CHAPTER 5. TIER TWO PROGRAMS – MANAGE EXISTING RESOURCES

Chapter Five describes the Tier Two activities. These activities look at how to better manage existing programs and resources to bring them closer to their full potential. The Study Area has extensive existing resources to manage transportation demand. As stated in the TDM Planning Principles described in Chapter One, it is often more cost-effective to better manage existing resources than to add more capacity.

PARKING 2.1 DEVELOP A PARKING INFORMATION SYSTEM

Activity Description

Print materials, kiosks, changeable message signs, and other media should be developed to direct visitors and shoppers to available parking spaces in the area. These should be coordinated with a broader community signage program that can link the Downtown, Southside and UC Campus as a cohesive community that is legible to visitors.

Rationale/Benefits

- There are limited existing street signs directing people to area garages, making it difficult to find spots even when they are available.

- When the City-owned garages are full no additional help is available. Garage attendants are unable to direct motorists to alternative locations.

- Many private lots do not identify if and when they are available for public use.

- UC lots that are open to general public use are signed as such, but the signs can be difficult to read from a passing vehicle. Visitors also may not read these signs closely, since the first thought is that they are UC lots for UC affiliates.

- There is a great deal of visitor traffic in Berkeley, and a great number of people who are unfamiliar with where to go.

- Merchants, event-attendees and shoppers anecdotally complain that the biggest problem in the Study Area is not so much that there are too few parking spaces in total, but that it is so difficult to figure out where they are.

- For a first time visitor coming to UC Berkeley and getting off I-80 at University Avenue, there are few signs to guide a person to the Downtown, to the Southside or to Campus.

- When University Avenue abuts campus, it is unclear where a visitor should go in order to find parking or to experience the Study Area.

Issues

- Changeable message signs with realtime information about parking availability are expensive.

- Previous efforts to develop a sign design scheme for Berkeley were not successful due to concerns from various stakeholder groups.

Examples of Success

- **The Downtown San José Association**
  Many Business Improvement Districts around the country partner with their local municipality to provide comprehensive marketing of parking and transportation options available to shoppers and commuters. The best local example is the Downtown San José Association which widely provides information about all the transportation options available in San José. A page of their extensive website includes detailed information about every parking lot and garage in the downtown area that is available to the public. Clicking on a comprehensive map of the downtown reveals hours, rates, restrictions and validation opportunities. This page can be found at www.sjdowntownparking.com.

- **Aspen, Colorado**
  Information about all forms of transportation is ubiquitous, from pamphlet racks at every airline gateway serving Aspen to private and city websites to promotional materials marketing the area ski resorts. Signage throughout the city is clear and has a customer-service orientation.

Keys to Success

- Build trust between different interest groups.

- Build on examples of success seen in other communities.

Next Steps

- This effort should be led by the Parking Coordinating Council, and become part of the Parking Coordinating Council's workplan (see Parking 1.1).

- Identify stakeholder groups and include them in the process. These will at least include merchant associations.

- Re-evaluate Berkeley's previous attempt to develop a community signing program and understand what were the obstacles with implementing this program.

- Clearly state the goal of what the sign program intends to accomplish: reduce traffic congestion at garages, increase roadway legibility, encourage retail travel to the Downtown and Southside, and reduce traveler frustration and stress.

- Hire a way-finding consultant to prioritize concepts within this strategy. For example:

  – Identify the network of parking facilities to be included in the sign strategy. More may be phased in over time.

  – Identify how to coordinate signing for University lots with City lots.

  – Develop on-street directional signs identifying parking garages.

  – Identify how and by what groups print materials can be used; develop and distribute print materials.

  – Include interactive information on the City and University websites; provide links between sites to further develop this shared resource.

  – Identify locations for information kiosks.

  – Identify the full purposes of the kiosks and design them to be easily readable given their location and fundamental purpose at that specific location.

  – Identify the appropriate locations for changeable message signs to meet the goals -- these would be locations peripheral to garages and the most congested parts of the Study Area. The locations should allow motorists to alter their travel direction *before* adding to the congestion, but should be in commercial areas.

  – Design the changeable message signs in scale with their surroundings, and ensure that they are easily readable.

  – Expand to a broader community signing program (start from within the Study Area and work outward to the highways).

Estimated Costs/Cost Examples

- Costs could vary greatly for this activity depending on the following:

  – Reliance on prior design schemes versus need to develop new

  – Reliance on internal city resources for signage development

  – Number of changeable message signs required

  – Technology selected

- The University of California, San Diego developed a comprehensive way-finding and signage program. The approximate costs of the program for the 1,100-acre campus were:

  – Design - $50,000;

  – Phase 1 (vehicular orientation signs) - $360,000;

  – Phase 2 (pedestrian orientation signs) - $330,000;

  – Phase 3 (new and replacement entrance monuments) - $163,000;

  – Phase 4 (replacement parking lot signs and shuttle stop signs) - $320,000;

  – Total - $1.2 million.

- The City of Palo Alto implemented a sign plan using the existing City sign program budget and design concepts provided by Stanford University staff. The sign program cost $10,000.

- Cost to develop website – $40,000.

- The City of San Jose will implement 15 changeable message signs at 10 parking garages for an estimated cost of $2.5 million. This cost includes planning, design, engineering, construction, signs and some wiring. San Jose already has an extensive communications wiring network, which makes this project less expensive than it otherwise could be.

PARKING 2.2 REALLOCATE SHORT TERM, LONG TERM AND PRIVATE PARKING

Activity Description

By cooperatively managing the Study Area parking supply as described in Parking 1.1, a more comprehensive view of the total supply can be achieved. Instead of a supply segmented by affiliation (e.g. City employee, shopper, University visitor), supply can be reassessed in terms of short-term or long-term parking needs. On-street or garage spaces can also be set aside for registered vanpool parking, and a preferential carpool parking program in all public lots could be centrally coordinated. Some of the smaller University-owned lots near Telegraph Avenue might be better used as visitor and shopper lots, and swapped with Sather Gate Garage spaces, which could be used to accommodate longer-term university parkers.

Rationale

- Visitors and shoppers may feel more comfortable parking in surface lots.

- Surface lots are more conducive to higher turn-over of spaces than are garages.

- University commuters, in addition to visitors, have short-term parking needs that are not well met by the existing supply.

- The University recently conducted a very successful short-term parking pilot for UC employees on one of its smaller lots. This should be expanded.

- Strategically placing well-signed short-term parking will reduce search traffic, increase shopper convenience and encourage frequent turnover.

- A common rule-of-thumb for the value of a prime parking space is about $150-$300 per day in retail sales,[1] so the more spaces that are dedicated to visitor parking, the greater the economic infusion to the Downtown and Southside.

Examples of Success

- In Spring Semester 2000, UC Berkeley dedicated one of its smaller surface lots to short-term parking (maximum four-hours) for faculty and staff. During peak days as many as 38 vehicles used the 20-space lot. At maximum capacity only three vehicles had to be valet parked. UC received many positive comments about the lot.

- The City of Aspen, Colorado has a goal to prevent downtown employees from parking in prime on-street parking spaces and encourages commuters to use park

---

[1]Barr, Mary. "Downtown Parking Made Easy." Downtown Research and Development Center, 1997, pg. 23.

and ride facilities or transit. To accomplish these goals, the city manages 850 two-hour spaces and 30 short-term metered spaces. (There is one 350 parking garage offering full-time parking, which is regularly 100% occupied by 9 AM.) The City sells daily parking passes for $5 that allow all-day parkers to park in RPP zones. The City is financing remote parking, and anticipates that the costs can be recouped by in-lieu fees from developers who opt not to build on-site parking.

- The City of Santa Cruz has 17 parking garages in downtown Santa Cruz. Thirteen are free, but allow people to park for a maximum of three hours. Two garages have pay parking and two allow people to pay if they want to park longer than the three free hours.

- The City of Americus, Georgia, a college town of 16,500, passed a local ordinance that disallows downtown business owners, employees and residents from parking on-street during normal business hours. The implementation of the ordinance was supported by the downtown business association. On-street spaces in the business district are legal only for customer parking.

Issues

- Ownership and fee issues will need to be addressed.

- Increasing the supply dedicated to short-term parking (at the expense of long-term parking) could cause more long-term parkers to park in neighborhoods.

- The supply of short-term parking versus long-term parking ultimately will depend upon the values and goals of decision-makers.

Next Steps

- This activity should be led by the parking coordinating council and become part of the PCC's workplan (see Parking 1.1).

- Assess the supply of potentially shared parking resources.

- Assess the market for short-term parking among all potential users.

- Implement graduated parking rates to support allocation goals.

- Develop a pilot program.

- Expand pilot as success warrants.

- Implement a marketing and education campaign to discourage retail store owners and employees from parking in on-street parking. An Eco-Pass program for downtown would support this goal *(see Transit 3.1)*.

- Develop consistent signage and preferential HOV parking policies for all garages.

- Register carpools and vanpools through the TriP-like organization developed through TDM 1.1 (regardless of the parking location used by these HOVs).

PARKING 2.3 REFINE RESIDENTIAL PARKING PERMIT PROGRAMS AND ENFORCEMENT

Activity Description

The Residential Permit Program should be refined to reduce abuse and maximize compliance. Other areas should also be explored: Raising permit rates to fund specific neighborhood improvements; selling permits to new buyers at market rate, similar to a rent control program; limiting non-resident parking to one hour in heavily impacted areas; increasing time-limits in some areas to maximize use of parking resources; and selling a limited number of RPP spaces to long-term parkers.

Rationale/Benefits

- A strong residential permit program is critical to prevent spillover parking problems.

- Creative management of such programs can result in significant new revenues for new programs.
- While effective enforcement requires increased resources, it can also raise revenues by achieving its goals.
- Residential location next to educational facilities was the number one reason cited by 54 cities for implementation of RPP (1996 ITE Survey).

Issues

- Program development will need to be sensitive to concerns of residents in, and adjacent to, permit zones.
- Increasing the amount of RPP may mean that the parking supply resource cannot be maximized in times of peak demand. This could lead to greater parking demand within the Study Area and cause more long-term parkers to use Study Area spaces that were once available for visitors and shoppers.

Next Steps

- Review the goals of the existing Residential Permit Program.
- Revise the program goals as necessary to meet the TDM community vision.
- Review existing RPP and understand how it does and does not meet existing and revised goals. Options to explore include:
  – selling a limited number of non-residential daily parking placards;
  – selling visitor permits to residents instead of offering them free;
  – selling use-permits to household workers, landscaping professional, and other residential employees;
  – reassessing permit purchase fees, the "exceptions policy", replacement charges, and violator fees.

- Develop a strategy for enforcement. In about 90 - 95% of cities, the police department or the department of parking & traffic is responsible for enforcement. Other cities use the engineering department or general services department.
- Raise fines so that motorists parking without permits in RPP zones would pay at least twice as much as the fee of a nearby legal space.
- Analyze the staffing levels of Berkeley's RPP program and increase resources to develop an effective system as well as increase program revenues. A 1996 ITE survey with 54 cities reporting data showed the following:
  - San Francisco: 40 enforcement personnel; 80,000 permits in 22 areas;
  - Denver: 40 enforcement personnel; 8,000 permits in 42 areas;
  - Cities that issue more than 5,000 permits annually typically have a designated support staff;
  - The highest permit fee charged was in Santa Cruz, CA ($30 per year); (Average = $6.30; 19 cities offer permits free of charge);
  - In 30% of cities, fees cover program costs.
- Continue to dedicate city staff time to program.

TRANSIT 2.1 CONTINUE CLASS PASS PROGRAM AND SUPPORT AC'S EFFORTS TO EXPAND SERVICE TO MEET NEW DEMAND

Activity Description

UC's Class Pass Program was implemented in Fall 1999. An $18 per student per semester fee allows all students to ride local transit free of charge after obtaining their "class passes." UC pays the student fees earmarked for transit to AC Transit. According to anecdotal information from the University, student body and AC Transit, the program has been very successful in its first year.

The goals of this activity are to:

- Increase the effectiveness of the Class Pass program by encouraging more student ridership;

- Develop transit services and capacity to meet the needs of students through collaboration, cooperation and support between the University, AC Transit, BART, and City;

- Shift students who currently drive alone (15%) to taking transit;

- Ensure continued student financing of the program;

- Add BART to the program.

Rationale/Benefits

- Increasing the frequency and reliability of transit in the Study Area will further increase the attractiveness of transit.

- A review of seven other universities across the country found that a free transit program for students was the backbone of university trip reduction programs.

- As student housing costs increase, new transit demand pockets will be created in areas that have not been traditionally well served by AC Transit.

Issues

- AC Transit faces competing service demands throughout its service area. AC must balance the potential for highly productive service increases in Berkeley against pressure for service increases elsewhere.

Examples of Success

- **Seattle Metro and University of Washington**
  Between 1990 and 1999, Seattle Metro estimates that total ridership among UW faculty, staff and students grew to 7.2 million trips annually, a 68% percent increase. This increase is a result of UW's UPASS program, which was implemented in 1991. UPASSes cost $42/quarter for faculty and staff and $31/quarter for students. University of Washington pays $7.9 million annually to the 3 area transit providers.

- **Pennsylvania State University**
  PSU instituted a Class Pass program in 1999 and contracted out its campus provided loop service. Ridership on the loop routes has more than tripled since these changes were implemented. The agreement between PSU and the local transit agency added approximately 10,000 additional hours of transit service to increase transit frequency on the campus loop to three to five minutes during peak times. $15/semester of student tuition funds the pass program. PSU pays $800,000 per year to Centre Area Transit.

- **University of Colorado**
  Since its inception in 1991, the student bus pass program at the University of Colorado has increased student transit ridership approximately 600%. Students pay $19.42 per semester for the program. CU pays $850,000 to Regional Transit for the student program and $200,000 to the City for two other special transit services that are not run by the RTD.

- **UC Davis**
  At UC Davis, 30 to 50% of student trips to campus are made on transit (variation dependent on season). The transit system is run by UC Davis. Students pay a $24.50 quarterly transit fee. $1,400,000 of the transit budget is financed by student fees. Fees were increased from $13/quarter to $24.50/quarter in a 1999 election; 65% of students supported the increase.

Keys to Success

- Established agreements between the University and the transit provider for service improvements associated with the fees paid by students;

- Student input to plan transit service and monitor service;

- Services designed to meet the unique needs of students, such as 24-hour service;

- Collaborative planning between the university and the transit provider to develop services;

- Leadership from local city to facilitate transit agency and university cooperation and collaboration, especially where transit service is provided by a regional agency like AC Transit;

- Student-driven election campaign.

Next Steps

- Develop a transit coordinating council *(See Transit 1.1).*

- Based on the student transportation survey conducted by the University or an analysis of the addresses of student parkers, UC must identify those geographic areas in which the larger proportion of student drivers live. Emeryville is a good example.

- UC must lobby AC Transit for better transit service in these identified areas. Given the pressures AC faces from its broad and diverse service area, UC must express its needs to AC and back up those needs with data.

- The City must support UC in its lobbying efforts.

- Develop agreements between UC and AC Transit to provide new or additional service in the areas of greatest need. These could be targeted to students living in specific areas, late night services, services geared toward special events, services geared toward serving Berkeley's core – e.g. a short-turn of the Route 51 at Rockridge BART or a short-turn of the Route 7 at Solano Avenue. *(See Transit 3.3 and Transit 3.4)*

- UC should look at its own shuttle system as a resource to fulfill needs, in addition to AC resources. UC should assess the passenger per hour counts on its shuttles, especially those serving the Richmond Field Station and University Village in Albany. There could be opportunities for increasing ridership on these shuttles by serving a broader student population. There also may be opportunities for UC to support AC Transit's lines that serve the University Village, instead of providing additional shuttle service to this site. *(See Transit 3.3)*

- Include BART in the Class Pass program. Because students often travel off-peak, this program could benefit BART by better utilizing BART's off-peak capacity. BART has expressed interest in participating in the program.

Distribution of Class Passes

- Analyze additional strategies for students to obtain their class passes more conveniently. For example, registered students should have the option to obtain their passes electronically by using a Personal Identification Number to obtain their semester sticker. UC estimates that the cost to distribute the Class Pass is $20,000 - $25,000 per semester. Investing this money in a technological solution may create long-term cost savings, as well as easier methods for students to obtain their passes.

- The magnetic stripe on UC student cards is incompatible with the new fare box magnetic stripes that AC Transit will be installing through Translink. The Transit Coordinating Council should address this issue with the MTC Translink program, since it will be an issue for other transit agencies and pass programs throughout the Bay Area. Strategies for finding compatible technology should be explored. It is illogical to lose the convenience and efficiency that could so easily be achieved by developing a Class Pass that can be swiped each time it is used on AC.

Class Pass Marketing

- All students who register for parking should be provided information about the Class Pass program.

- Class Pass Points – When AC Transit joins with other Bay Area transit providers to provide a one-pass system for the Bay Area, changes will be made to AC's fare collection technology. UC should work with AC to develop a Class Pass Points program, which offers discounts at local merchants, or other benefits, based on points obtained through bus ridership.

- It is anticipated by UC Administration that AC Transit will increase the per student fee for Class Pass when it is brought before the students for vote in 2002. The Berkeley TRiP work plan *(see TDM 2.1 and TDM 3.1)* should include the development of a strategy to gear up for the vote. Students must be well informed of what they receive for their money. Students should be informed of the average cost per trip that the program pays to AC and how this compares to programs at other universities.[2]

- AC and UC must strike a balance, so that fee increases are enough to pay for the level of service provided by AC, but low enough that students will support the fee increase.[3]

---

[2] The following paper is a resource for providing this information: Brown, Jeffrey, et al, "Unlimited Access," Institute of Transportation Studies School of Public Policy and Social Research, UCLA.

[3] Comparable student fee rates for transit pass programs and levels of transit service at other universities are:
U of Washington: $31 per quarter (30 bus routes serve campus)
Penn State: $15/year (2 routes serve campus)
UC Boulder: $19.42/semester (14 local routes and 4 free community buses serve campus)
U of Wisconsin: $15/year (1 route serves campus)
UC Davis: $24.50/quarter (13 routes serve campus)
U of Massachusetts, Amherst: $26/semester (11 routes serve campus)

Safety

In interviews with the Associated Students, the Graduate Student Assembly and the Staff Assembly, safety at night was stressed as a key deterrent to people's willingness to take transit. To make the most of Class Pass, perceived nighttime safety on campus and at transit stops is critical. For many travelers, it is the main reason people drive to campus. Others go home in the early evening and return to campus with their vehicles at night. UC has made great improvements in campus safety by increasing campus patrols in the Southside, increasing night-time safety shuttles, having night-time shuttles travel on campus grounds and serve the front-door of the library, and placing call-boxes and alarms around campus. There are some additional factors that can help improve people's perception of safety on-campus and in the Study Area:

On-Campus

- Way-finding is difficult on campus. Buildings should be clearly labeled. Pathways should have directional signs to different areas of campus and to key buildings. A signing program that develops coordinated signs on-campus and on the campus perimeter will improve pedestrian confidence.

- Lighting along campus paths should be designed to reach the pedestrian. Light posts should be at pedestrian level, as opposed to at heights designed for automobiles.

- On campus bus stops and pedestrian walkways from stops to destinations like the library must be well-lit and free of overgrowth.

Campus Environs

- The City of Berkeley must better maintain its street trees. Tree limbs block street signs and make it difficult for travelers to find their way. Hanging tree branches block sidewalks, create lurking places, and block light from reaching the sidewalk.

- Sidewalk lighting should provide light for pedestrian travel, in addition to automobile travel.

- The design of the Berkeley BART station plaza, with its low walls and brick benches, creates many lurking spaces. *(See Transit 3.2)*

Estimated Costs

Costs to continue Class Pass include UC Berkeley staff time and TRiP staff time for program promotion and marketing. Class Pass marketing can be most cost-effectively accomplished by including information in existing UC information and promotional materials. An on-campus sign program could range widely in costs. UCSD recently completed the installation of a $1.2 million on-campus directional signage program.

TRANSIT 2.2 PROMOTE PUBLIC ACCESS TO UC AND LBNL SHUTTLES

Activity Description

UC Berkeley provides four daytime and six night-time/off-hours shuttle routes around campus. The service is free to the following groups:

- Students (during Fall and Spring terms, with the exception of the RFS shuttle),

- Faculty and staff who purchase parking permits,

- Faculty and staff who participate in carpools, vanpools or the University's transit program (i.e. registered with the New Directions Program),

- Faculty and staff who walk or bike to campus and who show proof of the distance they live from campus (must live further than 1 mile away).

Fares for other user groups range from free to $0.50 per ride. The Richmond Field Station shuttle charges a $0.50 fare for all users at all times. UC Shuttles are not free in the summer.

LBNL offers free shuttle services to their employees and visitors. Ideally, the UC and LBNL shuttles would be free and open to the general public. At a minimum, their availability should be more actively promoted to UC, LBNL and other visitors.

Goals

- Provide a transit system that – while being offered by different providers – is easy to use for a customer.

- Provide better service to riders on the existing shuttles.

Rationale

- If marketed appropriately, free transit that is designed for the needs of a specific community, like the Study Area, is perceived by "choice riders" as a valuable benefit that they should take advantage of.

- Community-based shuttles are perceived by choice riders to be more customer friendly and accessible. Fare transit that serves the broader market is perceived by choice riders to be "transportation for those who do not have cars."

- These shuttles serve the immediate Downtown and Southside environs, where congestion is concentrated.

- By increasing the number of shuttles a person can board, transit frequency in the congested core increases.

- Knowing that a person can get on any shuttle, regardless of its logo, and ride for free makes the entire system circling the campus much more user-friendly and understandable. Not knowing if a person is allowed on all shuttles, or having to deal with different fares for different systems, makes the system less convenient for potential passengers.

- Free campus shuttles make travel for visitors to campus much easier.

- Opening up the shuttles to different user groups can help pool resources and create greater economies of scale.

- A free, well-publicized community shuttle bus program will draw more visitors to Berkeley without their cars. Many people drive to Berkeley to shop on Telegraph, because of the inconvenience of getting from BART to the rest of the Study Area.

- These free shuttles can reduce vehicle trips of nearby residents who have to travel within the Study Area, but to destinations farther than an easy ¼ to ½ mile walking distance.

- These shuttles do not compete heavily with AC Transit to capture the short-trip market. People will either walk or hop in their cars before they will get on a fare-based bus for these short trips. These trips are not being diverted from AC, but from automobiles.

- A 25¢ fare is not necessarily a financial barrier to potential passengers, but the inconvenience of having to have change available will prevent people from riding for short trips within the Study Area.

- UC's processing costs for the 25¢ fare are nearly equivalent to the revenue collected. UC's purpose for collecting the fare is primarily to reduce potential capacity problems and to address equity concerns.

Issues

- UC and LBNL may be concerned that dropping fee and use restrictions will result in crowding on their shuttles, especially for trips between the BART station and Southside. If that is the case, funding from City, AC, Bay Area Air Quality Management District or other sources should be considered to supplement the service based on the affiliation of riders. Alternatively, increasing service could be a mitigation strategy for new development.

- AC Transit may be concerned that if the general public can ride for free around the UC Campus and downtown Berkeley by taking a UC or LBNL shuttle, AC will lose passengers and revenue. There is some overlap – e.g. AC #7 from Bancroft & Telegraph to Berkeley BART vs. Campus Shuttle – but not a pure duplication of services. The shuttles serve just those traveling within Berkeley's core, while AC Transit provides transportation to and from the core.

- Funding for the UC shuttles is in large part supported by parking permits, the Annual Transportation Fee, and UC Parking fines.[4] There is a loud contingent of parkers who feel they should not pay for a system that benefits transit riders, walkers, etc. If the shuttle system were made "free" to all users, the controversy over the funding structure could be exacerbated. It will be necessary to educate parkers how shuttle programs reduce parking demand, thus keeping parking rates lower than they would otherwise be.

- LBNL shuttles are currently open only to lab employees and their guests. The lab does not want to officially open ridership to non-lab-affiliated people due to concerns that it would not be able to prohibit access to people who do not belong on lab property. The lab believes that opening their off-campus shuttles to general public ridership could jeopardize the existence of their program. There are, however, many examples of general public transit lines that serve military bases where badges are checked at the base gate. A local example is Muni's 19-Polk, which provides cross-town service to the public but requires a military ID for access to the Hunters Point Naval Station.

Examples of Success

- **City of Boulder, Colorado: HOP and SKIP**
  The City of Boulder, Colorado is part of the Regional Transit District jurisdiction, which serves an area much larger than the City of Boulder (similar to Berkeley's relationship to the AC Transit system). In 1994, the City established a community bus route called the HOP. The HOP began as a demonstration project initiated through an ISTEA grant. The HOP is a circulator shuttle connecting CU with other city destinations. It runs every seven to 20 minutes.

  Two years later, the City began "SKIP" service. The SKIP replaced existing RTD Route 202. Ridership between October 1996 (when it was Route 202) and October 1997 (when it became the SKIP) increased 137% or 85,107 passenger trips. Boulder is currently expanding its network of free community buses with the JUMP, LEAP and BOUND. The system has been remarkably successful attracting choice riders.

  HOP and SKIP Statistics:

---

[4]People obtaining parking permits are charged a $3/month surcharge (the Annual Transportation Fee), which helps to fund the UC shuttle system. Parkers can thus use UC shuttles without paying rider fares. While the fee is not just for shuttles, the shuttles are the most visible component of the transportation program. In addition, parking fines are legislatively required to be used toward funding enforcement and alternative transportation. UC Berkeley puts the majority of its fine revenue toward the shuttle operations and charges enforcement against parking permit revenue. Parkers argue that a) they should not have to pay the fee to support a shuttle service, and b) the cost of enforcement should be charged against fine revenue, which would lower parking permit fees.

Annual Operating Data	HOP[1]	SKIP[2]
Service Area Population	95,700	95,700
University Population	25,000	25,000
Passenger Trips	946,877	1,486,800
Revenue Miles	264,000	625,400
Revenue Hours	22,000	41,100
Operating Costs	$870,000	$1,630,900
Farebox Revenue	$72,000	$565,000[3]
Student Pass Fee Revenue	$0	
Other University Fee Revenue	$200,000	
Performance Indicators		
Cost/Passenger	**$0.92**	**$1.10**
Cost/Mile	**$3.30**	**$2.61**
Cost/Hour	**$39.55**	**$39.68**
Passengers/Mile	**3.6**	**2.4**
Passengers/Hour	**43.0**	**36.2**
Farebox and Fee Revenue Recovery Ratio	**31%**	**35%**

[1] Calendar Year 1999.

[2] Calendar Year 1998. Does not include other local RTD services.

[3] Includes farebox and portion of student fees paid to RTD.

- **Palo Alto Try Transit Committee**

  Stanford, Menlo Park and Palo Alto have each developed new shuttle programs as a result of the Try Transit Committee, and they have worked carefully to coordinate schedules and marketing materials with each other and with the larger transit agencies. Each entity contracts out its service to private operators at a rate of approximately $40 an hour, including vehicle, driver, maintenance and supervision. Stanford funds its shuttle service largely through parking permit fees and Air District grants. The two cities use a combination of Air District grants, general funds and utility district public benefits funds for clean-fuel applications. Stanford and Palo Alto have applied jointly for funds to interconnect services. Stanford spends approximately $2,000,000 a year on its shuttles.

Next Steps

- Develop the transit coordinating council. This body would serve as the "agency" that will explore the development of free shuttle use as outlined below.

- Develop a ridership baseline among the different systems circulating the Study Area, so that ridership changes due to fare changes can be monitored.

- Conduct a mini-feasibility study of offering free transit on the UC and LBNL systems under two scenarios:

   1. make all UC and LBNL shuttles free to any UC or LBNL-affiliate all the time on all the shuttles (eliminate the non-free fares and develop more open ridership policies between the two services)

   2. Make UC and LBNL shuttles free to the general public riding in the Study Area

   These studies should analyze the following:

   – The potential number of additional passenger trips on each system

   – The fare-box revenue that will be lost on the UC shuttles

   – The potential fare-box revenue loss to AC Transit if UC and LBNL offered free fares on its systems, based on unused capacity on UC and LBNL systems and ridership on AC in the Study Area.

   – Issues such as priority seating and LBNL site security

- Make the UC and LBNL shuttles the seed of a community-based transportation system for the Study Area.

- Develop strategies that meet the constraints of the two scenarios. For example, in the latter scenario, security concerns at LBNL could mean that LBNL discontinues its off-campus shuttles, and instead pays into a "community shuttle" pot that will fund continued, high-quality service to the lab provided by UC. Lab shuttles would continue to operate on lab grounds, meeting all the off-campus shuttles.

- Develop a mechanism for the City to pay a support fee to UC and LBNL for public ridership on these shuttles. In the same way that UC parkers pay a fee to support UC's *New Directions in Transportation* program, a city parking tax could pay for the free shuttles running Berkeley's core and for expanded service to the community. The City could also pay the $36/person annual transportation fee for community ridership. This fee would be based on an estimate of the average number of community riders and discounted at a community rate.

- A small portion of Class Pass fees are currently paid back to the University to help fund shuttle services. The amount of the fee paid for the shuttle programs could be increased to make up for lost fare revenue in Summer and on the RFS route. Class

Pass fare increases will have to be well-coordinated with proposed service improvements *(see Transit 2.1 and Transit 3.4).*

- Establish a program to allow businesses to "validate" shuttle tickets or provide free shuttle passes. This could be an interim step or coordinated with City resources to cover community ridership on these shuttles.

- Develop policies for priority riders on UC and LBNL systems if buses reach capacity.

- Publicize the free system, and make the shuttles easily identifiable as part of the free Study Area shuttles. Publicize free shuttles through local businesses. Businesses should advertise that they "validate" community shuttle rides.

Long-Term

- Expand this program to a general public EcoPass program that provides benefits similar to the Class Pass but for all downtown employers, collective groups of employees, or neighborhood groups. *(See Transit 3.1)*

- Such a program would be designed and administered by the City of Berkeley, possibly through the Lead TDM Agency *(see TDM 1.1),* or through a City department directly.

Estimated Costs

- Staff time of Transit Coordinating Council: 1 to 5 hours per week

- Marketing: $10,000

- "Lost" fare-box revenue: $20,000

TRANSIT 2.3 DEVELOP JOINT MARKETING AND INFORMATION MATERIALS FOR AREA TRANSIT PROVIDERS

Activity Description

Maps and schedules should be readily available that describe all the transit options available within the Study Area. BART, AC, UC and LBNL services traveling within the Study Area should be described in one marketing piece that can fold and fit in a pocket. Currently AC Transit lines, BART lines, UC shuttle routes, and the LBNL shuttle all have separate marketing materials and schedules that do not describe each others' services.

Detailed, Berkeley-specific maps should be created for distribution by area businesses and attractions. Larger maps should be produced for display in new transit shelters in the Study Area.

Rationale

- Most people are not aware of the wealth of transit serving the Study Area, and this information is rather difficult to acquire. The number of different shuttles with different fare structures and ridership restrictions is confusing to the uninitiated rider. Seeing the breadth of transit service available in the Study Area all at one glance will help riders see that transit does go where they need to go.

- The Study Area seeks to be a regional draw. Many different interest groups have need for such transit marketing materials, including the Berkeley Cultural Trust, merchants on the Southside and Downtown, the City, and the University.

Issues

- Modest expense would be involved in creating new Berkeley-specific marketing materials, but AC Transit already owns an excellent basemap. AC, moreover, produced excellent marketing materials for the Dumbarton corridor, identifying Samtrans, Caltrain, Union City Transit, BART, Stanford Shuttle and other transit routes on both sides of the Bay. Putting UC and LBNL shuttles on AC's marketing materials would involve minimal expense if it were done as part of a normal review and reprint cycle.

Examples of Success

- **Try Transit Committee, Menlo Park, Stanford, and Palo Alto**
  Each entity used their existing marketing budgets to fund materials. Each agency agreed, however, to include more than just their own agency's services on their maps and route information. AC Transit volunteered to develop and publish maps

detailing areas on both sides of the Dumbarton Bridge and the services of the six transit agencies in the area, including the local shuttles. All other agencies followed suit, printing information about connecting services in their materials.

Next Steps

- This project would be led by the transit coordinating council.

- Work with AC Transit to see if they are willing to lead the production of a Berkeley-specific map. Identify additional funding for AC if necessary.

- Map all existing services on one base map showing the Study Area.

- Create a fold-out map that accordians to 3 x 5. (Transit at PacBell Park maps are an excellent example.)

- Create large-scale Berkeley transit maps for incorporation into new transit shelters throughout the Study Area.

Estimated Costs

- Agreements could be formed between UC Berkeley, LBNL, AC Transit and BART to develop Berkeley-specific transit information that includes cross-promotion of other agencies' services. These materials could be funded as part of the existing materials development budgets of each agency.

- Costs may range up to $100,000 if agencies decide not to cooperate, thereby requiring the development and production of separate marketing pieces.

TRANSIT 2.4 BUS SHELTER PROGRAM

Activity Description

AC Transit recently began a program in partnership with an advertising agency and East Bay cities, including Berkeley, to install shelters. Berkeley will receive 142 bus shelters.

Berkeley should expand on the AC program to ensure that the shelters are well-maintained, stocked with useful information, and that community advertising space is used effectively to promote the city's goals.

Higher-use stops ideally would also incorporate art, good urban design, community-sensitive design, landscaping, telephones and other amenities to make transit users feel like they are valued citizens.

Rationale

- Bus shelters are an important amenity in order to attract year-round transit riders and are critical to the safety and comfort of potential transit riders.

- The City must ensure that neighbors support the shelters once they are installed. If shelters are poorly maintained, or if the community advertising space is not well used, there could be a back-lash against these very important shelters.

- Poor quality and badly maintained transit facilities make riders feel like second-class citizens and discourage choice riders from trying transit.

- Lack of information about routes, schedules and the surrounding community is a significant barrier for first-time users. It is critical that the right information be posted at these shelter locations.

Issues

- Generally, the only cost effective means to install and maintain shelters is through advertising programs such as the one proposed by AC. Berkeley citizens have already expressed concern about the proliferation of advertising in public spaces. While the City will have the ability to dictate the types of ads that are unacceptable in the community, such as tobacco products, it is critical that the City carefully manages the shelter program in order to ensure its continued success.

Next Steps

- Develop the Study Area transit marketing materials outlined in Transit 2.3.

- The City must come to an agreement with AC Transit to include more than just AC Transit transportation materials in the shelters. Information about all Study Area transit options must be made available at stops.

- The City should discuss with AC Transit and its advertising contract the possibility of developing an "adopt-a-bus-shelter" program within Berkeley. This would require the advertiser to release a small amount of space for the adoptee's logo to be somewhere on the shelter. Or, it would require the City and AC to give up some of the space available for transportation information.

- Develop the "Adopt-a-Stop" program. For the privilege of a small recognition sign on the bus stop, the adopter would be responsible for informing the City of when the stop is not well maintained or well-stocked with information. The advertiser is responsible for maintenance at the stops, but it is important for the City and the community members to put pressure on the advertising agency to keep the stops in the proper condition.

- Staff time is required from City staff to make sure that the bus shelter program is given the attention needed. The City must provide the Adopt-a-Stop volunteers with a phone number to report problems. The position responsible for responding to these phone calls, following up with the advertising agency and following up with citizens who report problems must have adequate time to give to these tasks. Without it, the bus stop program will not develop the community support it needs.

- The City's Public Works Department and/or the Telegraph Avenue Association and the Downtown Berkeley Association must identify a staff person whose responsibility it is to keep the Study Area looking its best. Besides ensuring that the shelters are maintained, this person would also identify trees that need pruning, graffiti that should be cleaned, sidewalks that need repair, and so on.

- The City and UC should work with AC to provide special treatment or additional amenities at critical bus stops along Telegraph Avenue, Bancroft, Shattuck and Center. The transit coordinating council would be responsible for supplying these stops with extra public information, including schedules.

- The City and AC should work with NextBus in Emeryville to provide real-time bus arrival and departure information at key stops.

Estimated Costs

- Design, Development and Production of Marketing Materials (see Transit 2.3).
- City Staff Time: 1/4 time person
- TAA and DBA Staff Time: 1/8 time person each

TDM 2.1 IMPROVE EXISTING BERKELEY TRIP PROGRAMS

Activity Description

Berkeley TRiP is a transit pass outlet and information center for the general public. It also acts as the Employee Transportation Coordinator for the UC campus, serving students, staff and faculty. Berkeley TRiP offers a wide range of services, yet both the University and the City are concerned about whether TRiP provides enough services to meet each of their needs.

There are many functions that TRiP could provide to serve the transportation needs of the Study Area. Activity TDM 1.1 outlines a longer-term plan for realigning TRiP or developing a new organization that can provide a leadership role for TDM in Berkeley. In the meantime, there are several programmatic changes that TRiP should make to better fulfill its mission and better serve the UC Berkeley commuter market.

Rationale/Benefits

- Many of the UC TDM programs designed for students, staff and faculty have evolved over the years to form a patchwork of services. Some of the details of these services and programs no longer make good business sense given changing air quality and transportation priorities within the community.

- TRiP's marketing materials are not up to date.

- Existing programs can be made more user-friendly.

- Existing programs should be managed to better meet the needs of commuters -- especially UC commuters -- who make up over 50% of the Study Area commute market.

- TRiP's marketing messages could be more effective if TRiP could use other City and University departments to better disseminate information.

Issues

- While there is general agreement that TRiP needs more attention, it is not clear how this should be done or paid for.

- It is difficult to serve the needs of both the University and the City and serve them well.

- While TRiP has a Commute Mobile with on-campus hours, the lack of a permanent, convenient, on-campus location is a deterrent to faculty and staff participation in the transit subsidy and other TRiP programs.

- Universities are often able to justify the cost of additional TDM investment, by comparing the costs of TDM investments with the increased costs of parking permits

needed to finance new parking structures. Since UC Berkeley does not have a plan to construct additional parking, it is not possible to make this cost comparison. Thus, any TDM programs that must be financed by parking permit fees will be difficult to sell.

Examples of Success

Note: UC Berkeley has one of the most successful mode splits in the country among universities located in mid-size urban cities, like Berkeley.

- **University of Washington, Seattle**

  Program budget: $9,049,000 ($7.9 mill paid to transit service contracts); 3 full-time employees; 2 part-time student employees

  Program: free on-campus carpool parking, Class pass, free nighttime shuttles, bike programs, guaranteed ride home, quarterly newsletter, $40/mo subsidy on vanpools fares.

  1998 mode split (weighted average of faculty, staff and student commute trips): 29% transit; 27% walk; 25% drive alone; 12% car/vanpool; 6% bike; 1% other.

- **UC Davis**

  Program budget: Overall budget not known, but have full-time TDM manager, full-time P&T manager, full-time bike program manager and full-time bike enforcement officer.

  Program: Vanpool subsidy ($18/mo); reserved carpool parking in lot of choice; free student transit; $18/mo faculty/staff transit subsidy; guaranteed ride home program; shuttles to UCB and airport.

  1997 Staff/Faculty mode split: 45% drive alone; 23% bike; 17% car/vanpool; 5% transit; 5% did not work; 3% work at home; 2% walk

  1999 Student mode split: 31% transit; 29% bike; 27% drive alone; 7% car/vanpool; 3% walk; 3% at home

- **UCSD**

  Program budget: TDM ~ $850,000 operating and payroll. Shuttles ~ $2,600,000 operating and payroll

  Program: Subsidized vanpool administration; free parking passes for ridesharers; free student transit zone; shuttles; guaranteed ride home program

Next Steps

Note: These next steps describe changes to existing TRiP programs. It is recognized that these changes require time and resources. Given the resource constraints that TRiP already faces, it may be necessary to address Activity TDM 1.1 before addressing the following. The changes recommended in TDM 2.1 could be folded into the work plan of a leading TDM agency developed as part of TDM 1.1.

Develop a monitoring program

- TRiP has recently begun to collect more data on its programs at the request of the City and University. Specific benchmarks must be tracked, and the data must be readily accessible. For example, information about registered carpools/vanpools, number of people using subsidies, monthly pass sales, customer profiles, employers served, monthly expenditures, and patronage at the TRiP store and commute mobile should be readily available.

- Develop a methodology for determining the levels of service provided to the University, to the City and to the community.

Marketing

- Update the web site, so that current program information is available and potential customers are not provided with mis-information.

- Expand the web site to include both university and non-university programs.

- Update information about University programs -- e.g. the subsidies offered for carpooling and vanpooling, the Alameda County Guaranteed Ride Home program.

- Provide marketing materials to staff and faculty through the Human Resources and Work/Family departments. These departments should be as familiar with TRiP's benefits as is TRiP.

- Provide marketing materials through the on-campus day-care facility.

- Provide a small sized campus map that shows potential parking for visitors, as well as the on-campus bike and pedestrian network.

University Service

- Automate services to limit the requirement that those wanting services must come to the TRiP store.

University Transit Programs

- Combine the transit subsidy and the pre-tax programs.

- Evaluate the fare-box revenue on shuttle vehicles and develop a business case for making the shuttle free to users in the summer.

- Change the requirement that people who live within 1 mile of campus are not eligible to ride the shuttle for free. This only serves to punish people who live close.

Flexibility of University Programs

UC Berkeley daily and monthly parking is priced so that it is less expensive to purchase daily parking (versus a monthly permit) if a person drives two days per week or less. While this builds flexibility into a person's ability to use alternatives some of the time, the pricing strategy has limitations.

To a UC staff member, it costs $59 per month to park every day, while it would cost $80 per month to park part-time and use transit part-time ($50/month to park 2 days/week + $30/month to take transit 3 days/week). Thus, the perception is that using the alternative does not make economic sense.[5] When trying to convince people to use free modes, such as biking and walking on a part-time basis (e.g. three days a week), it can be difficult to persuade people to make this change, since for $9 more they could avoid the inconvenience and simply drive every day.

To provide alternative users with more flexibility, the following should be examined:

- Offer commuter parking tickets to registered alternative users. The University of Washington sells Individual Commuter Tickets (ICTs) for $1.75/day to people in the commute program and $3/day to people not in the program. ICTs are sold in books of 10 and 25. (Since monthly parking permits are $48.50 at the University of Washington, the $1.75/day rate is 3.6% of the monthly rate, whereas at Berkeley, the daily rate is 8.5% of the monthly rate.)

- A longer-term solution to install pay-on-foot parking machines that can be programmed to recognize faculty/staff ID cards. When faculty/staff pay, they would swipe their faculty/staff ID card, which would "know" a) if person is a registered user of transportation alternatives and b) would know how many times that month the person has parked. The daily rate will become more expensive the more often the faculty/staff member parks, but yet still be at a price that makes occasional use of alternatives worthwhile.

Campus Carpooling

- Develop incentives to encourage people to register in the carpool database.

- Create a website feature that allows staff, students and faculty to see how many people coming to campus live in their zip code (use student and payroll records to create this feature).

---

[5] If the cost of driving is estimated at $0.32 per mile, the commuter is better off taking transit part time and driving part-time. Most people, however, do not consider this cost when making the decision not to drive.

- Put links to RIDES for Bay Area Commuters on the TRiP website to allow people to complete ridematching forms.

- Conduct an annual carpool/vanpool database enrollment campaign when people register for their parking permits.

TDM 2.2 INCREASE LOCAL EMPLOYER PARTICIPATION IN THE COUNTY'S GUARANTEED RIDE HOME PROGRAM

Activity Description

Currently only UC, LBNL and the City participate in the County's free Guaranteed Ride Home program which is limited to employers of 100 or more employees. The City should work with the Congestion Management Agency to allow the Downtown Berkeley Association and Telegraph Avenue Association to enroll all of their members.

In addition, many members of the University community are unaware of the GRH program. Few members of the University population are registered for the program.

Rationale/Benefit

- Guaranteed Ride Home programs are an extremely cost-effective tool for supporting other TDM programs.

- UC Berkeley has 18 people registered in the program and the City of Berkeley has 59 people registered. In total, 6 Berkeley employers are registered in the program: UC, the City, Bayer, LBNL, Barra and the Radisson.

- The Alameda County GRH program is a free service to employers.

- An expanded program would benefit the many small employers in Berkeley, since only employers with 100 or more employees in Alameda County can register under the existing program.

Issues

- To make the GRH program applicable to the needs of Berkeley, it must serve employers with fewer than 100 employees.

- The County Congestion Management Agency may be concerned about containing the cost of its program while increasing its membership base.

Next Steps

- At a minimum, TRiP should better market the CMA GRH program to University faculty and staff. TRiP's website has not been updated to reflect the change from a University-provided GRH program to the county's program.

- Berkeley TRiP is the appropriate agency to promote the Guaranteed Ride Home program to Berkeley employers.

- Develop goals for the number of employers that TRiP will contact with information about the GRH program. *(See TDM 2.1)*

- City Council must influence the CMA to open program enrollment to employers will fewer than 100 employees.

- City could develop a funding arrangement with the CMA to subsidize enrollment for smaller employers, and/or the City should look at a GRH program component as part of a Community EcoPass program *(see Transit 3.1)* or City-provided TDM programs *(see TDM 3.1).*

Estimated Costs

- **Alameda County Guaranteed Ride Home Program**
  The County has enrolled 3,000 employees among employers with 100 or more employees in Alameda County. The annual program costs are $55,000 with $15,000 budgeted for taxi trips and $40,000 for administration and marketing.

- **Stanford University Guaranteed Ride Home Program**
  Stanford's annual Guaranteed Ride Home expenses were approximately $10,000 for a campus population of 28,000.

- **Large Employer Guaranteed Ride Home Program**
  The annual costs for a Guaranteed Ride Home program at Kaiser Permanente's Oakland Offices (population 3,500 employees; 50% using alternatives and eligible for program) were $1,200 in taxi and fleet vehicle charges; $500 for program marketing and materials.

TABLE OF CONTENTS

<u>Page</u>

TABLE OF FIGURES

<u>Page</u>