Rail-Volution 101

Transit-Oriented Development

GB Arrington

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TOD or TAD?

*Transit-Oriented Development* or *Transit Adjacent Development*

- Majority of development at US transit stations are not TODs
- TOD is still illegal in at most of US transit stops
- Not enough to be next to transit, must be shaped by transit
Shaped by Transit

- Greater density
- Less parking
- Better public realm
- Mix of uses
- Very walkable
- Tame the car
Stations
Defining Value

- Station helps define the most important place
- Civic architecture & place making
- Catalyst for community objectives
- A place to come back to

Portland, San Francisco, Strasbourg
Transit-Oriented Development
Orenco Station

Fundamentals for TOD
a great neighborhood

- Safe streets
- Strong center
- Local services
- Parks & open space
- Housing choices
- Good jobs

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Scale matters
More than a Parcel, More than a Project

• Create a walkable district
  – Area w/in a 5 minute walk
  – Approximately 125 acres
  – Walkable complete community

• Most “TODs” don’t meet this standard
  – Requires broader strategy, cooperation
  – Understanding the bar needs to be higher

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TOD: District not a Project

Orenco Station

This

The Round

Not This

T
Market for TOD

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Understanding your market

• *Emerging Trends in Real Estate ‘08:*
  – TOD a top investment prospect
  – Holds value well
• Majority of TOD residents are childless
  – Empty-nesters & young urban professionals
• TOD households tend to be higher income
  – Reflects newer construction
Decline in Families w/ Children

- 50% of households in 1950
- 33% of households in 2000
- 12% of households in 2010 - 2030

- 30% current US housing demand
  - Dense, walkable, mixed-use communities
- Today less than 2% of housing

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Residents Near Transit Want

From Transit Community Resident Surveys:

- Well designed communities
- Easy access to a center
- High quality residence
- Quality transit service
- Pedestrian Friendly
- Good price value

“The ability to walk to a pint of milk”
TOD Principles
Six Principles for TOD

1. Medium to higher density
2. Mix of uses
3. Compact pedestrian-oriented
4. Active defined centre
5. Limited, managed parking
6. Public leadership

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1. **Medium to higher density**
   - Greater than community average
   - Distance to transit matters
   - To support transit on average:
     - 6 to 7 du/ac for frequent bus
     - 9 to 25 du/ac for rapid transit
   - Retail & office closet to transit
   - Minimum density effective tool
Rosslyn Ballston Corridor

- Development since 1980
  - 25m square feet office
  - 14,400 residential units
- Station areas
  - 25% county housing
  - 37% county jobs
- Transit Access
  - Arlington: 73% walk, 13% by car
  - Fairfax: 15% walk, 58% by car

Land use can change transportation behavior
“An Oasis of Stability Amid a Downturn”
The New York Times  October 7, 2009

“(The Rosslyn-Ballston Corridor) has remained resilient during the worst recession in decades, and should continue to do so”
Principles for TOD

2. Mix of uses

- Vertical or Horizontal
- Most difficult TOD element
- Great TOD benefits
  - More walking
  - More ridership
  - Reduced auto-use
- Prohibit auto-oriented uses closest to transit
Pearl District Portland

Former rail yard & warehouses

- Public & private development agreement
  - Housing
  - Infrastructure
  - Parks
- Development since 1997 $750m+
- 2700+ units built
- 131 units per acre minimum density

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3. Compact pedestrian-oriented

- Block sizes for 5-minute walk
  - Max of 400 ft block face
- Orient buildings to sidewalks
- Calm streets
- Active street edges with wider sidewalks
Core Center Edge

- **Core:**
  Up to 800 ft greatest intensity

- **Center:**
  800 to 1600 ft intermediate intensity

- **Edge:**
  1/4 m to 1/2 m greater than community average of intensity

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# Distance & Mode Share

**2005 WMATA Development-Related Ridership Survey**

<table>
<thead>
<tr>
<th>Distance from station</th>
<th>Metrorail Mode Share</th>
<th>Auto Mode Share</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Office</td>
<td>Residential</td>
</tr>
<tr>
<td>At station</td>
<td>35%</td>
<td>54%</td>
</tr>
<tr>
<td>¼ mile</td>
<td>23%</td>
<td>43%</td>
</tr>
<tr>
<td>½ mile</td>
<td>10%</td>
<td>31%</td>
</tr>
</tbody>
</table>

- 35% of office trips right at the station entrance
- Office mode share drops about 1% every 100 ft
- ½ mile residential share 200% higher than office
Principles for TOD

4. Active defined centre

- 18 hours of activity
- Quality public realm / sense of place
- Employment closest to transit
- Compact & dense
Bloomington Central

- Bloomington, Mn
- 43 acre – adaptive reuse
- 1,100 residential units
  90 units per acre
- 350 room hotel
- 2m sq ft office
- 1.6 acre park
Principles for TOD

5. Limited, managed parking

- Always a challenging issue
- Consider: size, location, design & management
- No minimum ratios, maximums
- Disconnect parking from buildings, manage by district

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TODs create less traffic

- TOD residents are:
  - Twice as likely not to own a car as US Households
  - 5 times more likely to commute by transit than others in region

- Self-selection:
  - Responsible for up to 40% of TOD ridership bonus
### TODs behave Differently

**Daily car trips for 50 dwellings**

<table>
<thead>
<tr>
<th>Type</th>
<th>Trips</th>
</tr>
</thead>
<tbody>
<tr>
<td>SF</td>
<td>500</td>
</tr>
<tr>
<td>MF</td>
<td>333</td>
</tr>
<tr>
<td>TOD MF</td>
<td>177</td>
</tr>
</tbody>
</table>

- **SF**: Single Family
- **MF**: Multifamily
- **TOD MF**: Multifamily TOD

- **10 Trips**
- **6.67 Trips**
- **3.55 Trips**

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6. Public leadership

- Generally critical for success
- Align “political will” & TOD objectives
- TOD plans + capital budget aligned
- Focus on implementation
- Nurture progressive developers
Arlington Heights IL.

- Revitalized Downtown
- New Metra Station
- Performing Arts Ctr
- Structured Parking
- Main street retail
- High Density Condo’s
  – Retail below
Conclusions
Rx to grow & reduce travel

- Density increased
- Limit & manage parking
- Solve for walking
- Grid of small streets
- Transform transit
- Increased residential mix
- Office & retail closest to transit

Santa Ann California

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