Transit-Oriented Development: Smart Growth in Action

In Canada's cities, land use and transportation have a celebrated but troublesome marriage. Their offspring—urban sprawl, automobile dependence, congestion and smog—are delinquent children, determined to avoid our plans for rehabilitation. Urban sprawl, in particular, has wide-ranging impacts on our quality of life, and poses a distinct challenge to public transit systems as they strive to offer a convenient and affordable alternative to car travel.

Increasingly, planners and decision-makers are praising “smart growth” as the key to halting sprawl and leading the way toward more sustainable communities. Over the last decade, smart growth has grown into a substantial movement and created several coalitions of diverse interests across Canada and the United States. Early on, the U.S. National Governors’ Association adopted an important advocacy role. In Canada, many provincial and local governments are working hard to understand exactly what smart growth looks like, and how we can make it happen.

One fundamental issue tackled by smart growth, where growth goes, is being addressed through the progressive growth management strategies of large Canadian cities. The ever-clearer links between urban sprawl and declining quality of life are leading regional planning authorities like the Greater Vancouver Regional District, and rural-urban municipalities like Ottawa, to rein in sprawl and promote urban intensification through infill and redevelopment. Even provincial governments are involved—the Province of Ontario, for example, is developing a growth plan for the Greater Golden Horseshoe area surrounding Toronto. While the battle for intensification is a worthy one, it represents a constant struggle against those sectors of politics, industry and public opinion that favour greenfield development at the margins of our cities.

Another fundamental smart growth issue, what growth looks like, is often the Achilles’ heel of the answer to where growth goes. While intensification projects can increase densities and create a balanced mix of land uses, they can—without careful, sensitive planning—worsen problems of traffic congestion, pollution and noise. And unless there are meaningful destinations to walk to, the pedestrian-friendly design of infill projects can amount to little more than a marketing tactic.

Indeed, work by the Canada Mortgage and Housing Corporation has shown that residents of a suburban-style neighbourhood in a city’s central area are likely to have more sustainable transportation habits than residents of a neo-traditional (or “new urbanist”) neighbourhood located in a distant suburb. This finding reinforces the critical where aspect of growth management, and highlights the importance of transit service when considering what kind of growth really is “smart.”

So how can we make the where and what of smart growth work together in the real world? One answer is transit-oriented development, or TOD. It reflects our desire to manage both where growth goes and what it looks like—making it a great example of smart growth in action.

Smart growth: Moving on sprawl

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What is TOD?

“In general, there is agreement within the professional transit community as to what constitutes a TOD: a pattern of dense, diverse, pedestrian-friendly land uses near transit nodes that, under the right conditions, translates into higher patronage.”

— Transportation Research Board

See www.cutaactu.ca/issuepapers to view or download previous editions
The rise of transit-oriented development

TOD became a hot topic in the smart growth debate during the mid-1990s, but it has been around much longer than that. In Toronto, many of the compact development nodes that grew around stations on the Yonge subway line in the 1950s and 1960s were good examples of TOD. Reaching back even further to the 1800s, the corridors that evolved around streetcar lines in major cities exemplified TOD—dense, diverse, pedestrian-friendly, and actively supportive of transit. But in our modern world, where everything old becomes new again, TOD has been reborn as a way to improve accessibility and enhance our quality of life.

TOD is viewed as a way to get more out of our transit investments, typically by building ridership on transit corridors within lower-density suburban areas. While the idea seems straightforward, the execution is anything but simple. New TOD projects are underway in cities across North America (with over 100 in the United States, by one count), but to have a substantial impact their numbers need to be increased many times over. Ultimately, TOD can succeed only when decision-makers, developers, tenants and consumers all believe that it will work.

A top-to-bottom planning approach is needed to make TOD a success. At higher levels, regional growth management strategies and major transit investments create the motivation and market for new developments around transit nodes. Further down, local planning and community-building processes nurture TOD plans, which may depart from conventional development norms, and shepherd them through the various approvals they need to become reality. And at the site planning level, consultation, compromise and attention to detail are essential to prevent TOD projects from derailing due to public or political controversy.

All this effort, however, is worth it. TOD has been linked to a wide range of potential benefits, as identified in the figure below. As an added benefit to transit systems, mixed-use TODs strung in series along a transit corridor have been shown to produce efficient bi-directional transit flows, such as the 55%-45% directional splits found in Stockholm, Copenhagen or Curitiba. This situation contrasts with the heavily unidirectional commuter transit flows that are typical of North American cities.

Making TODs work

Experience has shown that successful TODs have a number of essential conditions. In its recently published Transit Oriented Development - Best Practices Handbook, the City of Calgary identifies the following seven best practices and related guidelines for TOD:

- **Get the land uses right**—Ensure transit-supportive uses and discourage other uses, encourage a mix of uses and locate them as close to transit as possible
- **Promote density**—Set minimum residential and employment densities, locate the highest densities nearest transit, plan for redevelopment to increase density over time
- **Create convenient pedestrian connections**—Locate key destinations no more than 600 metres from the station, provide direct routes, keep people at street level, separate pedestrians and cars
- **Ensure good urban design**—Create interesting and enjoyable streetscapes, vary architectural designs, put pedestrian destinations along at-grade frontage, provide weather protection, use quality lighting and landscaping
- **Create compact development patterns**—Keep block lengths below 150 metres, use a grid pattern, cluster buildings together, arrange buildings to leave room for future intensification
- **Manage parking**—Accommodate car users but limit parking, put parking behind or beside buildings, use smaller parking lots, plan for an evolution from surface to structured parking, provide quality bike parking
- **Make each station a “place”**—Create a unique destination, make landmark buildings, provide views and sightlines to help pedestrians, orient buildings to the street, provide open spaces near transit

Calgary’s handbook also suggests 11 important implementation tools like eliminating procedural roadblocks, creating community support, developing customized station area plans, leveraging public lands around stations, and providing financing and incentive strategies. Based on these ideas, the City of Calgary is now developing detailed policy guidelines for TOD developments around priority LRT stations.

### Potential benefits of transit-oriented development

**Public sector recipients**
- Increased transit ridership and fare revenue
- Joint development opportunities
- Revitalized neighbourhoods
- Enhanced economic development
- Reduced sprawl and preserved open space
- Reduced costs for roads and other infrastructure
- Increased social capital and public involvement
- Increased retail sales
- Increased labour pool access
- Reduced parking costs
- Increased physical activity

**Private sector recipients**
- Increased land values, rents and real estate performance
- Affordable housing opportunities
TODs in Canada

While there is clear momentum behind the TOD concept in Canada, "on the ground" examples are not numerous. Many TODs are in the midst of planning processes that illustrate the time and energy it can take to make TOD a reality. Infill projects, which typically require care to satisfy zoning requirements and meet the concerns of sensitive neighbours, can be made even more complex by the inclusion of higher densities and mixed uses that are characteristic of TOD.

Despite the potential challenges of TODs, their benefits make them highly attractive to both the public and private sectors. Following are several profiles of Canadian TOD projects at various stages of planning or construction:

- **Southeast False Creek** (Vancouver, B.C.)
  Site planning in progress
- **Central Okanagan Smart Transit Plan** (Kelowna, B.C.)
  Area-wide planning in progress
- **Renaissance at North Hill** (Calgary, Alta.)
  Complete
- **Village de la Gare** (Mont-Saint-Hilaire, Que.)
  Under construction

**Southeast False Creek** (Vancouver, B.C.)

In 1999, Vancouver City Council adopted a policy governing the redevelopment of 36 hectares of former industrial lands in the Southeast False Creek area, adjacent to the downtown core. The policy provided planning principles to guide the future development of the site as a sustainable community that takes the form of a single large TOD.

In 2003, planning began on the site's overall configuration. A Vision of Sustainability for Southeast False Creek proposes a mixed-use community of up to 13,700 people, to be built at the highest density that still meets livability and sustainability objectives. Movement within the site will be through a network of paths and streets designed for pedestrians, cyclists, and transit. The community sits adjacent to the Main Street–Science World SkyTrain station, and will be served internally by a proposed streetcar service.

A package of sustainable transportation measures has been proposed to complement the natural accessibility and expected high levels of transit usage by community residents. Ultimately, more than 40% of peak period trips to and from Southeast False Creek are expected to be made by transit, with fewer than 40% made by car.

See www.city.vancouver.bc.ca/commsvcs/southeast for more information.

**Central Okanagan Smart Transit Plan**

A new Smart Transit Plan for Kelowna's Regional Transit System is recommending a new "town centre express" with frequent service along major corridors. To accompany the new transit service vision, the plan calls for better integration of transit and land use planning. Most notably, it identifies a number of possible locations for compact, mixed-use, pedestrian-friendly TODs within walking distance of exchange points along the proposed bus rapid transit system.

From nine possible station locations along the area's main Highway 97 corridor, the Smart Transit Plan has proposed seven sites as candidate sites for future TOD evaluation. Stakeholders are hoping to hold TOD charettes for at least four of those potential sites.

See www.city.kelowna.bc.ca for more information.

**Renaissance at North Hill**

Successful TOD projects can require a great deal of vision. But Calgary's Apex Lifestyle Communities managed to look at the parking lot of an aging shopping centre, and see not asphalt but a vibrant residential community waiting to happen.

Now, two 10-storey condominium towers sit where North Hill Shopping Centre patrons used to park their cars. The shopping centre has underground parking, and Renaissance residents live within steps of the Lions Park C-Train station, stores, restaurants, community hall, auditorium, library, public medical clinic, university and technical college. Office space is available within the Renaissance development. While the new development was basically residential, it inserted density into an already mixed-use area with excellent transit access.

A case study of this project is available at www.cmhc-schl.gc.ca (type "Renaissance" into the search box).
Mont-Saint-Hilaire, Quebec
Village de la Gare

In 2002, the Agence métropolitaine de transport (AMT) opened a new commuter rail service between Mont-Saint-Hilaire (population 14,500) and downtown Montreal. To capitalize on the new commuter rail service and improve the quality of life it can offer to residents, the town of Mont-Saint-Hilaire is undertaking an ambitious redevelopment of a former industrial site.

The new Village de la Gare will house 1,000 families in a European-style TOD community, together with commercial and institutional facilities, all within 750 metres of the commuter rail station. Buildings in Village de la Gare will face the street with minimal setbacks. Densities will increase closer to the station. Builders must submit architectural integration plans to comply with new bylaws created specifically for the development.

Since construction (which involved cleaning up contaminated lands on the site) started in 2002, 100 units have been completed in Village de la Gare. An additional 100 units are scheduled to be completed annually until the project is complete, around 2012.

A case study of this project is available at www.tc.gc.ca/utsp (follow “Information Network” links to reach the Case Study Library).

For more information
- Smart Growth Canada Network (www.smartgrowth.ca)
- Smart Growth Canada (www.smartgrowthcanada.com)
- Smart Growth BC (www.smartgrowth.bc.ca)
- Ontario Smart Growth Network (www.greenontario.org/smartgrowth)
- Smart Growth Network (www.smartgrowth.org)
- Smart Growth America (www.smartgrowthamerica.com)
- Center for Transit Oriented Development (www.reconnectingamerica.org/html/TOD)
- Victoria Transport Policy Institute: TOD (www.vtpi.org/tdm/tdm45.htm)

References
a) Smart Growth BC, The Smart Growth Toolkit, 2001 (available at www.smartgrowth.bc.ca)


e) Adapted from reference (c)