

Executive Summary

The following report is a resource that can be used by the City of Mississauga, developers, and other municipalities who are interested in implementing light rail transit (LRT) and associated developments on formerly suburban streets. Municipalities that contain a regional mall and an existing or future light-rail transit system will benefit most from the lessons learned, best practice examples, recommendations, and design guidelines presented in this report. While not comprehensive across all aspects of urbanization, this report places a strong emphasis on built form, streets, and urban design.

Study Area

The study area is an approximately 3.4 km² square shaped block that encompasses all nine districts located within Downtown Mississauga. The exact boundaries of the study area and the associated districts are identified in the figure below. The route spanning along Hurontario, Rathburn, Duke of York, and Burnhamthorpe is referred to as the Downtown Mississauga Loop.



The Downtown Mississauga Districts within study area boundary.

Study Method and Report Structure

This report was undertaken using various qualitative methods and organized as follows:

The Study Area Analysis was conducted at two scales. The first focused on gaining better understanding of the physical environment in its entirety using a series of maps and photos. Then a more focused analysis of the four streets affected by LRT Loop was performed using framework modified from one

developed by Ried Ewing and Otto Clement, in their book, “Measuring Urban Design.” Information gathered from the two methods were consolidated into a Strengths, Weaknesses, Opportunities, and Challenges table for further analysis.

Two Case Studies were performed on successful Transit Oriented Developments in formerly suburban cities with a central mall: Downtown Kendall, FL, and Surrey City Centre, BC. The case studies were then collectively summarized and discussed in the context of Downtown Mississauga.

Design Guidelines and Recommendations were then formulated using contextual information gathered from the site analysis and lessons learned from the case studies. These design guidelines and recommendations focus on transforming suburban streets and districts into pedestrian-oriented and transit-supportive urban forms.

An evaluation of the design guidelines and recommendations was then performed using a TOD assessment tool developed by the Institute of Transportation and Development Policy (ITDP). The guidelines and recommendations were awarded points based on 8 principles of transit-oriented development and then analyzed for their effectiveness at meeting the objectives of this report.

The Study Area Analysis

Downtown Mississauga’s skyline contains a variety of tall closely clustered buildings including the iconic Absolute Towers. However, upon closer examination, the built form, neighborhood character, and street network is highly suburban. There is an abundance of open space between buildings, large setbacks, and no continuous street walls. In the center of downtown is the expanding Square One Shopping Center surrounded by an abundance of parking lots. While there is a mix of uses, the street and block network is auto-centric and therefore inefficient, unsafe, and uncomfortable for pedestrians. There are several successful developments but their benefits are lost due to the lack of cohesion with the rest of the Downtown.

The study area’s strengths, weaknesses, opportunities, and constraints are summarized in the following table.

	Duke of York Blvd	Burnhamthorpe Rd	Huronario St	Rathburn Rd		Duke of York Blvd	Burnhamthorpe Rd	Huronario St	Rathburn Rd
Strengths	Applicability				Opportunities				
Public Art					Brand Districts				
Spatially Mixed-use					Adaptive Reuse				
Landmarks					Add Public Space				
Historic Buildings					Introduce Temporary Public Art on Parking Lots				
Building Character/Complexity					Increase Linkages				
Landscaped Center Median					Spur Development				
Public Space					Promote Active Transportation				
Greenfield Development					Retrofit Existing Buildings				
Greyfield Development									
Weaknesses					Challenges				
Parking Lots Adjacent to the Street					Suburban Built Form				
Large Setbacks					Stakeholder Will				
Fragmented Street Walls					Disorienting Street Walls				
Lack of Pedestrian Lighting					Auto-centric				
Lack of Street Trees									
Lack of Street Facing Windows									
Lack of Active Uses/Transparency									
Lack of Outdoor Dining									
Wide R.O.W									

Strengths-Weaknesses-Opportunities-Challenges Analysis Summary

Case Studies

Downtown Kendall, Florida

Downtown Kendall, Florida is an American TOD with strong emphasis on built form and streetscapes. The Downtown is relatively developed with big-box retail, scattered office buildings, hotels, and surrounding residential neighborhoods. Like Mississauga, Kendall contains a thriving regional mall at the center of their downtown. Although the area benefits from a variety of densities, Downtown Kendall is largely auto-dependent with poor pedestrian accessibility.

A new Master Plan for the downtown was created by Victor Dover and Joseph Kohl following a successful 7 day design



Aerial of Downtown Kendall, Florida.

charrette. The Master Plan is successful because it was developed in consultation with all stakeholders. New developments largely adhered to the new urbanism principles set out in the special districts zoning ordinance; particularly with a network of new colonnaded sidewalks and mid-rise perimeter blocks. However, despite prior support and consultation, Simon Properties, the owner of the Dadeland Mall has gained legal exemption from the plan. Despite the mall's non-participation and some minor design nonconformities, the form-based codes have been successful in urbanizing the former suburban edge city.



Downtown Kendall Round A Bout.

Surrey City Centre, British Columbia

Downtown Surrey BC is an urbanizing suburban city located 35km south-east of Vancouver. The Surrey City Centre case study is a Canadian example of a successful transit-oriented development that had direct support from the affected mall. In 2003, Bing Thom architects completed an infill project that would transform the struggling mall in to a highly successful mixed use transit oriented development. The public-private development features a five-story galleria of classrooms for Simon Fraser University, a 25-story office tower, and a shared

lobby and plaza. The synergies of mixed uses, coupled with Simon Fraser University's focus on emerging technologies, has transformed the development into an incubator for creative sector jobs and more development.

A significant component of the Surrey City Centre Plan is to create safe pedestrian-oriented environments and streets. Surface parking was consolidated in parking garages or placed on the roof of the mall away from the public realm. In addition to the strong policy framework, high land values in Downtown Surrey are key forces encouraging developers to create effective transit oriented developments. High-quality buildings, public amenities, and the city's own impressive Civic Centre Development are examples of effective policy and coordination between government and private developers.



Surrey City Centre Shopping Center Street View (left). Aerial of the Surrey City Centre Shopping Centre (right).

Urban Design Guidelines and Recommendations

Based on the lessons from the site analysis and case studies, the following 5 objectives were formulated to guide the design guidelines and recommendations.

1. Put pedestrians and cyclists first
2. Encourage mixed use development
3. Support transit through appropriate density and built form
4. Appropriate building orientation, design, and massing
5. Manage Parking

Using the SWOC analysis, three main recommendations were discussed and visualized in order to illustrate the potential impact of the design guidelines.

1. Preserve the roundabout on Duke of York
2. Develop underutilized parking lots along Burnhamthorpe
3. Retrofit suburban buildings and streetscapes along Rathburn to create pedestrian oriented environments.



Top right: Rathburn streetscape improvements. Top left: preserved round-a-bout on Duke of York. Bottom: strategic transit oriented development on former parking lots along Burnhamthorpe.

Evaluation of Recommendations

In addition to the renders, the effectiveness of the design guidelines and recommendations were evaluated using a TOD

assessment tool developed by the Institute of Transportation and Development Policy (ITDP). Based on a 100 point scoring system, across 21 metrics, successful TOD projects can either be awarded Gold, Silver, or Bronze rankings. Plans are awarded points based on the following 8 principles of transit-oriented development: Walk, Cycle, Connect, Transit, Mix, Density, Compact, and Shift. The design guidelines and recommendations outlined in this report achieved 76 out of 100 possible points for TOD successes. The score translates into a Silver award which indicates the plan adheres to the majority of TOD objectives with a high level of quality and integration. TOD Standard cycling and affordable housing objectives were largely not achieved through the recommendations. However, the design guidelines excel at reducing and screening parking, creating a vibrant mixed use environment, and increasing walkability in the downtown. Despite some gaps, the evaluation tool suggests that the recommendations will achieve the majority of TOD objectives with a high level of quality and integration.

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