

# Benchmarking TOD



Elizabeth Deakin

Professor, Dept. of City and Regional Planning

Director, University of California Transportation Center

Berkeley, CA

Students and Post-Docs:

James Rubin, Jay Stagi, Eunice Park, Kamala Parks, Cecily Way,  
Maureen Hickey, Matt Davis, Tom Valentin, Jesse Reguin, Aaron  
Golub, Lynn Scholl

A project being carried out in partnership with FTA and California State Senators  
in cooperation with Reconnecting America's Center for Transit-Oriented Development

# The Issues



- Term TOD is used to refer to projects, already developed areas, plans – means different things to different people
- On the ground and in plans, TOD varies with regional size and morphology, transit network and technology, station location in region, size and character of station area city/town, competing and complementary developments, markets - and this is often appropriate
- Large and growing literature, but much is promotional, anecdotal / based on limited numbers of cases, lacks details
- Need for guidance on what's expected and on how to evaluate TOD proposals and monitor progress over time – while retaining context-sensitivity and flexibility, acknowledging market issues, etc.

# Tasks



- Identify factors to be considered in monitoring and evaluating TODs, based on best available knowledge of what contributes to or inhibits TOD success
- Identify and evaluate alternative metrics & procedures for measuring and documenting key factors, considering data availability, methodological complexity, staff skills required, costs
- Propose a set of procedures and metrics that could be used by transit operators, local jurisdictions, and regional agencies to forecast TOD achievement and performance
- Propose a set of procedures and metrics that could be used by transit operators, local jurisdictions, and regional agencies to monitor TOD achievement and performance, recognizing the diversity of TODs that are emerging
- For CA state senators: document benefits of TOD and recommend matching markets and transit investments.

# Methodology



- Literature review on TOD definitions, evaluation criteria, empirical evidence
- Data analysis (population demographics, employment characteristics, development patterns, travel options, transit ridership) for five FTA New Starts metro areas (Portland, Phoenix, Minneapolis-St. Paul, Charlotte, Baltimore) and three CA cities with active TOD programs (San Diego, Sacramento, SF Bay Area)
- Field work and interviews in the eight metro areas
- Roundtable on TODs (Nov. 2005)
- Aim to finish “soon” – December? (depends on scheduling of site visits and coordination with sponsors)

# What makes TOD successful?



- Density of transit-friendly development over 1/2 mi. area within walking distance of station – density levels depend on magnitude of transit investment (how many riders do you need to be cost-effective?); uses depend on location in region, local context, relation to other stations in corridor
- Good quality pedestrian connections (sidewalks, street crossings)
- Traffic calming, traffic and parking management

# What makes TOD successful (cont.):



- Mix of uses that will attract occupants, create an attractive environment (services, amenities, public infrastructure, design qualities), AND produce substantial ridership – specific mix will vary
- Public and private design and operations approaches that make transit use smart, easy, comfortable
- Public support: quality, equity, service, traffic & access management



# What to look for:

- Suitable existing development or TOD plans for the entire area within walking distance of the TOD
- Both an access component and a land development component in the plans
- Implementation time frame and strategies should be clear, incentives in place, barriers removed
- Market assessments? Pros and cons.

# Land Development Component



- enough density/activity to generate the ridership the station needs, together with motorized access - there will be different types and levels of density of TOD because the ridership needs differ with the system design and the development opportunities differ from place to place. Heavy rail transit will need denser, bigger TOD than will BRT.
- a mix of uses appropriate to the location in the region, the site's physical characteristics, and the surrounding districts.
  - This may mean building around an existing shopping street to take advantage of it and strengthen it, focusing on housing, focusing on offices, or some combination.
  - No simple formula – a good context-specific plan.

# Access Component



- *Priority walk access* – uninterrupted networks with easy crossings – no long delays at intersections; ADA compliance, lighting, comfortable waiting areas, “eyes on the street”
- *Priority bike access* – uninterrupted networks and parking in safe and secure locations; also, provision for bikes on transit whenever possible
- *Priority transit access* - designs to handle feeder bus/taxi/shuttle access without neighborhood disruption or getting caught in traffic; stop locations & scheduling to facilitate timed transfers
- *Managed auto access:* if car parking is provided, a lot design that handles access without neighborhood disruption or awkward pedestrian access; lot security, lighting, maintenance; a parking price that is fair given the costs of parking provision; possibly shared parking with retail, housing, commercial uses a mix of uses.

# Developing Support for Transit - Oriented Development



- Multiple bottom lines: cost-effective ridership, community building, economic development, equity, environmental quality
- Objectives vary among the stakeholders – some are fully shared, others less so
- Need to recognize differences in objectives to find a win-win solution – what each stakeholder needs for the TOD to be a success

# Transit Agency Perspective



- Increase ridership and revenues
- Reasonable cost per ride and cost per mile – operating and capital costs considered
- Increase access by non-motorized modes (reduce parking demand, reduce traffic impacts associated with stations)
- Equity: provide good transit options for those who cannot or choose not to use a car

# Strategies for Increasing Ridership



- Make transit time-competitive: effective route and station location, effective access modes, efficient operations (transit priority, prepayment, direct services, timed transfers), good info systems
- Make transit cost-competitive: cost control in design, technology selection, and operation; proper pricing of alternatives (e.g., parking pricing policy for autos)
- TOD: locate in and help to generate markets for transit - sufficiently dense, walkable, good places to live and work (good design, services, conveniences; comfortable and safe)

# Local Government Perspective



- Increase transit ridership – especially transit ridership with pedestrian access - to reduce auto trips, reduce congestion
- Develop/renew/revitalize area around stations – property tax and sales tax revenues, improved quality of life
- More choices for residents, employees, more flexibility
- Meet affordable housing needs (MAYBE)

# Alternative strategies for cities and counties:



- Widen streets and arterials to handle traffic, build more parking?
- Attract auto malls, big box retail?
- Restrict housing development for income levels that will require lots of public services?
- OR
- Emphasize TOD and get mixed use, mixed income, healthy development in which traffic is under control and taxes and service requirements are well balanced?



## Other Reasons for Support:

- Saves open space, ag lands, habitat --reduces sprawl and thereby can help reduce the development footprint on lands with high value in alternative uses (environmental and resource agency support)
- Needed to make the most of transit investments (funders, transit agency staff (maybe), economists, tax groups)
- (Usually) reduces infrastructure and service demands -sewer, water, roads (economists, tax groups, infrastructure providers (maybe), environmentalists)
- Provides much needed housing in high-accessibility areas (advocates for low and moderate income populations)



# Some Cautionary Notes

- TOD by itself won't overcome inefficiencies in transit location, design, and operations in markets where most travelers have alternatives
- Scale of development needed to produce riders may not be recognized by local officials – e.g., 1M sq. ft. office / retail development probably contains 3000 employees; 4000 housing units around a transit station probably house 10,000 people – that sounds like lots of development but would probably produce only a few thousand transit rides – education, good (built!) examples needed.
- Some of the benefits claims (increased taxes, etc.) are largely the result of shifting development location in the region, not generating new revenues per se.
- Increased property values may be seen as good for property owners, tax coffers, but not so good for renters, first-time home buyers, new businesses
- Best-laid development plans can be delayed, shelved by market cycles, shifts – need an ongoing process to monitor, update, manage