PARKING MANAGEMENT

Description

Managing the provision and price of parking, especially in dense, high-activity locations, can reduce congestion on the surrounding corridors. Encouraging transit, carpools, or vanpools reduces the numbers of vehicles using the major arterial and local city streets. The ultimate set of deployed strategies must be a mix of ideas that are supported by the affected businesses, workers, and communities.

Regions can use several different techniques to control parking:

- Increase parking cost through parking revenue or space tax.
- Alter ordinances to decrease minimum parking requirements, set a maximum parking requirement, or issue use permits.
- "Cashing-out" to provide stipends rather than parking spaces.

Increasing employees' parking costs is typically applied in high-density areas to persuade workers and business patrons to reconsider their mode choice when commuting to major business or activity centers. This parking strategy involves raising the fees paid by businesses and workers, which is then passed on to the workers at that location.

City and state ordinances can enact *minimum parking requirements* and develop permit regulations for certain areas. Altering these regulations, however, to decrease the minimum amount of parking required, or setting a maximum level of parking spaces, limits the parking availability for workers and patrons and can increase transit and carpool usage.

The *cashing-out* parking strategy provides stipends for employees to pay for parking, transit tickets, or to save for personal use. This method allows employers to pay money rather

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Cost:	●●○○○
Time:	**Medium**
Impact:	**Local**
Who:	**City/Private**
Hurdles:	**Coordination**

than provide parking, which can reduce the availability of parking and provides a reason to use alternate modes of transportation.

The overall demand for parking can be altered by improving levels of transit service and by charging parking fees for commuters that reflect the cost of providing the parking.

Target Market

Parking management strategies work well in areas where parking is limited (and generally not free) and where transit service or carpooling options are available.

Downtown or Other High-Density Activity Centers with Transit Service
Highly-urbanized and heavily visited areas often have a limited number of parking spaces available for workers and patrons, making the city streets congested with commuters and visitors. An off-site parking lot can be offered with a shuttle or transit service to transport

For more information, please refer to: http://mobility.tamu.edu/mip/strategies.php.

drivers to their desired destination. If public or free parking is limited and transit service is increased, more people should be willing to use alternate forms of transportation.

Locations with Little to No Parking
Limited parking causes congestion because drivers roam the city streets looking for an available spot. If prices are raised or the minimum amount of required parking is lowered, more people should use other forms of transportation for commuting, shopping, or other trips.

How Will This Help?

- Parking management <u>reduces localized congestion</u> through increased carpooling and transit ridership and therefore fewer vehicles on the road. Limiting parking spaces or raising costs compels some workers and shoppers to reconsider using a personal vehicle. Commuters may consider <u>carpooling or alternate modes</u> to save money and wasted time needed to park their own vehicle.

- Many parking management strategies are <u>less expensive to implement</u> than comparable strategies. These techniques do not require any additional infrastructure and may reduce the number of parking spaces needed. The addition of pay-to-park lots and increasing the prices or taxes may also increase the collected revenue, limiting the cost to the city.

- Limiting parking and implementing strategies early <u>encourages use of best planning and development practices</u> to avoid future congestion issues. Reevaluating new parking requirements (regulated minimums and maximums) and management plans allow communities to develop alternate forms of transportation to reduce the need for personal vehicles in the area. City

planners should also be sure not to include too many parking spaces in the city for all businesses, because if those businesses leave the area the additional parking can hinder transit usage.

Implementation Examples
Vancouver, British Columbia, Canada
In 1997, Vancouver's transportation plan capped downtown parking and banned new roads in the city center. Since then, the number of car trips and parking spots has gradually declined, even while the numbers of jobs and overall trips in the central city have increased. Vancouver developers are being required to provide fewer parking spots for new office buildings. At one time the parking standard was one stall for every 1,000 to 1,500 square feet. Today the figure is far less—and negotiable for every building—in spite that today's buildings hold twice as many people.

San Francisco, California
The City of San Francisco has a "transit-first" transportation policy that includes parking maximums in the central area. Through a SFpark™ pilot program, San Francisco is implementing performance pricing of parking spaces in various areas of the city. This demand-based pricing appears to be working. High-demand public parking spots can cost as much as $4.75 per hour, but drivers willing to park a little farther out and walk, bike, or ride transit can pay as little as 25 cents per hour.

European Experience
Amsterdam, Paris, Zurich, and Strasbourg limit how much parking is allowed in new developments based on how far it is to walk to a bus, tram, or metro stop. These cities have also made significant investments in new tram and bus lines while making parking more expensive and less convenient.

Application Techniques and Principles

Parking management strategies are often applied in high-density urban areas or activity centers with high land value and strong economic development. The adjacent land typically does not have the capacity to withstand any additional parking, requires structured parking with high initial and ongoing costs, or is controlled by parking limitations enacted by the local government.

Adequately organizing and planning a parking management strategy often results in better use of existing facilities and reduces the need for more parking. It is important to not offer too much parking, as this can result in competition with the transit, carpool, and vanpool system. The organizers should determine whether the current parking is well-utilized and if the transit, pedestrian, and bike facilities can handle the new users caused by parking management strategies.

Limiting the available parking and raising the cost of a space tends to discourage long-term parking—the primary goal of a parking management strategy. After limiting the available parking, the city and business managers should provide special rates and preferential parking for carpool vehicles. City planners and other officials, employers, and landlords should create parking agreements and zoning regulations that control parking in new developments to prevent further problems in the area.

Issues

Most parking management strategies require policy or legislative changes by the appropriate agency or organization, which can be difficult. Support will also be needed from the private sector to implement these changes, create incentive programs, and market the new policy to drivers.

A second issue to consider is while raising taxes or parking rates increases revenue for companies and cities, this should be done carefully. Taxes should be high enough to persuade commuters to use alternate modes, but making them too high can cause businesses to move to other areas.

Finally, adequate and visible enforcement is necessary to ensure compliance while gaining respect of users for the parking management plan. If too many vehicle types are exempt or appear to get away with not properly following the parking policies, other users will perceive the parking management strategy as inequitable and thus, a failure.

Who Is Responsible?

Cities and private companies bear the primary responsibility of limiting and controlling parking within the downtown area and other high-density activity centers. City officials should reevaluate the current parking standards to determine whether the minimum parking requirements can be lowered or if there are other methods available. Business management should examine the parking available at their location and review incentives and promotion techniques for employees that do not use transit and carpool services. Although these plans are dependent on local government, the Texas State Government can institute laws and taxes to help persuade alternate mode choices in an effort to help the parking management strategies gain traction.

Project Timeframe

Parking management plans are implemented quickly and can be adjusted over time to improve the overall function. Raising parking taxes and other legislative techniques depend on the timeframe allowed by the state and local governments. Other parking management methods (i.e., limiting available spaces, raising fees, and cashing-out) can be implemented almost immediately. A typical parking management strategy is implemented between two to six months if all the necessary policies

and ordinance changes are in place. The time to create and install the appropriate signage as well as public awareness campaigns are two of the more significant factors in deploying a parking management plan.

Cost

Parking management methods do not require large amounts of money to implement. The required funding is often used for signing, administration, and enforcement. A typical parking management plan costs in the range of less than $100,000 to over $500,000 depending on the physical size of the area being managed and the number of parking spaces to be included. Some site specific geometrics and other considerations such as historic locations may increase the implementation cost.

Data Needs

Parking management strategies primarily require two data resources. Information regarding parking inventory and parking usage for the city center and other activity centers is useful to evaluate the plan. The data should identify the available parking facilities and spaces.

Parking Strategies Best Practice

- Type of Location: Urban city centers, central business districts, areas of dense development where parking is limited and shared by multiple business, tenants, and visitors.
- Agency Practices: Coordination between planning, design, development, and enforcement agencies.
- Frequency of Reanalysis: Monthly during the initial launch, quarterly and annually thereafter.
- Supporting Policies or Actions Needed: Possible changes to municipal ordinances regarding parking space counts, enforcement, and authorization to proceed.
- Complementary Strategies: Compressed work week, dynamic pricing of infrastructure, real-time ridesharing, carpooling, telecommuting, and vanpools.

For More Information

Crawford, J.A., T.B. Carlson, W.L. Eisele, B.T. Kuhn. *A Michigan Toolbox for Mitigating Traffic Congestion*, Texas Transportation Institute, Texas A&M University, College Station, TX, September 2011.

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