over the next 30-50 years. The vision incorporates “Smart Growth” principles and embodies similar objectives as the TLC, with a focus on higher density, mixed use neighborhoods, designed with a larger emphasis on walking, cycling, and transit use. These communities will be livable and designed with “complete streets” to reduce reliance on the private car and provide a more sustainable future.
- ***Assembly Bill 32: Global Warming Solutions Act (2006)*** – California state legislation that set 2020 greenhouse gas emissions reduction goals into law. The bill directed the California Air Resources Board (ARB) to begin developing discrete early actions to reduce greenhouse gases while also preparing a scoping plan to identify how best to reach the 2020 limit. Reduction measures to meet the 2020 target were adopted in February 2011.
- ***Senate Bill 375 (2008)*** – A response to AB 32, legislation that intended to enhance California’s ability to reach its 2020 greenhouse gas emissions reduction goals by promoting effective planning with the goal of more sustainable communities. The bill requires the ARB to develop these goals for 2020 and 2035 for each region covered by one of the State’s 18 metropolitan planning organizations (MPOs). Each MPO must then prepare a “sustainable communities strategy (SCS)” which shows how the region will meet its greenhouse gas reduction target through integrated land use, housing, and transportation planning.
- ***SACOG Metropolitan Transportation Plan 2035 (2008)*** – Produced by SACOG this document acts as the MTP for the region, the plan focuses on building up



and around the strong assets already found throughout the region. The transportation investments in this plan mirror and support this development pattern, with significant increases in funding for public transit, pedestrian and bicycle trips, and shorter and more local car trips, complemented by targeted road capacity investments. The plan is intended to break the rise in congestion, increase travel options, reduce air emissions, and including greenhouse gases on a per person basis.

- **TransitAction Plan (2009)** - RT's recently completed long term plan, creating a transit vision for the next 25 years. The Plan supports the objectives of the Blueprint 2050 vision and offers a full assessment of alternatives and presents an integrated package of transit investments and increased service frequencies intended to make transit a much improved transportation choice for everyone in the Sacramento region



2.2 Community Profile

Population and employment densities, demographic characteristics, and land uses/key destinations are the focus of this analysis. Such underlying conditions are often good indicators of where transit service will most likely be successful and sustainable, and where it will be less effective.

It is important to consider density from the perspective of transit competitiveness, and where transit can be an option for most or all trips and where it is only a competitive option for limited trips. “Core” transit territory includes areas where higher densities and mixed uses contribute to a competitive transit environment. Outer core or suburban areas exist where lower-density, auto-oriented development creates a less competitive transit environment and transit products must be tailored to particular market needs such as commute travel, school trips, or senior mobility.

Key data for profiling population and employment in the RT service area reflects the most recent Sacramento Area Council of Governments (SACOG) projections. The 2000 U.S. Census data provides the basis for the service area demographic assessment.

2.2.1 Population and Employment Density

Population and employment densities are a key element in transit success. Higher density residential developments and major employment centers are important transit trip generators. The following maps depict existing (2005) population and employment densities in the RT service area and projected change (2005 – 2035) in these densities.

Existing Population and Employment (2005)

Map 2.1 shows existing population and employment densities in the RT service area.

Population In the RT service area, highest population densities are found in downtown Sacramento, Northern Sacramento, North Natomas, and near Sacramento State University. Beyond these, population densities range from low to moderate and are typically dispersed as a result of suburban and auto-centric land development. East of Watt Avenue especially, population density becomes more sparse as suburban development predominates.

Population density has various implications for transit service. While higher densities (especially in conjunction with mixed-use amenities) are generally able to sustain higher-frequency fixed-route transit service, lower density, auto-oriented residential development can still be effective generators of transit ridership if riders are traveling to a concentrated destination (such as downtown Sacramento).

It is important to note that high population density is not always an indicator of a competitive transit environment. Density organized around grid-type, walkable



street patterns with limited parking (such as downtown Sacramento) is more competitive than density organized around wide, curvilinear streets with ample parking, which is a pattern seen in the North Natomas area.

Employment Densities in the RT service area range from moderate to high, with areas of highest employment density found in downtown Sacramento and its immediate surroundings. High densities are also found in the Arden-Arcade area, including Arden Fair Mall. Other areas of employment, such as Rancho Cordova and Natomas, contain significant volumes of employees but are more suburban in nature with a strong orientation towards the automobile.

Employment density has different implications for transit service than population density. High-density, concentrated employment centers are excellent ridership generators since passengers can easily get to their final destination by walking. Conversely, low-density, sprawling office parks are highly challenging to serve with transit. Since final destinations are spread out and parking is usually ample, the automobile is a more competitive option for travelers who have the choice.

Population and Employment Change (2005 – 2035)

Map 2.2 shows the projected change in population and employment densities within the RT service area from 2005 to 2035, while Map 3 shows total projected 2035 densities.

Population Residential development is planned in downtown Sacramento, just outside of downtown near Sacramento State University, in North Natomas, North Highlands along Watt Avenue, Rancho Cordova, Elk Grove, and Meadowview among others. The development along Watt Avenue appears concentrated and blended with employment uses, which is beneficial for transit.

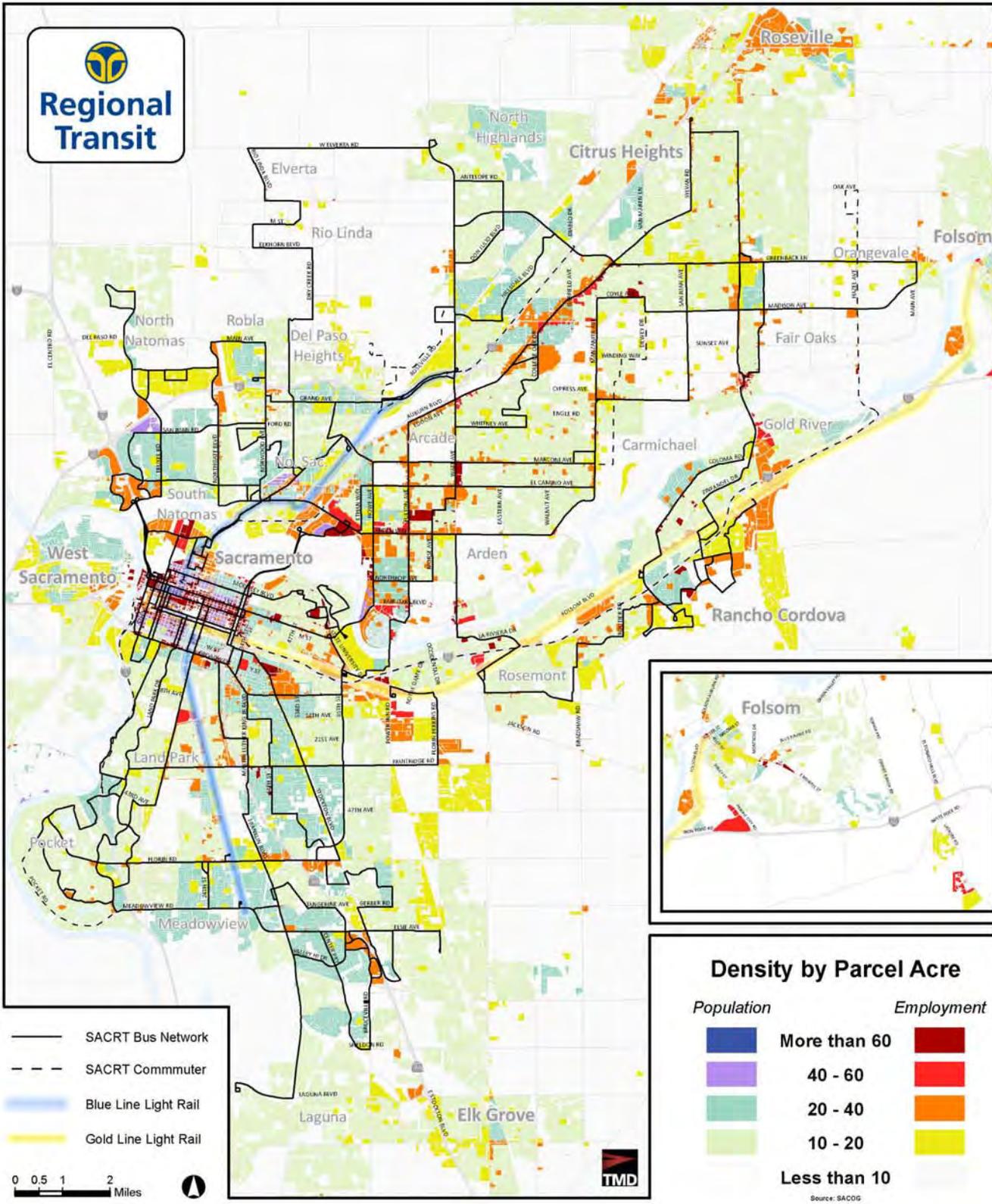
It is important to note the population density change in the unincorporated areas south of Rosemont and south of Rancho Cordova. While the planned densities appear to be supportive of future transit service, the development is spread out and their locations are removed from existing transit service. The increased resources required to serve such developments would be considerable, and may necessitate a cost-sharing arrangement with development and jurisdictional authorities.

Employment Development is planned in downtown Sacramento and West Sacramento, South and North Natomas, Elk Grove, and certain areas adjacent to the Gold Line including Rancho Cordova and areas southwest of Folsom. Development in close proximity to transit maximizes the effectiveness of existing transit investment.

In general, future population and employment densities are a result of infill and redevelopment in the urban core, new growth expected in Natomas and unincorporated Sacramento County, and transit oriented development, specifically along key transit corridors (i.e. Watt Avenue and Stockton Boulevard). Outside of these, development will occur in smaller, more isolated areas scattered throughout the county, with regional growth focused outside the urban core.



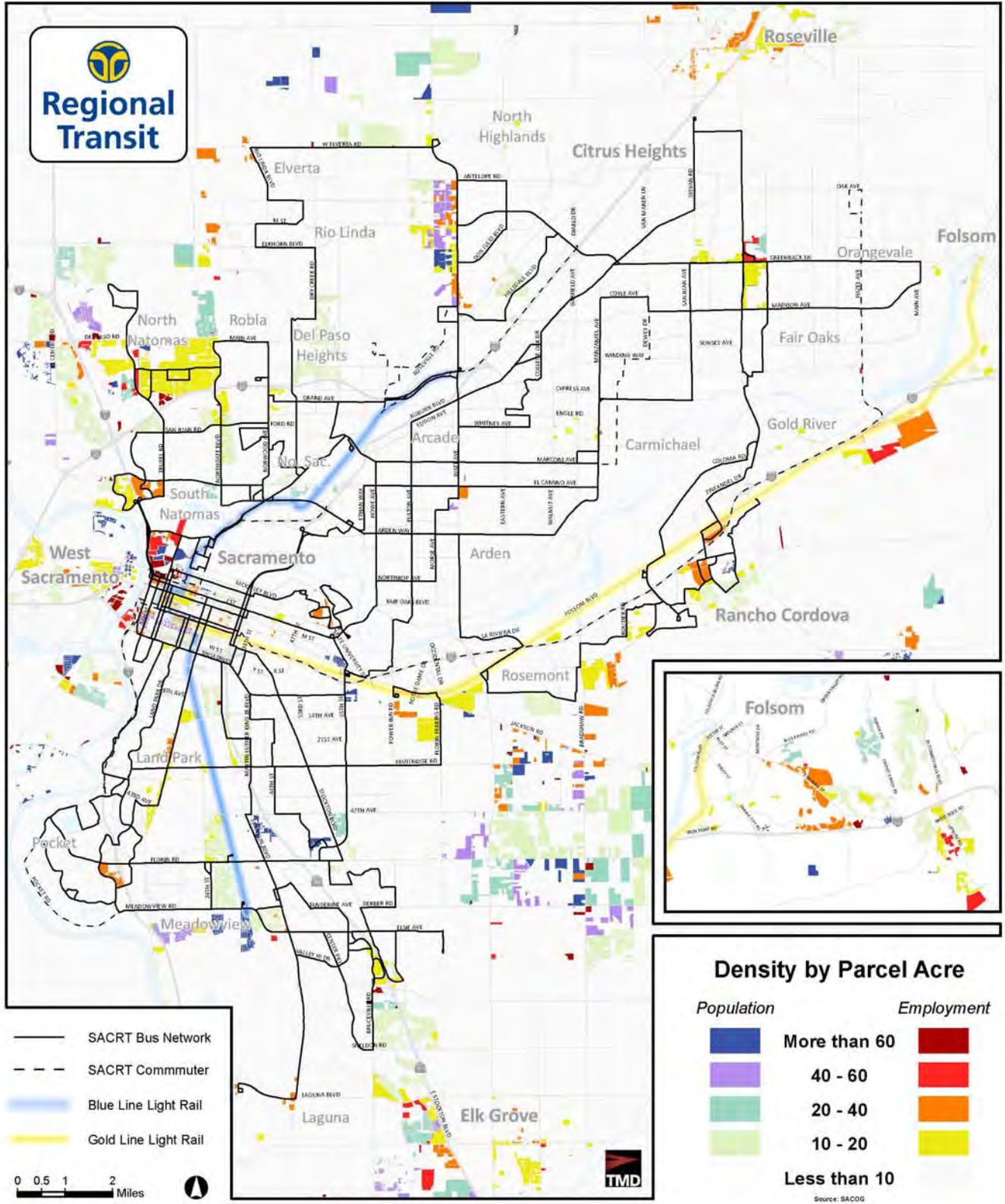
2005 Population & Employment Density



Map 2.1 2005 Population & Employment Density



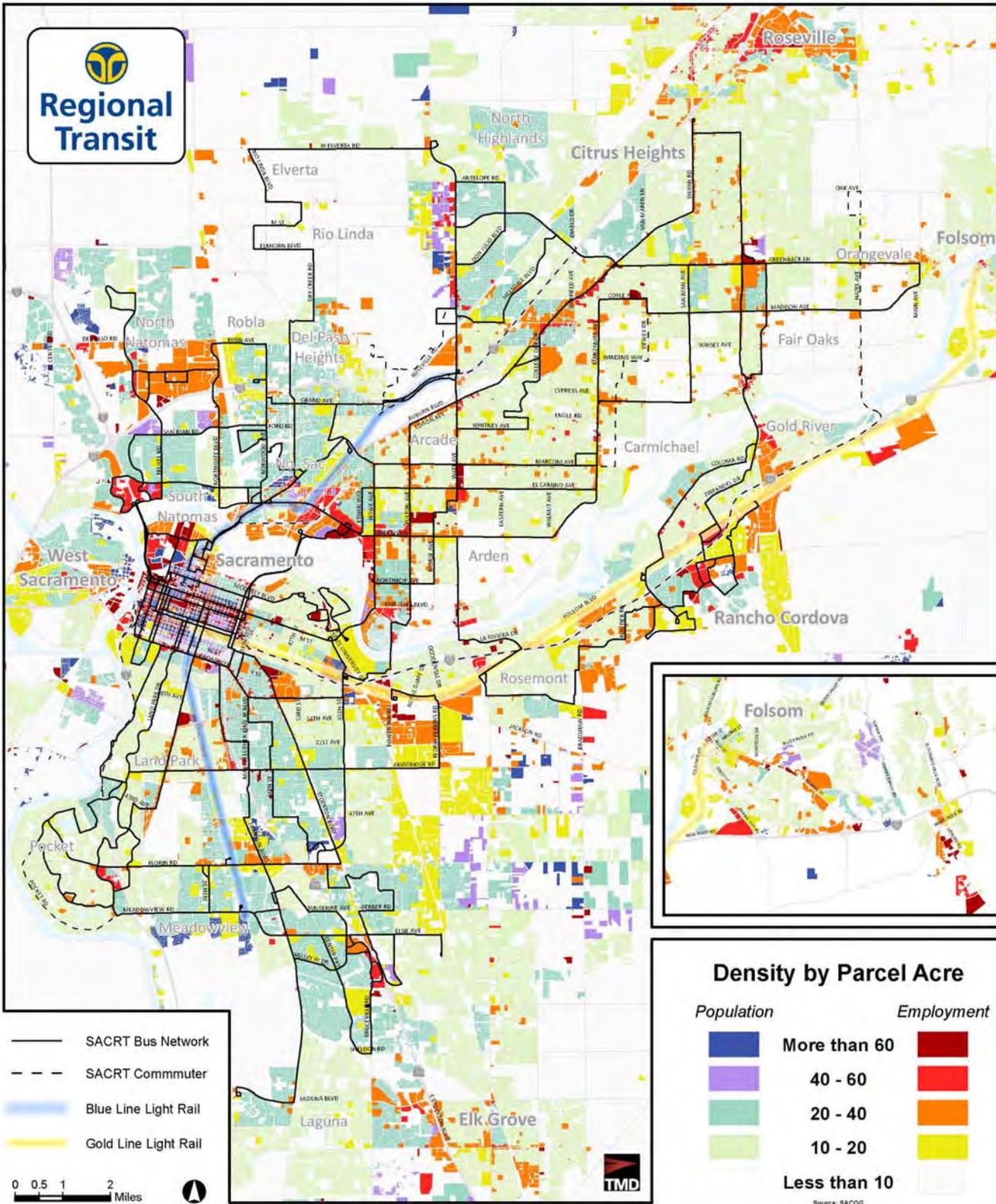
2005 - 2035 Population & Employment Change



Map 2.2 2035 Population & Employment Density Change



2035 Population & Employment Density



Map 2.3 2035 Population & Employment Density



2.2.2 Population Demographic Characteristics

A review of key U.S. Census 2000 population demographic characteristics helps identify densities of population segments more oriented towards transit use, including youth, college-aged young adult, senior citizen, physically disabled, financially disadvantaged, and zero-vehicle household populations.

Youth for this study is defined as persons 12 – 17 years of age. Youth residents are typically middle school and high school students able to independently utilize transit as a means for daily travel needs. Youth densities are overall dispersed throughout the RT service area with no particular areas of concentration.

College-Aged Young Adults for this study is defined as persons 18 – 24 years of age. College-aged young adults are typically students attending trade schools, community colleges, or universities (as found in the RT TransitRenewal Study Survey), have lower levels of income, and are less likely to own their own vehicle. These factors suggest that college-aged young adults are more likely to use alternative means for personal mobility, such as transit. College-aged young adult densities are also dispersed throughout the region, with noticeably higher concentrations in downtown Sacramento, North Sacramento, Arden, Rosemont, and surrounding Sacramento State University.

Senior Citizens as used in this study are defined as persons 65 years of age and older. Seniors citizens, often retired, may use public transit more regularly than the general population for shopping, medical, and other personal trips. Senior citizen populations are scattered throughout the area, with higher densities in downtown Sacramento, outside of downtown near Mercy General Hospital, along Broadway, in the Campus Commons region, and north of Citrus Heights.

Physically Disabled as used in this study is defined by the U.S. Census as persons with a physical impairment that substantially limits one or more major life activities. Such populations are more likely to be transit dependent, either for fixed route transit or complementary Americans with Disabilities Act (ADA) transit services. Physically disabled densities are greatest in downtown Sacramento, outside of downtown along Broadway, in South Sacramento, Arden, and in Rancho Cordova.

Financially Disadvantaged as used in this study is defined by the U.S. Census as a household with a total family income less than or equal to its poverty threshold. This threshold is calculated based on the size of the family, and how many children under the age of 18 live in the household. These families are more likely to use transit out of necessity, as they are less able to afford other forms of transportation with some or all of a household using transit as their primary mode. Financially disadvantaged individuals make up a large part of the RT transit dependent market. The densities are highest in downtown Sacramento and surrounding areas: North Sacramento and Del Paso Heights, Arden-Arcade, and the southeastern quadrant of the RT service area bounded by Franklin Boulevard and Stockton Boulevard.

Zero Vehicle Households as used in this study are defined as those households which do not own a vehicle; however, they may have access to cars through borrowing or renting. Typically, an area is seen to have a zero vehicle household population if there are one or more households per acre without access to a car. Moderate zero vehicle household



densities are seen in downtown Sacramento and outside of downtown along Broadway; however, most households in the service area appear to have access to automobiles.

2.3 Travel Patterns

Travel patterns help to identify major travel movements within and outside of the RT service area. Origin-destination pairs displaying significant volumes of travel activity will help to identify strong local and regional transit corridors. A review of overall travel demand patterns may indicate opportunities for transit to increase its mode share in the region.

This analysis includes a review of all-mode travel both within the RT service boundaries and to surrounding areas in the greater Sacramento region. Travel demand data provided by SACOG travel modeling and RT On-Board Survey 2010 data was used to create origin-destination maps of existing private vehicle and public transit travel patterns within the RT service area, respectively. Analysis zones are based on ZIP codes.

2.3.1 Existing (2005) Private Vehicle Travel Patterns

Map 2.4 graphically shows all trips made to and from the RT service area, according to the SACOG travel demand model. Most communities generate a high amount of internal travel and shorter-distance travel between neighboring communities. Downtown Sacramento and the southeastern quadrant of the RT service generate significant internal and external travel.

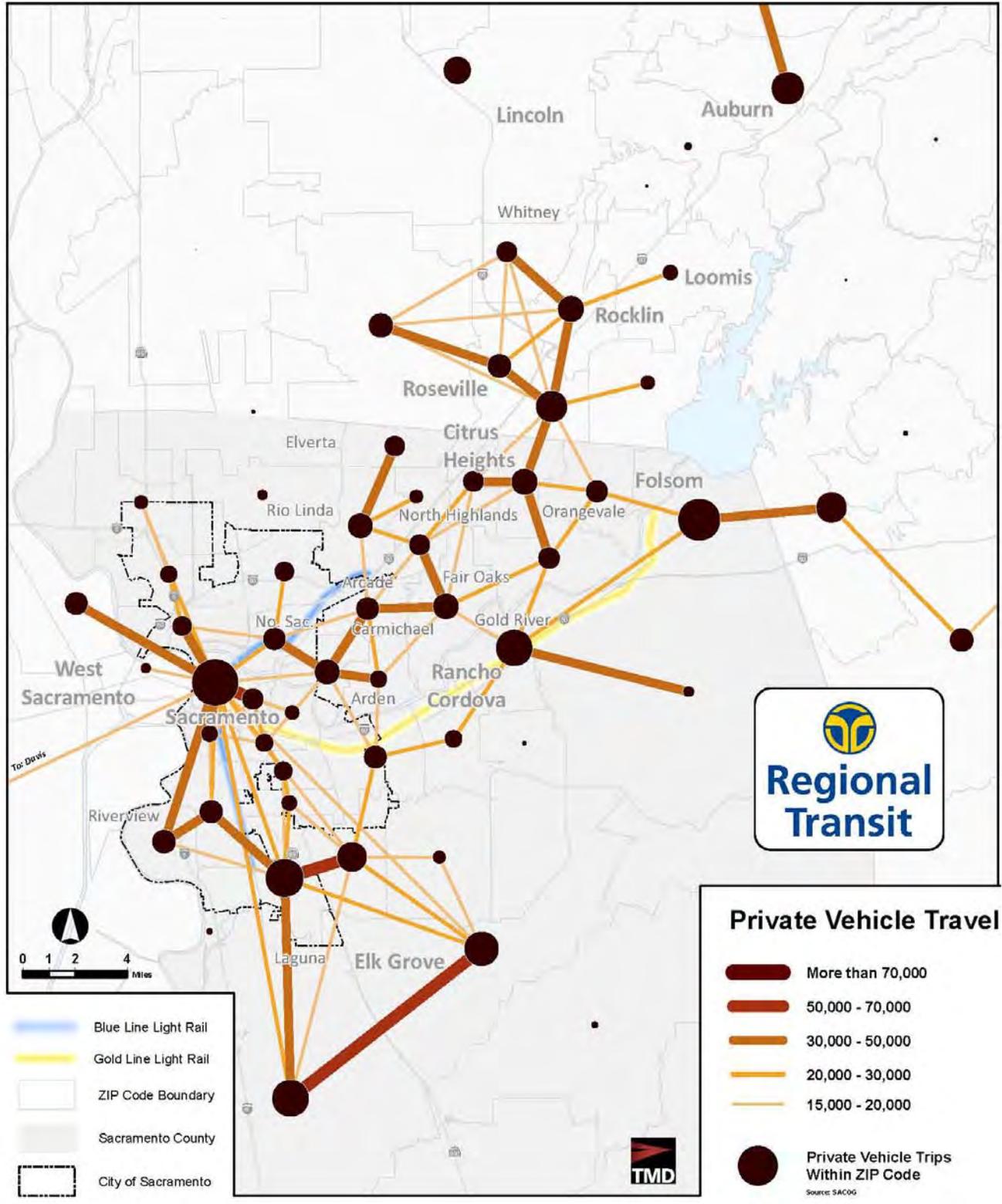
Map 2.5 shows existing work trips made to and from the RT service area. Work-related travel is much more radial in nature when compared to the travel patterns of all regional trips, with downtown Sacramento acting as a major work-related destination. Rancho Cordova experiences a high number of work-related trips, largely due to the significant employment destinations in the area. It is important to note that while strong demand lines do not appear between the north and eastern parts of the service area and downtown Sacramento, this is in part due to the smaller analysis zones. While each individual demand line may not show strongly, on the aggregate, this area produces significant travel volumes into downtown.

2.3.2 Existing (2010) Public Transit Travel Patterns

Map 2.6 shows 2010 public transit trips by origin and destination made within the RT service area. The travel patterns are focused on downtown Sacramento and appear similar to those of existing private vehicle work trips, suggesting the importance of work-related travel on RT transit services. Travel between the Pocket area and Downtown Sacramento appears to be a strong component of public transit travel, likely a result of commute-oriented trips. In addition, the Meadowview/Cosumnes River College area generates the highest amount of internal trips, likely due to the level of lower income and non-English speaking households, small businesses, and big box stores.



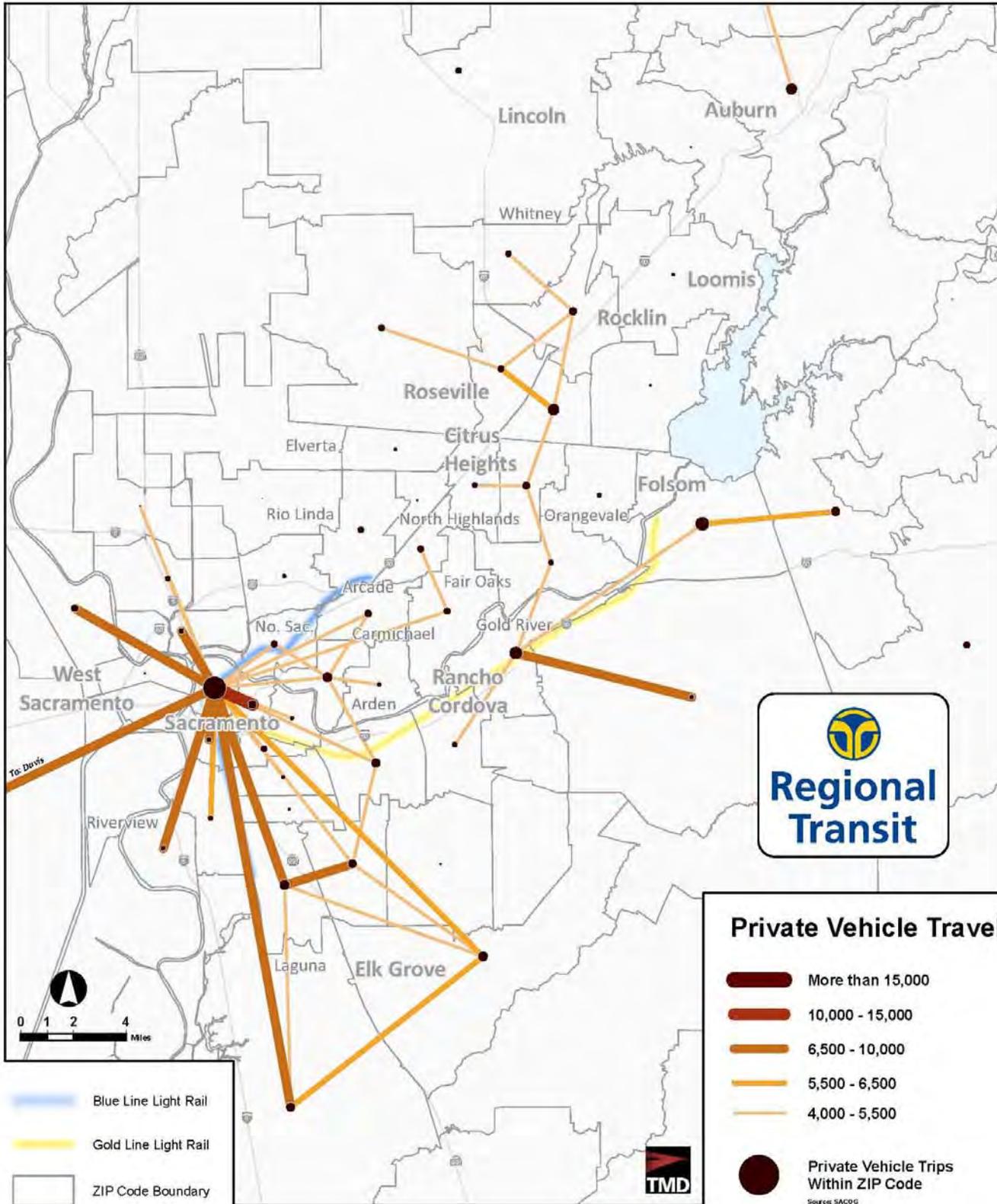
2005 - All Trips



Map 2.4 2005 All Trips



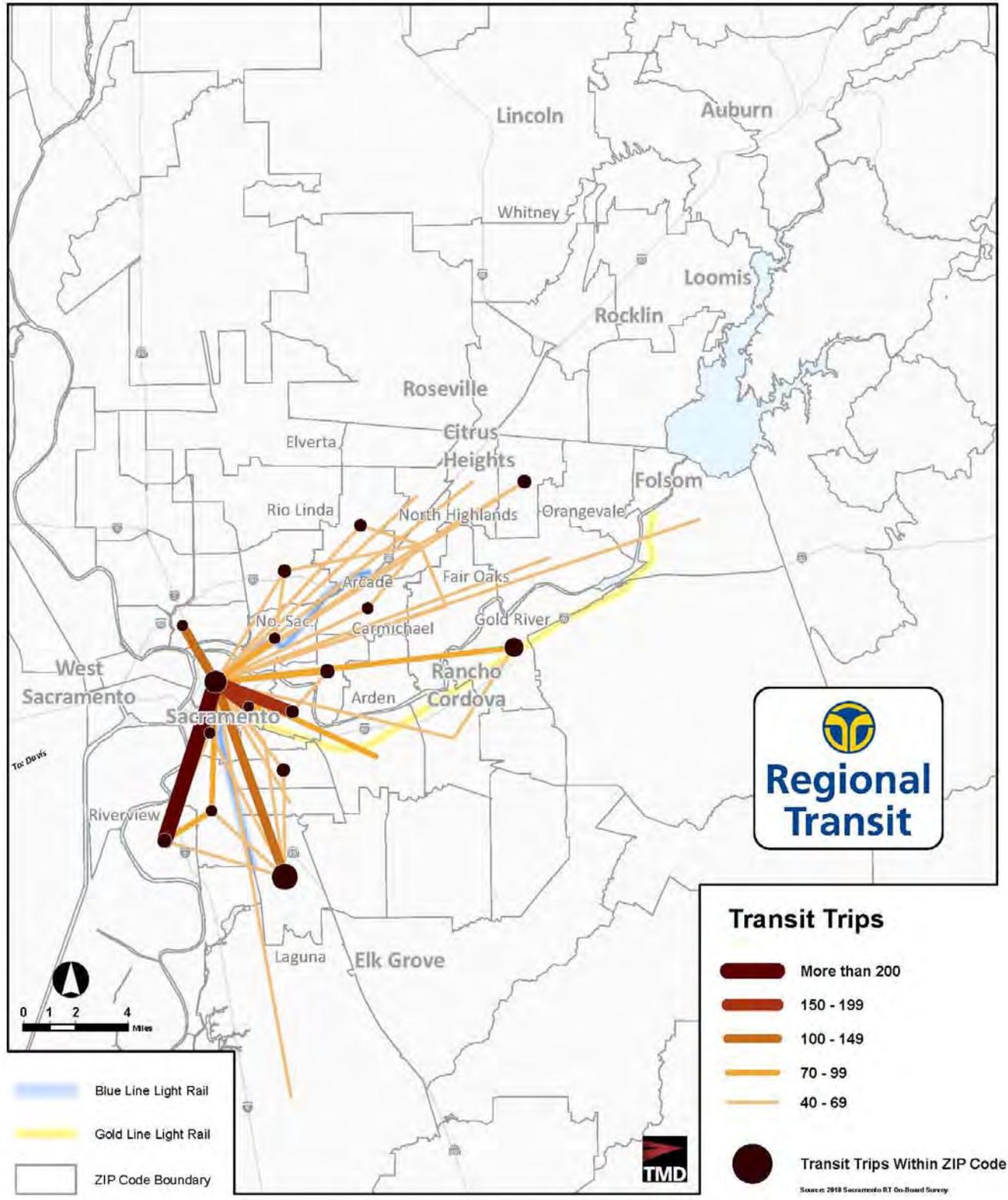
2005 - Work Trips



Map 2.5 2005 Work Trips



2010 - Public Transit Trips Origin/Destination Data



Map 2.6 2010 Public Transit Trips



2.4 Key Destinations

Key destinations in any region may include major employment, education, medical, and recreation and tourist locations. These areas typically generate a significant volume of trips and provide an opportunity for transit services to grow ridership. Map 2.7 illustrates the key destinations and activity centers.

2.4.1 Employment

Employment destinations attract strong transit use, especially when there are dense, well concentrated areas of employment. Downtown Sacramento contains a wealth of employment, including numerous government entities and private employers. Rancho Cordova and the Fair Oaks area contain notable employment concentrations, where the potential to capture ridership competes against auto-centricity. North Sacramento, Arden-Arcade, and Carmichael, also contain significant volumes of employment. These key employment destinations are important current or potential transit ridership generators; however, the form of the development itself (centralized and walkable versus spread out and auto-oriented) has significant implications for transit itself (as discussed in Section 2.2.1).

2.4.2 Educational Institutions

Educational institutions, especially higher education institutions, are major ridership generators. Students attending colleges and universities typically have lower incomes and are less likely to own an automobile. Sacramento State University and Sacramento City College, American River College, Cosumnes River College, and Folsom Lake College (each a part of the Los Rios Community College District) are located within the RT service area and show a combined total enrollment of approximately 86,000 students². There are also several private colleges and trade schools located within the RT service area.

In addition to higher education institutions, there are approximately 132,880 middle school and high school students enrolled in Sacramento County public schools³. Middle schools and high schools are located throughout the region and RT currently provides service to the majority of the schools.

2.4.3 Medical

Medical destinations are dispersed throughout the service area. All major medical facilities are currently served by RT bus routes and, with the exception of Sutter General

² Source: Los Rios Community College District and Sacramento State University.

³ Source: California Longitudinal Pupil Achievement Data System (CALPADS) May 2011.



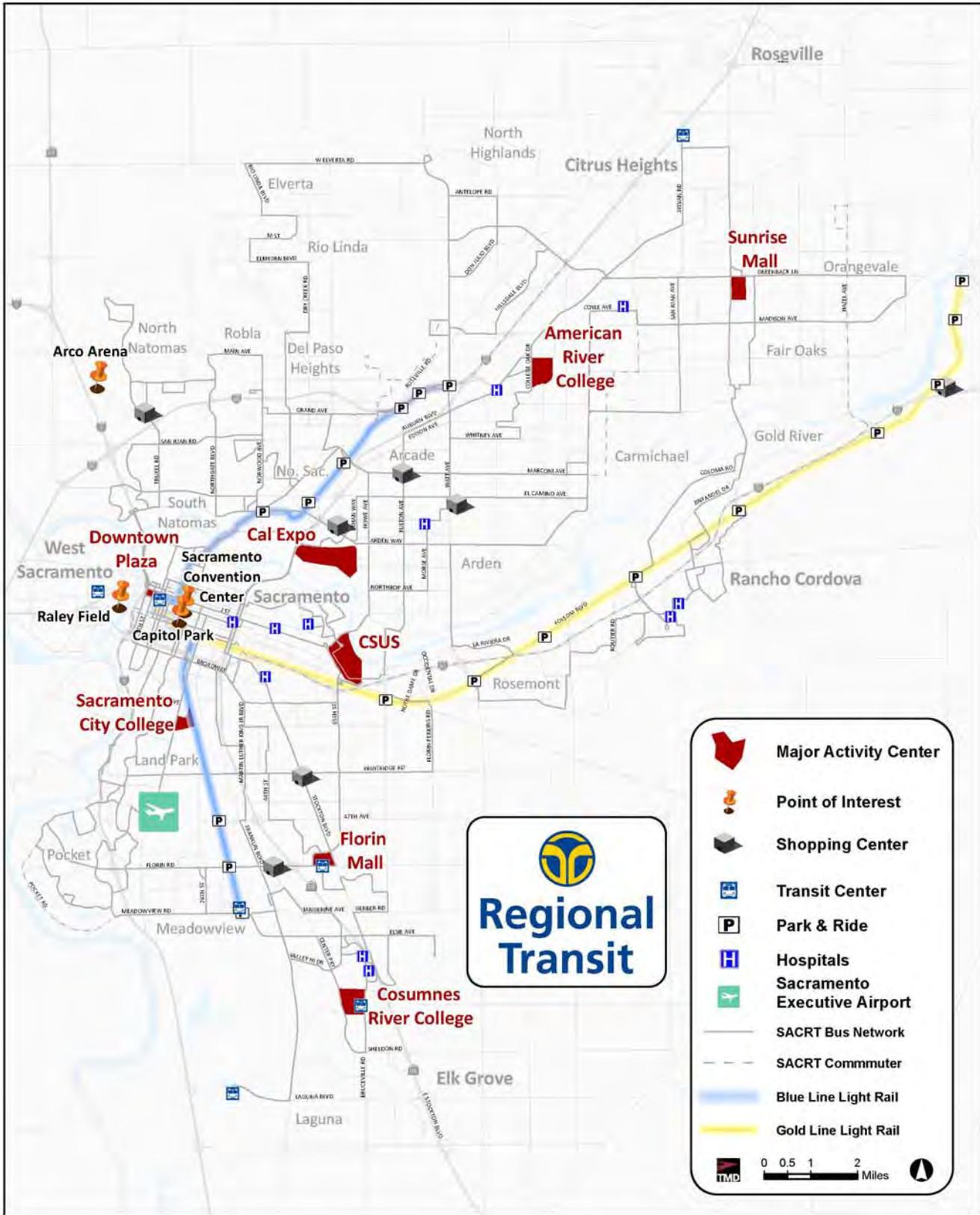
Hospital, most medical facilities are found outside of the Central City area. Several facilities are located just east of the downtown core, while Kaiser Permanente South and Methodist are located in the southeastern part of the service area near Cosumnes River College.

2.4.4 Recreation and Tourism

Key recreation and tourism destinations consist of shopping malls, theme parks, museums, venues, and historical areas and each typically generates a high amount of activity. There is a moderate concentration of recreation and tourism destinations within downtown Sacramento, such as Old Sacramento, Capitol Park, Sacramento Convention Center, and the Westfield Downtown Plaza on K Street. The Arden Fair, Florin Towne Center, and Sunrise shopping malls are each outside of downtown Sacramento and generate significant ridership.



Key Destinations



Map 2.7 Key Destinations



2.5 Future Developments

Planned developments in the RT service area highlight where transit investment may be warranted in the future. Cities' growth plans vary within the service area, some expecting high to moderate future development and others without plans for growth. As discussed in Section 2.2.1 and Map 2.3, SACOG has projected significant growth in the geographic areas addressed in Figure 1 below.

Significant residential, office, retail, and hotel density is proposed in downtown Sacramento with the intention of creating a new regional center. Development will be a combination of infill and redevelopment projects (listed in Figure 2.1 below), helping to heighten density levels, double the size of Sacramento's current downtown, and cultivate a regional center that will act as one of the major hubs for new housing and employment. In providing a better jobs-to-housing ratio within the regional center, downtown will continue to support all-day, all week transit service.

Outside of downtown, new housing and jobs will be distributed to various activity centers, transportation corridors, and new growth area (discussed in Figure 2.1 below). The cities of Citrus Heights, Elk Grove, Folsom, and Rancho Cordova will each experience notable redevelopment and infill resulting in employment and residential growth.



City	Plan/Area	Future Development Implications
Citrus Heights	Auburn Boulevard Specific Plan	Will facilitate redevelopment and infill along these important corridors.
	Sunrise Market Visioning Process	
Elk Grove	Laguna Ridge Specific Plan	Will increase residential development along Highway 99 and show specific growth in the Laguna Ridge and Southeast areas.
	Southeast Planning Area	
Folsom	SOI Area	Will increase population and employment levels in the area with a particular focus on higher-density housing.
Natomas	North Natomas Community Plan	Will encourage employment growth in North Natomas as well and new housing through annexation of lands north of the city limits.
	Natomas Joint Vision Study Area	
Rancho Cordova	Mater/Mills Light Rail Station	Will support transit-oriented development through the addition of mixed-use residential, employment, and retail uses as well as a Los Rios Community College satellite campus surrounding the station.
	Folsom Boulevard Visioning Process	Will transition Folsom Boulevard from an auto-centric corridor to a mixed-use corridor through redevelopment strategies.
Sacramento	Arden/Point West	Will encourage retail development and economic vitality by acting as major shopping and dining destination including Arden Fair Mall, Cal Expo, and the Point West Business Park.
	Docks Area	Will encourage smart growth through infill leading to the creation of a high density, pedestrian oriented community. This will occur through mixed-use development of high density residential, retail, and office space.
	Florin Road Corridor	Will encourage well-designed infill and economic development along the corridor, including establishment of a transit village.
	Fruitridge Road and Stockton Boulevard Corridor	Will help Stockton Boulevard grow into a rapid transit corridor through residential and mixed-use development.
	Haggin Oaks	Will encourage retail development, intended to complement both the Rapton Honda dealership and the Haggin Oaks Golf Course.
	River District Redevelopment Area	Will transform the area into a mixed-use community focused on transit-oriented development and supported by additional office, retail, commercial, hotel and restaurant, residential, and open space uses. The area will include the following developments: Township 9, New Green Line Light Rail Station, Powerhouse Science Center, Discovery Centre Hotel, Headquarters of California Highway Patrol, and new California State Lottery headquarters.
	R Street Corridor	Will transform the area from a warehouse district to a transit-oriented mixed-use neighborhood. Higher density development is planned at each of the four rail stations along the corridor and lower density commercial and mixed residential development is planned along the outskirts of the area.
	Union Pacific Rail Yards Redevelopment Site	The largest urban infill project in the United States. The site will be a transit-oriented mixed-use development and will eventually include the Sacramento Intermodal Transportation Facility, over 11,000 housing units, and several million square feet of office and retail space resulting in approximately 19,000 new jobs.
	Watt/Manlove Light Rail Station	Will promote transit oriented development through an increase in housing and commercial uses at the light rail station area. Development will include the mixed-use commercial and office building known as the New Brighton Station.
West Sacramento	Washington Specific Plan	Will create a residential and commercial higher density mixed-use district and destination area within West Sacramento.

**Sources: SACOG Metropolitan Transportation Plan 2035, City of Sacramento Economic Development Interest Areas, Transit Priority Planning Areas (2010)

Figure 2.1 Future Developments by City



2.6 Market Assessment Key Findings

2.6.1 Community Profile

- Existing and future population and employment density distribution indicates that downtown Sacramento will remain the core transit market area, holding the greatest potential for generating ridership and being most likely to sustain successful all-day, all week transit service. Development plans outside of downtown Sacramento focus on higher density, mixed-use, transit-oriented development with numerous sites experiencing infill and redevelopment to better orient the region for sustainable growth. Some smaller, more isolated development areas are planned and will result in more low density, dispersed development less likely to warrant traditional fixed-route all-day, all-week transit.
- Downtown Sacramento embodies the highest levels of transit dependent populations, specifically college-aged young adult, physically disabled, financially disadvantaged, and zero vehicle household populations. Beyond downtown, similar levels of transit dependent populations are seen in the southeastern quadrant of Sacramento bounded by the Franklin and Stockton Boulevard corridors and in North Sacramento, Del Paso Heights, and Arden-Arcade. Transit investment is greatest in such areas where vehicle ownership is low, financial dependency is greater, and populations are more likely to use transit on a regular basis.

2.6.2 Travel Patterns

- Private vehicle travel patterns indicate that downtown Sacramento and the southeastern quadrant of the RT service area generate significant internal and external travel. There are a strong number of work trips coming into the RT service area, with downtown Sacramento acting as a major employment trip generator. Rancho Cordova also experiences a high number of work-related trips, due to the significant number of employment destinations in the area. While strong demand lines do not appear between the smaller analysis zones of the north and eastern parts of the service area into downtown Sacramento, these areas produce significant travel volumes when combined.
- Public transit travel patterns are focused on downtown Sacramento and appear similar to those of existing private vehicle work trips, suggesting the importance of work-related travel on RT transit services. The Pocket area generates significant work-related trip origins, while the Meadowview/Cosumnes River College area generates the highest amount of internal trips, likely due to student trip-making and other attractions such as the Florin Town Center.



- The Laguna/Elk Grove area holds the potential to attract demand from major travel patterns, especially with the amount of planned growth expected to occur by the 2035 planning horizon.

2.6.4 Key Destinations

- The greatest generators of travel in the Sacramento region are employment and educational destinations. Each attracts strong transit use, especially when there are dense, well concentrated areas of both. Employment destinations are important current or potential transit ridership generators; however, the design of the development itself (centralized and walkable versus spread out and auto-oriented) has significant implications for transit. Students attending colleges and universities often generate significant travel due to their lower incomes and low likelihood of owning an automobile. Downtown Sacramento contains a wealth of employment and generates the greatest number of work-related trips (as shown in Maps 5). Sacramento State University and each of the Los Rios Community College District campuses are dispersed throughout the RT service area yet each generate a significant number of trips (as shown in Map 6) due to being located near or along key transit corridors.
- Transit can best serve these key markets by focusing resources on the urban core where employment and residential densities are highest and by investing in key corridors and transit stations where density is concentrated, land uses are mixed, and there is a greater ability to generate additional ridership.

2.6.5 Future Development

- Future development plans focus on higher density, mixed-use development with much of the projected population and employment growth to occur through infill, redevelopment, and annexation of new land. Future development will also be transit-oriented in nature with a significant amount of TOD expected to occur.
- Continued focus on TOD framework, supportive of sustainable, Smart Growth land use plans, and efficient and effective service planning will allow RT to implement a customer-friendly, successful transit service closely linked with the planning and implementation of future development.



3. Service Analysis

The Service Evaluation is a key component of the Sacramento Regional Transit District (RT) Comprehensive Operational Analysis (COA). The evaluation responds to the TransitAction Plan and its service philosophy:

“Core high speed, high frequency, high capacity transit network serving the key demand corridors and destinations supported by a network of community and neighborhood shuttle and circulator services.”

The Service Evaluation assesses service prior to recent changes and the performance of current service. The analysis will allow for a financially-sustainable service planning process and will identify strengths, weaknesses, and opportunities for investment. It will provide framework for development of new service recommendations for the RT system.

3.1 Areas of Analysis

The Service Evaluation includes key findings both at a system and individual route level in the following sections:

- **Transit Network Overview** describes the existing RT system.
- **Recent Service Cuts** addresses RT’s recent service reductions.
- **Ridership Activity** details the current use of the RT system at the network, route, geographic, segment, and stop levels.
- **Service Performance** evaluates service productivity and financial performance.
- **Service Quality** reviews service reliability, travel times, passenger wait times, service access, crowding, stop spacing, and speed.



3. 2 Service Evaluation Goals

The Service Evaluation seeks to achieve the following goals:

- Provide a detailed understanding of the RT system.
 - What types of services are offered?
 - How were people using the system prior to service cuts?
 - How are people using the system today?
 - How are resources and ridership distributed?
 - Where is service under or over-utilized?
 - Where can the system grow sustainably?
 - Where does service quality need improvement?
- Identify service strengths, weaknesses, and opportunities for growth for consideration in the service recommendations.



3.3 Transit Network Overview

As previously mentioned in the Market Assessment, RT provides multi-modal transportation service throughout Sacramento County. The system consists of approximately 65 bus routes and 37.4 miles of light rail, both covering a 418 square-mile service area. Buses and light rail operate 365 days a year using 76 peak light rail vehicles and 145 peak buses, with buses operating between 5:00 a.m. to 9:00 p.m. and light rail trains operating from 4:00 a.m. to 9:00 p.m. There are 47 light rail stations, 31 bus and light rail transfer centers, 18 park-and-ride lots, and over 3,500 bus stops throughout the service area.

3.3.1 Service Description

The service evaluation reviews the performance of RT’s local, express, community, supplemental, and light rail services. Figure 3.1 below illustrates the number of routes currently operating on weekdays, Saturdays, and Sundays for each service type.

Route Type	Number of Routes		
	Weekday	Saturday	Sunday
Local	40	27	23
Express	5	-	-
Community	10	1	-
Supplemental	14	-	-
Light Rail	2	2	2
Total	71	30	25

Figure 3.1 Routes by Day and Service Type (Spring 2012)

Light rail service is oriented towards the downtown core, serving key activity centers and park and rides throughout the service area. Bus service is generally structured in a nodal pattern, connecting major activity centers and key corridors to downtown Sacramento.

Service Investment

Currently, RT utilizes approximately 161 peak buses⁴ and 15 peak light rail trains. RT operates 1,713 bus revenue vehicle hours and 218 light rail train revenue vehicle hours in an average weekday and 19,325 bus revenue vehicle miles and 13,129 light rail revenue vehicle miles.

⁴ Source: Sacramento Regional Transit



Service Levels

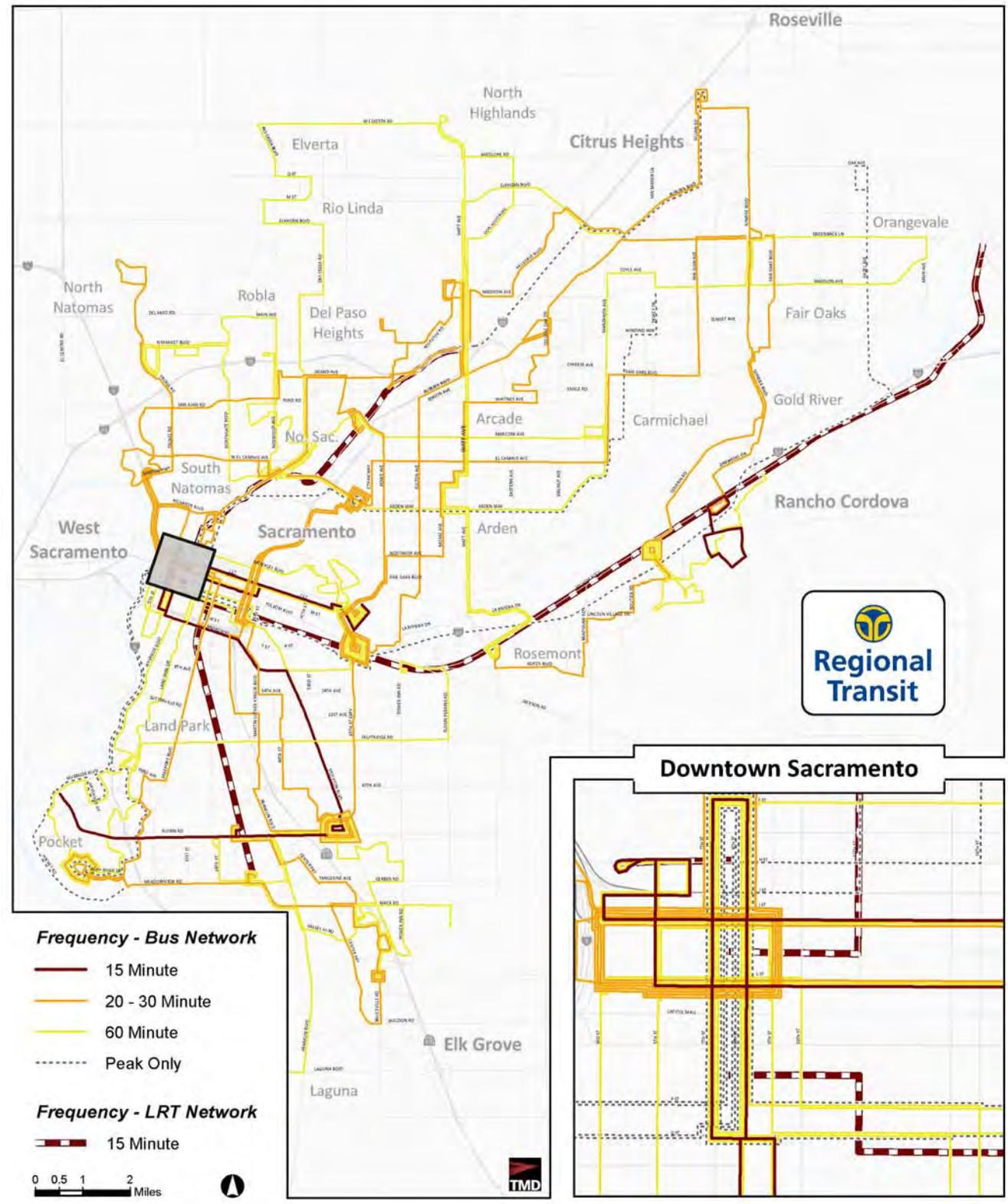
Peak weekday headways in the RT network range from 15 minutes to 60 minutes. Approximately 80 percent of routes operate at frequencies of 30 – 60 minutes and the remaining 20 percent of routes operate at frequencies of 15 – 20 minutes. The light rail lines also operate at peak frequencies of 15 minutes. Figure 3.2 below and Map 3.1 provide a summary of weekday peak frequencies.

Weekday Peak Frequencies (Spring 2012)		
Peak Frequency (Minutes)	Light Rail (LRT)	Bus
15 or better	2	4
20	-	1
30	-	13
60	-	25

Figure 3.2 Service Levels



Weekday Peak Period Frequency



Map 3.1 RT Weekday Peak Period Frequency



3.4 RT Yesterday

In spring 2010, RT declared a budgetary shortfall just under \$25 million through FY 2011. In response to the fiscal emergency, RT staff provided recommended service reductions that addressed \$11.6 million of the projected shortfall in FY 2011. The service changes took effect in June of 2010 and included elimination of entire bus routes, reduction of all bus and rail service starting after 9 pm everyday, frequency reductions on several bus routes and frequency reductions on weekend rail service. The proposed changes focused on maintaining connectivity and coverage, ensuring service to lifeline activity centers and hospitals, reducing frequency on routes rather than whole route elimination, condensing routes, and detailing strategies for rebuilding the route network as new funding was obtained.

3.4.1 System Overview Prior to Service Changes

Prior to service changes, RT operated approximately 92 bus routes and 37.5 miles of light rail covering a 418 square-mile service area. Buses and light rail operated 365 days with buses operating between 4:30 a.m. to 11:30 p.m. and light rail trains operating from 4 a.m. to 12:50 a.m. Figure 3.3 below summarizes the number of routes by day and service type prior to the June 2010 changes.

Route Type	Number of Routes		
	Weekday	Saturday	Sunday
Local	48	38	27
Express	15	-	-
Community	10	2	-
Supplemental	19	-	-
Light Rail	2	2	2
Total	94	42	29

Figure 3.3 RT Routes by Service and Day Type (Fall 2009)

The network was structured similarly to how it is today, however, many peak express routes, Community Bus routes, downtown circulators, and duplicative service was discontinued or reduced.



Service Levels

Prior to service changes, peak headways in the RT network ranged from 15 minutes to 75 minutes. Approximately 85 percent of routes operated at frequencies of 30 minutes or slower and the remaining 15 percent of routes operated at frequencies of 15 – 25 minutes. The light rail lines operated at peak frequencies of 15 minutes all week. Figure 3.4 below provides a summary of weekday peak frequencies.

Weekday Peak Frequencies (Fall 2009)		
Peak Frequency (Minutes)	Light Rail (LRT)	Bus
15 or better	2	6
20 - 25	-	3
30 - 59	-	27
60 or more	-	22

Figure 3.4 RT Weekday Peak Frequencies (Fall 2009)

3.4.2 Service Changes

The following service changes occurred in June of 2010 as a result of RT staff recommendations:

- **Frequency reduction** – to account for the savings required, headways were increased on several routes.
- **Late-night service reduction** – All bus service scheduled to leave the end of the line Monday through Sunday after 9:00 pm was discontinued. The last trips on light rail departed from downtown Sacramento no later than 9:00 pm.
- **Elimination of unproductive and duplicative services** – Numerous weekday local, community, express, and supplemental routes were discontinued or shortened. Several Saturday and Sunday local and community routes were also discontinued.

Figures 3.5 and 3.6 below summarize service changes.

Change (Summer 2009 - Spring 2012)			
Route Type	Number of Routes		
	Weekday	Saturday	Sunday
Local	-8	-11	-4
Express	-10	-	-
Community	0	-1	-
Supplemental	-5	-	-
Light Rail	-	-	-
Total	-23	-12	-4

Figure 3.5 Change in Number of Routes by Day and Service Type



Reduction of Weekday Service Levels (Summer 2009 - Fall 2012)		
Peak Frequency (Minutes)	Light Rail (LRT)	Bus
15 or better	0	-2
15 --> 20	-	-2
30 --> 60	-	-14
60 --> 60 or longer	-	3

Figure 3.6 Change in Service Levels

Effects on Ridership

RT system ridership decreased by a total of 16 percent⁵, with light rail service experiencing a greater loss when compared to bus service across all day types. Figure 3.7 below shows the effects service changes had on ridership for bus and light rail service.

Ridership Percent Change (Summer 2009 – Fall 2010)			
Service	Weekday	Saturday	Sunday
Bus	10%	17%	19%
Light Rail (LRT)	21%	26%	38%

Figure 3.7 Service Changes Effects on Ridership

Effects on Productivity

RT system productivity (passenger boardings per revenue hour) increased by approximately 3 percent overall, with bus service experiencing a 12 percent increase in weekday productivity and light rail service experiencing a 15 percent decrease in weekday productivity. The increase in bus productivity suggests that the service reductions were made in the most underutilized portions of the network. The reduction in light rail service, on the other hand, appears to have had a greater impact on ridership. Figure 3.8 below shows the effects service changes had on productivity for bus and light rail service.

Productivity Change (Summer 2009 - Fall 2010)			
Service	Weekday	Saturday	Sunday
Bus	12%	14%	4%
Light Rail (LRT)	-15%	25%	-3%

Figure 3.8 Service Changes Effects on Productivity

⁵ Source: Regional Transit Monthly Ridership Reports.



3.5 RT Today

A key element of understanding how customers presently use the RT system is an analysis of ridership distribution across the network by time of day, service type, route, and geography.

A full sample of weekday, Saturday, and Sunday ridership and operating performance data was assembled using RT Fall 2010 ridership and service data generated by RT's Automatic Passenger Counters, and manual ridechecks on rail services. This data will serve as the basis of the service analysis.

3.5.1 System View

System Ridership

RT system ridership in Fall 2010 reported:

- 92,110 passenger boardings on an average weekday
- 33,455 passenger boardings on an average Saturday
- 20,755 passenger boardings on an average Sunday

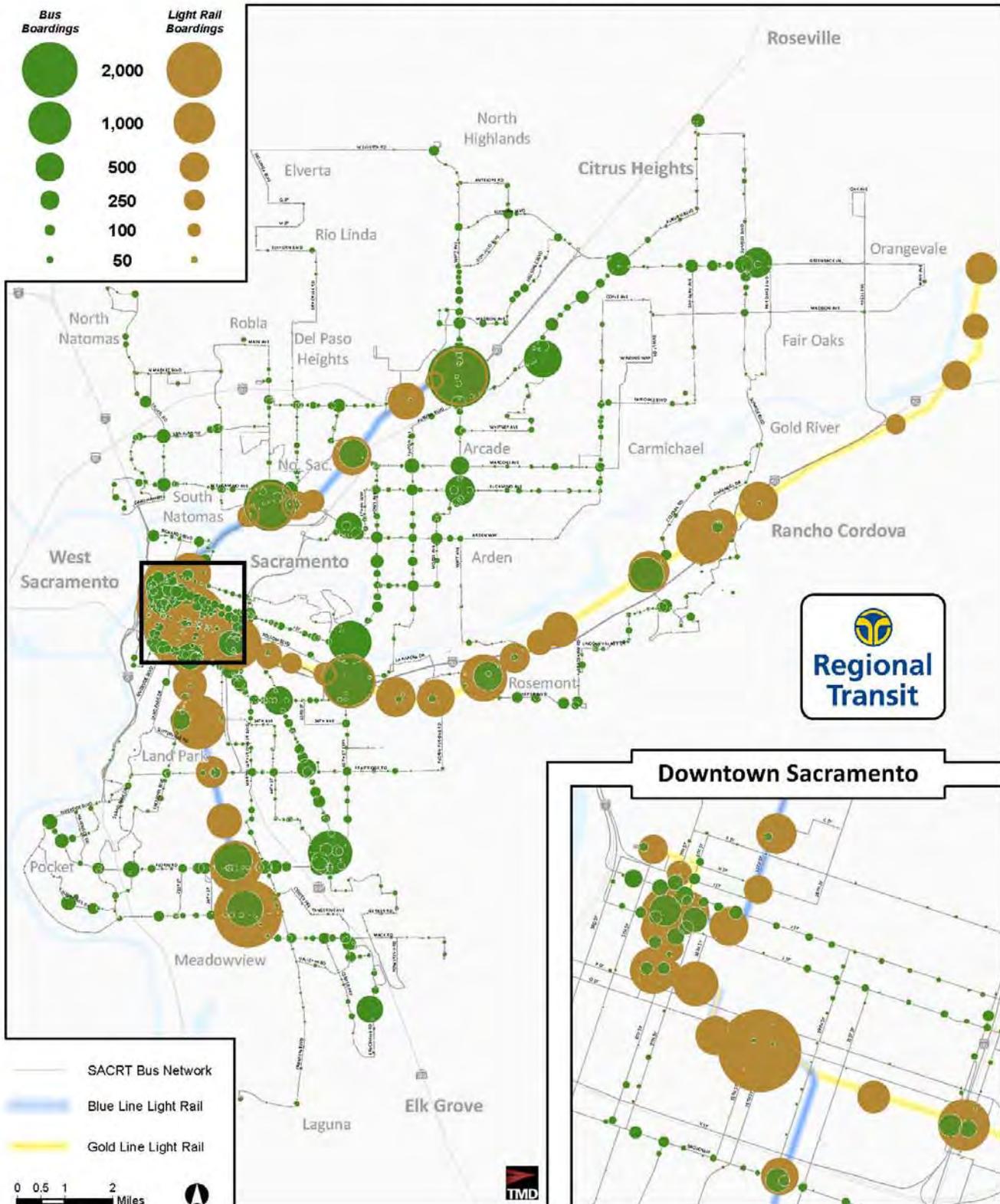
Ridership by Stop

Maps 3.2 – 3.4 display system-wide average daily passenger boardings by individual stop for each day type. Circle sizes are proportionate to the number of boardings, with larger circles representing higher boardings at a given stop.



Average Weekday Boardings

Time Period: All Day



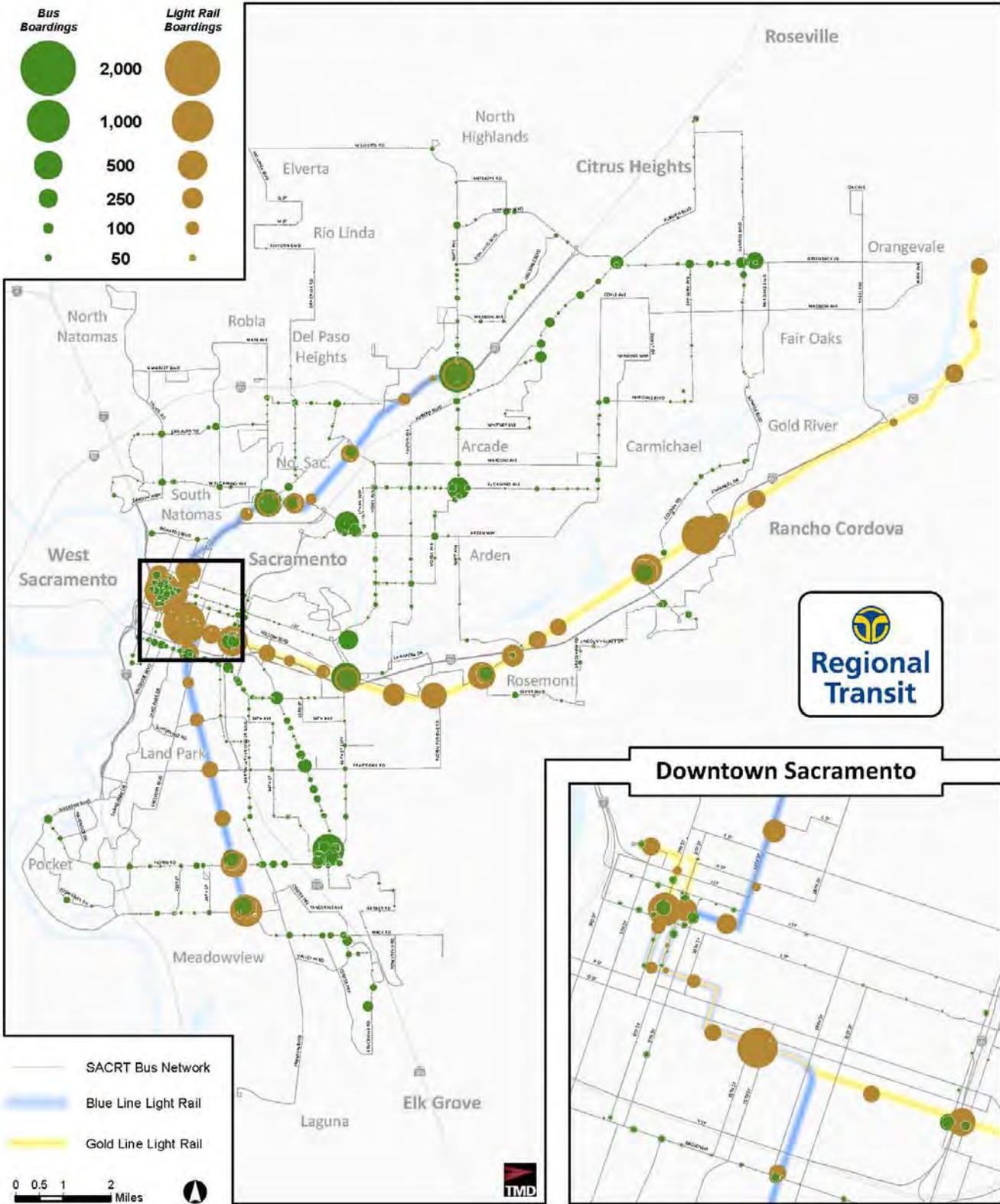
Map 3.2 RT Average Weekday Boardings





Average Sunday Boardings

Time Period: All Day



Map 3.4 RT Average Sunday Boardings



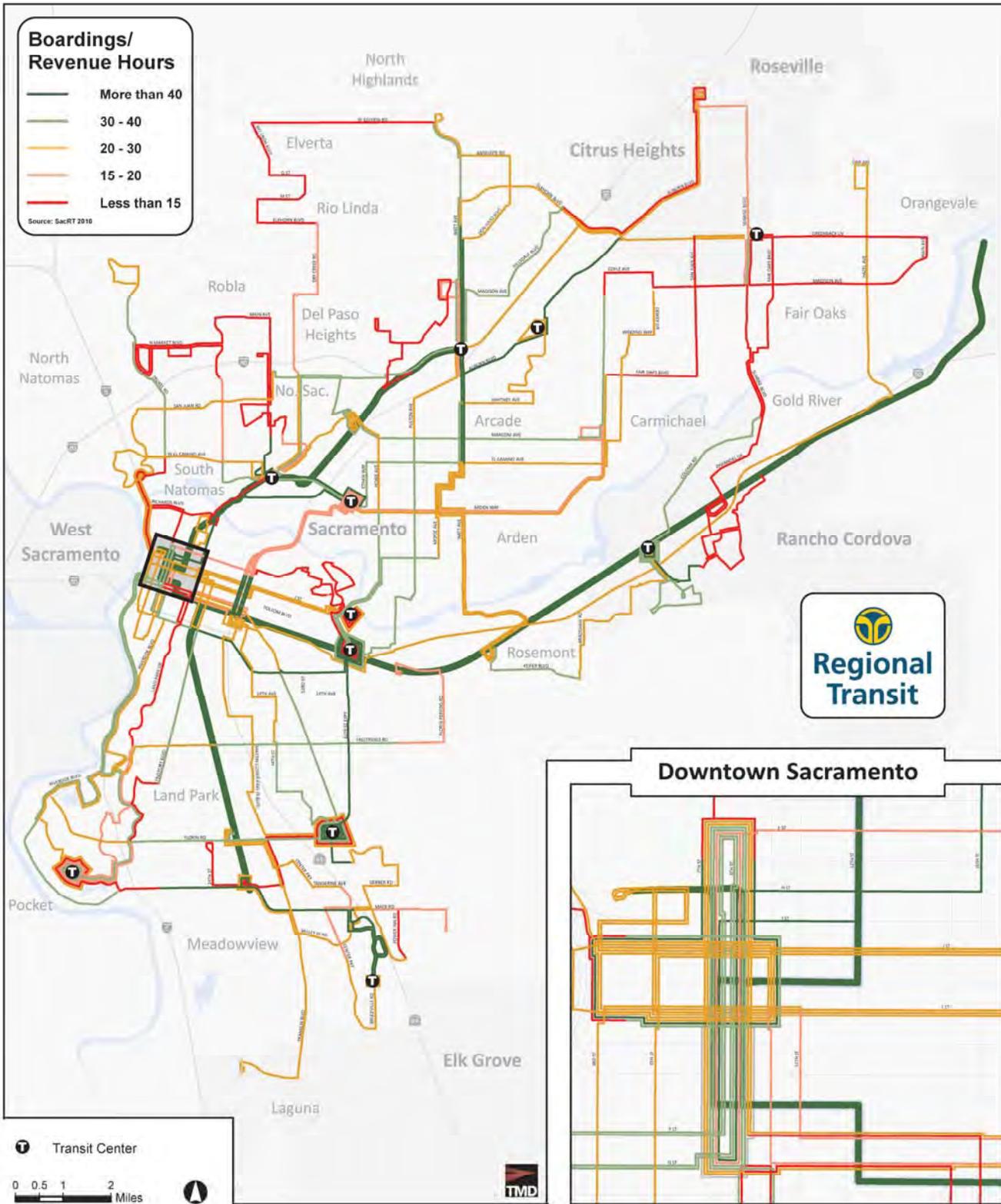
System Productivity

Productivity by Segment

Productive service is indicative of competitive market areas and productivity is often affected by ridership and resource investment. Map 3.5 displays weekday average productivity by segment for the RT system. Improving service on key performing segments and in key market areas will grow ridership, improve connectivity, and attract new customers.



Passenger Boardings per Revenue Hour



Map 3.5 Weekday Passenger Boardings per Revenue Hour



System Ridership and Resource Distribution

Figure 3.9 shows system ridership and resource distribution by mode. Bus ridership accounts for over half of total system ridership yet requires two thirds of total system resources. Light rail ridership accounts for half of system ridership and requires only one third of system resources, indicating that light rail is not only the preferred mode of transportation for RT customers but that it is also more cost effective to operate.

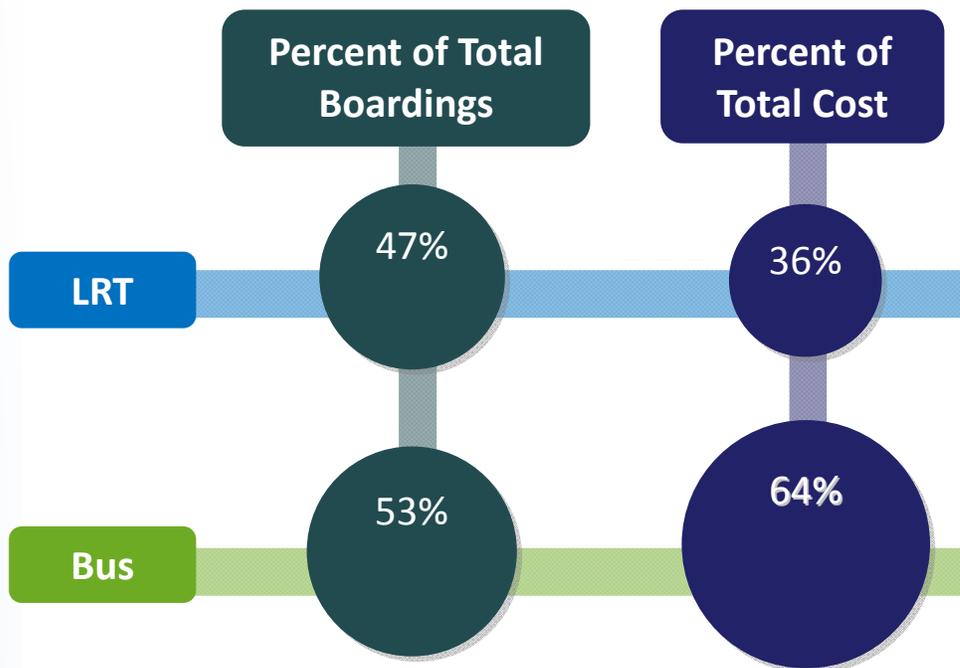


Figure 3.9 System Ridership and Resource Distribution



3.6 Light Rail Service Analysis

3.6.1 Ridership

RT light rail ridership for both the Blue and Gold Lines in Fall 2010 reported:

- 43,090 passenger boardings on an average weekday
- 15,760 passenger boardings on an average Saturday
- 10,625 passenger boardings on an average Sunday

Ridership by Stop

Maps 3.2 – 3. 4 (Section 3.5.1) display system-wide average daily passenger boardings by individual stop for each day type.

Weekday

Ridership is strongest in the downtown core on both lines and decreases along the outlying portions of the service area. Outside of downtown, ridership is strongest at hubs with multiple connections into the network, such as Watt/I-80 station, University/65th St, and Meadowview.

Blue Line ridership is strongest along its southern segment from downtown to Meadowview, while Gold Line ridership is strongest along its inner segment from downtown to University/65th St Station.

Weekend

Similar to weekdays, ridership is strongest in downtown Sacramento and lessens outside the city center. Saturday ridership is greatest on the Blue Line which experiences nearly 2,000 more passenger boardings than the Gold Line. Sunday ridership shows the reverse, with the Gold Line experiencing nearly 1,400 more passenger boardings than the Blue Line.

Ridership by Time Period

For the purpose of this service analysis the following time periods have been defined:

- AM Peak – 6:00 AM – 8:59 AM
- Midday – 9:00 AM – 3:29 PM
- PM Peak – 3:30 PM – 5:59 PM
- Early AM/Evening – 6:00 PM – 12:00 AM

Overall, light rail weekday ridership demonstrates consistency in the AM and PM peak periods and strong ridership throughout the midday period.

Midday ridership on the Blue Line is nearly double that of the peak time periods, which is indicative of successful, all-day service utilized by various market segments. The Gold



Line, on the other hand, operates with greater peak ridership compared to the midday, suggesting it functions as a commute-oriented service. Figure 3.10 shows weekday ridership by time period by line.

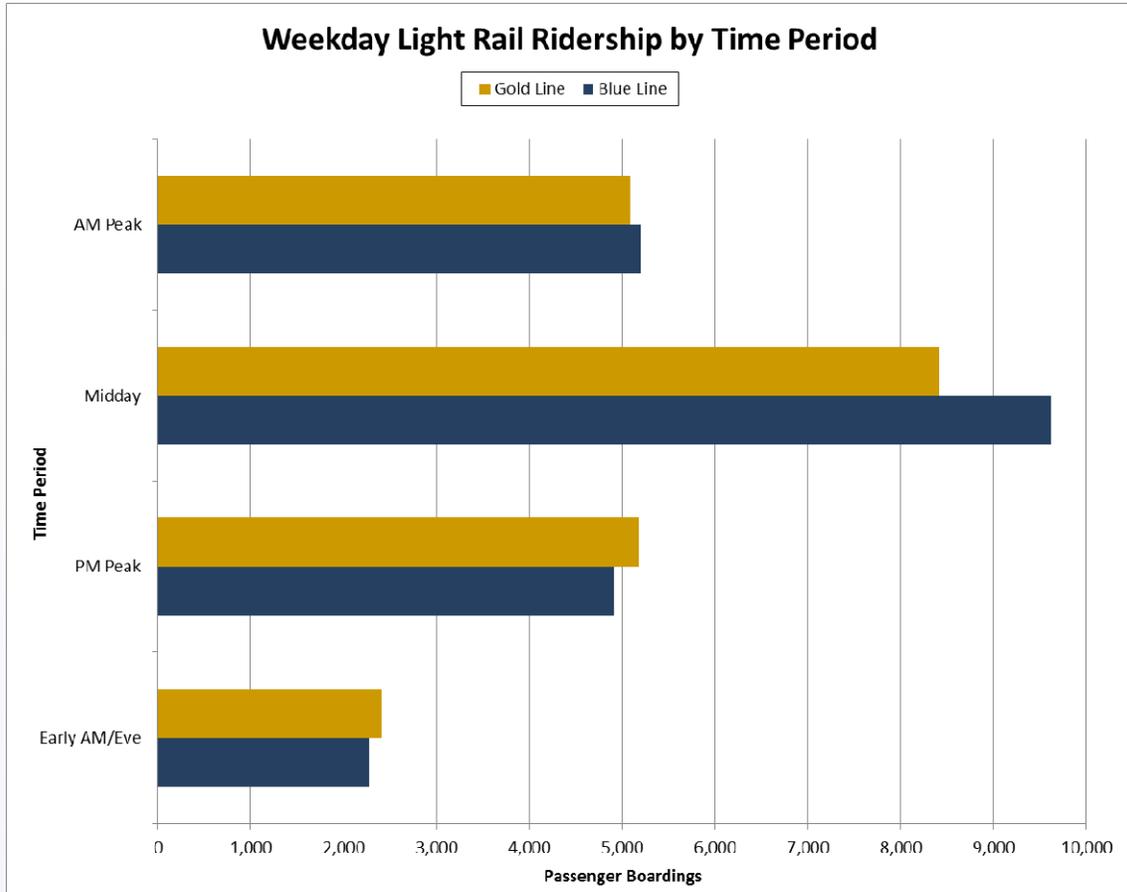


Figure 3.10 Weekday Light Rail Ridership by Time Period



3.6.2 Productivity

Productivity measures segment and route level service effectiveness using the following metric: passenger boardings per revenue train hour (bph). This measures the number of unlinked passenger boardings (ridership) generated per revenue train hour of service operated.

Passengers per Revenue Train Hour

By Segment

Weekday

On weekdays light rail demonstrates strong productivity in the downtown core and lessens outside of the core. Figure 3.11 displays weekday passengers per revenue train hour by segment by line.

Blue Line productivity is strongest along the southern segment from St. Rose of Lima to Meadowview. Gold Line productivity is strongest along the innermost segment from Sacramento Valley Station to University/65th St Station. For both light rail lines productivity is strongest in the core and begins to decrease moving outside of downtown where transit competitiveness tends to diminish.

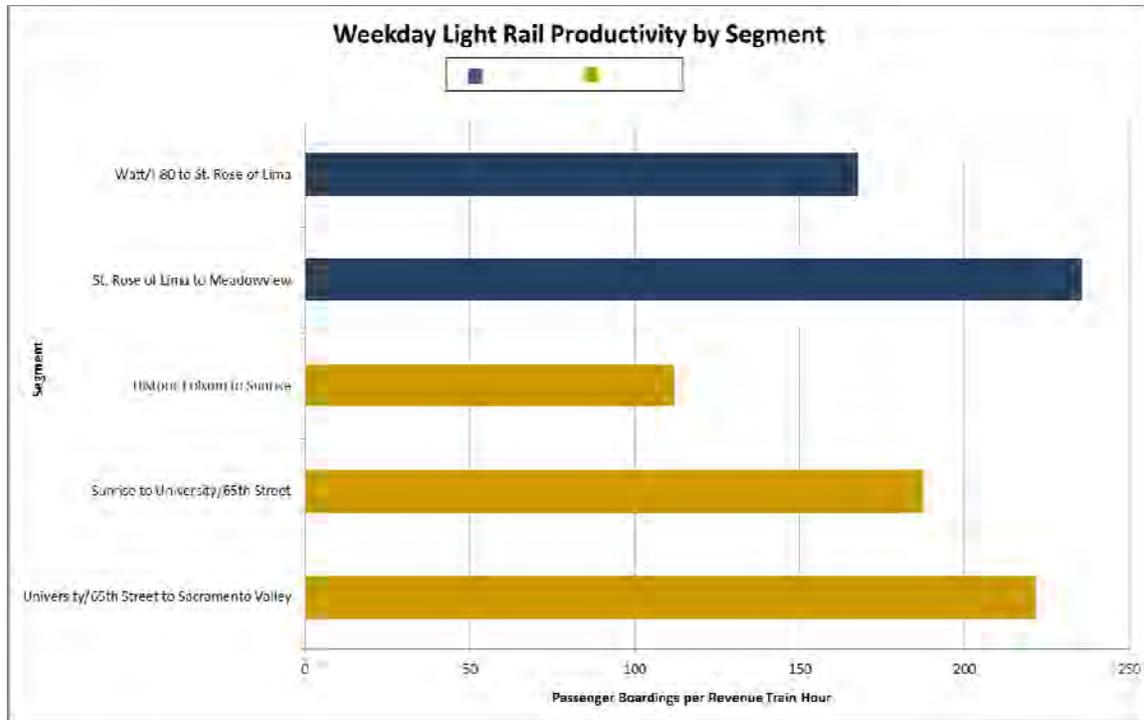


Figure 3.11 Weekday Light Rail Productivity by Segment



Weekend

Light rail weekend productivity is lower overall than weekday. Blue Line productivity on Saturday and Sunday reflects the same pattern as weekday with 170 bph and 83 bph, respectively. Gold Line productivity for Saturday and Sunday differs from weekday and shows the University/65th St Station to Sunrise segment to be most productive with 143 bph and 131 bph, respectively.

By Time Period

Weekday

Light rail displays greatest weekday productivity in the PM peak with both the Blue Line and Gold Line experiencing over 280 pph. In the AM peak and midday time periods, the Blue Line shows greater productivity than the Gold Line. Conversely, the Gold Line shows greater productivity in the PM peak and early AM/evening time periods. Figure 3.12 displays weekday passengers per revenue train hour by time period.

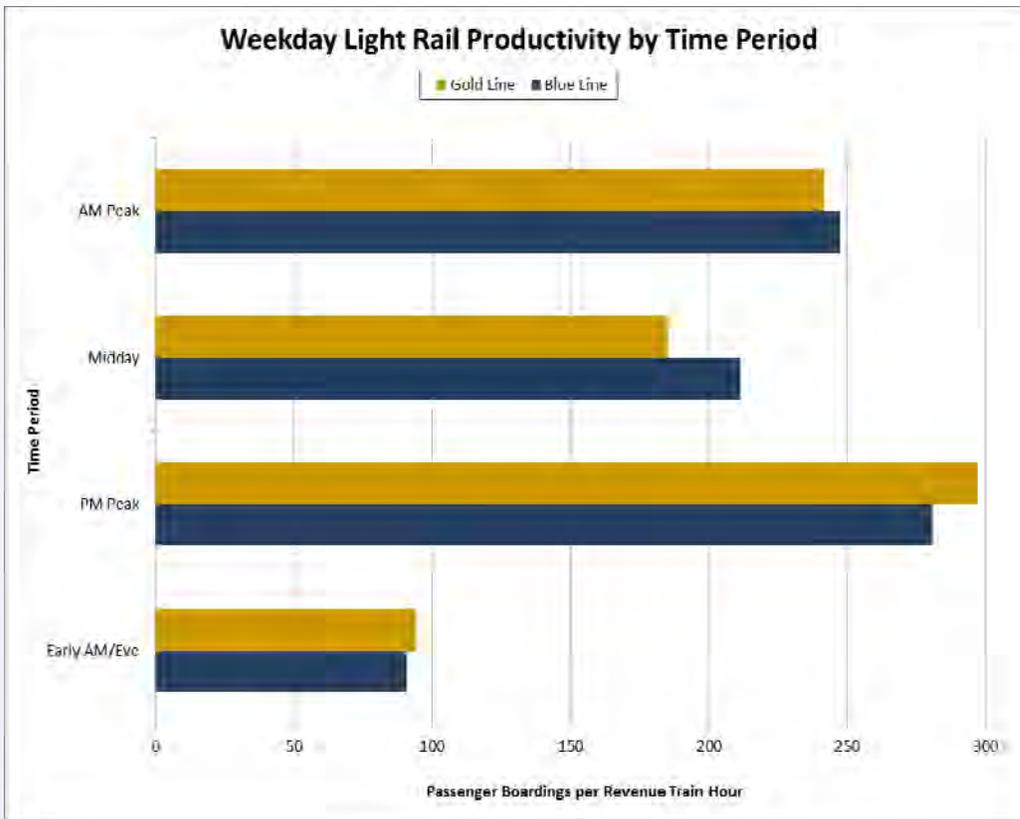


Figure 3.12 Weekday Passengers per Revenue Train Hour by Time Period



3.6.3 Financial Effectiveness

Financial effectiveness compares passenger farebox revenue (operating revenue) and operating cost using the following metrics:

- Farebox recovery ratio – ratio of operating revenue to operating costs. Subsidized services have farebox recovery ratios below 100 percent, while profitable services are over 100 percent.
- Cost per passenger boarding – measures the cost of providing service to customers, regardless of fare revenue. This metric is useful as it removes external subsidy from the cost of a route.

Fare revenue was calculated using ridership data and RT’s average fare per passenger (\$1.11 in fall 2010).

Farebox Recovery Ratio

By Segment

Weekday

Light rail displays greatest weekday farebox recovery along its downtown segments, at or above 50 percent, and lessens outside the core. Figure 3.13 displays weekday farebox recovery by segment by line.

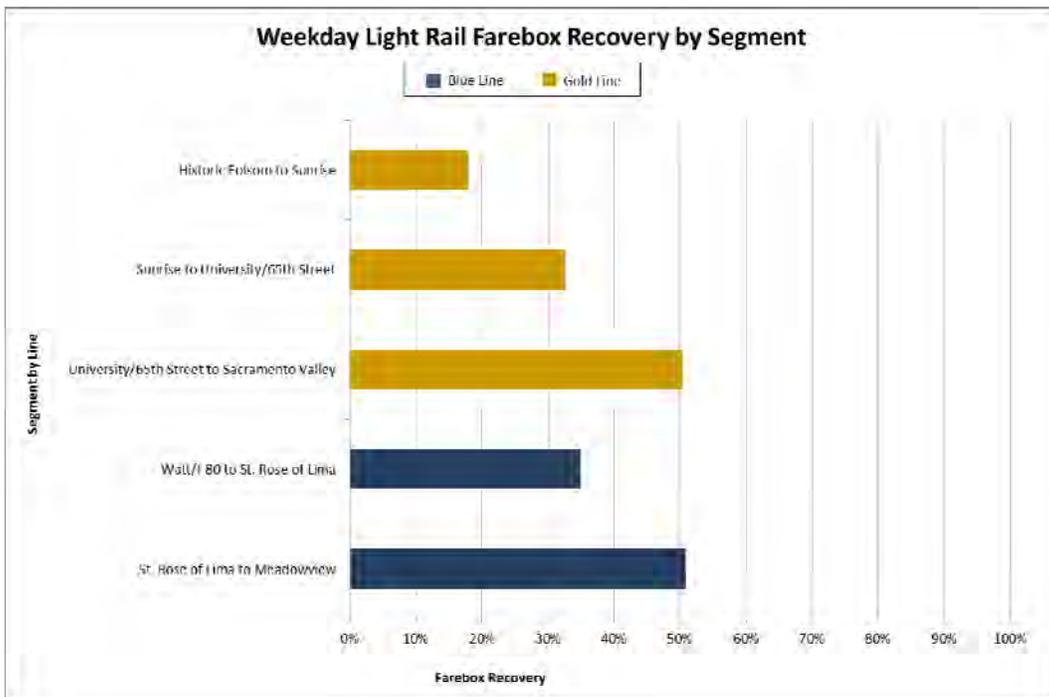


Figure 3.13 Weekday Farebox Recovery by Segment



Weekend

Light rail farebox recovery is lower on Saturdays and Sundays compared to weekdays. Blue Line farebox recovery on Saturday and Sunday reflects similar patterns to passenger boardings per revenue train hour, with greater farebox recovery along its southern segment from St. Rose of Lima to Meadowview. Gold Line farebox recovery for Saturday and Sunday also reflects similar patterns to passenger boardings per revenue train hour and shows the University/65th Street Station to Sunrise segment to have greatest farebox recovery.

Cost per Passenger Boarding

By Segment

Weekday

Cost per passenger boarding measures the cost effectiveness of a route regardless of fare revenue and external subsidies. Figure 3.14 below displays weekday cost per passenger boarding by segment for the Blue Line and Gold Line. The more productive segments display lower cost per passenger, while the less productive segments show higher cost per passenger.

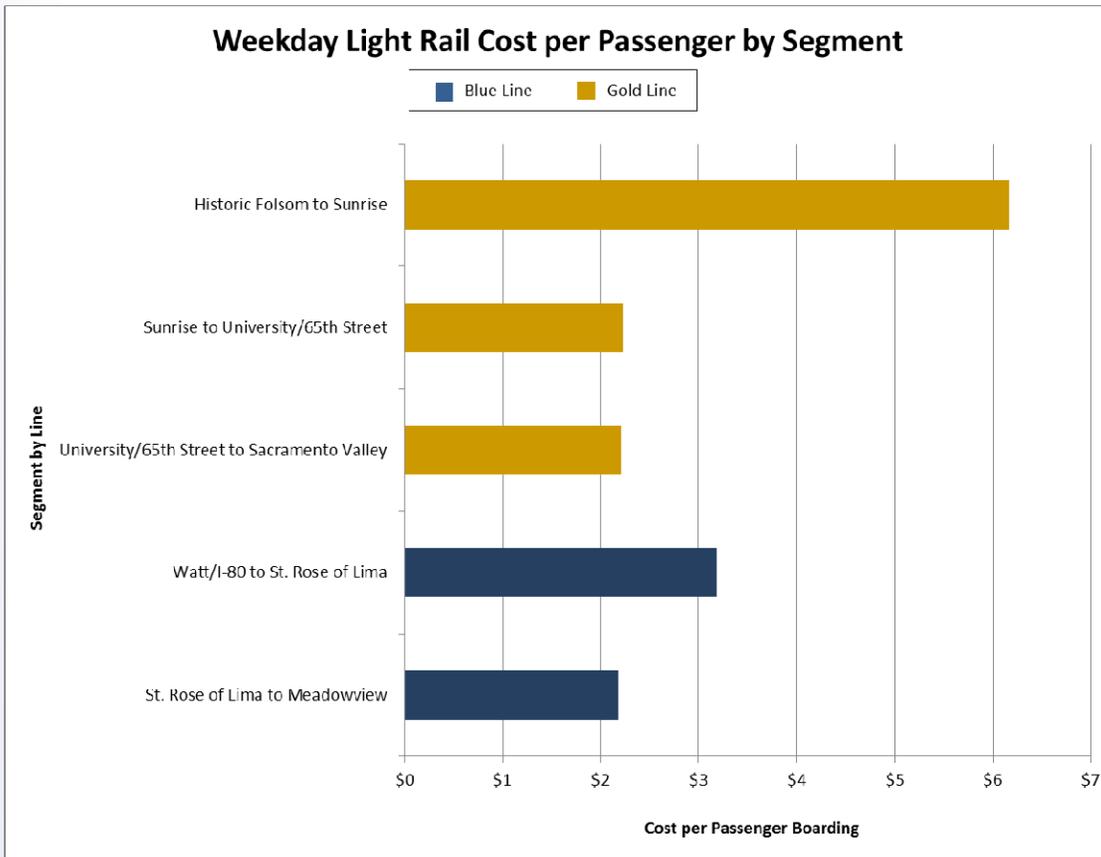


Figure 3.14 Weekday Cost per Passenger by Segment



Weekend

Saturday light rail segments range from approximately \$2.70 per boarding to \$3.85 per boarding, with the exception of the Gold Line Historic Folsom to Sunrise segment that shows a cost per boarding of \$13.67. Sunday segments show notably higher costs per boarding, with the majority of segments ranging from \$4.00 to \$6.20. Again, the Gold Line Historic Folsom to Sunrise segment shows much higher cost per boarding of \$15.12.



3.6.4 Light Rail Service Analysis Findings

Blue Line Findings

- Ridership is relatively consistent throughout the day, indicative of a service used by multiple types of customers.
- The southern segment from St. Rose of Lima to Meadowview is stronger across all time periods and day types; it displays the greatest productivity and financial effectiveness.

Gold Line Findings

- Ridership along the downtown segment from Sacramento Valley Station to 65th Street/University Station is highly productive and displays consistent ridership throughout the day.
- The outermost segment from Sunrise to Historic Folsom displays a drop in productivity and financial effectiveness, likely due to lower levels of transit competitiveness resulting from more nodal destinations and lower population and employment densities. This segment is highly commute-oriented, and does not receive the same service frequency and span as the remainder of the light rail network.



3.7 Bus Service Analysis

3.7.1 Ridership

RT bus ridership in Fall 2010 reported:

- 49,020 passenger boardings on an average weekday
- 17,695 passenger boardings on an average Saturday
- 10,130 passenger boardings on an average Sunday

Ridership by Stop

Maps 3.2 – 3.4 (Section 3.5.1) display system-wide average daily passenger boardings by individual stop for each day type.

Weekday

Ridership is greatest in the core grid network – west of Watt Avenue to downtown and the southeastern quadrant of Sacramento between the Blue Line and Stockton Boulevard. These areas show the greatest proportions of higher population and employment density, mixed land uses, and transit dependent populations. East of Watt Avenue ridership decreases and transit competitiveness is lower due to a change in land uses and a greater amount of dispersed, low density population and employment.

Weekend

Similar to weekdays, Saturday and Sunday ridership is greatest in the core grid network and decreases traveling away from the core, where land uses change and there is a higher amount of dispersed, low density population and employment.

Major Boarding Locations

Weekday

The Watt/I-80 Station and Florin Towne Center areas show the strongest boarding activity in the region, each averaging over 1,500 average weekday boardings. Additionally, several other boarding locations show high boarding levels. Figure 3.16 displays major weekday boarding locations.

Weekend

Watt/I-80 Station, Arden/Del Paso Station, and Florin Towne Center continue to show strong boarding levels, each over 1,000 weekday boardings, with weekends showing some variation in major boarding locations compared to weekdays.



Major Boarding Locations	
Location	Weekday Boardings
Watt/I-80 Station	1,915
Florin Towne Center	1,575
Arden/Del Paso Station	1,360
University/65 th Street	985
American River College	910
Florin Station	800
Meadowview Station	720
Mather Field/Mills Station	710
Arden Fair Mall	620
Sunrise Mall	580
7th Street/K Street	570
Watt Avenue/El Camino Avenue	530

Figure 3.16 Major Boarding Locations

Ridership by Time Period

Weekday bus ridership is relatively consistent in the AM and PM peak travel periods producing combined ridership of 20,045 passenger boardings, while midday experiences over double the sum of the peak periods. Figure 3.17 shows weekday bus ridership by time period.

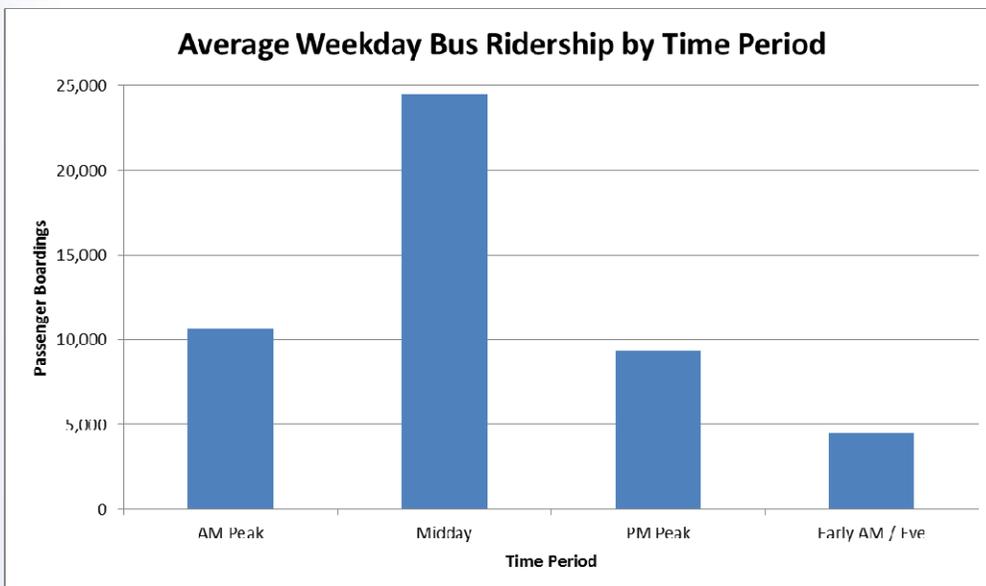


Figure 3.17 Average Weekday Bus Ridership by Time Period



Ridership by Route

Weekday

Weekday route level ridership varies across the RT network, with average passenger boardings ranging from 28 boardings per day to as high as 4,400 passengers on a given route. Ridership is strongest on key corridors (discussed further below), each experiencing at least 2,000 average weekday boardings. Ridership is weakest on the express and community routes, with Routes 109 (Express) and 85 (Community) showing ridership levels of 86 and 28 passengers, respectively. Figure 3.18 displays average weekday passenger boardings for all bus routes.

Weekend

Ridership levels drop significantly on weekends. Saturday ridership reflects weekday patterns, being strongest on local Routes 51, 23, 81, 1, and 56 (listed in descending order), each with at least 1,000 average boardings. Sunday ridership is also greatest on these bus routes, especially local Routes 51 and 23, each with at least 1,000 average boardings. Local Route 34 experiences low ridership on Saturdays and Sundays, with 67 and 46 passenger boardings respectively. Community Route 47 generates 87 average passenger boardings on Saturdays and does not operate on Sundays.



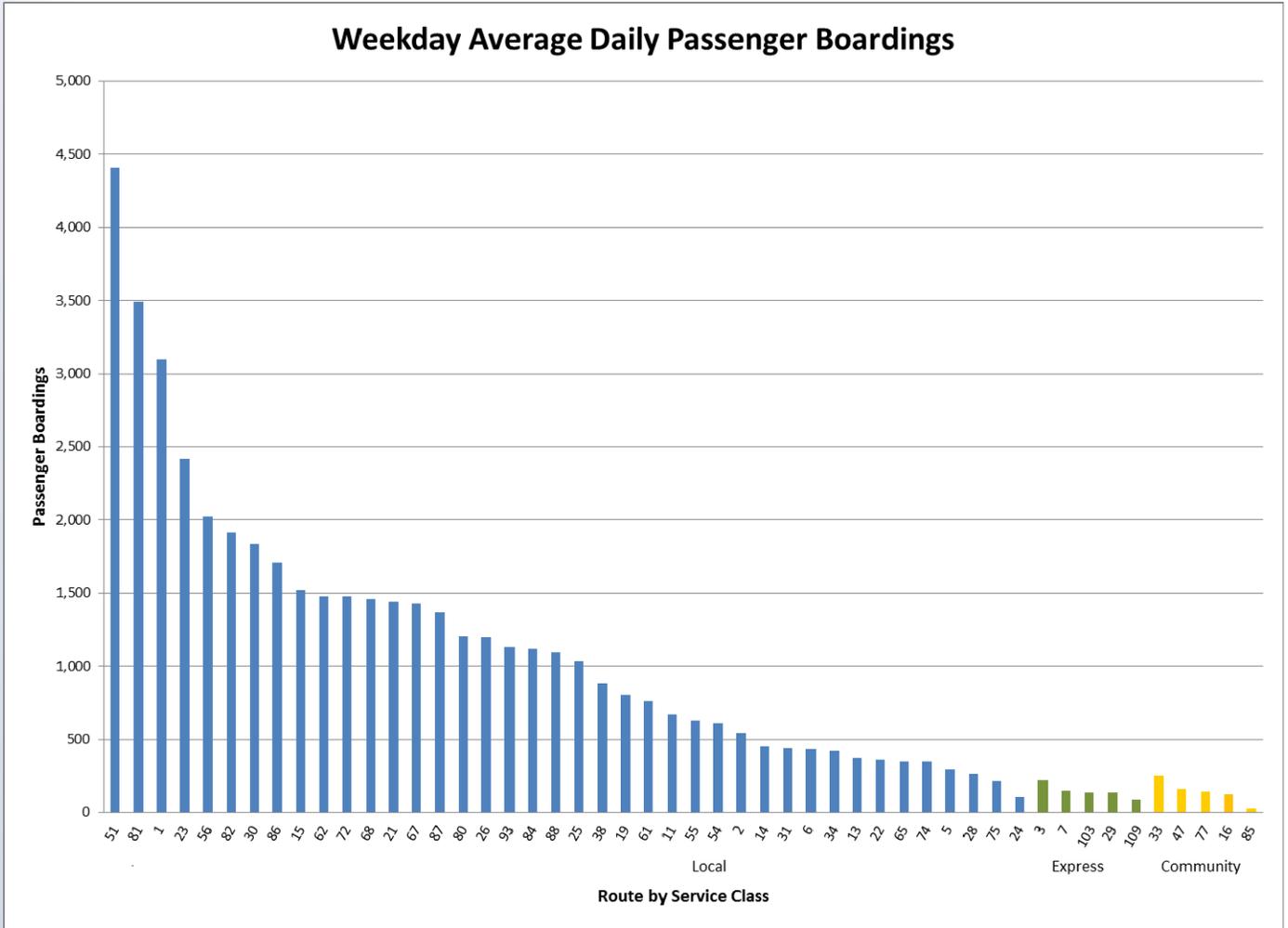


Figure 3.18 Weekday Average Daily Passenger Boardings



Key Corridors

Weekday

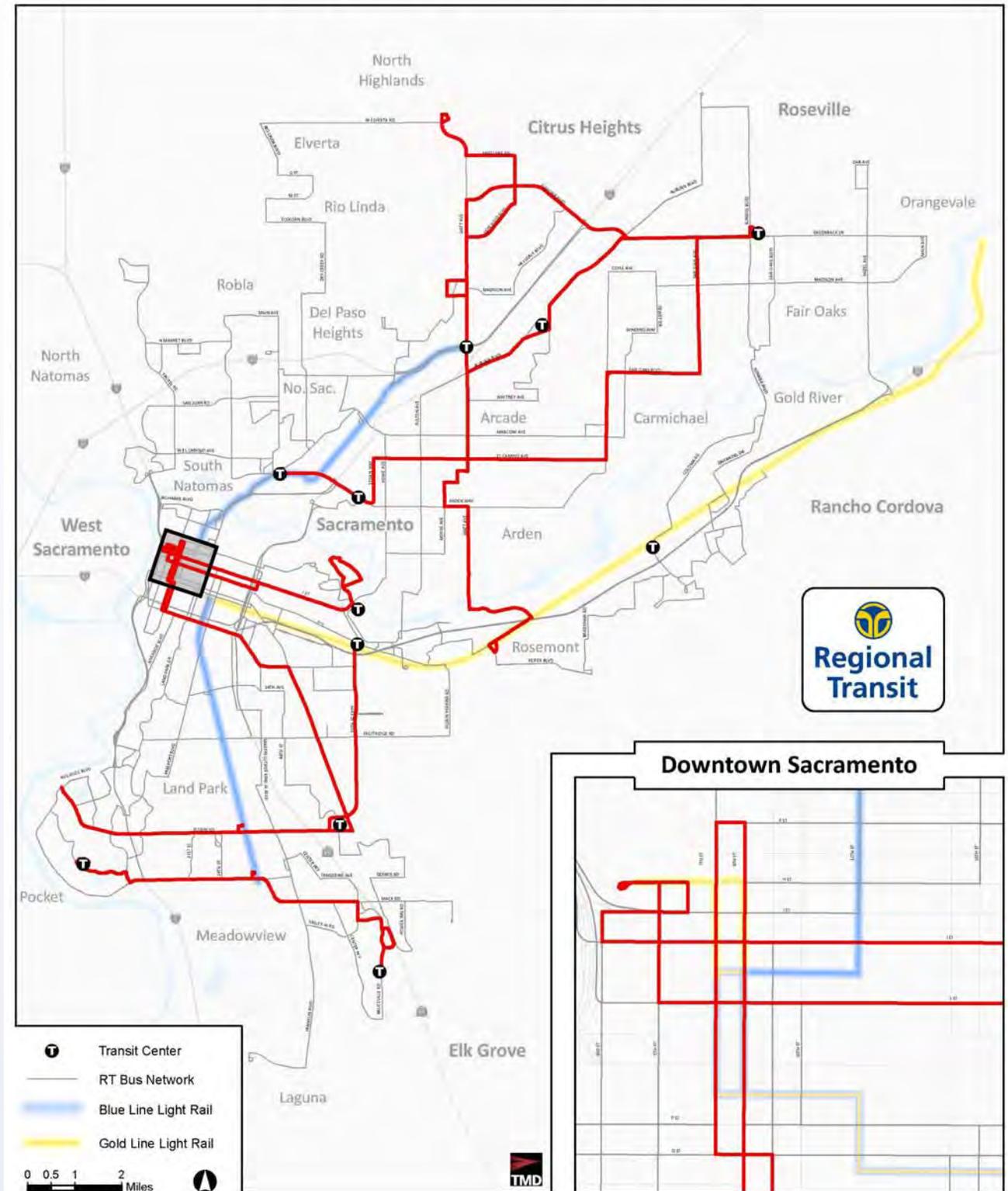
Certain corridors are particularly prominent on weekdays, generating significant levels of bus ridership. These include north-south corridors Stockton Boulevard, 65th Street, and Watt Avenue and east-west corridors Florin Road, Broadway, Auburn Boulevard/Greenback Lane, El Camino Avenue, J/L Streets, and Meadowview Road/Mack Road. Key corridors are identified in Map 3.6. These top corridors with light rail represent 70 percent of current customers. Improving service on these key corridors would positively impact the majority of current riders and attract additional riders.

Weekend

Weekend ridership shows the same corridor dominance as weekdays, with the Broadway, Watt Avenue, Stockton Boulevard, and Florin Road corridors experiencing the greatest number of boardings.



Top 7 Bus Routes



Map 3.6 Major Bus Corridors



Ridership and Resource Allocation

Weekday

Nearly 42 percent of total weekday ridership is attributed to the top seven local bus corridors while they consume only 33 percent of cost, showing that they are strong contributors to the network and may warrant additional investment. The remaining 31 local bus routes comprise another 55 percent of total weekday ridership yet consume 63 percent of the cost, showing that these services cost more to provide than they generate in terms of ridership. Community and express services each contribute less than 2 percent of total weekday bus ridership. Figure 3.19 displays bus ridership and resource distribution.

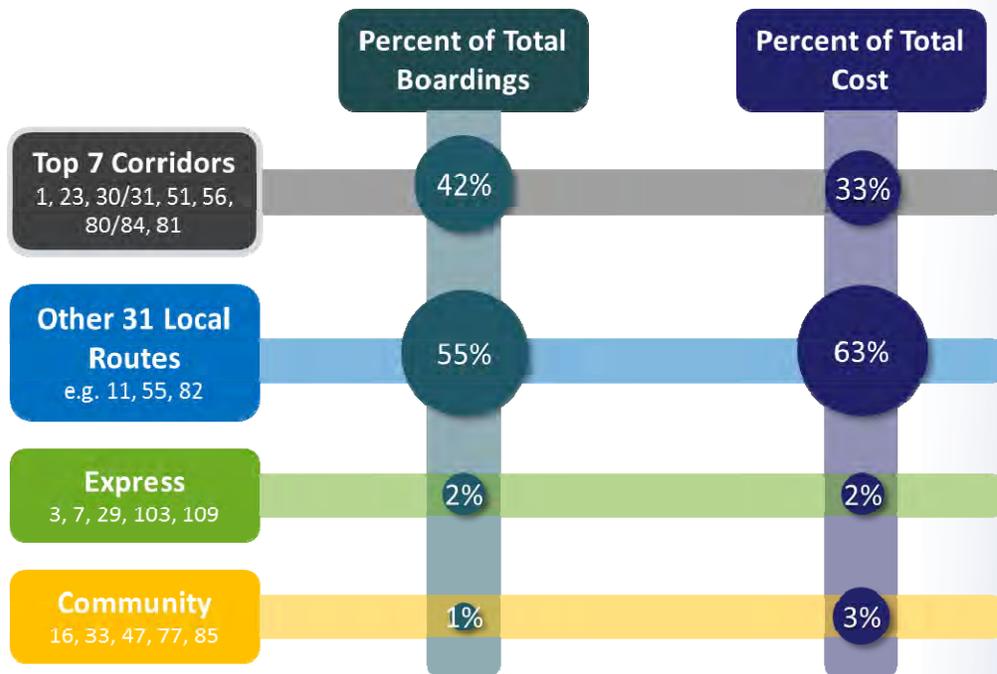


Figure 3.19 Bus Ridership and Resource Distribution

Weekend

Weekend ridership is largely supported by local bus service with only one community bus route operating on Saturdays and none on Sundays.



3.7.2 Productivity

Productivity measures route and segment level service performance by ridership using the following metric:

- Passenger boardings per revenue hour (bph) – a key indicator of service productivity, it measures the number of unlinked passenger boardings (ridership) generated per revenue hour of service operated.
- Passenger boardings per revenue trip (bpt) – commonly used in measuring express service, it measures the number of unlinked passenger boardings (ridership) generated per revenue trip operated.

Passengers per Revenue Hour

By Route

Weekday

RT maintains a local bus average of approximately 28 passenger boardings per revenue hour of service. The top performing display greater than 35 bph and typically operate at spontaneous use frequencies and in transit dependent areas. Weak performing routes show less than 20 bph and operate at 60 minute frequencies, largely in low density areas. Outside of strong and weak performing routes, the majority of local routes show average performance, with moderate productivity levels and room for improvement. Community routes show an average of 13 bph, with Route 33 being the only route to surpass the average at 22 bph. Figure 3.20 displays weekday passengers per revenue hour by route and service type.

Weekend

RT maintains a local bus average of approximately 25 bph on Saturdays and 21 bph on Sundays. On both Saturdays and Sundays local Routes 51, 56, 67, 86, 87, and 88 are the strongest performing routes with 30 or greater bph on Saturdays and 25 or greater bph on Sundays. The weakest performing local routes on Saturdays and Sundays are Routes 34, 19, and 75, each generating less than 15 bph. Route 47 is the only community route to operate on Saturdays, with an average of 10 bph. No community routes operate on Sundays.

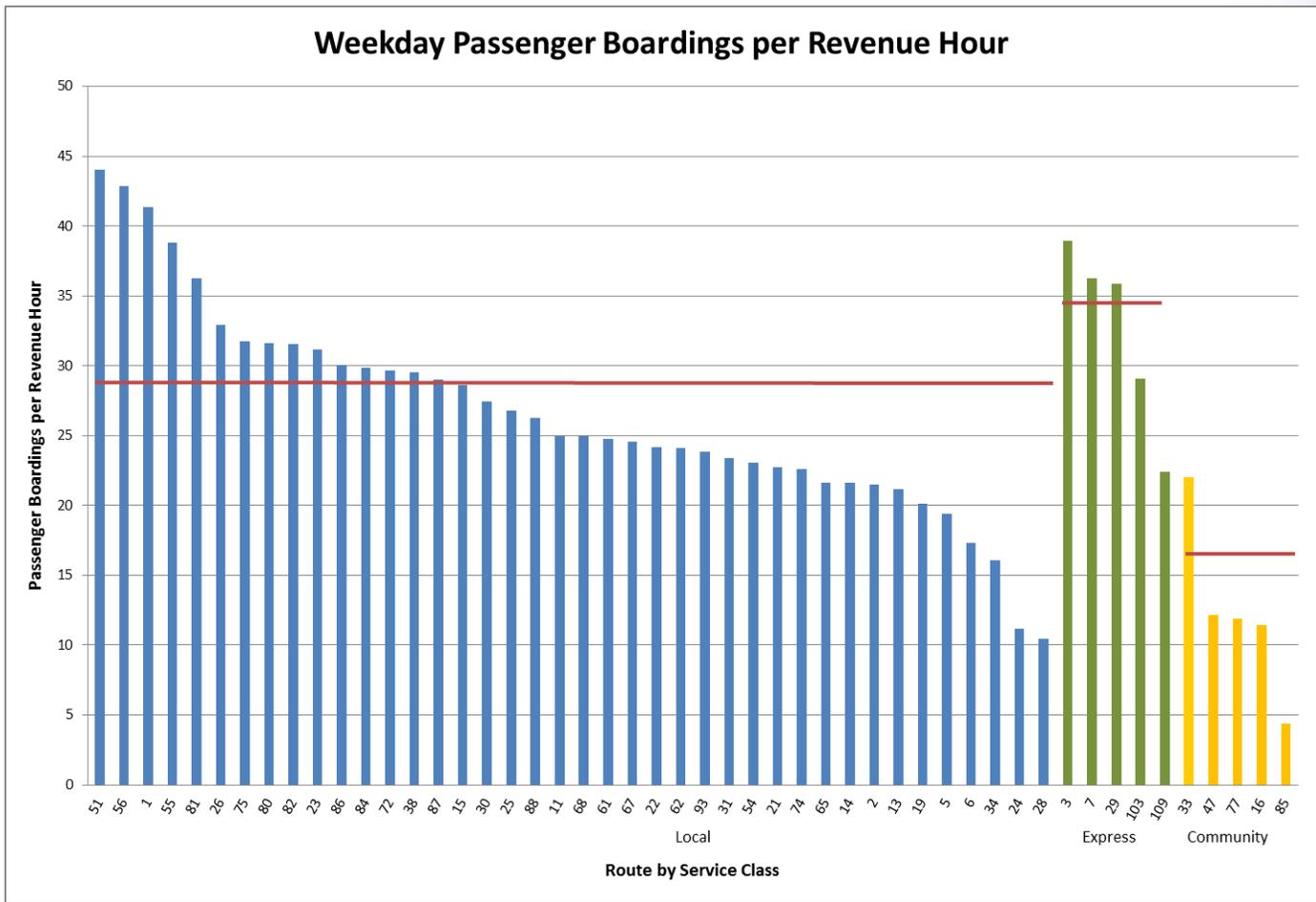


Figure 3.20 Weekday Passenger Boardings per Revenue Hour



Passengers per Revenue Trip

By Route

Weekday

Passenger boardings per revenue trip is a metric most commonly used to measure peak only, express, or commute based services. Such services typically operate peak periods on weekdays with a limited number of revenue hours and trips. Routes 29 and 3 are the strongest performing express routes and experience 25 boardings per trip or greater. Route 103 experiences less than 20 bpt, and is the only Express route which does not directly serve downtown Sacramento. Figure 3.21 displays Express passenger boardings per revenue trip by route.

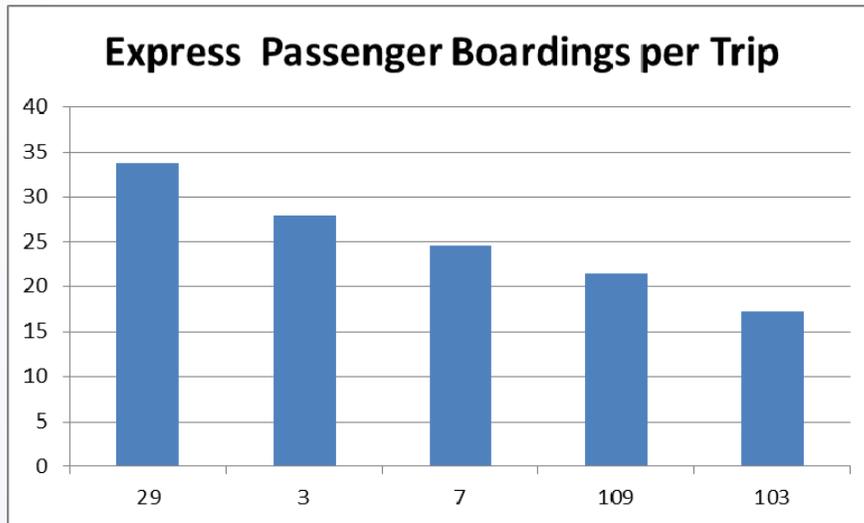


Figure 3.21 Express Passenger Boardings per Trip



3.7.3 Financial Effectiveness

Financial effectiveness compares passenger farebox revenue (operating revenue) with operating cost using the following metrics:

- Farebox recovery ratio – ratio of operating revenue to operating costs. Subsidized services have farebox recovery ratios below 100 percent, while profitable services are over 100 percent. This measure is also referred to as the operating ratio.
- Cost per passenger boarding – measures the cost of providing service to customers, regardless of fare revenue. This metric is useful as it removes external subsidy from the cost of a route.

Farebox Recovery Ratio

Bus routes with higher farebox recovery ratios closely match those with high productivity on weekdays and weekends. Conversely, routes with the lower operating ratios correspond to routes of low productivity.

By Route

Weekday

The average weekday farebox recovery ratio for RT bus service is 26 percent. Local Routes 51, 56, 1, 55, and 81 are the most financially sustainable, experiencing between 33 and 41 percent farebox recovery. Local Routes 24 and 28 and community Routes 47 and 16 are the least financially sustainable routes, experiencing farebox recovery below 15 percent. Figure 3.22 displays weekday farebox recovery for all routes.

Weekend

The average Saturday and Sunday farebox recovery ratios for RT bus service are 26 percent and 18 percent, respectively. Local Routes 51, 87, 56, 67, and 88 are the most financially sustainable on Saturdays, experiencing between 27 and 33 percent farebox recovery. Local Routes 51, 81, 56, and 23 are the most financially sustainable on Sundays, experiencing between 23 and 30 percent farebox recovery. On Saturdays and Sundays local Routes 19 and 34 are the least financially sustainable, experiencing farebox recovery lower than 11 percent. Community Route 47 operates on Saturdays only and also displays poor financial sustainability with farebox recovery of 9 percent.



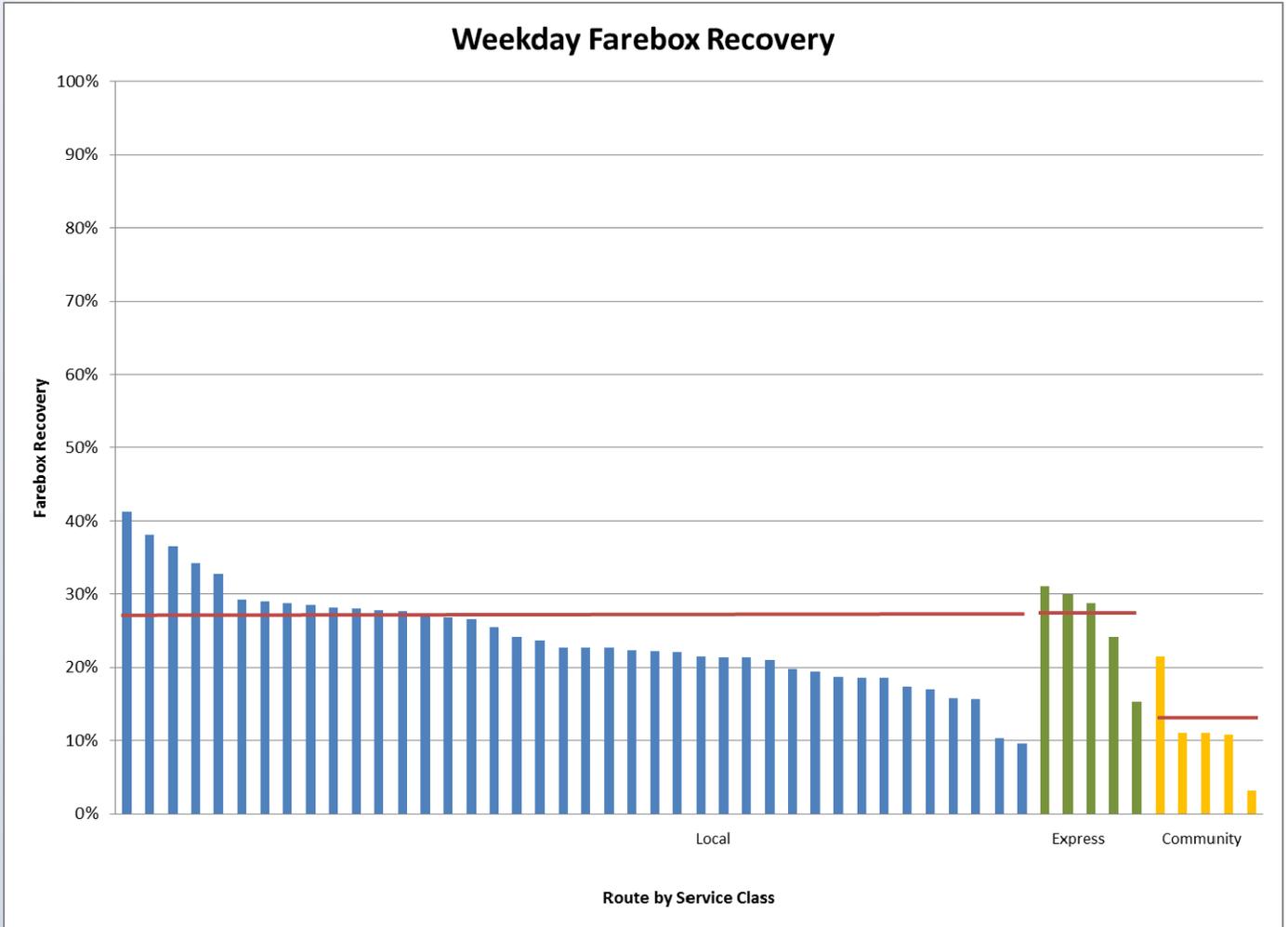


Figure 3.22 Weekday Farebox Recovery



Cost per Passenger Boarding

By Route

Cost per passenger boarding measures the cost effectiveness of a route regardless of fare revenue and external subsidies. Routes displaying low cost per boarding combine efficient and effective service with higher ridership generation.

Weekday

RT Local and Express routes typically display a weekday average cost per passenger boarding of \$4.25. Routes showing higher cost per passenger boarding typically show low productivity, while routes with the lowest cost per passenger boarding also show the greatest productivity. Figure 3.23 on the following page displays weekday cost per passenger boarding by route. Local routes 28 and 24 are by far the most expensive to operate on a per-passenger basis, while routes 51 and 56 are the least expensive. Routes 85 and 77 receive external funding for operation, which makes them less expensive for RT to operate.

Weekend

On Saturdays, the least productive routes show cost per passenger boarding greater than \$9.00, and lower than 20 passengers per revenue hour. The most productive routes show the lowest cost per passenger boarding, each less than \$4.15, and greater than 30 passengers per revenue hour. Sundays reflect patterns similar to Saturdays.





Figure 3.23 Weekday Cost per Passenger Boarding



3.7.4 Service Quality/Customer Experience

Understanding the quality of service (customer experience) is critical in providing a Comprehensive Operational Analysis (COA) of RT services. Various measures indicate a customer's perceived quality of service, which include:

- **Travel Time** – Operating speed
- **Access to Service** – Stop spacing and coverage
- **Crowding** – Passenger loads

Travel Times

Operating Speed

Reviewing service travel times is useful to identify low operating speeds which contribute to passenger delay and add cost. Safely improving operating speeds on all routes ensures a more attractive service to customers while potentially increasing service efficiency and effectiveness by reducing the resources needed to operate the service or operating more service with the same resources.

Weekday

Figure 3.24 shows average weekday operating speeds in miles per hour (mph) for local and express routes. Average speeds of less than 15 mph are present in about 50 percent of local routes with the remaining 50 percent of routes ranging from 15 mph to 20 mph. Routes with slower speeds are strong candidates for bus speed improvement initiatives in order to improve passenger experience (many of these areas have high boarding activity) and reduce operating cost. The majority of express routes fall within speeds of 15 mph to 20 mph, with Routes 103 and 109 displaying speeds greater than 20 mph.



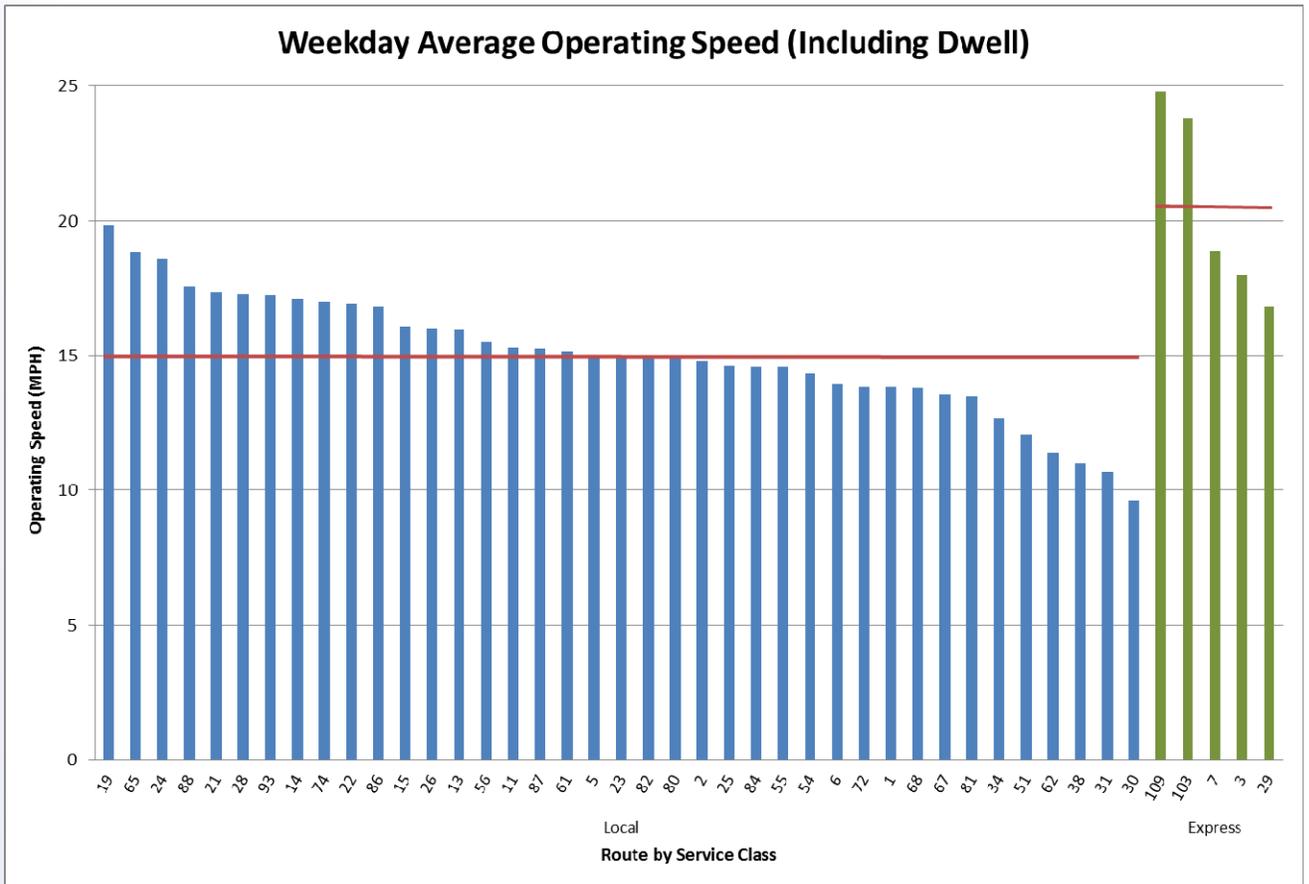


Figure 3.24 Weekday Average Operating Speed



Access to Service

Stop Spacing

Stop spacing is a key factor in overall quality of service, affecting both service access and travel times. Closely-spaced stops may result in less walking time, yet often lower quality of service for passengers on the bus due to added delay. Stop spacing of about 0.25 miles between stops is a typical industry standard for local bus services. Approximately 40 percent of RT routes are below this standard. Figure 3.25 displays average stop spacing by route. Eight Local bus routes (2, 6, 30, 31, 34, 38, 51 and 62) have stops spaced closer than 0.2 miles apart (less than approximately 1,000 feet between stops). Many of these routes serve downtown Sacramento. Adjusting stop placement to more closely reflect a 0.2 to 0.25-mile spacing may increase travel speeds and improve the customer experience.

Crowding

Passenger Loads

RT measures passenger loads based on a seated capacity (34 on a standard bus vehicle) plus a certain number of standees (total capacity) in order to effectively evaluate service utilization. The load standard for RT services is 150 percent of seated capacity.

Weekday

Approximately 18 RT routes experienced trips above the seated load (34 passengers) but well within the load standard on an average weekday. Of all routes, Route 72 experienced one trip over the 150 percent load standard, with a max load of 56 passengers. With a low percentage of trips experiencing crowding, there do not seem to be systemic issues with bus overcrowding.

Weekend

No trips were over capacity during the weekend, again showing no systemic problems.



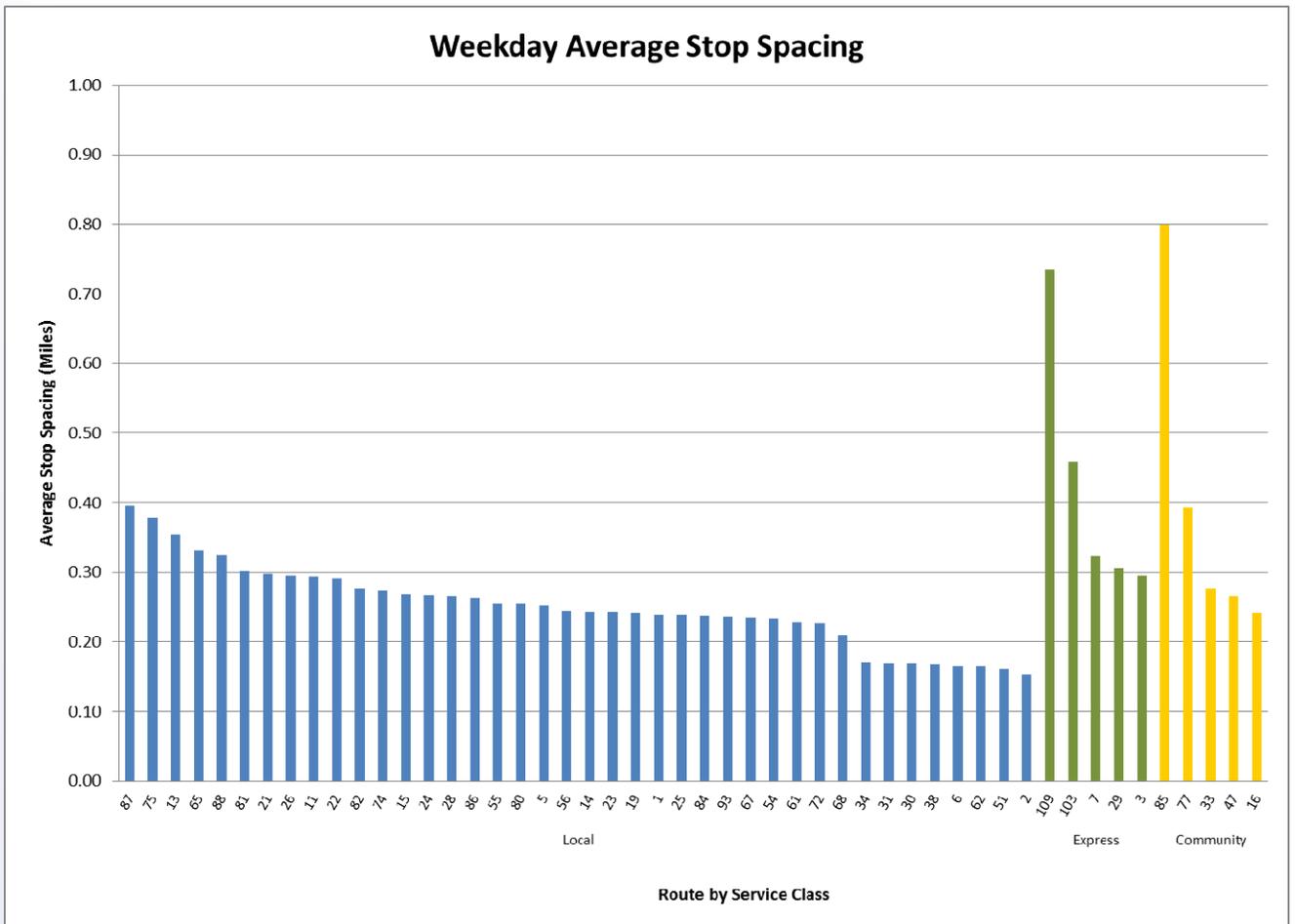


Figure 3.25 Weekday Average Stop Spacing



3.8 Bus Service Key Findings

3.8.1 Ridership

- Ridership is concentrated in the core grid network where the greatest proportions of higher population and employment density, mixed land uses, and transit dependent populations are located.
- Watt/I-80 Station and Florin Towne Center are key boarding locations within the RT network, each averaging over 1,500 average weekday boardings.
- Ridership is strongest on the north-south key corridors of Stockton Boulevard, 65th Street, and Watt Avenue and the east-west key corridors of Florin Road, Broadway, Auburn Boulevard/Greenback Lane, El Camino Avenue, J/L Streets, and Meadowview Road/Mack Road.
- The top seven bus routes generate 42 percent of total boardings and 33 percent of total cost, indicating that they are strong contributors to the network and may warrant additional investment.

3.8.2 Productivity

- The average weekday productivity for RT bus service is 28 passenger boardings per hour. Routes displaying greatest productivity generate more than 35 passenger boardings per hour and typically operate at spontaneous use frequencies and in transit dependent areas.

3.8.3 Financial Effectiveness

- Bus routes with higher farebox recovery ratios closely match those with high productivity on weekdays and weekends. Conversely, routes with the lower operating ratios correspond to routes of low productivity.
- The average weekday farebox recovery ratio for RT bus service is 26 percent. The most financially sustainable routes experience between 33 and 41 percent farebox recovery and also tend to display high productivity.
- Routes with higher cost per passenger boarding typically show low productivity, while routes with lower cost per passenger boardings show greater productivity. RT Local and Express routes typically display an average weekday cost per passenger boarding of about \$4.25.



3.8.4 Service Quality/Customer Experience

- Average weekday operating speeds of less than 15 miles per hour are present in approximately 50 percent of local routes. Routes with slower operating speeds are strong candidates for bus speed improvement initiatives in order to improve passenger experience (many of these areas have high boarding activity) and reduce operating cost.
- Closely-spaced stops may result in less walking time, yet often lower quality of service for passengers on the bus due to added delay. Stop spacing of about 0.25 miles between stops is a typical industry standard for local bus services. Many of the routes serving the Central City area have stops spaced more closely together.
- Regarding passenger loads and vehicle crowding, Route 72 experienced one trip over the 150 percent load standard, with a max load of 56 passengers. With a low percentage of trips experiencing crowding, there do not seem to be system issues with bus overcrowding.



4. TransitRenewal Performance Measures

4.1 Introduction

Following the discussion on RT's existing conditions, several key themes emerged that warranted further development and provided insight into RT's future. These include:

- As a result of focusing resources on service coverage, RT has few services that run frequently enough for customers to use them "on demand."
- While the transit network functions effectively for many trip purposes (work, school) the lack of significant evening and weekend service limits the convenience of transit.
- With a diverse, often decentralized travel marketplace and various transit modes (rail, bus, community circulators/route deviation, paratransit) the system must function more effectively as a network rather than a series of individual routes.

The service reductions undertaken in 2010 occurred in response to significant budget shortfalls and contributed to many of these issues. Going forward, TransitRenewal aims to redevelop the transit network in a more sustainable fashion, guiding increased service towards the areas of greatest demand. As a result, the principles considered for transit network re-design as part of TransitRenewal are:

- Invest in frequent, high-quality service in appropriate market areas.
- Develop a seamless RT network.
- Match service levels and market demand.

In accordance with these principles, a set of transit performance measures have been developed that provide comparisons between transit investment (the amount of service hours and miles provided) and return on transit investment (the amount of ridership generated). Performance measures are an integral part of TransitRenewal and provide useful guidelines for planning, implementing, and monitoring services. They create a basis for short and long-term decision making and aim to improve productivity and financial effectiveness, leading to a more sustainable RT system.

RT's current performance measures (called Productivity Standards) were established in 2001 to identify low performing routes within a peer group (e.g., express, local, or community bus) in order to distinguish routes as candidates for modification or discontinuation. Because the standards did not evaluate the effects of the low performing routes on the entire system, some very low performing routes were allowed



to continue. As the financial crisis of the past few years continued to accelerate, it became clear that allowing these poorly performing routes to continue operation was having a negative effect on the productivity of the entire system and additional or modified performance measurement method needed to be considered to maintain the long term financial stability of RT.

The proposed TransitRenewal performance measures intend to build upon the strengths of existing RT service design guidelines, and introduce new measures that will allow RT to operate sustainably both today and in the future. They will provide a mechanism to evaluate the performance of transit, to ensure that the service delivered is useful to customers as well as cost-effective for RT.

It is important to note that these performance measures do not constitute the whole of the decision-making process for TransitRenewal recommendations. Growing the RT network requires a holistic approach that goes beyond return on investment; however, the performance measures will play a strong role in the interest of generating a more sustainable transit system that prioritizes investment in areas which have the greatest potential for ridership (existing high-performing service; mixed-use, higher-density corridors, employment centers, shopping malls, etc.).

4.1.1 Performance Measures

Performance measures are intended to provide threshold levels for effective service (both in terms of public mobility and financial sustainability). Using industry standard performance metrics, RT services will be evaluated according to the amount of ridership generated per unit of investment.

Performance Metrics

Performance metrics are numeric indicators of transit performance. The performance measures developed as part of Transit Renewal focus on two performance metrics, one measuring passenger generation (**Boardings per Revenue Hour**) and one measuring financial effectiveness (**Cost per Passenger Boarding**). Notably, fare revenue generated is not directly included as a factor in either performance metric, in order not to unduly prioritize revenue generation as a factor in service planning decisions.

Boardings per revenue hour is a metric which measures service *productivity*. For TransitRenewal, this metric will form the basis of the performance evaluation process. In order to produce this metric on a route level, the total number of boardings generated on a single route are divided by the total service hours provided. Routes which generate more boardings per hour of service will have a higher boardings per revenue hour total. This metric is more useful in evaluating service performance than boardings alone, since the level of investment required to operate the service is included in the equation. This metric can be produced at the route segment or whole system level as well.

Route-level analysis of boardings per revenue hour is included in the Service Analysis. On average, Light Rail generates approximately 200 boardings per revenue (train) hour



and bus services generate 28.5 boardings per revenue hour. Light Rail and routes 51, 56 and 1 are the most productive RT services. Routes 24, 28, and several Community Bus routes are the least productive services. RT currently uses the boardings per revenue hour metric in order to evaluate its services, and considers routes falling under 70 percent of its service class average as candidates for possible modification or discontinuation. As this 70 percent standard is not a fixed threshold, it can vary with changes in overall RT bus performance. TransitRenewal does not propose to change this measure, but to also add fixed thresholds which can be held constant over time.

Boardings Per Trip is a performance metric measuring how many boardings occur during a single one-way trip for any transit route. It is most effective for evaluating point-to-point services (like Express bus services) where patrons board at one end of the route and alight at the other, rather than routes with constant passenger turnover. When applied to Express bus services, it becomes a measure of capacity utilization (i.e. on a bus with 40 seats, 20 boardings per trip equates to 50% utilization of available capacity).

Route-level analysis of boardings per trip is included in the Service Analysis. On average, current Express bus services generate approximately 24 boardings per trip. Route 29 has the highest capacity utilization, while Route 103 has the lowest.

Cost per passenger boarding as used in this analysis, is a metric that measures the cost of each passenger boarding, *regardless of the fare revenue generated*. This measures how *financially effective* transit is at generating ridership. In order to produce this metric at a route level, the total cost to deliver service on the route is divided by the number of boardings generated.

Route-level analysis of cost per passenger boarding is included in the Service Analysis. Using RT's FY12 cost allocation, light rail service costs approximately \$3.15 per passenger boarding and bus services average approximately \$4.79 per passenger boarding. Since the cost to provide service is mainly driven by revenue hours, the routes with higher boardings per revenue hour also have lower cost per passenger boarding, and vice versa. . One notable exception is routes which receive external (outside of RT) revenue which financially supports service operation. Current RT Community Bus routes 77, 85 and North Natomas Flyer service receive external revenue.

Performance Measures

The suggested minimum thresholds for service productivity (boardings per revenue hour and boardings per trip) are shown below, for Local, Community, and Express bus routes as well as day of the week. The intent is that RT services not meeting minimum thresholds would be subject first to modification in order to improve performance, and eventual discontinuation if performance continues to fall short.



Productivity – Minimum Thresholds

	Local	Community Bus	Express
Weekday	20 boardings per hour	15 boardings per hour	25 boardings per trip
Weekend	15 boardings per hour	15 boardings per hour	

Figure 4.1 Productivity Minimum Thresholds

The boardings per revenue hour thresholds (20 and 15) are common across the transit industry as indicators that bus transit investment is generating enough ridership to be a responsible use of limited public funds. Transit agencies which use a 20 boardings per hour threshold include Santa Clara VTA, Marin Transit, and Indianapolis’ IndyGo. These thresholds also compare favorably with RT’s existing performance standards, as 70 percent of RT’s current bus average of 28.5 boardings per revenue hour is approximately 20 boardings per revenue hour.

The threshold of 25 boardings per trip for Express bus services ensure that vehicle capacity is reasonably utilized. Most RT full-size buses seat 34 passengers.

Financial Effectiveness – Minimum Thresholds

Minimum financial effectiveness thresholds (cost per passenger boarding) are shown below. Using RT’s per-hour operating costs (FY12), cost per passenger boarding thresholds were set at levels to match the boardings per hour thresholds shown above. Any external subsidy provided to RT in order to offset the cost of operation (fully or partially) shall be deducted from the operating cost. Values will be adjusted regularly to account for changes in RT’s operating cost per revenue hour.

	Local	Community
Weekday	Match productivity standard (currently \$6.82 per passenger boarding) minus external subsidy	Match productivity standard (currently \$14.48 per passenger boarding) minus external subsidy
Weekend	Match productivity standard (currently \$9.09 per passenger boarding) minus external subsidy	

Figure 4.2 Financial Effectiveness Minimum Thresholds

Essentially, this metric allows for external subsidy to be taken into account when service financial effectiveness is evaluated. With external subsidy in place, even routes with poor productivity may exceed performance thresholds because they cost less for RT to operate and do not constitute a drain on RT resources.



Thresholds for Service Improvement

Performance measures can also be used to indicate high-performance services which would benefit from increased investment, such as frequency or service span improvements. In this case, routes performing much above system average productivity (140 percent which is twice RT's current minimum threshold of 70 percent) will be considered candidates for service improvements. This standard will be able to fluctuate as RT productivity changes over time. At a current average of 28.5 boardings per hour, bus routes/route segments generating approximately 40 boardings per hour (140 percent of average) will be considered top candidates for improved service levels.

Light Rail Performance Measures

Currently, RT evaluates light rail performance using the same ridership and productivity indicators as bus service. LRT service is more cost-effective than bus due to its greater capacity, and RT's LRT service is highly productive through most of the day. Light rail is less flexible than bus in terms of being able to undergo service changes that would result in greater productivity (other than adding or subtracting train cars); however, performance and capacity utilization should continue to be monitored in order to determine the need for service frequency improvements on highly productive sections of the network.

4.1.2 New Service Warrants

New service warrants are guidelines to assist in the introduction and monitoring of new transit services. They can be applied equally to service concepts developed internally, or requested by a member of the public. The following process is recommended to manage new RT service proposals:

The service concept will be reviewed by RT's planning department, including market characteristics of the area proposed for new service, and compares the concept to similar RT services in order to estimate route cost and performance. If the potential performance and financial effectiveness for the new service are anticipated to meet established warrants, implementation may take place. The proposed new service would be reviewed with the Board for concurrence. A two-year "sunset" date by which the service must meet established performance thresholds will be established. If the new service does not meet minimum performance thresholds, RT will make an effort to communicate this fact to riders and the community being served several months to a year prior to the elimination of service so that alternative options can be explored and possibly implemented prior to service elimination.

If a new service proposal is not anticipated to meet the performance thresholds, a cost-sharing arrangement will be encouraged with interested/affected parties (developments, communities, TMAs, etc.). If external funding is supplied to operate a service for a given period of time, and service does not meet minimum performance thresholds, the service may continue to operate only as long as external funding is in place to allow the service to meet the thresholds.



4.1.3 Service Monitoring and Evaluation

In order to ensure that the guiding principles are maintained, a process of continuous monitoring and evaluation is recommended. As part of TransitRenewal as well going forward, RT staff recommends that three levels of reporting be instituted:

General Manager's Report: A monthly review of system level performance measures is currently being provided and is recommended to continue as is.

Quarterly Route Performance Analysis: On a quarterly schedule, a discussion of the trends at a route level, including productivity and financial performance measures, will be prepared and reviewed with the Board. This report will provide information to allow for immediate actions that can be made with the next quarterly operator sign-up to modify a route service (improve headways, decrease headways, make route changes, or eliminate route service altogether).

Annual Route System Analysis: A yearly comprehensive system-level financial and performance analysis of individual routes and route segments. This report will also analyze market trends affecting route performance including service and fare changes, seasonal differences, operational issues, employment trends, and gas prices. Title VI implications, as well as the route network implications relative to ADA service provisions, will also be considered with recommendations for route modifications as necessary to achieve or maintain the performance measures (productivity and financial effectiveness) adopted by the Board.

The Annual Route System Analysis will flag routes not meeting performance measures for alignment modifications, scheduling adjustments, and/or additional marketing. New service(s) may also be proposed along with proposals for elimination of non-productive service.

Also as part of the Annual Route System Analysis, new performance measures may be proposed and existing measures modified or removed.



5. Public Outreach

5.1 Outreach Process

The public participation outreach for Transit Renewal was designed to provide information and elicit responses from as many present and potential transit customers as possible. The outreach was divided into four elements:

TransitRenewal Stakeholder Reviews: Four stakeholder groups were formed to provide overall direction to the TransitRenewal effort.

- Community Advisory group of persons with direct contact , providing service to transit customers
- Technical Advisory group of civic organizations and local government representatives
- RT operations and management staff
- RT executive management staff

TransitRenewal Website: An interactive website was established to allow interested individuals to review reports and presentations online and to provide feedback through an online survey.

Community Presentations: Transit Renewal Presentations were provided to local governments, social service organizations, planning groups, environmental organizations, civic organizations and educational institutions. A survey was used to solicit opinions on the direction and recommendations of TransitRenewal.

Neighborhood Workshops: Workshops were held at key rail stations, bus transit centers and neighborhood groups to review the route proposals and receive feedback from present and potential RT customers.

The RT Board was briefed at key decision points throughout the study process.



5.2 Stakeholder Reviews

Key stakeholders were identified as either internal or external to RT.

- Internal Stakeholders
 - RT Board of Directors
 - RT Executive Team
 - RT operations and management staff
- External Stakeholders
 - Community Advisory Group (Community leadership, business leadership, advocates, etc.)
 - Technical Advisory Group (SACOG, City/County public works, other transit agencies, etc.)
 - General public

As the strategy and recommendations for TransitRenewal were developed, the stakeholder groups were convened to engage in dialogue relative to the direction of the effort. Four outreach sessions occurred during this effort, as described below. Each round allowed for education on analysis performed as part of TransitRenewal, as well as input from stakeholders on key issues and direction for the future.

Session 1: Initial Market and Service Findings highlighted high-level analysis of the of the Sacramento RT market area, including population/employment densities, demographics, and travel patterns. The presentation provided an overview of current RT ridership patterns, productivity, and cost-effectiveness, as well as major changes in these measures since the 2010 service reductions. This phase included the introduction of a TransitRenewal survey (posted online for convenient access), where stakeholders could answer a series of questions about their use of the system and their opinions on RT's strengths and weaknesses.

Outreach dates: June/July 2011

Session 2: Service Analysis Findings included a more detailed look at current RT service, breaking down light rail service into a segment-level analysis, and taking a look at the common characteristics of high-performing vs. low-performing bus service. The presentation included guiding principles for improving service performance, which were used to guide TransitRenewal service recommendations. Finally, participants were given an introduction to performance measures, which prefaced the next outreach phase.

Outreach dates: July / August / September 2011

Tuesday, August 16, 2011

3:30 p.m. to 6 p.m. – Watt/I-80 and Arden/Del Paso light rail stations



Wednesday, August 17, 2011

3:30 p.m. to 6 p.m. – Meadowview and Florin light rail stations

Thursday, August 18, 2011

3:30 p.m. to 6 p.m. – 8th & O and 16th Street light rail stations

Tuesday, August 23, 2011

1 p.m. to 3 p.m. – Arden Fair Transit Center

3:30 p.m. to 6 p.m. – Watt/Manlove light rail station

Wednesday, August 24, 2011

1 p.m. to 3 p.m. – Florin Mall Transit Center

3:30 p.m. to 6 p.m. – Mather Field/Mills light rail station

Thursday, August 25, 2011

3:30 p.m. to 6 p.m. – University/65th Street light rail station

Tuesday, September 13, 2011

1 p.m. to 3 p.m. – Sunrise Mall Transit Center

Presentations:

Sacramento Asian Chamber of Commerce – July 19, 2011

Sacramento Metro Chamber of Commerce – August 9, 2011

Oak Park Business Association – August 10, 2011

Stockton Boulevard Partnership – August 11, 2011

Sacramento Area Council of Governments, Transportation Committee – August , 17, 2011

League of Woman Voters – August 22, 2011

River District Board – August 23, 2011

Paratransit Board – September 15, 2011

Sacramento Metropolitan Air Quality Management District Board – September 22, 2011

Session 3: Performance Measures presented recommendations for service performance measures, which would be used to guide TransitRenewal recommendations as well as ongoing service monitoring. These measures are intended to ensure effective investment of RT's limited resources. Performance measures discussed included minimum performance thresholds (productivity and cost-effectiveness), thresholds for service improvement, as well as introduction of a "sunset clause" which requires new RT services to reach minimum performance thresholds.

Outreach dates: October 2011

Session4: TransitRenewal Service Recommendations included the longest and most detailed phase of outreach. In certain cases, multiple rounds of information were presented which allowed for continual updating of plan recommendations. Participants were provided with an overview of past analysis as well as key themes which guided



plan recommendations, including increasing frequency, providing longer spans of service, and streamlining route alignments. During working sessions, RT and consulting staff provided detailed route-level recommendations based on areas of the system.

Activities subsequent to Session 4 will include a series of community meetings in which route-level recommendations will be presented to members of the general public. These meetings will precede the Public Hearing for TransitRenewal.



5.3 TransitRenewal Website and Survey

The TransitRenewal Survey was available to stakeholders and the general public from June through December of 2011. In total, nearly 3,300 respondents participated in the survey while over 2,900 completed all of the questions. The survey provided insights into the travel habits, demographics, and attitudes towards transit of current and potential customers and those who have ceased riding.

Respondents. Figure 5.1 below displays RT survey respondents by rider type. Most of the survey respondents were current RT riders, with a fairly even split between former and non-riders.

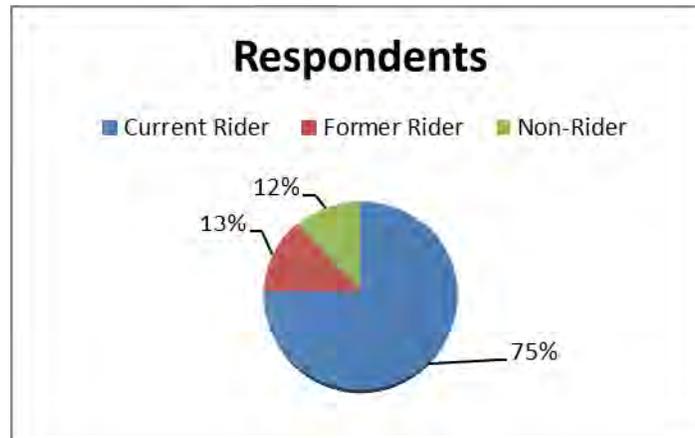


Figure 5.1 RT Survey Respondents

5.3.1 Demographics

Gender. The distribution of respondents shows that slightly more women (55 percent) took the TransitRenewal Survey than men (45 percent). Figure 5.2 below displays gender distribution by respondent type.



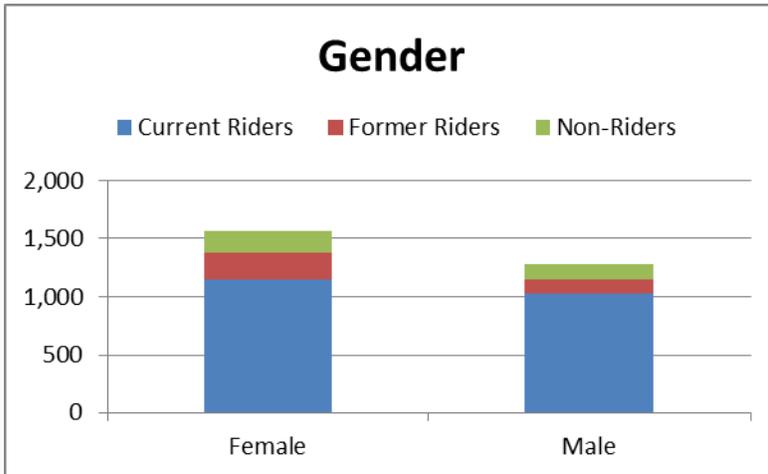


Figure 5.2 Gender

Age. Approximately 30 percent of those responding as current riders (20 percent of former and non-riders) are between the ages of 18 to 34, typically students and young adults. Nearly 45 percent of current riders (50 percent of former and non-riders) are within 35 to 54 years of age. Those aged 55 and older comprise 25 percent of current riders, and 30 percent of former and non-riders. Figure 5.3 below displays respondents by age category.

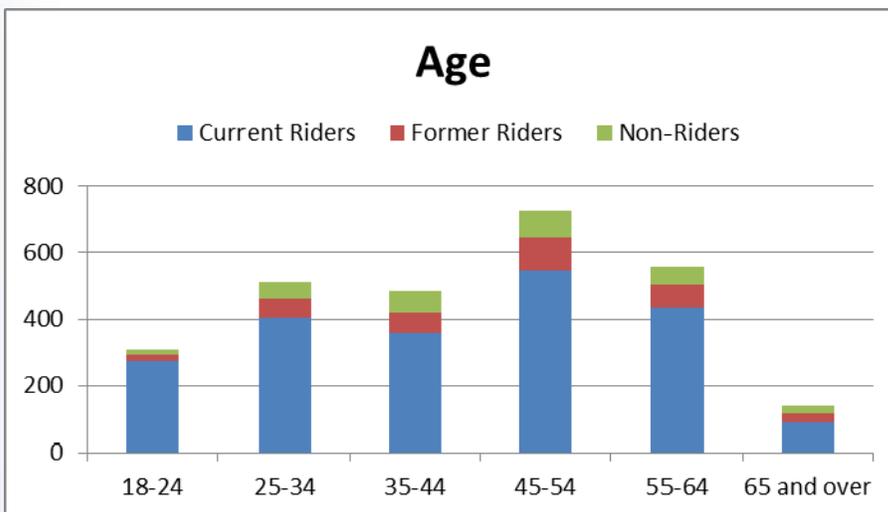


Figure 5.3 Age

Annual Household Income. Sixty percent of current riders have an annual household income less than \$45,000 with nearly one-third of all current riders coming from households earning under \$15,000 per year. Forty percent of former riders and 30 percent of non-riders have annual household incomes less than \$45,000. The greatest percentage of former and non-riders is in the over \$75,000 category. Figure 5.4 below displays annual household income by respondent type.

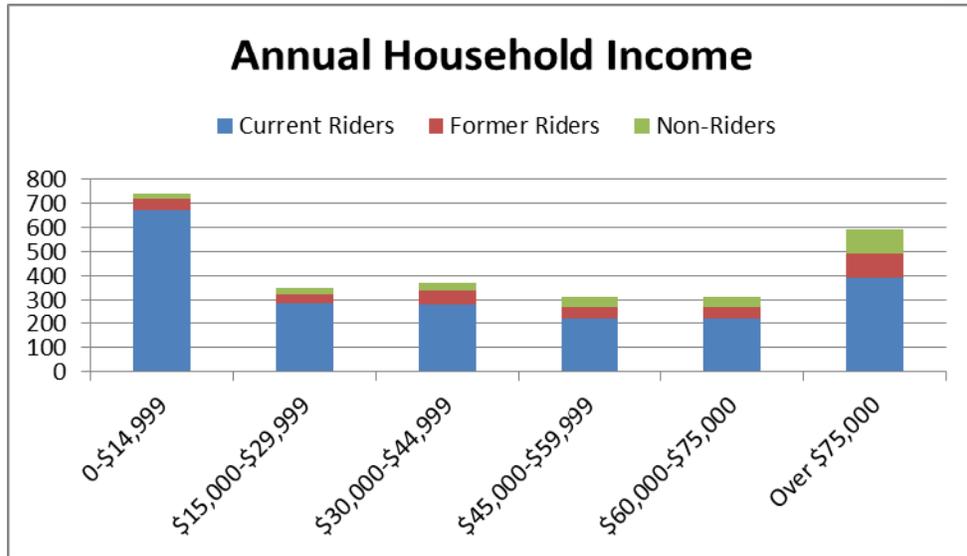


Figure 5.4 Annual Household Income

Ethnicity. The majority of survey respondents are White/Caucasian, Black/African American, and Hispanic. Figure 5.5 below displays ethnicity by respondent type.

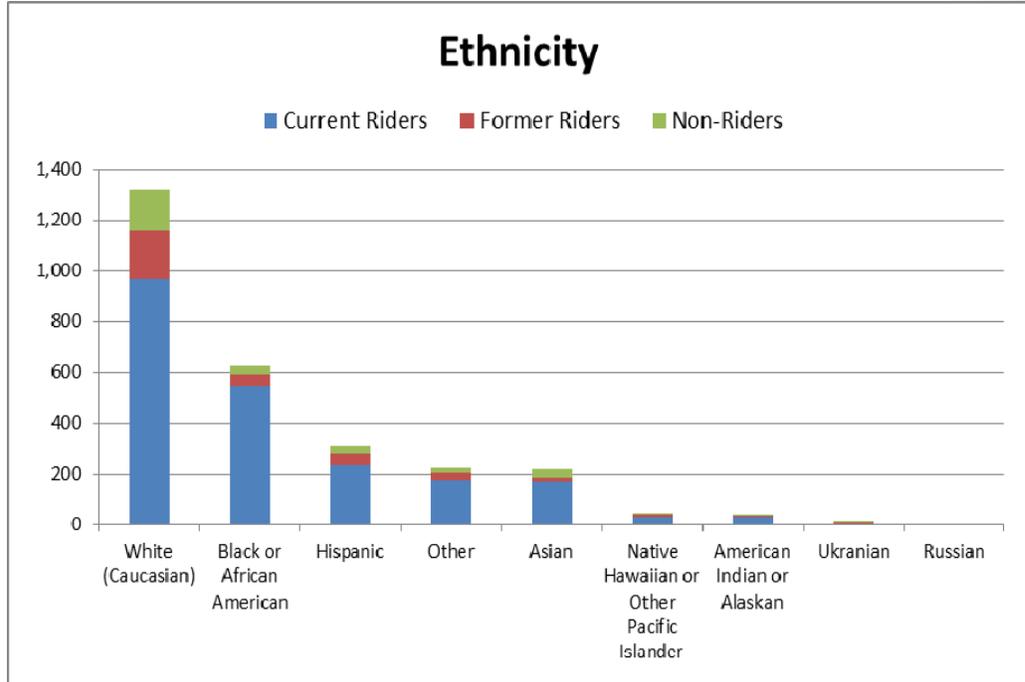


Figure 5.5 Ethnicity



5.3.2 Travel Habits

Trip Purpose. Over 65 percent of current, former, and non-riders reported that their most common trip purpose is work-related. Nearly 15 percent of current riders travel for school and nearly 18 percent of non-riders traveled for recreation purposes. Figure 5.6 below displays trip purpose by respondent type.

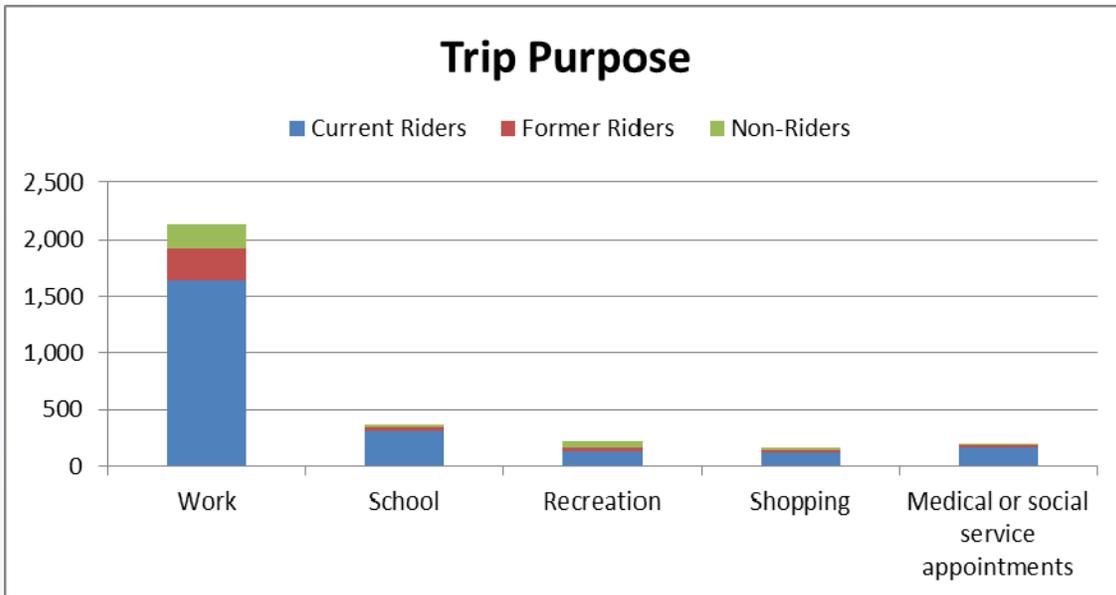


Figure 5.6 Trip Purpose

Frequency of Use. Approximately 50 percent of current and former riders use RT 4 or 5 days per week. Just over 30 percent of current riders use RT 6 or 7 days per week, while only 10 percent of former riders used RT services that regularly. Figure 5.7 below displays frequency of use by rider type. Because this question concerns current and former RT use, non-riders did not respond.

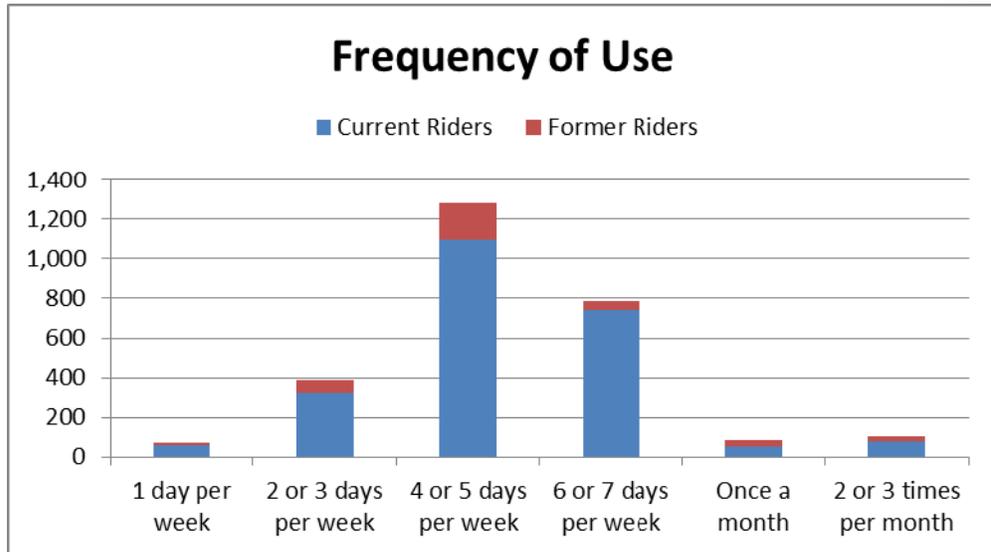


Figure 5.7 Frequency of Use

Distance from Home. Figures 5.8 and 5.9 below display the distance current, former, and non-riders live from the nearest RT bus or light rail stop. For bus service, the largest category of respondents lives within 1 block of RT bus service. For light rail service, the largest category of respondents lives more than 20 blocks from the nearest stop. Notably, there is no significant difference between current, former and non-riders in terms of their proximity to the nearest stop; however, non-riders were more inclined to answer “I don’t know.”

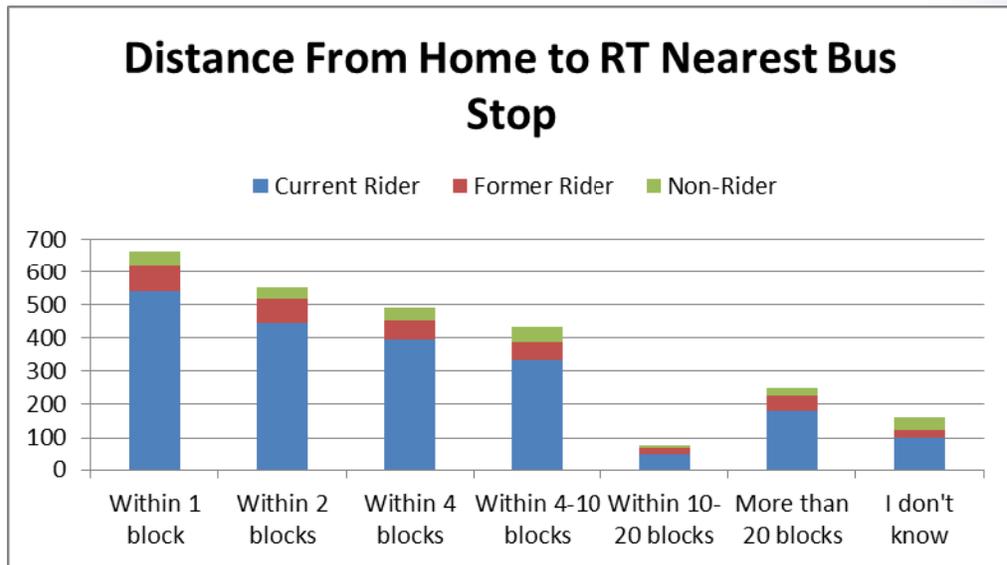


Figure 5.8 Distance from Home to Nearest RT Bus Stop



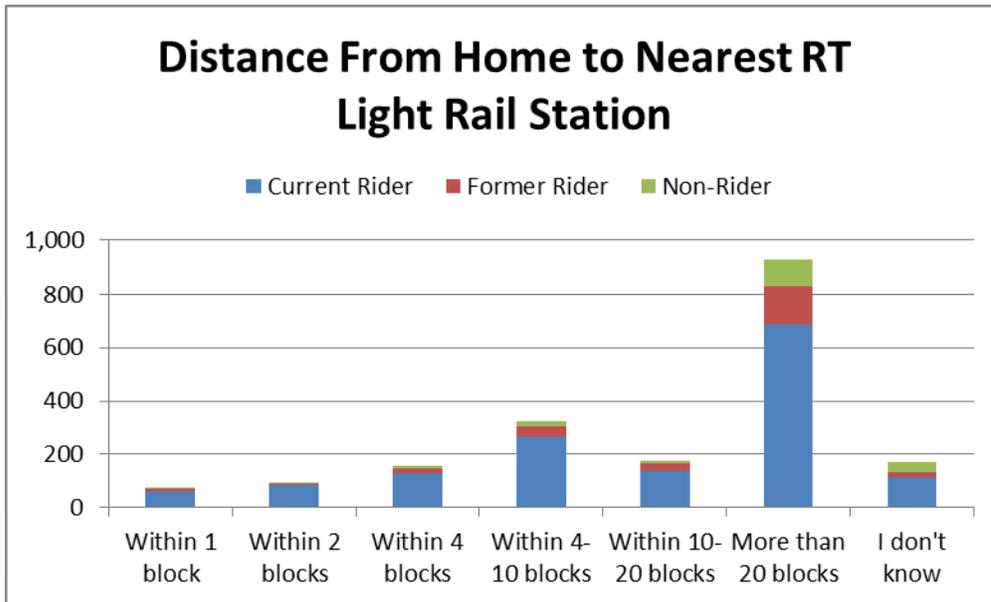


Figure 5.9 Distance from Home to Nearest RT Light Rail Station



5.3.3 Attitudes Towards Transit

RT Service. Figure 5.11 below displays the prevalence of opinions of RT services. More respondents chose positive attributes, including “can get to where I need to go” and “a benefit to our community.” Among the weaknesses, the largest category of respondents chose “stressful,” which was more prevalent among former and non-riders than current riders.

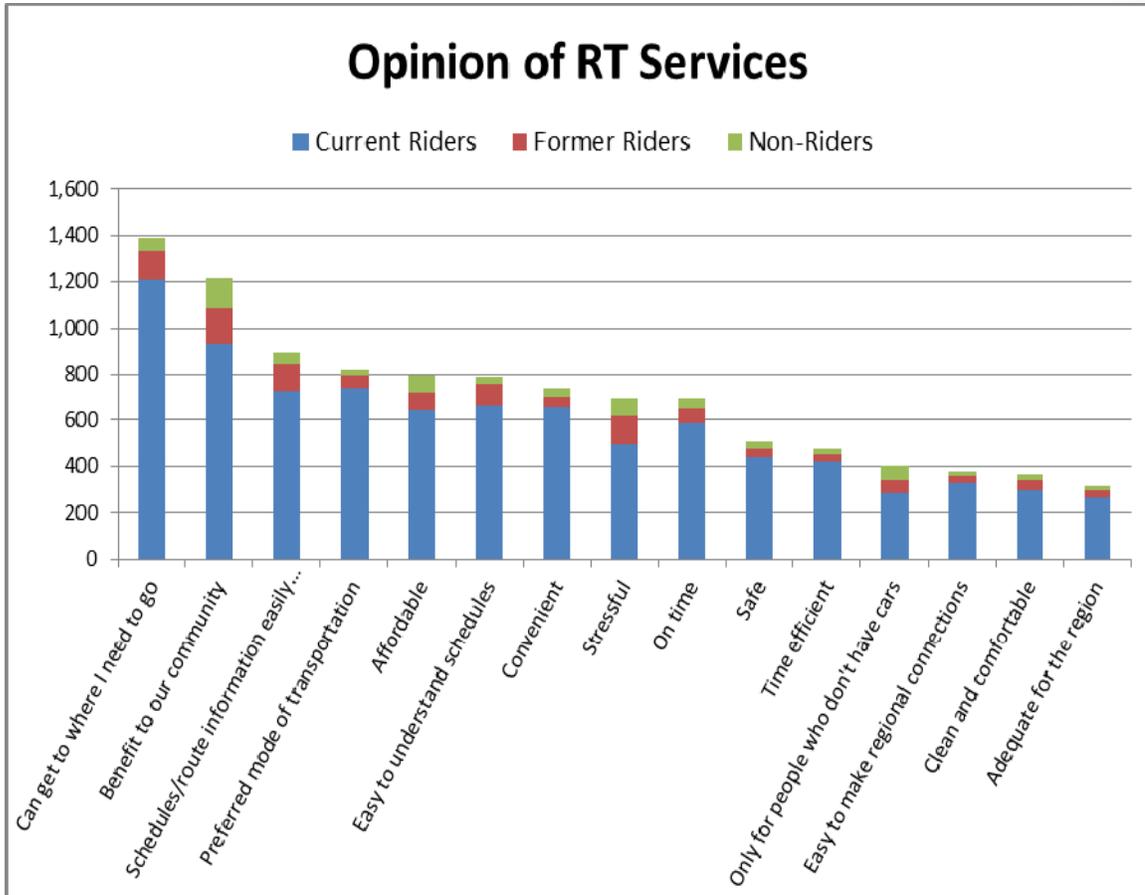


Figure 5.11 Opinion of RT Services



Impacts of Service Changes. Figure 5.12 below displays various recent RT service changes that have impacted use of RT services. Reduction in evening service and elimination of transfers were the most common responses. Other fare increases were cited as significant impacts as well.

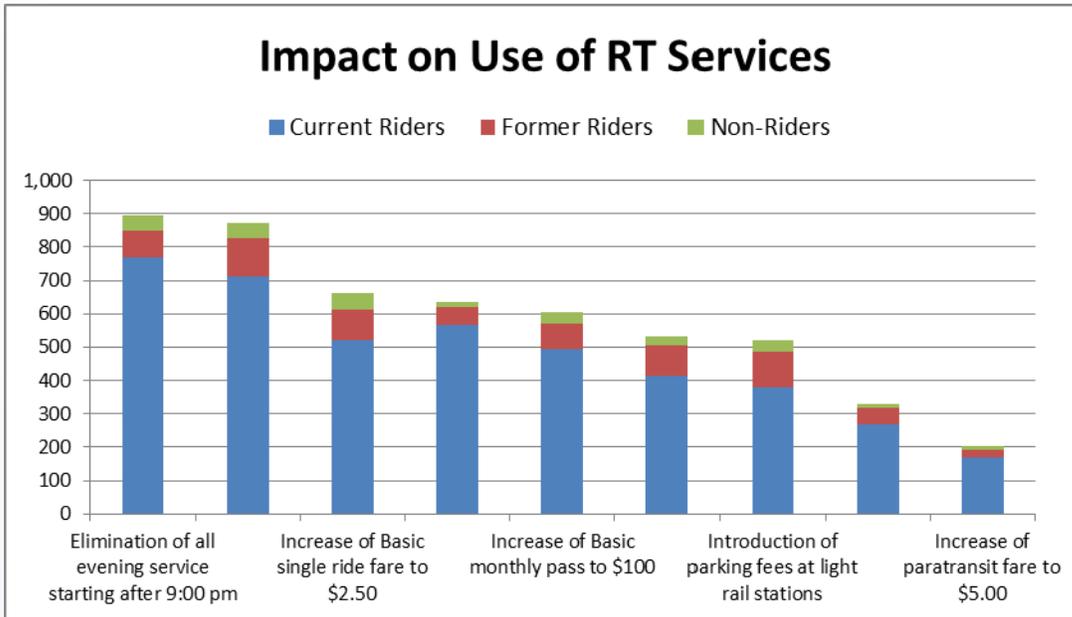


Figure 5.12 Impact on Use of RT Services



I Would Take Transit More Often If... Figure 5.13 below displays various factors that would encourage respondents to take transit more often. Higher frequency was the largest category of response, while increasing service span and speed were also significant factors. The need for closer proximity to respondents' origin and destination were a larger concern for former and non-riders than current riders. Also notable is that while respondents reported that they were impacted by changes in fare policy (Impacts of Service Changes), lowering cost is the factor least likely to cause them to take transit more often.

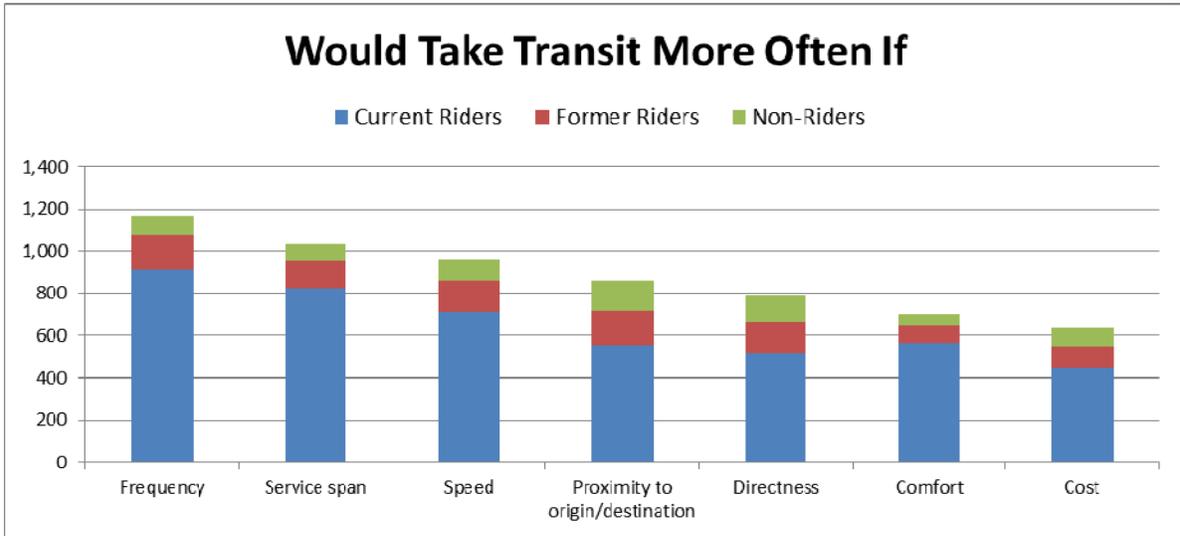


Figure 5.14 Factors Discouraging More Regular Transit Use



I Do Not Take Transit More Often Because... Figure 5.14 below displays various factors that discourage respondents from using transit more regularly. Interestingly, proximity to origin/destination is the largest category of response for this question, largely because of the higher numbers of former and non-riders. Like the question above, however, cost is the least prevalent category.

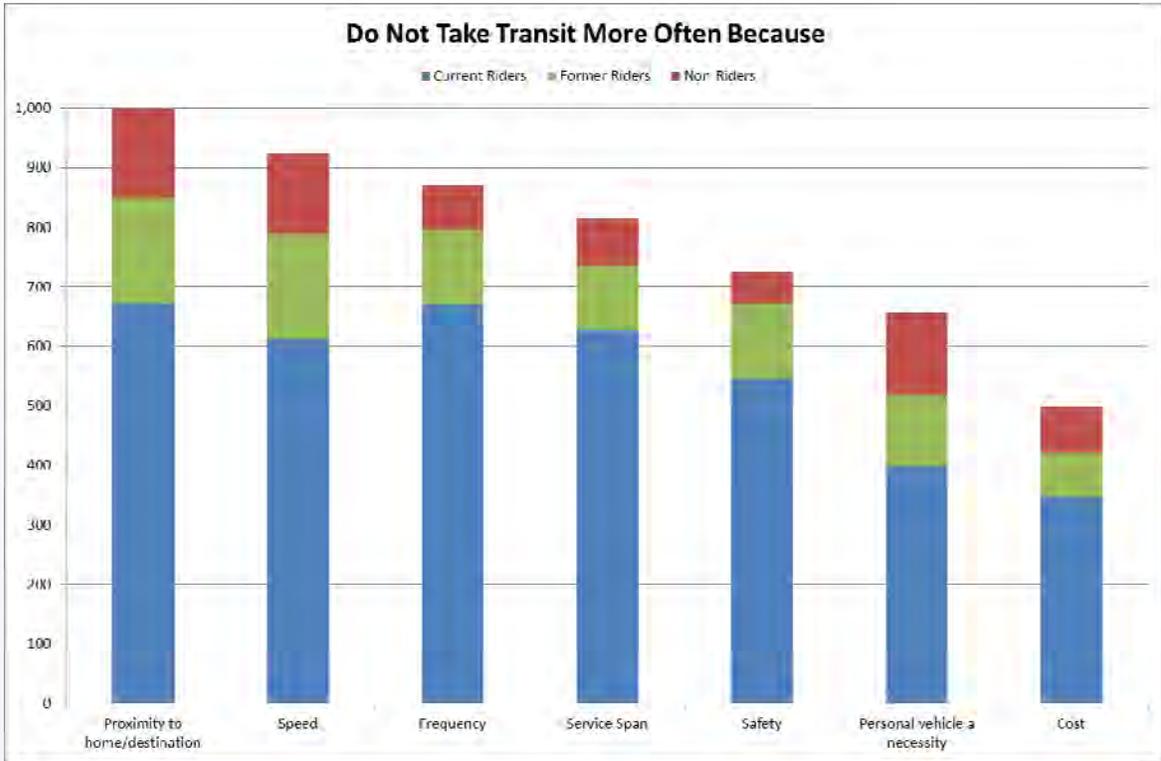


Figure 5.14 Factors Discouraging More Regular Transit Use



5.4 Community Presentations

Presentations were scheduled for key organizations throughout the community. The presentation participants were given detailed information on the research and strategy and recommendations of TransitRenewal. They were also provided with a summary of the recommended route changes and a description of how the changes will impact customers.

At the end of the presentation, each participant was asked to complete a survey to provide an opinion of the overall project. A list of organizations which received presentations is included as Appendix B.

A summary of the survey results will be available at the end of the comment period.

5.5 Neighborhood Workshops

In order to obtain comments on the proposed route changes directly from customers, a series of community workshops were held throughout the community including heavily used rail stations and bus transit centers. Workshop participants were intercepted as they boarded or alighted a bus and were provided a description of the route changes affecting their neighborhood. Each participant was asked to complete a “Feedback Form” to document the opinions of the route changes and to allow RT staff to make adjustments to the recommendations as necessary.

The recommended route changes were also available online.

A summary of the feedback forms will be provided at the end of the comment period.



6. Service Recommendations

The TransitRenewal Service Recommendations consist of system recommendations that take into account the market and service performance findings discussed in the Existing Conditions analysis. Many of these recommendations stem from the service effectiveness of each route as a part of the overall RT network. The Service Recommendations are intended to be implemented over the next five years, which focus investment on major network corridors, improve service frequencies to grow ridership, and to design services as a network of routes, enabling greater mobility throughout the service area.

Recommendations are discussed in terms of network-level themes (Section 6.1) as well as on an individual route basis (Section 6.2). Section 6.3 describes the stages in which the recommendations will be implemented over the five year period. The TransitRenewal Recommendations result in a net increase in resources from RT's current levels, but all planned increases are consistent with RT's financial forecasts and were developed alongside RT financial planners. The Service Recommendations describe a fiscally-responsible return to service levels approximately commensurate with pre-2010 service reductions.

The TransitRenewal Service Recommendations address service changes on a network and route basis to enhance RT's effectiveness and efficiency. Alignment and schedule adjustments of each route have undergone a substantial review process with RT staff and key stakeholders, but additional changes may occur throughout the implementation process. In addition, the Recommendations do not always provide detailed stop locations along each route as a result of certain service adjustments. Specific route and timing configuration will be addressed during implementation.



6.1 Themes of the Recommendations

Analysis of RT's existing conditions pointed the way to some key findings regarding RT's strengths, weaknesses and opportunities for future growth. These findings were used to guide TransitRenewal recommendations. Key findings included:

- Aside from light rail and a few bus corridors, very few RT services operate with frequencies that allow for "spontaneous" use of transit (without consulting schedules, i.e. 15 minutes or better)
- As a result of service reductions, RT has few late-evening services and a limited weekend service network
- Increasing service speed and directness has a twofold benefit: it increases the attractiveness of service to customers, and it costs less for RT to provide
- Certain areas of the RT system are underserved or not served at all

These key findings led to a series of service recommendation themes. Each theme is an important part of developing a robust RT network. Each theme is described below.

- Create a core RT network where customers can use transit spontaneously
- Continue to improve frequency where the market demands
- Create an evening and weekend service network
- Make service faster and more direct
- Create a Community Bus network
- Reinvest resources for underperforming routes
- Provide additional services in key unmet need areas



6.1.1 Spontaneous-Use Frequency Network

Currently, light rail and four bus corridors (not including the peak-only CordoVan) have 15-minute frequencies. The four bus corridors include Stockton Boulevard, Florin Road, J/L Streets, and 29th/30th Streets from Arden Fair Mall to T Street. Due to high performance, several additional corridors are recommended for increased frequency. These recommendations were strongly influenced by the Performance Measures discussed in Section 4, which describe a level of service productivity at 140 percent of system average (approximately 40 passengers per hour) as top candidates for improved service levels. The recommended improvements are shown in Figure 6.1 below.

Improvement Corridors			
Route(s)	Boardings per Hour (BPH)	Current Frequency	Proposed Frequency
51 (Stockton Boulevard)	44	15	10
1 (Greenback Lane)	41	20	15
23 (El Camino Avenue segment)	38	30	15
56 (from Meadowview LRT Station to CRC)	53	30	15
80/84 (Watt Avenue segment)	37	30	15
81 (65th Street segment)	47	30	15

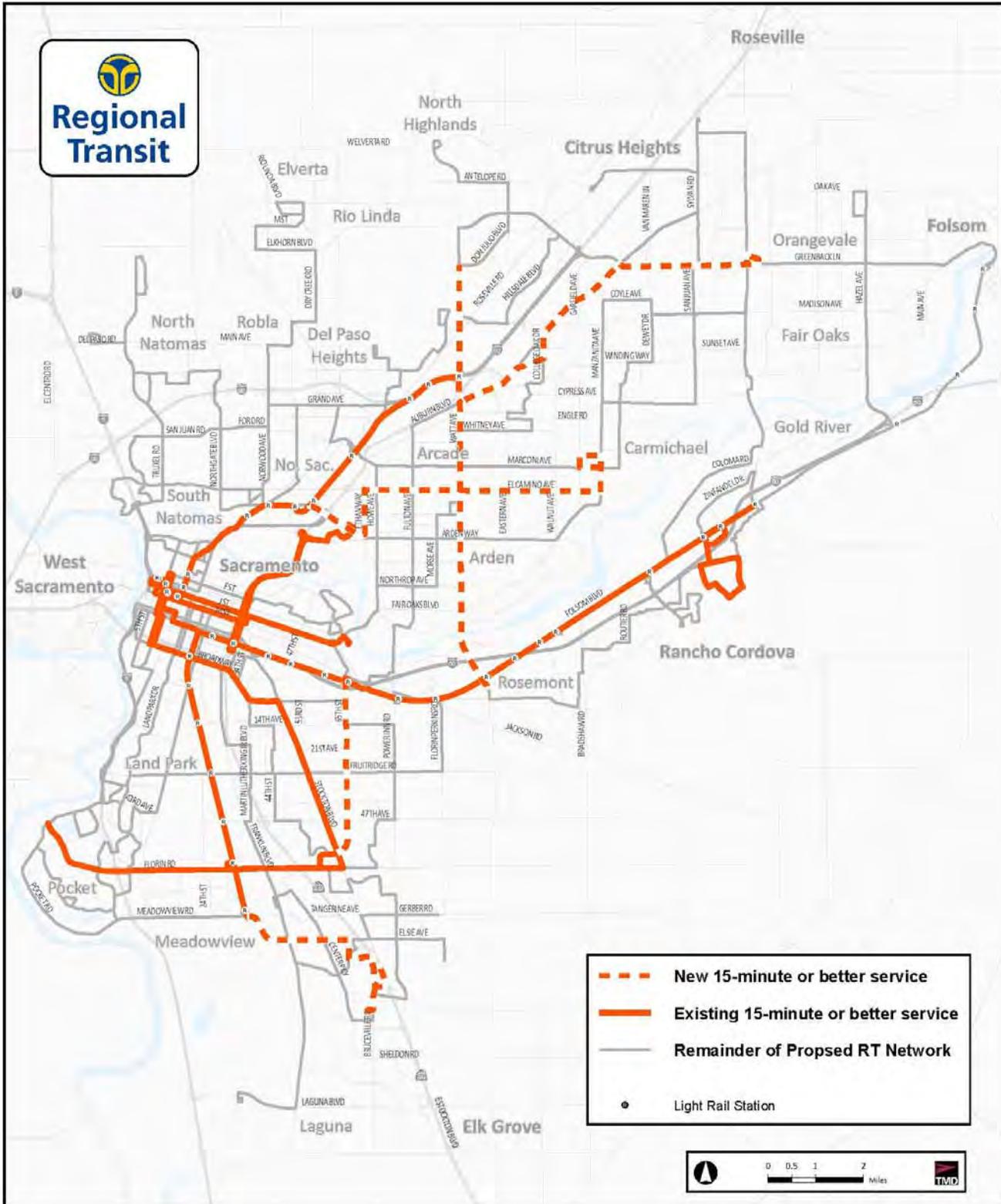
Figure 6.1 Improvement Corridors

Note that for Routes 23 and 56, frequency improvements are only recommended for parts of the routes where ridership is greatest. On Routes 80 and 84, improvements in frequency will result in effective 15-minute frequency on Watt Avenue, where both routes operate, while in North Highlands where the routes split apart, frequency will improve from 60 minutes to 30 minutes. Note also that Route 81 already has 15-minute frequency on Florin Road. The proposal is to improve frequency on the remainder of the route on 65th Street.

Map 6.1 on the following page displays proposed frequency improvement corridors. The improvements will provide over 12,000 *additional* current weekday riders (25 percent of RT bus ridership) with access to 15-minute bus service. Presently, 286,000 residents and employees are within walking distance of 15-minute bus service. Corridor improvements will place over 250,000 additional residents and employees within walking distance (1/3 of a mile) of 15-minute bus service. This improved access to frequent service allows customers not only to ride a particular route more easily, but also enables more convenient transferring in the system as wait times are reduced.



Proposed Spontaneous-Use Frequency Network



Map 6.1 Proposed Spontaneous-Use Frequency Network



6.1.2 Additional Frequency Improvements

In addition to the introduction of new 15-minute or better service, other routes in the network are recommended for improved frequency due to their productivity and market characteristics. Certain routes/segments that currently operate at hourly headways are candidates for at least 30-minute headways, as shown in Figure 6.2.

Network Frequency Improvement Corridors			
Routes	Boardings per Hour (BPH)	Current Frequency	Proposed Frequency
11 (Truxel Road)	25	30/60	30
25 (Marconi Avenue segment)	33	60	30
38 (Broadway/downtown segment)	31	60	30
55 (Scottsdale Boulevard)	39	60	30
61 (Fruitridge Road)	25	60	30
75 (Mather Field Road)	32	60	30

Figure 6.2 Network Frequency Improvement Corridors

As noted in Section 6.1.1, Routes 80 and 84 are recommended for frequency improvements that will result in 15-minute frequency on Watt Avenue where they both operate. In North Highlands, north of Watt Avenue and Don Julio Boulevard, where these two routes split into two branches, frequency would be every 30 minutes on each branch. Note also that frequency improvements on Route 25 would be on Marconi Avenue only where ridership is substantially higher.

Map 6.2 on the following page displays these services that warrant improved frequency, in addition to the improved spontaneous-use frequency network. These improvements will provide over 2,700 additional current weekday customers (6 percent of RT bus ridership) with access to 30-minute service, instead of 60-minute service. Additionally, over 120,000 additional residents and employees will gain access to 30-minute service within walking distance.

6.1.3 Evening and Weekend Service

Evenings

During the 2010 service reduction process, all trips starting after 9:00 p.m. were discontinued. While late evening trips have lower ridership than their daytime counterparts, the availability of late-running service does vastly increase the appeal of transit to customers without traditional commute schedules. TransitRenewal aims to develop this market by restoring later service on light rail and introducing late-evening service, especially on high-ridership bus routes. These services are shown in Map 6.3.

Routes With Late Evening Service (10 pm or later)
1 (Greenback Lane)
15 (Rio Linda Boulevard - O Street)
21 (Sunrise Boulevard - Citrus Heights)
23 (El Camino Avenue)
30 (J/L Streets)
51 (Broadway - Stockton Boulevard)
56 (Pocket - CRC)
80/84 (Watt Avenue - Elkhorn Boulevard/Watt Avenue - North Highlands)
81 (Florin Road - 65th Street)
82 (Howe Avenue - 65th Street)

Figure 6.3 Corridors With Weekday Evening Service

RT's Early Action Plan, which was presented to the RT Board on August 8, 2012, recommended restoration of evening service on six of the routes listed in Figure 6.3 (Routes 1, 23, 51, 56, 80, and 81). TransitRenewal reiterates these recommendations and adds to the list as shown. While restoration of late night service to the eleven routes listed in Figure 6.3 is considered one of the highest priorities, several other routes that currently do not have evening service are also recommended for evening service to 7:00 or 8:00 p.m., including Route 11 (Truxel), Route 25 (Marconi), and Route 26 (Fulton).



Weekends

Current RT weekend service consists of reduced coverage and frequency in the network. TransitRenewal will expand weekend service by increasing frequency and service coverage. Figure 6.4 details weekend service improvements.

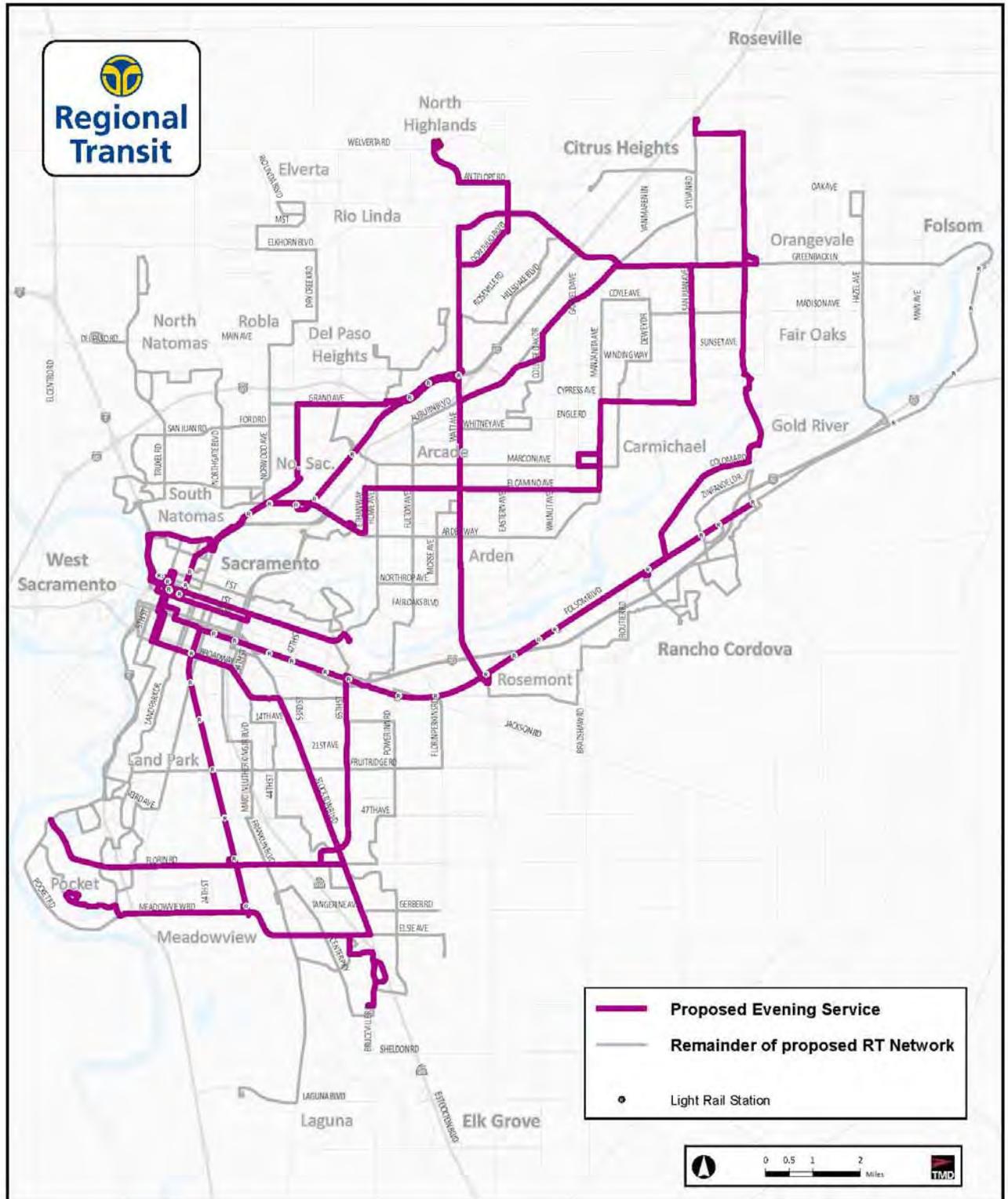
Weekend Service Improvements	
Route(s)	Improvement(s)
11 (Truxel Road)	New 60 minute Saturday and Sunday service
15 (Rio Linda Boulevard - O Street)	Improved 30 minute Saturday service
19 (Rio Linda Boulevard)	New 60 minute Saturday and Sunday service (due to route realignment)
23 (El Camino Avenue)	Improved 30 minute Sunday service along El Camino Avenue to Fair Oaks Boulevard
25 (Marconi Avenue)	New 60 minute Sunday service
51 (Broadway - Stockton Boulevard)	Improved 15 minute Saturday service
56 (Pocket - CRC)	Improved 30 minute Sunday service
80/84 (Watt Avenue - Elkhorn Boulevard/ Watt Avenue - North Highlands)	New 60 minute Sunday service for Route 84. (Note: This will result in effective 30 minute frequency on Watt Avenue where both Route 80 and 84 operate)
81 (Florin Road - 65th Street)	Improved 30 minute Sunday service
86 (San Juan Road - Silver Eagle Road)	Improved 30 minute Saturday service
88 (West El Camino Avenue)	Improved 30 minute Saturday service

Figure 6.4 Weekend Service Improvements

Saturday and Sunday service is shown in Maps 6.4 and 6.5.



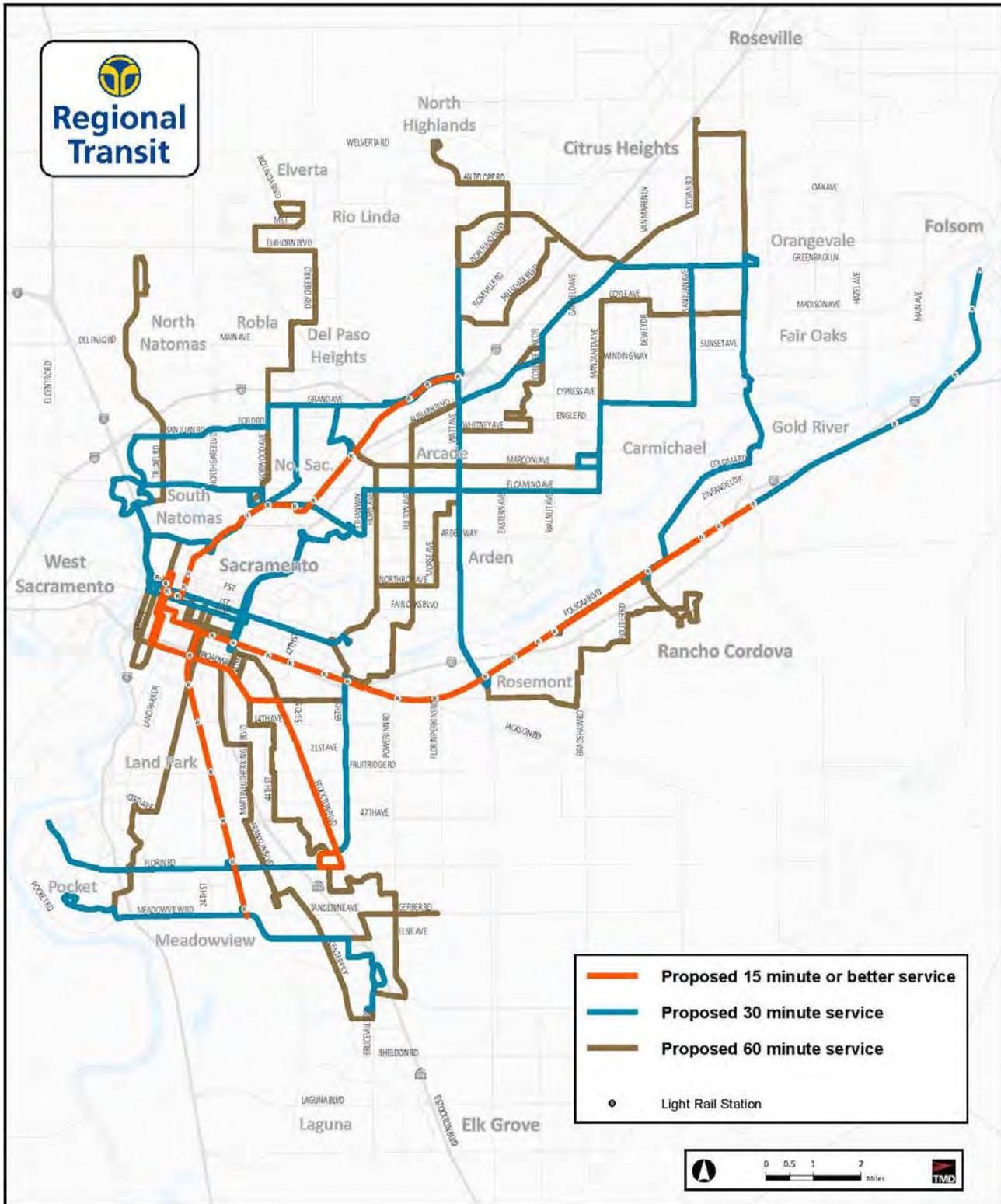
Proposed Late Night Service Network



Map 6.3 Proposed Light Night Service Network



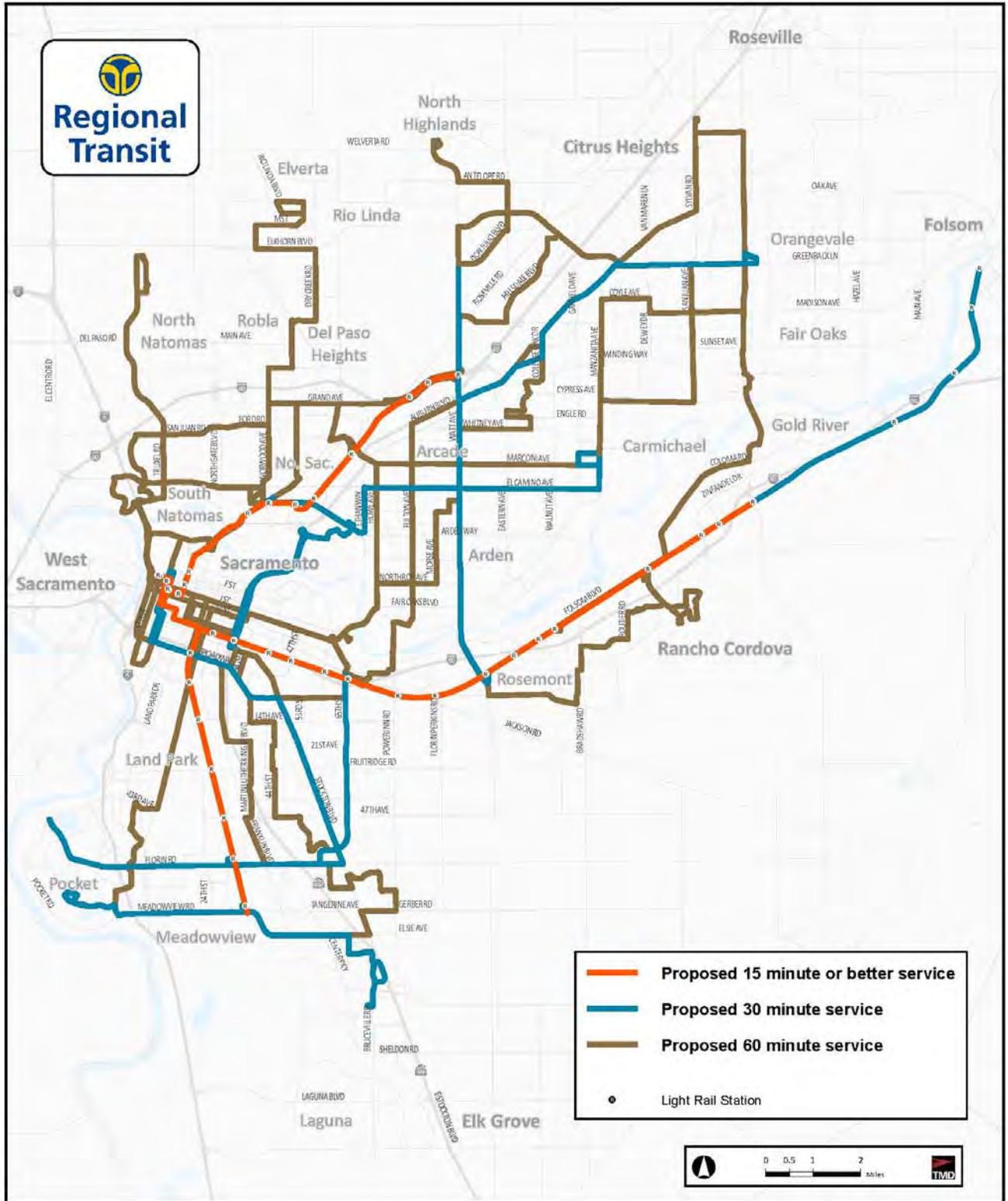
Proposed Saturday Service Network



Map 6.4 Proposed Saturday Service Network



Proposed Sunday Service Network



Map 6.5 Proposed Sunday Service Network



6.1.4 Streamlined Service

Throughout the process of developing service recommendations, RT bus services were reviewed to determine where opportunities existed to make routes straighter and more direct, by removing deviations or unnecessary out-of-direction movements. This “streamlining” process both provides a quicker trip for most passengers, and reduces mileage, allowing service to be delivered more cost-effectively. The potential tradeoff in this exercise is that eliminating out-of-direction movements results in reduced service coverage. Detailed stop-level data was used to design route structure that maximized positive rider benefits and minimized negative impacts.

For changes to individual routes, please see Section 6.2.

6.1.5 Community Bus Network

RT’s current Community Bus network consists of ten routes, seven of which receive external funding for operation (the Rancho Cordovan, McClellan Shuttle, Granite Shuttle, and four North Natomas Flyer routes). Due to smaller vehicles and a lower operator wage rate, Community Bus vehicles can be less expensive to operate than full-size buses and are often more appropriate for neighborhood streets, although there are some drawbacks, including limited capacity and longer wheelchair load times on high-floor vehicles. While RT’s Collective Bargaining Agreement with the Amalgamated Transit Union Local 256 includes some restrictions on the conversion of full-size bus routes to Community Bus routes, the routes listed in Figure 6.5 were identified as strong candidates for such a conversion based on the criteria above.

Recommended New Community Bus Routes
24 (Greenback Lane - Folsom)
28 (Zinfandel Drive)
34 (McKinley Boulevard)
54 (Center Parkway)
74 (White Rock Road)
75 (Mather Field Road)
95 (Citrus Heights - Antelope Road)
195 (Citrus Heights Demand Response)

Figure 6.5 New Community Bus Services

Note that there are potentially some capacity concerns with converting Route 54 to a Community Bus route. It is recommended that Route 54 loading patterns be reexamined closely prior to implementation, which is currently scheduled for Fiscal Year 2017. Route 8 (Power Inn) was also considered for conversion to a Community Bus



route based on ridership patterns and land use, however, it was determined that it could be scheduled more efficiently as a full-size bus, due to the greater number of full-size buses that share terminals with it (which allows the exchange of drivers and vehicles). The proposed Community Bus network is shown in Map 6.6.

6.1.6 Reinvest Resources from Underperforming Service

One necessary step in developing a more cost-effective RT system is reinvesting resources from underutilized transit services. The Performance Measures section describes the recommended minimum thresholds for service to be considered an effective use of limited resources. These thresholds are based on service productivity, and are set at 20 boardings per revenue hour for full-size Local bus services, and 15 boardings per hour for Community Bus. Please see Section 4 for a detailed description of TransitRenewal performance measures. Transit service which generates lower productivity is more expensive for RT to provide on a per-passenger basis, and consumes resources that could be utilized in higher-demand areas of the system.

Bus services falling well below thresholds were considered for possible modification and/or discontinuation. When possible, new or redesigned routes are recommended to be introduced to cover segments of discontinued service that generated the highest ridership.

The largest segments of discontinued service are shown in Figure 6.6, along with key reasons for discontinuation and/or mitigating factors. As part of the streamlining process, smaller individual route segments may also be discontinued. Map 6.7 shows the extent of current and recommended service coverage in the RT system.

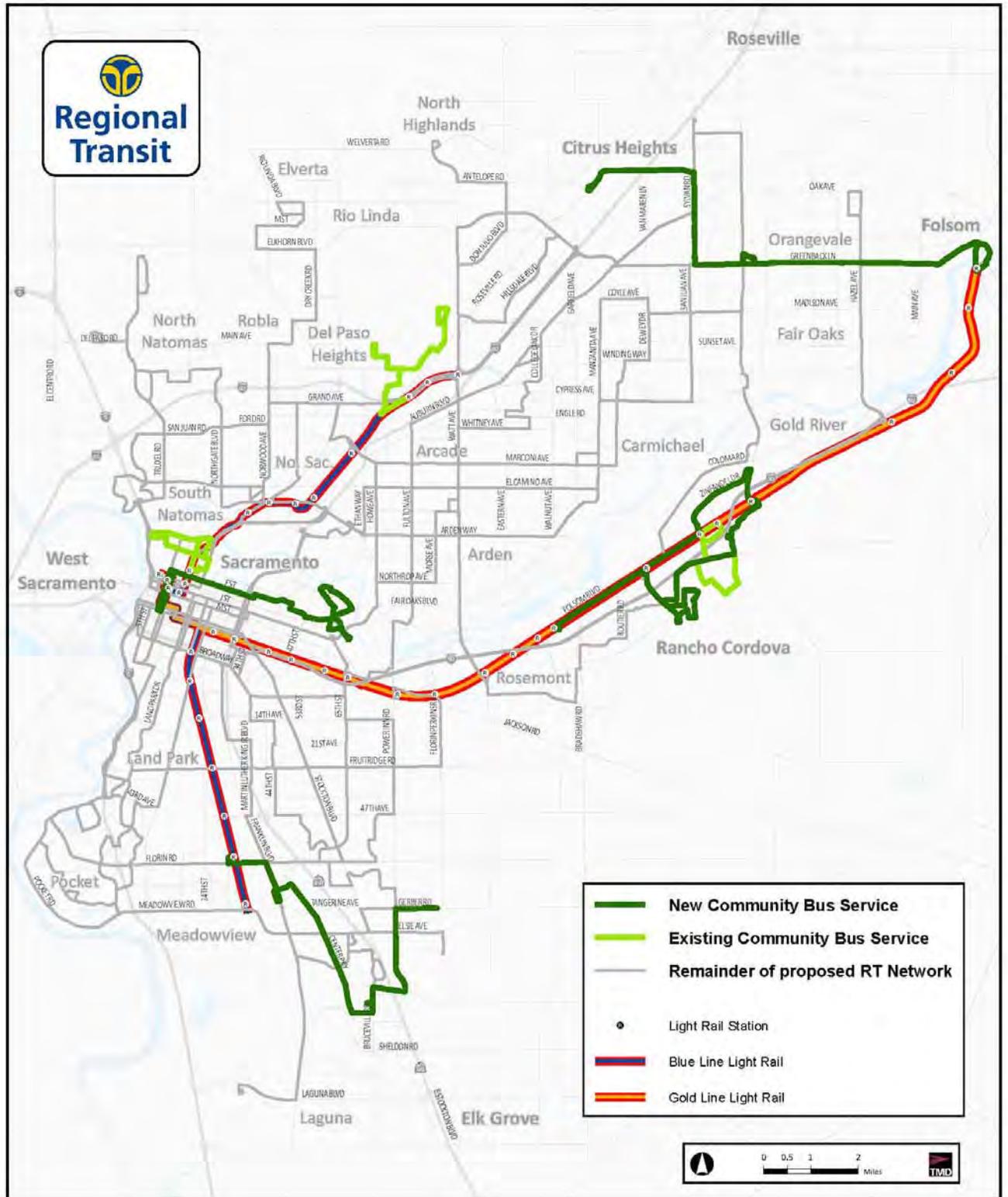


Discontinued Service			
Route	Segment	Boardings per Hour (BPH)	Comments
14	Main Avenue plus Northgate Boulevard north of North Market Boulevard	12	Majority of route covered by realigned Route 19 (Norwood Avenue) and Route 13 (North Market Boulevard)
16	Del Paso Heights - Norwood Avenue (entire route)	12	Majority of alignment covered by nearby routes
19	Elverta Road, plus Watt Avenue between Antelope Road and Elkhorn Boulevard, plus Rio Linda Boulevard north of U Street in Rio Linda	5	Extremely low ridership on Elverta Road Most Watt Avenue riders will still be within walking distance of Route 80 or 84, which will be twice as frequent
24	Madison Avenue	11	Restructured Route 24 covers Greenback Lane and connects to Folsom
28	Sunrise Boulevard (north of Zinfandel Drive) plus Fair Oaks Boulevard from Winding Way to Sunrise Mall	10	Southern portion operating in Rancho Cordova will be covered by CBS Route 28
47	24th Street from Florin Road to Meadowview Road Phoenix Park (entire route)	12	Residents on 24th Street are mostly within walking distance of high-frequency service on Florin Road or Meadowview Road Phoenix Park will be served by Route 54, which will be turned into a Community Bus route so it can enter Phoenix Park

Figure 6.6 Discontinued Service



Proposed Community Bus Service



Map 6.6 Proposed Community Bus Service



6.1.7 Additional Services

As part of service restructuring, certain new services will be added which either replace sections of discontinued service, or address current unmet need areas. Key new services include:

- Route 8 (Power Inn) is recommended to be restored with a slightly new route. The northern terminal is recommended to be changed from Power Inn Station to University/65th Station. This will provide transfers to many major routes, including Routes 26, 38, 81, 82, and 87
- Route 11 (Truxel) will be split into two branches and extended into new areas in North Natomas, with service every 60 minutes on each branch and 30 minute service on the trunk. The western branch will serve Del Paso Road, including the American River College Natomas Center. The eastern branch will extend to the end of Truxel Road.
- Route 24 (Madison/Greenback) was originally recommended for elimination due to low productivity (less than 12 boardings per revenue hour). It will instead be redesigned. Historically, it has been a large one-way loop, which is problematic for passengers. The new route will no longer operate on Madison Avenue, but will provide two-way service on Greenback Lane. It will also be extended over the American River into Folsom to connect with light rail. Historically, customers have had to transfer at Main Avenue and Madison Avenue from Route 24 to Folsom Stage Line in order to reach Folsom. Service will also be extended from 5:00 p.m. to 7:00 p.m. in order to make the route more useable for patrons coming from work in Downtown Sacramento.
- Route 95 (Antelope Road) will be restored and extended approximately half a mile from its old terminal on Antelope Road just west of Interstate 80 to the Walmart on Antelope Road near Roseville Road.
- A new demand response service is recommended for portions of Citrus Heights where demand is insufficient for fixed-route service.
- Route 54 (Valley Hi) will be extended from its current terminal at Cosumnes River College north and east via Bruceville Road, Calvine Road, Power Inn Road, and Gerber Road to the Elk Grove Adult Education Center on Gerber Road.



6.1.8 Light Rail Service

Later evening service to approximately 11:00 p.m. on light rail is a top priority and is recommended for the first year of the plan on weekdays, and Saturdays. Currently, the last round trips on each line begin approximately 9:00 p.m. and return to their start points approximately 90 minutes later. This is recommended to be extended by two hours, with trips every 30 minutes. Sunday/Holiday light rail service is recommended for later service as well, although exact times have not been identified. Exact end times for Sunday/Holiday service should be re-examined at the time of implementation when exact staffing costs are better known.

Weekend light rail service is also recommended to be improved from 30 to 15-minute frequency during the busiest 8 hours of the day.

In addition, the following improvements are to occur⁶:

- The Green Line to Richards is expected to have opened prior to implementation of TransitRenewal
- The Blue Line to Cosumnes River College is expected to open in June 2015
- Limited Stop Service on the Gold Line has been assumed in cost estimates

⁶ New light rail extensions and limited stop service are service expansions outside of TransitRenewal.



6.2 Individual Route Recommendations

The following section discusses individual route recommendations by year of implementation in the TransitRenewal Service Recommendations: Year 1 – 2013, Year 2 – 2014, Year 3 – 2015, Year 4 – 2016, and Year 5 – 2017. Each individual route table displays current and proposed peak and off-peak service levels and service span by day type. Note that all proposed service represents service by Year 5 of Recommendations implementation

Route 1 – Greenback Lane

Route 1 operates from McClellan Business Park, south along Watt Avenue to Watt/I-80 Station, northeast along Auburn Boulevard, east on Greenback Lane to Sunrise Mall. Route 1 operates every 20 minutes on weekdays and every 30 minutes on Saturdays and Sundays.

Recommendations:

Year 1 Route 1 will be streamlined, with service north of Watt/I-80 Station to McClellan Business Park discontinued. The Watt Avenue segment will receive service via Routes 80, 84, and 93. Routes 80 and 84 are also proposed to be rerouted from a short stretch on Watt Avenue so as to enter McClellan Business Park and serve several key stops. McClellan Park will also continue to receive service via Route 85. Weekday frequency will be increased from operating every 20 minutes to every 15 minutes and service span will be extended to approximately 10:00 pm. The Auburn Boulevard and Greenback Lane segments warrant increased frequency, at 47 passenger boardings per revenue hour, and the extended span will improve connectivity with the Blue Line. Existing Saturday and Sunday route alignment and service levels are will be unchanged. Saturday service span will be extended until approximately 10:00 pm.

Year 4 Sunday service span will be extended to approximately 10:00 pm to grow the weekend evening network and improve connectivity with light rail.

ROUTE 1		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	20	15	30	30	30	30
	Off-Peak	20	15	30	30	30	30
Service Span		5:00 – 20:30	5:00 - 22:00	5:30 - 21:00	5:30 - 22:00	5:15 - 21:00	5:15 - 22:00



Route 2 – Riverside Boulevard

Route 2 operates from the Pocket Transit Center, along Rush River Road, to Havenside Drive and Gloria Drive, along 35th Avenue, and north on Riverside Boulevard into downtown Sacramento. Route 2 operates every 60 minutes on weekdays only and provides Pocket residents with a direct connection to downtown Sacramento, where riders can connect with the greater network.

Recommendations:

Route 2 will not undergo any changes.

ROUTE 2		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	60	60	-	-	-	-
	Off-Peak	60	60	-	-	-	-
Service Span		5:30 - 18:30	5:30 - 18:30	-	-	-	-

Route 3 – Riverside Boulevard Express

Route 3 operates from Greenhaven Drive along Pocket Road and Riverside Boulevard, to Havenside Drive and Gloria Drive, along Interstate 5 into downtown Sacramento via P Street and Q Street. Route 3 provides weekday only, peak-only direct service into downtown for commuting Pocket residents.

Recommendations:

Route 3 will not undergo any changes.

ROUTE 3		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	15	15	-	-	-	-
	Off-Peak	-	-	-	-	-	-
Service Span		4 AM trips/ 4 PM trips	4 AM trips/ 4 PM trips	-	-	-	-



Route 5 – Meadowview Road – Valley Hi Drive

Route 5 operates from Meadowview Station, southeast along Mack Road, south on Franklin Boulevard, northeast on Valley Hi Drive, east on Elsie Avenue, at which point, it splits into two branches. The first branch goes to Florin High School via Elsie Avenue and Cottonwood Lane. The second branch goes approximately one mile south on Power Inn Road before turning around. The main line operates every 60 minutes. Each branch has service once every two hours. Route 5 operates on weekdays only.

Recommendations:

Year 1 It is recommended that the Power Inn branch be eliminated due to low ridership. Power Inn is also proposed to be served by Route 54 via an extension to Gerber Road. It is also recommended that midday service on Route 5 be eliminated due to low ridership. Route 5 should be reduced to seven morning trips and nine afternoon trips.. Route 5 generates 19 boardings per revenue hour (below the proposed performance threshold of 20 boardings per hour for weekday Local service) and is mostly duplicative of other travel options, including Route 56, which is proposed to be increased to every 15 minutes in this area. Ridership on Route 5 is also heavily peak-oriented, so operating as a peak-only service will better match RT’s resources with demand.

ROUTE 5		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	60	60	-	-	-	-
	Off-Peak	60	-	-	-	-	-
Service Span		6:00 - 20:00	7 AM trips/ 9 PM trips	-	-	-	-

Route 6 – Land Park Drive

Route 6 operates from the Pocket Transit Center, along Rush River Road, Greenhaven Drive, north on Land Park Drive, to downtown Sacramento. Route 6 operates every 60 minutes on weekdays only, serving key destinations (Sacramento Zoo).

Recommendations:

Route 6 will not undergo any changes.

ROUTE 6		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	60	60	-	-	-	-
	Off-Peak	60	60	-	-	-	-
Service Span		6:15 - 19:15	6:15 - 19:15	-	-	-	-



Route 7 – Pocket Express

Route 7 operates from the Pocket Transit Center, east on Rush River Road, north on Land Park Drive, west on 43rd Avenue, north on Interstate 5, to downtown Sacramento. Route 7 provides weekday only, peak-only service to downtown Sacramento for commuting Pocket residents.

Recommendations:

Route 7 will not undergo any changes.

ROUTE 7		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	30	30	-	-	-	-
	Off-Peak	-	-	-	-	-	-
Service Span		3 AM trips/ 3 PM trips	3 AM trips/ 3 PM trips	-	-	-	-

Route 8 – Power Inn Road

Prior to discontinuation in 2010 service cuts, Route 8 operated from Florin Towne Center, east on Florin Road, north on Briggs Drive, east on Lawnwood Drive, north on 75th Street, east on Elder Creek Road, north on Power Inn Road to Power Inn Station. It operated every 30 minutes on weekdays and every 60 minutes on Saturdays and Sundays.

Recommendations:

Year 3 Reinstate Route 8 and realign northern segment to operate from Power Inn Road, west on 14th Avenue, and north on 65th Street to University/65th Street Station. Route 8 will operate every 60 minutes on weekdays only from approximately 7:00 a.m. to 7:00 p.m. Route 8 showed the highest ridership of routes discontinued during RT’s 2010 service cuts justifying weekday reinstatement. Realignment to serve University/65th Street Station will allow for more transfer opportunities to other bus routes.

ROUTE 8		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	-	60	-	-	-	-
	Off-Peak	-	60	-	-	-	-
Service Span		-	7:00 - 19:00	-	-	-	-



Route 11 – Truxel Road

Route 11 operates from downtown Sacramento, north on Interstate 5, east on Garden Highway, north on Truxel Road, to Club Center Drive and Northborough Drive in North Natomas. Route 11 operates every 60 minutes during the day with 30 minute frequency during peak hours.

Recommendations:

Year 1 Weekday service span will be extended to approximately 7 pm and new Saturday service will be introduced operating every 60 minutes from approximately 6:00 a.m. to 6:00 p.m.

Year 2 Sunday/Holiday service will be introduced operating every 60 minutes from approximately 6:00 a.m. to 6:00 p.m.

Year 3 Route 11 will be realigned to operate with two branches (Western Branch and Eastern Branch), each sharing a common trunk from downtown Sacramento to Truxel Road and Del Paso Road and each operating every 60 minutes to provide a combined 30 minute frequency on the trunk. Western Branch will operate from Truxel Road, west on Del Paso Road, to East Commerce Way. Western Branch will provide service to the trade schools along Del Paso Road, attracting all-day riders. Eastern Branch will operate from Truxel Road, north on Natomas Boulevard, east on Club Center Drive, to Regency Park, Honor Parkway, Bridgecross, and south on Natomas Boulevard. Eastern Branch will provide service to apartments east of Truxel Road and will receive additional trips during the 6:00 a.m. period. Saturday and Sunday service will operate along the alignment of Eastern Branch.

ROUTE 11		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	30	30	-	60	-	60
	Off-Peak	60	30	-	60	-	60
Service Span		6:00 - 17:45	6:00 - 19:00	-	6:00 - 18:00	-	6:00 - 18:00



Route 13 – Northgate Boulevard

Route 13 operates from Arden/Del Paso Station, west on Arden Way, north on Northgate Boulevard, west on Market Boulevard, to Truxel Road and Gateway Park Boulevard. It operates every 30 minutes in peak periods and every 60 minutes in off-peak periods on weekdays only, connecting North Natomas residents to key destinations (Natomas Marketplace) and the Blue Line, where riders can connect with the greater network.

Recommendations:

Route 13 will not undergo any changes.

ROUTE 13		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	30	30	-	-	-	-
	Off-Peak	60	60	-	-	-	-
Service Span		5:15 - 21:00	5:15 - 21:00	-	-	-	-



Route 14 – Norwood Avenue

Route 14 operates from Arden/Del Paso Station, north on Grove Avenue, north on Norwood Avenue, to Strawberry Manor, north on Norwood Avenue, west on Main Avenue, south on Northgate Boulevard, west on Market Boulevard, to Truxel Road and Gateway Park Boulevard. It operates every 30 minutes in the AM peak period and every 60 minutes in off-peak periods on weekdays only, connecting North Natomas residents to key destinations (Natomas Marketplace) and the Blue Line, where riders can connect with the core network.

Recommendations:

Year 1 Route 14 will be combined with Route 19 (see below). Approximately 25 boardings occur along Strawberry Manor on an average weekday, of these boardings approximately 18 boardings are outside of 1/3 mile walk distance. Due to low daily boardings and a need for improved speed, Strawberry Manor service will be discontinued. Service along Main Avenue is underperforming (12 boardings per revenue hour) and the Market Boulevard segment is duplicated by Route 13. Service coverage along Norwood Avenue will be maintained by restructured Route 19. The combined route will be numbered Route 19.

ROUTE 14		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	30	-	-	-	-	-
	Off-Peak	60	-	-	-	-	-
Service Span		5:45 - 20:15	-	-	-	-	-



Route 15 – Rio Linda Boulevard – O Street

Route 15 operates from downtown Sacramento, north on Interstate 5, east on Richards Boulevard, northeast on Del Paso Boulevard to Arden/Del Paso Station, north on Rio Linda Boulevard, east on Grand Avenue to Watt/I-80 Station. Route 15 operates every 30 minutes on weekdays and every 60 minutes on Saturdays and Sundays. Route 15 provides service for North Sacramento residents to the Blue Line and the greater network.

Recommendations:

Year 1 Route 15 weekday and Saturday service spans will be extended to approximately 10:00 p.m.

Year 3 Saturday frequency will be improved to every 30 minutes.

ROUTE 15		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	30	30	60	30	60	60
	Off-Peak	30	30	60	30	60	60
Service Span		5:45 - 20:45	5:45 - 22:00	6:45 - 20:45	6:45 - 22:00	8:00 - 21:00	8:00 - 21:00

Route 16 – Del Paso Heights – Norwood Avenue

Route 16 operates as a Community Bus route from Arden/Del Paso Station north on Del Paso Boulevard, west on Eleanor Avenue, north on Fairfield Street, south on Arcade Boulevard, north on Norwood Avenue, to Newcastle Street and Delagua Way. Route 16 operates every 60 minutes on weekdays only.

Recommendations:

Year 1 Route 16 will be discontinued. Service is duplicative of Route 15 and Route 19, as proposed in the service recommendations, and performance (11 boardings per revenue hour) falls below the Community Bus Standard of 15 boardings per revenue hour. Very little service coverage is lost due to discontinuing Route 16. In addition, consolidating Routes 14, 16, and 19 will create one route with good service.

ROUTE 16		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	60	-	-	-	-	-
	Off-Peak	60	-	-	-	-	-
Service Span		7:00 - 18:00	-	-	-	-	-



Route 19 – Rio Linda Boulevard

Route 19 operates from Arden/Del Paso Station, north on Del Paso Boulevard, north on Rio Linda Boulevard, east on Claire Avenue, north on Dry Creek Road, west on Elkhorn Boulevard, north on 2nd Street, east on M Street, north on 10th Street, west on Q Street, north on Rio Linda Boulevard, west on Elverta Road, and south on Watt Avenue to Watt/I-80 Station. Route 19 operates every 60 minutes on weekdays, Saturdays, and Sundays. Route 19 provides service for Rio Linda residents to McClellan Business Park and the Blue Line, connecting them with the core network.

Recommendations:

Year 1 Route 19 will be realigned to operate from Arden/Del Paso Station to Rio Linda Boulevard and Q Street via Norwood Avenue and Bell Avenue. In the long term, service will be rerouted to Main Avenue (following sidewalk placement). Service coverage along Rio Linda Boulevard south of Grand Avenue will continue to be provided by current Route 15. Route 19 Saturday and Sunday service will follow the same restructured alignment as weekday, providing new weekend service to Norwood Avenue residents. Route 19 will not undergo changes to service span or frequency on weekdays, Saturdays, and Sundays.

Year 3 Route 19 service along Elverta Road and Watt Avenue will be discontinued. Elverta Road, which generates 5 boardings per revenue hour, will remain unserved. Service coverage on Watt Avenue will be provided by increased service levels on Routes 80 and 84.

ROUTE 19		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	60	60	60	60	60	60
	Off-Peak	60	60	60	60	60	60
Service Span		5:45 - 19:15	5:45 - 19:15	8:00 - 19:00	8:00 - 19:00	8:00 - 18:30	8:00 - 18:30



Route 21 – Sunrise Boulevard – Citrus Heights

Route 21 operates from Mather Field/Mills Station, northeast on Coloma Road, to Sunrise Station, north on Sunrise Boulevard to Sunrise Mall, north on Sunrise Boulevard, west on Twin Oaks Avenue, to Louis Lane and Orlando Avenue, meeting the Roseville Transit and Placer County Transit services. Route 21 operates every 30 minutes on weekdays and provides regional connections and service to key destinations for Citrus Heights residents. Route 21 Saturday and Sunday service operates every 60 minutes between Mather Field/Mills Station and Sunrise Mall, with midday service every 60 minutes from Sunrise Mall to Louis Lane and Orlando Avenue.

Recommendations:

Year 1 Route 21 service will not undergo alignment changes or frequency changes on weekdays. Weekday service span will be extended to approximately 10:00 p.m. to better serve the Sunrise Mall area, with one additional southbound and northbound trip serving Sunrise Mall. Route 21 Saturday service span will also be extended to approximately 10:00 p.m. Sunday service will not undergo any changes.

ROUTE 21		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	30	30	60	60	60	60
	Off-Peak	30	30	60	60	60	60
Service Span		4:45 - 21:00	4:45 - 22:00	6:15 - 21:00	6:15 - 22:00	6:15 – 21:00	6:15 - 21:00



Route 22 – Arden Way

Route 22 operates from Arden/Del Paso Station, to Fair Oaks Boulevard and Marconi Avenue via Arden Way. Route 22 operates every 60 minutes on weekdays and connects Arden-Arcade residents to Arden Fair Mall and to the Blue Line. Route 22 Saturday service operates from Arden/Del Paso Station to Arden Fair Mall every 30 minutes. Route 22 does not operate on Sundays.

Recommendations:

Year 1 Route 22 service will be shortened to operate from Arden/Del Paso Station to Watt Avenue, and will be realigned to serve Kaiser Hospital at Morse Avenue and Cottage Way. Service east of Watt Avenue is low performing (12 boardings per revenue hour) and will continue to be served in the peak hours by Route 29. Route 22 Saturday service will be discontinued, while coverage will be maintained by Route 23.

ROUTE 22		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	60	60	30	-	-	-
	Off-Peak	60	60	30	-	-	-
Service Span		7:30 - 20:45	7:30 - 20:45	8:15 - 20:45	-	-	-



Route 23 – El Camino Avenue

Route 23 operates from Arden/Del Paso Station, to Arden Fair Mall, north on Ethan Way, east on El Camino Avenue, north on Fair Oaks Boulevard, east on Fair Oaks Boulevard, north on San Juan Avenue, and east on Greenback Lane to Sunrise Mall. Route 23 operates every 30 minutes on weekdays and provides service to key destinations (Arden Fair Mall, Country Club Plaza, and Sunrise Mall) and the Blue Line. Route 23 operates every 30 minutes on Saturdays and every 60 minutes on Sundays.

Recommendations:

Year 1 Route 23 weekday and Saturday service spans will be extended to approximately 10:00 p.m. to improve evening service connections.

Year 2 Route 23 will operate with an improved frequency every 15 minutes from Arden/Del Paso Station along El Camino Avenue as far as Fair Oaks Boulevard. The El Camino Avenue segment has high productivity (38 boardings per revenue hour) and warrants improved service levels. Route 23 will continue to operate every 30 minutes from Fair Oaks Boulevard to Sunrise Mall. Route 23 Sunday service levels will also be improved to every 30 minutes from Arden/Del Paso Station along El Camino Avenue to Fair Oaks Boulevard. Sunday service will continue to operate every 60 minutes on the remainder of the route from Fair Oaks Boulevard to Sunrise Mall.

ROUTE 23		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	30	15	30	30	60	30
	Off-Peak	30	15	30	30	60	30
Service Span		5:00 - 20:45	5:00 - 22:00	8:15 - 20:15	6:30 - 22:00	6:45 - 20:45	6:45 - 20:45



Route 24 – Madison Avenue – Greenback Lane

Route 24 operates in a counterclockwise loop from Sunrise Mall, south on Sunrise Boulevard, east on Madison Avenue, north on Main Avenue, and west on Greenback Lane to Sunrise Mall. Route 24 operates every 60 minutes on weekdays only.

Recommendations:

Year 1 Route 24 service along Sunrise Boulevard, Madison Avenue, and Main Avenue will be discontinued. Route 24 is recommended to be changed to a Community Bus route to provide streamlined service from Sunrise Mall to Historic Folsom Station via Greenback Lane. Route 24 will travel on the American River Bridge to get into Folsom, take the ramp to Historic Folsom Station, east on Sutter Street, north on Riley Street, and back to Citrus Heights/Orangevale on the Rainbow Bridge. It will maintain current frequency, however evening service will be extended from approximately 5:00 p.m. to approximately 7:00 p.m. to better provide return trips for riders coming home from Sacramento. The restructured route will provide a direct connection for Citrus Heights residents to downtown Folsom and an additional connection to the Gold Line.

ROUTE 24		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	60	60	-	-	-	-
	Off-Peak	60	60	-	-	-	-
Service Span		7:45 - 17:15	6:00 - 19:00	-	-	-	-



Route 25 – Marconi Avenue

Route 25 operates from Arden/Del Paso Station, to Marconi/Arcade Station, east on Marconi Avenue, north on Manzanita Avenue, east on Coyle Avenue, east on Madison Avenue, and north on Sunrise Boulevard to Sunrise Mall. Route 25 operates every 60 minutes on weekdays and Saturdays.

Recommendations:

Year 1 Route 25 will be restructured with service discontinued along Del Paso Boulevard due to low performance. Frequency will be improved to every 30 minutes from Marconi/Arcade Station along Marconi Avenue to Fair Oaks Boulevard. This segment has high productivity and warrants additional service investment. Service will operate every 60 minutes from Fair Oaks Boulevard to Sunrise Mall. Weekday service span will be extended to approximately 8:00 p.m.

Year 2 Saturday service span will be extended to approximately 8:00 p.m. New Sunday service will be introduced along the proposed short term weekday alignment operating from approximately 8:00 a.m. to 7:00 p.m. every 60 minutes.

Year 5 Route 25 weekday, Saturday, and Sunday service will be realigned to Swanston Station via Howe Avenue and Arden Way, providing direct access to Arden Fair Mall for residents along Marconi Avenue. This is part of an existing to plan to relocate transfer activities from Arden/Del Paso Station to Swanston Station.

ROUTE 25		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	60	30	60	60	-	60
	Off-Peak	60	30	60	60	-	60
Service Span		6:00 - 18:45	6:00 - 20:00	8:15 - 18:15	8:15 - 20:00	-	8:00 - 19:00



Route 26 – Fulton Avenue

Route 26 operates from University/65th Street Station, to University Drive East, northeast on College Town Drive, north on Howe Avenue, east on American River Drive, north on Fulton Avenue, and northeast on Auburn Boulevard to Watt/I-80 Station. Route 26 operates every 30 minutes on weekdays and every 60 minutes on Saturdays and Sundays, providing Arden-Arcade residents and Sacramento State students and faculty with connections to the Gold Line and Blue Line.

Recommendations:

Year 5 Route 26 will not undergo alignment or frequency changes. Weekday service span will be extended to approximately 8:00 p.m. and Saturday service to approximately 7:00 p.m. Route 26 will not undergo any changes on Sundays.

ROUTE 26		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	30	30	60	60	60	60
	Off-Peak	30	30	60	60	60	60
Service Span		6:00 - 18:45	6:00 - 20:00	8:15 - 18:15	8:15 - 19:00	8:30 - 18:00	8:30 - 18:00



Route 28 – Fair Oaks Boulevard – Cordova Town Center

Route 28 operates from Cordova Town Center Station in Rancho Cordova, north on Cordova Lane, east on Zinfandel Drive, north on Sunrise Boulevard, northeast on Fair Oaks Boulevard, and west on Greenback Lane to Sunrise Mall. Route 28 operates every 30 minutes in the peak periods and every 60 minutes in the off-peak periods on weekdays only. Route 28 provides connections for Citrus Heights residents to Rancho Cordova and the Gold Line.

Recommendations:

Year 2 Route 28 service from Zinfandel Drive, north on Sunrise Boulevard, to Sunrise Mall will be discontinued. Route 28 is low performing (10 boardings per revenue hour) and does not meet the Local bus performance threshold of 20 boardings per revenue hour. Service will be restructured and Route 28 will operate as a Community Bus route from Mather Field/Mills Station to Sunrise Station via Folsom Boulevard, Cordova Lane, and Zinfandel Drive. In addition, peak frequency will be reduced from every 30 minutes to every 60 minutes and service span will be reduced to operate from approximately 7:00 a.m. to 7:00 p.m.

ROUTE 28		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	30	60	-	-	-	-
	Off-Peak	60	60	-	-	-	-
Service Span		5:15 - 19:00	7:00 - 19:00	-	-	-	-



Route 29 – Arden Way – California Avenue

Route 29 operates from downtown Sacramento, east on State Route 160, southeast on Arden Way to Arden Fair Mall, east on Arden Way, north on Fair Oaks Boulevard, east on Marconi Avenue, north on California Avenue, north on Dewey Drive to Madison Avenue. Route 29 operates as a peak-only route on weekdays only with two inbound AM trips and two outbound PM trips. Route 29 provides a direct one seat ride for Citrus Heights residents into downtown Sacramento.

Recommendations:

Route 29 will not undergo any changes.

ROUTE 29		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	30	30	-	-	-	-
	Off-Peak	-	-	-	-	-	-
Service Span		2 AM trips/ 2 PM trips	2 AM trips/ 2 PM trips	-	-	-	-



Routes 30/31 – J Street (DASH)/J Street – River Park

Route 30 operates from Sacramento Valley Station in downtown Sacramento, along J Street and L Street, to Sacramento State. Route 31 operates along the same alignment as Route 30 and continues from Sacramento State, north on Spilman Avenue, and south on Moddison Avenue to River Park. Routes 30/31 together operate every 15 minutes on weekdays from downtown Sacramento to Sacramento State. Route 31 operates on weekdays every 60 minutes from Sacramento State to River Park. Routes 30/31 provide a connection for River Park and Sacramento State students and faculty to downtown Sacramento. Route 30 operates on Saturdays every 30 minutes and on Sundays every 60 minutes from downtown Sacramento to Sacramento State.

Recommendations:

Year 1 Route 31 will be discontinued, with its River Park alignment covered by restructured Route 34. Route 30 will operate consistently every 15 minutes on weekdays and service span will be extended until approximately 10:00 p.m. Route 30 Saturday and Sunday service will not undergo any changes.

ROUTE 30		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	15	15	30	30	60	60
	Off-Peak	15	15	30	30	60	60
Service Span		5:30 - 21:00	5:30 - 22:00	6:30 - 21:00	6:30 - 21:00	6:30 - 21:00	6:30 - 21:00

ROUTE 31		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	30	-	-	-	-	-
	Off-Peak	60	-	-	-	-	-
Service Span		6:15 - 18:15	-	-	-	-	-



Route 33 – Dos Rios

Route 33 operates as a Community Bus route from Alkali Flat/La Valentina Station, east on D Street, north on 14th Street, east on C Street, north on 16th Street, west on B Street, north on Dos Rios, east on Richards Boulevard, and South on Sunbeam. Route 33 provides limited trips along Richards Boulevard to Union Gospel Mission, located at Bercut Drive and Bannon Street. Route 33 operates every 20 minutes on weekdays only.

Recommendations:

Route 33 will not undergo any changes.

ROUTE 33		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	20	20	-	-	-	-
	Off-Peak	20	20	-	-	-	-
Service Span		6:30 - 17:30	6:30 - 17:30	-	-	-	-

Route 34 – McKinley Boulevard

Route 34 operates every 60 minutes on weekdays along 7th Street and 8th Street in downtown Sacramento, east on F Street, northeast on McKinley Boulevard, to Sutter Memorial Hospital, southeast on Elvas Avenue, and H Street to Sacramento State, southeast on Elvas Avenue to University/65th Street Station. Route 34 operates every 60 minutes on Saturdays and Sundays along the same downtown alignment as weekdays, ending service at Sutter Memorial Hospital.

Recommendations:

Year 1 Route 34 will be restructured to operate as a Community Bus route along its current downtown alignment, east on F Street, east on McKinley Boulevard, east on D Street, south on 41st Street, east on F Street, south on Elvas Avenue, northeast on H Street to Sacramento State, northeast on Messina Drive, west on Spilman Avenue, and southeast on Moddison Avenue to River Park. Route 34 Saturday and Sunday service displays low productivity (under 10 boardings per revenue hour) and will be discontinued.

ROUTE 34		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	60	60	60	-	60	-
	Off-Peak	60	60	60	-	60	-
Service Span		5:15 - 18:15	5:15 - 18:15	9:00 - 18:00	-	9:00 - 18:00	-



Route 38 – P/Q Streets

Route 38 operates from Muir Way and Vallejo Way into downtown Sacramento, along P Street and Q Street, along 29th Street and 30th Street, east on T Street, southeast on Stockton Boulevard, east on Broadway, and north on 65th Street to University/65th Street Station. Route 38 operates every 60 minutes on weekdays, Saturdays, and Sundays, with inbound service to Muir Way and Vallejo Way in the midday and AM peak periods and outbound service in the midday and PM peak periods. Route 38 provides service into downtown Sacramento for transit dependent populations and connects Central City residents to the UC Davis Medical Center, the Blue Line, and the Gold Line.

Recommendations:

Year 4 Route 38 will be restructured to operate along P Street and Q Street to 15th Street and 16th Street, providing service to apartments and new developments. Route 38 will then travel along J Street and L Street into downtown Sacramento, then south to 5th Street and Vallejo Way. Route 38 shows strong performance and warrants improvement of weekday frequency to every 30 minutes. Route 38 Saturday and Sunday service will follow the same proposed alignment as weekdays, with no changes to frequency or service span.

ROUTE 38		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	60	30	60	60	60	60
	Off-Peak	60	30	60	60	60	60
Service Span		5:30 - 20:15	5:30 - 20:15	7:45 - 20:00	7:45 - 20:00	8:00 - 17:45	8:00 - 17:45



Route 47 – Phoenix Park

Route 47 operates as a Community Bus route 24th Street, east on Meadowview Road to Meadowview Station, east on Brookfield Drive, north to Phoenix Park, north on Franklin Boulevard, east on Florin Road to Florin Towne Center. Route 47 operates every 60 minutes on weekdays and Saturdays. Route 47 is the only CBS route to operate on Saturdays.

Recommendations:

Year 1 Route 47 Saturday service will be discontinued due to low performance (10 boardings per revenue hour).

Year 3 Route 47 weekday service will be discontinued due to low performance (12 boardings per revenue hour) and duplication with Routes 56, 54 and 81. Service into the Phoenix Park area will be maintained by restructured Route 54 (need to order larger capacity CBS vehicle).

ROUTE 47		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	60	-	60	-	-	-
	Off-Peak	60	-	60	-	-	-
Service Span		5:45 - 19:00	-	9:15 – 17:30	-	-	-

Route 51 – Broadway – Stockton Boulevard

Route 51 operates from downtown Sacramento, south on 8th Street and 9th Street, east on Broadway, and south on Stockton Boulevard to Florin Towne Center. Route 51 operates every 15 minutes on weekdays and every 60 minutes on Saturdays and Sundays. Route 51 provides South Sacramento residents with a connection to key destinations (Florin Towne Center) and into the greater network.

Recommendations:

Year 1 Route 51 alignment will not undergo any changes. Route 51 weekday and Saturday service spans will be extended to approximately 10:00 p.m.

Year 2 Route 51 displays strong performance (44 boardings per revenue hour, the highest in the RT system) and warrants weekday frequency improved to every 12 minutes. Route 51 Saturday frequency will be improved to every 15 minutes.

Year 3 Route 51 warrants weekday frequency improved to every 10 minutes.

ROUTE 51		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	15	10	20	15	30	30
	Off-Peak	15	10	20	15	30	30
Service Span		5:30 - 21:00	5:30 - 22:00	6:15 - 20:15	6:15 - 21:00	6:15 - 20:45	6:15 - 20:45



Route 54 – Center Parkway

Route 54 operates from Florin Station, east on Florin Road, south on Franklin Boulevard, northeast on Forest Parkway, south on Center Parkway, east on Tangerine Avenue, south on Center Parkway, and north on Bruceville Road to Cosumnes River College (CRC). Route 54 operates every 30 minutes during peak periods and every 60 minutes during off-peak periods on weekdays only. Route 54 provides South Sacramento residents with service to key destinations (Southgate Plaza, Kaiser South Hospital, and CRC) and the Blue Line.

Recommendations:

Year 1 Route 54 service along Tangerine Avenue, La Mancha Way, and south of Calvine Road (Center Parkway, Sheldon Road, and Bruceville Road) will be discontinued. Service will be restructured and streamlined to operate from Florin Station, east on Florin Road, south on Franklin Boulevard to Phoenix Park, east on Forest Parkway, south along Center Parkway, east on Calvine to CRC, north on Bruceville Road, east on Cosumnes River Boulevard, north on Power Inn Road, and east on Gerber Road to Elk Grove Unified School District Student Support Center. Route 54 will operate every 60 minutes on weekdays. New Saturday service will be introduced on Route 54 operating every 60 minutes from approximately 9:00 a.m. to 6:00 p.m.

Year 3 Route 54 will operate as a Community Bus route to allow for continued service to the Phoenix Park area (following Year 3 discontinuation of Route 47 weekday service).

ROUTE 54		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	30	60	-	60	-	-
	Off-Peak	60	60	-	60	-	-
Service Span		5:45 - 19:30	5:45 - 20:00	-	9:00 – 18:00	-	-



Route 55 – Scottsdale Drive

Route 55 operates from Florin Towne Center, south on Florin Mall Drive, east on Orange Avenue, north on Stockton Boulevard, southeast on Palmer House Drive, south on Power Inn Road, west on Gerber Road, south on Stockton Boulevard, west on Mack Road, south on Valley Hi Road, east on Wyndham Drive, and south on Bruceville Road to CRC. Route 55 operates every 60 minutes on weekdays, providing South Sacramento residents with connections to key destinations (Florin Towne Center, Kaiser Hospital South, Methodist Hospital, and CRC). Route 55 Saturday service follows the same alignment as weekday service and operates every 60 minutes. Route 55 Sunday service operates from Florin Towne Center to Kaiser Hospital South every 60 minutes.

Recommendations:

Year 1 Route 55 route alignment and service span will not undergo any changes. Weekday frequency will be improved to every 30 minutes due to high performance (39 boardings per revenue hour). Saturday service will not undergo any changes. Route 55 Sunday service will be extended to match weekday alignment from Florin Towne Center to CRC.

ROUTE 55		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	60	30	60	60	60	60
	Off-Peak	60	30	60	60	60	60
Service Span		6:00 - 18:30	6:00 - 18:30	8:45 - 17:45	8:45 - 17:45	9:45 - 17:15	9:45 - 17:15



Route 56 – Pocket – CRC

Route 56 operates from the Pocket Transit Center, east on Rush River Road, east on Meadowview Road to Meadowview Station, southeast on Mack Road, south on Valley Hi Drive, east on Wyndham Drive, and south on Bruceville Road to CRC. Route 56 operates every 30 minutes on weekdays, providing Pocket and South Sacramento residents with connections to key destinations (Kaiser Hospital South, Methodist Hospital, and CRC) and to the Blue Line. Route 56 operates every 30 minutes on Saturdays and every 60 minutes on Sundays along the same alignment as weekdays.

Recommendations:

Year 1 Route 56 will not undergo any alignment changes. Route 56 frequency will be improved to operate every 15 minutes from Meadowview Station to CRC. This segment has strong productivity (over 50 boardings per revenue hour) and warrants additional service. Route 56 will operate every 30 minutes from Pocket Transit Center to Meadowview Station. Route 56 weekday and Saturday service spans will be extended until approximately 10:00 p.m.

Year 2 Route 56 Sunday frequency will be improved to 30 minutes and service span will be extended to approximately 10:00 p.m.

ROUTE 56		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	30	15	30	30	60	30
	Off-Peak	30	15	30	30	60	30
Service Span		5:45 - 21:00	5:45 - 22:00	8:00 - 20:45	8:00 - 22:00	8:00 - 21:00	8:00 - 22:00



Route 61 – Fruitridge Road

Route 61 operates from Land Park, north on South Land Park Drive, east on Fruitridge Road to Fruitridge Station, continues east on Fruitridge Road, north on Florin Perkins Road, west on Folsom Boulevard to College Green Stations and Power Inn Station. Route 61 operates every 60 minutes on weekdays only.

Recommendations:

Year 5 Route 61 provides a key east-west linkage and warrants improved service levels with its inner segment from Fruitridge Station to Fruitridge Road and Power Inn Road generating approximately 33 boardings per revenue hour. Frequency will be improved to 30 minutes.

ROUTE 61		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	60	30	-	-	-	-
	Off-Peak	60	30	-	-	-	-
Service Span		5:00 - 21:00	5:00 - 21:00	-	-	-	-



Route 62 – Freeport Boulevard

Route 62 operates from downtown Sacramento, south on 19th Street and 21st Street, south on Freeport Boulevard, west on Blair Avenue, south on 13th Street, southeast on South Land Park Drive, and west on Rush River Drive to the Pocket Transit Center. Route 62 operates every 30 minutes on weekdays and every 60 minutes on Saturdays.

ROUTE 62		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	30	30	60	60	-	-
	Off-Peak	30	30	60	60	-	-
Service Span		5:41 - 20:45	5:41 - 20:45	7:15 - 21:15	7:15 - 21:15	-	-

Recommendations:

Route 62 will not undergo any changes.

Route 65 – Franklin South

Route 65 operates from Florin Station, south on Franklin Boulevard, and west on Laguna Boulevard to Laguna Main Street and Renwick Avenue. Route 65 operates every 60 minutes on weekdays only and provides South Sacramento residents with a regional connection to e-tran, to key destinations (Apple Computer, Laguna Town Hall), and to the Blue Line.

Recommendations:

ROUTE 65		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	60	60	-	-	-	-
	Off-Peak	60	60	-	-	-	-
Service Span		6:00 - 19:15	6:00 - 19:15	-	-	-	-

Route 65 will not undergo any changes.



Routes 67/68 – Franklin Boulevard/44th Street

Routes 67 and 68 both operate from Arden Fair Mall along Challenge Way, Heritage Lane, Exposition Boulevard, and south on Interstate 80. Route 67 operates from Interstate 80, south along 29th Street to 29th Street Station, south on Alhambra Boulevard, west on Broadway, south on Franklin Boulevard, east on 21st Avenue, south on M.L. King Jr. Boulevard, west on 47th Avenue, south on Franklin Boulevard, and east on Florin Road to Florin Towne Center. Route 68 operates from Interstate 80, south on 30th Street, east on T Street, south on 34th Street, south on M.L. King Jr. Boulevard, east on 14th Avenue, south on 44th Avenue, east on Fruitridge Road, south on 44th Street, south on Steiner Drive, to Florin Towne Center. Route 67 and 68 together operate every 15 minutes on weekdays from Arden Fair Mall to 29th Street Station and every 30 minutes from 29th Street Station to Florin Mall. Routes 67 and 68 provide connections to key destinations (Florin Towne Center, Oak Park Community Center, CAL EXPO, Kaiser Point West, and Arden Fair Mall), and the greater network. Routes 67 and 68 operate along the same alignment on Saturdays and Sundays, operating every 30 minutes from Arden Fair Mall to 29th Street Station and every 60 minutes from 29th Street Station to Florin Towne Center.

Recommendations:

Routes 67 and 68 will not undergo any changes.

ROUTE 67		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	30	30	60	60	60	60
	Off-Peak	30	30	60	60	60	60
Service Span		5:10 - 20:45	5:10 - 20:45	7:00 - 20:45	7:00 - 20:45	7:00 - 20:45	7:00 - 20:45

ROUTE 68		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	30	30	60	60	60	60
	Off-Peak	30	30	60	60	60	60
Service Span		5:00 - 20:30	5:00 - 20:30	7:15 - 21:00	7:15 - 21:00	7:00 - 21:00	7:00 - 21:00



Route 72 – Rosemont – Lincoln Village

Route 72 operates from Watt/Manlove Station, south on Watt Avenue, east on Kiefer Boulevard, north on Branch Center Road, north on Bradshaw Road, east on Lincoln Village Drive, north on Routier Road, east on Rockingham Drive, and northwest on Mather Field Road to Mather Field/Mills Station. Route 72 operates every 30 minutes on weekdays and every 60 minutes on Saturdays and Sundays.

Recommendations:

Route 72 will not undergo any changes.

ROUTE 72		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	30	30	60	60	60	60
	Off-Peak	30	30	60	60	60	60
Service Span		6:00 - 21:00	6:00 - 21:00	8:00 - 19:00	8:00 - 19:00	8:00 - 18:30	8:00 - 18:30

Route 74 – International Drive

Route 74 operates from Mather Field/Mills Station south on Mather Field Road, north on Data Drive, south on Reserve Drive, north on Zinfandel Drive, east on White Rock Road, north on Prospect Park Drive, east on Sun Center/Trade Center Drive, and north on Citrus Road to Sunrise Station. Route 74 operates every 60 minutes on weekdays only.

Recommendations:

Year 2 Route 74 service along Data Drive, Zinfandel Drive, Reserve Drive, Data Drive, and the port of Mather Field Road will be discontinued. Route 75 will provide service coverage to eliminated Route 74 segments (those that displayed the highest ridership) at improved service levels of every 30 minutes. Route 74 will be restructured and potentially operate as a Community Bus route from Mather Field/Mills Station, north along White Rock Road, north on Prospect Park Drive, and northeast on Trade Center Drive to Sunrise Station. Route 74 will operate every 60 minutes on weekdays only.

ROUTE 74		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	60	60	-	-	-	-
	Off-Peak	60	60	-	-	-	-
Service Span		6:00 - 20:00	6:00 - 20:00	-	-	-	-



Route 75 – Mather Field Road

Route 75 operates in a one-directional loop from Mather Field/Mills Station, south on Mather Field Road, along Von Karman Street, Armstrong Avenue, and Whitehead Street, west on Peter A McCuen, southeast on Bleckley Street/Schirra Avenue, south on Femoyer Street, northwest on Mather Boulevard, northeast on Old Placerville Road, and east on Rockingham Drive to Mather Field/Mills Station. Route 75 operates every 60 minutes on weekdays, Saturdays, and Sundays.

Recommendations:

Year 2 Route 75 service will be discontinued along Old Placerville Road. Route 75 will be restructured to operate as a one-way loop from Mather Field Road, to Femoyer Street, International Drive, Data Drive, and Reserve Drive (pending development of connecting road). Restructured Route 75 will provide a faster connection to light rail and Kaiser Hospital for local residents.

Year 3 Route 75 will travel from Mather Field/Mills Station southwest along Folsom Boulevard to Butterfield Station.

Year 5 Route 75 frequency will be improved to operate every 30 minutes on weekdays. Route 75 Saturday and Sunday service will operate along the same proposed weekday alignment every 60 minutes.

ROUTE 75		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	60	30	60	60	60	60
	Off-Peak	60	30	60	60	60	60
Service Span		6:30 - 19:30	6:30 - 19:30	7:45 - 17:45	7:45 - 17:45	7:45 - 17:45	7:45 - 17:45



Route 77 – Rancho CordoVan

Route 77 operates as a Community Bus route in a one-directional loop every 15 minutes during peak periods on weekdays only. Route 77 operates from Cordova Town Center Station, south on Zinfandel Drive, east on White Rock Road, south on Prospect Park Drive, west on Baroque Drive, north on Zinfandel Drive, west on International Drive, north on Quality Drive, and east on White Rock Drive to Cordova Town Center Station.

Recommendations: Route 77 will not undergo any changes. Recommendations are pending a separate study being conducted by the City of Rancho Cordova.

ROUTE 77		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	15	15	-	-	-	-
	Off-Peak	-	-	-	-	-	-
Service Span		6:30 - 9:30/ 16:00 - 19:00	6:30 - 9:30/ 16:00 - 19:00	-	-	-	-



Routes 80/84 – Watt Avenue – Elkhorn/ Watt Avenue – North Highlands

Routes 80 and 84 operate from Watt/Manlove Station northwest along Folsom Boulevard and La Riveria Drive, north on Watt Avenue to Kaiser Hospital, and north on Watt Avenue to Don Julio Boulevard. Route 80 operates from Don Julio Boulevard, north on Watt Avenue, east on Elkhorn Boulevard to Auburn Boulevard and Greenback Lane. Route 84 operates north along Don Julio Boulevard, west on Antelope Road, to Elverta Road and Black Saddle Drive. Routes 80 and 84 together operate every 30 minutes from Watt/Manlove Station to Watt Avenue and Don Julio Boulevard. They each operate every 60 minutes from Watt Avenue and Don Julio Boulevard to their unique northern terminals. Routes 80 and 84 follow the same alignment and frequency as weekdays on Saturdays. Route 80 operates every 60 minutes on Sundays from Watt/Manlove Station to Greenback Lane and Auburn Boulevard.

Recommendations:

Year 1 Service to Kaiser Hospital via Arden Way, Morse Avenue, Cottage Way, and Butano Drive will be eliminated. The streamlined service will provide faster, more direct service along Watt Avenue. Service coverage to Kaiser Hospital will be maintained by Routes 82 and 22. Weekday and Saturday service spans will be extended to approximately 10:00 p.m.

Year 3 Service on La Riviera Drive will be eliminated (rerouted to Watt Avenue). Weekday frequency will be improved to every 30 minutes for Routes 80 and 84, providing a combined 15 minute service along Watt Avenue. Route 80 Sunday service span will be extended to approximately 9:00 p.m. New Route 84 Sunday service will be introduced, operating every 60 minutes from approximately 7:00 a.m. to 8:00 p.m. along its weekday alignment.

ROUTE 80		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	60	30	60	60	60	60
	Off-Peak	60	30	60	60	60	60
Service Span		5:30 - 20:45	5:30 - 22:00	7:15 - 19:30	7:15 - 22:00	7:00 - 18:45	7:00 - 20:00

ROUTE 84		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	60	30	60	60	-	60
	Off-Peak	60	30	60	60	-	60
Service Span		5:30 - 20:30	5:30 - 22:00	8:45 - 19:00	8:45 - 22:00	-	7:00 - 20:00



Route 81 – Florin Road – 65th Street

Route 81 operates from Riverside Boulevard, east on Florin Road to Florin Station, to Florin Towne Center, north on 65th Street to University/65th Street Station. Route 81 operates every 15 minutes on weekdays from Riverside Boulevard to Florin Towne Center and every 30 minutes from Florin Towne Center to University/65th Street Station. Route 81 Saturday service operates every 30 minutes from Riverside Boulevard to University/65th Street Station. Route 81 Sunday service operates along the same alignment every 60 minutes.

Recommendations:

Year 1 Route 81 weekday and Saturday service spans will be extended to approximately 10:00 p.m.

Year 4 Route 81 service will be improved to every 15 minutes on weekdays between Florin Towne Center and University/65th Street Station, so the entire route will operate at 15 minute frequency. Sunday service will be improved to every 30 minutes and service span will be extended to approximately 9:00 p.m.

ROUTE 81		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	15	15	30	30	60	30
	Off-Peak	15	15	30	30	60	30
Service Span		5:15 - 21:00	5:15 - 22:00	6:30 - 21:00	6:30 - 22:00	6:30 - 20:30	6:30 - 21:00



Route 82 – Howe Avenue – 65th Street

Route 82 operates from American River College south on Pasadena Avenue, west on Edison Avenue, south on Eastern Avenue, east on Engle Road, south on Mission Avenue, west on Whitney Avenue, south on Watt Avenue, west on Butano Drive, south on Morse Avenue, west on Northrop Avenue, south on Howe Avenue, southwest on Fair Oaks Boulevard to Sacramento State, south on Elvas Avenue to University/65th Street Station. Route 82 operates every 30 minutes on weekdays and every 60 minutes on Saturdays and Sundays, providing service to key destinations (Country Club Center, Country Club Plaza) and the Gold Line.

Recommendations:

Year 1 Route 82 will not undergo alignment or frequency changes on weekdays, Saturdays, or Sundays. Weekday service span will be extended until approximately 10:00 p.m.

ROUTE 82		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	30	30	60	60	60	60
	Off-Peak	30	30	60	60	60	60
Service Span		5:30 - 20:45	5:30 - 22:00	6:30 - 21:30	6:30 - 21:30	6:30 - 21:30	6:30 - 21:30



Route 85 – McClellan Park

Route 85 operates as a Community Bus route every 30 minutes during peak periods on weekdays only. Route 85 operates from Roseville Road Station, north on Winters Street, east on McClellan Park Drive, north on Forcum Avenue, east to Urbani Way and C Street, then west along Dudley Boulevard to Luce Way and Peacekeeper Way.

Recommendations:

Route 85 receives external funding for operations. Route, schedule, and service levels are subject agreement.

ROUTE 85		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	30	30	-	-	-	-
	Off-Peak	-	-	-	-	-	-
Service Span		6:00 - 17:15	6:00 - 17:15	-	-	-	-

Route 86 – San Juan Road – Silver Eagle Road

Route 86 operates from downtown Sacramento, north on Interstate 5, east on Garden Highway, northwest on Natomas Park Drive, north on Azevedo Drive, east on San Juan Road/Silver Eagle Road, north on Norwood Avenue, east on Harris Avenue, south on Vern Street, east on Grand Avenue, south on Marysville Boulevard to Marconi/Arcade Station. Route 86 operates every 20 minutes during peak periods and every 30 minutes during off-peak periods on weekdays. Route 86 operates every 60 minutes on Saturdays and Sundays along the same alignment as weekdays.

Recommendations:

Year 1 Route 86 service to Harris Avenue will be discontinued (rerouted to Grand Avenue). Route 86 weekday service span and frequency will not undergo any changes.

Year 2 Route 86 Saturday service will follow weekday alignment and service frequency will be improved to every 30 minutes. Route 86 Sunday service will follow weekday alignment and service span will be extended to approximately 8:00 p.m. to grow the evening weekend network.

ROUTE 86		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	30	30	60	30	60	60
	Off-Peak	30	30	60	30	60	60
Service Span		5:45 - 20:45	5:45 - 20:45	6:30 - 20:00	6:30 - 20:00	8:00 -18:00	8:00 - 20:00



Route 87 – Howe Avenue

Route 87 operates from University/65th Street Station, north on Elvas Avenue to Sacramento State, north on Fair Oaks Boulevard, north on Howe Avenue, and northwest on Marconi Avenue to Marconi/Arcade Station. Route 87 operates every 30 minutes on weekdays, providing South Natomas residents with connections to Sacramento State and the Gold Line. Route 87 operates every 60 minutes on Saturdays and Sundays along the same alignment as weekdays.

Recommendations:

Route 87 will not undergo any changes.

ROUTE 87		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	30	30	60	60	60	60
	Off-Peak	30	30	60	60	60	60
Service Span		5:30 - 20:00	5:30 - 20:00	6:15 - 21:00	6:15 - 21:00	7:30 - 18:30	7:30 - 18:30

Route 88 – El Camino Avenue

Route 88 operates along J Street and L Street in downtown Sacramento, north along Interstate 5, west on Garden Highway, north on Gateway Oaks Drive, and east on El Camino Avenue to Arden/Del Paso Station. Route 88 operates every 20 minutes during peak periods and every 30 minutes during off peak periods on weekdays. Route 88 operates every 60 minutes on Saturdays and Sundays.

Recommendations:

Year 2 Route 88 Saturday service will be improved to operate every 30 minutes. Route 88 weekday and Sunday service will not undergo any changes.

ROUTE 88		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	30	30	60	30	60	60
	Off-Peak	30	30	60	30	60	60
Service Span		5:45 - 21:00	5:45 - 21:00	6:15 - 20:45	6:15 - 20:45	8:15 - 20:45	8:15 - 20:45



Route 93 – Hillsdale Boulevard

Route 93 operates from Watt/I-80 Station, north along Watt Avenue, east on Air Base Drive, north on Hillsdale Boulevard, east on Elkhorn Boulevard, northeast on Greenback Lane, north on Auburn Boulevard, and northwest on Auburn Boulevard to Louis Lane and Orlando Avenue. Route 93 operates every 30 minutes on weekdays and every 60 minutes on Saturdays and Sundays. Route 93 provides North Highlands residents and Citrus Heights residents with regional connection to Roseville Transit and Placer County Transit and to the Blue Line.

Recommendations:

Route 93 will not undergo any changes.

ROUTE 93		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	30	30	60	60	60	60
	Off-Peak	30	30	60	60	60	60
Service Span		5:45 - 20:30	5:45 - 20:30	8:00 - 18:30	8:00 - 18:30	8:00 - 18:30	8:00 - 18:30

Route 95 – Citrus Heights – Antelope Road

Prior to discontinuation in 2010 service cuts, Route 95 operated from Sunrise Mall, to Greenback Lane, north on Sylvan Road, west on Antelope Road, to Brimstone Drive and Zenith Drive. It operated every 60 minutes on weekdays only.

Recommendations:

Year 1 Route 95 will be reinstated and operate as a Community Bus route with slight alignment changes; it will be extended to Walmart on Antelope Road and will not serve the Macy Plaza Drive deviation. Route 95 will operate every 60 minutes from approximately 6:00 a.m. to 6:00 p.m. on weekdays only.

ROUTE 95		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	-	60	-	-	-	-
	Off-Peak	-	60	-	-	-	-
Service Span		-	6:00 - 18:00	-	-	-	-



Route 103 – Auburn Boulevard

Route 103 operates as peak-only weekday service from Watt/I-80 Station, north on Interstate 80, northeast on Greenback Lane, north on Auburn Boulevard, and northwest on Auburn Boulevard, to Louis Lane and Orlando Avenue. Route 103 provides peak-only service for commuters to the Blue Line.

Recommendations:

Year 1 Route 103 will be extended to operate along Interstate 80 into downtown Sacramento via 12th/16th Streets in order to provide a one-seat ride into downtown. The number of trips will be reduced so as not to increase the amount of resources required to operate the route.

ROUTE 103		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	-	-	-	-	-	-
	Off-Peak	-	-	-	-	-	-
Service Span		4 AM trips/ 4 PM trips	2 AM trips/ 2 PM trips	-	-	-	-

Route 109 – Hazel Express

Route 109 operates as peak-only weekday service from downtown Sacramento, northeast on US 50, and north on Hazel Avenue to Beech Avenue and Oak Avenue. Route 109 provides Fair Oaks and Rancho Cordova commuting residents with direct peak-only service into downtown Sacramento and the greater network.

Recommendations:

Route 109 will not undergo alignment changes, frequency changes, or service span changes.

ROUTE 109		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	30	30	-	-	-	-
	Off-Peak	-	-	-	-	-	-
Service Span		2 AM trips/ 2 PM trips	2 AM trips/ 2 PM trips	-	-	-	-



Route 195 – Citrus Heights Demand Response

Recommendations: Route 195 will be implemented as new Demand Response (DR) service for the Citrus Heights community. Route 195 will operate every 60 minutes from approximately 7:00 a.m. to 7:00 p.m.

ROUTE 195		Weekday		Saturday		Sunday	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
Frequencies	Peak	-	60	-	-	-	-
	Off-Peak	-	60	-	-	-	-
Service Span		-	7:00 - 19:00	-	-	-	-



6.3 Service Recommendations Phasing and Resource Requirements

The TransitRenewal recommendations are intended to be implemented over a five-year period. Between 2012 and 2017, RT is anticipating a roughly 50% increase in available revenue (according to the RT Financial Forecasting Model), and the recommendations have been designed to align with these figures.

Figures 6.10 and 6.11 below show both additional and total revenue hours, miles, and projected ridership for each phase of implementation for bus and rail. Information on a route level is included as Appendix A.

- **Revenue hours and miles** were developed using estimated running times, service spans, headways, and layover requirements for each route. Through the next five years, TransitRenewal results in approximately 108,750 revenue bus hours and 1,353,000 revenue bus miles added to the system. The total proposed bus hours of 616,993 in 2017 are commensurate with 2009 service levels. TransitRenewal recommendations as well as planned rail improvements will result in an additional 24,637 revenue train hours and 1,023,600 revenue miles.
- **Ridership projections** were developed using existing ridership numbers, accounting for areas no longer served, and using ridership elasticities to estimate increases occurring from frequency and service span changes. Adjustments have been made for year of implementation, regional growth, and increased transferring capabilities between bus and rail with increased service spans. Over the next five years, TransitRenewal recommendations are estimated to generate approximately 5,425,700 additional bus boardings (39% of current levels) and 3,935,600 rail boardings (30% of current levels).
- **Productivity** is shown as passengers per revenue hour for each phase of TransitRenewal. On the bus side, productivity continually increases (from approximately 28 boardings per hour to 32 boardings per hour) as ridership grows, which is consistent with TransitRenewal objectives. On the rail side, productivity fluctuates as substantial resources are added to the system for service improvements/extensions. These improvements will make light rail service more convenient for customers and will continue to generate ridership in the longer term.



Bus								
Phase	Year	Additional			Total			Productivity (Boardings per Rev Hr)
		Revenue Hours	Revenue Miles	Ridership	Revenue Hours	Revenue Miles	Ridership	
Baseline	2012				508,243	5,691,127	14,010,000	27.6
1	2013	20,441	402,237	1,065,098	528,684	6,093,364	15,075,098	28.5
2	2014	22,041	303,164	1,243,747	550,725	6,396,529	16,318,844	29.6
3	2015	29,181	336,854	1,084,603	579,906	6,733,383	17,403,448	30.0
4	2016	18,959	139,031	1,064,212	598,865	6,872,413	18,467,660	30.8
5	2017	18,129	171,729	968,013	616,993	7,044,143	19,435,673	31.5

Figure 6.10 Bus Phasing

Light Rail								
Phase	Year	Additional			Total			Productivity (Boardings per Rev Hr)
		Revenue Hours	Revenue Miles	Ridership	Revenue Hours	Revenue Miles	Ridership	
Baseline	2012				71,046	3,792,344	13,240,000	186
1	2013	11,826	27,936	874,148	82,871	4,040,583	14,114,148	170
2	2014	797	248,239	795,363	83,668	4,069,164	14,909,511	178
3	2015	625	48,383	741,033	84,293	4,117,547	15,650,544	186
4	2016	6,875	532,217	610,087	91,168	4,649,764	16,260,631	178
5	2017	4,515	166,180	914,942	95,683	4,815,944	17,175,572	180

Figure 6.11 Light Rail Phasing



Appendix A

The following includes a description of TransitRenewal recommendations by year of implementation.

- **Year 1 (2013)**
 - Enhances weekday service levels on core bus routes (Routes 1, 25, 55, and 56)
 - Improves bus and light rail weekday evening service spans (Routes 1, 15, 21, 23, 30/31, 51, 56, 80/84, 81, and 82)
 - Improves bus weekend evening service spans (Routes 1, 11, 15, 21, 23, 25, 51, 56, 80/84, and 81)
 - Strengthens local and regional connections for Citrus Heights and Folsom/Orangevale residents (Routes 24, 95, 103, and 195)
 - Includes introduction of the Green Line⁷
 - Extends weekday and Saturday service spans on the Blue Line and Gold Line
- **Year 2 (2014)**
 - Enhances weekday service levels on core bus routes (Routes 23 and 51)
 - Enhances weekend service levels on core bus routes (Routes 23, 56, 86, and 88)
 - Introduces new Sunday service on core bus routes (Routes 11 and 25)
 - Enhances bus connections to the Gold Line in Rancho Cordova (Routes 28, 74, and 75)
- **Year 3 (2015)**
 - Enhances weekday service levels on core bus routes (Routes 11, 51, and 80/84)
 - Enhances Saturday service levels on core bus routes (Routes 15, 51, and 84)
 - Improves service coverage in transit dependent areas (Route 8)
 - Enhances bus connections between North and South Natomas and downtown Sacramento (Route 11)
 - Improves Community Bus service in South Sacramento (Route 54)
 - Extends bus service in Rancho Cordova and strengthens connections to the Gold Line (Route 75)

⁷ Note: Introduction of Green Line service is outside of TransitRenewal.



- Includes Blue Line extension to Cosumnes River College⁸
- **Year 4 (2016)**
 - Improves additional bus weekday evening service spans (Routes 26 and 81)
 - Improves additional bus weekend evening service spans (Routes 1, 26, and 81)
 - Enhances additional bus weekday service levels (Routes 38 and 81)
 - Enhances additional bus Sunday service levels (Route 81)
- **Year 5 (2017)**
 - Improves bus service connections to the Blue Line and to Arden Fair Mall (Route 25)
 - Enhances weekday bus service frequencies and connections to light rail in Pocket/Land Park, South Sacramento, and Rancho Cordova (Route 61 and 75)
 - Includes weekend frequency improvements on the Blue Line and Gold Line
 - Includes the introduction of limited stop service on the Gold Line⁹

Figures A.1 – A.3 on the following pages display proposed and existing bus resource requirements and the resulting change in requirements.

⁸ Note: Extension of Blue Line service to CRC is outside of TransitRenewal.

⁹ Note: Introduction of limited stop Gold Line service is outside of TransitRenewal.



Appendix B. List of TransitRenewal Presentations

Transit Renewal Presentations					
Date	TIME	Organization	Format	# of participants	Presenter
Tuesday, June 14		Complete Streets Coalition			Tom Quigley
Tuesday, June 21		Citrus Heights Collaborative			Tom Quigley
Wednesday, June 22		Walk Sacramento Round Table			Tom Quigley
Wednesday, June 22		Breathe CA Policy Committee			Tom Quigley
Wednesday, July 6		SAC TMA			Tom Quigley
Thursday, July 7		MAC			Tom Quigley
Friday, July 15	11 a.m.	Asian Resources			Tom Quigley
Tuesday, July 19	4 p.m.	SACC			Tom Quigley
Wednesday, July 20		Citrus Heights City Council Meeting			
Wednesday, July 20	6 p.m.	HUB meeting Building Healthy Communities			Tom Quigley
Wednesday, August 3	8 – 9:30 a.m.	Cleaner Air Partnership Technical Advisory Committee (CAPTAC)	Power Point		RoseMary Covington
Tuesday, August 9	8:30 a.m.	North Franklin District Board Meeting			Tom Quigley
Tuesday, August 9	9:30 – 10:30 a.m.	Metro Chamber Transportation Committee	Power Point		RoseMary Covington
Wednesday, August 10	Noon – 1:30 p.m.	Oak Park Business	Hand outs	15-20	Tom
Thursday, August 11	9 – 10:30 a.m.	Stockton Boulevard Business	Hand outs	12-20	James Drake
Thursday, August 11	9 a.m.	Citrus Heights Chamber of Commerce			Tom Quigley
Thursday, August 16		Citrus Heights Neighborhood Group 1			



August 17	9 - 9:30 a.m. (30 minutes)	SACOG TCC	Power Point	20-25	RoseMary Covington
August 22	5 – 5:30 p.m.	League of Woman Voters	Power Point	15	Tom Quigley
August 24	4:30 – 5 p.m. (10 minutes)	River District Board Meeting	Power Point	15-20	Tom Quigley
Thursday, September 13		Citrus Heights Neighborhood Groups			
September 15	6 p.m.	Paratransit Board			Tom Quigley
Thursday, September 22	9 a..m.	Air Quality		Rescheduled	Tom Quigley
Wednesday, 26, 2011	11:30 – 1:00 p.m.	WTS			Mike Wiley
Friday, October 5		Sacramento Housing Alliance Coalition on Regional Equity			
Thursday, October 27	9 a.m.	Air Quality Board			Tom Quigley
Thursday, October 27		American Legion High School			
Thursday, November 1		Sacramento High School			