

CHAPTER 9

TART Systems Plan

This Plan has been developed encompassing Fiscal Years 2004-05 through 2009-10. Much of the analysis used as the basis for the Plan elements is presented in previous chapters; the reader is encouraged to refer to previous chapters for additional information and discussion regarding the various Plan elements presented below. A graphic depicting the various Plan elements is presented as Figure 13. In addition, Table 44 presents a summary of the recommended service improvements and priorities.

Over the course of the last several years, the operating costs associated with TART services has risen substantially. The operating/administrative total cost per vehicle-hour, which was \$78.91 in only Fiscal Year 2002/03, is forecast to equal \$89.01 in Fiscal Year 2004/05 – a 13 percent increase over two years¹. These cost increases make funding of service improvements even more difficult than otherwise.

SHORT-RANGE SERVICE PLAN

Improve Service Frequency on the North Shore

Given adequate operating funds, TART would double service frequency between Tahoe City and North Stateline, from once every 60 minutes to once every 30 minutes, throughout the existing operating day. This would be accomplished by adding a fourth bus into the Mainline service and extending the existing runs from Incline Village to North Stateline that turn around in North Stateline at 30 minutes past the hour to instead turn around in Tahoe City at the top of the hour. This will be accomplished in two steps. First, half-hourly service would be provided during the summer only, effectively replacing the existing summer daytime Trolley service along the North Shore. Secondly, half-hourly North Shore service would be extended to year-round.

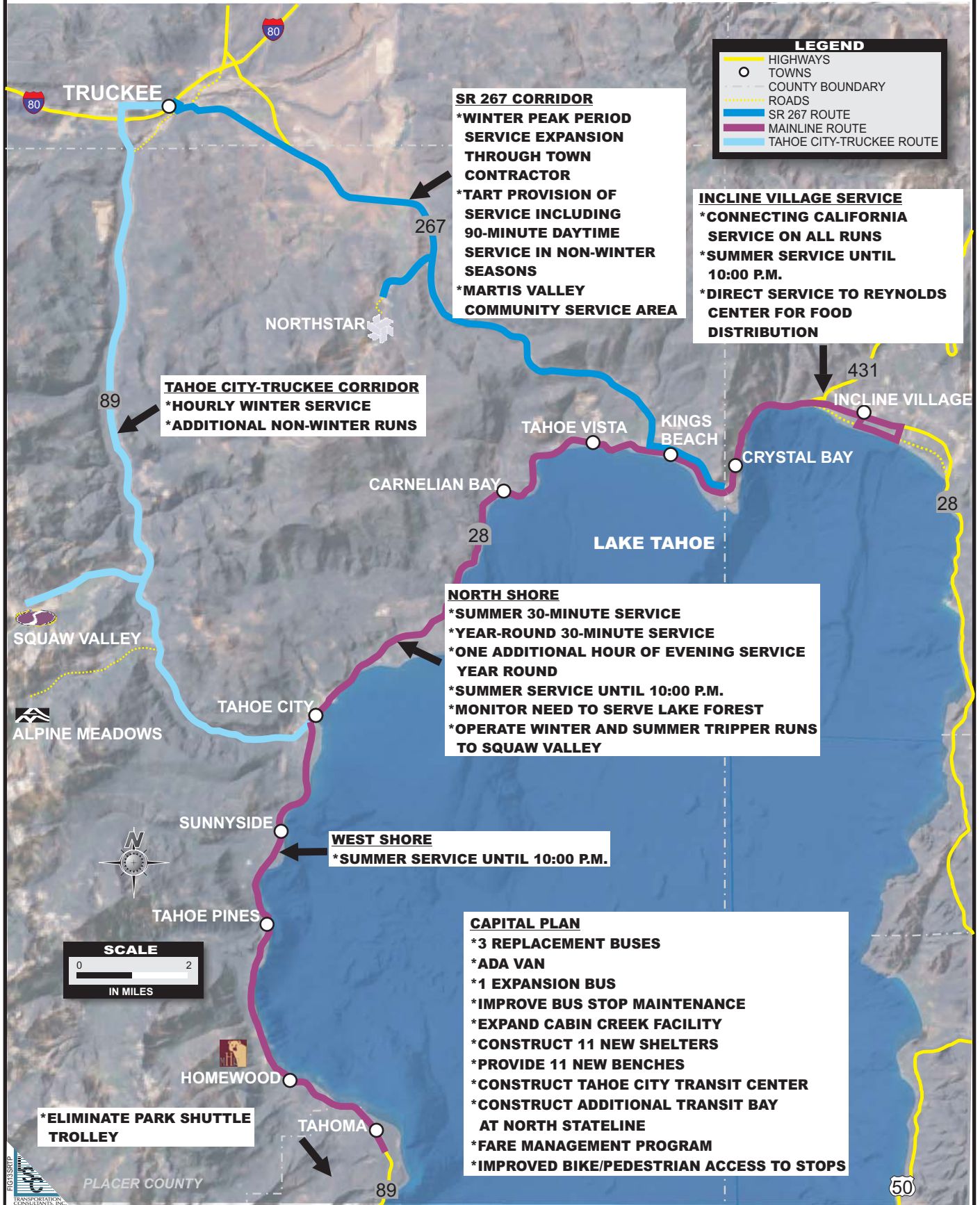
This Plan element would provide several benefits to the transit system and to passengers:

- It would provide connecting service to and from Kings Beach and Tahoe City for the “short-turn” Incline Village – North Stateline runs currently at North Stateline at 30 past the hour. As evidenced by the fact that ridership on these existing “short turn” runs is only 7 percent of the longer runs with service into California, it can be expected that this would greatly increase ridership on the service segment within Nevada.
- It would improve on-time performance on the North Shore route segment, by reducing the delays on each run associated with passenger boarding and alighting.

¹ The majority of this cost increase was associated with increases in Public Employee Retirement System costs (\$82,000, or a 212 percent increase), Workman’s Compensation Insurance (\$80,000, or a 61 percent increase), Employee Group Insurance (\$53,000, or a 33 percent increase), and “A87” allocated County overhead costs (\$47,000, or a 253 percent increase).

FIGURE 13

TART SHORT RANGE TRANSIT PLAN



Plan Element	Priority	Annual Ridership			Annual Service Quantities		Annual Financial Impacts at Full Ridership Potential (FY 04-05 \$)			Performance Measures at Full Ridership	
		First Year of Service (1)	Full Potential Ridership	Vehicle Miles	Vehicle Hours	Operating Costs	Farebox Revenues	Subsidy Required	Passengers per Vehicle-Hour	Subsidy Per Passenger	
Mainline Route											
Half-Hourly North Shore Service – Summer Only	2	6,500	10,000	18,088	816	\$59,400	\$10,900	\$48,500	12.3	\$4.85	
Half-Hourly North Shore Service Year-Round (Incremental)	7	25,200	38,800	78,736	3,552	\$231,600	\$42,500	\$189,100	10.9	\$4.87	
Evening Service - Extend North Shore By 1 Hour Year-Round	5	3,600	5,500	8,081	364	\$27,000	\$6,000	\$21,000	15.1	\$3.82	
Evening Service – Summer All Mainline Until 10 PM (Incremental)	6	10,100	15,500	11,300	500	\$39,700	\$14,300	\$25,400	31.0	\$1.64	
Summer and Winter Tripper Service	1	8,400	12,900	14,798	506	\$42,000	\$14,100	\$27,900	25.5	\$2.16	
89 / 267 Service											
Hourly 89 Winter Service	4	4,900	7,600	18,253	981	\$61,200	\$8,400	\$52,800	7.7	\$6.95	
90-Minute 89 Non-Winter Service	8	1,500	2,300	13,948	79	\$14,800	\$2,600	\$12,200	29.2	\$5.30	
TART Provision of Existing Winter 267 Daytime Services	9 (Note 2)	20,500	31,600	31,181	3,072	\$183,600	\$28,300	\$155,300	10.3	\$4.91	
2nd Winter 267 Peak-Period Service (Incremental)	10 (Note 2)	6,000	9,200	15,501	672	\$50,500	\$34,600	\$15,900	13.7	\$1.73	
Year-Round All-Day 90-Minute 267 Service (Incremental)	11	15,900	24,400	65,325	2,832	\$186,600	\$10,100	\$176,500	8.6	\$7.23	
Trolley											
Modifications to Existing Trolley Program	3	(12,100)	(12,000)	(39,670)	(1,885)	(\$116,700)	(\$8,200)	(\$108,500)	--	--	
Operate Tahoe City Local Trolley	Note 3	7,600	9,500	6,952	715	\$44,200	\$0	\$44,200	13.3	\$4.65	
Operate Tahoe Vista – North Stateline Local Trolley	Note 3	3,800	4,800	9,568	715	\$44,200	\$0	\$44,200	6.7	\$9.21	
TOTAL			160,100	252,061	12,919	\$868,100	\$163,600	\$704,500	12.4	\$4.40	

Note 1: New transit services typically generate 65% of ultimate ridership in the first year of service. This proportion is higher for services with higher proportion of visitor ridership, due to the constant turnover in potential riders. Reductions in service have a full immediate impact.
Note 2: TART service on SR 267 would not start until FY 2005-06 at the earliest.
Note 3: Dependent upon local business operating funding.

- ❑ It provides more opportunities for Truckee – Tahoe City services to have direct connections with North Shore service in Tahoe City.
- ❑ It substantially increases the convenience of transit service to passengers along the route segment with the greatest transit utilization.

Expand Evening Transit Service on the Mainline Route

Other than the low frequency service (addressed in the previous Plan element), the greatest existing deficiency in TART service compared to the services provided in similar resort communities is the lack of evening service. To address this deficiency, TART would expand hourly service into the evening hours if sufficient operating funds are available. This improvement is intended to be implemented in two phases. First, one additional hour of service would be operated on the North Shore year-round. This would provide a new 6:32 PM eastbound departure from Tahoe City, and a 7:00 PM westbound departure from North Stateline. Secondly, summer service would be extended throughout the Mainline Route until 10:00 PM.

This service improvement would provide evening service during the peak summer tourist season, when visitors and residents make a relatively high number of evening trips and when the weather is more conducive to transit use. Throughout the year, the additional hour of service would benefit travelers on the North Shore such as commuters leaving work around 6:00 PM or 7:00 PM, or residents and visitors out for an early dinner. It should be noted that additional expansion in evening services (such as later service in the non-Summer seasons) would not generate ridership consistent with the service standards identified in this Plan, at least under current conditions.

Monitor the Potential Need to Eliminate Lake Forest Service

The North Shore segment of the Mainline Route often requires more time to operate than is available in the schedule. One means of addressing this would be to eliminate service along Lake Forest Road and instead operate the route along SR 28, which would reduce running time by approximately three minutes. However, this would also require existing passengers to walk up to 0.4 miles to a bus stop along the highway², which would result in a loss of roughly 600 passenger-trips per year as well as loss in direct service to an important social service program.

On-time performance on this route segment should continue to be monitored. If the provision of half-hourly service does not result in adequate performance, this route modification should be considered. In order to minimize the increase in walk distance that would result, however, this modification should only be made if the existing stops on SR 28 near Star Harbor and the Tamarack Lodge are moved eastward to just west of Lake Forest Road (west intersection), thereby reducing walk distance by roughly 0.2 miles.

Operate Summer and Winter Tripper Service From the North Shore to Squaw Valley

TART should establish an additional morning bus run from North Stateline through Tahoe City to Squaw Valley during the summer and winter seasons in Fiscal Year 04-05, in order to address chronic overcrowding of the existing 7:00 AM westbound departure from North Stateline during

² Assuming that the bus stops are relocated, as discussed in the text.

the peak seasons. By alternating stops with the existing westbound bus in Kings Beach, the existing passenger delays on this run could be reduced.

Increase Service Frequency on the Tahoe City – Truckee Route

The Tahoe City – Truckee route along SR 89 has experienced the greatest growth in ridership on the TART system over recent years, increasing by 46 percent in four years. With additional development expected, this growth can be expected to continue. A detailed analysis of ridership, costs, and potential farebox revenues presented in Chapter 5 indicates that the provision of hourly daytime service on this route in the winter is a “transit need that is reasonable to meet” in accordance with the 10 percent minimum farebox return ratio standard, achieving a farebox return ratio of 14.6 percent.³ Winter hourly service using two buses operating from roughly 6:30 AM to 6:00 PM would therefore be appropriate, so long as the funding principals discussed below can be met.

Once 30-minute service is provided on the North Shore, the frequency of service in the remaining seasons can be increased using a single bus from roughly every 2 hours to every 90 minutes with a direct connection to North Shore service in Tahoe City on every run. An example schedule for this service is shown in Table 45. This schedule provides a 10-minute driver break in Tahoe City on every cycle, as well as two 30-minute breaks over the course of the day to provide for more convenient commute times in the afternoon.

Compared with the existing schedule, this Plan element would provide two additional runs in the northbound direction and one additional run in the southbound direction. One of these additional northbound runs could depart Tahoe City at 5:30 PM, effectively extending the span of service to correspond with the additional evening service on the Mainline Route. The second winter-only peak period bus would still need to be operated in order to provide convenient run times for Truckee commuters. As this 90-minute schedule would not be operated in the winter (when busy winter ski weekends traffic delays would cause the route to operate behind schedule), it is not necessary to plan for additional service to address traffic delays.

Establish TART SR 267 Service Once the Martis Valley Community Services Area is Established

As discussed in greater detail below, a Community Services Area (CSA) is intended to be established for the Martis Valley portion of Placer County, that is expected to begin generating funding for transit services serving the area by Fiscal Year 2006-07. Once this is in place, the provision of public transit service along SR 267 between Kings Beach and Truckee will become the responsibility of the TART program. This is appropriate given the fact that 87 percent of this

³ While a portion of this route lies within the Tahoe Basin where a higher farebox ratio standard currently applies, the 10 percent standard is considered to be applicable as the large preponderance of passenger-trips are carried to destinations outside of the Tahoe Basin. Hourly service in seasons other than winter were found to not achieve a 10 percent farebox return ratio. For instance, expansion to summer hourly service would generate a farebox return ratio of 6.8 percent.

TABLE 45: Example SR 89 1-Bus Service Schedule

Italics = Winter Service Only.

Stop

Truckee Train Station	Dep	06:40 AM	08:10 AM	09:40 AM	11:10 AM	01:10 PM	03:10 PM	04:40 PM
West River Street	Arr	06:48 AM	08:18 AM	09:48 AM	11:18 AM	01:18 PM	03:18 PM	04:48 PM
Squaw Valley	Arr	07:03 AM	08:33 AM	10:03 AM	11:33 AM	01:33 PM	03:33 PM	05:03 PM
Resort at Squaw Creek	Arr	07:07 AM	08:37 AM	10:07 AM	11:37 AM	01:37 PM	03:37 PM	05:07 PM
Alpine Transport Cntr	Arr	07:12 AM	08:42 AM	10:12 AM	11:42 AM	01:42 PM	03:42 PM	05:12 PM
River Ranch	Arr	07:14 AM	08:44 AM	10:14 AM	11:44 AM	01:44 PM	03:44 PM	05:14 PM
Tahoe City	Arr	07:20 AM	08:50 AM	10:20 AM	11:50 AM	01:50 PM	03:50 PM	05:20 PM
Tahoe City	Dep	07:30 AM	09:00 AM	10:30 AM	12:30 PM	02:30 PM	04:00 PM	05:30 PM
River Ranch	Arr	07:36 AM	09:06 AM	10:36 AM	12:36 PM	02:36 PM	04:06 PM	05:36 PM
Alpine Transport Cntr	Arr	07:38 AM	09:08 AM	10:38 AM	12:38 PM	02:38 PM	04:08 PM	05:38 PM
Resort at Squaw Creek	Arr	07:43 AM	09:13 AM	10:43 AM	12:43 PM	02:43 PM	04:13 PM	05:43 PM
Squaw Valley	Arr	07:47 AM	09:17 AM	10:47 AM	12:47 PM	02:47 PM	04:17 PM	05:47 PM
West River Street	Arr	08:02 AM	09:32 AM	11:02 AM	01:02 PM	03:02 PM	04:32 PM	06:02 PM
Truckee Train Station	Arr	08:10 AM	09:40 AM	11:10 AM	01:10 PM	03:10 PM	04:40 PM	06:10 PM

TART Alternatives/Alts Support Tables

route lies within Placer County, and that current and planned growth in Placer County will increase the need for future improvements in service.

In the interim, the existing services provided along the corridor (winter daytime service consisting of an hourly route between the Truckee Train Station and Northstar and a second hourly route between Northstar and Kings Beach / Tahoe Vista, operated by a service contractor contracted by the Town of Truckee) will remain unchanged in the short term. In addition, the completion of Northstar Village has been identified as requiring provision of a second winter peak-period bus, in order to provide adequate transit capacity. This additional service is planned to be provided starting in the winter of 2005-06, depending upon the pace of development. Prior to establishment of the CSA, funding for this additional service will be provided to the Town.

Placer County is currently conducting a focused study of transit needs and options in the Martis Valley area over the coming years that will be used to refine this service Plan. At present, it is expected that services funded through the CSA will ultimately encompass the existing winter daytime services and the additional peak-period winter service discussed above, as well as daytime service in the non-winter seasons using a single bus operating every 90 minutes between Truckee (Train Station) and North Stateline, via Northstar-At-Tahoe⁴. An example schedule is shown in Table 46. This service could be provided either directly by TART staff, or through a service contractor. It should be noted that this route can be defined as a commuter service for purposes of the Americans with Disabilities Act (ADA), which does not require complementary paratransit service.

Ultimately Provide Hourly Service on SR 89 and SR 267 Between Tahoe City and Truckee, and Between Truckee and North Stateline

With development and associated growth in demand for transit services, the ultimate plan for transit services along the SR 89 and SR 267 will be to operate three buses between Tahoe City and North Stateline via Squaw Valley, Truckee, Northstar and Kings Beach, providing convenient hourly service along both highway corridors. These services will provide direct transfers to Mainline Route buses operating in both directions in both Tahoe City and North Stateline, providing convenient regional services throughout the North Tahoe – Truckee Region. As the demand warranting this service expansion is dependent on the rate of future development, this ultimate plan is not expected to be achieved within the five-year period of this short-range transit Plan. Ridership growth on the two corridors should be monitored in the final years of the five-year Plan period to identify when this improvement is specifically warranted.

⁴ The benefits to passengers associated with extending the run from Kings Beach to North Stateline (in terms of direct transfers to the “short turn” North Stateline – Incline Village TART runs, direct service to the casinos, and doubled capacity between Kings Beach and North Stateline) are well worth the few extra minutes in running time.

TABLE 46: Example SR 267 1-Bus Service Schedule

Stop	Evening Service											
	Dep	06:15 AM	07:45 AM	09:15 AM	10:45 AM	12:15 PM	01:45 PM	03:15 PM	04:45 PM	06:15 PM	07:45 PM	09:15 PM
Truckee Train Station	Dep	06:15 AM	07:45 AM	09:15 AM	10:45 AM	12:15 PM	01:45 PM	03:15 PM	04:45 PM	06:15 PM	07:45 PM	09:15 PM
Best Western	Arr	06:19 AM	07:49 AM	09:19 AM	10:49 AM	12:19 PM	01:49 PM	03:19 PM	04:49 PM	06:19 PM	07:49 PM	09:19 PM
Airport	Arr	06:22 AM	07:52 AM	09:22 AM	10:52 AM	12:22 PM	01:52 PM	03:22 PM	04:52 PM	06:22 PM	07:52 PM	09:22 PM
Northstar-At-Tahoe	Arr	06:34 AM	08:04 AM	09:34 AM	11:04 AM	12:34 PM	02:04 PM	03:34 PM	05:04 PM	06:34 PM	08:04 PM	09:34 PM
SR 267 / SR 28	Arr	06:49 AM	08:19 AM	09:49 AM	11:19 AM	12:49 PM	02:19 PM	03:49 PM	05:19 PM	06:49 PM	08:19 PM	09:49 PM
SR 28 / Coon Street	Arr	06:52 AM	08:22 AM	09:52 AM	11:22 AM	12:52 PM	02:22 PM	03:52 PM	05:22 PM	06:52 PM	08:22 PM	09:52 PM
Crystal Bay	Arr	06:55 AM	08:25 AM	09:55 AM	11:25 AM	12:55 PM	02:25 PM	03:55 PM	05:25 PM	06:55 PM	08:25 PM	09:55 PM
Crystal Bay	Dep	07:00 AM	08:30 AM	10:00 AM	11:30 AM	01:00 PM	02:30 PM	04:00 PM	05:30 PM	07:00 PM	08:30 PM	10:00 PM
SR 28 / Coon Street	Arr	07:03 AM	08:33 AM	10:03 AM	11:33 AM	01:03 PM	02:33 PM	04:03 PM	05:33 PM	07:03 PM	08:33 PM	10:03 PM
SR 267 / SR 28	Arr	07:06 AM	08:36 AM	10:06 AM	11:36 AM	01:06 PM	02:36 PM	04:06 PM	05:36 PM	07:06 PM	08:36 PM	10:06 PM
Northstar-At-Tahoe	Arr	07:21 AM	08:51 AM	10:21 AM	11:51 AM	01:21 PM	02:51 PM	04:21 PM	05:51 PM	07:21 PM	08:51 PM	10:21 PM
Airport	Arr	07:33 AM	09:03 AM	10:33 AM	12:03 PM	01:33 PM	03:03 PM	04:33 PM	06:03 PM	07:33 PM	09:03 PM	10:33 PM
Best Western	Arr	07:36 AM	09:06 AM	10:36 AM	12:06 PM	01:36 PM	03:06 PM	04:36 PM	06:06 PM	07:36 PM	09:06 PM	10:36 PM
Truckee Train Station	Arr	07:40 AM	09:10 AM	10:40 AM	12:10 PM	01:40 PM	03:10 PM	04:40 PM	06:10 PM	07:40 PM	09:10 PM	10:40 PM

TART Alternatives/Atis Support Tables

Trolley Program

With the planned improvements in TART services, the Trolley program will be redesigned over time to improve the effectiveness of the program and fill the remaining “holes” in visitor transportation services. Specifically, the following changes will be made:

- ❑ The Park Shuttle service has been eliminated starting in the summer of 2004, due to poor observed ridership demand (2.8 passenger-trips per vehicle-hour of service in 2003). Daytime service is continuing between Tahoe City and North Stateline (alternating with TART service to provide effective 30-minute frequency service). The Sunnyside – Crystal Bay evening service has also been discontinued due to low ridership (2,626 passenger-trip over the course of the summer of 2003). Instead, three trolleys are operated on a 90-minute round-trip route from Squaw Valley to the Hyatt, effectively providing half-hourly service.
- ❑ The half-hourly North Shore TART service discussed above would effectively replace the existing daytime North Shore Trolley service, allowing this service to be eliminated.
- ❑ A “Tahoe City Trolley” would be operated in the summers providing free service from roughly 9:00 AM until 8:00 PM, from July 1 through Labor Day, so long as a majority of funds are provided by the local business community and collected through the TNT-TMA. This service should operate along SR 89 and SR 28 between Comstock Acres (just south of Granlibakken Road) and the Lighthouse Center, providing service every 20 minutes.⁵ It would help to address Tahoe City’s traffic and parking problems.
- ❑ While ridership on recent services indicates that patronage of a similar trolley shuttle for the Tahoe Vista - to - North Stateline area would be relatively low (particularly prior to provision of streetscape/sidewalk improvements), this service may be warranted by its economic and other community benefits. A pilot program is included in this plan, so long as a majority of funds are provided by the local business community and collected through the TNT-TMA.
- ❑ The expansion of TART Mainline services into the summer evening hours would provide hourly bus service between Tahoma and North Stateline and half-hourly service in Incline Village, reducing the need for the existing Trolley evening service between Tahoe City and Incline Village. However, one Trolley will still need to be operated between Tahoe City and North Stateline to provide effective half-hourly service. When TART services expand, therefore, evening Trolley service will be provided hourly from 6:00 PM and 11:00 PM between Tahoe City and North Stateline. In addition, hourly Trolley service will be provided between Squaw Valley, Tahoe City and Sunnyside. Consistent with the existing program, these services will be operated free to the passenger.

⁵ The ridership generated by this route compared with that generated by a longer route also serving the Dollar Hill area operated in the mid-1990s (that operated on a lower service frequency) indicates that this service is more effective if focused on the shorter route.

Incline Village Service

The existing half-hourly operating plan will continue to be provided between North Stateline and Incline Village, with the following potential improvements:

- ❑ Half-hourly service provided along the North Shore in California would eliminate the greatest existing shortfall with the existing Nevada program: the lack of connecting service to and from California on half of the existing runs. This element is forecast to increase ridership between North Stateline and Incline Village by roughly 7,200 one-way passenger-trips per year.
- ❑ Evening service in Nevada would be extended until 10:30 PM in the summer as part of the overall Mainline evening improvements. This expansion in the span of service is forecast to generate roughly 4,800 additional passenger-trips annually.
- ❑ Direct TART service to the Reynolds Center will be provided for the once-a-week food distribution program operated by Project MANA. TART will deviate specific runs defined through discussions with Project MANA to the Reynolds Center drop-off area only when needed to serve food distribution clients. For these runs, the TART bus will deviate off of Southwoods Boulevard to serve the Center before returning to Southwoods Boulevard. This would also require agreement with the Reynolds Center to allow this intermittent use of the drop-off zone. The demand for direct service to the Reynolds Center during other periods of the week is relatively very low, and does not warrant the additional running time and delays to passengers already on the bus.

Together, these Plan elements would substantially increase the effectiveness of the public transit program in Incline Village and North Stateline, as well as increase the benefits of the service to local residents, visitors, and employees.

ADA Service

The Complementary Paratransit Service program operated by a private taxi firm under contract to TART will remain the appropriate means of ensuring that the transportation requirements of the Americans With Disabilities Act are met. While the specific taxi firm under contract may (or may not) change within the Plan period, this strategy is substantially more cost effective than the alternative of direct paratransit services provided by TART staff throughout the large service area, so long as a viable taxi firm is available.

Reno – Truckee – North Tahoe Transit Service

TART will consider the management of the year-round Reno – Truckee – North Tahoe demonstration transit program planned to be implemented starting in December of 2005, as detailed in the [Reno - Truckee - North Tahoe Access to Jobs Transit Service Implementation Plan](#) (LSC Transportation Consultants, 2004). This service will operate three buses in the winter season, and one bus in the other seasons, along the I-80 and SR 89 corridors between Reno and Tahoe City, with connecting winter service between Truckee and Northstar operated by Northstar-At-Tahoe. This service will effectively replace three of the existing five winter-only peak-period runs on TART's Tahoe City – Truckee route. Placer County has the staff and experience needed to administer the federal grant and other funding sources. In addition, as the planned service will augment and closely coordinate with existing TART services, management

through Placer County will help to provide a well-functioning regional system. Finally, Placer County staff is well-experienced in coordinating local public and private funding sources to underwrite transit services.⁶ In addition, TART could potentially prepare a bid to operate the service, for comparison with competitive bids received from other transit operators.

SHORT-RANGE CAPITAL PLAN

Fleet Replacement and Changes to Address Needs of Operating Plan

During the five-year SRTP Plan period, replacements to existing vehicles in the TART fleet will be as follows:

- Three Bluebird buses purchased in 1992 have an average mileage of roughly 510,000. Replacement with CNG-fueled Orion buses is planned to occur in September 2004.
- A fourth Bluebird bus, purchased in 1994 and with a current mileage of roughly 435,000, is owned by the Town of Truckee, which has plans to replace it in Fiscal Year 2004-05.

In addition, the original CC Classics Trolley owned by the Tahoe Transportation District was purchased in 1994, and could warrant replacement based on age in 2006. However, as mileage on this vehicle is relatively low (at approximately 120,000 miles), this vehicle is assumed to not require replacement within the Plan period.

The operating Plan presented above will result in the following changes in the transit fleet:

- Regarding **buses**, with the arrival of the three new CNG vehicles in 2004, TART will have a total of eight reliable and relatively new buses in its fleet, and will retain two older buses as backups. This fleet is adequate to operate up to five buses in year-round service as well as the second winter peak-period bus in operation on the Tahoe City – Truckee Route. This fleet is therefore adequate to accommodate the provision of half-hourly service on the North Shore (which will yield a total of five buses in year-round operation: four on the Mainline Route and the fifth on the Tahoe City – Truckee Route), assuming that one of the back-up vehicles can be counted on to operate the limited winter tripper runs. In addition, provision of evening service does not impact the fleet requirements as it does not increase the number of peak vehicles in service.⁷ However, direct provision of SR 267 service by TART would require one additional bus to be added to the fleet⁸. The unit cost of new CNG bus appropriate for

⁶ While commuter services in urban areas are typically managed by the transit provider in the commuter residential jurisdiction, mountain resort commuter transit programs are often managed by transit program serving the regional employment center. For instance, the Roaring Fork Transit Agency in Aspen, Colorado, the Summit Stage system in Summit County, Colorado, and the South Teton Area Regional Transit program in Jackson, Wyoming all operate commuter services. If administration by Placer County proves to be infeasible, the Washoe RTC would be another potential organization to administer this program.

⁷ Though the additional annual mileage may hasten the need to replace vehicles in the long run.

⁸ Given the horsepower requirements associated with operating over Brockway Summit on this route and the relatively low power provided by the CNG buses, it may be necessary for this additional vehicle to be diesel powered. As Placer County has selected the “alternate fuel path” under the California Air

TART use is assumed to equal \$342,000, while the cost of a similar diesel-powered bus would be roughly \$30,000 less.

- ❑ The **Trolley** service plan will reduce the number of trolleys in operation at any one time to one, operating the Tahoe City Trolley summer daytime route and operating the Squaw Valley – Tahoe City – Sunnyside summer evening route. The smaller CC Classic trolley is the most appropriate vehicle for operating these services on an ongoing basis, given the limited clearances associated with travel through the Boatworks Mall parking lot. In addition, one of the larger Trolley Enterprises vehicles will be used for the Tahoe Vista – North Stateline summer daytime service as well as Tahoe City – North Stateline summer evening service, and a second Trolley Enterprises vehicle should be retained in the TART fleet as a backup vehicle. The other Trolley Enterprise vehicle should be sold, so long as TART implements summer North Shore 30-minute daytime service as well as summer evening service.
- ❑ To ensure that a well-maintained wheelchair-accessible vehicle is available for this service, TART will purchase and maintain a small accessible van. This vehicle will be provided to the service contractor, and is expected to be funded through a FTA 5310 grant.

Improved Bus Stop Maintenance

TART's limited staff does not have sufficient staff time to adequately maintain bus shelters and stops (including snow removal, litter pickup, removal of graffiti, replacement of signs, and minor repairs to seats and windows). Good maintenance of bus stop amenities is important to both the comfort of passengers as well as the public image of the transit program. TART intends to contract with a private local maintenance firm to provide this service, averaging 10 hours of personnel time per week.

Improved Vehicle Cleanliness

The cleanliness of the transit vehicles is also important both to the image of the TART program as well as to the quality of the service provided to passengers. As discussed in the goals/objectives presented below, the exterior of in-service vehicles will be washed twice per week, while interiors will be swept daily and detailed weekly. This increased vehicle cleanliness will be provided with existing staff.

TART Cabin Creek Facility Improvements

The following improvements will be implemented at the TART's Cabin Creek administration / operations center:

- ❑ Eight additional outside bus/trolley parking spaces.
- ❑ Additional employee parking spaces.
- ❑ Additional maintenance bays for Road Department and general fleet equipment to allow for expansion of bus maintenance in the existing facility.

Resources Board heavy duty fleet rule, the County would need to request an exemption from CARB to purchase a diesel bus.

Improvements are currently planned to be constructed in 2005. The total cost that will be incurred by the TART program is estimated to equal \$50,000.

Bus Stop Improvements

TART will strive to provide shelters for all locations with 20 or more boardings per day and benches for all locations with 10 or more boardings per day. Applying these levels to the winter and summer onboard survey results, shelters with benches and lighting are warranted at the following locations not currently supplied with a shelter:

- SR 28 / Chipmunk Street – Westbound
- SR 28 / Fox Street @ KFC – Westbound
- SR 28 / Coon Street @ 7-11 – Westbound
- SR 28 @ Bear Street (Shell Mini-Mart) in Kings Beach – Westbound
- SR 28 @ Deer Street (Thrifty) in Kings Beach – Westbound
- SR 28 @ Fox Street (Brockway Bakery) – Eastbound
- SR 89 @ Sunnyside Market – Northbound
- Squaw Valley terminus

In addition, benches are warranted at the following locations:

- SR 28 / National Avenue – Eastbound
- SR 28 / Coon Street – Eastbound
- SR 28 / Chipmunk Street (Candlestick Lodge) – Eastbound
- SR 28 / National Avenue – Westbound
- SR 28 / O’Neal Associates in Tahoe City – Eastbound
- Country Club Drive @ Mill Creek in Incline Village – Northbound
- Hyatt Incline in Incline Village – Northbound
- SR 89 @ California Highway Patrol in Truckee – Southbound
- Lake Forest Road / Bristlecone Road – Westbound
- SR 89 / West River Street – Southbound
- SR 89 / Moana Circle – Northbound

As shown, a total of eight shelters and eleven benches are presently warranted by the standards discussed above. In particular, bus stop amenities warrant improvement in the Kings Beach area, with a total of six shelters and one bench warranted by existing passenger activity levels. With the planned expansion of services, ridership will increase, warranting placement of a shelter at the following additional stops:

- SR 28 / National Avenue – Eastbound
- SR 28 / O’Neal Associates in Tahoe City – Eastbound
- SR 28 / Coon Street – Eastbound

In total, shelters will be provided at these eleven new locations, so long as adequate space can be provided on roadway right-of-way or through easements. The shelter at the terminus of Squaw Valley is the responsibility of the Village at Squaw Valley developer. In addition, improved passenger amenities at Northstar Village will be constructed by the developer as part of the project. Construction of ten shelters are therefore the responsibility of TART. Finally, as funding permits, TART should strive to provide lighting for existing shelters. Given the snow loads and design requirements in the Tahoe Region, a realistic estimate of unit cost for a shelter is on the order of \$15,000 each.

Tahoe City Transit Center

Placer County has been conducting an environmental analysis of a proposed transit center in Tahoe City. This center is proposed to consist of six bus bays for use by TART and private transportation services, a structure providing public restrooms, passenger waiting areas, a small office space for TART staff, and public parking. A Federal Transit Administration Section 5309 grant of \$1,473,446 was obligated in Fiscal Year 1999/2000 for this project. At present, Placer County DPW is preparing a revised version of the environmental document, for public review and consideration by the Board of Supervisors. Construction is planned to be initiated by 2006, pending approvals.

North Stateline Bus Stop Improvements

Provision of a TART SR 267 Route between Truckee and North Stateline will require the provision of a second bus bay on the north side of SR 28 in North Stateline, to allow convenient transfers between this route and the westbound Mainline Route, and to allow the use of Calaneva Drive to turn the SR 267 Route buses around in a counterclockwise direction.⁹ A budget of \$20,000 is estimated for this work.

Implement a “Smart Card” Fare System

TART will implement a “smart card” fare system to reduce costs, increase the convenience of the service to passengers, improve service running times, and allow greater flexibility regarding provision of specific fares for various passenger types.¹⁰ The smart card fare management program will ultimately replace punch cards and employee tickets with a magnetic “swipe card.” As part of this program, existing TART fareboxes will be replaced with electronic fareboxes that will read the card of a boarding passenger. This process speeds boarding times and eliminates the need for the driver to manually determine if the appropriate fare has been charged. At the end of the operating day, the data is electronically transmitted to a central computer, greatly reducing the staff time needed for fare accounting and increasing accuracy. The TRPA has been approved for a Rural Transit System Grant Program grant for \$270,000 of the cost of a \$300,000 regional fare management system, while local match funds have been appropriated by the NLTRA.

⁹ This street provides a better entrance back onto SR 28 if used in the counterclockwise direction than if used in the clockwise direction, which requires the bus bay to be on the north side of SR 28.

¹⁰ Such as reduced or free fares for employees of firms participating in regional transit funding programs, or an unlimited-use transit pass for the length of a visitor’s stay in the area.

Pursue Funding for an Automated Vehicle Location System

With the growing number of regional connections, an Automated Vehicle Location (AVL) system will increasingly aid the operations and convenience of the regional transit program. Particularly due to winter and summer traffic and weather delays along the routes, it is important for dispatchers as well as passengers to know the locations of the buses in “real time.” This information can increase the efficiency of the system (by providing accurate information on the ability to make timed transfers), help in making the voice announcements of bus stops required under the ADA, speed emergency response time in case of an accident or incident, aid in the collection of passenger activity data, and increase ridership through the increase in passenger’s level of certainty associated with use of the transit system.¹¹

Though there are substantial benefits of AVL technology, there is also substantial costs. Typical costs for AVL systems are currently on the order of \$8,000 per vehicle plus fixed base costs on the order of \$300,000. For AVL to be installed throughout the full TART bus and trolley fleet, a total cost on the order of \$410,000 would be incurred. However, given funding limitations, this improvement can be achieved only if a majority of funding can be provided through a state or federal grant. Beginning in 2005, TART will work with regional partners to pursue a grant for an AVL program.

Achieve Bicycle / Pedestrian Improvements Around Bus Stops

TART will work with other regional partners to improve pedestrian and bicycle access to bus stops. This effort recognizes the fact that, at one end of their trip or the other, virtually all transit passengers also travel on foot, by wheelchair or on bicycle as part of their transit trip. Components of this Plan element consist of the following:

- TRPA, Placer County, and other responsible parties will consider bus stop locations when developing pedestrian and bicycle facility plans.
- Encourage the Public Utility Districts and other responsible parties to remove snow on sidewalks and bikeways in key high-activity areas that allow pedestrians to access bus stops without walking in travel lanes.
- Development proposals near existing and planned TART bus stops will be referred to TART management by the Placer County Planning Department for review and comment.
- Streetscape and roadway plans developed or reviewed by the Placer County Department of Public Works will similarly be referred to TART management for review and comment.

SHORT-RANGE INSTITUTIONAL AND MANAGEMENT PLAN

Provide Ongoing Driver Training

In addition to the more extensive training program provided for new employees, each TART driver shall have a minimum of 8 hours annually of ongoing driver training, as required under the Verification of Transit Training rules established by the California Highway Patrol.

¹¹ As an example of the level of passenger information that can be provided, see www.nextbus.com.

Adopt Transit Goals, Objectives, and Performance Measures

The following goals, objectives and performance measures are hereby adopted to guide the improvement in regional transit services. As many of these goals inherently conflict with each other, local decision makers will need to make policy decisions to balance these conflicting goals.

Planning and Management Goal: To evaluate strategies that help management maximize productivity while meeting the transit needs of the community and to develop a transit program supports environmental and economic goals in the service area.

- ❑ *Planning Standard* – The Short-Range Transit Plan shall be updated at a minimum of every five years. This will be a joint effort between TRPA, PCTPA and Placer County.
- ❑ *Service Monitoring Standard* – Monitoring reports on the effectiveness and efficiency of transit service will be collected and reviewed monthly. These report will include information on ridership, operating costs, status of bus stop amenities, capital programs,
- ❑ *Land Use Planning Standard* – Placer County transit staff will review development proposals within eastern Placer County to identify the effects of development on transit service, and to ensure site plans and amenities are compatible with the transit program.

Service Effectiveness Goal: To maximize the ridership potential of regional transit services.

- ❑ *Fixed-Route Effectiveness Standard* – On an average annual basis for TART and Trolley services, serve a minimum of 8 one-way passenger-trips per vehicle service hour on each route segment for services that have been in place for three or more years. In the first two years of a new service, 70 percent of this figure (or 5.6 one-way passenger-trips per vehicle service hour) shall be achieved.
- ❑ *Marketing Standard* – Conduct marketing efforts to ensure that all service area residents are aware of area transit services. Conduct targeted marketing efforts for high-potential groups, including visitors, and elderly, disabled, students, low-income, and transit-dependent residents. Provide a schedule and marketing poster in Spanish. Marketing costs should be equivalent to 3 percent of the total TART annual budget.
- ❑ *Regional Connectivity Standard* – Continuing efforts shall be made to provide convenient connections to other public transit services in the region providing connecting services to the TART service area, as well as to work with private transportation services to and within the TART service area.

Financial Effectiveness Goal: To make effective use of financial resources.

- ❑ *Farebox Ratio Standards* – TART shall work to attain or maintain 15 percent farebox return ratio on an average annual basis on all routes and services, but shall attain a minimum of 10 percent farebox return ratio, excepting ADA service and service in Nevada.¹² So long as marginal costs of Trolley Service are fully covered by non-TDA sources, no standard is applied to Trolley Services.

¹² This assumes that the farebox ratio required on the Mainline Route by the TDA will be revised by the TRPA from the current 25 percent to 10 percent.

Service Quality Goal: To provide safe, reliable, and convenient public transit services.

- ❑ *On-Time Performance Standard* – 90 percent of all fixed-route trips should be operated “on-time,” except when travel is unduly impeded by traffic or weather conditions. On-time is defined as not early, and not more than five minutes late.
- ❑ *Complementary Paratransit Service Denial Standard* – No pattern of ADA-eligible trip denials (as defined in the Americans with Disabilities Act of 1990) due to capacity constraints.
- ❑ *Passenger Amenity Standard* – Shelter should be considered at all bus stops serving 20 or more passenger boardings per day. Seating should be considered at all bus stops serving 10 or more passenger boardings per day. Benches and shelters will only be installed on existing State or County right-of-way, except where written confirmation from the property owner can be obtained to install a bench or shelter on private property. On an annual basis, the Senior Transportation System Supervisor will identify potential sites and prepare an installation priority list.
- ❑ *Passenger Load Standard* – For passenger safety and comfort, vehicles should be sized and the transit service operated to require standees on no more than 20 percent of the runs for any route, and to avoid any recurring loads of more than 150 percent of the seated capacity on any run.
- ❑ *Accident Standard* – Maintain a minimum of 100,000 miles traveled between preventable collision accidents.
- ❑ *Maintenance Standard* – Maintain a minimum of 40,000 miles between road calls. Road calls are defined as any time passenger service is interrupted more than five minutes due to a mechanical failure (except for flat tires).
- ❑ *Vehicle Cleanliness Standard* – The exterior of each vehicle used in service will be washed twice weekly, and the interior will be swept daily and detailed at least weekly. Vehicle detailing includes mopping the floor, washing the windows, and removing any minor stains that may have accumulated on the passenger seats. A vehicle that experiences a major stain will be removed from service as soon as possible and cleaned/repared before re-entering service.
- ❑ *Minimum Service Frequency Standard* – Along the West Shore and North Shore, service shall be provided no less than hourly. Between Tahoe City and Truckee and along SR 267, service shall be provided no less than every two hours.
- ❑ *Span of Service Standard* – Provide service along major corridors that allows persons with work shifts beginning and 8:00 AM and ending at 5:30 PM to use transit to and from work in Tahoe City, Kings Beach, Incline Village/Crystal Bay, Squaw Valley, Truckee, and Northstar.
- ❑ *Vehicle Accessibility Standard* – Maintain a fully accessible transit fleet (as defined by the Americans with Disabilities Act of 1990).
- ❑ *Vehicle Spare Ratio Standard* – Maintain sufficient fleet spare ratios to ensure adequate capacity for regularly-scheduled and tripper services. At a minimum, two spare vehicles should be available that can operate each respective service category.

- ❑ *Training Standard* – All services shall be provided by trained, courteous, respectful employees, who appreciate the needs of the passengers. Each driver shall have a minimum of 8 hours annually of ongoing driver training.

Investigate Maintenance of Town of Truckee Transit Vehicles by Placer County DPW Staff and Office Space for the Town’s Service Contractor at Cabin Creek

Placer County DPW will contact the Town of Truckee to investigate the feasibility of providing maintenance services for the Town’s transit vehicles at Cabin Creek using DPW staff, as well as provision of office space and vehicle storage. Under the Town’s current contract with Aztec Transportation, vehicles are stored outside at a leased facility near the Tahoe – Truckee Airport and major repairs require the vehicles to be transported to Aztec’s main facility in Moundhouse, Nevada (east of Carson City) which is more that 70 miles from Truckee. In addition to putting additional wear on the vehicles, this reduces the time that vehicles are not available for transit service in event of a major maintenance problem. Providing maintenance functions through DPW would take advantage of the specialized knowledge regarding transit vehicle maintenance available through the County, would reduce mileage on the Town’s vehicles, and reduce the proportion of time that non-standard equipment is used to operate the Town’s services¹³.

DPW and the Town should also consider the potential of housing the Town’s transit contractor at Cabin Creek, once expansion of the facility is completed in 2005. This would allow the cost currently associated with the contractor’s property lease near the Truckee – Tahoe Airport to be converted to “rent income” to the TART program, and would encourage increased coordination between the two transit programs. The potential cost implications of this strategy would need to be identified through negotiation between the Town and the County.

Consider Adding One Additional Placer County Transit Program Administrative Position

In comparison, with other public transit programs of similar size, the administrative responsibilities of the TART program are relatively challenging due to the seasonal shifts in service requirements, the fact that services are provided directly rather than through a service contractor, as well as the many jurisdictions and funding programs that must be coordinated. The various elements of this Systems Plan will also substantially add to the management resources needed for TART, as will the additional requirements associated with the "urbanized" status of Placer County's transit program in the eyes of the Federal Transit Administration. The day-to-day management staff currently available to TART (above the operations level) is limited to a single position, shared between the TART program and the Placer County Transit (PCT) program also operated by Placer County in the western portion of the county. As this limitation in administrative staff would preclude or significantly delay the implementation of many of the elements of this Plan, and as other studies have shown a parallel need for additional management resources for the PCT program, a new management position will be established (under the existing Transit Supervisor) that will be shared between the TART and PCT programs. This new position will assume a portion of responsibilities for project implementation, performance data reporting, marketing, grants management, and interjurisdictional coordination."

¹³ The Truckee transit program currently operates approximately 183,000 vehicle-miles per year, of which roughly 50,000 would be eliminated by Placer County provision of service on the SR 267 corridor.

Increase TART Maintenance Staff

The service improvements discussed above will increase the total operations of the TART fleet and thus the overall maintenance staff requirements. In addition, increasing bus cleaning frequency will also increase the demands on the maintenance staff. Starting in the summer of 2005, therefore, an additional half-time maintenance position will be added to the TART staff.

Improve Marketing Efforts

A comprehensive marketing study for the North Tahoe and Truckee transit programs (including TART), currently being conducted under the direction of the TNT-TMA, will ultimately provide a more specific and detailed marketing strategy for TART. In the meantime, the following preliminary recommendations have been identified:

- ❑ **Expand Regional Transit Marketing** – TART services, while extensive, are only a part of a larger regional public transportation network. TART and regional partners will assist in the development of regional marketing strategies.
- ❑ **Improve Internet Transit Information** – The County will improve the existing TART website to include a Macromedia Flash feature¹⁴ linked to a Acrobat Reader portable document file version of the map/schedule, which will facilitate zooming to a particular area on the map, as well as facilitate printing by website users. In addition, detailed information will be included on the website regarding connecting transit services and the Trolley program, and will provide links to other web sites that provide additional regional public transportation information.
- ❑ **Focused Marketing for New Services** – Specific marketing campaigns will be conducted to launch new or expanded services, including half-hourly service, expanded evening service, and SR 267 corridor service. Schedules will be modified to reflect added service and newspaper ads will be run to introduce the expansion. Flyers and posters will also be placed in the various lodging facilities, throughout at least the first season of expanded service, and major employers served by the expanded service will be contacted. In addition, efforts will be made to get feature articles in the local papers.
- ❑ **511 Traveler Information Program** – TART and regional partners will participate in the nationwide effort to establish a “511” traveler information system phone number, similar to the “911” emergency phone number. When fully established, a traveler anywhere in the country will be able to access a menu of traffic and transit information by calling 511 toll-free. Parallel web-sites are also being established.¹⁵ Participation in the 511 program is particularly important for the Tahoe / Truckee Region, as many visitors are from areas that currently have established 511 systems, such as the San Francisco Bay Area.
- ❑ **Improve Service Quality** – A key principal of transit service marketing is to focus on providing a quality trip experience to the rider. This study has identified a number of shortcomings of the TART program that negatively impact the passenger’s experience and

¹⁴ This product is identified for illustrative purposes only.

¹⁵ See, for example, www.511.org.

in turn the reputation of the service – particularly the on-time performance of the system. In addition, evening service and increased frequency of service would improve the marketability of the transit system. Finally, improved bus stop amenities such as shelters can raise the public perception of the transit program. These service quality improvements are particularly important in attracting new discretionary riders, such as visitors.

To fund these expanded marketing efforts, a budget of \$20,000 per year over current marketing costs is identified (rising with inflation).

Improve Service Monitoring

As a management tool, TART staff will prepare monthly and quarterly service monitoring reports. The following data categories are required for careful supervision of services, and will be collected on a regular basis, as identified below.

Monthly Reports

- ❑ Passenger Boarding/Alighting by Route, Direction, and Time of Day – Though the daily recording and input of passenger activity by can seem onerous, this information is vital in tracking ridership, and in identifying runs with consistent overcrowding. In addition to identifying total ridership by run, driver forms will allow drivers to note runs on which passengers are required to stand. This information will be reviewed to identify when additional tripper runs may be warranted to meet service quality standards.
- ❑ Status of Bus Stop Amenities – Bus shelters and benches should be inspected on at least a monthly basis, and any deficiencies noted in the report. Planned activities to address the deficiencies should also be identified.

Quarterly Report

In addition to the monthly report data, reports will be prepared quarterly that detail the following:

- ❑ On-time Performance – Comprehensive records of on-time performance are useful in determining proper scheduling and ensuring quality service. At key stops approximately 15 minutes apart along the route drivers will be required to record the minutes off of schedule that each run serves, when this value exceeds the “not early and no more than 5 minutes late” on-time performance standard. This data will be summarized to prepare quarterly on-time performance reports..
- ❑ Missed Passengers – Drivers will be instructed to radio to the dispatcher the number of passengers who must be left on the curb due to full vehicle loads. The time, place, route, and number of missed passengers will be tracked and included in the quarterly service reports.

Annual Report

The following information will also be provided in the annual reports, along with a summary of the data reported monthly and quarterly:

- ❑ Annual Passenger Survey – Onboard surveys are a vital source of planning information regarding the ridership and the purpose of their trip-making. In addition, surveys are the single best way to gain "feedback" regarding the service. Surveys will be conducted in alternate years during the peak winter and peak summer seasons.

- ❑ Bus Stop Boarding and Alighting Counts – It is worthwhile, on at least an annual basis, to conduct a day-long count for boarding and alighting by stop for each of the services operated. For runs with lower passenger volume (such as the West Shore), drivers may be able to count and record the number of passengers boarding and alighting at each stop while maintaining the schedule. However, for busier TART routes and runs it will be necessary to use off-duty drivers, office staff or temporary labor to ride each of the buses and conduct the survey. As part of these surveys, the number of passengers on the bus at the beginning of the run must be recorded, in order to allow calculation of the passenger load. Also, at the end of each run the total number of passengers seated on the bus after the last stop should be tracked as an error check. After the data is collected, it can be entered onto a spreadsheet for convenient analysis. In addition to the most recent indicators, information on each of the quantitative indicators should be tracked through at least the previous year's values. Graphs should also be prepared and included for total passengers, total revenues, passengers per vehicle hour, cost per vehicle hour, and cost per passenger-trip. The results should be plotted both for the current period and for previous periods to identify trends in performance and the impact of seasonal fluctuations.
- ❑ Bus Stop Access Report – An annual report will be prepared inventorying pedestrian access to and from bus stops (for both ambulatory passengers and those using wheelchairs), deficiencies will be noted, and a prioritized list developed to address shortcomings.

Establish a County Service Area (CSA) District for Martis Valley

Depending upon the final results of the detailed study of transit services for the Martis Valley, Placer County will establish a County Service Area special district encompassing the developable portions of the Martis Valley area in unincorporated Placer County. Funds generated by the CSA will be used to support the operations, maintenance, and local match required for transit vehicles associated with transit services in the CSA area. This will require preparation of an Engineers Report, consideration by the Local Agencies Formation Commission, and resolution by the Placer County Board of Supervisors.

Once established, this Martis Valley CSA will be responsible for the majority of subsidy funding associated with service on the SR 267 corridor between Truckee and North Stateline.¹⁶ In addition, the CSA will be responsible for providing the one additional bus in the TART fleet needed to operate future service levels in the corridor.

¹⁶ It is assumed for purposes of this Plan that the Town of Truckee will be responsible for 13 percent of the operating subsidy associated with the SR 267 service, as 13 percent of the route lies within the Town. Allocating funding responsibilities based on relative mileage rather than passenger boardings by jurisdiction ensures that the Town's contributions will not be increased based on future increases in boardings in the Town generated by development in Martis Valley.

FINANCIAL PLAN

Raise TART Base Fare to \$1.50, With Reduced Fare for Elderly, Disabled and Youth

Beginning July 1, 2004, TART base fare¹⁷ was raised to \$1.50. To bring the program in line with transit industry standards and to encourage ridership among those most in need, half-fare (\$0.75) rides are now provided to seniors (age 65 and above), youth (age 6 to 15), and persons with disabilities. Children age 5 and under will continue to ride at no fare.

Since TART's last fare increase (from \$1.00 to \$1.25) in 1996, inflation in the region has impacted costs such that \$1.59 is needed in 2003 to buy what \$1.25 bought in 1996.¹⁸ This fare increase is therefore necessary to keep pace with the impacts of inflation. In comparison, fares for other systems generally fall in the range of \$1.00 to \$1.50. For instance, both the Sacramento RT system and the Reno/Sparks Citifare system charge a base fare of \$1.50, the Blue Go system in South Lake Tahoe (which has a relatively short average trip length) has a base fare of \$1.75, while the Truckee Trolley program has a base fare of \$1.00. The Yolobus program in Yolo County also recently increased the base fare to \$1.50.

The impacts of this Plan element are presented in Table 43 in the previous chapter. As shown, an increase in youth/elderly/disabled ridership of 10,300 per year will be more than offset by a reduction in general public ridership of 15,300, yielding a net decrease in TART ridership of 5,000 per year. Overall, farebox revenues are forecast to increase by \$14,000 annually. It should be noted that this loss in ridership can be expected to be temporary, as future inflation reduces the effective fare level once again.

Finally, TART fare levels should be revisited on an ongoing basis, to ensure that the fare program keeps pace with inflation and that minimum farebox return ratio standards are achieved.

Provide Fare-Free Fixed-Route Service for ADA-Eligible Passengers

Transit services are increasingly choosing to offer fare-free rides on fixed-route services to ADA-eligible passengers. For instance, this policy is in effect at the Sacramento RT services, as well as Utah Transit Authority in Salt Lake City. While this policy reduced fixed-route fare revenues to a small degree, it results in a substantially greater reduction in complementary paratransit operating subsidy as passengers shift from the more expensive CPS service to the less expensive fixed-route service. While conservatively not reflected in this financial plan, this element is expected to slightly reduce overall TART operating costs by reducing the demand for CPS rides.

Reduce the Minimum Required Farebox Ratio in the Tahoe Region (TRPA Action)

The Transportation Development Act has, to date, been interpreted to require that the ratio of transit fares to operating costs (the "farebox ratio") for services within the Tahoe Region equal

¹⁷ The one-way fare charged to non-disabled non-senior adults.

¹⁸ Based on Federal data regarding the cost of living in the Bay Area standard metropolitan statistical area.

or exceed 25 percent. This relatively high requirement¹⁹ could potentially preclude expansion of services or require future reductions in low-ridership services. TRPA should therefore work towards reducing this minimum farebox ratio requirement within the Tahoe Region.

The TDA law is unclear with regards to this issue, particularly as the law does not address the unusual condition where a single county is bifurcated into two Regional Transportation Planning Agencies (PCTPA and TRPA). Section 99268.12 states that the transportation planning agency may set the required ratio at no less than 15 percent "for an operator in a county with a population of 500,000 or less and serving an urbanized area..." Since Placer County is less than 500,000 in population, the pertinent question is whether the "urbanized area" status is met, either through the TRPA's Metropolitan Planning Organization status, or the fact that the "operator" (Placer County) now operates partially in an urbanized area (as Auburn-Roseville is in the Sacramento urbanized area). To resolve this uncertainty, TRPA should obtain legal assistance and, if necessary, seek legislative relieve in the form of a change in the TDA law. If legally possible, the TRPA should adopt the lower farebox ratio by resolution.

Revise Means of Calculating Minimum Farebox

In the meantime, farebox receipts can be supplemented by local support under PUC 99268.19 if the operator or a transportation commission imposes a tax to supplement the fares. Use of TRPA rental car mitigation fee, the transient occupancy tax and RTC sales tax should all be considered as potential revenue that can be counted toward the farebox receipts.

Provide Operating Funding Through Existing and New Sources

Reflecting the high degree of uncertainty regarding the availability of funding needed for service improvements, a specific financial plan has not been included as part of this plan (though Appendix C presents a "best case" financial forecast assuming a series of additional funding sources are implemented). As shown in Table 44, above, if all of the recommended service improvements are implemented, the total annual operating costs required for TART service would be increased by roughly \$868,100, while subsidy requirements would be increased by roughly \$704,500 per year. As shown in Table 47, operating revenues are expected to be generated from the following sources:

- Farebox revenues.
- Local Transportation Funds (LTF) funds received through the TRPA.
- LTF funds received through PCTPA.
- State Transit Assistance (STA) funding received through the TRPA.
- FTA Section 5311.

¹⁹ In comparison, TART services outside of the Tahoe Region and other rural transit services must achieve a farebox ratio of only 10 percent.

TABLE 47: TART Operating Revenues*All Figures are FY 2004-05, in Thousands*

	Annual Funding
<u>Existing Operating Revenues – For Base Case Services</u>	
Passenger Fares	\$311.1
LTF Allocated Through TRPA	\$675.0
LTF Allocated Through PCTPA	\$255.0
STA Allocated Through TRPA	\$39.3
STA Allocated Through PCTPA	\$0.0
FTA Section 5311 Funds Through TRPA	\$19.5
FTA Section 5311 Funds Through PCTPA	\$55.0
Washoe RTC	\$238.7
Town of Truckee – 89 Service	\$41.6
Contract Revenue – SR 89 Employers	\$17.0
Contract Revenue – NLTRA	\$101.6
Lease Revenue – Existing Leases	\$51.5
Interest Income	\$5.0
<i>Subtotal: Base Case</i>	<u>\$1,875.3</u>
<u>Potential Revenues for Base Case</u>	
Lease Revenue – Town Contractor	\$25.0
Bus Advertising	\$40.0
<i>Subtotal: Potential Revenues For Base Case</i>	<u>\$65.0</u>
<u>Operating Revenues – For Expansion Services</u>	
Passenger Fares For Service Increases	\$152.1
Town of Truckee – 267 Service	\$25.0
NLTRA For Expanded Services (1)	\$87.8
FTA Section 5307 Urbanized Area Funds (2)	TBD
Martis Valley County Service Area (3)	\$329.5
Mitigation Funding – Northstar Village (4)	\$23.3
<i>Subtotal: For Expansion Services</i>	<u>\$617.7</u>
Total Identified	<u><u>\$2,558.0</u></u>

Note 1: Assumes that existing NLTRA funds used for North Shore trolley services that would shift to bus service would still be provided to TART.

Note 2: TRPA is currently working to modify Federal Transit Administration regulations to make the Tahoe Region eligible for this funding source. While funds are not currently included in the plan, they would be used to fund expansion of transit operations.

Note 3: Not planned to be implemented until FY 2006-07.

Note 4: Calculated to include marginal operating costs plus overhead costs allocated by proportion of total TART vehicle-hours.

- ❑ Washoe RTC will be relied upon to fund the subsidy requirements associated with service in Washoe County.
- ❑ Based on existing agreements and funding limitations, the Town of Truckee is assumed to contribute funds towards SR 89 Corridor service between Truckee and Tahoe City totaling \$41,600 in FY 2004-05.
- ❑ Per the mitigation measure identified in the Northstar Village EIR, the developer of Northstar Village is required to fund 50 percent of the cost of two additional winter daily rounds trips between Truckee and North Tahoe on the SR 267 corridor. The level of development triggering this mitigation measure is assumed to occur in Fiscal Year 2005-06.
- ❑ The Martis Valley Community Services Area is assumed to fund the subsidy requirements associated with SR 267 Corridor service, other than the Northstar Village mitigation funds. The CSA is further assumed to begin generating funding in Fiscal Year 2006-07.
- ❑ Contract revenue, including funds provided by the NLTRA and private contributors for Trolley services, are assumed to continue, though these funding levels will change as the scope and subsidy requirements of the Trolley program are reduced.
- ❑ Existing lease revenues are assumed to continue.
- ❑ TART will pursue a program of exterior bus advertising, in order to generate additional much-needed local operating funds. In the current era of limited public sector budgets, transit services have increasingly found vehicle advertising to be an important and flexible source of funds. This program is estimated to generate \$40,000 per year in additional funding, which is more than adequate to make the difference in funding service improvements identified in this plan.
- ❑ Existing interest income equal to \$5,000 per year, rising with inflation, is assumed.
- ❑ Finally, TRPA is currently working to make the Tahoe Region eligible for Federal Transit Administration Section 5307 Urbanized Area Funds. It is currently unknown how much revenue could be made available for TART services.

A total of approximately \$2,558,000 in operating funds could be available (in addition to potential 5307 funds) if all of these funding sources are implemented, reflecting roughly \$683,000 in increased revenues.

Placer County Funding Principals

This plan presents both a status-quo plan to maintain the baseline service as well as recommended service expansions. Placer County currently uses all TDA funds allocated by TRPA for TART service within the Tahoe Basin, as well as TDA funds allocated by PCTPA for TART service outside of the basin. In addition, the TART budget is supplemented by additional TDA funds from PCTPA to cover baseline TART service. The service expansion elements of the plan presented above are not fully funded: there are not sufficient funds identified in this plan to implement all of the improvements. There is, however, some additional revenue that is reasonably foreseeable for TART service. The statements below outline Placer County's funding strategy and policy for this plan.

- Continue funding baseline TART service with the existing funding sources.
- Service provided to and within other governmental jurisdictions will be funded equitably by those jurisdictions
- 100% of the Placer County TDA apportionment from TRPA will continue to be used to fund TART service within the Placer County portion of the Tahoe Basin.
- TDA funds from the PCTPA apportionment will continue to be used for the baseline service provided on Highway 89 along with funding from other entities.
- Any additional funds generated by the baseline TART service as an enterprise, such as advertising, charters, fuel sales, or lease revenues for the TART facility will go towards funding the baseline TART service.
- Any additional ongoing funding contributions for expanded transit services will be used by Placer County to provide expanded service, provided:
 - The contribution does not reduce or replace baseline funding;
 - All baseline funding remains in place;
 - The contribution is ongoing and sufficient to cover the added operating costs for future years; and
 - The expanded service is consistent with the priorities identified in this plan.
- Additional TDA funds outside of the TRPA jurisdiction used for expanded service will be at the discretion of Placer County and determined on a case-by-case basis. Funding determinations will consider the consistency with this plan, determination of unmet transit needs that are reasonable to meet, and matching funding contributions from outside sources.

Provide Capital Revenues Through Existing and New Sources

The capital costs for vehicles, passenger amenities, passenger facility improvements and operating equipment are shown in Table 48 for each year of the Short Range Transit Plan period. It should be noted that an annual capital inflation rate of 2.5 percent is reflected in these figures. Capital items consist of the following:

- Purchase of three vehicles in Fiscal Year 2004-05, and a fourth vehicle in Fiscal Year 2006-07 (after establishment of the Martis Valley CSA);
- Purchase of a wheelchair-accessible van for use by the taxi contractor;
- The improvements to the Cabin Creek facility;
- The Tahoe City Transit Center project;
- Provision of eleven bus benches and the North Stateline bus bay in the first year of the transit program, as well as provision of ten bus shelters over the course of the first three years of the Plan period; and

TABLE 48: TART Short Range Transit Plan – Capital Plan							
<i>All Figures in Thousands</i>							
	Fiscal Year 2004-05	Fiscal Year 2005-06	Fiscal Year 2006-07	Fiscal Year 2007-08	Fiscal Year 2008-09	Fiscal Year 2009-10	6-Year Total
<u>Capital Costs</u>							
TART Fleet Expansion	\$1,037.0	\$0.0	\$368.3	\$0.0	\$0.0	\$0.0	\$1,405.3
ADA Van for Service Contractor	\$0.0	\$41.2	\$0.0	\$0.0	\$0.0	\$0.0	\$41.2
Cabin Creek Facility Improvements	\$50.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$50.0
Bus Stop Improvements – 10 Bus Shelters	\$31.1	\$32.1	\$33.3	\$34.4	\$17.8	\$18.4	\$167.1
Bus Stop Improvements – 11 Benches	\$0.6	\$0.6	\$0.6	\$0.7	\$0.3	\$0.3	\$3.2
Tahoe City Transit Center	\$0.0	\$1,843.4	\$0.0	\$0.0	\$0.0	\$0.0	\$1,843.4
North Stateline Bus Bay	\$0.0	\$0.0	\$21.0	\$0.0	\$0.0	\$0.0	\$21.0
Smart Card Fare System	\$300.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$300.0
Automatic Vehicle Location System							
Total Capital Plan Elements	\$1,418.7	\$1,917.4	\$423.2	\$35.1	\$18.2	\$18.8	\$3,831.3
				Funding level and source to be determined			
<u>Capital Revenues</u>							
FTA Section 5309 Funds	\$0.0	\$1,473.4	\$0.0	\$0.0	\$0.0	\$0.0	\$1,473.4
FTA Section 5310 Funds	\$0.0	\$33.0	\$0.0	\$0.0	\$0.0	\$0.0	\$33.0
SECAT (Sacramento Emergency Clean Air & Transportation Program)	\$153.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$153.0
TRPA Air Quality & Water Quality Funds	\$103.4	\$178.2	\$0.0	\$0.0	\$0.0	\$0.0	\$281.6
Washoe RTC	\$173.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$173.0
TTD	\$13.6	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$13.6
Rural Transit System Grant Program	\$864.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$864.0
North Lake Tahoe Resort Association	\$30.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$30.0
Traffic Impact Fee Program	\$31.7	\$232.8	\$423.2	\$35.1	\$18.2	\$18.8	\$759.7
Placer County LTF	\$50.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$50.0
Total	\$1,418.6	\$1,917.4	\$423.2	\$35.1	\$18.2	\$18.8	\$3,831.3
Balance	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Note: The costs presented in this table are based on the anticipated cost in the year that the project is implemented or the equipment is delivered. Note: Excludes transit bus to be provided by the Town of Truckee at no cost to TART.							

- ❑ Implementation of the Smart Card fare management system in Fiscal Year 2004-05.

Capital costs over the five-year period will total approximately \$3,781,600.

Funding for TART capital programs over the five-year Plan period will be generated from the following sources:

- ❑ Federal Transit Administration Section 5309 funds are available for the Tahoe City Transit Center project.
- ❑ FTA Section 5310 funds, administered through Caltrans, are assumed to fund 80 percent of the cost of the ADA service van.
- ❑ The Sacramento Emergency Clean Air and Transportation (SECAT) program is funding a portion of the three CNG vehicles arriving in FY 2004-05.
- ❑ TRPA Air Quality and Water Quality funds are assumed to fund three capital projects: \$103,442 for the three CNG vehicles, \$370,000 for the Tahoe City Transit Center, and a total of \$162,900 over the course of the next three fiscal years for bus benches and shelters in the Tahoe Basin.
- ❑ The Washoe RTC is providing \$173,000 toward the three new CNG vehicles.
- ❑ The Tahoe Transportation District is providing \$13,750 (generated through the sale of the Lake Lapper vehicles) toward the three new CNG vehicles.
- ❑ The Rural Transit System Grant Program is providing \$594,000 toward the three new CNG vehicles, as well as \$270,000 for the advanced fare management program.
- ❑ The North Lake Tahoe Resort Association is providing \$30,000 in local match funds for the advanced fare management program.
- ❑ The Placer County Traffic Impact Fee program is assumed to provide funds for purchase of a new CNG vehicle in Fiscal Year 2006-07.
- ❑ Placer County LTF is assumed to provide TART's share of costs associated with Cabin Creek improvements, as well as the construction costs associated with provision of an additional bus bay at North Stateline and the local match for the ADA van.

As shown in the bottom of Table 48, capital revenues balance with capital expenditures in each of the five Plan years.

Additional Potential Funding Sources

Considering the level of planned development in the service area, transit-related mitigation measures will become increasingly important to the long-term financial viability of the TART program. Placer County will continue to consider the requirement of transit capital and operating improvements as conditions for approval associated with development proposals in the region. In addition, Placer County will ensure that previous transit-related mitigation measures are enforced.

Future transit subsidy funds can also be expected from California Proposition 42. This proposition, passed in March 2002, requires that 20 percent of state gasoline sales tax revenues beginning in Fiscal Year 2009 will be allocated to the State's Public Transit Account for

operations and transit capital improvements. The only projection available shows that Placer County will receive approximately \$13 million in additional public transit funding between 2008 and 2028. This is equivalent to roughly \$650,000 per year for all county transit programs, only a portion of which will be allocated to TART. However, these funds will not be available until after the end of the five-year Plan period.

SHORT-RANGE IMPLEMENTATION PLAN

Service Expansion Implementation Elements

- Begin consistent winter tripper service from North Stateline to Squaw Valley.
- Begin providing winter hourly service on Tahoe City – Truckee route.
- Eliminate Parks Shuttle.
- Modify Evening Summer Trolley program to provide 30-minute headway service between Squaw Valley and the Hyatt.
- Provide direct TART service to Reynolds Center for Project MANA food distribution clients.
- Begin summer daytime 30-minute service on North Shore, replacing existing North Shore Trolley service.
- Begin operation of one additional hour in the evening on the North Shore year-round.
- Revise Tahoe City – Truckee schedule in non-winter seasons to provide additional runs.
- Initiate Tahoe City Trolley and Tahoe Vista – Kings Beach – North Stateline Trolley service.
- Expand North Shore 30-Minute Service to year-round.
- Begin providing summer Mainline service until 10:00 PM.
- Operate additional runs on Tahoe City – Truckee route in non-winter seasons..
- Revise Evening Trolley service to provide hourly service between Tahoe City and North Stateline (30-minute service in concert with TART service) and hourly Squaw Valley – Tahoe City – Sunnyside service.
- Begin operating year-round SR 267 service.

Capital Implementation Elements

- Receive three new Orion CNG vehicles.
- Receive new Town of Truckee vehicle.
- Begin improved contracted bus stop maintenance.
- Begin expanded vehicle cleaning program.
- Construct new bus stops, and provide additional benches.
- Construct additional bus bay at North Stateline.

- Implement smart-card fare management system.
- Expand TART's role in developing bicycle and pedestrian improvements.
- Construct Cabin Creek facility improvements.
- Construct Tahoe City Transit Center.
- Purchase new bus for SR 267 service.
- Sell surplus trolley.

Institutional/Administrative/Operational Implementation Elements

- Begin applying new goals, objectives and performance measures.
- Investigate vehicle maintenance and housing of Town of Truckee transit program at Cabin Creek.
- Establish new Placer County transit program administrative position.
- Begin expanded marketing program.
- Begin expanded service monitoring program.
- Conduct detailed Martis Valley transit plan study.
- Increase fares to \$1.50, with reduced fares for elderly, disabled and youth.
- Provide fare-free travel on TART for ADA-eligible passengers.
- Petition TRPA to reduce required minimum farebox return ratio for the Mainline Route. Revise means of calculating farebox return ratio for Mainline Route.
- Re-negotiate funding allocation with the Town of Truckee for SR 89 and SR 267 service.
- Establish transit vehicle exterior advertising program.
- Use development contributions to fund expanded transit services.
- Add half-time maintenance position.
- Form Martis Valley County Service Area.
- Pursue grants for automated vehicle location system.
- Revisit fare structure on an ongoing basis.
- Conduct next Short Range Transit Plan study.

INTERMODAL CONNECTIVITY PLAN

Travel patterns in the study area – both for residents and for visitors – reflect a high level of travel into and out of the eastern Placer County region that is the primary responsibility of the TART program. To a degree, the TART program already addresses inter-jurisdictional travel, by providing direct service into El Dorado\ County (Tahoma and Sugar Pine State Park), Washoe County (Incline Village and North Stateline) and to the Gateway and downtown areas in Truckee. Regional connectivity of transit services currently warrant further improvements,

however, and this need can be expected to grow due to growth in population and employment as well as the increasing lack of affordable housing in the region.

This Plan section discusses the need for connectivity between different portions of the region as well as regional access portals. The degree to which service Plan elements presented above address these needs are identified. Finally, additional steps that can be taken (either within or beyond the five-year short-range Plan period) are identified.

Connections to Intercity Transportation

North Tahoe's key points of connection to the nation's intercity transportation network are the Truckee Train Station (for both rail and bus service) and the Reno / Tahoe International Airport (for scheduled air service).

Truckee Train Station

The Truckee Train Station is served by the following intercity services:

- ❑ Direct rail service to the Truckee Train Station is currently limited to the Amtrak *California Zephyr* route between Emeryville and Chicago, providing one train a day in each direction. Due to the low schedule reliability of this service as well as a pricing scheme that discourages relatively short trips, this service is not an attractive means of travel between the region and the Central Valley or San Francisco Bay Area.
- ❑ As part of the *Capitol Corridor* service between Auburn and San Jose, Amtrak operates four buses per day between Reno, Truckee, Auburn and San Francisco. Service is only provided to passengers making connections to and from the rail service. While most of the existing runs access the Truckee Train Station during TART's existing span of service, a westbound departure at 4:40 AM as well as eastbound arrivals at 6:30 PM and 11:05 PM are not provided with connecting TART service.
- ❑ Greyhound buses also serve the Truckee Train Station along the route between Reno and Sacramento, with five westbound and three eastbound stops per day. In the westbound direction, three runs operate within the existing TART span of service, the 8:35 PM service time occurs after the end of TART service, while the 6:20 AM service time is provided with southbound connecting service but not northbound connecting service. In the eastbound direction, connecting TART service is available for the 11:35 AM and 5:30 PM service times, but not for the 10:30 PM service time.

The most significant potential expansion in intercity public transportation services to the region is the possible extension of the *Capitol Corridor* rail service westward of Auburn to Truckee and Reno. The PCTPA is currently leading a study of the capital and operating considerations of this service expansion, that may result in service in the next several years. As a relatively "local" service, it can be expected that the reliability of this service would be relatively high in comparison to the *California Zephyr*, and the passenger fares would be relatively low. Ridership levels observed at rail services in similar mountain resort areas (such as the Winter Park Ski Train serving the Winter Park Ski Area from Denver, Colorado) indicates that the potential for ridership to and from the North Tahoe / Truckee region is high.

If efforts to institute this service are successful, a crucial component will be the provision of connecting bus services from the Truckee Train Station to the various resort and residential areas

in the region. While some of this service can be expected to be provided via private shuttle services, it will also be important for public transit services to coordinate with rail service schedules. Therefore, TART, NLTRA, and Town of Truckee officials (as well as representatives of the various resorts) should participate in planning for this service.

Several elements presented in this Plan will expand public transit connections to the Truckee Train Station, including the expansion of TART services into the SR 267 corridor and the increased frequency of service. As also discussed below, the next long-term step will be the institution of evening transit services along the SR 267 and SR 89 corridors, as growth in the region warrants.

Reno – Tahoe International Airport

Served by roughly 85 flights per day, the Reno – Tahoe International Airport is the primary air service portal for the region’s residents and visitors. Airport Authority surveys indicate that approximately 124,000 boardings and deboardings at the airport are generated by visitors to the North Tahoe / Truckee region (roughly equal to 62,000 visitors), along with 38,000 boardings and deboardings generated by residents of the region. While there are several private shuttle services connecting North Tahoe / Truckee with the airport and it is possible (though inconvenient) to access the airport via Greyhound service, there is no available public transit service.

The Reno – Truckee – North Tahoe JARC-funded service, to be potentially administered by TART, will provide reasonably convenient public transit service between North Tahoe / Truckee and the airport, via a direct transfer to RTC Citifare Route 13 at the CitiCenter transit hub in downtown Reno. This connecting route operates every 30 minutes, and requires 23 minutes to travel between the airport and CitiCenter. Detailed analysis presented in the *Reno – Truckee – North Tahoe Access to Jobs Transit Service Implementation Plan* indicates that extending the new service beyond CitiCenter to the airport would substantially increase costs, and would not be cost effective. Therefore, direct service to the airport from North Tahoe / Truckee will remain largely a role of private shuttle services for the foreseeable future.

Connections Between North Tahoe, Squaw/Alpine, Martis Valley and Truckee

In terms of total potential transit demand, the most important regional transit connection is between eastern Placer County (including the Tahoe Basin portion) and the Truckee area. This need, moreover, can be expected to increase substantially over coming years, due to population growth in the North Shore area (and corresponding increase in need to travel to/from Truckee for work, shopping, and other services), employment growth (and to a lesser degree population growth) in the Martis Valley and Squaw Valley areas, population growth in the Truckee area (and parallel increase in commuting to employment sites in Placer County), as well as the growth of Truckee as a center for resort and recreational activity.

Fortunately, TART has already made a good start towards serving this connection via the Tahoe City – Truckee service. In addition, this Plan will strengthen connections between these areas through the following Plan elements:

- ❑ Most important is the provision of consistent services along the SR 267 corridor between Truckee and North Stateline as part of the comprehensive TART program, expanding to year-round service by the end of the Plan period.

- ❑ Improvement of Tahoe City – Truckee service to hourly frequency will both expand the capacity of the connecting transit service along SR 89 as well as substantially improving the ability to make consistent timed transfers between TART buses and Town of Truckee transit vehicles (including service to Donner Summit) at the Truckee Train Station.

With these improvements, the most significant remaining deficiency will be the lack of evening transit services in the peak summer and winter seasons along the SR 89 and SR 267 corridors. While such service was determined to not be warranted over the next five years given existing forecasts of transit demand, the need for peak-season evening service should be re-considered periodically and be considered an important next step.

Connections Between North Shore and Reno/Sparks

As extensively documented in the *Reno – Truckee – North Tahoe Access to Jobs Transit Service Implementation Plan*, transit service between the Truckee / North Tahoe Region and Reno/Sparks is increasingly important for employment trips in particular, as well as for shopping, medical, and other personal business reasons. TART could be a key element in establishing service on this corridor by management of the JARC-funded demonstration program. In addition, TART will consider preparing a bid for operation of the service for comparison with bids developed by other transit service providers. This demonstration service will provide up to seven runs a day between Reno and Truckee, with two runs a day operating through to / from Tahoe City. While a valid long-term goal for service to/from Reno is provision of consistent hourly service, achieving this goal will be dependent upon growth in ridership demand as well as development of adequate sources of local operations funding.

Connections Between North Shore and South Shore

While not as important an overall transit corridor as service between North Shore and Truckee,²⁰ the provision of public transit service between Tahoe’s North and South Shores would help to achieve regional goals regarding reductions in traffic and air emissions, and would also help to address parking shortages at recreational sites along the way. Surveys conducted of employment patterns (such as the 2002 survey of North Shore employers conducted by the NLTRA) indicate that at most a few hundred persons commute between the North and South Shores. Once this potential “market” is factored down to reflect varying shift times, work locations, the need for a vehicle while at work, etcetera, the potential demand for commuter transit service is very low. Area residents generally have little need to travel between the North and South Shores for non-work purposes (such as shopping or medical services) as these needs can largely be met without a relatively long trip within either the South Shore or the North Shore / Truckee areas. In the winter, moreover, the existing private skier shuttle services appear to address the preponderance of visitor demand. However, there is a potentially viable market for a summer-only transit service connecting the North and South Shores, and possibly providing round-the-lake service.

The means of providing the North Shore – South Shore connection, however, must be different from that provided over the last few summers, under which passengers could transfer between the North Shore Trolley program and the South Shore Trolley program at Emerald Bay. As this

²⁰ For example, traffic counts indicate more than twice as much travel between North Shore and Truckee as between North Shore and South Shore.

has proven to be unattractive to potential riders, the available passenger survey and boarding/alighting data indicates that only a few passenger-trips per season have been made between the North and South Shores. Also reflecting the low potential for this type of service is the service productivity of the Parks Shuttle program, which equaled only 2.7 passenger-trips per vehicle service-hour. Due to this low ridership, this service will be discontinued in 2005, unless there is a dramatic and unexpected increase in ridership levels.

There is, however, the potential for a summer only round-the-lake service to provide service in this corridor, so long as new funding sources can be established. In its eight months of operation from June 1996 to February 1997, the "Lake Lapper" was overall not successful in generating adequate ridership when operating a consistent service.²¹ However, analysis of the ridership and fares generated during the summer months indicates that service in the summer only could be considered feasible. For the period from June 15 through the end of September, a total of 9,114 passenger-trips were served. While this corresponds to only 3.3 passenger boardings per vehicle service-hour, the service over this period generated a farebox return ratio of 37 percent. Moreover, new transit services typically do not achieve their full ridership potential until the third year of service. Ridership on a consistent summer service can therefore be expected to be substantially higher (on the order of 14,000 passenger-trips per summer). These figures indicate that this service is potentially warranted, considering the long length of the passenger-trips provided. Therefore, establishment of a summer-only round-the-lake public transit service should be a long-term goal of the Tahoe Region. However, this will require subsidy funding from sources other than those used to support existing local public transit programs.

Connections Between Incline Village / North Stateline and Carson City

Previous analyses of commute patterns have shown that a two-runs a day commute service for Carson City residents working in Incline Village and North Stateline is warranted. This service would be most effectively provided by a service contractor based in the Carson City area, with funding provided by Nevada-based sources. TART services in the North Shore area can support this new connection by providing local circulation to and from the commuter bus stops. The expansion of TART services in Nevada into the evening hours would further support potential expansion of the commute services to serve evening work shifts, or to serve non-work travel on the commute service.

²¹ One bus was used in each direction to operate three-hour loops around Lake Tahoe from 8:00 AM through 7:37 PM Sunday through Thursday, and from 8:00 AM through 10:37 PM on Fridays and Saturdays. A day pass with unlimited reboarding was sold for \$5.00 to the general public and \$2.50 to seniors, youth, and the disabled.