

# **Introduction**

The 2006/2007 Ann Arbor Downtown Parking Study was a two-phase effort to document existing parking conditions and develop parking management policy. This report documents the conclusion of the study's second phase, which was designed around a deliberative process for incorporating extensive public outreach efforts into the development of parking policy recommendations for Downtown. The second phase included two weeks of intensive public outreach opportunities, including focus group meetings, policy maker workshops, and public open houses. This report summarizes the input received during both weeks of outreach, development of parking policy principles, and a proposed program of options to achieve Downtown's vision for a parking as one element of the transportation network.

## **Chapter 1. Benchmark and Existing Policy Documentation**

In preparation for the first week of public outreach meetings, the Project Team developed a pair of technical memoranda to be delivered to expected attendants. These "study materials/cheat sheets" were designed to maximize the effectiveness of the meetings by framing the nature and context of the discussions, and presenting detailed explanations of key terms and concepts to be discussed.

The following sections present these pre-meeting memoranda, beginning with a "benchmarks" handout summarizing findings from the study's first phase and followed by a "Parking Management - Toolbox Primer" handout.

### **Benchmarks – Existing Conditions and Policies**

The Ann Arbor Downtown Parking Study was initiated as the first step in the City's pursuit of a comprehensive parking strategy for Downtown. Phase 1 focused on documenting and analyzing parking supply along with surveying user-end parking perceptions. The objective of Phase 2 was to recommend policy to focus the parking system's role in facilitating access and circulation to Downtown. This section, which was the first deliverable of Phase 2, summarizes findings from Phase 1, covering the following tasks:

- Background research to establish Downtown's economic, land use, and regulatory context, including documentation of employee travel characteristics, interviews with key local stakeholders, a summary of relevant zoning regulations, and illustration of the area's land uses;
- Analysis of DDA's parking inventory, including available supply and quantified utilization patterns during peak periods, input received via written survey and interviews with parkers, and projections of future demand based on proposed development;

- Summary of complementary parking inventories, specifically those owned by private companies, residents, and the University of Michigan; and
- Provision of meaningful opportunities for public involvement, including the survey and parker interviews described above, as well as a public workshop to discuss public perceptions and concerns on parking conditions, plus meetings with the project's advisory committee.

## **Existing Conditions – A Summary of Phase I Findings**

### **Transportation Culture**

Through quantitative data collection and qualitative input from existing parkers, the following three key elements were determined to set the context for travel and access patterns to Downtown:

- Rates of Single-Occupancy Vehicle commuting are modest compared to regional and statewide travel characteristic, and are trending downwards.
- Downtown employees appear to embrace alternatives to personal automobile commuting, especially active forms of commuting (i.e., walking and bicycling), compared to regional and state norms.
- Alternative mode promotion and commuter benefit programs are in place, but could use more promotion, especially in the “lead by example” form coming from the City and County.

### **The DDA Parking Inventory**

Figure 1-1 through Figure 1-3 summarize the data collected in September 2006 upon which the inventory findings are based.

**Figure 1-1 DDA Parking System Inventory and Utilization**

Location	Permits	Garage or Lot	Capacity	Weekday Occupancy	Weekday Evening Occupancy	Weekend Evening Occupancy
City Hall	No	Lot	33	27%	30%	6%
Kerrytown	No	Lot	25	72%	96%	100%
Main & Ann	No	Lot	46	93%	93%	98%
Farmer's Market	No	Lot	75	51%	36%	40%
4th & Catherine	No	Lot	51	90%	49%	76%
Main & William	No	Lot	24	50%	100%	100%
South Ashley	No	Lot	134	63%	86%	94%
1st & Washington	Yes	Lot	60	80%	82%	73%
1st & William	Yes	Lot	108	72%	43%	98%
Fingerle	Yes	Lot	55	47%	7%	5%
4th & Washington	No	Garage	273	84%	45%	77%
Maynard	Yes	Garage	770	81%	39%	51%
Forest	Yes	Garage	558	100%	9%	17%
4th & William	Yes	Garage	775	87%	35%	77%
Ann & Ashley	Yes	Garage	811	86%	12%	30%
Liberty Square	Yes	Garage	562	79%	33%	46%
South 5t (Library)	No	Lot	185	95%	58%	55%
1st & Huron	No	Lot	162	97%	99%	100%
On-Street	No	NA	1,063	68%	98%	100%
<b>All</b>	<b>NA</b>	<b>NA</b>	<b>5770</b>	<b>81%</b>	<b>47%</b>	<b>57%</b>

**Figure 1-2 Inventory by Sub-Area**

Sub-Area	Spaces		
	On Street	Off Street	Both
Main Street	345	2,448	2,793
Kerrytown	175	1,041	1,216
State Street	442	1,517	1,959
South Campus	266	558	824
<b>Study Area</b>	<b>1,063</b>	<b>4,707</b>	<b>5,770</b>

**Figure 1-3 Sub-Area Utilization**

Sub-Area	Weekday Occupancy			Evening Occupancy			Friday Night Occupancy		
	On Street	Off Street	Both	On Street	Off Street	Both	On Street	Off Street	Both
Main Street	68%	84%	82%	102%	38%	46%	109%	53%	60%
Kerrytown	74%	72%	73%	73%	43%	47%	81%	37%	43%
State Street	68%	82%	79%	107%	39%	54%	106%	50%	62%
South Campus	72%	100%	91%	98%	9%	38%	97%	17%	43%
<b>Study Area</b>	<b>68%</b>	<b>84%</b>	<b>81%</b>	<b>98%</b>	<b>35%</b>	<b>47%</b>	<b>100%</b>	<b>48%</b>	<b>57%</b>

- Existing conditions in Downtown present two distinct parking constraints: Evening on-street parking, and off-street parking in monthly parking facilities.
- Overall parking supply is sufficient to meet existing demand. Average daytime peaks of 83 percent are characteristic of a parking supply that is being optimally used.
- Off-street utilization is higher than on-street during weekdays. Policies aimed at preserving on-street spaces, including off-street discounts, monthly permits, and time limits at meters, appear to be effective. On-street availability during weekday midday hours is over 30 percent across the study area, and within each analysis sub-area (for a total of 339 spaces available overall and no less than 45 spaces available in any of the subareas).
- Concentrations of on-street parking shortages may create the perception of weekday parking shortages. Concentrations of highly occupied on-street spaces during weekday counts include:
  - Washington Street, west of Fifth Avenue;
  - The block of Washington Street, South Ashley Street, William Street, and Main Street; and
  - Campus-area streets, including blocks surrounding the Quad and within the South Campus sub-area.
- Surveys indicate that location is the biggest driver of parking demand across the DDA inventory. While the Existing Conditions analysis found that parking is widely available at most times, location preferences are creating perceptions of parking shortages for many parkers.
- The role of cost in parking and travel decisions is minimized for off-street. This is a result of a number of factors:
  - Employer-subsidies for commuter parking costs;
  - Minimal rate differentials between parking options;
  - Location and facility-type preferences of parkers are higher priorities.
- 1-Hour and 30-Minute meters are under-utilized. In addition to a generally low level of occupancy at these meters, many of them appear to be located ineffectively. 1-Hour meters are sometimes placed a block or two from retail/restaurant uses, while spaces directly in front of these businesses offer two hours of parking (i.e., Liberty Street, between Main and First Streets). Occupancies along South University Avenue, where all 38 spaces are restricted to 1-hour parking, are also especially low. Some 30-minute meters are placed where there is no apparent short-term parking demand (i.e., Washington Street, between Division Street and the Liberty Square garage).
- Wait list data indicate a concentration of commuter demand at facilities in the western areas of Downtown. Wait lists at Ann & Ashley and 4th & William are significantly longer than at other facilities. These garages also have two of the three

highest daytime occupancy averages among facilities offering permits. Car-pool, van-pool, go!pass, and other employer-supported programs may be especially effective in reducing permit pressure at these facilities.

- Surveys and interviews indicated a number of positive Downtown parking conditions including:
  - High rates of park-once behavior (87%);
  - A diversity of trip generators (24% of daytime parkers were not there for work);
  - Long-term visitation relationships and high visitation rates among Downtown parking customers; and
  - The large majority of parkers find a spot within two blocks of their destination and do not feel they are charged too much.
- Surveys and interviews also highlighted some areas of concern including:
  - Perception of security risks at parking structures;
  - Employees using on-street parking spaces;
  - Some available off-street spaces appear to be, or feel, hard to find;
  - High rates of parking subsidy among daytime parkers;
  - Ineffective enforcement of time limits; and
  - Very short time limits may be hindering Downtown’s “Park Once” objective.
- Among transportation alternatives, travel preferences indicate that transit appears to offer the greatest promise for shifting more employees away from personal auto commuting. Current transit barriers indicate that some form of express, or commuter, bus service offers a unique opportunity to capture a latent transit market among Downtown employees.
- Annual added demand of between 50-100 new monthly parking permits is projected for DDA parking facilities.

### **Other Inventories**

- University of Michigan facilities likely capture most of the parking demand from full-time faculty and staff. Their permit system offers a number of significant advantages over use of DDA facilities including price, location, and the convenience of yearly payment.
- Most private accessory parking (i.e., on-site parking provided at commercial establishments, solely for the use of customers and employees of those stores) is significantly under-used. These lots rarely peak above 85 percent utilization and average just over 60 percent. This amounts to an underutilization of groundspace which could be used for higher, better, and more cohesive land uses for Downtown, and countless unnecessary curb-cuts that are disruptive of pedestrian traffic.
- The backyard parking market arises largely from unmet monthly permit demand.

## **Public Input**

- The Ann Arbor community is highly attuned to parking issues, with its members frequently possessing strong, well-informed, and often opposing opinions on various parking and related issues. A number of relationships between user groups and multiple perspectives on parking issues have emerged over the course of this project phase.
- In general, those most opposed to expanded parking supplies are near-Downtown residents. Those most in favor of more parking, and especially more parking permits, are commuters and developers. Those who feel strongest in favor of maintaining parking lots are downtown shopkeepers who are concerned about customer resistance to parking structures. Near-Downtown residents, on the other hand, are decidedly mixed in their opinions about converting lots to mixed-use development. Those most averse to using garage spaces are commuters and women in general. The biggest concern among merchants appears to be overly aggressive meter enforcement (time-limit enforcement excepted).
- Opposition to converting lots to stand-alone garages, in contrast, is general and widespread.
- Commuter sentiment, as demonstrated through parker survey responses, is clear on a number of issues. In general, commuters feel they pay too much for parking (if they pay for it themselves) and that there is not enough parking.
- Many commuters feel that if parking gets much more complicated, working Downtown will not be worth the trouble.
- The Real Estate community is equally engaged in parking issues. The lack of monthly parking permits in particular is seen as a hindrance to marketing Downtown office space, and one of the biggest reasons for companies leaving Downtown space. Some feel that they could fill vacant space at a premium if permits at a nearby facility were generally available, opening the potential for market-pricing strategies at monthly facilities.

## **Existing Parking Policy**

Developing a formal, comprehensive parking policy for Downtown need not, and should not, start from scratch. Below is a summary of DDA's existing parking principles that exemplify the sort of ideas that serve the city today, and can be used to form the basis of a formal and comprehensive parking policy for the future.

## **Policies & Principles<sup>1</sup>**

### **Supply Management**

- Regularly review the number of parking spaces available to determine if additional parking is needed. This includes calculating current and anticipated parking demand and usage.
- Conduct regular and ongoing analyses of downtown development to anticipate and respond to parking needs.
- Encourage the inclusion of public parking facilities within new downtown developments, particularly underground parking.
- Land and financial limitations mean that the supply of parking at peak periods may never match demand.
- Coordinate a shared-parking approach for special events; including use of Washtenaw County, City, UM, and AATA Park and Ride parking locations.

### **Demand Management**

- Parking is very different in an urban environment compared to the suburbs.
- It's the people we want downtown, not necessarily their cars.
- Land and financial limitations mean that the supply of parking at peak periods may never match demand.
- Coordinate a shared-parking approach for special events; including use of Washtenaw County, City, UM, and AATA Park and Ride parking locations.
- Parking-cost subsidies by employer discourage the use of alternative transportation.

### **Cost and Revenue**

- The public parking system operations can and should be financially self-sustaining, with no need for tax subsidy.
- Income from all parking sources must be reserved for system operations, maintenance, repair, and construction and parking alternatives.

### **Pricing and Payment Options**

- Parking rates should be set to encourage specific behaviors.
- Parking-cost subsidies discourage the use of alternative transportation.

### **Availability & Turnover**

- Availability of on-street parking conveys a great deal about the convenience of shopping and doing business in Downtown.

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<sup>1</sup>Information on DDA policies and principles are from the principles identified in the Downtown Ann Arbor Parking Study - Phase I Final Report, 2006, as well as the DDA website: <http://www.ci.ann-arbor.mi.us/DDA/history.html#about>

### **Support Community Visions**

- The right balance of parking availability, location, and price is essential to Downtown’s vitality and growth
- One of Downtown’s strengths and appeal is its compact, walkable form, with short blocks, a clearly defined street grid, and a density of services, businesses, and uses in its core.
- Discourage urban sprawl, encourage reinvestment in existing communities, and support more balanced regional development.
- Create and maintain compact, walkable and safe downtown neighborhoods with opportunities for social interaction.
- Parking is part of a transportation system, and should be understood in that context.
- Multi-modal options maximize the feasibility of doing business, shopping, working, and living in Downtown.
- Parking-cost subsidies discourage the use of alternative transportation.
- The right balance of parking availability, location, and price is essential to Downtown’s vitality and growth
- Cars make it possible for many people to use and enjoy Downtown
- Discourage urban sprawl, encourage reinvestment in existing communities, and support more balanced regional development.
- Encourage on street parking for short term use whenever possible to support local retail, moderate traffic speeds, and buffer sidewalks from street traffic.

### **Structure Design, Maintenance, and Upkeep**

- Incorporate quality, aesthetics, safety, and longevity in structural improvement plans.
- Construct DDA developments with the goal of quality and longevity.
- Recognize that maintenance and repair are perpetual concerns and plan accordingly.

### **Principles in Practice**

For each of the policy areas examined above, it is important to examine how well actions have served these principles over time. Below is a sampling of key actions related to the areas of parking policy examined above.

### **Supply Management**

- The City’s zoning code exempts as-of-right developments within DDA boundaries from minimum parking standards. While this constrains certain types of parking supply that generally are expected to grow along with development (accessory parking), this shifts the supply emphasis over the shared and public DDA-managed parking system.

- There has been no major supply expansion in nearly 25 years.
- A comprehensive parking study (Phase 1) was commissioned in 2006 to assess parking supply and utilization equilibrium, in order that supply management be based on quantified data.
- Plans for the redevelopment of the 1st & Washington parking lot call for mixed-use public/private development that incorporates a garage with public spaces.
- Expansion of the 4th & William garage began in 2006.
- In 2000, the DDA began funding travel choice investments, such as go!pass and the Link service, as a more economical alternative to meeting transportation needs than only providing additional parking spaces.

### **Travel Choice**

- DDA policy for approximately the last ten years has been that addressing demand for parking by providing choices for travel is much cheaper than building and maintaining new supplies. The following TDM initiatives have been funded in order to relieve expansion pressure on the parking system:
  - **Go!pass** - The DDA, the AATA, and the getDowntown program launched the go!pass, universal transit pass offering unlimited rides for a small annual employer-paid fee, in the fall of 1999. As of 2006 there were over 5,000 go!passes in use.
  - **getDowntown** - The getDowntown program was launched by the Ann Arbor Area Chamber of Commerce (Chamber), the DDA, the City, and AATA in 1999 to reduce the parking costs associated with working and doing business in Downtown. The program provides a wide range of services for Downtown employers, employees, and property managers. It advises Downtown property owners on ways to reduce the need for tenant parking and provides information and assistance to downtown businesses and employees on commuting options, such as biking, riding the bus, walking, and ridesharing.
  - **The Link** - The AATA Link bus, a Downtown circulator service, started in September of 2003. First-year ridership was quite low, a fact that was seen by many as an indication of the lack of interest in transit in Ann Arbor. Funding ran out in 2005 and the service was discontinued. In the fall of 2005, a partnership between the University of Michigan, the DDA, and the AATA, re-initiated Link service. Strategic improvements included improved scheduling and routing, and on December 5, 2006, The Link set a one-day record of 1,975 riders.<sup>2</sup> In January, 2007, there were 32,956 passenger trips on the two Link buses, demonstrating the possibility of finding the right solution to tap Ann Arbor's potential for increased transit use.<sup>3</sup> While a significant portion of the Link ridership is anticipated to be students, the benefit is students traveling to downtown without utilizing a downtown parking space.

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<sup>2</sup> Arbor Update- Ann Arbor Area Community News: "Persistence of the Link", February, 2007

<sup>3</sup> Ibid.

### **Cost and Revenue**

- In 2004, the DDA and the City negotiated a change in their parking agreement in which a significant percentage of parking revenues are now directed to the City's General Fund.
- Keeping the parking system financially self-sustaining is one reason for a recently approved monthly parking permit rate increase.
- The DDA began funding free bus passes (go!pass) as a cheaper way to accommodate more employees than building more parking spaces.
- The DDA uses parking revenues to help fund the getDowntown and go!pass programs, The Link transit service, and a getDowntown bike locker campaign.

### **Pricing and Payment Options**

- Rates at parking structures are currently set below meter rates to discourage long-term use of on-street spaces.
- Pricing of on-street spaces ends at 6PM, which is well before demand drops below 85% occupancy during evenings.

### **Availability & Turnover**

- Most on-street spaces within Downtown are limited to one- or two-hours of parking.
- A number of garages such as Maynard have their most convenient spaces set aside until 10:00 AM to preserve off-street visitor parking opportunity.

### **Shared Parking**

- The DDA and the City frequently work with developers to coordinate the acquisition of monthly parking permits to be used in lieu of on-site parking provision.
- The vast majority of parking activity within Downtown occurs at shared public facilities.

### **Support Community Visions**

- The provision of a large, central, and parking supply of parking for Downtown relieves pressure to provide on-site parking. This allows for the compact, dense, mixed-use development patterns that make Downtown a stand-out regional residential, employment, and recreational destination.
- Zoning exemptions for on-site parking in Downtown help reduce the cost of developing Downtown projects, as well as to encourage more compact, walkable development patterns.
- Currently proposed rate adjustments for monthly permits are intended to decrease the differential between monthly rates, and the cost to pay by the hour for the same amount of parking. This is intended to make alternative transportation choices more attractive to downtown commuters.
- Development patterns supported by Downtown zoning exemptions and the parking system also support efficient alternative mode travel including walking, biking, and using transit.

- Parking policies that support efficient alternative transportation options (i.e., getDowntown and go!pass) increase employment access for those that cannot afford, or cannot participate in, daily personal automobile travel.
- Reducing development costs through zoning exemptions for on-site parking for downtown redevelopment projects reduces the cost of operating a business in Downtown, which in turn reduces the cost of goods and services for local populations.

### **Structure Design, Maintenance, and Upkeep**

- Between 1997 and 2002, rates for monthly permits doubled, and hourly rates rose by 50%. Revenue gains were invested in upgrades to parking structures that had suffered from years of deferred maintenance.
- All necessary upkeep of the parking inventory is considered part of operating costs, and as such is paid for by parking revenues.
- The 1999 replacement of the former 4th & Washington garage has set a standard for desirable structure-design for Downtown –for its outward appearance, pedestrian integration, and personal safety features such as exposed stairwells and elevator.

### **Summary**

Looking ahead to the next task of Phase 2, identifying a set of parking management/parking policy tools for Downtown, areas that are worth special attention are constraints identified in Phase I and the policy areas for which current actions and outcomes fail to live up to the intentions of existing and desired policy. Below is a look at the key parking policy components reviewed above, and how actions currently measure up to expressed policies. This review was the starting point during the project's first set of public outreach meetings.

### **Supply Management**

The DDA policy statement that best sums up existing conditions is "Land and financial limitations mean that the supply of parking at peak periods may never match demand."<sup>4</sup> Aspects of common community visions, including Smart Growth and compact, walkable development also support a resignation that Downtown cannot, and should not, seek to build its way out of any and all parking supply constraints that arise.

The per-space construction cost for the DDA system's "model" garage, 4<sup>th</sup> & Washington, was about \$32,000. While this represented a number of costs that were higher than normal, including those due to site restrictions, this is similar to the cost of a planned deck expansion in Plymouth, Michigan.<sup>5</sup> That project will add just over 120 spaces at a cost of \$3.9 million, or about \$32,000 per space. Current expansion of the 4th and William site is estimated to cost roughly \$32,000 per gained space.

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<sup>4</sup> DDA website: <http://www.ci.ann-arbor.mi.us/DDA/Goals/goalstransportation.html>

<sup>5</sup> Tony Bisicato, "hometownlife.com," March 1, 2007

## **Travel Choice**

The DDA currently operates on the premise that if it is cheaper to get more people to work on a bus, or on their bike, or on foot, than it is to build more parking, then investment in TDM is a sound economic development tool. Few others in the Ann Arbor community are likely to know that parking construction and maintenance costs as much as it does. Broadening such an understanding, while setting parking rates to cover costs of maintenance and expansion, might go a long way in generating public support for TDM as an alternative to facility expansion that would drive up rates.

## **Cost and Revenue**

Allowing parking revenues to continue to be absorbed into a general fund undermines one of the most powerful parking management tools available – tying parking revenues directly to local improvements. Stakeholders, such as parkers and shopkeepers, are much more willing to accept higher parking fees if they are confident that they will see direct local investment in things like transit services, streetscape improvements, bike facilities, enforcement, street cleaning, lighting, parks funding, etc.

The recent change in the DDA agreement puts \$2.8 million per year in parking revenues into the City's General Fund. This makes it harder to sell pricing strategies to the public by obscuring where the increased revenue would go.

## **Pricing and Payment Options**

Parking pricing is currently moderately used to manage parking demand; however this tool could be used more effectively in areas where current parking constraints exist. Extending meter rates into the evenings and using pricing to reduce permit wait lists are two ways to do this. When parking rates doubled between 1997-2002, the wait list was halved.

Given the availability of many new payment technologies, Ann Arbor's current payment options for most Downtown parkers are rather limited. Other than monthly permit holders, nearly all parking revenues are collected strictly through cash.

It is likely that the overwhelming popularity of monthly parking permits is based on their convenience as much as, if not more than, the price break they offer. The DDA is set to offer credit card payment options for all parkers. In addition, payment technologies similar to the remote-sensor debit-device systems used nationwide on toll roads could expand permit-level convenience to even occasional hourly parkers.

Meter technologies exist to allow parkers to pay only for time that they use, and to not have to return to meters to add time, reducing ticket anxiety for those staying longer than expected. Pricing can be used to shift most longer-stay visitor to use the off-street inventory, while allowing the occasional splurge for an extra hour of parking among curbside visitors. Meanwhile the same rates could make commuter parking patterns prohibitively expensive.

## **Availability & Turnover**

Short-term parking opportunities are sufficient at almost all times, and generally close to most popular destinations. Compared to the parking utilization guidelines where 85% of spaces on each downtown block are recommended to be utilized at any time, on-street parking in Ann Arbor during is generally under-used with midday occupancy averaging 68%. This indicates an underused supply of what are typically the most desirable parking spaces in a commercial district. This appears to be the result of time limits that, while preserving ample availability for very short trips, reduces the available supply of spaces for those wanting to spend more time in Downtown. Such time limits, in fact may be more discouraging of visitor parking than commuter parking, as commuters have time and opportunity to learn how to “beat the system” or know that parking tickets are relatively affordable, whereas visitors are much less likely to take a chance with a less familiar enforcement system. Under these conditions there is likely much more demand for visitor parking at off-street facilities than needs to be, as these facilities likely capture the majority of those who want to stay in Downtown for an undetermined amount of time.

On-street parking shortages in the evening are a direct result of meters expiring just at the start of the dinner and nighttime entertainment rush.

Midday off-street spaces are less constrained than evening on-street spaces, but are constrained enough to create a wait list for monthly permits. This wait list is in many ways an undesirable condition that runs counter to established parking policies. Options for eliminating the wait list include both reducing demand for permits by providing other viable travel choices, and increasing the supply of spaces available during commuting hours.

## **Support Community Visions**

The biggest development-supportive success to come out of Downtown parking policy may be that most developers of commercial properties do not expect to meet their project-generated parking demand on-site. The well-established process of meeting such demand within the parking system is a strong shared-parking success that benefits all of Downtown. This allows Downtown to continue to develop as a compact, walkable, traditional urban center.

However, over 2,000 under-utilized accessory parking spaces remain in Downtown. These spaces are typically about half full, and represent dozens of extra pedestrian/ vehicle conflict points (driveways) within Downtown. Zoning policies may need to discourage such provision for future developments more explicitly to ensure that more of Downtown’s developable land gets put to higher and better uses.

The DDA’s TDM investments, while serving the practical purpose of providing access more economically than through new parking construction, also support multi-modal and equitable access principles.

The current monthly permit distribution process, however, has greatly enabled employer subsidization of commuter parking costs in Downtown, which undermines principles of supporting alternative modes, and exacerbates the wait list situation. Allowing parking permits to accumulate in the control of employers and property owners has transformed permits into office lease and employment perks that obscure the real cost of parking from those making the daily decisions about how to get to work.

Lastly, bicycle lockers are currently in place at all but one DDA parking structure and most DDA surface lots. Bike racks are available at all parking facilities.

The DDA's TDM investments, by making Downtown a more walkable, bikable, transit-friendly place to live, work, and play, help define the district's strengths compared to the surrounding region, where even the smallest trip involves driving from one parking lot to another.

Zoning exemptions from on-site parking requirements help offset some of the extra cost of developing in dense urban areas.

The shared parking system supply can support many more businesses than could isolated accessory parking lots within the same space. Such concentration of uses generates higher rates of foot traffic, as the district becomes one where people will actually walk for the sake of walking, or take a longer route between the garage and work, because the walking is enjoyable. This is the key to urban centers competing with suburban districts by emphasizing their own strengths, rather than mimicking the strengths of others.

The monthly permit distribution process shifts significant portions of the real market value of these permits to property owners and employers rather than the parking system, or DDA-funded public improvements. Both parties hold onto idle permits after tenants have moved out or employees have moved on, as their limited supply and long wait lists have rendered them far more valuable than their monthly cost. Office space that comes with permits can be leased at a premium, or leased more quickly compared to space that does not. Employers offer permits as part of their benefits package. The fact that both parties have shown a willingness to pay month after month for unused permits rather than return them to the system, shows that there is clear value to these permits beyond what the DDA recoups in price.

### **Structure Design, Maintenance, and Upkeep**

While design problems at some structures are difficult to address (isolation of elevators at Liberty Square), the DDA has demonstrated that its commitment to maintaining and improving its inventory facilities is genuine. The 4th & Washington structure is a marquis parking development offering design details that, not only serve to enhance the public realm, but attend to the personal safety of its users as well.

## **Parking Management Toolbox Primer**

In support of Ann Arbor's efforts to establish a comprehensive parking policy, this section outlines a toolbox of policy options which approaches parking management from all sides:

- Supply;
- Demand;
- Cost and revenue;
- Pricing and payment; and
- Availability and turnover.

The five categories of policy options are first explained, with best practices of how the policies have been implemented elsewhere. Three scenarios of mechanisms for how the policies could be applied to Ann Arbor are then presented, based on four scenarios. Each scenario offers the community the opportunity to decide what objectives they want the parking policy to fulfill and their comfort with the options and results of implementing the different options. The three scenarios range from maintaining the status quo, to moderately integrating new tools, to ambitiously integrating new tools, as well as an offering a combination option. In this way, Ann Arbor can view a spectrum of options, and can eventually select from whichever policies best supports the community's goals. Finally, a parking management success stories are provided to support the link between strategic parking policy and economic success in downtown districts.

## **The Parking Management Toolbox**

### **Supply Management Tools – Public Supply**

Managing the supply of parking (the actual number of parking spaces, regardless of utilization patterns) has two components: the public parking supply, defined in Downtown Ann Arbor as all of the on-street and off-street spaces managed by the DDA, and the private supply, comprised of the University of Michigan inventory, private/accessory parking, and backyard parking.

### **Cost-Benefit Analysis**

Data is the key to all decision making. To support any future decision making regarding the construction of additional spaces, data on the following costs should be researched and documented annually:

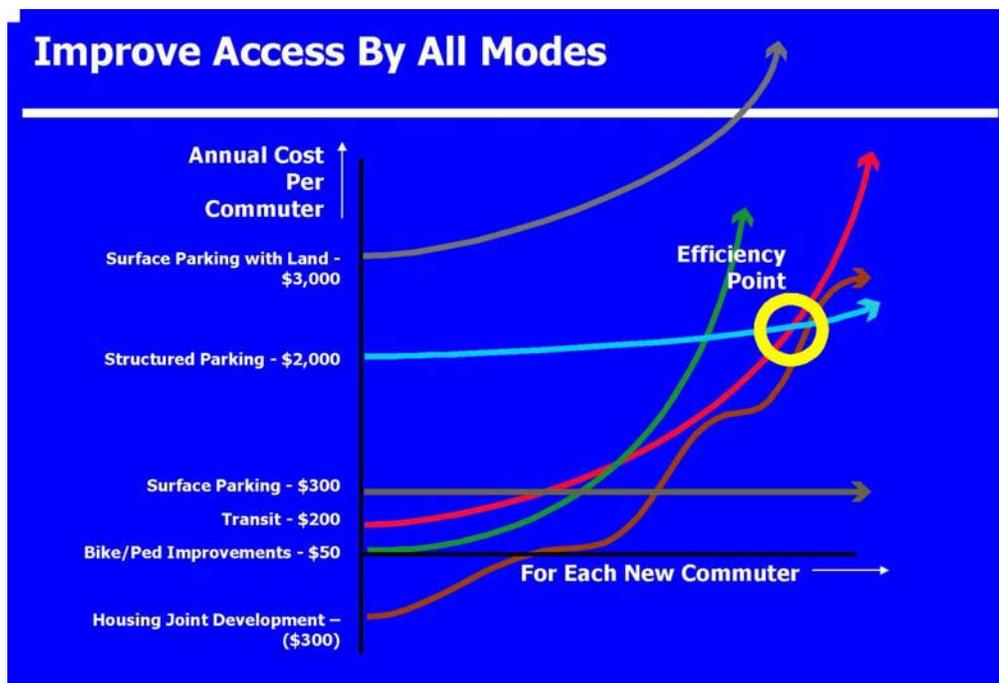
- Converting on-street spaces to angled-parking;
- Constructing new decks at existing structures;
- Constructing new surface lots;
- Constructing new structures;
- Constructing underground parking; and
- Joint-Development construction.

Data from the American Planning Association, International Parking Institute, as well as other Downtown Development Authorities, can offer an effective range of cost estimates, for each option.

Strategic planning would then be used to weigh the costs and benefits of these options (including the actual and opportunity cost of using downtown real estate to expand parking) against the costs and benefits of investing in multi-modal options. This is in line with recent strategic approaches taken by the DDA, and can be formalized into an economic analysis that can make the process of determining final investment selections clearer. For instance, such an analysis can estimate the number of commuters likely to switch to carpooling or bike-commuting in response to offering monthly permits to rideshare vehicles, or extending existing bike lanes. The cost of providing these benefits can be measured against the cost of providing a new parking space to each commuter that would have shifted modes, to determine which investment to make.

Figure 1-4 presents the results of a similar economic analysis used at Stanford University to compare the efficacy of various access-investment options. As shown, multi-modal investments are typically more cost effective early on. This results from the unavoidable fact that only so many commuters are likely to ever switch to a given mode. Once effective strategies have captured these markets, the amount of funding required to attract additional mode shifts goes up dramatically; and at some point providing additional parking becomes more cost effective. However, this figure clearly shows that, for Stanford at least, it was highly cost effective to aggressively capture a number of mode-shift markets before investing in parking expansion.

Figure 1-4 Cost versus Effect Analysis



### **Coordinated Planning**

The City and the DDA can coordinate with major land use developers (including the University) to effectively anticipate changing access needs, and develop a pro-active approach to meet them. The prime opportunity is for the different parking inventories to be shared (especially between the DDA and the University), to maximize the efficiency of use of both systems.

### **Supply Management Tools – Private Supply**

#### **Zoning and Regulations**

- **In-Lieu Fee:** Under a formalized In-Lieu Fee system, developers pay a fee instead of building a set amount of on-site parking. The fee levels are assessed, similar to parking requirements, based on the size and type of a proposed development. These fees are used to fund public parking and transportation infrastructure and services, such as supply expansion or travel choice investments.
- **Unbundle Parking:** Most housing arrangements offer the resident a parking space as part the lease or purchase cost. Unbundling parking prohibits the common practice of including parking in the rental or purchase cost of housing units. Parking spaces would be rented and sold (and charged for) separately from housing space. This reduces housing costs for households that own fewer cars than average, and makes clearer the cost of owning and storing a car. This strategy is also effective in providing developers with a financial incentive not to build parking for which there is not a paying market.
- **Maximum On-Site Parking Standards:** A ratio, similar to those used to set minimum requirements for on-site parking, limits the number of parking spaces that can be placed on-site at new developments within Downtown. Based on the size of the development, these caps direct parking demand accommodation into public facilities shared by all Downtown developments.

### **Demand Management Tools**

#### **Travel Choice**

In any area where quality pedestrian environments facilitate, not only pleasure walks and sight-seeing, but basic daily transportation, managing demand for automobile movements and storage is of particular importance. Supporting multi-modal options in these areas goes beyond transportation and environmental idealism to the heart of economic growth and preservation. Ann Arbor is certainly the best place in the region to spend a Saturday walking between shopping, lunch, a movie, and Frisbee in the park. And it maybe the only place in the region one can stop off at a Farmers Market, a library, the cleaners, and a choice of fine ethnic take out all on the walk home from work. The key to preserving this is accommodating demand growth while minimizing the impact of automobiles on the pedestrian environment and development densities.

The following sections outline commonly used and widely effective transportation and parking demand management strategies:

- **Employer-Based Commuter Benefits:** Local companies can be urged or compelled to develop their own Commuter Benefits plans, including goals for reducing single-occupancy vehicle mode shares among their own employees. Incentives for voluntary participation include public agency guidance, support and funding, bonus development area for new developments, cost savings from providing less parking, and transportation benefits to attract and retain employees. Common strategies implemented include:
  - Ridematching services (already offered by AATA);
  - Free or reserved parking for rideshare vehicles;
  - Transit benefits (pre-tax payroll deductions or go!pass-type transit pass benefits);
  - Parking Cash Out, where employers pay employees that do not use parking;
  - Showers and bike lockers at the work site;
- **Transit Improvements:** Surveys from Phase I identified a potential for commuter, or express, bus service to address many drivers’ barriers to transit-based commuting. The lack of bus stops within walking distance to homes or park-and-ride access, as well as the duration of current bus trips to Downtown, were commonly cited by those indicating an interest in using transit but currently depend upon driving. Express bus service, with park-and-ride or “kiss-and-ride” (drop-off space, but no parking, at bus stop) access, could effectively address these barriers. One full commuter bus translates roughly to 50 less cars in DDA garages at midday. Other transit investments could include funding improved evening service to accommodate entertainment as well as employment-based trips.
- **Bike and Pedestrian Network Improvements:** Improving the feasibility and enjoyment of these active forms of transportation can reduce daily demand for short- and long-term parking.
- **Bike and Pedestrian Amenities:** Bike lockers, street furniture, wayfinding, etc.
- **Remote Parking:** Park-and-ride lots and peripheral lots are two common strategies that can shift parking accommodation outside of areas where land is constricted or in high demand.
- **User Information and Marketing:** This could help shift the balance between on-street and off-street demand in the evening. Effective, real time wayfinding can build awareness of parking options for those circling the Main Street area for a space. Marketing can counteract common negative perceptions about structures and encourage use.
- **Residential Parking Permits:** Alter Ann Arbor’s existing program to address concerns about residents only using on-street parking, instead of their on-site spaces. Public outreach and customizing regulations for individual neighborhoods are effect means for communicating the



benefits of such programs for near-Downtown neighborhoods.

- **Valet Parking:** Valet services can provide a virtual “bottomless cup” of front door spaces for parking customers, while shifting demand from on-street spaces to under-used facilities nearby. This could provide a useful strategy for overcoming evening parkers’ resistance to under-utilized parking structures. Facilities that are parked by valet attendants offer capacity gains of up to 40 percent by allowing tandem parking patterns. For example, that would translate into an increase of over 100 additional spaces at the Ann & Ashley facility without building one more space.
- **Changes to Monthly Permit System:** Switching distribution of permits to an electronic debit card system, and requiring that each card be registered to a vehicle as well as a name, can effectively eliminate most permit hoarding and the “building-in” of parking costs into lease rates and employment benefits packages. Such a system can also offer “refunds” to permit holders for unused weekdays, encouraging occasional use of transit or other options.
- **Shared Parking and Park Once:** Zoning amendments and employer-based Commuter Benefits programs discussed above are strategies that could help build upon the Shared Parking success of the parking system.

## **Cost and Revenue Tools**

### **Establish a Parking and Transportation Fund**

Strategies which charge the user for each car parked will be more effective when all parking revenues are captured internally and dedicated to provide desirable, local parking, plus transportation and civic improvements (see Figure 1-5). The alternative, charging for parking and using it for other uses, amounts to parkers paying for non-parking related impacts. Dedicating meter money to transportation and local sidewalk and streetscape improvements can also win the support of the local business community by improving the appeal of their physical surroundings.

**Figure 1-5 Making Clear What Meters Offer the Community**



“The only reason meters went into Old Pasadena in the first place was because the city agreed all the money would stay in Old Pasadena...when we figured out that the money would stay here, that the money would be used to improve the amenities, it was an easy sell.”

*Marilyn Buchanan, Chair, Old Pasadena Parking Meter Zone Advisory Board.*

## **Pricing and Payment Tools**

### **Price On-Street Spaces According to Demand**

All things being equal, on-street spaces are generally the most desirable spaces in downtown districts. These are the easiest spaces to get into and out of. This is the type of space that is likely to be closest to any particular Downtown destination. And it is likely the only type of space that offers the chance of watching one’s own car while dining. For these and other reasons, most visitors in communities across the country, and specifically Ann Arbor, look for a space on the street before even thinking of off-street options.

This type of overwhelming preference leads to search traffic issues. Some studies have shown that as much as one-quarter to one-third of traffic in downtown districts can consist solely of those looking for a space to park.<sup>6</sup> For this reason, on-street spaces should be treated like a scarce public resource. Market economics can play an important role in clearing up the disparity between the value customers place on parking at these spaces and what they typically pay to do so. See Appendix A for more information about the impacts of search traffic.

### **Price Off-Street Spaces According to Cost**

Off-street spaces on the other hand are the most expensive spaces in Downtown Ann Arbor. The cost to construct and maintain these spaces is likely much higher than most users would estimate. Maintaining a clear relationship between the cost of these spaces and the rates charged to use them is a key strategy in terms of clarifying demand in terms of actual costs, public relations, supply management, and travel choice funding for the City and the DDA.

### **Expand Payment Options through New Technology**

In addition to current plans to begin accepting credit card payments at all DDA off-street facilities, the utilization of electronic debit payment systems could extend many of the conveniences offered to monthly permit holders. Similar to those used on many toll roads, these cards can be used to quickly pass through entry and exit points of off-street facilities. Charges are recorded against a debit account attached to the card, and customers receive a monthly bill, or charge against their account. Extending this convenience to hourly customers could increase user comfort with structures, and significantly reduce entry and exit queuing at off-street facilities. This could be especially useful during event evenings, as

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<sup>6</sup> Vacancy -Park Slopes Parking Problem and How to Fix It, Transportation Alternatives, 2007

regular symphony and performance theatre-goers are a likely market for such passes, and their arrival patterns would maximize the queue-reduction benefits of this strategy.

Multi-Space meters (see Figure 1-6) and other new on-street fare collection technology can expand fare and payment options for Downtown street spaces. Such technology simplifies the process of adjusting rates, and allows customers to:

- Pay only for time-used;
- Pay by credit or debit card;
- Be notified of impending meter expiration by cell phone; and
- Pay by cell phone.

### **Re-structure Monthly Permit Distribution Process**

The current system of permit distribution could be reformed to:

- Prohibit future contracting of permits;
- Distribute permits to individuals; and
- Register permits by vehicle.

These reforms could be expected to eventually eliminate the potential for stockpiling of permits by property owners and employers, and make it more difficult for the cost of parking to be obscured through employment benefits and lease tie-ins.

### **Availability & Turnover**

#### **Pricing**

Pricing can be much more effective for maintaining availability among on-street spaces than the time limits currently employed for this purpose. Pricing allows parkers to choose where and when, and for how long, they will occupy public parking spaces. In some places pricing has replaced time limits entirely<sup>7</sup>. This reduces enforcement needs to simply checking for expired meters. Enforcing time limits on the other hand, requires multiple-passes, chalking tires, and other labor-intensive efforts.

For off-street spaces, publicly discussing the broad rate increases necessary to pay to construct additional parking inventory could be effective in generating support for multi-modal alternatives, as well as reducing complaints about having to park on the top floor of existing structures or occasionally not finding a space at a preferred location.

<sup>7</sup> In February, 2006, Redwood City, California eliminated time limits at its downtown meters in favor of turnover generated by demand-responsive pricing.

**Figure 1-6 Multi-Space Meter**



## **Parking Structure Design, Maintenance, and Upkeep**

The 4<sup>th</sup> & Washington structure is loved by those that use it, and those that walk by it. Its price tag illustrates the cost of accommodating parking appropriately in districts like Downtown Ann Arbor. Follow the 4<sup>th</sup> & Washington example, and build upon its lessons to provide efficient parking facilities that people want to use.

## **Implementation Options**

Downtown Ann Arbor has a long history of innovative parking management. The strategies outlined above follow in this tradition. However, whenever a city or public authority is faced with implementing new strategies, they must select from an array of options that can, at one end, emphasize a less disruptive approach that maintains much of the status quo, and at the other end really “push the envelop” and puts the district at the forefront of innovation.

The only recommendation we would make in this regard is for the city not to pick just one approach. It is almost certain that among these strategies, there are some for which a careful and cautious approach would be best, and some with which Downtown is more than ready to run. Below is a detailed look at some of the implementation options available for the strategies identified in this memo, as well as what is being done currently.

A matrix summarizing the policies, tools, and principles addressed follows the discussion (Figure 1-7).

## **Supply Management – Public**

### **1. Current Approach**

- The DDA operates under the lesson learned that just about any other means of providing access to Downtown is cheaper than building more parking, especially new stand-alone parking. Supply expansion options are limited to where it can be done most economically, such as expanding existing structures and seeking joint-development of existing lots, or seeking public parking provision at new developments.
- The DDA maintains a strict policy that parking pay for itself, avoiding any public subsidy of parking costs.

### **2. Moderate Change**

- Calculating the cost and effect of various travel choice strategies can simplify the process of determining which investments, including supply expansion, offer the most sensible approach to providing Downtown access. For instance, if recent efforts to shift commuters to biking have produced limited results, investment in transit improvements might produce more in terms of getting cars out of garages.
- Make clear that the cost of expanding the parking inventory will result directly in raised parking rates for all users. With each expansion, the average per-space cost of providing off-street parking in Downtown increases as, for the most part, each new

space will continue to be more expensive to build than the last. Directly correlating parking rates to such changes in the per-space cost will provide incentive for existing parking customers to support a multi-modal approach to access management. This will also help finance supply expansion projects when necessary.

### **3. Ambitious Change**

- Capping the current parking supply within Downtown. Citing community opposition and the interest of preserving Downtown from increased effects of vehicle traffic and storage, the City could put a firm moratorium on any new parking system space construction. This would make it clear that any new growth in access demand would have to be met through alternative means.
- Rule out any expansion of the parking supply through anything but joint-development, mixed-used projects.

## **Supply Management – Private**

### **1. Current Approach**

- As-of-right development in Downtown is currently exempt from parking requirements as laid out in the zoning code.

### **2. Moderate Change**

- Unbundling legislation covering all new residential development could be used to reduce excess provision of on-site parking for Downtown housing projects. Appendix B presents sample legislation for implementing an unbundling program.
- A formalized In-Lieu Fee system to replace parking requirements, where new development is assessed a fee based on proposed bulk and uses, could help finance public parking and transportation options serving Downtown.

### **3. Ambitious Change**

- Parking maximums, codified in zoning codes, can establish the maximum number of on-site parking spaces that can be included in Downtown development projects. Bonus FAR can be tied to voluntary payment of an In Lieu-type fee into a public parking and transportation fund.

## **Demand Management – Shared Parking and Park Once**

### **1. Current Approach**

- Most parking activity within Downtown is captured by the public, shared parking system. While over 2,000 spaces of on-site accessory parking are available for employees and customers at Downtown commercial locations in Downtown, surveys indicate most of the parking is significantly underutilized.

## **2. Moderate Change**

- Use zoning and regulation changes to discourage future on-site parking provisions.

## **3. Ambitious Change**

- Regulate against accessory parking.

### **Demand Management – Employer-Based Commuter Benefits**

#### **1. Current Approach**

- The getDowntown program reaches out to local employers as part of its mission to promote commuting alternatives. The program can assist employers in establishing commuter benefits packages for their employees. It will also assist interested employers in marketing alternative commute options available such as AATA's ride-matching services and the go!pass program.

#### **2. Moderate Change**

- Establish a formalized municipal Transportation Coordinator position to serve as an informational and marketing resource for Downtown employers and employees.

#### **3. Ambitious Change**

- Make participation in a district-wide Commuter Benefits program mandatory for local employers of 25 or more. Single occupancy vehicle commute rates can be monitored, and reduction targets set as part of the program.

### **Demand Management – Transit Improvements**

#### **1. Current Approach**

- DDA funds support both the go!pass program and The Link circulator service.

#### **2. Moderate Change**

- Make go!pass participation mandatory for all local employers.

#### **3. Ambitious Change**

- Use parking revenues in support of a commuter bus program.

### **Demand Management – Bike and Pedestrian Network Improvements and Amenities**

#### **1. Current Approach**

- DDA funds are used for sidewalk improvement projects and bicycle locker programs. City funds are used to provide bike lanes.

## **2. Moderate Change**

- Invest Parking and Transportation Fund revenues in bike and pedestrian improvements, based on cost-effect analysis versus other transportation/access provision options. The result would be a varying investment, depending on relative value returned compared to other investment choices.

## **3. Ambitious Change**

- Dedicate a fixed portion of Parking and Transportation Fund money for pedestrian and bike improvements, based on not just transportation and access benefits, but air quality and quality of life benefits for the whole community. The fixed rate can be set much higher than would ever be expected from a pure cost-benefit analysis of these modes versus other investments, based on the principle of providing a consistently high level of financial support for these highly desirable travel modes.

## **Demand Management – Remote Parking**

### **1. Current Approach**

- There are currently five park-and-ride lots served by AATA Downtown-serving bus routes. These lots are located well-outside of Downtown, and are free of charge.

### **2. Moderate Change**

- Seek additional park-and-ride locations, especially in locations where parking would be part of a shared with parking for commercial uses. Such locations help reduce additional car trips when located at lots serving daily trip destinations such as cleaners, grocers, and daycare.

### **3. Ambitious Change**

- Establish new commuter bus service with limited park-and-ride stops to Downtown. Such premium service could carry a fare rate twice the normal bus rate, yet still compare favorably with parking costs.

## **Demand Management – User Information and Marketing**

### **1. Current Approach**

- The DDA and getDowntown website both offer extensive information on parking options within Downtown.

### **2. Moderate Change**

- Maintain and market a dedicated Parking Downtown website to provide information, including suggestions and recommendations for where to park based on time of day, day of week, and special events parking needs. Part of the website could offer a community forum on all parking issues, allowing policy makers easy access to stakeholder feedback on all things parking.

### **3. Ambitious Change**

- Invest Parking and Transportation Fund money in a comprehensive Wayfinding capital campaign to improve the directional signage to, real-time space information about, and marketing image of, DDA parking facilities.

## **Demand Management - Residential Parking Permits**

### **1. Current Approach**

- The City manages an existing Residential Parking Permit (RPP) program that has been implemented in some near-Downtown neighborhoods.

### **2. Moderate Change**

- Market RPP benefits and program options online for residents seeking recourse to parking spillover conditions.

### **3. Ambitious Change**

- Install multi-space meters in problematic areas, while exempting vehicles with residential permits. Revenues could be earmarked within the Parking and Transportation Fund for neighborhood-specific sidewalk improvements or beautification. This would effectively form a Parking Benefit District for both residents and non-residents. See Appendix C for a sample of a revenue return strategy for a Parking Benefit District.

## **Demand Management - Valet Parking**

### **1. Current Approach**

- The City recently provided a temporary valet permit for an entertainment venue on Main Street as a trial.

### **2. Moderate Change**

- Enter into agreements with local establishments to use DDA structures to store valet-parked vehicles. This could avoid attendants using street parking and bring in revenue from otherwise idle parking spaces. The service could reduce search traffic on local streets and increase use of less-favored DDA structures.

### **3. Ambitious Change**

- The DDA could establish public valet stations near busy evening intersections. The service would not be tied to any one use, allowing customers to dine, see a show, and/or shop while leaving their cars with the valet. The service could reduce search traffic on local streets and increase use of less-favored DDA structures.

## **Cost and Revenue**

### **1. Current Approach**

- Parking can yield ample public revenue, especially when on-street spaces are priced based on demand and off-street spaces are priced sufficient to cover costs. Recent changes, however, have complicated the process by which parking revenues are directed back into parking and transportation provision. If the city returns this revenue to pay for added public spending on preferred transportation and civic improvements, the public is more likely to support necessary rate increases.

Investments that have proven effective in other communities for generating popular support for pricing strategies include: transit improvements, streetscape improvements, tree plantings, lighting improvements, burying overhead utility wires, increased security, and graffiti removal. Parking meters with revenue returned to the local neighborhood have already been a great boon to downtown businesses in Pasadena, California, where each block generates \$80,000 a year in meter revenue to finance a high level of public services.

### **2. Moderate Change**

- The system of parking revenue being kept out of the General Fund would make it clearer to parkers what their payments are bringing in return. Placing it into a Parking and Transportation fund would make clear the policy that, rather than allowing public subsidization of parking costs, parking income will be used to subsidize more desirable forms of local and regional transportation, as well as civic improvements.

### **3. Ambitious Change**

- Create a Parking and Transportation Fund into which all monies received from parking charges and violations are pooled to support continued and expanded parking and transportation options. This makes public priorities, as well as parking revenue streams, clearer.

## **Pricing and Payment Options**

(See Appendix D for a summary of technology for parking pricing and Appendix E for an example of modern parking technology in use)

### **1. Current Approach**

- Pricing is used to discourage long-term on-street parking and encourage use of parking structures.
- Pricing, payment convenience, as well as the distribution process of monthly parking permits facilitates single-occupancy commuting.
- Monthly parking permit rates that offer a slight discount compared to paying for hourly parking encourage single occupancy vehicle commute behavior.

- Monthly parking permits are acquired, and rarely relinquished, in bulk by developers, property owners, and employers. The long wait lists for individuals seeking permits increase the value of permits included in office leases and employment benefits well beyond their cost. This makes it all the more important for developers to acquire bulk permits for their projects, further reducing permit turnover to those on wait lists.

## **2. Moderate Change**

- Extend meter regulations into evening hours, when on-street spaces are currently filled to capacity for hours at a time.
- If congestion and lack of availability continue, prices can be adjusted to catch up with demand. Ideally, rates can be set at a “Goldilocks” rate, where about 15 percent of on-street spaces on each block are consistently available - not too high and not too low.
- Increased permit rates would be expected to reduce wait times for individuals seeking new permits, and encourage commuters to seek alternative transportation options.
- Permits are distributed directly to individual users, and registered to their vehicles. This makes permits non-transferable.
- Implementation of an Electronic Debit Card System would:
  - Reinforce the non-transferability of permits by tying permit use to an active payment account;
  - Allow monthly charges to be based on daily use, rather than a flat rate, so users have an incentive to occasionally use other modes, or otherwise cut back on the days they drive to Downtown; and
  - Simplify permit-utilization tracking, allowing the DDA to manage demand across inventory, tracking use patterns at each facility by hour, day, month, and time of year.

## **3. Ambitious Change**

- Different meter rates on each block can be set to maintain availability on all streets. All rates would be demand-responsive, even on the most popular blocks. See Appendix F for sample legislation for demand responsive pricing.
- Permit rates could be used to eliminate wait lists altogether and encourage commuters to seek alternatives to driving alone.
- Price permits to eliminate the wait list. Increased revenues can be directed at providing attractive alternatives such as commuter bus service.

## **Availability & Turnover**

### **1. Current Approach**

- Time limits are imposed on all metered spaces, and many off-street facilities. Data from Phase I of the current parking study indicate that many on-street spaces with very short time limits are currently under-utilized (existing supply of 240 1-Hour spaces are about 62% utilized on weekdays at midday).

### **2. Moderate Change**

- Enforcement of time limits is challenging. Surveys of parking turnover rates could be used to identify areas in need of targeted enforcement to discourage commuter parking at meters.
- Periodic utilization surveys can identify locations where meter limits could be expanded to maintain desirable utilization levels.

### **3. Ambitious Change**

- Use pricing to encourage turnover and maintain availability. While general reaction to increased meter rates can be expected to be negative, if done effectively demand-responsive pricing lets the parker “shop” for the right parking option, in part by making all options available at all times. Each driver can decide how much convenience to buy when parking, and stay for as long as he or she wants to pay to do so. As long as spaces remain available, parking duration is no longer a critical concern.

## **Parking Structure Design, Maintenance, and Upkeep**

### **1. Current Approach**

- The 4<sup>th</sup> & Washington structure set a new standard of parking structure design for Downtown.
- Rates are set to ensure that facility maintenance and upkeep are a fixed aspect of the operating budget each year.

### **2. Moderate Change**

- Joint-development of public parking facilities within private developments offers the opportunity to place sidewalk-oriented commercial and residential uses, and resulting pedestrian traffic, at the site of parking facilities.
- Rates for monthly permits can be set to reduce length of time individual customers spend on wait lists.

### 3. Ambitious Change

- Redevelop some existing structures to incorporate sidewalk-oriented commercial uses. Garages such as 4<sup>th</sup> & William and Forest could be retro-fitted to incorporate small restaurant and shop spaces along the street.
- Rates for monthly permits can be set to eliminate all wait lists

**Figure 1-7 Toolbox Matrix of Policies, Tools, and Principles Addressed**

Policy Area	Level of Innovation	Tools	Constraints Address	Principle Addressed
Supply Management	Moderate	Joint-Development Supply Expansion	Midday Off-Street	
Supply Management	Ambitious	Re-Develop Existing Structures		Visions for Compact, Walkable Development
Demand Management	Moderate	Transportation Coordinator	Midday Off-Street	Supporting Multi-Modal Options
Demand Management	Ambitious	Mandatory Commuter Benefits Participation	Midday Off-Street	Supporting Multi-Modal Options
Demand Management	Moderate	Mandatory go!pass Participation	Midday Off-Street	Supporting Multi-Modal Options
Demand Management	Ambitious	Commuter Buses	Midday Off-Street	Supporting Multi-Modal Options
Demand Management	Moderate	Strategic Ped/ Bike funding	Midday Off-Street	Supporting Multi-Modal Options
Demand Management	Ambitious	Fixed Ped/ Bike funding	Midday Off-Street	Supporting Multi-Modal Options
Demand Management	Moderate	More Park and Ride	Midday Off-Street	
Demand Management	Moderate	Expand Valet Permitting	Evening On-Street	
Demand Management	Ambitious	DDA Managed Valet	Evening On-Street	
Zoning	Moderate	Un-Bundling		Visions for Compact, Walkable Development
Zoning	Moderate	In-Lieu Fees		Visions for Compact, Walkable Development
Zoning	Ambitious	Parking Maximums		Visions for Compact, Walkable Development
Cost and Revenue	Moderate	Extend Meter Hours	Evening On-Street	

<b>Policy Area</b>	<b>Level of Innovation</b>	<b>Tools</b>	<b>Constraints Address</b>	<b>Principle Addressed</b>
Cost and Revenue	Moderate	Pricing to Manage On-Street Demand	Evening On-Street	
Cost and Revenue	Ambitious	Pricing to Manage Demand and Turnover	Evening On-Street	Provide On-Street Parking to Support Local Businesses
Cost and Revenue	Moderate	Price Monthly Permits based on Hourly Rates	Midday Off-Street	
Cost and Revenue	Moderate	Price Permits to Reduce Wait Lists	Midday Off-Street	
Cost and Revenue	Ambitious	Price Permits to Eliminate Wait Lists	Midday Off-Street	
Cost and Revenue	Moderate	Parking and Transportation Fund		Parking Should Pay for Itself
Payment Options	Moderate	Reform Permit Distribution	Midday Off-Street	
Payment Options	Ambitious	Debit Card System for Permits and Hourly parkers	Midday Off-Street	
Availability	Moderate	Use surveys to identify areas to target enforcement of time limits to preserve short-term availability	Midday Off-Street	Provide On-Street Parking to Support Local Businesses
Availability	Moderate	Use surveys to identify areas where time limits may be producing under- or over-utilization patterns	Midday Off-Street	Provide On-Street Parking to Support Local Businesses
Availability	Ambitious	Pricing to Manage Demand and Turnover	Evening On-Street	Provide On-Street Parking to Support Local Businesses

## **Case Studies**

Successful parking management is a proven economic development tool. Below is a set of comparable downtown districts for which parking management tools have played a key role in successful economic revitalization efforts.

### **Boulder, Colorado**

In the 1970's, the downtown of this university community was dying, saddled (among other problems) with a shortage of convenient customer parking and very little transit. Its economic revival has been catalyzed on the transportation side by several key policies: the complete abolition of parking requirements for all non-residential uses; charging for parking, with all revenues used to benefit the downtown; and a policy of funding the most cost-effective mix of transportation modes, instead of only parking garages. Recognizing that "the economics of parking garages are dismal", as one planner put it, the business-led downtown district now uses parking meter revenues to fund a range of demand reduction alternatives, including free transit passes for every downtown employee.

### **Santa Monica, California**

Santa Monica is known for the lively pedestrian mall that anchors its downtown. Less known is the "Park Once" philosophy that allows the theaters, restaurants, offices and residences gathered along it to thrive with far less parking than conventional manuals predict is required for its constituent uses. Shared public lots and garages, strategically located, allow the downtown to function well with just 2.1 spaces per 1000 square feet of building space.

### **Old Pasadena, California**

In recent years, Old Pasadena has re-emerged from its decline into Skid Row status. In 1993, the district's nascent revival was being hindered, as in Boulder, by a serious lack of convenient, available, "front door" parking spots for customers. Old Pasadena then had no parking meters, and proposals to install them were opposed by local merchants, who feared charges would drive customers away. Today, the \$1 per hour meters have funded the district's beautified alleys, street furniture, trees, tree grates and historic lighting fixtures, and fund its marketing, mounted police patrols, daily street sweeping and steam cleaning of sidewalks. Sales tax revenues quadrupled from 1992 to 1999, showing, perhaps counter-intuitively, that charging for parking can go hand-in-hand with remarkable revenue increases for local retailers.