Using Performance Measures to Improve Parking Policies & Livability

UTCM Conference
Performance Measures for Livable Communities

Valerie Knepper
Metropolitan Transportation Commission
SF Bay Area

7 Million Residents
4 Million Jobs
101 Cities
9 Counties
26 Public Transit Operators
5 Regional Agencies
Sprawl development patterns lead to disinvestment in the core

- Stagnant household and employment growth
- Declining real estate values and tax revenues
- Deteriorating public infrastructure
- Higher infrastructure costs, lower revenue per acre
FOCUS
Priority Development Areas

- Over 60 jurisdictions – local application, regional evaluation
- Over 120 areas
- About 425,000 new housing units by 2035
- About 3% of region’s land area
- About 55% of projected regional growth
SB 375 Requirements

• Reduce GHG from cars & trucks 15% per cap by 2035
• Demographic and revenue assumptions
• House the region’s population
• Align transportation, housing growth, and land use planning
• Adopt in early 2013
MTC’s Sustainable Community Strategy

Targets

1. Climate Protection
2. Adequate Housing
3. Healthy and Safe Communities
4. Open Space and Agricultural Protection
5. Equitable Access
6. Economic Vitality
7. Transportation System Effectiveness
8. Infrastructure Security
Are parking policies important for meeting planning targets?

**Excess/Free/Subsidized parking...**

- Generates traffic, VMT and emissions (Targets 1 & 7)
- Makes infill more expensive, housing more expensive and limits reuse of older buildings (Targets 2 & 5)
- Tilts development toward suburban locations with cheaper land (Target 4)
- Is expensive, economically inefficient and inequitable (Targets 3, 5, 6 & 7)

But – some parking is necessary for components of smart growth

- For BART/Rail
- For TOD
- For downtown infill
Regional Parking Strategies
to support smart growth

Parking policies are primarily governed by local land use policies

Multi-faceted framework to address parking issues

Policy development with local partners, policies, legislation

Technical assist
- Station area plans
- Toolbox, model
- Surveys/Training
- Consulting

Analyze funding proposals for parking structures
Reforming Parking Policies to Support Smart Growth

Presentation for

Smart Growth Parking Tool Box & Model

June 14, 2007

Project Team:
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Rick Williams Consulting
Smart Growth Parking policies
Strategies by area typology

- Price and manage parking
- Unbundle and cash-out
- Support transit, walking & biking
- Reduce local requirements
- Share parking
- Carshare
Performance measures for parking structures . . . in a smart growth context

• Costs
• Ridership
• Revenues (willingness to pay)
• Alternatives
  – TDM
  – Land uses

• Other considerations – impact on GHG, mode share, equity, community concerns
Typical Parking Structure Proposal

Estimate Total Cost and Spaces
e.g., $30 million for 1,000 spaces

• Land
• Construction
• Operations and Maintenance
• Present value of funds

Calculate cost per space (~$25,000 - $50,000)

Calculate cost per use/day (~$7-$15)
Traditional Approach

- Replace all transit spaces—reserve for transit user, free/$1
- Add additional spaces for new TOD housing at standard ITE (suburban auto dependent) rates
- Add new parking for new TOD retail / businesses at standard ITE (suburban auto dependent) rates
- Add extra spaces “to ensure success” of new development

Large parking structures are very expensive, and often have <85% occupancy – oversized.
Why Should MTC Analyze Parking Structures?

- Structures are expensive
- Parking on the horizon
  - TODs/Station Area Plans
    - 6000 spaces~$150 million
  - Intermodal Stations
  - Downtowns
- TOD supports MTC regional goals – but how much parking structures vs. alternatives?
The Price of Vehicle Storage

- Capital
  (~$30,000/space)
- Land Value
- O & M
  ($1-$2/space/year)
- Full Cost
  $185/space/month
Recent Parking Structure Costs

Average Actual Cost: $31,000/space
Construction only
Structures On The Horizon

Average Planned Cost: $24,000/space
Construction only
Comparing Parking Structures with TDMs

**Parking characteristics**
- Number of spaces
- Net new spaces
- Revenues
- Occupancy/Turnover
- Cost per new space

**TDM Possibilities**
- Pricing – charges, unbundling, cash-out
- Shared parking
- Pedestrian/bicycle
- Transit

**Annualized Cost**
Per New Trip on transit system

**Annualized Cost**
TDM Effectiveness
TDM cost per new trip on transit system

- Implement TDMs up to cost equivalent of parking space expense
- Resize parking structure & implement TDMs
Cost per Trip: Parking vs. TDM

- Cost Per Net Space
- Occupancy and Turnover
- Cost Per Trip
- Compare to TDM
# Parking Cost Per Trip: Examples

(Construction only)

<table>
<thead>
<tr>
<th>Structure</th>
<th>$/Month</th>
<th>$/Workday</th>
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<tbody>
<tr>
<td>West Dublin/Pleasanton</td>
<td>$154</td>
<td>$7.10</td>
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<tr>
<td>Vallejo Ferry Terminal</td>
<td>$165</td>
<td>$7.60</td>
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<tr>
<td>Vacaville</td>
<td>$191</td>
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<tr>
<td>Fairfield</td>
<td>$319</td>
<td>$14.68</td>
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## Case Study: Parkway Transit Center

### Proposal:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td><strong>Current Spaces</strong></td>
<td>207</td>
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<tr>
<td><strong>New Spaces</strong></td>
<td>710</td>
</tr>
<tr>
<td><strong>Net Spaces</strong></td>
<td>503</td>
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<tr>
<td><strong>Construction</strong></td>
<td>$17.5 M</td>
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<tr>
<td><strong>$/Space</strong></td>
<td>$25,000</td>
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<tr>
<td><strong>$/Net Space</strong></td>
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<tr>
<td><strong>Monthly Cost/New Trip</strong></td>
<td>$269</td>
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<tr>
<td><strong>Daily Cost/New Trip</strong></td>
<td>$12</td>
</tr>
</tbody>
</table>
Shared Parking?

Better Bike/Pedestrian Access?

Improved Transit?

Shared Parking?
Comparing Parking Structures with TOD Housing

Parking structure cost
• Net new spaces
• Land
• Construction, O&M
• Revenues

Housing cost
• Land
• Construction costs
• Sales/rent revenue
  • Density
  • Reduced/managed parking

Annualized Cost / Return per sq ft

Transit ridership

Our preliminary finding –
Compact housing 5+ stories tall delivers more riders
Housing provides more economic return
Structured parking costs ~$7-15 per space
Policy issues – access, equity, GHG, design, etc
Some people choose to live close to transit

Design TOD housing for *People who want to use transit*

- Reduced parking, unbundling
- Transit benefits
- Carshare, walk and bike amenities

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**Hardest To Attract**
(33% of respondents)

- High-Income Suburbanites (11%)
- Auto-Oriented, Price-Conscious (6%)

**Easiest To Attract**
(38% of respondents)

- Transit-Preferring (7%)
- Urban DINKs (13%)
- Young Brainiacs (18%)

**Possible To Attract**
(29% of respondents)

- Kids, Cars and Schools (16%)
- Mellow Couples (10%)
- Ambitious Urbanites (19%)
Structured Parking vs Housing
Preliminary Findings

• Housing 5+ stories delivers more BART riders than parking structures

• Housing - highest economic return of land uses in suburban settings, provides positive financial return - more economic value than parking

• Structured parking costs ~$5-15 per space

• Other policy issues – access, equity, GHG, design, community concerns, etc

• Some parking is necessary for regional attractions, like BART, but can be minimized and shared.
Overall Conclusions

- Parking policies are an important component of smart growth policies
- Better parking policies are necessary to achieve our performance targets
- Pricing policies that show drivers the costs of their parking are essential – give consumers choices with prices
- Parking structures should be analyzed
  - Alternatives (Housing/TDMs)
  - Ridership, economics, equity, GHG
  - Right size parking, fund TDMs
- Consider regional parking policies
  - Analysis / Benchmarks / Flexible Standards?
Questions?

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http://www.mtc.ca.gov/planning/smart_growth/parking/

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