Applying TOD Best Practice

Baltimore Red Line

TOD + Transit

Making it Great

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Overview

- Creating value
- TOD defined
- TOD market
- TOD principles
- Transit Design
- DOT principles
- Designing for development
- Conclusions

Dallas, Los Angeles, Portland TODs
Vision for what you want

Overlake Transit Village, Redmond, WA
Clear path & roles to get there

phasing

partnerships

2012

2023

refined plan
site control:
- initial streets
- vault
infrastructure:
- transit
- street
catalyst project
opportunity sites
pedestrian bridge
future development

city of redmond implementation team
sound transit
landowners
development community
key stakeholders

Overlake Transit Village, Implementation Plan, Redmond, WA

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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
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

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
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
Millennial’s Want Urban

2011 National Association of Home Builders:

- 88% of Gen Y want to be in an urban setting
- 1/3rd willing to pay for the ability to walk
- Huge market: 80m Gen Y v 76m Boomers
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
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
Learning from transit regions
transit + land use
transformation
Vancouver, BC
Vancouver, BC

*The Economist*: World’s most livable city, 6 years in a row

- 10 years:
  - total trips up 23%
  - vehicle trips down 10%

Compact growth at stations:

- +11,500 high density dwellings 1981 – 2006
- $5 B private investment 1981 – 1989
Revitalized, Growing Transit City

transit + land use

transformative

Washington, DC
Washington, D.C.: Transit City

- Today a **majority of all trips w/out a car**
- New growth focused around transit
- Reversed decades of decline
  - Policy goal: 100k new residents @ stations
  - Gained nearly 30k residents in the last decade
Livable, Sustainable, Desirable

transit + land use

transformative

Rosslyn-Ballston, Virginia
Rosslyn Ballston Corridor

51.1% non-auto trips

- Travel 1996-2006
  - Arterials +.05% per year
  - Transit +37%

- Development 1970 - 2006
  +15m sq ft office
  +2m sq ft retail
  +19,000 residential units
  $12.7B invested
But those ideas 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
- Denver 13k TOD Units
- Minneapolis $750M TOD
- Hudson-Bergen $5B Housing
- Los Angeles 150 TODs
- San Diego 16 TODs
- Baltimore $1B+ TOD
- Dallas $4.7B TOD
- Charlotte $1.5B TOD forecast
The train is coming. What is the key to TOD success?
Keys To TOD Success

- Get the planning right
- Apply the power of partnerships
- Market driven, not transit driven TOD
- Design for the pedestrian

41st & Fox Commuter Rail Station Denver
TOD Typology
Successful TOD at Many Scales
Great places are defined by great streets.
Circulation in a TOD

- Context sensitive
- Lower speed
- Small block size – 400 x 400 max
- Favor active uses
- Seamlessly connect TOD to community
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
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
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
Market Common
Clarendon, VA

- US Best practice
  - 240k retail
  - 100k office
  - 300 apartments
  - 87 townhomes
- Opened in Nov ‘01
  - 100% leased
- Worked closely with neighborhoods
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

- Mixed-Use TOD
- Public & private partnership
  - Housing
  - Infrastructure
  - Parks
- Since 1997
- $1B+ Development
- 3,000+ units
- Tight parking
- 25% affordable
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**

WMATA Survey – *transit share decreases with distance*

- First 600 ft really matters
- Office mode share drops about 1% every 100 ft
- ½ mile residential share 200% higher than office

### Lesson:
*put office & retail closest to station*

<table>
<thead>
<tr>
<th>Distance from Station</th>
<th>Metrorail Mode Share</th>
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<tr>
<td></td>
<td>Office</td>
</tr>
<tr>
<td>At Station</td>
<td>35%</td>
</tr>
<tr>
<td>1/4 mile</td>
<td>23%</td>
</tr>
<tr>
<td>1/2 mile</td>
<td>10%</td>
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Rule of Thumb v. Reality

- Mapping walk distance very different than radius
  - Can you really get there
- Between 1/4 & 1/2 mile share of riders walking drops by 50%
  - 10% increase in distance = 10% decline in ridership
4. Active defined center

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

- Mission Bay redevelopment
- University Campus
- High Density Housing
- Mixed-use
- Station at PacBell Park – SF Giants
5. Limited, managed parking

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

Rio Vista, San Diego
Columbia City, Seattle
TODs behave Differently

Daily car trips for 50 dwellings

<table>
<thead>
<tr>
<th>Type</th>
<th>Trips</th>
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<tbody>
<tr>
<td>SF</td>
<td>500</td>
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<td>MF</td>
<td>333</td>
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<tr>
<td>TOD MF</td>
<td>177</td>
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TOD housing generates 50% less traffic than conventional housing.
6. Public leadership

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

- Public housing redevelopment
- Mixed-Use TOD
- 850 units
- Low income + market rate
TOD evolution
what happens when?
TOD EVOLUTION

The TOD plan

Rail + walkable streets

Parks + TOD demonstration project

Built TOD district
Locate stations for TOD
TOD corridor strategy
Undertake Station Area TOD Plans
Final Design/Construction

Refine transit design / acquisition for TOD
Closely working with developers
Adopt TOD plans, zoning

What to Do When

City Center

Corridor

Neighborhoods

Locate stations for TOD
TOD corridor strategy
 Undertake Station Area TOD Plans

AA/PE

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What Development Happens When

- Planning / Advocacy / Education
- Land speculation
- Initial TOD response

Favored corridor

City Center

Neighborhoods

Construction

0-10 YRS

TOD

Faux TOD

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What Development Happens When

- Gov’t encourages TOD
- More modest residential TOD
- Pilot projects push performance
What Development Happens When

- Specialized TOD Dev’lpers emerge
- Broader pattern of TOD
- TOD communities
Who :: What :: Where :: When
Transit Station Design. We must do much better.
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
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
Development-Oriented Transit

“DOT”

- Transit designed with development in mind
  - Corridor selection
  - Station function
  - Pedestrian access
  - Parking location
  - Community partnerships
  - Incorporate TOD
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
2. Locate Your Identity
3. Transit Stations as Landmarks
4. Connect Communities with Transit
5. Be a Good Neighbor
6. Compliment Community Objectives
7. Connect Places with Walking
8. Pass the Test of Time
9. Attract New Riders
10. Create Partnerships
Solve for both development & cars
New Carrollton TOD Master Plan
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
Fruitvale BART

- Development Zone
- Pedestrian Spine
- Transit Zone
- Calmed Major Arterial
- Development Phase II
- Park & Ride Structure
- Multi Modal Transit Center
- Transit Zone
Fruitvale Transit Village

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

Community developed TOD

- Community Center
- Affordable & senior housing
- Medical Clinic
- Retail
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
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