TRANSPORT ORIENTED DEVELOPMENT

What? Why? and How?

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MAIN-LAC Dialogue
TOD OVERVIEW

- What? ¿Qué?
- Why? ¿Por qué?
- How? ¿Cómo implementar?
TOD OVERVIEW

- **What?** ¿Qué?
- **Why?** ¿Por qué?
- **How?** ¿Cómo implementar?
Pedestrian Accessibility
  - “Walkable” neighborhood design

Regional Accessibility
  - City and regional planning that focuses new development in central and accessible locations

The D’s
  - Density  population and employment per km2
  - Diversity  mixed land uses, housing types, income
  - Design  for pedestrians
  - Destinations  accessibility to regional activity centers
  - Distance to Transit  nearby high-quality transit service
NOT TOD
WHAT IS TRANSIT ORIENTED DEVELOPMENT

TOD is higher-density mixed-use development within walking distance of transit stations.

Image source: ITDP
TOD focuses public and private development around transit stations to create neighborhoods where people can safely walk, live, work, shop and play.
TOD NEIGHBORHOOD: COLUMBIA HEIGHTS, WASHINGTON DC
TOD CORRIDOR: ARLINGTON VIRGINIA
TOD CITY: NEW YORK, NEW YORK
TOD METROPOLITAN REGION: PARIS, FRANCE
TOD OVERVIEW

- **What?** ¿Qué?
- **Why?** ¿Por qué?
- **How?** ¿Cómo implementar?
WHY TOD?

- Save time
- Save money
- Improve quality of life
- Reduce GHG emissions
  - ↑ walking, cycle and transit use and ↓ decreased trip lengths
- Increase return on investments
  - Public infrastructure investments
    - Transportation, water, social housing...
  - Private investment
    - Commercial, office, housing
• Vehicle technology and fuel improvements are insufficient for reducing GHG emissions

• We must also address land use: location and design

• Empirical and modeling literatures show a 20-40% reduction in VMT from compact development

• Integrated measures can meet GHG goals
Daily Driving – Washington DC region

(VMT/capita)

Regional Avg 34.2

Loudon County 50.1

Rosslyn-Ballston 17.4

Fairfax County 35.2

Arlington Cty 21.6

Jefferson-Davis 10.9

Washington DC 12.8

Prince Georges 36.3

Charles County 65.6

Data Source: Dennis Leach, Arlington County
ROADWAY ORIENTED TRANSIT (ROT?)

METRO WASHINGTON DC: FAIRFAX, VA
TOD REDUCES DRIVING:
ARLINGTON, VIRGINIA

METRO WASHINGTON DC: ARLINGTON, VA

PEOPLE DRIVE 30-70% LESS THAN THE REGIONAL AVERAGE
TOD LOWERS GHG EMISSIONS:
CURITIBA, BRAZIL

People drive 50% less than auto-oriented Brasilia, and emit 50% less CO2 per vehicle, even with higher motorization rate and median income.

CURITIBA - BRAZIL
But doesn’t driving make us prosperous?

Not like it used to.
By 1996 economic growth began to outpace driving growth.

Travel (VKT) that contributes little or nothing to households and local economies.
Travel (Person hours) that consumes nearly as much as it contributes to households and local economies.
**Dallas**: Retail sales grew 33% in 1st year after light rail began.

**Portland**: $100 million in public investments in streetcars attracted $3.5 billion in private development.

**Bogotá**: 15-20% increase in property values near the original line of TransMilenio.

**San Francisco**: $140 million in health savings by 2035.

**Barranquilla**: $1 billion in reduced infrastructure costs.

**USA**: 30 - 40% lower transport costs.

**USA**: Placemaking attracts new businesses and tourists.

**Bogotá**: 32% reduction in travel time.

**USA**: Lower rates of pedestrian fatalities in compact urban areas.
Metro: Increases property values

- 27% of land value from 4% of land
- $212 billion of real estate value with ½ mile of rail stations
- Generates $2.8 billion in property taxes, with 8% from rail premium
Figure 8. Share of Income Spent on Housing and Transportation

<table>
<thead>
<tr>
<th>Location of Neighborhood Where Working Families Live</th>
<th>Households</th>
<th>Transportation</th>
<th>Housing</th>
</tr>
</thead>
<tbody>
<tr>
<td>In Central City</td>
<td>$20,000 - $35,000</td>
<td>54%</td>
<td>32%</td>
</tr>
<tr>
<td>Near Other Employment Center</td>
<td>$20,000 - $35,000</td>
<td>66%</td>
<td>35%</td>
</tr>
<tr>
<td>Away from Employment Center</td>
<td>$20,000 - $35,000</td>
<td>70%</td>
<td>33%</td>
</tr>
<tr>
<td>In Central City</td>
<td>$35,000 - $50,000</td>
<td>39%</td>
<td>23%</td>
</tr>
<tr>
<td>Near Other Employment Center</td>
<td>$35,000 - $50,000</td>
<td>49%</td>
<td>26%</td>
</tr>
<tr>
<td>Away from Employment Center</td>
<td>$35,000 - $50,000</td>
<td>51%</td>
<td>26%</td>
</tr>
</tbody>
</table>

MILLIONS, BILLIONS, TRILLIONS

Source: Holger Dalkmann, TRL

Global transport investments by source of finance

NAMAs and GCF?
TOD OVERVIEW

- **What?**  ¿Qué?
- **Why?**  ¿Por qué?
- **How?**  ¿Cómo implementar?
Yuck
Better
Ugly
Some more density
Mixed Uses
Even new awnings!
GREEN CORRIDOR - CALI
GREEN CORRIDOR - CALI
BARRIERS TO TOD

- Un-coordinated policy, planning and regulation
- Technical capacity: limited design and market risk experience
- Imperfect public-private collaboration
- Gaps in public infrastructure to support private development
- Inadequate value capture, PPP, finance and incentive mechanisms
TOOLS FOR ADDRESSING BARRIERS TO TOD

Regulation: land plans
zoning
impact fees
building codes
TDM regulations

Incentive: Land assembly
zoning for higher density
tax policy
cost sharing agreements

Investment: transit infrastructure, operation
non motorized infrastructure
power, water, etc

Capacity Building: Planning
Implementation
Evaluation
TRANSIT ORIENTED DEVELOPMENT INVOLVES MULTIPLE PLAYERS

Multiple National Government Stakeholders
- Ministry of Transport
- Ministry of Environment
- Ministry of Housing
- Department of Planning

Multiple Local Government stakeholders
- Transit Authority
- Redevelopment Authority
- Planning Department
- Environment Department

Multiple Private stakeholders
- Equity investors
- Debt partners
- Real estate developers
- Local residents and business owners
KEY NEEDS FOR TOD IMPLEMENTATION

• Publically articulated vision supported by plans, policies and investments

• Community engagement

• Private sector support

• High quality project design

• Multiple investors

• Effective implementation plan
Examined different models of public-private collaboration.
PUBLIC-PRIVATE COLLABORATION: “NoMa” Washington DC

$85 million in public investment + $35 million in private investment ➔ $3 billion in private investment
PUBLIC-PRIVATE COLLABORATION: “NoMa” Washington DC
IMPLEMENTING TOD

• **We need Champions.**
  - Identify and cultivate public and private sector leaders with a vested interest in project outcomes – who make investments in the project.

• **We need to get started.**
  - Identify strategic, triggering interventions that can catalyze progress and demonstrate a project launch.
    - These can be big or small – from a new Metro station to new sidewalks – but they will be successful if they tell a compelling story of how the neighborhood is transforming.
  - This often means knitting together existing efforts that are complementary but have not been integrated.
• An art as much as a science.

• We need technical analyses and detailed plans but must also apply common sense.

• Build on the momentum of current policy priorities, new investments and market trends and guide them toward DOT projects.
¡Gracias!

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Thank you to:

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