

# Reshaping The City: New Visions for Urban Transport

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# Agenda

- **Where are we now?**
- **Rethinking infrastructure?**
- **Cities of the future?**

# Where are we now?

- **50% of the world's population lives in urban areas**
- **US metropolitan areas: 65% population, 68% jobs, 75% economic output**
- **30% of carbon emissions come from transport sector**



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# Where are we now?

- **20-30% US family budget spent on transport**
- **Average family of four spent \$2,873 on gasoline (2005)**
- **Annual cost of congestion**
  - \$87.2 billion (2007)
  - 4.2 billion hours (2007)

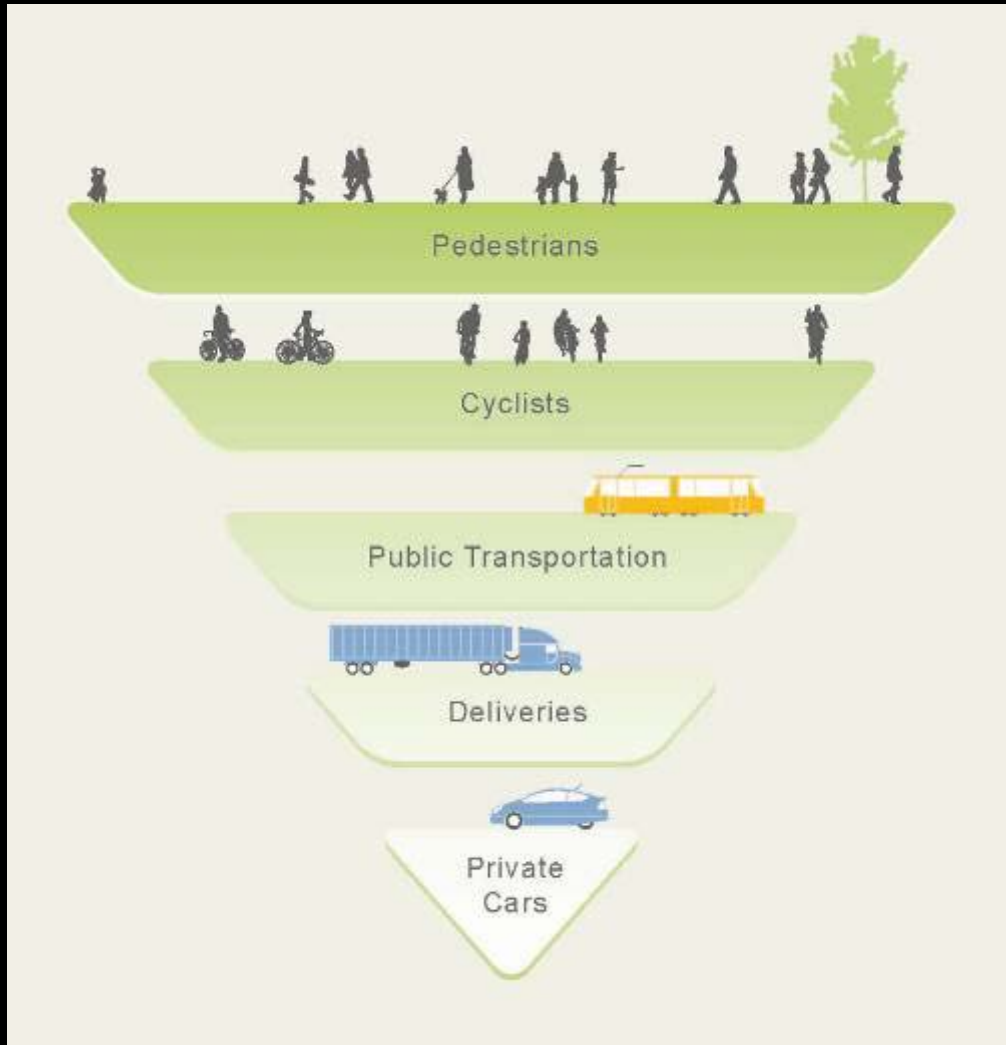


# Where are we now?

- **10.7B transit trips (2008), highest level since 1956**
- **35% of transit agencies considering transit service cuts**
- **Chronic underinvestment in transport maintenance and operations**
  - \$225-340B transport investment needed annually over next 50 years for state of good repair
  - \$90B spent annually



# Rethinking Infrastructure



# Repurpose Old Infrastructure

- Create open space in dense urban areas



Herald Square, New York



The High Line, New York

# Repurpose Existing Infrastructure

- **Use former rail right-of-way for transit, bikes, and pedestrians**



Orange Line BRT, Los Angeles



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Capital Crescent Rail to Trail, Washington DC



# Reinvent Existing Infrastructure

- **Green transit corridors**



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T3 LRT, Paris



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LRT, Bilbao

# Reinvent Existing Infrastructure

- **Reallocate road space to transit, bikes, and pedestrians**



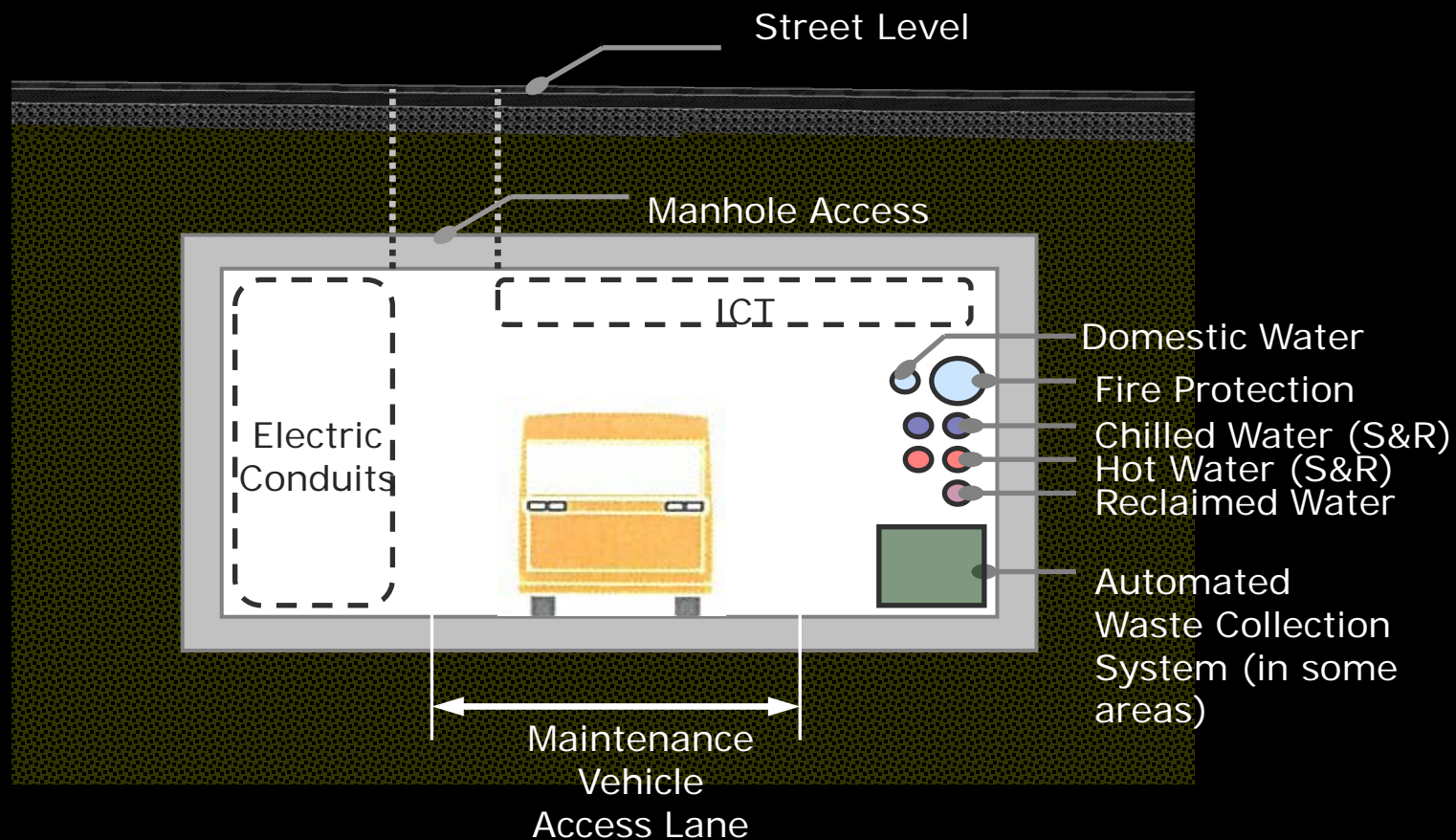
Queens Quay, Toronto



TransMilenio, Bogota

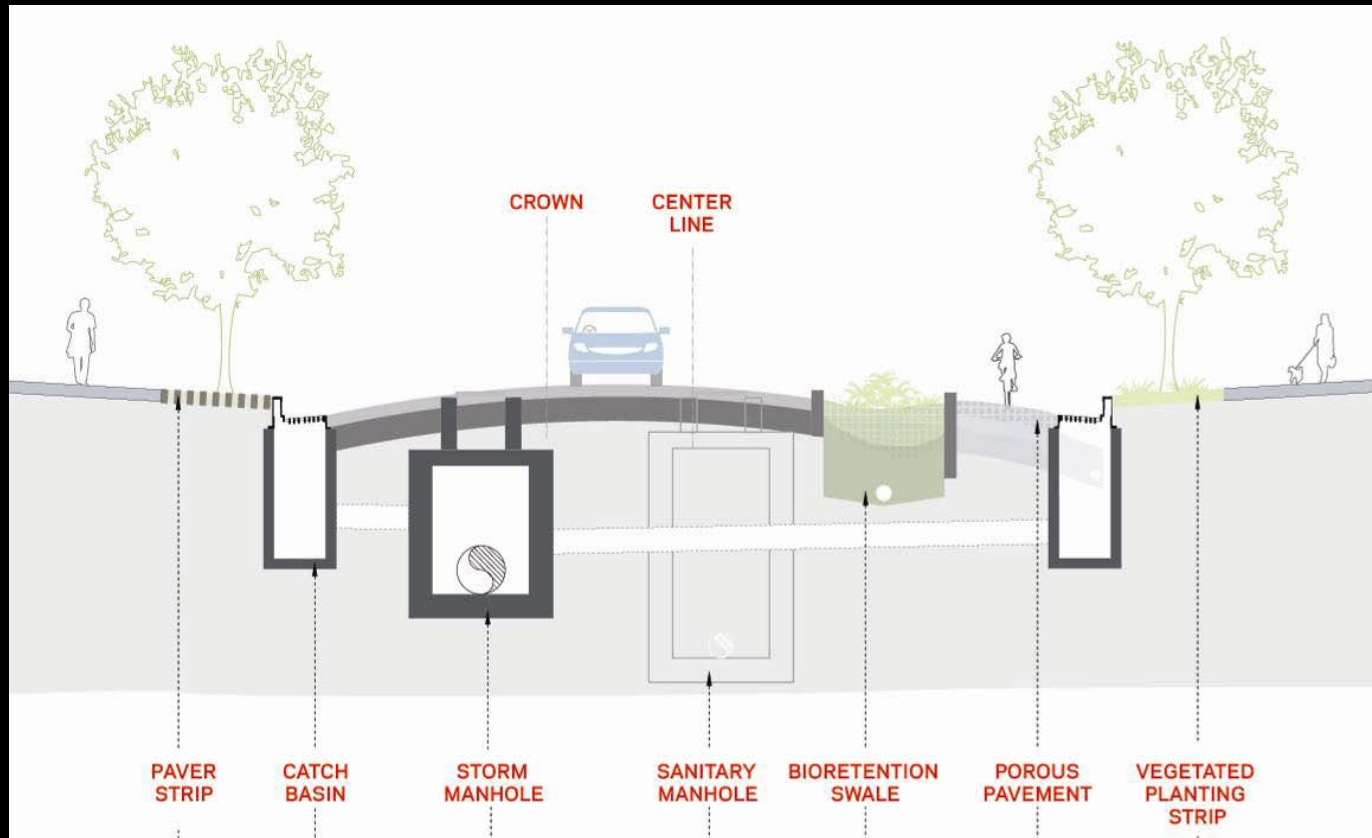
# Develop New Infrastructure

- **Develop underground utility corridors/tunnels**



# Develop New Infrastructure

- Integrate green street design



# Develop New Infrastructure

- Use transit to redevelop urban neighborhoods



Columbia Heights Metro,  
Washington DC



Pearl District Streetcar, Portland

# Reinvent Mobility Options

- Use car sharing to reduce vehicle ownership and parking demand



Car Sharing, Philadelphia



Flickr

MIT Stackable Electric Car

# Reinvent Mobility Options

- Encourage biking for short, local trips



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SmartBike DC



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Velib, Paris

# Cities of the Future?

- **Toronto, Ontario**
  - Regional frameworks
- **Arlington County**
  - Changing how you grow
- **New York, New York**
  - Working with what you have

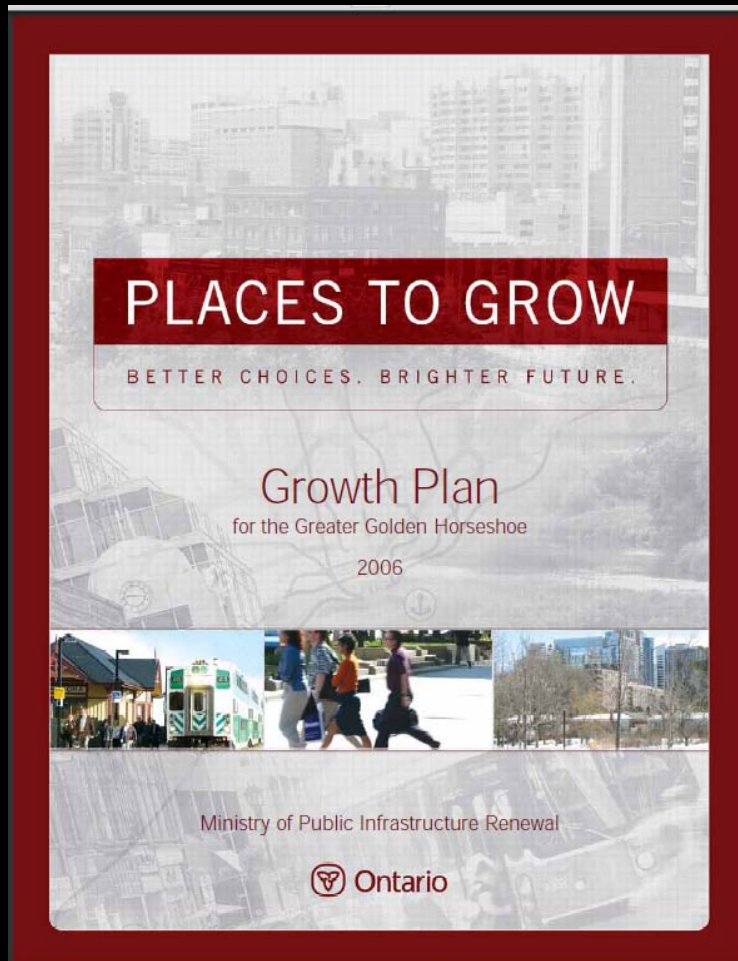


A wide-angle photograph of the Toronto skyline as seen from the water. The CN Tower is the central focus, a tall, slender structure with a distinctive circular observation deck. To its left is the large, white, arched roof of the Scotiabank Arena. The rest of the skyline is composed of various skyscrapers and buildings of different heights and colors. The water in the foreground is a deep blue, and the sky is a clear, bright blue with a few wispy clouds.

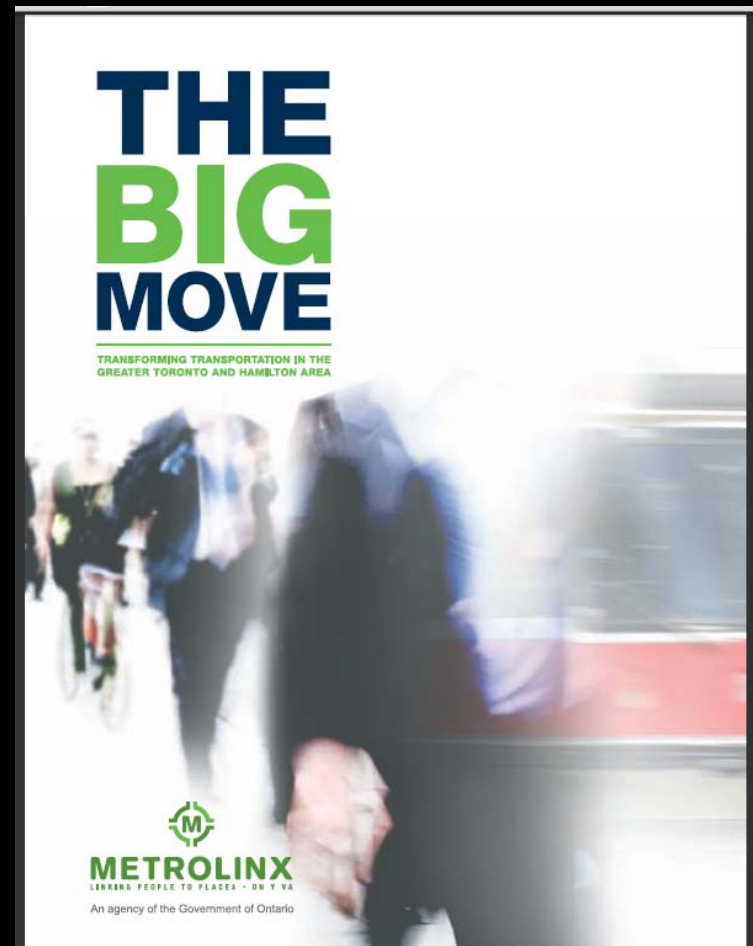
# Toronto, Ontario

# Regional Planning Frameworks

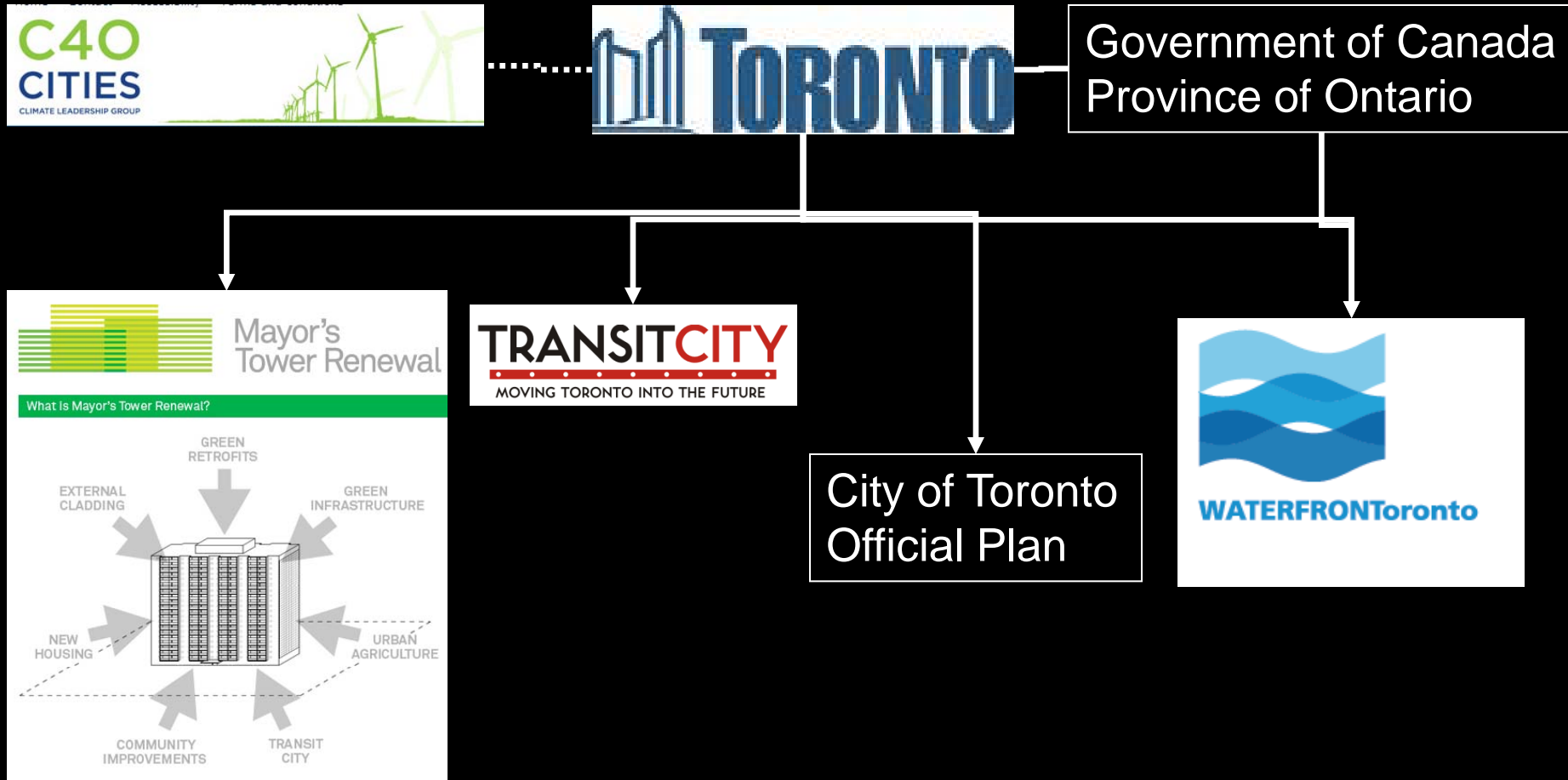
- Regional Growth Plan



- Regional Transportation Plan



# Local Initiatives in the City of Toronto



# Toronto, Ontario

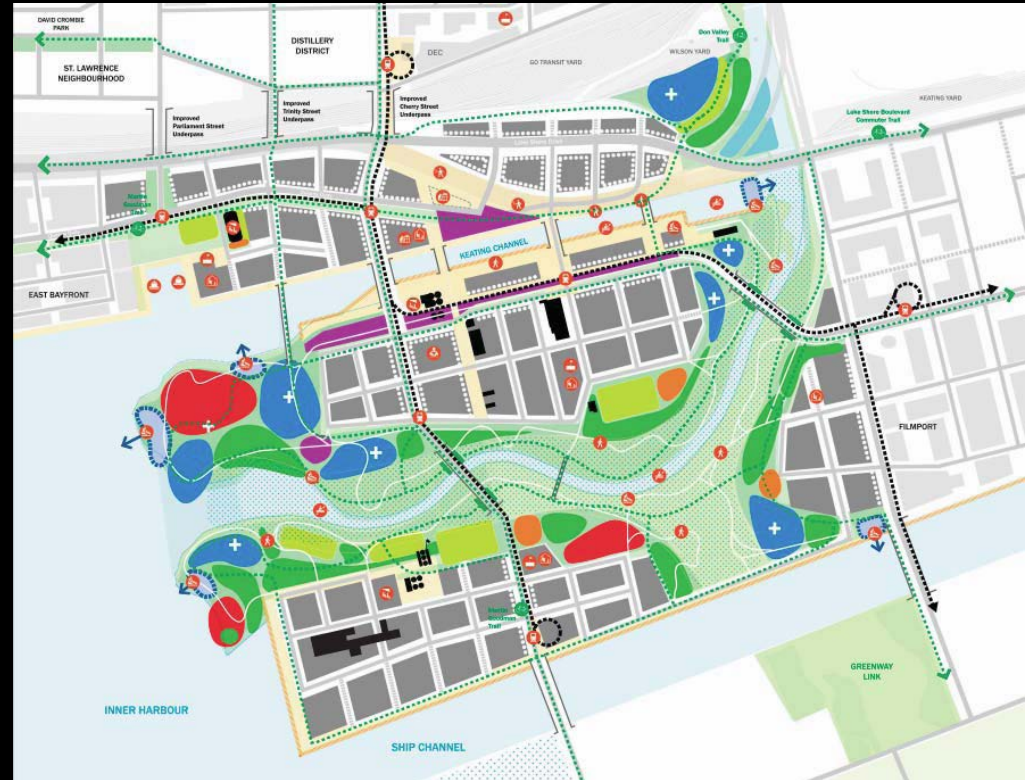
- **Revitalization of Toronto's Waterfront:**
  - Queens Quay Revitalization
  - Lower Don Lands Redevelopment
  - Lower Yonge Precinct Plan
- **Mayor's Tower Renewal and C40 Initiatives:**
  - Community Energy Plan (proposal stage)
  - Advisor for UrbanLife 2030 Workshop
- **Transit City:**
  - Scarborough-Malvern LRT
- **Metrolinx RTP**
  - Spadina Subway Extension (York University Station)
    - Spadina Subwat Extension (Vaughan Corporate Centre)
- **City of Toronto Official Plan**
  - Lawrence-Allen Revitalization Study

# Toronto, Ontario

- **Queens Quay**
- **Transit & Traffic Analysis**
- **Enhanced Public Realm**
- **Improved Connections**
- **Urban Design**

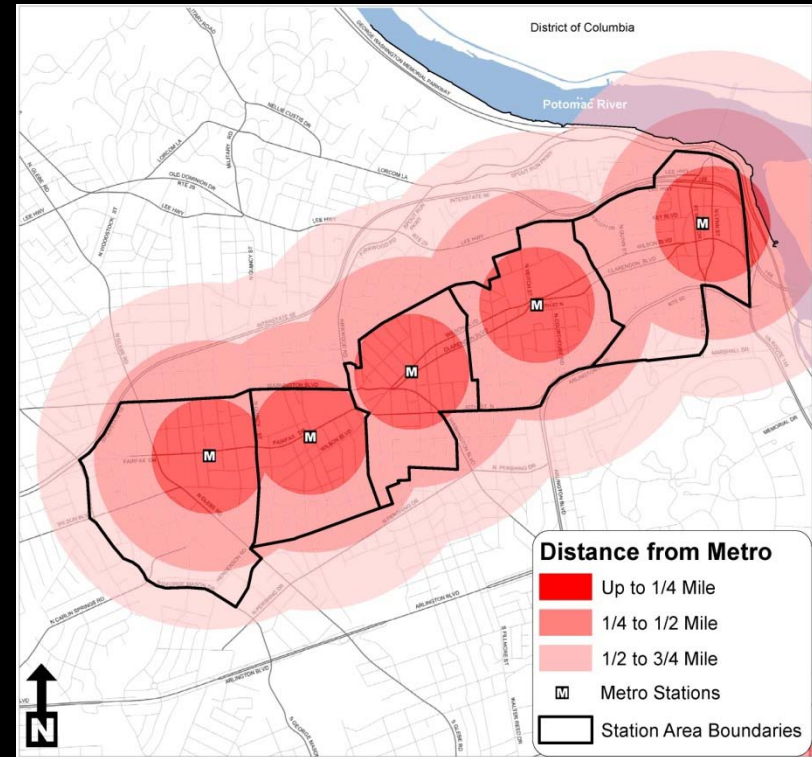
# Toronto, Ontario

- Lower Donlands
- 300-acre mixed use development
- Waterfront connectivity
- 40% transit mode share target
- 25% internal trip capture target
- Reduce barriers of elevated expressway



# Arlington County

- **General Land Use Plan (1961)**
- **Updated goals (1970s)**
  - Achieve a 50/50 tax base
  - Preserve existing residential areas
  - Encourage mixed-use development
  - Concentrate around Metro stations
- **Sub-area plans (1980s and 90s)**
  - High density development in corridor
  - Growth within ¼ mile of each station
  - Goals for use, open space, infrastructure and design



# Arlington County

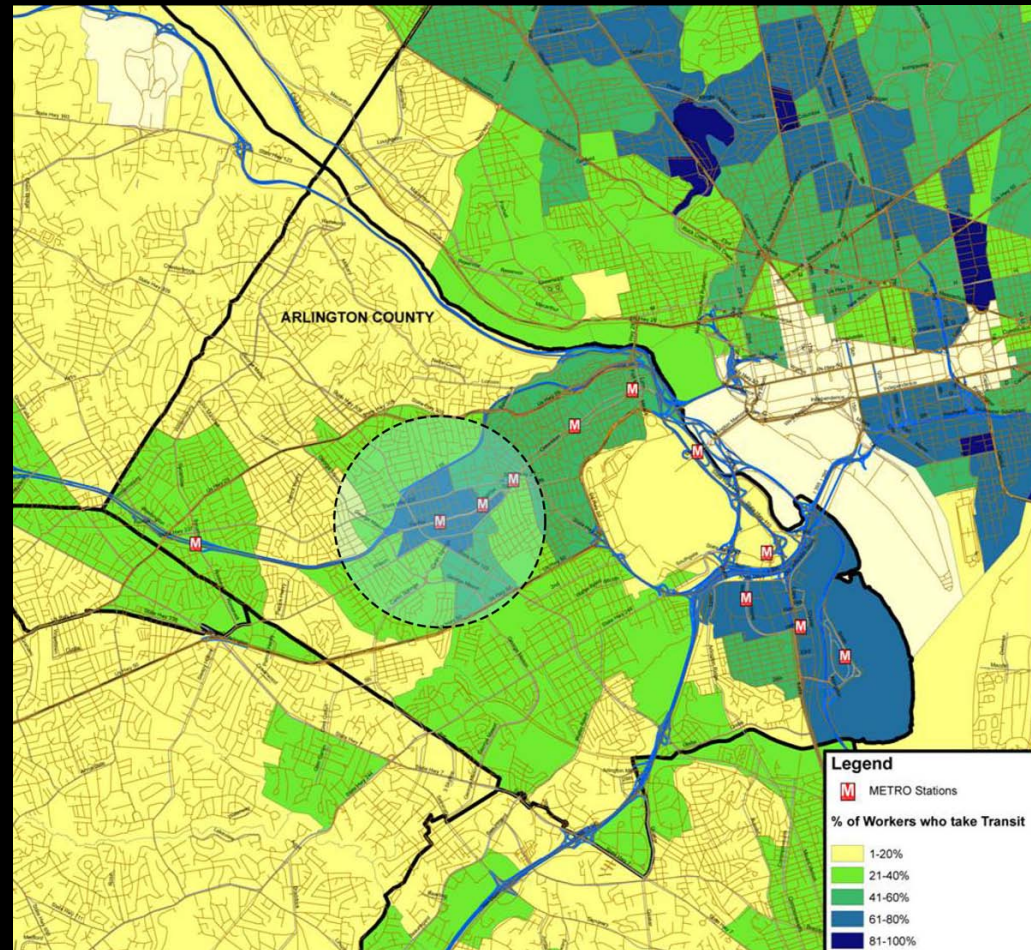
- Incentive zoning to attract private sector TOD
- Special exception site plans used to approve development
  - Results in rezoning for higher densities
- Low minimum parking requirements
- Shared parking



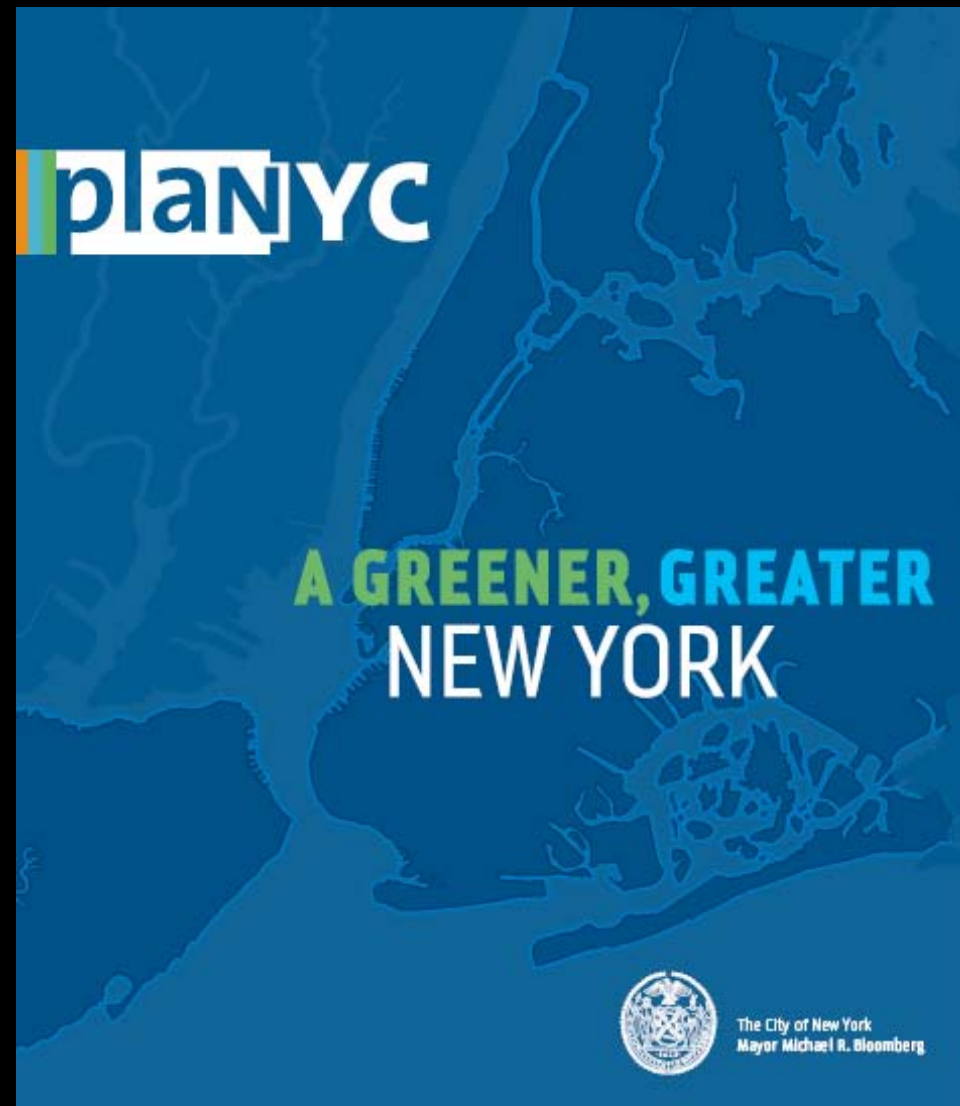


# Arlington County

- 39% transit mode share for residents
- Lower vehicle ownership
- Metro ridership doubled from 1991-2006
- >73K jobs within 1/3 mile of stations
- 2 sq miles used for development
  - Typical suburban development 14 sq. miles



# New York City



- Sustainable Master Plan
- Statement of Goals for the year 2030
- Transportation component focusing on 'Green/Complete Streets'
- Create a public space within 10 minutes of every New Yorker
- Reduce carbon footprint of city for older buildings and new

# New York City

- Complete Streets



Source: NYC DOT

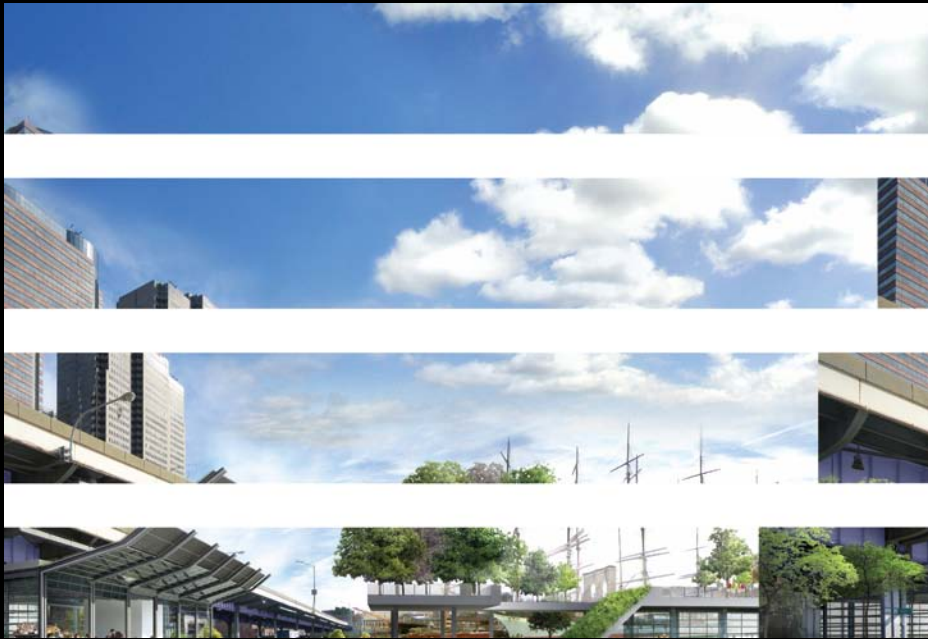
# New York City

- **Street management framework**
- **Recalibrating streets**
- **24-hr live/work/play neighborhood**
- **World Trade Center**
  - 10M sq ft office
  - 500K sq ft retail



# New York City

- Reclaiming the waterfront

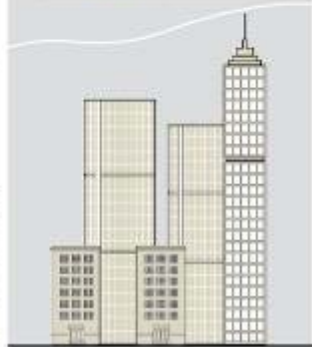
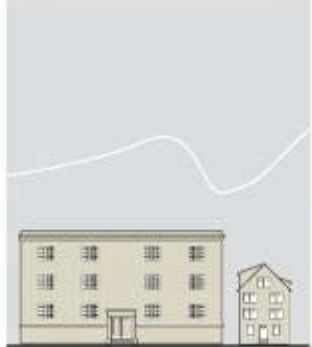
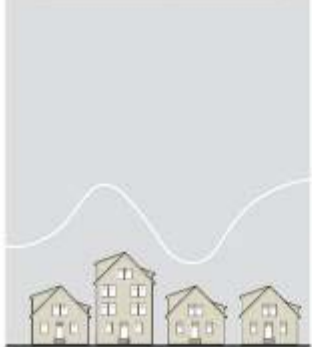
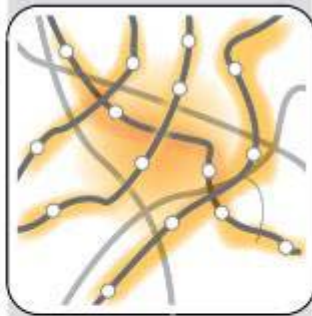
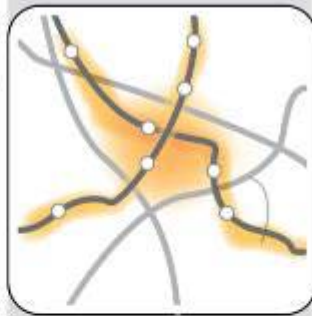
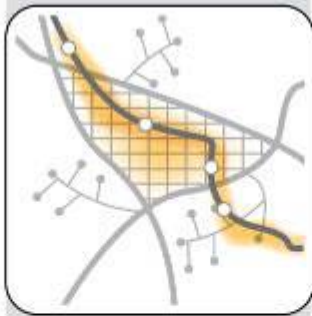
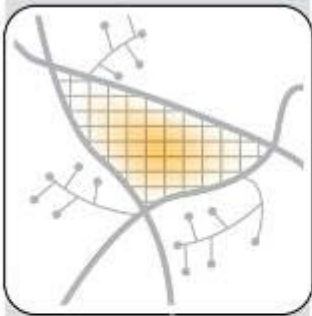
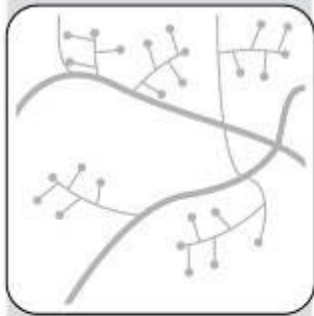


# Common Characteristics

- **Bold vision**
- **Strong regional leadership and collaboration**
- **Willingness to try**
- **Long term view**
- **Alignment of regional and local growth and investment strategies**

# Common Characteristics

- **Ability to adapt and change**
- **Integrated planning and project development**
- **Development climate change action plans**
- **Coordination actions at policy and project level**



Low Density  
Auto Dependent

Concentrated  
Auto Reliant

Clustered  
with Transit

Cores &  
Transit Corridors

Integrated  
Urbanism





Thank you

