SANTA CLARITA TRANSIT

TRANSPORTATION DEVELOPMENT PLAN

FINAL REPORT

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February 20, 1997

The preparation of the Santa Clarita Transit Transportation Development Plan was funded in part using planning funds made available by the Southern California Association of Governments for the benefit of the City of Santa Clarita

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EXECUTIVE SUMMARY

The purpose of the project was to take a long-range view of transit needs for the Santa Clarita community - the incorporated and unincorporated area served by transit. More than most transit providers, Santa Clarita Transit serves a community that is undergoing tremendous change. Only incorporated in 1987, Santa Clarita has and is anticipated to continue growing at a rapid pace, generating both local and regional travel demand. In preparing the plan, the process was initiated with an evaluation of the existing environment and transit service. The following summarize the findings and conclusions regarding existing services.

Existing Services

1. Santa Clarita Transit operates with many constraints typical of suburban transit operations. Relative to more urban areas, the number of vehicles per household is high, and the land use patterns encourage the use of the automobile.

2. The physical layout of the community with many natural barriers and utility corridors makes it very difficult to provide transit service to all residents except at extraordinary cost. Walled neighborhoods and lack of sidewalks contribute to lack of transit access in some areas.

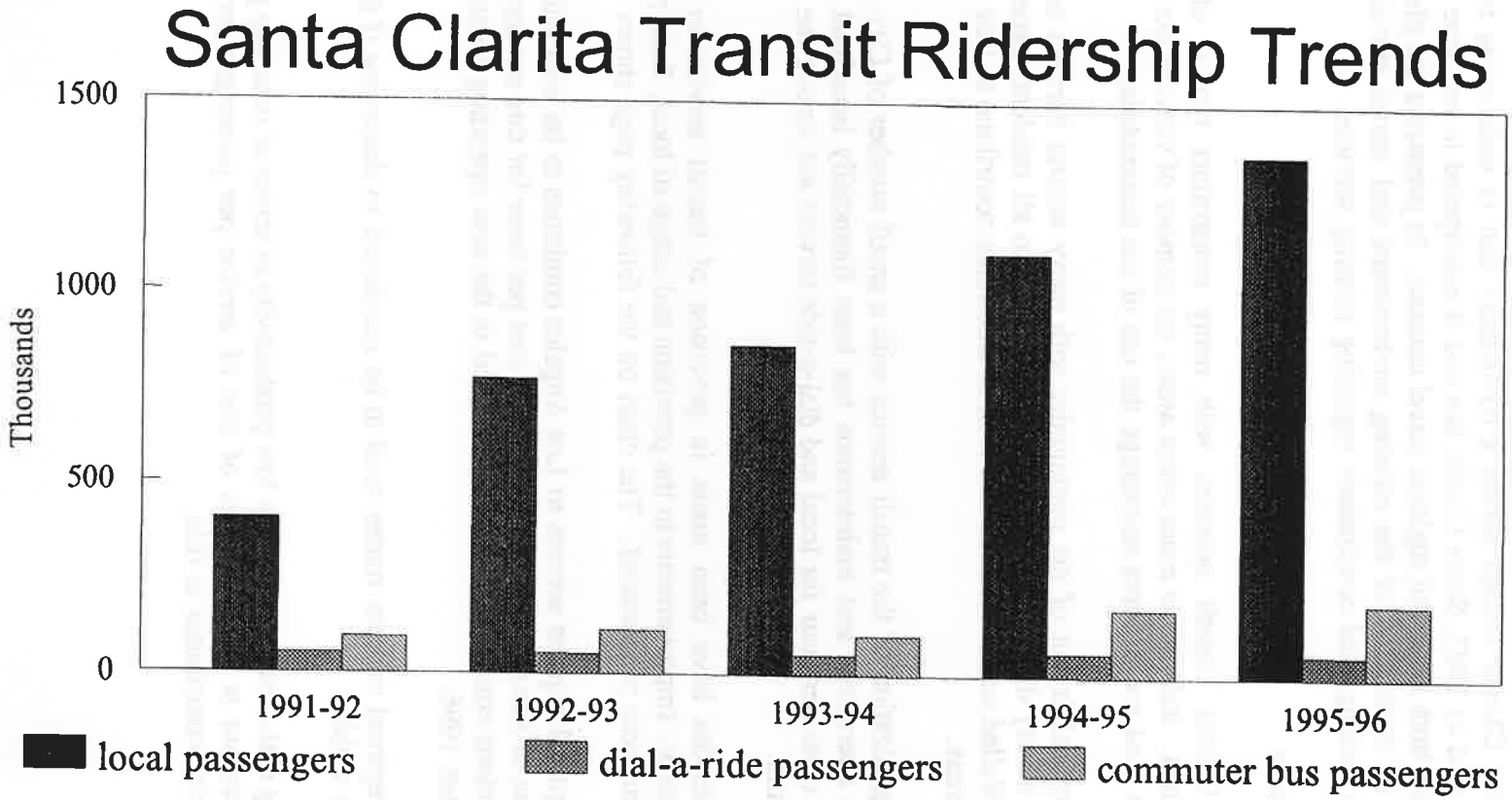
3. The organization of the transit service with a small number of City staff administering private operations and maintenance has been financially beneficial for the City - the overall costs per hour for local and dial-a-ride service are among the lowest in Southern California.

4. Great strides have been made in provision of transit service in the Santa Clarita community. Improvements in the provision and usage of local, fixed route transit service has been most pronounced. The chart on the following page shows ridership trends.

5. The regional express service to Los Angeles continues to be well utilized even with the initiation of Metrolink. The contractual cost per hour for this service was too high with the previous contractor but was addressed in the new operating contract that took effect in August 1996.

6. Other regional express routes need to be monitored to determine if they will remain or become viable.

7. Existing dial-a-ride service has low productivity in terms of ridership per hour of service and therefore is high in terms of cost of service per passenger carried. Community geography contributes to this.


Santa Clarita Transit Ridership Trends
1500
1000
500
0
Thousands
1991-92
1992-93
1993-94
1994-95
1995-96
local passengers
dial-a-ride passengers
commuter bus passengers

Future Needs

The anticipated growth of the community, both in terms of infill and outward expansion of residential, commercial, and industrial development, will require considerable growth in transit service.

8 Local and regional transportation services will need to expand with the anticipated growth of the service area community, potentially a tripling of population and travel needs within 15 - 25 years.

9. Community members who attended a workshop session expressed an interest for Sunday service and a basic transit connection to the San Fernando Valley transit network. The cost of Metrolink and improvements to community design to facilitate transit were also themes of the session.

10 Important to success of transit service in Santa Clarita will be to provide stability of service while incrementally expanding and modifying service to meet the needs associated with new development.

11. As new development continues, new local routes or expanded service will be needed in the North McBean Parkway area, the Porta Bella/community center area, and west of I-5, including the Marketplace, Stevenson Ranch, the Valencia Commerce Center, and in the Castaic area. Improved service from Canyon Country to Valencia is constrained by the lack of additional east-west arterial corridors through the center of the community and the presence of gates which preclude continuous routings. A phased expansion of local, fixed route transit service from 14 operational buses to 33 operational buses (with six additional buses during peak periods) should provide an improved transit network suitable for a service area population of 300,000 persons.

12. Plans to relocate the hub of transit service from the Saugus Metrolink station to the Valencia Town Center are logical, will improve the efficiency of bus service, and will provide improved community access. As the number of routes expands, the number of buses will exceed the number that can be effectively hubbed every 30 minutes, and some routes should be offset by 15 minutes, also providing more frequent service in the community core. Peak period service to connect with commute buses and Metrolink Trains at the Saugus Station should be maintained from Saugus neighborhoods.

13. The proposed Newhall Market Street Metrolink Station is a project that should be pursued, providing better access to Metrolink trains for residents of Valencia and Newhall.

14. Secondary transit centers should be created at the Princessa and Newhall Metrolink Stations, and a future transit center should be developed when Newhall Ranch develops.

15. The City should explore lower cost alternatives for some dial-a-ride trips. Improved fixed route service, a taxi voucher program, or service routes providing neighborhood access to transit centers, not necessarily all the way to destinations, may reduce the rate of increasing cost for the dial-a-ride service as the community grows.

16. Community growth may allow provision of additional neighborhood express routes, such as limited trips directly from Canyon Country and from the I-5 corridor, complementing the addition of the Newhall Metrolink Station.

17. Potential new regional routes to be considered would include express service to West Los Angeles, using the new I-405 HOV lanes, and a commute link between the Sylmar/San Fernando transit center/Metrolink Station and employment centers in Santa Clarita. When the Red Line is completed to Universal City, the City should consider an additional or replacement route to that location.

18. The City should consider alternatives for express routes which do not show adequate ridership. Options include modified routes, joint services with other transit operators, use of bus pools or subscription buses, or assisting in the provision of van pools.

19. As clean fuels technologies are more widely used, the City should consider the use of electric or CNG powered vehicles for some community transportation services.

20. Information on regional transportation services is diffused and confusing. When a community transit center is established, Santa Clarita Transit should consider creating a one-stop travel information center with information and tickets to all transportation services, including assistance with car pool and van pool creation, providing a local element complementary with the services provided by Southern California Rideshare.

21. Unless funding sources change adversely, there should be sufficient resources available to expand the local, fixed route service at a rate somewhat faster than the anticipated population growth. The growth rate of dial-a-ride service and regional bus services are likely to be somewhat less.

Action Items for the City

There are a variety of actions the City needs to take to make these changes occur and to allow the service to increase its productivity and usefulness to the community. These include:

1. Adopt the Santa Clarita Transit Transportation Development Plan as a guideline for future development of the system. This should include the set of goals and objectives to guide transit service. These will guide decisions on minimum levels of service indifferent types of neighborhoods, and help ensure compatibility of land use and transit decisions.

2. Strongly support continuation of existing transit funding sources and politically pursue discretionary funding sources wherever appropriate.

3. Coordinate public works and street engineering activities with the needs for transit service and transit patrons.

   a) Designate current and future transit routes and ensure pavement meets the proper Traffic Index (TI), bus pads are provided, properly engineered turnouts where required, etc.).
   b) Ensure pedestrian access via sidewalks, space for passenger waiting space and/or shelters, linkages to paseos, linkages to the trail network, and pedestrian access across aqueducts, river and storm channels, etc., wherever possible.

4. Coordinate needs and desires for transit access with activities of the Planning Division.

   a) To the maximum degree possible, focus residential moderate and higher density housing developments in proximity to designated transit routes.
   b) Ensure that public access to existing and planned transit routes is taken into consideration in the subdivision approval process for residential development, and that passenger amenities are provided as part of the development process wherever appropriate.
   c) Require that new commercial development provide pedestrian access from bus stops that minimizes conflicts with parking lots.
   d) Permit developer improvements in-lieu of the transit mitigation fee when more appropriate.

5. Coordinate plans for the Newhall Metrolink Station/Transit Center with Community Development Department plans for Newhall commercial redevelopment.

6. Ensure that transit plans are compatible and mutually supportive with senior and youth programs of the Departments of Parks and Recreation.

7. Work with the Hart High School District to maximize the mobility of students in the most efficient manner possible.

8. Work with Los Angeles County to make their subdivision and development approval more responsive to transit and community needs. In addition, the County should adopt the City's Transit Mitigation Fee program for areas within the Santa Clarita Transit service area.

SANTA CLARITA TRANSIT TRANSPORTATION DEVELOPMENT PLAN

INTRODUCTION

This draft report is the Transportation Development Plan for Santa Clarita Transit, the public transit operator for the City of Santa Clarita and surrounding unincorporated area. In contrast to a Short-Range Transit Plan which typically lays out a five to nine year program, the purpose of this document will be to indicate trends and directions that Santa Clarita Transit should follow during the next 10 to 20 years. The growth trends and development of regional transportation facilities are not fixed, thus the plan must be flexible to adapt to changing conditions. However, Santa Clarita Transit needs to have a plan for an ultimate system - although one cannot be certain when community growth, funding resources, or external events will bring it to fruition.

In preparing the Transit Transportation Development Plan, the consultant team has reviewed City, SCAG, and MTA planning documents, interviewed key informants at the City, other agencies, and in the private sector. The current operations of local fixed route, dial-a-ride, and commute express were evaluated and compared to those of similar communities. A workshop was also held to elicit views of community residents.

1.0 THE CURRENT TRANSPORTATION ENVIRONMENT: OPPORTUNITIES AND CONSTRAINTS

This section describes the setting of transit in Santa Clarita, and details problems related to the existing operation. It describes transportation-related facilities in Santa Clarita, including the highway network, transit services, paratransit services, and park-and-ride lots. The discussion begins by describing predominant travel patterns; transportation facilities and services are then described; and finally, key activity centers are identified. The constraints to more efficient transit service are indicated, as are potential opportunities for service enhancements.

1.1 POPULATION, EMPLOYMENT, AND TRAVEL PATTERNS

Existing and Forecast Population

The City of Santa Clarita, incorporated in 1987, encompasses over 40 square miles in the center of the Santa Clarita Valley. About 35 miles northwest of downtown Los Angeles, Santa Clarita is in a triangular area primarily north of the junction of Route 5 and Route 14. The city is composed of a series of distinct communities, including Canyon Country, Newhall, Saugus and Valencia. Development is predominantly residential, with areas of industrial and commercial uses as well as strip retail uses along major streets.

With a population of 110,000 at incorporation in 1987 that is expected to exceed 180,000 by the year 2010, the city is one of the fastest-growing communities in Los Angeles County. The surrounding unincorporated area is also growing, so that the current Santa Clarita Valley population (City plus unincorporated) of more than 165,000 is anticipated to grow to a population of approximately 270,000 residents within the next 10 years based on existing development entitlements. Other development proposals under consideration or anticipated by Los Angeles County could raise the Santa Clarita Valley build-out population to more than 400,000, including 75,000 additional residents in the proposed Newhall Ranch project west of I-5 and south of Route 126. According to the 1991 Santa Clarita General Plan, some 46 percent of the City land area was vacant in 1990, while 75 percent of the unincorporated land within the City's planning area was vacant.

Santa Clarita has a relatively young population, with 28% of the population under aged 18 and only 6.3% over age 65 according to the 1990 census, compared to a statewide proportion of approximately 10% over age 65. With a median household size of 2.84, a median household income of approximately $53,000, and an average of 2.1 vehicles per household according to the 1990 Census, the community does not have socioeconomic characteristics that indicate the type of problems that plague many cities. Although fewer than 3% of households did not have access to an automobile in 1990, there are pockets in Newhall and along Soledad Canyon in Canyon Country where income levels were well below community averages and the number of households without access to an automobile was well above the community average.

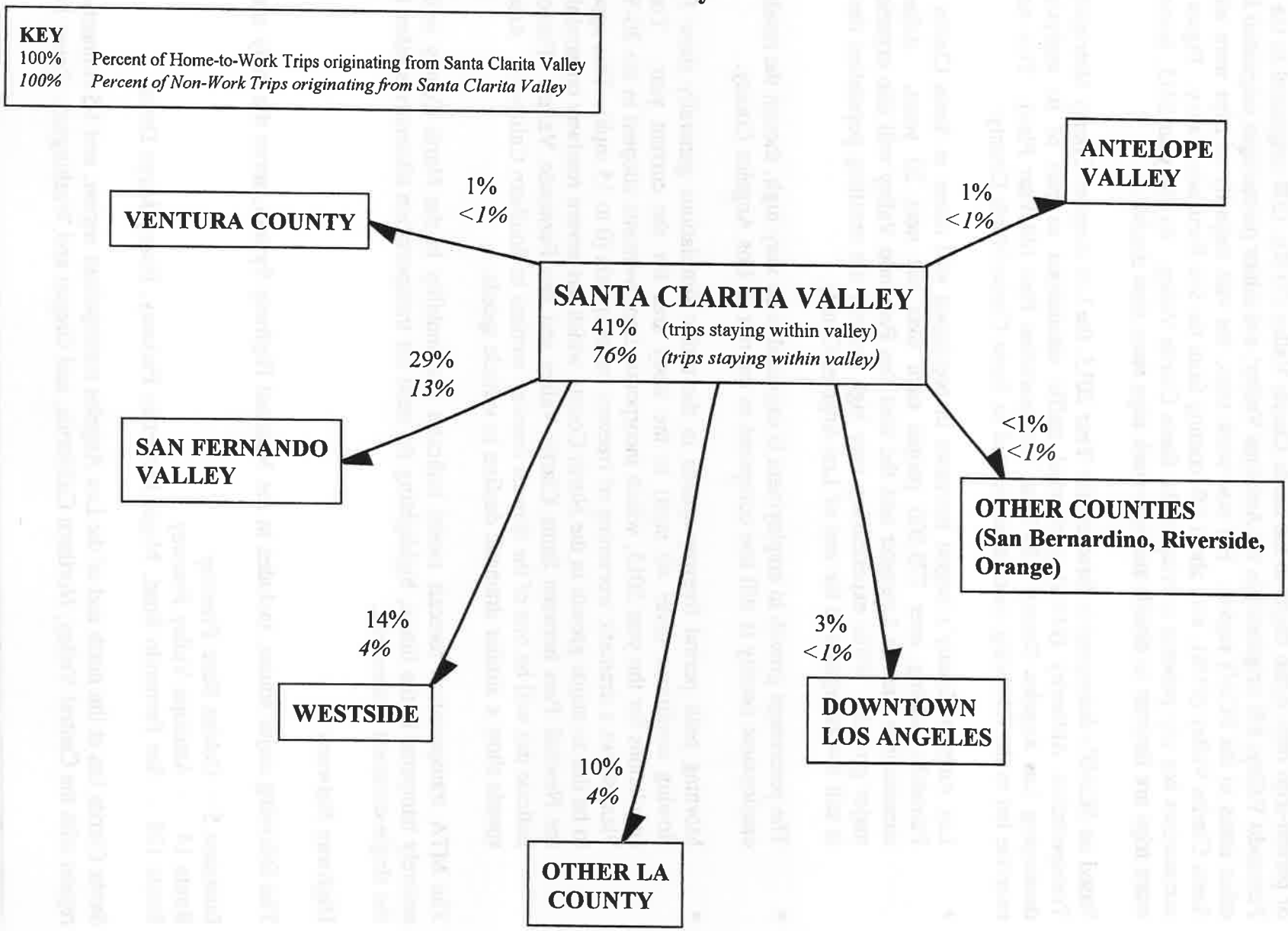
Existing and Forecast Employment

According to SCAG estimates, there were approximately 38,000 jobs in Santa Clarita in 1994, a reduction from a peak of 45,000 jobs in 1990. Including the unincorporated area, the total 1994 employment was estimated at approximately 51,000, which is projected to increase to more than 125,000 jobs by 2010. The major employment center in the community is the Valencia Industrial Center, with approximately 15,000 jobs. Growth is anticipated throughout the community, but the Valencia Commerce Center northwest of the interchange of I-5 and Route 126 will provide the largest single employment area.

Key Travel Patterns

The Southern California Association of Governments (SCAG) is the metropolitan planning agency responsible for the region's socioeconomic demographic forecasts. SCAG's forecasting model shows that in the year 1990, of the 106,000 work-related person-trips originating in the Santa Clarita area (the zone includes the surrounding area as well as the City), about 41% stayed within the area. Other key destinations include the San Fernando Valley (29%) and West Los Angeles (14%). Of the 415,000 non-work person-trips originating in the Santa Clarita area, about 76% remained within the Santa Clarita Valley, with about 13% going to the San Fernando Valley. Figure 1.1 summarizes key trip patterns originating from Santa Clarita Valley. SCAG's future forecast suggests that the number of both home-to-work trips and non-work trips in the Santa Clarita Valley will *triple*. Home-to-work trips will spread out farther to other parts of Los Angeles County, perhaps even as far south as Orange County.

Figure 1.1: 1990 Person-Trips from the Santa Clarita Valley



Of the daily work trips that arrived to the Santa Clarita Valley for the year 1990, the majority of person-trips once again began in the Santa Clarita Valley (71%); 15% originated in the San Fernando Valley; 8% originated in the Antelope Valley; and minor percentages originated from other areas in the SCAG region. For non-work trips, the vast majority of trips were within Santa Clarita Valley (93%), with about 3% coming from the San Fernando Valley. Figure 1.2 summarizes key trip patterns arriving to the Santa Clarita Valley. By the year 2015, home-to-work trips are forecast to *double* and non-work trips *more than double*.

Based on SCAG's demographic forecasts for Year 2015, the Los Angeles County Metropolitan Transportation Authority (MTA) performed traffic simulations as part of its analysis in developing Los Angeles County's 20-Year Transportation Plan (20-Year Plan). This model exercise led to the following conclusions related to Santa Clarita/North County:

- Los Angeles County's largest increases in population will occur in Santa Clarita and Palmdale, adding over 275,000 people each over the next 20 years. Adjacent communities such as Lancaster and the west San Fernando Valley will also experience major growth. While experiencing very high growth, the resulting population density is still low compared to the rest of Los Angeles County.

- The percentage growth in employment is expected to be very high, though the resulting employment density is still low compared to the rest of Los Angeles County.

- Morning peak period freeway speeds in the traffic simulations generally show free-flowing conditions (over 40 mph) in the study area for the current year. Traffic simulations for the year 2015, which incorporate improvements adopted in the 20-Year Plan, shows a dramatic worsening of freeway travel speeds (0 to 15 mph). This appears to be due to major growth in the North County which has severe roadway constraints in the Newhall Pass between Santa Clarita Valley and San Fernando Valley. Forecasts indicate this will be one of the slowest freeway sections in Southern California. Arterial speeds show a similar dramatic decline in vehicle speeds.

The MTA transportation forecast model indicates that mobility in the North County will be severely hampered in the future, highlighting the need for transportation alternatives other than the single-occupant automobile.

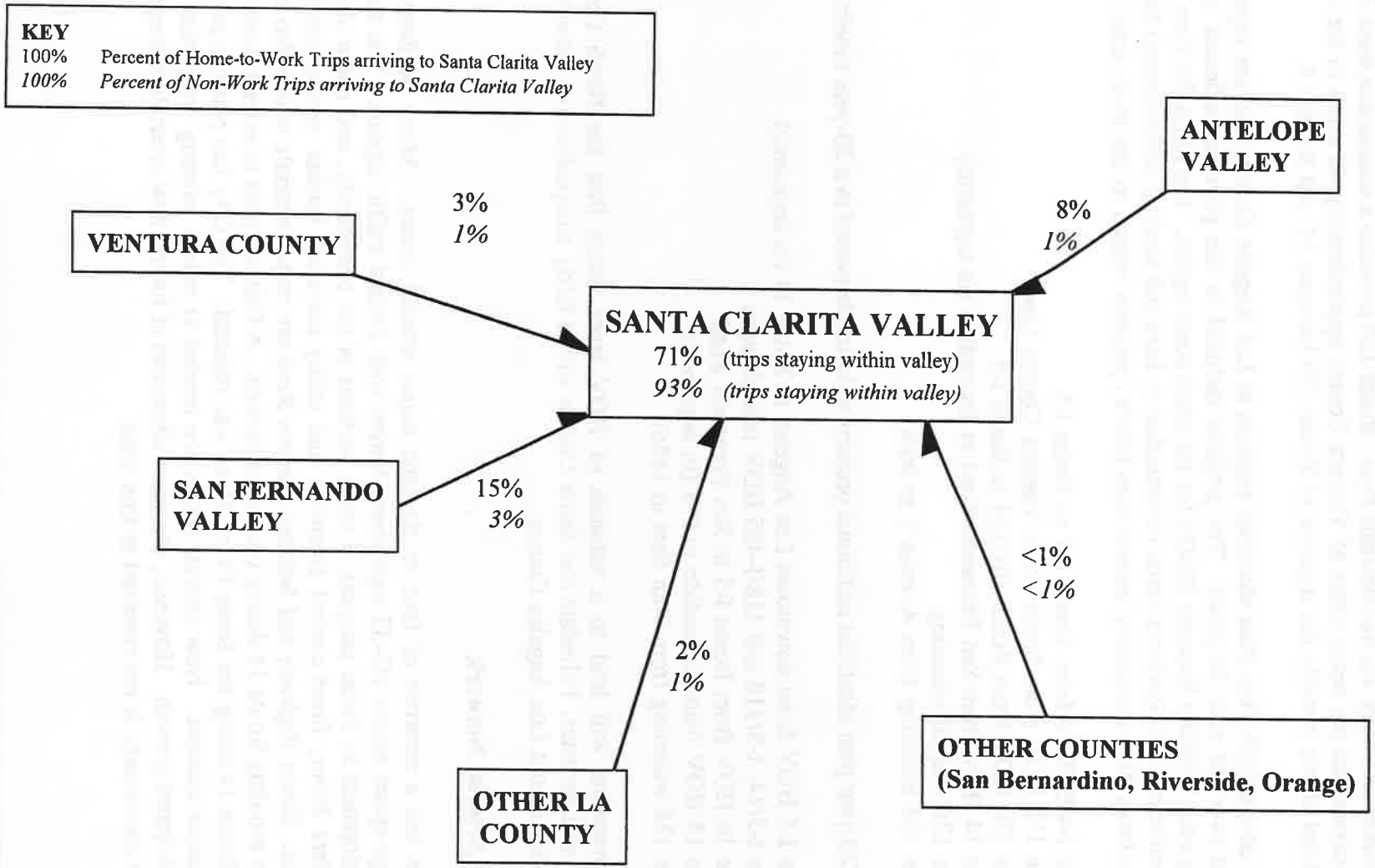
Highway Network

The following major routes, included in the National Highway System, serve the study area:

Interstate 5 - Golden State Freeway
Route 14 - Antelope Valley Freeway
Route 126 - San Fernando Road, Magic Mountain Parkway, Henry Mayo Drive

Santa Clarita lies at the north end of the Los Angeles metropolitan region, and I-5 connects the region with the Central Valley, Northern California, and Oregon and Washington. Route 14 is

Figure 1.2: 1990 Person-Trips to the Santa Clarita Valley



the major corridor between the high desert cities of Lancaster and Palmdale in the Antelope Valley and the metropolitan area. The two freeways join just south of Santa Clarita, connecting to the San Fernando Valley via the Newhall Pass. Route 126 provides a connection from Santa Clarita to Ventura and the beach cities of Ventura County approximately 40 miles to the west. The roads listed above provide the segment of Route 126 between I-5 and Route 14.

The MTA's adopted 20-Year Plan identifies projects in Los Angeles County that are expected to be funded over the next 20 years. The projects included in this plan are reflected in the SCAG's Regional Mobility Element (RME) for the south coast region. The MTA 20-Year Plan includes baseline projects (projects under construction or have full funding commitment) for the following highway/high occupancy vehicle lane (HOV) projects related to the study area:

- Route I-405 HOV from Route 101 to Route I-5
- Route 118 HOV from Route I-5 to Ventura County Line
- Route 170 HOV from Route 101/134 to Route I-5
- Route 14 HOV from San Fernando Road to Escondido (in segments)
- Route 126 arterial widening
- Route 138 widening from Avenue T to 90th

The MTA's 20-year plan identifies additional projects to be implemented in a 20-year timeframe:

- Route I-5 HOV from downtown Los Angeles to Route 14 (in segments)
- Route I-5/14, I-5/118 and 118/I-405 HOV interchanges
- Route 14 HOV from Route I-5 to San Fernando Road
- Route 14 HOV from Escondido to P-8 (in segments)
- Route 138 widening from 90th East to 165th

These improvements will lead to a network of HOV lanes which link the North County communities of Lancaster, Palmdale and Santa Clarita with a fairly comprehensive network of HOV lanes throughout Los Angeles County.

Community Arterial Network

Santa Clarita has a network of four to six lane major arterial routes. Many of these are relatively high-speed routes (45-55 mph speed limits) with limited traffic signals. The terrain clusters development in linear canyons in some portions of the community, and major slopes, the Santa Clara River, flood control channels, and utility corridors further restrict travel to arterial routes. Sierra Highway and Soledad Canyon Road are major arterials which also carry regional trips avoiding Route 14 during congested periods. A Caltrans plan to extend Route 126 from I-5 to Route 14 along the Santa Clara River was rejected. The City has plans to prepare a new circulation element. New arterial routes are needed to reduce existing congestion and allow for anticipated growth. However, the exact alignment of future, new arterials through the center of the community is not resolved at this time.

1.2 INVENTORY OF TRANSPORTATION SERVICES

This section describes the various rail and bus transit services that exist or are under consideration in the Santa Clarita area. It also briefly describes park-and-ride facilities that are used by transit riders and those who car or van pool, as well as taxi and airport bus services. Although many junior and high school students in Santa Clarita ride the transit system, there is also school bus service provided by the Hart High School District.

Passenger Rail/Rail Transit Facilities

Metrolink. The Southern California Regional Rail Authority (SCRRA) operates Metrolink, a five-county commuter rail network of over 400 miles. Metrolink's five commuter routes all connect at Union Station near downtown Los Angeles, where connections to other trains can be made or where riders may board buses, vans or the Metro Red Line subway to downtown Los Angeles locations. Metrolink's Santa Clarita line began service from downtown Los Angeles to Santa Clarita's Saugus station in the fall of 1992. This station off Soledad Canyon Road serves as a major transit center, including a bus ramp directly serving the station platform, restroom facilities, passenger drop-off area, and a parking lot for about 500 vehicles.

When the 1994 Northridge earthquake destroyed the Route 5/14 interchange, seriously disabling access between the North County and the rest of Los Angeles County, an extension of Metrolink from the Saugus station to Palmdale was immediately constructed. This extension added a second station in Santa Clarita at Via Princessa in the Canyon Country area, a facility accommodating about 420 parking spaces. Using the existing Saugus Metrolink Station represents a five to ten minute backtrack for residents of Valencia or Newhall travelling to Los Angeles. This discourages use by people in those neighborhoods. The City of Santa Clarita is developing plans for a third station at Newhall which will improve access to rail service for people living in Valencia and Newhall.

A total of 9 trains in each direction serve Santa Clarita each weekday, in the general time periods outlined in the table below. Four of the 9 trains in each direction extend Metrolink service to Lancaster. Santa Clarita buses meet trains terminating at Santa Clarita to provide connections to Lancaster. Currently, Metrolink does not offer weekend service.

Metrolink ridership to or from the two Santa Clarita stations averages about 1,100 daily, or about 275,000 trips annually. About 500 persons board the five AM peak period trains, of which about 60% use the Saugus Station and 40% use the Via Princessa Station. There are a few but growing number who reverse commute to Santa Clarita although there are only two reverse commute trains and their travel times are five to six minutes longer because of single track sections. There is also limited commute travel from the Antelope Valley to the Santa Clarita Station.

TABLE 1.1 METROLINK TRAINS SERVING SANTA CLARITA						
Metrolink Line	Trains to Los Angeles			Trains from Los Angeles		
	a.m. peak	mid-day	p.m. peak	a.m. peak	mid-day	p.m. peak
Santa Clarita Line	5	2	2 (includes 1 late)	2	2	5 (includes 1 late)

Metrolink fares vary according to how many zones are passed during a trip. A minimum fare of $3.50 is charged for travel within one zone, adding $1.00 for each successive zone for up to seven zones. The following table summarizes typical travel times and fares between Santa Clarita and selected destinations.

TABLE 1.2. SELECTED METROLINK TRAVEL TIMES AND FARES FROM SANTA CLARITA			
Selected Destinations	Fares	Travel Times	
		Saugus	Via Princessa
A) Sylmar/San Fernando B) Burbank	2-Zone Adult Fares:* $4.50 one way $8.00 round trip $35.00 10-trip ticket $112.00 monthly pass	A) 19 minutes B) 30 minutes	A) 24 minutes B) 35 minutes
A) Glendale B) L.A. Union Station	3-Zone Adult Fares:* $5.50 one way $10.00 round trip $45.00 10-trip ticket $144.00 monthly pass	A) 36 minutes B) 50 minutes	A) 41 minutes B) 55 minutes

*Discounts offered for midday and evening off-peak trips, elderly/disabled, youth (age 6-18), students of participating colleges and universities, and school groups. Children under 6 free when accompanied by adult with ticket.

Santa Paula Branch. A railroad right-of-way exists on an east-west corridor connecting Santa Clarita with Ventura County (Fillmore and Santa Paula). A portion of the old railroad corridor in Valencia has been displaced for development access; alternative linkages would need to be identified. Newhall Ranch intends to preserve the segment of right-of-way within its development area to allow for potential development into a rail passenger corridor, and has indicated a desire to establish a rail station and associated park-and-ride to serve the area. Metrolink-type service or "alternative rail technology" (referring to a self-propelled rail car using diesel or an alternative fuel) have been discussed as ways to provide passenger service along this corridor. As of yet, no funding has been identified. The development of rail in this

corridor would also allow a more direct trip from the Antelope Valley to the Santa Clarita employment centers in the Valencia Industrial Center and Valencia Commerce Center.

Amtrak Routes. No Amtrak rail service operates through Santa Clarita. Of the eight trains in each direction which travel between San Diego and Los Angeles, three of these trains in each direction extend to Santa Barbara daily (four on weekends). Los Angeles County stations northwest of Union Station include Glendale, Burbank Airport, Van Nuys, and Chatsworth. Amtrak also offers train service between Bakersfield and the San Francisco Bay Area with four trains in each direction daily. Once a day in each direction, an Amtrak bus drops off or picks up passengers from the Hampton Inn in Santa Clarita in its route between Bakersfield and the Los Angeles and Glendale Amtrak stations. A late night bus from San Diego to Bakersfield makes a stop in Santa Clarita at 2:50 in the morning.

California Intercity High Speed Rail Corridor. A State commission is currently studying the feasibility of a high speed rail system for California, connecting Northern and Southern California. A recent decision has favored a Route 99 alignment which would link Los Angeles Union Station to Central Valley and Bay Area population centers. Plans anticipate a potential Santa Clarita Station on the west side of I-5 between Valencia Boulevard and Magic Mountain Parkway. An alternative routing would use a corridor via Route 14 to Palmdale and then to Bakersfield via the Tehachapi Pass. A station would be located near the junction of Via Princessa and Route 14 if that corridor was selected. Travel time to Union Station would be 20 to 25 minutes via a high speed rail link, depending on technology selected and noise impacts in the urban area.

It is difficult to assess what impact high speed rail service would have on Santa Clarita. Some limited stop commute trains are envisioned, but fare levels are likely to be considerably higher than are current Metrolink fares. Implementation is unlikely until 2005 or 2010 at the earliest. Some degree of commercial, tourist recreational (Magic Mountain related), or residential development might cluster near the station, which would represent a modification of current Santa Clarita land use policies.

Fixed Route Transit Services

Santa Clarita Transit, a function of the City, took over embryonic transit services in 1991 which had been managed by Los Angeles County. Under the auspices of the City, a number of local lines plus express service to downtown Los Angeles and the San Fernando Valley have been created or improved. As can be seen in the following tables, ridership has increased tremendously during the past five years.

Regional Bus Service. Santa Clarita Transit operates one basic route with City owned vehicles, the 799 line which provides express service from Santa Clarita to downtown Los Angeles, supplementing Metrolink train service. Nine AM peak period trips leave the Saugus Metrolink Station between 5:15am and 7:05am. Ten PM peak trips return, leaving 8th and Spring Streets from 3:24pm to 6:45pm. This service was taken over from another operator in early 1992. In 1995, four reverse peak trips (identified as route 794) were initiated between downtown Los

Angeles and the Valencia Industrial Center, which is also where the City's maintenance and storage facility for buses is located. This route uses buses which had previously been deadheaded back to the maintenance facility (operated not in service) prior to initiation of the route.

Ridership on the 799 service did not seem to be substantially affected by Metrolink rail service, ridership is currently at the same levels as prior to initiation of rail service. Lower fare levels, more commute trips, neighborhood stops in Valencia and Newhall which do not require patrons to backtrack to the Saugus Station, and more direct service to downtown workplaces (no transfer required at Union Station) seem to contribute to continued ridership following introduction of rail service. While the service is productive in terms of ridership per trip, the cost per hour of service provided, at approximately $95 to $115, was excessive compared to other Southern California express operations.[1] Some of the high cost relates to drivers paid to return to Santa Clarita after driving an express trip (two of three buses are left in Los Angeles, but the drivers return with the third bus).

The City has sponsored three other routes since 1994, making permanent three routes that were initiated after the Northridge Earthquake. Ten buses are utilized to operate three routes. Until August 1996, these routes used equipment operated through a contract with Antelope Valley Bus Incorporated. Route 795 supplements Metrolink service between Lancaster and Santa Clarita, with three trips a day continuing to the County Olive View Medical Center in Sylmar. Route 796 operates five AM peak trips from Santa Clarita to Warner Center between 5AM and 7AM and returns to Santa Clarita via Chatsworth as route 791. Route 798 provides five peak period trips from Santa Clarita to Van Nuys, with return trips to the Valencia Industrial Center as route 793. The route numbers reverse during the afternoon peak period when the 798 operates from Van Nuys to Santa Clarita and the 793 from Santa Clarita to Van Nuys. With the additional service made permanent during the 1994-95 fiscal year, annual commute express ridership of 95,000 to 114,000 patrons increased to 178,000 riders.

The City of Los Angeles Department of Transportation (LADOT) operates a route (Line 573) connecting Santa Clarita with the San Fernando Valley and Westwood and Century City. It is an extension of a route that operated between Granada Hills and Century City and uses Balboa Boulevard between Granada Hills and Encino. There are four trips in the morning peak and five in the afternoon.

Local Bus Service. Figure 1.3 illustrates local fixed-route bus service in Santa Clarita. A summary of bus routes and service characteristics is presented in Appendix A. There are eight all day routes, mostly operated every 30 minutes from 5am to 8pm on weekdays and from 8am to 7:30pm on Saturdays (some routes once an hour). The 10 and 20 route are the same except for branches to Castaic (10) and Val Verde (20) which are each provided hourly service and the

[1]. See Appendix B. Santa Monica and Torrance operate two way express service, with fewer deadhead hours required. Note that the effective hourly cost of this service was reduced when the City started a new operating contract in August 1996.

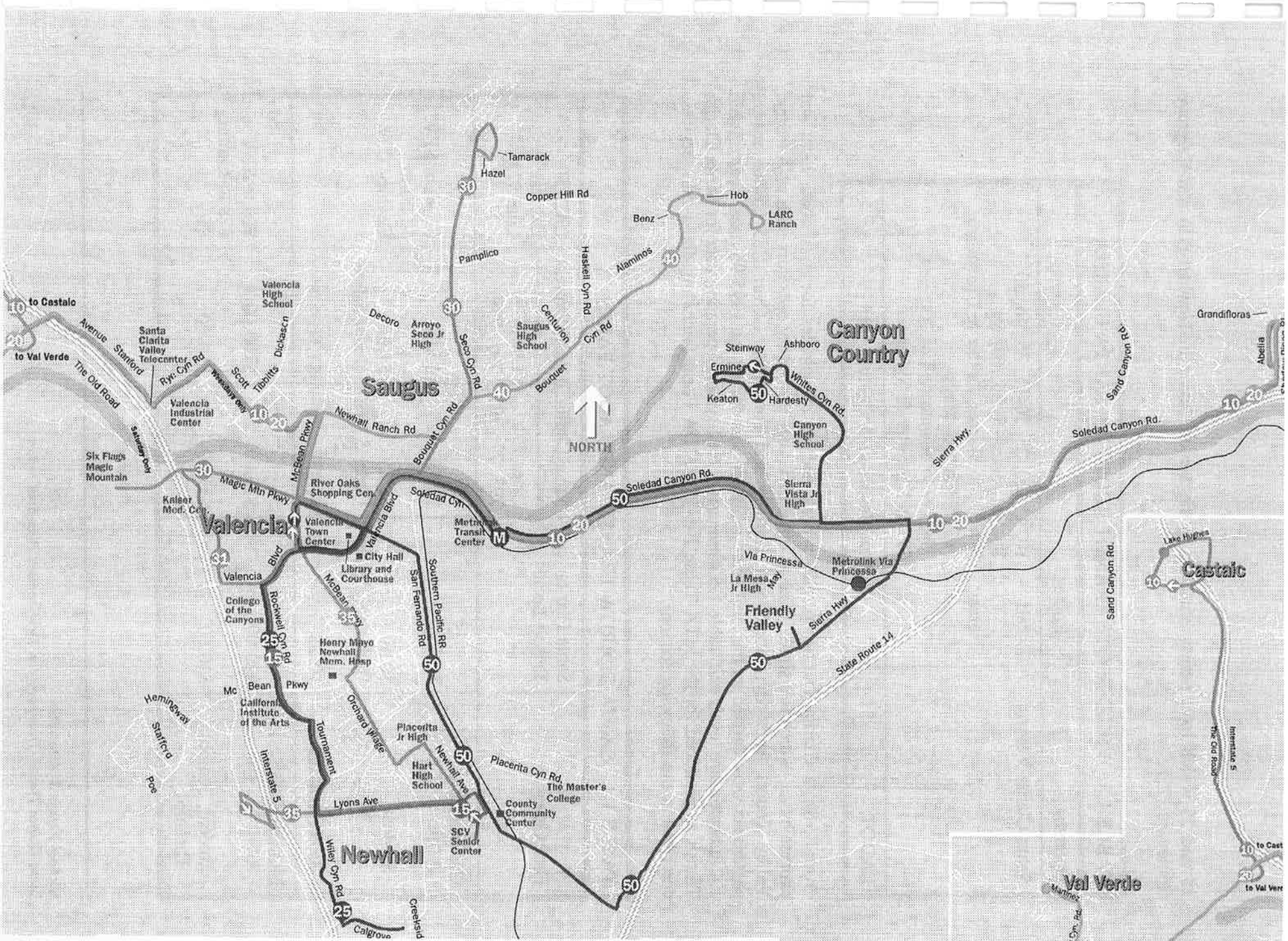


Figure 1.3. Santa Clarita Activity Centers and Local Bus Routes

15 and 25 which have hourly branches to the Senior Center in Newhall (15) and Calgrove Boulevard (25).

TABLE 1.3. FIXED ROUTE TRANSIT ROUTES IN SANTA CLARITA	
Operator	Routes
Santa Clarita Transit	Local: 10, 15, 20, 25, 30/31, 35, 40, 50 Special routes: 5, 55, 60, 65 Express: 791/796 to Warner Center & Chatsworth 793/798 to Van Nuys 794/799 to downtown Los Angeles 795 to Lancaster & Sylmar
LADOT	573 to Westwood & Century City

Overall, Santa Clarita Transit operates a peak fleet of 28 vehicles for fixed route local and express buses, which is a similar size as other Los Angeles County operators such as Antelope Valley Transit Authority, Montebello, Gardena and Torrance. Over 1.35 million annual passengers were carried on the local fixed route services during the 1995-96 fiscal year. Table 1.4 indicates fare levels and Table 1.5 summarizes total system operating data for Santa Clarita Transit as produced for the MTA Table L-6 TPM/TDA Form (including dial-a-ride services, described in the following section).

TABLE 1.4. SANTA CLARITA TRANSIT AND LADOT FARES				
Fare Category	Santa Clarita Transit-Local	Santa Clarita Transit Express		LADOT-Express Line 573
		Lines 791, 793, 796,798	Lines 794, 795, 799	
<u>One-Way Fare</u>:				
- Adult	$0.75	$2.50	$3.00	$1.90 to SFV $2.30 to Century City
- Student	$0.50 Under age 5 free	$1.25 Under 5 free	$1.50 Under 5 free	
- Seniors/Disabled	$0.25	$1.25	$1.50	
<u>Monthly Pass</u>:				
- Adult	$20.00	$70.00	$100.00	$66 to SFV $78 to Century City
- Student, Seniors, Disabled	$10.00	$35.00	$50.00	

The statistics in Table 1.5 compare favorably with most similar transit operations with the exception of the ratio of vehicle service hours to total vehicle hours for the express service, as described previously in terms of operating cost. The cost of the dial-a-ride service, at approximately 22% of the overall transit operating budget, is also high compared to other Southern California communities where it can be as low as four to five percent (Montebello and Torrance). However, there are other cities that do spend as high a percentage of transit expenditure on dial-a-ride service.

TABLE 1.5. SANTA CLARITA TRANSIT FISCAL YEAR 1995 OPERATING DATA

Total Annual	Local Fixed-Route Service	Express Fixed-Route Service	Dial-a-Ride	System Total
Total Vehicle Miles (000)	1,295	224	379	1,898
Vehicle Service Miles (000)	1,164	183	311	1,658
Total Vehicle Hours (000)	67	15	25	107
Vehicle Service Hours (000)	60	7	23	90
Peak Vehicles	19	9	9	37
Unlinked Passengers (000)	1,106	107	60	1,273
Passenger Revenues (000)	$453	$301	$19	$773
Operating Cost less Depreciation (000)	$2,721	$816	$1,000	$4,537
Base Fare	$0.75	$3.00	$0.75	

A comparison of how Santa Clarita's operating statistics compare to similar-sized operators in Los Angeles County is found in Appendix B. For fixed route local service, Santa Clarita shows an efficient operating cost per vehicle service hour, but tends to carry fewer passengers per service hour than other operators in Los Angeles County. This is predictable since other operators are in more urban environments.

Table 1.6 exhibits trends in Santa Clarita Transit's fixed route local service. Review of progress over the past four years indicates that the Santa Clarita Transit fixed route network is steadily improving in terms of passenger productivity indicators. Ridership has increased by approximately 235% while the number of vehicle revenue hours increased by about 60%. Passengers per revenue vehicle hour has been increasing while the subsidy per passenger trip has been significantly reduced. During 1995-96, ridership has grown by 23% compared to 1994-95, and passengers per revenue hour averaged approximately 22, an increase of 18% in productivity from 1994-95.

TABLE 1.6. SANTA CLARITA TRANSIT LOCAL FIXED ROUTE OPERATING TRENDS					
Year	Annual revenue hrs.	Annual passengers	Passengers/ rev. hr.	Subsidy/ passenger	% Farebox return
1991-92	39,579	406,168	10.2	$3.37	7.1%
1992-93	48,778	769,137	15.8	$2.37	9.4%
1993-94	53,391	859,792	17.2	$1.68	20.1%
1994-95	60,028	1,107,068	18.4	$1.83	18.2%
1995-96	62,760	1,366,614	21.8	$1.55	17.9%

Dial-a-Ride Service

The City of Santa Clarita also provides demand-responsive service using a fleet of 14 ADA-compliant paratransit vans and small buses. Curb-to-curb service is available to elderly and disabled residents from 6:00 a.m. to 10:30 p.m. Monday through Friday and 9 a.m. to 5 p.m. on Saturday, with no Sunday service. While many communities limit dial-a-ride service to the disabled who require dedicated service, Santa Clarita Transit's dial-a-ride service carries many seniors who prefer the door to door service but whom could probably utilize fixed route service. Peak usage periods are from 8AM to 4PM when 8-9 paratransit vehicles are used. Only 2-4 vehicles are utilized prior to 7AM or after 5PM. The general public can use this service weekdays from 6:00 p.m. to 10:30 p.m. when fixed route service ends for the night. The fare is $.75 for adults, students, seniors, and the disabled. Trips can be made for any purpose, and there are no restrictions to the amount of trips that can be taken per day, as long as space is available.

Ridership surveys indicate that 42% of riders use the service for medical appointments, and 20% use it to access the Senior Center. The remainder of trips are for a variety of shopping, work, and miscellaneous trips. The Henry Mayo Newhall Hospital Adult Day Care program contracts with the dial-a-ride service for the transportation of its clients. A 24-hour advance notice is desired for reservations. Key operating characteristics of Santa Clarita's dial-a-ride service are included in the table summarizing fixed route operating characteristics. At a cost of more than $16 per ride, the Santa Clarita dial-a-ride service tends toward the higher end, although there are systems which cost up to $24 per trip. The most efficient dial-a-ride services provide service for $7 to $10 per trip (Arcadia, Claremont, La Mirada, and Redondo Beach).

After three years of approximately 51,000 annual riders, almost 60,000 trips were made on the dial-a-ride system during the 1994-95 fiscal year. Ridership was down about three percent during 1995-96 compared to the 1994-95 high. As described previously, at 22% of the overall transit budget, Santa Clarita devotes a high proportion of its transit resources to the dial-a-ride service.

Park-and-Ride Facilities

The following lists major park-and-ride facilities in Santa Clarita. Four locations offer transit connections; the other six are oriented toward carpool use and are not served by transit.

TABLE 1.7. SANTA CLARITA PARK-AND-RIDE FACILITIES

Name and Location	Transit Connection	Approx. spaces	% occupied
Santa Clarita Transit Center 22122 Soledad Canyon Road	Metrolink; SCT 10, 15, 20, 25, 30, 35, 40, 50, 55, 796, 798, 799	500	60%
Princessa Metrolink 18646 Via Princessa/Rte 14	Metrolink; SCT 795	400	42%
Mann Theater 23415 W. Cinema Drive at Valencia Blvd	SCT 796, 798	175	35%
Newhall - West Lot 20516 San Fernando Road, west of Rte 14	SCT 795, 796, 798, 799; LADOT 573	50	180%
Newhall - East Lot 20100 San Fernando Road, east of Rte 14	None	32	168%
Oak Creek 23610 San Fernando Rd, ½ mi.west of Rte 14	None	130	34%
Lutheran Church 27265 Luther Drive, Canyon Country	None	40	20%
College of the Canyons 25000 Valencia Blvd, adjacent to I-5 (no weekend parking)	None	100	67%
Price Club 18649 Via Princessa at Sierra Hwy	None	110	98%
Golden Valley Route 14 at Golden Valley Rd (3 lots)	None	340	48%

Source for lot spaces and occupancy rates: "*Draft - North Los Angeles County Mobility Implementation Plan,*" Meyer, Mohaddes Associates, February 1996, Table 6-1.

It is evident that additional spaces are desirable at the junction of San Fernando Road and Route 14 (both on the west and east sides). Besides these lots, most of the park-and-ride facilities still have underused capacity.

Taxi Services

Taxi service is provided in the Santa Clarita area by the Checker Cab and Eagle Cab Companies. Both companies charge an "enter cab" fee of $1.30 to $1.90 and a per-mile charge of $1.60. There is no taxi voucher system in effect to subsidize taxi service.

School Bus Transportation

Each of the elementary school districts provides bus service. The William S. Hart Union High School District has four high schools and four junior high schools in the Santa Clarita area. The district has a total of 46 buses, 14 are large buses used to transport the general student population to and from school, and the remainder are used for field trips and sports events, are spares, or are smaller vehicles used for special education needs. In response to financial problems, the district started charging students for school buses in 1991 and increased the distance from school required to qualify for transportation. The fee is now $100 per semester, and the payment is due to the central office in one payment. The result has been that many students have shifted to use Santa Clarita Transit where a student monthly pass costs $10, or only $50 per semester and the students can use the buses anytime. Prior to charging a fee, the school district carried approximately 2,500 students each way to the junior and high schools. Now, only about 900 to 1,000 students use the school buses and the remainder use Santa Clarita Transit, walk, or get rides to school.

Airport Access

Residents of Santa Clarita generally use the Burbank-Glendale-Pasadena Airport or the Los Angeles International Airport (LAX) for commercial airline flights. Besides taxi service, the following options are available for transportation to and from the airport:

- **Van Nuys Fly-Away Shuttle.** Passengers can drive and park their automobiles, or take a Santa Clarita 793 or 798 bus to the Van Nuys Fly-Away bus terminal location at Woodley Avenue/Saticoy in Van Nuys. Shuttle service between Van Nuys and LAX is every 15 minutes in the morning peak (5 a.m. to 8 a.m.), then every 30 minutes until 1 a.m. About five trips are available between 1 a.m. and 5 a.m. Fares are $3.50/adult one-way and $6.00/adult round trip. Parking is $1.00 per 24 hours.

- **Antelope Valley Airport Express.** This service only offers a single stop in Santa Clarita during its route between Lancaster and LAX. Curbside pick-up and drop-off occurs in Newhall at San Fernando Road/Route 14 (Carls Jr. lot). Seven trips are made daily about every 2 hours; between Santa Clarita and LAX is about an hour. The one-way fare is $20 per person.

- **Valencia Airport Shuttles.** Door-to-door service offered 24 hours a day in the Valencia area only takes passengers to LAX or the Burbank airport. While fares depend on destination and size of group (up to 6 allowed), a cash one-way fare for one person is

$37 to LAX and $30 to Burbank. Advance reservation of 48 hours is recommended. Trips take about an hour to LAX and 30 minutes to Burbank.

Of course, travel patterns and options to the airport would change greatly if the Palmdale Airport is expanded for commercial use.

1.3 ACTIVITY CENTERS

Santa Clarita has several attractors which may be desirable to link transit service. Table 1.8 indicates those uses which are identified as the major activity centers in the community. To identify potential attractors, one factor would be to identify large-scale employers. Although many of the jobs are seasonal, Six Flags Magic Mountain is the largest single employer in the

TABLE 1.8. SANTA CLARITA ACTIVITY CENTERS

Activity Center	Location	Existing Transit Connections (Route #)
Six Flags Magic Mountain	Magic Mtn Parkway west of Rte 5	#30 weekday #10/20 Saturday
College of the Canyons	Valencia Blvd/Rockwell Canyon	#15/25 weekdays
California Institute of the Arts	McBean Parkway/Tournament Rd	#15/25 weekdays, Saturday
The Masters College	Placerita Canyon Rd/Quigley Canyon Rd	None
Valencia Town Center/ Government Center	Valencia Blvd/McBean Pkwy	All SCT routes weekdays, Saturday
Santa Clarita Valley Senior Center (Newhall)	22900 Market Street	#15 weekdays, Saturday
Valencia Industrial Center	Ave Stanford/Rye Cyn Rd	#5, 10/20 weekdays
Mayo Newhall Memorial Hospital	McBean Pkwy/Orchard Village Rd	#35 weekdays, Saturday #55, 65 schooldays #15/25 Saturday
William Hart Union High	24825 N. Newhall Ave.	#35 weekdays, Saturday #55, 65, select #15/25, 50 schooldays
Saugus High	21900 W. Centurion	select #40 schooldays
Canyon High	19300 W. Nadal St.	select #10 schooldays
Valencia High	27801 N. Dickason	#55, select #10/20 schooldays

community, with 3,000 jobs. Henry Mayo Newhall Memorial Hospital, with almost 1,100 employees, is another large employer, while H.R. Textron, the largest single employer in the Valencia Industrial Center, has approximately 750 employees. The regional U.S. Post Office facility in the Valencia Commerce Center is building up to approximately 1,800 employees, the largest single employer which does not have transit service available for its employees. There are many other employers with 200 to 500 employees, including the colleges, the City, and commercial and industrial firms. Over 1,000 persons are employed at Town Center, but at a variety of retail firms.

Transit service would be desirable where very large employers or clusters of employment are found. Also desirable are locations which attract additional populations who may want to use public transit (e.g., tourists, students, elderly and disabled).

Practically all of the activity centers identified above offer some level of transit service. The exception is The Masters College, located on Placerita Canyon Road. Because of locked gates, public or transit access are not permitted on Placerita Canyon Road between The Masters College and Sierra Highway.

1.4 CONSTRAINTS TO TRANSIT SERVICE

One of the tasks of this long-range transit plan is to identify "service deficiencies" among current transportation services. In this context, "service deficiencies" refers to a transportation planning term-of-art which does not imply that there is currently inefficient service. Indeed, Santa Clarita Transit is a progressively run, rapidly expanding, diversely serving and uniquely productive operation which, in addition to facing the normal challenges of transit in a suburban environment, faces unusual challenges to service patterns which result from the configuration of the community's land use and street network, a configuration primarily dictated by terrain, major drainage courses, and utility rights of way. The following general elements of service deficiency can be noted:

- There are some areas of the community which are not presently practical to serve because of street pattern considerations. Other areas are not able to be served within the limitations of present available resources.

- There are some features of the community's development which are not particularly "transit friendly" - which make it difficult to deliver attractive transit service or difficult for people to conveniently access the reasonably available transit service. Some of these features may be subject to remedial actions. Others stand as lessons of things not to be replicated in future development. Still others pose a contradiction; the very aspects which are in some substantial senses transit unfriendly are also at the very root of Santa Clarita Transit's ability to provide area coverage, service frequency and quick point-to-point movement within the resources at its disposal.

- In most established communities the bulk of a transit system's operating pattern remains static for lengthy periods of time. Change is infrequent and incremental. By contrast, Santa Clarita and the surrounding area serviced by its transit system is a rapidly growing community. Growth is not just concentrated on the fringes of current development. There are vast infill areas and transportation network additions which will affect movement patterns and opportunities across the existing community. In a community growing rapidly in this particular manner, major changes in service pattern may be indicated to keep pace. In just a year or two from now a pattern that is reasonable and logical today may be dotted with concentrations of unserviced opportunities and unmet needs in a configuration that defies incremental change.

  The challenge in such a community is to establish service patterns which anticipate major land use/network change and yet retain enough stability and sense of route pattern logic to maintain and build on the ridership habits of current patrons. In Santa Clarita it appears considerably more important to establish service structure which responds to the rapidly emerging pattern of the community than to expend energies on serving the small pockets and enclaves of potential existing ridership demand which may not be well served or practically served by the present operation.

- Santa Clarita Transit's local lines operate on a pulse system focused on the Saugus Metrolink station. The system is focused there partly because Metrolink is a significant boarding and alighting point for numbers of riders. But more importantly, the Metrolink station happens to be an available space where the vehicles from all of Santa Clarita's local routes can meet simultaneously in a terminal environment. However, the Metrolink station may not be the most important concentration of boardings and alightings or crossroads of the local route system. A terminal closer to the logical focus of the route system and destination concentration could offer more attractive service and free operating resources currently expended in the "backtracking" and "multi-lining" necessitated by the current location of the pulse terminal at the Metrolink station.

- Santa Clarita Transit operates a number of commute lines both with its own fleet and through contracts with other operators. In general these operations appear logical and productive. However, there may be ways of increasing attractiveness and efficiency of some commute lines and opportunities for additional productive services to other destinations, including "lifeline service" to the San Fernando Valley. There may also be opportunities to sponsor or assist club buses, bus pools, or van pools to markets which do not justify scheduled public bus service.

- Santa Clarita Transit achieves the excellent service coverage, quality of service and productivity it currently does within the resources it has at its disposal largely because of very favorable operating costs and because it is able to operate its local lines at an average system speed 50% faster than suburban norms. As the community and the system matures, these advantages are likely to become less marked. A challenge will be to find new operating efficiencies and new resources to maintain the present quality and

productivity of service in a future cost and operating environment less favorable than the present one.

Detailed discussion of the above general observations follows.

Route Coverage and Community Transit Accessibility

Santa Clarita Transit provides half-hour service on a route system which provides reasonable transit accessibility between most residential areas of the community and most activity centers. Particularly good access is provided to Town Center and the Saugus Metrolink station. The route pattern is a logical one given the configuration and constraints of the major street system and the locations of principal activity centers in the community.

If one considers the standard transit route coverage criterion of a quarter mile bandwidth to each side of each route - a zone that generally reflects the maximum distance most people are readily willing to walk to transit - approximately 40 percent of the community population is not served by regular transit service, as shown in Figure 1.4. Stevenson Ranch is only served by a school tripper and low density development in Sand Canyon south of Highway 14 is unserved. Significant portions of Saugus and new development along McBean Parkway north of Newhall Ranch Road are not served by existing routes. Most community activity centers are well within the "bandwidth" of at least one route; a notable exception is The Masters College in the "central triangle". The fact that the "Princessa" Metrolink station is only served by one line and that only peripherally is unimportant since all the local lines come into the "Santa Clarita" station at Saugus.

However, an assessment based on simple bandwidths is misleading and tends to significantly overstate the real level of transit accessibility in the community. Simple bandwidth is an accurate measure of real transit accessibility only where there is a regular, closely spaced grid of readily traversable paths directly to the transit route. In Santa Clarita, a closely spaced infrastructure of readily traversable direct paths to transit is frequently absent. Aqueducts, drainage courses, and electrical transmission corridors are prevalent barriers in the community. And much of the newer development is in walled neighborhoods with internalized "pocket patterns" of curvilinear streets. These constraints are also reflected on Figure 1.4. For example, while central portions of Valencia appear to be within a quarter mile of Route 50 on San Fernando Road, there is no way for pedestrians to get across the south fork of the Santa Clara River which separates the neighborhood from San Fernando Road from south of Magic Mountain Parkway.

As a result of the barriers and the neighborhood patterns, the distance along the actual paths people must follow to access a transit route is frequently double, triple or more the direct linear distance from their homes to the apparently nearest transit route. This problem and potential responses to it are subsequently discussed under the topic of "transit-friendliness". The point here is to simply note that real transit accessibility in Santa Clarita in many areas of the community is less than half the apparent accessibility level indicated in the simple bandwidth analysis and that, while the coverage density of service which Santa Clarita Transit places on

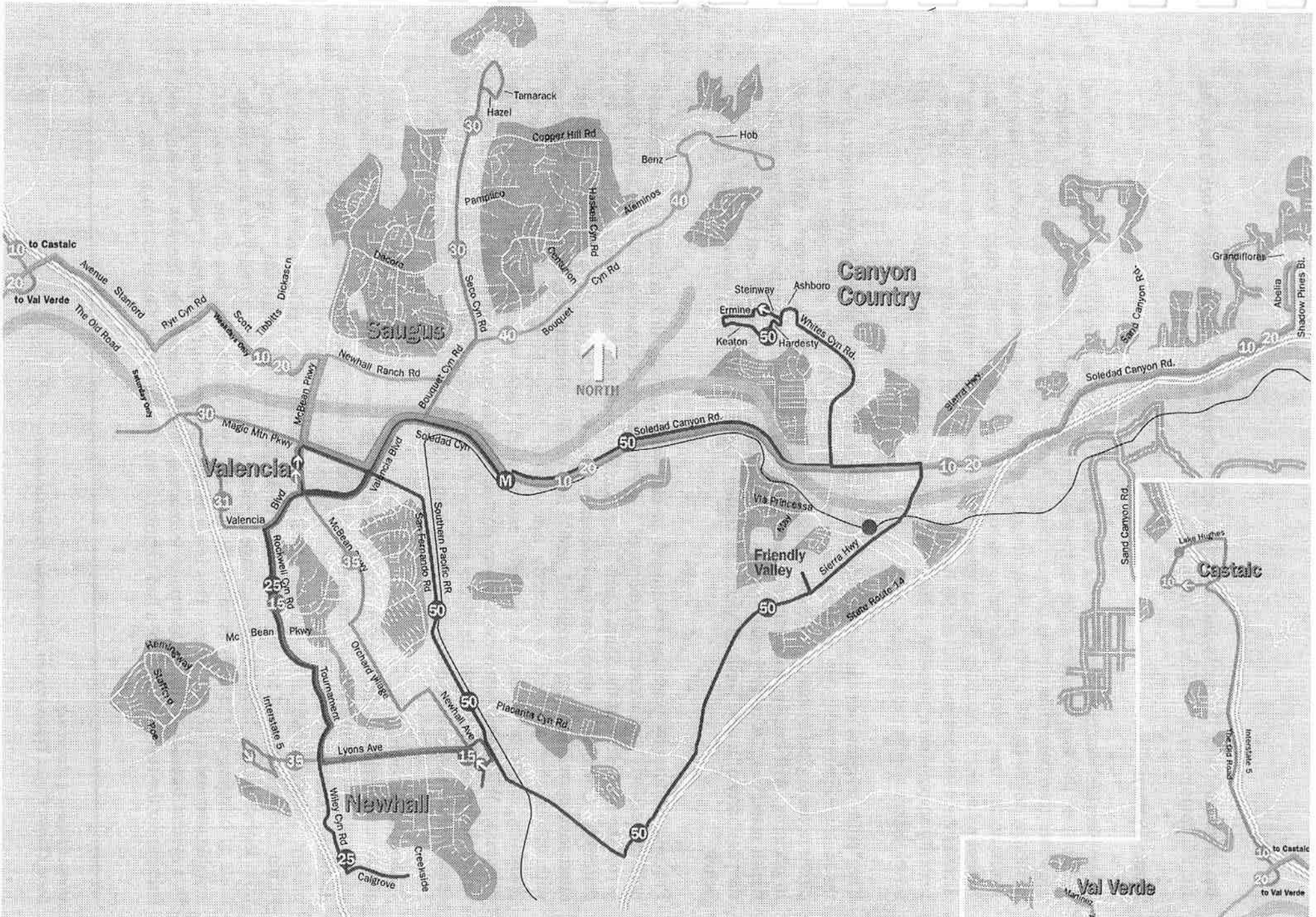


Figure 1.4. Santa Clarita: Developed Areas Not Effectively Served by Transit (beyond one quarter mile walking distance)

the street compares favorably with suburban norms, there is much accessibility work to be done for the community to realize the full benefit of this level of service.

Route Pattern

Local Service. Santa Clarita Transit's route pattern is a logical one given the configuration and confines of the area's major street system and the locations of community activity centers. However, two particular aspects of street system configuration and activity center location place particular stress on the transit route structure: the absence of a continuous collector or arterial street across the "central triangle" and the location of the system's pulse terminal at the Metrolink station. Absence of a continuous street across the middle of the "central triangle" dictates the awkward route of the 50 line (almost like a giant circle with a long tail) and causes inability to provide a practical, efficiently routed, accessible service for much of the existing development within the triangle.

The "pulse terminal" at the Saugus Metrolink station is off-center to the logical crossroads of the route structure, resulting in a loss of potential operating efficiency as compared to a terminal closer to the logical system crossroads. Addressing both these matters, currently active elements in planning, will enable more effective service delivery to the community within the available transit resources. A related consideration in development of a more efficient route structure is the possibility of a new Newhall Metrolink station. Details of these considerations are discussed below.

Previous community planning envisioned an east-west roadway link connecting the presently unlinked easterly and westerly segments of Via Princessa and connecting Wiley Canyon Road across the south fork of the Santa Clara River, San Fernando Road and the railroad tracks to Via Princessa. Community opposition has discouraged the Wiley Canyon Road extension. Another alternative currently being considered would link the disconnected segments of Via Princessa with one another and with an easterly extension of Magic Mountain Boulevard. Another possibility might be to link an easterly extension of Lyons Avenue to the completed Via Princessa. With some east-west roadway continuity in the manner of the above alternatives, it would be possible to provide better service from Canyon Country to the colleges and employment centers in Valencia without as long a route as is presently utilized by Route 50.

Without some form of such a continuous east west link, practical and efficient service to existing and future developed areas within the "central triangle" will never be possible. The logical crossroads and destination concentration of the Santa Clarita Transit route structure - the most desirable location for a "pulse terminal" - is in the immediate vicinity of Town Center. The present "pulse terminal" at the Saugus Metrolink station adds over 3 miles to each run on several of the lines as compared to a logical location at the Town Center crossroads. The frequency of train service and the local transit patronage the trains generate does not justify the route mileage costs of bringing all the lines there on all runs all day except for the fact of the absence of a suitable terminal at Town Center. This is not to fault the choice of the present "pulse terminal". In a system like Santa Clarita's, a pulse terminal is clearly needed; the site was available and suitable for the function; it is not a bad location if one close to Town Center is unavailable. The

fundamental point is that a pulse terminal at Town Center would create the opportunity to make more efficient use of the community's transit operating resource.

Local transit always faces the question of how to strike a balance between linear arterial routes and meandering local street routes. On arterial routes buses can move quickly from point to point across the community but access to the bus line is distant for many people. On the more meandering neighborhood street routes, access to the line is much closer for many more people. But travel times from point to point across the community are often painfully slow. In Santa Clarita the question of arterial vs. local routes is really not much of an issue. Santa Clarita Transit is predominantly an arterial system and will remain so. This is because the local street system in the already built neighborhoods is far too discontinuous to support local routings of even minimal reasonable efficiency and because the local street system in the yet to be built areas is certain to be similarly discontinuous due to the dominating considerations of severe terrain and barriers imposed by drainage courses, aqueducts and other utility corridors. With that recognition, emphasis must be placed on the "transit-friendliness" elements of community fabric (as discussed below) to make the arterial-based system as accessible to people as practical.

Regional Bus Service. All commute express services operate from the Saugus Metrolink Station, providing local bus connections as well as parking. They travel via the Cinema park-and-ride lot, Valencia Boulevard, McBean Parkway, Orchard Village Road, Lyons Avenue, and San Fernando Road to Route 14, making limited stops with a final one at the informal park-and-ride lot at San Fernando Road and Sierra Highway, adjacent to the entry to Route 14. The advantage of this routing is that each express destination is provided via a single express route with good 15 to 30 minute frequencies during commute periods. However, the disadvantage of this route is 24 minutes of travel time from the Metrolink station to Route 14, plus travel time to access the Metrolink station. The overcrowded condition of park-and-ride facilities at San Fernando and Sierra appears to reflect customer desire to minimize travel time. Thus, as the community grows, it may be desirable to have some trips access the freeway more directly. Potential routings are suggested in the *Potential Opportunities for Service Enhancement* section.

Transit-friendly Community Features

There are many large and small details of a community's fabric that crucially affect how well or poorly a community is able to take advantage of given set of transit services. In a transit-friendly community, one in which the fabric is structured to make it easy for people to get to and from transit and easy for transit to get from place to place and close to the places where people want to go, transit may attract many "choice" riders. In an unfriendly community fabric, the same level of transit service is likely to attract only "transit-dependents". A transit-friendly community fabric makes transit more productive and a greater asset to the community. Following are ways Santa Clarita can improve the transit-friendliness of the community fabric.

Sidewalks and paved waiting places. Sidewalks and paved waiting places are notably absent on many segments along Santa Clarita Transit's routes including near many of the logical boarding and alighting points. The choice of walking and waiting in wet and muddy grass after

the sprinklers have been on or walking and waiting within the travelled way of an arterial street is clearly discouraging to potential transit riders. While it is often difficult to retrofit sidewalks in built residential environments, Santa Clarita should definitely mount a program to place paved waiting pads at all bus stops and to build those essential paths leading to them which can be constructed without intruding on sensitive established environments.

Access to paseos. An outstanding feature of Santa Clarita's development in the Valencia community is the paseo system, a system of walking/jogging/biking trails through the community generally separate from the street system. The paseo system even includes grade-separated crossings of the busier arterial streets at numerous places. The paseo system has the potential to offset some of the impediment to transit access posed by the community's predominant local street pattern of internalized enclaves. However, where some of the earliest paseos cross transit streets, pedestrian access is prevented between the paseo and curbside where the buses would stop. At the newer paseo crossings, access is provided but is sometimes circuitous, obscure and uninviting. The following actions could resolve this deficiency:

- retrofit the older paseo crossings to provide reasonable access to bus routes.
- place paved waiting pads in logical positions at all paseo crossings of bus routes.
- provide reasonably direct and readily visible access between paseos and bus routes in new developments.

Access to "internal" streets. As previously noted, the dominant local street pattern in Santa Clarita is one of internalized enclaves walled off from the arterials and major collectors where transit runs. In some of the newer neighborhoods, the difficulty this street pattern poses for transit access is overcome by providing pedestrian passages where streets stub-up at or run along the boundary walls. An effective treatment is leaving a gap in the main wall at a point fronted by a short parallel wall a few feet closer to streetside. This treatment maintains the noise protection and visual privacy of the enclave community while facilitating direct pedestrian access to transit. It would be reasonably practical from physical and cost standpoints to retrofit such pedestrian accesses in existing neighborhoods. However, such action might prove extremely controversial among neighbors who value the sense of privacy that the established pattern provides. Any attempt to provide retrofit pedestrian access in this manner should be undertaken in a low-key, pilot project manner and any individual proposals which meet significant resistance should be quickly withdrawn.

A more important point is to make sure that this type of pedestrian accessibility is built into new neighborhoods at every reasonable opportunity. Santa Clarita is a community which will never be able to implement in any substantial way the neo-traditional grid street pattern favored by transit planners (because of the constraints of severe terrain, drainage courses, aqueducts and other utility corridors). Independent pedestrian access is a primary way Santa Clarita can make its "enclave neighborhood" patterns have a transit friendliness approaching that of the neo-traditional grid.

Access across drainage courses and utility barriers. The barriers to transit access posed by drainage courses, aqueducts and utility corridors has been noted at several points above. While

good work has been done in developing pedestrian/bike trails *along* these corridors, the transit lines run in parallel to them and the challenge is to find more ways to get *across* them. In addition to bridges which involve considerable expense, the possibility of "seasonal crossings" - hardened at-grade travel surfaces across drainage courses which would simply be unavailable at times of high water - could be considered.

Access across arterials. In the paseo system, Santa Clarita has done an outstanding job of developing a community-wide network of pedestrian-bicycle paths grade separated from busy arterials, a system unmatched in most suburban environments. However, along some of the arterial streets where Santa Clarita Transit operates, the pedestrian environment is not nearly so friendly as on the paseos. A number of the points where pedestrians must cross arterials to get to or from transit stops are intimidating, unprotected from high speed traffic or very inconvenient. Where such conditions are severe, the effect is that the public has practical access to only one direction of the transit route's operations.

There is one primary concern about the arterials. This involves high speed arterials where there no traffic signals providing protected crossings in proximity to transit stops where the pattern of surrounding development indicates likely need for pedestrian crossings to access one direction of the line (and where grade separated crossings are nowhere nearby). Segments of Soledad Canyon Road provide examples of this condition.

Part of this problem will naturally be addressed as the community develops and infills. New grade separations across arterials will be built on new segments of the paseos and community trails systems. Presently unsignalized intersections will be signalized as infill increases cross-street traffic volumes. With attention to details of access from the paseos to transit stops and to pedestrian crossing needs at signalized intersections, a substantial portion of the current problem will eventually be solved by ongoing development. However, that long-term eventuality is of little satisfaction at locations where there are pressing present needs, at locations which do not fall within the natural scope of planned future development, or at locations where development incorporating the potential remedy is many years off. Following are some near term remedies to be considered.

The City has already received regional approval for a State transportation grant of $680,000 in Transit Enhancement Action funds to improve pedestrian access to transit at 25 locations including five new interconnected signals with pedestrian actuation along Soledad Canyon Road. While the current grant project will address some of the more obviously difficult unprotected crossings on the system, revisitation of this grant source or committing local "highway" funding to fund signals at locations along transit routes where need is clear but funding from development sources seems doubtful is a logical future direction. However, even a pedestrian activated signal cannot be installed unless demand meets Caltrans warrants for signals.

Part of the problem at existing signalized intersections may be that some of the public do not understand what the pedestrian signal indications mean, or that their walking speed is such that they cannot cross the arterial on one light. This can be a particularly important aspect for

seniors who are an important component of transit ridership. Among the efforts that can be taken to address this concern are the following:

- Place articles in transit and community service publications explaining the proper interpretation of pedestrian signal indications at median-divided crossings.

- Follow the lead of other communities in placing supplementary placards over pedestrian phase actuation buttons in order to educate the public on interpreting the pedestrian signal indications.

- In new and retrofit intersection design projects, provide median widths which afford comfortable rather than just minimally adequate (our understanding is that the courts have held that medians as narrow as 2 feet wide constituted adequate) pedestrian refuge.

Street patterns. Modern transit planners favor the neo-traditional grid street pattern as a transit-friendly environment. The "modern suburban" pattern of walled pocket neighborhoods with curvilinear local streets which are linked to a network of arterials and collectors but not to the local streets of adjacent neighborhoods is viewed as the antithesis of a transit-friendly environment. Most of Santa Clarita has developed on the "modern suburban" pattern. It is very unlikely that this could change to a significant degree in the yet to be built portions of the community. The pattern of development in Santa Clarita is largely dictated by severe terrain, drainage courses, utility corridors and the influences of the already built street and neighborhood pattern; not by planner/designer preference. Local street discontinuity, curvilinear forms and pocket neighborhoods are inevitable here.

The keys to making developing areas in Santa Clarita transit-friendly lie in assuring that the pedestrian links to transit replicate the level of accessibility possible in a grid neighborhood (as discussed extensively earlier) and that the arterial-collector network is of a pattern which permits logical and efficient routings through the community at a density which provides broad area coverage. In this latter regard, key matters appear to be such additional east-west links as the planned extensions of Newhall Ranch Road and of Decoro Drive and development of the less clearly defined network across the central triangle of the community. Continuity of The Old Road along the west side of I-5 will also allow creation of more logical transit service to growing residential and commercial areas along that corridor.

One consideration which has a key effect on whether the pattern of the street network is conducive to efficient service by transit is the prevalent existence of gated communities with private streets. The difficulty with gated communities is that they tend to preclude transit service to more than just the gated area. By making logical, efficient routings into adjacent neighborhoods impossible, they have the effect of denying the possibility of transit service to significant portions of the City. Current examples which adversely affect transit service include gates blocking a connection from Calgrove Boulevard to Valley Street, Placerita Canyon, and discontinuity of Rainbow Glen Drive between Soledad Canyon Road and Sierra Highway. From a transit perspective, General Plan policies which prevent development in new gated

communities or additional development in existing ones (this latter with an eye to provide incentive to getting rid of existing gates) would be desirable.

Another aspect of street form that affects the transit-friendliness of a community involves the use of "turn-outs". These are widened areas of the roadway at bus stops where transit vehicles can make their stop without obstructing the normal travel lane. On relatively low-volume streets, turn-outs add general benefit: a convenience factor for motorists and a safety element for transit. On high volume streets, particularly those with high speed profiles, turnouts continue to enhance convenience for motorists but tend to reduce transit operation efficiency. This is because of the difficulty transit vehicles have in merging back into the dense, high speed traffic in the travel lane once they have pulled into the turnout. In general, turnouts should only be employed on the busier, high-speed arterials and collectors where they can be developed with sufficient length to provide a satisfactory acceleration lane for transit vehicles.

Shopping center form. In the modern suburban shopping center, the actual shops are set back a considerable distance from the road(s) and the shop buildings are fronted or surrounded by auto parking. Banks and fast-food restaurants with drive up windows are placed closest to streets and intersection corners. The transit patron dropped at streetside must typically walk across vast areas of parking and circulation aisles to reach the shops. If transit is invited in to drop its passengers at the actual shopping concourse, everyone with a destination elsewhere is subjected to an off-line deviation while the transit vehicle wanders through the parking aisles. Neither situation is conducive to optimum attractiveness of transit. The setback shopping center is also discouraging to the general walking environment, affecting access to transit stops by other people who have nothing directly to do with the shopping centers themselves. Remedies include:

- Provide clear paths between transit stops and the shopping concourse. The paths should be as reasonably direct as practical and minimize the need to cross circulation aisles or weave between parking stalls.

- In new development emphasize placing shop buildings close to the street frontages and intersection corners where they can be accessed readily by pedestrians and transit riders. Put the auto parking in back. Put the drive-up banks and fast-food outlets at the back of the parking lot where their traffic will interfere least with everyone else (including street traffic).

Growth and Infill: Productivity Increase vs. Operating Efficiency Decrease.

It has been previously noted that Santa Clarita Transit achieves the good area coverage and schedule frequency it now does with the resources at its' disposal because it is able to operate at an average system speed roughly 50% faster than the typical suburban local service average. It achieves these speeds for two primary reasons; the first is the rather high average traffic speeds which generally prevail on the arterial and collector streets along which Santa Clarita Transit operates. The other is that large segments of the routes are along frontages relatively devoid of development and difficult for pedestrians to access - in other words, segments where there is rarely need to stop for boardings and alightings. With time and development, both these conditions are likely to change. With infill development and the types of pedestrian access improvements described herein, there will be need to stop for boardings and alightings along the current "void segments". With continued community growth, average traffic speeds will tend to decrease and transit vehicle speeds as well. The net result will be a need for more vehicles and drivers in order to operate the same route miles at the same frequency of service. And if point to point speeds on the system decline, "choice riders" may perceive the service as less attractive.

The fundamental point is that there is a synergism between productivity, operating efficiency and the operating environment. A crucial factor for Santa Clarita Transit is to identify and work hard to preserve those aspects of its operating environment which contribute to productivity and operating efficiency.

Some elements are simple conventional wisdom for transit planners - like resisting proposals to put arterial stops in tight little turn-outs from which the vehicles can never escape. Others may run counter to conventional transit planning paradigms. For instance, it would be conventional for transit planners to be rather indifferent to traffic congestion or to presume that traffic congestion makes transit relatively more attractive. Yet in this case, the high average travel speed environment is at the essence of Santa Clarita Transit achieving what it does. In Santa Clarita the logical approach is to support measures which help transit vehicles go fast - even if the primary intended beneficiary is auto traffic.

The second crucial factor for Santa Clarita Transit is to aggressively develop new components to its operating pattern with inherent efficiencies that offset deterioration of current favorable conditions in its operating environment. Examples include developing a new pulse terminal near Town Center, closer to the logical crossroads of the system and developing revised route structures which take advantage of new east-west arterial-collector connections as well as making sure the alignments of new east-west connections are most conducive to effective routings.

1.5 POTENTIAL OPPORTUNITIES FOR SERVICE ENHANCEMENT

Given the preceding analysis and community input, there are a variety of potential opportunities for modifications to existing Santa Clarita transit services that would represent enhancements to service. The following section describes some conceptual plans that have been developed for service enhancements by staff and some initial consultant-developed concepts. Upon consideration of this report, appropriate concepts will be refined in the next stages of formulating Santa Clarita Transit's Transportation Development Plan.

Community Workshop

A workshop to discuss transportation concerns of Santa Clarita residents was held on February 3, 1996. Approximately 35-40 residents, city officials, and city staff attended the session. The background environment of community growth trends and planned Los Angeles County transportation improvements were presented to the attendees who indicated their concerns about future access issues.

A summary of public comments is provided in Appendix C. Some common themes emerged from the workshop. Many attendees indicated the need for a second east-west route across the community. Participants indicated a great deal of interest in both regional bus service and the local bus service. Sunday service and lifeline transit access to the regional network in the San Fernando Valley were most frequency cited as desirable. The cost of Metrolink, the limited schedules, and lack of weekend service were also cited as concerns. Better information on ridesharing options was requested, and the possibility of a high speed rail station was discussed following the State High Speed Rail Commission's recent announcement of preference for the Route 99 alignment alternative which would have a station along I-5 in Santa Clarita. Participants felt that Santa Clarita land use patterns were not supportive of transit, and that the lack of sidewalks and pedestrian access between arterial routes and residential areas was a problem for encouraging transit usage.

Planned Service Enhancements

Staff have developed a variety of improvement concepts for Santa Clarita Transit. These range from new stops that can be located on existing routes once traffic signals or sidewalks are installed, to a plan to relocate the transit center/transfer point to the vicinity of the Town Center, to plans for a third Metrolink station in Newhall with accompanying route modifications. These are all logical modifications that should improve the overall transit network and increase ridership. The relocation of the transit hub/transfer point to the vicinity of the Town Center will be particularly beneficial, as it will reduce the need to operate multiple routes in parallel to the Metrolink Station and make the transfer point a major destination in itself, particularly for non-commute service.

Conceptual Enhancements

There are two categories of potential service enhancement: regional linkages and local services.

Regional Linkages. There are two current opportunities in this category and two future ones with further community growth and the completion of the Red Line subway to the Universal City Station respectively. These opportunities would be as follow:

- *Provision of express service between Santa Clarita and West Los Angeles.*

While the LADOT line 573 makes four morning peak period trips from Santa Clarita to Westwood and Century City and five return trips between 4:40 pm and 5:45 pm, it is an extension of service that operates on local arterial streets from Granada Hills to Encino and thus has an extended travel time relative to driving or van pooling. Typical travel times from San Fernando and Sierra Highway are one hour and seven minutes to an hour and 21 minutes to Westwood, with an additional 10 to 13 minutes to reach Century City. Afternoon return trips are even slower, with an hour and 26 minutes on the schedule between Westwood and San Fernando Road at Sierra Highway.

Given the impending completion of HOV lanes on sections of I-405 through the San Fernando Valley, travel time from San Fernando Road and Sierra Highway to Westwood should not exceed 45 to 50 minutes. Given that 14 percent of work trips originating in Santa Clarita are bound for West Los Angeles, it would appear that there is a market for enhanced express service in this market.

- *Peak period service between the Sylmar/San Fernando Metrolink Station/transfer station and the Valencia Industrial Center (VIC).*

At present, Santa Clarita Transit operates a Line 10 tripper leaving the Metrolink station at 7:33 am for the Valencia Industrial Center. This bus provides service to the Industrial Center for people using the train arriving from the Antelope Valley at 7:24 am and the train from Los Angeles at 7:27. Reverse commute to jobs in Santa Clarita comes primarily from the San Fernando Valley, so the rail linkage from Los Angeles with stops in Burbank and Sylmar/San Fernando does not serve a large geographic area unless a patron takes a bus to Metrolink, the train, and then the Santa Clarita bus.

A direct bus from Sylmar/San Fernando to the VIC and Town Center timed to the train and the bus transfer facility would save at least 15 minutes travel time and one transfer for patrons arriving at Sylmar/San Fernando by bus. The combined train and bus travel time from Sylmar to the VIC is 42 minutes, while a direct bus leaving Sylmar five minutes after the train could reach the VIC in 20 to 25 minutes, using a direct I-5 routing. This route could be a commute period branch of the proposed Sylmar/San Fernando to Santa Clarita lifeline service.

- *Additional origin routes for commute services*

A future opportunity will be to provide more direct express regional service, reducing the amount of time buses travel through the community making local pick-ups on the way to Route 14. An example would be trips serving Canyon Country operating directly from the Via Princessa Station (supplementing train schedules) to Route 14 via Via Princessa or the Golden Valley park-and-ride lot once a direct Golden Valley Road connection to Route 14 is completed from Sierra Highway. As community growth shifts more westerly and northerly, express bus service along the I-5 corridor would seem to be warranted as well, perhaps operating from Castaic (or the possible future Newhall Ranch) with pick-ups at park-and-ride lots at McBean and Lyons, serving Stevenson Ranch and the future Westridge development area.

- *Red Line/Universal City route*

Another future opportunity will be regional service to the Red Line Universal City Station and employment center via the new HOV lanes on Route 170. The route could continue to the high density employment areas at or near the Warner, NBC, and Disney Studios on Riverside Drive and Alameda Avenue.

Local Services

Figure 1.5 illustrates the areas which will be the focus of future household and employment growth in the Santa Clarita Valley. This indicates projects with 500 housing units or more that are either underway or have received entitlements. It does not include the potential Newhall Ranch development west of Magic Mountain and along Route 126 west of I-5 which is proposed to house 75,000 residents and provide 19,000 additional jobs at build-out. With the exception of development occurring in the vicinity of Via Princessa and Sierra Highway, the majority of new development will be in more central, northern, or western portions of the community. Central development includes the Porta Bella project south of the Saugus Metrolink Station and several projects along Newhall Ranch Road east and west of Bouquet Canyon.

Residential development is also planned or occurring north along McBean Parkway from Decoro Road up toward San Francisquito Canyon and in the vicinity of Valencia High School. Stevenson Ranch and the Westridge area anticipate residential development west of I-5 between McBean Parkway and Magic Mountain Parkway. The Marketplace retail project along The Old Road between McBean and Lyons is currently under construction and will warrant better transit access than is provided by the 35 Line at present. Substantial residential development is also anticipated to continue to the north and west of Castaic. The Valencia Commerce Center, located west of I-5 and north of Route 126 is expected to contain up to 20,000 jobs at build-out, compared to fewer than 5,000 jobs at present. It will represent a major activity area that warrants local peak period service at a minimum.

Future local service will thus need to include a connection to a Metrolink Station and the planned Town Center transit hub from Porta Bella and the North McBean Parkway growth corridor. Improved local commute service from residential areas to the Valencia Industrial Center and

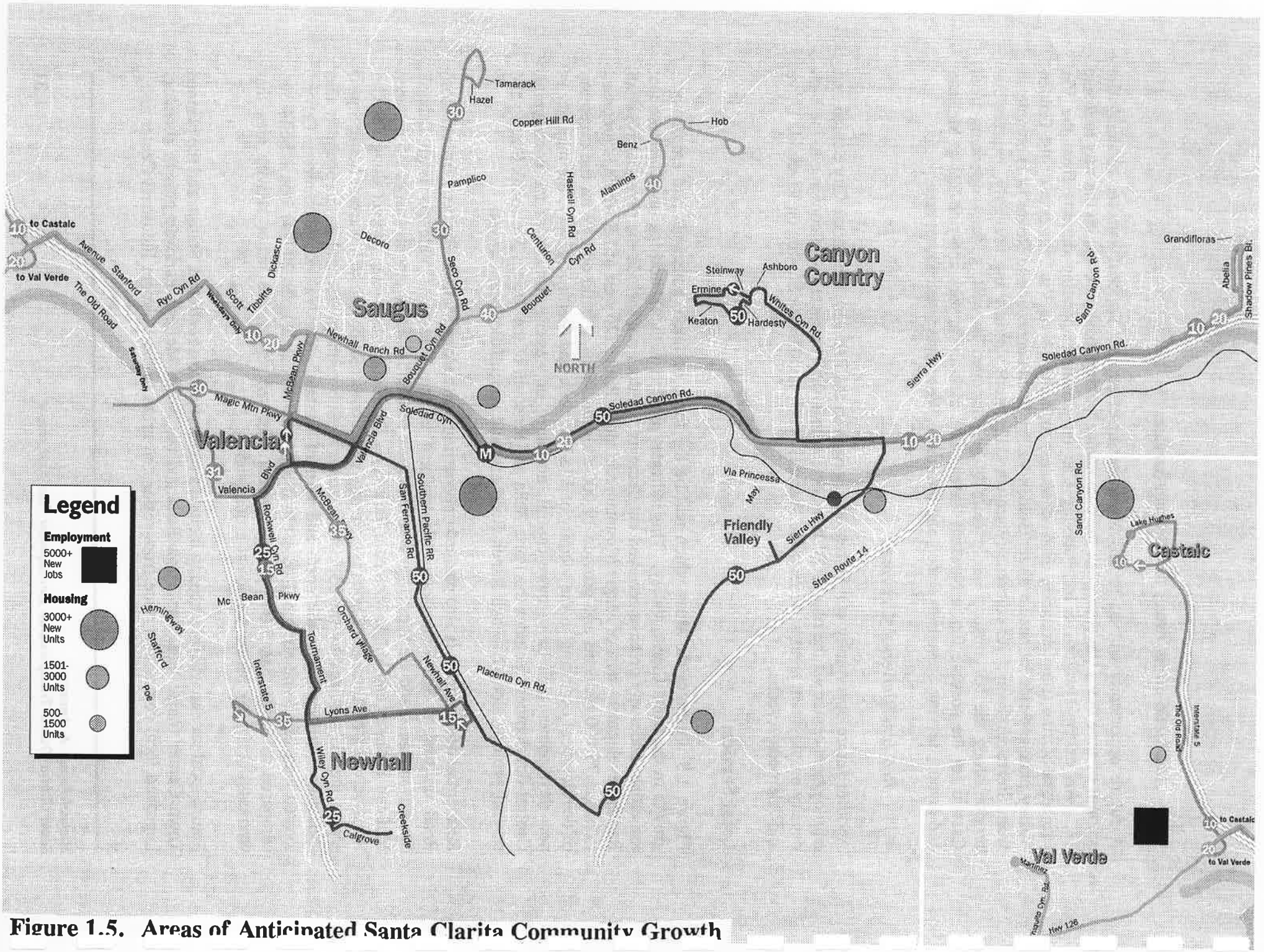


Figure 1.5. Areas of Anticipated Santa Clarita Community Growth

Valencia Commerce Center will also be important future services. By operating via the Town Center transit hub, the Town Center will be well served for commute as well as shopping trips.

Given the growth of employment in the northwestern portion of the service area and the location of a lower-income community with greater transit dependency in the Newhall area, consideration should be given to a direct line linking these areas via the planned Town Center transit center.

Although not fitting either into the category of regional or local service, Santa Clarita Transit should consider the implementation of a one stop travel information center. This function, which could be part of a new transit center/hub at Town Center, would provide travel information for all transportation services, Santa Clarita Transit, Metrolink, etc., and complement the activities of Southern California Rideshare.

2.0 GOALS, OBJECTIVES, AND STANDARDS

This section lays out a mission statement for Santa Clarita Transit, and presents a set of goals and objectives to guide the future strategies for the transit provider. It also indicates service standards in relation to development density and patterns, and suggests some measures that should be utilized to monitor the performance of Santa Clarita Transit. When a set of goals, objectives, and standards are selected, they will be utilized to focus the Transit Development Plan Program.

2.1 MISSION STATEMENT FOR SANTA CLARITA TRANSIT

The following mission statement is recommended for Santa Clarita Transit:

> To provide a mix of transportation services to enhance local and regional mobility in the Santa Clarita community, transporting people and facilitating their accessibility efficiently, effectively, and safely while respecting the environment.

2.2 GOALS AND OBJECTIVES FOR SANTA CLARITA TRANSIT

GOAL 1. Create a diversified transportation system.

Objectives

a. Provide effective, attractive and innovative alternatives to the single occupant automobile.

b. Contribute to the area's economic and social well-being by improving access to employment, shopping, and activity centers for the maximum number of residents.

c. Operate the current system efficiently, economically and safely to provide transit services at the lowest reasonable cost.

d. Serve those with limited transportation options: the mobility-impaired, senior citizens, low-income persons, and youth.

e. Work with local and regional agencies to promote an integrated, seamless transportation system that meets access needs, including local and regional bus service, dial-a-ride, taxis, jitneys, rail, vanpools, carpools, buspools, bicycling, walking, and autos.

GOAL 2. Develop and implement Capital Improvement Plans for short-term and long-term enhancements in support of a multimodal transportation system.

Objectives

a. Develop a long-range capital improvement plan for bus and rail transit facilities.

b. Take a proactive approach to transit planning and work with City departments and the County to incorporate transit-serving projects into long-range capital improvement plans.

c. Acquire and/or reserve rights-of-way for future bus rights-of-way, rail systems and possible extensions, stations and park-and-ride lots in accordance with regional plans.

GOAL 3. Assist in preserving air and environmental quality while accommodating growth.

Objectives

a. Reduce overall vehicle emissions and ease traffic congestion by increasing vehicle occupancy.
b. Develop new ridership and increase patronage on established routes.
c. Provide new service where new development requires and supports it.
d. Market transportation alternatives as the commuter's choice to increase vehicle occupancy during the most critical peak periods.
e. Use clean fuel vehicles as part of the fleet mix where feasible.
f. For use in the permit process for new employment centers, work with City and County staff to develop generic transportation plans focused on alternatives to employee parking (and its cost) -- including subsidies for transit, pooling, offering transit user tax credits, and/or a guaranteed ride home program.
g. Work with schools, colleges and employment centers to stagger start times in order to spread peak demand, increasing the ability of the existing fleet to serve them well.
h. Assist businesses to use transit services to comply with clean air requirements.
i. Work with the Santa Clarita Valley Telecommuting Center to coordinate its use with transit access and to reduce trips by increasing its usage.

GOAL 4. Provide services tailored to existing community development patterns and activity centers.

Objectives

a. Provide higher frequency fixed route service to all activity centers and within 1/4 mile of 95% of residents in neighborhoods containing at least 400 units of moderate or higher density housing (6.7 or more housing units per acre).
b. Provide fixed route bus service within 1/2 mile of at least 75% of residents in suburban density (3.4 to 6.6 housing units per acre) neighborhoods.
c. Serve low density and hilly residential areas with personalized services such as dial-a-ride, taxis, service routes, or other hybrid, non-traditional transit where not feasible to serve with fixed route transit.
d. Provide a high level of peak hour transit service to employment centers from higher density neighborhoods and from areas with low rates of car ownership.
e. Focus routes with frequent headways and all day service to serve community commercial centers and neighborhoods with substantial low-income and/or elderly populations.
f. Tailor midday transit service to serve a portion of non-work trips within and leaving the area.

GOAL 5. Work with City and County departments to achieve development patterns that reduce vehicular trips.

Objectives

a. Develop coordinated plans for land use, circulation and transit with City and County departments to concentrate high density housing, employment and commercial areas close to transit corridors.

b. Recommend adding public transportation to the list of public facilities to be synchronized with new development in the growth management policies of the General Plan.

c. Recommend amending the City's General Plan to designate larger areas in and adjacent to the Valley Center and near rail stations for high and moderate density residential use.

d. Work with City and County departments to require rights of way in new development for walking, bicycling, and access to transit. This includes through public streets, sidewalks, bicycle paths, design of intersections for easy pedestrian crossings, and linkages between paseos and arterial streets.

e. Encourage the City and County to permit a higher floor area ratio and lower parking requirements for commercial developments that provide transit facilities and subsidize shared-ride programs.

f. Work with the City and County to establish maximum parking limits for major development that is located on routes with frequent transit service.

g. Comment on environmental documents and serve as part of the project review team for the City and County and be an advocate in the community for conditions on land use decisions that support transit use.

GOAL 6. Adapt to differing environmental and social conditions, new land uses, and changes in the regional transportation network.

Objectives

a. Experiment with multi-occupant modes to develop the most effective new services, including shared-ride taxis, variable route circulators or service routes, vanpools and buspools.

b. Consider subsidizing vanpools as a cost-effective alternative to bus services or as a transition to providing regional commute bus service.

c. Experiment with subscription buses for commute trips to Santa Clarita employment centers, and to major employment areas in the region not currently well served, such as West Los Angeles.

d. Work with Santa Clarita employers to develop shuttle services to workplaces from Metrolink and/or transit centers.

e. Contract with multiple providers if beneficial to the City for maximum flexibility in providing tailored services.

f. Develop a fare structure related to costs of different services, with premium fees for more personalized services.

GOAL 7. Build community support for the transportation system by using it to create a sense of special identity for Santa Clarita.

Objectives

a. Focus transit services to reinforce the community center, the community commercial centers, and major concentrations of employment.

b. Develop a new transit center at the Town Center, including a commute store to market transportation alternatives targeted to Santa Clarita.

c. Locate attractive transportation information kiosks in commercial and recreational centers.

d. Work with residents to permit through buses in gated communities and pedestrian access to arterials in walled communities.

e. Provide a high quality service so that residents can be confident that service will be reliable, safe, and represent a pleasant experience.

f. Create a high profile for transit by participating in community emergency planning.

g. Support a high quality family environment by providing services that meet the needs of youth.

h. Coordinate with the School District to minimize the cost of youth transportation to both agencies to avoid duplication.

GOAL 8. Identify and pursue all potential sources of funding to support a mix of transportation modes.

Objectives

a. Seek tax funds, grants, and capital and operating funds from all levels of government.

b. Develop partnerships with other public transit agencies to strengthen funding requests.

c. Develop partnerships with the private sector to fund innovative services which address their needs.

d. Increase revenue from the farebox through patronage growth and selected fare increases.

e. Control expenses to enhance budget flexibility.

f. Seek additional revenue by qualifying projects for the County's Congestion Management Plan.

g. Develop specific and cost effective programs to utilize fee revenues gained through the City transit mitigation fee.

GOAL 9. Coordinate with Metrolink and transit providers in the San Fernando and Antelope Valleys.

Objectives

a. Establish regular channels of communication.

b. Develop joint goals and plans to attain maximum utilization of services for inter-area trips.

c. Coordinate services to minimize deadheading and increase utilization.
d. Coordinate schedules and market each other's services to facilitate reverse commutes.
e. Coordinate fares and develop a regional transit pass.
f. Enhance regional services to minimize transfers for commute trips.
g. Develop a regional plan to promote and operate carpools, vanpools, and subscription buses in coordination with Southern California RideShare.

GOAL 10. Implement an aggressive marketing and customer service plan to promote widespread use of alternatives to the auto.

Objectives

a. Conduct studies and research to understand customer needs and attitudes for targeted communications and outreach programs.
b. Conduct periodic on-board surveys to obtain demographic profiles to assist in preparation of targeted promotional materials, and community surveys to determine why others are not using the services.
c. Identify low productivity trips, routes or segments on a quarterly basis and adjust marketing programs to boost ridership.
d. Use bus stops and transfer points to promote transit with attractive and readable information and schedules.
e. Respond to customer complaints in a timely manner and address problems that arise repeatedly.
f. Train drivers to be marketing representatives for transit.
g. Develop an interactive phone system to provide route and schedule information in several languages.
h. Target all public agencies and major employers with educational campaigns. Include materials they can distribute to new hires who have not yet established commute patterns.
i. Work with the Chamber of Commerce, TMAs, key businesses, and City economic development staff to maximize support for transit marketing plans. Plans should include reciprocal promotion of transit by business and business by transit. Work with businesses to determine bus announcements for important destinations.
j. Develop targeted marketing plans and users' guides for persons who are elderly, disabled or dependent on transit service. Work with senior citizen programs and the senior advisory committee to obtain volunteers to assist with marketing to these groups.
k. Establish new outlets in public agencies, shopping areas and large businesses for transit pass sales, route maps, and schedule information.

2.3 STANDARDS FOR MINIMUM SERVICE LEVELS FOR SANTA CLARITA TRANSIT

Stability and service reliability are important characteristics for transit service. Thus, one of the key challenges for Santa Clarita Transit is to provide service to a rapidly growing community without constantly modifying the route structure and schedule.

As discussed in the first section, there are two primary challenges in providing service to Santa Clarita. The first is to provide service to new areas of development; and the second will be to adapt the route structure to new arterials as they are completed so as to provide improved linkages between Santa Clarita communities. Two immediate challenges will be to adapt the route network to the creation of a third Metrolink station, to be located near Market and San Fernando in Newhall, and also adapt to the creation of a new transit center in the Valencia Town Center area.

Major route changes should not occur more frequently than every three years, and service to new or growing demand areas should be provided once they achieve a critical mass without disrupting the majority of the existing network. It is not possible to add small increments of service to an existing route network without potentially causing great disruption. With a timed transfer local network and 30 or 60 minute headways, a small extension of a route may make it impossible to maintain the schedule and meet time if the current schedule is stretched to its operational limit. With eight basic routes and approximately two buses per route, a new route with one bus represents a six percent increment, while a new two-bus route represents a 12% increment in service hours.

Transit service is most efficient and productive where higher density and high trip generating land uses are adjacent to or within a quarter mile of arterial routes that have transit service. It is not feasible from efficiency or effectiveness criteria for transit routes to wander through neighborhood and collector streets in search of ridership. In addition to generating neighborhood opposition, such routes would become discontinuous and very slow in relation to other modes, thus discouraging potential riders who have a choice in their travel mode.

In establishing new services, Santa Clarita Transit decisions should be based on the density and quantity of new development, and the ability to develop a logical route extension or new route without requiring route miles and revenue hours in excess of those which will be productive. For transit planning purposes, a population density of less than 10,000 persons per square mile is generally considered low density, while a density of 10,000 to 20,000 per square mile is considered medium density, and more than 20,000 persons per square mile is considered to be high density. It is difficult to have productive fixed route transit where the population density is below 10,000 persons per square mile.

The Santa Clarita General Plan sets residential zone categories from residential estate density to residential high density. Table 2.1 indicates the residential plan designations and associated density ranges. The minimum density of 3.4 dwelling units per acre in the suburban plan category translates to about 6,000 persons per square mile, while the 6.7 dwelling units per acre

minimum of the moderate density category translates to approximately 12,000 persons per square mile, bracketing the midpoint density for the suburban category which would yield approximately 9,100 persons per square mile.

TABLE 2.1. SANTA CLARITA GENERAL PLAN RESIDENTIAL CATEGORIES

Category	Minimum density (units/acre)	Maximum density (units/acre)	Midpoint density (units/ac)	Midpoint density (person/sq.mile)
Residential Estate	0.0	.5	.25	480
Residential Very Low	.5	1.0	.75	1,440
Residential Low	1.1	3.3	2.2	4,225
Residential Suburban	3.4	6.6	5.0	9,120
Residential Moderate	6.7	15.0	11.0	19,000
Residential Medium High	15.1	25.0	20.0	33,300
Residential High	25.1	32.0	28.0	44,800

Source: M. Fajans & Associates from Santa Clarita General Plan

In 1995-96, the average Santa Clarita local route generated approximately 22 passengers per revenue vehicle hour. Thus, with two buses operating for 15 hours, the average route generated about 660 passengers per weekday. With approximately 5,500 daily weekday riders on the local fixed route service and a population of 165,000, about 33 rides were generated daily in Santa Clarita per 1,000 population -- a rate which has grown each year. Based on surveys at other transit properties, this average level of transit use is lower for low density areas and higher for high density areas. Thus, 10,000 residents on average would generate 330 daily bus rides, but it might require 12,000 residents in suburban density housing but only 5,000 residents in medium high density housing to generate that many riders.

In general, new fixed route transit service is probably not warranted unless it can generate at least 11 passengers per revenue vehicle hour within two years of implementation -- only 50% of the average ridership of existing routes for 1995-96. With 30 minutes headways, this would generate 330 passengers per day, equivalent to the existing Routes 15/25 and 30. As cited above, to generate this number of patrons would require 5,000 residents in moderate to higher density housing within a quarter mile of the route, but as many as 11-15,000 residents in lower density housing types that would generate fewer than the average of 33 daily trips per 1,000 population. To get 5,000 residents within a quarter mile on either side of a transit route would require a linear distance of approximately one half mile of similar development at the moderate housing density level, while generating 11,000 residents in suburban density housing within a quarter mile of a transit line would require more than two linear miles of such development.

While it is desirable to provide transit service as soon as new development occurs, it is often not feasible because the pace of any specific development area usually requires quite a few years to generate the number of patrons to support the service adequately, as described above. Also, roads are built as demand increases, often the complete arterial network of a development area may not be in place to allow an efficient routing.

Proposed Service Standards

As established in the previous section, the goal for amount of service to be provided in Santa Clarita should be related to the number and density of households, employment concentrations, and other activity centers. Assuming that the current level of transit funding is maintained on a per capita basis, the following service standards are recommended for Santa Clarita:

- provide the highest frequency of fixed route service to all activity centers and within 1/4 mile of 95% of residents in neighborhoods containing at least 400 units of moderate or higher density (6.7 or more housing units per acre) housing;

- provide fixed route service within 1/2 mile of at least 75% of residents in suburban density neighborhoods (3.4 to 6.6 housing units per acre), with school and commute time trippers to supplement where needed;

- serve low density suburban areas and low density employment areas with fixed route service if they can be served productively in conjunction with service to suburban and higher density areas;

- for areas not qualifying for fixed route service under the criteria above, provide alternatives such as dial-a-ride, subsidized taxis, service routes, or other hybrid non-traditional services at premium fares as financial resources permit;

- meet ADA requirements for complementary paratransit, and continue to serve the non-ADA senior population with door to door paratransit service only if financial resources permit; and

- at a minimum, provide basic connections to the regional public transportation network in the San Fernando and Antelope Valleys.

Routing Standards

There are a variety of standards that are typically used in planning fixed route networks. These principles are applicable to Santa Clarita, and have generally been followed in the development of the existing services. These principles include:

- Route Alignment. The one-way route miles should not exceed 1.3 times the most direct distance between terminal points unless geography or street layout require a more indirect routing.

- Route Diversions. Diversions from the main route should only be provided if they do not exceed five minutes, and the number of boardings facilitated by the diversion is greater than the number of on-board passengers inconvenienced by the diversion.

- Loops. These may be included at the end of a route. The total time to complete the loop portion should not exceed five minutes.

- Branches. These may also be included at the end of a route. Only one branch should be served on a trip, and each branch should have a different route number to avoid confusion.

- Turnbacks. If more than 75% of a route's ridership occurs on the central 50% of the routing, turnbacks or a new route should be utilized to increase the level of service on the core route.

- Headways. If resources permit, policy headways for regularly scheduled weekday service should be 30 minutes, with 60 minute maximum headways for evenings, weekend, or lightly utilized branches.

- Pulse Scheduling. Fixed route service in suburban areas should be "pulse scheduled" wherever possible to allow full network access with one transfer.

- Interlining. Routes should be interlined to connect destinations and reduce the need to transfer.

- Cycle Times. Scheduled cycles should be in 30 minute increments including layover and/or recovery time to facilitate pulse scheduling and interlining.

- Bus Stops. Stops should be provided every 500 to 1,000 feet where pedestrian access can be provided to nearby development. Each stop should have a hard surface waiting area and similar access to the origin or destination areas. Benches should be provided wherever possible, and schedule information made readily available. Shelter from the elements should be provided at any stop that generates 25 daily trips or more.

Financial Standards

There are measures that are commonly used to gauge the financial performance of a transit operation. These standards include:

- Operating Cost per Revenue Vehicle Hour. This is the primary measure of operating efficiency. This cost factor should not increase at an annual rate in excess of the rate of inflation.

- Farebox Recovery Ratio. This is a measure of passenger fares as a proportion of all operating costs. Desirable minimum proportions would be 10% for the dial-a-ride service, 20% for the fixed route local service, and 30-35% for the commuter express service. The 10% and 20% farebox recovery level represent state mandated levels for established service.

2.4 QUALITY OF SERVICE STANDARDS FOR SANTA CLARITA TRANSIT

There are various measures that are typically utilized to measure the quality of transit service. These include the following:

- Schedule Adherence. On-time performance is defined as no more than five minutes late and never early. Buses shall leave each time point on-time no less than 95% of the time or equal to the previous year's performance, whichever is better.

- Missed Trips. No trip shall be canceled due to lack of personnel or equipment.

- Accidents. Buses shall travel no less than 75,000 miles between chargeable accident or equal to the previous year's performance, whichever is better.

- Road Calls. Buses shall travel no less than 10,000 miles between mechanical road calls.

- Bus Utilization. A minimum of 80% of revenue vehicles shall be available and in use during peak service hours.

- Dial-a-ride. At least 99% of requests for service shall be met within 30 minutes of the requested time. Wait time for reservations should not exceed three minutes.

- Public Information. Santa Clarita Transit should function as a clearinghouse for information on transportation alternatives. Transit tickets, passes, and route information should be provided at multiple outlets. Passenger telephone information should be available at a minimum during all hours of operation.

- Overloads. With the exception of school trips, no local service should operate on a regular basis with more than 1.25 passengers per seat. No commute or dial-a-ride service should operate with more than one passenger per seat.

- Clean buses. Dirt and graffiti should be removed from buses or facilities on a daily basis. Bus interiors should be cleaned of trash at each trip end.

3.0 TRANSIT DEVELOPMENT PLAN PROGRAM

This section represents a key aspect of the development of the Santa Clarita Transit Transportation Development Plan. Based on Section 1, the evaluation of the current transportation environment; and Section 2, a set of goals, objectives and standards for Santa Clarita Transit, this effort presents a Transportation Transit Development Plan. It includes recommendations for the ultimate system network, both for local and regional fixed route service. Based on the anticipated growth and arterial network, a timed transfer network utilizing four transit centers is recommended, with the largest transit center relocated from the Saugus Metrolink Station to the Town Center area. Future opportunities for cooperative ventures with other transit providers are analyzed, and a set of recommendations for approaches to non-traditional transit services are included, including the steps required for implementation. Discussion of types of transit equipment to be utilized and clean fuel vehicles is also incorporated.

3.1 ULTIMATE SYSTEM NETWORK AND DEVELOPMENT GUIDELINES

There are three primary components of the Santa Clarita Transit system network, the local fixed route system, the local dial-a-ride service, and the regional route network -- providing connections to the larger Los Angeles metropolitan area. Both fixed route and regional routes are anticipated to expand with the growth of the Santa Clarita community. The dial-a-ride service provides service to the disabled community as mandated by federal and state legislation, but also provides the same level of door-to-door service to the senior population. This service is provided at very high cost per patron, and alternatives for serving portions of the market are discussed in the section on *Non-Traditional Services*.

For the local network, extensions of or completions to the existing arterial network are required in order to rationalize the routes. A set of development guidelines to be followed by the City and recommended to the County for projects within the service area are also promulgated. Adoption of these guidelines will make it easier to attract riders to transit, and by increasing transit ridership, will reduce the level of subsidy required to support the transit service. For the regional routes, the creation of new HOV lanes on I-5, I-405, and State Routes 14, 118, and 170 will improve the viability of express services.

LOCAL FIXED ROUTE NETWORK

Based on Santa Clarita and County General Plans, the Santa Clarita Transit service area is anticipated to double in population, and may grow to nearly three times current population if the proposed Newhall Ranch development is approved and constructed at a level approaching the 75,000 population currently envisioned. A service area population of 300-400,000 would involve both infill of development, such as Porta Bella south of the Saugus Metrolink Station and planned new development along Newhall Ranch Road; and extension of development into

new area, such as west from Castaic, north along McBean, and south of Route 126 west of I-5 (Newhall Ranch).

The proposed ultimate Santa Clarita local fixed route network, utilizing standard transit buses on main streets, and shown in Figure 3.1 and summarized in Table 3.1, is based on anticipated development patterns, especially the primary roadway network configuration. The network requires approximately 33 buses for basic 30 minute headways throughout the day, compared to 14 buses at present. An additional four to six small to medium sizes buses would be needed to operate two peak period only routes and two peak period route extensions to the Saugus Metrolink Station. The network assumes the development of the Newhall Ranch according to the May 1995 Land Use Plan, and several routes are extended into the proposed development, extending cycle times and adding buses.

At present, Santa Clarita Transit maximizes connectivity by linking all local fixed route service at the Saugus Metrolink Station to facilitate timed transfers. Despite increasing population density, the geographic barriers in Santa Clarita are significant and the majority of land use remains sufficiently low such that the principle of hub and spoke service will remain more viable than a grid transit network which relies on higher frequency service for transfers. However, with anticipated growth, Santa Clarita Transit should shift from a focus of all local service meeting at the Saugus Metrolink Station/Transit Center to an operation focused on three transit centers. The four proposed transit centers are described in more detail in the *Rail Stations and Transit Centers Section.*

A total of 18 local route segments (a single route that extends in two directions from the transit center counts as two route segments) would link at the proposed Valencia Town Center (VTC) transit center, while five routes would serve the Newhall Metrolink Station/transit center, and four routes would meet at the Princessa Metrolink Station/transit center. With a more complex transit network and some routes serving two transit centers, it will not be practical to have all 18 route segments meet at Town Center each 30 minutes. The ideal network would offset some service by 15 minutes from the other routes calling at VTC. This would provide more frequent links in the central core of the community, such as between the Town Center and Henry Mayo Hospital, College of the Canyons, the proposed Porta Bella/civic center project, or Newhall, without creating too long a wait time for those transferring to a route that is offset by 15 minutes.

This network provides good linkages to the Newhall and Via Princessa Metrolink Stations. These will double as secondary transit centers for transfers between local routes. Shifting the main transit center/transfer center from the Saugus Metrolink Station to Town Center leaves Saugus Metrolink with only one route (70E) supplemented by peak service to the Corporate Center, Commerce Center, and Val Verde (20). Two dial-a-ride vehicles can be used during morning and evening peak periods to connect the Bouquet Canyon (15M) and Seco Canyon (30M) areas with the Saugus Metrolink Station. At those times of day, spare vehicles not required to meet dial-a-ride service demands are available.

Other features of the proposed structure include direct service between Newhall and the Valencia Industrial Center (Route 10), peak period service to the Valencia Commerce Center from the Town Center (Route 20) and express service from Newhall (Route 60) via the freeway. Canyon Country residents would have a choice of routes from the Via Princessa Station, either to the Town Center via Soledad Canyon or the new Via Princessa/Magic Mountain Parkway link, or to the Newhall transit center, incorporating a fixed route connection to the Senior Center. A small transit center in the vicinity of Chiquito Canyon Road and Highway 126 would provide a choice of destinations and routes to residents of Val Verde and the future Newhall Ranch development.

When the entire network is in place, routes 10, 15, 30, 35, 70 and 80 would pulse at the VTC at the same time. Routes 20, 25, and 45 will pulse at the VTC 15 minutes later. Routes 10, 35, 45, and 70 will pulse at the Princessa Transit Center (PTC) at the same time. The Chiquito Canyon Transit Center (CCTC) will be served by routes 30, 35, and 70, and may include a park-and-ride lot for regional services.

Required Network Improvements

The following arterial segments which are not presently built but are shown on the arterial plan would be required for full implementation of these routes.

1) The 20 route requires the completion of Backer Road from Hasley Canyon across Henry Mayo Drive and the extension of Magic Mountain Parkway to connect with Backer Road.

2) The 25 requires bus access through the current gate at Calgrove/Valley (could use Wiley Canyon but Valley has more potential riders). The 25 also requires the extension of the Old Road between McBean and Valencia Boulevard.

3) The 25 also requires the extension of Via Princessa to the intersection with Porta Bella Main Street, Main Street through Porta Bella, and Magic Mountain Parkway to Porta Bella. The segment between VTC and NTC would not be implemented until these roadway links are in place.

4) The 30W requires the extension of Chiquito Canyon south of Route 126/Mayo Drive to Pico Canyon (in Newhall Ranch), the extension of Pico Canyon into Newhall Ranch, and the extension of Magic Mountain Parkway to Pico Canyon.

5) The 35E requires the connection southeast of Route 14 between Sand Canyon and Canyon Park Blvd via Lost Canyon or some other new route through proposed high density housing. It also requires the central connection between Via Princessa and Magic Mountain in or around the proposed Porta Bella project.

6) The 35S requires the extension of Pico Canyon through the Newhall Ranch development before it can be extended beyond the Marketplace.

TABLE 3.1 SANTA CLARITA ULTIMATE LOCAL BUS ROUTE NETWORK

Route/ hubs	# Buses	Run Time	Description	Activity Centers Served
10N V	2	20-25	Castaic to Valencia Transit Center/Town Center (VTC) as now	Industrial Center (VIC), Town Center (VTC)
10E V N P	3	40	Sierra and Sand Canyon to VTC via Sierra Hwy, San Fernando, Railroad, San Fernando, Magic Mt, Valencia, McBean. (during appropriate hours, trips may jog to Senior Center via Market Street.	Princessa Transit Center (PTC), Newhall Transit Center (NTC), Senior Center, VTC
15N/ V	2	20-25	LARC Ranch to VTC via Bouquet Cyn, Magic Mt., McBean. (existing 40) (peak period supplemental service to Saugus Metrolink (15M))	Saugus High, VTC
15S V N	2	20-25	Masters College to VTC via (one way loop 12th, Placeritos, Quigley Cyn, Placerita Cyn), Arch, 13th, San Fernando, Market, Railroad, Lyons, Wiley Cyn, Tournament, Rockwell, Valencia, McBean.	Masters College, NTC, Cal Arts, College of Canyons, VTC
20 V	2	20-25	Val Verde to Saugus Metrolink via Hasley Cyn, Backer Rd, Magic Mt, Tourney, Valencia, McBean, VTC, Magic Mt., Soledad Canyon (peak period only route).	Commerce Center (VCC), Magic Mt., Kaiser, College of Canyons, VTC, Saugus Metrolink
25 V N	4	50	VTC to VTC via McBean, Valencia, Old Rd., Calgrove, Valley, Lyons, Railroad, Market, San Fernando, Circle J, Via Princessa, Porta Bella Main Street, Magic Mt, McBean (both directions)	College of Canyons, Marketplace, NTC, Porta Bella/civic center, VTC
30N V	1	12-13	Tamarack to VTC via Seco Cyn, Bouquet Cyn, Newhall Ranch Rd, McBean. (peak period supplemental service to Saugus Metrolink (30M))	VTC
30W V C	1 2	12 25	Magic Mountain to VTC via Magic Mt., Tourney, Valencia, McBean Newhall Ranch extension - Chiquito Canyon and Route 126 to VTC via Chiquito Cyn extension, Pico extension, Magic Mt. extension, and above route	Magic Mt., Kaiser, VTC Newhall Ranch, Chiquito Canyon Transit Center (CCTC)
35E P V	3	35-40	Sand Canyon (north of Soledad) to VTC via Sand Canyon, Lost Canyon, Canyon Park, Jason, Via Princessa, Porta Bella Main Street, Magic Mt., McBean.	PTC, La Mesa Jr. High, Porta Bella/civic center, VTC
35S V N C	2 3	25 40	Marketplace to VTC via Lyons, Railroad, Market, Newhall, Dalbey, Orchard Village, McBean. Newhall Ranch (Pico Cyn. extension and Route 126) via Pico Cyn and above route.	Marketplace, NTC, Hart High, Placerita Jr. High, H. Mayo Hospital, VTC CCTC
45N P V	3	30-40	Princessa TC to VTC via Whites Canyon, Plum Cyn, Bouquet Cyn, Haskell Cyn, Copper Hill, McBean.	PTC, VTC, Sierra Vista Jr. High, Canyon High, (Valencia High diversion)
45S V	1	15	Stevenson Ranch to VTC via (one way loop Heming-way, Kavenaugh, Carroll, Faulkner, Hemingway, Poe, McBean), McBean.	H. Mayo Hospital, VTC

60 N	2	25-28	Castaic to NTC via Sloan Cyn, Park Forest Rd., Old Road, Backer Road, Henry Mayo Dr., I-5, Lyon, Railroad. (peak period only)	Castaic Middle Sch., VCC, NTC
70E P V	3	40	Shadow Pines to VTC via Soledad Cyn, Sierra Hwy., Via Princessa, Sierra Hwy., Soledad Cyn, Valencia, McBean.	PTC, Saugus Metrolink, VTC
70W V C	2	25	Val Verde to VTC via Chiquito Canyon, Henry Mayo Dr. (Route 126), Rye Canyon, Decoro, Tibbitts, Magic Mt., McBean.	VIC, VTC CCTC
80W V	1	12	Newhall Ranch (Valencia & Pico Cyn.) to VTC via Valencia, McBean.	VTC
80N V	1	12	Tesoro del Valle (San Francisquito Canyon) to VTC via McBean.	VTC
Total	33 base 6 peak 39 Total			

7) The 45N requires the improvement of Copper Hill, its connection to McBean, and the connection of Plum Canyon and Whites Canyon. These improvements should be complete in less than five years.

8) The 60 requires the completion of Parker Road/Sloan Canyon connection from Castaic to Park Forest Road (Hillcrest Parkway) and the Backer Road improvement cited in # 1 above.

9) The north segment of 70W requires the extension of Henry Mayo Dr. to Rye Canyon (could use Avenue Stanford as an alternative), the extension of Decoro to Rye Canyon, and some connection between Dickason/Tibbetts in the VIC to Magic Mountain Parkway as shown as an extension of Tourney Road on the arterial plan.

10) Route 80 requires the connection of McBean Parkway and San Francisquito Canyon Road and the extension of Valencia Boulevard west into Newhall Ranch.

Full development of the proposed network may not be complete for 15-20 years, but portions may be implemented within 5-10 years.

DIAL-A-RIDE SERVICE

As described previously, Santa Clarita Transit provides door-to-door transit service to the senior and disabled population of the community. Reservations are required, ideally 24 hours in advance. At present, the majority of rides are to the senior centers or medical appointments. However, over 60% represent "standing orders", regularly scheduled daily or weekly trips. As the cost of dial-a-ride service is approximately $15-18 per trip compared to $2-3 per trip for the fixed route system, Santa Clarita Transit needs to be very cautious about expanding the role of

dial-a-ride in the community. To utilize transit funding most efficiently, Santa Clarita Transit needs to develop services that will shift portions of the non-disabled demand for dial-a-ride into other, more cost-effective transportation services. Most feasible alternatives seem to be dial-a-ride feeder routes and service route transit. In the first case, the scheduled dial-a-ride service would only handle local trips, such as delivering patrons to the nearest transit center or nearest fixed route, not to a destination across town. Service routes would be scheduled, non-reservation service by smaller vehicles which could penetrate neighborhoods and deviate off-route as required.

REGIONAL ROUTE NETWORK

At present, Santa Clarita Transit operates to three regional commute destinations, downtown Los Angeles, Warner Center, and Van Nuys. SCT operates a fourth route which provides limited commute and midday service to and from the Antelope Valley, supplementing the four Metrolink trains that operate the full Lancaster to Los Angeles Route. LADOT provides an additional commute route from Santa Clarita to Westwood and Century City. A fleet of 22 buses are required to operate the current service, including the four buses LADOT needs for the 573 Route.

It is difficult to assess whether other operators (such as LADOT and Metrolink) will provide more, less, or the same level of regional service to Santa Clarita in the future as at present. For planning purposes, it will be assumed that Metrolink service will remain at current levels, nine trains a day in both directions, including five trains in the peak direction during the peak period but only one reverse commute train in the afternoon and two in the morning. Because freight activity shares the track, there are no trains to Los Angeles from the Saugus Metrolink Station between 8:53 AM and 3:25 PM. There are no northbound trains leaving Los Angeles for Santa Clarita from 7:30 AM to 1:56 PM.

Ideally, Metrolink would operate at least one more commute train in each direction, and several midday trains. In the morning, there is no train between 5:29 AM and 6:23 AM, arriving in Los Angeles at 6:19 AM and 7:14 AM, respectively. A train at 5:55 AM would be ideal for getting people to Los Angeles for a 7 AM start time. In the afternoon commute, trains leave Los Angeles at 3:45 PM, 4:10 PM, and then not again until 4:57 PM. An additional train about 4:30-4:40 PM with the 4:57 PM pushed a few minutes later would give better commute flexibility and allow Santa Clarita Transit to eliminate several bus trips.

Santa Clarita Transit should pursue the following modifications to existing services and develop potential new services. These would be phased in as markets develop with the anticipated growth of the community and with the implementation of the planned extensive HOV improvements that will provide greater time benefit for transit users.

1. *Provision of express service between Santa Clarita and West Los Angeles.*

   While the LADOT line 573 makes four morning peak period trips from Santa Clarita to Westwood and Century City and five return trips between 4:40 pm and 5:45 pm, it is an extension of service that operates on local arterial streets between Granada Hills and

Encino and thus has an extended travel time relative to driving or pooling. Typical Route 573 travel times from San Fernando and Sierra Highway are one hour and seven minutes to an hour and 21 minutes to Westwood, with an additional 10 to 13 minutes to reach Century City. Afternoon return trips are even slower, with an hour and 26 minutes on the schedule between Westwood and San Fernando Road at Sierra Highway.

Given the impending completion of HOV lanes on sections of I-405 through the San Fernando Valley, travel time from San Fernando Road and Sierra Highway to Westwood should not exceed 45 to 50 minutes. Given that 14 percent of work trips originating in Santa Clarita are bound for West Los Angeles, it would appear that there is a market for enhanced express service in this market. There are several relatively high density, high parking cost destinations in this market, including UCLA, Wilshire Boulevard office buildings and Century City, which should enhance its potential as a route. Patrons would also have the opportunity to transfer to frequent Wilshire Boulevard service operating in both directions.

Given the current cost to Santa Clarita of the extension of the existing route and the new, lower contract rate for Santa Clarita Transit operated express service, it should be possible to convert the route to express service with four or five AM and PM peak trips for little additional expenditure. It would require the acquisition of four additional highway coaches for Santa Clarita Transit.

2. *Potential Reallocation of Service on Route 799 to Downtown Los Angeles.*

Nine of the 22 buses used for regional routes operate on the 799 route to and from downtown Los Angeles, which parallels the Metrolink service to some degree. While Metrolink is 25 minutes faster to downtown, the advantage of the bus service is less expensive monthly pass rates and the potential of single seat service from Santa Clarita to a downtown workplace. Most Metrolink patrons need to transfer to the Red Line subway or connecting DASH or MTA service. By eliminating two of nine existing commute trips and providing a slightly longer span of service during the peaks, Santa Clarita could save three buses which could be reallocated to other services. The opening of a Newhall Metrolink Station, by eliminating the need for Newhall and Valencia residents to backtrack to the Saugus Station, may also reduce demand on the 799 route. If MetroLink added several additional commute trains (see discussion above), and/or if fare levels where comparable, it might be possible to eliminate even more service on this route.

3. *Modifications to Routes 796/791 and 798/793.*

The on-off movements need to be evaluated on these routes to determine if the routes provide the best combination of minimum travel time and maximum opportunity for direct service to key destinations in the San Fernando Valley. For example, while the 798 provides service to the Flyaway bus terminal at Van Nuys Airport and the governmental center on Van Nuys Boulevard, it does not serve a cluster of high rise office buildings at Sepulveda and Ventura Boulevards in Sherman Oaks. With the I-405

HOV lane, it may become more productive to remain on the freeway further south unless there is substantial patronage to the Veterans Administration Hospital or transferring to MTA routes to access Cal State Northridge.

As additional development occurs at Warner Center, it may be beneficial to modify the Route 796/791 distribution loop through the Center to maximize proximity to high rise development that has much higher employment densities and is usually associated with fee parking in structures. Santa Clarita Transit should monitor development patterns and work with TMAs to identify destinations of Santa Clarita residents.

4. *Additional Service on Route 795.*

This route connects the Saugus Metrolink Station/transit center with Palmdale and Lancaster in the Antelope Valley. It supplements Metrolink service and extends several trains that only operate between Santa Clarita and Los Angeles. Midday service is provided approximately every two hours. When Santa Clarita shifts its primary local service hub to Town Center, this route should be extended to Town Center to maintain the ability to transfer. Another useful modification of this route would be to extend commute period trips into the Valencia Industrial Center and Valencia Commerce Center as the latter develops. This would provide single seat transit service from Antelope Valley park-and-ride lots to the primary employment locations in Santa Clarita. At some point, there may be sufficient demand to operate hourly during the midday period.

Two additional regional destinations are recommended as follow:

5. *Service between the Sylmar/San Fernando Metrolink Station/Transit Center and Santa Clarita.*

The MTA San Fernando Valley Restructuring Study recommended a new Route 570, described further in the *Service Coordination Section*. This linkage would connect Santa Clarita, and particularly the Newhall section, to Sylmar/San Fernando, operating to the transit center at Hubbard and San Fernando Road. While also a Metrolink Station, many San Fernando Valley bus routes also meet there, providing good transfer opportunities to a variety of San Fernando Valley destinations.

In order to maximize potential for job access in both directions, the recommended route would travel south from the Valencia Town Center transfer point through Newhall along San Fernando Road to Route 14. In the morning, the buses could use the I-5 corridor to return via the Valencia Industrial Center (early) and Magic Mountain (late) providing job and recreational access to those locations for San Fernando Valley residents. The route would reverse in the mid-afternoon to early evening period.

As cited in Section 1.5, such a route would provide a faster Metrolink to Valencia Industrial Center connection for reverse commutes, approximately 15-20 minutes faster and possibly one less transfer. One bus could provide hourly headways on the recommended route. Two buses would be required for 30 minute headways. With such

a route, the three daily Route 795 trips between Santa Clarita and the Olive View Medical Center could be eliminated, replaced with consistent connecting service via the Sylmar/San Fernando Station probably supplemented by extended dial-a-ride service. If this line is successful and transit funding is limited, it might replace the 798/793 Van Nuys service, forcing a transfer for some direct trips but providing for many more transfer opportunities at the major Sylmar/San Fernando transit center.

6. *Red Line/Universal City route*

Another future opportunity will be regional service to the Red Line Universal City Station, scheduled to open in 2002, via the new HOV lanes on Route 170. The route could continue to the high density employment areas at or near the Warner, NBC, and Disney Studios, as well as St. Joseph Medical Center. While these sites can be accessed at present via bus from the Burbank Metrolink Station, this route would provide a faster and probably less costly transit alternative for this market. A transfer to the Red Line would also provide better access to the Hollywood and mid-Wilshire market which is served very indirectly by current Metrolink or line 799 bus service. If transit resources are short, this route might ultimately replace the Route 799 line if a good transfer policy is developed. Two buses would be required for hourly service on this route.

7. *Additional origin routes for commute services*

Although frequent service on a specific commute route is beneficial, giving commuters a choice of schedules, there may be opportunities for operating commute service from different Santa Clarita origins, including additional park-and-ride lots, making the bus service more competitive with driving in actual door-to-door service.

At present, the commuter bus travel time from the Saugus Metrolink Station to entering the Route 14 freeway at San Fernando Road is 24 minutes, the reason the park-and-ride lot at San Fernando Road and Route 14 is overcrowded. Reducing travel time through the community making local pick-ups on the way to Route 14 would be beneficial. An example would be trips serving Canyon Country operating directly from the Via Princessa Station (supplementing train schedules) to Route 14 via Via Princessa (or the Golden Valley park-and-ride lot once a direct Golden Valley Road connection to Route 14 is completed from Sierra Highway).

As community growth shifts more westerly and northerly, express bus service along the I-5 corridor may be warranted as well, perhaps operating from Castaic (or the possible future Newhall Ranch transit center) with pick-ups at several park-and-ride lots. Potential sites would include I-5 ramps at Valencia, McBean, Lyons, and/or Calgrove, serving neighborhoods such as Stevenson Ranch and the future Westridge development area. If additional park-and-ride lots and transit service are not provided along the I-5 corridor, significant increased park-and-ride capacity will be required along the Route 14 corridor, particularly at San Fernando Road where demand already exceeds supply.

8. *Additional destinations for commute services*

There are several other destinations that can be considered for commute service. Routes to employment centers in Glendale or Pasadena are possibilities. While Metrolink has stops in Burbank and Glendale, the downtown Glendale employment center is midway between the rail stations, necessitating a transfer to a shuttle to access most jobs. A direct bus might be more productive. Pasadena has two employment centers, the downtown area which includes Caltech, and the Jet Propulsion Lab north of downtown.

As development spreads to the west and north, there may ultimately be demand for commute service to Santa Clarita from Ventura County along the Route 126 corridor and from Tejon Ranch and Frazier Park in Kern County to the north. See the section on *Cooperative Service Plans* for more discussion on these potential routes.

It is difficult to determine the required resources for future regional services, but with some reallocation of existing service, it may not require more than 8-10 additional buses, a smaller proportional increase than that anticipated for local, fixed route service. The exception would be operating multiple origin routes in Santa Clarita and Newhall Ranch for regional routes, as described previously.

There is also uncertainty about the future of other operations. Expanded Metrolink service could result in diminished need for Route 799. A successful linkage with the Red Line and MTA routes at Universal City could also mitigate need to operate multiple routes to Los Angeles. A station on a high-speed rail line between Los Angeles and the Bay Area could also have unanticipated impacts on regional service. While it might displace some Route 799 and Metrolink travel, its fare structure and limited local stops may discourage local usage while encouraging community growth - leading to more demand for transit services. The designated Santa Clarita Station site for a high speed rail line is west of I-5 at Valencia Boulevard. It may be desirable to reserve the site as a park-and-ride lot.

DEVELOPMENT GUIDELINES

Details of a community's fabric affect how well or poorly a community takes advantage of transit services. Development patterns can be defined as "transit-friendly" or "transit-unfriendly." In a transit-friendly community the fabric is structured to make it easy for people to get to and from transit, easy for transit to get from place to place, and easy for transit to get close to the places where people want to go. Such a development pattern will increase transit efficiency and boost transit ridership. In an unfriendly community fabric, the same level of transit service is likely to attract only "transit-dependents", those who have no alternative way to make a trip.

The following development guidelines are presented to help Santa Clarita become a more transit-friendly community. The key, however, as cited above, is for land use and transit service to be related. Most transit ridership is generated by higher density residential development, the primary commercial activity (retail and office) centers, and school trips. To the maximum degree possible, such higher trip-generating development should be located adjacent to, and in

no case more than a quarter mile from, the primary arterial routes that are suitable for and have transit service.

Pedestrian Access

- *Require sidewalks along all new streets* including those in office/industrial parks. Require hard surface waiting places along existing and proposed transit routes at the logical stop points. In office/industrial parks where sidewalks and waiting places have historically not been provided, these requirements can perhaps be made cost-neutral by limiting the sidewalks to bare minimum widths (say 3 feet) and by making corresponding reductions in the present generous curb to curb street width requirements.

- *Retrofit sidewalks in built environments where proposed building, remodeling or use changes make this practical.* The City itself should continue programs to construct missing waiting pads in developed areas and to build paths leading to them where existing facilities are lacking (so long as these can be constructed without intruding on sensitive established environments).

- *Provide a pedestrian linkage from bus routes to paseos.* Provide reasonably direct and visible access between paseos and street-side along existing or proposed bus routes in new developments. Retrofit older paseo crossings to provide reasonable access to bus routes. Place paved waiting pads in logical positions at all paseo crossings of existing and proposed bus routes.

- *Provide pedestrian access to walled communities.* In walled communities and internalized pocket neighborhood developments, require pedestrian passages where internal streets stub-up at boundary walls dividing the neighborhood from an existing or proposed transit route. Also require such openings at reasonable intervals where internal streets parallel the walls separating the residences from a transit line. An effective treatment is leaving a gap in the main wall at a point fronted by a short parallel wall a few feet closer to streetside. This treatment maintains the noise protection and visual privacy of the enclave community while facilitating direct pedestrian access to transit. Initiate a City program to retrofit such pedestrian accesses in existing neighborhoods where the configuration of the neighborhood impairs access to transit.

- *Alleviate other pedestrian barriers.* Require new developments to provide *crossings* of barriers to transit access posed by drainage courses, aqueducts and utility corridors at points conducive to accessibility to existing and planned transit routes as well as continuing the good work the community and its developers have already done in developing pedestrian/bike trails *along* these corridors. Initiate a City program to add key crossings in existing developed areas or areas where it appears infeasible to depend on private development to create needed crossings. One possible target for such a program might be a crossing of the South Fork Santa Clarita River between the Valencia neighborhoods (say in the vicinity of Avenida Velarte) and San Fernando Road (close to Circle J Ranch Road).

As an alternative to expensive bridges, the possibility of "seasonal crossings" - hardened at-grade travel surfaces across drainage courses that would simply be unavailable for use at times of high water - could be considered.

- *Provide grade-separated pedestrian crossings.* Continue policies and programs encouraging development of paseo-type grade separated crossings (with access to transit) of major arterials and primary collectors within large developments. Initiate City programs to develop paseo-type grade-separated crossings of major arterials where desirable in already developed areas and at locations where it is infeasible to depend upon individual private development to create the crossings.

- *Provide signal protected crossings of major roadways near key transit stops.* In new and retrofit intersection design projects, strive to provide median widths which afford comfortable rather than just minimally adequate (our understanding is that the courts have held that medians as narrow as 2 feet wide constituted adequate) pedestrian refuge.

It is also important to educate the public as to the proper interpretation of pedestrian signal indications at median-divided crossings. Follow the lead of other communities in placing supplementary placards over pedestrian phase actuation buttons. The placards indicate whether the interval provides time for full or only median-width crossing for normal-paced individuals. Also, place articles on this subject in transit and community service publications.

If existing intersections do not provide full pedestrian crossing intervals, evaluate the feasibility of extending the cycle and phases proportionately or other reasonable retiming strategies as necessary to provide full pedestrian crossing intervals.

Street Patterns

Modern transit planners favor the neo-traditional grid street pattern as a transit-friendly environment. Because of the constraints of severe terrain, drainage courses, aqueducts, railroad right of way and other utility corridors and because of the established major street system pattern, Santa Clarita is a community which will never be able to implement the neo-traditional grid street pattern in any substantial way. Given this circumstance, the keys to making Santa Clarita streets more transit-friendly are as follow:

- *Rigorously implement the pedestrian accessibility related programs and policies* discussed above. The pedestrian network can provide a grid-like accessibility to transit even when the local street system is largely discontinuous and organized in walled pocket enclaves. Assure that the developing arterial-collector street network is of a grid-like pattern which permits logical and efficient transit routings through the community. This does not mean that the major streets necessarily need to be straight or at right angles to one another. It means that they should be continuous across large areas of the community at a density or spacing of no more than a half-mile on both the generally north-south and east-west orientations. That allows efficient transit routings bringing services close enough to a majority of the community to meet the service standards set forth elsewhere herein even

in an area where transit will rarely be able to operate effectively on local residential streets.

- *Adopt policies precluding approvals of new gated (access restricted) communities where gates interfere with logical transit routings.* Use powers of approvals over building, additions and use changes to eliminate access restrictions in existing gated communities.

- *Create continuous linkages wherever possible.* Refrain from approving arbitrary discontinuities in the local street network - discontinuities not necessitated by some form of barrier or the major street network configuration.

- *Provide bus turn-outs only where they are properly engineered.* Where the character of major street conditions suggest the possibility of turn-outs (widened areas of the roadway at transit stops so the bus can stop without obstructing normal travel lanes), the turn-outs should only be employed where they can be constructed with sufficient length to provide a satisfactory acceleration lane for transit vehicles, facilitating their safe and efficient reentry to the traffic stream.

Shopping Center Form

The transit planner's ideal is the neo-traditional mixed-use shopping street with street oriented retail space on the ground floor and office or residential uses at the second story. While demand for this development form may be lacking in a community of as different a character as Santa Clarita, the City's policies should permit such development form in areas of the community where it might be appropriate.

- *Provide better pedestrian access from bus stops to commercial structures.* In more conventional shopping center development, emphasize placing shop buildings close to the street frontages and intersection corners where they can be accessed most readily by pedestrians and transit riders. Put the auto parking in back. Locate drive-up banks and fast-food outlets where their traffic will interfere least with everyone else (pedestrians and street traffic).

  Where centers conform to the established suburban norm (parking out front, shops to the rear), provide clear pedestrian paths between transit stops and the shopping concourse. The paths should be as reasonably direct as practical and minimize the need to cross circulation aisles or weave between parking stalls.

Development Review Team

- *Involve transit officials in the development approvals review and conditioning process.* The best and least expensive opportunity to provide a "transit-friendly" environment is in the development approval process. In reviewing site plans, staff should concentrate on details that go beyond normal transit operational considerations. For instance, in a community where the weather is often quite warm, a landscape plan which provides shade to a transit stop has considerably more value than one which merely provides green

surroundings at the waiting point. A transit planner making unusually detailed comments on tree types, locations and sun angles can make a difference in riders ultimate experiences.

Coordination with Los Angeles County

Since areas surrounding the City are often developed under County jurisdiction, then annexed to the City or become parts of Santa Clarita Transit's service area though remaining under County jurisdiction, it is crucial that the City find mechanisms to induce the County to respect and adhere to the transit-friendly development guidelines outlined herein.

3.2 RAIL STATIONS AND TRANSIT CENTERS

RAIL STATIONS

While not ideally located with regard to proximity to residential areas and the arterial network, a significant investment has occurred to date in the Saugus Metrolink Station. It should continue to be an important origin point for rail travel as well as regional commuter bus service. It is also well situated between two planned development areas, Porta Bella to the south and the Panhandle across the river to the north. While the investment in the Via Princessa Station is considerably less at this point, it is also an established facility relatively well situated for the Canyon Country market. Located near major arterial routes and surrounded by industrial uses and the Santa Clarita River, it does not provide the potential for a significant walk-in market, but it is a site that is unlikely to generate opposition from nearby residents as it is developed with more permanent facilities. It is also well situated with freeway access from the large catchment area out Route 14.

The location of the proposed third Santa Clarita Metrolink Station should be the site on Railroad Avenue in Newhall, between Lyons and Market. Further north along San Fernando Road is too close to the Saugus Station; further south diminishes access from residential areas and would be poorly situated for combining the station with a transit center for transferring between bus routes.

Although slightly too close to the Saugus Station for Metrolink standards, the Newhall site provides the best combination of proximity to the residential market while minimizing the potential of backtracking for patrons accessing the station (i.e. having to travel in the reverse direction from the ultimate destination). Without a Newhall Station, Valencia and Newhall residents need to travel 10-15 minutes extra to access a train to Los Angeles (5-10 minutes to access the station and five minutes on the train to get back to Newhall). The suggested Newhall Metrolink Station also provides an opportunity for public investment in an area which will be compatible with plans for redevelopment activity to revitalize the old commercial core of Newhall. Station improvements will be a suitable expenditure for redevelopment funds as well as traditional transit funding sources.

If the Santa Paula line is ever brought back into active service and restored across Valencia to connect with the active rail line, another station would be developed in conjunction with the Newhall Ranch project. The proposed transit center at Chiquito Canyon and Route 126 might be a good location.

TRANSIT CENTERS

Town Center

The primary transit center for a fixed route pulse terminal in Santa Clarita should be at or near the Town Center shopping center. Town Center, not Saugus Metrolink, is the crossroads of the system because of the configuration of the area road network and because it is at the primary ridership concentration of the system; hence it is the logical transit hub. With much of future community growth focused to the north and west, Town Center will also become more of a geographic center. Continuing to hub at Saugus Metrolink will result in continuing system inefficiencies which will not be tolerable in a future cost and operating environment.

In a pulse type system, efficiency of the general location of the terminal and functional efficiency of the details of the terminal design crucially affects the entire route system. At present, six routes travel in sequence between the Town Center and Metrolink Station. Compromises in location and/or functional details that might be tolerated in the case of an individual bus stop have escalated systematic consequences in the case of a terminal.

Shopping center managers typically like to be served by many transit routes - so long as the bus stop is well on the center's perimeter and only one or two buses arrive at a time. A terminal proposal conjures visions of a wall of buses blocking the view of the center from the road and crowds of teenagers loitering, an intimidating presence for other center patrons. However, several Southern California transit agencies have agreements with shopping centers for transit centers on shopping center property, including Orange County Transit District and San Diego Transit.

A key understanding in Santa Clarita is that, unless a suitable pulse terminal can be developed in the Town Center area, continuing to configure the system structure so that a majority of the routes still pass by Town Center will become impractical. There are a variety of potential locations for a transfer terminal on the periphery of the shopping center. It is essential that the transit center both not conflict with shopping center access and egress patterns, but also equally important that the facility be easily accessible by buses operating on diverse routes without inordinate out-of-direction travel and lost time in accessing and egressing the facility. Safety of pedestrian flow between buses and between buses and pedestrian destinations is also essential.

Table 3.2 indicates the advantages and disadvantages of alternative terminal sites in the vicinity of the Town Center Mall. A terminal along the lines of that described for Location # 1 (on the south side of Magic Mountain Parkway east of the paseo bridge and Auto Center Drive) can be developed to meet the functional needs of the transit system while minimizing adverse impacts on shopping center circulation and required land dedication for transit use. Eastbound buses would remain on Magic Mountain Parkway while westbound buses would need to divert onto

Town Center internal roadways. With two aisles of bus bays (one at curbside) and berming comparable to what exists at present, the visual impact of the buses at pulse time would be minimized. This is a perimeter location, though one with good pedestrian access. The intent of staffing an information kiosk should maintain order in the terminal area.

The future transit route pattern proposed for Santa Clarita has eight routes plus an additional peak period route servicing the Valencia Transit Center, each operating on half-hour frequency. They are all through routes, so the total number of buses passing through in a full cycle would be 18. This is beyond the practical upper limit of 10-12 full size transit vehicles that can be accommodated in a pulse terminal integrated in a suburban commercial complex given considerations of spatial requirements of the terminal complex and "bus traffic congestion."

As service becomes this concentrated, it is probably desirable to offset the pulse times on several of the routes by 15 minutes from the others. This will provide 15 minute service on the key routes within the central core and relieve bus congestion. We recommend that the system be operated on a single pulse until nine to 10 buses are servicing the Town Center.

The center should be developed as two aisles of sawtoothed bays, 5-6 bays in each direction. This gives a requirement of about 350 linear feet of bay space. Once the system goes to split pulse operation, the spare bay space can be used as stops on the commuter lines and as a pickup/drop-off point for dial-a-ride services.

With a 12 foot curb indention along Magic Mountain Parkway, 35 feet for pedestrian waiting and circulation, and an internal set of bus bays and roadway width of 25 feet, approximately 72 feet would be required to accommodate the terminal. Total site need would be approximately 25,000 square feet. The same concept can be duplicated at Location # 3 along McBean Parkway on the west side of Town Center. Figure 3.2 illustrates how the various routes would approach a transit center along McBean Parkway.

Newhall

The proposed Santa Clarita Transit system has five routes converging at the Newhall Metrolink Station/transit center. The rail station would be located east of Railroad Avenue between Market Street and Lyons Avenue. The bus terminal is proposed to be an on-street curbside terminal along both sides of Railroad Avenue. Alternatively, if sufficient parking can be accommodated south of 8th Street, the narrowed portion of the site north of 8th Street could be utilized for a northbound set of bus bays adjacent to the station platform. Preliminary engineering will be required to determine the viability of this concept.

Although five routes converge on the station, it is the terminus of only one of them. It is a waypoint on the routes of the other four. Hence, there could be ultimate need for as many as nine local bus bays at Newhall; one for the terminating route and one for *each direction* of the through routes. If a bay or two is provided for commuter lines, total bay requirement would be 11 or 12.

TABLE 3.2 TOWN CENTER TRANSIT CENTER ALTERNATIVES

Location # 1: On South side of Magic Mountain Pkwy. east of pedestrian bridge.
Description: Eastbound vehicles on bays directly off Magic Mountain travel lanes; westbound vehicles on bays off internal roadways of Town Center.

Advantages:

- Concentrated site:
  - Easy walking for transfers,
  - Single kiosk with easy walk to all platforms,
  - Grouping platforms around single concourse creates minimal confusion and anxiety for infrequent and first time users.
- No off-route deviation for eastbound vehicles; minimal deviation for westbound vehicles.
- Paseo bridge provides ready access to land uses on both sides of Magic Mtn. Pkwy. Connecting paseo provides clear access path across shopping center parking lots to destinations.
- Location within reasonable walk distance of shops and other community activity center destination concentration.
- Provides highly visible location for transit yet preserves separation of terminal from Town Center structures.
- Requires least acreage of off-road terminals.

Disadvantages:

- Off-route diversion for westbound vehicles (although can use existing signals).
- Potential for westbound transit vehicles to be tied-up in shopping center internal traffic during peak shopping seasons.
- Not favored by mall management.

Location # 2: Split terminal along Magic Mountain Pwy. east of pedestrian bridge.
Description: Platform bays north and south of Magic Mtn. Pkwy. accessed directly from travel lanes.

Advantages:

- No off-route travel in either direction.
- No potential to be tied-up in seasonal shopping traffic in Town Center internal roadways.
- Highly visible location for transit.
- Paseo bridge and connecting paseo provides good access to nearby shops.
- Generally good proximity to concentration of community destinations.
- External position of transit vehicles most acceptable to Town Center.
- Requires least acreage.

Disadvantages:

- Long walk across paseo bridge for transfers between routes on opposite sides (requires longer transfer time).
- Would require dual kiosks (including duplication of rest room facilities for operators); probably one kiosk staffed, the other a remote terminal.
- Split configuration on opposite sides of street likely to be confusing for first time and infrequent users who need to transfer.

Location # 3: On Mc Bean Parkway near Magic Mountain Parkway
Description: Northbound streetside, southbound in internalized transit center.

Advantages:	Disadvantages:
• More flexibility to design on open land; fewer design constraints. • May be favored by mall management; possibility of more enthusiastic cooperation. • Future paseo crossing provides potential benefits similar to location # 1. • Adjacent to future "main street" access to mall.	• Location on Mc Bean slightly less well suited to overall route structure than #'s 1 & 2 on Magic Mountain. • More remote from retail activity across Magic Mountain Parkway, no development at present on west side of McBean.

Location # 4: Northeast corner of McBean and Valencia.
Description: Internalized transit center.

Advantages:	Disadvantages:
• Good proximity to concentration of community destinations. • Good high visibility location for transit. • Concentrated site; minimized walks for transfers.	• Inferior linkage to paseo system as compared to alternatives 1 and 2. Also, less sense of easy pedestrian linkage to Town Center shops than # 1 and 2. • Proximity to major intersection necessitates totally internalized configuration. This imposes turning requirements on near side as well as far side vehicles. • Corner site makes efficient linear terminal layout for required number of vehicles difficult. • Requires largest acreage from Town Center.

Location # 5: Northwest corner of McBean and Valencia behind gas station
Description: Internalized transit center behind station

Advantages:	Disadvantages:
• none relative to other alternatives	• same as number # 4 above • Most out of direction bus travel required • cannot be effectively utilized

Alternatives Considered but Dismissed

Location # 6: Split terminal north and south of Magic Mtn. Pkwy., west of paseo bridge (platform bays accessed directly from street travel lanes).
Reason: Generally has same advantages and disadvantages as # 2 except available space is more constrained, and paseo bridge not convenient.

Location #s 7 & 8:
Linear curbside terminals (platform bays accessed directly from street travel lanes) on one side of Magic Mtn. Pkwy. centered on and split by pedestrian bridge; # 7 would be on north side, # 8 on south side.
Reason: Linear terminal of 10 to 12 bays would be far too spread out to function effectively. Half the vehicles must execute 180 degree counter direction movement to enter and another 180 degree movement upon exit. In case of north side, space available may be inadequate.

Valencia Transit Center Detail

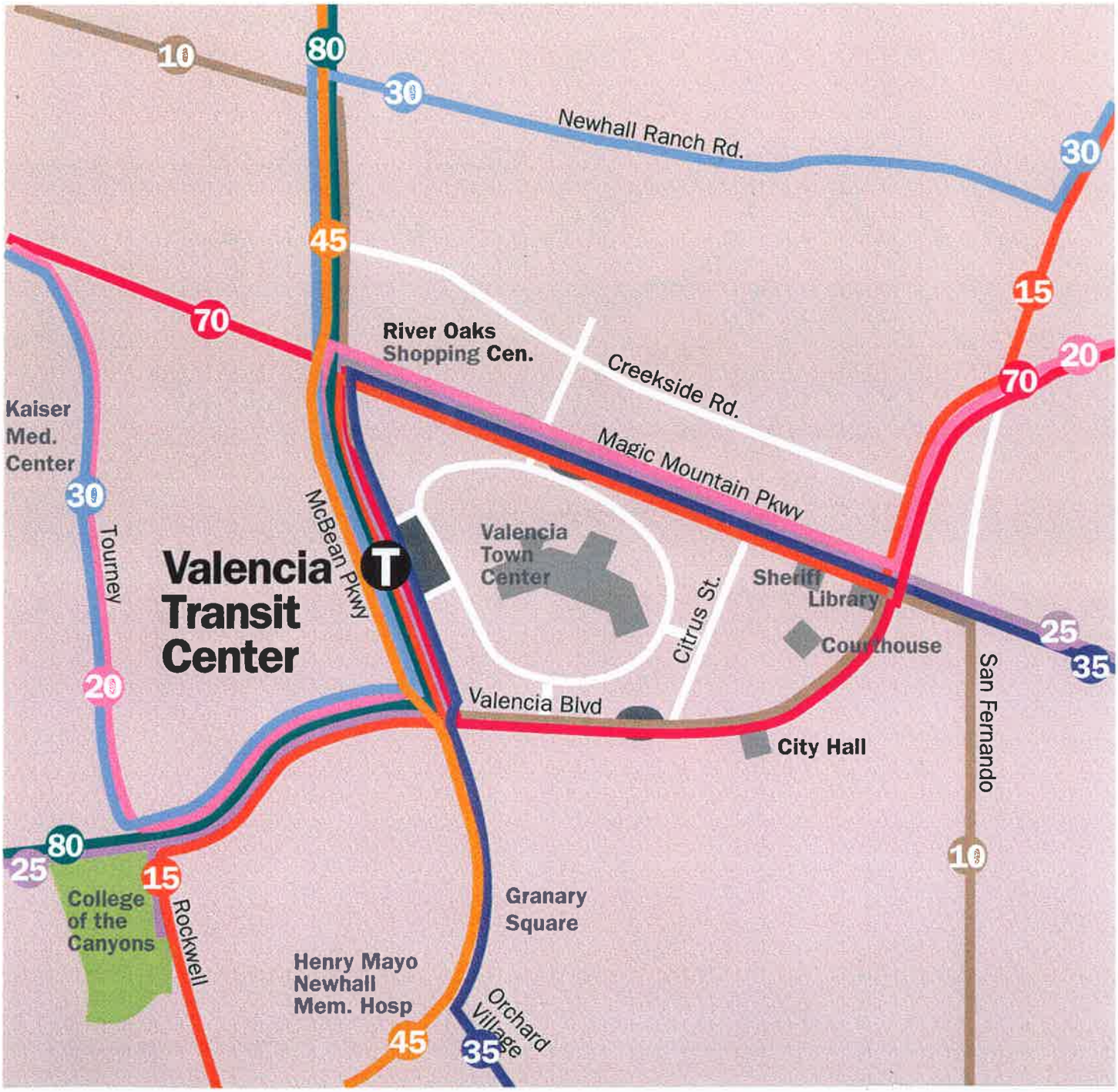


Figure 3.2

Because the Newhall Transit Center is not at the midpoint of the through routes, it is unlikely that there would be a requirement of bay space for all nine local buses simultaneously and the facility will not operate as a full pulse terminal. It would probably be possible to operate successfully with fewer than nine local bus bays. However, because of the character of the area, it would be practical to reserve as many as nine curbside bays for local buses and one or two for commuter buses. Furthermore, there is a positive recognition factor when each terminating route and each direction of each through route has its own unique bay. Given the practical availability of bay space and the recognition value, the planning goal of reserving a unique bay for each terminating route and each direction of each through route is an appropriate one.

As to traffic pattern, the convenient loop of Lyons, Market, Railroad and San Fernando blends well with a terminal at this site. Bays for through routes should be assigned on an orientation consistent with the general orientation of the route direction (for recognition and general efficiency). A bay for the terminating route can be assigned in either direction as necessary to balance out bay use.

To the degree that there is any pulsing activity at Newhall, the pattern should be keyed to the Metrolink schedule during train times and otherwise to the schedule of the 25 which should provide about a 15 minute offset from the primary pulse at Valencia Town Center. Arrivals and departures on the other through routes will be based on the operational requirements of their particular routes and the pulse schedule at Valencia Town Center but should still be relatively close to pulse time at Newhall, facilitating convenient transfers between most routes.

Princessa

In the long-range plan, the Princessa Transit Center would be served by four routes including Route 45 which would end at the station and three through routes. This would create a requirement for up to seven bus bays for local service. All of the routes calling at the Princessa Transit Center also call either at Valencia Transit Center or at Newhall Transit Center. Ideally, runs serving Via Princessa would pulse offset 15 minutes from Valencia Town Center and Newhall since it is approximately 10-12 minutes run time from the other terminals by most routes. The key meets at Princessa would be for patrons coming from the east and north to be able to choose to travel to Newhall or Valencia, and vice versa for people returning from one of those communities.

To simplify design and expense, it may be possible to accommodate westbound buses along Via Princessa adjacent to the station, with eastbound buses turning left to enter the station before returning to their route.

Chiquito Canyon

With no specific land plans and arterial layout available for the prospective Newhall Ranch Development, it is not possible to recommend an exact site for the fourth future Santa Clarita transit center. Three local routes, the 70, the 30, and the 35 should all pass through the transit center, providing destination choices for residents of Val Verde and the western portions of Newhall Ranch. While all three routes pass through the Valencia transit center, they take very

different routes to get there, providing access to the Valencia Industrial Center, Valencia Corporate Center, and Newhall respectively. This site would also be a good location for a park-and-ride lot or potentially a rail station if rail service is extended to the west.

PHASED ROUTE STRUCTURE MODIFICATIONS

It is important that the route modifications be accomplished in a manner that is logical and not overly disruptive to current ridership. Some of the recommended routes are or can be operated at present while others rely on new development and new arterial routes.

Santa Clarita Transit has its existing routes stretched to the practical operational limits for maintaining the pulse cycle at the Saugus Metrolink hub, and its route options are constrained by a roadway configuration that is itself constrained by severe terrain, drainage and utility corridors and pocket neighborhood patterns. In such a system, it is difficult to make incremental change to respond to unmet service desires, increments of growth or even cumulative growth increments. The key preconditions to meaningful changes in route structure are development of new pulse terminal locations (discussed above) and development of new arterial, collector (and in some cases continuous local) street linkages. The key elements dictating timing of service plan changes are the Town Center Transit Center and the routes dependent on new roadway elements. A Newhall Transit Center can come into being at literally any time simply by routing the buses to Railroad Avenue - the Metrolink station need not be constructed yet.

Of the proposed routes, the 10N and 10E, the 15N and 15S, the 30N and 30W, the 35S, the 45S, and the 70E can be operated with existing roadways and represent continuity or minor modifications to existing routes. The portion of the 45N between Whites Canyon and the Princessa Metrolink Station can take over that portion of the existing 50 line, with the remaining connection to Plum Canyon and connection to the Town Center via Copper Hill and McBean to be initiated when Whites Canyon is linked with Plum Canyon.

Other routes are dependent on development or new streets. For example, the Val Verde/Valencia Commerce Center (VCC) peak service (Route 20) is dependent on development in the VCC, and the 35E and 25 are dependent on new development and new roadway connections in and around the proposed Porta Bella development. Likewise, the 60 route is dependent on a Sloan Canyon extension and the north and west legs of the 80 route are dependent on the development level at the proposed Tesoro del Valle and Newhall Ranch projects respectively. Other lines would be extended into Newhall Ranch as it is built and occupied, adding buses and cycle time to existing routes. Section 4 presents a phased plan for introduction of the new services.

3.3 COOPERATIVE SERVICE PLANS

Because of its terrain imposed physical isolation from other communities, there are no adjoining communities and no transit discontinuity resulting from jurisdictional boundaries. For travel within the larger region, Santa Clarita Transit has reciprocal transfer agreements with Metrolink, MTA, AVTA, and LADOT. These agreements provide for combining Metrolink, Santa Clarita Transit, or LADOT regional service with local bus service in Santa Clarita, the Antelope Valley, the San Fernando Valley, or Central or West Los Angeles, points that can be accessed by transit from Santa Clarita.

Santa Clarita regional routes do not provide open door service on local portions of the express routes, such as along DeSoto between Chatsworth and Canoga Park or Woodland Hills, or between Van Nuys and Sherman Oaks. MTA buses provide the local service along these corridors, and the Santa Clarita service in each corridor is limited to peak periods at 30 minute headways. In addition, Santa Clarita Transit has a 13c agreement with the MTA unions not to provide competitive service within the MTA service area.

COORDINATION OPPORTUNITIES

Metropolitan Transportation Authority (MTA)

The MTA/LADOT "Study of Restructuring Public Transit Service in the San Fernando Valley" (9/94) identified demand to travel from the northeast part of the San Fernando Valley to Santa Clarita Valley. New hourly weekday and weekend limited stop service was proposed between the Sylmar/San Fernando Metrolink Station/transit center hub and Santa Clarita on a proposed "Route 570".

Proposed destinations in Santa Clarita included the Town Center Mall and Magic Mountain, with the route approaching Santa Clarita generally on the I-5 corridor. Staff at Santa Clarita Transit believe that the route should access Santa Clarita via Route 14 and San Fernando Road where it could serve a joint purpose supplementing local transit service on San Fernando Road. A large segment of demand could be between Newhall and Sylmar, which would be better served by this route. An optional extension to the Valencia Industrial Center could be integrated. Another alternative would be for the route to circle through Santa Clarita, providing service from Newhall to Sylmar in the AM peak with the return to Newhall via I-5, the Valencia Industrial Center, Magic Mountain, and the Town Center. In the afternoon and early evening the route would reverse, operating northbound from Sylmar and southbound from the Industrial Center and/or Magic Mountain depending on time of day.

The MTA has implemented much of the San Fernando Valley restructuring plan but until recently was not pursuing adding this proposed new service. To date, the MTA has not expressed interest in running the service nor identified funding to begin this service. Santa Clarita Transit has volunteered to run the service if MTA is able to find funding through savings in implementing other parts of the plan. In theory, implementing the Restructuring Study presumably leads to no additional dollars being spent countywide, since savings on some routes

are applied to new services on other routes. The study was "blind" to budget implications to individual operators. In fact, the MTA has realized cost reductions when it made changes. MTA is attempting to resolve funding for this new service through the MTA's FY97 budget process already underway.

Outside of implementing Line 570, neither Santa Clarita Transit nor MTA have discussed adding other bus routes.

Los Angeles Department of Transportation (LADOT)

In its Bus Service Expansion Program, the MTA allocated funding to Santa Clarita to provide transit service between Santa Clarita and West Los Angeles. At the time, Santa Clarita determined that the most efficient use of the funds was to extend selected trips from the existing LADOT Line 573 between West Los Angeles and Granada Hills. Therefore, LADOT is the contracting agency responsible for Line 573 from Santa Clarita to Westwood. The LADOT contracts with the MTA to operate a package of express services, of which this is included.

As cited previously, Line 573 has some features which may limit its ability to truly serve patrons between West Los Angeles and Santa Clarita:

- The route through the San Fernando Valley proceeds along Balboa Boulevard rather than I-405, which makes it tedious for those headed to West Los Angeles. An express segment through the San Fernando Valley is likely to be more attractive.
- The route does not serve the Sylmar/San Fernando transit hub. However, it does serve the Chatsworth/Gaynor park-and-ride, which allows transferring to LADOT Line 574 which proceeds to the LAX/El Segundo employment area.

To date, Santa Clarita Transit has not had the flexibility to shift express buses between the 794/799 routes to downtown Los Angeles which utilized Santa Clarita owned buses, and other services which were provided by other vendors using their own buses. With its new single vendor service contract implemented in August 1996, Santa Clarita Transit gained ability to allocate resources more flexibly between routes. It may be more productive to shift resources from the downtown Los Angeles to Westwood/Century City service, and provide the service with less deadhead time and lower contract cost per hour than that associated with the LADOT contract.

Antelope Valley Transportation Authority (AVTA)

AVTA does not have a great deal of transit funding (highway projects are the preferred use for TDA funds), which limits the opportunities available for coordinating transit. To date, Santa Clarita provided service on Line 795 because the Antelope Valley based contractor could provide the service with minimal budget impact. AVTA does not provide funding for the route which connects the two communities, with several trips a day extended to the Olive View Medical Center in Sylmar.

The service design on Line 795 appears erratic because of the scheduling windows and attempts to avoid duplication with Metrolink. Metrolink has requested Santa Clarita to add bus service to meet their 7:53 am and 8:53 am trains. Santa Clarita has indicated to AVTA that they would be willing to provide the extra service if AVTA can fund the extra cost. However, to date AVTA has not provided funding.

In terms of other opportunities to coordinate service, not much has been pursued. Conversations have occurred on and off for AVTA to stop its express routes at the Golden Valley park-and-ride but neither operator is particularly interested (AVTA because it fears increased patronage may lead to the need for additional service/vehicles; Santa Clarita Transit because it feels its own service adequately serves Santa Clarita patrons). Coordinating transfers between bus routes is also challenging because AVTA's hourly headways are difficult to work with.

Ventura County

Ventura County has a bus route along the Highway 126 corridor that operates within Ventura County, running approximately hourly from 7am to 6pm between the Buena Ventura Mall and the Fillmore fire station. Fillmore is approximately 19 miles from Santa Clarita. Given anticipated growth of travel demand in the full corridor to Santa Clarita, extended bus service crossing the two counties may be desirable in the future. Since the majority of the corridor is in Ventura County, it is probably more logical for the Ventura County Transportation Commission to sponsor the service. To date, the VCTC considers it a low priority route. As a long-term solution, rail along the Santa Paula Branch could serve this corridor (as well as provide service into the Antelope Valley), although it is not clear that demand would be sufficient to justify the rail investment. Santa Clarita Transit has pursued study funding to identify right-of-way in Santa Clarita that completes the link needed to provide service in this corridor.

Kern County

Because of the rapid growth expected in Kern County, in the long term there may be a need for transit service between Kern County and Santa Clarita Valley. Kern Regional Transit provides bus service between Bakersfield and Frazier Park, located 29 miles north of Santa Clarita, but does not serve any part of Los Angeles County. While there is some demand between Frazier Park and Santa Clarita, providing transit over such a long distance is highly impractical for a very limited market. With Kern County growth and potential development in the Frazier Park/Tejon Ranch area, there may ultimately be sufficient demand for commute service to Santa Clarita. As is the norm, operation by Kern Regional Transit would be more logical for such service.

Amtrak bus also operates between Bakersfield and Los Angeles, but only provides skeletal service which is only available for users ultimately using Amtrak train service. Greyhound service exists between Bakersfield and Los Angeles (though not with a schedule conducive to commuting), with no stops at Frazier Park or Santa Clarita.

Intercity Operators

Several Greyhound buses designated as "local" pass through Santa Clarita without stopping. The majority of Greyhound buses travel along the I-5 corridor, with a single route to Bishop using the Route 14 corridor. Greyhound had a station in downtown Newhall, but abandoned it some years ago. When the Newhall Metrolink Station is built, Santa Clarita could encourage a stop there where Greyhound buses along both I-5 and Route 14 could be intercepted.

3.4 NON-TRADITIONAL SERVICES

Many transit agencies, due to budget constraints and a desire to be more responsive to their overall market, are exploring new ways to deliver service to customers. These new ways of service delivery are also a logical response to changing travel patterns and the need to diversify transit's "product lines" by going beyond traditional transit operations. Mobility management is the function of providing the best transportation alternative, whether it be traditional transit service, dial-a-ride transit, taxi service, or assistance with carpooling or other rideshare programs. Wise use of limited funding and provision of maximum mobility requires a broad, coordinated strategy, and transit agencies are well placed to provide a strategic role.

Given experience elsewhere with non-traditional services, seven potential strategies were considered to be potentially applicable to Santa Clarita. They are introduced briefly, and greater discussion is devoted to three strategies, including implementation steps, that were mutually selected by the consultants and Santa Clarita Transit management staff as most appropriate for the Santa Clarita environment.

OPTIONAL STRATEGIES

Strategy 1: Dial-a-Ride for Low Density Trips

In areas of low ridership, a number of transit agencies have contracted with private operators and taxi companies to provide dial-a-ride transportation in-lieu of scheduled fixed route service. When travel patterns are highly dispersed, this option may cost less than fixed route buses while still maintaining mobility within a community. The disadvantage of dial-a-ride service to the consumer is the need to pre-schedule travel, as opposed to going to the bus stop without advance planning. Unlike scheduled buses, service is only provided when a passenger calls to schedule a trip. Capacity can easily be increased or decreased as demand warrants.

Santa Clarita Transit contracts with a private contractor to provide both the dial-a-ride service and fixed route bus service. At present, the least productive fixed route serves approximately four times as many patrons per hour of service as the existing dial-a-ride service, and the average cost per dial-a-ride trip is much higher than fixed route transit trips. With the possible exception of late night or Sunday travel when there has been no fixed route service, this strategy

does not appear to be one that warrants further consideration by Santa Clarita Transit at this time.

Strategy 2: Dial-a-Ride Feeder Routes

Dial-a-ride feeders also operate in low density areas. In this strategy, they work in tandem to feed fixed route buses. Small buses, taxis, or vans collect passengers who call to be picked up at their door and delivered to transfer points to connect with the fixed route buses. Such service may alleviate the need to extend fixed route services into fringe neighborhoods. At present, Santa Clarita Transit provides dial-a-ride service to all senior citizens in addition to those meeting ADA eligibility criteria. Thus, utilizing dial-a-ride feeders in Santa Clarita could reduce trip length for some existing dial-a-ride trips, those in which riders are physically capable of transferring to fixed route buses that would take them to their destination.

Strategy 3: Checkpoint Dial-a-Ride

Checkpoint dial-a-ride is a variation of the demand responsive services described in the previous sections. Pickup and dropoffs do not always take place at origin or destination curbside but only at specially designated checkpoints. When a passenger calls for service, the dispatcher determines the nearest checkpoint, located so that the passenger has only a short walk. Checkpoint service can be more efficient than curbside service since drivers do not need to spend time searching for exact addresses, waiting for passengers, or driving into cul-de-sacs or apartment complexes. Because passengers are required to wait at checkpoints, there is a greater need to make sure that the vehicle arrives on time than for door-to-door dial-a-ride service.

Compared to existing Santa Clarita transportation services, it might save some time relative to standard dial-a-ride, but would require riders to walk to checkpoints, which would discourage senior citizens. In addition, the heat in summer and lack of pedestrian amenities in much of Santa Clarita would cause rider resistance.

Strategy 4: Service Routes/Community Buses

The previous strategies describe dial-a-ride feeders to bring pickup and dropoff services closer to the customer than traditional fixed-route buses. Service routes, by contrast, are not demand responsive but are fixed routes designed to reduce the distances that people must travel to bus stops. Because the buses travel into neighborhoods, paratransit vehicles or low floor buses are often utilized. Usually patrons can flag buses anywhere on the routes. Exiting the bus is also permitted anywhere on the route. Some operators allow requests for route deviation, where the passenger can be picked up or dropped off a few blocks from the fixed route. One of the goals is to reduce the demand on paratransit dial-a-ride by designing fixed service routes that are easy to use for the elderly and persons with disabilities.

Service routes could be introduced instead of the dial-a-ride feeders described under strategy 2. The service routes could be designed with the same purpose of bringing seniors to a central gathering place, where they would board a fixed route bus for the Senior Center or a medical center. The advantage is that the service routes would be less costly to operate than dial-a-ride

but would still penetrate into the communities where seniors live. The disadvantage is that the service routes are a bigger change over the current level of service provided with dial-a-ride than the dial-a-ride feeders would be and, therefore, might meet with more resistance from current riders. A fare incentive could be created, with service route fares at lower levels than dial-a-ride fares.

Service routes might also be considered for other destinations besides the Senior Center. Another alternative would be neighborhood peak period routes to and from the Metrolink Station or between the Metrolink Station and Valencia Industrial Center for "reverse commuters.

Strategy 5: School Bus Coordination

Each of the elementary school districts and the high school district in Santa Clarita provide bus service. However, the Hart High School District charges a transportation fee which is approximately double the cost of a student pass on Santa Clarita Transit, and the District restricts use to students living more than 3.5 miles from their high school. This results in many students taking public transit because of convenience, price, and ability to make other bus trips with their transit pass. While the school district saves some transportation expenses, Santa Clarita Transit must operate additional trippers for some schools, has to deal with some level of student vandalism, and carries large numbers of students which can discourage adult passengers.

There may be opportunities to rationalize school and transit bus routings and pricing to gain efficiency in overall transportation resources. Santa Clarita Transit needs to determine the incremental net cost of operating school trippers. In may be more cost effective for Santa Clarita Transit to raise the monthly price of a youth pass, and use a portion of the proceeds to assist the school district either operate additional school service or reduce the fee charged for school district transportation.

Strategy 6: Subscription Buses

Subscription bus services are usually targeted at a specific employment location. The passenger receives a reserved seat by paying a weekly or monthly fare in advance. A subscription bus is usually only started when there are sufficient passengers who have committed to the service to insure a minimum revenue. It may be organized by employers, employees, or by the transit agency. While some subscription bus operations operate without subsidy, some recent services have been implemented with transit agencies providing a vehicle and driver paid on an hourly or shift basis.

A variation on the subscription bus concept involves paying one of the potential subscribers to drive the bus. In this case, the transit agency is able to provide customized service to special groups at a lower cost, because the driver's wages are paid only when the bus is in operation -- that is, there is no guaranteed minimum paid schedule as with full or part-time drivers. There is also minimum deadhead time, as the bus is usually parked at the driver's worksite during the day.

Subscription buses could be considered to serve areas where the demand is insufficient for a regular fixed route service, but where there is, nonetheless, an unmet need. Subscription bus service is most successful for extremely long commutes, such as from Santa Clarita to the El Segundo/Los Angeles Airport area or from Antelope Valley to Santa Clarita employment centers. Organization is easiest for extremely large employers, such as firms that employ 10-20,000 workers in one area. It is more difficult to organize where a group of smaller employers are located in proximity, such as the case in Santa Clarita.

Strategy 7: Commute Store and Comprehensive Telephone Center

A transit agency seeking to become a mobility manager considers the passenger first and assists with information about the best travel alternative, whether or not that information pertains to the transit agency services or other providers. Such information should be readily available both by telephone and by in-person visit. Some agencies have established commute stores in areas with heavy foot traffic, which provide "one-stop shopping" on all transportation alternatives -- bus, rail, carpool, vanpool, subscription bus, bicycling, and walking.

Many transit agencies do not have an in-house ridematching program but do support this mobility management function by collaborating with a regional rideshare agency. It is difficult for a regional ridesharing agency to have the local visibility that a transit agency has, and thus the transit agency should market ridesharing as well as its own fixed route services. Particularly in a region as large as Southern California, it can be difficult to get comprehensive information on how to make a trip that involves multiple transportation providers. A call to Amtrak on how to get from Santa Clarita to San Diego will not provide the information on how to get from Santa Clarita to Union Station, or particularly how to get from a neighborhood in Santa Clarita to Metrolink.

In a commute store, the transit agency can help the passenger more easily link to all the transportation providers needed to complete a trip. In an area like Southern California, it is necessary to computerize information about multiple systems because of the sheer volume of route, schedules, and maps. Alternatively, a caller can be directly transferred to another agency for additional information. Under this option, the caller does not have to hang up and dial another number or place a long-distance call, even when the call is transferred to another county. The concept of customer assistance requires retraining and rethinking of job responsibilities, just as travel agents are trained to present a variety of options to clients.

Plans anticipate shifting the primary transit center/transfer center from the Saugus Metrolink Station to the Town Center area. Because the Town Center mall has high visibility and traffic, it would also be a good location for a commute store. Alternative locations would be a kiosk physically at the transfer center or a small office within the shopping center. The following services should be provided:

- transit schedules and route maps for all transit services to, within, and from Santa Clarita;
- bicycle and pedestrian trail maps;
- sales of transit passes and tickets;

- computer capable of producing on-the-spot match lists for carpooling and vanpooling; and
- trained staff to provide travel planning assistance.

IMPLEMENTATION TASKS FOR RECOMMENDED STRATEGIES

Dial-a-Ride Feeder Routes (strategy 2), Service Routes/Community Buses (strategy 4), and a Commute Store (strategy 7) seem to provide the most opportunity for Santa Clarita Transit to implement innovative and productive service. Implementation of these strategies requires a change in the manner of doing business, but Santa Clarita Transit appears to be well positioned to move forward with these strategies. Some strategies can be tested immediately, while others, such as the establishment of a commute store, needs to be done in conjunction with relocation of the primary transit center to Town Center, taking advantage of the mall's central location and high level of foot traffic. There may also be opportunities to promote greater coordination of school transportation (strategy 5) and to implement subscription buses. The latter, however, is probably most productive when initiated by an employer or employee group, rather than with the transit agency taking the lead.

Strategy 2a: Dial-a-Ride Senior Feeder Routes

Approximately 20% of the current dial-a-ride trips are daily trips to the Senior Center. Many of the seniors who take these trips, while not disabled, have difficulty walking to the bus stop. Dial-a-ride vans or taxis could be assigned to various neighborhoods in the city. Seniors would be picked up by vans or taxis at their homes and dropped off at a neighborhood gathering point, such as a shopping center or transit center. A dedicated tripper bus could then make only the few selected stops at these gathering points to pick up the seniors and take them to the Senior Center. Alternatively, an existing or modified route might be able to provide the trunk line service. Since the trips to gather up seniors would be much shorter than the current door-to-door service, the vans used now would be freed up to handle additional dial-a-ride passengers. It should also save the city's transit operation money, since fixed routes are less expensive than dial-a-ride and fewer vehicles are needed once the seniors have been collected and brought to a common site. Using taxis instead of vans would allow the dial-a-ride vans to be used for growth in demand from ADA-eligible passengers.

Another 40% of current dial-a-ride users are making medical trips, many of which are to or near the Henry Mayo Memorial Hospital. While still providing full trip dial-a-ride service to those meeting ADA eligibility criteria, some proportion of current dial-a-ride patrons could be shifted to dial-a-ride feeder service and trunk line routes.

The following implementation steps would be required assuming the use of taxis. The use of dial-a-ride vans instead of taxis would only require steps 4-6 and pre-scheduling shorter trips than is currently done.

1. *Conduct informal discussions with the taxi operators to determine their ability and interest in contracting with Santa Clarita Transit.*

2. *Decide on the Service to be Provided.*
3. *Issue a Request for Proposals.*
4. *Develop an Education and Training Program for the Seniors*
5. *Introduce the Taxi or Van Feeder Service.*
6. *Evaluate the Service.*

More information on implementation steps is provided in appendix 3.1.

Strategy 2b: Dial-a-Ride Commuter Feeder Routes

Dial-a-ride vehicles used for transportation of persons who are elderly or disabled could begin earlier in the morning commute periods to take residents to the train stations and/or express bus stops. Current utilization data indicates that there are 5-8 vehicles available before 7 a.m. and 4-6 vehicles available between 4-7 p.m. Commuters could call in the day before to schedule pickups, and a subscription service could be offered for daily riders. Residents returning home would not have to pre-schedule their trips if vehicles assigned to different areas of the city met the trains at night. In this way, residents would have flexibility to catch one of several trains home.

Dial-a-ride vehicles dropping off residents at the train station/transit center could be available to take other workers arriving on the train to employment centers in Santa Clarita, such as the Valencia Industrial Center. In the morning, riders could be dropped off at their buildings in order to reassure employees that they would arrive on time for work. Riders would be required to inform the driver if they wanted a trip back after work. In the evening, riders would be asked to assemble at specially designated checkpoints for the trip back to the train. This evening arrangement would relieve the dispatcher of calls and scheduling, since the vans would essentially be performing a modified fixed route based on information from the morning trips. Employees who did not ride in the morning would still be required to call dispatch in order to reserve a seat in the afternoon.

The following implementation steps, which assume use of Santa Clarita Transit's dial-a-ride vehicles, are described in more detail in appendix 3.1.

1. *Survey potential riders.*
2. *Design the feeder to Metrolink.*
3. *Design the feeder to the business parks.*
4. *Market the feeder services.*
5. *Evaluate the Service.*

Strategy 4: Service Routes

Service routes could be introduced instead of the dial-a-ride feeders described in the previous section. As an example, the service routes could be designed with the same purpose of bringing the seniors to a central gathering place, where they would board a fixed route bus for the Senior Center. For example, the service route bus could have many stops within Friendly Village and

could deliver the patrons to a Route 10 bus at the entrance of Friendly Valley which would take them directly to the Senior Center.

Service routes might also be considered for other destinations that are more scattered than the single Senior Center location. For example, service routes could be designed to pick up at the major senior citizen living quarters in Santa Clarita and make only a few stops at various doctors' clinics, supermarkets, and the shopping mall. Such a service would be more customized to seniors' needs than the fixed routes now operating but would not be as personal--nor as expensive--as the current dial-a-ride service.

Implementation steps 2, 4, and 6 in the previous section on dial-a-ride feeders are applicable here as well.

Strategy 7: Commute Store

This report recommends that the main transit center be located at Town Center. Because this area has high visibility and traffic, it would be a good location for a commute store. A commute store would produce a strong identity for Santa Clarita Transit as the community's single source for all commute needs. This enhanced identity would create additional value for the transit agency in the minds of the citizens. The mission of Santa Clarita Transit would be expanded and customer service would be strengthened.

Locations to be considered for the commute store are either locating the commute store within the shopping mall or a combination of a kiosk at peak times at the transit center and a staffed office or desk within the mall on weekends. The director of the Transportation Management Association already staffs the concierge desk in the mall on some days of the week to provide transportation information. Santa Clarita Transit could staff the kiosk and direct people by signs to the mall when the director is scheduled at the concierge desk. It might also fund an expansion of the TMA role in the mall.

Implementation steps for a commute store would be the following:

1. *Decide upon the appropriate location.*
2. *Negotiate an agreement with Southern California Rideshare.*

3.5 APPROPRIATE EQUIPMENT TYPES

BUS TYPES

Santa Clarita Transit has a range of equipment, including 40 passenger, 40 foot Neoplan highway coaches used for commute service, 27 to 35 foot Gillig buses used in local fixed-route service, and a fleet of smaller vans used for Dial-a-Ride service. In recent years, Santa Clarita Transit has acquired four used 40 foot buses as backups and to provide supplementary school tripper service. The larger buses are all diesel engined and the vans are gasoline engined. The entire fleet is equipped with wheelchair lifts. With the exception of the used buses, the fleet of buses is not scheduled for replacement until 2003 or 2004. The vans are provided by the operator -- the new operator that started service in August 1996 provided replacement vehicles.

Prior to 2003, the only bus acquisitions would be equipment needed for service expansion. Depending on the nature of funding available, Santa Clarita Transit needs to determine whether it is cost effective to purchase buses or pay for lease costs in conjunction with the operating contract (i.e. use buses owned by the contract operator). Additional highway coaches will be required if Santa Clarita Transit replaces the extension of the LADOT Route 573 with express service. These should be standard 40 foot highway coaches with high-back seating.

Additional buses will be required to expand local fixed-route service. Given growth in ridership, 35 to 40 foot buses should be considered, using higher capacity buses on more heavily patronized routes and using the 27 foot Gillig Spirit buses on less patronized routes. If some routes remain lightly patronized, the 27 foot buses should be replaced with 30 foot buses (a more standard small bus likely to have greater parts commonality with larger buses) at the end of their useful life. Santa Clarita Transit should monitor the success other properties have with "low floor" buses, and consider using such equipment for future purchases. Low floor buses not only eliminate need for a wheelchair lift, they allow faster boarding and disembarking for all passengers. Dial-a-ride and service route equipment should continue to be vans or cut-out small buses, designed to operate on narrower neighborhood streets.

All buses and vans utilized by Santa Clarita Transit must meet the requirements of federal and state law with regard to disabled access.

FUEL

Santa Clarita Transit should consider the use of "clean fuel" vehicles for future purchases. The use of such vehicles in transit application has become more routine in recent years. After experimentation with various fuels, compressed natural gas (CNG) seems to the most frequently utilized clean fuel in the transit and shuttle industry. While the capital cost of vehicles and fueling facilities is greater than for diesel, the cost of CNG fuel is somewhat lower than diesel and vehicle maintenance costs are reduced.

Electric buses are also becoming more popular, although limitations on operating endurance (3-5 hours), speed, and hill climbing ability remain constraints. Electric buses would have the most applicability to dial-a-ride or service route applications.

For the larger equipment, CNG seems to have the most potential to replace diesel. There are engines designed to operate on CNG as well as conversions of gas or diesel engines. Santa Clarita Transit should encourage Southern California Gas or another vendor to provide a CNG fueling facility in the Santa Clarita Valley. Having ability to operate "clean fuel" buses would allow Santa Clarita Transit to more effectively pursue "clean air" funding sources that seem to be growing relative to availability of traditional transit funding sources. Until a CNG fueling facility can be developed in Santa Clarita, propane should be considered as an alternative clean fuel for dial-a-ride vehicles since it can be stored above ground and conversions of gasoline engines can be easily accomplished.

Use of clean fuel buses would not only be beneficial for air quality in Santa Clarita, but it would provide a key element for marketing transit use - clean air is virtually universally accepted as a community and regional goal. New, clean fuel buses would generate media publicity for Santa Clarita Transit.

3.6 CONSISTENCY WITH ADOPTED AND ONGOING PLANNING EFFORTS

This intermediate to long-range transit plan for Santa Clarita is consistent with regional and local planning programs. For example, the Southern California Association of Governments *Regional Mobility Element*, dated 1994, calls for a three tier transit system, based on inter and intra-regional services, sub-regional services, and local center focused transit services. The development of the third Metrolink Station, increased feeder transit to the Via Princessa and Newhall Stations, and expanded express services to West Los Angeles and the Valley support the first two tiers of the SCAG Mobility Element, while the development of a local network focused on four transit centers supports the regional goal for improved local transit services.

Likewise, the plans for a Commute Store to promote transportation alternatives and the creation of pedestrian-oriented design requirements are consistent with the SCAG strategies for Transportation Demand Management (TDM). The suggested Santa Clarita Transit Development Plan is also consistent with *Transportation for the 21st Century*, the Los Angeles Metropolitan Transportation Authority plan adopted in March 1995.

The plan is also compatible and consistent with the *Santa Clarita General Plan*, adopted in 1991. Examples include the following Land Use Element policies:

1.8 Encourage the concept of traffic mitigation agreements that provide a variety of transportation options including but not limited to automobiles, transit, commuter trains, light rail, and bicycle pathways.

2.5 Encourage the development of business park areas for future industrial/manufacturing land uses, with landscaping, employee recreation, pedestrian walkways, and other unified design standards.

3.6 Locate higher density residential development in close proximity to regional and sub-regional centers and public transportation corridors.

4.4 Focus revitalization efforts on eliminating blight along the railroad right-of-way adjacent to San Fernando Road...retain railroad right-of-way for future transit uses, including the consideration of parking structures...

4.0 IMPLEMENTATION STRATEGIES

This is the final section of the Santa Clarita Transit Transportation Development Plan. It presents the implementation and funding strategies required to develop the local and regional transit network required for full mobility of Santa Clarita residents.

Section 3 developed a plan for improved transit service, focusing a local network on three transit centers. However, Santa Clarita Transit will not directly transition from the current network to the ultimate network, the new services are dependent in some cases on new arterial connections, and in others, on new population growth in the City and surrounding unincorporated service area. This section lays out three phases of growth, and determines both the costs and potential revenues associated with this growth.

4.1 THE IMPLEMENTATION PLAN

Local Fixed Route Network

Section 3 presented a plan with 19 route segments, most of them operated every 30 minutes all day. However, the network does include two commute period express routes to Metrolink Stations and transit centers from residential areas as well as to the primary office and industrial employment centers. In addition, two other routes would receive additional service during peak periods to maintain a connection to the Saugus Metrolink Station that would otherwise be lost in the transition to Valencia Town Center as the primary hub in lieu of the Saugus Station.

However, as cited previously, some of the new routes are designed to serve future growth areas, including Route 35E which will serve Porta Bella and anticipated new development south of Route 14 and west of Sand Canyon, and Route 80 which will serve the proposed Tesoro del Valle and Newhall Ranch projects. Other routes would be extended into Newhall Ranch when developed. In other cases, such as Route 45, the southern segment provides service for the Stevenson Ranch area which only receives school tripper service as present, while the northern segment replaces the Whites Canyon segment of existing Route 50 and extends service into Plum Canyon and newly developing north McBean neighborhoods that have no service at present.

Table 4.1 presents the recommended routes and equipment needs for a three phase introduction of new service. The first phase of new service is recommended for implementation when the Valencia Transit Center is complete and becomes the primary hub of the system. In transitioning the system from its hub at the Saugus Metrolink Station, it will be necessary to create new services to ensure that much of the community retains its bus service to the rail stations at train times. Thus, it is important to create the Canyon Country hub at the Princessa Metrolink Station at the same time. While it would be most desirable to have the Newhall Metrolink Station available when service is transitioned to the Town Center, it is not essential, and routes can connect on Railroad Avenue in Newhall even before the station is open.

As can be noted from Table 4.1, the first phase of service improvement and expansion will require a base period requirement of 19 buses, compared to 14 at present. The primary differences would be new service on Sierra Highway north of Soledad (Route 10E); more frequent service between Canyon Country, Newhall and Town Center via Sierra Highway and San Fernando (replacing a segment of existing Route 50); and regular service to the Stevenson Ranch area (Route 45S). With the re-orientation of Bouquet and Seco Canyon routes from the Metrolink Station to Town Center, dial-a-ride buses would link these neighborhoods to the Saugus Station to link with peak period commute trains.

TABLE 4.1. SANTA CLARITA TRANSIT: LOCAL ROUTE BUS REQUIREMENTS BY PHASE

Routes	Number of Buses					
	Phase 1		Phase 2		Phase 3	
	Base Period	Peak Only	Base Period	Peak Only	Base Period	Peak Only
10N	2		2		2	
10E	3		3		3	
15N	2	1	2	1	2	1
15S	2		2		2	
20				2		2
25			4		4	
30N	1	1	1	1	1	1
30W	1		1		2	
35E			3		3	
35S	2		2		3	
45N	1		3		3	
45S	1		1		1	
60						2
70E	3		3		3	
70W	1		1		2	
80W					1	
80N					1	
Totals	19	2	28	4	33	6

In the second phase of improvement, nine additional buses would be added, bringing the base period requirement to 28 buses. New services would include the Route 25 circle line, operating both clockwise and counter clockwise linking Newhall and Town Center via Old Road on the west and via Porta Bella on the east. The 35E line would connect new development south of Highway 14 and west of Sand Canyon (Lost Canyon) with the Princessa Metrolink Station and with Town Center via Via Princessa and Porta Bella. The 45N would be expanded from a route connecting Whites Canyon to Princessa Metrolink, which only requires one bus, to a linkage from Princessa to Town Center via Whites Canyon, Plum Canyon, Copper Hill, and North McBean Parkway, potentially requiring three buses to maintain 30 minute frequencies.

While presented as a package of improvements in a single phase, the 45N route is likely to be implemented prior to the other two routes since the linkage of Whites and Plum Canyon is anticipated to be completed within two-three years, while no specific dates are known for the Via Princessa, Lost Canyon, and Porta Bella segments. New two-bus peak period service would be provided to Valencia Commerce Center with an extension to Val Verde (Route 20), linking them with the Town Center transit center and Saugus Metrolink Station.

In phase 3, new service would be established to Newhall Ranch, as an expansion westward of existing routes; and to Tesoro del Valle, north of McBean Parkway into San Francisquito Canyon (Route 80). Peak period express service between Castaic and the Newhall Metrolink Station would be added (Route 60), providing both a linkage for Castaic residents to reach trains for Los Angeles, and a linkage for in-commuters and Newhall residents to jobs at the expanding Valencia Commerce Center. Equipment needs for phase 3 would include 33 buses to operate the basic schedule, with six additional for peak periods -- some of which could be dial-a-ride vehicles. The Chiquito Canyon transit center would also be a phase 3 development.

As cited previously, phase one should be implemented when the Valencia Transit Center is complete. With design, site acquisition, and development, it may take two-three years to implement. Rather than setting specific dates for implementation of the second and third phases, the expansions will be tied to the rate of new residential development and completion of additional arterial improvements. In addition to the required roads, the added population will generate both additional riders and additional tax revenues required to provide the expanded transit service.

In addition to new routes, Santa Clarita Transit also plans to initiate limited night service and Sunday service. These services together will represent about 12% of annual revenue vehicle miles. While unlikely to be as productive in terms of passengers per revenue vehicle hour, they are deemed to be important aspects of providing expanded mobility for Santa Clarita residents. Table 4.2 indicates the number of revenue vehicle hours required annually with each of the anticipated phases of growth. This assumes a number of revenue vehicle hours per bus equivalent to the current level.

TABLE 4.2. SANTA CLARITA TRANSIT: REVENUE HOUR FORECASTS

LOCAL	Days	RVH/day	Current RVH	Phase 1 RVH	Phase 2 RVH	Phase 3 RVH
Weekday (school)	200	221	44,200	60,206	88,400	104,312
# of buses			14	19	28	33
Weekday (summer)	55	212	11,660	15,741	23,320	27,401
Commute trippers				2,000	4,000	6,000
# of buses				2	4	6
Saturday	52	132.4	6,886	9,292	13,692	16,182
subtotal			62,760	87,260	129,444	153,934
Total Local Buses Needed			14	21	32	39
Night	255	14	3,570	4,820	7,140	8,396
Sunday	52	96	4,992	6,700	9,984	11,731
Total Annual Revenue Hrs.			71,336	98,800	146,600	174,100
REGIONAL EXPRESS						
Route 799	255	27.1	6,911	6,911	6,000	5,234
Route 794	255	9.1	2,321	2,321	2,321	2,321
Route 798	255	22	5,610	5,610	6,375	6,375
Route 793	255	6.1	1,556	1,556	1,556	1,556
Route 796	255	12.1	3,086	3,086	3,851	3,851
Route 791	255	10.2	2,601	2,601	3,366	3,366
Route 795	255	20.5	5,228	5,578	5,578	5,578
Route 797 West LA	255			3,060	3,825	4,590
Route 792 West LA	255			1,530	2,295	2,295
Total Regional Express	255	107.1	27,311	32,251	35,165	35,165
Regional Buses			18	22	24	24

Note: Shaded numbers are projections
Source: Michael Fajans & Associates

Dial-a-Ride (DAR) Service

The door to door service, provided to disabled residents as well as senior citizens, is also anticipated to expand. For planning purposes, DAR service is expected to initially grow at a faster rate than population, meeting the mandates of the federal Americans with Disabilities Act (ADA). However, by phase three, DAR is assumed to have grown by 60% in relation to a 79% increase in service area population. As this service is the most expensive to operate per rider, Santa Clarita should seek to implement techniques for reducing demand for the dial-a-ride service per the recommendations in Section 3.4 on non-traditional services. The most promising appears to be use of dial-a-ride feeder routes. Rather than providing door to door service, vans or taxis would provide door to transit center service, providing feeders to the expanded fixed route service. By offsetting some routes, the expanded local fixed service would provide 15 minute headways to the medical center and senior center, the most frequented destinations of dial-a-ride patrons. The multiple transit centers provide good locations to transfer patrons from the dial-a-ride feeder service to the fixed route buses.

Regional Route Network

Recommended changes to the regional route network are less dramatic than those for the local fixed route network. Most of the services have capacity for patronage growth and do not need additional equipment. The primary exception is the recommendation for Santa Clarita Transit to offer express service to Westwood and Century City in-lieu of the current LADOT 573 route. The lower hourly cost for regional express service under its present operating contract will allow the service to be more productive. Santa Clarita should offer four or five commute trips southbound in the morning and back at night. Several of the return trips could be in service while others would be deadheaded back. Table 4.2 shows the current annual revenue vehicle hours for the regional routes, and the impact of adding Westwood service. Adding a four trip commute service with two in-service returns would add approximately 4,600 annual revenue hours, an approximately 17% increase in revenue hours. In latter phases, this service may be expanded by one or two buses.

Another smaller change would be to extend trips on the 795 Antelope Valley service to the Town Center transit center, as well as peak period trips to the Valencia Industrial Center and Commerce Center. This would have only a minor impact on revenue vehicle hours. The latter would provide one seat service from Antelope Valley to employment centers in Santa Clarita.

A small decrease in bus service to downtown Los Angeles is anticipated in latter phases after Metrolink train service is provided from Newhall. Alternatively, the route could be restructured to provide service from areas further from Metrolink, such as Castaic or Newhall Ranch.

Other new regional routes would only become feasible if a new regional revenue source were provided to support the service. The recommended Sylmar/San Fernando route would require 3,825 annual hours of service if one bus provided hourly service on weekdays only, or as much as 10,770 annual hours of service if headways were 30 minutes seven days a week. Hourly service seven days a week would require approximately 5,400 hours of service annually. Likewise, the other potential regional route which may be warranted is service to the Universal

City Red Line Metrorail Station after rail service is extended in 2002 or later. Two buses would be required for hourly service, this would require 7,650 hours of service annually if operated weekdays only, and almost 11,000 hours annually if provided seven days a week.

Since both these routes would be operated continuously throughout the day, providing linkages to regional transit hubs, the hourly cost should be equivalent to the lower rate for local, fixed route service, not the higher rate associated with regional routes that have substantial deadhead time.

4.2 COST AND REVENUE FORECASTS

Tables 4.3 and 4.4 provide financial forecasts for Santa Clarita Transit associated with three levels of population growth and transit service.

Given the dramatic improvements in ridership per revenue hour for the Santa Clarita Transit fixed route network, even while expanding service, ridership forecasts are projected based on passengers per revenue vehicle hour as derived from Table 4.3.

As can be noted, total Santa Clarita Transit patronage for the 1995-96 fiscal year was approximately 1.6 million passengers, almost 85% of whom rode the local, fixed route buses. The average of 21.77 passengers per revenue vehicle hour represented an 18% increase over the previous year. Because of the intention of adding Sunday and evening service which will carry fewer riders per hour, future patronage forecasts have assumed conservative increases in passengers per revenue vehicle hour, ranging from 22 per hour for phase 1 to 24 per revenue vehicle hour in phase 3. Likewise, ridership on the regional routes is anticipated to increase from eight per revenue vehicle hour to 10, with modest increases in the productivity of the dial-a-ride service as well. With the exception of the pending increases in the youth monthly pass rate and dial-a-ride fares, no real increase in fares has been forecast, all forecasts being based on current dollars.

As shown in Table 4.3, total annual Santa Clarita Transit patronage is expected to grow to approximately 4.6 million, compared to 1.6 million at present. This level of patronage is associated with a service area population level of approximately 300,000, which represents a 79% growth from the current service area population. Annual fare revenues would grow from approximately $950,000 for 1995-96 to about $2.8 million by phase 3.

Table 4.4 summarizes the financial forecasts for Santa Clarita Transit given population growth of 32,000 (19%), 82,000 (49%), and 132,000 (79%) and the increases in annual revenue hours of service described in the previous section. In addition to fares, the largest funding sources for Santa Clarita Transit are Transit Development Act (TDA) Section 8 revenues, based on sales tax, and the local return portions of Los Angeles County

TABLE 4.3. SANTA CLARITA TRANSIT: CURRENT AND FORECAST PATRONAGE

1995-96 FY	Annual Patronage	Fare Revenue	Aver. Fare Revenue	Rev. Veh. Hrs (RVH)	Pass/ RVH
Local	1,366,537	$573,946	$0.42	62,760	21.77
Express	191,727	$345,109	$1.80	24,000	7.99
DAR	57,471	$26,437	$0.46	23,102	2.49
Totals	1,615,735	$945,491		109,862	

FUTURE FORECASTS

A) Phase 1: Additional 32,000 Population in Service Area

Passengers/ RVH	RVH	% change in RVH	Annual Patronage	Average Fare Revenue
22	98,800	57%	2,173,600	$0.50
9	32,250	34%	290,250	$1.80
2.5	33,000	43%	82,500	$0.90
Totals	164,050	49%	2,546,350	$1,683,500

B) Phase 2: Additional 82,000 Population in Service Area

Passengers/ RVH	RVH	% change in RVH	Annual Patronage	Average Fare Revenue
23	146,600	134%	3,371,800	$0.50
10	35,165	47%	351,650	$1.80
2.6	36,000	56%	93,600	$0.90
Totals	217,765	98%	3,817,050	$2,403,110

C) Phase 3: Additional 132,000 Population in Service Area

Passengers/ RVH	RVH	% change in RVH	Annual Patronage	Average Fare Revenue
24	174,100	177%	4,178,400	$0.50
10	35,165	47%	351,650	$1.80
2.6	37,000	60%	96,200	$0.90
Totals	246,265	124%	4,626,250	$2,808,750

Source: Michael Fajans & Associates

TABLE 4.4. SANTA CLARITA TRANSIT: FINANCIAL FORECASTS

	Current		Phase 1	Phase 2	Phase 3
			+ 32,000 pop	+82,000 pop	+132,000 pop
Base City Population	127,930		160,000	210,000	250,000
County Pop.	9,244,646				
County Service Area Pop.	40,000		40,000	40,000	50,000
Total Service Area Pop.	167,930		200,000	250,000	300,000
Service Area growth rate			19%	49%	79%
REVENUES		per capita factor			
Prop A & C Local Return	$203,293,000	$21.99			
Santa Clarita Prop A & C	$2,665,972	$20.84	$3,334,288	$4,376,254	$5,209,826
Prop A Discretionary	$1,130,857		$996,000	$996,000	$996,000
TDA Santa Clarita	$2,626,605	$20.53	$3,285,053	$4,311,632	$5,132,895
AB 2766 Air Quality	$127,832	$1.00	$160,000	$210,000	$250,000
FTA Bus Lease	$581,550		$672,000	$672,000	$672,000
Fare Revenue	$945,490		$1,683,500	$2,403,110	$2,808,750
County Contribution	$581,000	$19.65	$786,000	$786,000	$982,500
Total Funds	$8,659,306		$10,916,841	$13,754,995	$16,051,971

COSTS					
	Rate	Hours	Hours	Hours	Hours
Local	$41.09	62,760	98,800	146,600	174,100
Express	$54.58	24,000	32,250	35,165	35,165
DAR	$48.05	24,000	33,000	36,000	37,000
Total Hours		110,760	164,050	217,765	246,265
Total Operating Expense		$5,041,928	$7,405,547	$9,672,900	$10,850,925
Personnel		$308,000	$500,000	$550,000	$600,000
Operations & Maint.		$380,000	$550,000	$830,000	$930,000
Bus Lease		$875,000	$870,000	$870,000	$870,000
Subtotal		$6,604,928	$9,325,547	$11,922,900	$13,250,925
AVAILABLE CAPITAL & MISC.		$2,054,378	$1,591,294	$1,832,096	$2,801,046

Assumptions

Prop A, C, and TDA constant per capita basis
Prop A discretionary as forcast for 2000-01
AB 2766 constant amount per capita
FTA bus lease as forecast for 2000-01
County contribution per 1996-97 forecast

Source: Michael Fajans & Associates

Proposition A and C sales taxes. Other revenue sources include Proposition A discretionary funding used for regional services, and a County contribution based on the proportion of ridership and miles operated in the unincorporated portion of the service area (derived from the County shares of TDA, Prop. A and Prop. C revenues).

Santa Clarita Transit also receives a small amount of Air District AB 2766 funds, and Federal Transit Administration (FTA) assistance with bus lease costs. Although they vary up and down with the health of the economy, the TDA and Proposition A and C local return funds will increase as sales taxes increase. In real terms, they have tended to grow on a per capita basis. We have forecast them to continue on a constant per capita basis. However, the dramatic population growth rate of the community means that these sources will grow.

Santa Clarita Transit's primary revenue sources are forecast to grow from approximately $8.6 million annually to a total of $10.9 million based on population growth of 32,000 to a population of 200,000, approximately $13.75 million at a population of 250,000, and to $16 million at a service area population of 300,000. Any negative change in legislation that diminishes transit assistance would obviously adversely affect Santa Clarita Transit's revenue forecasts.

Santa Clarita Transit costs are also shown in Table 4.4. The operating expenses for the three service types are based on the current contract costs. While some inflation is expected, these numbers are shown on a constant basis, since the revenues are also not shown increasing with inflation. Personnel costs are assumed to grow at about the same rate as service hours, with the exception of an increment for staffing a commute store starting with the Phase 1 improvement program. Likewise, the allocation for the operations and maintenance facility is expected to grow proportionally to service hours with an extra increment in Phase 2 when it is assumed a dedicated facility is brought on line.

With the bus lease commitments associated with the current fleet, Santa Clarita Transit would have additional funding available for capital improvements and unanticipated service needs in each phase of growth. However, based on the forecasts in Table 4.4, the amount available in Phases 1 and 2 would be less than that which was available for the 1995-96 fiscal year. This table does not show the cost to Santa Clarita Transit of operating and maintaining the Saugus Metrolink Station, including cleaning and security services. This approximates $150,000 per year. There will be lesser costs associated with maintaining facilities at the Princessa, Newhall, and Town Center transit centers in the future.

While it appears that Santa Clarita will have the financial capacity to grow the system as anticipated, the funding is contingent on the continuation of rapid population growth in Santa Clarita. If Santa Clarita were to grow at a slower rate than the county as a whole, its share of Proposition A and Proposition C funds would decline, and it would not be possible to implement the three phases of service expansion as anticipated. However, if development of Newhall Ranch does not occur, for example, Santa Clarita Transit would not need to operate as many buses. Thus, it is important that Santa Clarita Transit grow at a measured rate that corresponds to its increase in revenues.

Future Funding

Capital needs are not completely resolved. While Santa Clarita Transit has committed grants for the Town Center transit center, a maintenance facility, and the purchase of the Princessa facility, additional funds will be required for improving the station, purchase and development of the Newhall Station, local match for additional buses, and improving the community infrastructure to make it more "transit-friendly."

There are a variety of potential funding sources, including Proposition A and C local return, discretionary, and incentive funds; ISTEA "Enhancement" and CMAQ funds, FTA Section 9 funds, and the Santa Clarita Transit Mitigation Fee. The latter, a $200 fee per new housing unit in the City, is particularly appropriate for additional buses and making bus stop access improvements to improve pedestrian accessibility. To date, much of new development has occurred in the County, which is not subject to the fee, and the homes have been annexed to the City later. If more development occurred within the City, or the County agreed to assess the same fee in the unincorporated portion of the service area, the transit mitigation fund would increase dramatically. For example, Santa Clarita Transit would receive one-time contributions of $8.8 million if 44,000 housing units (built to accommodate 132,000 new residents) were subject to the fee. Santa Clarita should also consider allowing an in-lieu contribution to the fund, with developers building transit amenities or contributing land toward a park-and-ride lot in-lieu of the cash contribution.

Because of the pending re-authorization of federal ISTEA transportation funding, it is not clear what level of federal funding will be available to Santa Clarita in the future. At present, it does not appear that it will increase, but that transit will be fortunate to receive close to the level achieved in recent years. While Santa Clarita Transit has not received a large proportion of its funding from federal sources, other communities in the county have, and a reduction of federal funding could create pressure to reallocate discretionary County Proposition A and C funds, making future funding more competitive for Santa Clarita Transit.

Santa Clarita Transit should identify a wish list of future capital needs, particularly for rail-related improvements or park-and-ride lots, so that local projects would be included in potential regional or statewide transportation bond issues or other initiatives that could generate new funding. This would include the Call for Projects process utilized every two years by MTA to competitively select and fund new transit projects. Another funding source for capital projects could include state Transit Capital Improvement Program (TCI) funds -- intermodal bus/rail facilities are frequently funded by this source. Federal Highway Administration (FHWA) funding can be used for park-and-ride lots for transit, particularly if funded as part of a highway widening project. Highway funds can also be used to temporarily assist transit capital and operations as a mitigation for a highway improvement project. There may be an opportunity for funding related to the improvement of Route 14.

An area where dial-a-ride providers may be able to develop new funding would be seeking full cost-reimbursement from medical providers who otherwise would be responsible for transportation of their clients. Santa Clarita Transit has already sought and received money from Henry Mayo Newhall Hospital for transporting clients of its adult daycare program, but there

may be future opportunities to expand this funding source for dial-a-ride patrons. Finally, there may be a possibility of assistance in funding a commute store program in conjunction with Southern California Rideshare. Serving as an outlet for ridesharing information in the Santa Clarita Valley will help the regionwide program.

4.3 CONCLUSIONS

Santa Clarita is a rapidly growing community. The future will see both infill of major vacant parcels within the community, and the extension of the community into several directions. Job opportunities are also expected to increase, with major employment increases in the Valencia Commerce Center. This growth is important because it will cause not only demands for new routes to an expanding population and labor force, but also allow new arterial routes in the community that can rationalize deficiencies in the existing route structure.

Santa Clarita Transit provides local, fixed route buses; local dial-a-ride service for the senior and disabled community; and regional commute service to downtown Los Angles and several locations in the San Fernando Valley. Santa Clarita Transit also supports the Metrolink rail service through the construction and maintenance of several rail stations. Ridership has particularly grown on the local routes, more than tripling in the last four years. This Transit Development Plan has laid out an improvement program that will increase transit service in excess of the level of growth anticipated in the community. The local network in terms of routes and annual revenue miles is expected to grow at more than twice the rate of population growth. It is important for the transit system to expand, but equally important that it not expand too fast. To date, system productivity in terms of passengers per revenue vehicle hours has increased while the number of revenue hours has increased. If system productivity starts to diminish, expansion plans may need to be reconsidered.

The expansion of the dial-a-ride service and regional commute services will occur at a more modest rate. Some commute service may be reallocated from downtown Los Angeles, particularly if MetroLink service is expanded. All day regional connecting service to the Sylmar/San Fernando transit center and the future Universal City Red Line Station may represent the largest increases in regional service, but an additional funding source may be required to support these services.

Rather than lay out an expansion program by year, it has been presented by anticipated population level. Both transit demand and funding are associated with the population level, some of the potential new routes will not be needed if certain proposed developments never occur. With initiation of limited night and Sunday service, which have not been provided to date, the amount of local, fixed route bus service is expected to grow to 174,100 hours annually, compared to 62,760 at present. The size of the locally serving bus fleet would expand to 33 from 14 at present, with additional buses used during peak periods. If transit funding sources remain as they are at present in the State of California and Los Angeles County, this program should be financially achievable by Santa Clarita Transit.

APPENDIX A: BUS ROUTES SERVING SANTA CLARITA STUDY AREA

Bus Route	Key Streets/Areas Served	Service Characteristics			
		Weekdays		Saturdays	
		General Hours of Operation	Peak / Off-Peak Service Frequency	General Hours of Operation	Service Frequency
SANTA CLARITA TRANSIT - LOCAL ROUTES					
5 - Valencia Industrial Ctr/Valencia Town Center	Avenue Stanford, Rye Canyon Rd./Valencia Industrial Ctr, Scott, McBean Parkway, Valencia Town Center	11:00 AM - 2:00 PM	n.a. / 30 min.	n.a.	n.a.
10 - Shadow Pines/Castaic	Castaic, Old Road, Ave Stanford, Rye Canyon Rd, Scott, McBean,Valencia Town Center, Magic Mountain Parkway, Valencia Blvd., Soledad Canyon Rd., Metrolink, Shadow Pines Saturdays Only: Segment to Six Flags Magic Mtn. replaces segment serving Valencia Industrial Center	5:00 AM- 8:00 PM	60 min. / 60 min.	8:30 AM- 7:30 PM	60 min.
20 - Shadow Pines/Val Verde	Val Verde, Rte 126 to Ave Stanford; remainder of route same as Route 10 to Shadow Pines Saturdays Only: Segment to Six Flags Magic Mtn. replaces segment serving Valencia Industrial Center	6:00 AM - 7:30 PM	60 min. / 60 min. (Combined 10/20 service is 30 min/30 min except for Castaic/Val Verde branches) School trips: Two AM trips to Ave. Tech; one AM and one PM trip each to La Mesa Jr. High and Canyon High. Valencia High served by route deviations.	8:00 AM - 7:00 PM	60 min.

Bus Route	Key Streets/Areas Served	Service Characteristics			
		Weekdays		Saturdays	
		General Hours of Operation	Peak / Off-Peak Service Frequency	General Hours of Operation	Service Frequency
15 - Newhall (Senior Ctr)/Metrolink	SCV Senior Center, Lyons Ave., Tournament/Rockwell Cyn Rd., Valencia Blvd., Soledad Canyon Rd., Metrolink <u>Saturdays Only</u>: Segment on McBean Parkway / Henry Mayo Newhall Mem. Hospital replaces Rockwell Cyn Rd segment	6:00 AM - 7:00 PM	60 min. / 60 min.	8:00 AM - 7:00 PM	60 min.
25 - Newhall (Calgrove/Creekside)/ Metrolink	Calgrove Blvd., Wiley Canyon Rd., Tournament/Rockwell Cyn Rd., Valencia Blvd., Soledad Canyon Rd., Metrolink <u>Saturdays Only</u>: Segment on McBean Parkway / Henry Mayo Newhall Mem. Hospital replaces Rockwell Cyn Rd segment	5:00 AM - 8:00 PM	60 min. / 60 min. (Combined 15/25 service is 30 min/30 min except for Calgrove and Lyons Ave branches)	8:30 AM - 7:00 PM	60 min.
30 - Seco Canyon/Metrolink	Seco Canyon Rd., Bouquet Canyon Rd., Soledad Canyon Rd., Metrolink	5:00 AM - 8:00 AM	30 min / n.a.	n.a.	n.a.
30 -Seco Canyon/Magic Mountain	Seco Canyon Rd., Bouquet Canyon Rd., Soledad Canyon Rd., Valencia Blvd., Magic Mountain Parkway, Six Flags Magic Mtn.	7:30 AM - 8:00 PM	60 min. / 60 min. School trip: One PM trip from Seco Cyn to La Mesa Jr. High	n.a.	n.a.
31 - Kaiser Med Ctr/Seco Canyon	Seco Canyon Rd., Bouquet Canyon Rd., Soledad Canyon Rd., Metrolink,Valencia Blvd., Magic Mountain Parkway, McBean Parkway, Kaiser Medical Center	8:00 AM - 7:00 PM	60 min. / 60 min.	8:30 AM - 7:00 PM	60 min.

Bus Route	Key Streets/Areas Served	Service Characteristics			
		Weekdays		Saturdays	
		General Hours of Operation	Peak / Off-Peak Service Frequency	General Hours of Operation	Service Frequency
35 - Lyons Ave/Metrolink	Metrolink/Soledad Canyon Rd., Valencia Blvd, Magic Mountain Parkway, Valencia Town Ctr, McBean Parkway, Mayo Newhall Mem. Hospital, Orchard Village Rd., Newhall Ave., Hart High School, Lyons Ave to west of I-5	5:00 AM - 10:00 PM	30 min. / 30 min. School trip: One outbound PM trip begins at Placerita Jr. High.	8:00 AM - 7:30 PM	30 min.
40 - Bouquet Cyn/Metrolink	LARC Ranch, Bouquet Canyon Rd., Newhall Ranch Rd, McBean Parkway, Magic Mountain Parkway, Valencia Blvd, Soledad Cyn Rd, Metrolink	5:00 AM - 7:30 PM	30 min. / 30 min.	8:30 AM - 7:30 PM	60 min.
40 - School Circulator Route	A.M.: Deviates from Bouquet Canyon Rd., serving community streets, Saugus High, Arroyo Seco Jr. High, returning to Metrolink. P.M.: Begins at Arroyo Seco Jr. High, serving community streets, Saugus High School, returning to Metrolink.	Schooldays only: One AM trip Two PM trips	n.a.	n.a.	n.a.
50 - Metrolink/Whites Cyn /Sierra Hwy/Valencia	Metrolink, Soledad Canyon Rd., Whites Canyon Rd./Canyon Country, Sierra Highway, San Fernando Rd., Valencia Blvd., McBean Parkway, Valencia Town Center	6:00 AM - 7:30 PM	30 min. / 60 min.	8:30 AM - 7:00 PM	60 min.
55 - Metrolink/Valencia	Ave Stanford/Techology, Rye Cyn, Valencia High School, McBean, Orchard Village, Newyall Ave/Hart High School, San Fernando Rd, Sierra Hwy, Via Princessa, La Mesa Jr. High, Soledad Cyn, Metrolink	Schooldays only: AM: 1 trip each direction PM: 2 trips Valencia-Metrolink and 1 trip Metrolink-Valencia	n.a.	n.a.	n.a.
55 - Metrolink/La Mesa Shuttle	Community shuttle from Metrolink to La Mesa Jr. High	Schooldays only: 1 AM trip, 1 PM trip	n.a.	n.a.	n.a.

Bus Route	Key Streets/Areas Served	Service Characteristics			
		Weekdays		Saturdays	
		General Hours of Operation	Peak / Off-Peak Service Frequency	General Hours of Operation	Service Frequency
60 - Stevenson Ranch	Stevenson Ranch, McBean Parkway, Valencia Blvd, Soledad Cyn/Metrolink	Schooldays only: 1 PM northbound trip	n.a.	n.a.	n.a.
65 - Stevenson Ranch	Stevenson Ranch, McBean Parkway, Orchard Village, Hart High School, Lyons	Schooldays only: AM - 1 trip from Stevenson Ranch; PM - 1 trip back to Stevenson Ranch	n.a.	n.a.	n.a.

Bus Route	Key Streets/Areas Served	Service Characteristics			
		Weekdays		Saturdays	
		General Hours of Operation	Peak / Off-Peak Service Frequency	General Hours of Operation	Service Frequency
SANTA CLARITA TRANSIT - EXPRESS ROUTES					
791 - Valencia Industrial Ctr/Warner Ctr/ Chatsworth	Avenue Stanford, Rye Canyon Rd., Scott-Newhall Ranch Rd., McBean Parkway, Magic Mountain Parkway, Tourney Rd., I-5, Rte 118, Topanga Canyon	Directional peak hour service only	AM: 4 northbound trips arrive PM: 4 southbound trips depart	n.a.	n.a.
793 - Valencia Industrial Ctr/Van Nuys	Avenue Stanford, Rye Canyon Rd., Scott-Newhall Ranch Rd., McBean Parkway, Orchard Village Rd., San Fernando Rd., Rte 14, I-405, Van Nuys Blvd	Directional peak hour service only	AM: 3 northbound trips arrive PM: 3 southbound trips depart	n.a.	n.a.
794 - Valencia Industrial Ctr/LA Union Stn	Avenue Stanford, Rye Canyon Rd., Scott-Newhall Ranch Rd., McBean Parkway, Magic Mountain Parkway, Tourney Rd., I-5, downtown Los Angeles	Directional peak hour service only	AM: 4 northbound trips arrive PM: 5 southbound trips depart	n.a.	n.a.
795 - Sylmar/Lancaster	Lancaster, Antelope Valley Mall, Vincent Grade Metrolink, Via Princessa Metrolink, Soledad Canyon/Metrolink; some routes extend down San Fernando, Sierra Hwy to serve Olive View Medical Center in Sylmar	Peak hour service only	To Lancaster: AM: 4 trips (incl. 2 from Sylmar) PM: 3 trips (incl. 1 from Sylmar) From Lancaster: AM: 4 trips (inc. 1 to Sylmar) PM: 3 trips (inc. 1 to Sylmar)	n.a.	n.a.
796 - Metrolink/Warner Ctr	Soledad Canyon Rd., Valencia Blvd., McBean Parkway, Orchard Village Rd., San Fernando Rd..etc.	Directional peak hour service only	AM: 4 southbound trips depart PM: 5 northbound trips arrive	n.a.	n.a.

Bus Route	Key Streets/Areas Served	Service Characteristics			
		Weekdays		Saturdays	
		General Hours of Operation	Peak / Off-Peak Service Frequency	General Hours of Operation	Service Frequency
798 - Metrolink/Van Nuys	Van Nuys, I-405, Rte 14, San Fernando Rd., Orchard Village Rd., McBean Parkway, Valencia Blvd., Soledad Canyon Rd.	Peak hour service only	AM: 4 southbound trips depart; 2 northbound trips arrive PM: 3 southbound trips depart; 6 northbound trips arrive	n.a.	n.a.
799 - Metrolink/Downtown LA	Soledad Canyon Rd., Valencia Blvd., Magic Mountain Parkway, McBean Parkway, Orchard Village Rd., LyonsRd., San Fernando Rd., Sylmar, I-5, downtown Los Angeles	Directional peak hour service only	AM: 9 southbound trips depart PM: 10 northbound trips arrive	n.a.	n.a.
LADOT - EXPRESS ROUTE					
573 - Santa Clarita/SFV/Westwood/ Century City	McBean Parkway, Orchard Village Rd., Lyons Ave., San Fernando Rd., Rte 14, I-5, Van Nuys, Encino, Westwood/Century City	Peak hour service only (Peak direction only between Santa Clarita and SFV)	AM: 4 southbound trips depart PM: 5 northbound trips arrive	n.a.	n.a.

Appendix Table B
Comparison of Santa Clarita Transit with Comparable-Sized Operators by Service Type (from FY95 TPM/TDA Report Forms)

1. Fixed Route Local Service

Operator	Fleet Size	Operating Cost/ Vehicle Service Hour	Unlinked Passengers/ Vehicle Service Hour
Santa Clarita Transit	19	45.35	18.43
Norwalk	14	72.32	28.58
Antelope Valley Transit Authority	17	44.45	26.31
Culver City	24	61.27	45.67
Torrance	26	67.72	30.14

2. Fixed Route Express Service

Operator	Fleet Size	Operating Cost/ Vehicle Service Hour	Unlinked Passengers/ Vehicle Service Hour
Santa Clarita Transit	9	116.57	15.29
Antelope Valley Transit Authority	6	78.28	11.28
Santa Monica	12	58.27	32.61
Torrance	9	56.32	20.85

3. Dial-a-Ride Service

Operator	Fleet Size	Operating Cost/ Vehicle Service Hour	Unlinked Passengers/ Vehicle Service Hour
Santa Clarita Transit	9	43.48	2.6
Antelope Valley Transit Authority	13	49.25	2.78
La Mirada	8	55.78	6.89

Operating cost/vehicle service hour is a measure of efficiency, whereas unlinked passengers/ vehicle service hour is a measure of effectiveness.

APPENDIX C. SUMMARY OF PUBLIC COMMENTS AT FEBRUARY 3, 1996 SANTA CLARITA TRANSIT TRANSPORTATION DEVELOPMENT PLAN WORKSHOP

Approximately 35-40 attendees participated in three workshop groups which discussed the questions indicated and suggested the following as key issues:

1. What are the barriers to more personal and community use of alternatives to private automobile use?

Topography, gated areas restricting access, lack of sidewalks, and the distinct separation of land uses were cited as key barriers, with attendees indicating that the land use pattern with a limited number of large shopping centers not within walking distance of many residents being a key determinant. School locations not close to residential areas were also cited as a barrier to use of transportation alternatives.

The cost of transit, particularly Metrolink fares, were also cited as a barrier, people indicating that the $144 month rate to Los Angeles was double the fare that encouraged ridership (as did the lack of freeways) following the Northridge earthquake. Others suggested that there was too much dependence on Metrolink and that buses to more locations would be preferable. Voter apathy about solving congestion problems was also indicated by several people.

2. What should the city and county do to encourage and facilitate transportation alternatives?

Recommendations included: better bus stop environments such as more shelters, lighting, and sidewalks; paseo and neighborhood sidewalk connections to arterials with bus routes; mixed use and cluster development; improved feeder routes to Metrolink trains; and the use of small, quiet buses. Several people suggested smaller, neighborhood oriented park-and-ride lots would be preferable to large, centralized facilities that were more prone to vandalism. The difficulty of walking across major arterials with current signaling and lack of median waiting areas was also indicated as a problem for pedestrians.

Improved coordination with employers regarding transit information and shift times and employer transit subsidies were also suggested as useful steps to encourage use of transportation alternatives. Use of taxi vouchers for seniors to supplement dial-a-ride bus service was also suggested.

3. What services should receive the highest priority if more resources become available to transportation?

Sunday service and lifeline transit access to the regional network in the San Fernando Valley were voiced most frequently by those in attendance. Service every 30 minutes on Route 50 was requested by several people. Improved feeder service to early regional bus trips was also cited, with the suggestion that some trips originate in Canyon Country instead of the Saugus Metrolink

Station. Creation of a transit center at the Town Center that would have an information center capable of assisting with trip planning and car/van pool matching was indicated as a desirable project. Timed transfers need to be improved, particularly between local and regional bus services. Several people suggested that Santa Clarita Transit should better coordinate with other regional operators such as the Antelope Valley Transit Authority.

4. To what extent should the City take responsibility for junior high and high school student transportation?

Although it was recognized as an unfortunate situation, the attendees understood the fiscal condition of the schools and agreed that the City must take a major share of the responsibility of transportation to the schools. Several people suggested that the schools should bear the responsibility for monitors or supervisors who ride the buses to diminish behavioral problems associated with students leaving schools on crowded buses in the afternoon.

Attendees were asked to rank the following existing transportation services in importance to the community. A ranking of five points was given to each high response, three points for each medium, and one point for each low. The resulting ratings were as shown below.

High = H Medium = M Low = L

Service Importance Score

__ Metrolink	3.6
__ bus service to other communities	3.8
__ local buses	4.5
__ Dial-a-ride service	2.9
__ taxis	2.2
__ car/van pooling	3.6
__ park-and-ride lots	4.1
__ school transportation	4.1

Local bus service, park-and-ride lots, and school transportation service were given the highest rankings by the participants, followed by bus service to other communities, Metrolink, and car and van pooling. Dial-a-ride service and taxis were considered the least important by attendees.

There was little discussion about the dial-a-ride service, but this may be a reflection of the character and interest of addendees as opposed to a broad perspective of community needs.

A video describing transportation problems associated with modern, suburban land use and neighborhood patterns was shown. This illustrated the negative aspects of large separation of land uses, and reliance on protected cul-de-sacs combined with a limited number of massive arterial routes. Attendees were asked to evaluate whether the ideas presented in the video could work in Santa Clarita. The following represents the distribution of response across each row for the 16 to 18 written responses received.

TABLE C-1. SANTA CLARITA TRANSIT WORKSHOP: TRANSIT FRIENDLY CONCEPT FEASIBILITY			
Transit Friendly Idea	Wouldn't Work Here	Might Fit Here	Good Idea to Pursue Here
Higher density of development	35%	35%	30%
Mixed use development	0%	50%	50%
Slower main streets	19%	37%	44%
Narrower main streets	57%	37%	6%
Fewer cul-de-sacs	25%	31%	44%
Wall breaks for pedestrian access	6%	31%	63%
More sidewalks	6%	18%	76%
Retail buildings oriented for pedestrians	6%	12%	82%

APPENDIX D. TASKS FOR IMPLEMENTATION OF NON-TRADITIONAL SERVICES

Many transit agencies, due to budget constraints and a desire to be more responsive to their overall market, are exploring new ways to deliver service to customers. These new ways of service delivery are also a logical response to changing travel patterns and the need to diversify transit's "product lines" by going beyond traditional transit operations.

The service concepts deemed to have the most immediate applicability to Santa Clarita were indicated in Section 3.4. The explanation of the implementation tasks are included for future reference.

Strategy 2a: Dial-a-Ride Feeders for Senior Center Trips

The following implementation steps assumes the use of taxis. The use of dial-a-ride vans instead of taxis would only require pre-scheduling shorter trips than is currently the practice.

1. *Conduct informal discussions with the taxi operators to determine their ability and interest in contracting with Santa Clarita Transit.*

There are presently two cab companies that currently serve Santa Clarita. Information gathered for this study may be outdated when actual implementation occurs. Because of the fluidity of the taxi industry, it is likely it will need to be updated.

Taxicabs are licensed by Los Angeles County and are permitted to take shared rides (passengers picked up at different locations). Eagle Cab maintains that it is the only licensed operator in Santa Clarita, but Checker Cab dispatchers assert that their company is authorized to pick up there too.

Eagle Cab has 15 vehicles but is only operating five. Therefore, it has the capacity to take on additional service under contract with Santa Clarita Transit. It has recently merged with Valencia Airport Shuttle. Eagle Cab already takes some disabled passengers in its station wagon, where the passenger can transfer from the wheelchair to the car seat and the wheelchair is stowed in the back. It will now have access to a lift-equipped van to take motorized wheelchairs.

Eagle Cab is licensed to pick up only in Santa Clarita and Antelope Valley but may drop off a passenger anywhere. It is also licensed by the cities of Palmdale and Lancaster. Peak hours are 6:30-10 a.m. and 2-4 p.m. Passengers are primarily senior citizens and commuters to Metrolink, except for the tourists at hotels and Magic Mountain on weekends. Rates are $1.90 for the flag drop and $1.60 per mile.

The manager of Eagle Cab previously proposed a flat rate to Santa Clarita Transit of $7 per ride for anywhere in the city, a rate approximately 50% of the current average cost per Dial-a-Ride trip. The rate would be per ride, so that there would be no cost during "down" times. He could design the payment schedule as he already does with Henry Mayo Newhall

Memorial Hospital. The hospital pays Eagle Cab a deposit of $1000 up front and the company deducts each trip from that sum.

2. *Decide on the Service to be Provided.*

There are a number of questions for consideration:

a) What trips that are now known can be aggregated into feeder service areas? Where are they concentrated? Can they be plotted on a map to determine how many taxis might be needed?

b) What is the meal and activity schedule of the Senior Center? Are trips taken at other times of the day as well or are they all concentrated into certain time slots?

c) Should the service begin with a demonstration to test the concept? (eg., Friendly Valley to the Senior Center) Or is it easier to institute the concept citywide from the outset (eg., seniors won't have differing levels of service; the same time slots are involved so the service can be planned comprehensively)

d) Where are the logical drop-off points for the feeders? Are they safe and sheltered? Is permission required from a private owner to use the drop-off point?

e) Will a special bus be put into service to pick up the seniors at various drop off points and take them the to Senior Center? Or will the seniors be assisted to board existing fixed routes? If existing fixed routes are used, what route deviations will be necessary to drop the seniors off at the Senior Center? How will these route deviations affect service for the rest of the public and for any timed transfers? How does the timing on the existing routes coincide with the meal and activity schedule at the Senior Center?

f) Will the taxi driver be required to physically assist with boarding? Or will the bus driver? Does the taxi company have liability insurance covering this responsibility? Can arrangements be made with the Senior Center to help people on and off the bus at this point of the trip?

g) Will fares be paid with ticket books/vouchers? Will seniors continue to self-certify their eligibility?

3. *Issue a Request for Proposals.*

a) Following the design of the service, prepare a Request for Proposals stating the criteria needed to be responsive (eg., number of vehicles available at certain times of day, level of insurance required, passenger assistance).

b) Compare the cost to the cost of the current Dial-a-Ride service. Include the need for expansion of dial-a-ride into the consideration.

c) If the cost of taxi feeders is favorable, award a contract.

4. *Develop an Education and Training Program for the Seniors*

a) Working with the Senior Center staff, develop a plan to explain how the dial-a-ride service will change to a taxi feeder service. Seniors should be made aware that their use of dial-a-ride will face restrictions as Santa Clarita Transit complies with ADA mandates to eliminate trip denials to persons with disabilities. The taxi feeder service will allow the city to continue to serve seniors in the face of these mandates.

b) Make presentations at the Senior Center to explain the taxi feeder system. If a new fare instrument is involved, use role playing exercises to increase understanding. Prepare flyers for the dial-a-ride drivers to hand out before the new feeder service begins.

c) Introduce the taxi feeder service in conjunction with a travel training program, in which seniors familiar with door-to-door pick up and drop off are taught to use fixed-route buses. Often seniors are apprehensive about entering the bus unaided and about getting lost if the bus does not go directly to the Senior Center. Travel training programs teach them to be more independent and comfortable about riding on a fixed route.

5. *Introduce the Taxi Feeder Service.*

a) The dial-a-ride dispatch center could continue to prepare the pre-scheduled taxi feeder routes based on standing orders from the seniors who had called in initially for the service, or the entire program could be turned over to the taxi dispatch center. Seniors with standing orders would be required to call the dispatch center if they were not going to the Center on any given pre-scheduled trip. Although this is not a new policy, the introduction of a new service gives Santa Clarita Transit an opportunity to reinforce the policy and strengthen its enforcement. Seniors should be given a maximum number of "no-shows" and should be dropped from the service for a period of time if they exceed the maximum number of "no-shows.". This policy should be well-publicized in advance of the feeder start-up and be strictly enforced.

b) It would be helpful to have volunteers and staff from the Senior Center at the feeder drop off points to assist the seniors in boarding the bus during the first weeks of the service. This would give the seniors help and comfort in adjusting to the change.

c) There will likely be a need for additional personnel in the dispatch center during the start-up, both to facilitate the communication with the taxi company and to address confusion on the part of the seniors.

6. *Evaluate the Service.*

Measurable standards should be set up in advance of the start up. For example:

a) Were cost savings realized?
b) Were more dial-a-ride passengers accommodated as a result of shifting seniors to the taxi feeders?
c) What was the level of customer satisfaction by seniors with the new service? How will this be measured? Were their overall trip times longer or shorter?

A reasonable period of time should be set to allow the service to become established before it is evaluated.

Strategy 4: Service Routes

Implementation steps 2, 4, and 6 in the previous section on dial-a-ride feeders are applicable here as well.

Concept 2b: Dial-a-Ride Commuter Feeder Routes

The following implementation tasks are needed to determine the viability of using the existing Dial-a-Ride equipment before and after the normal DAR hours to provide feeder service to commuters traveling to and from the Saugus Metrolink Station to access trains or commuter bus services.

1. Survey potential riders.

a) It would be helpful in designing the service to get the input of potential riders. Three surveys should be developed--two for commuters out of Santa Clarita and one for those commuting to the business parks. The first could be handed out while passengers waited for the morning Metrolink trains and collected on board the trains as they departed Santa Clarita. Commuters would be asked whether they would use a service that picked them up and dropped them off at home. Among other questions, the survey would ask how they get to the station now, what area if town they live in and the nearest cross street, what time they usually ride out on the train and what time they return, what fare they might be willing to pay for the feeder, and how flexible their schedule is. If most commuters drive their own car to and from the station and if parking is available, there may not be a market for the feeder. However, if commuters are dropped off, a feeder may be more convenient for the family's schedule.

The second survey would be sent to households in Santa Clarita. This survey would attempt to identify potential Metrolink riders who are now driving to work and might instead ride Metrolink with door-to-door connections in Santa Clarita. Questions would be similar to those outlined above, as well as a question about the cost of parking at the work trip end. Alternatively, the survey could be administered at employment sites in the Los Angeles area. This would require an organization such as Southern California Rideshare to assist in identifying companies with employees from Santa Clarita through a zip code search. Metrolink may be willing to share the costs of such a survey.

The third survey would be conducted at the Santa Clarita business parks. The Valencia Industrial Association and the Transportation Management Association could be asked to help design and distribute the survey. With the cooperation of employers, only workers along a Metrolink line, who would be identified from personnel records, would be surveyed. Employees would be asked if taking Metrolink to Santa Clarita would be a mode they would consider if a connecting shuttle were available door-to-door. Again, Metrolink might be willing to share the costs of this survey.

2. *Design the feeder to Metrolink.*

a) Based on positive results of the first and second surveys, set up a demonstration service around clusters of homes of existing Metrolink riders. The process for calling in to book a trip could be modeled after the current dial-a-ride procedures. A subscription service could also be available for daily riders. Since the service is door-to-train, a premium fare, higher than a bus fare, could be justified.

b) In order to give riders flexibility in the evening, multiple shuttles, one for each area of town, could meet all of the trains. This would require the driver to plot the trip on the spot to various houses within the driver's assigned area. Less ideal, but requiring a commitment of fewer vehicles and less responsibility for the driver, would be to have each morning rider pre-schedule the evening return trip. The dispatch center could then plan out the route for the driver. One vehicle could be assigned to the last train to catch any riders who had a change of schedule during the day. Arrangements could also be made with the taxi providers.

3. *Design the feeder to the business parks.*

a) Plot a logical route through the business parks, using the same vehicles which had taken residents to the train. The driver will then know the most efficient street pattern to take passengers disembarking from the train to their work sites. This allows for daily flexibility among the riders, who can decide on any given morning if they wish to drive or take the train.

A more conservative approach would be to begin with a subscription service based on interest expressed in the third survey. The service would be offered when enough passengers had signed up to insure the optimum farebox return.

b) The evening trip back to the train would use the checkpoint pickup described earlier. Sheltered waiting areas located a reasonably short distance from the rider's work site will be necessary, such as the overhang of an office building. Although the door-to-door service could be offered in the evening as well, it is more costly, requiring more miles driven and a larger fare or subsidy. It also requires that some passengers travel around the business park on the van before it heads off to the train, making it less attractive to ride and causing all passengers to leave work at staggered times.

4. *Market the feeder services.*

a) Distribute flyers on the Metrolink trains and through direct mail to homes in the demonstration area for the feeder service to Metrolink. Place flyers at sites selling transit passes, on the buses, at the new commute store, and at activity sites, such as shopping centers and doctors' offices.

b) Market the feeder to the business parks through the employers' distribution mechanisms on site and by informational meetings with employees.

5. *Evaluate the Service.*

A reasonable period of time should be set to allow the service to become established before it is evaluated. Measurable standards should be set up in advance of the start up. These standards would include ridership and farebox return. A feedback mechanism to measure customer satisfaction should also be designed so that the services can be modified with experience based on customers' needs.

Strategy 7: Commute Store

The commute store should not be implemented until the primary transit center is relocated to the Town Center vicinity. Santa Clarita Transit needs to determine whether to:

a) locate the commute store within the shopping mall; or
b) utilize a combination of a kiosk at peak times at the transit center and a staffed office or desk within the mall on weekends.

The director of the Transportation Management Association already staffs the concierge desk in the mall on some days of the week to provide transportation information. Santa Clarita Transit could staff the kiosk and direct people by signs to the mall when TMA staff is scheduled at the concierge desk. It might also fund an expansion of the TMA role in the mall.

The following implementation steps are required:

1. Decide upon the appropriate location.

In deciding upon the appropriate location for and size of the commute store, the following questions should be considered:

a) What functions will be located at the commute store and how many square feet are required?

b) What is the cost of building a structure versus the cost of rent within the mall?

c) Which location has the greatest visibility?

A structure at the transit center will be visible to anyone driving by. However, many people may not make a special trip to stop, whereas in the shopping mall they might stop in the course of visiting other stores. On the other hand, the space the mall is willing to rent for such an activity may be out-of-the way and hard to find.

Who are the primary customers the commute store will serve--current passengers or potential riders? Potential riders may be easier to attract within the mall. Current riders may find the mall location less convenient, because their bus will bring them directly to the transit center.

d) Will the transit center location be secure? (The mall already has security.) Staffing a kiosk at the transit center will also inherently improve the security of the facility. Is it feasible to sell tickets and passes at the transit center, or safer to do so within the mall?

e) Can the commute store be implemented more expeditiously within the mall than by waiting for the transit center to be built? Should the mall be phase 1 and the transit center structure be phase 2?

f) What are the advantages of relocating the TeleCommuting Center? Transit hubs can be an ideal setting for telecommuting centers. The transit hub would provide convenient access to the telecommuting center, which can serve as a sub-regional meeting point away from the home site. Locating the telecommuting center at the transit hubs may also stimulate other activities which, in turn, will create new ridership. Santa Clarita Transit can use this as an opportunity to partner with the private sector and get them more involved in supporting transit. On a policy level, Santa Clarita Transit can promote telecommuting as part of a comprehensive approach to integrating land use, air quality and transportation decisions. On the other hand, relocating the center will require a much larger space than just a commute store. Security needs will be heightened, because of the necessary equipment. The existing users may or may not find the new location convenient.

2. *Negotiate an agreement with Southern California Rideshare.*

By collaborating with Southern California Rideshare, Santa Clarita can integrate ridesharing information into their menu of services to residents and commuters. It is also a mode to which people can be directed when a transit route is inconvenient or nonexistent. In order to avoid duplication of effort, formal or informal agreements may be necessary, designating responsibilities and territorial boundaries. Some points to consider include:

a) Joint marketing. Santa Clarita Transit can supplement the marketing done by the regional agency. For example, both the transit agency and the ridematching agency may jointly sponsor promotional events, such as Transportation Days at employment sites. Santa Clarita Transit can include ridematching applications in its schedule racks and at its ticket sale locations.

b) Joint information and referral. The two agencies may agree to give out information about each other's services. For example, the transit agency may take applications for ridesharing at the commute store and feed them into the regional database. The ridematching agency may also include transit information to callers who inquire about ridesharing. Both of these services may require direct access to each other's databases. This concept of customer assistance requires retraining and rethinking of job responsibilities, just as travel agents are trained to present a variety of options to clients.

c) A satellite office. If a commute store is built, space for a desk could be given to one of Southern California Rideshare's outreach coordinators. By locating a satellite office in the community, Santa Clarita Transit might negotiate a higher level of attention from the regional agency for workers and residents of Santa Clarita.

Santa Clarita Ultimate Local Bus Route Network

Castaic
Lake Hughes
Sloan Cyn.
Ridge Route
Parker Rd.
Interstate 5
The Old Road
Hasley Cyn Rd.
Dixon Clinic
Val Verde
San Martinez
Chiquito Cyn. Rd.
Hwy 126
Future Transit Center
Magic Mtn Pkwy
Six Flags Magic Mountain
Avenue Stanford
Santa Clarita Valley Telecenter
Rye Cyn Rd
Valencia Industrial Center
Scott
Dickason
Valencia High School
Kaiser Med. Cen.
Valencia Transit Center
Valencia
Valencia Blvd.
College of the Canyons
Rockwell Cyn Rd
McBean Pkwy
Bean Pkwy
Stevenson Ranch
Kavenagh
Hemingway
Faulkner
Stafford
Poe
Pico Cyn. Rd.
California Institute of the Arts
Tournament
Orchard Village
Placerita Jr High
Hart High School
Newhall Ave
Placerita Cyn Rd.
The Master's College
Newhall Metrolink and Transit Center
SCV Senior Center
Wm S. Hart County Park
Wiley Cyn Rd
Creekside
Calgrove
Amtrak Bus Stop
Lyons Ave
Newhall
River Oaks Shopping Ce
Valencia Blvd
Soledad Cyn
Saugus Metrolink
Saugus
Newhall Ranch Rd
Bouquet Cyn Rd
Tamarack
Hazel
Copper Hill Rd
Pamplico
Santa Clarita City Park
Decoro
Arroyo Seco Jr High
Seco Cyn Rd
Grovepark
Saugus High School
Centurion
Haskell Cyn Rd
Benz
Hob
LARC Ranch
Alamos
Bouquet
Cyn Rd
Whites Cyn Rd.
Canyon Country
Canyon High School
Soledad Canyon Rd.
Sierra Vista Jr High
Sierra Hwy.
Via Princessa
Princessa Metrolink and Transit Center
La Mesa Jr High
May
Friendly Valley
Sierra Hwy
State Route 14
Sand Canyon Rd.
Abelia
Shadow Pines Blvd

NORTH

Legend

- Metrolink Station Only (M)
- Transit Center (T)

Figure 3.1