A Streetcar Suburb for the 21st Century:
Transit-Supportive Design Guidelines & Policy Recommendations
for Eglinton Avenue West in Toronto

By Brian Anders

A report submitted to the School of Urban & Regional Planning
in partial fulfillment of the requirements for the degree
of Master of Urban & Regional Planning (M.Pl)

Queen's University
Kingston, Ontario
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Acknowledgments

Firstly, I would like to thank my supervisor, Dr. Ajay Agarwal, for his patience in guiding me through this process, and for never asking why it took so very long, though I’m sure he must have wondered.

I would also like to thank Eric for always being there for me, whether he knew it or not.
Executive Summary

This report seeks to develop a series of urban design guidelines and policy recommendations along a 4-kilometre segment of Eglinton Avenue West between Martin Grove and Scarlett Roads in Toronto, Ontario (The ‘Study Area,’ See figure below) to foster transit usage over a span of roughly 20 years in anticipation of a future at-grade light rail transit (LRT) line, the Eglinton Crosstion, expected to commence operations by 2030.

Study Method & Structure of the Report:

Qualitative methods are employed throughout this report, which is organized as follows:

A Study Area analysis, conducted using urbanist Kevin Lynch’s 1984 work “Site Planning” as a framework, identified conditions within the Study Area through primary and secondary sources. Natural, built and demographic characteristics were looked at and analyzed for strengths, weakness, opportunities and constraints.

Two Case Studies of successful transit-oriented development, Collingwood Village in Vancouver, BC, and Orenco Station near Portland, OR were considered and compared using a number of secondary sources.

Urban design guidelines and recommendations for policy changes to promote a more transit- and pedestrian-oriented built form within the Study Area were then formulated using the lessons learned from the Case Studies.

An evaluation of these guidelines and recommendations was then done using qualitative indicators contained in a ‘Transit Oriented Development Index’ developed by the US Transportation Research Board’s Transit Cooperative Research Program (TCRP). Guidelines were awarded points based on how well they fulfilled each indicator, with an overall score tallied and expressed as a percentage.

A 2011 satellite image of the Study Area (Outlined with red dashed line), with major landmarks and roads indicated. The future LRT line is in blue, with blue circles representing future station locations.
Study Area Analysis

The Study Area is, in many ways, typical of post-World War II suburban development and is surrounded by quiet, low-rise residential neighbourhoods. It is characterized by large amounts of open space, including undeveloped land concentrated along the north side of Eglinton Avenue, surface parking lots, and a bike path winding along the south side through green space of varying width. In general, the Study Area is centred on the automobile. Eglinton Avenue is a noisy and congested four-lane road. There are gaps in the sidewalks; connections to adjacent neighbourhoods are few, and the overall pedestrian environment feels exposed and isolated from its surroundings.

There are few non-residential or non-institutional land uses, with retail concentrated in two small plazas. The area was largely developed 40-50 years ago, and the mature communities of detached housing and pockets of high-rise buildings now house an aging and increasingly ethnically diverse population.

The area’s strengths, weaknesses, opportunities and constraints are summarized in the table to the right; the photos below illustrate its physical character.

Case Studies

Collingwood Village, Vancouver, British Columbia

Centred on a station along the city’s SkyTrain system and a 15 minute ride from downtown Vancouver, Collingwood Village is an 11 hectare, 2800 dwelling unit development built by Concert Property on former light industrial lands. Its two phases were completed in 2006.

Collingwood Village contains numerous housing types to attract a variety of residents, including townhouses, garden apartments, mid-rise and high-rise condominiums, and affordable family housing with 3 or more bedrooms.

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<tr>
<th>Strengths</th>
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<tr>
<td>Mostly flat topography presents few barriers to new development.</td>
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<tr>
<td>Central location; some transit services/active transportation infrastructure in place.</td>
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<tr>
<td>Numerous parks &amp; natural spaces in Study Area, particularly south side linear park.</td>
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<table>
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<tr>
<th>Weaknesses</th>
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<tr>
<td>High traffic negatively impacts pedestrian experience/ transit efficiency.</td>
</tr>
<tr>
<td>Land uses are segregated; limited non-residential uses or activities.</td>
</tr>
<tr>
<td>Large building setbacks and sometimes-overgrown vacant land create ill-defined streetscape and highly exposed environment for pedestrians.</td>
</tr>
<tr>
<td>Limited connectivity to surroundings, few destinations isolates Study Area.</td>
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<table>
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<tr>
<th>Opportunities</th>
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<tr>
<td>Large amount of open spaces available for redevelopment immediately adjacent to Eglinton Avenue, particularly along north side of street.</td>
</tr>
<tr>
<td>Official Plan’s Avenues designation broadly supportive of intensification and higher standard of design, while transportation plans encourage active transportation and transit usage.</td>
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<th>Constraints</th>
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<tr>
<td>Area largely built up 40-50 years ago; communities may be reluctant to see change.</td>
</tr>
<tr>
<td>Land use designations in OP and current zoning are intended to maintain the status quo.</td>
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</table>
Retail was integrated into the ground floor of residential buildings and concentrated near the transit station to capture foot traffic and promote safety. Community uses such as a daycare, parks and an elementary school were also included. Densities are highest nearest the transit station, and transition to more low-density forms to integrate with surrounding low-density communities. Parking is contained underground or on-street, with requirements significantly reduced.

Early, extensive and continuous public consultation and engagement was cited as a key factor in the success of the project; it helped deliver community needs while alleviating existing residents’ concerns over intensification.

Orenco Station, Hillsboro, Oregon

Orenco Station is located in the suburb of Hillsboro outside of Portland, Oregon. Begun in 1996 and completed in 2002 by PacTrust, the neighbourhood is adjacent to a station along Portland’s MAX light rail system.

Orenco Station includes a variety of low-rise housing forms, including detached houses, townhomes and walk-up apartments. It is laid out on an interconnecting grid, with traffic funneled toward a main street that contains wide sidewalks and patios. Shops and amenities open to the sidewalk to encourage pedestrian activity and are integrated into low-rise apartments. Streets are narrow and include traffic calming measures. Parking, vehicular access and servicing is provided through rear laneways rather than interfering with sidewalk activity.

Orenco Station’s streets are narrow and tree-lined with wide sidewalks to calm traffic and create an intimate, safe and inviting environment for pedestrians.

Design Guidelines & Recommendations

Urban Design Guidelines

The site analysis and case studies inform a series of 5 guiding principles, which in turn give rise to 25 design guidelines, some of which are summarized below:

Principle 1: Prioritize Pedestrians & Cyclists:

- Preserve and enhance the south side linear park.
- Provide sidewalks with a minimum width of 2.0 metres on all streets.
- Provide ‘streetscaping’ and landscaping improvements.
- Design transit stops with users in mind.

Principle 2: Diversify Land Uses:

- Encourage horizontally and vertically mixed uses.
- Encourage ‘24 hour’ usage.
• Encourage a range of housing choices.
• Discourage automobile-oriented uses and activities.

**Principle 3: Encourage a dense, fine-grained built form:**
• Permit increased density through mid- and high-rise buildings.
• Locate highest densities and mixed uses closest to transit stops.
• Encourage architectural variety and articulate building facades.

**Principle 4: Mass and Orient Buildings Appropriately:**
• Orient buildings toward the sidewalk with minimal front setbacks.
• Create a continuous street wall.
• Step back front and side facades for taller buildings.
• Transition rear of buildings to respect abutting low-rise development.

**Principle 5: Manage Parking:**
• Eliminate front surface parking lots.
• Replace parking space rate minimums with maximums
• Locate servicing and access to parking at rear of lots.

**Recommendations for Implementation**
A number of tools and mechanisms are required to facilitate the long-term growth and intensification of Eglinton Avenue West that will help deliver the vision and design guidelines. These implementation tools include:

• Official Plan amendments to encourage redevelopment and intensification of Eglinton Avenue as a mixed-use corridor
• Zoning By-law amendments to support Official Plan policy;
• Roadway realignments and leveraging vacant property to encourage high-quality development and intensification;
• Financial incentives such as tax relief and density bonusing to encourage new development that responds to community needs;
• Careful phasing to ensure new development is gradual, minimizes disruption to the community, and, ultimately, successful.

The urban design guidelines and policy recommendations are intended to create a dense, mixed-use, street-oriented and pedestrian-friendly environment that fosters transit usage along the future Eglinton Crosstown LRT.
Evaluation of Recommendations

The guidelines and recommendations were evaluated on a matrix for their ‘TOD-ness’ using the indicators contained in the TCRP’s “TOD Index.” Points were awarded for each indicator and weighted based on whether the indicator was deemed ‘essential’ or ‘supportive’ by the TCRP. Points were then summed up and expressed as a percentage, as shown in the table below:

<table>
<thead>
<tr>
<th>Indicator Type</th>
<th>Points Awarded</th>
<th>Total Points Available</th>
<th>Percentage Awarded</th>
</tr>
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<tbody>
<tr>
<td>Essential</td>
<td>51</td>
<td>55</td>
<td>93%</td>
</tr>
<tr>
<td>Supportive</td>
<td>15</td>
<td>30</td>
<td>50%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>66</td>
<td>85</td>
<td>78%</td>
</tr>
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</table>

As can be seen, the guidelines performed quite well for essential indicators, which dealt with issues of density, building form and land uses. The only issue was block length and street connectivity, which is difficult to alter significantly given the built-up nature of the Study Area. The guidelines did not do as well with supportive indicators, however, as many indicators were not directly addressed and assumed to be directed by market forces, or were outside the original scope of the recommendations as design and policy interventions.

Overall, however, with a score of 78%, it can be said the guidelines would perform well in fostering a transit-supportive environment.

Regardless, the aim of these guidelines and recommendations is to provide a vision for the future of Eglinton Avenue West centred on the pedestrian, the sidewalk, and the light rail line. It is not intended to be prescriptive, detailing every building and every block, but rather, it is intended to be the start of a conversation with the community as to what Eglinton Avenue West could be.

Proposed Official Plan Land Use Designations

Proposed amendments to Land Use designations in the City of Toronto’s 2006 Official Plan.
# Table of Contents

Executive Summary ii  
List of Figures & List of Tables vii  

1.0. Introduction  1  
1.1. The Study Area  2  
1.2. Objectives  3  
1.3. Structure of the Report  3  

2.0. Study Method  4  
2.1. Study Area Analysis  4  
2.2. Case Studies  5  
2.3. Land Use, Design Guidelines & Evaluation Criteria  5  
2.4. Limitations & Simplifying Assumptions  7  

3.0. Study Area Analysis  8  
3.1. Natural Features  8  
3.2. Built Character  9  
3.3. Sensory Qualities & Perceptions  12  
3.4. Demographic Characteristics  14  
3.5. Policy Framework  14  
3.6. S.W.O.C. Analysis & Summary  18  

4.0. Case Studies  20  
4.1. Collingwood Village  20  
4.2. Orenco Station  24  
4.3. Case Study Comparison  27  
4.4. Discussion & Lessons Learned  28  

5.0. Guidelines & Recommendations  30  
5.1. Vision & Guiding Principles  30  
5.2. Urban Design Guidelines  30  
5.3. Recommendations for Implementation  38  
5.4. The Results  43  

6.0. Evaluation of Recommendations  44  
6.1. Discussion  48  

7.0. Conclusion & Final Remarks  49  

Appendix A: Study Analysis Checklist  51  
Appendix B: Mid-Rise Building Standards  54  
Bibliography & Works Cited  57
### List of Figures

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1.</td>
<td>Intensification along Toronto’s Yonge Street Corridor</td>
<td>1</td>
</tr>
<tr>
<td>1.2.</td>
<td>Map of Study Area, future LRT stations and major roads</td>
<td>2</td>
</tr>
<tr>
<td>2.1.</td>
<td>Evaluation process flowchart</td>
<td>6</td>
</tr>
<tr>
<td>3.1.</td>
<td>Satellite image of Study Area and major landmarks</td>
<td>8</td>
</tr>
<tr>
<td>3.2.</td>
<td>View of Humber River valley from Eglinton Avenue overpass</td>
<td>9</td>
</tr>
<tr>
<td>3.3.</td>
<td>Typical view of Eglinton Avenue West</td>
<td>9</td>
</tr>
<tr>
<td>3.4.</td>
<td>Separated bike lane and south side linear park</td>
<td>10</td>
</tr>
<tr>
<td>3.5.</td>
<td>High-rises and open space along north side of Eglinton Avenue</td>
<td>10</td>
</tr>
<tr>
<td>3.6.</td>
<td>Map of current land uses</td>
<td>11</td>
</tr>
<tr>
<td>3.7.</td>
<td>Figure-ground analysis</td>
<td>12</td>
</tr>
<tr>
<td>3.8.</td>
<td>Housing types &amp; dates of construction</td>
<td>12</td>
</tr>
<tr>
<td>3.9.</td>
<td>Lynch “Imageability” analysis</td>
<td>13</td>
</tr>
<tr>
<td>3.10.</td>
<td>Map of current Official Plan land use designations</td>
<td>15</td>
</tr>
<tr>
<td>3.11.</td>
<td>Map of current zoning</td>
<td>16</td>
</tr>
<tr>
<td>3.12.</td>
<td>Typical streetscape along Eglinton Avenue West</td>
<td>19</td>
</tr>
<tr>
<td>3.13.</td>
<td>Richview Plaza from sidewalk</td>
<td>19</td>
</tr>
<tr>
<td>3.14.</td>
<td>Edenvale Crescent, typical residential side street</td>
<td>19</td>
</tr>
<tr>
<td>4.1.</td>
<td>Location of Collingwood Village, Vancouver, BC</td>
<td>20</td>
</tr>
<tr>
<td>4.2.</td>
<td>Aerial view of Collingwood Village</td>
<td>21</td>
</tr>
<tr>
<td>4.3.</td>
<td>Mixed-use building in Collingwood Village</td>
<td>22</td>
</tr>
<tr>
<td>4.4.</td>
<td>Typical side street in Collingwood Village</td>
<td>22</td>
</tr>
<tr>
<td>4.5.</td>
<td>Landscaping of pedestrian areas in Collingwood Village</td>
<td>22</td>
</tr>
<tr>
<td>4.6.</td>
<td>Location of Orenco Station, Hillsboro, OR</td>
<td>24</td>
</tr>
<tr>
<td>4.7.</td>
<td>Development plan for Orenco Station</td>
<td>25</td>
</tr>
<tr>
<td>4.8.</td>
<td>Main street at Orenco Station</td>
<td>26</td>
</tr>
<tr>
<td>4.9.</td>
<td>Sidewalks at Orenco Station</td>
<td>26</td>
</tr>
<tr>
<td>4.10.</td>
<td>Housing variety at Orenco Station</td>
<td>26</td>
</tr>
<tr>
<td>4.11.</td>
<td>Comparison of Collingwood Village &amp; Orenco Station</td>
<td>29</td>
</tr>
<tr>
<td>5.1.</td>
<td>The St. James mid-rise building in Toronto</td>
<td>30</td>
</tr>
<tr>
<td>5.2.</td>
<td>Eglinton Avenue bike path in Study Area</td>
<td>31</td>
</tr>
<tr>
<td>5.3.</td>
<td>Sidewalks along Bloor Street East, Toronto</td>
<td>31</td>
</tr>
<tr>
<td>5.4.</td>
<td>Sidewalks in Vancouver, BC</td>
<td>31</td>
</tr>
<tr>
<td>5.5.</td>
<td>Spadina Road LRT stop on St. Clair Avenue, Toronto</td>
<td>32</td>
</tr>
<tr>
<td>5.6.</td>
<td>Côte de la Montagne, Québec, QC</td>
<td>33</td>
</tr>
<tr>
<td>5.7.</td>
<td>The Rise mixed-use building in Vancouver, BC</td>
<td>33</td>
</tr>
</tbody>
</table>
### List of Figures & List of Tables

<table>
<thead>
<tr>
<th>Figure/Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.8.</td>
<td>Bibliothèque et archives nationales du Québec, Montréal, QC</td>
<td>34</td>
</tr>
<tr>
<td>5.9.</td>
<td>Power centre and ‘big-box’ retailing in Vaughan, ON</td>
<td>34</td>
</tr>
<tr>
<td>5.10.</td>
<td>Illustration of mid-rise buildings massing provisions</td>
<td>35</td>
</tr>
<tr>
<td>5.11.</td>
<td>Continuous street wall, Queen Street West, Toronto</td>
<td>36</td>
</tr>
<tr>
<td>5.12.</td>
<td>90 George Street in Ottawa, ON</td>
<td>37</td>
</tr>
<tr>
<td>5.13.</td>
<td>Rear transitions for mid-rise buildings</td>
<td>37</td>
</tr>
<tr>
<td>5.14.</td>
<td>Parking garage in Santa Monica, CA</td>
<td>38</td>
</tr>
<tr>
<td>5.15.</td>
<td>Map of proposed Official Plan land use designations</td>
<td>39</td>
</tr>
<tr>
<td>5.16.</td>
<td>Map of proposed zoning</td>
<td>39</td>
</tr>
<tr>
<td>5.17.</td>
<td>Diagram of realigned Eglinton Avenue West</td>
<td>41</td>
</tr>
<tr>
<td>5.18.</td>
<td>Illustration of revitalization along Queen’s Quay, Toronto</td>
<td>43</td>
</tr>
<tr>
<td>7.1.</td>
<td>Illustration of re-urbanized Avenues</td>
<td>50</td>
</tr>
<tr>
<td>3.1.</td>
<td>Strengths-Weaknesses-Opportunities Constraints analysis</td>
<td>18</td>
</tr>
<tr>
<td>4.1.</td>
<td>Summary and comparison of case studies</td>
<td>27</td>
</tr>
<tr>
<td>5.1.</td>
<td>General proposed zoning provisions</td>
<td>40</td>
</tr>
<tr>
<td>5.2.</td>
<td>Proposed timelines for phasing</td>
<td>43</td>
</tr>
<tr>
<td>6.1.</td>
<td>Evaluation matrix</td>
<td>44</td>
</tr>
</tbody>
</table>
This report seeks to develop a series of urban design guidelines and recommendations for intensification along a segment of a suburban arterial road, Eglinton Avenue West, in Toronto, Ontario in support of a future light rail line. North American cities like Toronto have long struggled to provide reliable, efficient and cost-effective public transit to lower-density suburbs typical of post-World War II urban development. Low population and employment densities and strict segregation of land uses frequently found in these suburban areas are often cited as major barriers to supporting good transit services (Dunham-Jones 2009). Intensification along public transit corridors is thus often proposed as a way of better supporting transit usage. Though this can take many forms, a mixture of land uses, higher densities, and pedestrian- and cycling-friendly environments adjacent to public transit stops are generally encouraged.

Toronto has engaged in an ambitious project to construct a series of light rail transit (LRT) lines along several arterial roads to provide higher-order transit services to just these types of suburban areas. This plan, named “Transit City” when introduced, has undergone several permutations, however, one line, the “Eglinton Crosstown,” named as it will run along Eglinton Avenue, is currently under construction. It will stretch some 35 km from Pearson International Airport in the west through midtown Toronto to Scarborough Town Centre. Phase I will run from Jane Street in the west to Scarborough Town Centre, with operations beginning in 2020. The second phase will connect Jane Street to Pearson Airport, with operations beginning by 2030 (Toronto Transit Commission, 2010).

Prior to the development of the Eglinton Crosstown, the City of Toronto’s Official Plan identifies Eglinton Avenue as one of a series of ‘Avenues’ for future intensification and infill development (City of Toronto, 2006). It recommends each Avenue be studied individually so more ‘tailor-made’ intensification plans can be implemented. No such study has yet been undertaken for the segment of Eglinton Avenue running through the former City of Etobicoke. The adjacent areas were largely developed in the 1950s and 1960s and largely consist of single-detached

Figure 1.1: Toronto has long encouraged dense, mixed-use development near rapid transit stations, such as along the Yonge Street corridor and subway line, pictured above looking south from Eglinton Avenue. (Source: The Toronto Star)
housing and pockets of high-rise apartment buildings. However, a right-of-way in excess of 60 metres was reserved for this part of Eglinton Avenue in anticipation of an unbuilt expressway, providing a unique opportunity for intensification along this corridor. This report will therefore seek to address the following question:

**What urban design guidelines can be developed to encourage intensification along Eglinton Avenue West in Etobicoke, Ontario, to better support the anticipated Eglinton Crosstown LRT line?**

### 1.1. The Study Area

The focus of this report is on transit-oriented intensification guidelines along part of Eglinton Avenue West, a four-lane arterial road located in the former City of Etobicoke, now part of the City of Toronto. The Study Area, shown in orange in Figure 1.1 below, is approximately 4 kilometres in length, running from Scarlett Road at Etobicoke’s eastern border to Martin Grove Road in the west, and includes properties abutting Eglinton Avenue West. This portion of Eglinton Avenue was selected due to the width of the right-of-way, as well as natural ‘boundaries’ at the ends of the Study Area. The Humber River Valley, immediately east of Scarlett Road, is a protected natural area and park space, while Eglinton Avenue to the west of Martin Grove Road passes under Highway 427 and through low-density light industrial areas.

The future Eglinton Crosstown LRT will run down the centre of Eglinton Avenue through the Study Area, with stations expected to be spaced approximately 500-600m apart, and which are identified in light blue in Figure 1.2, below. While the focus of the guidelines will be the properties immediately adjacent to Eglinton Avenue West, close consideration will be given to impacts on and connectivity with the surrounding areas.

![Figure 1.2: The Study Area shown in orange, with the future Eglinton Crosstown light rail line and stations identified in light blue.](image)
1.2. Objectives

The objectives of this report are to develop a series of specific urban design guidelines and policy tools that could be used by the City of Toronto and developers to facilitate infill development and streetscape improvements to support and encourage transit use along the Eglinton Crosstown LRT. These guidelines would achieve a desirable level and form of intensification along Eglinton Avenue over the course of the next 20-30 years in anticipation of the LRT. What this may entail – such as what a ‘desirable’ level of intensification may mean – will be better elucidated later in this report.

1.3. Structure of the Report

Firstly, the research methods used in this report to collect data and the criteria used in evaluating the final recommendations will be described. It will then provide an analysis of the Study Area, including the site’s built and natural characteristics and existing City of Toronto policies. Two case studies, on the Joyce-Collingwood neighbourhood in Vancouver, BC, and the Orenco Station development in Portland, OR, will provide examples of intensification and transit-oriented design in practice. This information will then be used to formulate recommendations and guidelines for transit-supportive design policies for Eglinton Avenue West. Finally, these guidelines will be evaluated using the criteria established earlier in the report before final conclusions and recommendations are drawn.
2. Study Method

This report will employ qualitative research methods in developing recommendations on transit-supportive land uses and design principles for a specific area of Toronto. As such, it was first necessary to determine existing conditions throughout the Study Area. Two case studies regarded as successfully integrating land use and transit – Joycewood Village in Vancouver, BC and Orenco Station in Portland, OR – were then analysed for ‘lessons’ that could be applied to Eglinton Avenue West. This information was then used to formulate a series of recommendations and guidelines for intensification along Eglinton Avenue. These guidelines were evaluated for their effectiveness using a framework adapted from research conducted by the Transportation Research Board and United States Federal Transit Administration.

The following subsections will describe in greater detail the methods used throughout this report. Finally, simplifying assumptions and limitations of this report will be discussed.

2.1. Study Area Analysis

Existing physical and natural conditions of the Study Area were determined using a framework modified from one developed by urban planner and theorist Kevin Lynch in his book “Site Planning,” originally written in 1971 and last revisited in 1984. Lynch included and described a “Site Analysis Checklist,” which was adapted by the author to include the general site context, physical characteristics such as natural and built features, sensory qualities and pedestrian safety and comfort, demographic characteristics of nearby residents, and the City of Toronto’s policy framework. A summary of this checklist is included in Appendix A.

Data was gathered through a number of means. Firstly, site visits to the Study Area were conducted on foot and by bike in January 2011 and May 2011. This data was useful in assessing natural and built features and sensory qualities. Two LRT lines, along Spadina and St. Clair Avenues, respectively, already exist in the City of Toronto, and these areas were also visited. While both in dense, urban environments, the future Eglinton LRT itself will likely be similar, and so provided a sense of how future transit service may operate.

Satellite imagery was combined with information collected through site visits to create maps of current land use patterns and built form. These maps were of great use in identifying broad patterns in terms of built form and land usage across a large Study Area.

Demographic characteristics of the Study Area and its environs were also collected using the City of Toronto’s Neighbourhood Profiles, which use 2006 Census data from Statistics Canada to provide demographic profiles. The Study Area forms part of four neighbourhoods (Neighbourhoods 7 – Willowridge-Martingrove-Richview, 8 – Humber Heights-Westmount, 9 – Edenbridge-Humber Valley and 10 – Edenbridge-Humber Valley and...
– Princess-Rosethorn, respectively), which cover an area much larger than the study area itself. Nevertheless, they provided useful demographic and physical information with regards to the Study Area and its surroundings.

The existing policy framework was reviewed to determine the City’s own goals and objectives. Particular emphasis was placed on the 2006 City of Toronto Official Plan, the City of Toronto zoning by-laws, and the Toronto Avenues & Mid-Rise Buildings Study, which focuses on intensification along major arterials, including Eglinton Avenue West. Additional policies and plans, including secondary plans, urban design guidelines and transportation plans such as the Toronto Bike Plan, Pedestrian Charter and Streetscape Manual were also considered.

As a final step, Lynch’s framework for site analyses includes the consolidation and correlation of data. This was done by the author in the form of a Strengths-Weaknesses-Opportunities-Constraints analysis, similar to the Strengths-Weaknesses-Opportunities-Threats analysis model developed by Albert Humphrey at the Stanford Research Institute. Key attributes and considerations were summarized and grouped by the above four categories.

2.2. Case Studies

Two case studies demonstrating the successful integration of land-use and transportation issues were employed. These were the Collingwood Village development in Vancouver, British Columbia, and the Orenco Station neighbourhood in Portland, Oregon, respectively. They were selected based on professional recognition of these developments’ respective achievements, as well as the comparatively large amount of literature available from reputable sources such as the Canadian Housing and Mortgage Corporation and the Urban Land Institute. Data was collected exclusively through secondary sources, as visits to these sites were not possible.

Emphasis was placed on the design and physical characteristics of each case study, and how they were implemented. The two cases were then summarized and compared directly to determine patterns and lessons that could then be applied to the Study Area in Toronto.

2.3. Land Use, Design Guidelines & Evaluation Criteria

The study area analysis and case studies were used to formulate a series of specific design guidelines, policy changes and actions that can be implemented by the City of Toronto to aid in the transit-supportive intensification of Eglinton Avenue West. A framework for analysing and evaluating these guidelines as an example of good transit-supportive development is necessary, however, before final conclusions can be drawn.

The Transit Cooperative Research Program (TCRP) is a joint initiative of the Transportation Research Board (TRB) and the US Federal Transit Administration (FTA). Its mission is to provide research on innovative solutions to problems facing transit agencies (Federal Transit Administration, 2012).

In 2007, the TCRP issued Report 95, entitled “Traveler Responses to
Transportation System Changes.” It provides in-depth information regarding “results and experience obtained across the United States and elsewhere from (1) different types of transportation system changes and policy actions and (2) alternative land use and site development design approaches” (Transit Cooperative Research Program, 2007). It includes a chapter dedicated to transit-oriented development and contains a “TOD Index,” which in turn lists qualitative indicators of a development project’s ‘TOD-ness.’ (TCRP, 2007). This index was developed through its research findings and those of the National Cooperative Highway Research Program (NCHRP), which included a national survey conducted of 30 urban design and transportation planning professionals on TOD success measures (TCRP, 2007; National Cooperative Highway Research Program, 2005). Indicators are further divided into ‘essential’ and ‘supportive’ components, that is, which indicators needed to be present in successful transit-oriented development, and which are desirable.

This TOD Index was further modified by the author for the purposes of assessing and analysing the recommendations made in this report. The evaluation criteria and scoring system used, summarized in the flowchart in Figure 2.1 (Right) and described in more detail below, can be shown as a matrix. This matrix and the evaluation can be found beginning on page 44 in Chapter 6.

Each indicator included in the Index was considered individually and assigned a ‘score’ based on the degree the recommendations supported or addressed them. They were broadly scored as ‘Fully Addressed,’ ‘Partially Addressed,’ or ‘Not Addressed,’ respectively. The scores then translate to a number of ‘points,’ with

**Urban Design Guidelines & Recommendations**

- Developed by author
- To be evaluated by external criteria

- Transit Oriented Development “Index”
- Developed by TRB

**Essential Indicators**

- Recommendations ‘Scored’ for each indicator
  - Points and weights assigned by author

- Indicator Fully Addressed: 5 points awarded
- Indicator Partially Addressed: 3 points awarded
- Indicator Not Addressed: 0 points awarded

**Supportive Indicators**

- Recommendations ‘Scored’ for each indicator
  - Points and weights assigned by author

- Indicator Fully Addressed: 3 points awarded
- Indicator Partially Addressed: 1 points awarded
- Indicator Not Addressed: 0 points awarded

**Total ‘TOD-ness’ Score if all recommendations fully implemented**

- Out of a possible 85 points

**Discussion of evaluation**

*Figure 2.1: Process for evaluating the design guidelines and recommendations. Actions taken by the author are shown in grey, external criteria used shown in black.*
indicators weighted based on whether they were deemed ‘essential’ or ‘supportive’ in the Index. Five points were given for ‘Fully Addressed’ essential indicators; three for ‘Partially Addressed’ and zero for ‘Not Addressed.’ For supportive indicators, three points were given for ‘Fully Addressed’ indicators, one for ‘Partially Addressed’ and zero for ‘Not Addressed.’ A final score was then calculated, which was based on the total points awarded over the total possible points, which in this instance totalled 85, and expressed as a percentage. This score reflects, to use the TCRP’s terminology, the overall level of ‘TOD-ness’ that would result if all the recommendations were fully implemented.

As the indicators included in the matrix involve qualitative rather than quantitative attributes of the built environment, there is, admittedly, a degree of subjectivity introduced in the scoring. Nevertheless, it serves as a useful tool as a basis for discussion and in attempting to objectively measure how well the recommendations in Chapter 5 foster transit usage in future development in the Study Area.

2.4. Limitations & Simplifying Assumptions

This report, as has been previously stated, will focus on providing urban design and land use guidelines for transit-supportive development within the Study Area. As such, a number of assumptions are employed to narrow the scope of the report and to provide an ‘ideal’ environment under which these intensification policies would theoretically be implemented:

- **Stability of Real Estate Market:** Most physical development is expected to be driven by the private sector, however, detailed market analyses of particular forms of development will not be included, and it will be assumed that there will be some market appetite for intensification, particularly over the course of some twenty or more years.

- **Infrastructure & Public Improvement Costs:** It will be assumed that most infrastructure, such as electrical lines, sewers and gas lines, can be relocated and expanded as necessary. Cost estimates on infrastructure and public realm improvements will not be included, and it will be assumed these can largely be included in the capital budget for the LRT itself.

- **Community & Political Support:** Public support for intensification, particularly support within affected neighbourhoods, has not been assessed in this report. It will be assumed that the public will broadly accept gradual intensification along Eglinton Avenue West. Similarly, it is assumed that there will be support for changes from Toronto City Council and involved approval authorities.
3. Study Area Analysis

The Study Area is a long, irregularly-shaped corridor approximately four kilometres long and 76 hectares (188 acres) in total area. A satellite image with the Study Area and major features highlighted is shown below in Figure 3.1. This chapter will provide an overview of the Study Area’s physical environment, as well as the demographics of the surrounding community, and will provide an understanding of the area’s current conditions before developing guidelines for change.

3.1. Natural Features

3.1.1. Topography

The topography of the Study Area is relatively flat, with small, gently rolling changes in elevation. The eastern segment of Eglinton Avenue approaching Scarlett Road slopes gently downward, with embankments along both sides of the roadway that, while generally no more than 6 metres high, are somewhat steep.

3.1.2. Bodies of Water

The Humber River is the only major body of water located near the Study Area, lying 100 metres to the east of Scarlett Road in a ravine 20 or more metres deep, as shown in Figure 3.2 on the following page. Nearly all of the Study Area is located within its watershed. The river’s 100-year flood plain is contained within this valley, and development is prohibited.

A small, unnamed tributary to the Humber begins at Eglinton Avenue West 500 metres east of Islington Avenue, and running through the Saint George Country Club before joining the river approximately 2 kilometres to the southeast.

3.1.3. Vegetated Areas, Parks & Green Spaces

The Humber River valley forms a large, continuous band of natural and recreational space, and is typically heavily forested. It is a protected area, and

Figure 3.1: 2011 satellite image of the Study Area (Outlined with red dashed line), with major landmarks and roads indicated. Source: Google Earth.
development is prohibited.

The areas abutting Eglinton Avenue are typically undeveloped along the north side, with vegetation ranging from open grass and sparse woody shrubs to small but dense and unkempt woodlots. The south side, which contains a paved bike path, is generally maintained and heavily treed. Similarly, residential side streets are typically tree-lined (See Figure 3.14, page 19 for example).

There are several large parks in the Study Area abutting Eglinton Avenue, such as Buttonwood and Richview Parks. Numerous smaller community parks serve nearby residential neighbourhoods. Though these parks have some small clusters of vegetation, they are largely open grass and recreational fields, creating very open spaces.

3.2. Built Character

3.2.1. Access & Transportation Networks

Eglinton Avenue is typically four lanes wide, and is intersected by similar 4-lane north-south arterials spaced approximately 1 kilometre apart. Several collector streets branch from Eglinton Avenue, serving curvilinear local residential streets and culs-de-sac, thus creating a hierarchy of streets typical of post-World War II development. The Study Area is approximately 2 kilometres from Pearson International Airport and expressways 401 and 427, respectively, giving it a central location in Toronto’s highway network. It is thus unsurprising that Eglinton Avenue is frequently congested, including heavy truck traffic.

Transit is provided by buses running along Eglinton Avenue 24 hours a
Running in mixed traffic, these buses serve the Yonge-University-Spadina line approximately 6.5 km east of Scarlett Road, representing a 50-60 minute trip during peak periods due to heavy congestion. Buses also run north-south along Martin Grove Road, Kipling & Islington Avenues and Royal York and Scarlett Roads, respectively, and serve stations along the Bloor-Danforth subway line to the south, which are an approximately 10-15 minute ride away.

There are sidewalks along most parts of Eglinton Avenue, with a notable gap along the north side between Kipling Avenue and Islington Avenue, and along most, but not all, connecting arterials and residential streets. Connectivity to residential areas from Eglinton Avenue is somewhat limited, as there are few roadways providing access and few mid-block pedestrian passageways. Pedestrians may thus have to walk relatively long distances to reach Eglinton Avenue. A separated bike lane runs along the south side of Eglinton Avenue and is generally well-buffered from the street by trees and small berms. This bike lane connects to on-street bike lanes along Royal York and Martin Grove Roads, as well as paved off-road bike lanes along the Humber River ravine.

3.3.2. Land Uses

Land uses throughout the area are shown in Figure 3.6 on the following page. Residential uses occupy much of the area, interspersed with numerous parks and institutional uses, which consist largely of schools serving said residential areas. Commercial uses are limited to smaller-format retail contained in strip malls located...
along Eglinton Avenue West and intersecting arterials. These stores provide a range of services, including banks, coffee shops and a full-service grocery store. There are no industrial uses within the Study Area. The area is nearly entirely built-up, with the exception of the Humber River valley’s natural areas, and vacant lands found along the northern edge of Eglinton Avenue West.

3.3.3. Building Characteristics

Buildings within and near the Study Area tend to be ‘stand alone’ structures and are fairly widely spaced apart, as evidenced by the figure-ground analysis illustrating building footprints in Figure 3.7 on the following page. Most buildings are surrounded by generous open space, whether lawns, leisure space, or surface parking. There is a particularly large amount of open space immediately adjacent to Eglinton Avenue, leaving an ill-defined streetscape (See Figures 3.5, previous page, and 3.12, page 19). Residential lands are largely occupied by single-detached housing and display similar footprint areas, shapes and setbacks. Larger footprints represent high-rise residential buildings, retail strip malls, and schools.

Heights of buildings within the Study Area, including strip malls and schools, tend to be small scale in nature, limited to one to two storeys. High-rise apartment buildings present a dramatic exception, as they are generally 16-18 storeys in height and typically clustered together. There are virtually no buildings that lay between these extremes, creating a landscape largely dominated by low-rise development, but punctuated in small areas by large-scale buildings.

These wide variations in building scales produce a somewhat misleading impression that housing in the area consists overwhelmingly of single-detached housing and display similar footprint areas, shapes and setbacks. Larger footprints represent high-rise residential buildings, retail strip malls, and schools.

Figure 3.6: Current land use patterns in and around the Study Area. Source: By author.
housing. However, 2006 census data aggregated by the City of Toronto on housing types for the four neighbourhoods bordering the Study Area show some 51% of housing units are single-detached as indicated in Figure 3.8, at right, with more than one in three dwelling units found in those high-rise buildings.

Building ages, as reported in censuses and also shown in Figure 3.8, at right indicate the overwhelming majority of housing, some 84%, was built between 1946 and 1979, with only 12% built in the past 30 years. Most buildings are therefore 30-60 years old.

### 3.3. Sensory Qualities & Perceptions

#### 3.3.1. ‘Imageability’ of the Study Area

In his highly influential 1960 work “The Image of the City,” Kevin Lynch describes how individuals break down and perceive their environments into a series of elements in order to navigate them – edges that form real and perceived

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**Figure 3.8:** Housing by type (Left graph) and date of construction (Right graph). Most housing is either single-detached or contained in high-rise buildings, and was constructed before 1979. Source: City of Toronto, graphs by author.

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**Figure 3.7:** Figure-ground analysis showing building footprints; white spaces represent open space, of which there is significant quantities along Eglinton Avenue. Source: By author.
boundaries, paths over which people travel, districts or areas of the city with some distinct identity, nodes serving as centres for activity, and landmarks that serve as reference and navigation points. Each contributes to the ‘imageability’ of a space, or the ease with which people can understand and relate to that space. These elements are displayed in Figure 3.9 (Below).

Edges are found throughout the Study Area, and include ‘soft edges’ that are perceptual barriers, such as the busy arterial roads running through the area, including Eglinton Avenue itself, and ‘hard edges’ that are physically impossible to cross. These are most frequently ‘walls’ of fences demarcating property boundaries. Most housing faces away from Eglinton Avenue, which separates and isolates Eglinton Avenue from surrounding residential areas.

Paths within the Study Area are largely restricted to existing sidewalks and the bicycle path. While some users were observed crossing open spaces to ‘cut corners’ during warmer months, traffic would seem to be insufficient to compact soil in most places. No trails were observed cutting through snow cover in winter, with pedestrians seemingly keeping to the ploughed sidewalks.

Districts are separated by the hard and soft edges described above. Curvilinear, tree-lined streets and residential uses create a quiet and secluded atmosphere (See Figure 3.14, page 19), contrasting sharply with the open spaces along noisy and loud Eglinton Avenue. Eglinton Avenue therefore seems to serve as a mere ‘interstitium’ between largely similar residential areas.

Most activity is concentrated in the two strip malls along Eglinton Avenue, and to a lesser extent, the two public high schools. The strip malls tend to be well-frequented throughout the day, as evidenced by their mostly-full surface parking lots, whereas the schools have shorter periods of intense activity and traffic before and after the school day and at lunch time.

![Figure 3.9: Figure-ground analysis showing building footprints; white spaces represent open space, of which there is significant quantities along Eglinton Avenue. Source: By author.](#)
Finally, there are few landmarks to be found within the Study Area. The strip malls’ road-side signs serve to identify them, but the buildings themselves are fairly low profile (See Figure 3.13 at the end of this chapter, page 19). High-rise buildings can also serve as landmarks in the area, however, clustered as they are in groups, and with similar heights and architectural styles, it can be difficult to distinguish between them, with the notable exception of the newer, standalone building at the intersection of Royal York Road and Eglinton Avenue.

### 3.3.2. Sensory & Safety Perceptions

While low-traffic, quiet residential streets are generally comfortable and safe for pedestrians, high volumes of vehicular traffic, wide roadways, intersections and open spaces along Eglinton Avenue create a noisy and harsh environment that negatively impacts pedestrian comfort and perceptions of physical safety.

Lighting and sidewalk maintenance along Eglinton Avenue West is, in some areas, insufficient, with many dimly lit areas, particularly along the south side. While sidewalks are generally ploughed in winter, certain segments remain unploughed, creating hazardous icy patches that are difficult to navigate.

Separation of land uses, low densities and limited non-residential uses within the Study Area can also create a sense of isolation, again reducing pedestrian comfort and sense of safety. These issues are worsened by expanses of vegetated areas and woodlots, which can greatly reduce visibility in certain areas and enhance that sense of isolation.

### 3.4. Demographic Characteristics

Breakdowns of age groups, gender and ethnicity for the four City of Toronto-designated neighbourhoods found within the Study Area are similar to those of the wider city (City of Toronto, 2006), that is, there are a wide range of family structures and ethnic groups, with the population generally growing both older and more ethnically diverse. Individuals over 65 years old made up 23% of the population in 2006, compared to 18% for the City of Toronto.

The areas surrounding Eglinton Avenue are fairly affluent, with some 39% of households earning over $100,000 per year in 2006, however, 16% of households in these neighbourhoods are also considered low income.

39% of dwellings are rented, while 61% are owned. 40% of households occupying rented dwellings spend over 30% of their income on housing, indicating many households may be in financial stress due to high housing costs, with average rents ranging from approximately $950-$1,200 per month. 15% of homeowners similarly spend over 30% of their income on housing.

### 3.5. Policy Framework

#### 3.5.1. CITY OF TORONTO OFFICIAL PLAN (2006)

The City of Toronto’s Official Plan (OP) guides development within the City of Toronto over the next 30 years. Recognizing that Toronto is almost completely urbanized, it emphasizes concentrating new development in certain parts of the city. The overlying vision set out by the plan includes creating:
Current Official Plan Land Use Designations

- "Vibrant neighbourhoods that are part of complete communities;
- affordable housing choices that meet the needs of everyone;
- attractive tree-lined streets with shops and housing that are made for walking;
- a comprehensive and high quality affordable transit system;
- excellent urban design..." (City of Toronto, 2006)

The OP provides designations for all lands within the City and contains policies to direct appropriate land usage. Land use designations in the Study Area are shown in Figure 3.10, below, and are described as follows:

- **Neighbourhoods** and **Apartment Neighbourhoods** are intended to preserve existing physical character. Neighbourhoods are intended to consist of lower-density, smaller-scale residential housing such as single-detached housing, townhouses and duplexes, whereas Apartment Neighbourhoods are reserved for high-rise buildings. Small-scale retail and offices are permitted on major streets, but these areas are intended to be primarily residential in nature.

- **Natural Areas, Parks and Other Open Spaces** covers parks and open areas of interest. Virtually all forms of development are prohibited, and disposal of parkland by the City is not encouraged.

- **Mixed Use Areas** are intended for increased densities and infill development. Commercial, residential and institutional uses are permitted. Street-oriented buildings are encouraged; surface parking is discouraged. Large-format 'big box' stores and 'power centres' are not supported.

![Figure 3.10: Current Land Use designations as found in the City of Toronto’s 2006 Official Plan. Source: City of Toronto. Map by author.](image-url)
The *Avenues* designation does not refer to specific lands per se, but rather properties along designated major roadways, including Eglinton Avenue West. Avenues are intended to be ‘reurbanized’ and intensified to better support transit, increase housing options in a community, and create a comfortable pedestrian environment that encourages walking and strengthens local retail (City of Toronto, 2006).

### 3.5.2. City of Toronto Secondary Plans

No Secondary Plans apply to the Study Area at time of writing.

### 3.5.3. Current Zoning

As a result of municipal amalgamations, the City of Toronto does not, at time of writing, operate with a single zoning by-law, though it is working to implement unified zoning for the entire city. The content and language of a proposed new zoning by-law will be used under the assumption it will be implemented in the near future (City of Toronto, 2012). Current zoning can be found in Figure 3.11, below, with brief descriptions of each zone below:

- **Residential zones** are classified by the housing types permitted within them. For example, **Residential Detached (RD)** permits only single-family detached housing, whereas **Residential Apartment (RA)** zones permit high-rise apartments. These zones are overlaid with provisions pertaining to built form, such as building heights, setbacks, lot coverages, floor space indexes (FSI) and so on, which generally reflect the existing built character. Non-residential uses are highly restricted.

- **Local Commercial (CL)** zones are intended to “provide for small-scale commercial uses to serve the needs of the local residential area” (City of
specifically mentioning Eglinton Avenue West within the Study Area as requiring an area-specific study owing to the width of its right-of-way.

Design performance standards for mid-rise buildings between 5 and 11 storeys are provided, which are encouraged as they provide reasonably high density and can house different uses while still retaining a comfortable ‘human scale.’ Their height and massing also reduce impacts on surrounding communities. These performance standards include minimum and maximum building heights and setbacks, building massing, and angular planes to reduce impacts on neighbouring buildings. A summary can be found in Appendix B of this report. Guidelines for public realm improvements to create pedestrian-friendly environments are also included.

3.5.5. Other Plans & Studies

A number of other studies and plans have been considered. This includes the City of Toronto Pedestrian and Bike Plans, and the Streetscape Manual.

The Pedestrian and Bike Plans prioritize improvements to the pedestrian and biking environments to encourage active transportation. It emphasizes connectivity within pedestrian and biking networks. Reducing or eliminating pedestrian or biking infrastructure such as bike lanes or sidewalks is strongly discouraged.

The Streetscape Manual provides broad guidelines for the design of major streets. It designates the segment of Eglinton Avenue West passing through the Study Area as a ‘Scenic Corridor,’ indicating the presence of significant open spaces and natural features, and encouraging those spaces to be maintained.
3.6. S.W.O.C. Analysis & Summary

The characteristics of the Study Area, and the policy framework it operates in, as described above, can be re-organized and analyzed as strengths, weaknesses, opportunities, and constraints. Identifying assets and limitations within the Study Area is an important first step in developing a design concept for the site. This analysis has been summarized in Table 3.1, below:

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Mostly flat topography presents few barriers to new development.</td>
<td>• Wide roads and high traffic negatively impact pedestrian experience, limit transit efficiency.</td>
</tr>
<tr>
<td>• Good access to highway and road network; some transit services and active transportation infrastructure in place.</td>
<td>• Land uses are segregated; limited non-residential or institutional uses or activities.</td>
</tr>
<tr>
<td>• Numerous parks, natural areas, and recreational facilities, particularly south side linear park, paved bike path and Humber River valley.</td>
<td>• Large building setbacks and sometimes-overgrown vacant land create ill-defined streetscape and highly exposed environment for pedestrians.</td>
</tr>
<tr>
<td></td>
<td>• Limited connectivity to immediate surrounding neighbourhoods, few destinations along Eglinton Avenue creates sense of isolation.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Constraints</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Large amount of open spaces available for redevelopment immediately adjacent to Eglinton Avenue, particularly along north side of street.</td>
<td>• Area largely built up 40-50 years ago; established community in place that should be respected, but may be reluctant to see change.</td>
</tr>
<tr>
<td>• Official Plan and Avenues designation broadly supportive of intensification and higher standard of design, while transportation plans encourage connectivity and completeness of streets and pedestrian, cycling networks.</td>
<td>• Aging population and housing affordability may require improved housing choices and accessibility.</td>
</tr>
<tr>
<td></td>
<td>• Neighbourhoods land use designation in OP and current zoning are intended to maintain the status quo.</td>
</tr>
</tbody>
</table>

Table 3.1: Strengths-Weaknesses-Opportunities-Constraints Analysis Summary.
3.6.1. Summary & Implications

The Study Area has a number of significant limitations, including heavy traffic, limited non-residential uses, an ill-defined streetscape, few connections to surrounding neighbourhoods, an overall sense of ‘placelessness,’ and official policies intended to maintain that existing character. It is located in a largely built-up area and is surrounded by mature neighbourhoods, and so the impacts of any new development on its surroundings will have to be carefully considered when formulating recommendations and guidelines, while also being sensitive to the needs of communities that are aging and becoming more diverse.

Nevertheless, the Study Area also has some distinctive assets, not the least of which include the large amounts of vacant land concentrated along the north side of Eglinton Avenue. It is extremely rare that large amounts of land would be available in a mature and highly built-up area. These lands could serve as a starting point for new infill development of a more street- and transit-oriented form. The linear park and bike trail are also distinctive features of the Study Area that merit preservation and could rather easily be further enhanced to become central to the area’s pedestrian and cycling experience.

Figure 3.12: Typical view along Eglinton Avenue West, looking southeast toward Lloyd Manor Drive & Plaza. Though not shown in this photo, vehicular traffic can be extremely heavy. Source: By author.

Figure 3.13: The limited commercial space in the Study Area is set far back from the street; Richview Plaza is barely visible to pedestrians in this photo looking north from the south side of Eglinton Avenue. Source: By author.

Figure 3.14: Edenvale Crescent, typical of the low-rise, mature neighbourhoods found surrounding the Study Area. The houses on the left back onto the bike path along Eglinton Avenue. Source: By author.
4. Case Studies

While the past decades have witnessed many examples of good transit-supportive development and design across North America, the following case studies – Vancouver, British Columbia’s Collingwood Village and Portland, Oregon’s Orenco Station – have been widely cited as highly successful have been closely studied. These sites’ backgrounds, designs and achievements will be described separately, and then cross-compared to establish precisely what factors have contributed to their respective successes.

4.1. Collingwood Village

4.1.1. Context & Development

Collingwood Village is centred on Joyce-Collingwood Station on Vancouver’s SkyTrain network (Figure 4.1, right), a rapid-transit system running on an above ground grade-separated right-of-way. The station lies on the Expo and Millennium lines, providing frequent service to downtown Vancouver approximately 8 kilometres northwest of the station, representing a roughly 15 minute ride. These lines also serve major suburban nodes in the nearby cities of Surrey and Burnaby.

The station was surrounded by light industrial uses and a mature residential neighbourhood of low-density, single-family detached housing. The industrial lands had largely been vacated by the 1980s and were identified by the City of Vancouver as suitable for redevelopment. Approximately 11 hectares (27 acres) of land were assembled by Concert Properties by the early 1990s, with redevelopment proceeding in two phases over approximately 15 years (CMHC, 2009).

Final build-out in 2006 provided over 2,800 residential units for 4,500 new residents housed in a variety of forms, including townhouses, garden apartments, and mixed-use mid- and high-rise apartment buildings. Total gross residential density is 218 units per hectare (uph), or 88 units per acre (upa). Approximately 6,500 square metres (70,000 square feet) of retail space were constructed, along with 3 hectares (8 acres) of park space. Community facilities, including an elementary school, a community centre, a day-care and a neighbourhood police centre were also constructed as part of the original plan (CMHC, 2009).
4.1.2. Design Considerations

Streets and Transportation

Easy pedestrian access to the SkyTrain station was considered paramount. No point in the development is more than 700 metres, or an 8-10 minute walk, from the station. New streets were introduced, producing an interconnected street grid and keeping blocks short at 90-175 metres in length. Side streets are fairly narrow, generally 20 metres in width. Sidewalks are found on both sides of all streets, and are lined with trees to provide shade. Traffic calming measures, such as pedestrian bulges and speed humps at intersections, were introduced to slow traffic and increase pedestrian safety. Mid-block pedestrian paths between streets and buildings provide shortcuts. These are well-lit, and typically provide direct sightlines between starting and ending points to increase visibility and safety, as shown in Figure 4.5 on the following page.

Parking requirements were lowered or eliminated to encourage lower rates of car ownership and use, with parking either on-street or required to be underground to avoid vast expanses of open surface parking. Bike parking was provided in all buildings and on-street.

Land Uses

Uses are mixed both horizontally and vertically, that is, both within and between buildings. A range of housing options is provided, with at least 20% required to be family-oriented housing with three or more bedrooms to encourage greater diversity of residents. Most retail and higher residential densities were concentrated near the SkyTrain station to capture more foot traffic and place as many activities and residents as close to the station as possible, with a variety of stores encouraged to provide 24-hour use of the street. Retail uses are integrated into the lower floors of residential buildings. Parks and community facilities were interspersed throughout the development, and are also integrated with residential buildings.

Building Design

Buildings line the street and have small setbacks and varied facades, defining the public realm, bringing activities close to the street, and creating visual
interest. Building entrances are oriented toward sidewalks, with driveways and servicing located to the rear of buildings. Taller buildings typically sit on a four- to six-storey ‘podium,’ where the lower levels are closer to the street and higher levels are stepped back from the street to minimize wind and shadow impacts at sidewalk level. This also creates a more ‘human scale’ environment without large towers visually dominating streetscapes at sidewalk level (See Figures 4.3 & 4.4, below, for examples) (City of Vancouver, 2011).

High-rise buildings were clustered closest to the station, with mid-rise buildings, townhouses and park space found toward the periphery of development. This creates a transition between the highest-density uses and the existing one- to two-storey residential neighbourhood and reduces the impacts of intensification on existing neighbourhoods (CMHC, 2009).

4.1.3. Planning Process

Concert began community consultations and visioning exercises shortly after assembling the properties and before preparing development applications for official planning approvals. Public participation continued throughout the development process, and was cited as a key factor improving design and mitigating community concerns and opposition (Concert Properties, 2011). This process took place over the course of two years, and was facilitated by the fact there was only one developer to negotiate with (CMHC, 2009).

The City of Vancouver used ‘density bonusing’ in accordance with longstanding local policies to negotiate the provision of community amenities, including parks and the community police station in return for increased density, and also conducted public consultations to determine the community’s needs and

![Figure 4.3: Mixed-use building in Collingwood Village. Commercial uses are integrated into the ground floors of residential buildings and oriented toward the sidewalk. Note higher floors are slightly stepped back to reduce shadows at street level. Source: Concert Properties.](image)

![Figure 4.4: Typical side street in Collingwood Village. All streets have wide sidewalks, which are buffered from traffic by boulevards, trees and plantings. Buildings are massed close to sidewalks to frame the street, even on residential streets. Source: Concert Properties.](image)

![Figure 4.5: Landscaped mid-block crossing in Collingwood Village. Good landscaping and direct sightlines along pedestrian paths can create an attractive, welcoming and safe environment for pedestrians and cyclists. Source: Concert Properties.](image)
priorities. This helped the City deliver improved community services, again diversifying uses within the neighbourhood and creating a more ‘complete’ neighbourhood (City of Vancouver, 2011).

Official Support & Policy Changes:

Policies supporting redevelopment and intensification were largely in place. The City of Vancouver has long-standing policies contained in its Official Development Plan encouraging higher-density development near transit stations as a means of reducing urban sprawl and promoting transit use. Former industrial lands had previously been declared surplus, allowing potential redevelopment and higher intensities of use. Concert had to move forward with zoning amendments to permit high-density mixed uses that better reflected these policies (CMHC, 2009).

Parking requirements proved to be the greatest area of contention; existing parking standards required 1.75 parking spaces per residential unit, with transportation planners reluctant to lower it. Concert negotiated this to a reduced ratio of 1.35 spaces per unit for the first phase, and a further 1.04 spaces per unit for the second, a number determined by actual usage recorded from the first phase. Zoning required underground parking, with on-street parking permitted to provide short-term parking for businesses and visitors. This was done to lower the number of cars in the neighbourhood, while encouraging the use of alternative means of transportation (Concert Properties, 2011).

Vancouver also has existing by-laws requiring the provision of affordable and family-oriented housing in urban neighbourhoods; in this case, 20% of units had to contain three or more bedrooms. Bike storage, changing rooms and showers for cyclists are also required in new development and community facilities to support the use of active transportation.

4.1.4. Results

Eleven hectares (27 acres) of underused light industrial lands have been transformed into a high-density, mixed-use neighbourhood that blends into the surrounding neighbourhood. Some 56% of residents in the area commute via transit versus only 11% for the Vancouver Census Metropolitan Area (CMA). 23% of households do not own a car, compared to 16% for the CMA, while only 13% had more than two cars, as opposed to 37% for the CMA (CMHC, 2009). Resident satisfaction is also high. A 2009 interview of 31 residents conducted by the CMHC indicated 90% were satisfied with parking availability, 93% were satisfied with the character and design of the neighbourhood, and 100% reported they were satisfied with nearby amenities. As such, Collingwood Village is regarded as a successful example of transit oriented development (Davison, 2011; CMHC, 2009).
4.2. Orenco Station

4.2.1. Context & Development

Orenco Station is a master-planned community located in Hillsboro, Oregon, in the Portland metropolitan area. Portland is served by a light-rail transit network, the MAX System, with Orenco Station located on the Blue Line’s NW 231st Avenue station. Frequent service is provided to downtown Portland approximately 24 kilometres (15 miles) away, representing a roughly 35 minute ride (TriMet, 2012).

Much of the station’s surroundings had been developed as low-density industrial and office parks in the 1980s. Remaining vacant lands were designated as a mixed-use higher density ‘town centre’ by Portland’s Metro regional government with the opening of NW 231st Avenue station in the 1990s to promote transit use by encouraging development near transit stations. By 1996, Pacific Realty Associates (Also known as “PacTrust”), a real-estate development and trust company, had purchased much of the available vacant land, and the development of Orenco Station was underway.

Begun in 1997 and completed in 2002, the development covers 77 hectares (169 acres), Approximately 1,850 residential units, including 450 single-detached and townhomes, as well as 1,400 apartments, were constructed, along with roughly 11,500 square metres (121,000 square feet) of retail space (Urban Land Institute, 2002). Community and institutional uses are negligible in the area.

4.2.2. Design Considerations

Streets and Transportation

A main street leading directly to the light rail station serves as the development’s ‘backbone’ (See Figure 4.7, following page). This street has wide sidewalks with high-quality pavers and a unified design, and patios are encouraged to bring activity onto sidewalks. Streets form a grid that directs traffic toward this main street, with short blocks 90-200 metres in length. No point in the development is much greater than a 400 metre, or 5 minute, walk from the main street.

Most streets are narrow, generally 20 metres (66 feet) wide, and have tree-lined sidewalks along both sides. Lots are typically serviced by rear lanes 6 metres (20 feet) in width. Pedestrian crossings are clearly marked. Parking is permitted on most streets, with parking on private property limited to the rears of lots behind buildings, or underground (ULI, 2002).
Land Uses

Most retail space in the neighbourhood is found along the main street leading to the light rail station, with a central park creating a terminating vista at the end of that street. Retail uses are integrated with housing, and businesses were specifically selected to provide an assortment of services and amenities. Residential uses surround this main street, with higher-density low-rise apartments located near the main street, and lower-density townhouses and detached housing located further away. Institutional uses are limited, as is office space (Song & Knapp, 2004).

Building Design

Buildings are massed so they line and enclose the street, with ground-floor retail kept as transparent as possible with glass, and parking placed to the rear in all cases. This provides ‘eyes on the street’ to provide a sense of security, and make businesses more inviting to passersby on foot. Businesses’ entrances are located on the street, with access to parking provided via walkways. Building heights are ‘human scale’ and generally do not exceed four storeys. Facades are varied and based on historical styles found on the West Coast to create visual interest and link the development to Portland. Within mixed-use buildings, retail is located at ground floor, with apartments found above (Mehaffy 2011; Podobnik, 2011).

4.2.3. Planning Process

PacTrust produced a master plan for the area with input from architects, planners, urban designers and engineers. The design was based on studies of older, pedestrian-friendly communities in west coast cities, including Portland and San Francisco. As the development was largely surrounded by vacant land or office parks, there was limited need for extensive community consultations.

Orenco Station’s design, housing ratios, community amenities and basic infrastructure were almost entirely privately developed and built by the area’s single developer. As much of the surrounding area consisted of vacant land or business parks, there was limited need for extensive community consultations, and little community opposition was encountered (ULI, 2002).
Official Support & Policy Changes:

Portland’s Metro regional government had designated Orenco Station a ‘town centre’ prior to PacTrust’s purchase of the property to encourage higher-density development and foster transit usage. Metro aims for residential densities approximately 25-27 units per gross hectare (12-13 units per gross acre) in these areas (TCRP, 2007), though Orenco Station yields slightly less than this at roughly 24 uph gross (10.9 upa gross).

PacTrust worked closely with the City of Hillsboro’s planning staff to virtually completely re-write the existing zoning to permit street-oriented, higher-density development and to reduce or eliminate parking requirements; residential parking, for example, is limited to no more than 0.9 spaces per bedroom (PacTrust, 2012).

4.2.4. Results

Studies have found high levels of resident satisfaction, community engagement and transit usage; 22% use transit to commute in Orenco Station compared to 6% for the Portland metropolitan area, for example, though some 75% still identify as predominately car users (Podobnik, 2011), leading to some criticism as to the success of the project. Housing affordability has also been criticised, as average rents and housing prices are 30%-50% higher than elsewhere in the City of Hillsboro, though this can indicate high demand for a desirable place to live.

Orenco Station has won numerous awards and recognition from organizations such as the US Department of Transportation, the American Institute of Architects, the American Planning Association, the Local Government Commission, and the National Association of Homebuilders for its design, walkability, mix of uses and emphasis on transit accessibility.
### 4.3. Case Study Comparison

Table 4.1, below, provides a summary highlighting similarities and differences between the two case studies described in the previous sections. A brief discussion and ‘lessons learned,’ which will inform the design guidelines and recommendations, follows Table 4.1.

<table>
<thead>
<tr>
<th>Key Development Figures</th>
<th>COLLINGWOOD VILLAGE</th>
<th>ORENCO STATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developer(s)</td>
<td>Concert Properties</td>
<td>Pacific Realty Associates</td>
</tr>
<tr>
<td>Date of Development</td>
<td>1991-2006</td>
<td>1997-2002</td>
</tr>
<tr>
<td>Area, hectares (acres)</td>
<td>11 (27)</td>
<td>77 (169)</td>
</tr>
<tr>
<td>Residential unit yield</td>
<td>2,400</td>
<td>1,850</td>
</tr>
<tr>
<td>Residential density, units per gross hectare (acres)</td>
<td>218 (88)</td>
<td>24 (10.9)</td>
</tr>
<tr>
<td>Former land uses</td>
<td>Light industrial (brownfield)</td>
<td>Undeveloped (greenfield)</td>
</tr>
<tr>
<td>New/current land uses</td>
<td>Mixed residential/retail Park Institutional/community</td>
<td>Mixed residential/retail Park</td>
</tr>
<tr>
<td>Housing types</td>
<td>Townhouses, stacked townhouses, walk-up apartments, mid- and high-rise apartments</td>
<td>Single-detached, Semi-detached, Townhouses, Walk-up apartments.</td>
</tr>
<tr>
<td>Housing diversity</td>
<td>20% of units required as ‘family housing’ with three bedrooms or more.</td>
<td>No requirements, many units have secondary dwellings.</td>
</tr>
<tr>
<td>Retail area, location</td>
<td>6,500 square metres (70,000 square feet), concentrated along main street adjacent to transit station.</td>
<td>11,500 square metres (121,000 square feet), located along main street adjacent to transit station.</td>
</tr>
<tr>
<td>Community facilities</td>
<td>Parks, daycare, community centre, elementary school, police station</td>
<td>Parks</td>
</tr>
</tbody>
</table>
4.4. Discussion & Lessons Learned

Though Collingwood Village and Orenco Station are outwardly quite different from one another – Collingwood Village marked by high-rise buildings surrounded by a mature neighbourhood; Orenco Station more low-rise in character and developed on greenfield lands – they share a number of similarities, as evidenced by a side-by-side comparison in Table 4.1 above. While it is difficult to ascertain which factors contribute most to these developments’ respective successes as pedestrian- and transit-friendly areas, it is likely a cumulative effect of different aspects interacting with one another. In both cases, transit services were in place and operating well before development began, which may have had a major impact on travel behaviour and individuals’ decision to locate in these areas (Ewing & Cervero, 2010).

Collingwood Village is significantly denser than Orenco Station, and its inclusion of community uses negotiated through density bonusing, as well as family housing, help make it a more diverse community. Concert Properties also placed a greater emphasis on community consultations and creating a density gradient that

Table 4.1: Summary and comparison of key attributes of Collingwood Village, Vancouver, British Columbia, & Orenco Station, Hillsboro, Oregon.
transitions and connects with established neighbourhoods at Collingwood Village. Collingwood Village’s context in an existing community in a Canadian city may therefore be more similar to the Study Area along Eglinton Avenue, however, both cases offer valuable lessons on good transit-friendly design. These lessons are summarised below as five key points, which will be used to formulate the guiding principles for the design guidelines and recommendations in Chapter 5:

- **Place pedestrians and cyclists first:** Provide high-quality sidewalks and bike paths, lighting, traffic calming, tree plantings and landscaping, and short pathways and blocks to improve connectivity.

- **Diversify land uses:** Encourage mixed uses and a variety of activities and housing options to encourage 24-hour use, and locate them as close to transit as possible.

- **Encourage a dense, fine-grained built form:** Buildings and sites should be compact, visually interesting and varied to provide for different needs and uses and to bring people, activities and transit closer together through higher density.

- **Mass and orient buildings appropriately:** Buildings should approach the street and be ‘human scale’ while respecting the character of existing development.

- **Manage parking and vehicles:** Limit the availability of parking, and place it underground, behind buildings and away from sidewalks and pedestrians.

*Figure 4.11: Collingwood Village (Top) and Orenco Station (Below) are both vibrant, interesting neighbourhoods that represent good transit-supportive urban development. Source: Concert Properties (Top); The Atlantic Cities (Below)*
5. Guidelines & Recommendations

5.1. Vision & Guiding Principles

A broad vision for the Study Area emerges based on the original question of how land uses can support transit along Eglinton Avenue West, the assets and limitations identified in the study area analysis, and the case studies described in the previous chapter. This vision, and the recommendations that follow, will seek to see Eglinton Avenue West evolve into a dense, diverse and well-designed corridor to encourage higher levels of active transportation and transit usage.

This vision will be guided by a series of principles that reflect lessons learned from the case studies. They will, in turn, inform a series of urban design guidelines and recommended implementation mechanisms in support of the original vision. These guiding principles are:

1. Prioritizing pedestrians & cyclists;
2. Diversifying land uses;
3. Encouraging a dense, fine-grained built form;
4. Massing and orienting buildings appropriately;
5. Managing parking and vehicles.

Finally, it is important to recognize that each principle contributes to building a transit-supportive environment, are interdependent and mutually supportive, and are expected to be implemented to gradually transform the area.

5.2. Urban Design Guidelines

The following guidelines are to be applied throughout the Study Area, and are intended to provide direction for the design of new buildings and development, as well as improvements to public spaces. They are organized by the guiding principles outlined in the previous section.

Figure 5.1: Over time, Eglinton Avenue West can be transformed to a pedestrian-oriented environment lined by human-scale, street-oriented mixed-use and mid-rise buildings such as this one, the St. James, on Jarvis Street in Toronto. Source: Garnelen, Panoramio
5.2.1. Prioritizing Pedestrians & Cyclists

As all transit users are pedestrians at the beginning and ends of their trips, making the pedestrian experience safer and more comfortable is an important means of improving the convenience and experience of using transit.

**Guideline 1: Preserve and enhance the south side linear park.** The linear park and bike path running along the south side of Eglinton West is a unique feature that should be preserved and enhanced. Clearing out undergrowth and providing new landscaping and planting of trees and shrubs will greatly enhance this feature. Public art, new benches and small plazas at intersections can all help create a more interesting and better-frequented space.

**Guideline 2: Provide sidewalks with a minimum unobstructed width of 2.0 metres on both sides of all streets.** Sidewalks should be found along both sides of all streets, including collector roads, similar to Collingwood Village and Orenco Station but which are not always found in the Study Area. A minimum unobstructed width of 2.0 metres allows two people to pass comfortably and provide barrier-free movement, particularly for those in wheelchairs or with strollers (See Figures 5.3 & 5.4, below).

**Guideline 3: Prioritize pedestrians and cyclists at crossings.** All crossings should have pedestrian signals with countdowns to show time remaining for crossings. Crossings for both pedestrians and the bike lane should be clearly marked,
ideally with coloured pavers of a different material than the rest of the road. ‘Bump-outs,’ or widening of sidewalks into the roadway at intersections, can force traffic to slow down while reducing crossing distances for pedestrians.

**Guideline 4: Buffer pedestrians and cyclists from traffic.** Sidewalks along Eglinton Avenue should have at least a 1.5 metre ‘buffer zone’ between the main walkway and moving vehicles in the street (See Figure 5.3, previous page). This buffer zone can contain planters, trees, streetlights or other elements that create a sense of separation from traffic. On-street parking can provide a similar sense of separation. The bike path should similarly be kept far from Eglinton Avenue where possible.

**Guideline 5: Provide ‘streetscaping’ improvements.** As was done with Orenco Station’s main street, sidewalks should be paved with high-quality materials, such as stone pavers. Trees and planters should line sidewalks to improve aesthetics and provide shade. Street lighting should be adequate at all times of day. Visual clutter should be avoided; utility lines in particular should be buried where possible, and signage kept to smaller, pedestrian-scales. Streetscaping treatment should be consistent throughout the Study Area to provide a unified identity.

**Guideline 6: Provide amenities along sidewalks.** Newspaper boxes, benches, bike racks and waste receptacles should be provided at regular intervals and at corners, and should be installed in the ‘buffer zones’ to maintain unobstructed paths.

**Guideline 7: Maintain facilities year-round.** All sidewalks and the bike path should be maintained year-round and cleared of leaves, snow, litter, et cetera, particularly considering Toronto receives much more snow than the case studies provided. Grass and underbrush along the bike path should be well-maintained and trimmed to improve visibility and safety.

**Guideline 8: Design transit stops with users in mind.** Railings and glass walls should be installed for protection from traffic as is done with LRT stops along Spadina and St. Clair Avenues in Toronto (Figure 5.5, above). Stops should have a minimum width of 3.0 metres, greater than the 2.0 metres typically found at Toronto’s LRT stops, to improve flow and connect directly to pedestrian crossings. Overhead shelters and...
seating should be provided, with stops clearly labelled and wayfinding information and maps available. Public art also helps distinguish stops.

5.2.2. Diversifying Land Uses

Locating the right types and combinations of land uses close to transit helps users perform multiple tasks and meet many daily needs in one area, making transit a more attractive option, particularly for non-commuting travel. Different land uses also encourages a wider range of users to take transit at all times of the day, making areas more vibrant and safer while supporting high levels of transit service, even outside peak periods. Both case studies described in Chapter 4 sought to maximize the diversity of land uses, and this is regarded as a key factor in their success.

Guideline 9: Encourage horizontally and vertically mixed uses. Retail, office, residential and community uses can be located adjacent to one another, and frequently integrated into the same building to bring a wider range of activities closer to transit stops.

Guideline 10: Encourage ‘24 hour’ usage. As wide a variety of uses and amenities as possible, particularly retail uses in different formats and sizes, will attract different users at different times of the day and ensure spaces and transit are used at all times of day.

Figure 5.6: Côte de la Montagne, in Vieux Québec, Québec illustrates many of the guidelines in Sections 5.2.2. & 5.2.3. Buildings are dense and mixed-use, with retail on the ground floor and residences and offices above. Small storefronts and architectural variety create a fine grained environment. Source: Pedshed.net

Figure 5.7: The Rise in Vancouver is an example of large-format ‘big box’ retail integrated with housing in a single building and whose entrances are oriented toward the sidewalks and the street rather than surface parking lots as encouraged in Guideline 17. Source: Coolstudios.com
Guideline 11: Encourage a range of housing choices. Orenco Station & Collingwood Village offered a range of housing types and sizes suitable for different family structures and incomes. Providing a variety of housing types and sizes close to transit stops, including senior’s, family and affordable housing, will attract more diverse residents and family structures and thus a greater diversity of prospective transit users immediately adjacent to stops.

Guideline 12: Discourage automobile-oriented uses and activities. Services such as gas stations, car dealerships and drive throughs are, by definition, automobile-dependent. Similarly, certain large-format warehouse-style bulk retailing encourages car usage (See Figure 5.9, above). These uses should be discouraged.

5.2.3. Encouraging a Dense, Fine-grained Built Form

Closely related to land use, density brings a greater number of activities and residents within a short walk from stops and thereby making transit more convenient. Built form relates to how buildings interact and connect with one another and with public streets and spaces, and can greatly improve the pedestrian experience.
Guideline 13: Permit increased density. Higher intensity of land use should be permitted through taller and denser building forms. Both Orenco Station and Collingwood Village encouraged higher densities to bring more people closer to transit. Mid-rise buildings up to 30 metres, or 9-10 storeys, tall, in particular, would represent an acceptable increase in density considering the low-rise character of much of the Study Area, while high-rise buildings up to 18 storeys similar to the height of existing high-rises may be permissible in some areas.

Guideline 14: Locate highest densities and mixed uses closest to transit stops. Locating highest-density immediately adjacent to transit stops, as is particularly noticeable in Collingwood Village with 30-storey buildings beside the SkyTrain station, brings activity as close to stops as possible.

Guideline 15: Encourage architectural variety and articulate building facades. Building designs and styles should vary to create visual interest and diversify potential range of uses. Building facades should be varied or articulated every 50-60 metres to avoid large expanses of repetitive and dull walls.

Guideline 16: Encourage a ‘fine grain’ of activities. Store sizes should vary both between and within buildings, with storefronts as little as 6-7 metres wide found in Orenco Station housing a range of uses. Larger-format retail stores, such as the full-service Metro grocery store in the Study Area, can also be permitted in some locations. Regular horizontal and vertical mixing of uses can help create a finer-grain environment, allowing for a greater sense of vibrancy and diversity.

5.2.3. Massing & Orienting Buildings Appropriately

Proper orientation of new buildings can greatly improve the pedestrian experience by creating seamless transitions between activities and public and private spaces. Massing is also important when maintaining a ‘human scale’ that users can relate to at street level, and, in the context of the Study Area, when transitioning higher density areas to lower-density ones. Contrasting sharply with the wide separations and low profile of many building along Eglinton Avenue West, buildings in both case studies were brought to the street to bring activity to sidewalks and frame the public realm, creating an outdoor ‘room.’

Figure 5.10: Massing provisions for mid-rise buildings put forward in the City of Toronto’s Avenues & Mid-Rise Buildings Study is consistent with the guidelines contained in Section 5.2.3. Refer to Appendix B for greater detail. Source: City of Toronto/BMI Pace Architects.
Design of mid-rise buildings along Avenues, illustrated in Figure 5.10 on the previous page, is described in great detail in the City of Toronto’s Avenues and Mid-Rise Buildings Study. Guidelines included in that study are summarized in Appendix B for further reference.

**Guideline 17: Orient buildings toward the sidewalk. All buildings should have minimal front setbacks.** Zero metre front setbacks are acceptable in most cases, with up to 3.0 metres acceptable for landscaped areas or patios, and encouraged at corners to allow better pedestrian circulation. All entrances to buildings and stores should lead directly to and from the sidewalk.

**Guideline 18: Create a continuous street wall.** Side yard setbacks at the front lot line should be 0 metres, along with a minimum building height of 10.5 metres, or approximately 3 storeys. This will create a continuous ‘street wall’ of front building facades, and creates a sense of enclosure along the street.

**Guideline 19: Create transparent ground floors.** Walls at ground levels should be at least 60% transparent for non-residential uses to create visual interest, permeability between public and private spaces, and a sense of safety from ‘eyes’ on the street.

**Guideline 20: Step back front and side facades for taller buildings.** Front and side walls of buildings should be ‘stepped back’ above certain heights to avoid ‘dominating’ streetscapes and affecting wind patterns and reducing sunlight at street level (Refer to Figure 5.12 on next page). This was done consistently with high-rises in Collingwood Village. A front angular plane of 45° degrees should be applied beginning at a height of 24 metres for a road as wide as Eglinton Avenue, or roughly 7 stories. A minimum 12.5 metre side setback should also be applied above that height to allow for better natural lighting and privacy in taller buildings.

**Guideline 21: Transition rear of buildings to respect abutting low-rise development.** Buildings should similarly be stepped back using an angular plane of 45° degrees beginning at ground level to ensure privacy and character of existing
development is better respected, and sunlight on neighbouring properties is not unduly reduced, as illustrated in Figure 5.13 (Below left). A minimum rear setback of 7.5 metres should also be included to create a ‘buffer.’

5.2.5. Managing Parking & Vehicles

Parking can occupy significant portions of a site and create exposed, pedestrian-hostile environments. High vehicular traffic also decreases pedestrians’ sense of safety. Limiting parking supply, which occurred at both Orenco Station and Collingwood Village, and increasing costs of parking encourage individuals to use other alternative forms of transportation.

**Guideline 22: Eliminate front surface parking lots.** Surface parking should be located to the rear of lots, in multi-level parking garages, or, ideally, underground. Unlike the Study Area, the case studies’ zoning codes required parking be located away from the front and sides of lots. Above-ground parking lots can be visually integrated with neighbouring buildings, and can include street-level, sidewalk-oriented retail to minimize visual impact at sidewalk level (See Figure 5.14 for example).

**Guideline 23: Replace parking space rate minimums with maximums and encourage shared parking.** Parking space rate minimums in the zoning by-law can be reapplied as maximums. Parking spaces could also be shared between uses that have peak demands at different times, such as offices and restaurants.
Guideline 24: Locate servicing and access to parking at rear of lots. New laneways can be constructed to the rear of lots to allow for servicing and parking access, thereby reducing driveways cutting across pedestrian paths and sidewalks.

Guideline 25: Prioritize car sharing and short-term parking. On-street parallel parking could be permitted, both along parts of Eglinton Avenue West and intersecting collectors. Areas near transit stops could also be designated for taxis and passenger pick-up and drop-off areas. Buildings could also provide priority parking to carshare organizations such as ZipCar.

5.3. Recommendations for Implementation

A number of tools and mechanisms are required to facilitate the long-term growth and intensification of Eglinton Avenue West that will help deliver the vision and design guidelines described above. These implementation tools, described in the following sections, include:

- Official Plan amendments to reflect Eglinton Avenue’s status as a mixed use corridor;
- Zoning By-law amendments to support Official Plan policy;
- Roadway realignments and leveraging city owned property to encourage high-quality development and intensification and to fund public realm improvements;
- Financial incentives to encourage new development that responds to community needs;
- Phasing to ensure new development is gradual, minimizes disruption to the community, and, ultimately, successful.

5.3.1. Official Plan Amendments

It is recommended that Official Plan land uses within the study area be widely changed to Mixed Use designations as reflected in the map shown in Figure 5.15, on the following page, to better reflect Eglinton Avenue’s Official Plan status as an ‘Avenue’ for strategic infill and densification. Re-designation of lands to Mixed Use will, as the name suggests, better allow for intensification and the introduction of
a mix of land uses and housing types. Land use designations further from Eglinton Avenue, as well as Institutional and Parks and Open Spaces, will remain unchanged.

**Proposed Official Plan Land Use Designations**

![Map showing proposed official plan land use designations.]

*Figure 5.15: Proposed amendments to Land Use designations in the City of Toronto’s 2006 Official Plan. Source: By author.*

**Proposed Zoning By-Law Designations**

![Map showing proposed zoning by-law designations.]

*Figure 5.16: Proposed amendments to the City of Toronto’s draft zoning by-law. Source: By author.*

Chapter 5: Guidelines & Recommendations
5.3.2. Zoning By-Law Amendments

Similar to Official Plan land use amendments and shown in Figure 5.16 on the previous page, zoning throughout the Study Area should be widely changed to CR – Commercial Residential Zones to better support their Official Plan designations and encourage as-of-right mixed-use commercial and residential development.

Specific provisions of this zoning should reflect the urban design standards established in Section 5.2. Zoning should be tailored to each specific site, however, the provisions contained in Table 5.1, below, can serve as a basis for further ‘fine tuning.’

<table>
<thead>
<tr>
<th>Zoning Mechanism</th>
<th>Provision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front Setback</td>
<td>Minimum: No minimum; 1.5 m for corner lots.</td>
</tr>
<tr>
<td></td>
<td>Maximum: 3.0 m</td>
</tr>
<tr>
<td>Interior Side Yard Setback</td>
<td>Maximum, to a vertical height of 10.5 metres</td>
</tr>
<tr>
<td></td>
<td>Minimum, above vertical height of 10.5 metres</td>
</tr>
<tr>
<td></td>
<td>0.0 m or 5.5 m, if overall building height is less than 30 m; 12.5 m, if overall building height is greater than 30 metres.</td>
</tr>
<tr>
<td>Corner Side Yard Setback</td>
<td>Minimum: 3.0 m</td>
</tr>
<tr>
<td>Rear Yard Setback</td>
<td>Minimum: 0.0 m, where the rear of the property abuts a public laneway; 7.5 m in all other cases.</td>
</tr>
<tr>
<td>Building Height</td>
<td>Minimum: 10.5 m</td>
</tr>
<tr>
<td></td>
<td>Maximum: 30 m in most cases; 54 m in some cases adjacent to transit stops.</td>
</tr>
<tr>
<td>Ground Floor</td>
<td>Minimum height: 4.5 m</td>
</tr>
<tr>
<td></td>
<td>Minimum front and corner wall transparency: 25% for residential uses 60% for non-residential uses</td>
</tr>
<tr>
<td>Front angular plane</td>
<td>-- 45 degrees from front lot line toward rear, commencing at a vertical height of 24 metres.</td>
</tr>
<tr>
<td>Rear angular plane</td>
<td>-- 45 degrees from rear lot line toward front, commencing at a vertical height of 10.5 metres.</td>
</tr>
<tr>
<td>Parking Requirements</td>
<td>Location: No parking shall be provided at the front or corner side yards.</td>
</tr>
<tr>
<td></td>
<td>Minimum: No minimum.</td>
</tr>
<tr>
<td></td>
<td>Maximum: Minimum parking rates in the zoning by-law shall be considered maximums within the Study Area.</td>
</tr>
</tbody>
</table>

Table 5.1: Proposed new general zoning provisions for the Study Area.

Chapter 5: Guidelines & Recommendations
5.3.3. Roadway Realignments & Leveraging City-Owned Property

Eglinton Avenue’s right-of-way is no less than 36 metres at any point throughout the Study Area, and in some places is in excess of 50 metres wide. It should be narrowed to 30 metres between Martin Grove Road and Royal York Road, as shown in Figure 5.17 (Below, right), which will provide ample space for the roadway and the LRT while freeing up land for non-transportation uses.

The narrowed right-of-way can generally be aligned to its existing northern edge, though that edge should be shifted southward approximately 6-8 metres between Islington Avenue and Royal York Road. Properties along the north side, while vacant, are fairly shallow at roughly 27 metres deep. Realigning the right-of-way will increase the land available for development on the north side while still allowing a generous 20-25 metres of green space along the south side.

Similar to the layout for the separated streetcar right-of-way along St. Clair Avenue and illustrated in Figure 5.17, below, the rails of the rebuilt roadway would be placed along the centre line, physically separated from four vehicular lanes (the same number as exists currently) by concrete curbs. Sidewalks would be at least 5 metres wide on both sides, including a 1.5-2.0 metre wide buffer zone. The roadway would widen slightly to allow left turn lanes at intersections, with eastbound and westbound stops placed on opposite sides of the intersection to save space. Bike paths running through the park would cross intersections immediately parallel to pedestrian sidewalks to improve visibility.

With the realignments and narrowing of the road right-of-way, large amounts of vacant land owned by the City of Toronto can be declared surplus to City needs and disposed of through its development corporation, Build Toronto. Prospective purchasers can be required to submit concept plans and design briefs for each property, with offers evaluated – in addition to financial considerations – using the guidelines in Chapter 5.2 and those found in the Avenues & Mid-Rise Buildings Study. The City Planning Division should also be involved in the sale process when reviewing concept plans to ensure a smoother process when future landowners apply for site plan control approvals and building permits.

Figure 5.17: Diagram of potential realigned Eglinton Avenue West at an intersection with a collector road through the Study Area when the Eglinton Crosstown LRT is completed. Source: By author.
Proceeds from sold lands could then be used to finance improvements to the public realm such as sidewalks or the south side linear park, or for the construction of public laneways to provide rear access to buildings and parking facilities.

5.3.4. Financial Incentives for New Development

The City of Toronto possesses a number of financial tools that could incentivize new development.

Transfers of City-owned properties to developers could be delayed until planning and development approvals are in place. The developer would therefore not pay property taxes until closer to the time construction began.

Alternatively, property taxes, Toronto’s land transfer tax or development charges could be reduced or waived for a certain time, such as a period of five years, throughout the Study Area to encourage new development and reduce costs for developers. This would likely require the development of specific implementation plans or secondary plans and Council approval.

Section 37 of the Planning Act and the City of Toronto Official Plan permit ‘density bonusing,’ where the construction of additional density on a lot is permitted beyond that allowed by the as-of-right zoning in return for some community benefit. This could include the provision of family or affordable housing, space for community uses in new buildings, public art, streetscape or local park improvements, and so on. This can be negotiated on a case-by-case basis between developers, planners and councillors, with final approvals resting with Toronto City Council. This could be a particularly useful tool in negotiating high-rise buildings at major intersections in the Study Area.

5.3.4. Phasing & Redevelopment Timing

The timing of new development is extremely important. New commercial development is particularly sensitive – if the first new commercial development under-performs, it could discourage additional development. New development will not occur all at once; it is anticipated that redevelopment will occur over a period of at least twenty years.

New development would ideally follow the construction of the LRT through the Study Area, with initial development located as close to stops as possible. The two plazas, which are currently the two greatest hubs of activity, would also ideally be expanded or rebuilt to more street-oriented forms. Richview Plaza could also expand on adjacent vacant property, with the older plaza joined to new development, or demolished for redevelopment.

Construction of the LRT through the Study Area is expected to begin following the completion of Phase I by 2020, and will likely take four years. Precise dates are currently unavailable, so the broad timeline for development shown on the following page in Table 5.2 will use T to represent the beginning of construction, with T+4 representing beginning of operations four years later.
surrounding neighbourhoods, which will remain largely untouched.

Eglinton Avenue West will be dense. A rough estimate of future development suggests at least 6,500 new residential units could be constructed along the corridor, representing an approximate net residential density of 240 units per hectare -- similar to Collingwood Village. Eglinton Avenue will be diverse. If every ground floor of every new building was entirely dedicated to commercial and community space, though perhaps an unlikely occurrence, there would be up to 200,000 square metres of space. That, under all those new residential units, means there will be a wide range of activities, amenities and uses available, and a range of users for them. Eglinton Avenue will be well-designed, safe, and attractive, and it will all be within a couple hundred metres of a high-quality light rail stop providing 24-hour service.

<table>
<thead>
<tr>
<th>Time</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>T - 1</td>
<td>Amendments made to Official Plan policies and as-of-right zoning.</td>
</tr>
<tr>
<td>T + 0</td>
<td>Beginning of construction of LRT through Study Area.</td>
</tr>
<tr>
<td>T + 2</td>
<td>First properties can be sold for development and should be immediately adjacent to transit stops. Neighbouring vacant lands can be used for staging purposes to minimize conflicts with LRT construction.</td>
</tr>
<tr>
<td>T + 2 to T + 3</td>
<td>Proceeds from first property sales can be used toward sidewalk and streetscape improvements, which can occur in the later stages of LRT construction.</td>
</tr>
<tr>
<td>T + 4</td>
<td>Completion of LRT; Occupancy of first properties.</td>
</tr>
<tr>
<td>T + 5 – T + 20</td>
<td>Remaining lots should gradually be sold off and developed and as private owners see fit. Lots nearest transit stops should be redeveloped first, with development progressively ‘radiating’ outwards away from transit stops and filling in the last gaps over a period of 10 years or more</td>
</tr>
</tbody>
</table>

Table 5.2: Proposed approximate timelines for phasing of redevelopment.

5.4. The Results

The vision for the Eglinton West Corridor is a gradual and long-term. It will require patience, good coordination of City departments, the Toronto Transit Commission, Metrolinx, and potential private developers, as well as careful timing.

The result, however, should these recommendations be implemented, will be an attractive, tree-lined urban boulevard animated by wide sidewalks, winding bike paths, fine-grained storefronts, patios, and well-designed, mid- and high-rise buildings. It will represent a sharp contrast to the quiet, low-rise character of the

Figure 5.18: Eglinton Avenue can be transformed into a dense, attractive and tree-lined avenue, similar to this rendering for the revitalization of Queen’s Quay Boulevard in Toronto. Source: City of Toronto.
6. Evaluation of Recommendations

The guidelines and recommendations will be evaluated for their ‘TOD-ness’ using the indicators for transit-supportive development gathered by the US Transportation Research Board’s Transportation Cooperative Research Program (TCRP) and discussed in greater detail in Chapter 2 of this report.

The guidelines are evaluated and awarded points on a matrix based on each indicator, with points weighted on whether that indicator is deemed ‘essential’ or ‘supportive’ by the TCRP. A fully-addressed essential indicator receives 5 points (3 points for supportive indicators); a partially-addressed essential indicator receives 3 (1 point for supportive); unaddressed indicators receive no points. Points are expressed as a percentage of the total points available, in this case, a total of 85.

This evaluation is found in Table 6.1, below. A brief discussion will then follow to summarize the results and explore the success of the recommendations.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Desired Characteristics</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Essential Indicators</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Centrally-located transit</td>
<td>Development surrounds the transit stop and its primary edge is within 5 minutes or about 400 metres of the transit node.</td>
<td>0 points</td>
</tr>
<tr>
<td>Pedestrian priority</td>
<td>- Block perimeter lengths are walkable (no more than 400 m). &lt;br&gt;- Walkways are direct and attractive and buildings are sidewalk-oriented. &lt;br&gt;- Pedestrians should be prioritized at intersections, with easy street crossings, short signal cycle lengths, etc.</td>
<td></td>
</tr>
<tr>
<td>Indicator</td>
<td>Desired Characteristics</td>
<td>Score</td>
</tr>
<tr>
<td>---------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Essential Indicators</strong></td>
<td></td>
<td>0 points</td>
</tr>
<tr>
<td>Mix of uses</td>
<td>- Development has elements that create a self-sufficient community where daily needs such as grocery shopping can be accomplished without need for a car and preferably by walking.</td>
<td>✔️</td>
</tr>
<tr>
<td></td>
<td>- Transit provides connectivity to some uses not present in the community, but located close at hand to stops along the primary transit line, such as jobs, entertainment, and destination retail.</td>
<td></td>
</tr>
<tr>
<td>Supportive density</td>
<td>- Density is sufficient to enable cost-effective transit service and infrastructure provision, create a market supportive of utility retail, and keep local attractions and destinations within short walking distances; Residential density guidelines range from 30 to 72 units per hectare depending on distance from the station; Employment densities of 120 jobs per gross hectare is suggested to support LRT TOD.</td>
<td>✔️</td>
</tr>
<tr>
<td>Parking management</td>
<td>- Parking minimums are avoided, parking maximums are encouraged and requirements are reduced over standard development</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Parking costs are charged to users.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Structured parking, satellite parking, underground parking, and parking with street-facing office or retail uses are employed to avoid dead blocks and enable clear walking paths.</td>
<td></td>
</tr>
</tbody>
</table>

**Points Awarded, Essential Indicators**

```
-- 6 45
```
### Supportive Indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Desired Characteristics</th>
<th>Score</th>
</tr>
</thead>
</table>
| **Street widths and driveways**  | - Streets and walks are scaled to pedestrian comfort and convenience.  
- Overly wide streets and intersections, along with parking between sidewalks and buildings with its associated driveways, can discourage pedestrian trips and are discouraged.  
- Narrower streets are incorporated on the basis of the motorized trip reduction benefits of the TOD itself and/or pedestrian preference.                                                                                                                                                                                                                     | ✔     |
| **Roadway access**                | - Good highway access is provided, especially for suburban TODs, to yield sufficient customers for vibrant retail.                                                                                                                                                                                                                                                                                                                                                              | ✔     |
| **Housing types**                 | - A diversity of housing types is incorporated to accommodate residents of different income levels. Inclusion of below-market-rate housing can support higher levels of transit ridership.                                                                                                                                                                                                                                                                                         | ✔     |
| **Ground floor transparency**     | - Numerous windows on the ground floor of development are incorporated to create inviting, active, friendly, and defensible pedestrian spaces.  
- Should desirably include 24-hour uses. People may be willing to walk longer distances when the trip is safe, convenient, and interesting                                                                                                                                                                                                                                                                                             | ✔     |
### Evaluation Matrix (Continued)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Desired Characteristics</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Supportive Indicators</strong></td>
<td></td>
<td>0 pts.</td>
</tr>
<tr>
<td>Car sharing</td>
<td>Occasional access to automobiles is facilitated through organized car sharing; reduces parking requirements and vehicle miles travelled and can boost transit ridership.</td>
<td></td>
</tr>
<tr>
<td>Transit support</td>
<td>Transit pass programs are available</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other Travel Demand Management (TDM) measures are applied to tip the balance toward transit, walking, and cycling for TOD residents and workers.</td>
<td></td>
</tr>
</tbody>
</table>

### Points Awarded, Supportive Components

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>3</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL POINTS AWARDED/TOTAL AVAILABLE POINTS</td>
<td>66/85</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OVERALL “TOD-NESS” SCORE</td>
<td>78%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Table 6.1: Evaluation of Guidelines & Recommendations in Chapter 5; Refer to Chapter 2 for evaluation method.*
6.1. Discussion

With an overall score of 78%, the recommendations in Chapter 5 generally perform well in their ability to encourage transit usage along Eglinton Avenue.

Of the essential indicators, the recommendations are weakest where block lengths are concerned. While efforts were made to identify existing and potential pedestrian pathways to and from surrounding neighbourhoods for their preservation and enhancement, the curvilinear street system is firmly established, and no new streets or paths could be constructed without appropriating private property. Block lengths along Eglinton Avenue will therefore remain typically 400-500 metres in length. Mid-block pedestrian crossings could be installed, but that may negatively impact the smooth operation of the LRT. Most pedestrian traffic would still arrive on Eglinton via adjoining collector and arterial streets where crosswalks already exist, and so mid-block crossings may see relatively little use.

Parking costs were also not directly addressed in the recommendations. While parking garages may be constructed, and those costs recouped through fees, in most cases, it was assumed that parking costs were to be largely decided by the market and limited through parking maximums. Additionally, most parking will be placed underground in new development, with the expectation that the added costs of underground parking over surface parking would be passed along to future purchasers of residential units as is standard industry practice.

The recommendations do not perform as well for the supportive indicators. Streets will generally not be narrowed, though the decision to keep Eglinton Avenue at four vehicular lanes and to narrow the right-of-way will restrict the ability to significantly widen that street. Intersecting collectors are generally already only two lanes, and there would be limited opportunities to narrow intersecting arterials without serious traffic impacts.

Housing diversity was also not directly addressed, though the suggestion was made that Section 37 of the Planning Act could be employed by the City of Toronto to ensure a minimum amount of affordable and family housing in return for some increases in density, or could also be addressed during the sale of City lands by creating arrangements with potential buyers.

24-hour usage is also not directly addressed as it is not easy to legislate or mandate such things. It is hoped that allowing a variety of residential, commercial and community activities will naturally produce 24-hour usage of space.

Transit pass programs were not discussed, though the author is aware that the City mandates the provision of transit passes for one year with the sale of new residential units in buildings with more than 20 units. It is assumed that that program will continue indefinitely.

Finally, issues such as car-sharing and transportation demand management were considered beyond the scope of this report, and so were not included, though none of the recommendations preclude using parking space for car-sharing; both public and private parking garages could easily provide several prime parking spots to a car-sharing company, for example.
The Greater Toronto Area will continue to see rapid population and economic growth for the foreseeable future; the question is therefore what form that change will take. It is clear that low-density, automobile-dominated development cannot continue indefinitely. Traffic congestion in the GTA is among the worst in North America and costs the local economy billions of dollars; air quality continues to decline, and there is little appetite for continued expansion and maintenance of costly freeways and roadways, particularly in the heavily built-up City of Toronto (Metrolinx, 2008).

Alternatives are necessary and available, but will require communities and municipalities to use their land and infrastructure more efficiently. All cities will need to ‘do their part’ to intensify and encourage their residents to leave the car at home. Over the past several decades, numerous communities, developers, planners and architects have attempted to capture them in new developments to varying degrees of success, from Vancouver to Portland, to Ottawa, San Francisco, Washington and elsewhere. These ‘living laboratories’ serve as useful models to draw lessons from and improve upon when embarking upon similar efforts to grow in a more sustainable direction.

The City of Toronto, too, is working to build a denser, more dynamic, and more transit-friendly city, designating “Avenues” as appropriate places to absorb future intensification and new construction and constructing a network of light rail transit lines. The four-kilometre stretch of Eglinton Avenue West between Martin Grove and Scarlett Road through the former City of Etobicoke, though it currently falls short of the city’s vision for dense, animated Avenues, represents a great opportunity to become a model for these corridors. Though located in a neighbourhood built up 50 years ago, it has vast amounts of land available for redevelopment, scenic linear parks and green space, and within 20 years will also be host to a light rail line running across the city. It can become a vibrant and pedestrian-friendly corridor, where the sidewalks and LRT stops are as vital to people’s transportation needs as cars and expressways.

That is the aim of the urban design guidelines and recommendations contained in this report, to provide a vision for the future of the area centred on the pedestrian, the sidewalk, and the light rail line. It is not intended to be overly prescriptive, laying out every detail of every building and every block, but rather, it is intended to be the start of a conversation as to what Eglinton Avenue West could be. Each property has its own unique characteristics, and each landowner and prospective developer will have different ideas and visions for their projects. It must also be stated that the needs of the community will undoubtedly change over the course of the next two or three decades.
Eglinton Avenue West is not a blank slate, of course, and there are thousands of people who live and work in the area, and they no doubt have ideas of their own, too, and they should be heard. Early, consistent and transparent engagement, while not easy, is absolutely critical throughout the transformation and redevelopment process. Sufficiently empowered, communities can be extremely constructive in finding solutions to issues and reaching consensus, improving their surroundings, and owning their public spaces. For all the importance of comprehensive and master plans, a city’s spaces are invariably acted upon by thousands of individuals in thousands of different ways, each and every day. If Eglinton Avenue West is to truly succeed as a transit-friendly corridor, it can be no different.

Figure 7.1: Though it will not happen instantly, Eglinton Avenue West may one day resemble this vision for Toronto’s Avenues. Source BMI-Pace/City of Toronto
A. Study Analysis Checklist


A. General Site Context
(1) Geographic location, adjacent land use patterns, access system, nearby destinations and facilities, stability or change in development.
(2) Political jurisdictions, social structure of the locality, population change in surrounding areas.
(3) Ecological and hyrographic system of the region.
(4) Nature of the area economy, other proposals or projects nearby and their effects on the site.

Typical Impact Questions:
- Will important locations or resources become inaccessible to the general public?
- Will energy, water, food or other scarce resources be depleted or degraded?
- Will the health or safety of the surrounding population be endangered?
- Will the project put an undue traffic load on its surroundings?
- Will surrounding political, social, or economic systems be disrupted?
- Will the project have a negative impact on existing business or institutions?
- Will its construction or maintenance lay undesirable financial burdens on the surrounding community?

B. Physical Data, Site and Adjacent Land
(1) Geology and Soil:
   a. Underlying geology, rock character and depth, fault lines.
   b. Soil types and depth, value as an engineering material and as a plant medium, presence of hazardous chemicals or contaminants.
   c. Areas of fill or ledge, liability to slides or subsiding, capability for mining.

Typical Impact Questions:
- Are landslides, subsidence, or earthquakes likely to occur?
- Will the soil be contaminated?
- Can the soil absorb likely wastes without damage?
- Will the topsoil or its nutrient balance be lost?

(2) Water:
   a. Existing water bodies – variation and purity.
   b. Natural and man-made drainage channels – flow, capacity, purity.
   c. Surface drainage pattern – amount, directions, blockages, flood zones, undrained depressions, areas of continuing erosion.
   d. Water table – elevation and fluctuation, springs, flow directions, presence of deep aquifers.
   e. Water supply – location, quantity and quality.

Typical Impact Questions:
- Will purity, oxygen level, turbidity, or temperature of surface waters be affected?
- Will siltation occur?
- Can the drainage system accept the additional runoff?
- Will lands be flooded, erosion induced, or water bodies be caused to fluctuate?
- Will the water table rise or fall, affecting vegetation, basements or foundations?
- Will groundwater be contaminated, or the recharge or draw-down of aquifers be affected?
(3) Topography:
   a. Contours.
   b. Patterns of landforms — typology, slopes, circulation possibilities, access points, barriers, visibility.
   c. Unique features.

Typical Impact Question:
Will unique or valued landforms be damaged?

(4) Climate:
   a. Regional pattern of temperature, humidity, precipitation, sun angles, cloudiness, wind direction and speeds.
   b. Local microclimates: warm and cool slopes, wind deflection and local breeze, air drainage, shade, heat reflection and storage, plant indicators.
   c. Snowfall and snow drifting patterns.
   d. Ambient air quality, dust, smells, sound levels.

Typical Impact Questions:
Will the project cause general climactic changes, such as in regard to temperature, humidity, or wind speed?
Will local microclimates be affected adversely?
Will air pollution increase or dust or obnoxious odors be generated?
Will the project increase or decrease disturbing noise levels?
Will the project cause any radiation or other toxic hazards?

(5) Ecology:
   a. Dominant plant and animal communities — their location and relative stability, self-regulation, and vulnerability.
   b. Pattern of plant cover, quality of wooded areas, regeneration potential.
   c. Specimen trees — their location, spread, species, elevations at base, whether unique or endangered, support system needed.

Typical Impact Questions:
Will important plant and animal communities be disrupted? Will it be difficult for them to relocate or to regenerate themselves?
Will rare or endangered species be destroyed or pest species increased?
Will the project cause eutrophication of water bodies or algal blooms?
Will the plan remove significant agricultural uses or make it difficult for them to be reestablished in the future?

(6) Man-Made Structures:
   a. Existing buildings: location, outline, elevations, type, condition, current use.
   b. Networks: roads, paths, rails, transit lines, sewers, water lines, gas, electricity, telephone, steam—their location, elevations, capacity, condition.
   c. Fences, walls, decks, other human modifications to the landscape.

Typical Impact Questions:
Will present and planned roads and utilities serve the site without adverse impacts on adjacent areas?
Will the project require a substantial investment in roads and utilities?
Can these new facilities be adequately maintained and operated?
Will new structures conflict with or damage existing ones?

(7) Sensory Qualities:
   a. Character and relationship of visual spaces and sequences.
   b. Viewpoints, vistas, focal points.
   c. Quality and variations of light, sound, smell.

Typical Impact Questions:
Is the new landscape in character with the existing one?
Are existing views and focal points conserved and enhanced?
Are the new buildings compatible in character with the existing structures to be retained?
C. Cultural Data, Site and Adjacent Land

(1) Resident and using population:
   a. Number, composition, pattern of change.
   b. Social structure, ties and institutions.
   c. Economic status and role.
   d. Organization, leadership, political participation.

Typical Impact Questions:
   Will any segment of this population be disadvantaged?
   Will present disadvantaged groups be aided?
   How will existing jobs and businesses be affected?
   Will the plan modify current lifestyles or cultural practices in undesirable ways?
   Will existing institutions or social ties be disrupted?

(2) Behaviors: nature, location, participants, rhythm, stability, conflicts.

Typical Impact Questions:
   Will the plan destroy important patterns of use without replacing them?
   Will new uses conflict with the old ones or endanger safety?
   Is future change and expansion provided for?

(3) Site values, rights, restraints:
   a. Ownerships, easements and other rights.
   b. Zoning and other regulations that influence site use and character.
   c. Economic value and how it varies across the site.
   d. Accepted “territories.”
   e. Political jurisdictions.

Typical Impact Questions:
   Will the economic values of the site or its surroundings be depreciated or enhanced?
   Will ownerships or customary “territories” be significantly disrupted?

(4) Past and future:
   a. History of the site and its visible traces.
   b. Public and private intentions for future use of the site, conflicts.

Typical Impact Questions:
   Are archaeological sites and historic structures conserved and developed?
   Does the plan disrupt or facilitate current change?
   Does it conflict with any existing plans for the future?

(5) Site character and images:
   a. Group and individual identification with aspects of the site.
   b. How the site is organized in people’s minds.
   c. Meanings attached to the site, symbolic associations.
   d. Hopes, fears, wishes, preferences.

Typical Impact Questions:
   Does the plan destroy or enhance group or individual identification with the site?
   Does it disrupt or reinforce existing ways of mentally organizing the site?
   Does it take account of the popular meanings and values of the site?
   Is it in accord with the hopes, fears and preferences of the users?

D. Correlation of Data

(1) Site subdivisions: areas of consistent structure, character, problems.
(2) Identification of key points, axes, areas best left undeveloped, areas where intensive development is possible.
(3) Ongoing changes, and those likely to occur without intervention – the dynamic aspect of the site.
(4) Ties to context – current and possible linkages, areas where consistent uses are desirable, patterns of movement to be preserved.
(5) Summary of significant problems and potentials, including a summary of the key positive and negative impacts of the proposal.
B. Mid-rise Building Standards

Adapted from “Chapter 3.2: Performance Standards” in the City of Toronto and BMI-Pace Architects’ “Avenues and Mid-Rise Buildings Study” (2010).

1. Maximum Allowable Height
   The maximum allowable height of buildings on the Avenues will be no taller than the width of the Avenue right-of-way, up to a maximum mid-rise height of 11 storeys (36 metres).

2. Minimum Building Height
   All new buildings on the Avenues must achieve a minimum height of 10.5 metres (up to 3 storeys) at the street frontage.

3. Minimum Ground Floor Height
   The minimum floor to floor height of the ground floor should be 4.5 metres to facilitate retail uses at grade.

4A. Front Façade: Angular Plane
   The building envelope should allow for a minimum of 5-hours of sunlight onto the Avenue sidewalks from March 21st - September 21st.

4B. Front Façade: Pedestrian Perception Step-back
   “Pedestrian Perception” step-backs may be required to mitigate the perception of height and create comfortable pedestrian conditions.

4C. Front Façade: Alignment
   The front street wall of mid-rise buildings should be built to the front property lines or applicable setback lines.

5A. Rear Transition to Neighbourhoods: Deep
   The transition between a deep Avenue property and areas designated Neighbourhoods, Parks and Open Space Areas, and Natural Areas to the rear should be created through setback and angular plane provisions.

5B. Rear Transition to Neighbourhoods: Shallow
   The transition between a shallow Avenue property and areas designated Neighbourhoods, Parks and Open Space Areas, and Natural Areas to the rear should be created through alternative setback and angular plane provisions.

5C. Rear Transition to Employment Areas
   The transition between an Avenue property and areas designated Employment Areas to the rear should be created through setback and step-back provisions.

5D. Rear Transition to Apartment Neighbourhoods
   The transition between an Avenue property and areas designated Apartment Neighbourhoods to the rear should be created through setbacks and other provisions.

6. Corner Sites: Heights & Angular Planes
   On corner sites, the front angular plane and heights that apply to the Avenue frontage will also apply to the secondary street frontage.
7A. Minimum Sidewalk Zones
Mid-rise buildings may be required to be set back at grade to provide a minimum sidewalk zone.

7B. Streetscapes
Avenue streetscapes should provide the highest level of urban design treatment to create beautiful pedestrian environments and great places to shop, work and live.

8A. Side Property Line: Continuous Street Walls
Mid-rise buildings should be built to the side property lines.

8B. Side Property Line: Limiting Blank Side Walls
Blank sidewalks should be designed as an architecturally finished surface and large expanses of blank sidewalks should be avoided.

8C. Side Property Line: Step-backs at Upper Storeys
There should be breaks at upper storeys between new and existing mid-rise buildings that provide sky-views and increased sunlight access to the sidewalk. This can be achieved through side step-backs at the upper storeys.

8D. Side Property Line: Existing Side Windows
Existing buildings with side wall windows should not be negatively impacted by new developments.

8E. Side Property Line: Side Street Setbacks
Buildings should be setback along the side streets to provide transition to adjacent residential properties with front yard setbacks.

9. Building Width: Maximum Width
Where mid-rise building frontages are more than 60 metres in width, building façades should be articulated or “broken up” to ensure that façades are not overly long.

10. At-Grade Uses: Residential
Where retail at grade is not required, and residential uses permitted, the design of ground floors should provide adequate public/private transition, through setbacks and other methods, and allow for future conversion to retail uses.

11. Setbacks for Civic Spaces
In special circumstances where civic or public spaces are desired, additional setbacks may be encouraged.

12. Balconies & Projections
Balconies and other projecting building elements should not negatively impact the public realm or prevent adherence to other Performance Standards.

13. Roofs & Roofscapes
Mechanical penthouses may exceed the maximum height limit by up to 5 metres but may not penetrate any angular planes.

14. Exterior Building Materials
Buildings should utilize high-quality materials selected for their permanence, durability and energy efficiency.

15. Façade Design & Articulation
Mid-rise buildings will be designed to support the public and commercial function of the Avenue through well articulated and appropriately scaled façades.
16A. Vehicular Access
Whenever possible, vehicular access should be provided via local streets and rear lanes, not the Avenue.

16B. Mid-Block Vehicular Access
For mid-block sites without rear lane access, a front driveway may be permitted, provided established criteria are met.

17. Loading & Servicing
Loading, servicing, and other vehicular related functions should not detract from the use or attractiveness of the pedestrian realm.

18. Design Quality
Mid-rise buildings will reflect design excellence and green building innovation, utilizing high-quality materials that acknowledge the public role of the Avenues.

19A. Heritage & Character Areas
All mid-rise buildings on the Avenues should respect and be sensitively integrated with heritage buildings in the context of Heritage Conservation Districts.

19B. Development in a HCD
The character and values of HCDs must be respected to ensure that the district is not diminished by incremental or sweeping change.

19C. Development Adjacent to a Heritage Property
Development adjacent to heritage properties should be sensitive to, and not negatively impact, heritage properties.

19D. Character Area: Fine Grain Fabric
New mid-rise buildings in Character Areas that have a fine grain, main street fabric should be designed to reflect a similar rhythm of entrances and multiple retail units.

19E. Character Area: Consistent Cornice Line
Buildings in a Character Area should maintain a consistent cornice line for the first step-back by establishing a “datum line” or an average of the existing cornice line.

19F. Character Area: Vertical Additions
Additions to existing buildings is an alternative to redevelopment projects on the Avenues, and should be encouraged in areas with an existing urban fabric.

19G. Character Area: Other Considerations
Additional “context sensitive” design and massing guidelines should be considered for development in Character Areas.
Bibliography & Works Cited


Introduction

Chapter 1:


