Livermore Amador Valley Transit Authority

Short Range Transit Plan

Fiscal Years 2008 to 2017

May 2008

Federal transportation statutes require that the Metropolitan Transportation Commission (MTC), in partnership with state and local agencies, develop and periodically update a long range Regional Transportation Plan (RTP), and a Transportation Improvement Program (TIP) that implements the RTP by programming federal funds to transportation projects contained in the RTP. In order to effectively execute these planning and programming responsibilities, the MTC requires that each transit operator in its region that receives federal funding through the TIP, prepare, adopt and submit a Short Range Transit Plan (SRTP) to the MTC.

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LAVTA 2008-2017 Short Range Transit Plan

Final SRTP
May 5, 2008

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SYSTEM OVERVIEW

1.1 Service Area Characteristics

The WHEELS core service area covers 40 square miles and consists primarily of the jurisdictions of Dublin (pop. 41,200), Livermore (pop. 80,400), and Pleasanton (pop. 69,200). For the purposes of this document, these three cities will be referred to as the Tri-Valley area. The Tri-Valley area is located in East Alameda, which is part of the metropolitan of San Francisco. This part of Alameda County is sometimes called the Livermore Valley or Amador Valley.

1.2 Service Area History

Until the 1950s, the Tri-Valley area was primarily agricultural and the cities of Pleasanton and Livermore, which were incorporated in the 19th century, provided services for the local agricultural economy. When research facilities, like the Lawrence Livermore Laboratory, were established in the 1950s, the character of the area began to change. The completion of the freeway system between 1960 and 1970 opened the area to single family, suburban development in unincorporated areas and near the cities of Pleasanton and Livermore. A third city, Dublin, was incorporated in the early 1980s. The areas of Dublin included land that was previously developed under the jurisdiction of Alameda County. During the 1980s, the Tri-Valley area became a major source of employment for the region due mainly to the development of the Bishop Ranch office park in San Ramon and the Hacienda Business Park in Pleasanton. During this time, all three cities featured low density, automobile oriented land use development, with an extensive network of wide arterials between land use types that, for the most part, were highly separated.

Between 1990 and 2005, the population of the Tri-Valley area grew by 42%. This population growth resulted in rapid building and land use development. This rapid development resulted in geographic changes and an increased demand for transportation. In 2000, Alameda County voters approved Measure D, which establishes growth boundaries around Dublin,

Livermore, and Pleasanton, and serves to limit the development within unincorporated areas. Growth in the Tri-Valley area is anticipated to continue, due to its location, availability of open land, and the overall attractiveness of Bay Area living.

Mean Household Income - 2000-2030						
	2000	2015	% Change 2000-2015	2030	% Change 2015-2030	Total % Change
Dublin	108,200	119,500	10%	137,000	42%	27%
Livermore	106,700	118,700	11%	139,800	53%	31%
Pleasanton	138,700	151,000	9%	174,100	9%	26%
Average	118,533	130,405	10%	150,977	16%	27%

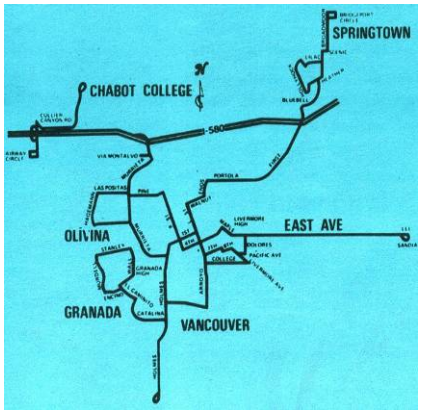
1.3 Transit System History

The City of Livermore operated transit under the name RIDEO from 1976 until the formation of WHEELS ten years later. The horserace theme of the icon projected a western, small-town image.

Transportation services in the Tri-Valley area have evolved incrementally, starting with municipalities and private providers that operate services which range from yellow school bus services to Greyhound intercity lines. When the Alameda-Contra Costa Transit District (AC Transit) was created in 1956, it did not include the Tri-Valley area. In 1972, the San Francisco Bay Area Rapid Transit District (BART) opened and began bus feeder services on the "U" line, which connected central portions of Livermore and Pleasanton to the Bayfair BART station in San Leandro. (More information about BART is under the "Transit Services and Coverage" section.)

In 1976, the City of Livermore started the RIDEO transit system, which was operated by a private contractor out of leased facilities in downtown Livermore. By 1980, RIDEO had six local Livermore routes that operated on the headways hourly, Monday through Saturday. Over the next five years, RIDEO remained largely the same, with some routes incrementally receiving peak hour frequency improvements. By the mid-1980s, BART's "U" line feeder service had grown to provide service along a central corridor that spanned the cores of Livermore, Pleasanton, and Dublin. Supplemental "U" loops were operated during peak hours locations such as the Hacienda Business Park and Stoneridge Mall. The "U" line eventually provided service seven days a week and became the foundation for what would become the strongest transit route in the area (subsequently, Route 10).

In 1985, Dublin, Livermore, and Pleasanton partnered with Alameda County to form the Livermore Amador Valley Transit Authority (LAVTA). LAVTA began services in July 1987 under the marketing name WHEELS. Maintenance and operations for WHEELS were contracted out, and the fleet was composed of leased vehicles. LAVTA enabled expanded service coverage in Dublin and Pleasanton. The established service pattern resembled that of a grid, with transfer points at Alcosta and San Ramon, Dublin and the Golden Gate, Stoneridge Mall, Hopyard and Las Positas, and Valley Memorial Hospital. Most of the new routes operated only on weekdays, on an hourly headway, with office hour oriented time spans of approximately 7:00 A.M. to 6:00 P.M. Over the following years, LAVTA increased frequencies and added Saturday service to most of the new routes.



Because Livermore has historically been a small, compact town, it did not develop a transit system prior to the widespread use of the automobile. Since then, its growth has been in a low-density, non-grid pattern. The new bus route network that was established in the 1970s reflects this. This graphic shows the geography of service as it looked in 1981. Principal coverage has changed little since then.

(1980s) WHEELS Route 1 as seen near the Stoneridge—Before the BART extension was finished, the mall was one of several secondary transfer hubs. After which, its new station became the only significant transfer point in the Dublin and Pleasanton area.

The LAVTA Maintenance, Operations and Administration (MOA) facility was built in 1991 and is the central base of operations for all WHEELS service activity. This facility houses both the LAVTA agency staff and the contracted operations staff; this facilitates easier communication, resulting in better service to the public. All maintenance and operation functions are dispatched from this location. This facility was designed to hold no more than seventy vehicles. Currently, LAVTA has a fleet of 102 revenue and non-revenue vehicles. Consequently, the agency is forced to park about 30 vehicles at a satellite parking facility at the Livermore Airport. Although this interim parking solution works, it highly affects system efficiency for both maintenance and operations. In 1990, LAVTA acquired a significant

This is the MOA facility while under construction. When it was finished in 1991, LAVTA was able to relocate from outdated facilities in downtown Livermore. However, the agency has again outgrown its property and is in need of a satellite facility to complement the existing premises.

portion of its heavy duty bus fleet with the delivery of 34 standard floor Gillig motor coaches. The combination of 30, 35, and 40 foot vehicles helped the developing system to provide adequately sized vehicles based on route demands and performance. In 1996, LAVTA took delivery of twelve additional expansion service vehicles. These 40 foot New Flyers were the agency's first vehicles to use low floor configuration and have proved to be popular with both passengers and operations staff. Since 1996, LAVTA has exclusively procured low floor buses for its fixed route services (excluding express routes, which continue to feature high floor technology). It is important to note that the actual required amount of vehicles for the fixed route bus system (Routes 1 to 70X) do not exceed 46 vehicles. Thus, the facility capacity of 75 vehicles is adequate for the regular local bus service that LAVTA provides. However, facility capacity can become an issue when auxiliary services, such as school trippers, are added. Therefore, the need and overhead cost for a new LAVTA satellite facility can be directly linked to the extra vehicles that are required for school related, peak hour service. The subsequent chapters of this document will discuss the satellite facility in more detail.

In 1997, BART opened the Dublin/Pleasanton extension from the Fremont line (Bayfair) with stations in Castro Valley and East Dublin (the Dublin/Pleasanton station). Originally, the extension design included a station between the Dublin and Pleasanton stations, which would be located just north of Stoneridge Mall. Due to budgetary constraints, only the surrounding land acquisition and platform area foundations were implemented. The West Dublin station was anticipated to be developed as an infill project at a later time (coming online in 2009). With the opening of the Dublin/Pleasanton BART extension, the WHEELS service in the Dublin and Pleasanton area shifted eastward, and all local routes were reoriented toward a hub at the Dublin/Pleasanton BART station.

Staging area at the Dublin/Pleasanton BART station. Buses are staged on the north and south side of the station, which is located in the I-580 freeway median. An underpass provides exclusive access for pedestrians and buses that cross the boundary between the two municipalities. Here, a New Flyer in service on eastbound Route 10 is ready to depart behind a Gillig in service on Route 9. Circa 1997.

There were two other major service changes in 1997: midday and Saturday service was discontinued for local routes, and the Direct Access Responsive Transit (DART) was established. DART is a hybrid of a deviated fixed route system and a demand responsive system that is open to the general public. The DART concept employed a soft deviated, fixed route approach. DART has one, set time point (at the top of each hour) at the Dublin/Pleasanton BART station. After that time point, the vehicle is scheduled to

perform service between bus stops in designated service areas, based on call in demand. From 1997 to 2005, the only fixed route service running in the Dublin and Pleasanton area outside peak hours was Route 10, which was established to supplant the previous "U" line corridor. In 1998, LAVTA also started regional express service (Routes 70X and 20X) and subscription service to Silicon Valley (Prime Time Express).

In 1998, the Livermore Transit Center was completed at the Railroad and Old First Street intersection in downtown. Livermore routes from the Valley Memorial Hospital frontage along Stanley Boulevard were relocated to the new center. This center provides WHEELS patrons direct access to the Altamont Commuter Express (ACE) platform, which is adjacent to the Transit Center. In 2006, the City of Livermore developed a large parking structure on the ACE site that provides over 500 spaces, with designated spots for transit users.

In 2003, LAVTA solidified its focus on applying technology to its transit operations by implementing an Automatic Vehicle Location (AVL) System purchased from Siemens. The AVL system provides the ability to deploy real time arrival information at bus stops, schedule adherence and vehicle location tracking, automated passenger counting and reporting, automated voice annunciation on the vehicle, as well as information kiosks. As part of this implementation, LAVTA purchased real time arrival information signs and touch screen, web based information kiosks. These signs and kiosks have slowly been deployed at a few locations in the LAVTA service area. Funding for this project was obtained through an earmark, assisted by Representative Ellen Tauscher. One of the early challenges during the transition to high tech transit environment was trying to validate the data generated by the AVL system. In order to maintain the integrity of the AVL data, the system must be kept up to date at all

times and issues such as bus stop geocoding and bus odometers become vital to ensuring reliable AVL data.

2003 to 2005 was a period of consolidation and strategic retrenchment for LAVTA; the dot com bust and economic downturn that followed lowered LAVTA's operating revenues and ridership demand. Strategic service cuts and consolidations occurred on routes that were underachieving and/or partially duplicative. Routes serving Dublin (Routes 3 and 4 were combined into Route 3) and Pleasanton (Routes 7 and 8 combined into Route 8) were impacted the most, due to their perennial low productivity. In order to meet tight budget constraints, most routes had to trim their lower producing weekend service hours. In addition, LAVTA lowered overhead costs by restructuring and trimming administrative positions.

As the Bay Area economy recovered in the mid-decade, LAVTA was poised again to begin growing to meet the needs of a growing service area. While the service and staff cuts of the early 2000s were unpleasant, it afforded LAVTA the opportunity to shift resources away from pure "coverage" routes towards more of a demand based service model. Areas that did not produce adequate ridership, no longer featured fixed route service and LAVTA resources were directed towards routes that served the most patrons.

In 2006, Route 1C was established to service to the newly constructed, high density, and transit oriented neighborhood of East Dublin. LAVTA was proactive by providing fixed route service to the new condominiums and apartments as they were being occupied. This East Dublin TOD (Transit Oriented Development) neighborhood is being targeted for further service expansion during the life of this SRTP.

2006 also featured the initiation of the Bay Area's new All Nighter transit network, which links several activity centers in the region with 24 hour bus service, after BART has shut down each evening. LAVTA played a proactive role in the planning of the service and our busiest route, Route 10, was transitioned into an *All Nighter* route—dubbed the Route 810. Route 810 runs between midnight and 5:00 A.M., and it fills the five hour temporal gap left when Route 10 and BART are out of service. Route 810 connects the Livermore Transit Center with the Bayfair (San Leandro) BART station, utilizing the I-580 Freeway and the Route 10 corridor and stops. At Bayfair, timed transfers (without price discounts, however) are available to AC Transit's All-Nighter Route 801, with bidirectional service between Fremont BART and Downtown Oakland. From Downtown Oakland (at 12th and Broadway), All-Nighter riders can connect to San Francisco, Berkeley, Walnut Creek, and Richmond.

A second ACE shuttle route, Route 53, from Pleasanton ACE to Stoneridge Mall, was added to facilitate the growing number of ACE commuters to jobs in Pleasanton. The Prime Time subscription service to Silicon Valley was discontinued

following a struggle with service consistency—due in part to problems with driver availability. Unlike all other LAVTA transit services, Prime Time did not initially employ professional transit bus drivers, but used members of the commuter market themselves to do the driving. Although this model was cost effective, it was hard to manage and did not deliver service with any consistency. This model also left LAVTA's bus investment idle all day in Silicon Valley. Often, commuter drivers would call in sick or take vacation, making the morning pull a problem. The LAVTA Board ultimately decided to terminate the Prime Time subscription service to Silicon Valley. In a final service transition, the DART experiment was brought to a close and DART service hours in Pleasanton and Dublin were converted back into regular, fixed route services on Routes 1, 3, 7, 8, and 50. Deviated, fixed route services have been attempted by numerous transit agencies throughout North America and Europe, but with varied levels of success. Common challenges include: the heavy burden on dispatch and customer service staff, the need for strong geographic familiarity for both drivers and dispatchers, and the unpredictable nature of service at service points that are not denoted as time points. In addition, requiring riders to call and speak on the telephone can be a significant barrier, especially when many customers may not be comfortable conversing in English. All of these challenges made the deviated, fixed route DART service a poor fit for Pleasanton and Dublin midday and weekend riders.

FY 2005-06 featured more service reductions and consolidations; again, LAVTA had to cut out unproductive and dualistic routes. Routes 7 and 8 were merged into the current Route 8 in Pleasanton. Routes 3 and 3V were consolidated into a modified Route 3 that serves West Dublin on hourly, one way loops that are reversed at midday to best match the directional flow of most BART bound commuters. With the dedication of the new Koll Center Park and Ride at Tassajara Road and I-580 in 2006 (by the City of Dublin), LAVTA initiated a free shuttle service between the Park and Ride and BART, to facilitate its emergence as an overflow parking facility for BART patrons.

FY 2006-07 featured cautious service expansions, including the addition of a fourth round trip to the Route 70X to Walnut Creek and Pleasant Hill, adding a fourth trip to the ACE Route 54 to meet their new mid-day train, and the initiation of partial weekend service on Route 18 in SW Livermore. In the spring of 2007, LAVTA doubled the amount of services (Route 50) provided to the Koll Center Park and Ride, in response to BART ridership spikes triggered by the collapse of a span of the I-580 connector ramps in Downtown Oakland. 2007 featured significant LAVTA staff restructuring and the addition of a new Deputy Executive Director. LAVTA approaches FY 2007-08 excited and prepared to undertake service expansions and adjustments to meet the emergent demands identified before, during, and after this SRTP process.

1.4 LAVTA's JEPA Partners

1.4.1 Pleasanton

Demographics

Pleasanton's demographic trends indicate a stable, affluent residential community characterized by high household incomes, low unemployment, strong educational attainment, and a concentration of middle aged residents. As the community's residents continue to age in place, there may be reductions in the proportion of children. Also, some long time residents with changing needs may seek different types of housing.

One of the most distinctive characteristics of Pleasanton's adult population is the high level of educational attainment. Over 56% of Pleasanton residents hold an associate degree or higher, compared to fewer than 42% for the Bay Area and less than 25% nationally. Almost 16% of Pleasanton's residents have completed a graduate or professional degree.

In 1990, roughly 8,900 of the total jobs in Pleasanton were held by local residents (27% of total jobs), meaning that 23,600 workers commuted into the City each day to work. By 2000, with a larger number of total jobs, only 10,500 were held by Pleasanton residents, meaning that 42,500 workers commuted into the City each day to work, which is an increase of 18,900 in commuters in 10 years. During this same period, the share of total jobs held by residents of Pleasanton declined from 27% to 20%.

Today, Pleasanton is a "job rich" community, with more than 1.6 jobs for every working resident, meaning that even if every resident stayed in Pleasanton to work, there would be substantial in commuting to fill the remaining jobs. However, the City's ability to achieve a jobs/housing balance is constrained by Pleasanton's voter approved cap on the development of housing units within the City, with no more than 29,000 units allowed. As of 2005, the City had approximately 25,500 housing units, leaving fewer than 3,500 units of residential development potential (including all approved projects).

With mean household income at an estimated $138,900 in 2005, Pleasanton is among the most affluent communities in the Bay Area. The distribution of income among three categories further illustrates Pleasanton's affluence; over half of City households earn more than $100,000 per year, compared to only 34% of Bay Area households. Further, almost 10% of Pleasanton's households earned over $250,000 in 2005. The median single family home price in Pleasanton for August 2007 was $835,000.

Land Use/Orientation

Pleasanton features a thriving and traditional downtown area, surrounded by mostly residential neighborhoods in all directions. North of downtown, beyond Arroyo Mocho Creek lies the Hacienda Business Park (HBP), the economic heart of Pleasanton and the Tri-Valley. HBP is the home of nearly 20,000 daytime jobs, and 3184 residents, laid out in an office campus environment with wide streets, incomplete sidewalk networks, and abundant free parking. Traffic congestion is acute during the A.M. and P.M. rush hours, as the majority of these commuters begin their afternoon trek out of Pleasanton to their homes in areas such as Contra Costa County and San Joaquin County.

It should be noted that while Pleasanton has a full complement of retail facilities, much of it is configured in an auto oriented configuration that is becoming increasingly obsolete on a national scale. Many national retailers are now seeking a more pedestrian oriented lifestyle setting for their stores, with outdoor cafes, unobtrusive parking solutions, and a mix of uses either within the retail center or nearby to encourage longer shopping trips.

Pleasanton is considering modifications to improve the flow of major arterials within Pleasanton, to enhance local mobility and traffic movement (such as the Stoneridge extension and other surface road linkages achieving cross town traffic flow and connection to nearby communities). In addition, Pleasanton supports improvements to I-580, I-680, and Highway 84 (e.g., those encouraged by the Triangle Study) to improve regional through traffic and overall mobility.

Recent Development

In 1996, Pleasanton voters enacted a restrictive residential growth control measure (Measure GG) that serves to severely limit the number of new dwellings Pleasanton can permit annually. With the land use patterns described above already in place, relatively little has changed in recent years. In the last several years, some development has occurred in the far southwest area of Pleasanton, with the Bernal Property development south of Valley/Bernal, just east of I-680. The Bernal Property Specific Plan permits the development of 571 homes and 750,000 square feet of commercial/office floor area, and was approved by the City Council in August 2000. The Plan also provided for the subsequent dedication of the remaining 318 acres of the site (Phase II) for public use. The Bernal Property Phase II Specific Plan was adopted by the City Council in May 2006 for the 318 acre publicly owned portion of the property following an extensive five year public planning process. This document establishes a vision and planning process for the development of an open space/park like setting within which a variety of potential public and quasi-public uses are to be integrated.

Staples Ranch is a new project that is nearing construction. Located at the dead end on the eastern terminus of Stoneridge Drive, Staples Ranch will abut El Charro Road and partially utilize the I-580 Freeway El Charro/Fallon interchange. Currently slated to be Euclidean in nature (separated land uses) with no through access on Stoneridge Drive, Staples Ranch promises to be extremely challenging to serve from a transit perspective. Currently projected land uses in Staples Ranch are an eclectic mix: auto dealerships, recreation/park area (possibly a regional ice arena), and a senior living facility and nursing home. Transit demand will emerge from the senior complex and the ice arena—if constructed. At this time, the only way to serve this area will be from either the Fairlands neighborhood adjacent on the west (via a pedestrian gate LAVTA has requested as part of the senior living center approval process) or by turning a bus around in a cul-de-sac at the end of Stoneridge Drive. An emergency vehicle access (EVA) gate may be constructed at the terminus of Stoneridge Drive, connecting with the El Charro Road interchange and the extension of Jack London Blvd. providing through access between Pleasanton and Livermore for authorized vehicles. LAVTA is striving to ensure that LAVTA buses may use this access should it be constructed.

Hacienda Business Park is in the process of creating a BART station area specific plan project and hopes to add a significant amount of TOD housing and some mixed use, transit supportive retail in the area surrounding the Pleasanton side of the BART station. LAVTA strongly supports this planning effort.

Transit Challenges

Pleasanton's classic American Suburbia land uses and demographics as described above conspire to make transit provision a challenge. Pleasanton route productivity is less than optimal, with the exception of the Route 10 (Santa Rita/Las Positas/Owens) Corridor that traverses Pleasanton with a very high level of service. The Santa Rita and Owens Road corridors, with their mix of commercial and medium density residential land uses, combined with lower income residents, feature the most transit favorable conditions within Pleasanton. Recognizing the obvious potential this corridor has for transit ridership, LAVTA has focused service along this segment. Building upon the strong cultivated transit market on Santa Rita, the Route 10 through Pleasanton will receive Transit Signal Priority (TSP) treatments as a sub-element of the Rapid Bus project that will go from Livermore to Dublin in the next two years. Ridership is expected to increase on the Pleasanton portion of the Route 10, even as the Rapid increases cross-valley trips.

Besides Route 10, most Pleasanton routes struggle to meet productivity standards. LAVTA provides Routes 1, 3, and 8, along with the Route 50 (Hacienda Business Park), plus an array of ACE Train shuttles (Routes 53 and 54) that serve the Pleasanton ACE Station from Stoneridge Mall and BART. In general, the routes that do produce ridership in Pleasanton (except Route 10, as noted above) are those

that serve office and commercial land uses that draw passengers into Pleasanton during the daytime. Many of these commuter destinations that produce ridership are in the Hacienda Business Park, in or near the Stoneridge Mall or in Downtown Pleasanton areas.

Pleasanton's new Draft Economic Development Strategic Plan identifies some protransit strategies that may enable LAVTA and the City to work together to increase ridership and provide Pleasanton with a more visible and successful transit network. Highlights include:

- Explore the need for better connections between downtown and the Fairgrounds including use of a shuttle service and improved signage and walkways for pedestrians.

- Pursue expansions and improvements to the area transit system as well as land use decisions that support transit ridership.

1.4.2 LIVERMORE

Demographics

Livermore's demographic trends indicate an affluent suburban community. Livermore's population has grown steadily over the thirty year period from 1970 to 2000, with a 29% increase between 1990 and 2000. In 2005, Livermore had a population of 80,400.

In 2000, the US Census found that Livermore's population was predominantly Caucasian, with 14% Hispanic, 6% Asian and 74% Caucasian. This contrasts sharply with the ethnicity of LAVTA transit riders in Livermore, which are over 50% Hispanic according to the 2007 Market Segmentation Study. In August of 2007, the median price for a single family home in Livermore was $658,000. The median household income for Livermore was $87,321 in 2006.

Land Use/Orientation

The Livermore Valley is surrounded to the north, south, and east by rolling hills and to the west by the Cities of Dublin and Pleasanton. Livermore is bisected by I-580, which runs east to west through Alameda County. Livermore consists of a total area of approximately 24 square miles.

Livermore has revitalized its historic downtown in the last few years. This renaissance followed the State Route 84 swap with Caltrans that enabled Livermore to regain control of First Street (the main downtown street) in exchange for giving Caltrans ownership and also moving SR 84 from First Street to Isabel Avenue. First

Street was put on a "diet" and given a walkable feel, while Isabel Avenue is preparing for widening and construction of a new interchange at the I-580.

Livermore's existing roadway system is radial, with major streets including Livermore Avenue, First Street, East Stanley Boulevard, Holmes Street, Murietta Boulevard, and East Avenue converging in the Downtown. Roads Downtown follow a traditional grid pattern, but the Downtown and the "lettered" streets northwest of it are not oriented on a north-south axis. The major streets and collectors in other areas of the City are on a north-south or east-west axis, so these streets intersect with the Downtown grid at a diagonal. Most local neighborhood streets are curvilinear.

Beyond the downtown area (currently delineated as Railroad tracks to Fourth, and P Street to Maple), Livermore consists mostly of single family residential neighborhoods. Multifamily housing is found primarily on major streets such as East Avenue, Murrieta Boulevard, and Portola Avenue, and along Railroad Ave in Downtown with the new transit oriented, Station Square townhouse project. Retail uses are concentrated in the downtown area and along major streets including First Street, Portola Avenue, and Livermore Avenue. Industrial uses are located primarily on the eastern side of the City near I-580. Additional industrial uses are found in the western part of the City near the Municipal Airport. Much of recent industrial and residential growth has occurred in the far northeast portion of Livermore. Transit services have attempted to react to this growth by extension of routes and creation of the Route 20.

Livermore is completely surrounded by an Urban Growth Boundary (UGB) that serves to protect existing agricultural uses and natural resources outside the city from future urban development.

Recent Developments

Downtown Livermore now features pedestrian scale, zero setback buildings fronting a low speed, two lane First Street with generous pedestrian amenities and diagonal parking in front of many shops. Livermore just opened a new theater complex near the confluence of First Street and Railroad Avenue, which will soon be adjacent to the new 500 seat Performing Arts Center. These new civic facilities are a stone's throw from the LAVTA/ACE Livermore Transit Center. Also, to provide centralized parking for both transit users and downtown visitors, the City opened a new 500 Space downtown parking garage adjacent to the Transit Center on Railroad in 2005.

Livermore also is home to the recently developed Station Square TOD condominium project located on Railroad Avenue, about 1/3 mile from the Livermore Transit Center and ACE station (served by LAVTA Routes 10 and 12). This project is a classic TOD project, although lacking its own mix of uses, it is located Downtown,

within walking distance from great transit and numerous shops, restaurants, and services.

Livermore has recently invested in parking lot expansion and bus circulation improvements at its Vasco Road ACE commuter rail station. These investments will improve intermodal connectivity at this station, allowing buses to enter and also board and alight passengers near the ACE platform (currently no bus access exists, and passengers have to walk uphill to Vasco) enhancing transfer convenience. However, LAVTA has very little service to the Vasco ACE station at this time. LAVTA features two peak hour only routes in this vicinity, Routes 20X and 11. As these projects come online, LAVTA may wish to enhance service to this area, including mid-day and weekend services.

Complimentary to the City's investment in the Vasco ACE station is the recent approval of a 510 unit, TOD style housing development (Ageno Property) on the land directly north of Vasco ACE. The net result of these two strategic decisions by the City of Livermore is that LAVTA should prepare to provide a higher level of fixed route transit service in the Vasco Road corridor in the near future.

Transit Challenges

Livermore is the core of Tri-Valley transit usage, with nearly all routes and segments showing higher productivity than in either Pleasanton or Dublin. While Livermore has made tremendous strides in densifying its land uses and making the community more walkable and transit friendly, it is felt that Livermore's high level of transit usage is mostly demographic driven. Areas of Livermore with the highest property values (generally south of Stanley/Railroad) fail to generate a great amount of transit demand, and are hence provided less or zero fixed route service. In addition, the current interface between the Livermore Transit Center and the newly invigorated downtown area leaves room for improvement. LAVTA's presence in downtown itself is marginal (never closer than one to two blocks off of First Street), and at some point LAVTA services may be better integrated into downtown Livermore as a parking or traffic mitigation project.

LAVTA has also developed a project that is a high agency priority to redesign the Livermore Transit Center (LTC) to improve bus access (and to accommodate the Historic Livermore Train Depot building, to be relocated to the LTC) and egress from the intermodal facility. LAVTA expends significant operating resources annually in simply entering and exiting the transit center, due to street network and transit center design challenges that cause wasted minutes on every bus trip.

1.4.3 DUBLIN

Demographics

Since the City's incorporation in 1982, the population has progressively increased as both residents and businesses have found the benefits of calling Dublin "home."

From a population of approximately 14,300 in 1982, Dublin has grown to a resident population of 41,200. The City has consistently been one of the fastest growing cities in Alameda County for the past several years, and is projected to have a total population of over 82,000 by 2035. The median single family home price in Dublin for August 2007 was $656,000.

Since the 2000 United States Census, population growth in Dublin has been remarkable. Data on ethnicity, income, and other measurables cannot be relied upon to depict 2007 conditions in Dublin. The infusion of over 10,000 new residents, mostly in East Dublin, with a large%age of Asian and South Asian (East Indian) immigrants, many highly educated and affluent, has changed the nature of the community. Until the next decennial US Census in 2010, LAVTA will have to do without trustworthy numerical data. Suffice it to say, Dublin is a highly dynamic city to service, and will remain so for the next few years.

Land Use/Orientation

During World War II, the Navy built Camp Parks Military Reservation to house 10,000 servicemen. The Tri-Valley area had few tract homes or commuters until 1960 when the Volk-McLain Company began work on San Ramon Village, building several thousand moderately priced homes advertised as "city close; country quiet." Urban services were provided by annexation of San Ramon Village to what is now the Dublin San Ramon Services District (DSRSD).

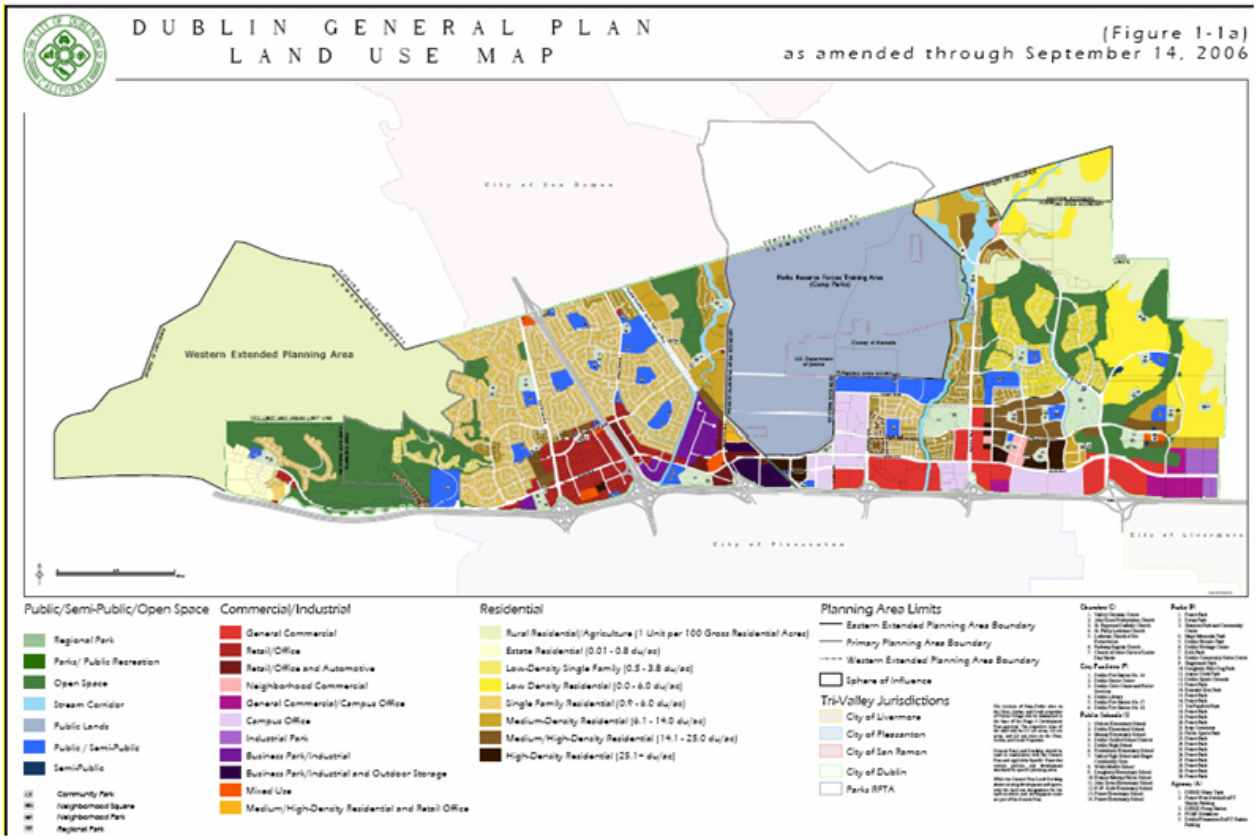
<u>Eastern Extended Planning Area</u>

The eastern planning area represents the largest remaining area available for future development in Dublin. The approximately 4,266.7 acre area, east of Camp Parks, will permit the eventual expansion of urban development in order to accommodate the healthy growth of the community. Separated as it is from the main portion of Dublin by Camp Parks, Dublin Boulevard is the physical link that connects the eastern planning area with the rest of Dublin, but the variety of development that was recently and is soon to be built in eastern Dublin is seen as an opportunity to enhance the residential, employment, retail, recreation, and cultural character of the entire city.

<u>Western Extended Planning Area</u>

This area presents a unique opportunity for the City of Dublin. With its steep terrain and scenic oak woodlands, this area has important open space values for Dublin and the region. At the same time, the Western Extended Planning Area,

consisting of about 3,255 acres, provides a unique opportunity for carefully planned development. Most of the Planning Area has convenient access to I-580. In addition, major ridgelines screen most of the site from key offsite viewpoints. Thus, there is the potential to add housing and recreational facilities in this area, without major disruption of existing neighborhoods or damage to scenic values in the surrounding area.

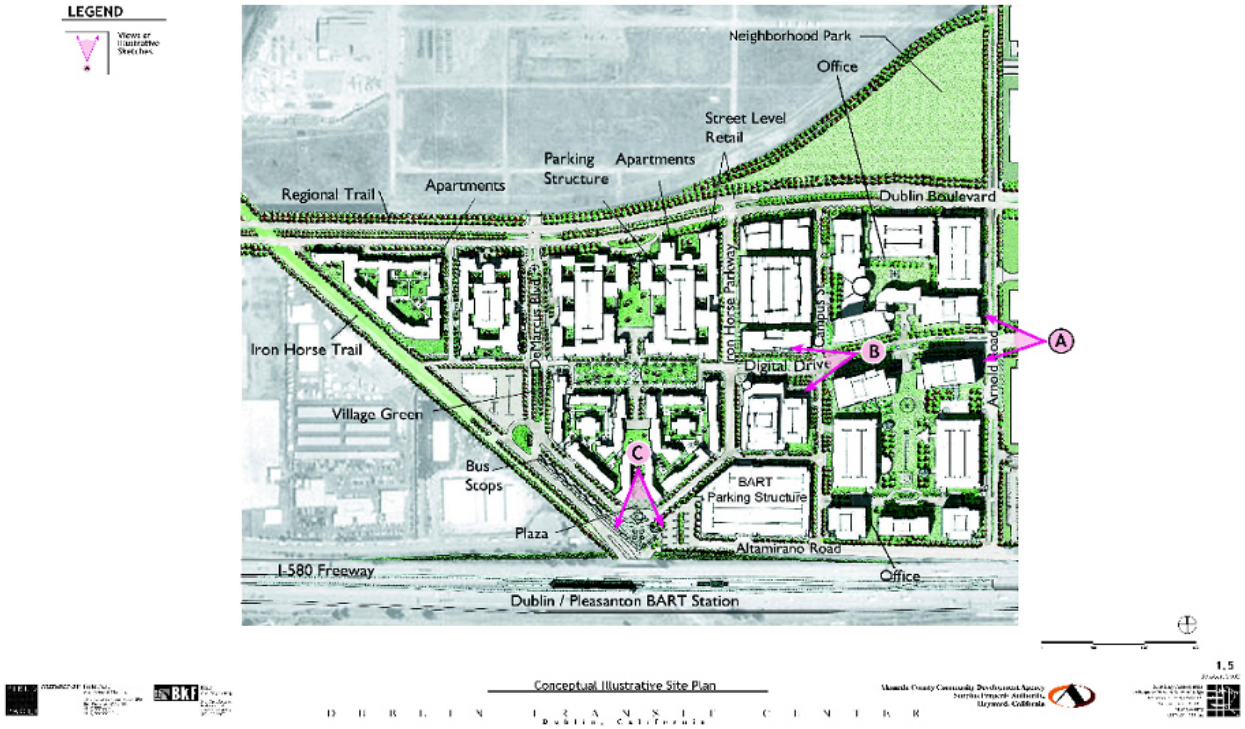


Downtown Dublin Specific Plan

The present collection of adjoining shopping centers can become a downtown with the variety, convenience, and visual prominence rarely found in communities built since dominance of the automobile. A Downtown Specific Plan was prepared in July 1987. This plan details how the City's downtown area could be enhanced to create a more unified, pedestrian oriented focal point for the community. Development is slated to accommodate the West Dublin BART station, which is currently under construction, in the downtown area. Special emphasis will be placed on pedestrian connections between the central shopping area on Amador Plaza Road and the future BART station. The plan encourages ground floor retail with offices and residential uses on upper floors. Development standards within the plan would allow an increase of approximately 30% in building area to facilitate the introduction of higher density pedestrian oriented developments. A number of urban design improvements are contemplated including entry ways to downtown, theme

elements in the medians and a potential plaza or structure which would be used as an informal gathering place as well as for public and civic events.

Recent Developments



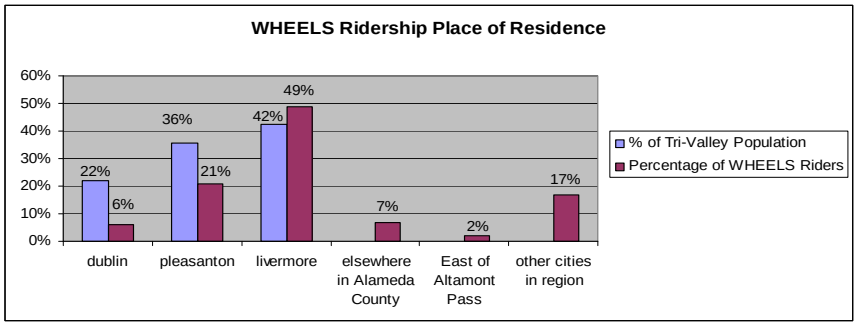
In the last three to five years, new development has been the rule in East Dublin, rather than the exception. Dublin's Transit Oriented Developments (TODs) planned as part of the "transit village" concept at the existing (East) Dublin/Pleasanton BART station has entered into construction and occupancy has occurred at Camelia Place (low income) with imminent occupancy at Elan on DeMarcus, and construction already well underway at the mixed use Avalon. While the impact upon LAVTA is hard to project due to the close proximity to BART, and the rather expensive pricing of these condominium projects, it is expected to have a net positive impact on LAVTA ridership.

Further east, the residential components of both the Dublin Ranch Villages and Dublin Ranch mixed use projects have been constructed and are already occupied. Visualized as a walkable, medium high to medium density community, Dublin Ranch Villages will eventually feature a mix of uses and a walkable neighborhood that should be very transit friendly. Market conditions have delayed the construction of the supporting retail (closest is Tassajara and Dublin Blvd) so there is concern that auto ownership is currently quite high for a TOD development.

The commercial aspects of the Dublin Ranch projects that are delayed, but are into the approvals process, include some transit supportive, neighborhood businesses, but also a fair share of regional, big box and medical destinations.

Transit Challenges

Dublin has been the last Tri-Valley city to develop and exhibit land use and demographics of a dynamic, fast growth, affluent suburb. Progressive public policy (zoning) has helped create areas of medium to medium high densities that eventually will be "mixed use." Unfortunately, the high prices of the new, high density dwellings do not appeal to the lower income level, which is the core of the existing LAVTA ridership. LAVTA will need to create services that appeal to those with several transportation options (choice riders), before transit can truly thrive in Dublin. Dublin currently features the lowest per capita LAVTA ridership of any of the three LAVTA JEPA jurisdictions (see table). The median single family home price in Dublin for August 2007 was $656,000.

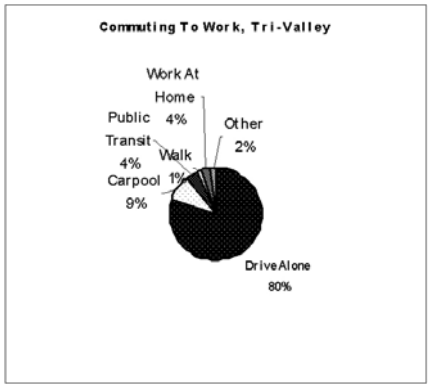


Several factors may contribute to the current paltry level of usage of the WHEELS bus system in Dublin. LAVTA does carry a fair amount of Dublin or Dublin bound passengers on the Dublin segment of Route 12, which traverses Dublin in an east to west fashion from Tassajara to BART on Dublin Blvd. In addition, western segments of Dublin Blvd. are the destination of many Livermore LAVTA riders who utilize Route 10 to access service and retail jobs in the West Dublin area along Dublin Blvd. (west of the I-680). However, these riders do not live in Dublin, but use transit to travel into Dublin frequently. We believe that LAVTA's current route configuration and amount of transit service to the residential areas acutely impact the Dublin resident's decision to use LAVTA services. Since their initiation, Dublin residential routes (currently, Routes 3, 3V, 1A, 1B, 1C, and 1E) have been coverage based and have never approached a transit level of service that, experience shows, attracts the "choice rider." Route 3 currently operates through the western portions of residential Dublin on a reversing hourly loop configuration. This unattractive level of service was aggravated by service cuts endured during the early parts of this decade, when low producing routes were cut and consolidated to meet budget constraints. In 1997, DART was employed to determine whether a deviated, demand responsive system was right for Dublin.

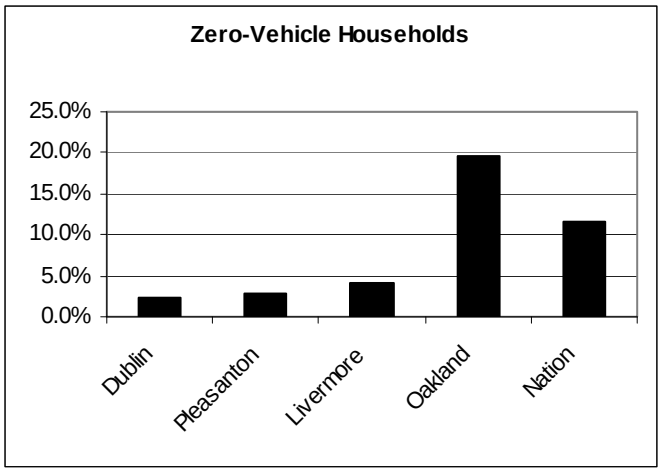
Another factor that contributes to the low level of LAVTA ridership, is that Dublin is fortunate to be served by the County Connection routes that link San Ramon (just to the north of Dublin, in Contra Costa County) with the Dublin/Pleasanton BART station. County Connection Routes 121 and 135 traverse Dublin in a north to south fashion, with a relatively robust weekday level of service. In particular, Route 121, which links Dublin with San Ramon, Walnut Creek, and Danville, in addition to the

local Dublin BART station, provides an attractive alternative to the time consuming hourly loop option offered by LAVTA's Route 3. With this strong north to south transit service already available to Dublin residents via County Connection, LAVTA may want to focus its resources on upgrading shuttle services to the new West Dublin/Pleasanton BART station and investing heavily in upgrades to the east to west transit options along Dublin Boulevard (see Dublin BRT project).

1.5 Combined Area Demographics



Taken together, the demographics of the Tri-Valley area is more homogeneous (or less diverse) and generally more affluent than many other communities in the region. The 2000 Census showed that the population of the three municipalities combined consisted of over 77% (down from 82% in 2000) Caucasian, 11.9% Hispanic, 9.3% Asian, and only 3.4% of African descent. The%age of Hispanics in the Tri-Valley area is relatively smaller when compared to California in general, but close to the national average. These factors—together with current land use practices—have an impact on residents' modal transportation choices (or lack thereof). According to the 2000 US Census, only 4.3% of Tri-Valley respondents indicated the use of public transportation for their work commute, and only 1.3% stated that they walked to work.



The affluent socioeconomic nature of the Tri-Valley, combined with its suburban land use patterns is also reflected in household automobile ownership rates. In the year 2000, over 95% of Tri-Valley households had access to at least one automobile. This contrasts with more urban areas of Alameda County, such as Oakland and Berkeley, which have a substantially higher%age of households that do not own a vehicle. In addition, paid parking areas do not exist in the Tri-Valley (outside of BART, which charges $1 per day, daytime only). This regressive treatment of automobiles encourages personal transportation options for all intra-Tri-Valley trips and puts transit at a huge disadvantage. This presents LAVTA with a challenge to not only maintain, but also to increase its modal share and its role as a central transportation provider in the community.

1.6 Demographic Projections 2007

LAVTA has used projections from the Association of Bay Area Governments (ABAG) published document, PROJECTIONS 2007 to best determine anticipated population and employment development in the Tri-Valley. The PROJECTIONS 2007 model has a "smart growth" orientation based on the following principles:

- Revitalization of central cities and older suburban areas
- Support of enhanced transit services
- Support of enhanced bicycle and pedestrian access
- Preservation of open spaces and agricultural lands

As shown in the following table, each of the cities will experience substantial growth, but the largest increase is forecast for Dublin. Overall, Tri-Valley population is expected to grow by 35% from 2000 to 2015, and by 66% come 2030.

Total Population						
	2000	2015	2000 - 2015 % Change	2030	2015 - 2030 % Change	Total % Change
Dublin	30,007	56,800	89%	75,900	34%	153%
Livermore	73,841	94,300	28%	114,100	21%	55%
Pleasanton	65,058	77,300	19%	89,900	16%	38%
Totals	168,906	228,400	35%	279,900	23%	66%

(Source: ABAG Projections 2007)

The table below shows jobs projections for the Tri-Valley area. It estimates that jobs in the WHEELS service area will increase by an estimated 27% between 2000 and 2015 period, with this%age projected to hold true through 2030.

Total Jobs						
	2000	2015	2000 - 2015 % Change	2030	2015 - 2030 % Change	Total % Change
Dublin	16,540	26,730	62%	42,900	60%	159%
Livermore	48,250	60,410	25%	76,960	27%	60%
Pleasanton	59,480	70,260	18%	78,720	12%	32%
Totals	124,270	157,400	27%	198,580	26%	60%

(Source: ABAG Projections 2007)

All of these factors present significant growth challenges, but also opportunities for LAVTA in the coming years. LAVTA has used the ABAG projection data for this SRTP because MTC requested that LAVTA employ the same forecasting tool used for the Regional Transportation Plan (RTP) update in 2009. The RTP will set regional plans and goals on a 25 year horizon.

Highlights of the Projections 2007 statistical recap are:

- Tremendous population growth of 89% in Dublin alone during the first half of the projections period (2000 to 2015)
- Moderate population growth for Livermore and modest population growth in Pleasanton forecast from 2000 to 2015
- Tremendous growth of 86% in the number of households in Dublin (compared to 2000)
- Continued moderate household growth of 24% in Livermore and Pleasanton
- High job growth in Dublin and, to a lesser extent, in Livermore and moderate job growth for Pleasanton employment centers in the next twenty or so years.

1.7 Market Segmentation Study Survey

In order to learn more about the needs and perceptions of its riders, LAVTA began conducting extensive market research efforts beginning with the 2002 Market Segmentation Survey. In November 2002, LAVTA conducted a three faceted survey to identify marketing and planning strategies for the agency. There were three elements to the survey:

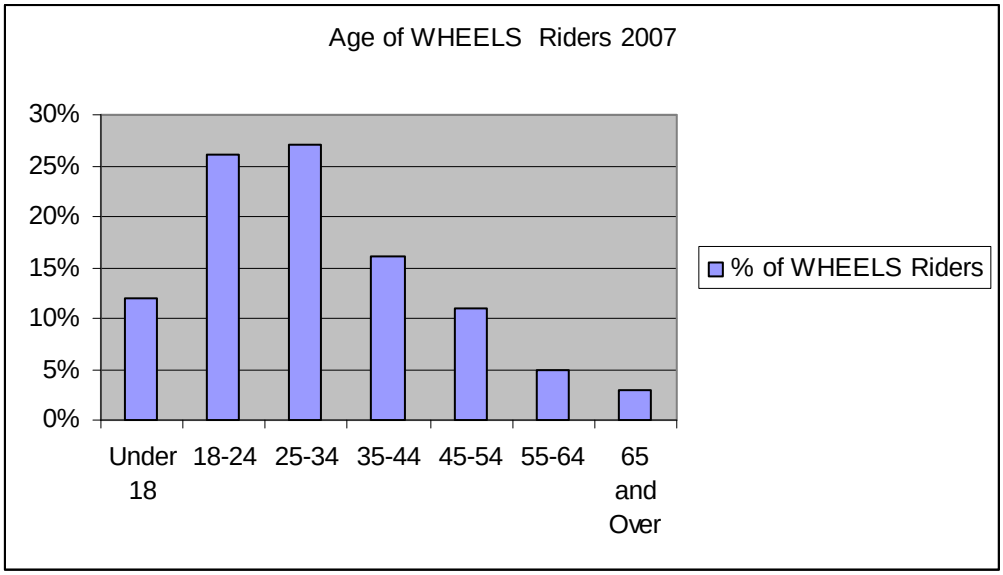
- On board customer survey
- Community phone survey
- ADA registered user phone survey

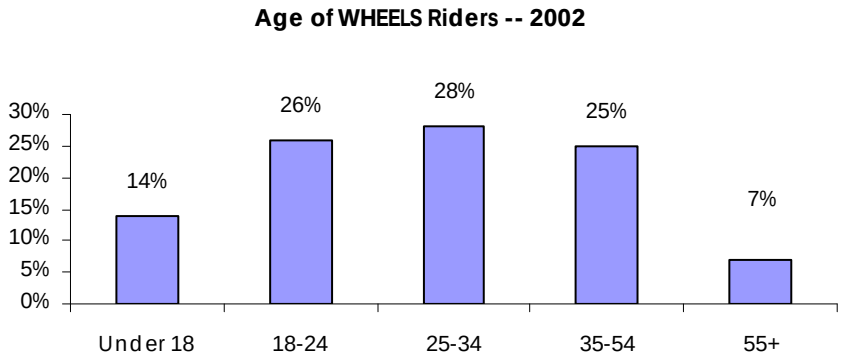
LAVTA utilized information gleaned from the 2002 study to make adjustments to both its services and its marketing strategies. Recognizing the value of obtaining this rich, timely rider data, and wishing to identify changes in its ridership base, LAVTA again conducted a similar Market Segmentation Study in February 2007.

As in 2002, CJI Research Inc. again conducted both the on board and telephone survey efforts. Although slight changes to the questions were made, the 2007 surveys contained many of the same questions as in 2002, to ascertain LAVTA's progress in increasing customer satisfaction and retention. Due to other recent studies of LAVTA's ADA Paratransit customers, this cost intensive component of the 2002 study was not undertaken in the 2007 Market Segmentation Study.

1.7.1 On Board Customer Survey

In 2007 on board survey brought in a total of 1,611 (almost 400 more than in 2002) completed surveys. The following two charts show the age range of WHEELS riders in 2002 and 2007.





The 2007 survey revealed little change in the age statistics of WHEELS riders. Like most bus only transit agencies in the USA, WHEELS caters to a very young audience. This chart understates the youthfulness of WHEELS patrons due to the fact that the survey was not given to any of WHEELS' numerous "school tripper" routes. Had the trippers been surveyed, there is little doubt that the "Under 18" age category would be much higher, likely over 20%.

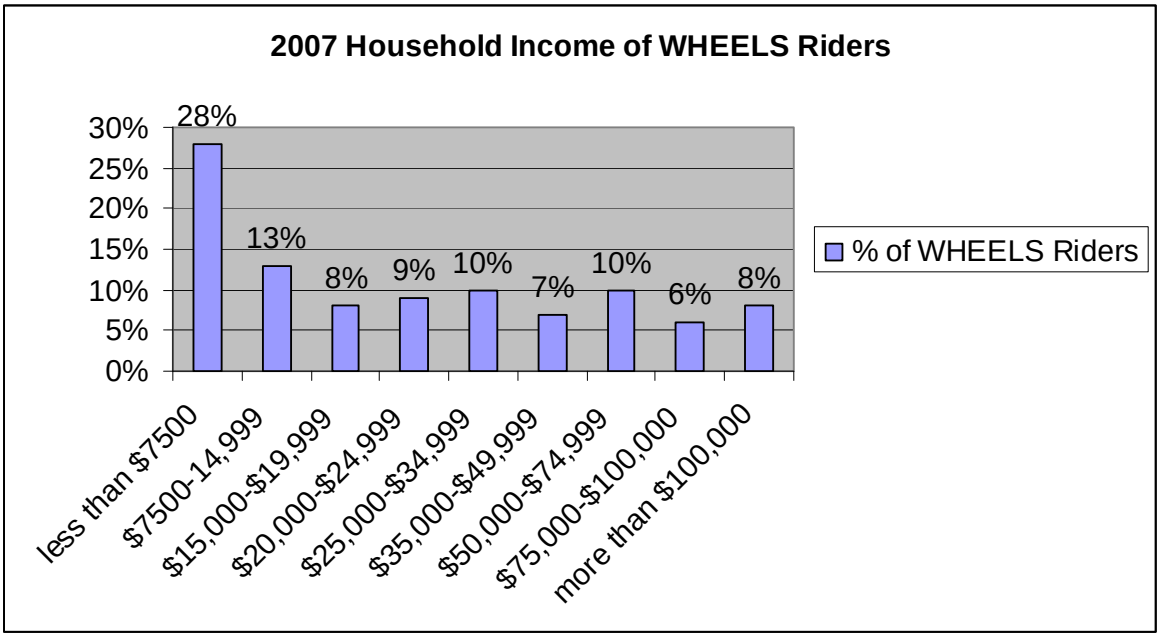
Of particular interest from this chart is the 8% of WHEELS fixed route riders over age 55. This number is up, albeit only slightly from the paltry 7% of riders age 55 and over from the 2002 survey. WHEELS may want to consider why many seniors are failing to take advantage of WHEELS's fixed route services, especially during a time when WHEELS ADA Paratransit (Dial-A-Ride) service has endured significant ridership increases. Some potential barriers to increased WHEELS fixed route ridership among the senior (55+) demographic may include:

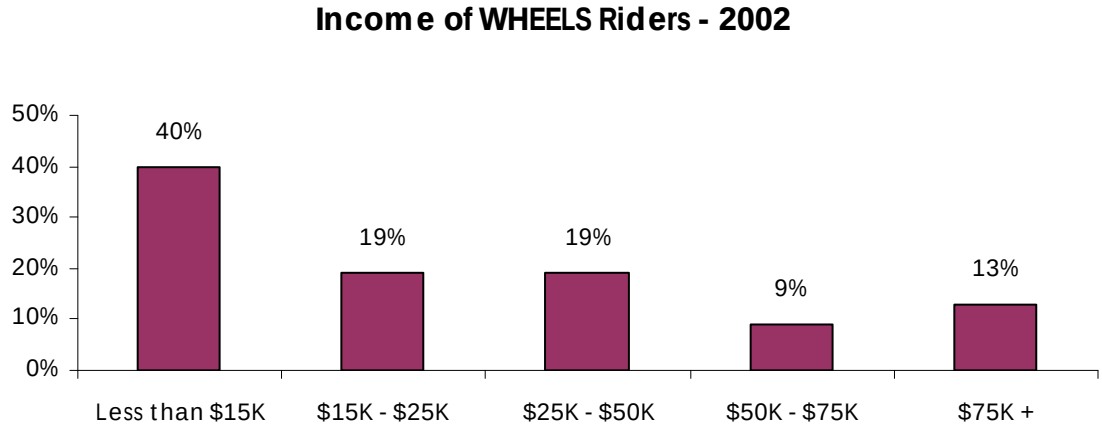
- Extended driving years (many still driving at 80)

- Lack of knowledge and awareness of public transit, specifically WHEELS
- Bus stop location and spacing issues—lack of easy and close access to routes
- Lack of bus stop amenities, like adequate seating and shelters

Further proactive marketing to senior residences and activity centers may be warranted in conjunction with bus stop improvements, in order to capture more of the ever expanding senior transportation market.

1.7.2 Income of WHEELS Riders





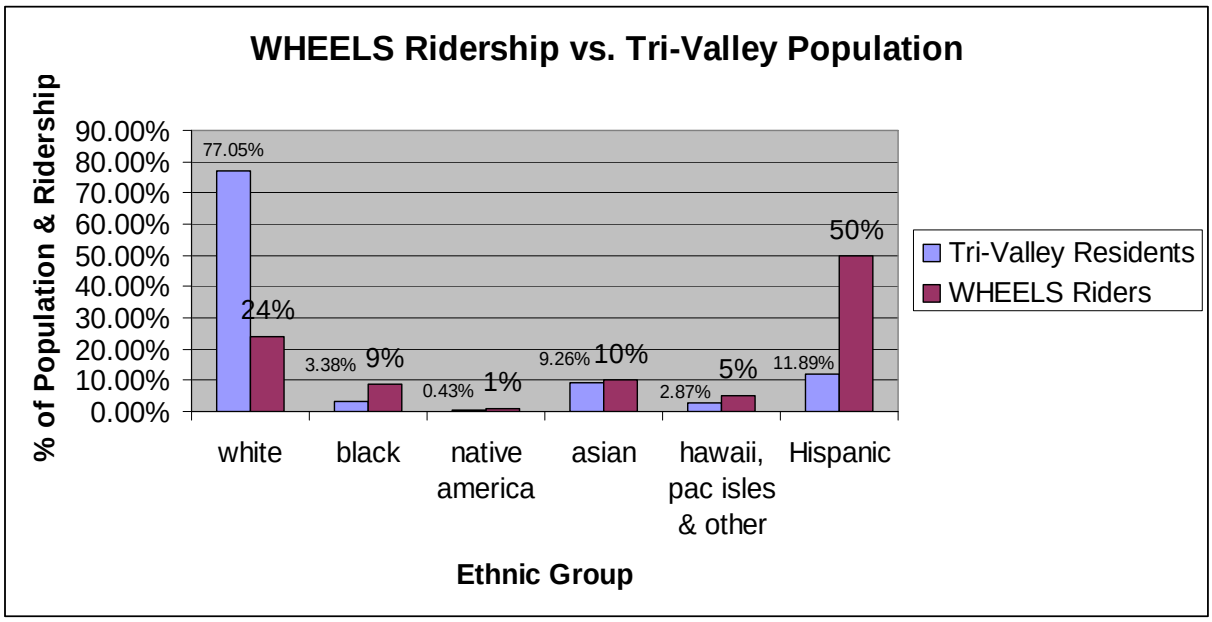
These figures detail the stated income levels of WHEELS riders, first in 2007 and secondly from the 2002 on board rider survey. While further delineated in the 2007 survey, the income levels of WHEELS riders have changed very little over the last

five years. When compared to other suburban transit agencies, the WHEELS system is fairly typical of patron income levels, which are generally concentrated at the lower end of the spectrum (58% below $25,000, down only 1% from 2002).

A related finding during the survey indicates that only 33% (down from 51% in the 2002 survey) of WHEELS patrons have access to an automobile (this is in contrast to the vehicle availability of the overall population as shown earlier). This indicates that a large portion of LAVTA's ridership base is dependant upon transit service to get to work and conduct daily life in general.

Other notable on board survey results of WHEELS patrons are:

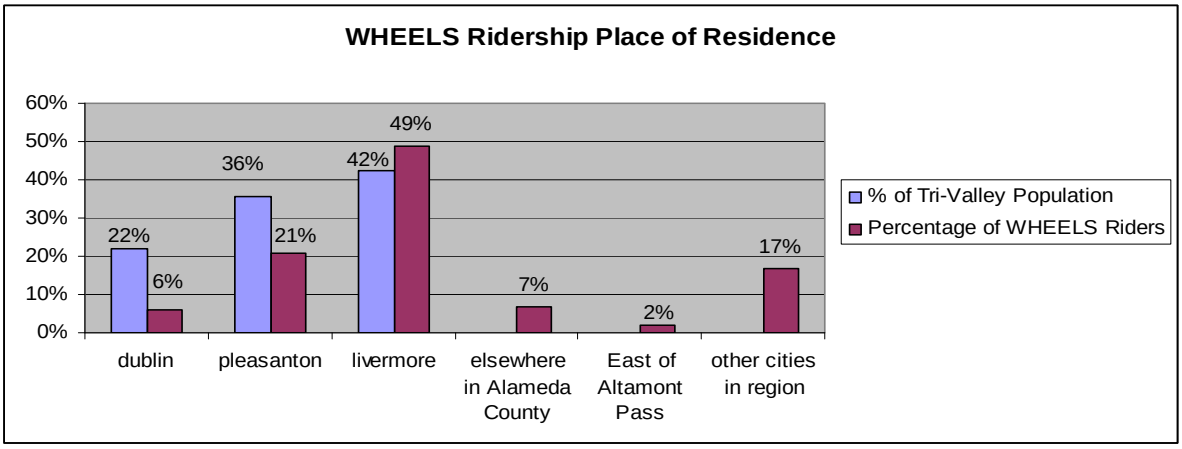
- 53% of patrons are male; 47% are female, (52 and 48%, respectively in 2002)
- Ridership turnover is 77% new to WHEELS in 2007 (84% new in 2002)
- 2002 rider residence: 50% in Livermore, 25% in Pleasanton, 6% in Dublin, and 19% in other areas



WHEELS ridership has clearly transitioned during the last four years in terms of rider demographic. While some margin for error exists with regards to self identification and choices offered to survey recipients, it can be safely assumed that WHEELS is now providing transportation to a much higher Hispanic market share than in 2002. WHEELS service also appears to be struggling to attract and retain the Caucasian rider market. While there are slight differences in transit consumption among the other demographics (9% of WHEELS riders are of African decent, but only 3.38% of the Tri-Valley population) the disparity of Hispanic bus

riders to overall Hispanic population suggests that WHEELS should tailor its services and marketing materials to this emergent market share.

2007 WHEELS Ridership by Place of Residence



It appears WHEELS' ridership is similar from 2002 to 2007, with a slight decrease in Pleasanton patronage, and a sharp increase in riders who reside outside the Tri-Valley (daytime visitors, Tri-Valley employees).

1.8 Governance

The LAVTA Board of Directors is the governing body, which establishes policy for the agency. The Board is comprised of seven members, with two representatives from each member jurisdiction (Livermore, Dublin, and Pleasanton), and one member representing Alameda County. The mayors of the municipality appoint elected city counsel members to terms on the LAVTA board, with each mayor having sole appointment authority. The Board's authority is based on a Joint Exercise of Powers Agreement that was approved by all member jurisdictions in 1985.

The LAVTA Board is comprised of (in no particular order):

1. Dublin – Mayor Janet Lockhart, Term expires November 2008
2. Dublin – Councilmember Kasie Hildenbrand , Term expires November 2008
3. Pleasanton – Vice Mayor Cindy McGovern, Term expires November 2008
4. Pleasanton – Councilmember Jerry Thorne, Term expires November 2010
5. Livermore – Mayor Marshall Kamena, Term expires November 2008
6. Livermore – Councilmember Marj Leider, Term expires November 2011
7. Alameda County – Supervisor Scott Haggerty, Term expires December 2012

LAVTA's Board is divided into four subcommittees that meet regularly to consider items within each committee's purview:

Administration and Budget (A & B) Committee:
Jerry Thorne – Pleasanton
Janet Lockhart – Dublin
Marshall Kamena – Livermore

Operations, Planning, and Scheduling (OPS) Committee:
Marj Leider – Livermore
Scott Haggerty – Alameda County
Cindy McGovern – Pleasanton

Marketing Committee
Scott Haggerty – Alameda County
Kasie Hildenbrand - Dublin
Marj Leider - Livermore

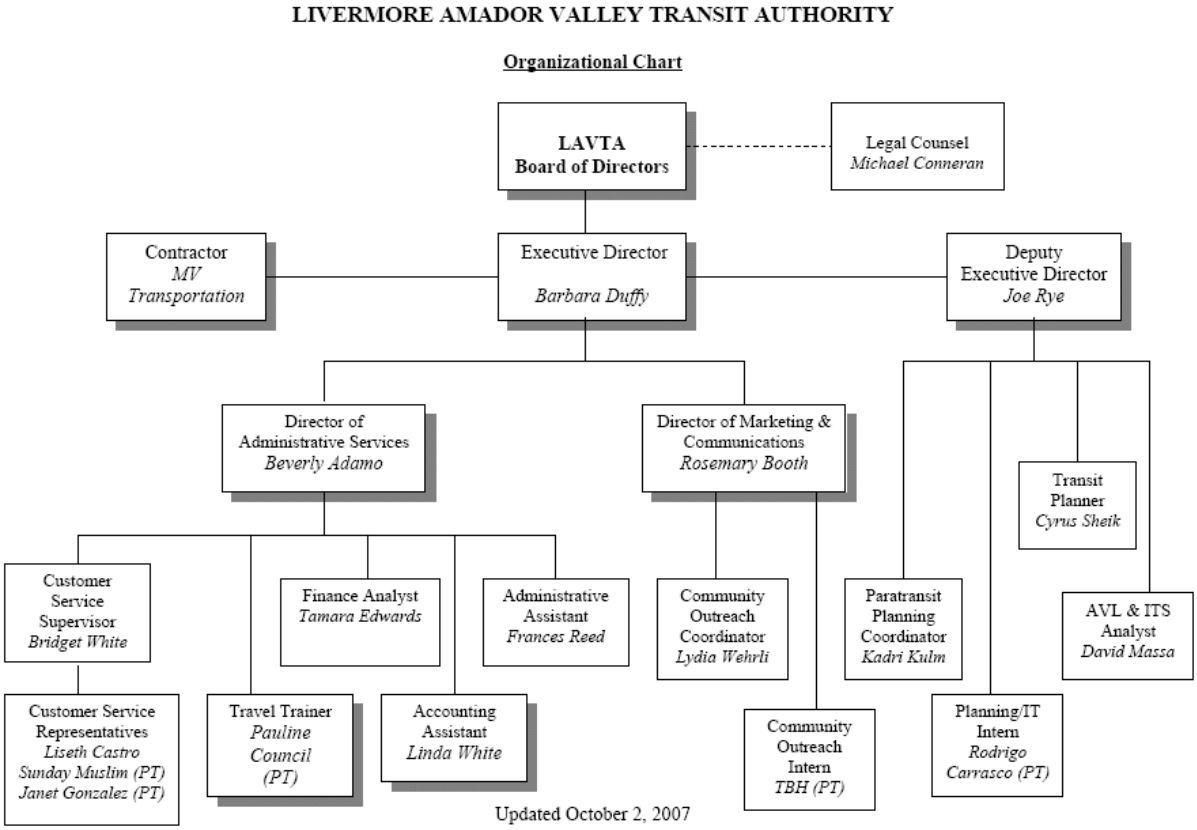
Legislative Committee
Marj Leider – Livermore
Janet Lockhart – Dublin
Cindy McGovern – Pleasanton

1.9 Organizational Structure

The LAVTA organization has undergone significant personnel turnover and position restructuring since the last full SRTP update in 2004. The organization now stands at 16.5 full time equivalents (FTEs) with the majority (8.5 FTE) falling under the direction of LAVTA's Director of Administrative Services. A significant increase in staffing occurred in July 2007 when LAVTA brought its four transit center customer service representatives "in house" to raise the level of both customer care and also the communication between customers and management. Another significant change occurred during the FY 2006-07, when the position of Deputy Executive Director was created and the position of Director of Capital Projects and Grants was vacated. This position has not been replaced, with LAVTA opting to share the capital projects and grant duties among other positions.

LAVTA still contracts out for the provision of Operations and Maintenance for the service operation. MV Transportation assumed this role in July 2002 from ATC/Vancom, and was chosen to provide another three years of operations and maintenance in 2007 following a thorough procurement. MV Transportation has committed to a contract term of three years plus two, one year options, which began in July 2007. MV currently employs over 150 FTEs at the LAVTA property, which includes maintenance, operations (fixed route and Dial-A-Ride), support, and management. All non-management MV employees are represented by Teamsters Local #70.

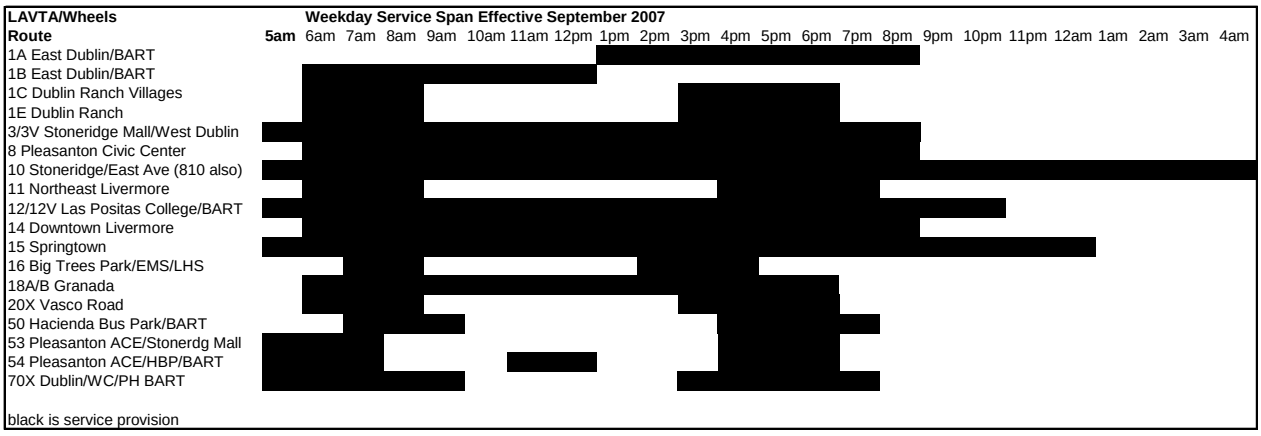
LAVTA entered into a contract with The Independent Way in August 2007 to obtain bus stop janitorial services following an extensive pilot project. This separate contract frees up MV to focus strictly on bus stop maintenance, where they have dedicated one full time position.



LAVTA directly employs 16.5 administration staff, while the M&O contractor employs drivers, mechanics, supervisors, and its own management staff. Below is a graphical representation of the LAVTA organization chart.

1.10 Fixed Route Transit Services

In an effort to target as many segments of the market as possible, LAVTA operates a larger variety of service types than many other agencies of comparable size. The local or base system routes constitute the majority of service and ridership. These are the WHEELS traditional fixed routes that use conventional urban buses on a published schedule; WHEELS operates fifteen such base routes in the three municipalities.



The above chart shows weekday hours of operation and certain other service characteristics for Routes 1 to 70X. It illustrates the peak orientation of WHEELS service, and that the bulk of the service requires medium size (35-40 foot) buses.

1.11 Supplemental Service and School Trippers

School Tripper Routes

Route	Neighborhoods Served	Schools Served
202	East Dublin, Dublin Ranch	Dublin High
601	Ruby Hill	Pleasanton Middle
602	Paseo Santa Cruz	Foothill High
603	Muirwood Park	Hart Middle
604	Fairlands, Hacienda Bus. Park, Muirwood	Foothill High
605	Fairlands, Amaral Park, Santa Rita	Amador Vly High
606	Vintage Hills	Pleasanton Middle
607	Laguna Oaks	Hart Middle
608	Amaral Park, Nielson Park	Harvest Park Middle
609	Del Prado Park, Valley Trails	Hart Middle
610	Fairlands	Hart Middle
611	Ruby Hills, Vintage Hills	Amador Vly High
612	Del Prado Park	Amador Vly High, Harvest Park Middle

In addition to its base local routes, LAVTA also operates shuttle, supplemental, and express service as part of its fixed route system. The supplemental services are mainly geared toward providing additional coverage and capacity for middle and high school students, as well as to cover special events. Services geared to schools are often operated as "trippers," meaning that a bus pulls from the yard, operates one trip, and then returns to the yard. School trippers are operated during school days only, providing one or two trips in the A.M. and P.M., respectively. A special event service, such as for the Alameda County Fair and St. Patrick's Day parade, runs when there is a sufficient demand for the service. The adjacent list shows the regular school trippers and the neighborhoods and schools they serve. It is important to note that all services operated by LAVTA, except paratransit, are open to the general public, and trippers are no exception.

1.12 Regional Express Bus Service

LAVTA has one fixed, express route that operates as a regional line (Route 70X), which runs between the Hacienda Business Park and Pleasant Hill via the Dublin/Pleasanton and Walnut Creek BART stations. While it remains a commute hour service only, LAVTA expanded the popular Route 70X in 2006 and again in August 2007. Route 70X now operates six round trips in the A.M. and P.M., respectively. Up until 2005, LAVTA operated two subscription bus routes under the brand name Prime Time; they picked up at select park-and-ride lots in the Tri-Valley and went to specific employment sites in the Silicon Valley. The Prime Time model was based on delivering commuter services in an extremely low cost method. These LAVTA vehicles were typically operated by one of the commuters and remained parked at their South Bay destinations until it was time for the return trip. Due to issues inherent with volunteer drivers, and single employer markets, operational problems emerged, and ridership dwindled. The LAVTA Board voted to terminate the Prime Time Silicon Valley services in late 2005.

1.13 Sub-Regional Express Bus Service

LAVTA's Route 20 operates as a subregional express service, featuring a significant segment of the I-580 on its operating cycle. Route 20 operates between the Dublin/Pleasanton BART station and the Lawrence Livermore Lab by way of I-580, Greenville Road, Las Positas Road, and Vasco Road. The established market for the Route 20 has grown to be a "reverse commute" group of travelers who work at the Lab (or the emergent light industrial and warehousing district along Greenville/Las Positas Roads) and travel out to the Tri-Valley from the urban core areas. For this market, cutting the travel time to and from BART can be done by utilizing the off peak I-580 segment. However, turning the bus around and returning to BART via I-580 places the bus in heavy traffic, elongating travel times and increasing route costs. Route 20 has since been rerouted back into the BART station (in the off peak Lab commute direction) via surface streets in Livermore as to avoid the daily traffic congestion on westbound I-580. Unfortunately, several variations that traverse Livermore and rejoin the I-580 at Livermore Avenue have failed to attract many BART bound riders. In FY 2007-08, LAVTA intends to rename the "return to BART" Route 20 as Route 20X, reroute it to include a stop at the Livermore Transit Center, and market it as a premium offering for peak direction commuters.

1.14 Paratransit Service

All entities that receive federal funds for public transit services are required by the Americans with Disabilities Act (ADA) of 1990 to offer reasonably accommodating, complementary service for persons having conditions that impair their ability to

utilize regular service. ADA mandated demand responsive services in Alameda County are operated by several public and private transit and taxi service providers, the largest being the East Bay Paratransit Consortium, which is set up jointly by BART and AC Transit. In the Tri-Valley, the City of Pleasanton provides non-mandated paratransit service to anyone age 60 and older who lives in the Pleasanton/Sunol area with internal destinations (or to select destinations in Livermore, Dublin, and San Ramon). The Pleasanton Paratransit service operates during regular business hours on weekdays.

LAVTA provides an ADA mandated Dial-A-Ride (DAR) service for the entire service area. However, during the business day, LAVTA has a cooperative service relationship with Pleasanton Paratransit, which provides that Pleasanton will serve their residents desiring local service. LAVTA, in turn, provides all day complimentary service to both Dublin and Livermore, and serves the City of Pleasanton when Pleasanton Paratransit ceases operation for the evening and weekend. Eligibility for LAVTA's DAR program requires certification under ADA requirements. Passengers must call ahead to make reservations, which can be made up to seven days in advance; same day reservations are accepted as they can be accommodated. Fares are higher than the fixed route (currently $2.50 per ride). ADA registered passengers may also ride the WHEELS fixed route network free of charge as an inducement to use the less costly service. Demand tends to be heavily peak oriented, with LAVTA having between one and seventeen paratransit vehicles in operation at any given time during service hours. For a complete description of LAVTA's paratransit program, refer to Chapter 11.

1.15 Other Public Transit Providers

Although LAVTA has the primary responsibility for providing public transit service in the Tri-Valley area, other entities operate parts of their transit service in Dublin, Livermore, and Pleasanton as part of a regional network.

The San Francisco Bay Area Rapid Transit District (BART) is a rapid heavy rail system that links portions of Contra Costa, Alameda, San Francisco, and San Mateo counties, with tracks and stations being either elevated, at grade, or in subway alignments. There are a total of 43 stations, one of which is located in the Tri-Valley (the East Dublin/Pleasanton station). As indicated under the Transit System History section, a second station (the West Dublin/Pleasanton Station) is under construction as an infill project along existing track near Stoneridge Mall in West Dublin/Pleasanton. BART operates service from east Dublin/Pleasanton to the San Francisco International Airport (SFO), via downtown San Francisco, seven days a week, between the hours of approximately 4:00 A.M. and 1:30 A.M. (on weekends, service begins later). Headways are 15-20 minutes. Passengers with destinations such as downtown Oakland or Berkeley have to transfer to other BART lines. This

heavy rail service is relatively expensive, a cash roundtrip from Dublin to downtown San Francisco is $9.80; a roundtrip to SFO is $14.70.

Central Contra Costa Transit Authority (CCCTA) a.k.a. "County Connection" operates three lines from the Dublin/Pleasanton BART station. Route 121 is a workhorse type route that provides local service in West Dublin, through San Ramon and Danville, into downtown Walnut Creek and BART station. It runs throughout the day, seven days a week, on a 20-60 minute headway, with evening service provided on weekdays. Route 135 is a new route dedicated to serving the Dougherty Valley with termini at the Dublin/Pleasanton BART station and the San Ramon (Bishop Ranch) Transit Center. It runs weekdays on a 45 minute headway, between approximately 6:00 A.M. and 8:00 P.M. Route 970 is a peak hour service that connects Dublin/Pleasanton BART with Bishop Ranch, a sprawling suburban office development in San Ramon. CCCTA also runs the Route 920, a dedicated shuttle between Pleasanton ACE, Bishop Ranch and Walnut Creek to connect Central Valley commuters with Contra Costa County employment opportunities.

Inter-Regional Services

Altamont Commuter Express (ACE) operates four daily round trip trains between Stockton and San Jose with three commuter rail stations located in the LAVTA service area: Vasco, Livermore Transit Center (LTC), and Pleasanton. ACE trains traverse the Tri-Valley around 5:30 A.M, 6:30 A.M, 7:30 A.M, and 10:30 A.M traveling towards the South Bay, and returning to the Central Valley via the Tri-Valley stations at approximately 1:00 P.M., 4:30 P.M, 5:30 P.M, and 6:30 P.M. ACE averages around 700 daily boardings in the Tri-Valley, with over 50% of those at the Pleasanton Station. ACE carries about 675,000 annual passengers, showing a steady climb after the sharp drop associated with the dot com bust of the early 2000s. ACE relies on a supportive network of last mile shuttles, run by LAVTA in the Tri-Valley as Routes 53 (Stoneridge Mall area) and 54 (Hacienda Business Park and BART) and run by different agencies at the San Jose Great America ACE station to deliver and collect ACE patrons to their actual employment sites. ACE shuttles are free to paying train passengers, and are designed to hold for late trains.

Modesto Area Express (MAX) provides two trips in the morning from MAX's Downtown Modesto Transit Center (with one stop at Orchard Supply Hardware on Sisk Rd) non-stop to the Dublin/Pleasanton BART station, and two return trips in the evening. Reverse (off peak) directional service is provided on the 95 minute trip between Modesto and Dublin/Pleasanton BART. Fares are $11 one way, or $13 daily round trip, with monthly passes offered for $130. MAX has recently added a MCI over the road coach to its fleet to increase comfort on this long commuter route. Seating reservations are made and monthly pass holders receive top priority, although reservations are generally not required to ride.

San Joaquin Regional Transit District (SJRTD) offers nine different commuter bus routes under the brand name "San Joaquin Commuter" that originate at various locations in San Joaquin County and serve the Lawrence Livermore and Sandia National Labs in Livermore, and BART (and nearby Hacienda Business Park bus stops) in Pleasanton. These SJRTD routes (151-155, 160, 167-168, and 171) are single trip, commute hour only, leaving the Central Valley very early on weekdays, usually featuring only one trip each morning/afternoon, with no transfer agreements in place with WHEELS for travel within the Tri-Valley. The SJC is offered as a subscription service and advance reservations are necessary to ride daily or monthly. Monthly subscription pass fares range from $102-$153 and are determined by distance traveled. Daily fares on all subscription SJC commuter routes are $10. SJRTD uses comfortable over the road (OTR) style buses for this long distance, limited stop service.

Tri Delta Transit (ECCTA) offers its Delta Express services, which connects the Antioch, Brentwood, and Byron areas with the Lawrence Livermore and Sandia National Labs in Livermore and/or the Dublin/Pleasanton BART station. Four weekday roundtrips are offered, with two serving the Livermore Labs, and two serving BART via Mountain House. Tri Delta offers a flexible fare structure with one way fares of $5, a 20 ride discount ticket book for $65, and a monthly unlimited ride pass for $110. Trips depart Antioch very early each morning, arriving at the Labs for 7:00 A.M. and 8:00 A.M. shifts, and at BART for 6:30 A.M. and 7:00 A.M. trains. ECCTA also uses comfortable, OTR style buses, designed for the rigors of highway travel, for their long distance commuter routes.

Amtrak operates limited intercity thruway bus service with five or six weekday roundtrips between both the Dublin/Pleasanton BART Station (Dublin side) and Livermore (Livermore Transit Center) to Stockton as a feeder element to the San Joaquin Train. Both Tri-Valley stations have designated a bus bay for the Amtrak OTR coaches.

Greyhound Lines operates intercity service between Livermore, San Jose, and Tracy as part of their statewide and nationwide network. Greyhound has cut service to the Tri-Valley significantly since the last full SRTP update. Greyhound tickets are no longer sold at the Livermore Transit Center, although Greyhound has retained a bus bay. Greyhound operates one trip daily in each direction, with connections in San Jose for points west, and Tracy for points east.

1.16 Fare Structure

Current LAVTA fares, shown in the following table, reflect a very basic, FTA mandated fare structure. An adult base fare of $1.75 exists that includes all children/students over six years of age. Senior citizens and riders with disabilities

receive their FTA required 50% discount fare of $.85. In response to changing fiscal constraints, fares were raised in 2006 via a two phased fare increase that culminated in the August 2007 increase that left fixed route, non-discounted fares at $1.75. While LAVTA's base fare is now among the highest in the Bay Area, LAVTA retains a discounted 10 ride ticket sheet ($14 Fare Busters) that reduces the fare down to $1.40. Unlimited use Monthly passes are available at $53 for adults and students, and $16 for seniors and the disabled.

Ticket Type	Price
Regular One-Way Cash Fares	
Adults/Students (6-18)	**$1.75**
Senior Citizens (ages 60 & over)	**$0.85**
Disabled Persons (w/RTC or Medicare Card)	**$0.85**
Children under 6 accompanied by a fare paying passenger	**FREE**
FareBusters Ticket Program	
Adults/Students 10-Ride Ticket Sheet	**$14.00**
Senior Citizens/Disabled Persons	
Seniors Monthly Unlimited Rides Pass	**$16.00**
Disabled Monthly Unlimited Rides Pass	**$16.00**
Dial-A-Ride 10 Ride Ticket Sheet	**$25.00**
Hacienda WHEELS Pass	**FREE**

Weekly and daily passes are not offered. Transfers are issued at no extra charge and ARE enabled for stop and shop purposes (i.e., they are good on the same route as they are issued). This transfer usage was implemented along with the two phase fare increases of 2006-2007 to mediate the impacts on LAVTA riders. There are no demand based (separated by time of day) policies in place, except that seniors ride free between 9:00 A.M. and 2:00 P.M. LAVTA plans to evaluate the option of introducing a day pass in the coming years.

LAVTA has inter-operator transfer agreements with CCCTA and BART. Transfers are honored between WHEELS and CCCTA buses, and a discount is given to passengers that exit from BART (but not transferring to BART). While there is still no universally implemented medium for county or region wide fares, LAVTA participates in discussions with other members of the suburban East Bay Cooperating Area Transit Systems (CATs) transit agencies towards the goal of a regional pass.

LAVTA's ADA mandated paratransit program, named WHEELS Dial-A-Ride, has also raised fares concurrently with the increased fixed route fares. DAR fares were raised in a three step approach, to $1.75 in August 2006, to $2.50 in May 2007, and with a final increase to $3.00 approved for February 2008.

Ultimately, the Metropolitan Transportation Commission (MTC)—the MPO for a nine county area in the San Francisco Bay Area—continues to work through the pilot phase of its TransLink program. TransLink is a contactless fare card, whose value can be recharged, that allows universal use among all area transit operators. TransLink automatically calculates charges, and any applicable discounts for internal and inter-agency transfers, thus

With TransLink, customers use a single smart card to ride Bay Area Buses, trains, lightrail lines and ferries. The nine-county Bay Area is the first region in the US to have a single card that can be used on all forms of public transit.

providing a more seamless fare structure for the passenger. LAVTA's intent is to participate in the TransLink program for its area wide launch, provided that a satisfactory regional revenue sharing agreement can be worked out. LAVTA and most smaller Bay Area Transit (bus) agencies are slated to join the Translink system in 2010 or 2011.

1.17 Revenue Fleet

Because of its wide range of services and heavy peak hour orientation, LAVTA has a larger revenue vehicle fleet than many agencies that operate a similar number of service hours. The total fleet is currently 95 vehicles, used for operations covering the spectrum from fixed route to DAR. The figure 5 at the end of Chapter 6 provides a breakdown of the current revenue fleet composition and service type.

LAVTA utilizes Gillig, low-floor urban buses for a large part of its base fixed-route fleet. The WHEELS low-floor fleet now has 38 of these Gilligs, including two 30' Gillig Hybrids and twelve 40' New Flyers.

In 1996, the agency took its first steps toward a low floor fleet when it acquired twelve 40 foot buses from New Flyer. Then, from 2000 to 2002, LAVTA acquired nine new buses that are tailored to its new commuter services (Routes 20, 70X, and Prime Time). These Gillig Phantom vehicles are similar to the high floor buses purchased in the early 1990s, but with a more commuter oriented interior. In 2002 and 2003 LAVTA procured 38 Gillig low floor buses to augment the twelve New Flyers previously introduced. LAVTA now boasts that all of its regular, fixed routes are operated by its fifty easily accessible, quick boarding low floor vehicles.

Eighteen cutaway vans are used for WHEELS DAR and on certain fixed routes where average loads are low. The vans have a shorter lifespan than the regular buses, and all vans in the agency's fleet were acquired after 1999.

1.18 Existing Facilities

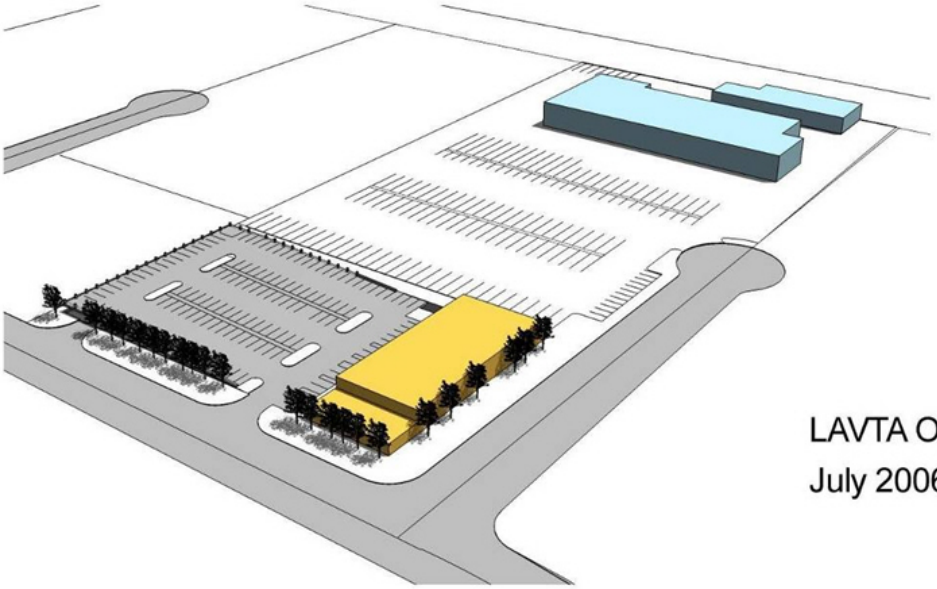
Rutan Court Facility

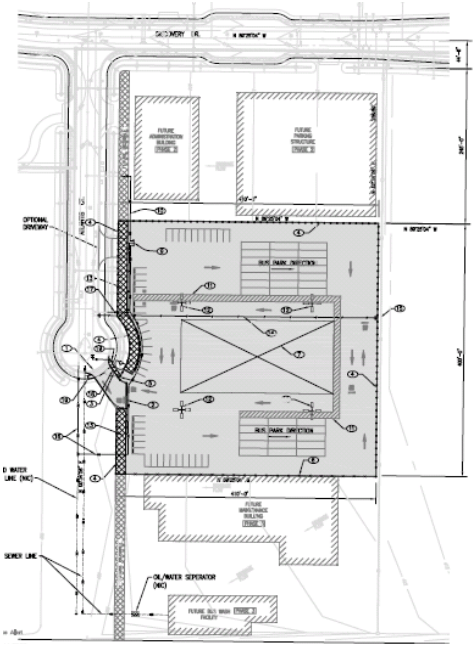
LAVTA's maintenance, operation, and administration (MOA) is performed at a single facility located at 1362 Rutan Court in Livermore. Both agency administration and contractor functions are housed under one roof at this facility, which was completed in 1991. All basic maintenance, except major refurbishments such as engine replacements, is performed at the MOA facility, which has five indoor maintenance bays. The MOA facility also has an island with fueling and

washing facilities for bus bodies and chassis. The outdoor yard can store approximately 55 full size vehicles (if some double parking is applied). The rapid expansion of the fleet, however, means that the current property is too small to accommodate all vehicles and, as a result, an open lot without facilities near the Livermore Airport is being used as overflow storage. The facility generally provides enough space to enable LAVTA to function, however some serious design issues and space constraints do exist. DAR dispatch is crammed into a very small, two room area that lacks views of bus yard activity (or any views, for that matter). Noise becomes a major detriment as multiple customer care agents are taking reservations calls, communicating with DAR bus operators, and with each other, and all within such tight confines. The emergency operations center (EOC) is a very small, windowless, conference room adjacent to DAR dispatch, lacking in the necessary communications infrastructure and space to optimize managerial decision making in an emergency situation. Insufficient bus parking at the MOA facility forces LAVTA to park a portion of the fleet at an off site location, complicating daily operations and the function of the AVL/GPS equipment.

Satellite Bus Facility Project – Discovery Drive Facility

This project consists of a second location, secured about a mile away from the current Rutan location, on Discovery Drive, near Isabel. LAVTA has purchased the land and developed the site plan via a comprehensive master planning process. LAVTA carefully approached this scenario, evaluating the benefits and risks of operating with two facilities, and considering how the Rutan location plays in the current real estate market. It is envisioned that LAVTA will hold onto the Rutan location, where paratransit could conceivably be operated and maintained, while building the new Discovery Drive facility to house and maintain fixed route activities.





In Phase I, LAVTA will construct a parking lot, (with security fencing and lighting) for overflow buses, along with a modular building to house daily bus operator training functions. LAVTA will gather funding to eventually construct a second, state of the art operations and maintenance facility at the Discovery Drive location. LAVTA has secured some, but not all, of the funds needed to cover construction of the Discovery Drive Maintenance and Operations Center.

Livermore Transit Center (LTC)

LAVTA obtained the land for the downtown Livermore Transit Center in the late 1980s in a strategic effort to build an "off street" transit transfer center to allow for a more comfortable, safe, and efficient location where passengers would transfer between LAVTA's array of Livermore based bus routes. In addition, the location was to be designed to host on site personnel to sell fare media and assist passengers with information. The LTC was built and opened in 1991 and has served as LAVTA's Livermore bus transfer hub ever since (transfers were accommodated along both sides of Stanley Boulevard at Valley Care Hospital prior to 1991). The LTC customer service/ticket sales booth is staffed by LAVTA employees (contractor employees prior to July 2007) from 5:00 A.M. to 6:30 P.M. on weekdays, and from 10:00 A.M. to 4:00 P.M. on Saturdays. The LTC features ten dedicated bus bays (allowing for very limited bay sharing), seating, lighting, a continuous canopy, and public restrooms. To enhance passenger and employee security, the LTC was recently equipped with a Video on Demand, closed circuit television system that provides live and recorded video from multiple surveillance cameras at various locations. LAVTA and local police can access the LTC video footage over the internet for incident investigation or other purposes. LAVTA struggles with the facility's current bus circulation design and will try to address streamline bus egress and ingress in the near future.

Dublin/Pleasanton BART Station

LAVTA functions as the primary feeder system into the Dublin/Pleasanton BART station, located in the I-580 median, straddling both the cities of Dublin (north side of station) and Pleasanton (south side). BART owns and controls all aspects of the station, and regulates how the station and its 17 bus bays are used. Although County Connection, Amtrak, San Joaquin RTD, and Modesto MAX provide daily service to this BART station, LAVTA is the primary bus service. The split design of the station produces inherent, inter-modal connectivity challenges, aggravated by the pure distances between most of the bus bays and the fare gates (located directly under I-580). BART has mitigated some of these timed transfer problems by allowing arriving buses to alight BART bound passengers under the freeway, very near the fare gates. However, arriving

BART passengers seeking to complete their journeys via a connecting LAVTA or other bus have very long walks to reach the waiting buses. While unable to address all routes, LAVTA has worked closely with BART staff to identify a location just south of the fare gates for special event buses and, more importantly, the upcoming Route 10 Rapid buses. This will create a convenient, seamless connection between BART and LAVTA's most popular route, thus raising rider satisfaction.

Park and Ride Facilities

LAVTA does not own any Park and Ride lots; however, five Park and Ride locations exist (two of them are near existing LAVTA routes) in the service area.

Livermore Downtown Parking Garage

In 2005, as part of its progressive downtown revitalization project, the City of Livermore constructed a 500 space, three story parking garage directly adjacent to the LAVTA (and ACE) Livermore Transit Center. This garage has assigned spaces for ACE and LAVTA passenger Park and Ride activity. As of 2007, the assigned spaces within this garage and the general downtown parking apportionment of the facility provide ample capacity. However, as downtown continues to expand and flourish by adding new theaters, restaurants, cultural facilities, and entertainment facilities, we can assume that the LAVTA/ACE usage of the garage may someday be limited in order to protect downtown parking.

Dublin Koll Center Park and Ride

Located near the I-580 and Tassajara interchange, this new facility features 200 spaces and has emerged as an overflow parking facility for BART (located less than two miles away, and two interchanges, west on I-580). LAVTA was very proactive in providing free fixed route, BART shuttle services to the Koll Center Park and Ride.

Ridership on Route 50 increased significantly when a tanker truck fire closed a vital Oakland Freeway connector for weeks in April 2007, spurring increased BART patronage from the Tri-Valley and Central Valley commuters. Route 50 provides peak hour service on 15 minute headways to this facility, with buses expressing to and from the seven minute connection to the BART station.

Koll Center Park and Ride is free, versus the $1 daily charge to park in BART's Dublin/Pleasanton Station parking lot.

BART Airway Park and Ride

Located at the intersection of Airway Drive and Rutan Court in Northwest Livermore, BART maintains a 150 space Park and Ride facility. This facility is currently serviced on 30 minute, bidirectional headways of LAVTA's Route 12/12V. Ridership is light (usually from three to ten cars parked per day), although Park and Ride activity may have increased slightly in recent months. Due to the close proximity with LAVTA's Rutan MOA facility, LAVTA often utilizes the Airway Park

and Ride for bus exchanges and shift changes. There is some support in the community for increased bus service to this facility, with expansion of express buses to BART from this parking lot. To explore this concept in a cautious manner, LAVTA is planning to have a stop at the Airway Park and Ride on the revised Route 20X in 2008 as it expresses to BART on its return trips.

Caltrans Portola Road Park and Ride

Caltrans owns and maintains a lightly utilized, 100 space Park and Ride facility on Portola Road, near the intersection of P Street in North Livermore. Currently, LAVTA fixed route services do not exist at this location. The revised Route 20X (in 2008) may traverse Portola at some point in the future, and a pair of stops could be located near this facility, should demand arise.

Caltrans Johnson Drive Park and Ride

Caltrans owns and maintains a highly utilized, 100 space Park and Ride on Johnson Drive, adjacent to I-680 and Stoneridge Drive in Pleasanton. Route 3 provides service near this facility, but lot design precludes LAVTA buses actually entering the parking lot. The lot is generally filled with casual carpoolers bound for San Jose and points in the South Bay. LAVTA has Route 3 stops in the vicinity, but has received few requests for service closer to the Johnson Drive Park and Ride.

Bus Stops

There are over 500 active bus stops in the WHEELS base fixed route system, 142 of which have a shelter structure. Some locations have only a bench, whereas others feature only a pole and a sign. Stops that exclusively serve school trippers are in addition to the 500+ number. A few stops are "stencil" locations only, with minimal markings. See more about LAVTA's bus stops in Chapter 11, Bus Stop Improvement Plan.

This "Livermore Style" shelter was built and installed by the LLNL and is located at the LLNL bus stop at the East Avenue gate. LAVTA Routes 10 and 20 service this sheltered stop.

Transit Right of Way

LAVTA does not own any right of way and has only a small segment of Willow Road in Hacienda Business Park (successful pilot project with City of Pleasanton) with transit signal priority (TSP) in the area. With the construction of the Route 10 Rapid Project, and new traffic signal controllers being installed area wide, new opportunities will arise to implement signal priority for buses. Upon completion of the Route 10 Rapid, TSP will be deployed at all intersections on East Ave, Maple, Railroad, Stanley and Jack London Boulevard in Livermore, and on Dublin Blvd in Dublin and Foothill Drive in Pleasanton near the Stoneridge Mall.

Bicycle Facilities

Bicycle racks are available at the Dublin/Pleasanton BART station and the Livermore Transit Center/ACE Station, but bicycle parking is generally not provided at other bus stops. To help address this need, LAVTA is including bike parking at as many new Route 10 Rapid stops as space allows. All WHEELS buses are equipped with bike racks. Many WHEELS buses hold up to three bikes and the remainder hold two bikes.

Chapter 2

GOALS, OBJECTIVES, AND STANDARDS

2.1 Process

In January 2006, the Board of Directors for the Livermore Amador Valley Transit Authority (LAVTA) adopted a new LAVTA Strategic Plan. The Strategic Plan—developed from interviews and workshops with policy makers and management staff—provides a set of guiding principles, beginning with the overall mission of the agency and ending with a set of goals and strategies.

The Mission states:

> "The Mission of the Livermore Amador Valley Transit Authority is to provide equal access to a variety of safe, affordable, and reliable public transportation choices, increasing the mobility and improving the quality of life of those who live or work in and visit the Tri-Valley area."

The Vision states:

> "An essential link in the regional transportation system, LAVTA strives to be a well recognized, highly respected, integrated public agency utilizing appropriate tools and technologies to provide cost effective, exceptional transport service in response to the needs and priorities of those who live or work in and visit the Tri-Valley area."

2.2 New and Revised Goals

The following table outlines the seven goals and subset of strategies that are identified in the Strategic Plan. This Short Range Transit Plan (SRTP) operationalizes these strategies into measurable objectives under its relevant chapters, and provides an assessment as to what degree LAVTA currently meets those objectives or—where applicable—what LAVTA needs to do to attain them.

A. SERVICE DEVELOPMENT

GOAL: Provide effective transit services that increase accessibility to community, services, and jobs.

Strategy and Objectives	Performance Standard	Time Frame*	Lead Responsibility/ Principal Partners
A1. Expand routes and services to meet current and future demand for timely and reliable transit service			
a. Provide continuous fixed route service to all new and existing developments or re-developments that meet the best-practices guidelines outlined in the Chapter on Transit Oriented Development Support.	Meet standard, MTC "4D"	Ongoing	Planning
b. Provide basic fixed route service to areas that might not meet the criteria set out in (a), but that house and/or employ a significant socio-economically disadvantaged population.	Meet standard	Ongoing	Planning
c. Provide basic fixed route service to cover specifically identified gaps in the regional SF Bay Area transit network.	Meet standard	Ongoing	Planning
d. Provide service hours that are reasonably distributed, relative to the population of the agency's three member municipalities.	JPA	Ongoing	Planning
e. Avail fixed route service to all middle and high school students who attend the main bell at a public school with dedicated and mutually exclusive neighborhood districts.	Meet Standard	Ongoing	Planning
g. Provide service with a time span that is sufficient to effectively serve the primary target markets for each route.	0400 – 0100 h/day or 24-h in backbone corridor(s); 0500 – 0000 on primary feeder lines; 0530 – 0900 and 1500 – 1900 on secondary feeder lines and regional routes' bell time for tripper times.	Ongoing	Planning
h. Provide trip frequencies that effectively serve the primary target markets for each route.	10/20 min in backbone corridor(s); 30/45 min on primary feeder lines; 30/60 min on secondary feeder lines; 60/0	Ongoing	Planning

	min on regional routes; two daily trips for tripper lines. (peak/base)		

A2. Increase accessibility to community services and jobs			
a. Maintain a revenue vehicle fleet that is accessible to persons with disabilities.	100% fleet wide	Ongoing	Planning
b. Increase the proportion of transit stops that are accessible to persons with disabilities	80% of bus stops should be fully ADA accessible	Long term	Planning
c. Upgrade existing transit stop facilities.	Upgrade one or more major element for 10 bus stops per year	Ongoing	Planning
d. Ensure proper cleaning and upkeep of existing transit stop facilities.	In accordance with the established Bus Stop Facilities Maintenance Schedule	Ongoing	Planning

A2. Increase accessibility to community, services and jobs (*continued*)			
e. Maximize access to schedule and route information at transit stops.	Deploy two new static schedule displays and two real-time arrival signs per year.	Ongoing	Planning
f. Maximize access to local and regional schedule – and route information on the Internet.	Maintain a user-friendly web page, including access to real-time bus position information. Participate in regional 511 trip planning system.	Ongoing	Planning/ Marketing

A3. Optimize existing routes and services to increase productivity			
a. Create and maintain service/routes that have a high number of passenger boarding, per vehicle revenue hour.	See 2x2 performance standard matrix	Ongoing	Planning
b. Minimize fleet deadhead hours, using interlining and other supportive scheduling approaches.	Meet standard	Ongoing	Planning
c. Minimize peak fleet requirement, using interlining and other supportive scheduling approaches.	Meet standard	Ongoing	Planning
d. Minimize service redundancies by staggering schedules and/or dispersing routes geographically.	Meet standard	Ongoing	Planning
e. Accommodate student transportation needs, to the extent possible, by adjusting or modifying secondary regular routes.	Meet standard	Ongoing	Planning
f. Minimize the inconvenience of bus-to-bus transfers by coordinating scheduled arrivals/departures at inter-modal transit hubs and other major transfer points.	95% of departures conforming to quarter-hourly pulse. 9/10 of route recovery time assigned to hub.	Ongoing	Planning
g. Maintain bus stop spacing that optimally balances average route speeds against customer access and convenience.	1/3 mile between stops on mainline routes, skip-stop operations on Rapids, non-stop segments on express routes, and no minimum spacing on other routes.	Ongoing	Planning

A4. Improve connectivity with regional transit systems			
a. Coordinate, to the maximum feasible extent, services and schedules to optimize transfer opportunities to/from other transit systems.	Pulse bus departures at Bart station(s) with train arrivals, departures, or both.	Ongoing	Planning
b. Coordinate fare media and – to the extent possible – fares with other Bay Area transit operators.	Meet Standard	Ongoing	Planning

c. Integrate local transit plans into regional plans.	Meet Standard	Ongoing	Planning

A5. Explore innovative fare policies and pricing options			
a. Work with CATS to develop joint fare programs	Implement shared monthly pass	Ongoing	Executive Director
b. Translink fare coordination group	Attend monthly TOG meetings	Ongoing	Executive Director
c. Evaluate development of day pass	Complete evaluation	Short Term	Marketing
d. Evaluate feasibility of student summer pass	Complete evaluation	Short Term	Marketing
e. Implement a college pass	Hire consultant to develop program	Short Term	Marketing
f. Maintain minimum farebox recovery ratios	18% Systemwide, 10% by Route	Ongoing	Planning
g. Utilize fare media that minimize opportunity for fraud and fare evasion	Meet standard	Ongoing	Planning
h. Apply fares and utilize fare media that minimize average dwell times at transit stops	Charge even dollar-denominator cash fares; use off-board fare collection media such as single-ride tickets and flash passes.	Medium Term	Planning

A6. Provide routes and services to promote modal shift from personal car to public transit			
a. Develop/enhance lines that are competitive versus the monetary, time, and convenience benefits and costs of driving a single-occupant vehicle.	25% of peak period trips should have a total TTA ratio of less than 2.0	Long Term	Planning
b. Operate routes on time (as defined by departing a timepoint zero minutes early, zero to five minutes late).	92.5% (95% for BRT).	Medium Term	Planning
c. Operate routes with vehicles that are quiet and offer a comfortable environment for all passengers.	TBD	Ongoing	Planning

d. Operate routes with a high degree of traffic safety.	100,000 vehicle miles between traffic accidents, one pax boarding injury per 100,000	Ongoing	Planning
e. Offer a safe and secure passenger environment at transit stops and on board revenue vehicles.	Boardings TBD	Ongoing	Planning

* SHORT= <2 YRS. MED= 2-5 YRS. LONG= >5 YRS

B. MARKETING AND PUBLIC AWARENESS

GOAL: Improve visibility, image and awareness of WHEELS.

Strategy and Objectives	Performance Standard	Time Frame*	Lead Responsibility/ Principal Partners
B1. Continue to build the WHEELS brand image, identity, and value for customers			
a. Focus 2009 campaign on Introduction of BRT	Implement all elements of the BRT Marketing Plan	Short Term	Marketing
b. Introduce a distinct brand for LAVTA's BRT service and other "fast" services	Implement brand elements as noted in the LAVTA 5-Year Marketing Plan	Short Term	Marketing
c. Redesign website with potential transit rider as the primary focus. Improve website enabling riders to receive service updates, special offers and useful news alerts about community and area events.	Introduce new Website in the spring of 2008 that implements new online tools that enable customers to receive e-alerts and other time-sensitive transit news	Short Term	Marketing Planning
d. Maintain high levels of customer satisfaction ratings.	75% of WHEELS riders rating good to excellent on satisfaction surveys	Ongoing	Marketing

B2. Improve the public image and awareness of WHEELS			
a. Utilize electronic communications to enhance rider experience, such as real-time arrival information at major boarding locations, dynamic signage on buses and at bus stops. and WebWatch on www.WHEELSbus.com.	Install digital real-time arrival signage at Las Positas College, Neal @ First Street	Ongoing	Marketing/ Planning
b. Use directional signage to increase visibility of major boarding locations.	Install directional signage at major boarding locations such as Paratransit Transfer Points at BART and BRT bus Stations.	Short Term	Marketing/ Planning
c. Expand and standardize distribution of the WHEELS Bus Book.	Expand the number of locations display the WHEELS Bus Book by twelve each year.	On-going	Marketing
d. Establish transit information displays at high traffic locations.	Install at least 12 transit information displays at high traffic locations within the community.	Short Term	Marketing/ Planning
e. Continue marketing to middle and high school student market.	Continue to offer Try Transit to School Free-Ride Campaign to middle schools and create info-flyers directed to high school students.	Ongoing	Marketing
f. Focus on "new and improved" advertising campaign on core ridership groups on a variety of enhancements, such as route and schedule improvements, new express route from Livermore to BART, new shelters, introduction of day pass, and a redesigned website.	Implement "new & improved" campaign beginning with Route 70X to Kaiser Walnut Creek (Fall 2007) on the re-design of the WHEELS website (Spring 2008). Implement new Day Pass in	Ongoing	Marketing

	Fall 2008 and the Teen Summer Blast Pass (Summer 2008).		
g. Publish and distribute community/gatekeeper newsletter.	Publish and distribute WHEELS Newsletter (Fall 2007).	Short Term and Ongoing	Marketing
h. Advertise to BART users at BART stations with focus on free Park and Ride shuttle, new BRT service, and All Nighter service within the Tri-Valley.	Coordinate advertising program with BART to promote BART Parking Shuttle and the All Nighter (Spring 2008)	Short Term	Marketing
i. Establish a News Release Calendar of Events and Communities Activities.	Implement a Community Events and Activities Calendar and post on website and in newsletter (Fall 2007)	Short Term	Marketing

B3. Increase two-way communication between WHEELS and its customers.			
a. Continue to execute annual On-Board Customer Satisfaction Survey and Market Segmentation research.	Conduct an annual On-Board Customer Satisfaction Survey in the spring of each year. Conduct Market Segmentation Research every 5 years	On-Going	Marketing
b. Work through gatekeeper organizations to educate specific market segments with special needs, such as seniors, low-income families, persons with disabilities, and ethnic minorities.	Implement the WHEELS Hispanic Education & Outreach Program (Fall 2007). Host a Human Services Transportation Forum (Fall 2007) Conduct outreach to gatekeepers and train staff on the services and programs offered	Short Term	Marketing

	by WHEELS.		
c. Continue to make the Customer Comment Card available at www.WHEELSbus.com.	Meet Standard	Ongoing	Marketing
d. Effectively communicate--and solicit input for—proposed service changes.	Prepare a WHEELS Public Participation Plan and Evaluation Guide detailing the process for facilitating public input about on-going transportation planning initiatives. (Summer 2008).	Ongoing	Planning

B4. Increase ridership to fully attain community benefits achieved through optimum utilization of our transit system			
a. Continue Try Transit to School program.	Meet Standard	Ongoing	Marketing
b. Continue Spare the Air and other timely tie-ins.	Meet Standard	Ongoing	Marketing
c. Provide relocation Realtors with material to be included in packages they send out to potential new residents.	Meet Standard	Short Term	Marketing
d. Participate in Welcome Wagon program.	Meet Standard	Ongoing	Marketing

* SHORT= <2 YRS. MED= 2-5 YRS. LONG= >5 YRS

C. COMMUNITY AND ECONOMIC DEVELOPMENT

GOAL: **Utilize transit as an essential community and economic development tool for local communities.**

Strategy and Objectives	Performance Standard	Time Frame*	Lead Responsibility/ Principal Partners
C1. Promote WHEELS to new businesses and residents			
a. Establish a link network with local Chambers of Commerce, whereby inquires about various aspects of Tri-Valley lifestyle link to the WHEELS website.	Yes/No	Short Term	Marketing
b. Conduct outreach to employers and employment agencies	Meet standard of two-transit fairs each month	Ongoing	Marketing
C2. Integrate transit into local economic development plans			
a. Educate Board and City staff on sustainable land-use practices.	One workshop and one presentation per year.	Medium-Term	Planning
b. Review development plans for inclusion of transit infrastructure.	Yes/No	Ongoing	Planning
C3. Advocate for increased transit-friendly and transit-oriented developments in the City planning departments and in the site development processes			
a. Educate Board and City staff on the importance of pedestrian-friendly site design practices for viable transit accessibility.	See C2A	Medium Term	Planning
b. Educate Board and City staff on the importance of mixing land-uses as a way to reduce automobile dependence.	See C2A	Medium Term	Planning
c. Educate Board and City staff on the importance of developing/redeveloping at minimum densities for transit to be able to serve those developments in a cost-efficient manner.	See C2A	Medium Term	Planning

C4. Partner with employers in the use of transit to meet transportation demand management requirements			
a. Revise Business Club	Hire consultant to develop new program	Short Term	Marketing

D. REGIONAL LEADERSHIP

GOAL: **Strengthen WHEELS' leadership position within the region to enhance opportunities for development and maintenance of quality transit service.**

Strategy and Objectives	Performance Standard	Time Frame*	Lead Responsibility/ Principal Partners
D1. Advocate for local, regional, state, and federal policies that support WHEELS' goals			
a. Meet with State and Federal legislators	Meet with legislators annually	Ongoing	Executive Director
b. Work through CATS to develop joint legislative agenda	Prepare agenda	Short Term	Executive Director
D2. Support staff involvement in leadership roles representing the agency at regional, state, and federal forums			
a. Solicit ideas and proposals from staff.	No standard	Ongoing	Executive Director/All staff
b. Identify new opportunities	No standard	Ongoing	Executive Director
D3. Promote Transit First initiatives with city and county governments			
a. Review existing Transit First policies in other cities	Complete by end of FY 2008	Short Term	Executive Director
b. Develop draft policy	Complete by end of FY2009	Short Term	Executive Director
c. Obtain city support	Initiate conversation by end of FY2010	Short Term	Executive Director
D4. Develop regional initiatives that support riders mobility through more seamless passenger use			
a. Participate in Regional Transit Connectivity TAC	Attend meetings	Ongoing	Planning/ Marketing
b. Develop new CATS initiatives	No standard	Ongoing	Executive Director/Board
c. Maintain current data in regional 511 database	Update with each schedule change	Ongoing	Planning

d. Sell BART tickets	Yes/No	Ongoing	Admin Services

* SHORT= <2 YRS. MED= 2-5 YRS. LONG= >5 YRS

E. SYSTEM EFFECTIVENESS

GOAL: **Strengthen systemwide capabilities and resources to improve overall performance and customer satisfaction.**

Strategy and Objectives	Performance Standard	Time Frame*	Lead Responsibility/ Principal Partners
E1. Promote system wide continuous quality improvement initiatives			
a. Clarify the organizational values, vision, mission, goals, and priorities of WHEELS.	Annual review of Strategic Plan	Ongoing	All Staff and Board of Directors
b. Establish a master plan that clarifies the future direction of WHEELS, including 5 to 10 year objectives.	Annual SRTP update	Ongoing	Management
c. Develop an organizational culture that is consistent with and reinforces the message WHEELS wants to convey to the public.	No standard	Ongoing	Board of Directors/ Executive Director
E2. Continue to expand the partnership with contract staff to strengthen teamwork and morale and enhance the quality of service			
a. Quarterly Planning/Marketing/Customer Service meetings with contract staff	Quarterly meetings	Short Term	LAVTA/MV Mgmt
b. Recognize contract staff through Driver of the Quarter and Driver of the Year programs.	Quarterly	Ongoing	LAVTA/MV Mgmt
c. Annual picnic	No standard	Ongoing	LAVTA/MV Mgmt
d. Provide drivers with a regular channel to offer both positive and negative feedback, which can be used to quickly respond to problems.	Develop new channel for feedback	Short Term	Executive Director/MV Mgmt
e. Weekly staff meeting	Weekly	Ongoing	LAVTA/MV Mgmt
E3. Establish metrics with action plans for improvement			
a. Develop Performance Improvement Plan based on TDA Triennial Audit	Complete	Short Term	Management
b. SRTP/Executive Director Performance management	Annual update/review	Ongoing	Executive Director/Board of Directors

`* SHORT= <2 YRS. MED= 2-5 YRS. LONG= >5 YRS

E4. Strengthen human resources through staff development, focusing on employee quality of life, and strengthening technical resources throughout the organization			
a. Continue to maintain and upgrade IT to keep pace with new development and service changes.	No standard	Ongoing	Management
b. Maintain a staff/employee recognition program.	No standard	Ongoing	Management/Admin Services
c. Research and develop employee benefit plans that focus on employee quality of life.	No standard	Ongoing	Admin Services
e. Design professional development tracks for each department.	Complete tracks	Short Term	Management/Admin Services
f. Maximize staff flexibility using consultants and contractors to increase organizational effectiveness.	No standard	Ongoing	Management
g. Improve internal communications by implementing an email newsletter.	Yes/No Weekly Report to Board of Directors (cc: LAVTA Staff)	Ongoing	Executive Director

E5. Enhance and improve organization structures, processes, and procedures to increase system effectiveness			
a. Procure and install phone/acd/call recording solution.	Yes/No	Short Term	Admin Services
b. Procure and install new financial accounting software system.	Yes/No	Short Term	Admin Services

E6. Develop policies that hold Board and Staff accountable, providing clear direction through sound policy making decisions			
a. Revise Personnel Policy	Yes/No	Short Term	Admin Services
b. Develop purchasing/procurement manual	Yes/No	Short Term	Admin Services
c. Develop media policy	Yes/No Spring 2008	Short Term	Marketing

* SHORT= <2 YRS. MED= 2-5 YRS. LONG= >5 YRS

F. FINANCIAL MANAGEMENT

GOAL: **Maintain fiscal responsibility to ensure the financial sustainability of existing and new transit services.**

Strategy and Objectives	Performance Standard	Time Frame*	Lead Responsibility/ Principal Partners
F1. Develop budget in accordance with the Strategic Plan, integrating fiscal review processes into all decisions			
a. Initial budget planning process meeting	No standard	Ongoing	Management
b. End of budget year management review	No standard	Ongoing	Management/ Admin Services
c. Update procurement policy and train management staff	Yes/No	Short Term	Admin Services
d. Monthly management budget review	No standard	Ongoing	Management/ Admin Services
F2. Explore and develop revenue generating opportunities			
a. Revise business club program to meet current fares	Yes/No	Short Term	Admin Services
b. Increase number of ticket vendors	Yes/No	Short Term	Admin Services/Marketing
c. Identify additional property for advertising revenue	Yes/No	Ongoing	Marketing
d. Meet with other agencies in regards to what they are doing to create revenue	Yes/No	Ongoing	Marketing
F3. Maintain fiscally responsible long range capital and operating plans			
a. Conduct analysis of service area growth and build-out, including determining whether one or two facilities will be needed in the future.	Complete	Short Term	Finance
b. Forecast service areas, projected ridership, etc. to project future facility needs.		Done	Planning

* SHORT= <2 YRS. MED= 2-5 YRS. LONG= >5 YRS

2.3 Service Quality Standards Index (SQSI)

LAVTA understands that the execution of bus operations and maintenance is critical to the success of the transit agency. As such, LAVTA has established a set of measurable statistical criteria from which to judge the performance of its operations contractor on a monthly, quarterly, and annual basis. LAVTA measures its contractor's performance on the following, industry accepted criteria:

- Monthly Fixed Route Revenue Miles
- Monthly Fixed Route Non-Revenue Miles
- Monthly Dial-A-Ride Revenue Miles
- Monthly Dial-A-Ride Non-Revenue Miles
- Miles Between Preventable Accidents
- Miles Between Roadcalls (FTA standard of missed service)
- On Time Performance – Fixed Route
- On Time Performance – Dial-A-Ride
- Dial-A-Ride Service Productivity (between 7:00 A.M. and 6:00 P.M.)
- Preventable Service Interruptions (30+ minutes) Dial-A-Ride
- Preventive Maintenance Inspections (measured against when PMI is due, in miles)
- Total Customer Satisfaction (measured by annual onboard surveys of riders)

LAVTA awards incentive monies and extracts liquidated damages each month, or annually in case of the "Total Customer Satisfaction" criterion, based upon contractor performance versus each standard in each time period. Below is a sample SQSI report for the third quarter, FY 2007.

	Jan 07	***Feb 07***	***Mar 07***	***Total***
Monthly Fixed Route Revenue Miles	149,592	136,111	154,342	440,045
Monthly Fixed Route Non-Revenue Miles	19,340	18,342	21,251	58,932
Monthly Dial A Ride Revenue Miles	29,360	27,484	31,522	88,366
Monthly Dial A Ride Non-Revenue Miles	2,612	2,575	3,319	8,506
Monthly Systemwide Miles	*200,903*	*184,512*	*210,434*	*595,849*

Lump Sum Program – Awarded Annually

Category	*Source*	*A*	*B*	*C*	*D*	*F*				
		$5,000	$2,500	$0.00	($2,500)	($5,000)	*Jan 07*	*Feb 07*	*Mar 07*	*Total*
Total Customer Service Satisfaction – All Modes	Survey	90% and Above	89.9% to 80.0%	79.9% to 70.0%	69.9% to 60.0%	59.9% and Below				-
						Total				$ -

Mileage Based Program – Awarded Quarterly

Category	*Source*	*A*	*B*	*C*	*D*	*F*				
		$0.01	$0.005	$0.00	($0.005)	($0.01)	*Jan 07*	*Feb 07*	*Mar 07*	*Total*
Miles Between Preventable accidents (Systemwide)	Contract-or Monthly Reporting	200,000 and Above	199,999 to 100,000	99,999 to 85,000	84,999 to 65,000	64,999 and below	4 Prevent-able	2 Prevent-able	1 Prevent-able	85,121.35 -
Miles between roadcalls for FTA Standard of Missed Service	Contract-or Monthly Reporting	25,000 and Above	24,999 to 20,000	19,999 to 17,000	16,999 to 13,500	13,499 and below	9 LOS Calls	12 LOS Calls	5 LOS Calls	22,917.29 2,979.25
						Total				$2,979.25

Lump Sum Program, Productivity Based – Awarded Monthly

Category	*Source*	*A*	*B*	*C*	*D*	*F*				
		$1,000	$500	$0.00	($500)	($1,000)	*Jan 07*	*Feb 07*	*Mar 07*	*Total*
On Time Performance – Fixed Route, Express Bus, Subscription	Contract-or Super-visor Reviews	Above 97.5%	97.4% to 95.0%	94.9% to 90.0%	89.9% to 85.0%	84.9% and Below	C - 91.6% -	C - 93.6% -	C - 93.0% -	-
On Time Performance – Dial A Ride	PASS Reports – "On- time Complian ce Report"	Above 95.0%	94.9% to 93.0%	92.9% to 91.0%	90.9% to 89.0%	Below 88.9%	A - 97.9% $1,000.00	A - 97.0% $1,000.00	A - 96.49% $1,000.00	$3,000.00
							A - 2.65	B - 2.59	D - 2.11	

Dial A Ride Service Productivity – Between 7:00am and 6:00pm	PASS Reports – "Daily Operations Report", with requisite hours averaged.	2.6 and Above	2.59 to 2.40	2.39 to 2.20	2.19 to 2.10	Below 2.10	$1,000.00	$500.00	$(500.00)	$1,000.00
						Total	$2,000.00	$1,500.00	$500.00	$4,000.00

Lump Sum Program, Corrective Action Based – Awarded Monthly

Category	***Data Source***	***A***	***B***	***C***	***D***	***F***				
		$1,000	$500	$0.00	($500)	($1,000)	***Jan 07***	***Feb 07***	***Mar 07***	***Total***
Preventable Service Interruptions (30+ minutes) – Dial A Ride	Late Arrivals – PASS, "Late Trip Summary by Provider"/ Total Trips – PASS, "Daily Operations Report"	.300% and Above	Between .301% to .500%	Between .501% and .800%	Between .801% and 1.100%	Between 1.101% and above %	A - 0.139% $1,000.00	B - 0.416% $500.00	C - 0.526% -	$1,500.00
Preventative Maintenance Inspections	For all (both modes) PMI Completed: Total PMI Completed/PMI 300+ Mi Over Projected Svc (Contractor Billing)	97% and Above	96.9% to 94.0%	93.9% to 92.0%	91.9% to 90.0%	89.9% and Below	C - 93.2% -	A - 100% $1,000.00	C - 93.24% -	$1,000.00
							$1,000.00	$1,500.00	-	$2,500.00

Report Total (Quarter)	**$9,479.25**

Chapter 3

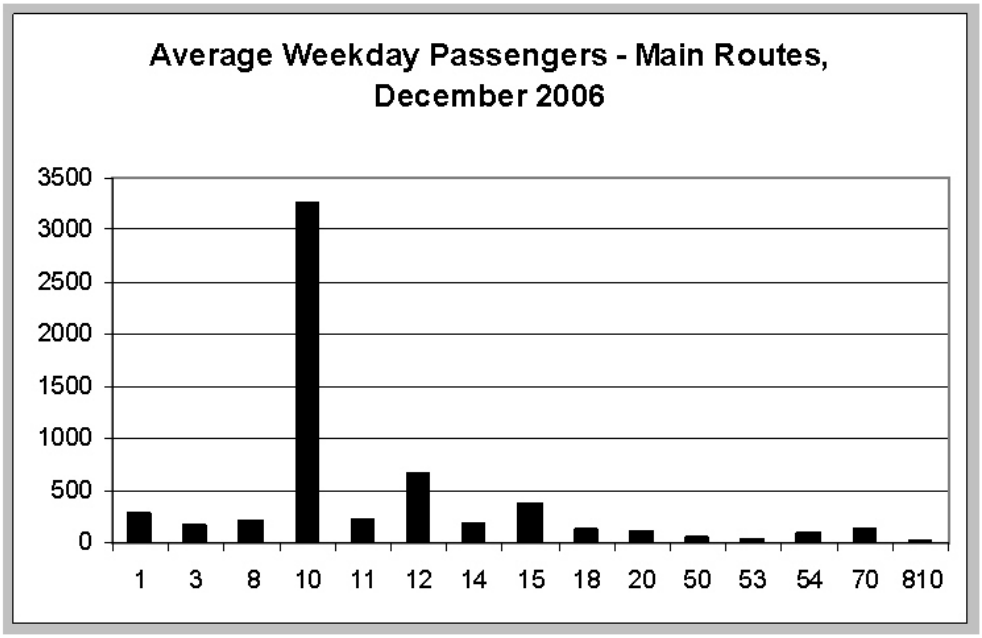
SERVICE AND SYSTEM EVALUATION

The purpose of this (and the previous) chapter is to:

- Demonstrate how LAVTA services are performing relative to current standards.
- Outline the need to refine these standards.
- Establish the foundation for the short and near term service changes that are outlined in Chapter 4.

3.1 General Route Level and System Wide Performance

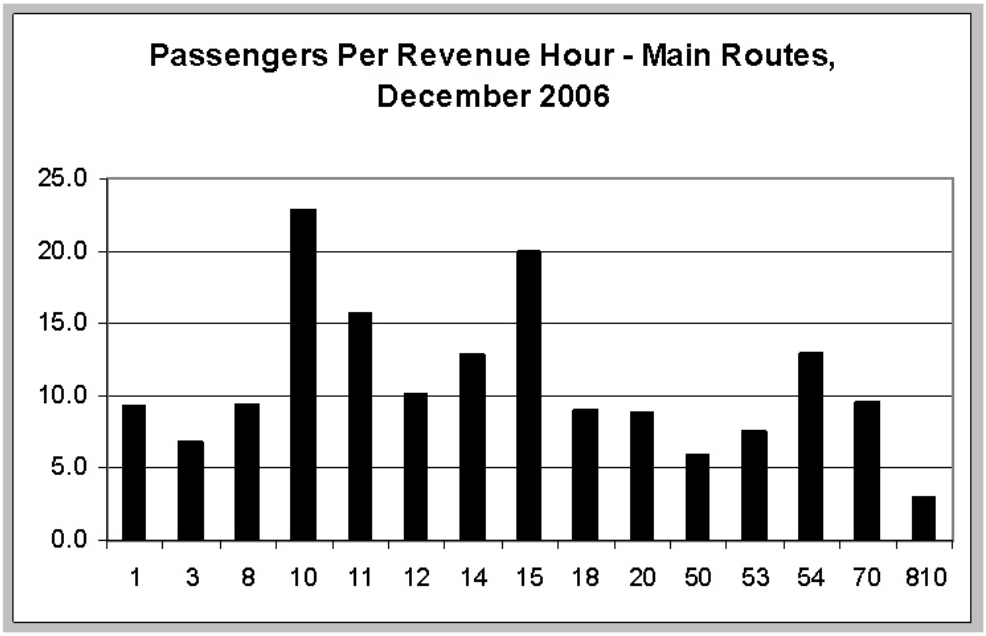
Ridership—as well as revenue hour commitment—is highly unevenly distributed among LAVTA routes. The charts and tables below show ridership indicators by route (excluding pure school trippers) from December 2006, the latest available data at the time this section of the plan was authored.



In that route designations are somewhat arbitrary and depend on the conventions adopted by the scheduling and marketing staff, the table above provides a strong indication of the uneven distribution of ridership within the LAVTA service area. Route 10—which comprises three interlined routes—carries over 50% of the system wide WHEELS ridership (even when taking into account school trippers not shown above). The robust and consistent performance of this route by suburban standards, has enabled LAVTA to protect and increase its service levels, even during periods of necessary overall cost cutting measures.

Two other WHEELS routes could also be said to carry substantial number of boardings per day: Routes 12 and 15.

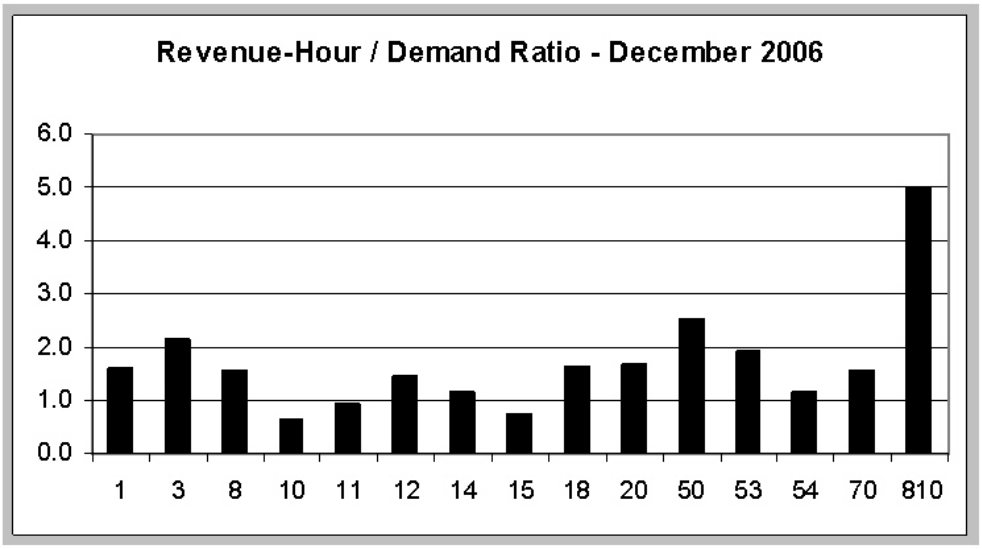
Perhaps the most valuable performance indicator for existing service is unlinked passenger boardings per vehicle revenue hour. As the adjacent table shows, many WHEELS routes remain consistent around 10 boardings per vehicle hour. Routes 10 and 15 are the most productive, with an average of over 20 boardings per hour.
Note: Pure school tripper routes are evaluated separately in Chapter 5, because of the significant differences in vehicle requirements, deadhead ratios, and other overhead costs.



The previous LAVTA SRTP established that certain WHEELS routes are demand based—which are productive routes that serve the most intense corridors, and that carry the most passengers both in absolute terms and per revenue hour. Other routes are coverage based—in that they do not necessarily produce on an individual basis, but either serve an important feeder function to mainlines or are operated because there is a desire for certain areas of the community to have some basic transit coverage. Prior to the 2004 plan, different service types (such as fixed route, subscription bus, and flex service) were compared only within themselves rather than against the transportation need that they were meant to meet. The performance standard introduced in 2004 is shown below, and ranges from five to twenty passengers per vehicle revenue hour.

LAVTA Fixed Route Performance Standard Pax Per Hour	
A. Demand-Based Peak-Hour	B. Demand-Based Off-Peak
C. Coverage-Based Peak-Hour	D. Coverage-Based Off-Peak
⇩	
A. 20 Pax/Hour	B. 10 Pax/Hour
C. 8 Pax/Hour	D. 5 Pax/Hour
⇩	
A. Frequent Fixed-Route Service	B. Semi-Frequent Fixed-Route Service
C. Multiple-Pattern Fixed-Route Service	D. Infrequent or Deviated Fixed-Route Service

Before you can measure system performance against this standard matrix, routes must be sorted into either a demand or coverage based category. One way to identify routes that are based more on coverage based is to look at how many of the current available revenue hours of service are committed to a route, in relation to its share of total ridership—essentially, an inverse of productivity. The adjacent table shows the revenue hour to demand ratio for the main WHEELS routes. Here, if a liberal 1.5 is used as a threshold, then Routes 10, 11, 12, 14, 15, and 54 could be those where the revenue hour commitment is based on ridership, whereas the rest of the system is operated at higher levels than would be dictated by sheer demand.



Having categorized routes as either demand based or coverage based, the individual routes' performance can now be measured against the standard. Unfortunately,

route ridership is not routinely tracked by time of day due to limitations in the ability to automate such a process, even in the presence of the AVL system. So for the purposes of this plan, a sample from the GFI farebox system was extracted and manually tallied, as shown in the following table:

Route-Level Performance, December 2006
Versus SRTP Standard

Route		Pax/h		Meets Standard?	
	Classification	Peak Hour	Off-Peak	Peak Hour	Off-Peak
1	Coverage-Based	11.0	7.1	YES	YES
3	Coverage-Based	11.2	5.6	YES	YES
8	Coverage-Based	9.9	11.0	YES	YES
10	Demand-Based	26.2	24.0	YES	YES
11	Demand-Based	19.8	19.8	NO	YES
12	Demand-Based	17.6	10.1	NO	YES
14	Demand-Based	13.6	13.3	NO	YES
15	Demand-Based	24.7	13.2	YES	YES
18	Coverage-Based	8.3	11.9	YES	YES
20	Coverage-Based	8.8	n/a	YES	n/a
50	Coverage-Based	5.9	n/a	NO	n/a
53	Coverage-Based	7.7	n/a	NO	n/a
54	Demand-Based	16.5	2.6	NO	NO
70	Coverage-Based	9.5	n/a	YES	n/a

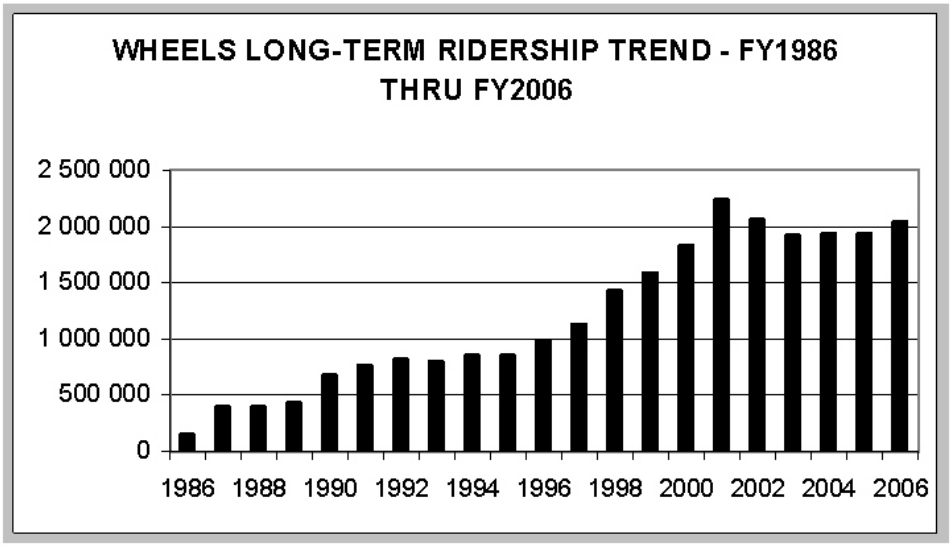
The results show that midday service is more productive than would have been expected. Because of this, and because the off peak standards are set relatively low, all off peak service (defined in the tally as midday and evening service from the weekday schedule) except the midday Route 54 meets the performance standard. However, almost half of the routes fail to meet the standards during peak hours. These include Routes 11, 12, 14, 50, 53, and 54. However, there is no need for immediate concern, as the standard for demand based peak service is set quite high (twenty passengers per hour). In addition, the poorest performers in this group are routes that are either new (Route 50) or paid for by ACE (Route 53 and 54).

Nonetheless, LAVTA should continue to monitor routes that perform in the single digits, and to be prepared to make adjustments to service levels and/or geography to improve their productivity—especially for peak hour service. Ridership spikes that are confined to only one or two trips (typically student loads from middle and high schools) may further mask poor performance of a route. For example, Route 3 and 18 should periodically be analyzed for productivity on a trip by trip basis.

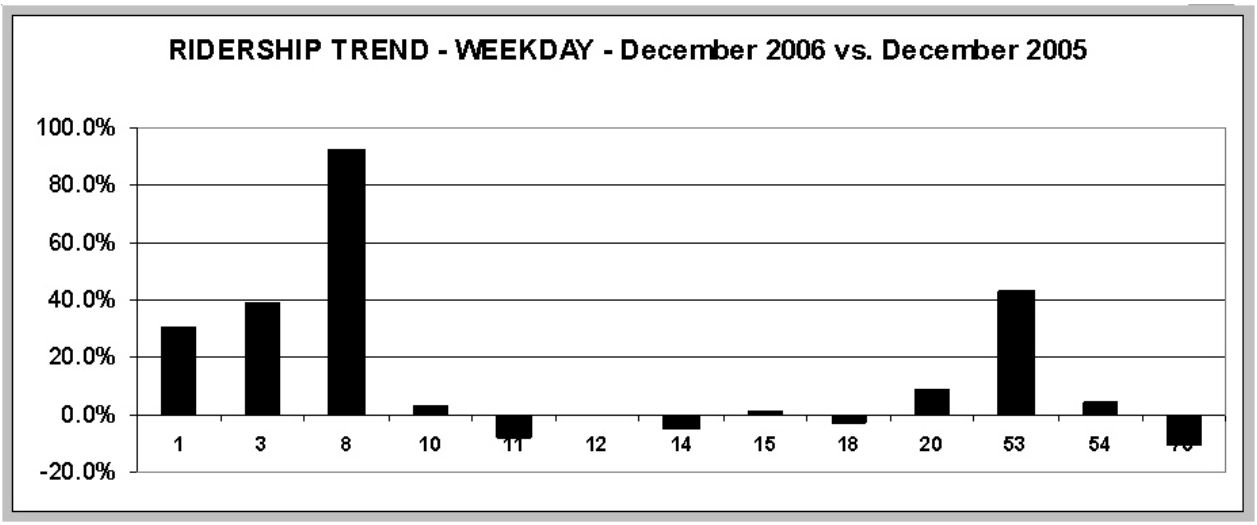
3.2 Trends

The following table shows the annual ridership trend since the inception of the current agency structure in 1986. This shows how the system built its way up to a

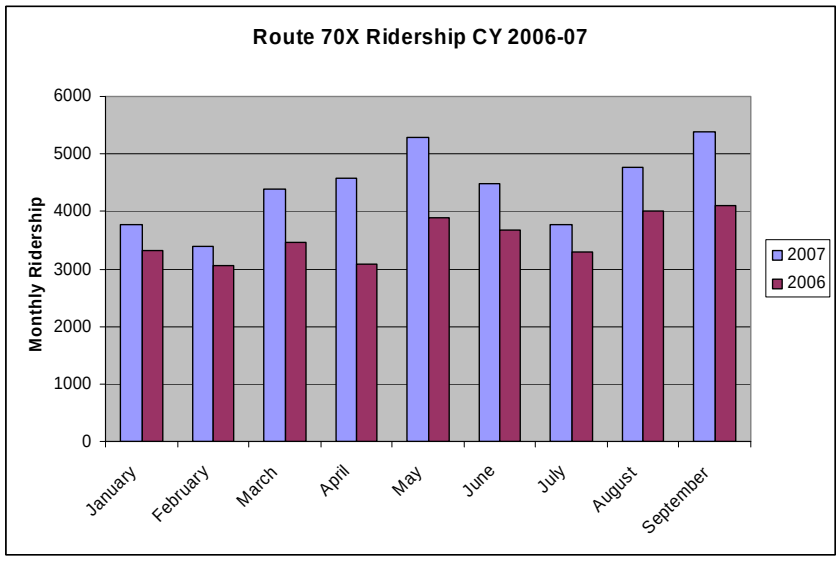
ridership base of about 2 million unlinked boardings per year between 1986 and 2000. Recent trends since then show a slight slump in ridership following the general downturn in the economy which occurred at the time, succeeded by a modest rebound in ridership. This general retention of existing ridership levels took place despite cumulative service cuts of 25% that were necessitated by reductions in sales tax revenue during the 2002-2004 time frame. This retention of ridership was likely the result of protecting productive mainline routes from reductions, consolidating secondary routes, eliminating redundant segments, and eliminating "single purpose" routes. In addition, the DART flex route service, which operated during off peak hours in the Dublin/Pleasanton area, was gradually returned to regular fixed route service on Routes 1, 3, and 8. This conversion more than doubled ridership across comparable services, while yielding substantial savings in overhead (primarily deadhead and dispatching time). A summary table of recent service changes is shown at the end of this chapter.



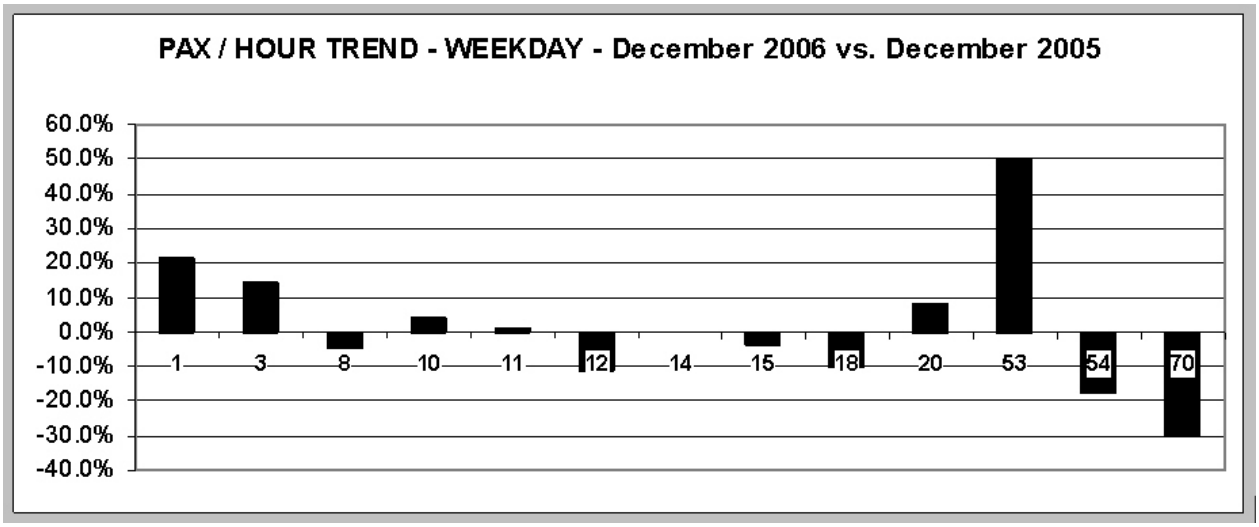
The next table shows the ridership trend by route between December 2005 and December 2006. Overall, it reflects relative stability on routes that did not change during that period. The seemingly high increases on Routes 3 and 8 are partially due to service that formerly had other labels (such as the DART service or the Route 7) that have merged into the current route. In other cases, such as the Route 53, the increases took place from relatively small absolute numbers. Of more significant note is the increased ridership on the Route 10 and the decreased ridership on Route 70X, which took place despite the addition of a service during this timeframe. Since December 2006, ridership has rebounded significantly, as shown on the following table. In response to the early 2007 spike in 70X demand, LAVTA added four daily roundtrips in August 2007.



The following table shows passenger per hour productivity changes by route between December 2005 and December 2006. Changes in productivity were minor on most routes, with the exception of local Dublin/Pleasanton Routes 1 and 3 which saw double digit productivity increases. The decreased productivity on Route 12 is most likely an aftermath of the increased service allocation to the route that took place in Fall 2006, which was mostly operational (runtime added, better schedule consistency, and coordinated meets at Dublin/Pleasanton BART station and the Transit Center). Similarly, Route 70X—which also received an increased allocation of service hours—had decreased productivity, as the service increment had yet to be as productive as previous services. Even so, the next table shows the route's consistent increase absolute ridership.



It is not clear why there are minor variations in productivity on Route 18 and 20; they might simply be normal variations that are common in ridership on smaller routes. Routes 53 and 54 operate on behalf of ACE; the increased productivity of Route 53 reflects the route maturing from its initial startup, while the decrease in overall productivity of Route 54 is likely due to the addition of a midday trip which has diluted the route's overall productivity.



3.3 Changes in Patronage, Operating Costs, and Operating Revenue

As indicated in the beginning of this chapter, WHEELS ridership has recently rebounded with the economy in general and with the continued land development in the Tri-Valley.

At the same time, however, the costs for products and services with which LAVTA and its contractor rely upon have gone up faster than the general consumer price index for the Bay Area as a whole. This is particularly true for fuel, which constitutes a large share of the agency's total operating costs.

In order to partially mitigate the impact of the fuel cost increase in Fall 2006, the LAVTA Board of Directors approved a series of fare increases for the WHEELS fixed route and paratransit services. In order to soften the impact to riders, a phased approach has been implemented. For fixed route, this meant an increase of the cash fare from $1.25 to $1.50 in August of 2006, and a second increase implemented in August of 2007, which brought the fare to $1.75. For paratransit, a three phase increase was implemented, raising the fare from $1.25 to $1.75, $2.50, and $3.00, with the final phase occurring in February 2008. A paratransit fare increase is also being done in an attempt to stem a rise in demand that has been in the double digit percentages for several years.

The service plan outlined in Chapter 4 is fiscally constrained, and stays completely within the forecasted budget for each fiscal year.

A more detailed discussion regarding trends and forecasts for operating costs and operating revenue is provided in Chapters 4 and 6.

3.4 Equipment and Facility Needs

As indicated in Chapter 1, LAVTA owns all buildings and fixed assets that are used for the administration and operation of the WHEELS fixed route and paratransit services. It also owns all revenue and non-revenue vehicles.

Through aggressive interlining and scheduling that takes more of operational considerations into account, the current (Winter 2008) peak pull requirement for a weekday schedule with all schools in session is at a relatively low 46 vehicles. The peak requirement with the January 2008 schedules is the same in the A.M. as in the P.M. hours.

The adjacent table shows the anticipated required growth in peak fixed route vehicle requirements if the fiscally constrained plan in Chapter 4 is implemented as outlined. The most significant increment would come with the introduction of the BRT service in the Route 10 corridor, as this improvement involves substantial overlays to existing peak period service. Anticipated expansion of express bus and school tripper service in FY 2010 will also contribute to an increased peak pull requirement, albeit more modestly.

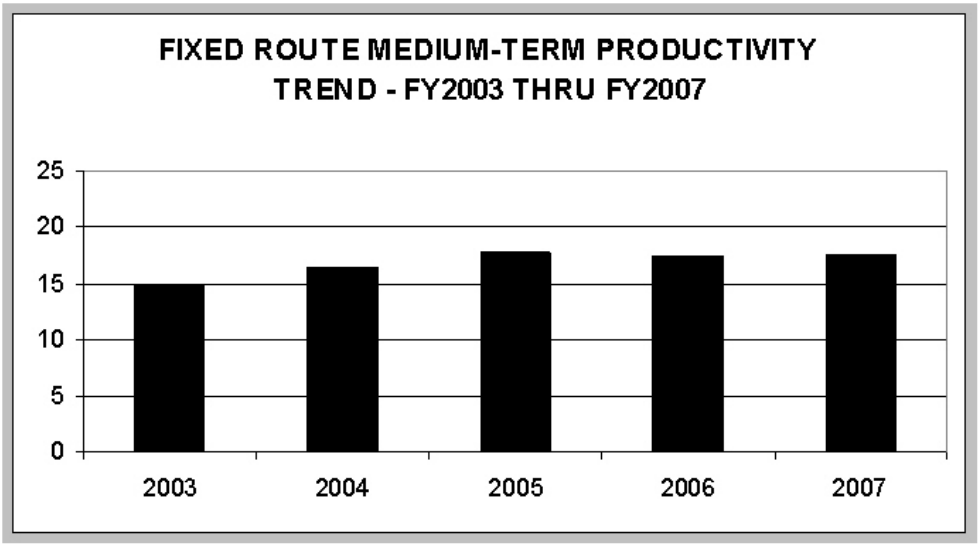
PEAK VEHICLE REQUIREMENT BY FY FISCALLY CONSTRAINED SERVICE PLAN	
FY	VEHICLES
2008	46
2009	54
2010	59
2011	59
2012	60
2013	60
2014	60
2015	60
2016	60
2017	60

The anticipated and planned capital needs of LAVTA for its fixed assets and rolling stock are discussed in further detail in Chapter 6.

3.5 Productivity Improvement Efforts

Since an FTA audit in 2001 concluded that LAVTA performance standards may have been set too low, new performance standards have been established (as part of the previous SRTP update in 2004), and "niche" services such as DART and subscription services, which were deemed unproductive and/or costly, have been discontinued.

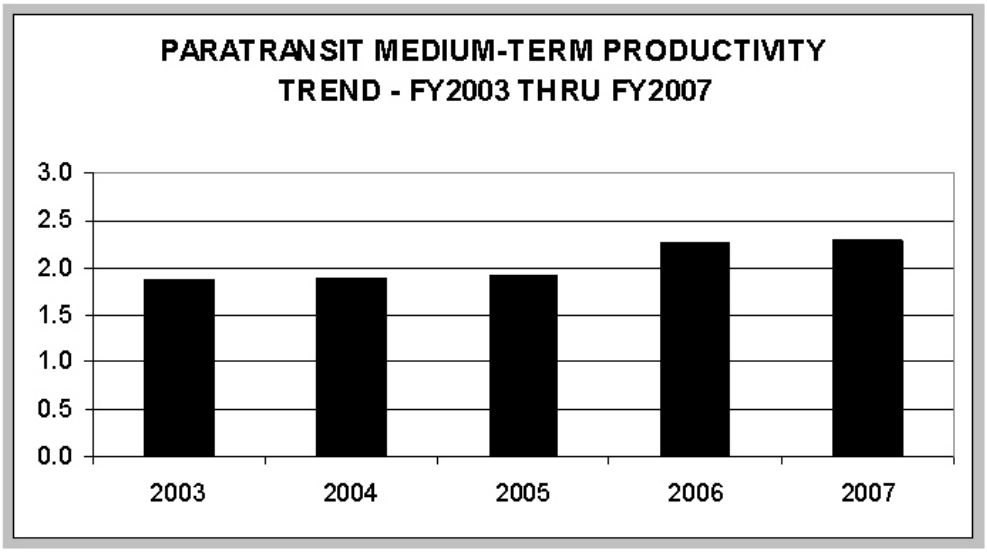
The chart below shows the system wide productivity trend for WHEELS fixed route for recent fiscal years.



As shown, productivity has generally improved. Fairly common to transit in general, when LAVTA implements service cuts, overall productivity increases because the cuts first target unproductive services. As the agency implements service improvements, overall productivity recedes somewhat because the service increment is almost never as initially productive as the base (existing) service. This may help explain why FY 2006 productivity was down compared with FY 2005 (17.4 vs. 17.8). Almost all recent service improvements, however, target either existing productive service or new service expected to be productive—and not discontinued, low performing service. The FY 2006-07 trend seems to support this aspect, as productivity increased—albeit very slightly—despite continued increases in service.

Consistent with, and since, the previous SRTP, LAVTA has integrated some of its previous stand alone tripper service into main routes by making small modifications to existing service. For example, the old 605 was integrated into the Route 8. In some cases (such as the old 201 brought into the Route 3 group as 3V), existing service is maintained, but re labeled and extended in order reach additional ridership.

Nonetheless, "tripper" routes will, in many cases, continue to be the optimal service delivery method to meet the transportation needs of students in the LAVTA service area—especially in the Pleasanton area—and are discussed separately in Chapter 5.



For paratransit, service productivity gradually improved during the same time period (shown in the adjacent table). It increased from 1.88 boardings per revenue vehicle hour in FY 2003 to 2.28 in FY 2007; as such, it meets the goal of 2.20 set up by the previous full LAVTA SRTP.

As demand and ridership patterns can fluctuate heavily in paratransit, and with less factors under the agency's control, LAVTA should closely monitor the performance of its paratransit services on a month to month basis. Significant short term variations of indirect productivity indicators such as revenue and deadhead speed may be early indicators of dispatch scheduling inefficiencies and/or incorrect data reporting. The paratransit services are discussed more in detail in Chapter 11.

3.6 Community Based Transportation Planning Program

The goal of the MTC Community Based Transportation Planning (CBTP) Program is to advance the findings of the LifeLine Transportation Network Report as adopted by the Commission and incorporated into the Regional Transportation Plan (RTP). That 2001 report identified transit needs in economically disadvantaged communities throughout the San Francisco Bay Area, and recommended community based transportation planning to further address them. Likewise, the Environmental Justice Report for the 2001 RTP also identified the need for MTC to support local planning efforts in low income communities throughout the region; the Community Based Transportation Planning Program responds to these findings as well. The program targets the most disadvantaged communities as identified in both reports.

LAVTA was involved in the early, exploratory stages of the LifeLine program. Despite the Tri-Valley being a generally affluent area, a GIS analysis by MTC revealed pockets of households here that were identified in the CalWorks assistance

program. While LAVTA was not chosen for the pilot program, it was able to secure a grant from the MTC Low Income Flexible Transportation (LIFT) program, which helps fund 50% of the operating cost for Route 14. This is a circulator route that directly connects a neighborhood in north central Livermore, which has a significant Hispanic population, to the downtown area. LAVTA continues to apply for funding for this service, submitting its latest application in the winter of 2008.

3.7 Paratransit Services

The general provision of paratransit services in the Tri-Valley is outlined in Chapter 11. As mentioned there, the City of Pleasanton operates its own paratransit service, while LAVTA provides paratransit in the rest of the Tri-Valley, as well as in Pleasanton when its paratransit system does not operate.

Although the productivity of this service has substantially improved (as described earlier), the sharp increase in demand for paratransit remains a problem because of its high per trip cost. In order to avoid having increased costs for paratransit at some point encroach on the fixed route service, it will be necessary for LAVTA to more actively manage the demand for the service by reviewing client certification procedures and further differentiating the fare between fixed route and paratransit. In the long term, it may also be necessary to restrict the service geographically to more closely mirror Federal requirements (to provide service only within 3/4 mile of a regular fixed route, during the time span which that route runs). The agency has already implemented a phased fare increase for paratransit—with the current fare at $3.00—in an effort to stem demand. LAVTA also actively encourages ambulatory (non-wheelchair dependent) clients to use fixed route services whenever possible. There is a travel training program for fixed route service, and also ADA certified clients ride fixed route for free.

Operational improvements should continue to be undertaken as well, such upgrading and keeping up to date trip scheduling software, as well as identifying origin destination pairs suitable for group trips or conversion to limited fixed route.

A full plan for LAVTA's paratransit services is outlined in Chapter 11.

3.8 Civil Rights and Non-Discrimination Compliance

The MPO (MTC) monitors transit operators' compliance with respect to Title VI and non-discrimination practices. The last Triennial Review (see below) did not find any deficiencies in LAVTA's compliance with Title VI.

In light of the service cuts that all Bay Area transit agencies had to implement during the last economic downturn, MTC has initiated a review process designed to monitor how the proposed transit service cuts in the region affect disadvantaged socioeconomic groups and to also ensure that those cuts are not disproportionately impacting minorities and the impoverished.

The most recent LAVTA Title VI compliance monitoring report was completed in August 2006, and is shown in the Appendix.

The 2008-2017 service plan (see Chapter 4) generally favors expanding service that will be beneficial to the transit dependent population in the area. This will include improvements to routes that connect low and moderate income neighborhoods to employment centers and BART. In addition, many of the measures are geared toward improving service outside traditional commute hours, such as midday, evening, and weekend service **Note**: In December 2005, LAVTA implemented 24 hour service as part of the new regional All-Nighter network; this route (810) provides local service along most of the WHEELS Route 10 corridor and connects to the rest of the All-Nighter network in San Leandro.

It should also be noted that in 1999 the LAVTA Board of Directors approved a resolution governing a disadvantaged business enterprise (DBE) programs for bus rehabilitation (5%, DBE participation). A process was also established to define similar DBE%age goals for all major procurements that the agency undertakes.

3.9 Triennial Review

The latest FTA triennial review (which is separate from the MTC triennial audit described above) was completed in April 2006. Of 23 areas audited, deficiencies were found in seven

In the area of Satisfactory Continuing Control, it was noted that LAVTA's bus spare ratio is high relative to current peak level pulls (34%). LAVTA has since provided two updates to its comprehensive fleet management plan as requested, and continues to provide bi-annual updates. Part of the fleet management plan includes "mothballing" buses into a contingency fleet that can be used for bus bridges or emergencies; the agency has also lent out seven buses that currently are in service with other agencies. It should also be noted that the Route 10 Bus Rapid Transit project, which will require an additional eight buses at peak, will be implemented using vehicles that only replace existing ones in the total fleet.

It was also noted that a bus fire in 2004 was not reported to the FTA. LAVTA has since submitted documentation that satisfied the requested corrective action on this issue.

In the area of *Maintenance*, it was noted that there were no formal written maintenance plans, nor was there a formal record keeping system in place to document the service dates for equipment. Further, a random sample of preventive maintenance records revealed a pattern of late inspections. LAVTA has since submitted a fleet and equipment maintenance plan to the FTA, which satisfied the corrective action on that issue. With regard to late preventive maintenance, follow up documentation submitted for the third and fourth quarter of 2006, respectively, closed the issue brought up in the audit. The fleet maintenance plan, Objective Three, states that 80% of preventive maintenance inspections must take place within +/-10% of the prescribed mileage interval.

In the area of *Procurement*, it was noted that a change order for the LAVTA AVL system, in the amount of $600,000, was executed without a written justification or cost analysis. It was also found that a purchase of three paratransit vans did not include all applicable FTA clauses in the original solicitation. LAVTA has subsequently adopted and submitted an updated set of procurement procedures.

In the area of *Title VI*, a discussion between auditors and LAVTA staff showed that, while the agency used planning guidance relative to route development and Title VI compliance, it did not have a comprehensive method to monitor the quality and level of service relative to Title VI requirements. LAVTA subsequently adopted and submitted to the FTA Civil Rights Officer a Title VI monitoring policy. This policy consists of a checklist that staff will utilize when evaluating and scoring potential changes to service and fares; this checklist was first applied in conjunction with the Fall 2006 service change and fare increase.

In the area of *Half Fare*, it was found that LAVTA's public information did not clearly show that Medicare card holders are entitled to the agency's discounts, even if they are neither seniors nor disabled. LAVTA has since updated its public information to fully reflect the availability of discounts to all Medicare card holders.

In the area of *ADA*, it was found that the agency's paratransit service had a pattern of booking denials (which are not allowed per ADA), and that these denials were not being counted twice for roundtrips as they are supposed to. As corrective action, LAVTA submitted a fleet plan to the FTA indicating the increased number of vehicles being placed into service (paratransit fleet was expanded by nine vehicles in the Fall of 2006) which has relieved capacity constraints for the service, and updated its ADA paratransit standard operating procedure (SOP). At the time of writing, the WHEELS paratransit service maintained zero denials for several months in a row.

In the area of *Drug and Alcohol Program*, a discussion between the auditors and agency staff showed that, while LAVTA was receiving the relevant reports from its contractor, it did not proactively provide oversight activities to ensure contractor compliance with its drug and alcohol testing program. LAVTA has since revised its drug and alcohol oversight procedure to ensure its contractor's testing program

meets 49 CFR requirements. The revision allows LAVTA access to the contractor's testing records and procedures, requires detailed explanations for canceled tests, and specifies the Federal guidelines to which the contractor has to adhere to in this area.

3.10 Fixed Route Service Changes Since Last SRTP

Since the completion of the previous full LAVTA SRP in 2004, all the items from that plan for the relevant time period have been implemented, with the exception of "Route 10 Sunday improvement" and "Route 10 mid day improvement, phase I", which have been partially implemented, and partially deferred and merged into the new "Route 10 Bus Rapid Transit" project (discussed separately in Chapter 7).

Additional changes—beyond those specifically spelled out in the 2003 SRTP—have been implemented, due to needs that may not have been anticipated when the last full service plan was completed. This is particularly so because of the extended amount of time (four years) that has elapsed since then. The following table shows the major changes that were implemented during FY 2004 thru early FY 2008. FY 2004 concluded a period of necessary service reductions for the agency, while subsequent years have offered the opportunity to begin to make improvements. Those improvements—for the most part—did not aim to restore all service that was cut earlier in the decade, but strengthened already productive services. Another effective realignment of service allocation since "precut" days is the covering of temporal gaps, especially weekend service which has been substantially improved during this period. An important milestone was reached during FY 2006, with the implementation of 24 hour service on Route 10.

IMPLEMENTED MAJOR SERVICE CHANGES SINCE PREVIOUS SRTP

Year	Project	Annual Revenue Hours
FY 2004	Routes 3 and 4 Combination	-4,145
	Hacienda Service Restructuring	-4,259
	Routes 7 and 8 Restructuring	-3,977
	Saturday Dart to Fixed Route	-525
FY 2005	Route 11 Saturday Discontinuation	-467
	Route 12 Sunday Service	1,433
	Route 15 Weekend Hours Extension	468
	New Rt 51 to Santa Rita Jail	n/a
	New Rt 1C to DR Villages	1,820
	Route 55 Discontinuation	-1,983
FY 2006	Route 10/810 Owl Service	3,300
	Route 20 Service Improvement	315
	Route 53 Stoneridge ACE Shuttle	1,290
	Subscription Service Discontinuation	-1,525
	Weekday Dart to Fixed Route	0
FY 2007	Route 3 Split Sat Schedule	0
	Route 7/8 Integration	-315
	Rt 12 Consistency Improvements	2,167
	Rt 18 Saturday Service	281
	Rt 50 New Hacienda/Koll Service	2,582
	Fourth ACE Shuttle Trip	489
	Fourth Rt 70 Trip	932
FY 2008	Expanded Rt 1 service to Dublin Ranch	0
	Route 10 Frequency Improvements	6471
	Improved service, Rt 11 to Industrial Way	1420
	Rt 15 Frequency Improvements	1261
	Rt 70 Frequency Improvements	1923
	Rt 16's Mainlines Integration	-300
	New Rt 612 to Del Prado Park	181

Chapter 4

FISCALLY CONSTRAINED SERVICE PLAN AND ILLUSTRATIVE PRIORITIES FY 2008 THROUGH FY 2017

4.1 Background

Since the completion of the last full SRTP in 2004, most of the service changes that were outlined for the time period between then and the time of writing this document have been implemented, and were shown in Chapter 3. Early within that timeframe, those changes were characterized by reductions made necessary by a decline in sales tax based revenues; more recent changes have constituted net service increases. The reductions that were made (in the magnitude of 25% of then current service levels) targeted primarily unproductive and redundant routes, while the later service improvements have focused mainly on productive corridors and were not aimed at simply restoring the service that had previously been cut. With the discontinuation of subscription like and deviated route (DART) services, ambitions to be a total "mobility manager" were replaced by measures to enhance service in existing strong corridors and emphasize regional transit hubs and activity centers by adding frequency and increasing the service hour span on routes serving those.

As the agency grows, it is recommended that LAVTA continue to target service improvements to the relatively denser corridors in its service area (including existing productive service such as Route 10, but also new service to dense, mixed use, pedestrian and transit friendly developments). The Route 10 Bus Rapid Transit project, discussed separately in Chapter 7, is an example of this approach. Secondary lines should primarily function as feeders to backbone transit corridors, such as the Route 10 and San Francisco Bay Area Rapid Transit District (BART) stations. In Livermore, a redeveloped downtown will create new opportunities for transit, as will a new infill BART station in the western Dublin/Pleasanton area.

Areas or developments that do not meet reasonable criteria with regard to density, street network connectivity, pedestrian and transit friendly site designs, and mixed use would not necessarily be guaranteed fixed route service – although student transportation to area middle and high schools from most residential areas likely will be viable to – and should be a priority to – LAVTA. But ultimately, and as discussed in Chapter 10, the agency's best opportunity to substantially build ridership and capture a larger modal share from the single occupant vehicle may lie in its ability to advocate for *sustainable land use and development practices*. Past market studies undertaken by LAVTA have been consistent with nationwide surveys

showing that individuals and households that can afford to acquire and maintain private vehicles will not make their commute trips (regional or local) on transit if the transit trip takes more than double the time of driving; discretionary transit trips (social, shopping, and the like) are even more time competitive. Aside from significant changes to land use practices, the best way LAVTA can address this issue is to *speed up service* (working with local jurisdictions to get lane and traffic signal priority, optimally spacing transit stops or operating limited stop service along heavy boarding segments) and to *increase frequency* (which reduces the average wait time at transit stops). For regional trips, well timed connections with BART to/from area residences and employment locations may also be competitive with that of the automobile when the time required to make the entire trip is factored in.

Connecting socio-economically disadvantaged individuals and households in the Valley with jobs is an investment with a tangible economic return to the community—the recently implemented 24 hour service in the Route 10 corridor and improvements to non-traditional commute hour service in other areas with high concentrations of low income households should continue to be built upon over the span of the Plan.

The service plan for the horizon of this document is shown below by fiscal year. Fiscal years not shown are ones for which no major service change are anticipated.

4.2 Fiscal Year 2009 Service Plan

Route 10 Frequency Improvements and "Rapid" Phase I

Route 10 is, by far, the most productive of LAVTA's mainline services, and carries a staggering 50% of total fixed route system wide ridership. This route serves and connects all three downtowns of the Tri-Valley with BART and with major activity centers and activity corridors. Route 10 is a legacy from the original "U" line service that was implemented as a BART feeder prior to the Dublin/Pleasanton extension. Over the years, service has been improved in response to increasing demand along this corridor, and a large segment of the route now operates as a 24 hour service. Any improvement made to this service (such as the Route 10 Bus Rapid Transit plan outlined separately in Chapter 7) is anticipated to benefit a large number of existing and future users.

The last full SRTP (from 2004) outlined a continued, phased improvement for the 10 route. Three of the four phases – AllNighter, midday frequency improvements, and

Saturday frequency improvements – have since been implemented. Now that LAVTA's financial situation has improved, it is recommended that the agency continue to implement improvements to frequencies on Route 10.

Since the project's inception the Rapid Bus was planned to generally follow the Route 10 alignment in every way, except near Downtown Pleasanton, where conditions (traffic, slow speed limits, multiple traffic control devices) drastically slow the Route 10. Two options to avoid entanglement in this low speed segment were carried forward, with the preferred option being to use Old Stanley Road between Stanley and Santa Rita to serve the edge of Downtown yet not prolong the routes overall travel time severely. Unfortunately, residents along Old Stanley chose to oppose the project. They didn't want a premium transit service in their partially-residential area. The project is now likely to be rerouted through Dublin rather than Pleasanton (the Livermore segment is almost the same as planned) by veering north on Isabel to Jack London to Fallon and into BART via the Dublin Blvd. corridor. Please see more on this late project scope change in Chapter 7.

During the discussions on what to do with the Rapid in Pleasanton, it was decided that the current robust levels of Local Route 10 service (15 minute frequencies, all day weekdays, 20-30 minutes on weekends) will suffice into the future, but that the City of Pleasanton was strongly supportive of adding TSP (Transit Signal Priority) elements to the Local 10 to speed up the route. With most of the TSP design work already completed on this portion, LAVTA agreed to complete the additional TSP intersection design to apply this technology at all intersections along the Route 10 between BART and Downtown Pleasanton as part of the Rapid Bus project.

With the re-scope to morph the original Route 10 Rapid project with the future "Dublin Blvd. Rapid Bus" it is recommended that the BRT service be interlined to the Dublin/Stoneridge Mall portion of the route, effectively extending the existing 15 minute frequencies on this portion of the route to the entire day. This increment (estimated at approximately 2,500 revenue hours on an annual basis) is included with the BRT I total cost estimate table at the end of this chapter. It is also quite likely that the Rapid Bus project will actually now initiate service in FY 2010.

4.2 Fiscal Year 2010 Service Plan

West Dublin/Pleasanton BART Station Service

Currently, BART is constructing an infill station on existing track in the median of I-580, near Stoneridge Mall. Most of the related facilities—including bus bays—will be located on the Dublin side, off

Golden Gate Drive. The new station is being developed as a joint public-private partnership between BART and Jones Lang LaSalle, and would include a mix of uses on District property on both the Dublin and Pleasanton sides of the station, including offices, hotels, and apartments. Construction began in October 2006, and is anticipated to be complete by April 2009.

The new BART station (for the purposes of this document will be called the West Dublin station) will be a significantly lesser transit hub than the existing Dublin/Pleasanton station two miles to the east, because the existing station, as an end of the line station, has a large outward (east) catchment area. As such, it will continue to be the focal station for transit connections to downtown Pleasanton and Livermore, as well as for Central Valley operators.

Nonetheless, the West Dublin station will shift the gravity of some LAVTA services to the west. It will also likely be the station of choice for patrons coming from the south San Ramon area, and it is anticipated that the County Connection will shift their 121 (local to Walnut Creek via Dublin and San Ramon) and 970 (express to Bishop Ranch Business Park in San Ramon) to the new station.

The land uses surrounding the new station are largely "built out" land, containing a relatively high mix of uses that include residences, retail, office, hospitality, and medical facilities. As mentioned above, the development of the station itself contains elements of residential, office, and hospitality uses.

Multiple WHEELS routes operate in the vicinity of the new station. The list below describes each Route (at the time this Plan was written), and any modification that is proposed for each (once the station becomes active).

<u>Route 3</u>
Currently operates as a large loop route, with the East Dublin station and Stoneridge Mall as anchors. It is essentially two routes interlined, serving mostly employment oriented uses in northwestern Pleasanton and mostly residential uses in western Dublin. Demand along the route is directional in nature, and thus a reverse direction setup between the morning and afternoon hours is applied—although limited bi-directional service is provided in the P.M. peak.

It is recommended that the coverage provided by this route be maintained after completion of the West Dublin station, but that the route's Pleasanton and Dublin service, respectively, be operated as separate routes, both of which would be anchored to both the east and the west BART stations. Their western termini would be the Dublin and Pleasanton side, respectively, of the West Dublin station.

<u>Route 8</u>
This is the principal north-south Pleasanton route, aside from the Route 10, serving the Hopyard Road corridor, Bernal Business Park, and Vintage Hills. Its current

main anchors are the existing Dublin/Pleasanton BART station and downtown Pleasanton.

It is recommended that this route's northern terminus be reassigned to the new West Dublin BART station at the time of its opening. That way, routing is better for riders who transfer to/from BART. Patrons traveling to/from Livermore will continue to have the opportunity to transfer to the Route 10 at Neal and First. The (by then split) Route 3 should be aligned from Chabot Drive to the corresponding segment of Hopyard Road to cover for lost territory of the realigned Route 8, which would no longer traverse Hopyard Road north of Stoneridge Drive.

Onboard surveys should be administered on the Route 8 prior to relocation to ascertain the level of "bus to bus" transferring occurring at the East Dublin BART station. Should it prove that too many Route 8 riders are connecting to other LAVTA routes and would be hurt by the isolation of the Route 8 at the West Dublin BART station, LAVTA may want to rethink this move.

Route 10

This is the backbone route of the WHEELS fixed route service, traversing all three downtowns of Livermore, Pleasanton, and Dublin—with Lawrence Livermore National Laboratories, the Livermore Transit Center, Neal and First, the Dublin/Pleasanton BART station, and Stoneridge Mall as anchors. It carries half of LAVTA's fixed route ridership, runs 24 hours a day on most segments, and provides high frequencies during peak periods.

The Bus Rapid Transit project (Chapter 7) will overlap and partially replace the existing local 10 service. The Rapid is slated to completely replace the Route 10 west of the East Dublin/Pleasanton BART Station. Serving the new West Dublin/Pleasanton BART station with the Rapid is still under evaluation at this time.

From the East Dublin BART Station to the Lawrence Livermore Labs the Route 10 will continue to provide service concurrently with the new Rapid (Rapid taking a northerly alignment via Dublin) along its historic path through Pleasanton (Owens, Santa Rita, Downtown/First and Neal) then to Livermore via Stanley Boulevard. It is recommended that the local Route 10 be left intact along this 15 mile segment, with headways generally set at 30 minutes. Using an additional, "short turn" bus, LAVTA can economically retain current 15 minute headways between BART and Downtown Pleasanton. 30 Minute headways between Downtown Pleasanton and Livermore Labs will be augmented by 15 minute Rapid Bus services between Isabel and the Labs.

Route 50

This relatively new route was established as a hybrid route to serve the Hacienda Business Park in Pleasanton and to serve as an overflow BART parking shuttle to/from the Koll Center in Dublin. The new West Dublin station will bring an additional supply of approximately 1,150 parking spaces; with this, it is anticipated that the current parking shortage at the East Dublin station will be resolved, and overflow parking will no longer be necessary.

It is recommended that the hours currently allocated to the 50 be used to recreate the old Route 9, as a dedicated Hacienda to BART service. This will also relieve the Route 1 group from having to serve the CarrAmerica complex, as Carr will fit into the cycle time of a dedicated Hacienda service.

Route 53/54

These two routes are connectors for the Altamont Commuter Express (ACE) Pleasanton station; the primary target for Route 53 is the Stoneridge Mall area, while Route 54 serves the Hacienda Business Park, the Dublin/Pleasanton BART station, and a small portion of eastern Dublin.

It is envisioned that ACE passengers connecting to/from BART are going to prefer to use the West Dublin station, thus switching from Route 54 to Route 53. This will take pressure off Route 54, which could then operate with wider coverage in the greater Hacienda area and, potentially, also cover the Bernal Business Park loop. With this, Route 53 (which already covers the location where the new BART station Pleasanton side loading area will be) could express between the ACE station and the Stoneridge Mall area via I-680.

No additional cost is anticipated for restructuring existing routes. It is expected that, by improving regional transit access in general, the new station will create synergies for connecting transit services, including those of LAVTA. Based on the modal share that LAVTA currently is estimated to hold at the existing Dublin/Pleasanton station and on the general ridership estimates for the new station, it is anticipated that the new station will bring an additional 480 daily weekday boardings across the WHEELS fixed routes that serve it.

East Dublin Service Restructuring

The service improvements outlined in the 2004 SRTP have been implemented. The Route 1C was inaugurated in the spring of 2005, providing service to Dublin Ranch Villages. In the Fall 2007, the Route 1E was deployed, serving more northerly portions of Dublin Ranch—including the new Fallon Middle School. Both routes begin/end at the East Dublin/Pleasanton BART station. The Route 1A/B also operates in eastern Dublin, but does not generally travel east of Tassajara Road.

In addition to continued development in the area east of Tassajara Road, two critical roadway connections are anticipated to be completed in the medium term: the extension of Dublin Boulevard to Fallon Road and the extension of Fallon Road to Tassajara Road. This will open up new opportunities to serve this area and enable more flexibility for route planning.

The Bus Rapid Transit program is anticipated to involve eastern Dublin, and may eventually replace the entire Route 1 family. The long term service restructuring in the Dublin Ranch area is therefore discussed in further detail in Chapter 7.

Aside from the Route 1 group, the Route 12 also serves eastern Dublin Boulevard, between the East Dublin/Pleasanton BART station and Tassajara Road, using I-580 east of that point to travel to/from Livermore. With the extension of Dublin Boulevard to Fallon Road and the implementation of BRT, there are two potential scenarios for the 12 Route:

1) The route continues to play a role in eastern Dublin service and is extended locally to/from the Fallon Road/I-580 interchange
2) The route is relieved from local duty in Dublin and expresses between BART and its Livermore exit (Airway/I-580).

Additional Services To/From Area Schools

LAVTA's Vision 2010 document identified additional demand for student transportation between area schools and residences in the ever growing Tri-Valley area.

Service to/from area schools are discussed further in Chapter 5, but is discussed here as an item for budgeting purposes. The actual deployment needs are hard to predict, as they depend on future school district boundaries. However, LAVTA should be prepared to add one new neighborhood every other year to serve the transportation needs of middle and high school students. As described in Chapter 5, this is recommended to continue to be done with a combination of improvements and/or deviations to regular routes, as well as the deployment of supplemental service, such as new school tripper routes.

It is estimated that this additional service will require approximately 362 additional revenue hours by FY 2011, and another 543 revenue hours by FY 2016.

4.3 Fiscal Year 2012 Service Plan

Commute Service between the Tri-Valley and the Santa Clara Valley

In 2005, LAVTA undertook a planning study of its then current service to the Santa Clara Valley with the aim of streamlining its subscription based service, possibly converting it into fixed route express bus service that would also facilitate travel in both directions. However, after the LAVTA Board of Directors expressed concern about duplication with the Altamont Commuter Express (ACE) commuter rail service, WHEELS Routes 71 and 72 to Sunnyvale and Santa Clara, respectively, were discontinued in December 2005.

The Alameda County Congestion Management Agency (CMA) has recently approached LAVTA about the possibility of restoring service in the I-680 south corridor. It is recommended that the agency revisit this issue, and develop a proposal based on the unfinished 2005 service plan. The 2005 plan's preliminary recommendation was to operate two bi-directional routes between Pleasanton and Sunnyvale/Santa Clara with a hub at the Great Mall Transit Center in Milpitas that could serve local origin destination passengers and facilitate transfers to/from the Santa Clara VTA buses and light rail.

Any reinstated service should, to the extent possible, avoid spatial and temporal duplication with the ACE service, and instead serve to complement ACE, which is capacity constrained due to track sharing with the private railroad owner. If successful, the new express bus service could be expanded to cover such areas as south Fremont and downtown San José.

Although an extension of BART to San José is widely expected to occur when all the required funding sources are in place, it is not likely that the extension project will have been completed within the ten year horizon of the SRTP. It is possible, however, that a BART extension to Warm Springs would occur, although it would depend on a full funding commitment toward the entire South Bay extension.

A service between Dublin/Pleasanton and Sunnyvale/Santa Clara via Milpitas as outlined above is estimated to require approximately 4,000 additional revenue hours per year. This service is expected to be wholly underwritten by expected revenues from future I-680 HOT (High-Occupancy Toll) Lanes projects or regional funds, such as ones administered by the CMA.

4.2 Illustrative Priorities

The planned changes in service that have been presented up to this point represent top priorities for the agency, service changes that are firmly constrained within projected revenue sources which LAVTA can reasonably expect within the time horizon of this document. The proposed year of implementation roughly corresponds with the project's priority. Generally, if one fiscally constrained project falls out, then the next fiscally constrained priority should move up the timeline to take its place.

It is also likely, however, that additional projects will be feasible within the same timeframe. This could happen for a variety of reasons, including:

- A fiscally constrained service fails to meet its productivity expectations, thereby freeing up resources for other potential projects
- Additional funding becomes available (or expires) for a particular project or type of service
- Unanticipated rapid changes in demographics or development patterns

The following lists additional projects that LAVTA wishes to implement, should one of the above reasons provide an opportunity to do so. This list is ranked in order of general priority for illustrative projects after the fiscally constrained priorities have been met.

Route 10 Sunday Frequency Improvement

BART plans to improve weekend train frequencies on the Dublin-Pleasanton route effective January 2008. This will be the ideal time for LAVTA to complete the basic set of improvements to the (local) Route 10 recommended back in 2002. In 2004, Saturday frequencies were increased from thirty minute intervals to twenty minute intervals to match the BART schedule (these were further extended to East Avenue in the fall of 2007); however, Sunday service still remains at thirty minutes even at peak frequency. With the new BART schedules that will go into effect in January 2008, Sunday train frequency will be increased to fifteen minutes. It is recommended that the agency increase the Route 10 Sunday headways, from thirty minutes to fifteen minutes, to match BART's new fifteen minute schedules. This will nearly complete the Route 10/BART operational connectivity. Except occasional late evenings and early morning trains, LAVTA's Route 10 will meet every BART train. This is a great accomplishment that few suburban bus operators have fulfilled. The Sunday frequency improvement is estimated to require approximately 2,100 additional revenue hours annually.

Reinstatement of Limited Service Between Fairlands and BART

Currently, the only LAVTA service to the Fairlands Park neighborhood in northeast Pleasanton consists of school trippers geared toward the transportation needs of middle and high school students. This area consists mostly of single use, low to moderate density housing, although a small shopping center sits at its northwest corner, near the Santa Rita/I-580 interchange. Currently, there is no major development activity within Fairlands itself, as the neighborhood was "built out" a long time ago.

Requests come in periodically for reinstatement of mainline service to/from Fairlands that would connect the area with regional activity centers and transit hubs, such as the East Dublin/Pleasanton BART station. It is recommended that a new, limited service be implemented on a trial basis and carefully evaluated for potential long term service. The new trial route would originate and terminate at the East Dublin/Pleasanton BART station, traversing via Rosewood Drive to Fairlands, circling around the same Pimlico/Kirkaldy/Las Positas loop that the school trippers do, before returning to BART.

Eastern Pleasanton Development

Portions of the remaining developable land in Pleasanton sit on patches along the northeastern perimeter of the municipality. The most likely development in the near future is expected to be along an eastward extension of Stoneridge Drive to El Charro Road. Currently proposed uses would include a senior living facility and an auto mall. In addition, just to the east of El Charro, the City of Livermore is considering approval of a 500,000 square foot outlet mall. LAVTA has asked the City of Pleasanton to consider allowing the agency access through what might initially only be an emergency vehicle access (EVA) connection between the existing eastern terminus of Stoneridge Drive and El Charro Road, in order to serve the anticipated new developments.

Because of the partial uncertainty surrounding the exact future developments in this area, including the extent street network connectivity, no specific routes have been designed at the time of writing. However, for budgeting purposes, it is assumed that either two peak hour vehicles or one all day vehicle would operate new service in this area, five days a week. The anticipated required service addition is 2,520 annual revenue hours.

Local Route Service Hours Extension and Frequency Improvements

As outlined above, the Route 10/BRT corridor has received—and is recommended to continue to receive—substantial improvements to service frequency. As its financial position allows, LAVTA may also wish to consider extending its frequency improvements efforts to secondary routes, in order to attract more local ridership and to minimize the inconvenience of transfers to/from already frequent mainline routes. The following routes are recommended to be the primary candidates for increases in service hours and/or frequency:

Route 3
Service on this route has been incrementally increased to where the base pattern currently runs every thirty minutes during the peak period and every sixty minutes during other times. In the fall of 2007, bi-directional service was added in the P.M., and has been well received. This improvement would involve increasing the midday frequency to thirty minutes and to add to the bi-directional service to also include the A.M. hours. Estimated revenue hours annually: 2,268.

Route 12
Although only in the mid range in terms of productivity, this route is second in the WHEELS fixed route system in terms of total ridership. Although expensive to implement due to the long cycle time of this route, a peak period frequency improvement from thirty minutes to fifteen minutes should be considered. Estimated revenue hours annually: 5,040.

Route 14
This route runs all day during weekdays, but there is no service on weekends. The weekend Route 12 partially serves the area that Route 14 operates in; nonetheless, the agency may wish to consider the implementation of limited weekend service, beginning with a Saturday schedule that could be a 9:00 A.M. to 5:00 P.M. setup or an A.M./P.M. split—either is assumed with a total of nine service hours per Saturday. Estimated revenue hours annually: 486.

Route 18
This route runs all day during weekdays, but weekend service is limited. Saturday service on the route was discontinued in 2001, then revived in 2006 as an A.M./P.M split setup. The agency may wish to consider extending the Saturday schedule on this route to run all day. Estimated revenue hours annually: 378.

Although the improvements do not necessarily need to take place at the same time, their total revenue hour requirement would be approximately 8,200 annually.

Springtown Service Improvements/NE Livermore Rapid Bus

The Springtown area of Livermore is set apart from the rest of the municipality by its location north of the I-580. It consists mainly of low to moderate density residences, recreational areas, and some local and highway oriented retail and hospitality uses. This area generates more transit use than its densities might otherwise suggest, likely because of its socio-economic character.

Although some development has taken place in the eastern portion (Garaventa Ranch), the Springtown area growth has been modest in recent years. New proposed developments, such as Livermore Trails, have been rejected by voters, who have reaffirmed the growth boundary concept and expressed a preference for growth in

Livermore to take place south of the I-580, including the currently ongoing redevelopment of the downtown district.

The WHEELS Route 15 is the sole route serving Springtown, connecting the area to the Transit Center via retail generators, such as Wal-Mart, Target, and Lucky along Las Positas Road and Livermore Avenue. It currently operates between 5:00 A.M. and midnight on weekdays, and almost as long hours on weekends. Service frequency is thirty minutes throughout most of the day, and is set up to facilitate bi-directional trips within Springtown.

Although little growth is anticipated to take place in Springtown over the horizon of the Plan, it is recommended that the Route 15 be a candidate for service enhancements, ranging from peak period frequency improvements to "BRT" style enhancements, such as improved bus stop facilities and traffic signal priority.

For planning purposes, it is assumed that this item would increase peak period frequency on the route to fifteen minutes on weekdays, incurring approximately 2,500 additional revenue hours per year.

I-580 Express Bus/Greenville Road to BART Express Bus

With a BART extension beyond its current terminus (at the East Dublin/Pleasanton station) being unrealistic in the near future, the I-580 Corridor Study outlined a number of potential transit options that could be part of the wide range of Transportation System Management (TSM) and Transportation Demand Management (TDM) approaches to dealing with traffic congestion along I-580 through the Tri-Valley. The team studied a proposal by LAVTA to run express buses between BART owned property at I-580 and Greenville Road in Livermore and the East Dublin/Pleasanton BART station. The new service would utilize the soon to be constructed I-580 High Occupancy Vehicle (HOV) lanes to provide a travel time advantage versus the single occupancy vehicles. The Alameda County Congestion Management Agency (CMA) has identified $5M of Tier 1 capital funds in its countywide transportation plan, and the Tri-Valley Transportation Council (TVTC) also mentions this project among its capital priorities (Priority 11). In the formulation of the (ongoing) 2009 MTC RTP, the emergent HOT Lanes concept has been indentified for application on the new HOV lanes on I-580. Revenues from the tolling will be returned to the I-580 corridor in the form of additional Express Bus services, likely to originate in San Joaquin County (Tracy?, Mountain House?) and feed into a Tri-Valley BART station. Base operations costs are estimated at 5,200 revenue hours per year. It is possible that the San Francisco Bay Area Rapid Transit District will underwrite the costs of the service. Once the capital and operational needs are fully funded, the service could be implemented at relatively short notice once the necessary facilities and procurements are completed. The anticipated required service addition would be 5,200 revenue hours per year.

Weekend Winery Shuttle

As a means of encouraging tourism in the Tri-Valley area, LAVTA should work with local wineries to design a shuttle service that connects the East Dublin/Pleasanton BART station with the wineries and hotels in and around Livermore. The Vision 2010 document outlined this shuttle to provide service between 10:00 A.M. and 8:00 P.M. on thirty minute headways on Saturdays and Sundays. The required performance of this service should be consistent with the proposed benchmark for demand based off peak service within 21 months of inception. It would require 4,440 revenue hours annually, operating with four buses on the service (no additional capital necessary if traditional transit buses are chosen, as this is off peak service).

Express Service between Tri-Valley and Mountain House

A planned community of 30,000 residents has been built near Tracy, on the east slope of the Altamont pass. A significant percentage of these residents will be commuting to or through the Tri-Valley on a daily basis. In the formulation of the (ongoing) 2009 MTC RTP, the emergent HOT Lanes concept has been indentified for application on the new HOV lanes on I-580. Revenues from the tolling will be returned to the I-580 corridor in the form of additional Express Bus services, likely to originate in San Joaquin County (Tracy?, Mountain House?) and feed into a Tri-Valley BART station.. LAVTA should investigate possible coordination with San Joaquin transit authorities for the provision of express bus service every thirty minutes from this community to key destinations in the Tri-Valley during the morning commute period (5:00 A.M. to 10:00 A.M) and back to Mountain House during the afternoon commute (3:00 P.M. to 7:00 P.M.). The cost of providing this service should be shared with SJRTD and possibly other transit districts, such as BART. The anticipated required service addition is 2268 annual revenue hours, based on LAVTA underwriting one of the multiple vehicles that would be required to support this service. This HOT-Lane funded project may indeed by rolled into the previous I-580 Express Bus to Greenville Project and delivered as one project. LAVTA will work closely with regional funding partners to coordinate this project if/when revenues become more likely.

The following table summarizes the LAVTA fixed route service plan for FY 2008 thru FY 2017.

LAVTA 2008-2017 SRTP SERVICE PLAN								
Priority	Fiscal Year	Project	Annual Revenue Hours	Daily Ridership Impact	Peak Vehicle Req. Diff.	Tot Peak Vehicle Req.	Constrained rev h**	Unconstrained Rev h***
	FY2008		*141,048*			*46*	*141,048*	
1	FY2009	Bus Rapid Transit, Phase I *	23,433	2,665	8	54	164,481	164,481
2	FY2010	West Dublin BART Station Service	0	480	0	54	164,481	164,481
3	FY2010	East Dublin Service Restructuring	0	0	-3	51	164,481	164,481
4	FY2010	Additional Service to/from Area Schools	905	72	2	59	165,386	165,386
5	FY2012	Local Route Span and Frequency Improve Ph. 1	30,494	2,420	4	63	165,386	195,880
6	FY2012	I-680 Express Bus Service *	3,942	125	3	57	164,481	199,822
7	Illustrative	Route 10 Sunday Frequency Improvement	2,088	360	0	57	n/a	201,910
8	Illustrative	Reinstatement of Limited Service to Fairlands	1,260	40	1	58	n/a	203,170
9	Illustrative	Eastern Pleasanton Development	2,520	50	1	59	n/a	205,690
10	Illustrative	Local Routes Span and Frequency Improve Ph II	8,172	195	5	64	n/a	213,862
11	Illustrative	Springtown Service Improve/NE Livermore Rapid Bus	2,520	80	2	66	n/a	216,382
12	Illustrative	I-580 Greenville Road-to-BART Express Bus *	5,200	n/a	4	70	n/a	221,582
13	Illustrative	Weekend Winery Shuttle *	4,440	n/a	0	70	n/a	226,022
15	Illustrative	I-580 Mountain House-to-Tri-Valley Express Bus *	2,268	n/a	1	71	n/a	228,290

** Assumes partial or whole funding from dedicated outside sources*

*** Does not include dedicated-funded projects*

**** Includes dedicated-funded and illustrative projects*

4.3 Financial Plan

LAVTA's ten year financial plan is shown in the following exhibits at the end of chapter 6:

- Fixed Route Financial Plan and Operating Characteristics
- Paratransit Financial Plan and Operating Characteristics
- Systemwide Operating Information and Notes - Summarizes the operating characteristics, shows the changes in the ten year period in LAVTA's TDA reserve balance, and provides notes clearly identifying the source of the information and the relevant assumptions.

As stated earlier in this chapter, this is a fiscally constrained plan based on known revenue sources. Any service expansion beyond this plan would require new revenue or a larger than anticipated growth in existing sources.

Fare Increases

The decision to increase fares is a delicate balance between encouraging transit use – which itself increases farebox return – and raising revenues to support operations. Too frequent or too large increases can have the affect of dissuading ridership and potentially lowering total proceeds from the farebox. Historically LAVTA has considered fare increases as a response to rising costs: most recently the increase in fuel costs. Additionally, increases in increments other than $.25 are harder for passengers to adapt to and can lead to challenges in managing the fare collection process on the street (approximately 50% of all LAVTA riders pay cash). Finally, LAVTA has embraced a policy of working toward consistent fare policy with other suburban East Bay operators to encourage easy transitions between systems. Currently LAVTA's fare structure mirrors that of County Connection (by design) but is higher than that of WestCAT and TriDelta this discrepancy presents challenges in the current drive to issue a unified pass for all four systems.

Based on the forgoing considerations and uncertainties this plan conservatively assumes that fares increase by $0.25 every five years. Since the most recent fare increase went into effect in FY2007, future fare increases are not planned until FY2012 and FY2017. ADA fares have been increased concurrently with fixed route fares. For paratransit, a three-phase increase is being implemented, raising the fare from $1.25 to $1.75, $2.50, and $3.00, in 2006 and 2007, respectively, with the final phase planned for February 2008. The paratransit fare increase is also being done in an attempt to stem demand that has been in the double digits for several consecutive years and to encourage use of LAVTA's fixed-route transit system.

Chapter 5

STUDENT TRANSPORTATION

5.1 Background

As indicated in previous chapters, none of the school districts in the Tri-Valley operate school bus services for regular student transportation. As such, LAVTA has made it a policy to accommodate transportation for middle and high school students, provided that certain criteria are met.

In many cases, the regular WHEELS routes can adequately fulfill students' transportation needs. Many students that attend schools located on main routes can travel to/from their neighborhoods on regular routes, such as some of the student population at Amador Valley and Livermore High Schools and East Avenue Middle School using Route 10. In some cases, LAVTA has modified regular service routes to make this work. The Shannon Park pattern of the Route 3 (3V) and the Ravenswood Park pattern of the Route 18 are examples of this. This has enabled savings in vehicle requirements and hours by making possible the elimination of previously dedicated service, while incurring minimal or no inconvenience to existing riders. At the same time, the "regular route" experience enables students to learn early on how to use real world public transit to get around.

However, in some cases, a gap is left when a there are no regular WHEELS routes at or near the origin (neighborhood) and/or destination (school) of students. In those cases, LAVTA has created and is operating supplemental routes that, while functioning as public transit routes, are geared solely toward the transportation of middle and high school students. These supplemental routes are commonly referred to as "school trippers" and have three digit route numbers assigned to them. They are scheduled only to accommodate the bell time for which the majority of students are starting and released. Twelve of the fourteen supplemental service routes, as of Winter 2008, operate in Pleasanton. This is due to a combination of factors, including the location of schools far from mainline WHEELS routes, and neighborhoods whose low degree of street network connectivity and socio-economic character make them unsustainable for mainline route operation. The supplemental routes operate only during school days, and recurring late starts or early outs (such

as Wednesday late starts for the Pleasanton schools) are accommodated. Non-recurring variations of this kind—such as during final exam weeks—are accommodated on a best effort basis, and typically left for Operations to decide and carry out.

5.2 Current Service, Ridership, and Demand

The adjacent table shows the supplemental (school tripper) routes that were in operation as of Winter 2008. Because of extensive interlining, not each tripper route equals one bus requirement; currently, supplemental routes add seven buses to the peak pull requirement. At the end of this chapter is a table that also shows all the WHEELS routes available, by school served.

As can be expected, school tripper productivity—as measured by boardings per vehicle revenue hour—is high. Unfortunately, the interlining also makes route by route tracking difficult within this service group; however, total boardings in September 2007 exceeded 1,000 on average. Demand tends to be significantly higher in the P.M., due to fewer parents being available to provide rides for their kids at that time of day compared with in the morning. Although not continually tracked, it is estimated that approximately 2/3 of the middle and high school student ridership on WHEELS takes place in the afternoon. In addition to the asymmetrical demand between morning and afternoon, student ridership will vary by time of year—highest being at the beginning of the academic year, and then gradually leveling off from there. In years past, average student ridership during the month of May has been in around 75-80% of comparable days in September.

Supplemental Service Routes

Route	Neighborhood Served	School Served
16	Big Trees Park	Livermore High East Avenue Middle
202	East Dublin	Dublin High
601	Ruby Hill	Pleasanton Middle
602	Del Prado Park	Foothill High
603	Muirwood Park	Hart Middle
604	Muirwood Park Hacienda Fairlands	Foothill High
605	Amaral Park Fairlands	Amador Valley High
606	Vintage Hills	Pleasanton Middle
607	Laguna Oaks	Hart Middle
608	Nielsen Park Amaral Park	Harvest Park Middle
609	Valley Trails Parkside Del Prado Park	Hart Middle
610	Fairlands	Hart Middle
611	Ruby Hill	Amador Valley High
612	Del Prado Park Hansen Park	Harvest Park Middle

In the typical case, the public schools in the Tri-Valley have firm district boundaries, where there is no overlap in neighborhood school assignment. This makes it easier and more efficient for LAVTA to plan for and provide service, especially when supplemental routes are needed. However, in some cases, school districts boundaries can be less clear cut. This typically occurs when the district is trying to balance loads between schools, either by reassigning fresh classes from a neighborhood to a

new school while allowing existing students from the previous district assignment to remain "grandfathered" at the old school, or by allowing certain neighborhoods to choose between two or more schools. Recent examples of changes in this regard include reassignment of Del Prado Park from Pleasanton Middle School to Harvest Park Middle School, and the high school designation of Fairlands, Hacienda, Del Prado Park, and Ruby Hill as "choice" neighborhoods in Pleasanton.

5.3 Overflow Vehicles

Although LAVTA has operated overflow buses on supplemental routes for many years, the LAVTA Board adopted an official Overflow Policy in 2006. The policy sets thresholds on loads based on subfleet capacity and incident recurrence, and is provided in order to ensure WHEELS riders a minimum level of comfort and to remove arbitrariness in the deployment of any overflow buses. By definition, an overflow bus is one that operates on exactly the same trip and schedule as another bus. Although the overflow service can be deployed as a temporary measure, in most cases it is planned and assigned for permanent deployment well in advance, based on knowledge of prior ridership patterns. As of Winter 2008, overflow buses were operated in the A.M. on Route 601, and in the P.M. on Routes 202, 601 (two overflow buses), 602 (two overflow buses), 604, 608, and 610.

It should be noted that the overflow policy also applies to mainline routes; however, it would rarely need to be invoked, as consistent spikes in demand are typically met with frequency improvements (which by definition is different from overflow service).

5.4 Modal Share and Marketing

The City of Pleasanton conducted a School Transportation Survey in the spring of 2006. Highlights of the survey included the following findings, relevant to public transportation:

- The most common way for students to get to school in the morning were being driven by parents (62%); carpooling (20%); walking (11%); using public transit (4%); and biking (3%).
- Transit's modal share in the afternoon was more than double that of the morning (9% vs. 4%).
- Parents cited safety, distance, and heavy backpacks as the primary reasons why they drove children to school.
- Parents were most likely to allow their children to take public transit if the bus stop was closer to their home and if supervision was present. Factors such as cost, the availability of additional trips, and shorter travel times were of lesser concern.

The last finding sheds light on a major issue surrounding tripper services, particularly in Pleasanton. The location of tripper bus stops within residential neighborhoods has occasionally met with resistance; sometimes even just the alignment of the route itself has been an issue. LAVTA is researching a set of criteria, and a process for establishing tripper routes and bus stops, in hopes of formalizing and improving the process of expanding student transportation in the future.

5.5 Approaches to Efficiency Improvement

Although almost all WHEELS services place higher demands on the system during peak periods, student transportation demand is extraordinarily peak oriented—not only do the vast majority of students start and end the day at the same time at any given school, but start and end times also tend to be close to each other between the different schools.

The 2004 SRTP recommended that LAVTA continue to provide a high level of service to middle and high schools in its service area, but that any service

expansion be done in a way that minimizes deadhead time increases and peak fleet requirements. The primary way to accomplish this is to interline services, where a vehicle block (gate to gate assignment) performs more than one route. In the context of supplemental routes, this typically involves piecing two trippers together, but sometimes also involves interlining between a tripper and a mainline route or vice versa. In some cases, the agency has applied scheduling and interlining as an iterative process, where schedules have been modified—within an acceptable range –to enable the interlining to take place. Examples of this include pushing some supplemental routes further away from the bell time (up to thirty minutes), and not deploying some of the additional P.M. frequencies on regular routes until approximately 4:00 P.M. The result has been a reduction in the peak vehicle requirement from 57 in 2002 to 46 in 2007, with little difference in scheduled revenue hours.

Another way to accomplish reductions in deadhead and peak fleet requirements is to modify certain trips and patterns on mainline routes, where feasible, to serve student transportation needs. In many instances, this has had the added advantage of students of having more trip options than just one trip in the A.M. and P.M., respectively. Recent examples of this include:

- Creation of a new route from scratch, the 1E, the designed to serve both a bi-directional commuter market, as well as provide transportation for students attending Fallon Middle School.
- Modification of service to Shannon Park and the creation of a "3V" pattern. This replaced a previous supplemental Route 201 for Dublin High School and Wells Middle School, and enabled limited restoration of bus to BART service for non-student riders living in Shannon Park. Current (Winter 2008) service operates seven trips daily on the 3V pattern.
- Modification of three trips per day on Route 8 to serve Del Prado Park directly. This replaced a previous supplemental Route (old 605) for Pleasanton Middle School, without increasing the cost of operating the Route 8.
- Modification of two trips per day on the Route 12 to serve Hagemann Park directly. This replaced a previous supplemental Route 16J for Junction Avenue Middle School, without increasing the cost of operating the Route 12.
- Increasing the number of P.M. trips from two to four on Route 16 and extending the service to/from the Transit Center, in order to enable a limited commute option for non-student residents in the Big Trees Park neighborhood.
- Extension of Route 18 to provide service to a new neighborhood (Ravenswood Park) for students attending Granada High School and Mendenhall Middle School. While this change brought some dilution of frequencies during the affected times, it was undertaken in conjunction with an overall schedule revision for the route aimed at remedying schedule adherence problems on

the route, which would have had similar impacts on frequency without any net service benefits.

- Directing Granada High School and Livermore High School students living in Springtown to use regular Routes (10, 15, 18), even if doing so meant having to make a transfer and increase travel time. This replaced a previous supplemental Route 11L, without requiring additional resources be deployed on the remaining available alternative routes. It should be noted that the result of this measure had not yet been fully evaluated at the time this document was written.

5.6 Service Plan

Any exact future needs for student transportation depend heavily on the decisions made by the three school districts in the LAVTA service area. The best strategy for the LAVTA in the medium to long term may be to simply look at historical growth and prepare for similar increases in demand in the future. LAVTA will then be able to respond relatively quickly to requests for expanded service, as well as to changes in school district boundaries.

Known needs at the time of writing include requests for A.M. service between Ruby Hill and Foothill High School, as well as service to this school from residential areas to the south, including the newly developing Bernal Property (the former San Francisco Water District property) and long established developments such as Castlewood and Golden Eagle, off the rural areas of Foothill Road. Some of these areas may require safety or other infrastructure improvements prior to implementation of a viable service. As noted previously, many established neighborhoods in Pleasanton tend to be sensitive to the deployment of transit service—even if it is only on a tripper basis. While the utmost should be done to plan the service in such a way that it minimizes negative neighborhood impacts, it is important that LAVTA be able to plan its network optimally and in way that is consistent with its mission to serve its communities' transportation needs. Nonetheless, "not in my backyard" issues may prolong the time needed from conceptualization to deployment of service in established neighborhoods and/or streets that have not previously had WHEELS buses on them.

In order to control costs and to balance limited resources across the needs of all existing and potential rider groups, it is also recommended that the informal policy of only serving the majority bell times and only serving public middle and high schools be maintained. In times when resources are tight, the agency may also need to restrict service to/from a particular neighborhood to serve one middle, and one high school only.

It is recommended that LAVTA be prepared to add one new residential area every other year to serve the transportation needs of middle and high school students.

However, for budgeting purposes, this is shown in Chapter 4 in one lump increment (as some expansions may be possible by reallocating existing resources) of 905 revenue hours in FY 2010.

The last table shows WHEELS routes by school and neighborhood served at the time this document was written.

Schools and Wheels Routes

School	Route	Neighborhood Served
Amador Valley High	10	Santa Rita Hacienda
	605	Amaral Park Fairlands
	611	Ruby Hill
	612	Hansen Park Del Prado Park
Christensen Middle	15	Springtown
Dublin High	3	West Dublin
	3V	Shannon Park
	202	East Dublin
East Avenue Middle	10	East Avenue
	16	Big Trees Park
Fallon Middle	1E	East Dublin
Foothill High	602	Del Prado Park
	604	Muirwood Park Hacienda Fairlands
Granada High	18	Granada Ravenswood Park
Hart Middle	50	Hacienda
	603	Muirwood Park
	607	Laguna Oaks
	609	Del Prado Park
	610	Fairlands
Harvest Park Middle	608	Amaral Park
	612	Del Prado Park
Junction Avenue Middle	12	Hagemann Park
	14	Nissen Park
Livermore High	10	East Avenue
	14	North Central Livermore
	16	Big Trees Park
	18	Granada Ravenswood Park
Mendenhall Middle	18	Granada Ravenswood Park
Pleasanton Middle	8	Del Prado Park
	601	Ruby Hill
	606	Vintage Hills
Wells Middle	3V	Shannon Park

Chapter 6

FINANCIAL PLAN CAPITAL AND OPERATING

6.1 Introduction

This chapter takes the information provided in the previous sections to create a comprehensive ten year capital and operating financial plan. The two plans are shown in detail in Figures 1-4 at the end of this chapter. The financial plan presented in these exhibits is financially constrained based on known revenue sources. Given the prospect of emerging new revenue sources, the final section of this chapter summary identifies new projects that can be added as new revenues emerge. It is important to note that while the STRP is a document that is developed only every four years, the financial plan is updated annually based on new revenue forecasts prepared by MTC. The financial forecast used to prepare this plan is the same one that was used for the financial update last year, and therefore is not entirely current. Additionally, MTC is currently in the process of reevaluating their financial modeling assumptions as part of the four year RTP, and this new modeling may result in significant changes to the forecasts. This is particularly true since previous forecasts were overly conservative. Given the advent of more current financial information in the next few months (the next forecast will be available March 2008) the information in this forecast should be used advisedly and the more important focus should be on ensuring that we consistently review the agency's financial picture in light of constantly evolving funding trends.

6.2 Operating Program

Overview

This section describes the current revenue sources available to LAVTA, the major financial assumptions for both revenue and expenditures, the significant findings resulting from the forecast, and the opportunities and risk with regard to the agency's financial health.

Revenue Sources

There are two primary types of operating revenues that support LAVTA services:

- Revenues generated by the agency either through the provision of transit service (farebox and contract fares) or through supplementary activities such as advertising and ticket concessions.

- Federal, State and Local transportation funding assistance programs including Transportation Development Act (TDA), State Transit Assistance (STA), Federal Transit Administration grants, and Measure B sales tax revenue.

A brief description of each of the non-farebox sources follows:

Contract Services

LAVTA receives revenues from both the San Joaquin Regional Rail Corporation (SJRRC), and the Alameda County CMA to subsidize the ACE shuttle service (ACE passengers then ride free). Additionally, BART Plus revenue and revenue received by BART for regional paratransit trips within the Tri-Valley are also accounted for in this line item.

Concessions, Advertising, Interest and Bus Lease

LAVTA contracts with Lamar Outdoor Advertising for use of exterior bus advertising space. LAVTA also receives approximately $12,000 from an agreement with ACE to sell train tickets at the transit center.

Transportation Development Act Funds (TDA)

These funds are derived from a ¼ cent sales tax and distributed by MTC to Alameda County and all of its incorporated cities.

LAVTA is eligible for two different programs within this funding source:

- TDA 4.0, which provides general transit assistance and can be used for capital and operating as well as fixed route and paratransit.
- TDA 4.5, which is exclusively for paratransit services.

LAVTA also receives a portion of BART's TDA 4.0 apportionment to help support feeder service to the Dublin/Pleasanton station. These funds (including the STA amount included below) fully subsidize WHEELS' Route 20 to the LLNL, and partially subsidize WHEELS' Route 12 which serves Las Positas College and the Livermore Transit Center.

Regional Measure 2 (RM2)

Regional Measure 2 increased the toll on Bay Area bridges by $1.00. Funds from this increase were designated to fund a specific list of projects to improve transit in the Bay Area. One of those projects is the All-Nighter service in the BART corridors. LAVTA provides a portion of this late night service by extending the Route 10 to Bayfair Mall in San Leandro. This service began in December 2005. RM2 funds are also available to fund MTC Resolution 3434 projects. Since rapid bus service in the I580 corridor is included in a comprehensive I-580 corridor improvements project, LAVTA will also receive funds from this source to support the Route 10 BRT project.

State Transit Assistance Funds (STA)
STA is distributed to jurisdictions for fixed route service as a revenue based and as a population based subsidy for transit capital and operating needs. Additionally, STA Regional Paratransit funds and STA Regional BART are allocated to LAVTA for Paratransit and BART Feeder Bus programs.

Federal Transit Administration (FTA) Section 5303 Planning Grant
Technical planning assistance is available to federal grant recipients through Section 5303 planning grants administered by MTC. Section 5303 funds may be used for Short Range Transit Plan updates and other technical planning studies. These are discretionary funds, allocated by application to MTC.

Federal Transit Administration (FTA) Section 5307
FTA Section 5307 funds are distributed by MTC to transit operators in the region. Traditionally these funds have only been available to LAVTA to fund bus replacement projects and ADA paratransit (see below). In FY 2006 MTC implemented a new policy for FTA Section 5307 funds that sets aside 10% of the total regional pool of funds for discretionary use by each operator (within the federally mandated guidelines for eligible projects). LAVTA is using this money to fund preventive maintenance, which is the only eligible fixed route operating use for these monies.

A provision of TEA 21 allows regional capital funds to be used for ADA paratransit operating purposes.

Measure B
Voters in Alameda County re-authorized a one half cent sales tax dedicated to funding transportation projects. This measure was originally passed in 1992. A portion of the revenues from this measure is dedicated to supporting paratransit services throughout the County. Funds are distributed to eligible recipients based on a population formula that includes the number of elderly and disabled persons in the jurisdiction.

Financial Assumptions

Revenue
- LAVTA's primary operating revenue sources: TDA, STA, Federal 5307 Capitalized Preventive Maintenance and ADA set aside, and BART feeder bus subsidy are all based on MTC's 2006 ten year financial forecast.
- Fares are assumed to increase by $0.25 every five years—in FY2012 and 2017. While the agency may prefer to do more frequent smaller increases, the total over the ten year period is representative.
- Known revenues associated with the Route 10 BRT project are included.

- Existing STA reserves of approximately $1.5M are spread over the initial three forecast years to offset costs of adding new service in FY 2008 and FY 2009. STA is one revenue source that may provide operating fund increases over the next several years through spillover and changes to regional policy for distribution of Proposition 42 funds. To the extent that these new revenues are received they will be used as "seed money" for new service.
- Lifeline is shown as being stable over the life of the forecast, and only available for funding the existing route 14 service. This is conservative (see opportunities below).

Expenses

- Contract operations costs, LAVTA's most significant cost element, are based on the recently signed contract with MV for the first seven years of the forecast. The final three years assume a 3% annual cost increase.
- Administrative costs also are assumed to increase by 3%; however, additional costs are included over and above this base for minor staff additions and the cost of maintaining a second facility once it is built. In the initial years when the facility is simply a storage structure, the costs are expected to be consistent with the current cost of leasing space from the Livermore Airport.

Financial Results

Based on this constrained financial forecast, LAVTA can fully operate the planned Route 10 BRT starting in FY 2009. Minor improvements to the school tripper service are also fundable; as are route reconfigurations in support of the new West Dublin BART station (route expansion is not included in the constrained plan). Any additions to express bus service in the I-680 corridor will also require new funding sources. A possible source of operating funds for this service could be "hot lane" toll revenue.

As expected, LAVTA's cost per revenue hour of service will decrease with the addition of the Route 10 BRT. This is due to the recent growth in administrative and operating costs in anticipation of this major service expansion. After this initial decline, cost per hour grows moderately over the remaining life of the plan.

Financial Risks and Opportunities

As stated above, this forecast is based on known available and committed revenues. High on the opportunity list are new revenues, changes to existing revenue policy, and possible grant opportunities. These include:

- Change to STA policy to include Proposition 42 funds in the base allocation to operators
- STA spillover funds due to increased price of fuel
- STA operating revenues made available by MTC during the Proposition 1B discussions
- New lifeline funds and programs
- Measure B Express bus funds
- Other grant programs such as BAAQMD grants

While these and other heretofore unknown revenue sources are opportunities, they also represent risk in that to compete for new sources of revenue, it requires relatively well developed projects, and often extensive grant applications. This work is done with no assurance that the revenues will ultimately materialize. In both the operating and capital arena, grants may be given for project development with no assurance that the follow on project construction or operating funds will materialize. From LAVTA's vantage point, the most valuable funding sources are those that are allocated annually to the agency by formula and are completely fundable. These funding sources are, however, dwindling as the public and lawmakers desire increasing oversight.

Another possible financial upside not included in this forecast is increases in TDA revenues. The TDA forecast is very sensitive to the base year used to prepare the forecast. As noted above, the forecast used for this plan was prepared in 2006 and was based on 20005 revenue receipts. As a result, the first forecast year of this plan, FY 2009, shows a decrease over the FY 2008 receipts that are based on a more current county auditor estimate.

Other risks are the possibility of recession, which would greatly affect LAVTA's sales tax revenues, higher than anticipated cost increases, another significant increase in the cost of fuel due to the instability in the Middle East, and new regulatory requirements.

6.3 Capital Improvement Program

Overview

This section describes the projects in LAVTA's ten year capital program and the associated revenue sources. The capital plan is fiscally constrained. However, an illustrative list of projects is included at the end of this chapter. Many of these projects have been, or will be submitted for inclusion in the County Wide Transportation Plan and the Regional Transportation Plan, and are likely to receive funding through those processes.

Revenue Source Descriptions

FTA Section 5307 Funds

These funds are distributed by the Federal Transit Administration to the various urbanized areas (UA), based on a formula that considers population, population density and passenger miles. Beginning in FY 2003, LAVTA received FTA Section 5307 funds from two urbanized areas: Livermore and Concord. Based on the Regional Transit Capital Priorities process, this plan assumes that Livermore UA funds will be utilized first, and then any remaining major capital expenditure left unfunded will be allocated resources from the Concord UA. On the other hand, if the funds from the Livermore UA are not required entirely to fund vehicle replacements and rehabilitations, the excess funds will be used to fund capital needs.

FTA Section 5309 Bus Funds

This is a discretionary pool of federal funds designated for public transit operators to purchase buses and improve facilities. LAVTA currently has over $5M in earmarks for the Satellite Facility project earmarks (Annual Appropriations and SAFETEA-LU). LAVTA is actively pursuing additional funding for the Satellite Facility.

Within the 5309 program is contained the New Starts and finally, the Very Small Starts funding programs. LAVTA has a $2.94M Very Small Starts earmark to assist with the construction and implementation of the LAVTA BRT program, and is pursuing an additional $7.99 M from this source for FY2009.

State and Regional Funds

Five and one half million dollars is currently programmed from the State Transportation Improvement Program for LAVTA's Satellite Facility. The recently enacted Proposition 1B provides a new source of capital funds for transit operators. LAVTA intends to designate all of these funds to construction of the Route 10 BRT project.

Bridge Tolls
These funds come from the base toll on state owned bridges and are available to transit operators in the Bay Area. This money is used primarily to match FTA Section 5307 grants. This plan assumes that all vehicle replacements and rehabilitations will have a Bridge Toll match.

TDA Article 4.0
This is LAVTA's primary source of revenue for both operating and small capital projects. It comes from a ¼ cent sales tax levied throughout California. This is LAVTA's most flexible funding source; it is used to fund all projects that cannot be funded from another source.

Capital Projects

Basis for Revenue Vehicle Projects

Fixed Route Fleet
The fixed route fleet consists of 74 vehicles, ranging in size from 29-40 feet, designed to provide local, intracity transit services. This fleet also includes a sub-fleet of nine coaches with upgraded interiors (high back passenger seating with tray tables and footrests, luggage racks with individual lights and fans) to provide intercity commute service between Walnut Creek and the Tri-Valley.

Revenue Vehicle Replacement, Rehabilitation, and Expansion

Life Cycle These vehicles have a 12 year useful lifespan as stipulated by the Department of Transportation through its Altoona Testing Program.

Passenger Amenities These include a fully functional and ADA compliant wheelchair lift/ramp and two securement locations, ergonomic passenger seating, digital surveillance systems (for security and safety), electronic farebox, automatic vehicle location system, voice annunciation system, automatic passenger counters, front mounted bicycle racks, and head, side and rear destination signs. Since Fall 2003, the majority of LAVTA's fixed route fleet consists of low floor coaches to enable easier and more efficient access/egress.

Mode of Power and Emissions Considerations The LAVTA Board of Directors elected to place the agency on the diesel fuel path in 2000 citing infrastructure costs considerations. Additionally, LAVTA has placed diesel emissions control units on more than 1/3 of its fleet. These units greatly reduce the harmful emissions from diesel fuel, yet the overall fuel economy of the vehicle is reduced due to these technologies. Finally, starting in 2007 and continuing in 2008, LAVTA is purchasing sixteen diesel/electric hybrid coaches as replacements to its RTS fleet.

Fleet Expansion

No fleet expansion is included in the constrained capital plan. However, the implementation of the second phase of the Bus Rapid Transit system will require additional vehicles for revenue service. Implementation of other illustrative programs will also require fleet expansion, in particular the I-680 Corridor Express bus service.

Complementary Paratransit Services Fleet

This fleet consists of 24 vehicles, from 22-24 feet in length, designed to provide local, intra-city and sub-regional demand responsive paratransit services pursuant to ADA regulation.

Revenue Vehicle Replacement, Rehabilitation, and Expansion

Life Cycle These vehicles have a seven year useful lifespan as designated by MTC. Industry standards stipulate that this style of vehicle (Diesel, duel wheel, cutaway) has a five year lifespan; however, MTC has added an additional two years to its useful life. This has not led to any operational or maintenance detriment to the agency.

Passenger Amenities These include a fully functional and ADA compliant wheelchair lift/ramp and two to four securement locations, ergonomic passenger seating, digital surveillance systems (for security and safety), electronic farebox, automatic vehicle location system, audio and visual annunciation system, automatic passenger counters, front mounted bicycle racks, and head, and side destination signs.

Mode of Power and Emissions Considerations The LAVTA Board of Directors elected to place the agency on the diesel fuel path in 2000 citing infrastructure costs considerations. These vehicles fall under the CARB Transit Fleet Vehicle category and are regulated accordingly. LAVTA is in the process of placing diesel emissions control strategies on required units to comply with CARB mandate.

Fleet Expansion

LAVTA currently operates up to seventeen out of 24 vehicles on a daily basis. With the staggering growth forecast for the LAVTA service area for seniors and the disabled community, additional service will be required.

Major Component Rehabilitation Program

In addition to purchasing new vehicles, LAVTA has an aggressive rehabilitation schedule for the vehicles in the fixed route fleet. Engines and transmissions are

replaced as needed, but generally at the half life of the vehicle (six years), to meet current and anticipated emissions standards. LAVTA has a policy of only replacing these two components at a midlife rehabilitation, and replaces seats and other passenger amenities as needed. As LAVTA does not use regional funds for this rehabilitation effort, there is no extension of useful life beyond the regionally programmed useful life of equipment.

Non-Revenue Vehicle Replacement and Expansion

Replacement

LAVTA has an ongoing program of non-revenue vehicle replacement. LAVTA has five types of non-revenue vehicles in its active fleet: three low floor, ADA accessible supervision vans; two pickup trucks used by the maintenance department; one eight passenger van used by LAVTA; tow light duty vans for operator shift change; and one sedan. Each of these vehicles has a four year useful life expectancy. Over the life of this plan, LAVTA will replace all these vehicles with revenues from Livermore UA FTA Section 5307 formula funds, AB 664 Bridge Toll revenues, and TDA Article 4.0 funds.

Improved Customer Signage for the Automatic Vehicle Location System

LAVTA has installed and operates an AVL system on all agency owned vehicles. The demonstrated benefits of this project are to:

- Improve LAVTA's ability to monitor on time performance
- Enable operators to discretely signal Dispatch and Administration in emergency situations via a covert alarm system
- Enable tracking of all vehicles in emergency situations for appropriate vehicle assignment in the event of a natural disaster
- Allow LAVTA to provide real time arrival information to patrons at selected locations
- Allow patrons to access WHEELS schedule information and utilize the regional trip planning tool on flat screen kiosks
- Improve dispatch capability for the DART and Dial-A-Ride programs

The next step for this project is the placement of enhanced customer service pieces to enable a wider disbursement of AVL real time information to WHEELS patrons. In 2005, LAVTA was successful in obtaining a grant using Regional Measure 2 funds for the provision of a robust signage program at the existing East Dublin/Pleasanton BART, and the planned West Dublin/Pleasanton BART stations. These signage programs consist of large flat screen monitors placed on the BART platforms informing BART patrons of arrivals and departures of all WHEELS service at that location. Additionally, signs will be placed at the bus bays to inform patrons waiting on the street level, of vehicle arrivals and departures as well.

As described in the BRT section, this upcoming project will add many new locations for real time arrival signs.

Bus Stop and Shelter Program

In FY 2006, LAVTA conducted a detailed, high level analysis of all bus stop locations in the LAVTA service area. This study was completed by a team from the University of California, Berkeley Transportation Institute and highlighted deficiencies in certain locations. The deficiencies included safety concerns, ADA concerns, accessibility concerns, pedestrian crossing concerns, as well as vehicle movement considerations. LAVTA has begun a systematic process to correct the identified deficiencies on an annual basis. Improvements required range from simple solutions up to and including actual stop relocation. This project is ideally suited to new proposition 1B lifeline funds.

Office/Facility Equipment/Miscellaneous Capital

Each year, LAVTA allocates funds to acquire new and replacement office and facility equipment. Approximately $100,000 has been programmed annually for these routine replacements. From time to time, larger improvements and replacements are required, such as replacing the bus washer, upgrading the GFI farebox system, and implementing a local area network. Over the ten year plan period, LAVTA intends to use Livermore UA funding for these larger projects. Routine replacements will be funded with TDA Article 4.0 funds.

Bus Rapid Transit Program

Capital funds associated with this project will be used to provide amenities at designated bus stops, including two signature stops, which will have significantly upgraded and individually designed shelters, as well as landscaping and public art. Capital funds will also be used to provide amenities at the stops, such as real time arrival signs and way finding signage. Signal priority and queue jump lanes are also capital elements of this project. Finally, as a phase two of the project, land will be purchased in west Livermore to develop a park and ride location.

Only currently budgeted funds of $5,300,000 are included in this financial forecast. Total capital costs (excluding buses) for this project are expected to be $13.7M over two phases as detailed in Chapter 7.

LAVTA has received $2.94M in Very Small Starts funds for this project and is pursing an additional Very Small Starts earmark of $7.99M to fund the current capital shortfall.

Facility Replacement and Upgrade

Construction of an additional facility is planned to provide for additional storage and maintenance for the LAVTA fixed route fleet. Presently, LAVTA's MOA facility has capacity to store 55 vehicles; however, the fleet currently stands at 103 full size vehicles. The agency currently has $10M in secure funding for this project from a variety of sources, including a FTA Section 5309 earmark, STIP funding, TDA Article 4.0 funds, and Section 5307 Livermore UA funding. The final purchase of the land selected for this project was completed in August 2006, and construction of Phase I: Bus Storage and Training has begun. In FY 2008, an Architect and Engineering Firm will be selected to prepare the final design of the facility. The project will be completed in phases, as different levels of funding are available:

Phase I	Land purchase, environmental compliance, site improvements for parking and Final Design for Administration and Operations Building
Phase II	Administrative and Operations Building construction and Final Design for Maintenance Building
Phase III	Maintenance and Fueling Building construction

The current funding is sufficient for Phases I and a portion of Phase II. Phase III will be implemented as funding becomes available. At full build out, the full service maintenance facility will occupy over nine acres, have storage capacity for 150 fixed route vehicles and provide an adequate training facility footprint, which primes LAVTA for the anticipated growth over a 20 year period.

Multiple Use Aspects of the Facility

LAVTA has been working closely with the Central Contra Costa Transit Authority (CCCTA) to enable them to store and dispatch vehicles at the new facility. It is believed that this will save CCCTA substantial non-revenue hours, which currently occurs for coaches that travel from the CCCTA facility to the beginning of service in the San Ramon area.

6.4 Future Projects and Programs

Given the requirement that forecasts be financially constrained, not all projects, including some that are currently under development, are included in this forecast. It is important to note that funding is constantly changing and one of goal of the long range planning process is to be prepared to compete for emerging fund sources with viable projects. Concurrent with the development of the SRTP, Alameda County and MTC are developing their own regional and sub regional long range (25 year) plans. As part of their planning processes, they issue calls for projects from potential sponsors. Inclusion in these programs is a necessary step to receiving

state, federal and regional funds. The LAVTA Board of Directors has approved the following list of projects for submittal to those agencies. This project list is consistent with the service plan developed in Chapter 4 of this document. Additionally, this list is based on the strategies set by the Board of Directors in the Livermore Amador Valley Strategic Plan document described in Chapter 2 of this document.

Priority	Project Description	Estimated Cost	Status
1	Rt. 10 Bus Rapid Transit Project	$13.5	In the fiscally constrained plan at $5.3M
2	Dublin Blvd Bus Rapid Transit Project	$7.0	Under development
3	Facility Expansion	$35.0	Partially funded in the fiscally constrained plan
4	Livermore Transit Center Improvements	$2.0	Under development
5	Bus Stop Improvements – system wide	$1.5	Included in the fiscally constrained plan assuming Lifeline revenue
6	I-680 Express Bus System Expansion (could be done in conjunction with CMA hot lane project)	$10.2	Under development
7	Expansion Buses: Paratransit	$1.6	Long term
8	Expansion Buses: Fixed Route	$5.0	Long term
9	NE Livermore Rapid Bus Project	$4.0	Long term
10	I-580 Greenville Express Bus	$3.0	Long term
11	Weekend Winery Shuttle	$2.4	Long term

Long term projects are not currently under development, but have been identified either by staff or by the Board of Directors as candidate projects for future development. Projects that are currently under development have a good chance of competing favorably for funding on the five year planning horizon.

Figure 1. Fixed Route Financial and Operating Characteristics

	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017
	Actual	*Budget*									
EXPENSES											
Operating Expenses(1)	10,817,403	12,599,450	13,789,345	14,308,195	15,141,701	15,994,681	16,648,018	17,326,020	17,845,801	18,443,954	18,995,110
Capital Expenses (fixed route and paratransit)	5,243,541	25,527,162	12,700,091	3,454,997	2,619,119	2,035,477	1,686,091	4,529,613	3,672,889	29,512,976	2,049,866
Total Fixed Route Expenses	16,060,944	38,126,612	26,489,436	17,763,192	$17,760,820	$18,030,158	$18,334,109	$21,855,633	$21,518,690	$47,956,930	$21,044,976
REVENUES											
Passenger Fares (2)	1,628,764	1,787,337	2,654,809	2,734,453	2,816,487	3,796,346	3,910,236	4,027,543	4,148,370	4,272,821	5,438,978
Business Club Passes (3)	190,495	214,164	235,580	259,138	269,504	280,284	291,496	303,155	315,282	327,893	341,009
Special Contract Fares	194,021	205,904	214,140	222,706	231,614	240,879	250,514	260,534	270,956	281,794	293,066
Concessions	10,913	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000
Bus Lease/Miscellaneous	21,500	9,000									
Advertising Revenue	244,802	250,000	265,000	275,000	285,000	300,000	312,000	324,480	337,459	350,958	364,996
Interest (4)	122,593	60,000	29,041	30,470	31,959	33,510	35,127	36,812	38,567	40,321	42,337
Subtotal	2,413,088	2,538,405	3,410,571	3,533,767	3,646,563	4,663,018	4,811,372	4,964,524	5,122,633	5,285,786	6,492,385
STA (Population Based)(5)(6)	646,581	250,573	971,348	982,765	993,607	479,591	490,050	501,985	515,169	529,855	556,348
STA (Revenue Based)(5)	172,746	42,392	56,523	57,897	59,220	60,502	61,855	63,395	65,095	66,987	70,336
STA (Prop. 42)(5)	0	266,085	46,667	51,444	56,685	58,803	61,164	63,948	67,012	70,445	73,967
STA Lifeline(10)		44,131	45,896	47,732	49,641	51,627	53,692	55,840	58,073	60,396	62,812
STA Express Bus (12)			40,482	20,848							
Regional Measure 2 (AllNighter)(7)	100000	101,500	103022.5	104567.8375	106136.3551	107728.4004	109344.3264	110984.4913	112649.2587	114338.9975	116054.0825
Regional Measure 2 (BRT)(12)			240,418	488,049	495,370	502,800	510,342	517,997	525,767	533,654	541,659
CMAQ Express Bus (8)	332959	0	0	0	0	0	0	0	0	0	0
FTA 5303 - Planning	61,294	30000	30,000	30,000	30000	30000	30000	30000	30000	30000	30000
FTA 5307 - Formula (9)	219,893	854,770	239,852	249,446	259,424	269,800	280,593	291,816	303,489	315,628	328,254
JARC (10)		103,959	108,117	112,442	116,940	121,617	126,482	131,541	136,803	142,275	147,966
BART Subsidy (11)	484,469	538,034	559,805	584,421	609,919	636,332	663,406	691,164	719,944	749,783	780,275
Measure B - Express Bus (12)			442,401	927,599							
Measure B	921099	783369	783217.8906	822005.824	862434.0214	904570.5566	948479.861	994699.8099	1041936.429	1091633.842	1146215.534
Subtotal	2,939,041	3,014,813	3,667,750	4,479,216	3,639,376	3,223,372	3,335,408	3,453,371	3,575,938	3,704,997	3,853,886

TDA 4.0 Funds needed to balance budget	5,465,274	7,046,232	6,711,025	6,295,211	7,855,762	$8,108,290	$8,501,238	$8,908,124	$9,147,229	$9,453,171	$8,648,838
CAPITAL REVENUES											
FTA Section 5307 - Livermore UA	0		0	1185727.41	0	0	1333781.64	0	0	0	1560336.242
FTA Section 5307 -Concord UA	2,988,881	9,443,468	6,353,190	0	1276434	1,321,109	0	3,498,948	2,603,231	23,445,175	0
FTA Section 5309		3232601	0	1448370	0	0	0	0	0	0	0
Other Federal Funds	0	193,751	0	0	0	0	0	0	0	0	0
State Funds	0	5800000	4500000	617,400	500000	100,000	0	0	0	0	100,000
Bridge Tolls	702,124	1,242,835	1,527,027	0	261441	270,591	0	811,896	625,702	5,688,061	0
TDA Article 4.0	1,552,536	5,614,507	319,874	203,500	581,244	343,777	352,309	218,769	443,956	379,739	389,530
Total Capital Revenue	5,243,541	$25,527,162	$12,700,091	$3,454,997	2,619,119	$2,035,477	$1,686,090	$4,529,613	$3,672,889	$29,512,976	$2,049,866
Total Fixed Route Revenue	16,060,944	38,126,612	26,489,436	17,763,192	17,760,820	$18,030,158	$18,334,108	$21,855,633	$21,518,690	$47,956,930	$21,044,976

OPERATING CHARACTERISTICS

Revenue Hours (13)	121,686	141,048	164,481	165,386	165,386	165,386	165,386	165,386	165,386	165,386	165,386
Change in revenue hours		19,362	23433	905	0	0	0	0	0	0	0
Ridership (14)	2,136,005	2,349,606	3,277,542	3,375,868	3,477,144	3,581,458	3,688,902	3,799,569	3,913,556	4,030,963	4,151,892
% Ridership Increase	5%	10%	39%	3%	3%	3%	3%	3%	3%	3%	3%
Average Fare Per Passenger	$0.76	$0.76	$0.81	$0.81	$0.81	$1.06	$1.06	$1.06	$1.06	$1.06	$1.31
Passenger per Revenue Hour	17.6	16.7	19.9	20.4	21.0	21.7	22.3	23.0	23.7	24.4	25.1
Farebox Recovery Ratio (W/ B Parks & Special)	19%	18%	23%	22%	22%	27%	27%	26%	27%	26%	32%
Cost Per Hour	$88.90	$89.33	$83.84	$86.51	$91.55	$96.71	$100.66	$104.76	$107.90	$111.52	$114.85

Figure 2. Paratransit Financial Plan and Operating Characteristics

	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017
	Actual	*Budget*									
EXPENSES											
Operating Expenses (1)	1,650,932	1,689,855	1,766,629	1,826,474	1,888,353	1,952,337	2,018,497	2,086,908	2,157,646	2,230,790	2,306,423
REVENUES											
Passenger Fares (2)	101,290	137,650	227,325	238,691	250,626	307,016	322,367	338,486	355,410	373,180	447,816
Special Contract Fares	57,137	36,000	36,000	36,000	36,000	36,000	36,000	36,000	36,000	36,000	36,000
Subtotal	158,427	173,650	263,325	274,691	286,626	343,016	358,367	374,486	391,410	409,180	483,816
TDA 4.5 (15)	111,772	118,720	120,214	126,168	132,373	138,840	145,580	152,604	159,924	167,552	175,170
STA Regional Paratransit (15)	45,299	46,431	47,015	49,344	51,771	54,300	56,936	59,683	62,546	65,529	68,508
Measure B Paratransit	181,063	247,945	147,237	154,529	162,129	170,050	178,305	186,994	195,874	205,217	215,477
FTA Section 5307 ADA Paratransit (16)	0	278,232	296,776	312,364	324,859	337,853	351,367	365,422	380,039	395,240	411,050
Subtotal	338,134	691,328	611,243	642,405	671,132	701,044	732,188	764,703	798,383	833,538	870,206
TDA 4.0 Funds needed to balance budget	1,154,371	824,877	892,061	909,378	930,596	908,277	927,942	947,719	967,853	988,071	952,401
Total Operating Revenues	$1,650,932	$1,689,855	$1,766,629	$1,826,474	$1,888,353	$1,952,337	$2,018,497	$2,086,908	$2,157,646	$2,230,790	$2,306,423
OPERATING CHARACTERISTICS											
Revenue Hours	30,311	32,803	34,443	36,165	37,974	39,872	41,866	43,959	46,157	48,465	50,888
Ridership	69,016	72,167	75,775	79,564	83,542	87,719	92,105	96,710	101,546	106,623	111,954
% Ridership Increase		5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Average Fare Per Passenger	$1.47	$1.91	$3.00	$3.00	$3.00	$3.50	$3.50	$3.50	$3.50	$3.50	$4.00
Passenger Per Revenue Hour	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Farebox Recovery Ratio (W/ Special Contract)	10%	10%	15%	15%	15%	18%	18%	18%	18%	18%	21%
Cost Per Hour	$54.47	$51.52	$51.29	$50.50	$49.73	$48.96	$48.21	$47.47	$46.75	$46.03	$45.32

Figure 3. Systemwide Operating Information and Notes

	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	2017
TDA 4.0 RESERVE BALANCE											
Prior Year TDA	2,677,740	3,460,866	1,435,379	1,444,936	2,359,656	1,721,723	1,515,103	1,329,391	1,311,311	1,289,026	1,484,993
TDA 4.0 Interest Earned on Reserves (Alameda Cty)	170627	179158.35	188,116	197,522	207,398	217,768	228,656	240,089	252,094	264,698	277,933
TDA 4.0 Revenue Forecast	7,202,771	7,871,109	7,744,400	8,125,288	8,522,272	8,935,955	9,367,120	9,816,443	10,284,659	10,752,251	11,289,864
TDA 4.0 Usage:											
Operations	6,419,645	7,871,109	7,603,086	7,204,590	8,786,359	9,016,567	9,429,180	9,855,843	10,115,082	10,441,243	9,601,239
Capital (excludes prior year allocations)	0	2,204,645	319,874	203,500	581,244	343,777	352,309	218,769	443,956	379,739	389,530
Reserve Balance	$3,460,866	$1,435,379	$1,444,936	$2,359,656	$1,721,723	$1,515,103	$1,329,391	$1,311,311	$1,289,026	$1,484,993	$3,062,021
OPERATING CHARACTERISTICS - Systemwide											
Revenue Hours	151,997	173,851	198,924	201,551	203,360	205,258	207,252	209,345	211,543	213,851	216,274
Total Operating Expense	12,468,335	14,289,305	15,555,975	16,134,669	17,030,055	17,947,018	18,666,516	19,412,928	20,003,446	20,674,744	21,301,533
Ridership	2,205,021	2,421,772	3,353,317	3,455,432	3,560,686	3,669,177	3,781,007	3,896,279	4,015,102	4,137,586	4,263,846
% Ridership Change		10%	38%	3%	3%	3%	3%	3%	3%	3%	3%
Average Fare Per Passenger	$0.78	$0.79	$0.86	$0.86	$0.86	$1.12	$1.12	$1.12	$1.12	$1.12	$1.38
Passenger Per Revenue Hour	14.5	14.0	16.9	17.1	17.5	17.9	18.2	18.6	19.0	19.34798685	19.714998
Farebox Recovery Ratio (W/ Special Contract)	17%	17%	22%	22%	21%	26%	26%	26%	26%	26%	31%
Cost per Hour	$82.03	$82.19	$78.20	$80.05	$83.74	$87.44	$90.07	$92.73	$94.56	$96.68	$98.49
% Change in Cost per Hour		0%	-5%	2%	5%	4%	3%	3%	2%	2%	2%
(1) OPERATING COSTS											
Fixed Route											
Purchased Transportation (Contract Operator) (a)	$6,956,560	$8,110,469	$9,424,644	$9,813,829	$10,450,299	$10,945,152	$11,376,783	$11,825,943	$12,180,721	$12,546,143	$12,922,527
LAVTA Administration/Operations (b)	$3,860,843	$4,488,981	$4,623,650	$4,762,360	$4,905,231	$5,052,388	$5,203,959	$5,360,078	$5,520,880	$5,686,507	$5,857,102
Satellite Facility Operating Costs (c)						150000	154500	159135	163909.05	168826	173891
Staff Increase (e)					$72,100	$146,363	$222,854	$301,640	$310,689	$382,789	$392,109
TOTAL OPERATING COSTS	**10,817,403**	**12,599,450**	**14,048,294**	**14,576,189**	**15,427,630**	**16,293,903**	**16,958,096**	**17,646,796**	**18,176,199**	**18,784,265**	**19,345,630**

(a) Actual contract rates through FY2014 assume 3% annual increase in thereafter.
Fixed fee attributed 90% to fixed route and 10% to paratransit

(b) Assume 3% annual increase per year

(c) Assumes 2 facilities in 2012 with 3% increase (maintenance)

(e) Assumes 5 new staff plus 3% increase

Paratransit											
Purchased Transportation (Contract Operator) (a)	$1,284,675	$1,303,939	$1,369,136	$1,417,056	$1,466,653	$1,517,986	$1,571,115	$1,626,104	$1,683,018	$1,741,923	$1,802,891
LAVTA Administration/Operations (b)	$366,257	$385,916	$397,493	$409,418	$421,701	$434,352	$447,382	$460,804	$474,628	$488,867	$503,533
TOTAL OPERATING COSTS	**$1,650,932**	**$1,689,855**	**$1,766,629**	**$1,826,474**	**$1,888,353**	**$1,952,337**	**$2,018,497**	**$2,086,908**	**$2,157,646**	**$2,230,790**	**$2,306,423**

(2) Fare Increase

Fixed Route increase of $.25 in FY12 and FY17

Paratransit increase of $.50 in FY12 and FY17

(3) Business Club Passes - Revenue generated from agreements with Business Parks. Assumes 10% increase in FY2009 and 2010 for advent of BRT and 3% thereafter

(4) Interest calculation: TDA/12 times average interest

(5) Forecast based on MTC 10-year forecast.

(6)Each year FY09-FY11 includes 1/3 of anticipated STA carryover at FY2008 year end ($1,571,619) to cover cost of increased services - seed money.

(7) RM2 funds projected at 1.5% increase - these are funds for owl service.

(8) Express Bus-Funds in 07 are current available funds.
(9) FTA 5307 10% of set aside (total regional pool of funds) to be used for preventative maintenance.
These funds budgeted based on a year lag. FY08 funds include one time extra due to unprogrammed 5307 funds at the region.

(10) These funds cover cost of route 14.

(11) BART's TDA/STA/Bridge Toll payments to LAVTA for providing feeder bus service to BART. Assumes contributions increase by the%age of increase of AB 1107 10 year estimate (5%).

(12)FY07 includes funds for special one time projects. Forecasts based on FY07 base amounts.

(13) Estimated annual hours increase/decrease:
FY08 reflects service enhancements to LAVTA's most successful routes (10 and 15) as well as service restructuring to meet the needs of new developments. In the out years only those increases are shown For which revenues have been secured.

Paratransit hours increase by 5% per year roughly based on taxi study passenger growth.

(14) Estimated annual ridership growth

Future year increases assume 3% annual growth plus growth associated with new services.

(15) Show increase based on % increase of overall TDA 4.5 funds in Alameda County.

(16)Forecast increase in total 5307 funds.

Figure 4. Capital Improvement Program

	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	10 Year Total
	Budget										
EXPENSES											
Replacement Program	$10,581,055	$7,880,217	$0	$0	$0	$0	$3,228,933	$26,413,069	$0	$0	$48,103,274
Fixed Route Vehicles	(14 vehicles)	(12 Vehicles)					(4 vehicles)	(34 Vehicles)			(64 vehicles)
Replacement Program		$0	$0	$0	$3,174,132	$0	$2,720,167	$0	$0	$0	$5,894,299
Commuter Vehicles					(5 vehicles)		(4 vehicles)				(9 vehicles)
Replacement Program	$831,888	$0	$0	$512,625	$1,591,701	$0	$1,136,713	$0	$0	$0	$5,098,177
Paratransit vans	(6 vehicles)			(3 vehicles)	(9 vehicles)		(6 vehicles)				(24 vehicles)
Replacement	$125,000	$119,874	$0	$374,121	$132,905	$137,556	$0	$221,031	$152,511	$157,849	$1,420,848
Service Vehicles	(3 vehicles)	(2 vehicles)			(3 vehicles)	(2 vehicles)	(1 vehicle)		(3 vehicles)	(2 vehicles)	(21 vehicles)
Engine Rebuild Program	$621,165	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$1,521,165
Maintenance and Operations Facility	$7,327,232	$4,000,000	$2,634,097	$0	$0	$1,333,782	$0	$0	$0	$1,560,336	$16,855,447
Bus Stop and Shelter Program	$200,000	$500,000	$500,000	$500,000	$0	$0	$0	$0	$0	$0	$1,700,000
Office/Facility Equipment	$461,579	$100,000	$103,500	$107,123	$110,872	$114,752	$118,769	$122,926	$127,228	$131,681	$1,498,429
Real Time Signage Program	$79,243	$0	$117,400	$0	$100,000	$0	$0	$0	$0	$100,000	$396,643
Bus Rapid Transit	$5,300,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$5,300,000
Total Capital Expenses	$25,527,162	$12,700,091	$3,454,997	$2,619,119	$2,035,477	$1,686,091	$4,529,613	$3,672,889	$29,512,976	$2,049,866	$87,788,281
REVENUES											
FTA Section 5307 - Livermore UA		0	1,185,727	0	0	1,333,782	0	0	0	1,560,336	4,079,845
FTA Section 5307 - Concord UA	9,443,468	6,353,190	0	1,276,434	1,321,109	0	3,498,948	2,603,231	23,445,175	0	47,941,556
FTA Section 5309	3,232,601	0	1,448,370	0	0	0	0	0	0	0	4,680,971
Other Federal Funds	193,751	0	0	0	0	0	0	0	0	0	193,751
State/Regional Funds	5,800,000	4,500,000	617,400	500,000	100,000	0	0	0	0	100,000	11,617,400
Bridge Tolls	1,242,835	1,527,027	0	261,441	270,591	0	811,896	625,702	5,688,061	0	10,427,554
TDA Article 4.0	5,614,507	319,874	203,500	581,244	343,777	352,309	218,769	443,956	379,739	389,530	8,847,204
Total Capital Revenues	$25,527,162	$12,700,091	$3,454,997	$2,619,119	$2,035,477	$1,686,090	$4,529,613	$3,672,889	$29,512,976	$2,049,866	$87,788,281

Figure 5. Existing Fixed Route and Paratransit Fleet

Fixed Route Fleet

Number of Vehicles	Manufacturer	Year Mfg.	Length (ft)	VIN Series	Vehicle Type	Seating Capacity	Wheelchair Capacity	Power Mode	Rehabilitation Performed? Life Extended?	Year to be Retired?	Typical Service
8	Gillig	1990	35	15GCB091 XXX	Standard Motorbus	37	2	Diesel	No	2008	Local Fixed-Route
8	Gillig	1990	40	15GCD091 XXX	Standard Motorbus	40	2	Diesel	No	2009	Local Fixed-Route
12	New Flyer	1996	40	2FYD2LL XXX	Low Floor Motorbus	39	2	Diesel	No	2009	Local Fixed-Route
5	Gillig	2000	40	15GCD201 XXX	Standard Motorbus	41	2	Diesel	No	2012	Express Service
4	Gillig	2002	40	15GDD271 XXX	Standard Motorbus	37	2	Diesel	No	2014	Regional Express
4	Gillig	2002	40	15GCD271 XXX	Low Floor Motorbus	40	2	Diesel	No	2014	Local Fixed-Route
24	Gillig	2003	40	15GGD201 XXX	Low Floor Motorbus	39	2	Diesel	No	2016	Local Fixed-Route
10	Gillig	2003	29	15GGE181 XXX	Low Floor Motorbus	23	2	Diesel	No	2016	Local Fixed-Route
2	Gillig	2007	29	15GGE191 XXX	Low Floor Hybrid Motorbus	23	2	Diesel/Elec	No	2019	Local Fixed-Route

Demand Response Fleet

Number of Vehicles	Manufacturer	Year Mfg.	Length (ft)	VIN Series	Vehicle Type	Seating Capacity	Wheelchair Capacity	Power Mode	Rehabilitation Performed? Life Extended?	Year to be Retired?	Typical Service
3	El Dorado	1999	24	1FDLE40 XXX	Cutaway Van	13	2	Diesel	No	2008	Demand-Responsive
3	El Dorado	2000	24	1FDWE45 XXX	Cutaway Van	15	2	Diesel	No	2008	Demand-Responsive
3	El Dorado	2003	24	1B4GH44 XXX	Cutaway Van	13	2	Diesel	No	2011	Demand-Responsive
9	El Dorado	2006	22	1FDXE45 XXX	Cutaway Van	12	4	Diesel	No	2012	Demand-Responsive

Figure 6. Replacement Fixed Route and Paratransit Fleet

Replacement Fixed Route Fleet

Number of Vehicles	Anticipated Mfg Year	Vehicle Length	Anticipated Year In Service	Vehicle Type	Seating Capacity	Wheelchair Capacity	Power Mode	Fund Sources	Typical Service
14	2009	40	2009	Low Floor Hybrid Motorbus	40	2	Diesel/Elec	Section 5307	Local Fixed-Route
12	2009	40	2009	Low Floor Motorbus	40	2	Diesel	Section 5307	Local Fixed-Route
5	2012	40	2012	Standard Motorbus	37	2	Diesel	Section 5307	Express Service
4	2014	40	2014	Standard Motorbus	37	2	Diesel	Section 5307	Regional Express
4	2014	40	2014	Low Floor Motorbus	40	2	Diesel	Section 5307	Local Fixed-Route
24	2016	40	2016	Low Floor Motorbus	39	2	Diesel	Section 5307	Local Fixed-Route
10	2016	29	2016	Low Floor Motorbus	23	2	Diesel	Section 5307	Local Fixed-Route
2	2019	29	2019	Low Floor Hybrid Motorbus	23	2	Diesel/Elec	Section 5307	Local Fixed-Route

Replacement Demand Response Fleet

Number of Vehicles	Anticipated Mfg Year	Vehicle Length	Anticipated Year In Service	Vehicle Type	Seating Capacity	Wheelchair Capacity	Power Mode	Fund Sources	Typical Service
3	2006	24	2008	Cutaway Van	12	4	Diesel	Section 5307	Demand-Responsive
3	2007	24	2008	Cutaway Van	12	4	Diesel	Section 5307	Demand-Responsive
3	2011	24	2011	Cutaway Van	13	4	Diesel	Section 5307	Demand-Responsive
9	2013	22	2012	Cutaway Van	12	4	Diesel	Section 5307	Demand-Responsive

Figure 7. Expansion Fleet Needs

Expansion Fixed Route Fleet

Number of Vehicles	Anticipated Mfg Year	Anticipated Year In Service	Vehicle Length	Vehicle Type	Seating Capacity	Wheelchair Capacity	Power Mode	Estimated Cost	Fund Sources	Typical Service
4	2012	2012	45	Over the Road	55	2	Diesel	$ 2,453,436	Hot Lane	Express (I-580)
10	2012	2012	40	Low Floor Hybrid Motorbus	37	2	Diesel/Elec	$ 7,535,610	Vision	Local Fixed-Route (General Expansion)
14	2013	2013	45	Over the Road	55	2	Diesel	$ 8,887,573	Hot Lane	Express (I-680)
4	2013	2013	40	Low Floor Hybrid Motorbus	37	2	Diesel/Elec	$ 3,119,743	Vision	Bus Rapid Transit (NE Livermore)
4	2013	2013	30	Trolley	23	2	Diesel	$ 1,974,172	Vision	Local Fixed-Route (Downtown shuttle)
								$ 23,970,535		

Expansion Demand Response Fleet

Number of Vehicles	Anticipated Mfg Year	Anticipated Year In Service	Vehicle Length	Vehicle Type	Seating Capacity	Wheelchair Capacity	Power Mode	Estimated Cost	Fund Sources	Typical Service
2	2009	2009	22	Cutaway Van	12	4	Diesel	$ 330,192	Section 5307	Demand-Responsive
12	2012	2012	22	Cutaway Van	12	4	Diesel	$ 2,196,538	Section 5307	Demand-Responsive
								$ 2,526,730		

Figure 8. Summary of Revenue Vehicle Inventory

Fixed Route Fleet

Vehicle	Year	Life	Year Fully Depreciated	2008 Qty	Notes
40' New Flyer	1996	12	2008	11	
40' Gillig Phantom	2000	12	2012	5	
40' Gillig Low Floor	2002	12	2014	4	
29' Gillig Low Floor	2003	12	2015	10	
40' Gillig Low Floor	2003	12	2015	24	
29' Gillig Low Floor DHEB	2008	12	2020	2	
Total Active Fleet				**56**	
35' Gillig Phantom	1990	12	2002	8	Pending Disposal
40' Gillig Phantom	1990	12	2002	8	Contingency
40' Gillig Phantom	2002	12	2014	4	On loan to Westcat
Total Inactive Fleet				**20**	
Peak Requirement				47	
Spare Ratio				19%	

Demand Response Fleet

Vehicle	Year	Life	Year Fully Depreciated	2008 Qty	Notes
El Dorado	1999	7	2006	3	Replacements on order
El Dorado	2000	7	2007	3	Replacements on order
El Dorado	2003	7	2010	3	
El Dorado	2006	7	2013	9	
Total Active Fleet				**18**	
Peak Requirement				16	
Spare Ratio				13%	

Chapter 7

BUS RAPID TRANSIT PLAN

7.1 Background

This chapter describes the basic characteristics of Bus Rapid Transit (BRT) and its scaled back variant (BRT Lite or Rapid) that together have taken the global public transit community by storm in recent years. The roots of BRT's sudden popularity can best be framed in the context of how BRT fits into the progression of public transit modes from zero transit up to fully underground subway services (heavy rail).

In order of magnitude:

- Zero public transit (autos and taxis)
- Demand Responsive Transit
- Community Fixed Route Transit (set schedules/routes, smaller vehicles)
- Urban Fixed Route (large buses, long spans of service)
- Bus Rapid Transit "Lite" (a.k.a. "Rapid") operating in mixed traffic
- Bus Rapid Transit (separate running ways or bus lanes)
- Commuter Rail
- Lite Rail/Streetcar
- Heavy Rail/Subway

Bus Rapid Transit entails much of the comfort and attractiveness of light rail, generally at a fraction of the construction costs. Plain bus stops are enhanced to become BRT stations, fare media is sold off board to speed boarding, real time bus arrival information is provided at stops, buses interface with traffic signals, and stops are spaced further apart to decrease travel times, buses receive preferential treatment at intersections and along congested segments, and premium buses are deployed . All these elements work together to emulate a "rail feel" to a bus service.

One may describe the application of all the components of BRT as simply modern, smart transit. BRT and BRT Lite (generally differentiated by whether or not the BRT service has its own roadway or lanes, or if the buses operate in "mixed traffic") retain obvious appeal to areas that either never expect to build rail transit (due to costs or perhaps insufficient ridership projections) or along successful bus corridors that aspire to someday transition into light rail transit. BRT can be seen as a market cultivating, interim step between regular urban fixed route buses and rail. With this long term goal in mind (BART to Livermore), LAVTA has boldly moved to add BRT into its "family of services."

This chapter summarizes the details of LAVTA's new "Route 10 Rapid" BRT plan, as created by the Kimley-Horn and Nelson Nygaard consultant team in the Spring of 2007. For complete details of this project, please refer to the LAVTA "Route 10 Rapid Bus Program Deployment" report (April 2007, under amendment May 2008). Route 10 is the first LAVTA bus corridor selected to undergo "BRT" treatments, although application of this technology is anticipated in other locations in the future.

The origin of LAVTA's "Route 10 Rapid" project came in 2004 during BART's I-580 Corridor Transit Study Phase 2 Final Report. The BART study analyzed four alternatives for extending rail service from the existing Dublin/Pleasanton BART station into Livermore. The study team, however, found that no combination of rail technology and routing alignment met all of the key requirements for a successful project, including:

• **Cost per Rider—**No project using the I-580 median could attract sufficient ridership to justify the costs of the project. The study found that the existing Dublin/Pleasanton station is already capturing most of its potential of riders who live in the Tri-Valley and Central Valley and who work in places that BART serves.

• **Local Support—**Both Dublin and Pleasanton were clear that they did not want a transportation project to use the Iron Horse Trail right of way, eliminating the possibility of the most cost effective potential projects.

• **Financing Plan—**Working with the Alameda County Transportation Improvement Authority (ACTIA), the Alameda County Congestion Management Agencies (ACCMA), BART and the three cities, it became clear that there was sufficient capital funding for either the planned I-580 carpool lane project or a BART rail extension to Livermore—but not for both, at least in the foreseeable future.

While conducting outreach for the rail extension project, several elected officials and staff members sought additional information on express bus and Bus Rapid Transit options for the Tri-Valley. The study team examined various low cost, high return "Bus Rapid Transit" and "Rapid Bus" alternatives that could be implemented in the short run, until funding is identified for a rail extension. These alternatives sought to serve the **four key markets** identified in the study:

• **Intra Tri-Valley—**About 46% of Livermore residents commute to nearby jobs in Dublin, Pleasanton, and San Ramon. To be cost effective, to produce the greatest traffic benefits and generate value for Tri-Valley residents and employers, new transit services should focus first on this market.

• **BART to Tri-Valley jobs—**The "reverse commute" market from the core Bay Area to employment clusters in the Tri-Valley is not currently well served. Providing improved transit connections from Dublin/Pleasanton BART station to locations

such as Hacienda Business Park, Downtown Pleasanton and Livermore, and the Lawrence Livermore National Laboratory could produce ridership benefits.

• **Tri-Valley to BART—**While this market is already served by the station parking lot, allowing Tri-Valley residents to take transit to BART rather than drive and park will produce traffic and parking availability benefits.

• **Central Valley to Tri-Valley jobs—**By providing connections from ACE stations (especially Livermore ACE) to Tri-Valley employment clusters, it may be possible to attract some of the 40% of Altamont commuters who work in the Tri-Valley.

This was the thought behind "Rapid" or "Bus Rapid Transit/BRT" treatment to the existing Route 10. This new service will cover the cities of Dublin and Livermore as a short to midterm option in advance of a future rail extension.

LAVTA currently operates one of the most successful suburban bus routes in California—Route 10. This project promises to build off of Route 10's success, improving its travel time, bus stop amenities, reliability and frequency.

Route 10 Rapid Project Development Decisions

Currently, Route 10 operates between the City of Livermore and the Dublin/Pleasanton BART Station, then extends on to reach Stoneridge Mall via Dublin Boulevard. Regional destination points along the route include Stoneridge Mall, Hacienda Business Park, Downtown Pleasanton, Shadow Cliffs Regional Park, Downtown Livermore, and the Lawrence Livermore (LLNL) and Sandia National Laboratories. Because this route is one of the most heavily used suburban bus routes in the Bay Area, the Route 10 Rapid Project promises to optimize the mobility of area residents within the Cities of Livermore and Pleasanton to the I-580 and I-680 corridors.

The current Route 10 is very popular, but also carries the reputation of being a slow, plodding, traditional bus service that does not appeal to the "choice rider." The current scheduled travel time between the LLNL and the BART station is 55 minutes, with a methodical 79-80 from Stoneridge Mall to LLNL (includes scheduled eight minute layover at BART). Early in Route 10 Rapid project development, it was decided to limit the initial project to the BART to LLNL segment. This decision was made difficult by the high amount of Livermore based Route 10 passengers that do not connect with BART, but rather continue on the Route 10 to service sector employment along western portions of Dublin Boulevard and at Stoneridge Mall. The Revised, May 2008 alignment of the Rapid Bus (via Dublin to Stoneridge Mall) offers direct Livermore to Dublin service, avoiding forced transfers at BART.

<u>Downtown Pleasanton</u>

Analysis of the current Route 10 showed strong ridership in most segments but slow travel times as the Route 10 traverses Main, St. John, Peters, Neal, First and then finally Stanley Boulevard to service Downtown Pleasanton. As early as the BART study in 2004, it was identified that the Rapid would benefit from avoiding downtown, but the downtown Pleasanton market is a key part of the corridor. Three options to connect Stanley with Main/Santa Rita were evaluated: status quo, Ray Road, and Old Stanley Road. The current twisting configuration thru first and Neal, Ray Road, and Old Stanley Road was discarded due to elongated travel times, the Ray Road option discarded due to lack of sufficient bus turning radius at the intersection of Ray and Main, leaving the Old Stanley segment as the clear (and only feasible) preferred alternative. The intersection of Old Stanley and Main/Santa Rita became the focal point for locating a pair of "signature" bus stops that would service downtown Pleasanton and provide a gateway connection for people entering downtown from the northeast.

Unfortunately, opposition to the project among those residing near Old Stanley forced LAVTA to seek other options for the Rapid, besides Downtown Pleasanton. It was agreed to maintain the current 15 minute headways on the Pleasanton portion of the "Local 10" and add TSP technology to the intersections in Pleasanton to speed up the current service, while allowing the travel time-sensitive Rapid project to migrate to the Dublin side of I-580.

Downtown Livermore

LAVTA constructed the Livermore Transit Center (LTC) over a decade ago to provide an off street location where buses can meet to transfer passengers. This facility provides a great service to the LAVTA transit system. However, the design of the LTC funnels all buses in and out of the facility at a single entrance onto Old First Street. Due to safety issues regarding turning, all westbound buses must endure not one, but three stop lights prior to reaching Livermore Avenue, which is just one block away from the LTC. LAVTA expends a countless amount of revenue time each day waiting at these stoplights in downtown Livermore. In order to avoid running the Route 10 Rapid bus into this time robbing circulation pattern, it was decided to construct a pair of Downtown Livermore stops on Railroad Avenue, just outside the LTC, and straddling the new signalized pedestrian crossing at the downtown parking garage and Performing Arts Center. LAVTA has worked closely with City staff to accommodate Rapid buses into this high profile location.

Bus Stop Spacing

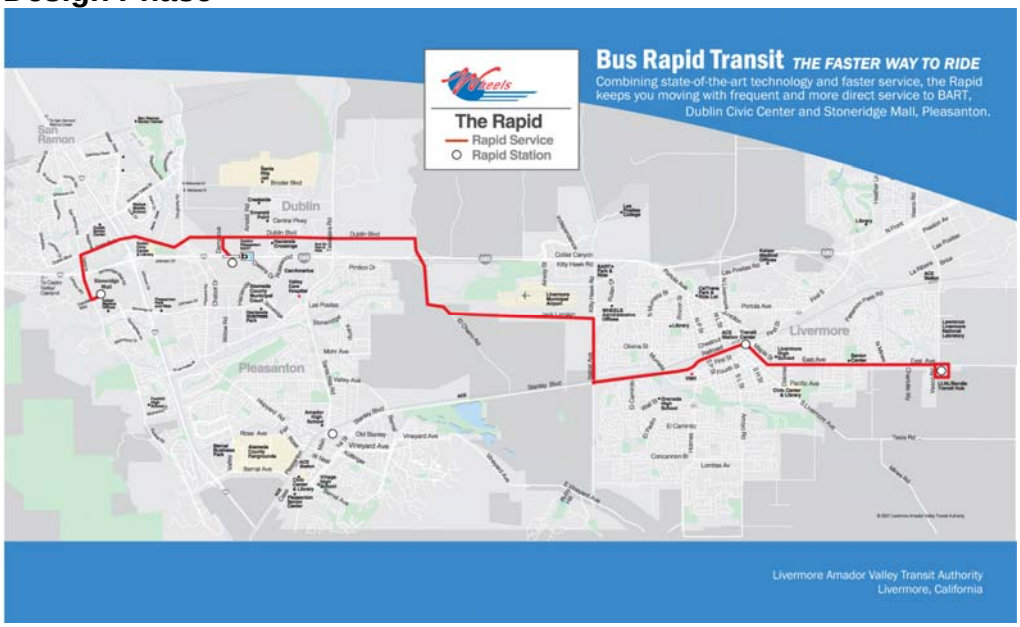
A challenging element of the Route 10 Rapid overlay project was deciding which pairs of existing Route 10 stops were to become part of the Rapid, and which would remain as "local 10" stops. LAVTA staff are able to extract stop by stop ridership activity from the agency's on board automatic vehicle locator (AVL) and automatic passenger counter (APC) systems. This rich data on exactly where current riders catch the Route 10 was used as the basis for most of the decisions on which stops were to undergo the "rapid" treatments. Many tradeoffs were made in order to

spread the stops out at an optimal distance to keep the buses moving, but yet allow maximum walkup customer access. Ultimately, nineteen pairs of stops are identified to be part of the Rapid route. Two "end of the line" stops will be at just outside the East Avenue Gate of Lawrence Livermore National Laboratory (LLNL) and adjacent to either the Stoneridge Mall or West Dublin/Pleasanton BART station, Pleasanton side. Refer to the following figures for the corridor maps and the rapid stop pairs.

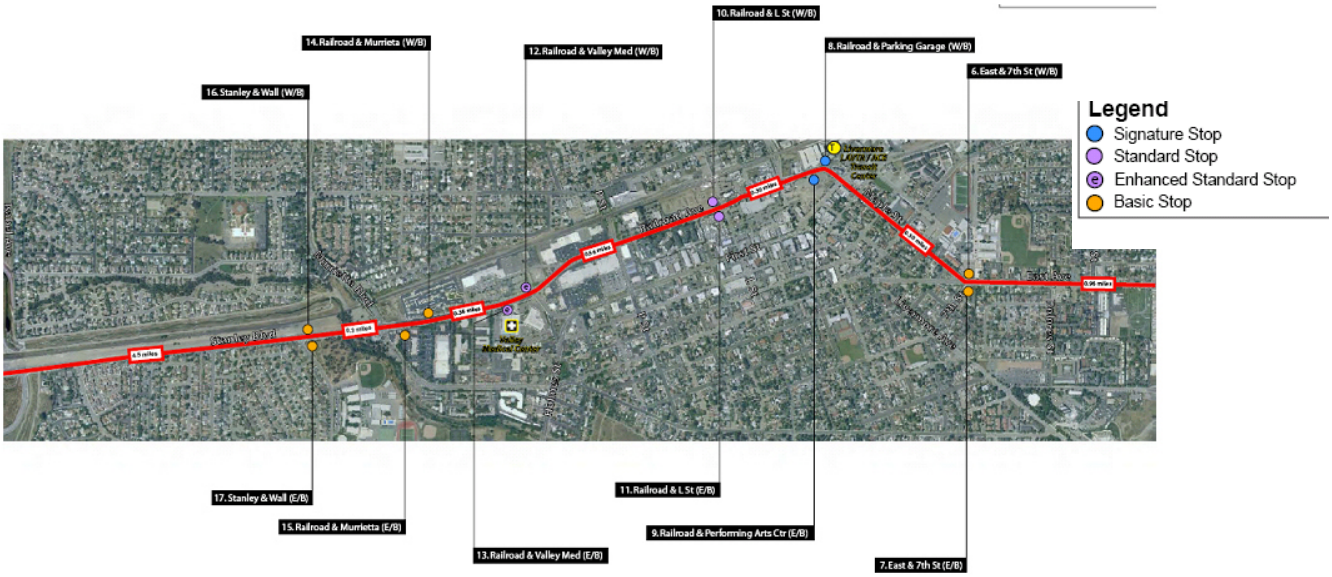
Transit Signal Priority/Queue Jumps

An integral component of BRT projects is the interactive element where the rapid buses are granted preferential treatment at signalized intersections along the corridor. Using 3M Opticom technology LAVTA buses will be able to communicate (line of sight) with the Naztec traffic signal equipment used by both the cities in order to "request" either an extended green cycle (usually 10 extra seconds for the bus to clear the intersection) or a shorter red cycle to speed up the bus. The intersection controllers are programmed to grant this bus request upon demand, but only if the bus is behind schedule. This effectively avoids most noticeable signal intervention AND helps buses on set schedule headways (every fifteen minutes, for example) to maintain their spacing and avoid "bus bunching". For example, if one westbound bus is granted an extended green, the next westbound bus will NOT be granted another preferential treatment until at least fifteen minutes have passed. LAVTA has worked closely with traffic engineering staff from both cities throughout the project to choose this "passive" transit signal priority methodology that both the cities and LAVTA are comfortable with. The signal software produces reports that will allow LAVTA and the cities to track the granting of transit priority so adjustments can be made to optimize the signal behavior at any time.

Design Phase

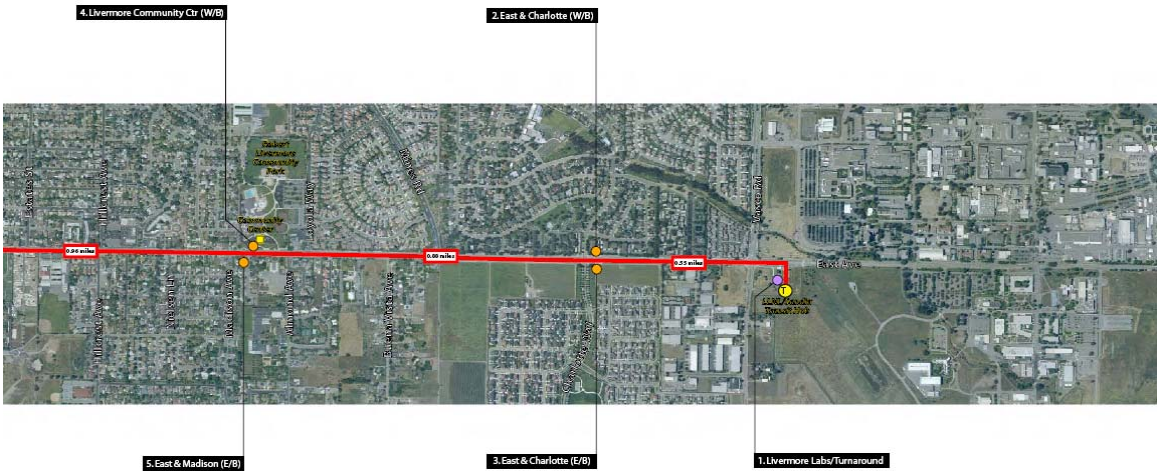


2008 Rapid Bus Corridor



Nelson\Nygaard consulting associates — Community Design + Architecture

Downtown Livermore



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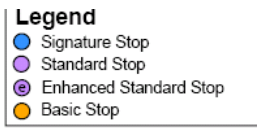
East Livermore



7.2 Capital Plan

Capital Costs - Taken directly from the BRT Plan by KHA

Phase I

Bus Stop Amenities	**Quantity**	**Unit Cost**	**Total**
Level 1 Enhancements	1	$ 2,175,700	$ 2,175,700
Ticket Vending Machines (6 locations)	1	$ 720,000	$ 720,000
Bus Arrival Information Signs	28	$ 30,000	$ 840,000
Public Art	15% of Signature Stop		$ 240,000
Bus Stop Amenities Total			**$ 3,975,700**
TSP Queue Jumper Signal Improvements	**Quantity**	**Unit Cost**	**Total**
Firmware Upgrade	35	$ 3,500	$ 122,500
Upgrading 3M equipment	35	$ 3,000	$ 105,000
TSP Reporting and Software	1	$ 200,000	$ 200,000
Transit Signal Priority Total			**$ 427,500**
Project Subtotal			***$ 4,403,200***
Administrative and Engineering	**Quantity**	**Unit Cost**	**Total**
Contingency	25%	$ 4,403,200	$ 1,100,800
Environmental Doc and Design	20%	$ 4,403,200	$ 880,640
Construction Admin	15%	$ 4,403,200	$ 660,480
Project Mgmt and Admin	5%	$ 4,403,200	$ 220,160
Marketing	5%	$ 4,403,200	$ 220,160
Administrative and Engineering Total			**$ 3,082,240**
Queue Jump Lanes	**Quantity**	**Unit Cost**	**Total**
Pleasanton Queue Jump Lanes			$ 140,000
Livermore Queue Jump Lanes			$ 2,930,000
Queue Jump Lanes Total			**$ 3,070,000**
Phase I Total			***$ 10,555,440***

Phase 2

Bus Stop Amenities	**Quantity**	**Unit Cost**	**Total**
Level 2 Enhancements	1	$ 1,157,600	$ 1,157,600
Bus Arrival Information Signs	4	$ 30,000	$ 120,000
Bus Stop Amenities Total			**$ 1,277,600**
Additional Improvements	**Quantity**	**Unit Cost**	**Total**
Property Purchase	11500	$ 25	$ 287,500
Site Clean up	11500	$ 14	$ 161,000
Site Development	70	$ 3,000	$ 210,000
Transit Signal Priority Total			**$ 658,500**
Project Subtotal			***$ 1,936,100***
Administrative and Engineering	**Quantity**	**Unit Cost**	**Total**
Contingency	25%	$ 1,936,100	$ 484,025
Environmental Doc and Design	20%	$ 1,936,100	$ 387,220
Construction Admin	15%	$ 1,936,100	$ 290,415
Project Mgmt and Admin	5%	$ 1,936,100	$ 96,805
Administrative and Engineering Total			**$ 1,258,465**
Phase 2 Total			***$ 3,194,565***
Grand Total both Phases			***$ 13,750,005***

7.3 Schedule/Operations Plan

In Livermore, the Route 10 Rapid will function as an overlay on top of the existing Route 10 Local, which will continue to provide robust local service in addition to the Rapid. This is optimal, at least in the early years of the Rapid, as many origins and destinations had to be bypassed by the Rapid in order to reduce travel times and provide a premium service.

The Rapid will provide service on fifteen minute headways from LLNL all the way to Stoneridge Mall via Dublin Blvd, including a stop at the East Dublin/Pleasanton BART station. Current (FY 08) service on the Route 10 is also on fifteen minute headways, but only from the Livermore Transit Center to BART. Headways between the LTC and LLNL currently vary from fifteen minutes to thirty minutes, as do the headways on the Stoneridge Mall to BART segment in Dublin. Once Rapid service begins, the Route 10 Local will initially be set at thirty minute headways from LLNL to the East Dublin/Pleasanton BART station.

Item	Unit	Unit Cost	Quantity	Total Cost
Bus Operation	LS	$4,200,000	1	$4,200,000
Off-Board Fare Collection System	EA	$300,000	1	$300,000
Transit Signal Priority System	5% of Capital Costs			$31,375
Bus Stop Improvements	5% of Capital Costs			$31,375
Subtotal				$4,562,750
Administrative and Engineering Costs				
Contingency (10%)				$456,000
Project Management and Administration (5%)				$228,000
Total Estimate of Annual Operating and Maintenance Costs				**$5,246,750**

ROUTE 10 BRT ANNUAL OPERTATING AND MAINTENANCE COSTS

In order to approach the challenge of providing robust weekend service to the two, distinctive "super corridors" created by adding the Rapid on a separate alignment from the Local Route 10, it is envisioned that both lines will initially operate on weekends with service levels similar to those on weekdays. LAVTA will run robust Local 10 service in Pleasanton and Livermore similar to our FY 2008 services (every fifteen to twenty minutes in Pleasanton, 30 minutes Pleasanton to Livermore). Although the revised Rapid operations plan is not yet complete, it is envisioned that an attractive, high level of Rapid service (every 15-20 minutes, for example) will be deployed on weekends as well, at least between Stoneridge Mall and the Livermore Transit Center.

Fare Collection

Volumes of research indicate that a primary aggravating factor in how "slow" the public perceives traditional fixed route buses is the amount of time spent dwelling at bus stops while passengers queue in line at the front of the bus to put their bills and coins into the farebox. The ultimate solution to this issue lies perhaps in disallowing the use of cash completely, forcing riders to prepurchase some sort of fare media prior to the time the bus arrives. In this scenario, ticket machines are prevalent at bus stops and other easily accessed locations near the bus route, and riders can board by quickly flashing or scanning fare media, or even simply having to retain a ticket and be prepared to show proof of payment to a staff of fare inspectors. Locally, this "proof of payment" system is in use on San Joaquin RTD's new BRT line on the bus side, and partially with SF Muni rail, and fully with Caltrain and VTA (Santa Clara County) on their rail systems.

LAVTA examined options with regards to fare collection on the Route 10 Rapid, and also added several fare media questions to its 2007 Market Segmentation research. The data showed that well over half of LAVTA's existing riders use cash, and any effort to switch them onto a discounted flash pass, or prepaid single ride ticket could entail a significant educational outreach effort, and could risk a short term (at least) ridership loss scenario. For this reason, it was decided that an incremental effort to introduce a wider variety of fare media, and automated ticket vending machines (TVMs) at key busy stops was a more practical strategy for LAVTA rather than a shocking moratorium on the usage of cash to pay fares. Rapid buses will require front door boardings, and accept cash. However, the introduction of low priced Day Passes, dispensed at TVMs at the busiest stops, and at all LAVTA pass sales outlets, including the Livermore Transit Center, should help to reduce the amount of cash customers, and increase ridership among current customers (no disincentive to make multiple legged trips in single day).

7.4 Impacts Upon Other Local LAVTA Routes

With the introduction of a new premium service such as the Route 10 Rapid, a transit agency has the opportunity to evaluate other nearby routes, seeking to clarify if the new service renders certain segments duplicative or if a realignment would reduce travel times or improve on time performance of supporting routes.

In evaluating the impact of the overlay of the Rapid service onto the Route 10 corridor, LAVTA is considering if it would improve other routes to realign them to "feed" into the new trunk route.

Overlap/Duplication Issues

Route 12 overlaps significantly with the Route 10 from the LTC west to Murrieta Blvd. It may behoove LAVTA to relocate the Route 12 off of Railroad/Stanley to another path through NW Livermore (such as the weekend Route 12A corridor) due

to the apparent overkill of transit along Railroad/Stanley and the fact that Route 10 local and Route 12 follow each other back to back along this segment. Caution should be the rule on a change of this significance, as virtually zero customer origination and preference data exists yet as to whether moving the Route 12 from Railroad to say, Olivina, P, and/or Pine would actually be more or less convenient for the majority of current Route 12 ridership. Field observations seem to indicate that many Route 12 riders access the route by walking southward from points north of the railroad tracks. Further direct outreach (bilingual) should be undertaken before this service modification is acted upon.

With the provision of the Rapid to most all bus stops between the East Dublin/Pleasanton BART station and the Stoneridge Mall, is it planned to truncate Local Route 10 services at the East Dublin/Pleasanton BART station.

On Time Performance Issues

Route 18 serves downtown and near Southwest Livermore on generally thirty minute, reverse direction headways. Ridership is modest, although the Fourth Street corridor, Granada High School, and Mendenhall Middle School are key destinations along the route. While there is no geographic duplication, the Route 18 has severe on time performance challenges. Route 18 could be truncated and converted into a "feeder" route to the Route 10 at some potential common location such as Stanley/Murrieta. The advantage of this reconfiguration would be a decisive improvement in the Route 18's reliability (it commonly falls over 15 minutes behind during afternoons, primarily due to traffic, not high boarding activity) at the expense of forcing transfers to the riders from the 18 to the 10 at an "on street" location, likely a Route 10 Rapid stop, rather than at the LTC. Staff should investigate this issue over the next year and consider making both these local route adjustments at about the same time the Rapid Bus is launched.

Route 1 Family – East Dublin Service

The migration of the Rapid Bus into the Dublin Boulevard Corridor will supplant the hodgepodge of placeholder routes that have been cobbled together to provide service to the emergent neighborhoods of East Dublin in recent years. The Route 1 family (1A, 1B, 1C, 1E, 1AV, 1BV) may now be restructured to offer service to the Alameda County Jail, as well as locations in eastern Dublin that lie north of the Rapid Corridor, such as Central Parkway/Bray Park, Dublin Ranch, and Silviera Ranch.

Chapter 8

MARKETING AND PUBLIC AWARENESS

8.1 Background

As a part of the SRTP process, LAVTA conducts on board surveys every three years and uses the gathered information to analyze the current and potential market segments.

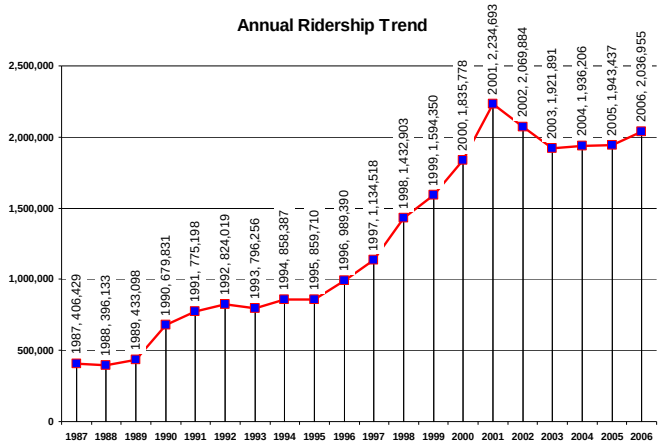
The most recent independent market segment survey was conducted in March 2007 by Selena Barlow of Transit Marketing, in conjunction with CJI Research Inc., to assess marketing and planning strategies for LAVTA. The survey included:

1. An On Board Customer Survey of over 1600 WHEELS' riders
2. A Community Telephone Survey of 700 Households within the WHEELS service area.

Information gathered from this research has been valuable in refining the system.

Non-WHEELS users were also surveyed to determine the type of service needed to generate new ridership, and to assist in designing programs to better meet current rider needs in terms of service quality.

Ridership grew rapidly between FYs 1994/95 and 2000/01, but decreased slightly between FYs 2001 and 2003, and then experienced a small upturn that lasted through 2006. By 2006, WHEELS ridership had rebounded and slightly exceeded the 2,000,000 rider mark of 2001. The on board study conducted at the end of 2002 occurred during a period of decline, while the most recent study occurred in the midst of resurgence.



8.2 Market Segmentation Study Findings and Trends Since 2002

ON BOARD SURVEY

Place of Residence

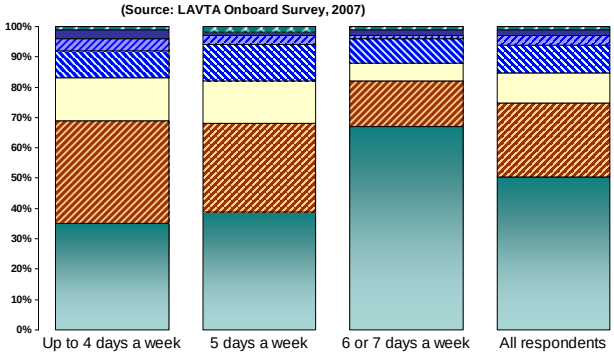
Roughly half of WHEELS riders reside in Livermore (45%), 21% of riders reside in Pleasanton, 6% live in Dublin, and the balance is spread throughout the Tri-Valley and Bay Area.

Ethnicity/Self Identification

Half of WHEELS riders are Hispanic (50%); these riders either indicated that they are Hispanic or it was implied, because they filled out the survey in Spanish. The remainder of ridership consists of 24% Caucasian, 10% Asian, 6% either Native American Indian or Pacific Islander, and the remaining 3% did not provide their ethnicity.

Ethnicity

(Source: LAVTA Onboard Survey, 2007)



	Up to 4 days a week	5 days a week	6 or 7 days a week	All respondents
Native American Indian	1%	2%	1%	1%
Pacific Islander	3%	1%	2%	2%
Other	4%	3%	1%	3%
African-American	9%	12%	8%	9%
Asian	14%	14%	6%	10%
Caucasian	34%	29%	15%	24%
Hispanic	35%	39%	67%	50%

Age

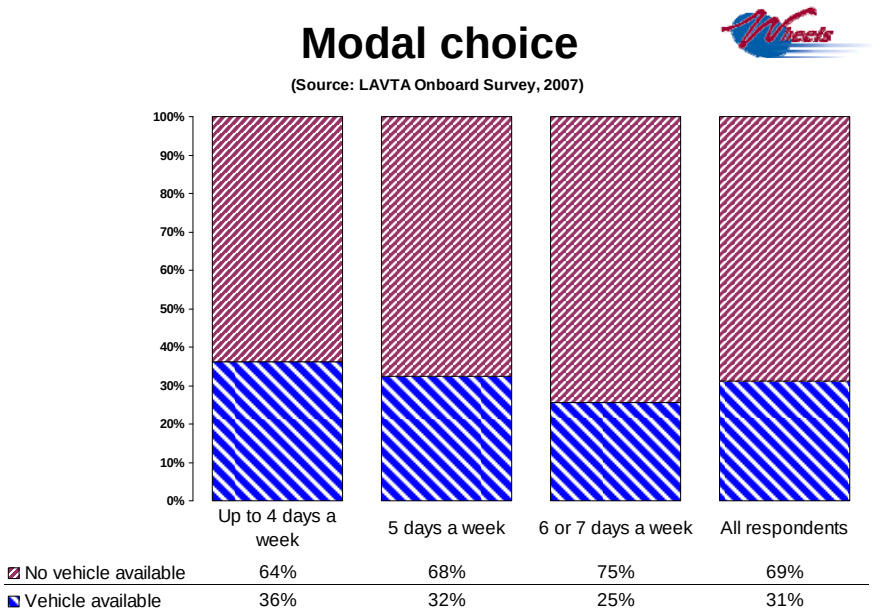
WHEELS ridership is relatively young. Of all riders, 38% identified themselves as being less than 24 years old. More than 60% of all three segments identified their ages as being under 34.

Income

The income of WHEELS riders is low, with more than 40% reporting a household income below $15,000. In part, this is due to their age. Also, in spite of problems with traffic and the costs associated with vehicle ownership, people in the WHEELS service area find cars more convenient, comfortable, and not excessively costly, so when they can afford a vehicle, they tend to cease using public transit.

Modal Choice

Approximately one third of riders are “choice” riders; they indicated that they have a vehicle available to make the trip for which they were surveyed. This indicates they were using WHEELS “by choice,” and not out of necessity.



Gender

Although population as a whole is more female, the WHEELS ridership appears to be slightly more male (53%). This does not vary substantially with the market segments.

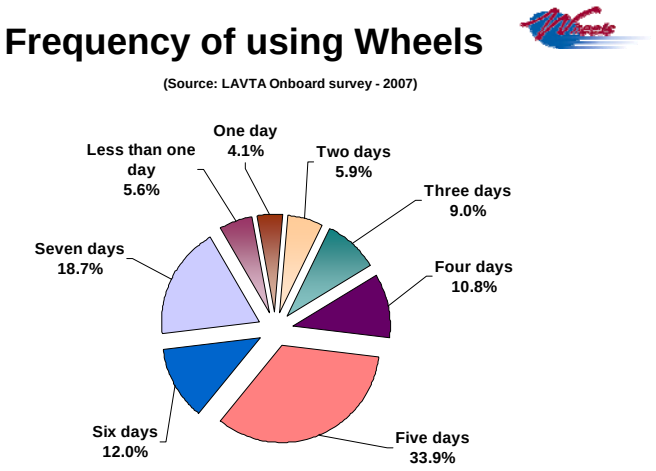
Frequency

The largest of the three basic rider market segments is the five day user (34%). The second highest segment is the very frequent user segment, which includes riders who use WHEELS six days (12%) a week or seven days a week (19%). The third segment of the ridership, occasional riders (35%) use WHEELS less often.

Of the current riders, 77% started using WHEELS in 2002. Like most all bus transit systems in the United States, WHEELS experiences significant rider turnover. Of the current riders, 56% said they started using WHEELS in 2005. Thus, in only two years, more than half of the WHEELS ridership has turned over. This rapid turnover means that the change in the needs of the population, demographics, residence and work locations will be reflected quickly in the ridership. It also means that there is a constant need to provide a great deal of information to riders on a continuing basis.

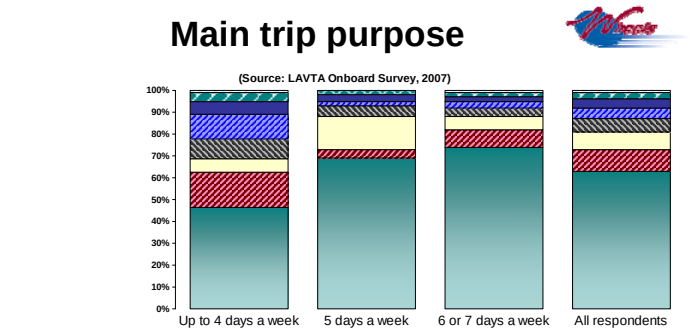
Almost two thirds of WHEELS riders (63%) say they intend to keep using WHEELS one year from now; however, the balance (37%) say they plan to use it less or stop using it altogether, primarily because they hope to have a car. The reality of financing and operating a car will interfere with these expectations. Additionally,

there is an indication of a repressed demand for automotive transportation, which offers an indication of why turnover is as high as it is.



Trip Purpose

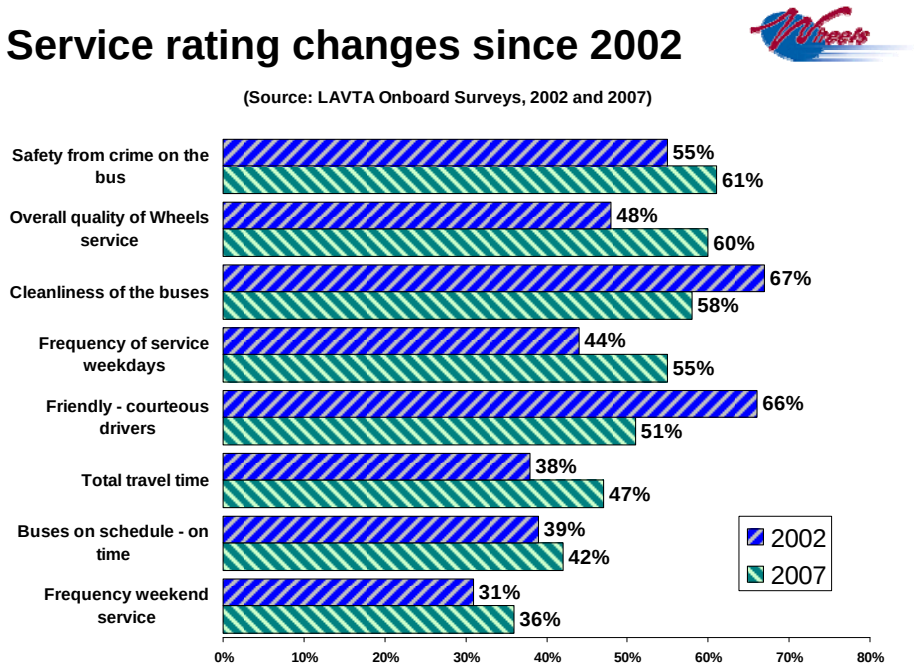
Most riders (63%) use WHEELS to get to work, 14% use WHEELS to get to school, and 10% to go shopping. WHEELS is clearly providing an important economic engine for the community.



	Up to 4 days a week	5 days a week	6 or 7 days a week	All respondents
Social service	1%	0%	1%	1%
Medical	4%	2%	2%	3%
Other	6%	3%	2%	4%
Social/recreational	11%	2%	3%	5%
College/vocational school	9%	5%	4%	6%
MIddle/high school	6%	15%	6%	8%
Shopping	16%	4%	8%	10%
Work	46%	69%	74%	63%

Service Ratings

Service ratings were generally good. However, frequency of weekend service, a lack of shelters, on time performance, and transfer connections were all rated relatively low. Most service ratings have improved since 2002.



Research data revealed that bus shelter improvements would provide a "quick win" for LAVTA among current riders. Riders seem to prefer more quality shelters over things like larger buses or ticket vending machines at major bus stops.

Data also indicated great interest in an expanded pass program, such as a day pay and 31 day pass. There was considerable interest in a direct service between Livermore and the Dublin/Pleasanton BART station, in spite of the fact that it was pointed out to the riders that the buses would have to run in normal I-580 traffic. If this direct service were to be established, interest was expressed in having it originate at the Livermore Transit Center.

Importance of Service Improvements

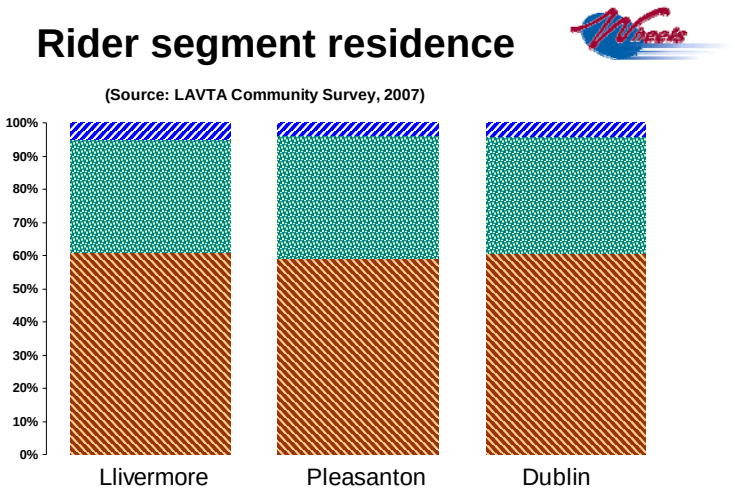
The three rider market segments were similar in their responses to the service improvements sited. However, the most frequent riders were more likely than others to consider each improvement as very important. The most mixed review was of the larger buses, and the most unified view was of the need for comfortable bus

shelters. The latter was given a unanimous vote in its importance by all three segments.

COMMUNITY SURVEY

The market for public transit in the WHEELS service area currently consists of 5% current riders, 35% potential riders, and the 60% staunch non-riders.

The potential riders tend to have vehicles of their own, and to be older. and are more affluent than current WHEELS riders; thus, are challenging to attract. Many of the potential riders have structural barriers to their use of transit, such as having to drop off a child on the way to work or having to use their cars for work purposes. Approximately 42% do not face these kinds of barriers. Thus, approximately 15% of the population can be considered prime potentials.



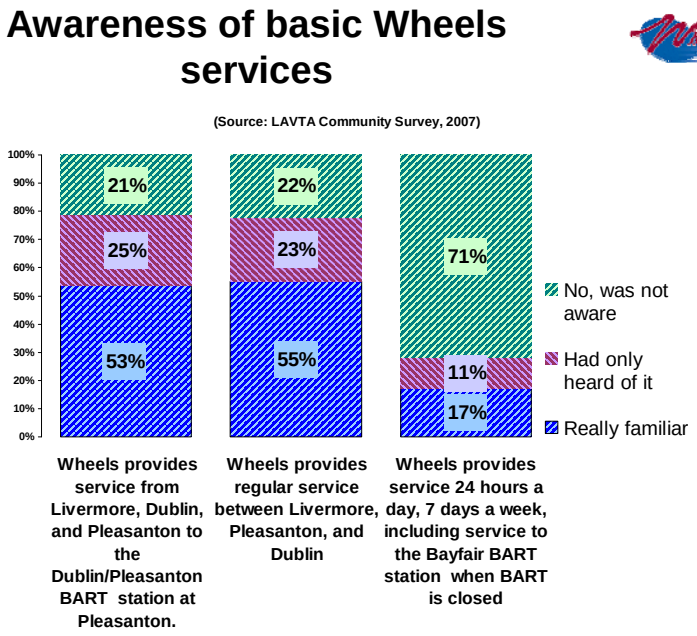
	Llivermore	Pleasanton	Dublin
Riders	5%	4%	4%
Potential riders	34%	37%	35%
Non-riders	61%	59%	60%

Adults in the service area break into three approximately equal size groups in terms of commuting. One third are employed or students who must commute and do so within the Tri-Valley, one third are employed or students who commute outside of the Tri-Valley, and one third are neither employed nor students. Thus, there are three very distinct markets for transportation within the WHEELS service area.

Among the employed segment, there is a small but important market of employed post secondary students who should be prime targets for a student commuter program.

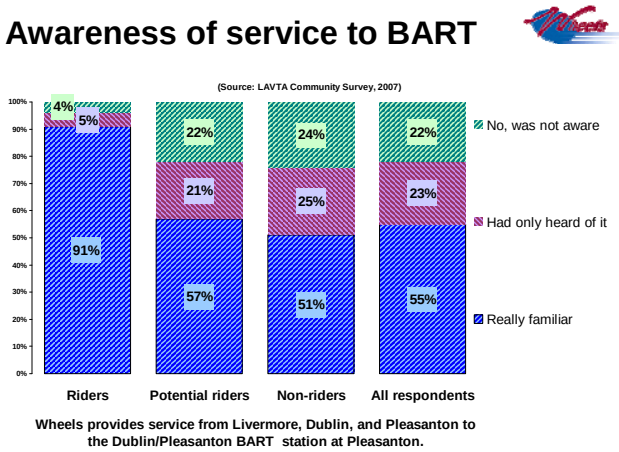
Awareness of Basic WHEELS Services

After many years of WHEELS service to the Tri-Valley, slightly more than half of the public knows the WHEELS name (55.8%). Current service is perceived by potential riders as much less reliable and comfortable and more time consuming than a car.



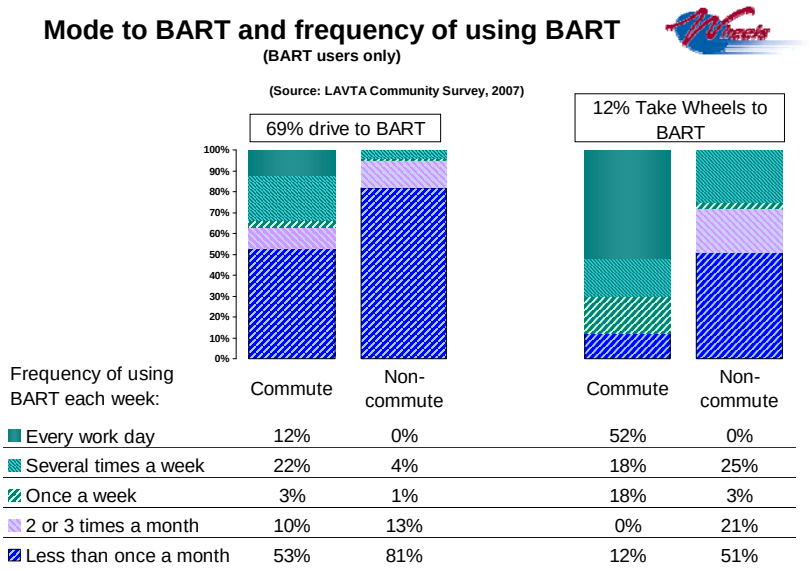
Awareness of WHEELS service to Pleasanton BART Station

Overall awareness (55%) of WHEELS service to the BART station is approximately equal to awareness of the WHEELS name. Potential riders tend to be more aware of this aspect of service; 57% say they are "really" familiar with WHEELS and 91% "tend" to be aware of it.



Mode to BART and Frequency of Using BART

More people drive to BART (69%) than take WHEELS to BART (12%). However, those who take WHEELS to BART were more likely to be frequent BART users.



Frequency of using BART each week:	Commute	Non-commute	Commute	Non-commute
Every work day	12%	0%	52%	0%
Several times a week	22%	4%	18%	25%
Once a week	3%	1%	18%	3%
2 or 3 times a month	10%	13%	0%	21%
Less than once a month	53%	81%	12%	51%

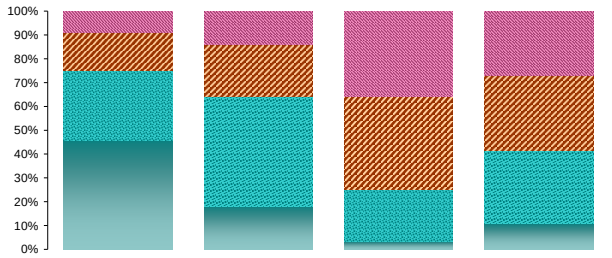
Stated Intent to Use BRT Service

The use of BART is quite extensive. WHEELS captures a respectable share of the market for trips to the BART station—especially among frequent BART riders—and this share should increase with the advent of Bus Rapid Transit service.

Stated intent to use BRT service

This service would use new, comfortable buses. It would run on Stanley Boulevard to avoid freeway congestion, have attractive shelters for waiting, and have limited stops. A bus would come every fifteen minutes. The trip from Livermore to Dublin – Pleasanton would take about twenty-five minutes. How likely would you be to try using this service on a regular basis?

(Source: LAVTA Community Survey, 2007)



Rapid bus on Stanley Blvd avoiding freeway congestion; attractive shelters, ltd stops, every 15 minutes

	Riders	Potential rider	Non-riders	All respondents
Definitely would not try using it regularly	9%	14%	36%	27%
Probably would not try	16%	22%	39%	32%
Might try	29%	46%	22%	31%
Definitely would try using it regularly	46%	18%	3%	11%

The suggestion of direct service from Livermore to BART via I-580 was initially well received, but when reduced to regular ridership among BART users and eliminating those with significant barriers to transit use, it was found that it would attract very few regular riders. If the service were offered on a trial basis, the point of origin should be the municipal parking facility at the Livermore Transit Center.

There is strong support for the general proposition that is it important for the Tri-Valley area to have good, tax supported public transportation.

8.3 Marketing Plan Highlights

In June 2007, Selena Barlow of Transit Marketing conducted a review of LAVTA services and programs and formulated recommendations that would potentially improve the effectiveness of its Strategic Marketing. The Plan was developed in conjunction with a substantial market research effort by CJI Research, Inc. which included:

- An On board Survey of over 1600 WHEELS' riders
- A Telephone Survey of 700 households within the service area
- Key informant interviews with stakeholders including staff of member jurisdictions, elected officials, employers, schools, and social service agencies
- Review of recent marketing materials, bus stops, and transfer centers
- Interviews with marketing, planning and operations staff

The Plan included two sections: (1) a Market Assessment that discussed LAVTA's current situation, including its marketing challenges; and (2) a set of Marketing Strategies that provided detailed recommendations for the following LAVTA marketing objectives (as noted in the WHEELS Strategic Plan):

- Continue to build the WHEELS brand image, identity, and value for customers
- Improve the public image and awareness of WHEELS
- Increase two way communication between WHEELS and its customers
- Increase ridership to fully attain community benefits achieved through optimum utilization of our transit system

This section summarizes these objectives and brings LAVTA's marketing efforts into the perspective of the future of the organization as a whole to improve LAVTA's efficiency and effectiveness of its communications and outreach efforts.

MARKETING OBJECTIVES

The primary marketing objective is to increase ridership from targeted markets, by increasing grass roots outreach activities and communicating the ease of accessing transit information.

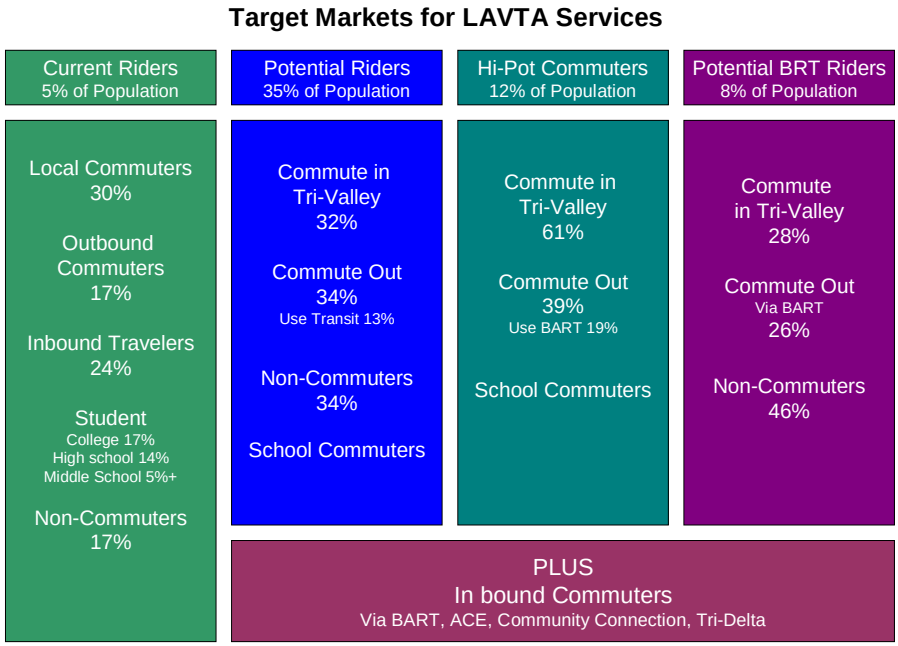
To achieve that goal, the Marketing Plan addresses a variety of specific objectives:

- Retain existing riders longer, through enhanced services and amenities, appropriate fare media, and effective communications.
- Build ridership of all routes among WHEELS' core markets, through retention of existing riders, increased ridership frequency, and by attracting new riders from demographic segments similar to the current core ridership.
- Attract new market segments by marketing direct service to BART, the BRT, and Walnut Creek Express.
- Enhance relationship with gatekeepers (such as social service agencies, employers, schools, and colleges) who can provide access to potential, key user segments.
- Continue to enhance passenger information programs, particularly electronic information channels, to make WHEELS information readily available when potential riders need it.

- Continue to negotiate with employers and schools to offer prepaid transit programs that encourage transit usage to well served destinations.

Target Markets

Marketing efforts focus on a mix of target groups: existing riders, potential new riders, and gatekeepers for specific populations. The following chart provides an overview of the various target markets, including a rough approximation of the relative sizes for each group. This chart uses data from the on board and telephone surveys.



DEFINITIONS:

- **Current Riders**
  - **Local Commuters**: Employed riders who live in the local community and do not connect to another system.
  - **Outbound Commuters**: Employed riders who live in the local community and do connect to another system.
  - **In-bound Travelers:** Riders who live outside the Livermore, Pleasanton, and Dublin area.
  - **Non-Commuters:** Riders who are neither employed or students.
- **Potential Riders**
- **Commute in the Tri-Valley** : Riders who live and work in the local communities.
- **Commute out:** Riders who live in the local communities, but work elsewhere.
- **Non-Commuters:** Riders who are neither employed or are students.
- **Student Commuters:** Not captured in phone survey, which was for only adults.

8.4 Marketing Strategies

Issues like traffic congestion, air quality, and quality of life continue to be of concern in the Tri-Valley. Market research also shows that residents of the Tri-Valley area make travel decisions based on convenience, directness, and speed and that they are not going to use public transit unless it can be shown advantages such as:

- Significant cost savings, time savings, or an easier commute over driving
- Affordable mobility for those with limited modal options

This section sets forth a set of strategies that have been developed using the classic Strategic Marketing Model illustrated here. The strategies have been grouped into the following focuses:

Product
- Service Development

Pricing
- Fare Media

Promotion
- Branding
- Passenger Information
- Rider Relations
- Advertising and Promotion
- Targeted Ridership Programs
- Community Outreach
- Public Relations

Some of the strategies are new, while others are a continuation or modification of existing marketing efforts.

8.5 Service Developments

Faster services such as BRT and express service from Livermore to BART, enhanced shelters, and expanded weekend service will all be critical to rider retention, as they make WHEELS a more viable, long term transportation option.

ROUTE 10 CORRIDOR RAPID (BRT)

LAVTA has identified two Bus Rapid Transit (BRT) corridors in this 2008 SRTP. Currently, one BRT corridor is under active development—the Route 10 Corridor.

The Route 10 BRT project, described more fully in Chapter 7, is currently in the conceptual design phase.

The Route 10 BRT project includes improvements along a 16 mile route from Livermore to the Stoneridge Mall. It also includes operational features, such as traffic signal priority and/or queue bypass lanes for buses at congested intersections. It would also provide new bus shelters, which will include real time bus arrival information, ticket vending machines for advance purchase of fares, landscaping, and other passenger amenities.

70X Walnut Creek Express/Pleasanton Hill

In Fall 2007, LAVTA added four daily roundtrips to provide a consistent thirty minute frequency on Route 70X, with expanded service hours (5:15-9:30 A.M. and 3:10-7:30 P.M.). It also included access to Kaiser Medical Center in Walnut Creek; this helped reach individuals who would benefit from this service (i.e., Kaiser employees, senior citizens, people with disabilities, and Kaiser patients). Information on County Connection service is also being provided as Route 121 may be a viable option for the return trip for some riders.

Bus Shelters

In the 2007 On Board Survey prepared by CJI Research, riders rated "bus shelters and benches at stops" second lowest in the service rating section. When asked about the importance of improving shelters, 70% said it would be very important, rating it six (19%) or seven (51%) on a seven point scale. Improving the number, comfort, and attractiveness of bus shelters would enhance the overall transit experience in a number of other ways:

- Attractive, well branded shelters significantly increases visibility as they provide on street advertising, 365 days out of the year
- Enhances the image of the system by re-emphasizing that WHEELS cares about the comfort of its passengers
- Increases the opportunity for passenger information distribution, including static displays and real time information signage

Over the next 10 year period, a total of $1.5M is programmed for the upgrade and installation of bus stop shelters in the LAVTA service area.

Community Service Route

During the development of the Marketing Plan, the consultant met with a large group of social service agency managers. Many of the agencies work with seniors, some work with persons with disabilities, and still others with low income populations. All were concerned with the difficulty that many of their clients have in

using WHEELS fixed route service. Key among their suggestions was the implementation of a Community Service Route which would connect the senior and affordable housing complexes in each community with the key social service destinations. LAVTA is committed to improving the accessibility of its service by all populations, and is exploring the viability of this service.

FARE MEDIA

While LAVTA offers a variety of fare options, nearly half of all riders pay their fare in cash. The current fare structure, which is shown below, became effective in August 2007 and continues a practice of providing significant discounts for monthly passes and other "prepaid" fare media to encourage ridership and maintain affordability for the transit dependent.

WHEELS FARE STRUCTURE

FARE CATEGORY	FARES
ADULT/STUDENT	
FareBusters (10 rides)	$14.00
SuperSaver Monthly Pass (Unlimited Rides)	$53
SENIOR / DISABLED	
Senior (65+) Monthly Pass	$16.00
Disabled Monthly Pass	$16.00
Senior Midday Passage (Valid from 9AM – 2 PM	FREE

Current market research reveals that among the six to seven day per week riders (who average 16.5 trips per week on WHEELS), 52% pay their fare in cash. Clearly, this group could benefit from the purchase of a monthly pass or even the Fare Buster tickets. However, experience throughout the country has shown that low income riders are reluctant or unable to take advantage of the savings offered by prepaid media. Often the initial price ($53 for the monthly pass) is simply more cash than they are likely to have at one time. Likewise, the risk is too high. Circumstances (their job) could change and they would not get value for the up front investment. Hence many systems have begun to offer fare media that require a smaller cash outlay.

Day Passes, which offer unlimited rides for a single day, are extremely popular with passengers and have been shown to increase ridership both by encouraging more frequent trips and by attracting additional riders. A Day Pass allows the rider to make multiple trips (e.g., to run errands or drop children at day care) for a flat rate. Generally, Day Passes cost two to three times the base fare and tend to generate increased ridership frequency. Day passes are typically sold on the bus, either issued by an electronic farebox, or as a punch pass or transfer like paper pass that is dated and sold by the driver. The Day Pass would provide savings to many regular

riders who are now paying full cash fare. To maximize potential for ridership building, the pass should be priced at $3.00 per day. This would allow for a no change transaction and would encourage anyone making a round trip to purchase the pass.

In its quest to improve access to service, LAVTA will evaluate its current fare structure within its regular fare reviews (annual or biennial) to ascertain the appropriateness of the Day Pass for the WHEELS system and its ridership.

8.6 Promotion, Information, Outreach and Involvement

Public information is a cornerstone of a successful transportation system. LAVTA's public image has been enhanced and shaped by a focus on accuracy and consistency of message delivered in a timely manner. Some of the strategies are new, while others are a continuation of existing LAVTA marketing efforts.

AWARENESS OF SERVICES

Traffic congestion and rising gas prices are concerns for commuters and non-commuters alike; hence, how individuals commute to work, go to school, or travel in general is a serious topic nowadays. Deciding whether to get a second car, get an older car repaired, or make the switch to public transit are significant decisions. In the coming years, LAVTA will take a more direct approach to communicating what it has to offer potential users:

- Cost savings on gas, parking, and other costs of auto ownership
- Access to BART without the parking issues
- Frequent service to key destinations, such as Stoneridge Mall
- Targeted services that free parents from having to take children to school, and also provide teenagers with independence
- Affordable mobility for seniors, who prefer not to drive in traffic

BRANDING OF BUS RAPID TRANSIT SERVICE (BRT)

In January 2009, LAVTA will introduce the BRT service between Lawrence Livermore National Labs and the Stoneridge Mall. This service will broaden the potential market for increased ridership. While the 2007 core markets will still be relevant, BRT could attract a new demographic and attract BART commuters. Hence, the media target will be broadened for the 2008/2009 campaign.

The core message in 2008/2009 will be the introduction of the BRT as a new type of transit with fast, easy, and stress free transportation between the Tri-Valley cities and BART.

The campaign will use a combination of media to maximize exposure among both the core ridership and a broader commute market. The campaign may include the following strategic elements:

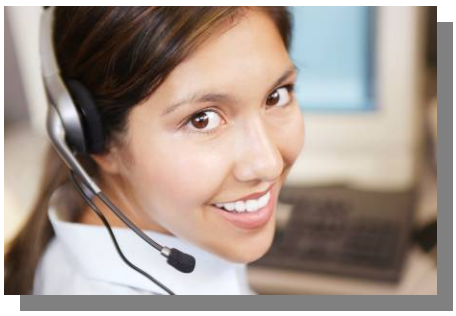
- Advertising at BART stations
- Advertising on board WHEELS buses (interior and exterior), and at key boarding locations
- Newspaper advertising
- Broadcasting (drive time radio and prime time cable TV)

Advertising will begin well in advance of the introduction with a "preview" campaign to create excitement about the new service. BRT will be positioned, not just as a new route, but as a whole new mode of transportation.

PASSENGER INFORMATION

Effective passenger information is the single most important component of transit marketing. It provides the directions for using the product. WHEELS has an effective passenger information program that provides route and schedule information in four ways:

- The WHEELS Bus Book
- At-The-Stop Displays
- www.WHEELSbus.com
- By telephone



Each of these tools appeal to different segments of the ridership. Students generally prefer to get their information online, occasional riders are likely to rely on signage at the stop, and seniors prefer personal assistance via the telephone. Meanwhile, the Bus Book is an important resource for most day to day riders.

This section will address some opportunities for enhancing an already strong base.

Website Redesign

While functional and quite comprehensive, the current WHEELS website could be redesigned to be more engaging and easier to use by the novice transit rider. It should be clean, easy to navigate, and allow users to quickly access needed information. Paralleling WHEELS' promise of fast, convenient commuting, the website must offer fast, convenient information. The Home Page must quickly capture readers' attention, with bold graphics, easy to locate navigation tools, and short, user friendly copy that addresses issues important to potential riders, as well as access to an automated travel planner and real time information. The website is also an opportunity to provide information in multiple languages.

Using Electronic Communications to Enhance Rider Experience

Real time information provided at the bus stop can greatly reduce anxiety and improve the rider's experience. It offsets one of the greatest disincentives of using transit—the uncertainty of the arrival time for a particular bus. WHEELS AVL technology allows for the provision of real time information, online and through dynamic sign displays. This technology should be used as aggressively as possible to enhance the rider's experience and increase WHEELS' image of reliability. Plans are underway to install on street digital signage at Las Positas College, First/Neal Streets, and the Stoneridge Mall in Pleasanton. Over the next 10 year period, a total of $79,000 is budgeted for the installation of dynamic bus stop signage in the WHEELS service area.

Increasing Visibility Using Directional Signage

Some of WHEELS key boarding locations are hard to find. If possible, on street direction signage should be used to increase visibility of the Livermore Transit Center, Stoneridge Mall bus stop, and the shuttle lot for service to BART.

Expanding and Standardizing WHEELS Bus Book Distribution

Having the Bus Book displayed at high traffic locations is a great way increase WHEELS visibility and make transit information easily available to potential riders. The Bus Book is currently distributed to about 100 locations. This list should be reviewed and updated periodically with new locations. Distribution locations should include a mix of high traffic locations including:

- Government offices
- Retail destinations (such as the Stoneridge Mall)
- Employment sites (such as the Hacienda Business Park)
- Social Service agencies
- Medical facilities
- Large apartment complexes

When the Bus Book is updated, WHEELS must insure that all old books are disposed of and new supplies provided. A systematic approach to restocking outlets ensures the Bus Book's availability and the validity of its information.

Establishing Transit information Displays at High Traffic Locations

One way to enhance the distribution of the Bus Book is to provide displays at high traffic locations. Many of the stakeholders interviewed in development of this plan said they would be willing, even eager, to have a transit information display for their lobbies. This is a good opportunity to increase visibility among some key target markets. Specific locations should be identified and customized displays created using prefabricated Plexiglas display units which are available from various sources. Possible locations include:

- Social Service offices
- Community centers
- Medical clinics
- Libraries
- Employers who support the use of WHEELS

Strategic Initiatives for Employee Ownership

As the drivers are on the frontline in terms of passenger contact, their role is of paramount importance. The drivers represent WHEELS to riders, and impressions are often formed based on their interaction with passengers. When passengers feel welcomed by the driver, they develop a stronger sense of comfort with WHEELS. Drivers are also an important source of passenger information, particularly for new riders who are unfamiliar with transit use.

Drivers are also seen as an important source of information to the marketing and planning staff, as they can provide feedback about customer needs and service quality.

WHEELS will continue to build upon past efforts to enhance its Passenger Relations Training for Drivers and will also consider using drivers as an element in promotional efforts that target current riders. For example, the introduction of the Day Pass might include asking drivers to wear buttons that promote the new pass.

Utilizing email communication

Email offers a real time, efficient, and inexpensive means of communicating with riders on an ongoing basis. Any opportunities to capture email addresses should be capitalized on in order to develop a database for future use, to inform riders about products and programs that will interest them.

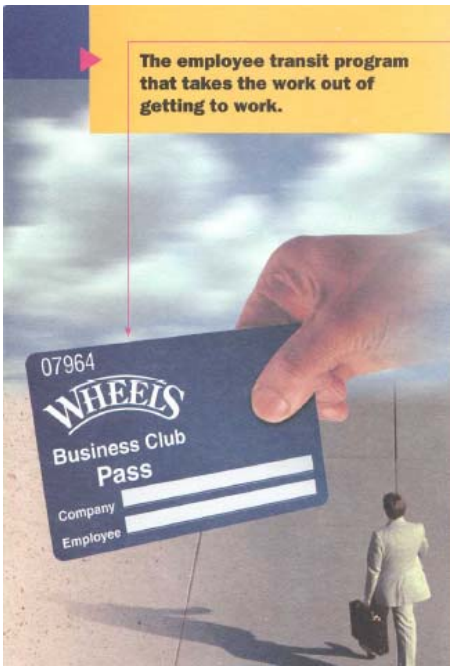
Website Registration

In the website redesign, a registration option should be prominently displayed, encouraging site visitors to sign up and become "members" of the WHEELS web family. From this registration, they can receive service updates, special offers, useful news alerts about community and area events. This also provides an excellent vehicle for highlighting WHEELS promotions, such as Destination Deals, with a simple means of updating participating vendor lists, pass sales outlets, etc.

Website registration could even be taken to a more sophisticated level, allowing "members" to sign up to receive alerts (on their PDAs or cell phones) about service interruptions or delays on specific routes.

8.7 Targeted Ridership Programs

In the 2007 Market Segmentation Study, research highlighted a number of programs that held potential for increased ridership:



WHEELS Business Club Program

To increase ridership among the Tri-Valley employees, LAVTA works closely with local employers to promote WHEELS services to their employees. LAVTA staff serves as a resource for corporate commute alternatives programs and transportation information. Services offered to employers include free informational and promotional materials, trip planning assistance, and on site promotions (such as regional Spare the Air and All Nighter campaigns). Staff also partners with local employers to develop targeted marketing campaigns for their employees along specific transportation routes, such as Route 70X to/from the Walnut Creek and Pleasant Hill area and Kaiser Medical facility in Walnut Creek. LAVTA continues to

strengthen relationships with the business community through partnerships with the Bay Area 511 and Contra Costa 511 program.

Plans are underway for the strategic redesigning of the Business Club Program model and rebranding the program as ECO Pass. Newly designed employer support materials, including advertising that reflects the new branding strategy will be directed to employers via the local Chambers of Commerce network.

However, even among employers who do not join the program, there is opportunity through presentations and meetings, to enhance WHEELS' visibility and utilization. WHEELS' program of Transit Fairs is an excellent tool for communicating with potential riders in a targeted, educational manner.

MARKETING TO MIDDLE AND HIGH SCHOOL STUDENTS

WHEELS currently has a "Try Transit to School" promotion, which targets middle and high schools. The middle school promotion includes a free sampling period, and both programs include explanatory flyers for parents that are included in orientation packets from the schools.

In order to grow and expand this market, several possibilities exist, which include expanding the free pass program to include high school students, as the offering of free rides is an excellent means of generating trial and potential on going ridership.

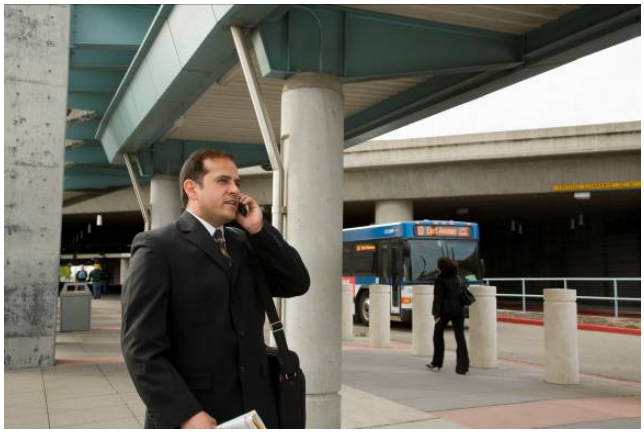
LAVTA will pursue this prospect of expanding the free pass program to include high school students as part of the annual budget process.

WHEELS will also establish a presence at PTA or school functions when appropriate, such as having a booth at school fairs where WHEELS staff can provide information about the benefits of using public transit and also provide trip planning assistance.

Also under consideration is an "end of school year" communication to parents, offering a special "Summer Pass" for students at a discounted rate, extolling the benefits of having children ride the bus to summer vacation activities.

Lastly, WHEELS will continue to offer the WHEELS Class Pass Program, which facilitates the use of WHEELS for classroom field trips. This also gives students experience using transit.

BART ADVERTISING



WHEELS currently operates the Route 50 to BART Parking Shuttle, with service from the Koll Center, located at the southwest corner of Dublin Boulevard and Tassajara Road in Dublin. This Park and Ride lot features 200 parking spaces, but is not easily viewed from either cross streets. The City of Dublin has erected on street signage and LAVTA has coordinated a number of outreach efforts with BART, but these measures do little to reach a large segment of potential users of the service. To increase awareness of the service, LAVTA will coordinate with BART to install advertising at the passenger loading/unloading platform.

COMMUNITY OUTREACH

Seniors and low income families are two non-commute markets with definite potential for increased use of WHEELS. Their modal choices are often limited; however, their knowledge of the availability of transit is often equally limited.

Two other groups with "special needs" for public transportation and communication are persons with disabilities and ethnic minorities.

All of these segments can be effectively reached through "gatekeeper" programs. Identifying the appropriate gatekeeper for these target groups will provide the first access point for communication.

If provided with appropriate knowledge and informational tools, these gatekeepers can become "salespeople" for WHEELS. Key strategies for enlisting their support include:

- Providing gatekeepers with easy to understand, multilingual information for distribution to their clients. This may take the form of supplies of Bus Books, lobby displays for their offices or other more targeted informational tools.

- Providing multilingual information on the website, which they can print out and give to non-English speaking clients.

- Conducting onsite training and information sessions with staff members of gatekeeper organizations. Often case workers who work with seniors, low income clients, and other populations have little experience using transit themselves. Hence, they have difficulty aiding their clients in planning trips within the Tri-Valley or to destinations outside the area. These sessions would make them aware of the services available and how to plan trips using the Bus Book and internet.

- Expanding the Travel Training program to include more senior and low income populations, in addition to persons with disabilities.

In addition to these basic approaches through social service agencies, other gatekeepers can make a variety of marketing channels available to WHEELS:

- Publish and distribute Community/Gatekeeper Newsletter

- Conduct regular outreach to Human Services Agencies with the focus on the WHEELS Hispanic Education & Outreach Marketing Program

- Conduct outreach to employers and employment agencies with the focus on the WHEELS ECO Pass Program

- Transit Fairs and Travel Training

8.8 Public Relations

The targeted programs discussed in the previous section include significant components of community outreach. In addition, some broad based outreach strategies are recommended.

Publish and Distribute Community/Gatekeeper Newsletter - LAVTA is currently publishing its first issue of a community newsletter. It is recommended that this

newsletter focus on communications with gatekeepers. It should serve to keep them up to date about the system's progress and provide information they can share with their constituents. In this role, it will be important for issues of the newsletter to coincide with significant system changes.

The mailing list for the newsletter should include a broad spectrum of gatekeepers and should be updated constantly as LAVTA staff encounters new gatekeepers during their outreach efforts. The newsletter distribution should include:

- Major employers and employment agencies
- Social Service Agencies that work with seniors, persons with disabilities and low income families
- Organizations that work with minority ethnic populations
- Las Positas College, Schools and Vocational Training Programs
- Elected officials and key municipal staff within the Tri-Valley cities

OUTREACH TO SOCIAL SERVICE AGENCIES

A 2007 focus group of 25 human services organizations revealed that there were significant gaps in their knowledge about WHEELS service and that there was a strong desire to have more interaction with LAVTA.

LAVTA staff should regularly (three to four times per year) meet with social service agencies that provide services to senior citizens, persons with disabilities, and low income families. One way to reach many of these is by attending the "Livermore Community Needs and Services Group" meetings.

These meetings can address several concerns that were raised by the participants in the focus group and provide LAVTA with a valuable source of information and communications. Types of information to communicate to agencies include:

- Advance notice of service and fare changes, so that they can prepare their clients. (This is particularly critical for clients with cognitive disabilities.)

- Provide a venue to promote travel training programs.
- Give providers the opportunity to make bulk purchases of discounted tickets for distribution to their low income clients.
- Provide the potential for "polling" agency clients about their needs and concerns.
- Provide articles about WHEELS for agency newsletters that reach staff and/or clients.

OUTREACH TO EMPLOYERS AND EMPLOYMENT AGENCIES

By meeting major employers, we can identify what benefits WHEELS provides to them and their employees, and develop efforts to capitalize on those benefits. These types of efforts are quite time intensive, but can provide access to a variety of free, very targeted communications channels such as company newsletters, interoffice mailings, email notices and worksite displays, in addition to the transit fairs discussed above.

Other major employers who hire large numbers of entry level employees might promote the availability of WHEELS to their worksite as an aid to recruitment, while still others might see transit as a way to address parking shortages.

Employers can contribute to transit use by:

- Joining a prepaid program such as the Business Club
- Selling and/or subsidizing transit passes (FTA Commuter Choice Program)
- Distributing transit information and promotional materials on site
- Informing job applicants and new hires of the transit services available at the worksite
- Implementing flex-time policies that make it easier for employees to use the bus

LAVTA is an important component of the Tri-Valley region and needs to be seen as a vital part of the fabric of the community. This section addresses Public and Community Relations activities that enhance the system's visibility and image. Most of these are on going efforts for LAVTA.

COMMUNITY ORIENTED EVENTS

LAVTA participates in a number of efforts that promote community events. These include programs such as:

- Livermore's Trick or Treat Night
- Livermore Farmers Market
- Holiday Food Drive
- Promotion of service to the Fair

These are good opportunities to increase visibility, enhance the system's image and build relationships with other community organizations.

OTHER TIMELY TIE-INS

Throughout the year, there are events which provide natural tie-ins for promoting transit usage and securing positive public relations coverage. Each of these provides an opportunity to encourage trial ridership, which is the first step to converting potential riders to regular users. The conversion will depend on the quality of the trial experience.

Spare the Air

When air pollution threatens to hit the highest levels of the year, the Environmental Protection Agency (EPA) teams up with the Bay Area Air Quality Management District to issue Air Advisories. Local TV and radio stations receive these advisories via fax and email and alert citizens to reduce activities that contribute to smog formation. WHEELS participates in a program with other Bay Area Public Transit Bus Systems that allows people to ride the bus for free on the days pre-designated by the Spare the Air program.

WHEELS' participation in Spare the Air provides two distinct benefits:

- It positions WHEELS as a concerned community partner and has the potential to reach people who might otherwise not consider using public transit.
- Any riders who sample WHEELS because of Spare the Air are likely to be riding based on their desire to be ecologically responsible, so they have strong potential to be converted from one time riders to regular users.

WHEELS is currently working to encourage area commuters to request Spare the Air trip plans so that they are ready to use WHEELS when the alerts are issued.

News Release Calendar

News stories in the local media are a highly credible and cost effective way for LAVTA to communicate with the general public. LAVTA has many newsworthy efforts in progress and it is important to keep the local newspapers, radio stations, and TV channels aware of these in order to maximize exposure. To achieve this, a regular news release calendar should be created and implemented. This calendar should identify topics for news releases and be updated monthly. News release topics might include:

- New or changed services
- New facilities or equipment (buses, bus shelters)
- Progress on the BRT service
- New fare media
- Participation in community events such as those described above
- Participation in timely events

News releases should be issued to appropriate media within the Tri-Valley and the region. When appropriate, photographs should be included with news releases to print media. It is important to note that not every release will be printed or aired. However, it is essential to provide the media with an on going stream of timely and interesting information if maximum coverage is to be garnered.

Chapter 9

LAND USE CONSIDERATIONS

9.1 Introduction

Current development patterns in the Tri-Valley and conventional land use planning make it difficult to provide efficient transit service. Shifting the paradigm to transit oriented development would not only increase ridership on WHEELS, but would also have tremendous, lasting benefits to the community. Transit Oriented Development (TOD) provides the following societal benefits:

- Practical, logical travel choices beyond the private vehicle
- Reduced transportation costs, due to reduced private vehicle ownership/use
- Reduced petroleum resource consumption, saving money and environment
- Increased fitness and personal health, due to increased walking
- Increased personal connectivity with society, increased interaction w/others, enriched lives
- More vibrant business community for small business and shop owners, less dependence on "big box," auto oriented retailers

What is TOD?

TOD is generally defined by MTC and the Association of Bay Area Governments (ABAG) as "the clustering of homes, jobs, shops, and services in close proximity to rail stations or bus stops, offering access to frequent, high quality transit services." By locating a variety of land uses within short distances of each other and providing convenient access to a range of transportation modes, transit oriented development can reduce peoples' dependence on cars to accomplish daily tasks. In turn, reducing car use and encouraging more walking and transit use would generate a variety of environmental, economic, and public health benefits to the community.

Key characteristics of transit oriented communities include compact design, mixed land uses, and pedestrian friendly streets. Higher residential and commercial densities support transit because more residents and employees are within walking distance to bus stops, while having a mix of uses surrounding bus stops provides more destinations for transit riders. Even with a close proximity of activities and people, pedestrian friendly streets are essential to transit oriented communities because every transit rider is a pedestrian at some point of their trip. Pedestrian friendly streets involve an integrated network of safe, attractive sidewalks that provide convenient connections to transit stops. In addition to encouraging people to make more transit and walking trips, the development of more accessible pedestrian

environments would also enhance the community's sense of place and encourage public activity.

While TOD is commonly perceived as applicable only to land around rail stations, high frequency bus corridors offer an excellent opportunity for developing compact, mixed use, and walkable environments. While TOD concepts will undoubtedly be a critical supporting element to any potential BART expansion to Livermore, in the interim, LAVTA should provide energy and support for TOD integration into LAVTA's key high frequency bus corridors (currently only Route 10, but eventually Dublin Blvd and other locations) in the near term. LAVTA can play a critical role as TOD advocate as the Tri-Valley attempts to shift development strategies from classic suburban sprawl to a modern and sustainable TOD based inspired mix of land uses.

How would TOD benefit the Tri-Valley?

The dependence on cars resulting from the development of an auto oriented transportation network and land use patterns presents major challenges for LAVTA, in addition to producing negative impacts on the quality of life. In California, 2.9% of commutes are done on foot, 47% of all trips under half a mile are made in a vehicle, and people spend an average of 68 minutes in a car per day. Although only 4.4% of Tri-Valley households are car free, those persons, and a small but growing group of "choice riders" rely on transit and walking as modes of transportation. In particular, children, the disabled, the growing elderly population and lower income people are more likely to not drive, yet are still affected by the high dependence on cars by the rest of the population.

Pleasanton and Livermore, established as farming communities in the 1800s, initially grew outward from pedestrian scale town centers. However, most of the population growth occurred during the second half of the 20th century, when local zoning codes began to segregate commercial, industrial, and residential land uses (Euclidean Zoning), encouraging the development of auto oriented shopping malls, cul-de-sacs, and business and industrial parks. The low density, single use development patterns create long distances between homes and activity sites, making walking trips impractical and transit service much less efficient. In fact, the average density in the Tri-Valley is well below the recognized minimum of six to eight DU/acres necessary to provide basic transit service. Much works lies ahead to shape a transit friendly Tri-Valley.

With the exception of the downtown districts, the transportation network in the Tri-Valley mainly consists of long blocks and wide, fast moving arterials, reflecting a street network that is designed to optimize vehicle traffic operations rather than pedestrian accessibility and safety. Although the sidewalk infrastructure is

generally adequate, the long distances and uninviting walking environments conspire with the illogical provision of virtually unlimited free parking to discourage people from accessing shops, schools, and jobs by transit or foot.

Faced with few other convenient transportation options, most people have become further dependent on their cars, which has led to a variety of negative consequences. For example, households in the Bay area spend about 15% of their budget on transportation, mainly as a result of owning and operating cars. Auto dependence creates a lack of daily physical activity which translates to higher rates of heart disease, stroke, and diabetes, the leading causes of death in Alameda County.

As the most basic form of transportation, walking is part of every trip and is accessible to almost everyone. Children and the elderly can be more active and independent; commuters can save money, otherwise spent on parking and gas; local businesses gain more walk in customers; and neighborhoods become safer with more eyes on the street. Enhancing the public's ability to walk would also increase transit ridership, because transit works best when people can walk to it. Further reflecting the strong link between the modes, transit essentially allows pedestrians to travel farther distances and encourages a more active lifestyle. Therefore, while children, the elderly, and disabled may require special consideration, developing safe, accessible pedestrian environments would benefit all community members.
In addition to improving the mobility in the Tri-Valley through providing alternative modes and enhancing the connectivity of the transportation network, transit oriented development has many interrelated benefits:

Environmental Quality

- Decreasing vehicle use reduces vehicle emissions, which in turn reduces air pollution.
- Streetscape improvements make neighborhoods more attractive.
- Compact development uses less land, which reduces storm water runoff from developed land and conserves fragile environments, open space, and rural land.

Public Health and Social Benefits

- Increased physical activity from walking and transit trips improves public health through reducing obesity rates, heart disease, and diabetes.
- Designing safer pedestrian environments reduces the vehicle pedestrian collision rate and improves the sense of security.
- Better air quality contributes to less respiratory ailments, including asthma.
- Revitalized communities encourage social interaction and enhance the sense of place.

Economic Benefits

- The shortened travel distances, reduction in car trips, and even the elimination of the need to own a car allows households to save money on transportation costs—plus walking is free!
- Transit oriented development increases property values, attracts economic development and increases property and sales tax revenues.
- Encouraging foot traffic supports existing, small local businesses.
- Compact, mixed use neighborhoods and corridors expand consumer choices by making a variety of retail and services closer to residents.
- Infill and redevelopment maximizes the utility of existing infrastructure.
- Reducing the environmental impacts and congestion also reduce costs to local governments and tax payers.

What is the current state of TOD in the region?

Support of Regional Agencies

Recognizing the benefits of smart growth and TOD, *regional agencies* strongly support transit oriented development. In 2002, ABAG, BAAQMD, the Bay Conservation and Development Commission, and MTC developed a "Smart Growth Strategy" with input from residents throughout the Bay Area. With TOD at the core, the strategy emphasizes compact development that focuses growth in town centers and along transit corridors.

TOD Policies/Programs

In response to the smart growth strategy, ABAG created a new program to revitalize multimodal corridors, particularly ones served by heavily used or rapid bus lines. The MTC Housing Incentive Program, which allocates transportation funds to local governments that build high density housing within a third of a mile of transit stations, and the Transportation for Livable Communities (TLC) Program also promote TOD projects. Specifically, the TLC program funds transit oriented projects that (TLC Grant):

- Improve transportation choices by adding or improving facilities and improving links between facilities and activity nodes.
- Support housing and mixed use development near transit.
- Support infill and revitalization activities.
- Execute a collaborative and inclusive planning process.
- Enhance a community's sense of place and quality of life.

TOD in the Tri-Valley

While each city has its own policies and ideologies, in general, Tri-Valley Cities support the concept of TOD development, especially in the context of how they each may comply with aggressive state mandated housing construction allocations. TOD can be a way cities can add population to meet state mandates while dealing with challenges such as limited available land, and often aggressive antigrowth sentiment among community members. Several recent projects and the adoption of progressive plans reflect the growing support for transit oriented development in the Tri-Valley cities.

Livermore

In 2006, Livermore applied for and received a grant from the TLC program for over $1M for the implementation of the Downtown Livermore Pedestrian Transit Connection Program. As part of a multi-year revitalization effort to turn the downtown area into a pedestrian oriented community center, the project seeks to reduce the need to drive into downtown Livermore. To improve access to transit and encourage walking, the City will construct a wide, colored pathway to connect a new high density, mixed use housing project called Livermore Village with the new Livermore Valley Performing Arts Center, the downtown parking structure, and the Livermore Transit Center. In addition to the construction of the pathway, the project involves the provision of a highly visible crosswalk on Livermore Avenue and information kiosks and other pedestrian amenities at the beginning and end of the path. Landscaping, benches, lighting and signage will also help to provide a safe and attractive walking environment. The project will likely benefit LAVTA by increasing the visibility of WHEELS service and improving the pedestrian accessibility to the transit center (which is a very important and active component of the LAVTA system).

The Downtown Livermore Pedestrian Transit Connection Project is a result of a collaborative planning process. In 2001, the citizens of Livermore identified "a revitalized pedestrian oriented downtown as a high priority" through the City's Visioning Project. Embracing the idea, the city developed and adopted the Downtown Specific Plan (DSP) in 2004. The DSP emphasizes pedestrian connections and transit opportunities and states the city's goals, objectives, and expectations. Plans include new zoning, design guidelines, and detailed regulations on parking, circulation and open space. So far, the DSP has triggered revitalization efforts through retail, office, and housing developments. In particular, the First Street Streetscape Project has helped to transform downtown Livermore by attracting more business and establishing a "lively outdoor" environment.

Pleasanton

The city of Pleasanton adopted a Downtown Specific Plan in 2002 and corresponding Downtown Design Guidelines in 2003, both of which are continuing to stimulate pedestrian improvements in an already pleasant district. For example, in 2005, the

MTC gave a grant to Pleasanton through the Station Area Planning Program, in order to improve walkability within a half mile of the ACE station. LAVTA and ACE could both benefit significantly from the implementation of this grant and improved pedestrian connectivity and bus stop facilities around the Pleasanton ACE station. Currently, LAVTA struggles to service the ACE station (and fairgrounds), because there is no direct pedestrian path between the ACE station and the nearby Pleasanton Civic Center.

Hacienda Business Park and BART have been working with the City of Pleasanton on the Hacienda Specific Plan. This plan is considering how TOD development in the area near the Pleasanton BART station could produce more housing and commercial opportunities for the City. Some available undeveloped and underdeveloped land exists along Owens Drive that could be a great location for a mixed use "transit village" within walking distance to BART and with access to multiple WHEELS bus routes. LAVTA should support the inclusion of TOD in the Hacienda Specific Plan process.

Dublin

In recent years, the city of Dublin has engaged in multiple transit oriented, development friendly projects. The Dublin Ranch Villages, a higher density residential development on the east edge of the city, has plans to incorporate retail and services into the community, in addition to the public spaces. The high density residential component of the project is already in place, and the needed commercial aspects are anticipated to "infill" in the next couple years. LAVTA is extending and adding service to this area to develop transit markets. Dublin is also constructing a large TOD development on the north side of the Dublin/Pleasanton BART station, as part of the "Dublin Transit Village – Phase I" master plan. The cities are also planning for a TOD to surround the new West Dublin/Pleasanton BART station, which would link Stoneridge Mall and a new, walkable Downtown Dublin. This project highlights the ability of TOD principles, when implemented and supported by strategic public investment, to create a "place" where none previously existed. The area around the upcoming West Dublin/Pleasanton BART station is currently a mix of viable, but dispersed shopping centers with no collective theme and very poor pedestrian connectivity. There is no Downtown Dublin, but anchored by the new BART rail station, and augmented by the planned Dublin Rapid bus system, Downtown Dublin will emerge from this current non-descript area.

TOD Challenges

TOD planning consists of many challenges. Reversing the momentum of the business as usual model is a very complicated process, involving a wide range of actors, issues, and policies—many of which are resistant to change.

The lack of a multimodal perspective in city and regional planning can serve as a significant barrier, as transit oriented, pedestrian friendly development originates in policies that incorporate the needs of all users of the transportation system. For example, transportation policies that prioritize motor vehicle flow may come at the expense of pedestrians and transit riders. Even if the city's traffic engineers would like to accommodate pedestrians more, the risk of receiving numerous complaints from the public concerning increased traffic congestion constrain the decision to make changes.

The lack of collaboration between city departments and also between cities and transit agencies, combined with the shortage of staff trained on pedestrian and (especially) transit issues can further perpetuate the division between land use and transportation planning.

Even with strong policies in place, ensuring that pedestrians and transit are considered throughout the planning process is another challenge for implementing TOD. While LAVTA already has a positive relationship with city staff and usually has the opportunity to review individual project plans, the scope of LAVTA's input is often limited to requiring bus stop infrastructure, such as turnouts or shelters. Moreover, LAVTA receives the plans during the later CEQA stages and consequently struggles to simply encourage safe, convenient pedestrian access to bus stops, traffic engineering to enhance transit service, let alone work with the cities and developers to shape a truly transit supportive project.

Aggravating the fiscal factors that drive suburbia, the compact, energetic feel of TODs may seem too different from the quiet, suburban lifestyle that many Americans appear to desire. Planners and developers need to fight the common perception that higher density neighborhoods are not as safe as dispersed suburban areas and emphasize that TOD actually creates a more secure environment through drawing people to the street. In addition to safety, the quality of nearby schools influence a family's decision on where to live, presenting another important community development issue that needs to be addressed when planning TODs. Fortunately, the Tri-Valley boasts some of the highest rated schools in California, so this should not prove to be a barrier.

Types of TOD Projects

Residential based TOD

Investment in bus oriented development is especially constrained due to the perceived impermanence of bus service, as opposed to rail infrastructure and stations.

Likewise, local jurisdictions find it most beneficial to invest in development in their downtown districts, where a higher concentration of economic and social activities

already exists (or could potentially exist in Dublin's case). A significant opportunity for the promotion of TOD projects throughout the State of California was approved by the voters in 2006 when Proposition 1C was passed. ABAG and MTC are assisting the Department of Business Housing and Transportation (BHT) to develop the funding disbursement criteria. At this time, local cities are eligible to designate special geographic areas within their boundaries as "priority development areas", where eventually Proposition 1C funding may become available on a project level for projects that feature TOD qualities and are close to rail stations OR intensive bus corridors. This inclusion of "intensive bus corridors" is significant, as it will open many areas of the Tri-Valley to possible Proposition 1C funding. To be considered as eligible, in addition to being located in "priority development areas" and meeting density criteria, potential projects must be adjacent to corridors featuring high frequency, all day transit services. LAVTA currently provides this on the entire Route 10 corridor, and is building toward this level of transit service on the Route 15 in Livermore and the planned Dublin Rapid Transit corridor on Dublin Boulevard.

Commercial and Office Based TOD

Considering their tight budgets and heavy reliance on sales tax receipts, cities are unlikely to deny the construction of "big box" stores and auto dealerships due to their revenue requirements. Banks are also hesitant to finance TODs, because they are not willing to accept the risks involved with the newer model of development Consequently, much of the future commercial growth will continue to materialize as auto oriented, suburban style developments, as evidenced by the fact that most new growth in the Tri-Valley appears to be in the form of shopping centers with large parking lots that separate the storefronts from the street and sidewalk network (such as Pleasanton Gateway and El Charro Outlets).

How can LAVTA encourage more TOD in the Tri-Valley?

Achieving the goals of TOD requires an interdisciplinary approach that integrates transportation and land use planning, as well as social, economic, and environmental issues. The key to success is to incorporate the four D's: density, diversity (a mix of land uses and choices), design (safe, pleasing pedestrian network), and distance (in terms of proximity to transit) (MTC-ABAG, 6). Neglecting even one of the crucial elements when planning a "transit oriented" community, compromises the effectiveness of the new development at providing the benefits, and it may have unintended consequences. For instance, compact housing developments may increase congestion, unless people can safely and easily take transit or walk to a variety of destinations. A current example in the Tri-Valley is the new Dublin Ranch Villages TOD development in East Dublin. Once the project is fully built out, there will be a mix of walkable, high density housing mixed around commercial shopping, well served by public transportation. However, the first phase of the project is strictly residential, due likely to the commercial real estate situation, so the new residents of this TOD find themselves, with very little within walking distance. LAVTA also failed to immediately provide a high quality transit route to

serve the new residents. LAVTA anticipated providing service to the development using the line haul Route 12. Unfortunately, LAVTA cannot serve the TOD via Dublin Blvd and Route 12 until the upgrades of the Fallon Bridge Interchange are completed, sometime in 2008. This delay is being quickly remedied in this SRTP, as all day weekday service is now available utilizing a special version of Route 1A/B 1C, and the new 1E.

Not only does the implementation of smart growth strategies require better coordination between land use and transportation planning, but also extensive collaboration among many agencies. Having a regional working group, comprised of the three key areas of land use planning, traffic engineering, and transit planning (LAVTA) would allow local jurisdictions to pursue a common vision by sharing information and planning together for the development of the high intensity "transit corridors" that would feature TOD and other "transit friendly" land uses. LAVTA could avoid working from a reactionary mode on a project by project basis and allow the cities to begin to think about their growth from a transit perspective. This could be accomplished with a modest amount of local resources and produce a collaborative, comprehensive growth strategy. More specifically, the working group could:

- Establish a regional vision and consistent set of guidelines
- Facilitate TOD by providing incentives to developers and stream lining review process
- Fund projects that increase the connectivity between transportation modes and improve pedestrian access to transit
- Involve community groups and encourage public participation in planning process

Approach

In addition to continuing to enhance our transit service, LAVTA can take two approaches to help achieve the goals of a transit oriented growth strategy: policy development and street level improvements. The objectives and strategies are based on goals from LAVTA's Strategic Plan, but draw from a variety of resources.

Policy development

Recognizing the existing conditions and the barriers towards TOD in the Tri-Valley, LAVTA has identified the following opportunities for integrating transit into local policies, plans, and the development review process:

1) Provide information on the best practices to city staff and elected officials
2) Work with cities to collect and analyze information that can be used to improve pedestrian access to transit

3) Evaluate the regulatory context and planning documents for their potential to support TOD and make recommendations accordingly
4) Encourage cities to adopt a Pedestrian Master Plan that includes specific goals, policies, and guidelines on pedestrian access to transit
5) Increase LAVTA's input on city plans and project reviews
6) Create a site plan review checklist based on TOD development and design criteria
7) Promote TOD along the BRT corridor(s) and throughout the cities
8) Encourage more public participation through increased outreach

1. Provide information on the best practices to city staff and elected officials.

To increase understanding and support of transit oriented development, LAVTA can provide information to the local jurisdictions. Through workshops and presentations, for example, LAVTA can communicate their vision and goals, in addition to providing examples of desirable policies and successful projects. Educating decision makers on best practices and creative implementation strategies is essential in creating change. The CDT Manual, in addition to many other available resources, contains tools for local governments and transit agencies. The following strategies, based on suggestions from the Alameda County Pedestrian Plan (ACPP), are examples of practices that cities could engage in to promote smart growth:

- Provide training for city staff on pedestrian and transit issues
- Institutionalize interdepartmental collaboration
- Engage in revenue sharing with neighboring jurisdictions
- Develop new local zoning and design standards
- Revise parking requirements (remove "minimums" insert "maximums")
- Provide Traffic Calming programs

By understanding the community development plans of each city, LAVTA can more effectively provide transit service that quickly accommodates growth. LAVTA could also use the city's immense amount of information on demographics, land use, and cultural elements to assist with transit planning. Planners (land use), engineers (transportation) and LAVTA (transit) need to meet periodically to share project information. For example, in Livermore, the planning and engineering departments meet weekly to discuss development issues. This is a perfect group for LAVTA to join, to facilitate more transit friendly land use in Livermore. Similar meetings (if they do not exist, LAVTA should initiate the creation of one) in both Pleasanton and Dublin should be regularly attended by LAVTA planning staff.

2. Work with cities to collect and analyze information that can be used to improve pedestrian access to transit

Increasing the exchange of information is an important first step in establishing stronger relations with local jurisdictions and integrating transit into the long term plans of the Tri-Valley.

To better understand the current conditions of the pedestrian environment and the needs of the community, there is a need for more research on pedestrian accessibility and safety, crucial elements to the provision of high quality transit service. For example, Pleasanton and Dublin do not have a sidewalks inventory or track pedestrian trips. With the support of Alameda County, LAVTA should work with the cities to collect and analyze data on pedestrian trips, facilities, and collisions to identify problem areas and prioritize transportation improvement projects.

3. Evaluate the regulatory context, current growth patterns, and planning documents for their potential to support transit oriented development and make recommendations accordingly

Several important planning documents strongly influence planning and development in the Tri-Valley. Assessing the policies and guidelines established in documents, such as each city's Downtown Specific Plans, would provide a direction for policy change. As the framework for future growth, general plans must provide support for smart growth concepts at each level. To further strengthen the argument for smart growth, there is a need to analyze current land use patterns and identify the growth trends. Such a study may involve finding the:

- Percentage of land covered by single use developments
- Percentage of new development projects classified as TODs
- Actual compliance of the TODs with smart growth principles, using a rating system based on specific standards, such as minimum frequency of transit service

4. Encourage cities to adopt a Pedestrian Master Plan that includes specific goals, policies, and guidelines on pedestrian access to transit

A useful way to institutionalize policy change is through the creation of Pedestrian Master Plans. Currently, none of the Tri-Valley cities have a Pedestrian Master Plan, but Alameda County would like all of its jurisdictions to have one by 2012 and is offering several ways to fund these plans. Pedestrian Master Plans should include planning, engineering, and design elements that address pedestrian safety and access, streetscape, and land use issues, in addition to involving enforcement, encouragement, education, and implementation strategies. There are many examples of commendable plans across the nation and in California. In general, successful pedestrian plans contain:

- An assessment of the existing conditions
- A review of existing planning documents that impact pedestrians
- An analysis of pedestrian needs and safety issues
- Goals, policies, objectives, and a vision for pedestrian environment
- Recommended programs and projects
- A plan for implementing the recommendations

In their Pedestrian Master Plans or other planning documents, local jurisdictions should also designate certain streets with priority bus routes as "Transit Streets." In addition to supporting infill development along these corridors, cities should ensure that streetscape improvements and traffic congestion projects do not come at the expense of bus service. Improving the safety and convenience of pedestrian access to bus stops along the corridor involves adding or modifying traffic signals, crosswalks, lighting, trees, and sidewalks within a quarter mile of each stop.

5. Increase LAVTA's input on city plans and during the development review process

To further ensure the integration of transit into the future development of the Tri-Valley communities, input from LAVTA needs to occur at earlier stages of the land development process. Consistent with the first strategy, LAVTA could also take a more active approach in educating the staff on the WHEELS system and communicating where and what types of development would be most conducive to transit service. Suggestions include making a large, laminated system map for each planning department, holding workshops at their office rather than at LAVTA, and making sure each city staff member can easily access LAVTA's website and resources.

6. Create a site plan review checklist based on TOD development and design criteria

A development review checklist that includes transit oriented design criteria should be in place when developers originally apply for a project. Ideally, LAVTA would work with cities to establish a regional set of standards, based on best practices and public input. Different sets of guidelines may be used depending on the type of project; transportation projects would have slightly different needs than a building project.

7. Work with cities to promote TOD along the Rapid corridor(s) and throughout the Tri-Valley

To increase WHEELS ridership and sustain high quality service in the long term, LAVTA must work with local jurisdictions, public agencies, and private developers to promote compact, mixed use development along existing routes, especially surrounding bus stops.

The current WHEELS Route 10, which carries about half of the system's riders and will serve as the foundation for the future Rapid Bus service scheduled to launch in 2009, provides a prime example of a transit corridor with potential to attract infill development. Pleasanton, Dublin, and Livermore could use similar approaches to the ones used for developing their station areas and downtowns. Regarding the improvement of pedestrian accessibility to the high quality Rapid Bus stops, LAVTA and the local cities could develop a program resembling the Ped-to-MAX program in Gresham, Oregon (now called Boulevards), which integrates the light rail service with mixed use neighborhoods through creating safe areas, with lower traffic speed, attractive streetscape, and safer crossing points.

8. Encourage more public participation through increased outreach

Because any lasting changes must derive from public support, LAVTA and the local cities must increase outreach to the public. Outreach focuses on educating community members about the principles of smart growth and the benefits that the new framework could produce, would help to change the perception of development practices and help communities realize the potential to improve their quality of life. In particular, workshops and educational materials need to address the common concerns about a transit oriented lifestyle, debunking the idea that TODs take a one size fits all approach and emphasizing the variety of choices (housing, travel modes, shopping, and employment) that are made available through the new context sensitive, flexible framework. Increasing involvement in the planning process, through holding more strategically planned public meetings and making more connections with different interest groups, would help generate support for new policies and projects, while establishing a sense of ownership in the investments.

Street level improvements

As emphasized throughout this chapter, pedestrian connections with transit are essential, and, in the case of bus stop improvements, are primarily within LAVTA's control. Serving as the meeting point between pedestrians and transit, bus stops are also crucial components of the WHEELS system and of transit oriented communities in general. Improvements to the pedestrian environment and the network surrounding bus stops would not only make transit more attractive and convenient, but would also create appealing social spaces and enhance the overall quality of environment.

Bus Stops

A "good" bus stop is:

- Accessible to pedestrians (i.e., easy to reach by walkways)
- Linked with adjacent land uses
- Well lit to improve sense of security
- Visible and accessible to operators (e.g., bulb outs may improve operator access and pedestrian safety)

- Well maintained and clean
- Provide information, such as schedules neighborhood maps
- Located at the far side of intersections (12 steps)
- Provide a comfortable waiting place with seating

With regards to improving bus stops, it is important to consider the location, layout, and connectivity of bus stops in relation to the street network. Ideally, stops should have shelters that are screened in the back and on the sides to make people feel safe. Shelters protect transit riders from the elements, especially if they have a roof, which provides shade and protection from rain. Signage is also extremely important because it makes using transit easier for pedestrians. The bus stop must be visible from the street and sidewalk, so people know exactly where the stop is. The ambitious Bus Stop Improvement Plan contained within this Short Range Transit Plan will take LAVTA near where it needs to be in regards to attractive and safe bus stops. Ongoing bus stop improvements and strategic bus stop sites will be a project LAVTA shall continue to work on with each city into the future.

Chapter 10

BUS STOP IMPROVEMENT PLAN

10.1 Overview

LAVTA has always understood that a key component in every public transit system's image is the bus stops themselves. It is often said that the eyes are a window to each person's inner soul. The same can be said of how bus stops represent the health and vitality of a transit system. Often, non-riders (who make up the majority of the LAVTA service area, and from which new riders will emerge) garner their first impression from the buses LAVTA operates and the bus stops that riders utilize to travel around the service area. While LAVTA has steadfastly maintained one of the newest fleets in the region, dominated by Gillig and New Flyer buses, the level of amenities and cleanliness at the stops served by this modern fleet has deteriorated over time.

Prior to delineating specific deficiencies in LAVTA's bus stops, it would be helpful to provide background on policies and procedures that have helped to both build the impressive array of bus stop amenities that LAVTA has acquired over time, but also have led to the recent decay and diminishing provision of amenities.

10.2 History of "Property-Owner Cleans Own Bus Stop" Concept

Like most American public transit systems in areas experiencing significant housing and commercial development, LAVTA has taken advantage of the opportunity (via City imposed requirements at time of adjacent property developments) to acquire bus stop improvements at no cost as the service area develops. This frugal and fair strategy to prepare for current and future passenger bus stop needs is widespread in California and the United States, and should continue. However, an area where LAVTA diverted from the norm is bus stop janitorial services. In addition to requiring that developers purchase and install bus stop amenities as part of the permitting process, LAVTA took this one step further and included language requiring the developers to clean and maintain the new bus stop and its equipment into perpetuity. The beauty of this model (in theory) is that LAVTA endures no ongoing operational costs to keep its bus stops clean and attractive.

Unfortunately, this model seems to have failed, due to several issues, foremost of which is the uniqueness of the model as it relates to the constant flux and turnover of the tenants and ownership of the adjacent properties. Although the original developers knew how they were committed to both provide, then clean and maintain the bus stops in front of their facilities, as time passes, this institutional memory is lost. As contacts at each facility changed, memory and dedication to their responsibilities to care for their bus stops dissolved. Everyone in the region simply assumes that LAVTA cares for their own shelters. With cleanliness issues (of varying levels) arising all over the service area, and many shelters lacking wind panels (lost to vandalism and weathering) and trash receptacles, LAVTA realized the model needed adjustment. In recent years, LAVTA required its operations contractor to provide a full time position to clean and maintain bus stops that had been disregarded by the adjacent property owners, and those bus stops which were placed into service after development had occurred on the adjacent properties.

LAVTA is very excited to have procured a separate contract to provide daily cleaning to all the bus stops in the LAVTA service area (except those in Hacienda Business Park, which generally have been well kept by HBP personnel) beginning in August 2007. No longer will LAVTA's operations contractor be burdened attempting to keep up with the exponential cleaning needs leaking out of the "property owner cleans own bus stop" model.

In order to compliment the new outsourced janitorial effort, LAVTA has changed the focus of the one employee from the operations contractor that was dedicated to bus stop cleaning AND maintenance, to simply bus stop maintenance. Issues identified by the bus stop janitorial contractor during daily cleaning visits (beyond graffiti removal) will be communicated to LAVTA and assigned to operations for repair.

LAVTA is confident that with this new approach to bus stop cleaning and maintenance WHEELS will no longer be denigrated by the conditions of its bus stops, and passengers will truly appreciate the cleanliness of the waiting areas. From this point forward, LAVTA will turn its attention to inventorying and upgrading the amenities at the bus stops, which also seem to have fallen off over the last few years. This also may originate in the model of extracting bus stop facilities from developers, which can lead to a high level of amenity in lightly (or non used) bus stops on the periphery of the service area (new development areas) and little or no amenities in core service areas (areas developed prior to LAVTA transit services). The following sections evaluate existing

conditions, establish goals and generate some planning level estimates of amenity needs and costs.

10.2 Signage Deficiencies

Transit industry best practices have identified the impact that highly visible and clearly marked bus stops have in attracting first time riders. The impact of a non-rider's awareness of bus stop locations cannot be downplayed.

LAVTA has created an attractive and distinctive system logo and color scheme which translates very nicely into a beautiful and functional bus stop sign. LAVTA provides bus stop signage in three different sizes, with taller bus stop signs for stops served by multiple routes.

In addition to the distinctive blue LAVTA bus stop sign, which is both pole and signpost mounted, LAVTA adopted the practice of adding "stencils" to the curb at bus stops to further identify the stop. The bus stop stencils amount to a short segment of painted red curb (approximately five feet) with the text "Bus Stop" painted in white against the red background. In combination with the blue LAVTA bus stop sign, the stencils help clearly mark the area as a bus stop.

Stencil Only Stops

In the past, LAVTA has chosen to take a more passive stance to its bus stops in certain locations (mostly residential) where the location of a bus stop may have been unpopular with some neighbors, and/or where ridership was expected to be light. The assumption may have been that the few people who truly need the bus and will utilize WHEELS will navigate their way to the "stencil only" bus stop eventually, by "trial and error" perhaps, while the supermajority in these residential areas will appreciate the lack of a transit presence in their neighborhood. This strategy likely eases community "concerns" about having transit services, but it certainly hinders potential new riders that often have no idea a bus stop is nearby. In practice, as the following tables show, most of the "stencil only" stops also lack any other amenity that makes the transit usage experience more pleasant, such as sitting areas, shade, or bus schedule information.

During internal conversations on where the "stencil only" stops may be appropriate, it has been determined by LAVTA staff that "stencil only" stops originated and still can be strategic at any of LAVTA's many "school tripper only" stops. These stops are only used two to four times daily, by a stable group of students (after the first week or so of fall semester) that quickly come to know where the bus stops and when. Additionally, many "school tripper only" stops are currently placed carefully within residential areas that may not view the addition of even a LAVTA bus stop sign as a positive addition to their exclusive neighborhoods.

With these evaluation criteria established:

- All bus stops on non-school tripper routes shall feature a LAVTA bus stop sign
- All bus stops on non-school tripper routes shall feature a bus stop stencil
- All school tripper only stops shall feature "stencil only stops"

All bus stop stencils need to be refreshed annually due to weathering, in order to be seen by bus operators and LAVTA riders. In addition, LAVTA has identified the following bus stops that need bus stop signs (on new signposts or co-located onto nearby streetlight poles) added to the existing stencils. These stops are for regular, fixed route service stops that currently are "stencil only".

LAVTA Signage Deficiencies (Regular Stops Lacking Signs)

Routes	Route Name	Signage Deficiencies
1	East Dublin	8
3	West Dublin - Stoneridge Mall	10
8	Pleasanton Civic Center	5
10	Stoneridge Mall-Pleasanton-Livermore	3
11	Northeast Livermore	1
12	BART-Las Positas College-LTC	0
14	Downtown Livermore	7
15	Springtown	21
18	Granada	15
20X	Vasco Road - BART Express	0
50	Hacienda Business Park	3
51	BART - Santa Rita Jail	0
53	Pleasanton ACE - Stoneridge Mall	0
54	Pleasanton ACE - BART	1
70X	Dublin BART - Pleasant Hill BART	0
	Totals	74

10.2 Seating Deficiencies

Transit best practices generally index the deployment of bus benches and passenger shelters to daily boardings at the particular location. Practitioners will also say that other moderating factors add to the decision of what is the proper level of bus stop

amenity at a given location, such as adjacent land uses, available right of way, and localized property owner concerns. LAVTA has always and wishes to continue to weigh all of these factors into each decision (along with available funding issues) on whether a stop features a bench, shelter, a bench and shelter, or no sitting area at all.

As an initial bus stop standard to build momentum for LAVTA marketing efforts, LAVTA has identified that all bus stops adjacent to commercial developments and multifamily residential units shall be provided at least a bus bench and trash can. Furthermore, qualifying bus stops (stops that are adjacent to commercial or industrial land uses, or multifamily residential complexes) that feature more than twenty daily boardings shall be provided passenger waiting shelters as funding allows.

The following table identifies a significant list of LAVTA bus stops by route that fail to meet both the base standard for seating (lacking bus benches or passenger waiting shelters).

LAVTA Stops With Seating Deficiencies & Shelters w/o Maps

Routes	Route Name	Seating Deficiencies	Shelters w/o Maps
1	East Dublin	14	8
3	West Dublin - Stoneridge Mall	46	3
8	Pleasanton Civic Center	15	12
10	Stoneridge Mall-Pleasanton-Livermore	15	11
11	Northeast Livermore	17	1
12	BART-Las Positas College-LTC	14	8
14	Downtown Livermore	13	0
15	Springtown	16	2
18	Granada	12	0
20X	Vasco Road - BART Express	11	1
50	Hacienda Business Park	13	8
51	BART - Santa Rita Jail	0	0
53	Pleasanton ACE - Stoneridge Mall	0	0
54	Pleasanton ACE - BART	5	7
70X	Dublin BART - Pleasant Hill BART	0	0
	Totals	191	61

Imminent Opportunities to Relocate Existing Resources

Duplicative Resources and Abandoned Stops

Acknowledging that many bus stop resources exist at locations that LAVTA has no control over, due to their provision by the owners of the adjacent properties (thus they are "owned" by entities other than LAVTA), there are still a few locations where LAVTA may be able to relocate resources from existing bus stops (duplicative

equipment) and from abandoned bus stops that are no longer receiving transit service, but still feature bus stop amenities.

A few locations exist where LAVTA provides more than one seating area at a single bus stop, or seating amenities at discontinued stops. In the following cases, it is recommended that LAVTA relocate this seating to a location that does not have seating areas.

LAVTA Duplicative Seating and Seating at Abandoned Stops

#	Current Location	Seating Amenity	Location for Relocation
1	Stanley @ Murdell WB	concrete bench	TBD
2	Stanley @ Valley Care EB	wire mesh bench	TBD
3	First Street n/o Scott NB	wire mesh bench	TBD
4	First Street s/o Portola SB	wire mesh bench	TBD
5	Pacific @ Livermore Civic Ctr	concrete bench	TBD
6	7471 Larkdale, Dublin	Ace shelter	TBD

Route 10 Rapid Bus Stops

Due to the imminent construction of the LAVTA Route 10 Rapid (BRT) project, and its heavy emphasis on heightened levels of bus stop amenities at the selected (mostly existing) BRT stops along Route 10, an opportunity exists to relocate a significant amount of existing LAVTA bus stop equipment to new locations. The table below shows an initial strategy to redeploy existing bus stop benches and shelters to new locations within the LAVTA service area.

LAVTA Route 10 Bus Rapid Transit Project Bus Stop Amenity Relocation Plan

BRT Stop (E-W)	Relocatable Amenity	Relocate to New Location	Install Costs
E. Main @ Charlotte WB	Livermore "Rockwell" Shelter	Railroad & P Street EB	$1,000
E. Main @ Livermore CC WB	Livermore "Rockwell" Shelter	Murrieta & Pine NB	$1,000
E. Main @ Livermore High School EB	Concrete Bench	Peters Ave & Division WB (if ok w/city)	$500
Railroad @ Valley Care Hospital WB	Livermore Shelter, wire mesh bench	First & Kottinger EB (if OK w/city), bench to Pine & P	$1,100
Railroad @ Valley Care Hospital EB	Livermore Shelter, wire mesh bench	Murrieta & (s/o Portola NB), bench to 4th & K EB?	$1,100
Stanley @ Murrieta EB	wire mesh bench	P Street & Olivina SB?	$100
Stanley @ Murdell EB	Livermore "Rockwell" Shelter	San Ramon Senior Center (Stagecoach NB)	$1,000
Stanley @ Murdell WB	Livermore Shelter, concrete bench	P Street & Railroad SB, bench to Railroad & "P" WB	$1,500
Santa Rita @ Valley EB	Ace Aluminum Shelter	Bluebell and Sunflower (Heritage Sr. Apartments)?	$1,000
Las Positas @ Valley Care Hospital WB	Hacienda style shelter	TBD in or near Hacienda	$1,000
Murrieta & Portola NB	wire mesh bench	Chestnut & Junction WB	$100
First & Kottinger EB	wire mesh bench	Dolores & Pacific NB	$100
	Total BRT Bus Stop Amenity Relocation Costs		$9,500

During recent public outreach, LAVTA learned from several riders that they prefer the style of bus shelters in Livermore, over the styles found in Dublin and Pleasanton. The Livermore shelters feature a small footprint, with a wire mesh backing, and wire mesh benches. These are designed for a hot, dry climate, and for easy maintenance and cleaning. In contrast, the shelter design that is prominent in Pleasanton is a very large shelter, nearly completely surrounded by glass or lexan panels, and with built in lighting and a full length wooden bench. These shelters are very nice, but perhaps more appropriate in a northern climate where significant precipitation and wind challenge waiting passengers. These shelters become stifling

on sunny days. In addition, the glass and lexan panels featured heavily in this design are frequent targets of etching vandalism, and also seem to degrade in the scorching Tri-Valley summer sunshine. An obvious deficiency of the predominant Livermore shelter at this point is lighting.

Hacienda Business Park Shelter

ACE Shelter (art Shelter project)

Rockwell “Livermore Style” shelter

10.2 Lighting Projects

Outside of the "Hacienda Business Park" style shelter, found mostly in HBP, but also occasionally in other parts of the LAVTA service area, all current LAVTA bus stop shelters lack lighting. Compounding this, no lighting (beyond occasional nearby streetlights) exists at ANY LAVTA bus stops. This safety deficiency was among the top improvement requests received by LAVTA during the construction of this 2008 SRTP.

LAVTA's bus stop lighting situation requires a sustained and multifaceted mitigation strategy. In general, all new bus stop equipment yet to be procured will include lighting (solar is preferable) and existing bus stops will need to be retrofitted with lighting in a prioritized effort. The upcoming LAVTA Route 10 BRT Project will provide a great jump start by including extensive lighting at all new BRT stops.

For all non-sheltered stops, the state of the art in bus stop lighting involves purchase and installation of a bus stop pole that features solar lighting, activated by a push button, which serves to provide security lighting to the area surrounding the post, as well as the attached bus schedule holder. This amenity also assists bus operators after dark by providing them advance notice that a stop ahead is required.

LAVTA should approach the purchase and installation of solar lighting equipment for shelters (retrofitted on existing unlit LAVTA shelters) and solar lighted signposts to be installed at non-sheltered LAVTA stops, as two distinct, but concurrent, projects. This will allow LAVTA to test the success of both the retrofitting of solar lighting onto older shelters currently in place, as well as how well the new all in one solar powered bus stop signposts perform.

10.2 Information Projects

LAVTA currently provides a high level of bus stop information at most of its sheltered bus stops. Shelter map inserts have been installed that display the LAVTA system map, along with detailed data customized to the routes that service that particular stop. This comprehensive shelter data should be continued and

expanded to cover ALL sheltered bus stops. Some challenges may exist with regards to mounting map holders in shelters that currently lack such equipment, but LAVTA will attempt to overcome any barriers that keep system maps and timetables out of every shelter. If a shelter mount proves infeasible, LAVTA may choose to provide the schedule info outside the actual shelter footprint.

Mounted Signage

For bus stops that do not feature a passenger waiting shelter, LAVTA has installed two different types of signpost mounted information holders: Transit Tube and Infopost.

A Transit Tube displays the LAVTA system map, and show riders ALL routes and the entire Tri-Valley service area. Infopost shows the critical information on ONE route, but is too small to display the LAVTA system map at a discernable scale. A Transit Tube costs upward of $500 each, while an Infopost can be purchased for as low as $80 each (for large quantities). Both of these schedule information holders have proven themselves to be durable and attractive in recent deployments by LAVTA. The recommended strategy is to install the transit tubes (with their larger display capacity) at the stops that feature passenger shelters without system maps, and at stops served by multiple routes. Infoposts would be installed at all remaining, informationless stops.

LAVTA shall now adopt a policy to provide bus schedule information at every bus stop, with deployment prioritization based upon funding and 1) boarding activity, and 2) lack of bus stop information. It is envisioned that <u>all (non-tripper) bus stops will have schedule information for at least the route(s) that serve that stop</u>.

The following table shows recommendations for the next 100 bus schedule information displays to be installed at important LAVTA bus stops that currently have no information. An important consideration here was to avoid duplicative efforts that may arise from first deploying bus stop information hardware at a stop that will soon receive a new passenger waiting shelters. All new passenger shelters will be ordered with system map holders.

LAVTA Stops With Information Deficiencies			
Routes	**Route Name**	**Infopost Deficiencies**	**Transit Tube Needed**
1	East Dublin	12	19
3	West Dublin - Stoneridge Mall	48	0
8	Pleasanton Civic Center	22	2
10	Stoneridge Mall-Pleasanton-Livermore	34	4
11	Northeast Livermore	21	0
12	BART-Las Positas College-LTC	19	3
14	Downtown Livermore	17	6
15	Springtown	49	0
18	Granada	30	4
20X	Vasco Road - BART Express	11	6
50	Hacienda Business Park	0	13
51	BART - Santa Rita Jail	0	0
53	Pleasanton ACE - Stoneridge Mall	0	0
54	Pleasanton ACE - BART	5	0
70X	Dublin BART - Pleasant Hill BART	4	0
	Totals	272	57

Interactive Bus Arrival Signs

One of the goals of the 2003 purchase of the Siemens "Transit Master" Automatic Vehicle Location (AVL) system was to be able to provide estimated bus arrival time information at key bus stops in the LAVTA service area. The Siemens AVL system interacts with Siemens "On Street" electronic bus stop signs to display the projected arrival time (adjusted in real time) of the next bus.

In 2003, LAVTA purchased nine Siemens On Street electronic signs for initial deployment at key bus stop locations. LAVTA installed two signs, one at the Lawrence Livermore National Laboratory (LLNL) and another at the Livermore Transit Center in 2005. Data was monitored for accuracy and reliability, both of which were initially inadequate. Research began on the causes of the lack of data integrity. The Siemens AVL product, and the bus stop bus arrival data rely on precisely surveyed and accurate data input from the planning department. In addition, such unexpected factors such as tire tread depth, and odometer wear may cause data degradation. LAVTA has taken strides to understand when and where AVL data errors occur, and has dedicated one position within the planning department to work full time to survey and clean all Siemens AVL data so that the data displayed on the "On Street" signs will be accurate and reliable.

The six remaining On Street signs that have been in storage at LAVTA since 2005 are to be deployed in FY2008/09 at key bus stops, considering lessons learned from the three pilot installations. The On Street signs function best where one or two routes serve a bus stop midroute. Issues with wind load arose that were recently resolved with a new double pole mounting design.

The table below shows the top six locations (not including Route 10 BRT stops, which will all feature On Street bus arrival information as part of that project) to be equipped with On Streets signage in FY 2008/09.

LAVTA On-Street Electronic Bus Arrival Signs Installation Plan

	Bus Stop to have On-Street Signage Added	Routes	3-line Sign?
1	Las Positas College	12	
2	First & Neal WB	10L, 8	Yes
3	First & Neal EB	10L, 8	Yes
4	W. Dublin Blvd @ Golden Gate WB	10L	
5	W. Dublin Blvd @ Golden Gate EB	10L	
6	Stoneridge Mall	3, 10L, 53	Yes

10.2 Project Cost Estimates

LAVTA Bus Stop Improvement Plan -- Capital Cost Estimates

Component	Project Detail	Units	Unit Costs	Install Costs	Total Cost
ADA Accessibility	Various Improvements (ramps, pads, connector sidewalks)				$250,000
Bus Stop Signs	Install Bus Stop Signs At All (non-tripper) Stops	74	$150	$50	$14,800
Shelters	Buy & Install Solar Shelters	50	$8,000	$2,000	$500,000
Benches	Buy & Install Concrete Benches	50	$500	$200	$35,000
Solar Lighting	Retrofit Solar Lighting on Existing Shelters	60	$2,500	$500	$180,000
	Purchase New Solar Bus Stop Signposts	200	$1,000	$500	$300,000
Schedule Info	Buy & Install New Transit Tubes	57	$500	$100	$34,200
	Buy & Install New Infopost Schedule Holders	272	$80	$50	$35,360
On-Street Signs	Install Six Previously Purchased signs	6	$0	$500	$3,000
	Bus & Install New Siemens On-Street Signs	10	$1,000	$500	$15,000
					$1,367,360
	10% Contingency				$136,736
	Total Bus Stop Improvement Capital Costs				$1,504,096

Chapter 11

PARATRANSIT PLAN

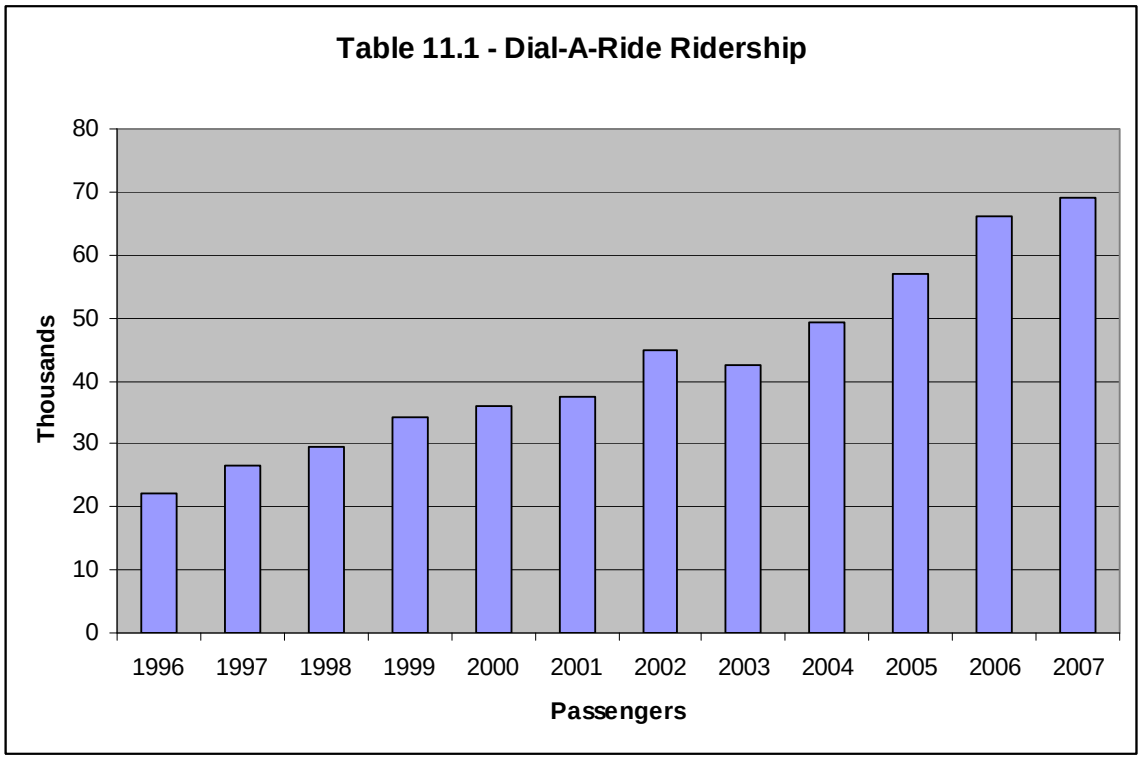
11.1 Overview

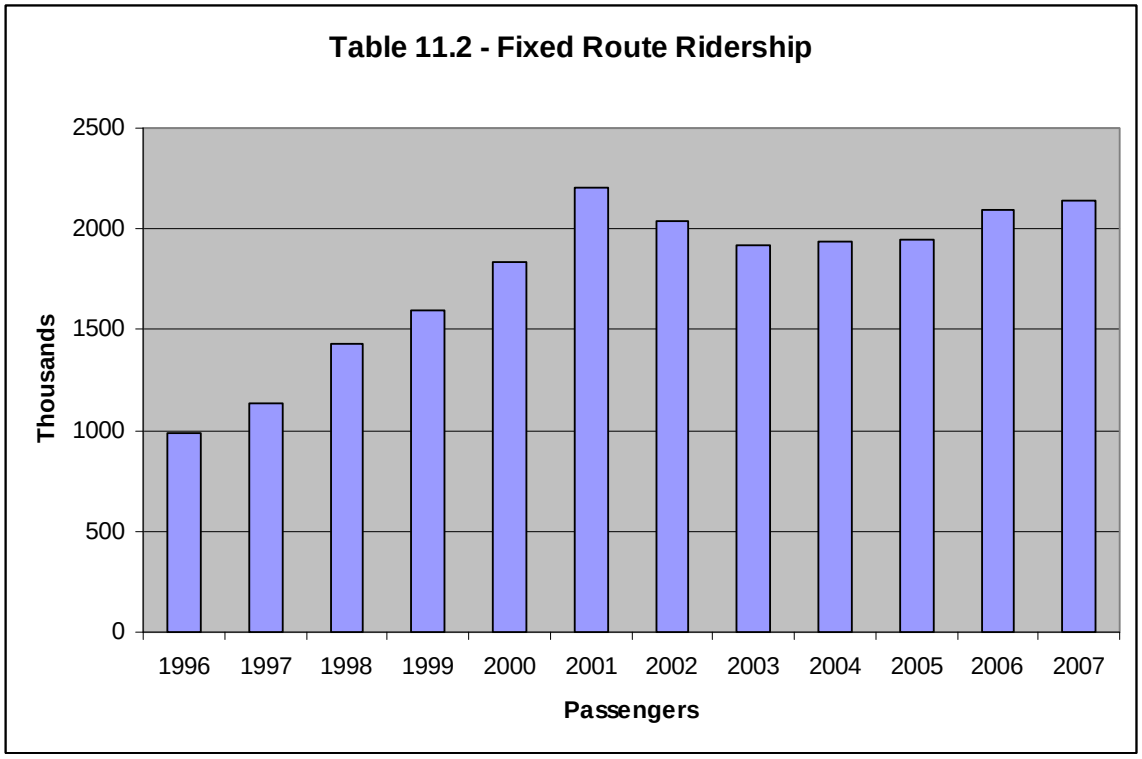
LAVTA provides a complementary door to door paratransit service for those unable to utilize the fixed route system as mandated by the 1990 Americans with Disabilities Act (ADA). The ADA requires a minimum provision of on demand curb to curb paratransit services to any origin and destination within 0.75 miles on either side of a fixed route bus, during the times of fixed route service. Aside from requiring that their origin and destination be within 0.75 miles of each other, riders must also have an "ADA qualifying disability" that would keeps them from using the fixed route bus.

LAVTA has chosen to "go beyond the ADA minimum" and provide a more user friendly paratransit service called "WHEELS Dial-A-Ride" (DAR). LAVTA does not enforce the temporal aspect of eligibility (does not deny rides in an area after that area's fixed route bus stops service, for example) and in certain pockets within the LAVTA service area, where technically no fixed route bus is within 0.75 miles, LAVTA provides DAR to eligible patrons regardless. LAVTA has also chosen to provide "door to door" service whereby WHEELS DAR bus drivers will assist passengers from the bus to the door of their destination if assistance is requested. LAVTA is already providing ADA "premium" services as follows:

- Provides trips in areas where the fixed route bus is out of service (temporal premium)
- Provides trips in areas of urbanized area not technically within 0.75 mile of fixed route (geographic premium)
- Assists patrons to their door, if requested

Tables 11.1 and 11.12 show how LAVTA DAR ridership has grown over time. Note the remarkable increase in ridership on DAR during the 2001-2007 timeframe, when fixed route patronage remained rather stagnant.





LAVTA is far from alone as it endures rising demand and costs in the provision of ADA mandated paratransit services. A large segment of the American (and Tri-Valley) population base is reaching the age of 60 and beyond. In general, the

emergent mass of "baby boomers" have little experience or knowledge of fixed route transit, having grown up in the peak of the "auto age." Many of these seniors are afraid of using a fixed route bus system, and think that DAR is the only and best option once driving becomes impossible.

The LAVTA Board of Directors and staff, having been considering several possible demand mitigation measures, including the use of taxi cabs as a supplement to DAR. LAVTA cannot realistically (or politically) hope to reduce usage of the WHEELS DAR, but rather curtailing the runaway growth recently experienced. Transit industry practitioners have identified several strategies that may help LAVTA to provide the DAR to those individuals who truly require the service, while providing travel training and assistance in transitioning as many persons as possible onto LAVTA's more cost effective (and convenient) fixed route services.

11.2 Eligibility Determination Process

LAVTA has followed the Americans ADA, Federal Transit Administration's (FTA) guidance, and industry practice in establishing a procedure for intake and evaluation of WHEELS DAR patrons to determine if the patron qualifies for paratransit under the guidelines of the ADA or if the person should be utilizing fixed route bus service. Once qualified, the patron is free to schedule trips and ride the service, usually for an undetermined period of time.

LAVTA has evolved into a "liberal" assessor of ADA eligibility when compared to other transit agencies in California and the nation as a whole. Of all applications submitted to LAVTA, virtually all of them have been approved since the agency's inception. This contrasts sharply with that of most American transit agencies, where denial rates are often close to 10%. While nearly all ADA paratransit providers require applicants to fill out an application (which sometimes requires endorsement from the applicant's health care provider) explaining why they feel they qualify to utilize the paratransit service, many other transit agencies scrutinize the applications further. On the stringent end of the spectrum, many transit providers now often require applicants to visit face to face with trained staff to ensure only those who truly need this expensive specialized service become eligible

(functional testing). Taking a more proactive and hands on role in the eligibility process will indeed lessen the flow of new patrons into the WHEELS DAR system and add new riders into the WHEELS fixed route network. DAR applicants, who are denied usage, are counseled and offered extensive one on one travel training on how to utilize the (more convenient, but often scary at first) fixed route network.

Options that LAVTA could pursue can then be summarized as follows:

- Establish formal denial and appeal procedures and have Board adopt these.
- Contract with a disability specialist to increase scrutiny of applications.
- Train LAVTA's staff further on transit disability determination to increase scrutiny .
- Require endorsement from applicant's health care provider with the initial application.
- Partner with regional transit agencies to share a disability determination program.
- Require face to face interviews and/or functional testing with any or all applicants.

It is advisable that LAVTA begin by undertaking a combination of the first four bullets, then explore possible regional cooperative options that may lead to shared costs for rigorous face to face evaluations of perspective DAR patrons.

11.3 WHEELS Dial-A-Ride Service Area

LAVTA has informally established a policy of loosely enforcing the ADA minimum standard of 0.75 miles from a fixed route as its geographic DAR service area. However, over time numerous exceptions have been made for various hardship cases, areas that never will support fixed route service but have some DAR demand, and now LAVTA's paratransit service area begs clarification.

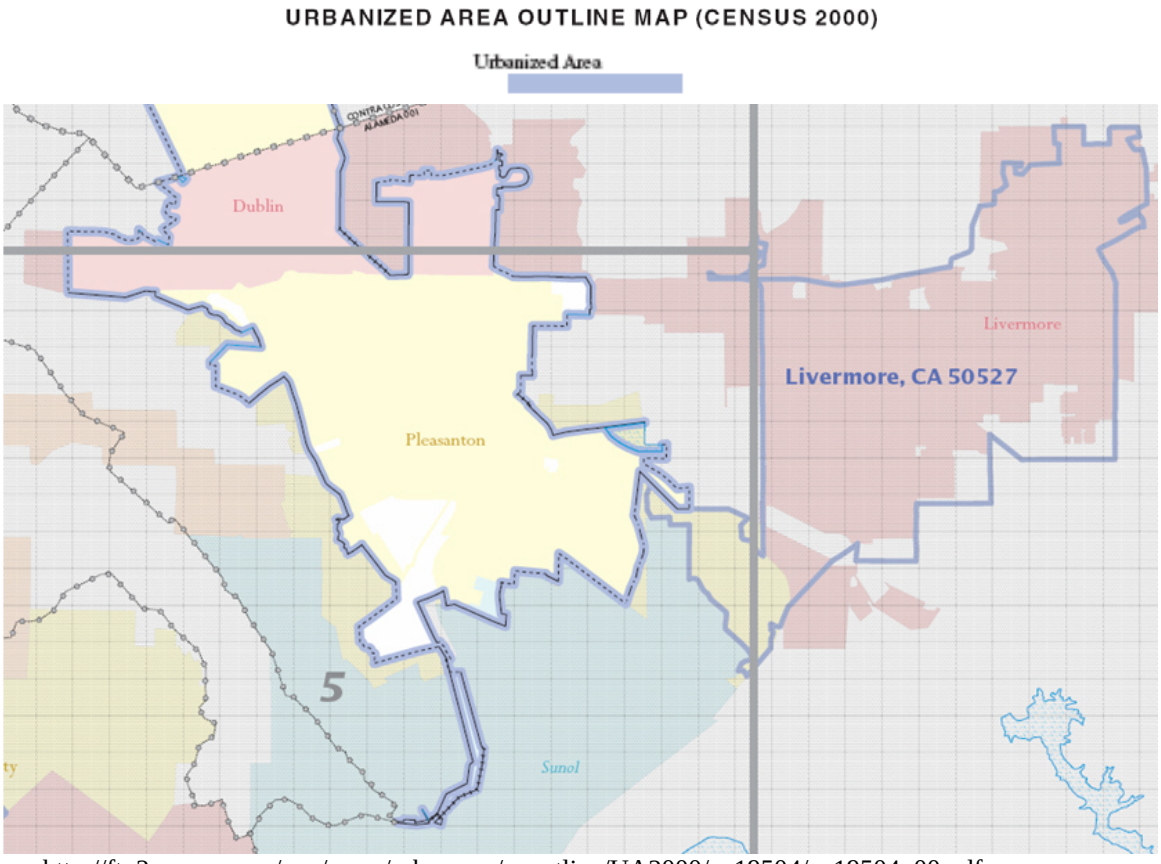
LAVTA's Board of Directors wants to ensure that WHEELS DAR is available to most persons in need of the service in the service area. Considering the many financial and political factors that shape the fixed route network, and the relative ease with which to switch to another geographic delineation to describe the DAR service area, LAVTA may wish to formally address the service area questions at this time.

Several areas of the Tri-Valley exhibit traits, which lead LAVTA's staff to believe that they never will need or use regularly scheduled fixed route transit. These area include:

- Homogenous single family homes
- Low housing density
- Affluence (high incomes, high automobile availability per household)

While these neighborhoods will likely never support fixed route transit, invariably there will emerge small scale paratransit needs (individuals with disabilities, grandparents living with younger families, and other adults who "age in place" in their suburban homes). It is the desire of the LAVTA's Board of Directors and staff to provide ADA paratransit to individuals in these affluent and low density neighborhoods for as long as financially possible, regardless of the lack of fixed route transit nearby.

A logical solution to formalize the LAVTA DAR service area boundary is to utilize the United States Census Bureau Urbanized Area (UA) boundary. This is commonplace in the United States as a method of delineating paratransit service area boundaries. The US Census Bureau uses a formula based upon density of dwelling units to derive its Urbanized Area Boundaries. The U.S. Census Bureau updates its urbanized area maps every five to ten years. LAVTA would then simply adopt the new UA maps upon reception, usually after a major census. LAVTA will want to "grandfather" current DAR patrons who reside OUTSIDE of the Concord-Livermore UA map, avoiding termination of service to existing customers. This policy clarification will support operations, who are increasingly asked to serve further and further out in the countryside, on roads unsuitable for even paratransit buses, stretching the DAR service critically.



Source: http://ftp2.census.gov/geo/maps/urbanarea/uaoutline/UA2000/ua19504/ua19504_00.pdf

11.4 Inter-Regional Trips

Inter-regional paratransit trips in the San Francisco metropolitan area are generally handled by multiple agencies (each staying within its own "territory") via timed transfers from one provider to the next at pre-established locations. For LAVTA, these usually mean transfers to and from County Connection Links (Concord) and East Bay Paratransit (Oakland) at the Dublin/Pleasanton BART station. The "origination agency," where the rider actually lives and starts his/her trip books the entire ride, then forwards the second portion of the trip request to the outside agency, who then eventually confirms the trip and the meet times.

In reality, this system does not work very well. Riders frequently complain of long waits at transfer points, and unacceptable overall travel times. LAVTA's staff have been analyzing recent inter-regional DAR usage, and have been working with adjacent paratransit providers (East Bay and CC Links primarily) to identify a better way of providing these trips. Steps already taken in 2006 and 2007 include LAVTA agreeing to have East Bay completely handle inbound trips going to certain locations near the Dublin/Pleasanton BART station (rather than forcing a transfer to LAVTA, then delivering the passenger just a mile or so from the BART station), and "sharing" certain inter-regional trips with County Connection Links, whereby Links may take the passenger to dialysis in Pleasanton themselves (for instance from San Ramon) and LAVTA DAR will return the passenger to San Ramon without requiring a transfer, saving the passenger a great deal of time.

LAVTA has identified a small core group of DAR users who travel to the same inter-regional destination on the same schedule each week. These WHEELS patrons generally are in support or scholastic programs in Oakland and the Southeast Bay and travel to the same areas three or more times each week. Currently, these riders endure the forced transferring at BART, and complain of travel times to downtown Oakland of up to three hours. LAVTA could alleviate this issue by taking this small group further into the East Bay ourselves, avoiding the transfer to East Bay Paratransit, and batching these trips onto one or two vans each day. This would increase costs slightly, but would alleviate a frustrating situation for the patrons. Care may need to be taken to avoid having this policy evolve into a significant flow of LAVTA DAR buses "over the hill," which, when it becomes too popular, would prove to be financially unsustainable. Occasional and recreational "over the hill" paratransit trips would still require traditional transfer at BART, the base method of interregional DAR travel.

11.5 Paratransit Taxi Program

In 2006, LAVTA's Board of Directors chose to initiate a consultant study to determine if there was any way that LAVTA could utilize the existing private sector taxi companies in the Tri-Valley to assist LAVTA in controlling its rising ridership and costs on DAR. The study concluded that paratransit taxi program indeed offers potential for reducing paratransit costs and managing service demand. The taxi program would complement ADA paratransit providing a higher level of service (higher flexibility with the same day service). The paratransit taxi pilot program would be offered to ambulatory patrons and, if any accessible taxis become available, to wheelchair and scooter users. The taxi program's pricing model is built up to encourage the patrons to take their shortest trips with taxis, as these are the costliest for the WHEELS DAR system. Taxis would also be a good transportation option for medical return trips as these are often difficult to effectively coordinate with DAR and can therefore require long wait times. In the future, LAVTA can explore provision of nighttime and difficult to serve DAR trips by local taxis.

11.6 Travel Training for Fixed Route

LAVTA has developed one of the more extensive travel training programs in the Bay Area in recent years. Although challenged by staffing cuts in recent years, LAVTA developed extensive relationships with area senior centers and senior living facilities. LAVTA's staff schedules formal bus travel training classes that are published in each city's recreation guides and advertised via fliers. Local residents are able to sign up at low or zero cost to learn how to ride LAVTA's fixed route buses. In the course of travel training, attendees also get basic information on how DAR works and how to apply for eligibility. Knowing how to read a bus schedule, find the proper bus stop, and navigate a fixed route bus system (including transferring between buses) is a learned skill set that many of today's elders never learned during their younger years, but one that can be critical in extending their independence after driving is no longer an option.

The Tri-Valley area is experiencing a significant increase in its elderly population and this trend is expected to continue. Over the next 25 years, senior citizens are expected to increase by 266% within the LAVTA service area *(IBI Group 2006 Study for Viability of Taxi Use for Paratransit Services in the Tri-Valley)*. In addition to providing travel training on using fixed route buses to seniors and the disabled, LAVTA also offers financial incentives for them to do so. Currently, ADA certified patrons can travel for free on WHEELS fixed route buses while non-ADA seniors receive discounts on tickets and can travel for free during non-peak hours on weekdays. Also, WHEELS fixed route buses exceed ADA requirements on accessibility (e.g., WHEELS buses feature wide doors, flip out ramps, a kneeling feature, and accommodate most types of ADA compliant wheelchairs and scooters.).

It is recommended that, with the tightening of eligibility determination described above, LAVTA expand its travel training efforts. This will provide the needed transportation training for recently denied DAR applicants, but also helps potential DAR applicants learn to use fixed route services before they ever apply for the DAR eligibility. LAVTA has designated one halftime employee whose primary duty is to seek, schedule, and deliver travel training to groups and individuals. The goal of LAVTA's travel training program is to reduce overall DAR eligibility applications, DAR usage, and increase fixed route ridership among seniors and the disabled by providing mobility education.

11.7 Donation of Retired Paratransit Vans to Social Services Agencies

Another way to reduce the demand for the WHEELS DAR service is to donate some of LAVTA's retired paratransit vehicles to Tri-Valley's social services agencies (e.g., senior centers and adult daycare), whose clients are frequent users of DAR services. This would create a win-win situation for both LAVTA and the social services agencies as LAVTA should see reduced demand for the DAR service while the receiving agencies gain flexibility in providing transportation at a low cost. The *Retired Vehicles' Donation Program* could be a competitive, application based program in which LAVTA could require the receivers of donated vehicles to provide a certain minimum number of ADA trips while the rest of the trips could be non-ADA trips.

11.8 Recommendations Summary

LAVTA should continue to provide high quality, consumer focused "premium" ADA paratransit services in a fiscally constrained manner by deploying several demand control strategies in the coming years:

- Tighten up eligibility procedures, increase denials and travel training referrals
- Formalize DAR service areas, limit them to urbanized areas
- Offer fixed route training to riders who are able to use fixed route services, even partially
- Explore diverting some DAR trips onto local taxis
- Explore donating retired paratransit vans to social services agencies that provide services for DAR customers
- Continue discussions with regional paratransit providers to improve booking and delivery of difficult inter-regional paratransit trips
- Explore provision of nighttime and difficult to serve DAR trips by local taxis

Appendix:

Wheels

Livermore Amador Valley Transit Authority

April 5, 2005

Mr. Derrin Jourdan
Area Civil Rights Officer
Federal Transit Administration
201 Mission St. Suite 2210
San Francisco, CA 94105

RE: LAVTA Title VI 2005 Update

Derrin:

Attached is LAVTA's 2005 Title VI update. It has been submitted in the same format that has been used in previous years. There are several attachments for this submission:

1. LAVTA Title VI Update – April 5, 2005
2. Current Service Schedule for LAVTA
3. Updated Census Tract Map
4. 2000 Census Race Data Listed by Tract
5. Appendix B – DOT Title VI Assurance, Signed by Vic Sood, dated May 15, 1989
6. Appendix A to Title VI Assurance, Signed by Vic Sood, dated May 15, 1989

Thanks in advance for your assistance with this matter as we attempt to close the FY 05 grant application process. Please do not hesitate to contact LAVTA if we can provide further information.

Sincerely,

Cory LaVigne
Manager of Planning and Operations

CC: FTA, Title VI File