CHAPTER 7: FINANCIAL ANALYSIS AND EVALUATION

7.1 OVERVIEW

This chapter reviews the financial capacity of RT to build, operate, and maintain the proposed project and presents the evaluation of alternatives. The following sections discuss revenue sources, funding issues and risk analysis, financial conclusions, and evaluation of alternatives.

7.2 FUNDING FOR CONSTRUCTION COSTS

The LPAP2 is estimated to cost $226.3 million to construct (in year of expenditure – YOE – dollars). Table 7.2-1 presents a summary of the capital cost estimate by cost category.

Table 7.2-1: Capital Cost Estimate by Cost Category

Element	Cost Estimate (Year of Expenditure dollars)	Percent Share of Total Capital Cost
Guideway and Track Elements	$34,240,000	15.1%
Stations, Stops, Terminals, Intermodal	$45,780,000	20.2%
Support Facilities: Yards, Shops, Administration	$0	0.0%
Sitework & Special Conditions	$51,28,000	22.7%
Systems	$23,770,000	10.5%
ROW, Land, Existing Improvements	$14,780,000	6.5%
Vehicles	$0	0.0%
Professional Services	$45,620,000	20.2%
Unallocated Contingency	$10,770,000	4.8%
Finance Charges	$0	0.0%
Total Project Cost	**$226,250,000**	**100%**

Source: RT Financial Forecasting Model, August 2006.

Notes: Construction costs include 28% contingency.
ROW costs include 25% contingency.

Table 7.2-2 presents a plan for fully funding the project. As shown, funding will come from variety of sources: State Transportation Improvement Program (STIP), Traffic Congestion Relief Program (TCRP), Congestion Mitigation and Air Quality Improvement (CMAQ) Program, community facilities district funds, transit fee district funds, Measure A sales tax / developer fee funds, and FTA Section 5309 New Starts funds. The project is included in the financially constrained SACOG Metropolitan

Transportation Plan (MTP).[1] The funding assumptions used for the project and for the RT system as a whole are consistent with the projections in the MTP.

If the LPAP2 were not constructed, and the TSM Alternative were implemented instead, it would be funded entirely from STIP, CMAQ, and local sources.

Each of these funding sources is described below.

Table 7.2-2: Identified Capital Funding for the LPAP2 Project

Funding Source	Amount (Year of Expenditure dollars)	Percent of Total Funding
CMAQ	$7,100,000	3.6%
Laguna Community Facilities District	$800,000	0.4%
Vineyard Fee District	$3,990,000	1.7%
STIP	$4,310,000	2.2%
Measure A Sales Tax/Developer Fee	$30,930,000	8.7%
TCRP/STIP	$66,000,000	33.5%
Section 5309 New Starts	$113,130,000	50.0%
Total	$226,250,000	100%

Source: Nancy Whelan Consulting; RT Financial Forecasting Model, August 2006.

7.2.1 Congestion Mitigation and Air Quality Improvement

CMAQ funds are allocated to States on a formula basis. In California the funds are suballocated to regional transportation planning agencies such as the Sacramento Area Council of Governments (SACOG) for programming. RT has received $7.1 million for the design phase of the LPAP2 project.

7.2.2 Laguna Community Facilities District

The Laguna Community Facilities District was formed to finance the acquisition and construction of (or reimbursement for) certain capital public facilities. The Calvine Transit Center is included in the 2001 Laguna Public Facilities Financing Plan for $803,250. In May 2006, RT and the County of Sacramento entered into a joint facilities agreement wherein the County agreed to provide $803,250 for the light rail station / transfer center at Cosumnes River College. The County has indicated that additional funds may be made available in the future based on interest earned on the fund.

7.2.3 Vineyard Fee District

Since the August 2005 New Starts report was prepared, the Elk Grove / West Vineyard Transit Development Fee District has been reformed as the Vineyard Fee District to exclude the Elk Grove area. The Vineyard Financing Plan Development Fee Program includes funding for $3,989,286 in capital expenditures for the planned Cosumnes River College light rail station component of the

[1] 2006 Metropolitan Transportation Plan for 2025, March 16, 2006.

LPAP2 Project. Fees are collected on a per-dwelling unit equivalent for transit capital improvements within the designated area.

7.2.4 State Transportation Improvement Program

The State Regional Improvement Program (RIP) funds are programmed by the California Transportation Commission (CTC) in the State Transportation Improvement Program (STIP) for projects that relieve traffic congestion on state and local roads and highways. These funds are allocated to counties largely on a formula basis. Allocations are comprised of both Federal Highway Trust Funds and State Gas Tax funds. The Federal matching requirements for these funds have been met within each allocation. SACOG is responsible for programming STIP funds in Sacramento, and has programmed $4,307,000 in 2002 STIP funds for the LPAP2 project. For planning purposes, 50 percent of the county's STIP funds are assumed to be available for RT's capital program over the next twenty years.

7.2.5 Measure A Sales Tax / Developer Fees

In November 2004, Sacramento County voters passed the reauthorization of Measure A, the transportation sales tax. The new ordinance includes two sources of transportation funds: sales tax proceeds and a developer fee program entitled "Sacramento Countywide Transportation Mitigation Fee Program." The one half percent sales tax will be collected for 30 years beginning in April 2009. The reauthorization increases RT's share of the sales tax proceeds from 33 percent to 38.25 percent. Of this total, 3.75 percent is dedicated to five specific transit capital projects: South Sacramento Corridor Phase 2 (LPAP2), Northeast Corridor Light Rail Improvements, Downtown-Natomas-Airport (DNA) Light Rail extension, Regional Rail Commuter Service and Downtown Intermodal Station. In addition, 20 percent of the new developer fee program revenues are directed toward transit capital improvements. The developer fees are to be assessed at a rate of $1,000 (2004 dollars) per each new single family unit. Fees for other types of development are proportionate to the trip generation rate of the new land use in comparison to the single family unit rate. Local jurisdictions that do not comply with the developer fee program forfeit their streets and roads maintenance funds from the reauthorized sales tax.

The Sacramento County Transportation Expenditure Plan 2009 – 2039 includes $98 million (2004 dollars) in developer fees for the Transit Capital Improvement Program and $118 million (2004 dollars) in sales tax revenues for Rail Transit Improvements. These funds will be directly subvented to Sacramento Regional Transit based on a five-year, annually updated transit capital and operating business plan recommended by Sacramento RT, and approved by the Sacramento Transportation Authority Board. The LPAP2 financial plan includes $30.9 million drawn from the Measure A program.[2] According to the financial plan schedule, these funds could be from the existing Measure A sales tax, the reauthorized sales tax, or the new developer fee revenues. Depending on the availability of these sources, RT may request an advance of anticipated Measure A funds from the Sacramento Transportation Authority. In its *New Measure A Sales Tax Program Plan of Finance* (July 18, 2006) report, the Sacramento Transportation Authority describes its plan to make the reauthorization sales tax revenues available for projects prior to 2009.

[2] From Ordinance No. STA 04-01, "An Ordinance Providing for the Continuation of a One-Half of One Percent Retail Transactions and Use Tax by the Sacramento Transportation Authority for Local Transportation Purposes".

7.2.6 State Traffic Congestion Relief Program

In 2000, the Governor of California signed into law the Traffic Congestion Relief Program (TCRP) that dedicated a portion of the sales tax on gasoline to transportation programs and projects for a period of five years, which was later extended for two years. Among the projects named in the legislation was the LPAP2 project at a funding level of $70 million. Approximately $7 million in TCRP funds have been allocated to the AA/Final Environmental/Preliminary Engineering phase of the project. Although budget shortfalls resulted in the suspension of TCRP allocations in 2003 and 2004, the State budget for FY 2006 provided revenue for TCRP. Beginning in July 2005, TCRP allocations were approved by the California Transportation Commission and will continue until all funds are used. While it is possible that TCRP funds may not be available within the timeframe anticipated in the funding plan, it is highly likely that funds will continue to flow during FY 2008 and FY 2009. The Administration is committed to restoring funding for the TCRP program.

7.2.7 Federal Section 5309 New Starts

Federal Section 5309 New Starts funds are discretionary funds authorized every six years and appropriated annually by Congress for fixed guideway transit projects. Under Section 5309, projects are evaluated and rated by the Federal Transit Administration and submitted to Congress for appropriations. The reauthorization of the Transportation Equity Act of the 21st Century, SAFETEA-LU, continues the New Starts program. The LPAP2 financial plan includes 50 percent of its funding from the New Starts program ($113.13 million).

7.3 FUNDING FOR OPERATIONS AND MAINTENANCE COSTS

The system wide operating and maintenance costs under the LPAP2 are estimated to total $266.9 million in 2030 (FY 2006 $). The costs are shown in FY 2006 dollars rather than YOE dollars to make comparisons more easily with the current and near future costs. These costs are $1.44 million lower than the operating and maintenance costs for the TSM Alternative. This is due to several factors. First, the TSM scenario utilizes substantially more bus service than the Full Build scenario, and, based on RT's operating data and projections, bus operating costs are increasing at a faster rate than rail operating costs. The bus factor rate of increase is due to:

- Increased CNG cost beginning in FY 2006,
- Increased bus parts costs due to expiration of warranties,
- Increased bus overhead costs related to the formation of a new Community Bus Services Department, and
- Increase in employee pension, medical and post retirement benefits.

In addition, RT has achieved rail operating cost efficiencies with the opening of the South Line Phase 1 and Folsom extensions, and this trend is expected to continue with the operation of SSCP2. The combined impact of the aforementioned trends results in a more expensive Baseline scenario as compared to Full Build.

These figures compare to RT's 2006 total budgeted operating expenses of $136.3 million.[3]

The primary funding sources for RT's current bus, LRT, paratransit, and regional rail operations include the following:

[3] Sacramento Regional Transit District, RT Financial Forecasting Model, August 2006.

- Sacramento County Measure A (one-half cent sales tax),
- The Local Transportation Fund component of the State Transportation Development Act (TDA--one-quarter cent of the State's 7.25 percent sales tax),
- State Transit Assistance Program funds,
- Measure A funds from the City of Folsom per a trade of state capital dollars[4],
- City contributions of TDA to pay for RT services,
- Special service (e.g., shuttles, events) revenues,
- Fare revenues,
- Federal Section 5307 formula funds,
- Federal Section 5309 Fixed Guideway funds, and
- Other sources (e.g., advertising, interest earnings).

To fund the operation of the LPAP2 project, RT would use a mix of funds from these sources. RT's financial planning model does not provide cost and revenue projections for operations and maintenance for individual routes. Rather, the model projects the subtotal for operations and maintenance costs by mode throughout the entire RT system, and assigns revenues on a systemwide basis. Thus, distinct revenue sources have not been assigned to the incremental operations and maintenance costs associated with the LPAP2.

The financial analysis indicates that RT has the financial capacity to build, operate and maintain the LPAP2, while continuing to operate and maintain the existing system without a new revenue source, based on the assumed growth factors for current revenue sources, including the renewal of the Measure A sales tax. RT anticipates that revenues from the renewal of the Measure A sales tax, passed in November 2004, would partially fund the LPAP2 operations and maintenance costs. Additional expansions beyond the LPAP2 would require another new funding source equivalent to a one-tenth of one-percent sales tax in Sacramento County.

Renewal of Measure A, the current countywide half percent sales tax for transportation, will take effect upon expiration of the existing Measure A beginning in April 2009. Under the current Measure RT receives one third of the half percent sales tax. The new Measure will increase the amount of revenue to RT by dedicating 38.25% of the half cent sales tax to RT.

7.4 CASH FLOW ANALYSIS

A cash flow analysis is used to determine RT's financial capacity. This analysis projects operating and capital revenues and expenditures that RT is likely to incur in continuing current transit services and by increasing service as included in the 2006 Metropolitan Transportation Plan and RT's current plans for service implementation. To the extent that this analysis does not show a deficit (inadequate revenues to meet projected expenditures) in some future year, the financial capacity of the District to build, operate, and maintain the project is demonstrated.

[4] As stated in RT's 2000 – 2008 Short Range Transit Plan, Financial Plan section, "In an innovative funding arrangement RT has secured an agreement with the City of Folsom to receive $40.4 million of their Measure A funds through the year 2009 in exchange for $32.75 million in Flexible Congestion Relief funds. The funds to be received annually reflect Folsom's portion of the Measure A receipts which can be used by RT to fund expenses."

RT's Financial Forecasting Model is used to analyze capital and operating cash flows through FY 2030. The model relies on a series of assumptions regarding service levels, cost inflation, revenue growth, fare price elasticity, and fleet size. Following is a list of key assumptions regarding the most important variables in the financial forecasts:

1. Bus Service. Bus service will remain at existing service levels through FY 2010 and then increase at an annual rate of approximately 2.0 percent between FY 2011 and FY 2030 to accommodate the need for new service and address the impact of increased traffic congestion on existing headways. Enhanced bus service was implemented on Stockton Boulevard in FY 2005, and additional enhanced bus service is assumed on Watt Avenue in FY 2010 and on Sunrise Boulevard in FY 2013 consistent with assumptions built into SACOG's 2006 MTP.

2. Rail Service. Rail service will include the light rail lines in the MTP, including the Downtown Natomas Airport line (FY 2015, FY 2021, FY 2028), the extensions to West Sacramento (FY 2024) and Antelope (FY 2023), the South Sacramento Corridor Phase 2 line (FY 2011), and Regional Commuter Rail (FY 2011). The South Line Phase 3 to Elk Grove is not included. Peak headways are generally assumed to be 15 minutes, except for Downtown Natomas Airport service, with 30 minute peak headways. Supplemental peak service headways are assumed to be 20 minutes.

3. Paratransit Service. RT will increase paratransit/ADA service at five percent per year through FY 2010, four percent per year from FY 2011 through FY 2020, and three percent thereafter. The demand for transportation for the disabled is assumed to grow at a faster rate than transportation demand by the general population.

4. Sales Tax Revenues. Sales tax revenues increased by about 6.2 percent between FY 2005 and FY 2006, and are projected to grow at an average annual rate of 6 percent per year thereafter. This assumption is slightly under the average annual growth of about 8 percent for taxable sales in Sacramento County since 1975. The November 2004 election resulted in the renewal of Measure A beginning in April 2009 at .50 percent. RT will receive 38.25% of the sales tax receipts based on the sales tax expenditure plan. The Full Build scenario of RT's Financial Forecasting Model assumes that a new sales tax or other revenue source will be available in FY 2012. The financial plan assumes that RT would receive new revenues equivalent to a one-tenth of one percent sales tax.

5. Transportation Development Act Revenues. TDA will grow at the same rate (six percent) as sales tax revenues. TDA revenues will continue to be available to RT from all of the current RT service area. RT will continue to receive TDA and Measure A revenues from all of the small cities (except Folsom, Isleton and Galt), even after the Measure A renewal.

6. Passenger Fares. Fare revenues will grow in proportion to ridership and fare prices. Fare increases will occur at approximately five-year intervals sufficient to keep pace with inflation. Fare increases of 16 percent are assumed in FY 2011 and every five years thereafter.

7. Federal Section 5307 Formula and Section 5309 Fixed Guideway (formula funds). Section 5307 and 5309 funds will increase according to estimates of Federal formula fund revenue growth under the current Federal reauthorization. The Financial Forecasting Model assumes that these funds will increase at an average annual rate of 5 percent per year and by 15 percent with each reauthorization. These funds will continue to be used for either operating (preventive maintenance) or capital purposes. The 5307 formula funds will continue to be used for either operating (preventive maintenance) or capital purposes.

8. Operating Expenses. Inflation (CPI) will grow at an average of 3 percent per year. RT labor costs per unit of service (vehicle hours and miles) will increase at an average annual rate of 3.5

percent per year starting in FY 2008. Materials and services costs per unit of service are assumed to increase at an average annual rate of four percent per year starting in FY 2008.

9. Capital Costs. Capital costs for RT include a new bus maintenance facility, a new running repair maintenance facility, vehicle replacements, and ongoing capital costs of equipment and facilities. The costs of the rail extensions are provided by corridor in the analysis.

The RT Financial Forecasting Model used for the cash flow analysis produces a capital statement and operating statement. Given the assumptions applied in the cash flow analysis, the operating statement indicates that revenues are adequate to cover operating expenses over the period. Operating surpluses are transferred to capital. The capital statement indicates that capital revenues are more than sufficient to cover expenditures. The analysis demonstrates that RT has the financial capacity to build, operate, and maintain the planned bus and rail service through FY 2030.

Specifically, based on the financial model and the assumptions outlined above, by FY 2012 after completion of the LPAP2 project, RT is expected to have $225.6 million available for operations and expenses of $196.4 million, leading to a surplus of funds that would be dedicated to capital projects. By 2030, RT is expected to have $650.2 million available for operations and expenses of $607.4 million (for all transit services: LRT, bus, paratransit, and regional rail). The financial model projects similar results for intermediate years with surplus operating funds being transferred to capital projects throughout the period.

7.5 RISK ANALYSIS

A risk analysis takes the cash flow analysis one step further by accounting for variations in the key variables. The renewal of Measure A in November 2004 provides the needed funds to operate and maintain RT's existing system and to allow for system expansion. The renewal of the sales tax removes substantial financial risk from implementing the LPAP2.

Although the cash flow analysis shows that RT has the financial capacity to extend light rail lines and increase bus service over time, the financial plan is not without risk. The financial feasibility of building the LPAP2 project and other planned light rail extensions is dependent upon several significant revenue assumptions:

- Construction cost and inflation assumptions. The construction cost estimate includes substantial contingency assumptions for both construction costs (28%) and Right of Way (25%). The total capital cost escalation equals nine percent over five years. Should these assumptions prove optimistic, RT will need to identify additional revenues to complete the project. Possible sources could include Measure A revenues or transfers of operating surpluses.
- The availability of State Traffic Congestion Relief Funds in the years for which they are planned. $70 million in TCRP funds is programmed for the LPAP2 Project, of which $7 million has been allocated to the AA/Final Environmental/Preliminary Engineering phase of the project. After a two-year suspension of TCRP allocations, TCRP funds have recently been allocated for FY 2006. While it is possible that TCRP funds may not be available within the timeframe anticipated in the funding plan, it is highly likely that funds will continue to flow during FY 2008 and FY 2009. The Administration is committed to restoring funding for TCRP.
- The availability of Section 5309 New Starts Funds. $113.13 million in Section 5309 New Starts funds is planned for the LPAP2 capital project. RT will continue to submit annual New Starts Rating Reports. The project must be rated "recommended" or higher to be eligible for New

Starts funding. The New Starts program is a highly competitive nationwide process, with funding requests vastly exceeding availability.

- The availability of a new revenue source to fund operating and capital requirements of the planned system. As stated previously, the Sacramento Transportation Authority is studying the viability of an additional local transportation sales tax measure to take effect by FY 2016. A new revenue source equivalent to approximately one-tenth of one percent sales tax increase for RT would be required to fully fund the planned system. Without such a revenue increase, service expansion beyond the LPAP2 light rail extension would not be possible.

- Ridership and fare revenues. Fare revenue is projected to provide a significant source of revenue to offset the operations and maintenance costs of the LPAP2 project. Fare revenue estimates are dependent upon both ridership and average fare estimates, and are based on assumptions that reflect RT's historical experience. RT's financial model projects a surplus of sources available for funding operations and maintenance costs. Thus, if the fare revenue estimates are shown to be overstated, other sources could be available to fully fund operations and maintenance of the RT system. Under this circumstance, transfers of surplus operations and maintenance revenues to capital projects would likely be reduced.

Should the above assumptions about operating and capital funding for the project prove optimistic, it would become necessary to re-prioritize the rail extension program, phase the capital program, reconsider systemwide service expansion, and seek other stable funding sources in order to avoid a net deficit. If capital funding commitments to the project are made in years beyond the construction schedule, interim or "bridge" financing may address the cash flow shortfalls.

At this stage in the development of the LPAP2 project, the systemwide funding plan for RT is based on financial projections and governmental actions which are not finalized. More detailed information on the financial plan is presented in RT's LPAP2 Section 5309 New Starts Report to the Federal Transit Administration.

In short, the financial plan has risks, but at this point in time they appear to be manageable risks. Close tracking of the sales tax renewal measure, the State Transportation Improvement Program (STIP) and TCRP programs, and the status of the LPAP2 project as it is reviewed and rated in the New Starts evaluation process will help address these risks and to assess when corrective action is needed.

7.6 CONCLUSIONS

The analyses outlined in this chapter (cash flow and risk) indicate that RT can afford to build, operate and maintain the LPAP2 Project, while continuing to operate and maintain the existing transit system.[5] This conclusion is not unqualified, however. As with any financial forecast, there is risk in the uncertainty of future economic conditions. Also, there is some risk that the additional operating and capital funding needed to extend the service may not be identified in the near term. Detailed financial modeling results that support these conclusions are presented in a separate technical report that is available from RT's planning office.

[5] Sacramento Regional Transit District, RT Financial Forecasting Model, August 2006.

7.7 EVALUATION OF ALTERNATIVES

Section 5309(e) requires FTA to evaluate each proposed New Starts project according to a set of criteria for project justification and local financial commitment. Because the proposed project is a New Starts project and is seeking highly competitive federal funding under this program, it is being evaluated against the full range of statutory criteria. These evaluations occur in periodic submissions to FTA that are separate from this environmental document. Figure 7.7-1 illustrates FTA evaluation criteria and their measures. Based on the results of the FTA evaluations and consistent with Section 5309(e)(6), a summary rating will be assigned to this proposed project. The results of the FTA evaluations will be used as the basis for decisions regarding approval for entry into final design, execution of a Final Funding Grant Agreement (FFGA), and annual funding recommendations to Congress. See Section 2.1 for a list of the steps in this process. The New Starts project evaluation criteria are in addition to the general grant eligibility requirements that apply to all FTA programs.

Criteria	Measures
Mobility Improvements	Hours of Transportation System User Benefits
	Low-Income Households Served
	Employment Near Stations
Environmental Benefits	Change in Regional Pollutant Emissions
	Change in Regional Energy Consumption
	EPA Air Quality Designation
Operating Efficiencies	Operating Cost per Passenger Mile
Cost Effectiveness	Incremental Cost per Hour of Transportation System User Benefit
Transit Supportive Land Use & Future Patterns	Existing Land Use
	Transit Supportive Plans & Policies
	Performance & Impacts of Policies
	Other Land Use Considerations
Financial Rating	Local Share of Capital Funds
	Operating Funds
Other Factors	Project Benefits Not Reflected by Other Criteria

Figure 7.7-1: FTA New Starts Project Evaluation Criteria and Measures

In general, the FTA evaluation should accomplish the following:

- Provide quantitative evidence of transportation problems in the project corridor, and how the proposed project will address these problems.

- Describe the markets (trip purposes, socioeconomic, geographic) that the project benefits, and how and why they benefit. These benefits should be quantitative.
- Provide evidence that this investment is better than all other strategies for meeting the identified corridor problems. A comparison of how the proposed project performs against the TSM and other alternatives in serving key travel markets and meeting identified needs should be included.
- Provide real evidence of non-transportation benefits and impacts, if such benefits are part of the purpose and need of the project.

The remainder of this section addresses project evaluation from the perspective of the environmental review process and the goals and objectives of the South Sacramento Corridor, as defined in the original corridor environmental document. Subsection 7.7.1 presents a comprehensive set of the original goals and objectives from the 1994 *South Sacramento Corridor AA/DEIS/DEIR.* Chapter 1 identifies six major purposes of this project that were derived from these goals and objectives. Refer to Chapter 8 of this document and Chapter 1 of the 1994 *South Sacramento Corridor AA/DEIS/DEIR* for information on public input to the original planning process. The following Subsections 7.7.2 through 7.7.6 compare the alternatives with respect to the original goals and objectives. Table 7.7-1 presents a comparison of the alternatives in the years 2025 and 2030 using a mix of quantitative and qualitative measures for all of the goals and most of the objectives. The comparison of alternatives is a summary evaluation of more detailed information included in the previous chapters or in the project New Starts submissions to FTA. It should be noted that the No-Action Alternative provides the basis for evaluation of TSM and LPAP2 impacts under NEPA and CEQA, while the comparison of the TSM and LPAP2 alternatives provides the basis for the FTA's evaluation of the project's worthiness for federal funding. This evaluation shows that the LPAP2 is generally an improvement over the TSM Alternative in measures of each of the five goals discussed below.

7.7.1 Goals and Objectives

7.7.1.1 TRAVEL AND MOBILITY GOAL

The travel and mobility goal is to provide a transportation system that is safe, efficient, and coordinated, and that provides a balanced set of travel alternatives in the corridor by

- Expanding transit service in South Sacramento;
- Increasing service frequencies, accommodating demand, and by increasing transit safety, comfort, and reliability;
- Minimizing transit travel times, including minimizing transfer time and travel delays;
- Promoting use of carpools and feeder bus service to access stations and park-and-ride lots;
- Improving accessibility for the disabled and senior communities; and
- Minimizing demand for parking facilities downtown and at Sacramento City College.

7.7.1.2 LAND USE GOAL

The land use goal is to ensure compatibility between land use policies and transportation policies so that the need for and amount of travel using automobiles is minimized. Three techniques to achieve this goal will be used by RT and community land use planners during the station area planning effort:

- Encouraging high-density, multi-use development in the proximity of transit stations to increase transit use;

- Encouraging in-fill development and discouraging the trend towards urban sprawl; and
- Developing and implementing transportation policies and services that reinforce local and regional land use plans and policies.

Local governments have embraced these techniques in several policy documents. For example, to encourage in-fill development, the City of Sacramento adopted an *Infill Strategy* in May 2002 which targets areas in the *General Plan* for higher density and TOD around existing and proposed light rail stations. To support development which promotes public transportation and revitalizes urban areas and existing communities, the Sacramento City Council adopted the *Smart Growth Implementation Strategy* into the *General Plan* to address issues of growing traffic congestion, deteriorating air quality and greater losses of open space. Section 4.10.2, Local Development Plans and Policies describes these programs in more detail.

Table 7.7-1: Comparison of Alternatives in 2025 with Measure of Goals and Objectives

Category	No-Action	TSM	LPAP2
TRAVEL AND MOBILITY GOAL			
Expand Transit Service in South Sacramento			
Change in Transit Service (routes added or enhanced)	0	5 bus	2 bus, 1 LRT
Increase Service Frequencies, Accommodate Demand, Increase Transit Safety, Comfort, and Reliability (2030)			
Projected Daily Transit Passenger Boardings in Region	278,570	284,930	285,690
Projected Daily Linked Transit Trips in Region	182,180	185,540	188,110
Projected Daily System Light Rail Boardings	105,180	104,060	111,550
Safety, Comfort, and Reliability	0	+	++
Minimize Transit Travel Times (2030)			
A.M. Peak Period Transit Travel Time [1] (min)			
CRC Area to Downtown Sacramento	52	50	35
Laguna West Area to Downtown Sacramento	72	54	43
Elk Grove Area to Downtown Sacramento	70	60	46
Vineyard Area to Downtown Sacramento	75	65	51
System-wide Travel Time Savings (user benefit hours per weekday) [2]	0	N/A	2,273
Promote Use of Carpools and Feeder Bus Service to Access Stations and Park-and-Ride Lots			
Feeder Routes [3]	6	8	11
Carpool Priority Parking at Park-and-Ride Lots	0	+	++
Improve Accessibility for the Disabled and Senior Communities			
Increased Senior Living at College Square	0	0	+
Minimize Demand for Parking Facilities Downtown and at Sacramento City College			
Estimated Reduction in Parking Demand Downtown	0	-900	-1,300
Alleviate Traffic Congestion on Corridor Freeways and Arterials			
ADT on SR-99 (Florin Road To Mack Road)	203,400	202,000	202,000
ADT on SR-99 (Mack Road To Cosumnes River Blvd/ Calvine Rd)	155,700	154,900	153,200
Intersections in City of Sacramento with LOS D or Worse in PM Peak Hour before Mitigation	4	4	4

Table 7.7-1: Comparison of Alternatives in 2025 with Measure of Goals and Objectives

Category	No-Action	TSM	LPAP2
Intersections in City of Sacramento with LOS D or Worse in AM Peak Hour before Mitigation	1	1	3
Intersections in Sacramento County and City of Elk Grove with LOS F or Worse in PM Peak Hour before Mitigation	0	0	0
Intersections in Sacramento County and City of Elk Grove with LOS F or Worse in AM Peak Hour before Mitigation	0	0	0
Enhance Regional Connectivity through Expanded, Interconnected LRT Services			
Regional Connectivity	0	+	++
LAND USE GOAL **Encourage High-density, Multi-use Development in the Proximity of Transit Stations to Increase Transit Use**			
Transit-oriented Design Adjacent to Stations	0	0	+
Encouraging In-Fill Development and Discourage the Trend towards Urban Sprawl			
Transit Support of In-Fill and Focused Development	0	+	++
Develop/Implement Transportation Policies and Services that Reinforce Local/Regional Land Use Plans/Policies			
Land Use - Consistent with Objectives of General Plans	0	+	++
FINANCIAL AND ECONOMIC GOAL **Maximize Transit Operating Efficiency/Return on Investment**			
Annual Cost per Hour of User Benefit [2]	0	N/A	$14.46
Annual Cost per New Passenger [2]	0	N/A	$12.79
Minimize Capital and Operating Costs			
Estimated Capital Cost (Year of Expenditure FY 2007/2011 $ millions)	0	$52.1	$226.3
Estimated Capital Cost (FY 2006 $ millions)	0	$49.1	$207.9
2030 Operating and Maintenance Costs (FY 2006 $ millions)	$261.3	$268.4	$266.9
Enhance Opportunities for Public/Private Partnerships			
Coordination on Transit-Oriented Development	0	0	++
ENVIRONMENTAL GOAL **Minimize Air Pollution and Facilitate Attainment of Air Quality Standards**			
Noise and Vibration	-	0	+
Minimize Impacts on Resources, Conform To Environmental Regulations			
Biological Resources	0	0	-
Cultural Resources	0	0	0
Consider Aesthetics in Transportation Planning			
Visual and Aesthetic Resources	0	0	0
Minimize the Displacement of Homes and Businesses			
Acquisitions and Relocations	0	0	-
Land Use - Consistent with Objectives of General Plans	0	+	++
Minimize and Mitigate Noise Pollution			
Noise and Vibration	-	0	0
Conserve Energy			
Direct Energy Consumption (millions of BTUs per year)	91,140,764	91,121,280	91,103,755

Table 7.7-1: Comparison of Alternatives in 2025 with Measure of Goals and Objectives

Category	No-Action	TSM	LPAP2
Conserve Land			
Land Acquisition	0	-	--
COMMUNITY CONSIDERATIONS GOAL **Minimize the Disruption of Neighborhood Cohesiveness and Quality of Life**			
Use of Land and Displacements	0	-	--
Maximize the Service to, and Mobility of, the Transit-Dependent and Transportation-Disadvantaged			
Creation of Senior Housing next to Transit Stations	0	+	+
Encourage the Economic Revitalization of Low-Income Areas			
Economic Development - Temporary Construction Jobs	0	+	++
Seek a Fair Distribution of Costs and Benefits			
Equity	0	+	++

Source: DKS Associates, Parsons, Nancy Whelan Consulting, 2006.

Notes:
[1] Drive-access transit times. All data in table are for 2025 except where noted for 2030, e.g., travel times.
[2] FTA New Starts statistic calculated for LPAP2 Alternative with respect to TSM Alternative only.
[3] See Tables 2.3-1 and 2.4-1 for details on LRT feeder routes.

7.7.1.3 FINANCIAL AND ECONOMIC GOAL

The financial and economic goal is to provide a transportation system that makes the most efficient use of limited financial resources by:

- Maximizing transit operating efficiency;
- Minimizing capital and operating costs;
- Developing the transportation system to maximize the return on investment;
- Maintaining or increasing farebox receipts as a percentage of transit revenues to minimize subsidies; and
- Enhancing opportunities for public/private partnerships in the development of transit facilities and services.

7.7.1.4 ENVIRONMENTAL GOAL

The environmental goal is to provide a transportation system that enhances and preserves the physical and natural environment by:

- Minimizing air pollution and facilitating the attainment of air quality standards;
- Minimizing impacts on parks, recreational, historic, archaeological, cultural, biotic, and scenic resources and conforming to all local, state, and federal environmental regulations;
- Considering aesthetics in transportation planning;
- Minimizing flood hazards and water pollution;
- Minimizing the displacement of homes and businesses;
- Minimizing and mitigating noise pollution;

- Conserving energy;
- Conserving land; and
- Minimizing short-term construction impacts.

7.7.1.5 COMMUNITY CONSIDERATIONS GOAL

The community considerations goal is to provide a transportation system that is consistent with the needs and desires of the residents of the corridor, and that thereby maximizes community acceptance and political support. This goal includes the following specific objectives:

- Minimizing the disruption of neighborhood cohesiveness and quality of life;
- Maximizing the service to, and mobility of, the transit-dependent and transportation-disadvantaged;
- Encouraging the economic revitalization of low-income areas; and
- Seeking a fair distribution of costs and benefits among different population groups.

The community considerations goal and its objectives have been developed as part of RT's ongoing community involvement program. In this case, the public involvement has been continuous through all the technical and environmental studies completed on the South Sacramento Corridor (starting with the 1981 studies) as well as general outreach on other RT programs and projects.

7.7.2 Travel and Mobility

Table 7.7-1 lists associated measures and the six objectives for travel and mobility from the original environmental document and. In addition, Table 7.7-1 includes associated measures and two other purposes or objectives on congestion relief and connectivity derived from the original travel and mobility goal during the current environmental process.

7.7.2.1 EXPAND TRANSIT SERVICE IN SOUTH SACRAMENTO

Both the TSM Alternative and the LPAP2 would expand transit service in South Sacramento. Under the TSM Alternative, five bus routes would be extended or enhanced: Routes 50E, 52X, 66X, G, and G2 (see Table 2.3-1 for details). Under the LPAP2, two bus routes and the LRT would be extended (see Table 2.4-1 for details). As described in Section 2.3.2, TSM Alternative Bus Service, and Section 2.4.2, LPAP2 Transit Service, these service expansions are tailored to optimize each alternative. The relative effectiveness of these proposed service expansions is described by the other measures under the travel and mobility.

Route 50E on Stockton Boulevard would include bus priority features such as queue jumps. The bus priority treatment is part of a system-wide effort by RT, which is in the process of implementing bus priority treatments in the Downtown and in limited major transit corridors in Sacramento County.

7.7.2.2 INCREASE SERVICE FREQUENCIES, ACCOMMODATE DEMAND, INCREASE TRANSIT SAFETY, COMFORT, AND RELIABILITY

Service frequencies are held constant across the alternatives to ensure a fair comparison in this evaluation. In practice, service frequencies would be tailored to demand. The measures for accommodating demand displayed in Table 7.7-1 include the daily unlinked and linked transit trips in the region and the daily corridor rail boardings and alightings in 2030. The TSM Alternative is

projected to increase daily regional transit ridership in 2030 by about 3,360 trips (linked trips) over the No-Action Alternative, while the LPAP2 is projected to add an additional 2,570 trips over the TSM Alternative. The LPAP2 also would increase RT rail boardings in 2030. Under the LPAP2, the number of daily systemwide rail boardings is 111,550. This is 7,880 more than the No-Action Alternative and 7,260 more than the TSM Alternative.

For the largest single transit market, from the LPAP2 Corridor to Downtown, the LPAP2 would generate a 36.1 percent market share, compared to 33.1 percent for the TSM Alternative. For all LPAP2 Corridor work trips, the LPAP2 would generate a 6.0 percent market share, significantly higher than the 4.5 percent regional average.

Transit safety is considered in the design of both the bus and LRT stops and access. See Section 4.16, Safety and Security, for more information. The alternatives are rated from - - or – (negative) to 0 (neutral) to + or ++ (positive), depending upon their expected relative effect with respect to this objective. Transit priority is being implemented on Route 50E, which will increase bus reliability. LRT on separate right-of-way would inherently be more reliable and safer than buses in mixed traffic, which would be subject to related traffic delays and accident hazards. Likewise, LRT tends to be more comfortable than buses due to a smoother ride.

7.7.2.3 MINIMIZE TRANSIT TRAVEL TIMES

The measure of accessibility in Table 7.7-1 is the projected change in corridor transit travel time in 2030. The drive-access-transit time improvement of the LPAP2 compared with the TSM Alternative would range from 11 to 15 minutes.

The LPAP2's superior system continuity and operation on a separate guideway rather than on congested streets and freeways provide material travel time savings over the bus-based TSM Alternative. Compared to the TSM Alternative, the proposed LRT Extension provides transit travel time savings of 20 to 30 percent for trips to Downtown Sacramento from areas in the LPAP2 Corridor.

System-wide travel time savings (calculated using FTA's SUMMIT software) show that the total travel time savings relative to the TSM are 2,273 hours per weekday, or 668,262 hours per year.

Ninety-six percent of the time savings accrue to trips beginning in the LPAP2 Corridor. For trip destinations, 75 percent of the time savings accrue to trips ending in Downtown Sacramento; nine percent to trips ending in the LPAP2 Corridor; 8 percent to trips ending in the Phase 1 Corridor; and 8 percent to trips ending in the Folsom/ US 50 Corridor.

7.7.2.4 PROMOTE USE OF CARPOOLS AND FEEDER BUS SERVICE TO ACCESS STATIONS AND PARK-AND-RIDE LOTS

The LPAP2 would add four new LRT stations with 2,700 park-and-ride spaces and a major new transit center at the CRC Station near State Route 99. The TSM Alternative would add 1,400 park-and-ride spaces and a new transit center at CRC. All park-and-ride lots would implement priority parking for carpools. The alternatives are rated from - - or – (negative) to 0 (neutral) to + or ++ (positive), depending upon their expected relative effect with respect to this objective.

7.7.2.5 IMPROVE ACCESSIBILITY FOR THE DISABLED AND SENIOR COMMUNITIES

The alternatives are rated from - - or – (negative) to 0 (neutral) to + or ++ (positive), depending upon their expected relative effect with respect to accessibility for senior communities. The No-Action Alternative would be neutral, while the TSM Alternative and LPAP2 would be positive. The positive rating is the result of senior housing being added to the College Square development at the urging of RT. While the housing addition was predicated upon the new LRT station at CRC, it would also be served by the increased bus service and new CRC transit center planned under the TSM Alternative.

7.7.2.6 MINIMIZE DEMAND FOR PARKING FACILITIES DOWNTOWN AND AT SACRAMENTO CITY COLLEGE

The parking demand reduction measures displayed in Table 7.7-1 indicate that the LPAP2 is expected to be superior to the TSM Alternative in reducing parking demand in downtown Sacramento. The LPAP2 is projected to reduce parking demand by about 1,300 spaces downtown compared with a demand reduction of 900 spaces downtown by the TSM Alternative.

7.7.2.7 ALLEVIATE TRAFFIC CONGESTION ON CORRIDOR FREEWAYS AND ARTERIALS

Severe congestion on South Corridor freeways is expected on by 2025, with both SR 99 and I-5 expected to operate at LOS "F" for three or more hours. The associated measure shows slight but helpful reductions in daily traffic on the two freeways by the TSM Alternative and the LPAP2. The LPAP2 is likewise expected to be superior to the TSM Alternative in reducing traffic on area freeways. Table 7.7-1 indicates that the LPAP2 would reduce Average Daily Traffic (ADT) by up to 1,700 more vehicles on SR-99 than the TSM Alternative.

Local arterial traffic impacts were evaluated using intersection level of service (LOS) analysis (see Section 3.3 for details). The analysis included the major sources of impacts from the proposed alternatives: traffic generated by new park-and-ride facilities as well as increased bus service frequency and the increase in delay at some intersections due to new at-grade crossings, or increased train frequency at existing at-grade intersections. Traffic impacts were considered to be significant when a project worsens an intersection's LOS from a locality's LOS standard (LOS C in the City of Sacramento, and LOS E in Sacramento County and Elk Grove). Under the TSM Alternative, one intersection would deteriorate from LOS C to LOS D during the AM peak hour in the City of Sacramento. Under the LPAP2, two intersections in the City of Sacramento are projected to go below LOS C during the AM peak hour and one is expected to go below LOS C during the PM peak hour. Neither the TSM Alternative nor the LPAP2 is projected to have adverse impacts on intersections in Sacramento County or the City of Elk Grove in 2025.

7.7.2.8 ENHANCE REGIONAL CONNECTIVITY

The alternatives are rated from - - or – (negative) to 0 (neutral) to + or ++ (positive), depending upon their expected relative effect with respect to connectivity. The No-Action Alternative would be neutral, while the TSM Alternative and the LPAP2 would be positive. The LPAP2 provides excellent access for LPAP2 Corridor residents to RT's existing LRT network. It provides unparalleled access to Downtown Sacramento – the largest transit market and regional employment center – by providing virtually all corridor residents with the option to drive to a station, board LRT, and arrive Downtown without transferring Downtown Sacramento will provide transfer options to the Capitol Corridor Inter-

city rail and Amtrak, and an intermodal facility is currently under development in the city center. Under the LPAP2, 15 percent of the corridor residents can walk to an LRT station and arrive at their destination with no-transfer, compared with less than 10 percent for the TSM. The LPAP2 also provides no-transfer access to intermediate stops on the Phase 1 LRT line (e.g. Sacramento City College) and the Northeast LRT Corridor, plus same-platform transfer access to the Folsom LRT line and the planned Downtown/Natomas/Airport line. It also provides a direct transit connection from the rest of the region to Cosumnes River College, with an anticipated near doubling of enrollment to 20,000 in the year 2025. This excellent service coverage is possible because the LPAP2 is a natural extension of the region's LRT network.

In comparison, the best that can be offered under the TSM Alternative is a combination of expanded feeder buses to the Phase 1 LRT terminus at Meadowview (that requires bus-to-rail transfers), plus Downtown express buses operating on increasingly congested freeways and HOV lanes. These express buses do not provide access to intermediate stations in the Phase 1 Corridor and add to congestion in the crowded streets of Downtown Sacramento.

7.7.3 Land Use

A scale is used to evaluate the alternatives with respect to each other. The alternatives are rated from - - or – (negative) to 0 (neutral) to + or ++ (positive), depending upon their expected relative effect. The subsections below discuss the factors considered in the rating for each measure.

7.7.3.1 Encourage High-Density, Multi-Use Development in the Proximity of Transit Stations to Increase Transit Use

The City of Sacramento and RT are working together with developers on transit oriented development plans for the Morrison Creek and Cosumnes River College stations. The City of Sacramento is revising planning documents and zoning in the Morrison Creek station area to allow for medium and high-density housing clustered near the LRT station, transitioning back to single family zoning further away. At the CRC Station, the City has recently approved development for a mixed commercial/retail/residential development, with high density housing clustered near the proposed LRT station. Finally, the LRT Project would allow redevelopment of up to two acres of lands currently reserved for parking at the Meadowview Station since less parking would be required there with development of the Phase 2 LRT Project. These actions lead to a positive rating for the LPAP2.

7.7.3.2 Encourage In-Fill Development and Discourage the Trend towards Urban Sprawl

In addition to the actions cited in the previous subsection the region is pursuing a broader transit-friendly policy through the “Blueprint” plan which has been approved by the Sacramento Area Council of Governments (SACOG). This plan will form the framework for SACOG’s 2007 metopolitan transportation plan update. The City of Sacramento has also developed an in-fill policy which RT’s LRT planning supports. See Subsection 7.7.1.2, Land Use Goal, above for more detail.

The alternatives are rated on their promotion of a transit system that would influence development into efficient and coherent patterns. The long-term land use impacts of the No-Action Alternative would likely support more dispersed patterns of development. The TSM Alternative would better promote transit as the focus of orderly and sustainable growth, but not to the level offered by the LPAP2. The LPAP2 is rated the highest because of the ability of fixed rail transit to focus and concentrate land use patterns. See Section 7.7.1.2, Land Use Goal, and Section 4.10.2, Local

Development Plans and Policies, and section 4.10.4.1, Land Use Impacts at Proposed LPAP2 LRT Station Locations, for more discussion.

7.7.3.3 DEVELOP AND IMPLEMENT TRANSPORTATION POLICIES AND SERVICES THAT REINFORCE LOCAL AND REGIONAL LAND USE PLANS AND POLICIES

The basis for land use evaluation is the level of consistency of the alternatives with the transit objectives of Sacramento City and County General Plans, City of Elk Grove General Plan, South Sacramento Community Plan, Airport Meadowview Community Plan and Sacramento Regional County Sanitation District (SRCSD) Bufferlands Master Plan (Final Draft). The LPAP2 is rated higher because of the ability of fixed rail facilities to provide a more stable, long-term focus of development.

7.7.4 Financial and Economic

The following subsections address four of the five objectives listed in Section 7.7.1 for the Financial and Economic Goal. The objective relating to fare box return, while addressed systemwide by RT, is not rated because it is not a specific feature of the proposed project.

7.7.4.1 MAXIMIZE TRANSIT OPERATING EFFICIENCY / RETURN ON INVESTMENT

The measures for these two objectives are the cost per hour of user benefit and cost per new passenger. Table 7.7-1 list these measures for the LPAP2, which shows substantial benefit compared with the TSM Alternative.

7.7.4.2 MINIMIZE CAPITAL AND OPERATING COSTS

The capital cost of the TSM Alternative (in year of expenditure FY 2009 dollars) is $53.7 million. The capital cost for the LPAP2 is $226.3 million (also in YOE dollars FY 2007-2011).

RT's additional annual operating costs above the No-Action Alternative are expected to be $7.1 million for the TSM Alternative and $5.6 million for the LPAP2 (both in FY 2006 dollars). The annual operating cost saving for the LPAP2 compared with the TSM Alternative would be $1.4 million in FY 2006 dollars. The forecasted operating and maintenance costs for the TSM Alternative are slightly higher than that for the LPAP2. This is due to several factors. First, the TSM Alternative utilizes substantially more bus service than the LPAP2, and, based on RT's operating data and projections, bus operating costs are increasing at a faster rate than rail operating costs. This is for several reasons, including:

- Higher pension contributions for bus drivers beginning in FY 2006,
- Increased bus overhead costs related to the formation of a new Community Bus Services Department, and
- Increase in bus indirect costs (e.g., casualty & liability insurance, debt service).

In addition, RT has achieved rail operating cost efficiencies with the opening of the Southline Phase 1 and Folsom extensions, and this trend is expected to continue with the operations of Southline Phase 2. The combined impact of all factors mentioned above results in a shift in total O&M costs, with the TSM Alternative costs forecast to be slightly higher than the LPAP2.

7.7.4.3 ENHANCE OPPORTUNITIES FOR PUBLIC/PRIVATE PARTNERSHIPS

The alternatives are rated from - - or – (negative) to 0 (neutral) to + or ++ (positive), depending upon their expected relative effect. Based on the coordination of RT and the City of Sacramento with private developers regarding transit-oriented development plans for the Morrison Creek and Cosumnes River College stations as discussed in Section 7.7.3, Land Use, the LPAP2 is rated positive for public/private partnerships.

7.7.5 Environmental

For the environmental measures, a scale is used to evaluate the alternatives with respect to each other. The alternatives are rated from - - or – (negative) to 0 (neutral) to + or ++ (positive), depending upon their expected relative effect. The subsections below discuss the factors considered in the rating for each measure. All objectives are rated except the two relating to flood hazards/water quality and short-term construction impacts, which design considerations that are discussed in Section 4.9, Hydrology, Flood Plain, and Water Quality, and Section 5.2, Construction Phase Impacts and Mitigation, respectively.

7.7.5.1 MINIMIZE AIR POLLUTION AND FACILITATE ATTAINMENT OF AIR QUALITY STANDARDS

Effects of the No-Action Alternative on corridor air quality would be considered neutral because although traffic volumes and congestion would continue to increase over time, air emissions per gallon would decrease. Both the TSM Alternative and the LPAP2 would improve air quality slightly by shifting travel to transit modes. By attracting more passengers to transit, the LPAP2 leads to more improvement in air quality as shown in Table 7.7-2, which compares the LPAP2 with the TSM Alternative. The LPAP2 will reduce criteria pollutants and precursor emissions, as well as greenhouse gases compared to the TSM Alternative. Reducing air pollution will help the Sacramento region address its severe (ozone) and moderate (PM_{10}) EPA air quality designations. See Section 4.3, Air Quality, for more information.

Table 7.7-2: Reduction in Air Pollution by LPAP2 Alternative

Pollutant	Tons per Year Reduction
CO	– 6.09
NO_X	– 2.38
VOC	–3.20
PM_{10}	– 0.15
Greenhouse Gases (CO_2)	– 772.63

Source: Parsons, 2006.

7.7.5.2 MINIMIZE IMPACTS ON RESOURCES, CONFORM TO ENVIRONMENTAL REGULATIONS

Impacts to biological resources would be greater under the LPAP2 than under the TSM Alternative. Avoidance measures have been implemented in project design to minimize harm to special-status species, and mitigation is provided to ensure no net loss of habitat values. Thus, the No-Action and

TSM Alternatives are rated neutral and the LPAP2 slightly negative on this measure. See Section 4.4, Biological Resources, for more information.

The project would not have any impact on historic architectural resources as no project area architectural resources were found to appear eligible for listings in the NRHP or CRHR. Also, no archaeological resources were found to appear eligible for the NRHP or CRHR, but there is a possibility of uncovering unanticipated cultural resources. In general, however, the effects of the alternatives on corridor cultural resources would be neutral. See Section 4.5, Historic and Cultural Resources, for more information.

7.7.5.3 CONSIDER AESTHETICS IN TRANSPORTATION PLANNING

Construction of the TSM Alternative and the new LPAP2 LRT facilities would introduce visual changes that would be perceived by motorists, residents and business occupants within the project corridor. However, they would not substantially degrade scenic views or introduce obtrusive visual elements substantially out of character with existing land uses. All three alternatives are rated neutral on this criterion. See Section 4.1, Aesthetics, for more information.

7.7.5.4 MINIMIZE THE DISPLACEMENT OF HOMES AND BUSINESSES

Acquisition and relocation measure a potential displacement associated with the optional pedestrian overcrossing of CRB. The No-Action and TSM alternatives would involve no displacements.

The TSM Alternative would require the acquisition of approximately 16.7 acres of land to construct one bus park-and-ride (PNR) lot within the study area.

The LPAP2 would require an approximate 53.3 to 66.0 acres of land. If the optional pedestrian overcrossing of CRB were selected, this alternative would require the displacement of one residential property. Thus the No-Action Alternative and TSM alternatives would have a neutral effect, and the LPAP2 would have a negative effect under one design option. See Section 4.13.3, Property Acquisition and Relocation, and Section 4.13.4, Effects on Neighborhoods and Businesses, for more information.

7.7.5.5 MINIMIZE AND MITIGATE NOISE POLLUTION

Effects of the No-Action Alternative on corridor noise levels would be negative as traffic volumes and congestion continued to increase. These impacts would be very slightly lessened under the TSM Alternative, given the shift from motor vehicle to transit use. Noise impacts under the LPAP2 after mitigation would be similar to those under the TSM Alternative. Thus, the No-Action Alternative is rated slightly negative, while the TSM Alternative and the LPAP2 after mitigation would be neutral. See Section 4.12, Noise and Vibration, for more information.

7.7.5.6 CONSERVE ENERGY

The TSM Alternative will reduce direct energy consumption by 19,484 million BTUs per year in comparison to the No-Action Alternative. The LPAP2 will reduce direct energy consumption by an additional 17,525 BTUs per year. See Section 4.11.2, Energy, for additional detail.

7.7.5.7 CONSERVE LAND

Based on the discussion of land acquisition under Subsection 7.7.5.4, Minimize the Displacement of Homes and Businesses, the No-Action and TSM alternatives would have a neutral effect, and the LPAP2 would have a negative effect if the pedestrian overcrossing over CRB design option were selected.

7.7.6 Community Considerations

The alternatives are rated from - - or – (negative) to 0 (neutral) to + or ++ (positive), depending upon their expected relative effect, for each of the objectives listed below.

7.7.6.1 MINIMIZE THE DISRUPTION OF NEIGHBORHOOD COHESIVENESS AND QUALITY OF LIFE

The predominant use of existing rail and highway rights-of-way for the LRT would minimize impacts to neighborhood cohesiveness and quality of life. While there would be no displacements associated with the park-and-ride lots for either the TSM Alternative or the LPAP2, the creation of the lots would still constitute some impact to the adjacent residential neighborhoods. Consequently, both alternatives would be rated slightly negative, with the TSM Alternative having a slightly negative effect, and the LPAP2 having the most negative effect. See Section 4.13.3, Property Acquisition and Relocation, and Section 4.13.4, Effects on Neighborhoods and Businesses, for more information.

7.7.6.2 MAXIMIZE THE SERVICE TO, AND MOBILITY OF, THE TRANSIT-DEPENDENT AND TRANSPORTATION-DISADVANTAGED

To the extent that senior communities may be transit dependent, both alternatives would have a slightly positive effect because of the inclusion of senior housing in the College Square development adjacent to the CRC LRT Station or the CRC Transit Center (under the TSM Alternative). See Section 7.7.2.5, Improve Accessibility for the Disabled and Senior Communities, for explanation.

7.7.6.3 ENCOURAGE THE ECONOMIC REVITALIZATION OF LOW-INCOME AREAS

The proposed project may have some effect on the revitalization of the whole South Sacramento Corridor by virtue of improving access as described above and by creating short-term construction related jobs. Economic revitalization in the corridor is rated by the provision of temporary construction-related jobs. Just under half of the jobs tabulated in Section 5.2.7, Construction Employment, would occur in the corridor, with the rest being drawn from the regional and national markets for construction materials and labor. Because jobs are proportional to the investment, the No-Action Alternative would be neutral, the TSM Alternative would be positive, and the LPAP2 would be the most positive. See Section 5.2.6, Employment, for more information.

7.7.6.4 SEEK A FAIR DISTRIBUTION OF COSTS AND BENEFITS AMONG DIFFERENT POPULATION GROUPS

With the LPAP2 funding sources identified in Section 2.6 above, RT would invest almost $153 million (in year of expenditure dollars) to improve transit service in the South Sacramento Corridor. With the TSM Alternative, RT would invest $33 million (year of expenditure dollars) to improve transit service in the area. By most measures, the study area has higher than average percentages of ethnic

minority and low-income populations. The percentage of households below the poverty line is about average for the City of Sacramento, and above average for Sacramento County.

As illustrated in Table 7.7.1, transit travel time would be improved from the area to the Sacramento downtown, measurably increasing the accessibility of area residents to jobs. Improved access to station areas would augment economic development potential in the community. As discussed in Section 5.2.6, Employment, construction spending would also create jobs in the corridor over the construction period, with the LPAP2 creating more jobs than the TSM Alternative.

The project would thus have positive equity implications because it would concentrate benefits achieved through local, state and federal funding in an area with relatively higher than average percentages of low-income households and ethnic minority populations. See Section 4.13.1, Demographic Characteristics, for more information.