Brampton Soccer Centre and Cassie Campbell Community Centre:

A Comprehensive Evaluation of Two Suburban Recreation Facilities from Brampton, ON, Canada
Using the Urban Design Compendium as a Basis

By

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Master of Urban and Regional Planning

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EXECUTIVE SUMMARY

Introduction

This report evaluates the quality of urban design in two contemporary recreation facilities, the Brampton Soccer Centre (BSC) and Cassie Campbell Community Centre (CCCC). Both facilities are located in the City of Brampton, a suburban community located within the Greater Toronto Area (GTA). Using criteria adapted from the *Urban Design Compendium*, a British best practice manual for urban design, the two case studies are evaluated then compared against one another. The criteria have been further augmented through a comprehensive literature review of books and scholarly articles relating to the planning and design of indoor and outdoor recreation facilities. Ultimately, the evaluation will be utilized to identify pertinent lessons from the case studies, which can then be applied to future development initiatives of recreation facilities in Canada and abroad.

Case Studies

The BSC and CCCC are located in northern Brampton within fairly newly constructed, suburban-styled neighbourhoods. Both facilities are contemporary, positioned along Sandalwood Parkway at different ends of the City, and contain designs that are meant to generate a significant urban civic space. Therefore, with their many similarities, they create the ideal conditions for a high-quality evaluation.

The BSC was completed in 2007 and is located on the southwest corner of the Sandalwood Parkway and Dixie Road intersection (Figure E.1 and E.2). The building was designed by Toronto-based MacLennan Jaunkalns Miller Architects, a firm with a large portfolio of pools, arenas, and other recreational and community facilities (Archidose, 2008). The outdoor amenity space was designed by Strybos Barron King Landscape Architects (Figure E.3) (Leslie, 2007). The BSC was designed as a prototype building for a 3 project expansion program of major recreation facilities for the City of Brampton at a cost of $28 million CDN. It boasts a 14,100 square metre building that is integrated with a
master planned, 11 hectare, outdoor amenity complex that includes 4 soccer fields, 2 basketball courts, 2 cricket fields, and a community activity plaza including a splash pad and playgrounds (MJMA, 2011). The building is designed to accommodate indoor soccer, field hockey, and other indoor sports by utilizing four field-house arenas with stadium style viewing. It is sized and scaled to operate with four independent programs running concurrently, including trade shows and community functions (Archidose, 2008). Additionally, the building is designed to be easily converted from a ‘warm’ facility to a ‘cold’ ice pad complex if changes are needed in the future (MJMA, 2011).
The CCCC was completed in 2008 and is located on the northwest corner of the Sandalwood Parkway and Chinguacousy Road intersection. The building was designed by Shore Tilbe Perkins Will Architects, while the outdoor amenity space was designed by Fleisher Ridout Partnership (STPW, 2011). The facility creates a unique set of places for indoor and outdoor programming (Figure E.4). The 15,800 square metre building is amalgamated with a master planned outdoor amenity area that measures approximately 15 hectares (Figure E.5) (STPW, 2011). At a cost of $44 million to construct, the building provides a broad range of athletic and leisure services for Brampton’s residents including a natatorium (pool), indoor running track, fitness centre, gymnasium, and twin-pad hockey arenas. Apart from the building and its immediate landscaped context, the outdoor amenity space provides soccer fields, a cricket pitch, basketball and tennis courts, a BMX and skateboarding facility, and an Activity Plaza fronting onto Sandalwood Parkway containing a splash pad and playground (STPW, 2011).

Figure E.4: The CCCC looking from the Northeast (STPW, 2011)
Evaluation

The material found within the *Compendium* reflects good urban design practices from both the United Kingdom and abroad. Although it was produced with the intention of improving the design quality of British housing redevelopment projects (Llewelyn-Davies, 2000: 8), the *Compendium* can also be utilized as an appropriate evaluation tool for both North American conceptual plans and existing developments at any scale. There are several reasons for this:

• It utilizes examples from Europe, Australia, North America and other places worldwide to illustrate the principles it is presenting.

• It has been applied in hundreds of cases around the world to inform the delivery of quality places at a wide variety of scales including street/block, neighbourhood, regional, and even national level.

• It is apparent that no comparable urban design manual within the North American context has been published which can match the *Compendium* in both quality and comprehensiveness.

The Compendium divides its major design elements into three broad categories, which are delineated below:

*Urban Structure*: Refers to the criteria that concern the pattern or arrangement of blocks, streets, open space and landscape, and most pertinent to this study an individual facility or smaller scaled development (Llewelyn-Davies, 2000: 33).

*Connections*: Refers to the criteria that concern the movement of people through the utilization of more sustainable forms of transport such as walking, cycling, and public transit, and imposes a reduction on automobile dependency (Llewelyn-Davies, 2000: 69).

*Detailing the Place*: Refers to the criteria that concern the design of the buildings/developments and the public realm, and most importantly, the interface between them (Llewelyn-Davies, 2000: 85).

While each facility had its own strengths and weaknesses, when weighed against one another the Cassie Campbell Community Centre conforms more closely to the ideals represented in the *Compendium*. The evaluative framework summary is presented in Table E.1 below.
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**LEGEND**

- Does not meet the criterion
- Partially meets minimum criterion
- Meets minimum criterion
- Exceeds Minimum Criterion
Recommendations

The recommendations will act as a toolkit that may guide practitioners in the field, such as planners, urban designers, and architects, in properly designing a facility prior to it being constructed to meet all the significant criteria outlined in this report. The recommendations are summarized below:

1. Practitioners should use the evaluation criteria delineated in Chapter 2 of this report to evaluate master plans prior to construction and making the necessary changes if conformance is not met.

2. The design of the recreation facility should be created to instill high-quality universal accessibility, safety, aesthetics, transport, landscape, and public space as the chief elements of every design concept.

3. The utmost attempt should be initiated to supply a facility that will attract and excite the general public and future users.

4. The design of future recreation facilities should place the same detail on outdoor amenity space as is typically placed on the interior of the facility building.

5. Practitioners should conduct the relevant studies needed to investigate the enduring benefits a recreation facility may offer to individuals and a community without focusing completely on economics.

6. Practitioners should take the aspect of changing lifestyles and an aging population in society into serious account and adequately plan for the provision and design of ample public recreation facilities within urban areas.

The remaining recommendations will focus on a recreation facility’s major urban design elements.

7. As an urban landmark, a recreation facility should be well connected to other recreation areas through a multifaceted pathway and greenway system that contains opportunities to connect with other transport conduits such as local streets.

8. For facilities that are planned in suburban areas where residents typically rely on the automobile as the main mode of travel, parking lots should be designed not to dominate the space.
9. Activity plazas should focus on creating an enclosed space that is of ample distance from major thoroughfares and provide a bordering device such as trees to instill a feeling of safety and drown out the noise of passing vehicles.

10. Safety and the ‘feeling of safety’ must be provided for all individuals utilizing the facility through the provision of effective lighting, easily viewable spaces from the building, transparent windows, CCTV, and even the addition of a community police station within the facility.

11. The recreation facility’s outdoor amenity space and its bounding streets should be brought to life with aesthetically enjoyable design elements including but not limited to street furniture, lighting fixtures, trees and shrubs, planters, and other forms of landscaping.

12. Finally, the building should be designed with first-rate architecture by utilizing a wide-array of contemporary styles, formations, and materials.
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CHAPTER 1 – INTRODUCTION

1.1 – Background

This report evaluates the quality of urban design in two contemporary recreation facilities, the Brampton Soccer Centre (BSC) and Cassie Campbell Community Centre (CCCC). Both facilities are located in the City of Brampton, a suburban community within the Greater Toronto Area (GTA). Using criteria adapted from the Urban Design Compendium, a British best practices manual for urban design, the two case studies are evaluated then compared with one another. The criteria have been further augmented through a comprehensive literature review of books and scholarly articles relating to the planning and design of indoor and outdoor recreation facilities. Ultimately, the evaluation will be utilized to identify pertinent lessons from the case studies, which can then be applied to future development initiatives of recreation facilities in Canada and abroad.

Multipurpose recreation facilities are used by all segments of the population and enhance the creation of strong community bonds. Many individuals are attracted to these community facilities for a variety of reasons including improving personal health and fitness; socializing with other people; becoming involved in community service activities; learning new skills; and acquiring information. Such visits define one unique contribution to the facility, which is to improve the community by strengthening the individual and the family (Montgomery County, 2005). Brampton’s high rate of growth, diversity, and the aging nature of its recreation facility infrastructure initiated the $120 million ‘Making Great Things Happen’ campaign, which would finance the reconstruction of Century Gardens Recreation Centre, the modernization of Earnscliffe Recreation Centre, and most applicable to this report the new construction of the BSC and CCCC (Walker, 2007).

Ideally, the evaluation of both recreation facilities in this report would be based on a set of urban design guidelines that have been created within the Canadian or North American context. Since, it
is apparent that no comparable urban design manual has been published, which can match in both quality and comprehensiveness, the evaluation uses the *Urban Design Compendium* for this evaluation. The Compendium has been considered as a suitable instrument for reasons that are further discussed in Section 2.2 of this report.

1.2 – Urban Context

The City of Brampton is the third-largest city in the GTA with a population of 433,806 as of the 2006 census. It is the seat of Peel Region and is one of Canada’s fastest growing municipalities, with an average annual growth rate of 6.6 percent. With a median age of 33.7, it also the youngest community within the GTA. Brampton originated as a neighbouring bedroom community of Toronto (Figure 1.1) (City of Brampton, 2011). However, the early 1980’s brought new development, as the city released large tracts of land to residential developers. In 1995, the large community of Springdale was developed and began as the area where most urban sprawl has taken place. By 1999, development had started to appear as far north as the Brampton’s border with Caledon, a line of demarcation for urban development until the year 2021 (Region of Peel, 2005). Development has recently moved towards the western end of the city where Brampton has grown towards the neighbouring municipality of Halton Hills.

Figure 1.1: Brampton City Hall (Flickr, 2011)
Brampton contains a decidedly multicultural population where a heavy influx of immigrants from South Asian nations such as India, Pakistan, and Sri Lanka has recently called the city home. In fact, the 2006 census reported that the mother tongue of 27.4 percent of Brampton’s residents is Punjabi (Statistics Canada, 2006). With its close proximity to Pearson International Airport, accessible road infrastructure, cost of land, and a favourable corporate tax structure, Brampton has become a haven for corporate head offices, warehousing, and manufacturing (Fennell, 2010). This has further created a city that has in a sense dropped its ‘bedroom community’ moniker and transitioned into a self-sufficient place, providing its residents with their own specialized public services, entertainment, and most importantly employment opportunities (Fennell, 2010).

The City is generally built to support automobile transportation and is served by several major transportation routes including connections to all 400 series highways via Highway 410 and a grid network of major arterial roads creating east-west and north-south corridors across the city (Figure 1.2). Local public transit is provided by Brampton Transit with connections to other neighbouring systems including Mississauga Transit, York Region Transit, Go Transit, the Toronto Transit Commission (TTC), and the newly incorporated Bus Rapid Transit system called Züm (Figure 1.3). Go transit is the regional transportation authority and provides bus and train transportation to important areas within Toronto including, York University, Yorkdale Mall, and Union Station in Downtown Toronto.
1.3 – Case Studies

The BSC and CCCC are located in northern Brampton within fairly newly constructed, suburban-styled neighbourhoods. Both facilities are contemporary, positioned along Sandalwood Parkway at different ends of the City, and contain designs that are meant to generate a significant urban civic space. Therefore, with their many similarities, they create the ideal conditions for a high-quality evaluation.
1.3.1 – Brampton Soccer Centre (BSC)

The BSC was completed in 2007 and is located on the southwest corner of the Sandalwood Parkway and Dixie Road intersection. The building was designed by Toronto-based MacLennan Jaunkalns Miller Architects, a firm with a large portfolio of pools, arenas, and other recreational and community facilities (Archidose, 2008), while the outdoor amenity space was designed by Strybos Barron King Landscape Architects (Leslie, 2007) (Figure 1.4 and 1.5). The building was originally intended to be a more generic type of arena complex that could accommodate a variety of sports such as hockey, volleyball, and basketball. However, the changing demographic phenomenon in Brampton meant that a shift in the perspective for a more specific type of facility was in store (Nguyen, 2011). Addressing the shortage of indoor soccer facilities in Peel Region and also predicated by the fact that a large percentage of Brampton’s population is comprised of South Asian immigrants – for whom soccer is a favoured sport resulted in the shift to a soccer-based building (Leslie, 2007).

The BSC was designed as a prototype building for a 3 project expansion program of major recreation facilities for the City of Brampton at a cost of $28 million CDN. It boasts a 14,100 square metre building that is integrated with a master planned, 11 hectare, outdoor amenity complex including 4 soccer fields, 2 basketball courts, 2 cricket fields, and a community activity plaza including a splash pad.
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1.3.2 – Cassie Campbell Community Centre (CCCC)

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The facility creates a unique set of places for indoor and outdoor programming. The 15,800 square metre building is amalgamated with a master planned outdoor amenity area that measures approximately 15 hectares (Figure 1.7 and Figure 1.8).

At a cost of $44 million to construct, the building provides a broad range of athletic and leisure services for Brampton’s residents including a natatorium (pool), indoor running track, fitness centre, gymnasium, and twin-pad hockey arenas. Apart from the buildings and its immediate landscaped context, the outdoor amenity space provides soccer fields, a cricket pitch, basketball and tennis courts, a BMX and skateboarding facility, and an activity plaza fronting onto Sandalwood Parkway containing a splash pad and playground (Figure 1.9) (STPW, 2011).

The recreation facility is named after the captain of Canada’s gold medal Olympic women’s hockey team (Hockey Now, 2011). It has been described by Davinder Chadha, Senior Project Manager in Brampton’s Building Department, as being “designed to be an urban landmark that clearly announces itself as a civic building and a hub of community life” (Kenter, 2008). Along with being designed with first-rate architectural materials and techniques, which is further elaborated upon in Section 4.4.2, the building also offers numerous green features – these include high-efficiency fluorescent fixtures and a
heat recovery system from the ice rink plant refrigeration system. Additionally, the building has been designed to allow for future expansion and integration of other public use space into the existing architecture and landscape (Kenter, 2008).

Figure 1.9: Aerial Image of the Entire CCCC (Google Maps, 2011)

1.4 – Terminology

The report introduces terminology that may not be easily identifiable by readers that have not been involved in the planning and design of recreation facilities. This section attempts to briefly explain what some of the widely used terms refer to within this report.

*Recreation Facility*: Refers to the public facility, including both the building and its adjacent space that provides a wide-array of indoor and outdoor recreational capabilities for its surrounding community.

*Building*: Refers to the building portion of the recreation facility where indoor recreation and community activities take place.
Outdoor or Facility Amenity Space: Refers to the outdoor public space adjacent to the building of the recreation facility and includes the parking lot, activity plaza, pathway networks, and sporting amenities.

1.5 – Report Structure

The report is structured as follows: Chapter 2 of this report is characterized by an inclusive methodology that is used for the analysis and outlines the criteria for comparing each recreation facility. Chapters 3 and 4 present the evaluation of each individual facility using the criteria delineated in the methodology. Finally, Chapter 5 briefly summarizes the evaluation, provides recommendations for future development initiatives for practitioners in the field, supplies a reflection on the research methodology, and poses some ideas for future research on the topic at hand.
CHAPTER 2 – METHODOLOGY

2.1 – Method of Analysis

The multiple case study method will be utilized in this report to examine the quality of urban design of two suburban recreation facilities located in Brampton, Ontario-namely the Brampton Soccer Centre (BSC) and the Cassie Campbell Community Centre (CCCC). Through a comprehensive assessment of these facilities, significant recommendations will be developed that will potentially guide the future design of impending recreation facilities within suburban environments. The scope of this report will entail an assessment of the building footprint including size and scale and its surrounding amenities including but not limited to parking lots, public space, and sports fields/courts. An analysis of the interior of both recreation facilities would be grounded in a more architectural context and is beyond the scope of this evaluation. Therefore, except for a few elements it will be excluded from this study.

According to Yin, a case study is an empirical inquiry that investigates a contemporary phenomenon within a real life context; when the boundaries between phenomena and context are not clearly evident and in which multiple sources of evidence are used (Yin 2009: 18). Therefore, urban design studies of the BSC and CCCC meet Yin’s criteria particularly well as both cases are contemporary, with both facilities being constructed in 2007 and 2008, respectively. Moreover, they utilize multiple sources of evidence including literature review, site analysis, direct observations, site mapping, and photography.

The suitability of employing a qualitative approach to this empirical inquiry is rooted within an aim to gather an in-depth understanding of ‘how’ and ‘why’ (Yin 2009: 28) people utilize these recreational spaces and the reasons that generate such behaviour. Since urban design is particularly concerned with the shaping and use of public space by people, it is evident that a qualitative method is appropriate for this study. In its analysis of design quality, this study uses the Urban Design Compendium, assembled by Llewelyn-Davies, published by the English Partnerships and The Housing
Corporation, and fully supported by The Urban Design Alliance. The Compendium will act as the foundation for a set of evaluative criteria through which both recreation facility case studies will be comprehensively analyzed. The Urban Design Compendium was specifically produced to assist in equipping all those involved in the design and delivery of places with guidance on achieving and assessing the quality of urban design (Llewelyn-Davies 2000: 7).

The methodology of this study is similarly structured to that of Klukas (2004) and Zamodits (2008) who also used the Urban Design Compendium to inform their evaluation criteria. A major difference in this study is that the evaluation of urban design quality focuses on two distinct buildings and their immediate outdoor amenity space, while the other two studies contained a broader scope and focused on entire neighbourhood redevelopments. Therefore, the assessment criteria outlined in the Compendium were careful selected to conform to the evaluation of single facilities.

2.2 – Evaluation Criteria

The Compendium follows the chronology of the project development process and is structured in five sections: 1) Appreciating the Context; 2) Creating the Urban Structure; 3) Making the Connections; 4) Detailing the Place; and 5) Implementation and Delivery (Llewelyn-Davies 2000: 14). Section One lays the framework for urban design thinking by interpreting and building “upon historic character, natural resources, and the aspirations of local communities to arrive at a realistic vision of what a place might become” (Llewelyn-Davies, 2000: 14). Section Five lends its focus to the management of the design process “to ensure that a commitment to quality continues beyond the completion of the construction” phase (Llewelyn-Davies, 2000: 14). Although these matters are important with the initial stages and conclusions of developments they are not particularly concerned with the physical design of a project (Zamodits, 2008). Sections Two, Three, and Four, outline detailed urban design guidelines that inform the evaluation criteria of this report.
The material found within the *Compendium* reflects good urban design practices from both the United Kingdom and abroad. Although it was originally produced with the intention of improving the design quality of British housing redevelopment projects (Llewelyn-Davies, 2000: 8), the *Compendium* can also be utilized as an appropriate evaluation tool for both North American conceptual plans and existing developments at any scale. There are several reasons for this:

- The *Compendium* draws heavily upon the knowledge of many historic and contemporary North American and European minds on the topic of urban design. It references the famous works of Jane Jacobs (The Death and Life of Great American Cities, 1961), William Whyte (The Social Life of Small Urban Spaces, 1980), Kevin Lynch (Good City Form, 1981), Jan Gehl (Life Between Buildings, 1987), Allan Jacobs (Great Streets, 1993), Peter Calthorpe (The Next American Metropolis, 1993), and Peter Katz (The New Urbanism: Towards an Architecture of Community, 1994).

- It utilizes examples from Europe, Australia, North America and other places worldwide to illustrate the principles it is presenting.

- It has been applied in hundreds of cases around the world to inform the delivery of quality places at a wide variety of scales including street/block, neighbourhood, regional, and even national level.

- It is apparent that no comparable urban design manual within the North American context has been published which can match the *Compendium* in both quality and comprehensiveness.

The guidelines outlined in the *Compendium* have been carefully screened as to provide the proper evaluative criteria for developments of this scale. Some guidelines have been omitted or altered in order to match the scope of this report. Sections Three (*Making the Connections*) and Four (*Detailing the Place*) have remained relatively unchanged, while several design elements within Section Two (*Creating the Urban Structure*) were omitted.
The basis of the screening was informed by the scope of the report and its focus on suburban recreation buildings and their outdoor amenity space rather than developments within a larger urban context. Each of the omitted major design elements was critically analyzed and was not present in any of the literature pertaining explicitly to the design of recreation facilities. The omission phase was a necessary step to eliminate design elements that could not be measured by the criteria outlined in the Compendium for recreation facilities. For example, the Mixing Uses section was excluded due to its focus on built form and combination of different land uses usually found in densely developed urban neighbourhoods – a formula that would not work within this analysis. The remaining design elements were omitted for similar reasons except for the Movement Network, which was excluded because the Making the Connections section already outlines in detail all the criteria relevant to transportation networks. Specifically, a total of seven design elements outlined in the Compendium have been omitted and they are: Movement Framework; Mixing Uses; Densities, Facilities, and Form; Energy and Resource Efficiency; Landmarks, Vistas, and Focal Points; Utilities and Infrastructure; and Building for Change.

The evaluation criteria are adapted from the Urban Design Compendium with which the Brampton Soccer Centre and Cassie Campbell Community Centre will each be qualitatively evaluated. Moreover, some of the evaluative criteria have been complemented with literature that lends its focus directly to the design of recreation facilities. The following four-point scale was used to identify the degree to which each design element was achieved (Table 2.1):

<table>
<thead>
<tr>
<th>Table 2.1: Four-Point Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Blank]</td>
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<tr>
<td>![Half Blank]</td>
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<td>![Half Blank]</td>
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<tr>
<td>![Full Blank]</td>
</tr>
</tbody>
</table>
The scores within the four-point scale above represent different conditions in the measure and presence of design quality. First, does not meet the criterion refers to the complete absence of the criteria from the design; second, partially meets minimum criterion refers to the minimal incidence of the criteria within the design; third, meets minimum criterion refers to an acceptable or suitable existence of the criteria within the site; and fourth, exceeds minimum criterion represents the effectively ideal and overarching presence of the design elements outlined in the criteria.

While in the field, the following checklist was used to evaluate the design quality of the two recreation facilities (Table 2.2). The checklist allows for a relatively objective outlook on each site though some subjectivity still exists in both the selection of the major design elements used and their scoring. The major design elements and impending evaluative design criteria listed in the checklist are described in further detail below.

<table>
<thead>
<tr>
<th>Urban Design Groupings</th>
<th>Major Design Elements</th>
<th>Evaluative Design Criterion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creating the Urban Structure</td>
<td>Landscape</td>
<td>Achieves safe open space by maximizing views from facility</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Existence of adequate green recreation spaces</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Provision of high quality connections to greenways</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Contains playing fields in amenity space or within close proximity</td>
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<tr>
<td></td>
<td></td>
<td>Greenways run through or alongside linear elements</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Employs a 400 metre (3-5 minute) catchment radius from centres of surrounding neighbourhoods</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Aligns building footprint, surrounding streets, sewers, and other water courses to follow slope contours</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Orientation of building and amenity space respects sun angle at peak use periods</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reduction of maintenance through design</td>
</tr>
<tr>
<td>Making Connections</td>
<td>Block, Parcels, and Plots</td>
<td>Buildings front the street or park</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Large enough distance between the backs of buildings for privacy</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Blocks contain widths of 80-90 metres</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Blocks are moulded to existing topography and focal points</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Range of developers in the construction of surrounding subdivisions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Subdivided plots are small and narrow</td>
</tr>
<tr>
<td>Making Connections</td>
<td>Walking</td>
<td>Pedestrian routes connect the places where people want to go</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pedestrian routes are direct, easy to use, and rapid</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pedestrian routes are attractive, well lit, safe, and diverse</td>
</tr>
<tr>
<td>Detailing the Place</td>
<td>Positive Outdoor Space</td>
<td></td>
</tr>
<tr>
<td>--------------------</td>
<td>------------------------</td>
<td></td>
</tr>
<tr>
<td>Pedestrian routes uphold good quality and employ sufficient width with no obstructions</td>
<td>Building gives positive definition to the shape and function of outdoor space</td>
<td></td>
</tr>
<tr>
<td>Pedestrian routes are easy to find and follow containing varied surface treatments and signage</td>
<td>Outdoor space is designed to encourage a range of activities</td>
<td></td>
</tr>
<tr>
<td>Pedestrian routes are cleared of ice and snow during winter months</td>
<td>Exterior of building is brought to life with planting, street furniture, and other elements</td>
<td></td>
</tr>
</tbody>
</table>

**Cycling**

| Pathways are clear and direct | Street network provides vehicles, pedestrians, and cyclists with good mobility |
| Minimum width of pathway is 3 metres | Facility plugs into wider movement network with many connections to major streets |
| Pathway contains clearance zone of 1.5 metres on either side | Major streets form a grid pattern |
| Pathway contains clearance zone of 3 metres above | Streetscape design consists of safe pedestrian and cyclist infrastructure |
| Pathway is constructed out of asphalt | Streetscape design contains street trees, lighting, street furniture, signage, and landscape features |
| Pathway contains appropriate sight lines | Pedestrian crossings are well defined and safe containing visible barriers, lights, and other devices |
| Cycle parking is provided near entrances and high volume areas | |

**Public Transport**

| Bus route contains enough people living within a 400 metre radius (5 minute walk) of the bus stop | Facility contains adequate parking for all users and employees |
| Facility contains easy, clear, and direct routes to the bus stop | Parking does not dominate the space |
| Presence of safe crossings on major roads | Vehicles remain close and are kept in full view of the facility |
| Bus stop is located near the entrance to the facility | Parking design is incorporated into overall landscape and building design |
| Bus lanes are placed on streets bounding the facility | Routes typically taken by pedestrians are clearly delineated |

**Streets and Traffic**

| Street network provides vehicles, pedestrians, and cyclists with good mobility | Adequate space is allotted for tree planting, lighting, and security technology |
| Facility plugs into wider movement network with many connections to major streets | Core area parking requires a short walking distance to facility entrance and amenities |
| Major streets form a grid pattern | Service area is well connected to surrounding street network |
| Streetscape design consists of safe pedestrian and cyclist infrastructure | Service area is located at the rear of the building and framed by other buildings or walls |
| Streetscape design contains street trees, lighting, street furniture, signage, and landscape features | |

**Parking and Servicing**

| Facility contains adequate parking for all users and employees | Building contains lines of continuity |
| Parking does not dominate the space | Building contains a 5 metre setback from arterial roads |
| Vehicles remain close and are kept in full view of the facility | Building elevation is scaled to a minimum 1:1.5 height-to-width ratio for streets and 1:4 for public space |
| Parking design is incorporated into overall landscape and building design | |
| Routes typically taken by pedestrians are clearly delineated | |
| Adequate space is allotted for tree planting, lighting, and security technology | |
| Core area parking requires a short walking distance to facility entrance and amenities | |
| Service area is well connected to surrounding street network | |
| Service area is located at the rear of the building and framed by other buildings or walls | |

**Positively Outdoor Space**

| Building gives positive definition to the shape and function of outdoor space | Building makes a positive contribution to the public realm |
| Outdoor space is designed to encourage a range of activities | All open space is positively used |
| Exterior of building is brought to life with planting, street furniture, and other elements | Building contains visual interest with first-rate architecture |
| Open space is designed with clear definition and enclosure without any leftover space | |
| Building contains lines of continuity | Building contains a 5 metre setback from arterial roads |
| Building elevation is scaled to a minimum 1:1.5 height-to-width ratio for streets and 1:4 for public space | |
Since the analysis portion of the report only focuses on the major design elements (by using the evaluative design criteria), a properly defined scoring method had to be realized. To achieve this, each of the scale measures above was given a numerical value from one (1) to four (4). A checkmark indicates the score allotted to each of the evaluative design criterion. Those numbers were then added together and divided by the number of criteria within that major design element grouping and rounded to the nearest whole number. This number then indicated to what degree each major design element was achieved.

Through this process the Urban Design Compendium was further advanced to be applied to the evaluation of recreation facilities. Practitioners can utilize the criteria to evaluate the urban design
quality of recreation facility plans to ensure that every element is improved or perfected. This will in turn allow for flexibility, as designs can be changed prior to construction avoiding the burden of unnecessary costs and in some cases impracticability.

2.3 – Urban Structure

Urban structure refers to the pattern or arrangement of blocks, streets, open space and landscape, and most pertinent to this study individual facilities or smaller scaled developments. “It is the interrelationship between these elements, rather than their particular characteristics that bond together to make a place” (Llewelyn-Davies, 2000: 33). The urban structure produces a framework which forms the foundation of the design of individual developments in order to achieve the following: Integration (connection and overlap with surrounding areas); Functional Efficiency (individual elements working together as part of a whole); and a Sense of Place (creating a development that is distinct but simultaneously strengthens local identity) (Llewelyn-Davies, 2000: 33). Keeping with the scope of this evaluation, several components were omitted from this section due to their non-conformance to the assessment being conducted. Due to the overarching nature of the urban structure portion, the only guidelines appropriate for the analysis of each recreation facility are Landscape and Blocks.

2.3.1 – Landscape

Landscape, open space, and parks are referred to as the ‘lungs of the city’, and they represent essential components of a healthy community (Harper, 2009: 121). Additionally, “an attractively designed outdoor area that blends into the terrain can create a high level of satisfaction for users” (Mull, 2009: 42). Each recreation facility should achieve safe open space and maximize the benefit of looking onto it from its respective property. There need to exist adequate green spaces to walk, play, and allow for the provision of wildlife habitats. A recreational outlook should be formed since “a variety of parkland distributed within an urban area ensures a range of recreational needs within close proximity to homes” (Llewelyn-Davies, 2000: 56).
Keeping with the temperament of this evaluation and its suburban theatre, each recreation facility should provide high quality connections to greenways and contain playing fields inside their amenity space or within close proximity. These greenways “should be created to run through or alongside linear elements such as natural streams, wooded belts or canals and connect with parks and footpaths in nearby neighbourhoods” (Llewelyn-Davies, 2000: 57). Additionally each open space or park should employ a 400 metre (3-5 minute) walkable catchment radius from the centres of surrounding neighbourhoods (Llewelyn-Davies, 2000: 57).

Wherever possible each facility should align building footprints, surrounding streets, sewers, and other watercourses to follow slope contours, which enables natural gravity-flow drainage (Llewelyn-Davies, 2000: 58). The orientation of both the building, parks, and sports fields should respect sun angle and wind direction at peak use periods (LaRue et. al., 2005). Finally, natural areas should be designed to reduce the burden of maintenance, which is expensive and time-consuming, so that high quality levels can be sustained over longer periods of time (Llewelyn-Davies, 2000: 60). The evaluation will focus on each facility’s amenity space as well as its open space connections to other areas.

2.3.2 – Blocks, Parcels, and Plots

The development block is the land area defined by the grid. “It can vary considerably in shape and size according to the configuration of streets, preferred orientation of homes, and site topography” (Llewelyn-Davies, 2000: 64). The suburban character and block patterns of Brampton, especially in the City’s fringes, follow a ‘cookie-cutter’ construction style which results in low density development. This evaluation will focus on the blocks and parcels surrounding each facility. Buildings should front the street or a park in order to present their face to the outside world and give it life. The distance between the backs of buildings should be large enough as to provide neighbours with privacy. Block widths of 80-90 metres enable ease of access and the ability to sustain a variety of building types and uses. The
instance of irregular blocks in suburban environments is commonplace and can be moulded to existing topography and focal points such as greens to make these places work (Llewelyn-Davies, 2000: 65).

Development parcels are tracts of land, usually under a single ownership that are the basis of most new developments. By enabling a range of developers to participate in the construction of subdivisions, a richer mix of building types, tenures, and uses can be easily generated. Subdivided parcels should result in plots that are small and narrow, which can generate more active frontage, encourage ‘human scale’, and minimize wasted space (Llewelyn-Davies, 2000: 67).

2.4 – Connections

Cities as a whole are dependent upon movement systems to make contemporary urban life possible. The street hierarchy, pathways, and public transport routes are the arteries of the urban system and allow for the connections from one location to another. Whatever their function, they are an integral part of the urban fabric and assist in determining whether places are good or bad. “The success of a new development depends on how well the connections work” (Llewelyn-Davies, 2000: 69). New developments must be clearly linked to existing routes. The more direct links to the existing system there are the more successful will be the integration of the new development and the existing urban fabric (Llewelyn-Davies, 2000: 69). Within suburban areas the inherent reliance on the automobile creates a difficult environment for other modes of transport to be properly integrated (Kelly, 2009: 127). The following criteria will be used in the evaluation of the connection networks applicable to the Brampton Soccer Centre and the Cassie Campbell Community Centre. This includes the networks bounding each site and those within each site itself.

2.4.1 – Walking

Walkways are essential to provide safe and convenient access for the pedestrian to the recreation facility (Mull, 2009: 39). The pedestrian environment should be designed according to the ‘Five C’ principles: Connections (pedestrian routes should connect the places where people want to go);
Convenience (routes should be direct, easy to use, and rapid); Convivial (routes should be attractive, well lit, safe and diverse); Comfortable (routes should uphold good quality and employ sufficient width with no obstructions; and Conspicuousness (routes should be easy to find and follow containing varied surface treatments and guidance from signage) (Llewelyn-Davies, 2000: 71). Additionally, during inclement weather, pedestrian routes should be cleared of ice and snow in a timely fashion (Mull, 2009: 39). The evaluation will focus on both the pedestrian environment within the recreation facility’s grounds as well as its use in getting to other areas in the City.

2.4.2 – Cycling

Cyclists need clear and direct pathways to conveniently take them to the places they need or want to be. Each facility should contain separate cyclist/pedestrian pathways that connect to the space from different areas of the City (Llewelyn-Davies, 2000: 73). Cycle trails require some additional planning beyond that needed for walking or jogging trails. Their design should also include the following factors: 1) the minimum width of an off-road multi-use pathway should be 3 metres; 2) the path should have a safety or clearance zone of 1.5 metres on either side of the pathway and 3 metres in clearance above (City of Brampton, 2002); 3) the ideal surface material for pathways is asphalt; 4) appropriate sight lines should be determined for cyclists to avoid collision with walkers; and 5) cycle parking should be provided near entrances and high volume areas (Sawyer et al., 2005). Similar to the pedestrian environment, the evaluation will focus on the cyclist network within the recreation facility’s grounds and beyond.

2.4.3 – Public Transport

The movement framework for a development should provide for a direct bus route or easy access to an existing route. “A bus route will be viable if there are enough people within a 400m radius (5 minute walk) of each stop” (Llewelyn-Davies, 2000: 74). Even if enough people reside within this catchment area it still must be made attractive by: 1) providing clear and direct routes to the bus stop,
including safe crossings on major roads; 2) placing a stop near the centre or entrance of an important building; 3) supplying bus lanes or bus priority at junction points (Llewelyn-Davies, 2000: 74). The assessment will concentrate on bus stops along the street network surrounding the facility.

2.4.4 – Streets and Traffic

“The street network is one the major elements that define the physical structure of an urban area” (City of Brampton, 2003: 38). Unfortunately, in suburban areas they are conventionally classified based solely on vehicular capacity. This regards streets as traffic conduits and ignores the multi-functional role they can play in higher density urban areas (Llewelyn-Davies, 2000: 75). Therefore, an evaluation based upon the enclosure and enrichment of public life streets tend to exhibit will be excluded from this study.

The street network should provide vehicles, pedestrians, and cyclists with the utmost mobility when travelling to/from and when entering/leaving each facility. The facilities should plug into the wider movement networks and aim to provide the maximum number of direct connections to main streets carrying through traffic (Llewelyn-Davies, 2000: 75). These major streets should form a grid pattern, either orthogonal or more irregular. This will ensure efficient connections and provide a simple structure allowing access to each facility (Llewelyn-Davies, 2000: 38).

“Streetscape design shall consist of safe pedestrian and cyclist infrastructure, street trees, lighting, street furniture, signage, built form, and landscape features, all coordinated to reflect the character and image of the community” (City of Brampton, 2003: 45). Additionally, each pedestrian crossing should be well defined and safe, containing visible barriers or lines, working lights, or other devices used to characterize a crossing area (Llewelyn-Davies, 2000: 77). The evaluation will take into account the street network in the direct vicinity of each site and in the larger context and how it assists in the mobility of the public to each recreation facility.
2.4.5 – Parking and Servicing

Adequate parking for all users and employees is an important consideration for all recreation facilities, especially in suburban environments where the vehicle reigns supreme (Mull, 2009: 39). It should be incorporated in a development without being allowed to dominate the space. The design should ensure that the vehicles remain close and are kept in view of the facility (Llewelyn-Davies, 2000: 79). “Ideally the parking design should be incorporated into the overall landscape and building design, especially in terms of aesthetics, function, and safety” (LaRue et. al., 2005). Shared surface treatments can be effective although it is important to ensure that the routes typically taken by pedestrians are clearly delineated. Adequate space should also be allotted for tree planting, consistent lighting and security technologies (Llewelyn-Davies, 2000: 80). Core area parking should provide users with parking that typically requires short walking distances to the facility entrance and its outdoor amenities (LaRue et. al., 2005).

In terms of servicing, “the ideal form of delivery is from the street directly to the building” (Llewelyn-Davies, 2000: 81). Areas that are designated for everyday deliveries and waste receptacle storage should be placed at the rear of the building and framed with other buildings or walls to avoid unpleasant public views (Llewelyn-Davies, 2000: 81). The evaluation will direct its focus to parking lots and service areas directly within each facility’s amenity area.

2.5 – Detailing the Place

Detailing a place refers to the design of the buildings/developments and the public realm, and most importantly, the interface between them. “Detailed design is where the identity and quality of a place is finally won or lost” (Llewelyn-Davies, 2000: 85). The keys to quality ‘detailing’ are good urban design, the use of high quality materials, and the commitment of the public in an area to its successful long-term maintenance (Llewelyn-Davies, 2000: 85). This section will focus on the small scale elements of urban design for the space in the direct vicinity of each recreation facility.
2.5.1 – Positive Outdoor Space

One of the most important aspects of good urbanism “is for buildings to give positive definition to the shape and function of outdoor space and for this outdoor space to be designed to encourage a range of activities to take place” (Llewelyn-Davies, 2000: 86). By attending to the building line and three-dimensional mass, character can be created and later brought to life with planting, street furniture, and many other ingredients that bring places to life (Llewelyn-Davies, 2000: 86). Keeping with suburban nature of this evaluation, it is difficult to generate a design that does not allow for the automobile to dominate the public space.

Open spaces should be designed positively, with clear definition and enclosure. There should be no vagueness or left over space within both facilities (Llewelyn-Davies, 2000: 87). Additionally, each building should contain lines of continuity, which can provide definition and enclosure to the outdoor public amenity space. In outer urban areas, where developments are adjacent to busier arterials a setback of approximately 5 metres should be allotted to each building. Finally, building elevations and cross sections should be scaled to foster a sense of urbanism with a minimum 1:1.5 height-to-width ratio for streets and 1:4 for public space (Llewelyn-Davies, 2000: 88).

2.5.2 – Animating the Edge

Developments that are well designed with ‘urban architecture’ in mind have one thing in common: that buildings and open space are considered a totality. The success of a building is not determined by its style but instead through its ability to make a positive contribution to the public realm and make sure that all open space is positively used (Llewelyn-Davies, 2000: 89). Specific devices can be incorporated in the facades of buildings the assist in this necessary connection to open space. The buildings should contain visual interest and one way of doing this is through the supply of a healthy amount of windows using transparent glass to allow for users to benefit from views out. Moreover, urban design should not stop at the front door, “lively interior activities that are more public can enliven
outdoor spaces, improve both the aspect and prospect, and often boost the profile of commercial uses” (Llewelyn-Davies, 2000: 90). Additionally, for ‘big-box’ facilities that have a building envelope only able to provide minimal active frontage, blank side and rear service areas should be concealed (Llewelyn-Davies, 2000: 90).

Good buildings enrich the surrounding urban fabric with a respect for context through: a continuity of building lines; the local morphology; and providing first-rate architecture. Each recreation facility should provide a “unique sense of cultural and community identity” (Llewelyn-Davies, 2000: 91) through a variety in architectural expression. Additionally, buildings should employ a number of distinctive façade elements and arrangements so that at every scale, from a range of viewing distances, its surface appears rich in detail. The key to this is placing an emphasis on vertical patterns and avoiding exposing blank walls (Llewelyn-Davies, 2000: 91).

2.5.3 – Building Size and Scale

The scale in relation to the surrounding context and overall configuration of a building has a significant bearing on its: sustainability (in terms of energy consumption); its relationship with the surrounding urban structure; and its contribution to neighbouring public space (Llewelyn-Davies, 2000: 93). When analyzing building height in suburban situations, two or three stories are the norm. Higher buildings within neighbourhoods should be placed in key locations such as visually prominent corners, along principle routes, and at the end of vistas or around parks. Buildings should also be ‘stepped down’, ensuring that the ground level “most relevant to pedestrian experience is as active and interesting as possible” (Llewelyn-Davies, 2000: 93). Furthermore, building depth has an overarching impact on the need for artificial lighting and ventilation (especially in buildings that measure 16-22 metres plus). Building width has an impact on the overall flexibility of use and the ability to personalize spaces with active frontage (Llewelyn-Davies, 2000: 93-94).
2.5.4 – A Thriving Public Realm

A comfortable public space that encourages social interaction requires detailed attention to the structure and elements it contains. This requires that the surfaces (hard and soft), security, street furniture, lighting, and signage be designed in tandem. The best public spaces often contain nodes of activities and their positioning should pay close attention to visibility, orientation, facilities for sitting and stopping, and places for children to play. Activity sources, such as cafés or food stalls should be introduced alongside or within the interior of these spaces to create a lively and interesting environment. Routes to and from this space should follow natural desire lines. This means aligning direct paths along popular routes and providing seating and lighting along the way (Llewelyn-Davies, 2000: 99). Additionally, the specifications of materials selected must “demonstrate high standards of visual attractiveness, durability, and environmental performance” (Llewelyn-Davies, 2000: 101).

While the design of recreation facilities strive to meet aesthetic goals, the primary purpose is usually based on some desired experience for different users. Whether the facility is designed for specific or multipurpose use, there will typically be a variety of human interactions at play. Universal and accessible design of versatile spaces “provides opportunities for these interactions to happen in dignified and meaningful ways and creates a foundation for full inclusion of all participants and staff” (Rogers, 2005). These spaces should provide adequate access to each recreation facility from public sidewalks, parking, and public transport, which should include accessible parking spaces, accessible routes to facilities, and the installation of smaller devices such as ramps, widening and mechanizing entrances, and making curb cuts (Rogers, 2005).

Public spaces are occupied by a host of components including seats, fences, shelters, poles, lights, bollards, and signs, which all need careful design attention. These spaces should be designed to: create a visual logic for pedestrians, cyclists, and drivers; minimize the presence of signs and barriers that confuse pedestrian movement; avoid flaunting visually dull elements such as service boxes; provide
adequate lighting through a variety of sources (street lamps, building and façade lighting, feature lights, and bollards); and careful selection of elements according to the context of the landscape and building (Llewelyn-Davies, 2000: 102-104).

2.5.5 – Safety and Security

Safety and security are vital elements in any urban development (Llewelyn-Davies, 2000: 106). Designing a facility so that it can be supervised efficiently is a great advantage (Seidler, 2005). People feel comfortable using areas with good visibility, effective lighting, and where they feel they can be seen and heard by other people at all times of day. Safety should be built into the design of public places following three key principles: ensuring natural surveillance and human presence; minimizing conflict; and designing-in territoriality and community involvement (Llewelyn-Davies, 2000: 106). Additionally, entrances and exits from all buildings should be appropriately and clearly monitored. To ensure this, a combination of staff and technology such as closed-circuit television systems (Seidler, 2005) should be adopted, “together with good lighting, convenient public transport and parking and routes that are overlooked by the main building” (Llewelyn-Davies, 2000: 107).

2.6 – Research Techniques and Analytical Tools

The following provides a brief explanation relating to the research techniques and analytical tools used within this study. A review of relevant literature and policy of the topic at hand was conducted and combined with the guidelines outlined in the Compendium to provide a more comprehensive evaluative framework. The careful analysis of both sites according to the evaluation criteria provided the basis for the analysis section of this report. This analysis was augmented through the use of direct public observation and how each space was utilized. The results of the analysis were further enhanced through the use of site mapping and photography.
2.7 – Research Limitations

With time and length constraints placed upon this report, many urban design issues could only be explored relatively briefly. This is particularly the case when a decision was made to exclude data collection through the use of surveys or interviews. It is acknowledged that the viewpoints of ordinary citizens and daily users of these public spaces would have added a personal dimension to the report but due to time restrictions this research technique was omitted. Additionally, there may have been an overly rigid application of the urban design guidelines outlined in the *Compendium* and other relevant sources. The guidelines are meant to channel the design of a development in a certain direction and are not to be taken as concrete rules. Moreover, even though the *Compendium* sets out an orderly and efficient manner with which to analyze plans or existing developments, the issue of subjectivity inherently allows the evaluation to be open to conflicting viewpoints.
CHAPTER 3 – BRAMPTON SOCCER CENTRE ANALYSIS

3.1 – Introduction

This chapter comprehensively analyzes the Brampton Soccer Centre through twelve criteria grouped into the Urban Structure, Connections, and Detailing the Place sections, as derived from the Urban Design Compendium and detailed in the Chapter 2 of this report. The Urban Structure criteria are Landscape; and Blocks, Parcels and Plots. The Connections criteria are Walking; Cycling; Public Transport; Streets and Traffic; and Parking and Servicing. The Detailing the Place criteria are Positive Outdoor Space; Animating the Edge; Building Size and Scale; A Thriving Public Realm; and Safety and Security.

3.2 – Analysis of Urban Structure

3.2.1 – Landscape

Meets Minimum Criterion

The landscape of the Brampton Soccer Centre (BSC) is composed of the green playing fields and a linear greenway acting as a buffer from the facility to Dixie Road. The facility contains a wide array of playing fields including soccer fields, cricket fields, and an outdoor track within its outdoor amenity space. This greenway runs alongside a drainage waterway and contains high quality connections to smaller parks in the neighbourhood by utilizing the Chinguacousy pathway network (Figure 3.1). These smaller parks also contain their own playing fields such as Sandringham Park, located east of the BSC, and containing baseball diamonds and more soccer fields.
Evidently, there are adequate green spaces but they do not allow for the provision of wildlife habitats. Also, the distant edges of the playing fields cannot be easily viewed from the building, especially at night. The Compendium outlines that a 400 metre catchment radius (5-minute walk) should be the maximum distance travelled by any person (Llewelyn-Davies, 2000: 57). Though, the facility’s amenity open space demands walking distances of 500-1000 metres from the centres of surrounding neighbourhoods (Figure 3.2). The facility is well designed to accommodate sun angle in both the winter and summer months. Important portions of the facility including sports fields, the activity plaza, and front entrance are well lit all year round. In terms of maintenance, the building itself is constructed of high quality materials, though the large tracts of space taken up by the parking lot and sports fields makes snow removal and mowing a lengthy ordeal during the winter and summer respectively.
3.2.2 – Blocks, Parcels, and Plots

Meets Minimum Criterion

This portion of the evaluation will focus on the structure of blocks, parcels, and plots surrounding the BSC. Every home surrounding the facility is built as part of a respective subdivision, in a cookie-cutter fashion and fronting onto small local streets. The blocks and streets that shape these neighbourhoods are mainly presented in the form of cul-de-sacs and crescents (Figure 3.3). These blocks are typically shaped in a long a narrow manner and measuring approximately 130-150 metres wide. The
plots within these blocks and parcels are relatively small and narrow, containing a frontage of about 10-20 metres and a depth of 35-40 metres. The construction of these subdivisions has relied upon grading of existing lands and the abandonment of natural topography. Additionally, the distance between the backs of the homes is not sufficiently far enough (only 6 metres) from the adjacent greenway to provide for good privacy.

Figure 3.3: Bird’s Eye View of Suburban Development Surround the BSC (Bing Maps, 2011)

3.3 – Analysis of Connections

3.3.1 – Walking

Meets Minimum Criterion

The BSC pedestrian routes come in the form of sidewalks along Sandalwood Parkway and Dixie Road, internal pedestrian walkways within the outdoor amenity space and a direct connection to the Chinguacousy Trail along the greenway. The pedestrian routes within the BSC connect the places where people want to go, except for a small disconnect in the route taken by students to and from the BSC and Harold Brathwaite High School. Additionally, the Chinguacousy Trail ends just north of the facility, thereby limiting pedestrians to mainly southern travel along this route. A footpath connects the eastern
entrance of the facility with public transit on the southwestern corner of Sandalwood Parkway and Dixie Road.

The paths taken by pedestrians are not very diverse in nature, except for some interlocking brick near the front of the facility. They are moderately attractive with the provision of benches and planted trees along footpaths. Due to the facility being built and landscaped fairly recently (2007), this attractiveness will be augmented as trees mature. The pathways are well lit and feel relatively safe near the front of the facility but the portion of the Chinguacousy Trail on the east end of the building could use some additional lighting to provide the feeling of a safer environment at night. Raised walkways implement safe crossing laneways for pedestrians from the parking lot and basketball courts to the building (Figure 3.4). These walkways also act as a traffic calming measure for automobiles taking the form of oversized speed bumps. The facility is very easy to find with signage being present along the Chinguacousy Trail but safety for pedestrians still remains an issue as ice and snow still covers some portions of the route during the winter months.

3.4: Raised Walkways within the BSC Parking Lot
3.3.2 - Cycling

**Exceeds Minimum Criterion**

The interior pathways of the BSC, a roadside pathway along Sandalwood Parkway and the connection with the Chinguacousy Trail provide a clear and direct connection to the building, the outdoor amenity space and other conventional destinations near or around the facility. The roadside pathway allows for the rapid movement of cyclists upon their own right-of-way, thus minimizing the danger of vehicular collision with pedestrians. The Chinguacousy Trail, a multi-use pathway, meets the guidelines set out by the Brampton Pathways Design manual (City of Brampton, 2003) in that it is at least 3 metres in width, contains 1.5 metres in lateral clearance, employs 3 metres of overhead clearance, and is constructed predominately out of asphalt. A negative aspect of the pathway is that appropriate sightlines are not present in the busiest portion of the path. This section of pathway is located on the east portion of the facility near the splash pad. The remaining portion of the pathway retains very good sightlines and this is present along most of the greenway. Finally, cycle parking has been provided near every major entrance to the building (Figure 3.5).

![Figure 3.5: Cycle Parking near West Entrance of BSC](image)
3.3.3 – Public Transport

**Partial Meets Minimum Criterion**

The area near and adjacent to the BSC is well serviced by the local public transportation authority, Brampton Transit (Figure 3.6). The bus stops located at the Sandalwood and Dixie intersection are well situated and provide the most serviceability as many homes are located within a 400 metre radius. This stop is easily accessible through a clear and direct route from the east entrance of the building. The stop located along Sandalwood Parkway, near the north vehicle entrance of the facility is not very well placed as homes are located a much further distance away. Rosedale, a senior retirement community, is located just north of this aforementioned stop but no access to it exists. The senior residents are more apt to utilize the bus stop on the corner of Sandalwood Parkway and Great Lakes Drive because this is located directly across the only entrance to the gated community.

![Figure 3.6: Pathway leading from East Entrance through Activity Plaza to Brampton Transit Bus Stop](image)

The intersection at Sandalwood Parkway and Dixie Road contains good quality crossing lanes and crossing technology. Though, both the travel speed of drivers and the width of both streets (approximately 35 and 26 metres respectively) remains a safety concern for pedestrians and cyclists (Figure 3.7). The bus stop is also located near one of the busiest areas of the facility, the activity plaza,
but this is only a factor in the summer months when it is operational. A negative aspect remains that the bus stop at the intersection is located a relatively long distance from the major entrances (west and south), especially at certain times of day when the east entrance is locked to the public. Additionally, there is no presence of bus specific lanes bounding the facility which could result in slower travel times during rush hours.

Figure 3.7: Large, Wide, and Busy Sandalwood Parkway and Dixie Road Intersection

3.3.4 – Streets and Traffic

Meets Minimum Criterion

The roads bounding the facility are both major thoroughfares that provide direct connections to other arterials, smaller local streets, and highway infrastructure. The facility contains two signaled entrances/exits coming from Sandalwood Parkway and Dixie Road, which allows for a convenient in/out for drivers travelling from any direction (Figure 3.8). Sandalwood Parkway and Dixie Road are two small parts of the grid network formed by Brampton’s other major arterials. These arterials form ‘superblocks’ that contain smaller, irregularly patterned, local streets in order to get drivers to their specific locations. A superblock, by definition, is much larger than a traditional city block, with greater setbacks for
buildings, and is typically bounded by widely spaced, high-speed, arterial routes rather than by local streets (TCRPC, 2004).

The high speeds of traffic travelling on both bounding arterials presents an unsafe environment for pedestrians and cyclers using the adjacent sidewalks and pathways. In many situations, streetscape design can reduce the speed of vehicles and provide pleasant travel scenery for pedestrians and cyclist. Though, streetscape design is relatively absent from both Sandalwood Parkway and Dixie Road as these streets are designed solely as traffic conduits (Figure 3.9).
3.3.5 – Parking and Servicing

Does Not Meet Minimum Criterion

There are two main parking lots located within the facility amenity space and these are the west and south lots. These parking lots are very extensive and dominate the space. Together they cover approximately 2.2 hectares and accommodate over 700 vehicles (Figure 3.10) (Leslie, 2007). After extensive observation, it is evident that neither parking lot is ever near capacity and is busiest only on weekends. The transparent glass incorporated into the facility’s design does offer good views out to the western parking lot but this is effectively absent when trying to look at the southern lot (Figure 3.11). The design of the parking lot is not aesthetically or functionally incorporated into the design of the building. Though, the raised walkways at most crossings points do provide some indication of built-in safety. There is minimal space allotted for small planters and landscaping elements, such as trees that are only present near the entrances to the building and are absent from the rest of the parking lot. Core area parking, typically known as the western parking lot, requires relatively long walking distances for the public, especially at its northern most limits.

Figure 3.10: Bird’s Eye View of BSC South Parking Lot (Bing Maps, 2011)
The northern and eastern service and waste areas are in close proximity to the entrances/exits of Sandalwood Parkway and Dixie Road. Both service areas are located along insipid areas of the facility and are both framed by large concrete walls that offer no aesthetic appeal. The east service area remains in shadow for most of the daytime hours (Figure 3.12). Although well concealed, the adverse aspect of the service areas is that they both front onto the arterial streets.
3.4 – Analysis of Detailing the Place

3.4.1 – Positive Outdoor Space

- Partially Meets Minimum Criterion

The only building within the recreation facility complex houses indoor soccer fields. The building is well designed to create positive outdoor space in areas directly adjacent to the facility such as the basketball courts and the activity plaza (Figure 3.13). Though, it does not create a sense of enclosure upon the soccer/cricket fields. The orientation of these pitches could have been rearranged to situate them closer to the building entrances. The outdoor amenity space is well designed to incorporate a wide range of recreational uses that attracts users from the community. The exterior space directly adjacent to the building is decorated nicely with a variety of planted gardens and street furniture. Though, when venturing further away from the building into the rest of the amenity space this ideal is essentially lost (Figure 3.14).

![Figure 3.13: BSC Activity Plaza](image-url)
Some left over space exists directly south of the basketball courts but the overall design has done well to make sure this remains at a minimum. The lack of density within the surrounding suburban neighbourhood and the large tracts of amenity space does not allow for lines of continuity. Although this remains true, the facility does not essentially ‘tower-over’ any of the surrounding homes. The building surpasses the minimum 5 metre setback outlined in the Compendium (Llewelyn-Davies, 2000: 88) containing a 45 metre setback from Dixie Road (contains greenway buffer) and an 8 metre setback from Sandalwood Parkway.

3.4.2 – Animating the Edge

● Exceeds Minimum Criterion

The building provides a positive contribution to the public realm, especially through its pedestrian-scaled activity plaza on the northeast corner of the facility grounds. It animates the “important corner condition and functions as a civic court, programmed with playgrounds, stages, and a splash pad; the plaza forms a natural outdoor extension of the community rooms in the building which open onto it” (Figure 3.15) (Leslie, 2007). Contrary to most sports facilities, which can often resemble blank, big-box warehouses devoid of natural light, the building was designed to employ first-rate...
architecture. The building is broken down into two separate masses, sliding past each other in parallel, which create an interesting three part zigzag corridor configuration (Figure 3.16) (Leslie, 2007).

The building contains an abundance of transparent and coloured windows that project interior activities to enliven the outdoor space (Figure 3.17). The windows lining the indoor soccer portions of the building could have been designed to be larger and less narrow as to allow the public with better views of the interior. The building employs a number of distinctive façade elements and arrangements that make it interesting (Figure 3.18). These elements include coloured windowpanes, a good selection of colour palettes, variety in the arrangement and selection of building materials, illuminated soccer billboards, and a contemporary architectural outlook.
3.4.3 – Building Size and Scale

**Exceeds Minimum Criterion**

The building within the facility complex is approximately three stories in height but is creatively designed to offer different levels across the built form of the structure. This is resultant from the diverse interior and exterior functions of the facility. The areas dedicated to indoor soccer, which require higher ceilings are tallest, while areas near entrances are ‘stepped down’ to obtain a more pedestrian-scaled perspective and reduce shadow on important outdoor activities (Figure 3.19). The building contains transparent windows with offset coloured panes, which provide for interesting lighting effects but more importantly help illuminate the interior with natural lighting. The size of the building and its interior and exterior configuration allow for the flexibility of uses and simple future redevelopment ventures.

![Figure 3.19: Stepped Down Portion of BSC Building within the Activity Plaza](image)

3.4.4 – A Thriving Public Realm

**Exceeds Minimum Criterion**

The public space, especially the western entrance of the building, the activity plaza during the summer months, and the interior front reception area provide excellent opportunities for social interaction. The building and its amenity space are built for recreational uses that foster social
interaction. Therefore, the premise of the building and its use offers an array of opportunities to interact with one another. The elements incorporated into the design of the facility have been well designed in tandem. Street lamps, garbage receptacles, benches, CCTV cameras, waste management gates and signage to an extent have been designed to utilize the same texture and colours of materials used in building construction (Figure 3.20 and 3.21).

Figure 3.20: Trash Can
Figure 3.21: Park Bench

The routes and pathways to and from the public areas follow natural desire lines. Sidewalks and cycling paths are located along Sandalwood Parkway and Dixie Road and the pathway network is well lit and provides adequate benches for sitting. The materials selected for the construction of the building are of high visual attractiveness using a predominantly white and silver colour palette and horizontal bands of coloured glass (Leslie, 2007). Accessibility for all types of users is incorporated well into the design of the entire facility. Design elements in the form of handicapped parking near entrances, curb cuts, smooth surfaces, motion sensor entrances, electric door mechanisms, and even interior elevators that make the building universally accessible (Figure 3.22 and 3.23).
Appropriate signage is used for designated parking stalls and raised walkways. The design of the facility does a relatively good job in concealing visually dull elements, mainly within their service areas. Though, two large service boxes have been situated in small grassy areas near the soccer/cricket fields (Figure 3.24). These are located about 100 metres from the facility entrance and do not coincide with the general paths taken by most facility users. Adequate lighting for the exterior and interior of the facility has been provided through a wide variety of sources. The parking lots are well lit through the provision of large street lamps resembling those lining suburban streets. The pathways are lit by more pedestrian-scaled lighting that comes in the form of lamps. The exterior of the facility, especially further away from entrances and the space in service areas are lit by pot lights that are directly attached to the building exterior. Due to the abundance of transparent windows, entrances are well lit and visually interesting by interior lighting shining through (Figure 3.25).
3.4.5 – Safety and Security

Meets Minimum Criterion

There are three entrances to the building most widely used by the public and these are the main entrance (west), the south entrance and the east entrance. The east and south entrances are well lit at all times of day and present the user with a feeling of safety. The east entrance closes earlier than the rest of the facility and therefore the activity plaza and the route to the bus stop are not well lit when it becomes dark. The pedestrian walkways, cycle routes, and parking lots provide good visibility, effective lighting, and a feeling of safety at all times of day. The open nature of the facility’s exterior also provides a rather safe “eyes on the street” environment for users entering and exiting the building. The facility contains an abundance of CCTV cameras located at all entrances, service areas, the building interior, and fastened to light fixtures in the parking lots (Figure 3.26).
Figure 3.26: CCTV Camera attached to BSC Building
4.1 – Introduction

This chapter comprehensively analyzes the Cassie Campbell Community Centre through twelve criteria grouped into the Urban Structure, Connections, and Detailing the Place sections, as derived from the Urban Design Compendium and detailed in the Chapter 2 of this report. The Urban Structure criteria are Landscape; and Blocks, Parcels and Plots. The Connections criteria are Walking; Cycling; Public Transport; Streets and Traffic; and Parking and Servicing. The Detailing the Place criteria are Positive Outdoor Space; Animating the Edge; Building Size and Scale; A Thriving Public Realm; and Safety and Security.

4.2 – Analysis of Urban Structure

4.2.1 – Landscape

- Partially Meets Minimum Criterion

The landscape of the Cassie Campbell Community Centre (CCCC) is mainly composed of the outdoor amenity space dedicated to the green playing fields. The facility contains a variety of outdoor sports amenities including soccer fields, a cricket field, tennis and basketball courts, a skateboard and BMX centre, and direct connection to outdoor tracks (Figure 4.1). Other than a drainage ravine and greenway system located approximately 300 metres south of the facility, there are no other natural green spaces in the area. The greenway contains a high quality pedestrian and bicycle pathway network but does not provide a direct connection to the facility. The ravine greenway and parks can only be accessed through the use of catwalks on local streets and pedestrian and cyclist paths along arterial streets (Figure 4.2).
The Compendium encourages a 400 metre catchment radius (5-minute walk) from the facility to the centres of surrounding neighbourhoods (Llewelyn-Davies, 2000: 57). The entire building and outdoor amenity space employs this 400 metre catchment radius as it is well situated between two secondary schools and exists within an area where the predominant land use is residential (Figure 4.3). The facility is reasonably designed to respect sun angle at peak hours. The activity plaza fronting Sandalwood Parkway is always well lit by sunshine, while shadows are mainly cast within the facility’s service area and the portion of the building fronting Chinguacousy Road. In terms of maintenance, the size of the parking lot allows for the easy removal of snow from paved portions of the outdoor amenity space. The large service area also allows for extra space to allocate the snow that has been plowed. The large tract of land that has been apportioned to the outdoor playing fields could make mowing during the summer a lengthy ordeal (Figure 4.4).
4.2.2 – Blocks, Parcels, and Plots

Meets Minimum Criterion

This section of the analysis will focus on the structure of blocks, parcels, and plots surrounding the CCCC. Homes surrounding the facility have been built as part of their own respective subdivision in a neat and organized manner and fronting onto the small local streets and Shellbark Park. The distance
between the backs of homes and the facility amenity space is 8 metres or greater and has been deemed sufficiently far enough from the internal pathway network to achieve good privacy. The blocks and streets come in the form of crescents and cul-de-sacs and are typically long and narrow measuring 130-150 metres. The plots within these blocks and parcels are small and narrow containing an approximate frontage of 10-15 metres and a depth of 30-35 metres (Figure 4.5). The topography in the surrounding area has been artificially graded by developers.

Figure 4.5: Bird’s Eye View of Suburban Development Surrounding the CCCC (Bing Maps, 2011)

4.3 – Analysis of Connections

4.3.1 – Walking

Meets Minimum Criterion

The CCCC pedestrian routes are made up of sidewalks lining Sandalwood Parkway and Chinguacousy Road and the internal pedestrian walkways connecting the building to other portions of the facility and surrounding amenities. These surrounding places include direct connections to St. Edmund Campion Catholic Secondary School, Fletchers Meadow Secondary School, and the commercial
plaza located on the northeast corner of the Sandalwood Parkway and Chinguacousy Road intersection (Figure 4.6). For the most part, the routes are direct and easy to utilize, though users may find themselves cutting through sports fields to reduce travel distances across facility amenity space.

![Figure 4.6: Commercial Plaza across the Street from the CCCC](image)

Pedestrian routes uphold good quality, are well lit, and employ sufficient width. The route that connects the west and south entrances as well as the parking lot to the activity plaza has been made interesting through the design of a large wooden logia/sunscreen to reduce glare and define the clear path of pedestrian movement (Figure 4.7) (Fleisher, 2011). The facility is generally easy to navigate using pedestrian walkways. The parking lot does contain pedestrian crossing points but due to their colour (white) they cannot be easily viewed by drivers, especially during the winter months when salt masks the paint rather easily (Figure 4.8). Safety along the internal pathway network, especially near the building, is not an issue as ice and snow has been efficiently cleared.
4.3.2 – Cycling

● **Exceeds Minimum Criterion**

The cycling pathway network within and adjacent to the CCCC are made up of an internal pathway system shared with that of the pedestrian system and cycle paths lining Sandalwood Parkway and Chinguacousy Road. This limited network is both clear and direct and allows users to connect with surrounding neighbourhoods and the greenway system located to the south of the CCCC. All internal pathways occupy a minimum width of 3 metres, contain 1.5 metres in lateral clearance, employ 3 metres in overhead clearance, and are constructed of asphalt. The pathways lining both bounding arterial streets do not enjoy a lateral buffer area like the internal network but are subjected to being located right next to passing traffic creating a dangerous environment for users. Appropriate sightlines are present along every portion of the internal and external pathway network. The internal system is surrounded by large tracts of open space provided through their location next to amenity sports fields.
Cycle parking has been provided near every major entrance of the facility and well designed – the rail coming in the form of a bicycle (Figure 4.9).

Figure 4.9: Bicycle Parking near West Entrance of CCCC Building

4.3.3 – Public Transit

 {[green_circle] Partially Meets Minimum Criterion

The CCCC is directly serviced by two Brampton Transit stops located along Sandalwood Parkway and Chinguacousy Road. The area near and adjacent to the facility is well serviced by the local transit authority and contains enough residents living within 400 metres (5-minute walk) of each bus stop. The building’s current configuration offers a clear and easy route to the bus stop located along Sandalwood Parkway from the south entrance. The other two entrances (north and west) do not provide a good connection to each of the bus stops as the walking distance is relatively further than that of the south entrance. Additionally, a clear and direct route does not exist to the bus stop located along Chinguacousy Road.

The Sandalwood Parkway and Chinguacousy Road intersection contains high quality crossing lanes and the presence of signaling technology. Due to both streets being designated as major arterials
within the City of Brampton, the width and speed drivers travel on each street could pose a serious danger to pedestrians and cyclists crossing the street. Furthermore, since the only signaled crossing point in the direct vicinity of the building is the Sandalwood Parkway and Chinguacousy Road intersection, pedestrians and cyclists may attempt dangerous crossings at non-signaled portions of the streets to avoid travelling further distances (Figure 4.10). There is no presence of bus specific lanes along the streets bounding the facility.

Figure 4.10: Dangerous Crossing Point for Pedestrians

4.3.4 – Streets and Traffic

Meets Minimum Criterion

The roads bounding the facility are both major arterials that provide direct connections to other arterials and smaller local streets. A good connection to highway infrastructure does not exist in the area, forcing drivers to travel approximately 6 kilometres to reach Highway 410 and other Greater Toronto Area 400 series highways. The high speeds typically reached by drivers along Sandalwood Parkway and Chinguacousy Road do not provide a very practical pedestrian and cycle friendly environment. Sandalwood Parkway and Chinguacousy Road are two of the many arterials that form an
extensive grid network throughout Brampton. These arterials form ‘superblocks’ house smaller, irregularly patterned, local streets to get drivers to more specific locations within the City. The streetscape adjoining the facility has been well designed with the inclusion of planters, trees, lighting, signage, and some street furniture (Figure 4.11).

![Figure 4.11: Streetscape Design along Sandalwood Parkway](image)

The facility contains three entrances/exits to Sandalwood Parkway (two) and Chinguacousy Road (one). The Chinguacousy Road and eastern Sandalwood Parkway entrances provide drivers with a right-in-right-out choice which limits the facility’s access to drivers (Figure 4.12). Therefore, only drivers travelling south along Chinguacousy Road and west along Sandalwood Parkway can enter the facility. The eastern Sandalwood Parkway entrance/exit is the only signaled access point but is staged further from the building and is not as readily used as the aforementioned entrances.
4.3.5 – Parking and Servicing

Meets Minimum Criterion

The facility contains an extensive parking lot located to the west and north of the building that can accommodate approximately 600 vehicles (STPW, 2011). The shape, configuration, and positioning of the parking lot between the building and amenity sports fields and courts allows users to avoid travelling long distances to and from building entrances (Figure 4.13). The parking lot does not dominate the space but its functionality remains a question as full capacity is not attained even at peak hours. However, this could be a product of many users walking to the facility from the adjacent schools and homes in the surrounding area. Because the parking lot contains a maximum width of 75 metres, vehicles are kept within a fairly close proximity and are easily viewed from most areas within the building. The design of the parking lot is moderately incorporated into the design of the facility. The presence of small planters, landscaped islands, trees, and shrubs provides an aesthetic ideal to the space (Figure 4.14). The ‘feeling’ of safety is somewhat incorporated as the lot is well lit at night and contains CCTV cameras, but is poorly designed for pedestrian safety as walkways are not well delineated or raised.
The facility only contains one large service area which is not well connected to the surrounding street network. It can be accessed from any entrance but large trucks entering the facility space from Sandalwood Parkway may find it difficult to navigate to the service area located near Chinguacousy Road. This difficulty is further augmented by the right-in-right-out entrance/exit type along
Chinguacousy Road, which would only allow service and delivery vehicles travelling south to enter the facility. The service area is located in an area of the building that is not easily viewed (or facing) the street and is framed by a decorative wooden lattice (Figure 4.15). It does not create a dark alley way and is large enough to accommodate the vehicles, equipment, and receptacles with ease.

![Decorative Lattice Shielding Service Area](image)

Figure 4.15: Decorative Lattice Shielding Service Area

4.4 – Analysis of Detailing the Place

4.4.1 – Positive Outdoor Space

Meets Minimum Criterion

The only building within the recreation facility complex houses ice arenas, a gymnasium, pool, workout facility, and community rooms. The activity plaza, which accommodates the splash pad and playground, contributes to the outdoor public realm with a ‘stepped’ down portion of the building creating a human scaled area (Figure 4.16). However, it is not well enclosed by its adjacent building and has been located very close to Sandalwood Parkway. Street trees could be introduced as a buffer between the arterial and the activity plaza to create a better confined space and increase the notion of safety (Figure 4.17). The remaining outdoor space has been designed to incorporate a wide range of activities keeping with the athletic nature of the facility.
The adjacent exterior space of the building is decorated nicely with an array of planted gardens and street furniture. This ideal is essentially transformed onto the parking lot where landscaped islands are prominent. Open space is designed relatively well with limited leftover space located near the western soccer fields and tennis courts. This space can serve a future purpose or even contain more trees. The awkwardly shaped portions of the amenity space near the west entrance of the facility have been beautifully landscaped with trees, shrubs, and flowers (Figure 4.18). The lack of density within the surrounding suburban neighbourhood and the large tracts of amenity space does not allow for lines of continuity. The building is built very close to the Sandalwood Parkway and Chinguacousy Road intersection. Though the building setbacks still surpass the minimum 5 metre setback outlined in the Compendium (Llewelyn-Davies, 2000: 88) by containing a 6 metre setback from Sandalwood Parkway and an 8 metre setback from Chinguacousy Road.
4.4.2 — Animating the Edge

**Exceeds Minimum Criterion**

The building provides a positive contribution to the public realm. The urban landscape development of the site is initialized with the placement of the building as close to the street as possible and animates the vehicular landscape with the activities of the community centre. The creation of the activity plaza on the south frontage of the site contains a link to the south entrance and the street corner. The splash pad within the activity plaza is adjacent to the interior pool space to take advantage of the interior change room facilities and the aspect of constant sunshine upon the site (Figure 4.19). Additionally, the parkette within the activity plaza is associated with the interior daycare and community room spaces (Fleisher, 2011).
The building was designed by Shore, Tilbe, Perkins and Will and contains first-rate architecture. The architectural elements of the building are expressed as a “series of boldly cantilevered Gullwing roofs floating above masonry walls (Figure 4.20). These stone and block elements frame and organize the surrounding landscaped spaces and outdoor program areas. A long timber trellis provides an interstitial space between outdoor and indoor programs and articulates a pedestrian link” between the west and south entrances of the facility (STPW, 2011). An abundance of extensively glazed windows make interior building recreation activities visible from the street, which enlivens the outdoor space (Figure 4.21) (Fleisher, 2011). The rest of the building is well designed so that visual interest from the public is not inundated on sides of the building that do not contain an entrance or delineated public space.
4.4.3 – Building Size and Scale

**Exceeds Minimum Criterion**

The building within the facility complex is approximately three stories in height but is designed so that incorporates different levels based on interior and outdoor function. The interior areas of the building that are dedicated to the arenas, the gymnasium, and the swimming pool are expectedly higher than areas of the facility that have been ‘stepped down’ to create a human scaled environment for outdoor activities. The building contains glazed transparent windows along most of its façade to allow greater amount of natural sunlight into the facility acting as an efficient way of illuminating the facility during daytime hours. The size of the building and both its interior and exterior configuration allow for the flexibility of uses in the future. It has been designed to allow for future expansion and integration of other public space into the existing architecture and landscape (Kenter, 2008).

4.4.4 – A Thriving Public Realm

**Exceeds Minimum Criterion**

The building is designed to be an urban landmark that evidently announces itself as a public structure and a hub of community life (Kenter, 2008). Within the building, the public space encourages social interaction. Public circulation is designed as a series of spectator lounges where a multitude of
recreational activities can all be viewed at once (STPW, 2011). The materials selected in the construction of the facility are of high visual attractiveness, durability, and environmental performance (Figure 4.22). Extensive glazing on windows, the use of natural stone to identify principal building entrances, the design of a large timber logia/sunscreen (Fleisher, 2011), and phenol resin panels with an integrated layer of real wood veneer (Kenter, 2008) are the major construction materials used to achieve this (Figure 4.23).

Accessibility is incorporated well into the design of the facility. Elements in the form of handicapped parking near entrances, curb cuts, wheelchair ramps, smooth surfaces, and electric door mechanisms all work to make the facility universally accessible (Figure 4.24 and 4.25). Signs also work to assist in the navigation and recognition of parking that has been solely designated for handicapped users. Additionally, adequate access is provided from surrounding sidewalks, parking, and public transport. The design of facility does a relatively good job in concealing visually dull elements, mainly its service area which is partially hidden using a decorative lattice fence and landscaped islands.
Adequate lighting for the exterior and interior of the facility has been provided through a wide variety of sources. The parking lots are well lit through the provision of large lamps resembling those lining suburban streets. The pathways are lit by more pedestrian-scaled lighting that comes in the form of lamps. The exterior of the facility, especially the south façade of the building is lit by pot lights that are directly attached to the building exterior.

4.4.5 – Safety and Security

Exceeds Minimum Criterion

There are three main entrances to the building generally utilized by the public. Depending on what activity the user is engaging within the building they will enter and exit the facility through the west, south, and north entrances. Each entrance is well lit and contains a feeling of safety which is augmented with the location of a community police station within the building (Figure 4.26). The presence of law enforcement officers in and around the building and facility amenity space acts as the ideal deterrent to criminal behaviour in the area. Additionally, the non-enclosed design of the facility’s exterior space, CCTV cameras, and its location in close proximity to the street corner provides an ‘eyes on the street’ mentality for users enjoying the facility. Public transport routes are reasonably overlooked.
by the building. The bus stop located along Chinguacousy Road is relatively less utilized as no direct connection exists to it from the building itself. The parking lot is well overlooked by the facility and well lit to enhance the sense of safety.

Figure 4.26: Community Police Station within CCCC Building
CHAPTER 5 – CONCLUSIONS AND RECOMMENDATIONS

5.1 – Summary of Evaluation

This report has evaluated the urban design quality of two Brampton recreation facilities, the Brampton Soccer Centre (BSC) and Cassie Campbell Community Centre (CCCC), using criteria based on the Urban Design Compendium and augmented through a literature review of pertinent material to the topic at hand. While each facility had its own strengths and weaknesses, when weighed against one another the CCCC conforms more closely to the ideals represented in the Compendium. The evaluative framework summary is presented in Table 5.1 below.

<table>
<thead>
<tr>
<th>Table 5.1: Evaluative Framework Summary</th>
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<tbody>
<tr>
<td><strong>Urban Structure Criteria</strong></td>
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<tr>
<td>Landscape</td>
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<tr>
<td>Block, Parcels, and Plots</td>
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<tr>
<td><strong>Connections Criteria</strong></td>
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<tr>
<td>Walking</td>
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<tr>
<td>Cycling</td>
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<tr>
<td>Public Transport</td>
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<td>Streets and Traffic</td>
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<td>Parking and Servicing</td>
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<td><strong>Detailing the Place Criteria</strong></td>
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<tr>
<td>Positive Outdoor Space</td>
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<tr>
<td>Animating the Edge</td>
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In terms of the urban structure, the BSC’s landscape is better designed than the CCCC’s especially in its high-quality connection to a greenway system via the Chinguacousy Pathway network, which runs alongside a linear element in the form of a drainage waterway (Figure 5.1). Additionally, the orientation of the BSC respects the sun angle at all times of day particularly within its activity plaza, whereas the building within CCCC casts shadows along its frontage on Chinguacousy Road (Figure 5.2). However, CCCC does demonstrate closer distances to surrounding neighbourhoods and offers a reduction in maintenance through its smaller sized parking lot.
The management of connections in the CCCC is narrowly better than at the BSC, most notably in regard to parking and servicing. The rest of the criteria analyzed show that both facilities contain positive and negative characteristics, which are described in further detail in Chapters 3 and 4. In terms of parking, the CCCC can be commended for a well designed lot. Although, both facilities contain adequate parking for all users and employees, the BSC parking lots dominate the space with their immense dimensions (Figure 5.3). This makes it difficult for vehicles to be viewed from the facility and makes for longer walks for pedestrians using core area parking. However, the BSC makes use of raised
walkways within their parking lot rather than painted lines, which are safer for pedestrians and serve a secondary purpose as traffic calming devices.

Figure 5.3: Condensed CCCC Parking Lot

Overall, the CCCC excels in conforming to the criteria outlined by the *Compendium* for a detailed place, particularly by animating edges, creating a thriving public realm, and enforcing security through design. The CCCC enhances the outdoor space by supplying aesthetically pleasing elements such as landscaped areas, planters, and street furniture (Figure 5.4). Both the BSC and CCCC make excellent contributions to the public realm through the introduction of activity plazas that contain playgrounds and splash pads for young children to enjoy. Visually attractive first-rate architecture has defined each building and its amenity space as a landmark of civic function. Distinctive façade arrangements and a wealth of durable and attractive materials used in the design of both structures provide a unique sense of cultural and community identity.
5.2 – Recommendations

This section provides urban design recommendations for future development initiatives of recreation facilities. The recommendations will act as a toolkit that may guide practitioners in the field, such as planners, urban designers, and architects, in properly designing a facility prior to it being constructed to meet all the significant criteria outlined in this report. It is noted that these guidelines cannot all be implemented in a plan due to constraints such as cost or political climate, but practitioners should attempt to utilize these recommendations as a preliminary tool. The recommendations are outlined below:

1. First and foremost, it is recommended that practitioners use the evaluation criteria delineated in Chapter 2 of this report, which has been adapted from the Urban Design Compendium and relevant literature concerning recreation facility planning and design, to evaluate master plans prior to construction and making the necessary changes if conformance is not met.

2. The main purposes for the inception recreation facilities like the BSC and CCCC are to facilitate social interaction, provide a venue for elite indoor and outdoor sport, and contribute to community health and well-being. They are thus conceived as places for people, which come in many diverse forms. The design of the recreation facility should then be created with this ideal
in mind and instill high-quality universal accessibility, safety, aesthetics, transport, landscape, and public space as the chief elements of every facility design concept.

3. The construction of a multi-purpose recreation facility offers the opportunity for the creation of a building and amenity space that is viewed as an urban landmark. In terms of the BSC and CCCC, both facilities offer the public a building and outdoor space that provides athletic and community amenities that draw people to them. Therefore, it is recommended that the utmost attempt be initiated to supply a facility that will attract and excite the general public and future users.

4. The BSC and CCCC are both well-designed recreation facilities that provide superior athletic and public functionality within all of their components. Therefore, the design of future recreation facilities should place the same detail on outdoor amenity space as is typically placed on the interior of the facility building. This task should utilize a collaborative public process and employ professionals such as landscape architects to prepare preliminary design concepts.

5. The planning, design and, and construction of a recreation facility is an expensive endeavour. The BSC cost a total of $28 million, while the CCCC by containing more indoor amenities within its building cost Brampton $44 million. However, there is a quantifiable importance of these leisure amenities that could justify the spending of public dollars on them. In fact, they may offer more long-term benefits than traditional economic development focused on job creation does. As a result, it is recommended that practitioners conduct studies to investigate the enduring benefits a recreation facility may offer to individuals and a community without focusing completely on economics.

6. Recently, changing lifestyles and the desire for increased physical fitness, coupled with an emergent population of individuals entering retirement, have placed increased demands on existing parks, open spaces, and recreational facilities. Practitioners should take this aspect of society into serious account and adequately plan for the provision and design of ample public recreation facilities within urban areas.

The remaining recommendations will focus on a recreation facility’s major urban design elements.
7. As an urban landmark, a recreation facility should be well connected to other recreation areas through a multifaceted pathway and greenway system that contains opportunities to connect with other transport conduits such as local streets. Moreover, the facility should be located in an area that contains good connections to the street hierarchy including connections to highway infrastructure and public transit. The BSC provides a perfect model for a high-quality connection to a greenway system as the facility is connected to other parks in Brampton through the Chinguacousy Pathway. The BSC also contains direct connections to the street network and close proximity to Highway 410.

8. For facilities like the BSC and CCCC that are planned in suburban areas and typically rely on the automobile as the main mode of travel, parking lots should be designed not to dominate the space. Practitioners should only provide parking spaces that will at some point be utilized by the public and not lay dormant for the entire life cycle of the actual facility. For example, the BSC offers 700 parking spaces barely half of which are ever utilized. This space can instead be utilized for more recreational amenities that will both raise the public’s quality of life and attract more users.

9. An important aspect of recreational facilities is their inherent ability to foster social interaction. Both the BSC and CCCC have created an invigorating public realm especially in their inclusion of activity plazas that contain playgrounds and splash pads. However, the CCCC’s activity plaza is placed too close to Sandalwood Parkway. It should be noted by practitioners that these activity plazas should focus on creating an enclosed space that is of ample distance from major thoroughfares and provide a bordering device such as trees to instill a feeling of safety and drown out the noise of passing vehicles. This creates a quieter park-like setting.

10. Safety is always a major concern in large urban areas and especially at night. Due to Canada’s harsh winter climate, the outdoor amenity space of a facility may only truly be utilized during warmer months, while the building is used all year round. The winter months also bring with them nightfall at an earlier time of day. This means that safety and the ‘feeling of safety’ must be provided for all individuals utilizing the facility through the provision of effective lighting, CCTV cameras, easily viewable spaces from the building, transparent windows, and even the addition of a community police station within the facility like the CCCC has provided. This would
not only act as a deterrent to crime but also save tax-payers money by not having to construct an additional police facility.

11. The recreation facility’s outdoor amenity space and its bounding streets should be brought to life with aesthetically enjoyable design elements including but not limited to street furniture, lighting fixtures, planters, and other forms of landscaping. These elements invigorate the public space and could incite active transportation along routes due to their pleasant nature. The BSC has not created a streetscape that makes it enjoyable for pedestrians and cyclists to travel along their bounding streets, while the CCCC has succeeded in providing a well-designed streetscape along Sandalwood Parkway. Safety is also a concern as the major arterials that surround each facility allow vehicles to travel at high speeds.

12. Finally, it is recommended that the focal point of every recreation facility, the building, be designed with first-rate architecture by utilizing a wide-array of contemporary styles, formations, and materials. This will in turn attract users; act as a model that other practitioners can learn from; and instill a civic pride in the residents of a municipality. The BSC and CCCC are both extraordinary examples of this as they have been designed with a wide variety of premium materials and contemporary architectural styles.

5.3 – Reflection on Research Methodology

The evaluation criteria delineated within the methodology chapter was effectively utilized to complete a comprehensive analysis of two recreation facilities. However, there some difficulties associated with using criteria that have been adapted for entire regeneration projects on singular recreation facilities. This was especially apparent when evaluating each facility using the Urban Structure section of the Compendium due to its focus on larger portions of the urban environment. Thus, the section had to be limited to only two major design elements, namely, Landscape and Blocks, Parcels, and Plots.

Second, some of the evaluative design criteria investigated for each urban design element were obviously more important than others but they were all given the same weighting in terms of obtaining
a final score. Different weighting based on the importance of each design criteria could have been implemented to give each facility a more accurate final score. This would further augment the analysis by creating more separation in the design quality of each facility. Finally, the inclusion of data through the collection of information by using surveys of the users of each facility and interviews of professionals in the field was excluded from this report. If incorporated it would have added more depth and a personal dimension to the analysis sections.

5.4 – Future Research

Future research on the topic of recreation facility design could include more literature on recreation facilities that contain both a building and outdoor amenity space. Current literature either focuses on the interior of buildings or the outdoor amenity space as separate entities. Future books and articles written on the subject should attempt to take a more comprehensive approach by including both aspects of recreation facilities and intertwining their information. Further, it would be an interesting endeavour to take the evaluation criteria outlined in this report and refine them as necessary with relevant literature pertaining to higher order recreation centres, namely, large sports stadias. The criteria could then be used in the evaluation of design quality of two large sporting facilities. This could be an important facet in the design of these facilities constructed for large mega-events like the Olympic Games or the FIFA World Cup. Practitioners could evaluate the design of previous mega-event facilities and correct the negative aspects for future events.

Finally, a second portion of the Compendium entitled the Delivering Quality Places: Urban Design Compendium 2 has been very recently released by Llewelyn-Davies, which further builds upon the best practices outlined in the first version. The new version includes information on urban design policy, integrated design, delivering quality, adding value through design, and delineates proper management techniques of physical assets. In a future evaluation of recreation facilities, these new
aspects could be infused with those outlined in the first version to construct a set of even more comprehensive evaluation criteria.
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