Parking & TOD around BART Stations

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Rail~Volution 2009 – Boston, Massachusetts
Outline

- Background
- Replacement Parking Policy
  - South Hayward BART
  - MacArthur BART
- Parking Privatization
  - Ownership
  - Operations & Maintenance
BART - SF Bay Area Rapid Transit District

- Opened in 1972
- 4 counties, 26 cities
- 104 track miles
- 43 stations
- ~340,000 average weekday riders
- 46,000 parking spaces
- 65% of operating costs from fares, parking, advertising

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Access Types

- Urban
- Urban with Parking
- Multimodal
- Multimodal – Auto Reliant
- Auto Dependent
BART TOD Policy

Goals

A. Increase transit ridership and enhance quality of life
B. Increase transit-oriented development projects on and off BART property
C. Enhance the stability of BART’s financial base
D. Reduce the access mode share of the automobile

Adopted by BART Board – July 14, 2005
Suburban BART Station
Problems with 1:1 Replacement Parking

- Expense of replacement in structures
- Directs resources to one access mode (those who drive and park)
- Urban design/traffic impact
- Often requires full ground rent and tax increment contribution
BART Parking Replacement Framework

1) Identify policy and context issues that affect the TOD scenarios
2) Build scenarios of TOD, parking, and access strategies
3) Evaluate scenarios (ridership and fiscal impacts)
4) Select preferred strategies

Source: Rick Willson, 2005

Ridership Factors
- Change in ridership from development
- Change in BART commuter parking supply
- Other access programs

Fiscal Impact Factors
- Net change in passenger fares
- Parking charges
- Ground rent (if any)
- Changes in capital and operating costs
Example: South Hayward BART

- **Auto-reliant/suburban station**
- **2005 access data:**
  - 39% drive alone
  - 5% carpool
  - 19% drop off
  - 12% transit
  - 22% walk
  - 2% bike
### Example: South Hayward BART (2006)

<table>
<thead>
<tr>
<th></th>
<th>Scenario 1</th>
<th>Scenario 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>% replacement parking</td>
<td>60%</td>
<td>75%</td>
</tr>
<tr>
<td>Gross density (units/acre)</td>
<td>80</td>
<td>76</td>
</tr>
<tr>
<td>Net change in ridership</td>
<td>1,698</td>
<td>1,841</td>
</tr>
<tr>
<td>Net annual impact (revenues &amp; costs)</td>
<td>+$1,372,213</td>
<td>+$775,964</td>
</tr>
</tbody>
</table>
MacArthur BART Station

- Urban with parking
- 2006 access data:
  - 10% drive alone
  - 15% drop off
  - 39% transit
  - 29% walk
  - 7% walk
Proposed MacArthur BART
85% Replacement Parking

BART Parking & TOD
Appropriate Replacement Parking Rate?

- Analysis: 50%-80%, depending on location
  - BART ridership
  - Financial stability

- Negotiations:
  - Developer (funding, land, footprint, etc)
  - BART (pressure from the BART Board, etc)
  - City (pressure from existing parkers or env.)

Outcome in reality?
85%-100% replacement parking
BART Facilities Standards

High capital cost → Low operating/maintenance cost

Stricter requirements:
- Elevators
- Structural & material
- Mechanical/electrical/plumbing
- Fire protection
- Lighting levels
- Drainage
- Curbs (within the parking structure)
- Stair design (stair tread)
- Security
- General conditions/soft costs

~20% higher capital cost!
Design from a Customer Perspective

- Parking stall dimensions and angle
- Parking facility aisles and aisle widths
- Entrance widths
- Number/location of entrances
- Entrance capacity and controls
- Payment locations
- Lighting requirements
- Elevator requirements
- Stair design
- Ease of entering/exiting facility
- Pedestrian safety and ease
- Signage
Operations from a Customer Perspective

- Payment mechanism
- Real-time information
- How to set parking price
- Maintenance
- Organizational issues
- Revenue distribution
- Security
- Shared parking agreement
- Third party parking operator
Who Will Own the New Parking Structure?

- **Developer owned garage:**
  - Based on industry cost estimates ($20,000-$30,000 per space)
  - Privately operated and maintained, by third party
  - If privately owned – parking tax etc (Oakland: 18% tax)

- **BART owned garage:**
  - ~20% higher capital costs
  - Structural, customer experience, security
  - Low operating and maintenance costs

- **City owned garage (or JPA):**
  - Industry standards and City Code
  - City-operated and maintained
  - No parking tax
Parking Management

- Developer owned garage:
  - Market-based: 85%-90% occupied on average
  - Difficult to enforce (no ticketing, only warnings of towing)
  - Sharing with other users preferred

- BART owned garage:
  - Currently $0 to $5 per space (location and occupancy)
  - Moving towards market-based and shared parking in the future?
  - Ticketing allowed

- City owned garage (or JPA):
  - Depends on City policy, likely more market-based and with third-party operator
  - Ticketing allowed
  - Sharing possible, if allowed by BART
Conclusions & Next Steps

- Work towards making the stations more urban in nature
- Improve access by other modes (walking, biking, transit)
- Replace as little parking as possible
- Share as much parking as possible, and manage on-street parking
- Price parking based on demand
- Loosen the requirements for private developers