Parking Toolbox

Jeffrey Tumlin

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Rail-Volution

Jeffrey Tumlin

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Agenda

1. Parking for TODs
2. Parking for Rail Stations
3. Additional case studies
1. Parking for TODs
Six Key Parking Reform Principles

1. Manage Spillover Parking
2. Create a “Park Once,” shared parking environment
3. Create lots of on-street parking
4. Ensure good parking design
5. Ensure 15% vacancy at all times through market pricing
6. Vary parking requirements according to context and goals:
   • Tailor minimums
   • Eliminate minimums
   • Establish maximums
1. Residential Parking Permit Districts

- Residential Parking Permit Districts
  - Critical for addressing spillover parking concerns of infill development
  - Requires neighborhood vote on parking district

- Austin Parking Benefit Districts
  - [http://www.ci.austin.tx.us/parkingdistrict/default.htm](http://www.ci.austin.tx.us/parkingdistrict/default.htm)
  - Allows residents to sell surplus neighborhood parking capacity to commuters
  - Revenue returned to neighborhood for community improvements
2. Park Once
Mixed Use, Park Once District

Results:

- <½ the parking
- <½ the land area
- ¼ the arterial trips
- 1/6th the arterial turning movements
- <¼ the vehicle miles traveled
Administrative, Business, and Professional Services
Shopping Center without Dining
Shopping Center with Dining
Dining Establishments
Dining & Drinking < 2,500 Sq. Ft. Gross Area
Dining & Drinking > 2,500 Sq. Ft. Gross Area, Free-standing
Dining & Drinking < 2,500 Sq. Ft. Gross Area, Mixed-Use
Day Care Centers
Elementary & Middle School, no assembly
High School, no assembly
College, no assembly
Automotive Rentals
Automotive Repair, Bodies
Group Care
Medical Services: Medical Care
Lodging Services: Hotels and Motels
Boating and Harbor Activities
Recreation Services: Amusement Centers
Utility or Equipment Substation

Typical minimum parking requirements...
...often require more parking than building
Parking Demand in Mixed Use Zones

• Typical single-use district
  - 4 spaces per 1,000 square feet
• Palo Alto – 1.8 spaces /1,000 sf
• Santa Monica – 2.4 spaces/1,000 sf
• Kirkland, WA – 2.0 spaces/1,000 sf
• Philadelphia Center City
  - 0.89 spaces /1,000 sf
3. On-Street Parking

On-street parking benefits:

• Buffer between pedestrians and traffic
• Convenience parking for retail
• “Teaser” parking
• Snow removal storage
• Potential location for street trees, flex space
• Traffic calming
• Bus bulbs and Corner bulbouts
• Bike parking
• Same land area per space as 3-story garage; twice as efficient as off-street lot
4. Ensure good parking design
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4. Ensure good parking design
5. Manage On-Street Parking
Parking Benefit Districts

- Devote meter & permit revenue to district where funds raised
- Example: Old Pasadena
  - Meters installed in 1993: $1/hour
  - Garage fees
  - Revenue: $5.4 million annually
  - Tiny in-lieu of parking fees
- Funds garages, street furniture, trees, lighting, marketing, mounted police, daily street sweeping & steam cleaning
- Focus on availability, not price

Old Pasadena, 1992-99:
Sales Tax Revenues Quadruple
Pasadena Results

Pasadena Retail Sales Tax Revenue

Sales Tax Revenue

Year

1989 1991 1993 1995 1997 1999

$0 $500,000 $1,000,000 $1,500,000 $2,000,000 $2,500,000

Old Pasadena
Playhouse District
Plaza Pasadena
South Lake
Parking Benefit Districts

- Redwood City, CA: Meter and garage rates vary to achieve 15% vacancy on all blocks at all times.
6. Vary your Parking Requirements

• Example: Boulder, CO, Downtown Management Commission

• Responsibilities:
  – Parking construction and management
  – Operates full menu of demand management strategies

• District analyzes most cost-effective mix of new parking or transportation alternatives

• Cheaper to provide free transit to all downtown employees than provide them parking

• Provides buying power/negotiating strength for small businesses
Phase out Minimum Parking Requirements

- Minimum parking requirements set to avoid any chance of spillover
- Usually copy nearby cities, or look up in reference manuals
- Take peak demand, and round up
How much is enough?

- No right answer
- No such thing as set “demand” for parking:
  - Pricing
  - Availability of Parking
  - Travel Choices
- Supply is a value judgment based on wider community goals
- Don’t confuse supply and availability
Parking Demand: an Economist’s Definition

Demand

“The quantity demanded of a good or service is the amount that consumers plan to buy in a given period of time. Demands are different from wants. Wants are the unlimited desires or wishes that people have for goods and services…”

“Demand reflects a decision about which wants to satisfy. If you demand something then you’ve made a plan to buy it.”

Source: Economics, Michael Parkin, p71.
Economists’ Laws of Supply and Demand

• The Law of **Demand**: Other things being equal, the higher the price of a good, the lower the quantity demanded.

• The Law of **Supply**: Other things being equal, the higher the price of a good, the greater the quantity supplied.

*Source: Economics, Michael Parkin, p71 & 77.*
The Demand Curve

Figure 4.1  The Demand Schedule and the Demand Curve

Price (dollars per tape)

Quantity (millions of tapes per week)

Demand for tapes

Points on the demand curve:
- e
- d
- c
- b
- a
What influences demand?

- **Demand**: The quantity demanded of a good or service is the amount that consumers plan to buy in a given period of time...The quantity that consumers plan to buy of any good depends on:
  - The price of the good
  - The prices of other goods (substitutes and complements)
  - Income
  - Population
  - Tastes

*Source: Economics, Michael Parkin, p94.*
The Supply Curve

Figure 4.4 The Supply Schedule and the Supply Curve

Source: Economics, Michael Parkin, p77.
What influences supply?

- **Supply**: The quantity supplied of a good or service is the amount that producers plan to sell in a given period of time. The quantity that producers plan to sell of any good or service depends on:
  - The price of the good
  - The prices of other goods (substitutes and complements)
  - The prices of the resources used to produce the good
  - The number of suppliers
  - Technology

*Source: Economics, Michael Parkin, p94.*
Supply Versus Demand

Source: Economics, Michael Parkin, p81.
How do parking prices affect demand?

### Areas with little public transportation

<table>
<thead>
<tr>
<th>Location</th>
<th>Scope of Study</th>
<th>Financial Incentive Per Month (in 1995 $)</th>
<th>Decrease in Parking Demand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Century City District, West Los Angeles, 3500 employees surveyed at 100+ firms</td>
<td>$81</td>
<td>15%</td>
<td></td>
</tr>
<tr>
<td>Cornell University, Ithaca NY, 9000 faculty &amp; staff</td>
<td>$34</td>
<td>26%</td>
<td></td>
</tr>
<tr>
<td>San Fernando Valley, Los Angeles, 1 large employer (850 employees)</td>
<td>$37</td>
<td>30%</td>
<td></td>
</tr>
<tr>
<td>Bellevue, WA, 1 medium-size firm (430 employees)</td>
<td>$54</td>
<td>39%</td>
<td></td>
</tr>
<tr>
<td>Costa Mesa, CA, State Farm Insurance employees</td>
<td>$37</td>
<td>22%</td>
<td></td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td><strong>$49</strong></td>
<td><strong>26%</strong></td>
<td></td>
</tr>
</tbody>
</table>

*Note: The decrease in parking demand is calculated based on the financial incentive provided.*
How do parking prices affect demand?

<table>
<thead>
<tr>
<th>Summary of All Studies</th>
<th>Financial Incentive Per Month (in 1995 $)</th>
<th>Decrease in Parking Demand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group A: Little or No Public Transportation</td>
<td>$49</td>
<td>26%</td>
</tr>
<tr>
<td>Group B: Fair Public Transportation</td>
<td>$102</td>
<td>31%</td>
</tr>
<tr>
<td>Group C: Good Public Transportation</td>
<td>$45</td>
<td>21%</td>
</tr>
<tr>
<td>Overall Average</td>
<td>$67</td>
<td>27%</td>
</tr>
</tbody>
</table>
Price Elasticity of Demand

*Price Elasticity of Demand (or elasticity)* measures the responsiveness of the quantity demanded of a good to a change in its price. It measures responsiveness by calculating the percentage change in the quantity demanded divided by the percentage change in the price.

*Source: Economics, Michael Parkin, p104.*
Typical Price Elasticities

Commuter parking price elasticities:

- -0.3 average
- -0.1 to 0.6 range

Or, every 100% increase in price results in a 30% decrease in demand

### Table 5.3 Some Price Elasticities in the U.S. Economy

<table>
<thead>
<tr>
<th>Industry</th>
<th>Elasticity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Elastic demands</strong></td>
<td></td>
</tr>
<tr>
<td>Metals</td>
<td>1.52</td>
</tr>
<tr>
<td>Electrical engineering products</td>
<td>1.39</td>
</tr>
<tr>
<td>Mechanical engineering products</td>
<td>1.30</td>
</tr>
<tr>
<td>Furniture</td>
<td>1.26</td>
</tr>
<tr>
<td>Motor vehicles</td>
<td>1.14</td>
</tr>
<tr>
<td>Instrument engineering products</td>
<td>1.10</td>
</tr>
<tr>
<td>Professional services</td>
<td>1.09</td>
</tr>
<tr>
<td>Transportation services</td>
<td>1.03</td>
</tr>
<tr>
<td><strong>Inelastic demands</strong></td>
<td></td>
</tr>
<tr>
<td>Gas, electricity, and water</td>
<td>0.92</td>
</tr>
<tr>
<td>Oil</td>
<td>0.91</td>
</tr>
<tr>
<td>Chemicals</td>
<td>0.89</td>
</tr>
<tr>
<td>Beverages (all types)</td>
<td>0.78</td>
</tr>
<tr>
<td>Tobacco</td>
<td>0.61</td>
</tr>
<tr>
<td>Food</td>
<td>0.58</td>
</tr>
<tr>
<td>Banking and insurance services</td>
<td>0.56</td>
</tr>
<tr>
<td>Housing services</td>
<td>0.55</td>
</tr>
<tr>
<td>Clothing</td>
<td>0.49</td>
</tr>
<tr>
<td>Agricultural and fish products</td>
<td>0.42</td>
</tr>
<tr>
<td>Books, magazines, and newspapers</td>
<td>0.34</td>
</tr>
<tr>
<td>Coal</td>
<td>0.32</td>
</tr>
</tbody>
</table>

Select Minimum Parking Requirements

- Gas Station – 1.5 spaces per fuel nozzle
- Nunnery – one space per ten nuns
- Mausoleum – 10 spaces per maximum number of interments in a one-hour period
- Swimming pool – 1 space per 2,500 gallons of water

<table>
<thead>
<tr>
<th>Land use</th>
<th>Parking requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult entertainment</td>
<td>1 space per patron, plus 1 space per employee on the largest working shift</td>
</tr>
<tr>
<td>Barber shop</td>
<td>2 spaces per barber</td>
</tr>
<tr>
<td>Beauty shop</td>
<td>3 spaces per beautician</td>
</tr>
<tr>
<td>Bicycle repair</td>
<td>3 spaces per 1,000 square feet</td>
</tr>
<tr>
<td>Bowling alley</td>
<td>1 space for each employee and employer, plus 5 spaces for each lane</td>
</tr>
<tr>
<td>Gas station</td>
<td>1.5 spaces per fuel nozzle</td>
</tr>
<tr>
<td>Health home</td>
<td>1 space per 3 beds and bassinettes, plus 1 space per 3 employees, plus 1 space per staff doctor</td>
</tr>
<tr>
<td>Heating supply</td>
<td>3.33 spaces for every 1,000 square feet of sales and office area, plus 2 spaces per 3 employees on the maximum shift, plus 1 space for every vehicle customarily used in operation of the use or stored on the premises</td>
</tr>
<tr>
<td>Heliport</td>
<td>1 space per 5 employees, plus 5 spaces per touchdown pad</td>
</tr>
<tr>
<td>Machinery sales</td>
<td>1 space per 500 square feet of enclosed sales/rental floor area, plus 1 space per 2,500 square feet of open sales/rental display lot area, plus 2 spaces per service bay, plus 1 space per employee, but never less than 5 spaces</td>
</tr>
<tr>
<td>Mausoleum</td>
<td>10 spaces per maximum number of interments in a one-hour period</td>
</tr>
<tr>
<td>Nunnery</td>
<td>1 space per 10 nuns</td>
</tr>
<tr>
<td>Rectory</td>
<td>3 spaces per 4 clergymen</td>
</tr>
<tr>
<td>Swimming pool</td>
<td>1 space per 2,500 gallons of water</td>
</tr>
<tr>
<td>Taxi stand</td>
<td>1 space for each employee on the largest shift, plus 1 space per taxi, plus sufficient spaces to accommodate the largest number of visitors that may be expected at any one time</td>
</tr>
<tr>
<td>Tennis court</td>
<td>1 space per player</td>
</tr>
</tbody>
</table>

ITE Rates

- Based on locations with no transit accessibility, no adjacent land uses
- R² of 0.038 means that variation in floor area explains only 3.8 percent of variation in peak parking demand.
- Parking generation rate is reported as precisely 9.95 spaces per 1,000 square feet, not 10 but 9.95.
Palo Alto, CA - parking requirements adopted in 1951
Tailor Parking Requirements?

- Parking demand varies with geographic factors:
  - Density
  - Transit Access
  - Income
  - Household size

- Cities can tailor parking requirements to meet demand, based on these factors

- Does not seek to constrain demand
Abolish Parking Requirements?

Reviving neighborhoods by abolishing minimum parking requirements

• Coral Gables, FL
• Eugene, OR
• Fort Myers, FL
• Fort Pierce, FL
• United Kingdom (entire nation)
• Los Angeles, CA
• Milwaukee, WI
• Olympia, WA
• Portland, OR
• San Francisco, CA
• Stuart, FL
• Seattle, WA
• Spokane, WA
Parking Maximums?

- Promotes alternatives to driving
- Maximizes land area for other uses
- Examples: downtown San Francisco; Portland, OR; Cambridge; all of UK
- Aside from congestion pricing, parking management is the only useful tool for eliminating congestion
San Francisco, CA - Parking and housing affordability

• Goals: More affordable housing, less traffic

• Each parking space per unit
  – Reduces the number of units on a typical lot by 20%
  – Increases the cost of a typical unit by 20%
  – Supports displacement

• In downtown and transit-oriented residential neighborhoods:
  – No minimum parking requirement
  – Maximum of 0.25 – 0.75 spaces per unit
  – Must be underground or “wrapped”
  – No curb cuts on transit or pedestrian priority streets
  – 1:1 allowable, but requires parking to be leased separate from unit
**Parking: High & Low Traffic Strategies**

<table>
<thead>
<tr>
<th>Traffic</th>
<th>Typical Requirements</th>
<th>'Tailored' Minimum Requirements</th>
<th>Abolish Minimum Requirements</th>
<th>Set Maximum Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traffic</td>
<td>High</td>
<td>Adjust for:</td>
<td>Market decides</td>
<td>Limit parking to road capacity</td>
</tr>
<tr>
<td>Housing Costs</td>
<td>High</td>
<td>Density</td>
<td>Garages funded by parking revenues</td>
<td>Manage on-street parking</td>
</tr>
<tr>
<td>Pollution</td>
<td>High</td>
<td>Transit</td>
<td>‘Park Once’ District</td>
<td>Market rate fees encouraged/ required</td>
</tr>
</tbody>
</table>
Making the Transition

- Manage spillover
- Give curbspace a value
- Popular alternatives – cash out, car-sharing
- Relate parking policies to community goals
- Address equity
- Stakeholder and community outreach
But where will the poor people park?

- Address social equity concerns directly:

- Calculate the relationship between household income and auto ownership in your own community. Look at race, age and ability, too!

- Parking is never free. Should its costs be hidden in the cost of housing? The cost of food and goods?

- Emphasize net social equity impacts, not anecdotal individual impacts. The current situation is always less equitable than a well managed parking program.

- Pay attention to where parking revenue goes; use it to fund services and projects that benefit low income people.
2. Parking at Rail Stations
Big Questions: Access Planning

• What is the most cost effective mix of investments to provide access to rail stations? Parking lots? Feeder bus? Pedestrian improvements? Bike improvements?

• Which produces more ridership and revenue, parking or TOD?
Riders: Parking and Joint Development Housing

- Surface parking
  - 100 spaces per acre
  - 200 rides per day
  - All at peak period
- 3 Story Structure
  - 200 spaces per acre
  - 400 rides per day

- Housing = ~1.6-4 rides per unit
  - 50-100 units/acre = 200 rides per day
  - 100-200 units/acre = 400 rides/day
  - Spread throughout day esp if affordable
Riders: Feeder Transit

- As corridor density increases, so does potential transit ridership
Costs: Operating vs Capital

- Feeder transit: High operating, low capital
- Bike/ped: Cheap
- Surface parking: low operating, low capital
  - Unless you include land!
- Structured parking: low operating, high capital
Cost per Rider

<table>
<thead>
<tr>
<th>Cost Per Rider</th>
<th>Efficiency Point</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface Parking with Land - $3,000</td>
<td></td>
</tr>
<tr>
<td>Structured Parking - $2,000</td>
<td></td>
</tr>
<tr>
<td>Surface Parking - $300</td>
<td></td>
</tr>
<tr>
<td>Transit - $200</td>
<td></td>
</tr>
<tr>
<td>Bike/Ped Improvements - $50</td>
<td></td>
</tr>
<tr>
<td>Housing Joint Development - ($300)</td>
<td></td>
</tr>
</tbody>
</table>

For Each New Rider

Parking Toolbox: Rail-Volution 2007
Jeffrey Tumlin
SkyTrain: Vancouver BC
Lessons & Results in Greater Vancouver

- Increasing ridership and cost recovery
  - 41% increase in ridership since 1994
  - 20% increase in ridership since 2002
  - Ridership of 200 million by 2010 (33% increase)

- Park-&-ride generally discouraged at stations
  - Allows access to transit & extends system BUT
  - Sterilizes land around stations
  - Disconnects city from system
  - Promotes low density urban development
  - Discourages all-day rides
  - Raises safety, personal security issues
Trips Up, Vehicle Count Down

- Vehicle trips to CBD are declining.

Note: Reliable data for 2001, 2002 and 2004 (outbound only) was not available and has been extrapolated.

Source: City of Vancouver Annual Cordon Count Program

Thanks to Lon LaClair City of Vancouver
RB Corridor Arlington vs. Fairfax County

39,500 daily boardings

- Auto (incl. Drop-off): 12.9%
- Bus/Vanpool: 3.6%
- Metrobus: 7.5%
- Other: 1.0%
- Walk: 73.0%

Source: WMATA May 2002 weekday Metrorail ridership and access data

29,250 daily boardings

- Auto (incl. drop-off): 14.6%
- No Response/Unknown: 12.0%
- Walk: 9.3%
- Metrobus: 4.8%
- Other Bus/Vanpool: 1.7%
- Other: 1.0%

Source: WMATA May 2002 weekday Metrorail ridership and access data
Resulting Efficiency

- Parking lot fills
- TOD Station
- Managed parking
- Unmanaged parking

Graph showing the efficiency of parking lot fills with categories for TOD Station, Managed parking, and Unmanaged parking.
BART Access Policy Methodology

- Addresses key barrier to joint development – replacement parking
- Analyzes ridership and revenue impacts of different scenarios
- Provides quantitative answer: does more joint development outweigh reduced parking?
Example: South Hayward

<table>
<thead>
<tr>
<th></th>
<th>Scenario A - Maximized Parking</th>
<th>Scenario B - Lower Parking Ratios</th>
<th>Scenario C - Maximized Density</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross density (units/acre)</td>
<td>56</td>
<td>77</td>
<td>100</td>
</tr>
<tr>
<td>Residential parking (spaces/unit)</td>
<td>1.5-2.1</td>
<td>1.0-1.3</td>
<td>1.0</td>
</tr>
<tr>
<td>% replacement parking</td>
<td>102%</td>
<td>73%</td>
<td>55%</td>
</tr>
</tbody>
</table>
Example: South Hayward

- Step 1: Assess ridership change
### Example: South Hayward

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<tbody>
<tr>
<td>New riders from TOD</td>
<td>798</td>
<td>1,047</td>
<td>1,324</td>
</tr>
<tr>
<td>Riders lost from reduced parking</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net change in ridership</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Net fare revenue</td>
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<tr>
<td>Riders lost from reduced parking</td>
<td>0</td>
<td>76</td>
<td>291</td>
</tr>
<tr>
<td>Net change in ridership</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net fare revenue</td>
<td></td>
<td></td>
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<td>291</td>
</tr>
<tr>
<td>Net change in ridership</td>
<td>798</td>
<td>971</td>
<td>1,033</td>
</tr>
<tr>
<td>Net fare revenue</td>
<td></td>
<td></td>
<td></td>
</tr>
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<td>291</td>
</tr>
<tr>
<td>Net change in ridership</td>
<td>798</td>
<td>971</td>
<td>1,033</td>
</tr>
<tr>
<td>Net fare revenue</td>
<td>$637,000</td>
<td>$776,000</td>
<td>$826,000</td>
</tr>
</tbody>
</table>
Example: South Hayward

- Step 1: Assess ridership change
- Step 2: Assess land value and parking costs
### Example: South Hayward

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<th></th>
<th>Scenario A - Maximized Parking</th>
<th>Scenario B - Lower Parking Ratios</th>
<th>Scenario C - Maximized Density</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land Value</td>
<td>($7,770,000)</td>
<td>$15,332,000</td>
<td>$15,242,000</td>
</tr>
<tr>
<td>Replacement parking capital costs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net ground rent after replacement parking</td>
<td></td>
<td></td>
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### Example: South Hayward

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Land Value</td>
<td>($7,770,000)</td>
<td>$15,332,000</td>
<td>$15,242,000</td>
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<tr>
<td>Replacement parking capital costs</td>
<td>$32,424,000</td>
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</tr>
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<td>($4,019,000)</td>
<td>($760,000)</td>
<td>($290,000)</td>
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<td>($760,000)</td>
<td>($290,000)</td>
</tr>
<tr>
<td>Reduction in parking operations costs</td>
<td>($218,000)</td>
<td>($36,000)</td>
<td>$72,000</td>
</tr>
</tbody>
</table>
Example: South Hayward

- Step 1: Assess ridership change
- Step 2: Assess land value and parking costs
- Step 3: Assess total costs and benefits
Example: South Hayward

A - 102% Replacement
B - 73% Replacement
C - 55% Replacement

Net New Riders

Net Annual Revenue

Net New Riders

Net Revenue

Net New Riders

Net Revenue
Example: South Hayward

- Step 1: Assess ridership change
- Step 2: Assess land value and parking costs
- Step 3: Assess total costs and benefits
- Step 4: Develop preferred scenario (in progress)
South Hayward BART Station Study

Results of Replacement Parking Analysis:

• More ridership will be generated if less land is occupied for replacement parking.

• The cost of building replacement parking is expensive. BART generates more net annual revenue the less replacement parking built.

• Improving pedestrian, bike and bus access to the station will increase ridership.
Why provide parking at Rail Stations?

- Land banking for future joint development
  - Danger: may be politically difficult to eliminate later!
- Only effective use of land
  - Freeway interchange
  - Airport zone
  - Toxins
  - But why put rail line here at all?
- Free capital money from FTA to build parking, no operating money to run shuttle connections
- Appeal to affluent suburban voters
- Appeal to sprawl developers and building trades
New Resources are Available

- “The High Cost of Free Parking”
  - By Don Shoup, UCLA
  - Top 100k on Amazon
  - 576 pages
  - $60 from APA

- “Parking Spaces / Community Places”
  - Free from US EPA
  - 70 pages

- “Parking Management”
  - By Todd Litman
  - Available at APA Bookstore or Amazon
3. Case Studies
Case Study:
Ventura, CA
Ventura’s minimum parking requirements...

...often require more parking than building...

<table>
<thead>
<tr>
<th>Category</th>
<th>Building Sq.Ft</th>
<th>Parking Sq.Ft</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrative, Business, and Professional Services</td>
<td>1.13</td>
<td>1.13</td>
</tr>
<tr>
<td>Shopping Center without Dining</td>
<td>1.13</td>
<td>1.13</td>
</tr>
<tr>
<td>Shopping Center with Dining</td>
<td></td>
<td>1.36</td>
</tr>
<tr>
<td>Dining Establishments</td>
<td></td>
<td>3.40</td>
</tr>
<tr>
<td>Dining &amp; Drinking &lt; 2,500 Sq. Ft. Gross Area</td>
<td></td>
<td>1.13</td>
</tr>
<tr>
<td>Dining &amp; Drinking &gt; 2,500 Sq. Ft. Gross Area, Freestanding</td>
<td></td>
<td>3.40</td>
</tr>
<tr>
<td>Dining &amp; Drinking &lt; 2,500 Sq. Ft. Gross Area, Mixed-Use</td>
<td></td>
<td>1.70</td>
</tr>
<tr>
<td>Day Care Centers</td>
<td>0.44</td>
<td>0.44</td>
</tr>
<tr>
<td>Elementary &amp; Middle School, no assembly</td>
<td></td>
<td>0.44</td>
</tr>
<tr>
<td>High School, no assembly</td>
<td></td>
<td>2.22</td>
</tr>
<tr>
<td>College, no assembly</td>
<td></td>
<td>3.10</td>
</tr>
<tr>
<td>Automotive Rentals</td>
<td></td>
<td>1.13</td>
</tr>
<tr>
<td>Automotive Repair, Bodies</td>
<td>0.68</td>
<td>0.67</td>
</tr>
<tr>
<td>Group Care</td>
<td></td>
<td>0.67</td>
</tr>
<tr>
<td>Medical Services: Medical Care</td>
<td></td>
<td>2.51</td>
</tr>
<tr>
<td>Lodging Services: Hotels and Motels</td>
<td>0.38</td>
<td>0.38</td>
</tr>
<tr>
<td>Boating and Harbor Activities</td>
<td></td>
<td>1.13</td>
</tr>
<tr>
<td>Recreation Services: Amusement Centers</td>
<td></td>
<td>1.70</td>
</tr>
<tr>
<td>Utility or Equipment Substation</td>
<td></td>
<td>1.13</td>
</tr>
</tbody>
</table>
Even downtown’s minimum parking requirements…

...often require more parking than building...

...and this is especially true for uses that help create vibrancy and life downtown (restaurants, night clubs, etc)...
Main Street - Requirements Removed

- 7 new restaurants opened up within months
- Allowed new 10-screen movie theater
Peak demand, Downtown public parking: 8 p.m. Saturday
Boundaries for Priced Parking & Parking Benefit District

Source of Base Map: April 2003 Katz, Okitsu and Associates Parking Study
MONMOUTH
Multispace meters, Handheld alerts
Each meter governs 10 to 15 spaces. After parking, drivers type in space number and pay with credit card or cash. Meters send real-time, block-by-block information to enforcement officers' handheld devices.

FORT LAUDERDALE, FLA.
In-car meters
Drivers can load up to $100 onto a prepaid meter that dangles from the rearview mirror, above; the meter counts down remaining parking minutes.

MONMOUTH
Handheld Device
Cars parked legally are displayed as green squares, while those that have exceeded their time limit turn red.

SACRAMENTO, CALIF.
Infrared license plate scanners
Enforcement vehicles traveling as fast as 30 mph use cameras to scan license plates. Using a global positioning system, the system lets officers check whether a car has outlasted its time on the meter. The system also can match license plates against databases of unpaid parking tickets and stolen vehicles.
Customer benefits

1. 1 in 8 spaces always available
2. No need for a pocketful of quarters
3. Refunds for unused time
4. No “ticket anxiety” for those who pay
5. No “two hour shuffle”
6. No cruising for parking
7. No parking meter “picket fences”
8. New revenue for downtown needs
Recommendations for Managing Public Parking in Downtown Ventura

**Saturday Pricing**

Note: No Sunday occupancy data exist, so no recommendations are being made for this day; Pricing should be implemented whenever demand exceeds 85%

<table>
<thead>
<tr>
<th>On-Street Parking</th>
<th>Public Lots &amp; Garages</th>
<th>On-Street Parking</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Commercial Parking Benefit District</strong></td>
<td></td>
<td><strong>Residential Parking Benefit District</strong></td>
</tr>
<tr>
<td>Saturday Hours</td>
<td>Downtown Core</td>
<td>Most Convenient</td>
</tr>
<tr>
<td>10 AM to 10 PM</td>
<td>$0.75/hr</td>
<td>1st 90 minutes free $0.50/hr thereafter</td>
</tr>
<tr>
<td>10 PM to 10 AM</td>
<td>Free</td>
<td>Free</td>
</tr>
</tbody>
</table>

Source of Base Map: April 2003 Katz, Okitsu and Associates Parking Study

Jeffrey Tumlin
Potential Revenue: $1.8–3.5 Million Annually

<table>
<thead>
<tr>
<th>Period</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily (Weekday)</td>
<td>$5,356</td>
</tr>
<tr>
<td>Daily (Saturday)</td>
<td>$7,626</td>
</tr>
<tr>
<td>Weekly</td>
<td>$34,404</td>
</tr>
<tr>
<td>Monthly</td>
<td>$308,443</td>
</tr>
<tr>
<td>Annual</td>
<td>$3,701,321</td>
</tr>
</tbody>
</table>
Stakeholder Feedback from July outreach

- Possible uses of new parking revenue

“We need to talk about improving alternative modes of transportation as well as parking management; what about more bike parking and better signage of bike routes and available bike parking in garages?”

“Sidewalks on many side streets in downtown are too narrow; we’ll need to widen sidewalks to accommodate more pedestrians as downtown gets more dense and adds residents.”

“Need to consider improvements that help people get from empty parking spaces in existing lots & garages to where they ultimately want to be on Main St. - pedestrian improvements, shuttles, and the like.”

“...parking revenue [...] should be used to improve the cleanliness and sense of safety in city-owned and managed parking garages.”

“...enforcement of parking time limits costs money- we all pay for that with our taxes; Why not let meter revenue also fund parking enforcement costs?”
Downtown Assets
Downtown Opportunities – Ped Amenities
Downtown Opportunities - Landscape Greening
Downtown Opportunities - Trash Collection
Downtown Opportunities - Lighting
Turning Small Change into Big Changes
Old Pasadena in 1978

“The area’s been going downhill for years.”

“It’s a bunch of dirty old buildings.”

“It’s filthy.”

“It’s Pasadena’s sick child.”

“The area is unsafe.”

PLAN FOR OLD PASADENA
Parking Problems in Old Pasadena

• Employees and shop owners parked at the curb
• Merchants opposed meters because they feared customers would stay away
• Pasadena had no money to pay for public infrastructure in Old Pasadena
Solution: Parking Benefit District

- City of Pasadena offered to return all parking meter revenue to Old Pasadena
- Merchants and property owners immediately agreed to install meters
- 690 meters operate until midnight, and on Sunday
A NEW OLD PASADENA COMING SOON

STREET AND ALLEY WAY IMPROVEMENTS:
LIGHTING
REPAVING
TRASH RECEPTACLES
SIGNS AND BENCHES
DIRECTORY MAPS
TREES AND CRATES
NEWSRACKS
MAINTENANCE
SAFETY

YOUR METER MONEY IS MAKING A DIFFERENCE
THE OLD PASADENA RENAISSANCE CONTINUES

CITY OF PASADENA
Implementation: local control is key

- City and Old Pasadena’s Business Improvement District jointly agreed on the boundaries of the Old Pasadena Parking Meter Zone
- Old Pasadena Parking Meter Zone Advisory Board established
  - Members: business and property owners
  - Recommend parking policies and set spending priorities for the meter revenue
“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. We’ve come a long way. This might seem silly to some people, but if not for our parking meters, it’s hard to imagine that we’d have the kind of success we’re enjoying. They’ve made a huge difference. At first it was a struggle to get people to agree with the meters. But 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
Setting rates and spending the revenue

Revenue in 2001:
- 690 parking meters yielded $1.3 million
- $1867 per meter
- $2096 per meter total, with valet parking rents and interest earnings

Expenses in 2001:
- Operating: $235 per meter
- Capital: $148 per meter
- Total: $383 per meter (18% of revenue)

Net parking revenue:
- $1712 per meter

The meters yield about $50 per front foot per year
Spending the revenue (fiscal year 2001)

- Debt service on sidewalk and alley improvements: $448,000

New city services:
- Additional police foot patrols: $248,000
- Lighting services: $21,000

Revenue allocated to old Pasadena’s BID:
- Additional sidewalk and street maintenance: $411,000
- Marketing: $15,000

Total expenditures: $1,142,000
Pasadena Retail Sales Tax Revenue

- Old Pasadena
- Playhouse District
- Plaza Pasadena
- South Lake

Year 1989 1991 1993 1995 1997 1999
Sales Tax Revenue
$0 $500,000 $1,000,000 $1,500,000 $2,000,000 $2,500,000

Pasadena Retail Sales Tax Revenue

Old Pasadena
Playhouse District
Plaza Pasadena
South Lake
Reform #2: Parking Requirement Burden Lifted

- Problem: Pasadena’s minimum parking requirements kept Old Pasadena’s buildings from changing uses
  - Pawnshop: 2.5 spaces/1000 sf
  - Restaurant: 20 spaces/1000 sf

Solution:
- parking requirements reduced by 25%
- “Parking Credit Program”: pay in lieu fee of only $115 a year per space in 2001, for each base not provided
- Cost to meet parking requirement is now only 2.5% of previous cost

 Drivers pay two thirds of public parking garage costs
“This place, it’s perfect, really. They’ve kept the buildings and the streets well. That makes it so attractive. People are walking around because they like the way it looks and feels. It’s something you just don’t see in Los Angeles. As a driver, I don’t mind paying more for what you have here. I tell you what: For this, I will pay.”

Shopper interviewed by *Los Angeles Times*
### Pasadena versus Westwood Village, LA

<table>
<thead>
<tr>
<th></th>
<th>Old Pasadena</th>
<th>Westwood Village</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curb space occupancy</td>
<td>83% in 2001</td>
<td>96% in 1994</td>
</tr>
<tr>
<td>Off-street occupancy</td>
<td></td>
<td>68%, peak hour in 1994</td>
</tr>
<tr>
<td>Meter rates</td>
<td>$1 per hour</td>
<td>Reduced from $1/hour to $.50</td>
</tr>
<tr>
<td>Off-street rates</td>
<td>90 minutes free, then $2/hour</td>
<td>$2/hour</td>
</tr>
<tr>
<td>Revenue</td>
<td>Stays there</td>
<td>General fund</td>
</tr>
<tr>
<td>Parking requirements</td>
<td>Nominal in lieu fees</td>
<td>Hinder reinvestment</td>
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Lessons Learned

- Cities should dedicate parking meter revenue to the districts that produce it.
- Merchants will insist on charging market prices for curb parking.
- Meter revenues can greatly improve the public infrastructure of older areas.
For More Information

Contact:

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