

MEMORANDUM

To: Bill Needleman & Kevin Donoghue
From: Jason Schrieber
Date: May 23, 2008
Subject: Preliminary Parking & TDM Strategies

This memorandum describes in greater detail the key parking and transportation demand management (TDM) strategies that our team is developing for Portland. These nine strategies mostly include new approaches that would encourage new and existing development to develop programs and infrastructure that support circulation by alternatives to the single-occupant-vehicle. Our approach recognizes that private developers and property owners or leasers are motivated most-strongly by cost savings. These strategies recognize the increasing cost of SOV transportation and parking provision by providing some real financial incentives to develop the peninsula in a manner that encourages walking, biking and transit.

We hope to discuss these strategies at our next Committee meeting, next Wednesday. I look forward to the discussion. In the meantime, have a great Memorial Day weekend.

Parking & Transportation Demand Management Strategies

1.0 Pursue a “Park Once” Strategy

Summary

Make efficient use of the parking supply by including as many spaces as possible in a common pool of shared, publicly available spaces. Share existing parking resources efficiently as a flexible pool, rather than many small, inefficient private parking areas. Complement with clear signing, wayfinding and pedestrian-oriented strategies.

Details

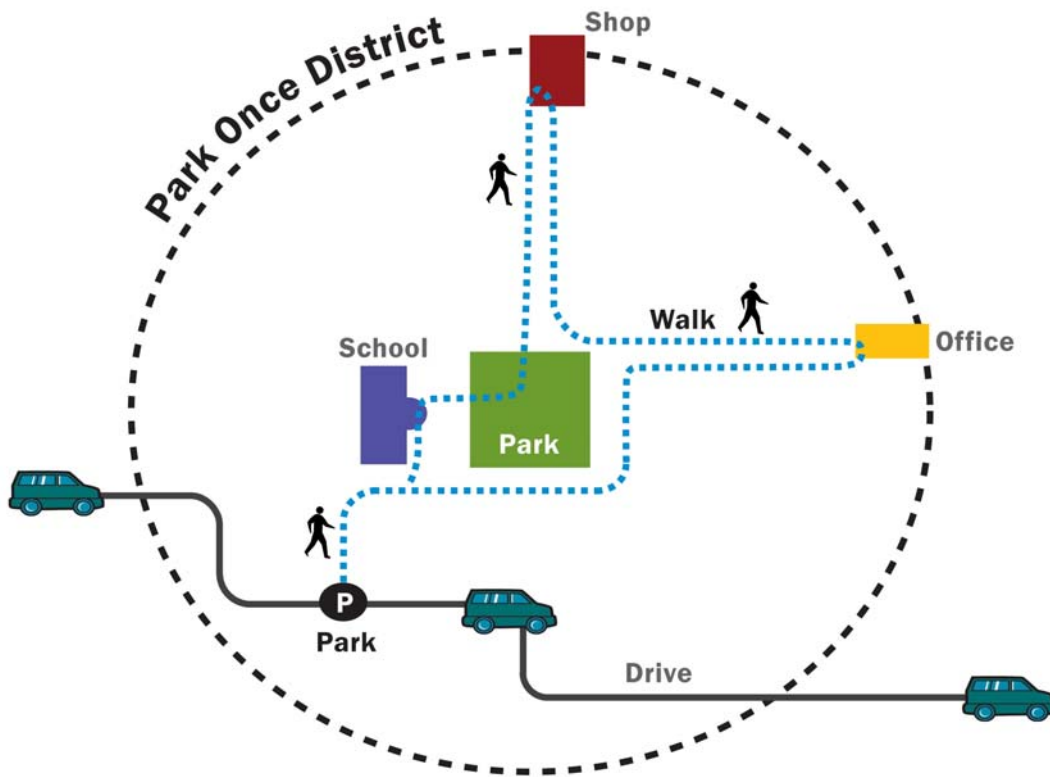
The creation of a “park once” environment is fundamental to Portland’s goal of creating a walkable district. The typical pattern of individual buildings, each with its own parking supply, requires two vehicular movements and a parking space to be dedicated for each visit to a shop, office, or residence. To accomplish three errands in this type of environment requires six movements in three parking spaces for three tasks. With most parking held in private hands, spaces are not efficiently shared between uses, and each building's private parking is typically sized to handle a worst-case parking load. Most significantly, when new buildings are required to provide such worst-case parking ratios, the result is often pedestrian-hostile buildings that hover above parking decks.

When the practice of building individual private lots or garages for each building is adopted, the result is also a lack of welcome for customers: at each parking lot, the visitor is informed that his vehicle will be towed if he or she peruses any place besides the adjacent building. When this occurs, nearby shopping malls gain a distinct advantage over a district with fragmented parking. Mall owners understand that they should not divide their mall's parking supply into small fiefdoms: they operate their supply as a single pool for all of the shops, so that customers are welcomed wherever they park.

The compactness and mixed-use nature of the Portland peninsula lends itself to this kind of “Park Once” strategy. Operating the downtown parking supply as a single shared pool results in significant savings in daily vehicle trips and required parking spaces, for three reasons:

Park once. Those arriving by car can easily follow a “park once” pattern: they park their car just once and complete multiple daily tasks on foot before returning to their car (see Figure 1).

Figure 1 “Park Once” District



Based on an original illustration by Walter Kulash.

Shared Parking among Uses with Differing Peak Times. Spaces can be efficiently shared between uses with differing peak hours, peak days, and peak seasons of parking demand (such as office, restaurant, retail and the fine arts center).

Shared Parking to Spread Peak Loads. The parking supply can be sized to meet *average* parking loads (instead of the *worst-case* parking ratios needed for isolated buildings), since the common supply allows shops and offices with above-average demand to be balanced by shops and offices that have below-average demand or are temporarily vacant.

To implement a "Park Once" strategy, parking in Portland must be managed as a public utility, just like streets and sewers, with public parking provided in strategically-placed lots and garages. In the future, development should be prohibited (or strongly discouraged) from building private parking: in cases where certain tenants, such as new offices, require a guarantee of a certain number of spaces at particular hours (e.g., Monday through Friday, 9 a.m. to 5 p.m.), they should be provided with the opportunity to lease those spaces in a public lot or garage, with the exclusive right to use them during the hours required. As described above, such arrangements leave the parking available during evening and weekend hours for

other users (e.g., with the patrons of restaurants), resulting in an efficient sharing of the parking supply and lower costs for all.

Implementation of simple signing improvements helps motorists easily find shared parking facilities when they chose not to seek on-street parking. Current signing for and visibility of most public garages, for example, is very poor, and the pedestrian experience entering and exiting it is threatening. These highly valuable assets should be made significantly more inviting and secure for all users.

Overall, the benefits of fully implementing a “park once” strategy for the entire district include:

- More welcoming of customers and visitors (fewer “Thou Shalt Not Park Here” signs scattered about).
- Allows for fewer, strategically placed lots and garages, resulting in better urban design and greater development opportunities.
- Enables construction of larger, more space-efficient (and therefore more cost-effective) lots and garages.

Finally, and perhaps most importantly, by transforming motorists into pedestrians, who walk instead of drive to different nearby destinations, a “park once” strategy is an immediate generator of pedestrian life, creating crowds of people who animate public life on the streets and generate the patrons of street friendly retail businesses.

2.0 Create a Commercial Parking Benefit District

Summary

To 1) efficiently manage demand for parking while accommodating customer, employee and resident parking needs, 2) *Put customers first*: create vacancies and turnover of the most convenient “front door” curbside parking spaces to ensure availability for customers and visitors, and 3) develop revenues for implementing alternative transportation programs and infrastructure.

Details

Many downtown districts suffer from a common problem. The most visible and most convenient parking spaces are frequently entirely full, while simultaneously, parking spaces just behind or just under a building -- or a block away -- sit largely vacant. The result is often a perceived parking shortage, even when a district as a whole has hundreds of vacant parking spaces available. In many downtowns, employees occupy the best spaces, even when time limits are instituted to try to reserve these spots for customers.

Always available, convenient, on-street customer parking is of primary importance for Portland’s businesses to succeed, in turn creating a welcoming environment for pedestrians. To create vacancies and rapid turnover in the best, most convenient, front door parking spaces, it is crucial to have price incentives to persuade some drivers -- especially employees -- to park in the less convenient spaces (in underground garages or in available

on-street parking a block or two away): higher prices for the best spots and cheap or free prices for the less convenient, currently underused spaces.

Motorists can be thought of as falling into two primary categories: bargain hunters and convenience seekers. Convenience seekers are more willing to pay for an available front door spot. Many shoppers and diners are convenience seekers: they are typically less sensitive to parking charges because they stay for relatively short periods of time, meaning that they will accumulate less of a fee than an employee or other all-day visitor. By contrast, many long-stay parkers, such as employees, find it more worthwhile to walk a block to save on eight hours worth of parking fees. With proper pricing, the bargain hunters will choose currently underutilized lots, leaving the prime spots free for those convenience seekers who are willing to spend a bit more. For Portland merchants, it will be important to make prime spots available for these people: those who are willing to pay a small fee to park are also those who are willing to spend money in stores and restaurants.

What are the alternatives to charging for parking?

The primary alternative that cities can use to create vacancies in prime parking spaces is to set time limits and give tickets to violators. Time limits, however, bring several disadvantages: enforcement of time limits is labor-intensive and difficult, and downtown employees, who quickly become familiar with enforcement patterns, often become adept at the "two hour shuffle", moving their cars regularly or swapping spaces with a coworker several times during the workday. Even with strictly enforced time limits, if there is no price incentive to persuade employees to seek out less convenient, bargain-priced spots, employees will probably still park in prime spaces.

For customers, strict enforcement can bring "ticket anxiety", the fear of getting a ticket if one lingers a minute too long (for example, in order to have dessert after lunch). As Dan Zack, Downtown Development Manager for Redwood City, CA, puts it, "Even if a visitor is quick enough to avoid a ticket, they don't want to spend the evening watching the clock and moving their car around. If a customer is having a good time in a restaurant, and they are happy to pay the market price for their parking spot, do we want them to wrap up their evening early because their time limit wasn't long enough? Do we want them to skip dessert or that last cappuccino in order to avoid a ticket?" Repeatedly, surveys of downtown shoppers have shown that the *availability* of parking, rather than price, is of prime importance.

What is the right price for on-street parking?

If prices are used to create vacancies and turnover in the prime parking spots, then what is the right price? An ideal occupancy rate is approximately 85% at even the busiest hour, a rate which leaves about one out of every seven spaces available. This provides enough vacancies that visitors can easily find a spot near their destination when they first arrive. For each block and each parking lot on the Portland peninsula, the right price is the price that will achieve this goal. This means that pricing should not be uniform: the most desirable spaces need higher prices, while less convenient spots are cheap or may even be free. Prices should also vary by time of day and day of week: for example, higher at noon, and lower at midnight.

Ideally, parking occupancy for each block of on-street spaces and each garage should be monitored carefully, and prices adjusted regularly to keep enough spaces available. In short, prices should be set at market rate, according to demand, so that just enough spaces are always available. If this principle is followed, then there need be no fear that pricing parking will drive customers away. After all, when the front-door parking spots at the curb are entirely full, under-pricing parking cannot create more curb parking spaces for customers, because it cannot create more spaces. And, if the initial parking meter rate on a block is accidentally set too high, so that there are too many vacancies, then a policy goal of achieving an 85% occupancy rate will result in lowering the parking rate until the parking is once again well used (including making parking free, if need be).

Do Not Institute Time limits

Once a policy of market rate pricing is adopted, with the goal of achieving an 85% occupancy rate on each block, even at the busiest hours, then time limits need not be instituted. With no time limits, much of the worry and "ticket anxiety" for downtown customers disappears.

Return revenue to the district

All surplus proceeds beyond what is currently being provided to the City's general fund plus any additional equipment cost should be directed to alternative transportation programs and infrastructure, such as universal transit passes (described below).

3.0 Create a Residential Parking Benefit District

Summary

Prevent "spillover" parking in downtown adjacent neighborhoods.

Details

In order to prevent spillover parking in residential neighborhoods, Portland implements a Residential Sticker Program (also known as preferential parking districts) by issuing parking permits to residents for free. These permits allow the residents to park within designated districts while all others are prohibited from parking there for more than one to two hours.

Residential parking permit districts are typically implemented in residential districts near large traffic generators such as central business districts, educational, medical, and recreational facilities but have several limitations.

Most notably, conventional residential permit districts often issue an unlimited number of permits to residents without regard to the actual number of curb parking spaces available in the district. This leads to a situation in which on-street parking is seriously congested, and the permit functions solely as a "hunting license" - simply giving residents the right to hunt for a parking space with no guarantee that they will actually find one. (An example of this is Boston's Beacon Hill neighborhood, where the City's Department of Transportation has issued residents 3,933 permits for the 983 available curb spaces in Beacon Hill's residential parking permit district, a 4-to-1 ratio.)

An opposite problem occurs with conventional residential permit districts in situations where there actually are surplus parking spaces (especially during the day, when many residents are away), but the permit district prevents any commuters from parking in these spaces even if demand is high and many motorists would be willing to pay to park in one of the surplus spaces.

In both cases, conventional residential parking permit districts prevent curb parking spaces from being efficiently used (promoting overuse in the former example and underuse in the latter).

To avoid these problems, Portland should alter its program to implement *Residential Parking Benefit Districts* in the existing residential neighborhoods at the same time that the Commercial Parking Benefit District is implemented for curb parking. These programs have the following basic features:

- Significantly increased permit costs to begin reflecting the land value of parking spaces and enormous infrastructure cost required to support driving.
- Limiting quantities of resident permits to the number of available curb spaces, ultimately warranting even higher permit costs based on simple supply and demand economics.
- Returning all surplus revenue into neighborhood transportation improvements, streetscape improvements, landscaping or other programs as decided by neighborhood organizations.
- Selling commuter passes with revenue similarly dedicated to neighborhoods in quantities that preserve on-street availability for residents.

Benefits of Residential Parking Benefit Districts

Residential parking benefit districts have been described as “a compromise between free curb parking that leads to overcrowding and [conventional residential] permit districts that lead to underuse... [parking] benefit districts are better for both residents and non-residents: residents get public services paid for by non-residents, and non-residents get to park at a fair-market price rather than not at all.”

Benefits of implementing residential parking benefit districts on the Portland peninsula include the following:

- Excessive parking spillover into downtown adjacent neighborhoods will be prevented.
- The most powerful measures to reduce traffic from new developments -- such as unbundling parking costs and implementing parking cash-out programs -- can be implemented.
- Scarce curb parking spaces are used as efficiently as possible.
- Need for additional costly parking garage capacity is reduced.
- Residents will be guaranteed to find a parking space at the curb.

4.0 Provide Universal Transit Passes

Summary

Increase transit ridership and provide incentives to reduce vehicle ownership by providing free transit passes to all City staff, new residents or employees, or any other willing participants.

Details

In recent years, growing numbers of transit agencies have teamed with Cities, employers, operators of multi-family residential complexes and even with entire residential neighborhoods to provide universal transit passes. Universal transit pass programs, such as the Ecopass program created by Santa Clara County's Valley Transportation Authority, allow annual passes to be purchased at a deeply discounted bulk rate for all members of a specified group, such as all of a firm's employees, or all of the residents of an apartment complex. Negotiating with METRO for a similar program for Portland will benefit both employees and residents while cost-effectively reducing parking demand.

A typical example of a universal transit pass is the Eco-Pass program in downtown Boulder, which provides free transit on Denver's Regional Transportation District (RTD) light rail and buses to more than 7,500 employees, employed by 700 different businesses in downtown Boulder. To fund this program, Boulder's downtown parking benefit district pays a flat fee for each employee who is enrolled in the program, regardless of whether the employee actually rides transit. Because every single employee in the downtown is enrolled in the program, the Regional Transportation District in turn provides the transit passes at a deep bulk discount.

The principle of employee or residential transit passes is similar to that of group insurance plans – transit agencies can offer deep bulk discounts when selling passes to a large group with universal enrollment on the basis that not all those offered the pass will actually use them regularly.

Residential transit pass programs

Universal Transit Pass programs have also been successfully created for a wide range of residential developments. In Santa Clara County, CA and Portland, OR property managers can bulk-purchase transit passes for their residents at deeply discounted rates. An affordable housing provider in San Jose, First Community Housing, provides all tenants of their developments (10 complexes in all) with a VTA Ecopass, giving them unlimited rides on VTA bus and light rail lines in Santa Clara County. First Community Housing pays \$30 per year for each pass issued, and is required to purchase a pass for every resident. Residents receive their Ecopasses for free, saving each resident the \$700 per year cost of an annual bus pass. In a survey of First Community Housing residents, 22% of the survey respondents indicated that having an Ecopass has allowed them to reduce the number of cars in their household, resulting in less traffic, lower parking demand and reduced parking costs. Jeff Oberdorfer, Executive Director of First Community Housing, reports that, "Saving the construction cost of two parking spaces pays for our entire Eco Pass program."

Benefits from a universal transit pass program

Universal transit passes provide multiple benefits, as discussed below.

For transit riders

- Free access to transit
- Rewards existing riders, attracts new ones
- For employees who drive, making existing transit free can effectively create convenient park-and-ride shuttles to any existing underused remote parking areas

For transit operators

- Provides a stable source of income
- Increases transit ridership, helping to meet agency ridership goals
- Can help improve cost recovery, reduce agency subsidy, and/or fund service improvements

For downtown districts

- Reduces traffic congestion and increases transit ridership
- Reduces existing parking demand: Santa Clara County's (CA) ECO Pass program resulted in a 19% reduction in parking demand
- Reduces future growth in parking demand: University of Washington's U-Pass program helped avoid construction of 3,600 new spaces, saving \$100 million (since 1983, the university population increased by 8,000 but actually reduced the number of parking spaces)

For developers

- Universal transit pass programs can benefit developers if implemented concurrently with reduced parking requirements, which consequently lower construction costs
- Providing free cost transit passes for large developments provides an amenity that can help attract renters or home buyers as part of lifestyle marketing campaign appealing to those seeking a "downtown lifestyle"

For employees/employers

- Reduces demand for parking on-site
- Provides a tax-advantaged transportation benefit that can help recruit and retain employees

Free transit passes are often an extremely effective means to reduce the number of car trips in an area. By removing any cost barrier to using transit, including the need to search for spare change for each trip, people become much more likely to take transit to work or for non-work trips.

A cost-effective transportation investment

Many cities and institutions have found that trying to provide additional parking spaces costs much more than reducing parking demand by simply providing everyone with a free transit pass. For example, a study of UCLA's universal transit pass program found that a new parking space costs more than three times as much as a free transit pass (\$223/month versus \$71/month).

5.0 Require Parking Cash Out

Summary

Require employers to subsidize all employee commute modes equally and create incentives for commuters to carpool, take transit, and bike or walk to work.

Details

Many employers in Portland may wish to provide free or reduced price parking for their employees as a fringe benefit. Under a parking cash out requirement, employers will be able to do this *on the condition that they offer the cash value of the parking subsidy to any employee who does not drive to work.*

Employees who opt to cash out their parking subsidies would not be eligible to receive free parking from the employer and would be responsible for their parking charges on any days when they do drive to work.

Benefits of Parking Cash Out

The benefits of parking cash out are numerous, and include:

- Provides an equal transportation subsidy to employees who ride transit, carpool, vanpool, walk or bicycle to work. The benefit is particularly valuable to low-income employees, who are less likely to drive to work alone.
- Provides a low-cost fringe benefit that can help individual businesses recruit and retain employees.
- Employers report that parking cash-out requirements are simple to administer and enforce, typically requiring just one to two minutes per employee per month to administer.

In addition to these benefits, the primary benefit of parking cash-out programs is their proven effect on reducing auto congestion and parking demand. Most employers implementing a cash-out program can reduce their overall parking construction or leasing costs by at least 25-percent. The cost to cash-out each participant is more than compensated by the reduction in parking cost to the employer.

6.0 Require “Unbundled” Parking Costs

Summary

To 1) increase housing affordability and housing choice, and 2) reveal the true cost of parking to employers and their employees.

Details

Parking costs are generally subsumed into the sale or rental price of housing for the sake of simplicity, and because that is the more traditional practice in real estate. But although the cost of parking is often hidden in this way, parking is never free. The expected cost for each space in a Portland underground parking garage is over \$55,000 per space. Given land values in the area, surface spaces will be nearly as valuable (which accounts for the decision to create underground parking).

Unbundling requires some changes to status quo practices, since providing anything for free or at highly subsidized rates encourages use and means that more parking spaces have to be provided to achieve the same rate of availability. For both below-market rental units and market-rate condominiums, the full cost of parking should be unbundled from the cost of the housing itself, by creating a separate parking charge. This provides a financial reward to households who decide to dispense with one of their cars and helps attract that niche market of households who wish to live in a walkable, transit-oriented neighborhood where it is possible to live well with only one car (or even no car) per household. Unbundling parking costs changes parking from a required purchase to an optional amenity, so that households can freely choose how many spaces they wish to lease. Among households with below average vehicle ownership rates (e.g., low income people, singles and single parents, seniors on fixed incomes, and college students), allowing this choice can provide a substantial financial benefit. Unbundling parking costs means that these households no longer have to pay for parking spaces that they may not be able to use or afford.

It is important to note that construction costs for residential parking spaces can substantially increase the sale/rental price of housing. This is because the space needs of residential parking spaces can restrict how many housing units can be built within allowable zoning and building envelope. For example, a study of Oakland's 1961 decision to require one parking space per apartment (where none had been required before) found that construction cost increased 18% per unit, units per acre decreased by 30% and land values fell 33%.

As a result, bundled residential parking can significantly increase “per-unit housing costs” for individual renters or buyers. Two studies of San Francisco housing found that units with off-street parking bundled with the unit sell for 11% to 12% more than comparable units without included parking. One study of San Francisco housing found the increased affordability of units without off-street parking on-site can increase their absorption rate and make home ownership a reality for more people. In that study, units without off-street parking:

- Sold on average 41 days faster than comparable units with off-street parking

- Allowed 20% more San Francisco households to afford a condominium (compared to units with bundled off-street parking)
- Allowed 24 more San Francisco households to afford a single-family house (compared to units with bundled off-street parking)

Charging separately for parking is also the single most effective strategy to encourage households to own fewer cars, and rely more on walking, cycling and transit.

7.0 Offer Parking In-Lieu Fees

Goal

Create a financial incentive for new developments to participate directly in TDM programs while creating a revenue stream to support TDM programs such as a universal transit pass program.

Details

Parking in-lieu fees have been in place in dozens of communities throughout America for years. By making a payment to the municipality, new developments can waive their minimum parking requirements. The fee is usually utilized for transportation improvements, particularly shared public parking facilities. An in-lieu fee has a number of advantages, as summarized by Donald Shoup¹

- 1) Enables developers on constrained sites to build less parking.
- 2) Encourages development of shared parking facilities financed by in-lieu fees. A public parking facility shared by many users requires fewer total spaces than multiple individual developments due to the inherent overlap of peak demand times.
- 3) Shared public parking facilities financed by in-lieu fees can be placed strategically to serve many while reducing the potential impact to pedestrian and bicycle movements. This also frees up development parcels to create appropriate urban streetscapes without curb cuts and garage entrances.
- 4) Eliminates the need for zoning variances, fairly leveling the playing field for all developers and allowing planning boards to focus on design features as opposed to parking quantities.
- 5) Allows for historic preservation by enabling redevelopment of buildings without adding new parking.

In-lieu fees can be an effective method for cost-effectively providing parking in remote locations out of the control of individual land owners. By using fees to subsidize remote parking at locations with cheaper construction or leasing costs, communities can facilitate development financing while establishing a means to encourage appropriate development

¹ "In Lieu of Required Parking," Donald Shoup.

standards for participating developers. When fees are set appropriately, more efficient and better quality designs can be enabled while appropriate parking is provided off-site. If fees are designated to other transportation infrastructure or programs, Portland can avoid overbuilding parking and focus on alternative infrastructure.

8.0 Establish a Car Sharing Program

Summary

To 1) enable Portland commuters to carpool, take transit, bike, or walk to work by ensuring that a shared car will be available for work trips when needed, and 2) enable Portland residents to reduce the number of private vehicles they own by ensuring that a shared car will be available for household trips when needed.

Details

Car sharing operators, such as ZipCar, use telephone and Internet-based reservation systems, which allow their members a hassle-free way to rent cars by the hour with members receiving a single bill at the end of the month for all their usage. The shared cars are located at convenient neighborhood “pods”.

Car sharing has proven successful in reducing both household vehicle ownership and the percentage of employees who drive alone because of the need to have a car for errands during the workday. As a result, car sharing can be an important tool to reduce parking demand.

For residents, car sharing reduces the need to own a vehicle, particularly a second or third car. Recent surveys have shown that more than half of car-share users have sold at least one vehicle since joining the program in the San Francisco Bay Area.² For employees, car sharing allows them to take transit to work, since they will have a vehicle available for errands during the day.

With the vision of building improved mixed-use housing developments on the Portland peninsula and the implementation of the other recommended strategies (such as requiring that parking costs be unbundled from housing costs and that employers offer the option to employees to cash-out parking at work), car sharing will become much more viable than in conventional locations. If parking costs remain bundled into housing costs, or employee parking remains free with no cash-out program, then the prospects for a successful car sharing program will be considerably diminished.

Several cities, including the City of Berkeley and Philadelphia, PA have helped establish a native car sharing program in their communities and reduced their own fleet costs by contracting out some portion of their vehicle fleet to a car sharing provider. In this arrangement, the City serves as an “anchor subscriber”, which increases the financial feasibility of the location for the car sharing operator and allows more vehicles to be made

² April 2002 survey by Nelson\Nygaard Consulting Associates for City CarShare.

available to the public, especially during evening and weekends when usage by city employees is low. The City should explore this model of contracting out part of its existing vehicle fleet. Implementation of a universal transit pass will also increase demand for car sharing among residents and employees (who begin taking transit but occasionally need a car).

9.0 Other Transportation Demand Management Programs

Summary

Invest in the most cost-effective mix of transportation modes for access to the Portland peninsula, including both parking and transportation demand management strategies.

Details

The cost to construct underground parking garages in Portland can be expected to be approximately \$25,000 per space gained, resulting in a total cost to build, operate and maintain new spaces of approximately \$150 per month per space, every month for the expected 35 year lifetime of the typical garage. These dismal economics for parking garages lead to a simple principle: it can often be cheaper to reduce parking demand than to construct new parking. Therefore, Portland should invest in the most cost-effective mix of transportation modes for access, including both parking and transportation demand management strategies.

By investing in the following package of demand-reduction strategies, Portland can expect to cost-effectively reduce parking demand (and the resulting traffic loads). The Commercial Parking Benefit District should invest a portion of parking revenues (and other fees, grants, and/or transportation funds, when available) to establish a full menu of transportation programs for the benefit of all residents and employers. The transportation demand management programs should include:

- **Carpool & Vanpool Incentives.** Provide ride-sharing services, such as a carpool and vanpool incentives, customized ride-matching services, a transportation information package for new employees and residents, and an active marketing program to advertise the services to employees and residents.
- **Guaranteed Rides Home.** A major reason why employees are reluctant to try new ways of commuting is the worry that they might be stranded at work. For instance, they might have to stay at work beyond transit service hours or their carpool partner must leave early for an emergency. GRH programs address these fears by offering emergency taxi rides home to employees when they are unable to return home using their standard arrangement. It provides a level of certainty that allows people to comfortably try alternative ways of getting to and from work.
- **Transportation Resource Center.** A storefront office that provides personalized information on transit routes and schedules, carpool and vanpool programs, bicycle routes and facilities and other transportation options could be established either on a City level or specifically for key developments and their surrounding neighborhoods.

The Center would take responsibility for administering and actively marketing all demand management programs.

To some extent, parking demand in Portland will depend on how new development is marketed and presented to the public. A marketing message that stresses the availability of transit, the transportation demand management programs, the "unbundling" of parking costs from housing costs, the mix of uses within walking distance of each other, good bicycle amenities, and the availability of car-sharing is likely to attract households who want the choice to own just one vehicle – or in some cases none at all.