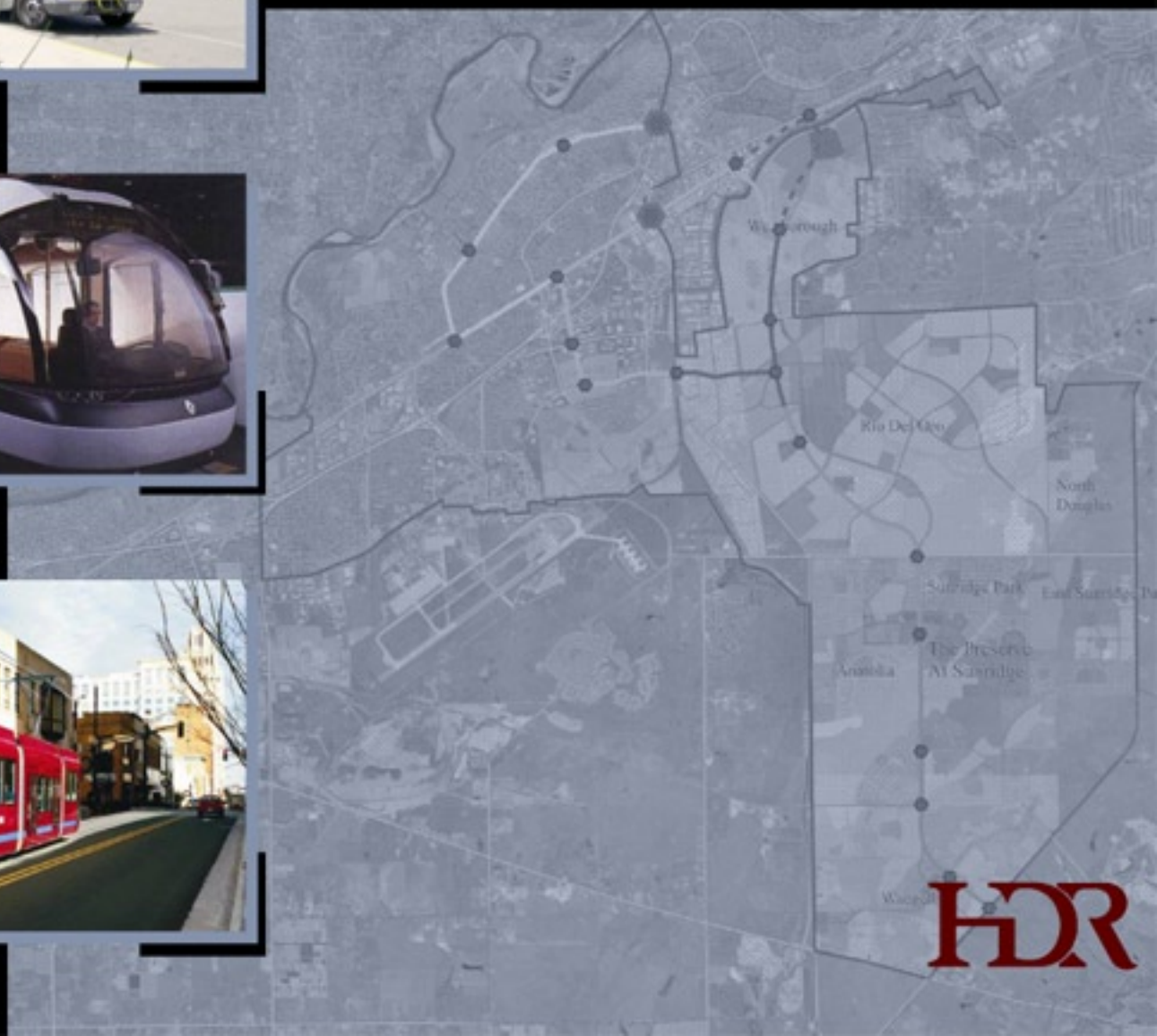
CITY OF RANCHO CORDOVA
CALIFORNIA
Incorporated 2003

Transit Master Plan

August 2006

Creating Places Where People Want to Be



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Executive Summary

The City of Rancho Cordova Transit Master Plan is the first of several planning documents that are intended to detail the City's recently adopted General Plan. Pedestrian and Bicycle Master Plans will follow and will also help shape the City's goal to provide safe and attractive alternative modes of travel.

The vision for transit in the City of Rancho Cordova provides new access opportunities for neighborhoods and serves to revitalize business centers. This vision will be accomplished through planning principles that join neighborhoods and provide new opportunities for connectivity across barriers exist today. Marketing and informational services will also promote a transit system that is "Fun, Fast and Frequent".

The Transit Master Plan proposes a system of city, neighborhood and regional services. The "Signature Service" will connect residents to businesses, shopping and recreation, and will provide a branding mechanism that will serve broader economic planning goals. An innovative approach for funding the 18.5 mile signature service routing will be will be needed over the next 20 years. The phasing plan will build an initial three mile streetcar route costing approximately sixteen million dollars per mile with follow up operations and maintenance costs of a about three million dollars annually.

In a shorter time horizon, shuttle services will provide access to neighborhoods and businesses within the City, and will connect to Regional Transit's Light Rail Gold Line. Neighborhood shuttle services are being initiated for new neighborhoods through the City's Special Tax for Transit Related Services (CSA10). Funding for shuttle services in existing neighborhoods has not been identified.

Proposed regional services, coordinated with Sacramento Regional Transit, will focus on future Bus Rapid Transit routes and additional stations along the Light Rail Gold Line. Light rail stations are proposed at Horn Road and at the Mine Shaft property.

Regional Transit's Bus Rapid Transit service will require additional right-of-way at intersections, and along congested segments of arterial roadway. The proposed Sunrise Boulevard Bus Rapid Transit corridor identifies alternative routes that should be resolved in the short term so that appropriate lead time can be provided to the development community.

The Transit Master Plan provides a bold approach to improve the mobility of citizens and to promote economic development and tourism in the City of Rancho Cordova. Extensive advocacy and development efforts will be needed to realize the great urbanism concepts promoted by the plan, focusing toward a balanced multi modal transportation system.

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INTRODUCTION

The purpose of the Transit Master Plan is to provide a multi-modal approach to support mobility as presented in the City of Rancho Cordova's General Plan. This plan is a supplemental document that feeds into the Land Use, Circulation, Economic Development, and Air Quality Elements the City has adopted. This plan represents a great challenge for Rancho Cordova, as it works to fulfill its vision – *Build a City*. Rancho Cordova is not just a city, but it is a unique city with great aspirations and vision for its future.

To accomplish this vision, the City of Rancho Cordova requires at least five key characteristics:

Great Urbanism – A City form that is authentic, enduring, diverse, connected, and defines its character and qualities

Great Centers – A full range of attractions to serve the economic, social and cultural needs of current and future Rancho Cordova community members

Great Parks – A parks, open space, bicycle and pedestrian system that reinforces the urban form and supports sustainability

Great Streets – A network that goes well-beyond "service requirements", instead, being an equal partner in defining the City's form, as well as function. Streets are the most significant investment of the public realm, and they should be treated as urban landscape elements

Great Transit – Transit must never be an "alternative", but rather an integral component of Rancho Cordova's mobility system. To achieve that "Great City" ideal, the city should not rely on single occupancy vehicles to define its mobility. A system rich in modes, and connected to the regional system, truly will move Rancho Cordova toward the greatness it desires.

The City is at a critical moment in its young history. With the majority of the development "on paper", Rancho Cordova truly is a future city. This is an exciting, but daunting prospect. As it considers its transit future, in conjunction with the land use vision, the City must now consider how current and future residents will move around…for work, for shopping, for recreation…or any other purpose. Transit can be a great partner in the City's development, as it is a shaping and connecting tool. Well-placed and timed transit is a powerful investment that:

- Reinforces healthy neighborhood patterns by providing new access and opportunities for compatible infill development
- Re-energizes downtowns and other urban districts through the introduction of circulators

- Revitalizes by-passed properties into more productive real estate and community assets, including residential centers, even as the Sacramento Region expands
- Redirects future land use patterns to be more transit supportive, offering the ability to create more diverse, walkable, mixed use communities.

All of these factors exist in Rancho Cordova. Therefore, as it matures, there is an opportunity to begin using the power of transit to help create the future city - *now*.

The Planning Team for the Transit Master Plan project understands the demands placed on Rancho Cordova based on its current and anticipated growth patterns and expectations. As it matures as a City, several modes of transit are potentially available – Streetcar, Bus Rapid Transit (BRT), buses, shuttles, among others. Then, a truly effective mobility system will emerge that can propel the City to its desired future. That is the role and function of the Transit Master Plan.

Vision Statement and Planning Principles

A clear vision for transit, consistent with the City's overall vision, helps direct the development of the Master Plan. The Vision for Transit is supported by a set of Principles that lead to further expansion into goals, policies and actions (Appendix B).

The Transit Vision

Rancho Cordova will be one of California's premier transit-supportive communities. Transit and land use will forge a powerful partnership to create a livable and memorable Rancho Cordova.

The Transit Master Plan Principles

There are five principles guiding the development of individual transit services within the City.

Join Existing and Future City Area. Currently, the City of Rancho Cordova has development on both the north and south sides of Highway 50. There are limited routes that cross the freeway, creating a barrier to joining the two areas with frequent, well connected, and attractive transit services. The City needs to connect both areas to have a sense of unity. The newly developing areas such as Rio del Oro, Sunridge and Suncreek, should also be linked. Every attempt is made to provide a one seat, high frequency ride to as many of the city's residents as possible. This principle is primary in developing the Transit Plan.

Foster North/South, East/West Connectivity. Achieving the principle of providing high quality service that will encourage the citizens of Rancho Cordova to leave their cars at home and utilize attractive transit will depend on how well the transit network is put together. The intent of the Master Plan is to provide the maximum level possible of connected transit services. This allows easy access from existing neighborhoods to downtown and to the new neighborhoods.

Possible Adjustments to Current and Future Routes. Today, Sacramento Regional Transit (RT) provides service coverage for the City. However, limited or low frequency service makes current transit less attractive than the private automobile. For example, most routes operate on 60-minute headways throughout the day. The current service schedule or span-of-service (total hours of day the route operates) is limited. There are opportunities with the existing RT routes to consolidate and reallocate more frequent and efficient services. Such consolidations can yield cost savings for RT and enhance service to the City.

Clarify and Identify System to Riders. The next principle is to ensure public awareness of the current and future transit routes. If transit is to be a primary means of movement, the system must be visible and accessible. Public awareness is a vital component to the success of all transit service systems. Special emphasis is placed on public communication to define the benefits of transit. The intent of the recommended "Signature Route" is to identify the primary transit corridor as the City's commitment that transit is central to its mobility network.

Make Service Fun, Fast & Frequent. The bottom line is to create a new transit system that is fun, fast and frequent. These attributes are essential if the City is to have the type of transit system it desires.

Types of Transit Service

To implement the Vision and Goal, three types of transit (City, Neighborhood, and Regional) provide the service expected by City residents.

City

This type of transit service is similar to the services that RT currently provides for Rancho Cordova. City service is characterized as a major grid of routes. In this service type, the Plan recommends a "Signature Route" that visually represents the core of the new transit system. Streetscape, signage, shelters and amenities along this route create a memorable experience reflecting the quality and character required to assure the citizens that transit is coming - and it is of high quality. The City service extends out from this route. The Signature Route connects older neighborhoods with new ones; business centers with residential areas; both sides of Highway 50; and Rancho Cordova to the regional Light Rail Transit System (LRT).

Since the Signature Route runs through current and future development areas, it will have several different vehicle types (buses, shuttles, and streetcars), depending on the neighborhood and the transit need. When the City completely builds out, the preferred "Signature" vehicle is the streetcar, ultimately for the entire length of the Route.

Neighborhood

This type of transit service operates as a complement to the City service. It is a flexible service to existing neighborhoods (and future neighborhoods as they develop). The proposed service also serves youth, seniors, disabled and economically disadvantaged City residents. Current paratransit and on-call services fall into this service type.

Regional

These service types connect the City to the region and the region to the City. These services allow fast, frequent and limited stop transit for:

- Residents of Rancho Cordova to travel quickly and comfortably to destinations outside of the City for work, shopping and recreation
- Residents living outside of the City to reach their places of employment and other destinations in Rancho Cordova
- Residents outside Rancho Cordova who want to travel quickly through the City to their final destinations.

Regional service includes the existing LRT system and possible future BRT corridors. BRT is a service type – not a vehicle type – and it functions in the same manner as LRT. BRT is a longer distance service with fewer stops. BRT corridors are planned to preserve right-of-way in planned developments, as well as finding right-of-way within built up areas.

City/Neighborhood Service

This section presents a combined City/Neighborhood services discussion. This is appropriate since City and Neighborhood services work in tandem. Within Rancho Cordova, transit is a "nested" service - that is one type complements and connects with the other. The City/Neighborhood services reflect:

- A "Signature Route" that is the centerpiece of current and future transit service. This route is a clearly defined corridor, using high quality urban design features that demonstrate the City's commitment to transit.
- A set of current and/or future RT routes that build off the Signature Route.
- Other routes the City may implement independently of RT or in conjunction with other jurisdictions, such as Elk Grove, Folsom, and El Dorado County.

The City/Neighborhood combination illustrates how the service fits into the overall system. These service types are distinct, with different routings and different modes of operation. They make the overall transit system function in a complementary, cohesive manner. The details of individual bus routes, their origins, destinations, and other operational characteristics are part of future Transit Plan development.

All areas of the City receive service, with the goal of:

- Linking north/south and east/west travel movements
- Defining a Signature Route and vehicle type for system identity
- Building a larger transit grid from the "Signature Route"
- Connecting neighborhoods to the regional system.

City/Neighborhood service consists of buses, streetcars, and shuttles. The service:

- Principally is intra-city service in nature
- Provides transit as a true mode of choice
- Introduces the modern streetcar as an attraction for new riders
- Supports compact, walkable neighborhood development
- Generally runs in the street
- Has variable station or stop spacing
- Has a frequency of service in the 10 – 20 minute range.

For the City, this service would be a major bus network/grid that generally follows existing and planned arterials or major thoroughfares. Existing RT bus service may be part of the network, as well as other modes such as BRT (see Regional section) and streetcars. The discussion of changes to the existing RT system is in the following section on Neighborhood service.

The implementation of City and Neighborhood services will be over the next 1, 5 or 20 years. Activities of future Transit Plan development will determine:

- What service types are rendered
- Who will be served
- Who will operate the service (RT, the City, or some other agency)
- Vehicle needs

- Capital costs
- Annual operating costs
- Other costs/funds for transit service.

The City service builds on the concept of a "Signature Route", as indicated previously.

Signature Route

A Signature Route is the centerpiece of the City type service. This route clearly identifies the City's commitment to transit. Since much of the City is still developing, the Signature Route implementation is in stages. During the years when the staged implementation is taking place, the streetcar will operate in those sections of the Route that can support such service. Areas such as Downtown Rancho Cordova may be such an area, and here the Signature Route will operate as a "Pedestrian Accelerator" and have potential stations or stops located approximately 800' apart. Other sections, as they develop, may have the streetcar extended to meet the demand. In the meantime, buses can bridge the gap to keep the concept of the Signature Route alive. Nonetheless, the route is the "backbone" of the City service.

To make the Signature Route truly memorable, the modern streetcar is the recommended mode. A high image streetcar conveys to the region that Rancho Cordova is becoming a transit- supportive community – a place where citizens can travel safely and comfortably without a car. Since the streetcar route will be developed in stages, buses and shuttles would provide initial service to these routes.

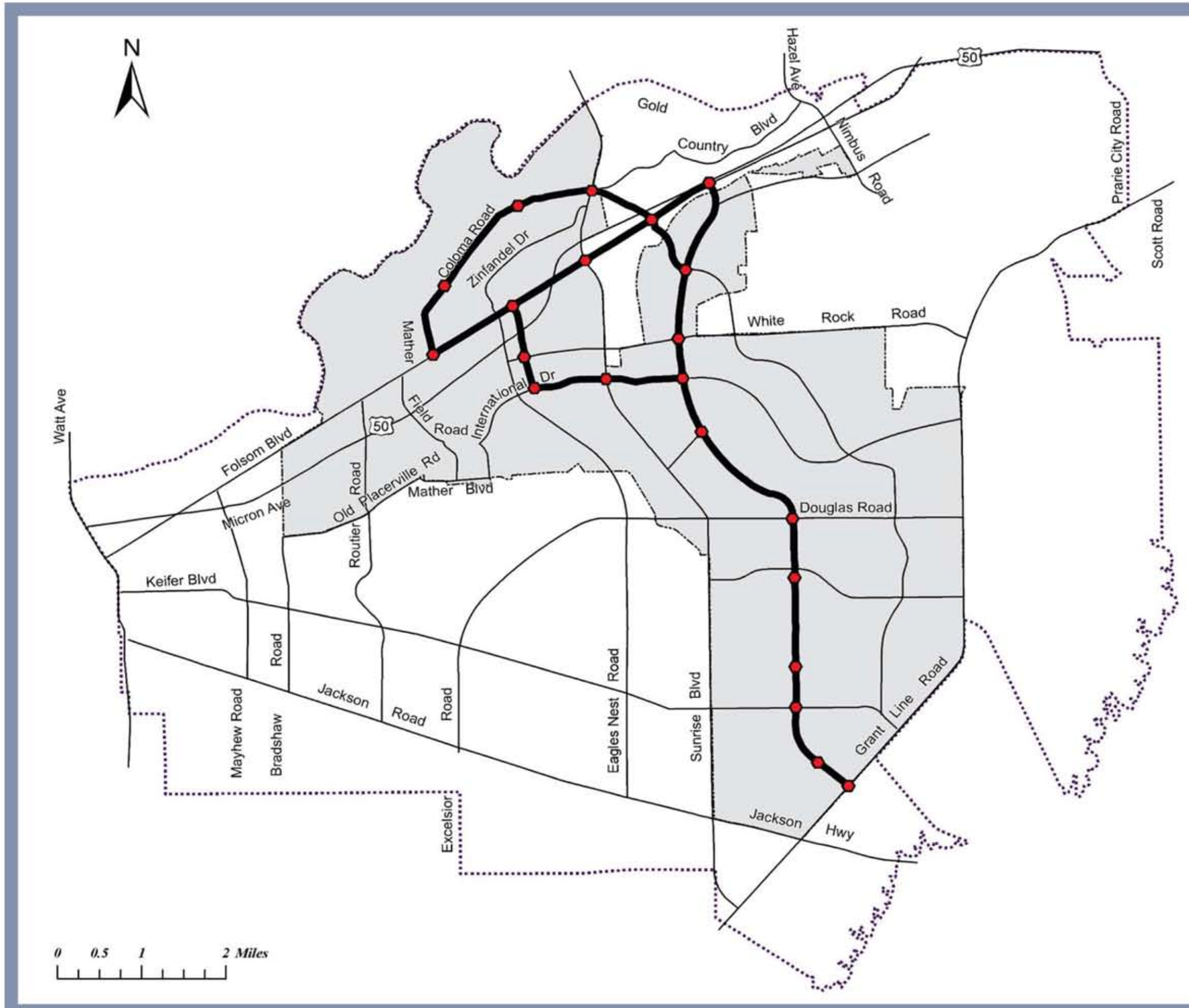
The Signature Route is 18.5 miles long, spans the entire length of the City from south to north, including north of Highway 50. Figure 1 highlights the proposed Signature Route. It follows Rancho Cordova Parkway from Grant Line Road in the south to Citrus Road (Citrus Road is a future connector to Folsom Boulevard), proceeds north on Sunrise to Coloma, and returns east along Folsom Boulevard to downtown. From downtown, the Route follows the proposed "Promenade" south to International Drive, where it turns east to rejoin Rancho Cordova Parkway. A connection to the Mine Shaft property and other points along Folsom Boulevard are also included.

Service on the Signature Route operates in a bi-directional manner that will allow passengers to pick the fastest trip for them based on where they are located. The Signature Route connects new and existing neighborhoods such as:

- Coloma/Zinfandel Neighborhoods
- Anatolia
- Suncreek
- Downtown District
- Villages at Zinfandel
- Rio del Oro
- Westborough
- Capital Village

The Signature Route provides frequent and fast service that easily connects to the Regional service. There are 21 potential stations, 19 of which are proposed to have a higher level of amenities than a traditional bus stop and 2 potential stations are proposed to have a higher level of amenities than the other 19 stations that could serve more than one mode. Amenity levels for the 19 potential stations can include: an expanded shelter or spaceframe, seating, signage, off-board fare payment, trash receptacles, emergency call box, next trip technology or other Intelligent Transportation hardware. Amenity levels for the remaining 2 potential stations can include those listed above plus additional pull-in bays for other bus service connections and parking. These high-end amenities reflect the level of investment that the City is making with a service of this type. On this alignment, there may be a need for additional right-of-way, especially within 200' of a rail station.

Figure 1.
Signature Route



Legend

- Potential Location for High-End Amenities
- Signature Transit Station
- Planning Boundary
- Roads
- City Limits

The Streetcar Service

Practice shows that 2.5 - 3.0 miles is a workable length for a starter line. Downtown is the place to start, since it is a redevelopment area, and the streetcar can serve as a catalyst to further redevelopment efforts. General issues with respect to streetcar implementation include:

- Streetcars are in-street running with mixed traffic
- To facilitate pedestrian access, streetcars run in the outside lane next to the curb line
- Simple streetcar stops are part of the pedestrian zone, and next car technology gives confidence to riders
- On-board technology can facilitate smooth operations, including signal priority and queue jumping
- Vehicles are only 8.5' wide allowing travel on narrow streets such as Capital Village. Turning radii are tight allowing access to most City streets
- North-south access into downtown is via the proposed Promenade, allowing a convenient crossover for Highway 50
- Streetcar stops should coordinate with LRT stations, allowing easy intermodal connectivity
- Construction, absent expensive structures, can be fast-tracked, with an installation period of 14-16 months for a 2.5-mile route.

Once a starter line is in place, extensions are easier after the success of the service is established. If the City decides to pursue federal funds, the cost of a locally funded project can be a match for federal funds.

The Streetcar Loop

Within this Signature Route, the streetcar is the preferred vehicle. Because the Signature Route is approximately 18.5 miles long, and is located in future development areas, only a portion of the route would initially be served by streetcar. That portion of the Route is the streetcar loop and it is 7.0 miles in length, consisting of three segments/stages (Figure 2):

Segment/Stage 1 - International Drive from Sunrise Boulevard to Capital Village, where it turns north to join the proposed Pedestrian Promenade across Highway 50 into downtown, then paralleling Folsom Boulevard back to Sunrise Boulevard;

Segment/Stage 2 – Paralleling Folsom Boulevard to the area near the Citrus Road connector and turning southeast and joining the Rancho Cordova Parkway along a new roadway alignment; and

Segment/Stage 3 – From Rancho Cordova Parkway to the proposed International Drive extension, and turning back west on the proposed International Drive extension to Sunrise Boulevard.

These segments allow for cost-effective, focused implementation of the streetcar service.

Figure 2 shows a dashed line that represents a routing option from Rancho Cordova Parkway to the town center at the proposed Mine Shaft LRT station, returning along Folsom Boulevard to the Citrus Connector. The town center serves as a destination with an array of restaurants, movie theaters and retail and offices.

Streetcar Planning Cost Estimates

The capital costs for the 7.0-mile streetcar loop is approximately $110.9M (exclusive of Stage 3A). Annual operating costs for Stages 1, 2, and 3 are approximately $5.25M per year.

Streetcars capital costs are approximately $15.7M per track mile. The cost components of the estimate include:

- Track work and electrification - $9 million
- Vehicles - $2.75M
- Stops - $70K
- Maintenance facility - $10M Total Cost (Only One Needed)
- Annual operating costs - $750K per mile.

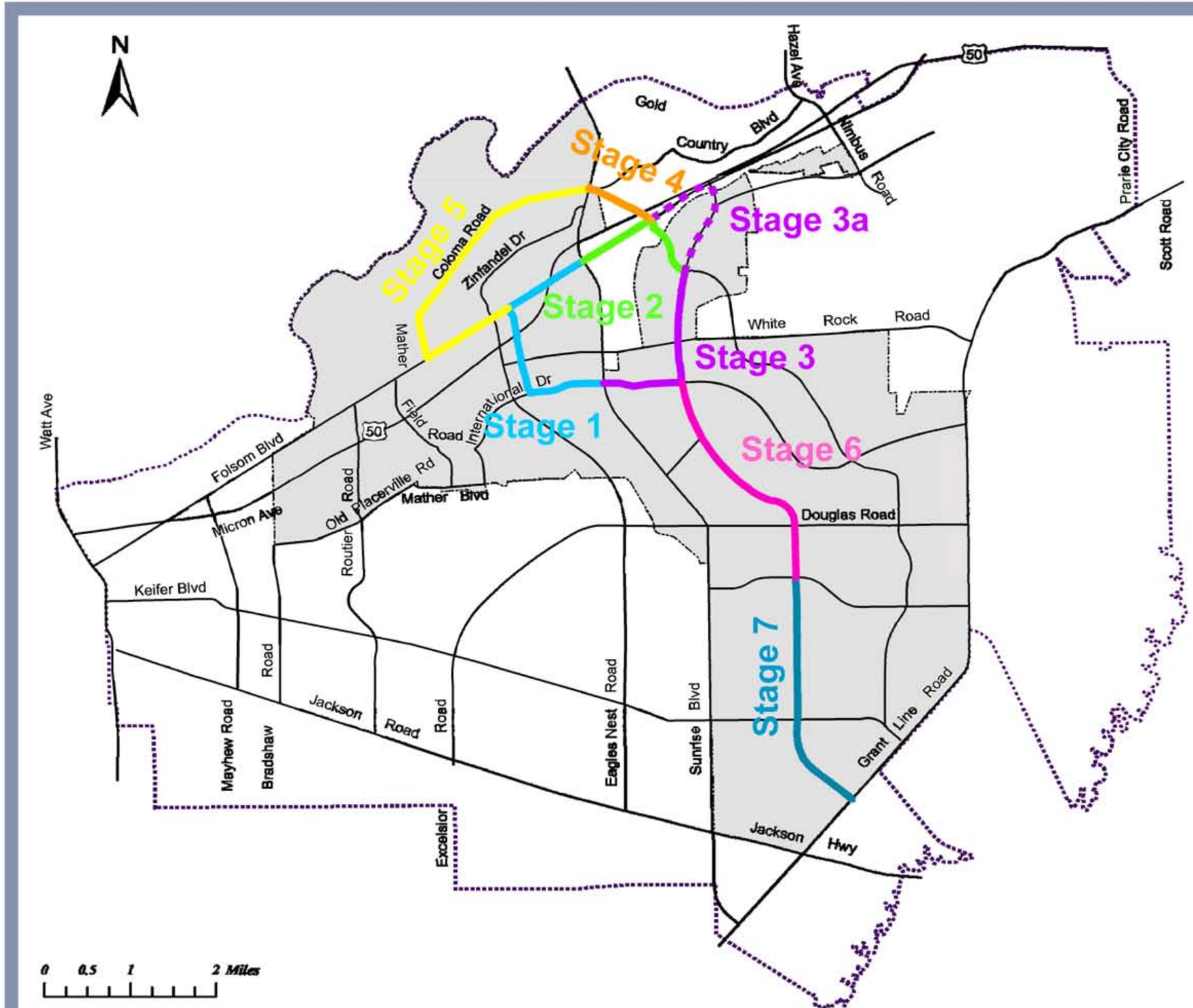
The costs shown are for single track, and excluding the maintenance facility, costs for bi-directional (double track) are $23.4M per mile. Costs do not include right-of-way or structures.

Figure 2 shows Stages 1-7 that constitute the Signature Route. Only Stages 1-3 are streetcar lines. These three stages make up the streetcar loop, and Stage 3A is the option to the Mine Shaft LRT Station/Town Center.

- Stage 1 – approximately 3.0 miles, $47.1M
- Stage 2 – approximately 1.7 miles, $27.7M
- Stage 3 – approximately 2.3 miles, $36.1M
- Stage 3A – approximately 2.0 miles, $31.4M

While the City is building Stage 1, it can plan and conduct preliminary engineering and funding for other stages. Until a complete streetcar system is ready, specially designed buses can serve as a "placeholder" for future streetcar extensions. This way, the public will recognize Rancho Cordova Parkway as a true transit corridor. This interim bus service may hasten the public's willingness to complete the streetcar system as proposed.

Figure 2. Signature Route Development Stages



Legend

- Stage 1: 3.0 miles $47.1 million
- Stage 2: 1.7 miles $27.7 million
- Stage 3: 2.3 miles $36.1 million
- Stage 3a: 2.0 miles $31.4 million
- Stage 4: 0.8 miles
- Stage 5: 4.3 miles
- Stage 6: 2.9 miles
- Stage 7: 3.0 miles
- Planning Boundary
- Roads
- City Limits

Neighborhood Connectivity and Service Enhancements

The Neighborhood level is where the concept of local transit service is fully developed. In neighborhoods and districts, the citizens of Rancho Cordova see transit as a reality. Currently, RT provides direct service to the City with the following modes and routes:

- Light Rail Gold Line – Downtown – Folsom. Stations within Rancho Cordova are located at Sunrise Boulevard, Cordova Town Center, Zinfandel, Mather Field/Mills, and Butterfield
- 21 Sunrise – operates to and from Mather Field/Mills light rail station via: Folsom Boulevard, Coloma Road, Sunrise Boulevard to Sunrise Mall
- 28 Fair Oaks/Folsom – operates to and from Butterfield light rail station via: Folsom Boulevard, Cordova lane, Zinfandel Dr, Sunrise Boulevard, Fair Oaks Boulevard to Sunrise Mall
- 72 Rosemont/Lincoln Village – operates to and from Watt/Manlove light rail station and Mather Field/Mills light rail station via: Kiefer Boulevard, Branch Center/Bradshaw, Lincoln Village Drive, Routier, Rockingham and Mather Field Road
- 73 White Rock – operates to and from Mather Field/Mills light rail station to Sunrise Boulevard light rail station via: Mather Field Road, Rockingham Road, White Rock Road and Sunrise Boulevard
- 74 International – operates to and from Mather Field/Mills light rail station to Sunrise Boulevard light rail station via: Mather Field Road, International Drive, Data Drive, Reserve Drive, Zinfandel Drive, Data Drive, White Rock Road, Prospect Park Drive, Sun Center, Trade Center Drive to Sunrise Boulevard
- 75 Mather Field – operates to and from Mather Field/Mills light rail station to Mather Field/Mills light rail station via: Mather Field Road, Rockingham Drive, Old Placerville Road, McCready Avenue, Mather Boulevard, Femoyer Street, Whitehead Street and Mather Field Road.

These transit services are described in detail in the Existing Conditions report (Appendix C).

In general, the neighborhood connectivity and service enhancements will be based on:

- Working with RT to identify possible adjustments to existing bus services that:
  - Offer one-seat rides as often as possible
  - Consolidate existing services that will offer more frequent service using fewer vehicles at no increase in level of expenditure
  - Develop neighborhood services that utilize smaller vehicles that can get closer to the individual rider than larger buses.

- Neighborhood services that will connect residents and employees with RT routes and the Signature Route can also be provided by buses, shuttles or vans. Paratransit's Dial-a-Ride service can be continued and expanded to provide daily fixed route service along neighborhood streets. As service is developed, there will be an opportunity to evaluate alternative organizational and management strategies, which could include services provided by a City-owned and operated system or a mix of service options based on scale and type of service required, including public-private partnerships.

  Figure 3 illustrates potential service routes that demonstrate how existing neighborhoods can be served. These route concepts can also be expanded as new neighborhoods are developed. This figure also identifies future RT Light Rail Stations at the Mine Shaft and Horn Road that will be the topic of continued discussion with Regional Transit.

Neighborhood Connectivity Cost Estimates

During future planning efforts for the City, refined cost estimates will be developed for short- and long-range service plans. These plans will identify the most cost-effective transit services to be implemented in any given year.

Typically, the cost for proposed transit services is based on:

- Length of route in miles
- Frequency of service
- Span-of-service
- Hourly cost
- Revenue hours
- Route speed in mph
- Trip time in minutes.

The following is an example of how planning level costs for proposed transit service are calculated. A proposed route has a round trip length of ten miles. The proposed route has the following operational characteristics:

- 15 minute peak frequency – 24 round trips/day (6:00 to 9:00am & 3:00 to 6:00pm)
- 30 minute off-peak frequency – 16 round trips/day
- Span-of-service 6 a.m. – 8 p.m.
- Route speed in mph (average 12 mph)
- Trip time in minutes – 50 minutes/round trip
- Revenue hours/day – 50 minutes x 40 round trips/day = 33.3 revenue hours/day.
- Hourly cost $77/hour (RT cost per hour 2005).

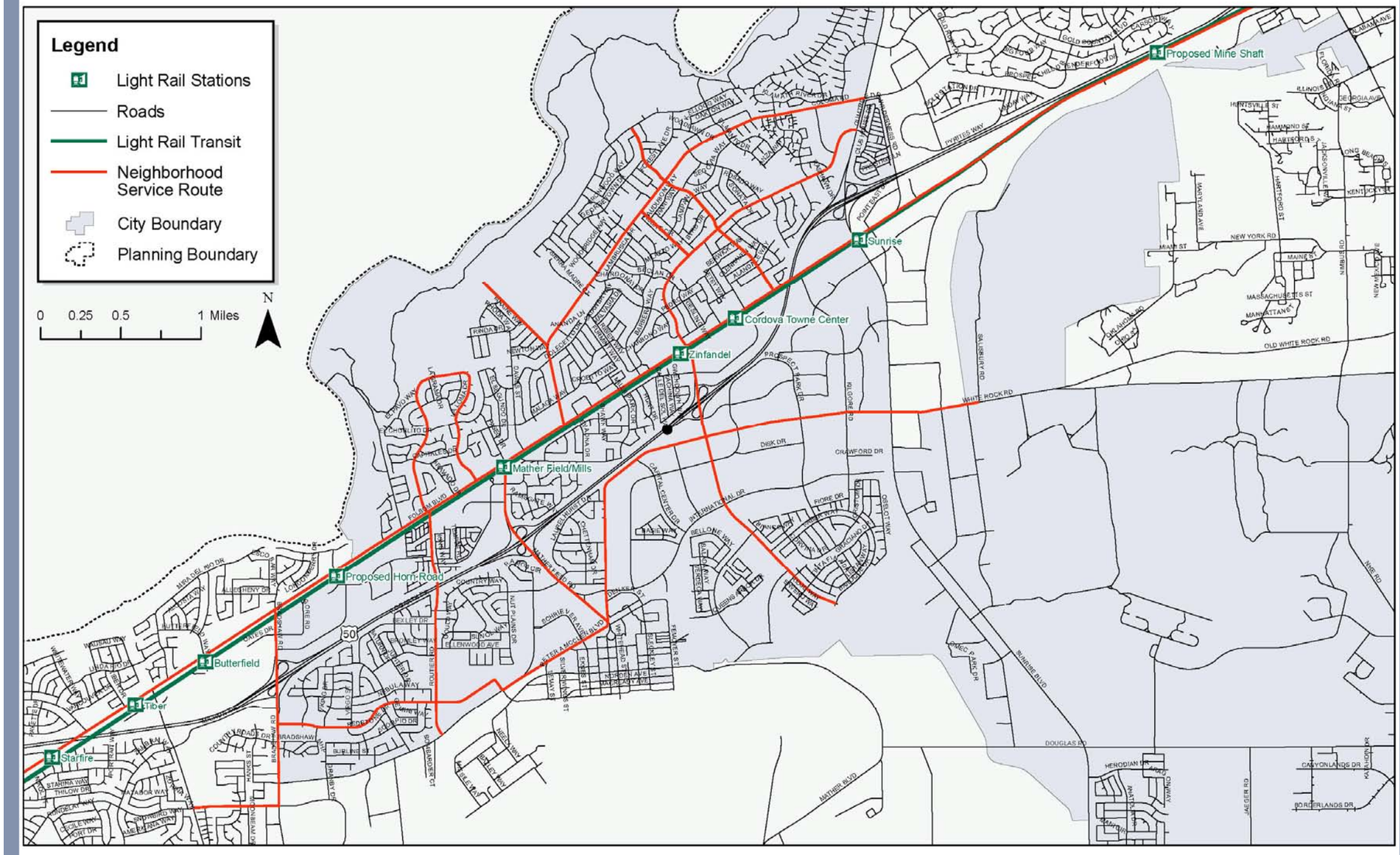


Figure 3.
Potential
Neighborhood Transit
Service Routes

The example route is ten miles in length, has a 50 minute round trip time, and can expect to consume 33.3 revenue hours each day. Multiplying 33.3 revenue hours by $77/revenue hour gives an approximate cost per day of $2,566, or $654,500/year based on 255 weekdays/year. If service were offered on Saturday and/or Sunday, estimated costs would be higher.

RT Service Enhancements

The design and implementation of possible adjustments to the existing transit system, as well as potential new services, could begin with reorganizing current RT services in the City. Future Transit Plan development could detail adjustments to create new routes that are more efficient, offer better connectivity both within the City and to other nearby major activity centers, and offer one-seat rides to shopping and employment for City residents as well as for others outside the City limits. Route combinations could be developed in such a way that will work seamlessly with LRT, the new Signature Route and other neighborhood services that may be implemented in the future. Current routes, with minor changes, could be reconfigured and consolidated for efficiency, to provide more connectivity with fewer transfers, and to be more competitive with the private automobile. Figure 4 is an example of a possible route consolidation.

Figure 4 shows a conceptual consolidation of Routes 21 Sunrise and 75 Mather Field. Currently, Route 21 Sunrise operates from Sunrise Boulevard (Sunrise Mall) in the north and ends at the Mather Field/Mills light rail station. Route 75 Mather Field, operates south of Highway 50 in the City's downtown area and then circulates back to the Mather Field/Mills light rail station. Today, these routes operate independently even though they serve the same light rail station. If riders want to reach the south side of Highway 50, they would have to transfer. Consolidating these two routes eliminates the need for a transfer and decreases travel time for patrons.

Regional Service

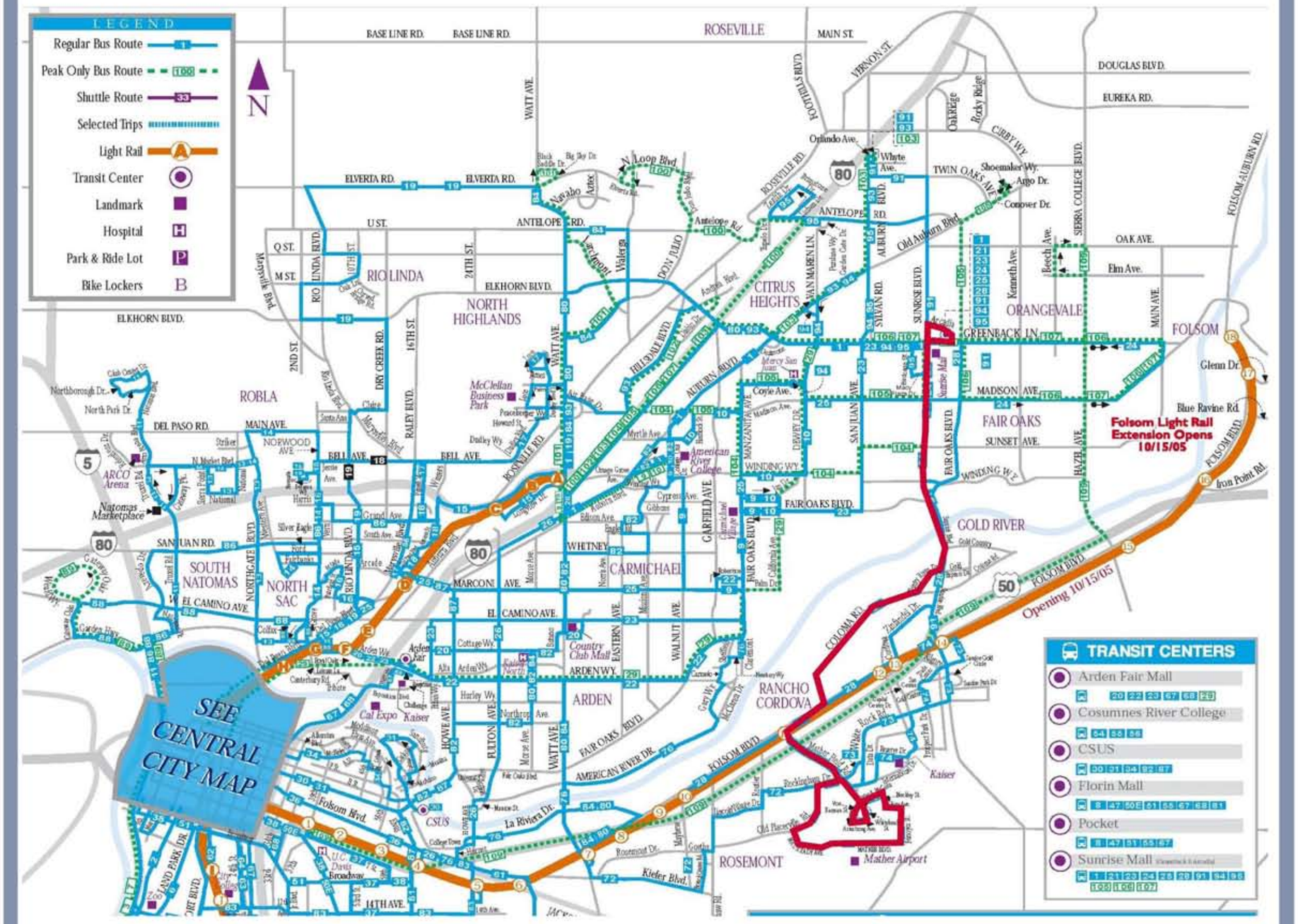
Rancho Cordova is an important area within the Sacramento region. The proposed regional service connects the City of Rancho Cordova with the overall Sacramento Region via transit. The service is fast, frequent and has limited stops. Regional service is important because it:

- Connects City residents to regional employment, shopping and recreational destinations
- Allows employees living outside of Rancho Cordova to have transit access to employment and other destinations in the City
- Provides a convenient pass through means of transportation for riders not having a trip that ends in the City.

SAC LRT Vehicle

"Cool" BRT Vehicle

Figure 4.



Map Source: Sacramento Regional Transit District Regional Transit Bus & Light Rail System Map
Effective September 4, 2005

Conceptual Bus
Route Consolidation

21 Sunrise/
75 Mather Field

Currently, RT's LRT system traverses Rancho Cordova west to east. In addition, the plan suggests complementary BRT corridors. The LRT and BRT routes, shown in teal and solid blue lines, respectively on Figure 5, indicate expanded north to south and east to west connectivity. LRT and BRT:

- Are principally longer, commuter-serving routes;
- Are oriented to travel time savings; stations are spaced one-half to one mile apart;
- Are built as separate, fixed guideways; and
- Have service frequency of 15 minutes or less.

BRT Transit Service

As indicated, ***BRT is a type of service, not a vehicle style or type***. Therefore, there are multiple options for vehicles. Vehicles for BRT service can be the high-end style, resembling LRT vehicles, but having rubber-tires. Standard buses also are candidate vehicles, and they may be given special paint and design applications for identity purposes, distinguishing them from City type service vehicles. As long as the routes operate on a fast, frequent and limited-stop basis, they are regional-type transit services. Regional Transit Goals, Definitions and Guidelines are provided in Appendix E.

This proposed BRT system surrounds Rancho Cordova, and will provide a network of conveniently located routes that serve regional destinations. Regional BRT service will likely be provided by Regional Transit, unless the City desires to run other service, such as a direct Rancho Cordova line. The intent is to have each BRT line intersect with the LRT system for full regional accessibility and connectivity. Within Rancho Cordova, the existing regional service is provided along RT's existing east/west LRT line through Rancho Cordova. Two new LRT stations are recommended at the Mine Shaft and Horn Road. Proposed BRT corridors include:

- Grant Line Road from Elk Grove to the south to El Dorado County to the northeast. This route defines the eastern City limits and takes advantage of the Grant Line Road alternative of the Elk Grove/Rancho Cordova/El Dorado County connector. It intersects with the White Rock Road east/west BRT line.
- Sunrise Boulevard connecting at Grant Line Road in the south to just north of Douglas Road, cutting over to Rancho Cordova Parkway until it joins the proposed Citrus Road connector, then rejoining Sunrise and terminating at the Sunrise Mall. This route will provide a critical north/south BRT connection to the City of Rancho Cordova and the regional LRT system, as well as north to Sunrise Mall. Alternate routes are described on in the following section.
- Jackson Highway from Grant Line Road to Watt Avenue, as described in the Sacramento County General Plan Update. This alignment provides an east/west connection to the regional LRT system for residents in the southern area of the City.

Figure 5.
Regional Service

Existing LRT and Proposed BRT Routes with Alternative Sunrise BRT Route

N

BRT to Sunrise Mall

BRT to El Dorado

BRT to Elk Grove

Rancho Cordova Signature Transit Route

Watt Ave
Folsom Blvd
50
Micron Ave
Old Placerville Rd
Routier Road
Mather Blvd
Mather Field Road
International Dr
Coloma Road
Zinfandel Dr
Gold Country Blvd
Hazel Ave
Hirmbus Road
East Valley Parkway
Prairie City Road
Scott Road
White Rock Road
Douglas Road
Rancho Cordova Parkway
Keifer Blvd
Mayhew Road
Bradshaw Road
Jackson Road
Eagles Nest Road
Sunrise Blvd
Grant Line Road
Excelsior
Jackson Hwy

0 0.5 1 2 Miles

Legend

- Regional/BRT Station Major Amenity Level
- Regional/BRT Station Minor Amenity Level
- Light Rail Transit
- Sunrise Bus Rapid Transit Alternative Route
- Bus Rapid Transit
- Planning Boundary
- Roads
- City Limits

- White Rock Road from Grant Line Road to the City Hall, where it joins the proposed pedestrian/transit Promenade into downtown. This route is the most "central" east/west corridor, providing regional access into the heart of Rancho Cordova, including the downtown.
- Following the proposed Easton Valley Parkway and connecting to Nimbus Road and turning north to the Hazel LRT station. This route allows east/west regional movement connecting to the north/south service in Westbourough.

Alternate "Sunrise" BRT Routes

Alternatives are considered for Sunrise Boulevard due to its heavily congested condition, especially between White Rock Road and Folsom Boulevard. Working with City staff, the Planning Team sought alternatives that by-passed this segment of Sunrise. One alternative BRT route uses the Folsom South Canal from Jackson Highway to the Citrus Road connector (Figure 5). This alignment essentially parallels Sunrise Boulevard. As the City proceeds with Folsom South Canal corridor planning efforts, a detailed study can determine if this alternative is feasible. The Canal alternative is on federal property (Bureau of Reclamation), and the use of the right-of-way requires an intergovernmental agreement for transit or any other non-flood control/water conveyance use.

A second alternative follows the Signature Route (Rancho Cordova Parkway) from Grant Line Road to Sunrise Boulevard via the Citrus Road connector. Such service should be restricted to morning and afternoon peak commuting periods. Under this scenario, there are limited stops along Rancho Cordova Parkway. For example, upon leaving Grant Line Road, stops might be located only at Chrysanthy Boulevard, White Rock Road and finally at Folsom Boulevard. This allows smoother, more consistent flow than Sunrise Boulevard.

BRT Cost Considerations

For planning purposes, BRT capital costs for a fixed guideway can approach $10M per mile. This amount includes stations, fixtures and lighting, urban design features, and associated amenities. Right-of-way acquisition costs are not included. BRT operating costs are equivalent to current RT express bus costs.

Implementation Considerations

As Rancho Cordova matures, the Transit Master Plan's implementation may take several forms and structures. Only an overview is suggested here, since there are many decisions yet to be made: which entity will lead; what will it cost; how will it be funded; and are there transitional arrangements? These and other questions receive attention in future Transit Plan development.

Relationship with Sacramento Regional Transit

As the plan is proposed, RT provides regional service, since it extends beyond City boundaries, and this is a logical strategy. RT also currently offers the equivalent of "City" type service. Until the City ultimately decides its role as a transit provider, RT can deliver this City service that links to the Regional system. To facilitate effective transit service and coverage, the City and RT can coordinate routing, scheduling, frequency, and transferring between service types.

Additionally, if right-of-way is required, joint acquisition action between the two is a possibility. Operational and financial alternatives are set forth in future plan development.

Land Use Development Considerations

Right-of-Way Implications

If the City desires to establish fixed guideways for transit service, advance acquisition is required, if right-of-way is not available. To determine if such acquisitions are necessary, the Road Sizing Diagram found in the General Plan's Circulation Element should be used as a guide. With Rancho Cordova Parkway defined as the "Signature Route" and fixed guideway anticipated, and development proceeding in the Suncreek area, the City acquired 30' of additional right-of-way south of Douglas from the developers. Future negotiations in the Rio Del Oro area need the same consideration. Again, if RT is the service provider, the City and RT can cooperate in the land acquisition process.

Figure 6 shows roadways that likely will need additional right-of-way or other operational considerations that negate acquisition. Figure 6 shows the proposed "Citrus Connector" as a two-lane facility, but if it functions as a BRT route and a portion of the streetcar "loop", two more lanes may be required.

When possible, the streetcar should share the right-of-way with automobiles, since it is only 8.5' wide. It "obeys" the traffic laws and has a high passenger capacity. This approach minimizes acquisition costs and increases cost-effectiveness.

The only other right-of-way consideration is the 15' wide area that RT requires at station locations. The total width at stations would be 40 feet, including two 12.5 foot BRT lanes.

Figure 7 illustrates possible median and outside-lane bus streetcar configuration cross-sections depicting ways that transit can operate in City streets. Transit can be in-street running with traffic, or it can be in separate fixed guideways (exclusive lane).

Integrated Transit in an Urban Environment

Land Use/Development Implications

While successful transit systems rely on appropriate technologies and service strategies, land uses and ancillary transportation services in the vicinity of transit systems are critical to successful operations. The continued development of transit planning in the City of Rancho Cordova will require cooperation and agreement with future development and redevelopment throughout the City. Policies and directives should be followed that provide supportive land uses and opportunities for transit station access.

Transit supportive policies could initially include:

- Provision of Park & Ride facilities
- Development of good pedestrian access to transit stations
- High density development within one-quarter mile of transit stations
- Increased density within one-half mile of transit stations
- Mixed use development in the vicinity of transit stations
- Residential subdivision design with a high degree of roadway and pedestrian connectivity.

The City of Rancho Cordova should partner with the development community in the early stages of project development in order to focus land use strategies that will support a robust transit system.

Figure 6.
ROW Implications and Operational Considerations

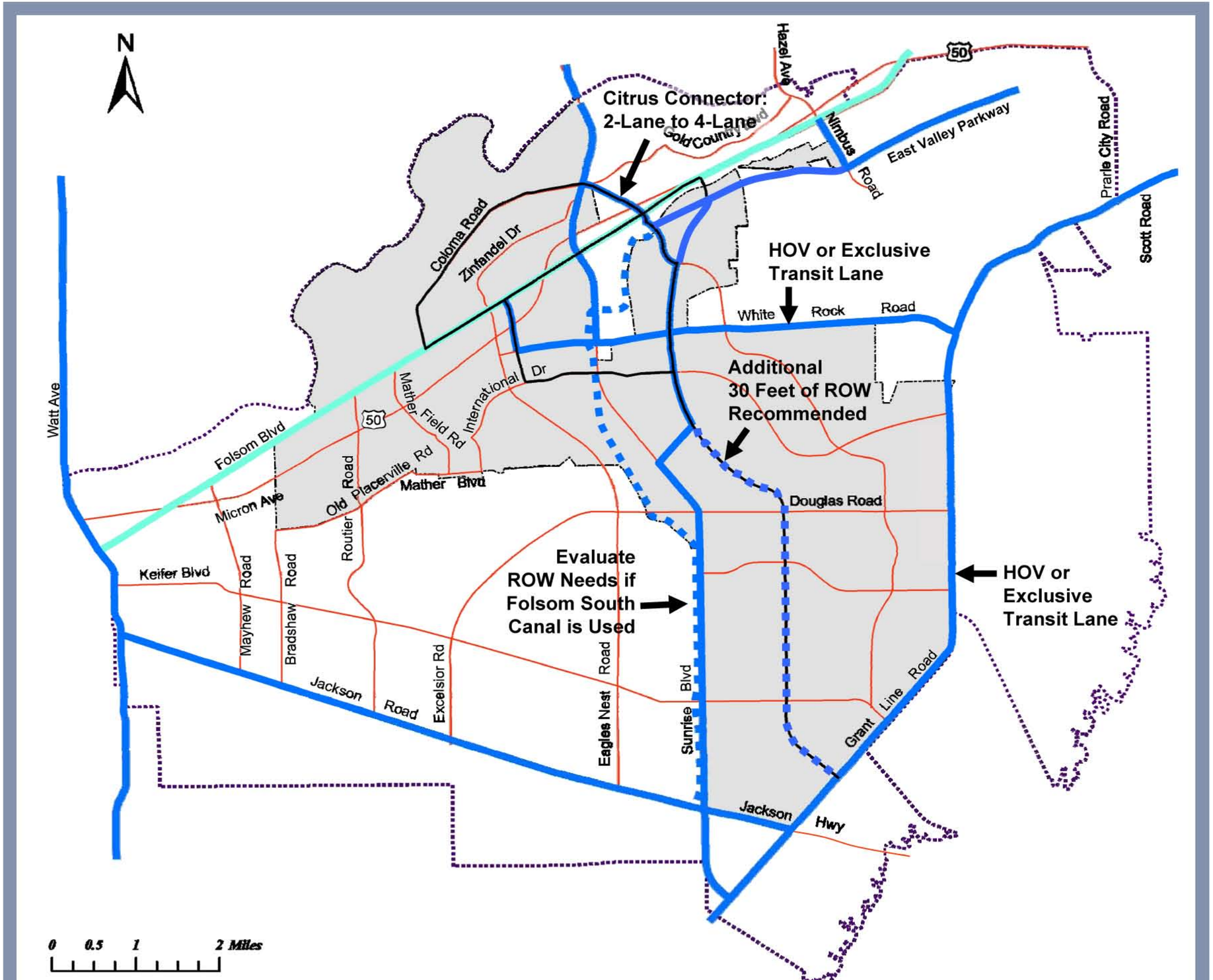
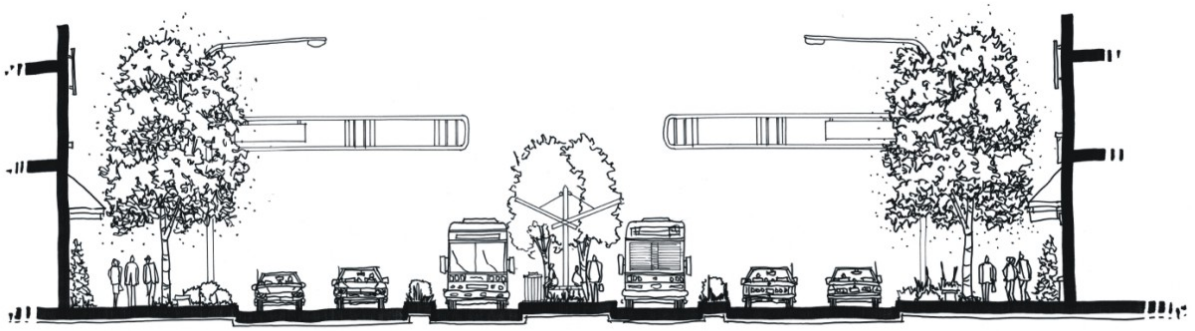
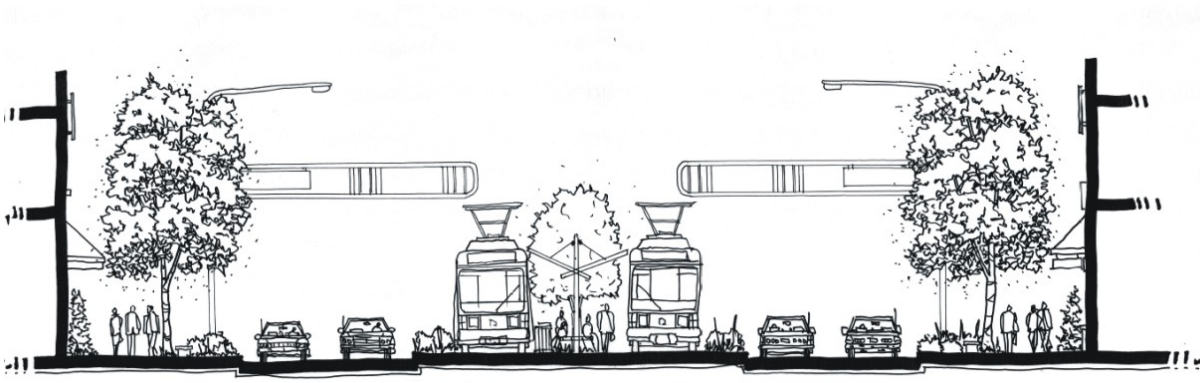


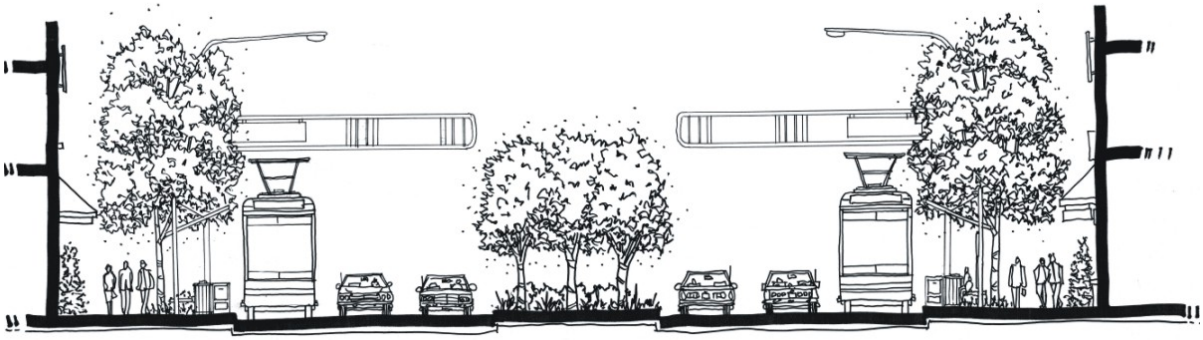
Figure 7. Cross-sections of Conceptual Bus and Streetcar Configurations



Cross-section A: Bus in Median Configuration



Cross-section B: Streetcar in Median Configuration



Cross-section C: Streetcar in Inside Configuration

The 30 feet of additional right-of-way along Rancho Cordova Parkway is sufficient for either option. As the City develops actual right-of-way width requirements for the various roadway types, additional right-of-way needs for specific transit types can be recommended, For the streetcar, the first preference is to be in street-running (mixed traffic), requiring no additional right-of-way.

Station/Stop Development

Various figures included within this document show station locations, but in many cases, these can be simple roadside shelters, an example of which is shown in Photo 1. Most bus stops only have a bench and a route sign. At key locations, however, to set the tone for high quality transit, more elaborate shelters, platforms, and furnishings are appropriate. This is especially true where two modes interconnect. This transfer station has more opportunity for retail and support services. These amenities should mirror the level of detail for a LRT station. Right-of-way demands around these stations may be higher depending on whether or not vehicles are expected to pull out of the main lanes of traffic as passenger's board and de-board.

Photo 2 is an example of a BRT multimodal station with a major amenity level high. This type of station has joint uses in addition to being a transit station. Such a station may be developed as a public/private partnership.

Photo 1. Walk-up Station

Photo 2. Multimodal Station

Transit Funding

Transit systems are financed principally using state, local and federal funds. Federal funds usually require matching funds, except in the few cases where there are direct grants for specialized services. A dedicated funding source is necessary to have an effective transit system. In fact, the Federal Transit Administration (FTA) requires a predicable source of local funds to receive federal monies. The Sacramento region, through "Measure A" and other sources such as impact fees and user charges, has dedicated funding sources. With systems expanding, the funding formula grows more critical. With the advent of the streetcar, complex public/private funding solutions are becoming the norm.

Federal Revenue Sources

Federal funding for public transportation comes through the U.S. Department of Transportation (USDOT), and the FTA manages them. Programs and funding for public transportation were enabled under the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991. The Act established authorizing levels and programs for transit and highway projects, and it institutionalized the ability to shift funds from one program to another depending on local priorities. ISTEA expired in 1997, replaced by the Transportation Equity Act for the 21st Century (TEA-21). TEA-21, which was effective from 1998 to 2003, generally maintained the previously established programs and raised the overall level of funding. Congress recently reauthorized the third iteration (2003-2009) of the surface transportation program, known as SAFETEA-LU, and President Bush signed it into law in August 2005.

Section 5309 Funds - The FTA administers funding programs designed to assist local agencies in funding new rail starts. Competition for FTA "New Starts" funding is fierce nationally, with many cities around the country developing "New Starts" projects, seeking Federal participation as a principal funding source. For example, FTA received over 60 applications for "New Starts" projects in FY 2005. The cost of new rail systems can be high, sometimes in the billions of dollars. As a result, the FTA process for qualifying a project for "New Starts" funding is very structured and comprehensive.

"Small Starts" is a new Section 5309 provision for projects that are seeking less than $75M in federal funding, with a total estimated project cost of less than $250M. It is designed to fund BRT, streetcars, and commuter rail projects. The FTA will provide Federal assistance only if FTA finds that the project is: (a) based on planning and Alternative Analysis, (b) justified based on a review of its public transportation supportive land use policies, cost effectiveness, and effect on local economic development; and (c) supported by an acceptable degree of local financial commitment.

In both cases, a proposed project first must be authorized by Congress and secondly, it must be accompanied by a complete Alternatives Analysis process to the satisfaction of the FTA. Administrative rules and procedures governing project review for "Small Starts" projects are expected in 2006 for FY 2008 funding.

Section 5311 Funds - This non-urbanized area funding program (5311) provides transit capital and operating assistance through the State to rural areas (less than 50,000 in population). FTA provides the California Department of Transportation with an annual appropriation to fund the maintenance, development, improvement and use of public transportation systems in rural and small urban areas in California.

Section 5310 Funds - The special needs funding program (5310) provides transit capital and operating assistance to the State of California for allocation to organizations or governmental authorities that offer specialized transportation services to elderly persons and to persons with disabilities. This program allows for the transfer of funds to the non-urbanized area program (5311), if funds are used for the purpose authorized.

Section 5317 Funds - The New Freedom Initiative (5317) provides formula grants to the State for new transportation services and transportation alternatives for individuals with disabilities beyond those required by the Americans with Disabilities Act of 1990 (ADA), including motor

vehicle programs that assist persons with disabilities with transportation to and from jobs or employment services. States solicit applications for grants and then award the grants on a competitive basis. This program allows for the transfer of 5317 funds to the non-urbanized area program (5311), provided the funds are used for the authorized purpose.

Congestion Mitigation Air Quality (CMAQ) and Transportation Enhancement Funding - These program funds are designed to assist communities with transportation strategies that reduce auto emissions and enhance the multi-modal functioning of local and regional transportation systems. Both help reduce air pollution. The availability of these funding sources has been continued under SAFETEA-LU. Allocated through Metropolitan Planning Organizations (MPOs), the virtue of these programs is the flexibility they allow in dedicating federal surface transportation funds to a wide spectrum of transportation-related investments.

Economic Development Administration (EDA) Grants - Although not yet used for a streetcar project, the Public Works Grants provided by the U.S. Department of Commerce's Economic Development Administration is a potential source of capital grant funding. Given the program's stated purposes and the potential project's strong connection with strategic job-creating investments, a case can be made for these funds to be used.

Local Revenue Sources

In the discussion of federal funding, the point was made regarding the use of local funds as a match. Additionally, as the City moves toward developing a predictable transit system a variety of non-traditional sources exists. Rancho Cordova imposes impact fees for transportation improvements, including transit. The growing array of local revenue sources illustrates that financing of transit projects are different and complex.

Optional Local Sales Tax - The most pervasive local revenue source is the use of an optional local sales tax. This source is popular because it provides significant revenue, generally in the millions, on an annual basis. Sacramento's Measure A falls into this category of local funding. Since it is multi-year, the sales tax is dependable. The tax is subject to a public referendum.

Tax Increment Financing - California law allows the use of Tax Increment Financing (TIF) for infrastructure necessary to support new development. Under the legislation, an area is designated as "blighted", and new revenues, derived from increasing real estate value in that district, are directed to infrastructure that supports that value. This form of financing is a "bootstrapping" mechanism, making investments that support real estate development and improvement, channeling the increased yield in public revenues to more investments, and so on.

General Obligation (GO) Bonds – Using the full faith and credit of the City, GO bonding is a useful tool for financing the capital costs of transit investments.

Business Improvement District(s) – Rancho Cordova could consider the formation of a Business Improvement District (BID) as an additional means of generating real estate-related revenue for the streetcars or other circulators. BIDs may be established by a municipality or county resolution. The establishment of a BID is usually predicated on the approval of a majority of the property owners within the proposed district. The funds from the property assessment can be used to promote and market the area. Funds also can be used to enhance

security, maintenance, beautification, and transportation. The property owners shall be specially benefited by the provision of the BID services and will be assessed upon each such property in reasonable proportion to the benefits derived from the services. Numerous BIDs have been established throughout the country.

BIDs typically rely on an assessment applied to the properties within a defined area, based on an assessed property value, a per-square-foot basis, or a linear frontage basis. The property owners must agree to the assessment.

Special Assessment Districts - Municipalities and counties may choose to create a Special Assessment District to provide services or construct capital infrastructure for specified benefits to property owners. Creating the Special Assessment District, adopting an equitable formula, and documenting the benefits may be accomplished by resolution of the City. Much like the BID requirements, the properties being assessed must be specifically benefited by the services and/or capital improvements. The assessment must be reasonably proportionate to the benefits. Unlike the BID, the governing jurisdiction may create the resolution without any vote of the affected property owners. The special assessment allows greater flexibility than that allowed in BIDs.

The special assessment is a valid tool for generating revenues as the local share of capital and/or operating costs associated with the proposed streetcar system. There are as many special assessment variations as the projects that employ them. The viability of this approach is determined by the rationale for allocating the cost burdens to potential beneficiaries, as well as the impacts on property values that might result from both the benefit to be received and the costs to be allocated. There are several basic approaches to such special assessments; among them, California law provides for Infrastructure Financing Districts, a mechanism that could be used to assess benefited property owners for a portion of the cost of a streetcar line serving their properties.

The range of potential assessment rates also varies, and the experience of other communities was researched for similar assessment districts and rates used to fund local transportation-related infrastructure. Based on the beneficial effect of streetcar or light rail projects on property values and development in other U.S. cities, it is reasonable to forecast that the streetcar system itself would benefit nearby properties by enhancing their development potential.

Rental Car Taxes – Some communities are using taxes from rentals of automobiles to fund transit studies and operations. This can be a controversial provision, if there is not a broad base of other sources.

Passes - Pass programs, supported by employers and educational institutions, can be a significant revenue source, again typically for ongoing costs. For reasons of employee trip reduction, reduced parking demand, and mitigation of parking conflicts with adjacent areas, employers have multiple incentives for supporting employee transit pass programs.

Ancillary Revenues (Advertising and Sponsorships) - The potential ancillary revenue for this system has two components. First is the media value of the advertising on, within, and near the vehicles. The second is concession agreements and/or rental fees on vending machines or automatic teller machines at the proposed stops. There have been a wide variety of approaches to ancillary revenues in other streetcar projects. Some projects have been aggressive in exploiting these opportunities, others are more cautious.