TOD + Transit. Making it Great.

GB Arrington

arrington@pbworld.com
Overview

- Creating value
- TOD defined
- TOD market
- TOD principals
- Station design
- Transit + development
Creating Value with Transit
Link to a Broader Strategy

TOD as “means to an end” to achieving community objectives

- Part of community’s vision for growth
- Basis to gain greater broader support & success
- More than transit
- Building partnerships essential

placemaking group
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

Cisco Systems TAD
San Jose, CA

Street Car TOD
Portland, OR

placemaking group
Shaped by Transit

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

San Diego, Portland, San Francisco, Washington, DC, Denver
Transit Oriented Development
Orenco Station

Fundamentals for TOD

a great neighborhood

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

Land Use / Transit
“Anything worth doing is worth doing slowly”

Mae West
Big Moves: One Big Vision

- **PDC Created**: 1950s
- **Harbor Dr Removed**: 1960s
- **Downtown Plan, UGB, freeway withdrawals**: 1970s
- **LRT, TOD planning**: 1980s
- **Mixed use places**: 1990s
- **Trams, green streets**: 2000s
Multi-Modal Connectivity

LRT

STREETCAR

BUS

BIKE

PEDESTRIAN

TRAM
Portland Rail Investment

- 6 LRT lines – 45 miles
- 1 urban street car – 5 miles
- 10 mile commuter rail
- New in 2009
  - 6 mile Clackamas LRT
  - 2nd downtown LRT alignment
- 100k+ daily rail ridership
Over $11B in TOD along 51 miles of LRT & 5 miles of Streetcar

Portland Formula Leverage Transit to Shape Growth
Portland’s ridership growth outpaces auto use

% Change 1990 - 2006

Population
VMT
Service
Ridership

pb placemaking group
Portland v. America

Compared to other US cities Portland residents:
• Travel 20% fewer miles by car
• Are twice as likely to commute by transit
• Are 7 times more likely to commute by bike
  – 6.4% of commute trips are on bikes
• Have the 2\textsuperscript{nd} lowest rate of spending on transportation
  – Portland 15.1% of household budget
  – US 19.1% of household budget
But Portland won’t work here.
Firm base to draw on

- Market preference for urban housing
- Lot's of experience to draw from
- Demographics trends are favorable
- Federal policy support

US TOD SNAPSHOT

- Portland: $11B+ TOD
- Los Angeles: 150 TODs
- San Diego: 16 TODs
- Denver: 13k TOD Units
- Minneapolis: $750M TOD
- Hudson-Bergen: $5B Housing
- Baltimore: $1B+ TOD
- Dallas: $4.7B TOD
- Charlotte: $1.5B TOD forecast
Market for TOD
Understanding your market

- Emerging Trends in Real Estate ‘10:
  - "The future is about green development, infill, and TOD"
- 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

pb placemaking group
Kids are deferring driving

- Large decline in teens with drivers licenses.
- 1978-2008:
  - 16 year olds: -38%
  - 17 year olds: -35%
  - 18 year olds: -21%
  - 19 year olds: -16%

What is the new cool? Is social networking changing the role of the car for kids?
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 & Property Values

- Washington, DC
  - + $2 to $4 per foot for commercial
- San Jose
  - + 23% for commercial
- Portland
  - + 10% rent premiums
- Dallas
  - + 39% for residential
  - +53% for office values

pb placemaking group
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

pb placemaking group
TOD: District not a Project

Orenco Station

This

Not This

The Round
TOD Principles
Six Principles for TOD

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

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

pb placemaking group
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
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

pb placemaking group
Pearl District Portland

Former rail yard & warehouses

- Public & private development agreement
  - Housing
  - Infrastructure
  - Parks
- Since 1997
  - $1B+ Development
- 3,000+ units
- 131 units per acre minimum density

pb placemaking group
Principles for TOD

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
# 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

pb placemaking group
Principles for TOD

4. Active defined center
   - 18 hours of activity
   - Quality public realm /sense of place
   - Employment closest to transit
   - Compact & dense
Mission Bay
San Francisco

- Station at PacBell Park – SF Giants
- High Density Housing
- Mixed-use
- Mission Bay redevelopment
- University Campus

pb placemaking group
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

pb placemaking group
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

pb placemaking group
TODs behave Differently

Daily car trips for 50 dwellings

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></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>

**TOD housing**

_generates 50% less traffic than conventional housing_

fonts: **TOD** // _placemaking group_
Principles for TOD

6. Public leadership

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

pb placemaking group
Rainier Vista Seattle

- Public housing redevelopment
- Mixed-Use TOD
- 850 units
- Low income + market rate
Implications for your community
Community building + people moving

- Trends are on your side
- Plan for the pedestrian
- Leverage the power of partnerships
- Raise your aspirations
- Make TOD legal & easy
- Develop a strategy equal to the task
Transit Station Design. We must do much better.
We shape our buildings; thereafter they shape us.

Sir Winston Churchill
Making it all work

*No one right solution for each place*

- Bus transfer
- ROW takes
- Platform location
- Kiss & Ride
- Parking
- Joint Development
- Pedestrian access
- Station as place
- Station entry

pb placemaking group
Automobile oriented transit
Development
oriented transit
Making transit behave

• Design great transit & great places
  – Keep vision in mind, not the automobile
  – Break the mold
  – Look outside the ROW

• Balance “place” and speed
  – Create a great destination
  – Going nowhere fast has little value

pb placemaking group
Development-Oriented Transit “DOT”

- Transit designed with development in mind
  - Corridor selection
  - Station function
  - Pedestrian access
  - Parking location
  - Community partnerships
  - Incorporate TOD
DOT Checklist:

• Typical issues to address
  – Is the station located in an area with development potential?
  – Does the design allow for pedestrian connections?
  – Is transit well connected into the community?
  – Is TOD incorporated into the design?
Baltimore DOT Principles

1. Shape the Future
   - Design Red Line stations to shape and enhance the neighborhood and encourage more people.

2. Locate Your Identity
   - Locate each station in an identifiable civic and friendly place; stations should define the most important places in each neighborhood.

3. Transit Stations as Landmarks
   - Design memorable transit stations that can serve as local landmarks and provide a sense of civic identity.

4. Connect Communities with Transit
   - Adjacent transit districts along the line should be linked to create new pedestrian communities benefiting everyone.

5. Be a Good Neighbor
   - Site and design stations to be good neighbors as well as providing safe and efficient transit service.

6. Compliment Community Objectives
   - Help realize the vision and economic vitality of each community with quality development providing a mix of uses close to transit.

7. Connect Places with Walking
   - Provide links, safe and convenient sidewalks, and paths between Red Line stations and the elimination of transit barriers, with sidewalks facing towards their connectors.

8. Pass the Test of Time
   - Make the permanence of transit facilities evident from their appearance.

9. Attract New Riders
   - Invest in quality stations and stations design that will attract new riders and benefit those who ride out of necessity.

10. Create Partnerships
    - Secure partnerships that will maintain the success of the Red Line and the community it serves in return for the public investment made in transit improvements.

placemaking group
Unlocking the key to each stations identity

- TOD in Region
  - Where does the station fit in?
- TOD in Corridor
  - Stations relationship to other stations?
- TOD in Community
  - How will TOD add value? Be a place?

pb placemaking group
Solve for both development & cars
Solutions for multiple modes

- Pedestrians
- Bicyclists
- Light rail, bus, other mass transit services
- Kiss and ride, Park & ride

People
Bikes
Transit
Automobiles
Make a Place

Connect to Community

Make Transit Work

Make a Place

Connect to Community

Make Transit Work

Connect to Community

Make Transit Work

Make a Place

pb’s placemaking group
New Carrollton TOD Master Plan

Transit

Arrival Place

Community

pb’s placemaking group
Thinking about stations
What is a Station?

Minimum building blocks of a station:
- 12’+ Platform
- Shelter
- Bench
- Lighting
- Information
- Trash can
- Safe
Station Location Considerations

- **Proximity** to uses that generate ridership
- **Direct accessibility**
- **Safety and security**
- **Visibility** to users
- **System connections**
Place Making at Stations

Places to come back to, not just to leave from

- Four different strategies:
  - Station as a place
  - Station invisible to complement place
  - TOD defines place
  - TOD serves as place
Designing transit for development
Fruitvale Transit Village

- Joint Development of BART parking
- Transit center one side, development other
- Revitalized low-income community
- Calmed major arterial

placemaking group
Fruitvale Transit Village

- Full service transit
  - Rail Station
  - Bus transfer
  - Park & ride
  - Kiss & ride

pb placemaking group
Fruitvale Transit Village

Community developed TOD

- Community Center
- Affordable housing
- Senior Housing
- Medical Clinic
- Retail

pb placemaking group
Where to put the train
Freeway Stations

- Most problematic for TOD
- Center worst possible station location
  - Limits walkable area to transit
  - Increases hostile environment
- Stations at edge of freeway or away from interchange optimum
Arterial Stations

- Works well for TOD
- Calming arterial key to creating TOD
  - Busy streets limit walkable area
- Stations away from major intersections optimum
- Arterials near freeway interchanges problematic
Railroad ROW Stations

- Can work very well for TOD
  - Bring TOD right to station
- Challenge of accessibility
  - Road & pedestrian access can be difficult
- Older industrial uses may be a challenge
Transit & Great Places

• Solve for Transit + Development
  – Active good places, walkable, mix of uses
• Inclusive process
  – Start early w/ DOT principles
• Station: most important place
  – People for activity
  – Unique address

pb placemaking group