Transit-Oriented Development, Joint Development, and Land Value Capture in Urban Metro Systems

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What is Transit-Oriented Development?

Characterized by four principles:

- Dense, compact development around stations
- A full mix of land uses: housing, jobs, retail, institutions
- A safe, interconnected, pedestrian environment
- Reduced parking that is shared and well-designed

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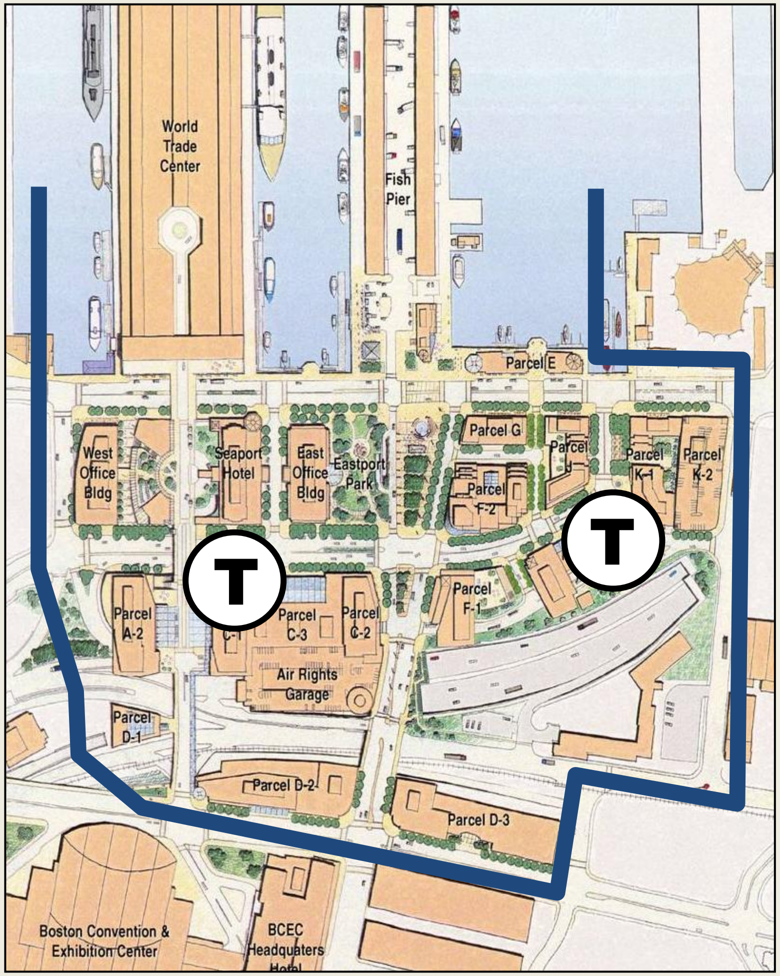
Why is TOD Financially Good for Transit?

- ***Increased ridership***
- ***Joint development***
- ***Land value capture***



South Boston Waterfront

Joint Development

- Projects are built on transit property (land or air rights), or have a direct physical connection to a station.
- The Transit Agency is a business participant.
- Joint development generates revenue directly for the transit agency through land sale, lease, or in-kind contributions.
- Joint development gives the transit agency an opportunity to set the standard for TOD.

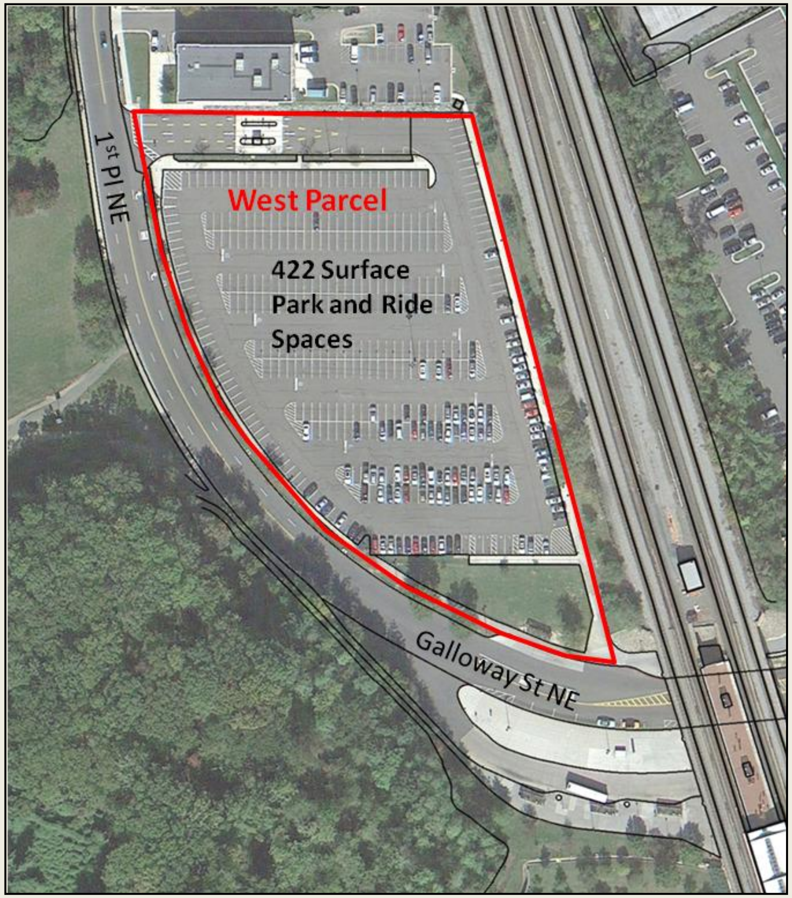
Land Value Capture: Two Models

- **Special Assessments**
  - Benefit Assessments, Improvement Districts, Development Charges.
  - Potential resistance from corridor property owners, who see it as “a new tax on TOD”.
  - Bogotá’s *valorización* is a form of special assessment.
- **Tax Increment Financing**
  - Capturing the “normal tax” that the land owner would pay anyway—usually the local property tax.
  - Welcomed by land owners and developers.
  - Potential resistance from the municipality, which has other priorities for the money.

The Station Level

Traditional Joint Development

- Washington, San Francisco, Boston, Atlanta, Miami, others
- Typical approach: developers solicited for individual stations
- Typical project: park-and-ride lot converted into garage + joint development parcel
- Typical results:
  - Good TOD for ridership
  - Developer helps maintain station
  - Payments go for the new garage

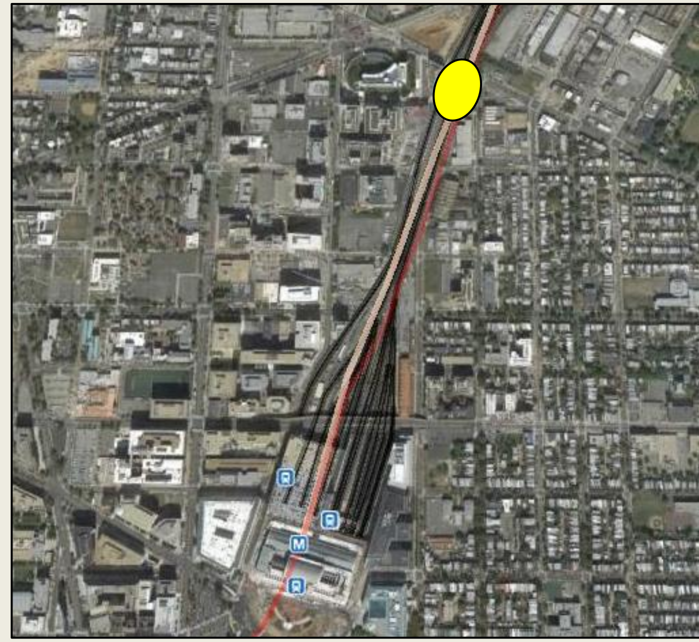


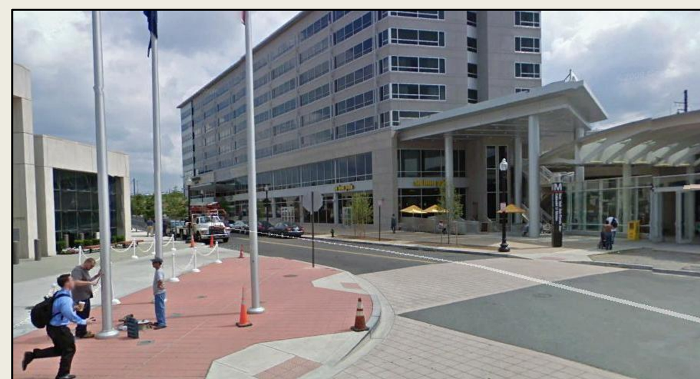
Washington, DC: Fort Totten Station

Washington: NoMa Station

- Urban district north of Capitol and Union Station
- Metro passes by, but no station
- 1998: land owners *request* a Special Assessment District for an “infill” station
- Station opened in 2004; key to NoMa District revitalization strategy.

➢ ***Special assessment financing: $25 million in bonds = 24% of total cost***





Boston: Assembly Square

- 65-acre (26-hec) obsolete industrial site
- Near downtown Boston, MIT
- Metro passes by, but no station
- Community wants dense TOD
- Station cost $56 million
- 6,000 new riders per day—built at no cost to transit agency

➢ ***Developer pays first $15 million***

➢ ***State Economic Development pays $26 million***

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Boston: Assembly Square

- 2,100 housing units
- 1.06 million sf (98,400 mc) retail
- 12-screen cinema
- 1.75 million sf (162,500 mc) offices
- 150-room hotel

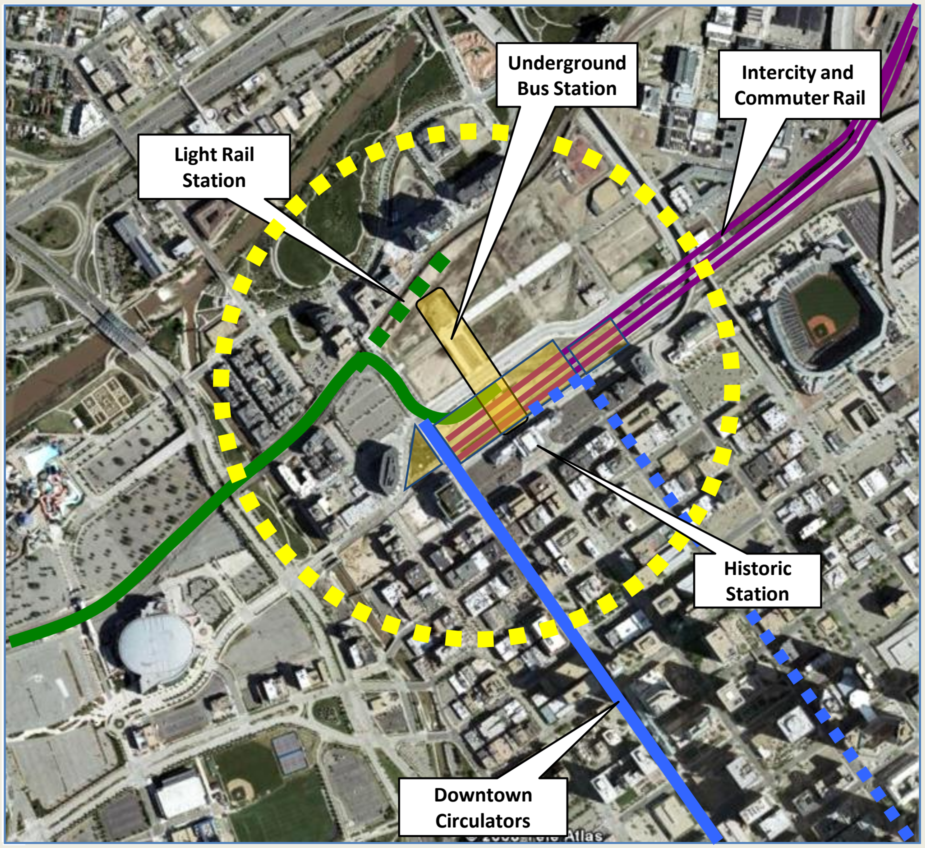
➢ ***65 acres of streets, sidewalks, parks, utilities financed by value capture: municipal and state tax increment***

Denver: Union Station

- Historic station and 19.5-acre (7.8-hec) public site
- Transit program: $488 million
  - Intercity Rail (existing)
  - Commuter Rail (new)
  - Light Rail (expanded)
  - Central bus station (new)
  - Circulators (expanded)

➢ ***Joint development: 5 parcels + station; total payment $35 million***

➢ ***Tax Increment + Special Assessment financing: $146 million***



Denver: Union Station

- Historic station, rail, and bus facilities open 2014
- Three of five joint development parcels built or in construction
- 1,450,000 sf (125,000 mc) of mixed-use TOD on-site in station and five new buildings
- 4,000,000 sf (370,000 mc) of TOD within 1/4 mile (400 m)

The Corridor Level

San Juan: Tren Urbano

- Traditional joint development at multiple stations

Joint Development Sites

San Juan: Tren Urbano

- New Metro line—first in San Juan
- Opened 2005: 18 km, 16 stations
- Ambitious joint development program:
  - 11 projects under contract at 6 different stations
  - 1500 housing units
  - 1,000,000 sf (93,000 mc) office
  - 250,000 sf (23,000 mc) retail
  - Private investment: $1 billion
  - Land payments: $70 million
- Great recession stopped all construction financing

Estación Roosevelt

Portland: Cascade Station

- 120-acre (48-hec) urban renewal site at Airport
- LRT extension with 2 stations

➢ ***Bechtel & Trammel Crowe joint development venture commits $28 million out of $125 million transit cost***

➢ ***City commits $23 million via Tax Increment Financing***

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Portland: Cascade Station

- Red Line opened 2007
- Development delayed by recession, now strong
- 1,325,000 sf (123,000 mc) offices
- 1,200 hotel rooms
- 400,000 sf (37,000 mc) retail
- 24-screen cinema

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Copenhagen: Orestad

- 310 acres (766 hec) of undeveloped land between downtown and Airport
- 1992: Orestad Development Corporation (55% City, 45% Ministry of Finance) created to:
  - Build new Metro line to downtown (the M1)
  - Develop a “new town”
- Oresund Train provides a rapid ride to Copenhagen Airport and to Sweden

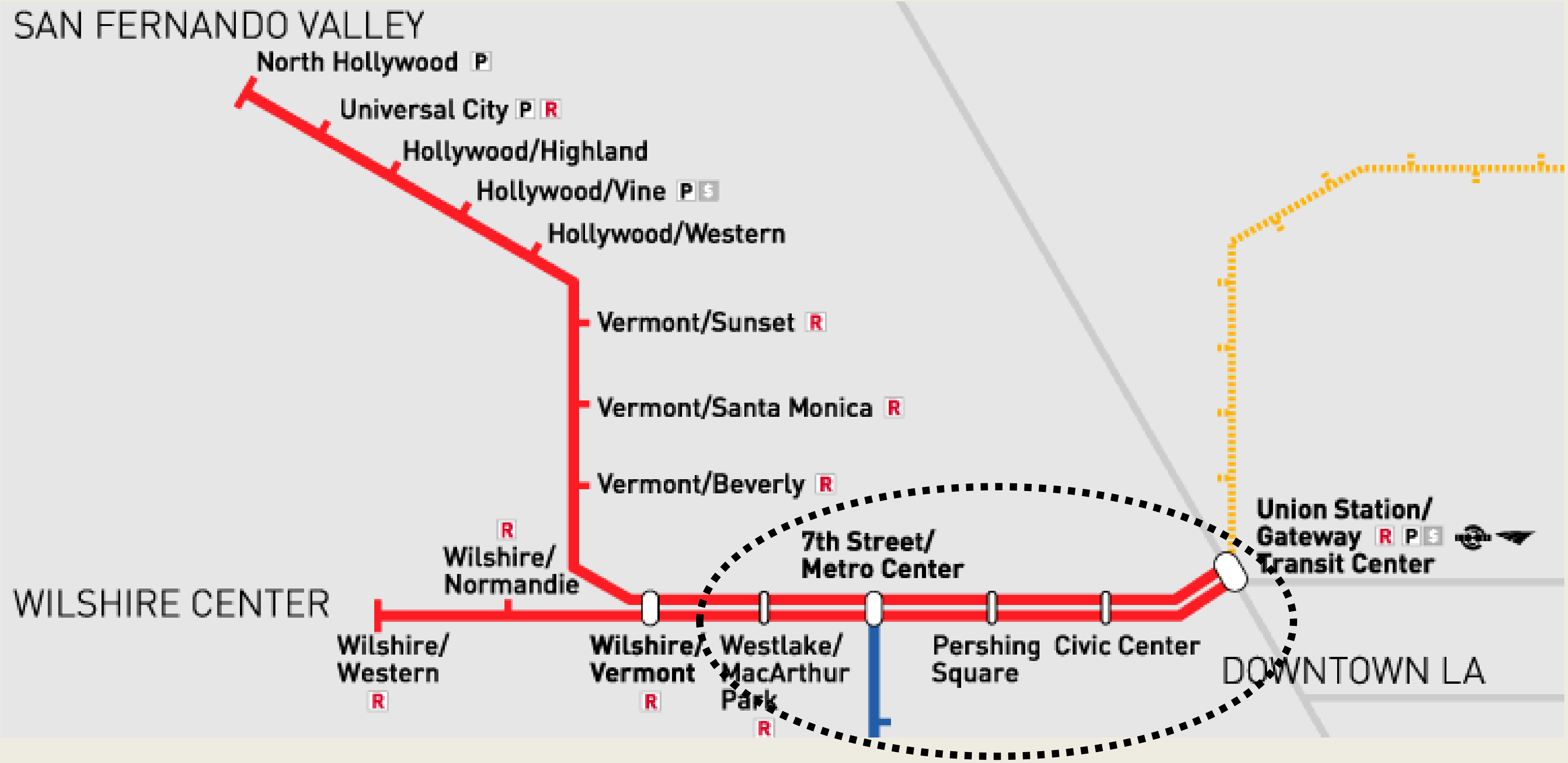
Copenhagen: Orestad

- Development objective: 20,000-30,000 residents, 60,000-80,000 jobs
- Began slowly, accelerating now

➢ ***A 310-hec joint development project: land sales were to cover capital cost. Partially successful.***

➢ ***Land taxes from new development were to cover operations. Partially successful.***

Los Angeles: Red Line Stations



5 stations

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Los Angeles: Red Line Stations

- 1985: special assessment to fund 5 Red Line Metro stations
- Downtown: 1/2 mile (800 meter) district around each station
- Westlake: 1/3 mile (500 meter) district around station
- Won litigation, collected 1992-2009

➢ ***Bond financing from revenues:***
  - ***$130 million financed***
  - ***only 9% of Red Line cost, but***
  - ***75-80% of 5 stations' cost***

Westlake Station

Streetcars

- A new trend in US urban transit: Portland, Seattle, San Francisco, Atlanta, New Orleans
- Smaller, less costly projects
- Mostly for circulation rather than suburban commuting
- Limited federal funding
- ***Typical: value capture used as a principal financing method.***

Seattle, San Francisco

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Streetcars

- Portland: four phases, 7.35 miles (12 km) of double-track streetcar
- Over $3 billion in TOD
- Total streetcar cost: $251 million
- Phases 1-3 (before any federal funding): $103 million

➢ ***Local Improvement District, Tax Increment Finance, and downtown parking revenue bonds:***
  - ***34% of total system cost***
  - ***67% of phases 1-3***

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Atlanta BeltLine

- 22-mile (35-km) circumferential belt around the urban core, following old rail corridors
- An integrated plan of light rail transit, parks, trails, mixed-use TOD
- Intercepts the four Metro Lines
- Partnership of City of Atlanta and MARTA (regional transit agency)
- Total cost: approximately $4 billion (all components)

Atlanta BeltLine

- Program components:
  - 22 miles (35 km) transit
  - 1300 acres (525 hec) of parks
  - 33 miles (53 km) trails
  - 5600 units of affordable housing

➢ ***Largest financing source: a Tax Allocation (Tax Increment) District established in 2005:***

  - ***Covers 6500 acres (2630 hec)***
  - ***Will finance $1.7 billion in bonds***
  - ***Approximately 40% of total cost***
  - ***Currently paying for planning, parks***

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New York: #7 Subway Extension

- 33-acre (13.3-hec) uncovered railroad yard on West Side of Manhattan
- Part of 360 acres (145 hec) of underutilized land
- Two-part strategy:
  - extend the Number 7 subway 1 mile (1.6 km) from Times Square to West 34th
  - air rights joint development over the yards
- Unique partnership:
  - City finances and builds the subway
  - MTA (transit agency) operates subway
  - MTA sells air rights for joint development
- Subway opens 2014, TOD underway

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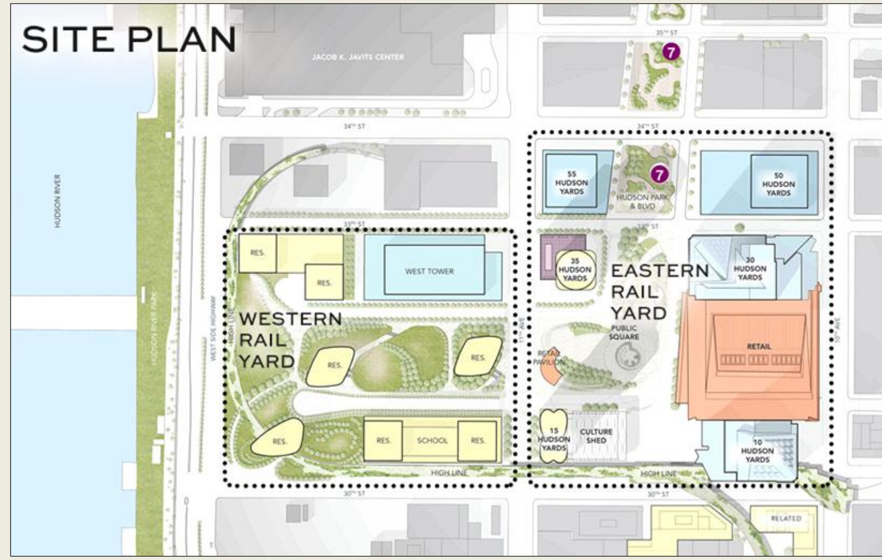
New York: #7 Subway Extension

- Air rights mixed-use TOD:
  17,000,000 sf (1,580,000 mc)
- City creates two public corporations to build infrastructure and control development

➢ ***Tax Increment Finance-like model:***
  - ***Hudson Yards Infrastructure Corporation issues $3 billion in revenue bonds ($2.4 billion subway, land acquisition, other)***

➢ ***Joint development:***
  - ***MTA receives $200 million for air rights, which can be used for other transit construction***



The System Level

Hong Kong MRTC

- Massive system carries 5.2 million passengers per weekday
- Government corporation was privatized in 2000, but Government owns 78% of stock
- Joint development is a core business, funding construction and operations
- ***In 2012, Property Development, Property Management, and station commercial businesses generated HK$9.3 billion in operating surplus ($1.2 billion US)***

Kowloon High-Speed Rail Terminus:
25-acre joint development

Hong Kong MRTC

- MTRC real estate includes:
  - 13 shopping malls; 9,200,000 sf (850,000 mc) of retail
  - 9,900,000 sf (916,000 mc) of offices
  - 126,000 housing units

Rail Line	Housing Units	Office MC	Retail MC
Airport Railway	28,473	612,000	307,000
Urban Lines	29,045	153,000	151,000
Tseug Kwan O Line	8,792	5,000	55,000
LOHAS Park	21,500	40,000	
West Rail Line	12,897		105,000
East Rail Line	4,771	67,000	113,000
Ma On Shan Line	10,314	39,000	67,000
Light Rail	9,108		53,000
Austin Station	1,200		
TOTALS	126,100	916,000	851,000

Tokyo’s Commuter Rail System

- Unique evolution:
  - eight private railways built before WWII
  - public corridors privatized in 1987
- Unique scale: private commuter lines carry 16 million passengers per weekday, Tokyo subway carries 6 million
- ***Oldest form of joint development:***
  - ***Private commuter lines were built by land developers to serve new districts***
- ***Land value capture:***
  - ***When public company builds a new line, land owners were required to fund 50% of the cost and contribute the right-of-way***

Conclusions

- TOD is always good for transit: more riders, more support.
- Transit can support existing mixed-use development and attract new TOD.
- Joint development—TOD on transit land—brings:
  - extra revenue from the real estate deal (maybe)
  - the chance to shape the rest of the station area
- Land value capture, by tax increment or special assessment, has many successful applications to transit.
- Two fundamental constraints:
  1. TOD plans can influence location, but not overall market conditions.
  2. The over-riding factors: scale and density.