

# VII - 5: SANTA CRUZ PAID PARKING POLICY ANALYSIS

**Prepared for:** *City of Santa Cruz Master Transportation Study*

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## EXECUTIVE SUMMARY

### OBJECTIVES/PERFORMANCE MEASURES

- Increase Use of Alternative Modes of Transportation.
- Reduced Traffic Congestion Caused by Inconsistent Parking Pricing.
- Continue Shopper and Visitor Vitality.
- Increase Public Revenue for Investment in Area-Supporting Transportation Improvements.
- Improve Access Options for Workers.

### POLICY DIRECTION

- Public parking prices should reflect the cost of providing parking unless other public policy goals can be achieved by discounting prices.
- Parking prices should be uniform for comparable facilities within a given area.
- Parking prices should reflect convenience, facility type, and length of stay.
- Parking prices at municipal facilities should be coordinated with rates at private facilities.

- Future increases in parking supply and any associated charges on businesses should take account of potential use of transit and incentives offered by business to use alternative modes of transportation.

## **IMPLEMENTATION MEASURES**

### **DOWNTOWN PARKING DISTRICT**

- Encourage Employers to Offer a "Cash Out" Parking Program.
- Make On-Street Meter Parking Rates and Durations Uniform.
- Maintain Hourly Parking Rates in Garages, Expand to Include Multi-Story Lots, and Increase Rates Over Time.
- Initiate Paid Parking in Surface Lots with Possible Validation (simultaneous with previous measure).
- Update the Deficiency Fee Program.
- Limit Monthly Parking Permits and Increase Rates.

### **SOUTH OF LAUREL/BEACH AREA**

- The Wharf Lot and Lot 25 (Washington Street) surface lots should keep their existing parking pricing structure.
- Standardize rates for convenient surface lot parking.
- Structure On-Street Meter Parking Rates and Durations to Reflect Convenience.
- Discounted monthly permits at surface lots should be reconsidered.

## I. INTRODUCTION

The Santa Cruz Master Transportation Study (MTS) is a community-based planning effort to maintain and improve quality of life in the City by directly confronting transportation challenges, including traffic congestion, incomplete bike routes, and pedestrian access. A number of policy tools are being considered as part of this planning effort, including Transportation Demand Management (TDM) tools - tools which seek to encourage the use of alternative modes of transportation to single occupancy vehicles. One set of TDM tools in the transportation planner's toolkits is parking pricing strategies. This Report evaluates the use of parking pricing strategies as a TDM tool in the City of Santa Cruz. The ultimate goal of the study is to develop a set of paid parking recommendations that, if implemented along with other MTS policies, would encourage the use of transit and other alternative modes of transportation.

Parking pricing strategies are generally applied through two different mechanisms. Under the first, cities alter the pricing at publicly controlled meters, lots, or garages to ensure the preferred parking pricing. Under the second, cities place a parking tax that is added to existing parking charges, whether at privately or publicly operated parking locations. Parking pricing changes are generally instituted for two different reasons, Transportation Demand Management goals and revenue generation goals. This Report focuses on the control of pricing through adjustments in prices at public parking locations and on the development of a TDM-focused set of parking prices. The main areas considered include the Downtown Parking District and the South of Laurel/Beach areas.

Parking pricing is just one tool among many in encouraging the use of alternative transportation modes, and transportation goals are just one set of goals for improving City quality of life. This paid parking policy analysis acknowledges:

- Parking pricing as a TDM tool must be considered in the broader context of the MTS as well as other City goals, including the goals of economic development and support for local- and regional-serving businesses and attractions.
- Parking pricing is one tool among many in encouraging the use of alternative transportation options.
- The City only directly controls a portion of overall parking due to the presence of private parking companies. These private parking prices must be taken into account in establishing parking pricing strategies.
- Parking pricing strategies in one location may be wholly unsuccessful from a TDM perspective if they are not coupled with a variety of other policies, including parking supply and pricing controls in adjacent areas and the availability of practical alternative transportation modes.
- Some population groups, such as shoppers, will rarely take alternative modes of transportation. While some level of parking pricing can encourage turnover and

help retail sales, parking pricing that is set too high may push shoppers to change destination rather than mode.

- Many paid parking changes may also have the effect of increasing public parking revenues that could in turn be used to support transit or other TDM programs.

## ORGANIZATION OF REPORT

This Report is divided into four chapters. **Chapter I**, this Chapter, provides an introduction. **Chapter II** describes the objectives and performance measures used to guide this study, and presents recommended parking pricing implementation measures to achieve these objectives. **Chapter III** describes the current parking supply and demand in the downtown and South of Laurel/Beach Area, and **Chapter IV** describes paid parking case studies. **Chapter V** establishes paid parking policy direction and lists supportive policies and programs.

## II. RECOMMENDATIONS

This section presents the recommended objectives and specific implementation measures for paid parking policy in the Downtown Parking District and the South of Laurel/ Beach areas. Implementation of the recommendations will require additional evaluation of timing (order for parking pricing changes), technology (best parking charging mechanisms for each parking location), and cost (how up front and on-going parking pricing implementation costs can be covered).

### OBJECTIVES/PERFORMANCE MEASURES

The implementation measures have been designed with the goal of encouraging the use of alternative transportation modes and simplifying the system of parking charges, while not hurting local businesses. The expected general effects of these measures, if coupled with the supportive programs listed in **Chapter IV**, include:

- **Increased Use of Alternative Modes of Transportation.** The introduction of the recommended parking pricing changes and associated transportation program will ensure that the costs of parking more closely reflects actual costs of parking provision and that parking discounts aimed at achieving other public policy objectives are more clearly directed. As a result, the automobile vs. other transportation mode choice will be made more level and an increase in transit ridership, bike, and pedestrian trips is expected. Such a mode selection shift will serve to help minimize traffic congestion and improve air quality.
- **Reduced Traffic Congestion Caused by Inconsistent Parking Pricing.** The improved standardization of parking rates will reduce the number of drivers who "shop" around for parking spaces by first starting at the free lots and then moving through the hierarchy of parking costs.

- **Continued Shopper and Visitor Vitality.** The design of parking pricing rates to favor short-term parkers will continue to support shopping and visitor trips. If deemed appropriate, techniques such as parking validation could be used to provide free or additionally discounted parking at surface lots or garages.
- **Additional Public Revenue for Investment in Area-Supporting Transportation Improvements.** Although driven by Transportation Demand Management goals, some of the parking pricing changes are expected to generate additional public revenues. Some revenues may remain once parking pricing implementation costs are covered. These revenues could be used to fund some of the other transportation programs that support alternative transportation modes to the relevant areas.
- **Improved Access Options for Workers.** The improved transportation options provided through the implementation of the overall Master Transportation Study will make practical a greater number of transportation options. While many workers will still elect to drive, many others will have the option of more frequent, practical transportation alternatives.

## IMPLEMENTATION MEASURES

The following recommendations have been identified as specific measures that the City of Santa Cruz can implement in order to achieve the objectives outlined above. Implementation measures are specifically tailored to each parking district, and are presented in two groups. Each parking district operates essentially as a distinct unit and the recommended set of measures for each district can be implemented independently of one another. In terms of impact, the Downtown Parking District represents the greater opportunity for affecting transit mode share, as the City of Santa Cruz controls a much larger portion of total parking in this district.

### ***DOWNTOWN PARKING DISTRICT***

The City controls a significant proportion (about 65 percent) of the parking supply in the Downtown Parking District. As a result, it has the opportunity to shape significantly the cost of parking downtown. The measures below are ranked in order of recommended implementation based on cost of implementation, potential for revenue generation, TDM impact, and policy considerations:

1. **Encourage Employers to Offer a "Cash Out" Parking Program.** The City should encourage all employers who offer monthly parking passes to their employees to implement a "cash out" program. This would require that an employer offer all employees eligible for a parking permit the option to receive the full value of the monthly parking permit either in cash or in the form of a transportation voucher. In this way, employees who continue to drive are not punished, but those who opt to use alternative transit modes are given a financial incentive to do so.

2. **Make On-Street Meter Parking Rates and Durations Uniform.** A simplified rate structure for meter parking is recommended with a two-hour time limit at all meters and charges at a standard rate of \$0.75 per hour. Over time, rate increases to a \$1.00 per hour rate will be appropriate. Certain select locations (in front of the post office, for example) should have shorter time limits (between 20 and 30 minutes) to encourage faster turnover. With a two-hour limit, it is unlikely that commuters would decide to park at these meters, although the cost would be \$6.00 for an eight-hour workday if a commuter decided to continually add coins (\$8.00 when increased rates are introduced). The suggested rate structure is comparable to that of a number of other downtown and competitor regional destinations. A standardized rate and time limit will greatly simplify meter enforcement and will eliminate the confusion that shoppers and tourists now face trying to negotiate the multi-tiered rate/time limit structure. The total number of on-street meters would remain at 768. No new meters would have to be purchased, although costs would be incurred to change meter settings, face plates, and collection patterns.
3. **Maintain Hourly Parking Rates in Garages, Expand to Include Multi-Story Lots, and Increase Rates Over Time.** The current rate structure at the Locust and Soquel garages conforms to TDM parking pricing principles for the most part, with lower rates for the first three hours (\$0.50 per hour) and higher rates for additional hours (\$0.75-\$1.00). This rate structure should also be applied to the two multi-story lots, River-Front and Cedar/Church. These lots are currently operated as three hour free parking lots, with limited monthly permit availability. Validation could be offered at these new "garages" to prevent price increases for short-term parking. Given their multi-story nature, charges can be more simply introduced through a garage format charging system. Over time, a new sliding rate scale could be implemented where drivers pay \$0.75 per hour for the first three hours, and \$1.00 each additional hour up to a \$6.50 daily maximum. Charges could also be adjusted based on an evaluation of the costs of operating the garages and current cost recovery levels. The number of spaces charged under the garage rate structure would increase from 801 to 1,519.
4. **Initiate Paid Parking in Surface Lots with Possible Validation.** EPS recommends converting all surface lots (including surface 2- and 3-hour parking lots, pay parking lots, and meter parking lots) to a sliding rate structure, whereby the first three hours cost \$1.50 (\$0.50 per hour) and each additional hour costs \$1.50 with no daily maximum. This rate, similar to the garages, would keep charges lower for short-term parking. This measure should be implemented at the same time as implementation measure #3, so that changes to the downtown free-parking supply occur simultaneously. A validation program could also be instituted continuing free short-term parking for shoppers in the near-term. With an eight-hour charge of \$9.00, the sliding rate structure would make these lots the most expensive long-term parking alternative in the district, encouraging

commuters to park elsewhere (in the garages) or to shift mode. The uniform rate structure would minimize the complexity of the collection and enforcement regime, would simplify parking for shoppers and tourists, and would reduce "shopping" for cheap parking. In addition, by making long-term parking available at these lots (albeit at a relatively high rate), the total number of parking options available to commuters will have been increased, though at an appropriate cost. A total of 635 surface lot spaces would come under this rate structure.

5. **Update the Deficiency Fee Program.** The deficiency fee charged on development in the Downtown Parking District requires all development that does not provide public parking for its customers or for general use to pay an annual parking fee. This fee was instituted to cover the costs of providing additional parking, and pays for the debt service on garage construction. Exceptions or credits to the payment of the deficiency fee should be provided for businesses that successfully encourage transit use through "cash-out" parking programs or subsidized transit passes. Revenues from the deficiency fee will need to be carefully monitored to ensure the debt service on the garages can still be covered. This policy will add an additional layer of auditing to the fee program. The costs to businesses purchasing both parking permits and paying the deficiency fee should be monitored to ensure they are not paying more than their fair share of additional parking costs. If it becomes clear that some businesses are paying more than their share of new parking garage capital and operating and maintenance costs, credits for permit costs or deficiency fees may be appropriate.
6. **Limit Monthly Parking Permits and Increase Rates.** EPS recommends capping monthly parking permits available at current levels, shifting all these permits to parking only at the two multi-story lots and the Soquel/Front garage, and increasing and standardizing the price at \$45 per month (\$2.10 per working day). No new monthly permits should be offered. If deemed necessary, additional permits could be offered in the same locations. This initial rate increase would force commuters to associate a larger absolute cost with driving to work (although still only 43 percent of the non-permit garage parking cost), potentially shifting transit mode. In addition to this initial rate increase, the City should consider raising the cost of monthly permits annually, concurrent with improvements to the public transportation system. To the extent the City sees subsidizing parking costs for specific sets of businesses in the downtown area as part of another public policy objective, permit discounts could be offered.

At present, the City sells 1,430 monthly permits, 800 at the two attended garages, 464 allocated to the two multi-story lots and 110 associated with the single pay lot and 12-hour meters. Under the recommendation, the 110 permits would be redirected towards the two-multi-story lots. As described above, these measures were ranked by weighing a number of criteria in order to determine the

most likely and effective implementation order. In terms of impact on TDM strategies and transit mode share alone, however, the above list would be reordered as follows:

- **Maintain Hourly Parking Rates in Garages, Expand to Include Multi-Story Lots, and Increase Rates Over Time.**
- **Initiate Paid Parking in Surface Lots with Possible Validation (equal impact as previous measure).**
- **Limit Monthly Parking Permits and Increase Rates.**
- **Encourage Employers to Offer a "Cash Out" Parking Program.**
- **Make On-Street Meter Parking Rates and Durations Uniform.**
- **Update the Deficiency Fee Program.**

### **SOUTH OF LAUREL/ BEACH AREA**

The South of Laurel/Beach Area is another area in the City with a complex parking demand composition. The City controls a significant, but smaller proportion (30 percent) of parking supply than in the downtown. As a result, it has a lower ability to impact directly the cost of parking and must be cognizant of the prices charged by private parking providers, such as the Seaside Company, in determining its parking pricing strategy. The following measures are ranked in order of recommended implementation based on cost, impact, and policy considerations:

1. **Some surface lots should keep their existing parking pricing structure.** The Wharf lot is currently the only parking option in the Beach and South of Laurel area with variable hourly parking rates. Its current pricing structure encourages turnover after four hours and imposes a real cost on drivers. As a result, it is recommended that Wharf lot pricing remain constant at this point in time. As mentioned above, metered parking rates could be adjusted to be more consistent with the Wharf lot. Depending on planned length of stay, differences would continue to exist between Seaside lots and the Wharf lot. The different activity center foci of these lots, the current lower pricing at the Seaside lots, and uncertainty over future Seaside lot charges, however, justify continued non-uniformity between these lots. In addition, EPS recommends maintaining the current pay-by-space lot on Washington Street (Lot 25) as is. With a charge of \$5.00 per day (compared with \$8.00 per day at Seaside), this lot is priced consistently with nearby options and in accordance with the principle of charging less for diminished convenience. Furthermore, the sunk capital the City has already invested in pay-by-space equipment for this lot argues for maintaining it in its current state of operation.

2. **Structure On-Street Meter Parking Rates and Durations to Reflect Convenience.** Currently, five rate/time limit combinations and a maximum hourly rate of \$0.75 leads to a confusing rate structure and underpriced street parking. A simplified rate structure for meter parking is recommended. All on-street meters along Beach Street should be priced at \$1.50 per hour to reflect convenience and should have three-hour time limits to encourage higher turn-over of these spaces. A small number (approximately 10) of these meters located closest to the main entry points to the Boardwalk and beach should be reserved as a loading and unloading zone. Meters in the loading and unloading zone should charge \$0.50 for a maximum 15 minute interval (corresponding to an hourly rate of \$2.00) to ensure rapid turnover. The majority of remaining meters in the Beach and South of Laurel areas should be priced at a uniform rate of \$0.75 per hour with a maximum time limit of six hours to encourage some turnover. Meters in the South of Laurel area, closer to the Downtown District, should, however, be made consistent with the recommended meter durations and rates in downtown - \$0.75 per hour with a two-hour limit. The total number of on-street meters would remain at 633, and Beach residents with parking permits would still be allowed to park for free with no time limit imposed.
  
3. **Standardize rates for convenient surface lot parking.** Twenty metered spaces are currently available at the surface lot on Beach Street and Pacific Avenue (Lot 18) for a charge of \$0.75 per hour with a 10-hour limit (equivalent to \$6.00 for an 8-hour day). Reflecting the convenience of this location with respect to the Wharf, rates at these meters should be raised to \$1.50 per hour so they are uniform with the meters along Beach Street and with daily charges at the Wharf Lot. As a metered lot (versus on-street metered parking), the time limit for these meters should be set at eight hours to reflect slightly different use goals for lot and on-street meters.
  
4. **Discounted monthly permits at surface lots should be reconsidered.** Currently, 34 monthly permit spaces are offered at one of the surface lots on Washington Street (Lot 24) for a deeply discounted rate of \$20 per month. These permits are used primarily by employees at various Beach Area and Boardwalk businesses who commute to work by car. Recognizing that work commuters are often the most likely target group to change travel mode, and assuming that public transit service to the Boardwalk area will be expanded and improved, there seems no justification to discount monthly parking permits so significantly. EPS recommends either raising permit price to \$45 per month to more accurately reflect the actual cost of providing parking, or to convert the entire lot to a pay-by-space lot similar to the surface lot next door (Lot 25).

When ranked in terms of TDM and transit mode share impact alone, the above list would be reordered as follows:

- **Discounted monthly permits at surface lots should be reconsidered.**
- **Standardize rates for convenient surface lot parking.**
- **Structure On-Street Meter Parking Rates and Durations to Reflect Convenience.**
- **The Wharf Lot and Lot 25 (Washington Street) surface lots should keep their existing parking pricing structure.**

### **III. CURRENT PARKING & DEMAND CHARACTERISTICS**

This chapter describes the existing conditions for parking in the Downtown Parking District and the South of Laurel/ Beach areas. In particular, it describes the current parking supply available for general public use, whether publicly or privately provided, associated parking pricing, and the key determinants of parking demand in these areas. A clear picture of current parking characteristics is key to the development of paid parking recommendations that match with the specifics of the City of Santa Cruz.

The Downtown Parking District and South of Laurel/ Beach areas were chosen as foci of the study due to their high densities of development/activity and associated concentrations of parking supply and demand. Recent survey work conducted as part of the MTS found that about 30 percent of trips in the City of Santa Cruz had work as their travel purpose, 25 percent were for social purposes, 18 percent for personal, 14 percent for school, and 13 percent for shopping. The downtown and Beach areas, in particular, provided the most concentrated set of destinations for work, shopping, and entertainment trips.

#### **DOWNTOWN PARKING DISTRICT**

The Downtown Parking District includes by far the most concentrated City ownership and operation of parking. It is the only parking district in the City, and as such includes a more controlled linkage between parking revenues and expenditures, as well as its own funding mechanisms like the deficiency fee.

#### ***CURRENT PARKING SUPPLY, PRICING AND GEOGRAPHY***

There are currently a total of about 4,600 parking spaces in the Downtown Parking District, including about 3,000 City-operated parking spaces and 1,600 privately operated spaces. The privately operated spaces are primarily no-charge spaces with about 425 spaces for private use and 1,165 spaces for public use, primarily spaces for use by business customers only. The City-operated spaces include a wide variety of parking types dispersed throughout the District.

## Meters

Currently, there are 768 meters in the downtown parking district that vary in price from \$0.15 to \$0.75 per hour and in time limit from 24 minutes to 12 hours. There are eight different rate/time limit combinations with between 12 and 301 meters in any single group. Long-term street parking is encouraged at 157 spaces where 12-hour time limits are paired with the lowest hourly rate. The bulk of the remaining meters (414 meters) charge either \$0.50 or \$1.00 for two hours of parking. A total of 60 monthly permits are sold (out of a maximum of 75 available) at a cost of \$20 per month for use at the 157, 12-hour meter spaces

## Garages

There are currently two municipal parking garages in the Downtown Parking District that contain 801 total spaces and that charge \$0.50 per hour for the first three hours, \$0.75 per hour for the next two hours, and \$1.00 for the following two hours up to a \$5.00 daily maximum. No permits are currently sold at these garages. These spaces represent the majority of non-permit, long-term (full working day) parking in the District. Average peak occupancy at these garages is approximately 85 percent, with the Cedar/Church garage almost 100 percent occupied at peak times.

## Lots

There are currently 13 free municipal parking lots (surface and multi-story) in the District, containing 1,201 total parking spaces that are subject to either a two- or three-hour time limit. In addition, there are three permit-only surface lots with 56 total spaces, one pay lot with 108 spaces that charges \$1.00 per day, and one metered lot with 44 spaces that charges \$0.15 per hour to a 12 hour maximum.

The two multi-story lots, Cedar/Church and River/Front, include the majority of the free lot parking supply with 718 spaces. A total of 464 discounted monthly parking permits are currently sold at these lots, priced at \$16 or \$25 per month, with additional permits available at the River/Front garage. As a result, a number of commuters park in these lots. The other free lots vary from 13 to 134 spaces with most in the 20 to 75 space range. A total of 106 permits are available at the paid parking lots, including 56 at the three permit only lots and 50 at the pay parking lot.

## Permits

As mentioned above, a total of 1,430 discounted monthly permits are currently sold in the District. The majority of these are sold at multi-story lots (1,264 permits), while some are sold at surface lots (106 permits) and for use at 12-hour meter spaces (60 permits). There are currently waiting lists for permits for parking at some locations, though additional permits are available at others. Permit prices vary from \$16 to \$25

per month. Considering a commuter would have to pay \$104 per month to park in the garages based on the daily maximum, monthly permits are offered at a deep discount (between 15 and 24 percent of full-day garage parking costs) and are used by the majority of automobile commuters. This discount encourages long-term parking where permits are available.

### **Deficiency Fee**

The District charges an annual deficiency fee. This fee is paid by development to fund their fair share of new parking costs associated with the construction of a new garage. The deficiency fee covers debt service and is charged on a per parking space required basis, which itself is based on occupied space. Credits are available if the development provides free public parking spaces itself. The fee does not permit discounts for firms that reduce parking demand by encouraging the use of alternative modes of transportation.

### ***PARKING DEMAND CHARACTERISTICS***

The Downtown District includes about 400 residential units and over 1.5 million square feet of non-residential building space, including over 500,000 square feet of office space with the remainder retail space. The retail space includes a broad range of businesses including specialty retail, apparel, eating and drinking options, and entertainment venues. Office space is occupied by a range of public and private employers. Occupancy rates vary over time, with the office space occupancy rates currently weakened by the economic slow-down.

The downtown is a regional center for employment, entertainment and shopping. Its cluster of uses, in addition to the numerous seasonal activities and festivals, makes downtown Santa Cruz and the District a destination for trips by homeowners and renters, residents, commuters, shoppers, and entertainment-seekers. As a result, it poses significant challenges for parking planning with the need to accommodate all these demand types, each with different duration and time-of-day parking needs.

A Friday, December 22, 2000 peak time parking study observed occupancy rates at City off-street parking facilities. The overall occupancy rate was 85 percent, or about 1,880 occupied spaces out of a total of 2,210 privately provided spaces. Occupancy rates ranged from 73 percent to 99 percent.

### **SOUTH OF LAUREL/BEACH AREA**

The South of Laurel/ Beach Area includes the area directly adjacent to the Downtown Parking District and stretching down to the Beach. The South of Laurel area lies in

between the Downtown and the Beach Area. It provides parking for both its own set of uses, though also experiences overflow demand from the Downtown and the Beach Areas. The Beach Area itself includes the largest supply of privately provided for-charge parking in the City, as well as a mix of publicly provided parking.

### **CURRENT PARKING SUPPLY AND GEOGRAPHY**

The South of Laurel/ Beach Area includes about 7,800 parking spaces, over 80 percent of which, about 6,300 space, are in the Beach Area. A total of 4,145 spaces, a little over 50 percent of the total, are available to the general public, independent of intended activity. A total of 3,562 of these spaces are in the in the Beach Area and 583 spaces are in the South of Laurel district. Unrestricted publicly available Beach Area spaces are dominated by the two Seaside Company lots, with a combined total of 1,771 spaces, and the City owned and operated 430-space Wharf lot. Other spaces include other City operated lots, on-street meters, and free curbside spaces. South of Laurel general public access spaces include small City operated lots, on-street meters, and free curbside parking spaces.

#### **Seaside Company Lots**

With 50 percent of the total unrestricted public access Beach Area spaces, the Seaside Company controls a significant portion of the public parking supply. The Seaside Company operates two large surface lots -- the Main Beach Lot directly across from the Boardwalk, with 942 spaces, and the River Lot, located several hundred yards south along Beach Drive, with 829 spaces. These lots are operated only during the peak spring and summer season, with free parking available for the remainder of the year. Drivers are charged a flat rate of \$8.00 per day, regardless of the number of hours parked, paid to an attendant upon entry. Seaside also maintains a relatively small number of off-site lots which it makes available for employee parking, although these spaces will not be evaluated as they are not publicly available.

#### **On-Street Meters**

The City operates 633 on-street meters in the Beach and South of Laurel areas, which are divided into five rate/time groups. The most predominant meter combinations are \$0.75 per hour with a six hour limit (215 meters), \$0.50 per hour with a 12-hour limit (208 meters), and \$0.75 per hour with a 10-hour limit (153 meters). For the most part, the more expensive meters are located near and along Beach Street with the less expensive meters located further from the Boardwalk to the east and in the South of Laurel district. Local residents with Beach Flats parking permits are allowed to park free at 15 on-street meters along Second and Third Streets, and residents with Beach Hills permits are allowed to park free at 46 on-street meters along First and Second Streets, Main Street, and Pacific Avenue. Additionally, non-resident parking is prohibited at unmetered curbside spaces throughout most of the Beach Area, including all streets east of Second Street, and all streets south of Liebrandt Avenue.

## Surface Lots

The City operates two full-time public surface lots in the Beach Area and one in the South of Laurel district, which contain a total supply of 524 spaces. The primary lot in the Beach Area is the attendant-operated Wharf Lot, with 430 spaces. This lot uses a variable rate structure, with the first half hour free, a charge of \$1.00 per hour for the first four hours, and then \$2.00 each additional hour up to a \$12.00 daily maximum. The second surface lot in the Beach Area is located near the intersection of Beach Street and Pacific Avenue and contains 20 metered spaces that charge \$0.75 per hour with a 10-hour time limit. The South of Laurel lot is a pay-by-space lot on Pacific Avenue and charges a flat rate of \$5.00 per day for 74 spaces. In addition, a 34-space permit-only lot is located directly east of the pay-by-space lot, and is used primarily by Beach Area employees who currently pay \$20 for a monthly permit. This lot, along with the Police Department lot on Laurel Street, allows free parking on Sundays, which together provide an additional 75 Sunday spaces. Finally, the City plans to construct a new surface lot at the Depot Site along Pacific Avenue, which would provide 214 new public spaces.

## ***PARKING DEMAND CHARACTERISTICS***

Parking demand in the Beach Area is seasonal in nature, with extremely heavy use in the peak summer months and considerably reduced demand during the remainder of the year. Parking demand is generated by three primary recreational destinations -- the beach, the Wharf and the Boardwalk -- which comprise three of Santa Cruz's most unique and popular features, and which make a significant contribution to the local economy, in terms of jobs, income, and public revenues. Demand is expected to continue to grow in coming years as the regional population increases and as tourists and residents continue to take advantage of the recreational opportunities the Beach Area provides. Demand in the South of Laurel area is driven both by its mix of uses and spill-over from the downtown and the Beach area parking demand. South of Laurel uses include residential, light industrial, and commercial, especially along Pacific close to downtown.

The most recent comprehensive study of peak parking occupancy in the Beach and South of Laurel areas took place on April 6, 1996 at 3:00 pm, on the Saturday before Easter Sunday. The study found that approximately 67 percent of the total parking inventory in both districts was occupied, including both public and private spaces. By comparison, approximately 91 percent of the total inventory in the commercial Beach district (west of Second Street) was occupied and only 21 percent of the spaces in the South of Laurel district were occupied. On this day, 98 percent of the Seaside spaces, 70 percent of the Wharf lot spaces, and 97 percent of the on-street spaces in the Beach commercial district were occupied. Clearly, on peak days the majority of spaces in close proximity to the beach and the Boardwalk are occupied to near full capacity, with the South of Laurel district showing low occupancy levels even on peak days. Wharf lot occupancy is lower primarily due to the drop in activity that occurs at the Wharf between the lunch and dinner hour.

The same study also used standard parking generation factors applied to various land-use types to estimate total parking demand on the 20th highest weekend day at 1:00 pm. This exercise estimated a surplus of 1,129 spaces, or 19 percent of the total inventory, in the Beach and South of Laurel areas as a whole, and a surplus of 477 spaces, or 10 percent of the inventory, in the Beach commercial district.

#### **IV. PAID PARKING CASE STUDIES CASE STUDY REVIEW**

Urban communities across the nation and around the world have employed a variety of Transportation Demand Management (TDM) measures to reduce congestion and increase public transportation ridership. Of these, directed adjustments in the price to park both on and off street have frequently been shown to be one of the most effective methods to shift transportation mode share from SOV to alternative transit modes. This Chapter outlines a number of studies performed to investigate transit mode share response to parking pricing changes in various metropolitan communities. The information was drawn from the case studies themselves or from compilations that included descriptions of the case studies, all of which are referenced in the end notes to this Chapter. This section describes each case study, while the following section summarizes lessons learned.

Case studies useful in evaluating the effect of parking pricing on automobile and transit mode share and trip destination were selected. Studies were chosen based on the applicability of the pricing strategy described and on the rigorousness of the applied methods and results. The majority of technical pricing studies use data from relatively large metropolitan areas, which are not perfect surrogates for Santa Cruz. Unfortunately, cities more similar to Santa Cruz in size and character that have instituted strategic parking pricing programs tend not to compile and report data in a systematic way that would allow accurate evaluation of the strategy's effects. Nevertheless, in terms of their academic rigor, the consistency of their results, and the intuitiveness of their findings, the studies below provide an accurate characterization of the likely effects that, given pricing strategies, can be expected to produce in cities of varying size and character.

The results of the more quantitative case studies were described in terms of elasticity, in particular, price elasticity of trips to parking locations. These price elasticity reflect the proportionate reduction in parking at a particular location that is associated with an increase in parking pricing. So, for example, a -0.3 price elasticity implies that for a 10 percent increase in parking pricing, the number of vehicles parking at the location/facility will decrease by 3 percent. Some studies also measured the price elasticity of parking frequency at adjacent parking locations. These studies measured the proportionate increase in parking frequency at locations adjacent to areas where parking pricing increased. Other studies measured the revenue elasticity, measuring how total parking revenues changed when parking prices changed. Parking revenues are a function of parking prices, parking frequency, and parking duration per car, and effects on revenues are dependant upon the proportionate impacts of pricing changes on both frequency

and duration.

### ***CASE STUDIES OF CHANGES IN TRIP VOLUME***

The case studies described below outline observed changes in the number of automobile trips in response to changes in parking prices. In general, the majority of observed price elasticity throughout the literature range from -0.1 to -0.6, with -0.3 being the most frequently cited average. This implies that on average (including data for both commuters and retail shoppers) a ten percent increase in parking price at a given facility will result in a three percent reduction in automobile trips to that facility. The first two studies include data for the retail shopping group, while the last six case studies focus only on the commuter group.

**San Francisco, 1970.** In October 1970 the City of San Francisco imposed a 25 percent ad valorem parking tax on all public and private parking spaces in its jurisdiction, except metered and residential spaces. Rather than a TDM measure, this rate increase was intended as an alternative method to raise revenue. The tax remained in effect for approximately two years, during which time it was collected by parking station operators. In response to opposition, the tax was reduced to 10 percent in July 1972.

An ex post facto study was performed in 1974 to assess the impact of the tax on transit mode share and parking station operator revenue. By separating 13 parking garages into two groups - commuter and shopper - and cataloging changes in number of cars parked and net operator revenue, the study was able to calculate price and revenue elasticity of demand for each group.

The study concluded that commuters were much more likely to shift travel behavior in response to price changes (as measured by number of cars parked) than were shoppers, and that there was a decline in long term parking relative to short term parking. In the year following the tax, commuters showed a price elasticity of -0.27 and shoppers showed a price elasticity of -0.08 (meaning that commuters were three times more likely to limit the number of trips than shoppers). Similarly, when the tax was reduced, commuters were more likely to increase their number of trips than were shoppers. The effect of the tax on parking revenue will be discussed in the next Chapter.

Several observations specific to this case are worth noting. San Francisco department store sales declined slightly in the nine months following the tax, although they did not increase following reduction of the tax. However, sales figures beginning several years prior to the tax indicate a general trend of retail sales shifting from the City of San Francisco to outlying suburbs which likely plays a role in the noted decline in retail sales. The study concluded that the impact of the tax on retail sales was minimal. While the total number of cars parked decreased during the time of the tax, these cars represented a small percentage of total cars in the City, so the observed effect on traffic congestion was also minimal.

**Sydney, Australia, 1998.** A stated-response survey of casual weekday drivers and transit users in Sydney's CBD was performed to investigate the likelihood to change transit mode in response to parking price shifts and facility curfew times. "Casual weekday drivers" are defined as those not provided with guaranteed parking, which includes retail shoppers and individuals traveling to the CBD for business meetings. The study assumes that the majority of commuters are provided with some form of guaranteed parking, and are thus primarily excluded from the study.

In response to rate increases, the survey revealed a shift to public transit, and a switch from parking in the center of the CBD to parking elsewhere in the CBD, on the fringe, or outside the CBD. The study observed virtually no loss in travel to the CBD. The calculated price elasticity for parking in the center of the CBD was -0.54, meaning that a 10 percent price increase in parking within the CBD can be expected to result in a 5.4 percent reduction in the number of cars parked there.

**Eugene, Oregon, 1995.** As part of a parking demonstration project, monthly parking lease rates were raised at two municipal garages and several surface lots over a one-year period. Garage rates were raised from \$16 to \$30 per month (88 percent increase), while surface lot rates were increased from \$6 to \$16 per month (167 percent increase) and from \$16 to \$34 per month (113 percent increase). Short-term meter fines were simultaneously increased to deter commuter parking.

As a result of the price increase, monthly parking permit sales decreased from 560 to 360, reflecting a price elasticity of -0.60. The study reports that half of the former parkers switched to carpools or rode a free shuttle, while half changed parking locations.

**Washington D.C., 1995.** A stated-response survey of 656 commuters in the Washington D.C. metropolitan area was administered to collect behavioral response data to hypothetical parking pricing strategies. Individuals were asked how their travel behavior would change in response to a parking surcharge alone and a parking surcharge in conjunction with an employer-paid transportation voucher. Various demographic data was also collected to investigate a correlation with stated responses.

The study found that willingness to change to public transit increases as the level of the parking tax increases. Approximately 20 percent of respondents reported willingness to change when faced with a \$1 to \$2 tax, while approximately 40 percent were willing to change modes in response to a \$7 to \$8 tax. Baseline parking fees were not reported, so a price elasticity could not be calculated. The employer-paid voucher did not alter the effect of the parking tax on mode share.

When responses were compared with demographic data, several relationships appeared. Willingness to switch to public transit was correlated with the following factors: short average duration at current home; low car ownership; high parking costs currently paid; short commute time; high and low income groups (moderate income groups tended to

switch to the carpool mode); and the availability of reliable transit.

**Madison, Wisconsin, 1981.** As part of a parking demonstration project, a \$1 peak-period surcharge aimed at commuters was levied on all cars entering three municipal parking facilities before 9:30 am and staying for longer than three hours. Other than the surcharge, the parking rate remained the same at \$0.20 per hour. The three parking facilities represented 22 percent of Madison's total off-street parking. A free shuttle service to and from satellite parking lots was instituted prior to implementing the surcharge.

As a result of the surcharge, 40 percent fewer spaces were occupied in the surcharged facilities during the peak period. To assess travel mode shift, parkers who used the surcharged garages prior to the demonstration were surveyed to determine their travel patterns during the demonstration. The majority of respondents either parked at a different facility, altered the time they entered the facility, or stayed fewer than three hours. Relatively few individuals used the free shuttle service.

**Washington D.C., 1979.** In 1979 a large number of Federal employees in Washington D.C. were required to begin paying for government-provided parking spaces at one-half of the nearby commercial rate. A study was performed to monitor the effects of modal shifts, automobile occupancy, and parking behavior among a sample of 15 metropolitan work places.

The study observed a one to 10 percent decrease in automobiles in response to an increase in monthly parking rates from \$0 to between \$10 and \$32. The study postulated that the reduction in automobiles might have been even greater had the base level of carpooling not been so high, as car-poolers tend not to shift modes in response to parking rate increases. Factors correlated with willingness to find alternate commute modes were availability of good transit services, limited parking supply, and base carpool levels.

**Chicago, Illinois, 1978.** In 1978, parking rates were raised at eight municipal garages in Chicago. Before the increase, both short- and long-term rates were significantly below the average for nearby private garages. Following the increase, short-term rates remained below the nearby average (\$1.15 versus \$1.75 per hour) while eight-hour rates were raised to near the average (\$4.03 versus \$4.05). Monthly rates were raised 90 percent (from \$30.50 to \$58). Average nearby monthly private rates were not available for comparison.

A study performed after the price increase found a 50 percent decrease in long-term parking and a 72 percent decrease in cars arriving before 9:30 am on weekdays. Monthly parking leases decreased by around 25 percent, while the change in short-term parkers was small (about a 2 percent increase). The study calculated a resulting price elasticity of -1.2, the highest reported price elasticity of all studies reviewed. Revenue at these garages increased over the period, and the effect did not seem to be affected by

changes in rate structure at the nearby private facilities. The likely explanation for such a large elasticity is that raising rates to similar levels to private garages meant that parkers now considered a large range of additional garages as close substitutes.

### ***CASE STUDIES OF IMPACTS ON REVENUE***

Changes in revenues associated with a change in parking pricing will depend on a mix of factors: the percentage increase in pricing, the percentage reduction in number of trips to the parking facility, the percentage reduction in the average per car duration of stay, and the structure of the parking pricing. As a result, changes in parking pricing could increase or decrease overall parking revenues. The majority of data in the literature suggest that increases in parking pricing also lead to increases in overall parking revenues - in other words, the positive impact of the price increase on revenues generally outweighs the negative effects of reductions in trips and durations.

Some case studies, however, found a negligible or negative effect on overall parking revenues. The 1974 study of the 25 percent parking tax in San Francisco is one of the only studies to investigate simultaneously the effect of pricing on the number of trips made and on revenue generation. The study found that the combined effect of moderately reduced trips and significantly reduced duration of parking in response to the price increases resulted in a slight reduction in overall parking income. In this case, the parking price increase was through a tax, and the City received significant new tax revenues, though the loss of gross revenues to private parking operators was greater. Part of the reason for the San Francisco result is that the 25 percent increase -- the largest ever parking rate increase at that time -- was levied in a region with baseline parking rates that were already extremely high. These high rates clearly motivated shoppers to reduce the duration of their parking. At the same time, the study found that insignificant changes in retail sales were recorded.

The studies that measured revenue elasticity tended not to consider the costs of increasing parking pricing. While in many cases, the costs of increasing parking pricing are minimal, in other cases they are significant. In cases, where municipalities impose a tax on private operators, the cost of implementing the price increase falls on the private parking providers. However, in cases where the City operates the parking and, in particular, where there is no parking charge system currently in place, the implementation of parking price increases can result in both capital costs and operating and maintenance costs. Capital costs may be in the form of new meters or new security gates, while ongoing operations and maintenance costs may be in the form of salaries and equipment for lot attendants and other enforcement personnel as well as equipment maintenance and upkeep. Such additional costs, if incurred, can require a significant proportion of any new parking revenues associated with the price increase.

## LESSONS LEARNED

These case studies provide a good body of experience regarding the impacts of changes in paid parking pricing under a variety of circumstances. While the effects of the parking strategies employed in each of the case studies are influenced by a variety of factors unique to the specific community, the following lessons learned are key to the design of successful parking pricing strategies.

- **Increasing the price to park in a specific area (or facility) will reduce automobile trips to this area (or facility).** The case studies reviewed reported an average overall price elasticity of -0.66, while the value most commonly cited in the literature is -0.30. This indicates that increases in the price to park at a given facility can be expected to reduce the number of automobile trips to that facility, although the reduction in trips is less than proportional to the price increase.
- **Effective parking pricing strategies must be accompanied with measures to make it difficult for parkers to find alternate nearby parking.** Drivers will try to park at other locations nearby before shifting transit mode. When faced with a price increase in a given area, drivers will almost always first try to park in adjacent areas (parking garages, meters, lots, or residential neighborhoods) before they will shift to an alternate transit mode such as public transit or carpooling.
- **Parking pricing strategies require a limited availability of inexpensive parking supply.** Parking rate increases are ineffective if inexpensive parking is available at alternate locations nearby. Parking supply constraints - limiting the number of physical spaces available, surrounding parking districts with permit zones, increasing rates uniformly, and heightening enforcement - are necessary to achieve TDM goals through parking pricing changes.
- **Frequent, reliable public transit must exist for people to shift transit mode.** Nearly all metropolitan areas that reported a significant mode shift to public transit following parking price increases also offered attractive public transportation alternatives. Frequency of transit service, as opposed to reliability or comfort, seems to be most correlated with transit ridership. Carpool commuters tend not to shift to public transit, resulting in communities with a high carpool mode share often showing lowered response to parking price increases.
- **Successful parking strategies often incorporate a variety of additional supportive policies and programs.** In addition to the common features outlined above, the following additional factors are also highly correlated with successful parking and transit strategies: an organized approach to transit issues on a regional scale; no municipal minimum parking requirement for new construction; parking caps for new construction; limitations on the construction of new parking structures; imposition of a parking tax greater than 15 percent; high average meter rates; low percentage of CBD off-street parking that is publicly owned;

and extensive residential permit programs to limit parking spillover.

- **Commuters are more sensitive than shoppers to changes in parking pricing.** When faced with the same price increase, commuters are more likely to reduce the number of automobile trips than shoppers (studies aimed at commuters reported higher price elasticity of trips than studies aimed at shoppers). Some studies also suggested that shoppers are likely to limit the duration of each trip when faced with a parking price increase. Overall, the most effective parking strategies are those that target commuter trips.
- **Parking rate increases typically generate revenue.** While parking price increases reduce the number of automobile trips and sometimes the duration of parking, this reduction tends to be offset by the increased revenues generated by the automobiles that continue to park. In cases where parking charges are introduced into previously free areas or where new meters, machines, or personnel are required to implement pricing increases, additional costs will be incurred. A proportion of the additional revenues will often be required to cover these costs. Remaining revenues could be used to fund supportive programs.

## **V. SHAPING A PAID PARKING POLICY APPLICATION TO SANTA CRUZ**

While the case studies provide useful and interesting information, it is important to apply the lessons learned to the specific circumstances in the City of Santa Cruz. As noted above, the parking situations in both of the study areas is complex; that is, they involve demand from the full range of trip types and these trip types vary throughout the day and seasonally. This chapter outlines a series of policy directives for parking pricing changes as well as several supporting policies and programs necessary to maximize the gains from parking pricing changes. The guiding policy directives were applied to the specific situation in each of the Santa Cruz areas studied to develop the implementation measures outlined in Chapter II.

### ***POLICY DIRECTION***

Several key parking pricing policies have been identified that the City of Santa Cruz should use to achieve the objectives of the Master Transportation Study outlined in **Chapter II**. The implementation measures described in Chapter II are all designed to achieve these policy directives through focused parking pricing strategies. To the extent that any of these recommendations is deemed infeasible, the City should return to the following policy directives to focus its search for alternative methods.

- **Policy #1: Public parking prices should reflect the cost of providing parking unless other public policy goals can be achieved by discounting prices.** Free parking represents a decision on the part of the City to subsidize drivers, and thus encourages the automobile mode share. Furthermore, it does not reflect the actual costs the City incurs to provide the parking in terms of land, capital, labor and maintenance costs, or the opportunity cost of alternative land uses. Public parking pricing should reflect market rate prices as indicated by privately provided parking or at least the net public cost of parking provision. Once prices have been established according to this principle, targeted discounts can be applied to subsidize selected parking groups, such as shoppers and residents. These discounts can be applied through permits, validation, or discounted short-term parking. At the same time, parking prices/charges should be administered fairly such that businesses, workers or taxpayers who pay parking-related charges should obtain a corresponding public service, and should not be "double-charged".
- **Policy #2: Parking prices should be uniform for comparable facilities within a given area.** Non-uniform pricing within a given area increases congestion by encouraging excess driving as drivers "shop" to find the cheapest parking. A uniform parking pricing system also helps create a more streamlined parking program by reducing driver confusion and simplifying collection and enforcement. Rate structures at comparable facilities in the same area should be identical.
- **Policy #3: Parking prices should reflect convenience, facility type, and length of stay.** While prices should be uniform within a given area, distinct areas that are different distances from the destinations they are intended to serve should be priced accordingly, with drivers paying a higher premium to park closer. The most convenient spaces, such as downtown meters, should have the highest associated cost and the shortest time limits. All downtown lots and garages are considered to be within close proximity to the business district, and should thus be priced according to Principle #2. Drivers should pay more to park at facilities that provide additional services or greater protection (such as covered parking). Long-term parking rates should be higher than short-term rates to encourage commuters to use alternative transit modes. According to this principle, on-street meters should generally be the most expensive parking option (reflecting convenience), followed by garages (reflecting protection and construction cost), then surface lots.
- **Policy #4. Parking prices at municipal facilities should be coordinated with rates at private facilities.** This principle holds particularly true in the Beach Parking District, where a large percentage of the overall supply is owned and operated by the privately-owned Seaside Company. Since the City is unable to control rates charged by private facilities, these rates must be taken into account when setting rates at municipal facilities in the same area in order to conform to

Principle #2. Failure to do so would create non-uniform price incentives and would prevent the parking program from operating successfully within a particular district.

- **Policy #5. Future increases in parking supply and any associated charges on businesses should take account of potential use of transit and incentives offered by business to use alternative modes of transportation.** As new development occurs, parking demand is likely to increase. However, rather than only relying on traditional linear methods of linking parking need to development type and size, new additions to parking should consider the availability of alternative transportation modes, as well as the negative externalities of parking supply such as congestion. In addition, incentives should be created for employers that encourage workers not to drive to work, such as a reduction in fees paid by businesses.

## **SUPPORTING POLICIES AND PROGRAMS**

As demonstrated by the case studies above, parking pricing can be an extremely effective method to reduce automobile trips and to increase transit mode share. The most successful case studies demonstrate, however, that changes in parking pricing in a particular area alone may not increase the use of alternative transportation modes. The following programs have been effective companions in other communities, and should be considered in conjunction with the recommended parking pricing changes. The City of Santa Cruz has already taken steps to develop aspects of the programs below, although expanded efforts need to be made to take advantage of their full potential.

### ***DEVELOP ALTERNATIVE TRANSIT MODES***

Raising the price to park is only an effective strategy to reduce automobile trips to the extent that comparable and viable travel alternatives are available. Regardless of the expense to park, drivers will not leave their cars if their only alternatives are long transit waits, long walks, or unsafe bike commutes. An alternative transportation network needs to be present before increases in parking prices can realistically be expected to affect shifts in transit mode.

Santa Cruz has taken many positive steps toward this end. The City's MTS vision has established clear goals for improvements to both pedestrian pathways and the bicycle network, both of which are key targets to improve alternative circulation patterns in and around congested areas. Continued efforts should be made to make pedestrian travel modes a more attractive alternative, particularly in the downtown district.

The improvement and expansion of the public transportation system must be the first priority for the City of Santa Cruz in the short term. Many improvements have been made already, with Santa Cruz's Metro ridership having increased 20 percent over the past five years, and with bike-to-bus ridership also having increased significantly since the

installation of front-loading bike racks in 1995. A number of new routes have been recently added, bringing the total number of fixed routes in Santa Cruz County to 38, which are served by 83 buses. New routes should continue to be added as development in certain neighborhoods expands. Studies show that bus frequency is the most important factor in increasing ridership, and additional buses should be added to existing routes. For example, the current "Commuter Express" (Route 91) bus schedule indicates that only two buses arrive at the Metro Center between 7:00 am and 8:00 am on week-day mornings, with none arriving between 7:30 am and 8:00 am. The frequency of existing routes -- particularly during commute hours -- needs to be increased significantly to ensure that mode share shift can be accommodated.

### ***LIMIT PARKING ALTERNATIVES***

One clear result of the case studies is that drivers will first respond to an increase in the price to park by trying to find alternative cheap parking nearby before shifting transit mode. For parking pricing to be effective in Santa Cruz the program must be applied to all parking facilities simultaneously to ensure uniformity within each parking district.

Increasing the price to park can cause drivers to search for alternative parking in nearby neighborhoods, creating spillover problems. The existing residential parking permit program needs to be expanded to all neighborhoods surrounding the Downtown Parking District and the South of Laurel/Beach Area to make the pricing program more effective and to ensure that these communities are not adversely affected.

Currently, neighborhoods wishing to implement permit programs must achieve a majority vote by residents and receive pre-approval from the City Parking Department. In recent years, the number of neighborhoods granted pre-approval has been limited by City staff shortages and by their ability to set up and enforce additional programs. The burden on City staff is compounded by the fact that the hours, dates, and time limits are different for each permit area, and the boundaries of each area change frequently as additional resident groups opt in. The City should consider streamlining the permit program by standardizing permit times and dates and allocating more staff if necessary to allow the creation of additional permit zones. In addition, a cap of two permits per household should be instituted to prevent a single residence from occupying a disproportionate number of prime curbside spaces.

### ***LIMIT SUPPLY OF PARKING***

A parking program can more effectively shift transit mode share when parking supply is constrained. Because automobile use is only partially elastic to changes in price, many drivers will continue to drive irrespective of price as long as parking is available. The only strategy to limit such automobile trips is to impose limits on supply. Such limits on supply must, of course, be considered by each jurisdiction in conjunction with the need for automobile access to and parking in key areas to maintain economic vibrancy.

Many cities have chosen to limit parking supply both as a TDM strategy and as a method to bring supply more in line with actual demand. Strategies include reducing minimum parking requirements for new construction, imposing parking ceilings for new construction, instituting area-wide parking caps, and encouraging shared parking, where single facilities are used to accommodate a variety of compatible uses. Santa Cruz already supports some shared parking strategies in that the majority of downtown employees who drive to work park in shared municipal garages, and in the shared use of the County lot by weekday employees and weekend recreational users.

