

## Parking Management Workshop

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## Definition of Parking Management

© Location, cost, supply \& demand
© Demand based strategies combine parking and transportation alternatives
© Access options


## Parking Management

, Transit network
> Pedestrian activity
> Support for density and mixed-use development

, Market-driven parking pricing
, Economic vitality
> Access and mobility issues


## Issues

© Zoning and code requirements
© Target market: short term and long term parking spaces
© Balance local and regional needs


## Barriers to Parking Management


© Parking perceptions and attitudes
(D) Parking pricing
© Land use policies
© Work site characteristics (lease arrangements)
(®) Transportation alternatives

## Balancing Regional and Local Transportation Issues

- Regional transportation
- Air quality
- Urban design

- Economic development
- Residents
- Business
- Project mitigation
- Traffic circulation


## Parking Pricing Emission Reduction Model:

> 100,000 square foot office building
> 4.1 parking spaces per 1,000 square feet $=410$ spaces
> 79\% drive alone rate $\times 360$ employees $=284$ solo drivers
> 284 SOV $\times 17 \%$ parking cash-out reduction $=48$ SOV reduction
> 48 SOV reduction $\times 30$ miles $=1,440 \mathrm{VMT}$ reduction
> $1,440 \times .035=50.4$ pounds

## Parking Supply and Demand



## Parking Requirements

> Parking supply to compete with other cities
> Prevent spillover
> Plan for future uses
, Minimum parking requirements

, Market price
> Commuters park free
> More auto use
> Lower site density
> Higher land consumption
> Lower land value
> Auto-oriented site design
> Less use of alternative modes

## Parking Management

> Culver City - parking utilization as determination of parking needs
> Denver/LoDo/Commons - parking management plan/transit system/access plan (up to 4 million square feet of commercial development; 25\% nonSOV)

## Parking Economics

© Parking
Development Cost
© Parking Pricing
© Market Value of Parking


## Retail Parking: Cost of free employee parking

, Employee parking (2 hour shuffle) $=1$ hour free per day or \$6,000 per year in lost employee time (\$20/hr)

> Assume turnover: 10 sales per space \& \$50 profit per sale $=$ \$500/per day

- 300 days of sales $=$ \$150,000/per year


## Parking Management Feasibility Issues

> Economic and Financial Feasibility
> Site Characteristics/Neighborhood
> Location Features and Compatibility with Surrounding Uses
> Parking (demand, supply, requirements, attitude)
> Market Issues
> Regional Issues

> Established 1994; over 650 businesses with 13,000 workers
> Office, retail, and service
> Tourists and special events
> Bikeways and on-street parking program for carpoolers; reduction in free parking.

> Transit: LRT with 4 district stops and 15 bus lines

## Lloyd District Results

> 3.9 million annual VMT reduction since 1997 = 1 lane of peak hour road capacity 7 miles long
> Reduction in SOV from $72 \%$ to 45\%
> Increased district wide transit mode split to 22\% (up from $8 \%$ in 1996). Now up to 35\%
> 1,433 vehicles removed from peak hour commute; reduction in parking spaces $=\$ 28$ million in parking development costs

- Standard parking lease down from 3.5/1,000 SF (1994) to 1.95/1,000 SF


## Parking Management Plans

> Los Angeles MTA Transit friendly parking design
, Burbank - primary target market: customer secondary: employees (location \& cost)
> Seattle - Neighborhood Parking Management Plans

Source: Willson, Sales \& Kodama (1998); Kodama (1992); Kodama (2000)

Transit Friendly Surface Parking Design
Basic Criteria - Large Development Example


## Claremont Intermodal Regional Transportation Project


> Private/Public Partnership
> Multi-Modal Transportation System
> New Jobs \& New Housing Opportunities
> New City Revenue Streams
> Private Development (\$75 million); Claremont (\$15.5 million); Regional
Transportation Investment (\$500 million)

## Claremont Village Expansion

> Pedestrians
> Village Expansion Parking Project
, Mass Transit
> Alternative Modes
 (Carpools/Bikes/ Pedestrians)
, Customer and Employee Parking Spaces
> Live-Work Loft Parking Spaces


## Downtown Los Angeles

> Parking Framework
> Sub-areas
> Inventory and
Utilization
> Organizational structure
, Ordinance: Target Markets
> Funding and financing: Local


## Employer Parking Pricing/TDM Worksheet

> 2,559 Employees with a 29\% drive alone rate, 16\% carpool rate ( 2.1 per car), 46\% transit share $=937$ employee parking space demand
> If shift SOV to transit (12\% increase in transit ridership) $=141$ reduction in parking demand
> Monthly rate of $\$ 270.00=\$ 38,070 /$ month or \$456,840/year savings

## Montreal - Rules of the Game


> Long term leases link to Metro
> Permission to occupy underground public land
, Grant laneways
> FAR Bonuses
> Zoning, density \& parking

Source: Francois Major, Ville de Montreal

## Montreal - Underground Retail Development

> 10 subway stations
> 29 kilometres of underground
> 500,000 people
> 60 buildings ( $80 \%$ of office and 35\% of commercial in
 downtown)

## Key Stakeholders

- Local city
- Elected officials
- Residents
- Developers
- Lenders
- Land owners
- Leasing agents
- Management
- Facilities
- Employees
- Security
- Human resources
- Legal
- Accounting
- Regional agencies


## Approach

> Create customized program
> Identify priority and secondary target markets
> Creative employee parking programs
> Utilize viable commute options
> Maximize economic incentives
> Create win-win projects


## Key Points

$\checkmark$ Access - mobility efficiency
$\checkmark$ Parking pricing parking is not free
$\checkmark$ Parking supply and demand
$\checkmark$ Parking, transit, TDM \& land use
$\checkmark$ Problem solving tool


