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Executive Summary

Municipalities which identify as "winter cities" – those who design and plan for their cold climates and embrace the unique opportunities of the winter season, hold numerous social and economic advantages. Promoting and supporting seasonal design, community events, recreational opportunities, and year-round urban activity is shown to result in positive social and economic outcomes for municipalities. As a northern city, Toronto has taken steps through policy development, guidelines, and seasonal activities to encourage better use of public spaces throughout the winter season. Yet implementation of these ideas can go further. How might Toronto holistically embrace its climate and become a true "winter city"?

Case study comparisons to our North American counterparts and site analysis of Toronto's downtown park spaces highlight that more might be done to improve urban winter living in Toronto, specifically via improved design and functionality of parks and public spaces during the cold season. If accomplished, the positive impacts associated with embracing the winter season and identifying as a winter city may occur in Toronto. In-depth literature review defines the winter city concept and the numerous benefits associated with embracing winter city design and planning principles.

Considering local municipal policy and understanding what is currently being achieved in other North American municipalities, winter city recommendations specific to Toronto's parks and public spaces are developed. By implementing these recommendations, Toronto may improve both new and existing parks and public spaces— places essential to the city's function, full of social and economic opportunity, resulting in positive benefits for citizens, communities, and the city overall.

About the Project

This is a Major Research Paper (MRP) presented to Ryerson University in partial fulfillment of the requirements for the degree of Master of Planning in Urban Development. All photos in this report are by the author and any errors are the author's alone.

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Finally, to Brenden. May we forever embrace the winter season together, whether you like it or not.



"Winter City" Challenge



1.1 Introduction

Unpleasant environmental conditions including extreme cold, wind, precipitation and limited sunlight makes winter feel like Canada's longest and harshest season. Canada has an average daily temperature of -5.6C, with temperatures in territorial and prairie cities often reaching below 40C annually (CBC, 2020). In Toronto, snowfall can average 372mm in January and start as early as October, often lasting through to April (Weather Atlas, 2020). These unfavourable conditions have led to a general rejection of winter climate throughout Canadian cities. Observing the public's rejection of Canada's winter climate, Quebec "nordicist" Louis-Edmond Hamelin suggests that Canadians are "walking to the north backwards with their eyes fixed on their vacations' palm trees" (Pressman, 1996). Urban Canadian citizens in particular seem to further perpetuate this attitude, designing their unsympathetic to their urban environments, often including underground malls, path systems, and skywalks which connect public spaces to avoid outdoor exposure. As we consider the sustainable development of winter cities, it is hoped that planners, designers and architects might embrace winter climates, tasked with developing more insightful solutions to the problems of cities in northern climates in an attempt to improve the function of public spaces and enhance the quality of urban life.

A 'winter city' is generally defined as a concept for northern cities that encourages utilizing urban infrastructure, designing buildings, and planning for all four seasons (Winter Cities Institute, 2019). This concept, conceived in approximately the mid-1980s by architects, designers, researchers, and urbanists, has evolved into a "winter city movement", which sees municipalities implementing strategies, guidelines, and policies to improve urban livability and quality of life during the winter season (Collins et al., 2018; Manty et al., 1988). The movement reflects a trend of northern municipalities who encourage development of planning policy, architectural interventions, and municipal projects be implemented to support increased utilization of urban infrastructure year-round. Researchers acknowledge implementation of these policies of particular importance "for mental health in the winter due to isolation and multiple stresses that impact on people in the cold, dark season" (Pressman, 1996). Mental health issues,

A 'winter city' is generally defined as a concept for northern cities that encourages utilizing urban infrastructure, designing buildings, and planning for all four seasons

including depression, alcoholism, apathy, and extreme loneliness are often attributed to isolation during the winter season. These issues often result in diminished quality of life and add additional stresses uncommon to the summer season (Broberg, 1985, Pressman, 1995). As we design and build sustainable urban spaces, planners may seek an "attitude shift" away from the previous "let's pretend winter doesn't exist" to a "winter-friendly outdoor city" perspective (Gehl, 1993). Historically, planners and architects have worked toward "attempting to resist and deny this hostile season" with design (Pressman, 1995). As ideas evolve, planners must now contribute to the "development of more innovative and insightful solutions to the problems of cities in northern climates" (Gappert, 1987). Many European and North American cities have since implemented policies and strategies, ensuring better utilization of public spaces during the winter season. While Toronto policy encourages year-round use of parks and public spaces, strategies and plans may be implemented to ensure this municipal directive is achieved. This research project aims to understand Toronto's role as a northern municipality, which experiences winter conditions. By identifying where other municipalities have found success as 'winter cities', analyzing Toronto's existing policies and guidelines, and creating case studies of Toronto's Downtown parks, recommendations can be developed related to how Toronto may support sustainable, year-round urban activity in the city's existing parks and public spaces. Through integration of winter strategy into municipal policies which support activities in public spaces, particularly in the winter season, Toronto might better embrace winter as a part of daily public life. By doing so, the city may achieve both economic and social benefits while improving the quality of life and year-round urban livability for their citizens.

Within this project, the importance of utilizing outdoor public spaces in urban centres of cold climates will be discussed. Case studies and examples from North America municipalities that have implemented winter policies for their parks and outdoor public spaces will be researched and compared to Toronto. Finally, parks and public spaces within the Downtown Core Secondary Plan area will be evaluated, and a toolkit of urban design strategies and recommendations will be developed in order to encourage use of parks and outdoor public space year-round.

Further research, policy review and site analysis can inform these questions and guide development to establish a framework for developing successful winter public space recommendations in Toronto's Downtown Core, a boundary selected based on time constraints and a recent park strategy in the area. Waterfront parks and public spaces within this boundary will also be included in this research. This research will determine if winter policies and strategies have found success in other Canadian municipalities, and answer how one may be implemented, enforced and sustained in Toronto. Inaccessible, poorly maintained and under-utilized public spaces in the winter season are expected to be discovered throughout Toronto. Introducing winter recommendations and developing a toolkit will seek to increase urban quality and public space viability year-round. The outcome of this project may act as the foundation for municipal winter parks and public space strategy in Toronto, providing key planning guidance for new developments, park acquisition and project management.

1.2 Methods

The research design of this report consists of qualitative methods, with primary site observations and data collection required. Primary source data and site visits will be analyzed subsequent to existing ideas and recommendations from literature and policy review. Through literature review, policy analysis, and case studies, site-specific recommendations will be developed for parks and public spaces in Toronto's Downtown Core aiming to recommend winter public realm guidelines. Further review of public space usage and climatic urban design literature, as well as existing North American and International guidelines or policies will inform the study. Research of municipal policies, plans and design guidelines of northern International and Canadian cities will illustrate municipal social benefits, and conversely, where policies may not have found success. This may include, but is not limited to Edmonton, Winnipeg, and Saskatoon, as Canadian examples, and international northern cities like Anchorage, Alaska. This analysis will inform further case studies of the Canadian and International municipalities. A Toronto-specific public space inventory and micro-climatic focused site observations within the Downtown Core Secondary Plan will determine if gaps exist considering previous literature context and research. Primary data collection through site visits and field observations will be necessary, observing human behaviour and considering design criteria. Drawing comparisons of other municipalities to Toronto will then inform key recommendations or guidelines for how parks and public spaces might introduce new winter activities and year-round uses. Research will be compiled from a variety of sources, including scholarly journal articles, municipal policies, plans and strategies, international case studies, and urban design guidelines related to parks and public spaces. Primary research of four Toronto parks will be conducted through site data collection and site analysis. The use of maps, graphics and photos may help visually enhance the final product, which will be developed and formatted based on site observations and research findings.



2.1 Historic Context of the "Winter City" Movement

A winter city can be defined as a community concept for northern cities that encourage planning systems, buildings, and recreation projects around the idea of using urban infrastructure throughout all four seasons (Winter Cities Institute, 2019). More formally, a municipality is regarded as a winter city if located "roughly around or north of the 45th parallel" in combination with five climatic elements. These elements include temperature, normally below freezing, precipitation, usually as snowfall, restricted hours of sunshine and daylight, prolonged periods of the previous three elements and seasonal variation (Pressman, 1995). Early winter city research made its academic emergence around the mid-1980s. A recent journal entitled 'Celebrated, Not Endured' discusses the short history of winter planning research, noting that the movement was "framed as a response to challenges being experienced in northern urban centres, including deindustrialization, seasonal desertion of outdoor public spaces, and design practices that were often insensitive to local climatic conditions" (Collins et al, 2018, p. 2). A central goal seeks to "reduce winter's negative consequences and to emphasize its positive features and opportunities, to create a more sustainable and livable settlements" (Davies, 2015, p. 278).

Recognized as the main proponents of winter city planning and design research, the research of Norman Pressman, Gary Gappert, Ingegärd Eliasson and others received wavering attention until the 2010s where winter city ideas reemerged in both the policy field and further academic inquiry (Collins et al, 2018). As sustainable planning practices emerge, the need for better planning and design that promote winter's positive features and opportunities becomes evident (Davis, 2015; Gehl, 1993; Pressman, 1995). Early research supports a shift in architecture, design, planning and policy practices to reflect the relationship between climate and cities rather than ignore or avoid the issue (Pressman, 1995). Pressman (1994, p. 522) in particular contemplates urban spaces "which possess genuine meaning or 'genius loci'" as a central issue, seeking to develop spaces "which possess harmonious intercourse between people and their environment if we are to maintain our unique cultural and physical identities". The importance of establishing a relationship between urban form and function with winter

climate constraints is established as a fundamental idea (Royle, 1985; Pressman, 1985, 1995).

However, building a relationship between winter climate and urban life has proven challenging, with several key constraints in land use policies, transportation, building massing and controls, open space and outdoor living areas and public amenities preventing this relation. Pressman (1987) addresses the need "to create the trend which will, in future, offer the environments we deserve, ensuring that all people experience optimum conditions of human well-being, habitation, work and intellectual development in each of the four seasons". Through policy and practice improvements, Pressman (1994, p. 521) seeks to create livable, sustainable and healthy urban spaces for people to enjoy year-round, stating that "adopting a climate-sensitive approach to planning policy and urban design can render everyday life less stressful".

2.2 Microclimate Effects on Urban Public Spaces

In his early research, Pressman (1995) observes a reduced or "entirely erased" socialization in public spaces is directly linked to winter climate factors. Field research further addresses outdoor urban environments and aims to understand the direct effect of winter climates on how people interact with and utilize public city spaces. The negative effects of winter climates on urban spaces has been studied by Thorsson and Lindqvist (2003) through field studies in four urban public spaces which represent various designs and microclimates in Gothenburg, Sweden. Further microclimate studies including that of a public square in Umea, Sweden, by Costamagna et al. (2019), and of 3 public spaces; a public square, the waterfront and a public open space in Harbin, China by Leng-Hong and Cun-Yan (2017), resulted in similar observations. The studies generally observe how cold weather and micro-climates affect human behaviour in urban outdoor environments, addressing concerns of design, accessibility, safety, comfort and livability. Methods of observation, including participant interaction and surveys within each "micro-climate" concludes that weather parameters (clearness index, sunlight, air temperature and wind) have a



When cold wind blows across the Toronto Harbour, a micro-climatic effect can be created along the promenade and within Harbourfront Centre Park.

significant influence on participants' behaviour, perceptions, emotions, and attendance. The Gothenburg and Harbin case studies support that human behaviour is influenced by micro-climates, while the Umea case study further recommends climate condition consideration should be given when planning and designing for winter cities. Supportive of these findings, Eliasson (2007, p. 72) particularly encourages "the arguments in favour of employing climate-sensitive planning in future urban design and planning projects" as physical spatial design influences microclimates and human behaviour, perceptions and emotions". Similarly, Costamangna et al. (2019, p. 138) recognizes that winter climates "provide numerous opportunities for recreation, like winter festivals, winter sports and snowrelated out- door activities" encouraging a fundamental viewpoint shift. Reflecting on the inaction of planners and designers in creating winter spaces, it is observed that "there are guidelines that dictate that the public space is to be designed to function year-round", yet there remains "little application of climate knowledge in urban planning" (ibid., p. 139). In the case of Umea, it is further demonstrated that "urban public spaces that are designed for winter will be used in the winter time. When spaces provide pleasant environments, social encounters will take place regardless of the season" (ibid., p. 144). Researchers in Umea conclude that if public spaces are properly designed to be used in winter climates, people will utilize these spaces. Public space micro-climate study conclusions are clearly supportive of urban planners and designers to consider winter climate variables and functionality when developing sustainable urban spaces in order to achieve a more attractive and livable city.

2.3 Urban Design Approaches to Winter Climates

Recognizing the opportunities a winter climate offers to cities can improve the public space environment and urban livability. However, Canadian and other North American winter municipalities have historically sought to "design out" exposure to winter climate in response to observed behavioural changes in outdoor public space due to extreme conditions (Gappert, 1987; Pressman 1987). Pressman (1996) further acknowledges the main factors influencing behavioural shifts during the winter season. These include: the frequency of stressful events increase in winter, related to extreme cold, snow, and wind; a reduction in readily available recreational activities for most people; a reduction in variety in colour, sound and smell in nature, causing people to experience perceptual monotony and sensory deprivation, and an "involuntary confinement" due to climate conditions. He continues to relate these behavioural shifts to the decreased use public space in winter, which he states is often caused by "difficult and uncomfortable travel", and a difficulty "to spend more time than necessary out of doors without a definite purpose or activity" (ibid., p. 522) As an attempted solution to these negative trends associated with winter, technological innovations have introduced "new built forms such as malls and enclosed pedestrian systems" which "offer a steady-state, thermally neutral environment", no longer connecting or relating the indoors to the outdoors (ibid., p. 522). In The Future of Winter Cities, Gappert (1987) supports this observation while referencing skywalks in Minneapolis and Calgary and underground malls in Montreal and Toronto. Some, including Eaton Centre architect Eberhard Zeidler, consider their design a success in overcoming winter conditions. Zeidler (1985) views these spaces as an "enjoyable public, civic place" in which we can "control the environment during the cold season", purposely designed to circumvent Toronto's cold climate (Zeidler, p. 80).

However, many researchers disagree, observing that skywalks and path systems have contributed to a decline in at-grade, street level retail, and can weaken public safety on streets (Gappert, 1987, Pressman, 1995). Although designed for safety and comfort, arguments acknowledge these spaces serve the purpose of convenience, but not much more, and are often isolating, diminishing urban vibrancy and activity in outdoor public spaces (ibid., 1995). Further urban design research by Cui and others investigate underground

Researchers recognize the need for a "four season approach" to planning and design

path system (UPS) development, revealing motivation for development and conducting analysis to determine the success of these systems. Findings relate climate as "one of the most critical aspects" to UPS development and usage, referencing the systems of Toronto and other Canadian cities. (Cui et al, 2012). Further analysis finds that the "isolation weakness" of these systems is insignificant to the UPS ability to "enable residents and visitors to walk throughout the downtown area in a comfortable environment, which is very important in cities with bad weather conditions" (Cui et al, 2018). These findings echo Zeidler's sentiments of design as an effective tool in overcoming winter climate in urban centres. However, Gappert remarks on these spaces as a "partial solution" to the sustainability of winter cities, challenging planners, architects and designers to unpack these concepts further and account for winter design for public spaces (Gappert, 1987). Further articles argue a need for a "four season approach" to planning and design rather than to plan and draw for favourable seasons and conditions (Kehm, 1985). Similarly, Royle (1985) comments on poorly designed cities in terms of climate and a "decline to insist that our architects and planners do better", while Broberg (1985) remarks on a new interest in planning that supports "urban activities during the repressive winter" (Royle, p. 19, Broberg, p. 10). Broberg continues by acknowledging that better designing these "larger urban rooms" of outdoor public space may "open the door to a richer urban culture and to an urban citizen with a broader register of life-sustaining opportunities" (ibid., p. 8).

With previous "design solutions" for winter conditions isolating the public from their urban environment, urban planners must seek to harness the opportunities of the winter season through refined design, municipal policies and plans that ensure year-round usage.

2.4 Winter as an Opportunity

An attitude shift and embracing the opportunities winter offers may be fundamental to planning and designing the all season livable city. Winter offers unique opportunities unlike those to our southern counterparts, and recognizing and embracing these opportunities may be key to winter urban vibrancy. For instance, Ziedler recognizes that winter "is something special"; an opportunity which not all cities have. Winter must be viewed as a season to enjoy, not something to escape", ripe with opportunity and beauty (Ziedler, 1985, p. 79). The City of Marguette, Michigan recognizes winters "many positives" including but not limited to a wide range of outdoor recreational opportunities, the natural beauty of snow and ice, civic art opportunities with snow and ice, innovative opportunities in services and building design, and economic and social opportunity through winter tourism, events and festivals (Smart Growth, 2009). Hans Blumenfeld makes similar observations. highlighting the natural and visual beauty winter creates and the vast range of opportunities unique to northern cities. However, Blumenfeld (1985) recognizes that planning has historically focused on the negative aspects of winter, not the positive, and recommends steps be taken to remedy this in order to achieve the characteristics of a livable city. He describes a livable city as one which includes safety, prosperity, variety, accessibility, and beauty as specific characteristics which enhance livability. Through the enjoyment of winter's positive aspects, and protections from the negative ones, we may begin to adapt and coexist with our harsh winter climate. More locally, Pressman and Xenia Zepic, former city planner with the City of Toronto, acknowledge that embracing the opportunities winter climate offers is crucial to the success of the city (Pressman, 1987; Pressman & Zepic, 1986).

The winter season offers unique opportunities—
recognizing and embracing these opportunities may
be key to better utilization and increased
urban vibrancy within our cities

Through better utilization of urban design tools, architectural design and improved outdoor winter activities, a city can respond to climate issues in planning, increasing year-round public space use, urban livability and quality of life during the winter season for both existing and new public spaces.

2.5 International Perceptions

Observations and comparisons drawn from international cities may hold answers in understanding how perceptions of winter might shift negative North American attitudes to cold climate, and better embrace winter's positive characteristics in an urban context. These observations may develop an understanding of how cities can adapt to and embrace winter in all seasons, leading to increased use of outdoor public space, participation in winter traditions, activities, and rituals. By doing so, Canadian municipalities may be enabled to develop a positive perception of winter and how we manage urban issues which may arise from winter conditions. This may include festivals, outdoor activities, and recreation, which not only contribute to the social and physical well-being of residents, but can benefit a city economically.

Internationally, northern European cities (specifically those of Nordic countries or in similar northern climates) have embraced winter through social activity and balanced utilization of urban space. A review of European winter culture, traditions, activities and policies reference traditional German Christmas markets and Norwegian and Icelandic public outdoor activities as precedent (Smart Growth, 2009). A municipal bulletin published in St Albert, Alberta observes that "cafes, markets, festivals and opportunities for outdoor activities abound. People accept winter, dress appropriately and go about their everyday lives. Municipalities accept winter and plan and design the built environment to enable residents to do just that" (ibid., 2009, p. 5). Furthermore, Jan Gehl (1993) distinguishes Copenhagen as a municipality that has been particularly successful in balancing year-round uses. Considering the fundamental traditional function of a city as a "meeting and market place", European cities tend to have a higher "standard of living in the world", partially related to the public realm and many "winter city positives" (Gehl, p. 15). These positives include outdoor recreational opportunities,

natural beauty appreciation and civic opportunities with snow and ice, and winter tourism events and festivals. Gehl recognizes the good, all-season city begins with an attitude shift to celebrate winter, its character and unique virtues (ibid., 1993). Similarly, Royle supports the same attitude shift while further encouraging cities to work collaboratively to find solutions, share ideas and advance cities in winter climates, made possible in a globalized society (Royle, 1985). However, these observations highlight the evident cultural differences between European and North American cities. North American cities historically tend to overlook the quality of spaces year round and maintain a "two-season" rhythm; embracing the summer season while rejecting winter (Gehl, 1993).

Despite these differences, Canadian and other North American municipalities have incrementally worked towards embracing winter conditions as a way of urban life. Larger municipalities, including cities across Canada and the US have started incorporating winter public realm strategy into official plans and other municipal policies. As North American Cities begin to embrace winter's virtues and opportunities, municipalities may further implement planning and design policies to better utilize existing and new public spaces.

The good, all-season city begins with an attitude shift to celebrate winter, its character and unique virtues

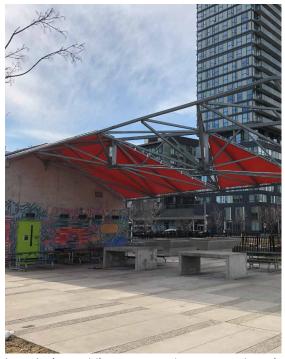
2.6 Interventions

Concurrent with a shift in perception, North American winter cities must begin implementing plans and policies to better support the function of a city in all seasons. In his early research, Pressman (1985) recognizes the necessity of developing "strategies and devices whereby cities and communities can be designed and managed in more lively and enjoyable ways" (ibid., p. 27). Municipalities must adopt "creative and innovative responses in planning and development policies and projects" as an attempt to "make winter cities more livable through the transformation of their natural, built, and social environments" (ibid., p 27). Early research has developed general interventions, which include outdoor protection from elements, enhanced beauty, and promoted opportunity in the winter season as ways to mitigate negative aspects of cold climate (Blumenfeld, 1988, Pressman, 1985, Pressman, 1988). As ideas have evolved, specific interventions have been further developed to include more specific ideas and tangible solutions. Pressman specifically lists planning and urban design interventions for outdoor urban public spaces, which include:

- an improved visual environment, utilizing ice as art, bold colours, illumination for dark periods, urban furniture and civic embellishment
- measures to improve human comfort, achieved through more frequent micro-climate studies, improved ergonomic design, and landscape concepts will reduce discomfort
- employing protective urban devices, which might include at-grade protection, sidewalk heating, multi-use buildings, retractable roofs, and pedestrian (vehicular-free) zones
- increased recreation and leisure within parks, open space systems and waterfronts. These may include ski-trail networks, winter oriented outdoor amenities, carnivals, festivals, or winter-indoor gardens
- consideration of transportation modes, acknowledging an emphasis on snowremoval and improved public transit to better connect public spaces and remove mobility and walking barriers (Pressman, 1994, 1995).

Pressman further evolves these interventions as principles for improving microclimates, a method in which public spaces may better function yearround where micro-climates occur. These principles include improved and thoughtful built materials, landscaping, street canopies, screenings, yearround maintenance, responsive design, and other measures. It is concluded that outdoor social spaces must be designed and equipped with these principles to assist in achieving an extended outdoor season which supports social activity during the coldest parts of the year (ibid., 1988). Similarly to Pressman, Gehl (1993) recommends designing the "winter friendly" city. Using Copenhagen as a case study, a municipality which tends to embrace the winter season, Gehl recommends achieving the "winter friendly city" through a reduction in the volume of car traffic and improving walking conditions, preventing deterioration of microclimates in public spaces, providing high quality streets, squares and parks, linking indoor and outdoor spaces so they can flow, and integrating lighting and heating solutions. He further encourages their implementation gradually, over a period of time to remain inexpensive to the municipality.

Simultaneous to encouraging an alternate perception and attitude of winter, North American municipalities must adopt policies and implement plans which ensure better climatic design and usability of public spaces in all seasons. Recently, Canadian and other North American municipalities have incrementally worked towards embracing winter conditions as a way of urban life. A 2017 article by Harold Madi observes plans within Edmonton, Alberta, and praises the city for addressing winter climate and public space usage through design principles in their city-wide Winter Strategy (Madi, 2017).



Introducing public art, covered spaces, and seating to a space may increase its vibrancy and function in the winter season

2.7 Key Takeaways

When a municipality develops the "winter city" identity and embraces its unique northern climate as an opportunity rather than a hindrance, numerous benefits become evident. As urban design and planning trends shift to encompass more sustainable practices, cities must shape their policies and utilize the municipal tools available to them to ensure their parks and public spaces remain functional year-round, particularly in the winter season. Early research acts as the foundation and rationale for adopting winter city principles, leading to mid-to-large sized municipalities across North America to incorporate winter public space strategies into official plans and other municipal policies. As interventions related to design, function, and public engagement emerge throughout other municipalities, the question remains; how might Toronto implement strategies and initiatives to better utilize existing parks and public spaces in the winter season?



Municipalities located in northern latitudes across North America are promoting and embracing the winter season, increasing urban vibrancy and public engagement within their communities. Strong municipal policies, plans, urban design guidelines and public strategies are the foundation to utilizing city public space year-round, particularly through winter. This trend has evolved since the early 2000s till recent years, with cities beginning to adopt policies and plans, and further implementation through initiatives, activities and events. Smaller municipalities, including Fort St John, Alberta, Prince Rupert, British Columbia, Leadville, Colorado, Buffalo, New York, and Marguette, Michigan are examples of cities which have implemented planning and design initiatives aimed at embracing year-round activities and better utilizing urban public spaces (CBC, 2019, Winter Cities Association, 2004). However, larger North American cities in provinces from Alberta to Quebec, and even up to Anchorage, Alaska are leaders in municipal winter planning and engagement, and may act as comparable case studies for Toronto. These cases are essential precedents for Toronto when considering better utilization of parks and public space in the winter season. From higher policy levels down to seasonal community programming, public space enhancements and annual winter events, northern Canadian and American cities have found a wide range of successes in promoting use of their public spaces throughout the winter season.

3.1 Edmonton, Alberta

Edmonton, Alberta is a leading example of a Canadian municipality committed to year-round city use and vibrancy of public spaces in the winter season. Through municipal policy, design guidelines and winter plans, Edmonton has propelled forward as a city which embraces all seasons, ensuring residents are active and engaged during the winter season. Many other Canadian and international municipalities look to Edmonton as a case study when developing their own winter policies and garnering support for year-round activities, festivals and public events.

Edmonton's success begins with a municipal recognition as a winter city, defining the winter season as an opportunity, not a burden. In their Municipal Development Plan "The Way We Grow" (2010), Edmonton identifies itself as a winter city several times, defining the term as:

"A concept for communities in northern latitudes that encourages them to plan their transportation systems, buildings, and recreation projects around the idea of using their infrastructure during all four seasons, rather than just two seasons (summer and autumn)."

(The Way We Grow, 2010, p. 126)

Edmonton prioritizes municipal design responsive to their winter climate throughout their municipal plan. Further, policies under city-wide urban design state that Edmonton shall "encourage urban design that reflects Edmonton is a winter city, allowing residents to enjoy the city in all seasons" (The Way We Grow, 2010, p. 51). Additional policies and directive statements ensure Edmonton strives to design public space, natural systems and transit systems for use through all seasons. In development since 2018, Edmonton is creating a "City Plan", a document aimed at enhancing the lived experience in Edmonton considering various transportation and land-use options. Policy intentions and directives were developed through public consultation, where many residents consider Edmonton as a city for all-seasons. For instance, policy 1.3.2 supports "Edmonton's identity as a winter city through its infrastructure, design, events and economy" while policy 2.1.1 ensures "that publicly accessible spaces and facilities are designed and maintained for the year-round safety, security and barrierfree accessibility of all users" (City Plan, 2019, p. 3-4).

With a strong policy foundation, political support for winter activities, events, and community engagement is apparent. Similar to other municipalities, Edmonton tourism websites publish articles describing winter events and activities within and surrounding the city (Explore Edmonton, 2020). More effectively, however, a Winter Excitement Guide (2020) is published annually aimed at motivating, informing and engaging citizens with events and recreation opportunities throughout the city during the winter season. The guide promotes recreational activities, including snowshoeing, skating, cycling, tobogganing, and city park use throughout the winter season. Further, social events, including winter patios, festivals and picnics, as well as creative events, including art, lighting and fashion initiatives are all detailed in the guide (Winter Excitement Guide, 2020). Commencing in the 2013/2014 winter season, the guide is in its 6th year and undergoing evaluation related to its effectiveness, limitations, and recommendations for the future. The review has found publishing the Winter Excitement Guide has been generally successful at changing the public's perception and attitude towards winter while increasing community engagement through events, recreation and initiatives (Winter City Evaluation and Report, 2018). However, the report acknowledges that planning and engaging in a winter city comes with complexities and challenges, pointing out that not all events or initiatives have worked. The evaluation encourages the WinterCity Advisory council to "keep the snowball rolling", continuously evolving and adapting to community needs while remaining supportive of initiatives to engage the public year-round (ibid., 2018). A full review of the Winter City Excitement Guide and its effectiveness will be completed in 2024.

Edmonton's strong policy foundation and municipal support for winter activities, events and programs have been successful at engaging the public throughout the cold season. However, Edmonton's success as a winter city is due to fully realized winter strategies and ongoing work at promoting civic engagement year-round. As the city evolves, Edmonton remains responsive to meet the needs of the community throughout all seasons. Toronto may look to Edmonton as a strong example of a municipality engaging and providing outdoor opportunities for the public in the winter season. Edmonton is a valuable case study for Toronto when developing policy, garnering municipal support, and in creation of a winter plan or strategy for parks and public spaces.

3.2 Calgary, Alberta

Similar to other Canadian municipalities, Calgary, Alberta enforces municipal policies and design guidelines which support winter activity and year-round urban vibrancy within their guiding plans and documents. However, although design policies which encourage year-round public space activation are evident within the Municipal Plan, implementation is less evident than other Canadian municipalities. Within their City Centre goals, the Calgary Municipal Plan (2018) recommends urban design techniques be used to contribute to and enhance public spaces year-round, ensuring pedestrian accessibility while complimenting adjacent land uses. Further, parks and open space policies encourage spaces designed to provide year-round access and public utilization. Calgary additionally enforces the Calgary Centre City Urban Design Guidelines (2015) where urban design objectives regarding winter public space use are more explicit. For example, seasonal design objectives specifically relate to how public space may be enhanced in during the cold season, encouraging that new design:

- Preserve and optimize sunlight to the public and private realm
- Orient and design buildings to minimize shadow impact on streets, open spaces, parks and neigbourhoods
- Mitigate negative wind impacts
- Design for snow storage and removal
- Encourage seasonal, decorative and experiential lighting installations
- Program a variety of events throughout the year, and,
- Design for safe pedestrian movement and comfort in the winter season (Calgary Centre City Urban Design Guidelines, 2015, p. 33).

Additional policies within these design guidelines encourage further animation during the night and winter season through lighting, art and use of colour. These policies are further reflected in the Calgary City Centre Illumination Guidelines (2011) which encourage the use of coloured lighting during the winter months. It is evident that Calgary is a municipality striving to make the city more vibrant year-round through design interventions and guidelines for new projects, however little is observed regarding winter programming, events and community programs.

Similar to other Canadian cities, winter tourism is promoted on a municipal tourism website. The page contains information mainly promoting private recreational activities, including skiing, sledding, tubing, cycling, tobogganing, skating, and snowshoeing (Visit Calgary, 2020). However, municipally organized and funded public events or a guiding plan for the winter season could not be found.

Although little implementation of policies is evident, Calgary's strong policy and specific design guidelines related to winter vibrancy and use of public space year-round can provide guidance for Toronto if developing a winter strategy. This strong policy foundation is highly important when drawing municipal support for developing winter programs, events and initiatives, which may further engage the community in outdoor parks and public spaces.

3.3 Saskatoon, Saskatchewan

Saskatoon, Saskatchewan is a useful case example of a municipality which has supported a winter strategy through policy, political and financial support, and ongoing community engagement practices, successfully activating parks and public spaces in the winter season. The Saskatoon City Centre Plan (2013) envisions Saskatoon as a city that will be "attractive during the winter season as well as during the warmer months" (City Centre Plan, 2013, p. 3). The plan contains strategies and policies encouraging public spaces which accommodate winter uses and are designed to be inviting in all seasons, including winter. The plan further identifies site-specific areas, including streets, parks and public spaces, which might accommodate winter activities and festivals. Initiatives including outdoor lighting, thermal comfort, recreation opportunities, and temporary space conversions are identified within the plan as solutions to getting people outdoors and increasing urban vibrancy in the winter (ibid., 2013).

Further supportive of winter city ideas, the Saskatoon Recreation and Parks Master Plan (2015) values "a city of all seasons, as welcoming and active in winter as it is in summer" (Parks and Recreation Master Plan, 2015, p. 2). The plan identifies opportunities Saskatoon might offer to connect residents with their city in the winter months and directs focus toward getting people active and outdoors even during the winter months. Design opportunities, including integrated indoor and outdoor public spaces, outdoor recreation opportunities, and promotion of recreation in the winter season are all included within this plan (ibid., 2015). Policies supporting the facilitation of outdoor recreation, including cross-country skiing, snowshoeing, and winter cycling are contained. Further, Saskatoon's trail network is seen as an opportunity for winter activities, with the plan stating an explicit goal to clear trails within 48 hours of snowfall. The Recreation and Parks Master Plan outlines a strong vision, strategies and develops clear goals for encouraging the public to utilize outdoor winter space, particularly in parks spaces.

Building on these plans, The City of Saskatoon Strategic Plan was adopted by City Council in August of 2018, and provides strategic direction for the city for a 3-year period through to 2021. Within the strategic plan, support for a Winter City Strategy is prioritized. Further, provision of grants for projects and adoption of policies, regulations and bylaws that incorporate winter city and seasonal design language are supported within the plan (Saskatoon Strategic Plan, 2018). Additional support for the WinterCityYXE, a municipal and community partnership which responds to opportunities associated with winter life in Saskatoon while addressing public attitudes and perceptions to the winter season, is encouraged within the strategic plan.

Saskatoon has taken the next step by implementing municipal policies, plans and strategies through the ongoing political support of the WinterCityYXE Strategy. Community engagement has been key to informing the strategy, and has identified opportunities and priorities related to four principles including winter life, design, culture, and economy. Although the strategy is in the final development phases, expected to be presented to City Council for approval in 2020, the WinterCityYXE partnership has implemented "quick win" initiatives throughout the city. These include providing warming huts in park space, ice sculpture contests via partnership with local business improvement districts, improved decorative lighting, and hosting the "Winter Cities Shake Up Conference" in early 2019 (WinterCityYXE, 2020). WinterCityYXE acknowledges these initiatives are funded through ongoing municipal grants, allocating \$25,000 annually to non-profit organizations, businesses, or for-profit organizations implementing initiatives in support of WinterCityYXE goals and objectives. Further, a \$50,000 grant has been allocated in support of the City of Saskatoon's decorative lighting program, resulting in decorative lighting expected to be in place for winter 2020/2021 (ibid., 2020).

Policy and municipal goals in Saskatoon have shifted to reflect the importance of utilizing parks and public space throughout the winter season, recreationally and beyond. Through municipal partnerships and funding, the City of Saskatoon has implemented programs, initiatives and events to ensure that public spaces are vibrant, welcoming and well-utilized in all-seasons. Toronto may look to Saskatoon as a strong example of a municipality engaging and providing funding for public opportunities year-round.

3.4 Winnipeg, Manitoba

Winnipeg, Manitoba publicly recognizes its unique context within a northern climate. This context is described in the city's municipal development plan OurWinnipeg (2010) which sets a vision and provides direction for Winnipeg through over a 25-year period. Within a context section, Winnipeg's climate is described as an opportunity, stating:

"Winnipeg is a prairie city, a winter city, a sunshine city and a river city. The diversity of weather we experience, along with our topography, creates unique planning and development opportunities and challenges" (OurWinnipeg, 2010, p. 6)

Our Winnipeg contains descriptive policy and directives aimed at encouraging active living throughout all seasons. Recreation directions support programs and initiatives which integrate recreation and activity in daily life, and place emphasis on year-round active living and community participation (ibid., 2010). Further than the context and recreational policy, OurWinnipeq provides no further direction for urban design or public space activation in the winter season. Additional strategies have been developed to support the OurWinnipeg municipal plan, including the Complete Communities Strategy (2010). This strategy works to "set Winnipeg on a new path" and contains directions, tools and approaches which "foster development that establishes Winnipeg as an urban leader— a city of unique, sustainable and complete communities" (Complete Communities Strategy, 2010, p.3). The vision for this strategy poses the question "is cold weather a barrier to complete communities", simply answering no to this question. The section further describes that cold climate can create a host of benefits, despite obvious challenges. The plan states that:

"By applying planning and design approaches that respond to our unique climate, Winnipeg can mitigate some of the discomfort and inconveniences of winter. This positive approach can also benefit the attitudes of residents, and bolster the community's ability to attract new businesses and residents"

(Complete Communities, 2010, p. 5)

Implemented through policy support, leadership or partnership, and capital budget fund allocation, the plan contains a clear directive to "promote and enhance multi-use, multi-season options within Parks, Places and Open Spaces" (ibid., 2010, p. 108). Although the Complete Communities Strategy is currently under review, implementation of these policies are beginning to occur, As Winnipeg takes strides to embracing winter, this strategy may contain more direct policies and additional guidance on implementation upon completion of this review.

With policy and directives in place, Winnipeg has worked towards embracing the winter season from a municipal level with economic and programming support. In 2017, Winnipeg's CEO of Economic Development recognized that "from both a recreation and economic perspective, Winnipeggers are increasingly embracing their winter-city reality with open arms" (mayorbowman.ca, 2017). Winnipeg's tourism websites and event articles further promote winter events, activities and community engagement. The site boasts that Winnipeg not only embraces winter, but "hugs it tight with two gloved hands then shapes it up to make one of the most creative cities you've ever seen" (TourismWinnipeg, 2020). Winnipeg promotes long standing festivals like Festival du Voyageur, and further highlights winter activities and programs like FortWhyte Alive and programming at The Forks. Activities include snowshoeing, skiing, hiking and tobogganing, as well as ice sculpting, outdoor markets and the world's largest snow maze (TourismWinnipeg, 2020). Similar to other Canadian cities, Winnipeg publishes a winter leisure guide aimed at informing the public of these and other winter events and recreation (Winnipeg Leisure Guide, 2019).

Through recent recognition and implementation of early policies, Winnipeg has begun to promote the benefits and positives of the winter season, supporting events, activities and active living year round. Winnipeg has recognized the economic and social benefits of winter activities, and has taken steps to supporting these through policy and capital funding at a municipal level. Winnipeg might be used as an example for Toronto in recognizing the potential economic benefits to a municipality when a winter engagement and year-round activities, events and festivals are supported.

3.5 Montreal, Quebec

Montreal, Quebec has a long history of embracing the winter season, recognizing the economic and social opportunities of winter municipal events, festivals and tourism initiatives. A strong municipal policy basis has created a solid foundation for implemented programs and ongoing events, which have become tradition for the city. These policies and directives are found throughout Montreal municipal documents, including the Montreal Master Plan (2004). The master plan presents "a planning and development vision for the City, as well as measures for implementing the goals and objectives resulting from that vision", while recognizing the importance and opportunities of Montreal's winter climate and context as a winter city (Montreal Master Plan, 2004, p.1). Section 2.5 relates to high quality architecture and urban design, including public realm enhancements. This section clearly describes Montreal as a winter city, stating that "winter adds a special dimension to the Montréal landscape. Snow puts buildings and vegetation in a new light and makes the City feel cozier" (Montreal Master Plan, 2004, p.140). The Master Plan emphasizes the importance of ensuring the public realm remains comfortable through the winter season, employing specific design and maintenance policies to achieve this including:

- Plan and upgrade public spaces in terms of their use in winter, particularly for leisure and cultural purposes;
- Identify public spaces that require improvements in order to increase their accessibility and to attract more people during the winter;
- · Take into account mobility needs in designing the public realm;
- Design street furniture components suitable for winter conditions;
- Enhance the winter dimension of Montréal's nightscape within the context of the Plan lumière (Montreal Master Plan, 2004).

Montreal recognizes its position within a winter context, endevouring to "make winter life more pleasant by organizing outdoor activities in public places for residents and visitors" while designing and maintaining public spaces so that "Montréal can be an enjoyable City to visit in any season" (Montreal Master Plan, 2004, p. 138). Directive policies as such have ensured Montreal's success in planning for winter, evidenced by a multitude of programmed, cultural and tourism events throughout the city during the cold season.

The City of Montreal specifically provides information on how to utilize its parks and public space in the winter season, recommending recreational activities and festival attendance as a way to remain engaged (Winter Cultural Calendar, 2020). Further, boroughs in Montreal, specifically the borough of Pierrefonds-Roxboro has released a Cultural Calendar for the 2020 Winter season. Similar to Edmonton and Winnipeg, this calendar highlights cultural and recreational activities throughout the community, with specific focus on recreation, festivals and public events (ibid., 2020). Further, Montreal tourism websites and articles contained detailed information regarding public events and programming throughout Montreal during the winter season, with many initiatives municipally organized or developed via private partnerships. Numerous outdoor markets and festivals were found occurring throughout Montreal, including Merry Montreal, festivals at the Nordic Square, Le Village de Noel de Montreal, Salon des métiers d'art, and many others (mtl.org, 2019). These festivals include many food vendors, local artisans, free entertainment, live music, and fire pits as warming spots. Fire on Ice in particular contains all these elements, further including fireworks every Saturday over the Old Port (ibid., 2019). Further, many of Montreal's public parks remain programmed and active through the winter season through programmed outdoor music and festivals, or recreational opportunities such as skating, snowshoeing and sledding (ibid., 2019). Montreal further promotes art and light festivals throughout the winter months, which include the Luminothérapie art playground at Place des Festivals, or the Illuminart light installations. Festivals, events and programming are not limited to holiday seasons, however continue through the entire winter period, with many free opportunities available to residents.

Montreal's deep rooted value for urban seasonal use and strong policy guidance ensures the city remains vibrant and active in the winter season. This is evidenced through Montreal's many winter festivals, events and strong all-season programming. The winter season is described as part of Montreal's identity as a community, and the city plays a strong role in ensuring the winter season is enjoyed by residents while drawing tourism and economic benefits. Toronto may utilize Montreal as a case study to understand how policies and programs can be developed to support events, activities and urban vibrancy throughout the winter season.

3.6 Anchorage, Alaska

Anchorage promotes itself as one of the "most livable cities" in America (Municipality of Anchorage, 2020). The municipality embraces its northern location and location within a natural setting. Anchorage identifies as "an allseason gateway to adventure and natural beauty", particularly referencing winter beauty, opportunities and events which occur in the cold season. (ibid., 2020). The Downtown Anchorage Plan (2007) particularly celebrates and embraces its unique northern climate conditions, with the goal that Anchorage might become "America's best example of a Winter City" (Anchorage Downtown Comprehensive Plan, 2007, p. 24). Its vision identifies Anchorage as ""A safe and healthy place to live where daily life is enriched by a wealth of year-round recreational and educational opportunities" (ibid., 2007, p. 24). The downtown plan remains focused on branding Anchorage as "America's Winter City" through developing "strategies for planning and promoting Winter City themed events throughout the year" (ibid., p. 127, 2007). Urban design and public realm policies state the importance of enhanced lighting, seasonal art and warming spaces throughout public spaces to maximize year-round uses and ensure the city remains vibrant in the winter season.

The municipality promotes year-round use of trails, parks and lakes within Anchorage, updating the public on maintenance and safety regularly. Scheduled events and activities are easily identified and promoted within the city's website, updating outdoor skating, trail and recreational access. Similar to Canadian municipalities, Anchorage publishes an annual Parks and Recreation Winter Activity Guide (2019), promoting public events, social gatherings and events attendance throughout Anchorage. The document contains both indoor and outdoor activity, however includes sections related to parks and public space use in the winter season, activating these spaces year round with events, recreation and design initiatives. Parks are viewed as having opportunities in the winter season, with this guide promoting shelters within parks for warming while offering views to mountains, city lights, and the natural setting surrounding Anchorage.

Anchorage has taken further steps in utilizing their downtown parks and public spaces year-round, particularly in the winter season. The Anchorage Downtown Partnership has assessed downtown parks for their placemaking opportunities and ability to facilitate "regular programming, one-time events, or creative pursuits" (Anchorage Downtown Partnership, 2019). The organization lists annual events organized and programmed by the City, aimed at engaging the public and utilizing parks in the winter season. These include annual holiday tree lighting, with free snacks and drinks provided by community partners, and free entertainment in the park (ibid., 2019). Other events include holiday festivities, entertainment and recreational offers. The organization recognizes Anchorage's public space and downtown parks hold opportunity for year round activation, and achieves this through publicly programmed events and activities.

Winter events and activities appear more frequently than summer activities on Anchorage's tourism website, which promotes and engages the public in outdoor spaces throughout the city. Many events promoted include recreational activities, social engagement, and competitive sporting events. Common recreational activities including snowshoeing, snowmobiling, skiing, sledding, ice climbing, and ice fishing, all occurring near or within Anchorage (Visit Anchorage, 2020). Anchorage further embraces their geographic location by promoting northern lights viewing events, an opportunity not all cities, not even all northern cities might offer. Tips on best viewing locations, or businesses offering day trips are promoted on the website (ibid., 2020). Further recreational activities which engage the public socially in their urban space are promoted. These include the costume running and race events, winter cycling competitions, and the Iditarod Dog Sled races, an 11-mile annual race programmed using the streets and parks within Anchorage. These events occur within city limits and are municipally supported (ibid., 2020). Passive initiatives, including decorative lighting installations and arts events also occur in Anchorage. For instance, the Fur Rondy Carnival occurs annually in Anchorage, while the local zoo utilizes decorative lighting to engage the public and enhance public space (ibid., 2020). The municipality of Anchorage prides itself on its identity as a winter city, reflective in both municipal plans and policies, which has contributed to the city's success in annual winter tourism, events, and initiatives.

3.7 Key Takeaways

Many North American municipalities are leading by example in planning and designing for their unique winter climates, and further implementing their policies, tools, programs and initiatives to engage citizens and activate urban public spaces. Generally, a strong policy foundation focused on improving city spaces during the winter season is fundamental in ensuring future success in developing strategies, guidelines and programs. However, further political support and municipal funding is key in successfully implementing these "winter city" goals. Once implemented, use of public spaces for events, commerce, and recreation increases, benefiting community members and increasing urban vibrancy throughout municipalities. Additional analysis is discussed below considering each municipality's policy effectiveness, strategies and plans, and commitment to their implementation through programs, events and initiatives.

Policy Effectiveness

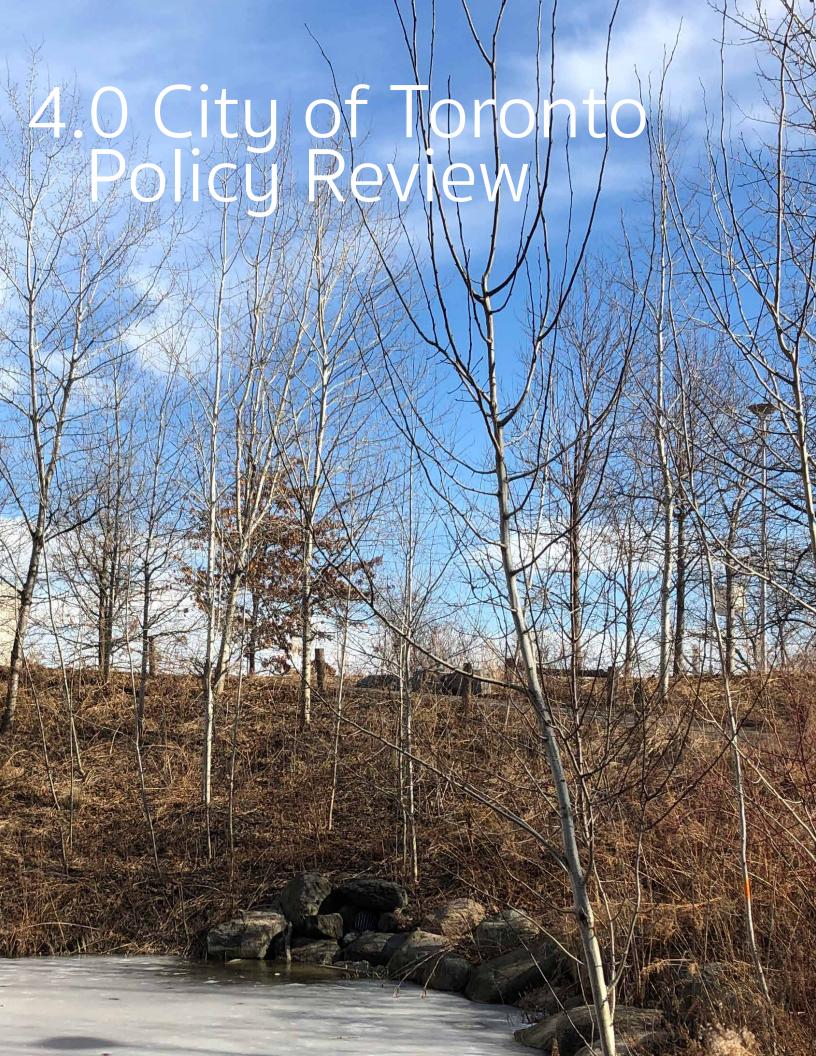
The previously mentioned North American municipalities have each implemented policies or measures in various forms to ensure urban vibrancy and public engagement is achieved in their cities year-round, particularly in the winter season. While policies and design guidelines regarding seasonal urban planning are in effect in most municipalities, they are followed with varying degrees of success. Policies and guidelines are useful tools in which a municipality might begin to approach the issue, however these measures do not necessarily mean programs, initiatives or public events and activities will be implemented. In the cases of Edmonton and Saskatoon, apparent political support, additional organization and funding is prioritized, activating and promoting public spaces in the winter season. This municipal support is represented through annual grants, promotion and public engagement strategies and providing activities and events for the public. While municipal policies and urban design guidelines may help with designing new parks spaces, additional measures should be taken to ensure existing under-utilized spaces are vibrant year-round.

Strategies and Plans

Cities employing separate strategies and plans, including WinterCityYXE and the Winter Excitement guide have been most successful at engaging residents with their communities in the winter season. As noted by the City of Edmonton, ongoing work and engagement is essential, and learning from past mistakes will help shape future ideas. The concept of ongoing promotion of and reflection on these plans is crucial to developing a sustainable winter city strategy. Once implemented, social, economic and tourism benefits are evident. Montreal represents a municipality where the benefits of winter are clear, particularly due to a strong culture of Montreal as a winter city, and ongoing festivals, events and activities which the city promotes. Further, Anchorage also encourages this perception shift, with municipal documents and policies reflective of the city's northern climate, natural setting and seasonal beauty, all embraced as unique assets to the city. Although Montreal and Anchorage have deep-rooted histories of winter activity shaping the community culture, Edmonton, Saskatoon and Winnipeg are leading examples in shifting the public perception of winter and embracing the season as a positive- a shift fundamental in engaging the public and encouraging people to utilize public space in the cold season.

Implementation

Observing these case studies, it appears the most difficult step in implementing initiatives for public space use year-round and activating the city's parks. Cities like Edmonton or Saskatoon, however, have found success in implementing policies through developing winter plans or strategies. Ongoing political support, municipal funding and persistent planning have aided in this development. Once embraced, social, economic and tourism related benefits become clear, in turn increasing the vibrancy and usability of parks, public space, and the overall city year-round.



Informed by the literature review and precedents of possibilities from other North American municipalities, the City of Toronto's existing policy framework can be examined to determine whether it achieves key elements and principles of a "winter city". The City of Toronto sets out policies, strategies and guidelines throughout a number of municipal plans and documents. A review of City of Toronto policies, strategies and guidelines related to year-round use and vibrancy of public spaces is critical in understanding Toronto's role as a winter city. This review will further determine which policies promote year-round use of parks and public spaces, and encourage better design or programming to enhance existing and new spaces. Upon review, key takeaways have been developed to understand where Toronto may improve at ensuring year-round urban vibrancy, best use of parks and public spaces, and increased public engagement throughout the winter season.

4.1 City of Toronto Official Plan

The City of Toronto Official Plan is a guiding plan which manages growth and development within Toronto. The Plan intends to ensure that the city "evolves, improves and realizes its full potential in areas such as transit, land use development, and the environment" (City of Toronto, 2020). Contained within Chapter 3 of the City's Official Plan are policies intended to "guide decision making based on the Plan's goals for the human, built, economic and natural environments" (City of Toronto, 2020). Directives within this chapter highlight the importance of parks and public space within Toronto, noting their importance and contribution to a vibrant and complete community. For instance, Section 3.1.1 relates to Public Realm and states:

"Beautiful, comfortable, safe and accessible streets, parks, open spaces and public buildings are a key shared asset. These public spaces draw people together, creating strong social bonds at the neighbourhood, city and regional level. They convey our public image to the world and unite us as a city. They set the stage for our festivals, parades and civic life as well as for daily casual contact. Public space creates communities" (City of Toronto, 2020, 3-2).

Further, statements related to parks and open space highlight their importance within the urban fabric. Section 3.2.3, Parks and Open Space, states:

"Our exceptional system of green spaces helps make Toronto a healthy and livable City. The City's Green Space System, made up of parks and open spaces, the natural heritage system and a variety of privately managed but publicly accessible spaces, is an integral part of our quality of life and social well-being. It provides opportunities for recreation, relaxation and experiencing nature in peace and quiet and contributes to Toronto's competitive advantage as a place to invest" (City of Toronto, 2020, 3-28).

"[Parks] set the stage for our festivals, parades and civic life as well as for daily casual contact. Public space creates communities."

- City of Toronto Official Plan

Policy direction related to these statements have been developed. Subsection 3.2.3 specifically relates to promotion and protection of park and public space use, and states:

"Toronto's system of parks and open spaces will continue to be a necessary element of city-building as the City grows and changes. Maintaining, enhancing and expanding the system requires the following actions:

- a. adding new parks and amenities, particularly in growth areas and maintaining, improving and expanding existing parks;
- b. designing high quality parks and their amenities to promote user comfort, safety, accessibility and year-round use and to enhance the experience of "place", providing experiential and educational opportunities to interact with the natural world
- c. protecting access to existing publicly accessible open spaces, as well as expanding the system of open spaces and developing open space linkages; and
- d. promoting and using private open space and recreation facilities, including areas suitable for community or allotment gardening, to supplement the City's parks, facilities and amenities" (City of Toronto Official Plan, 2020, 3-28, emphasis added).

Policy 3.2.3.1.b is the only policy within the Official Plan related to ensuring year-round use of Toronto's parks and public space, which may indicate a lack of overarching municipal guidance related to all-season development, design and usage of parks and public space in the city.

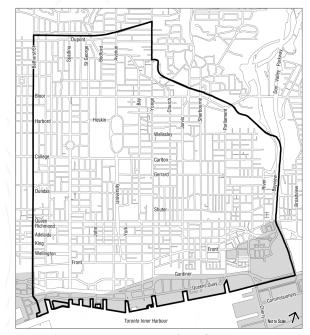
4.2 Downtown Core Secondary Plan

The Downtown Core Secondary Plan notes that Toronto's streets, parks and publicly accessible open spaces (POPS) are among "the city's greatest assets and are essential to the quality of life that Torontonians enjoy" (Downtown Core Secondary Plan, 2020, p. 21). The plan speaks to characteristics of Toronto parks, which include their natural features, their function, their history and their variety, all of which ensure a unique urban experience to both residents and visitors alike. Further, the plan notes that parks and public spaces are "fundamental to the city's identity and quality of life", offering a range of necessary functions and uses while promoting "mental and physical health and contributing to social cohesion" (Downtown Core Secondary Plan, 2020, p. 21).

Within the Goal of achieving Complete Communities, the plan contains a policy related to public spaces which states:

3.4. Public spaces are encouraged to be diverse, accessible, flexible, dynamic and safe, supporting **year-round** public life and setting the stage for daily social interaction and community building, as provided for by this Plan

(Downtown Core Secondary Plan, 2020, p. 4, emphasis added).



Boundaries of the Downtown Core Secondary Plan (2020)

Within this Secondary Plan, a Downtown Parks and Public Realm Plan has been developed, intended to "inform the development of an expanded, improved, connected and accessible network of high-quality parks and public realm for people and promote healthier, diverse natural systems to support a growing Downtown" (Downtown Core Secondary Plan, 2020 p. 21). The plan categorizes parks and public spaces based on scale and context. These categories include:

- Regional Parks, which contain Core Circle Parks and Great Streets;
- Park Districts, which contain Portal Parks, Queens Park and the Civic Precinct, The Shoreline Stitch, and The Blue Park, and;
- Local Places, which contain parkettes, laneways, schoolyards, churchyards, cemeteries, privately-owned publicly accessible spaces (POPS), streets-to-parks, and generally overlooked spaces.

The plan contains specific policies related to each categorization, however overarching policies related to all parks have been developed. Among these are policies related to planning, design and development of parks, which state:

7.3.1. create functional, interesting and engaging spaces that are connected, safe, comfortable, multi-functional and accommodate people of all ages and abilities year-round

(Downtown Core Secondary Plan, 2020, p. 22, emphasis added).

Within the scope of this research paper, parks within the Park District classification have been observed. The Downtown Core Secondary Plan contains policies related to design and development of parks within Park Districts, and states:

- 7.23. The parks, open spaces and streets that form the Park Districts will be:
- 7.23.4. animated through community programming, public art and other means to create vitality and vibrancy in these spaces.

 (Downtown Core Secondary Plan, 2020 p. 26-27).

Further Secondary Plans related to specific sites and case studies developed within this research paper will be reviewed within each case study, and will be considered within the recommendations.

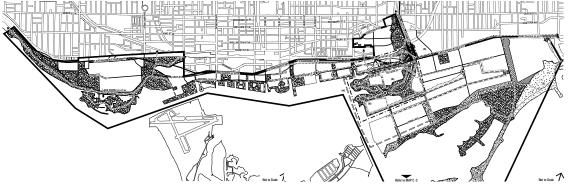
4.3 Central Waterfront Secondary Plan

The Central Waterfront Secondary Plan indicates year-round recreational, cultural and commercial opportunities specifically for the Harbourfront Centre Park area. In support of increased opportunities for the site, the Central Waterfront Secondary Plan indicates that:

"Harbourfront Centre will continue to be recognized as an area for the arts, education, recreation and entertainment in a magnificent waterfront setting. Public squares will be created between Queens Quay Terminal and York Quay Centre removing surface parking lots and replacing them with underground parking. The public water's edge will be improved and expanded. New year-round pavilion structures will be introduced in a number of locations expanding the range of cultural and commercial uses"

(Central Waterfront Secondary Plan, 2019, p. 7).

The Harbourfront Centre Park is recognized as a unique space where further arts, recreational and economic opportunities are available. These policies may guide interventions and enhancements which can be achieved for tourist parks in commercial districts, particularly enhancing them during the winter season. These Harbourfront Centre Park policies may further be applied in other parks and public spaces in Toronto, including Nathan Phillips Square.



Parks and Open Space Map within the Central Waterfront Secondary Plan, (2020)

4.4 City of Toronto Parkland Strategy

The City of Toronto Parkland Strategy (2019) is a 20-year plan to guide planning for new parks and the expansion and improved access to existing parks. The strategy assists in decision making and prioritization of investment in parks across Toronto. The plan contains a vision, guiding principles and broad themes which relate to access and use of park space, including year-round activity within park spaces. Within the strategy, the value of Toronto's park system is examined, stating that "Toronto's parkland contributes to the ecological, economic, and socio-cultural vitality", in turn improving citizens health, building community, acting as an extension of the home, enhancing ecosystems, contributing to the economy, boosting tourism, and providing crucial green infrastructure (Parkland Strategy, 2019, p. 9-10,). In response, the strategy seeks to add new, multi-functional parks to the existing system in tandem with growth in order to support the "year-round needs of a growing and changing population" (ibid, 2019, p. 7). Further, the guiding principle "improve" seeks to enhance "the function of existing parks to promote community cohesion, ecological sustainability, and health and wellbeing through active living, access to nature, and the provision of spaces for rest, relaxation, and leisure" (ibid, 2019, p. 8).

Considering the vision and guiding principles of the Parkland Strategy, it can be determined that the City of Toronto prioritizes improving existing parks and public space as the city grows and develops. The strategy further highlights key characteristics of a high quality park, which include prominence and visibility, identity and character, user experience, and physical characteristics and thermal comfort. Each quality identified in the strategy indicates Toronto's interest in developing high quality public spaces, which include parks to be enjoyed year-round. As such, inclusion of these characteristics may contribute to the enhancement of parks and public space related to year-round use.

4.5 'Welcome to Winter': Toronto's Winter Activities

Included within the City of Toronto website is a "Welcome to Winter" page dedicated to information and promotion of winter activities which the public can participate in throughout the cold season. Activities listed are mostly unprogrammed and include tobogganing, cross-country skiing, skating and snowshoeing. Some programmed events have been included on this website, including the King Street Winter Warm Up and Winter Magic at Toronto History Museums, however these events tend to occur infrequently and are generally privately organized. The majority of activities found within this website are unprogrammed and recreational by nature, involving little to no municipal organization. Although the City of Toronto lacks municipally organized winter activities and events, privately organized and operated programs, initiatives and events occur throughout Toronto during the winter season. Light festivals, art installations, competitions and markets all occur through private partnerships and sponsors, indicating a community interest in winter activities and events. A non-exhaustive list of these events is included below.



The Natrel Skating Rink is a privately operated facility in Harbourfront Centre Park, photo taken on February 9, 2020.

Toronto Christmas Market

The Toronto Christmas Market is a privately organized and operated seasonal event which runs from November through to late December in Toronto's historic Distillery District. Operating 6 days a week, the Christmas Market provides space for numerous vendors to sell food and drink, various retail products, and promote their businesses along the streets of the neighbourhood. Many businesses, activities and attractions are located in the space at this time, including light installations, public art, warming spaces and seasonal decorations (Toronto Christmas Market, 2019). The Christmas market remains one of Toronto's most popular winter events, attracting an increased number of visitors each year. For instance, an article estimates over 600,000 people will attend the Christmas Market during the 2017 season, with many businesses in the area hiring seasonal staff and security to accommodate the increase in business (Toronto Star, 2017). Although Christmas Market revenue is only estimated, the high activity and increase of visitors to the neighbourhood indicates a high economic benefit for the Distillery District. The event encourages visitors to enjoy the outdoor winter season, resulting in increased socialization and urban space vibrancy.

Seasonal Art and Light Installations

Outdoor art competitions occur annually in Toronto public spaces. For instance, Winter Stations is an annual international design competition held in the winter season at Woodbine Beach in Toronto. The design competition challenges participants to incorporate existing lifeguard structures into temporary public art installations. These installations remain on display during a six-week period from February to March annually. These art installations encourage public engagement and socialization through their interactive and explorative nature, temporarily changing the landscape of Woodbine Beach. The Winter Stations competition is privately organized in partnership with many local arts organizations, architecture firms and development groups. Toronto also hosts both the Toronto Light Festival in the Distillery District and the Winter Light Exhibition at Ontario Place, privately organized light and art competitions which occur annually. Through private partnerships and sponsors, the events feature sculptural light installations, enhancing their locations and attracting visitors to these outdoor public spaces. Both events occur daily, and are best viewed in the evening, running through to late March. Community bonfires, paint classes and a snack shop are open on Fridays through Sundays at Ontario Place, while Distillery District businesses remain open and active.

4.6 Key Takeaways

As parks and public spaces are developed within the City of Toronto, policies related to their design, usage, vibrancy and all-season offerings should be closely considered. Municipal policies and plans prioritize high quality design and development of park spaces, while highlighting the importance of their year-round use. Further, these documents encourage improving existing spaces through design, programming and recreation, however few municipally organized events and programs exist. Where outdoor events or programming occurs, private partnership and organization is a common element ensuring their fruition, although they do not tend to occur in parks. With existing infrastructure and open space, public parks are spaces within the City of Toronto where public programming, events, activities and initiatives may occur throughout the winter season.

Case studies of other North American cities are precedent for Toronto when considering new policies, guidelines, or programs related to use of parks and public spaces during the winter season. Toronto's parks and public spaces contain a range of opportunities, including the natural beauty they hold. Anchorage, Alaska and Montreal, Quebec are municipalities which recognize their city's assets, promoting the natural elements, built form, and winter context as a draw for tourism, economic advantages and social opportunities. Toronto may use these case studies as precedent when promoting parks and public space as assets in the winter season. These case studies may further be used when developing additional policies or municipal directives. Current policies related to winter design and yearround use of park spaces are general in nature. Toronto may consider adopting more specific policies to better guide park and public space design, programming and events. Calgary, Alberta has developed urban design guidelines which relate specifically to winter design, lighting, snow removal, and urban vibrancy. Similar guidelines might be used in Toronto for more specific policy direction when designing new parks and public spaces.

Following these perception shifts and strengthened policy, political support and municipal funding should also be available to support winter programs, events, and initiatives throughout Toronto's park spaces. Considering Edmonton, Alberta and Saskatoon, Saskatchewan, political support is evident in approving and promoting annual winter strategies aimed at engaging the community throughout the winter season. Further, municipal funding and grants for programming or initiatives is evident in both case studies. When considering implementation, Toronto may look to these municipalities as precedent examples where political support and funding has resulted in increased opportunities to residents during the winter season.

5.0 Toronto Parks Case Studies



To help determine where Toronto might improve as a winter city, case studies of parks within the city's downtown core have been developed. Through a series of site visits and criteria analysis, these case studies may inform where Toronto parks are successful, and conversely, where they may improve related to visual environment, design, human comfort, amenities, recreation, leisure, and accessibility. Through analysis of these observations, recommendations can be developed specifically related to improving use of Toronto's public park spaces during the winter season.

Site visits were conducted in 2020, on February 2, a weekend between noon and 5:00pm; February 5, a weekday between noon and 5:00pm, and February 9 during the evening, between 5:30pm and 8:00pm. The parks visited during these site visits include Regent Park, Corktown Common, Harbourfront Centre Park, and Nathan Phillips Square. Park spaces were selected based on varied neighbourhoods, with each space serving a wide range of different users and demographics. For example, Regent Park and Corktown Common are considered neighbourhood parks, as are surrounded by primarily residential buildings and would serve residents living in the area, while Harbourfront Centre Park and Nathan Phillips Square might be classified as "commercial parks" are located within commercial and business centres, serving tourists and visitors to the areas.

5.1 Criteria for Site Visits

Criteria for primary data collection and site analysis was developed considering Pressman's planning and urban design interventions for outdoor urban public spaces. The criteria were further developed using Gehl's design recommendations for a winter friendly city, and Madi's "lessons" northern cities. These criteria draw observations from the parks visual environment, human comfort, recreation and leisure opportunities, and accessibility, all relating to users observed in the space at the time of the site visits. The observations provided clear information and understanding of the function of each space, what aspects of each space is successful, and how each park space might be improved considering its context. Below is the list of criteria considered when visiting each park space.



A family observed tobogganing in Corktown Common on February 2, 2020.

Human Observations

- Approximately how many users are in the park at a given time?
- Are users lingering in the park, or just passing through? Describe.
- If users are remaining in the park space, describe their actions?
- Do users of the park appear comfortable?

Visual Environment

- Are there elements in the park (light, ice, art, furniture, colours, etc) which enhance the space and its visual environment?
- Can the visual environment of this space improve? If so, what might be done?
- Are there any elements which invite users of the space to linger? Describe.
- Is the space well-lit at night?

Human Space Comfort & Urban Protective Devices

- Is the space comfortable? Do natural elements, including wind, sun exposure, temperature, precipitation, or other elements make the space more or less comfortable?
- If a space is uncomfortable, how might the park improve human comfort? (ie, landscape design, micro-climate mitigation measures, nearby warming spaces, wind shelters, heating, etc)
- Does the park have high exposure to sunlight?
- Are any urban protective devices (UPDs) found in this public space?
- Are there nearby spaces which may act as an UPD? For example, a nearby indoor space which might be linked to the park? Describe.

Recreation and Leisure

- Is outdoor recreation or leisure promoted within this space? If so, describe?
- If the park contains no recreation, can outdoor recreation or leisure be accommodated in this space? If so, how?
- Is this site a tourist attraction? If so, what makes the space a tourist destination?

Transportation and Accessibility

- Is the space accessible in the winter? How is the space accessed? Describe.
- Is the space well maintained in the winter? Describe.
- Are there barriers preventing seasonal use of this park? Describe.
- Is the space accessible by foot or public transit? Describe.
- Is vehicle traffic hindering the use of this space?

5.2 Site Visit Analysis

Analysis of the observations and data collected from each site visit is fundamental in evaluating how each park might be more functional in the winter season. Regent Park and Corktown Common have similarities due to their proximity to residential apartments and condos, while Harbourfront Centre Park and Nathan Phillips Square are similar due to their identity as a tourist destination and surrounding commercial areas. Site visits were conducted on three occasions; once on a weekend during the day, once on a weekday during the day, and once on a weekday in the evening.







Photo comparisons of Nathan Phillips Square, photos taken February 2, February 5, and February 9, 2020

Residential Neighbourhood Parks

The Regent Park and Corktown Common neighbourhood parks tend to serve families, with increased activity on the weekends and during the evenings. Families with small children, couples, and young professionals were observed in both park spaces. Further, residents with pets were also observed, indicating they may live near the park. Lighting in both parks were adequate, however no decorative lighting to enhance either space was observed. These parks might be enhanced through lighter interventions, such as enhanced decorative lighting, introducing colour, art installations, and interactive spaces. The large central greenspace of Regent Park might hold sculptural and light installations similar to Winter Stations or the Toronto Light Festival. Additionally, the paths through the marsh area in Corktown Common might be lit to make them more visually appealing and comfortable. Further landscaping might be introduced surrounding larger open areas. On days where weather conditions might be more harsh, wind may be mitigated through coniferous tree coverage to protect from extreme elements, as these trees retain density in the winter season.

Partnerships with nearby commercial vendors might further enhance the space, as these parks are capable of hosting small vendors and light commercial activities. Existing infrastructure within these parks, including the covered outdoor space adjacent to the Pam McConnell Aquatic Centre, the covered community garden space with seating in Regent Park, or the pavilion with washrooms in Corktown Commons are underutilized. These spaces might be activated in the winter to encourage users to utilize the parks. Enhancing the sheltered nature of these outdoor spaces could facilitate warming spaces and light activities. Activating existing park amenities, including the washrooms, information booths, and indoor/outdoor spaces might draw users to these parks year-round. These minimal interventions may improve these parks, making the spaces more appealing for nearby residents and other users, in turn increasing their functionality during the winter season.

Commercial/Tourist Parks

Harbourfront Centre Park and Nathan Phillips Square were similarly active spaces, with winter recreation and local businesses nearby. Each of these spaces serve a similar tourist demographic, as they contain several appealing features which draw visitors. However, the Canada Square, Ontario Square, and the plaza at Nathan Phillips Square were all generally underutilized, while the skating rinks and businesses were highly active. These spaces might serve a higher tourism and economic purpose, with potential to hold markets, events and public activities. The hard landscaped nature of these squares is not suitable for additional soft or green landscaping, however further urban protective devices like temporary shelters or canopied vendors might help mitigate climate conditions while drawing users to the parks. In the case of Nathan Phillips Square, the plaza has been utilized in the past to hold markets and fairs, even in the winter season. For example, the Toronto Art Fair is set in the plaza with vendors, warming stations and food and drinks for purchase. The plaza at Nathan Phillips Squares is ideal for further activation with events, food vendors, fire pits and protective shelters in a more permanent capacity. This intervention might bring further economic and tourist benefit to the square. Similarly, the Harbourfront Centre Park might also accommodate these types of activities. The Power Plant and Harbourfront Centre are spaces which may draw visitors, and act as warming spots in this park. Similarly, City Hall and the nearby Eaton Centre might also fulfill this role in Nathan Phillips Square.

5.3 Regent Park

Regent Park is located at 600 Dundas Street East in Toronto, Ontario, opening in 2018. The Regent Park community park was developed as part of the Regent Park Revitalization Plan, approved by City Council in 2005 (City of Toronto, 2020). The park contains an off-leash dog area, a playground, a community garden space and the Pam McConnell Aquatic Centre. The aquatic centre offers a variety of recreational programming and amenities. Detailed information related to site conditions, human observations, and site photos can be found in Appendix A.



Looking northwest towards Regent Park, photo taken February 2, 2020.

Visual Environment

The park contains approximately 6 public art murals along the southwest side of the park, and 1 mural on the west side of the park. No other public art was observed. As a new structure, the Pam McConnell Aquatic Centre is a visually appealing building, enhancing the parks environment. The benches and lighting are common for a public park in Toronto, and did not particularly enhance the visual environment of the space.

The Pam McConnell Aquatic Centre was observed to be the main reason users entered the park. This was determined as the majority of users observed entering or leaving this building. Users were observed lingering in the space during all site visits, including singles or couples walking their dog or letting their dog off-leash to run in the large central open space. Couples with small children would stop to take photos or play in the fresh snowfall or at the playground. A few families were observed playing with toboggans in the snow. No users were observed engaging with the public art, or with the dog park or community garden space.

Observations during the evening site visit determined that lighting in the park was adequate. The park is mostly lit from lamp posts, with no evidence of decorative lighting or interesting illumination in the park. The dog park and community garden on the eastern portion of the park have lighting beneath their covered podiums. The community centre was also a light source. Some decorative lighting was located along Dundas Street East along the sidewalk, covering trees and along street posts. Lights illuminated in the park at the exact time of when sunset was set to occur.

Human Space Comfort & Urban Protective Devices

The park was comfortable to use during each site visit. New tree plantings along the perimeter of the space allowed high sun exposure to the central landscaped area. During the site visit on February 5, 2020, the sun exposure was high with no cloud coverage, contributing to increased thermal comfort in the park. Due to this, users lingering in the park appeared comfortable. Extreme wind conditions were not observed during the site visits. Moderate snowfall did occur during one site visit, however users were observed enjoying the fresh snowfall by taking photos and playing with children or pets. The space is easily accessed with gradual grade changes and stairs. With minimal landscaping in the centre of the park, sun exposure to Regent

Park is high, not obstructed by nearby residential buildings. There are no urban protective devices employed in the park, however the space is large enough to accommodate temporary or semi-temporary shelter during the winter seasons. The Pam McConnell Aquatic centre and outdoor plaza, as well as nearby commercial spaces, might also act as a warming space during the winter season.

Recreation and Leisure

There is no outdoor recreation or leisure provided in the space, with the exception of an outdoor playground. This may be due to the proximity of the Pam McConnell Aquatic Centre. As the park is large, it may be a strong candidate for increased outdoor recreation and leisure. Further, the nearby aquatic centre may facilitate outdoor recreational programming. Recreation in this park may include a skating rink or loop, building ice sculptures, or public art competitions. It should be noted that an outdoor ice hockey rink is located approximately 250m south of the site along Sumach Street. Leisure in this park may be appropriate, as families were observed playing at the playground, playing with children, and using a toboggan during site visits. The park would not be considered a tourist attraction, however the Pam McConnell Aquatic Centre may act as a draw to tourists and the general public through recreational programming.

Transportation and Accessibility

The park is easily accessible by vehicle, via public transit, by bicycle and on foot. The park can be accessed via Dundas Street East, which accommodates both vehicular and public transit. Vehicle transit is not permitted through the park. Regent Park is located along Dundas Street East, and approximately 150m south of Gerrard Street East, both of which contain TTC bus and streetcar routes. The park is easily within walking distance from nearby residents surrounding the site. The space was well maintained during the site visits. Snow build up or lack of clearance was not observed. When it occurred, fresh snowfall did cover the paths and did not make the park inaccessible. On February 9, the perimeter paths near the aquatic centre and on the north end of the park were cleared of snowfall. No barriers were observed preventing the park from being accessed or easily utilized. Snowfall did not appear to be a barrier to access. Vehicle traffic did not appear to hinder the use of the space during any of the site visits.

5.4 Corktown Common

Corktown Common is a 7.3 hectare (18 acre) park located at the edge of Lower River Street and Bayview Avenue in the West Donlands neighbourhood of Toronto. Developed as part of the West Don Lands Revitalization by Waterfront Toronto, the park was designed by Michael Van Valkenburgh Associates and opened in 2013 (City of Toronto, 2020). Located on former industrial lands, the park features a natural marsh area, urban prairie space, open lawn space, playground areas, a splash pad and features like a barbeque, large communal picnic tables and washrooms. Further, Corktown Common acts as a habitat for a bird, amphibian and insect population. The park is mainly surrounded by mixed-use and residential condo buildings, and serves residents of the Distillery District, Corktown, and West Don Lands communities, connecting these neighbourhoods to the Don River Trail. Detailed information related to site conditions, human observations, and site photos can be found in Appendix B.



Soft paving and landscaping surround the pavilion in Corktown Common, photo taken February 5, 2020.

Visual Environment

Corktown Common provides a highly appealing visual environment. The central pavilion is eye-catching and is noticed immediately when entering the park. The space includes plenty of landscaping with many picnic tables and seating options. There are approximately 8 picnic tables and 14 benches along walking paths through the park. The varied topography through the park adds interest, creating private, yet accessible spaces throughout the park. There is a playground central to the space with soft paving, however this feature was not well maintained during the winter. A family was observed tobogganing on the south side of the park, lingering in the space and utilizing the snow and hill. Walking paths through the southern portion of the site might be utilized to attract users to stay and linger in the site. The landscaping surrounding these paths offered natural beauty in the space

There is no public art in the park, however public art can be found along the streets surrounding the park. The visual environment is mostly enhanced with natural and landscaped elements. Provision of these elements might improve the visual environment of the space. The park was not well lit at night. While the park does contain lighting and light posts, some were blocked by landscaping and trees while others were not illuminated. The pavilion did contain illumination, however this was not very bright. The park holds potential for increased lighting and decorative illumination.

Human Space Comfort & Urban Protective Devices

The park was comfortable during each site visit. Young tree plantings along the perimeter of the space allowed high sun exposure to the central landscaped area, while blocking the wind. The landscaping was densely planted in order to protect the space from wind, which was not felt during the site visits. The pavilion further mitigated climate elements in the space. Paths along the southern portion of the site through landscaped areas were quite comfortable, protecting users from wind exposure. Although snowfall did occur during the site visit on Feb 2, 2020, the space was functional and comfortable.

High sun exposure occurred within the open spaces within the park. The pavilion would partially block sun exposure in the central area. Thermal comfort from high sun exposure was evident, creating a warm and comfortable space. Some areas did not have high sun exposure, including the walking paths through the marsh area, however remained quite comfortable due to wind shelter and

some sunlight permeating the landscaping.

There is a high amount of landscaping observed in the space, densely planted, as well as a pavilion which may act as a warming station. The pavilion does include indoor washrooms, however these were marked as closed during the winter season. New commercial space along Front Street East, as well as the landscaped public spaces here may act as warming spaces, connecting the park to the Distillery District.

Recreation and Leisure

Outdoor recreation and leisure might be limited in the park due to its size and landscaping. Tobogganing was observed on the south end of the parkland and might be further promoted in the future. As the park is separated into segments, has a varying topography, and is heavily landscaped, skating or highly active leisure might not be recommended for the space. There are large, separated open spaces throughout the park which allow privacy, yet might facilitate light leisure activities. Dog owners were observed in the park, and might be included when considering future activities and events in the space. The park would not be considered a tourist attraction. However, as the space represents high quality design, contains heritage elements and natural features, and is adjacent to the Canary District, Underpass Park, and the Distillery District, it has potential to be promoted as a tourist space.

Transportation and Accessibility

Corktown Common is somewhat accessible via public transit. Although the park is not directly adjacent to public transit, the Cherry Street streetcar, King streetcar and Queen streetcar can be accessed approximately 350m away, north and west of the park. The park may also be accessed by vehicle traffic. The space is accessible by walking, especially to adjacent residential condo and apartment towers. Bayview avenue might be perceived as a barrier to accessing the park, as it is difficult to see oncoming traffic and and few crosswalks provide access to the park.

Winter maintenance in the park is varied. Snow build up or lack of clearance was not observed on February 2, 2020. Paths were easy to walk along, and areas of the park were utilized by families and visitors to the park. However on February 9, 2020, no winter maintenance was observed making the space more difficult to use. The playground area and paths did not appear to be maintained at this time.

5.5 Harbourfront Centre Park

The Harbourfront Centre Park is a collection of various privately owned public spaces located along the waterfront at 235 Queens Quay West in Toronto. Within this space is Ontario Square, Canada Square, and Exhibition Common, designed by Michael Van Valkenburgh and Associates. Inspired by Ontario's boreal forests, Harbourfront Centre's Ontario Square is privately owned public space which opened in 2013 (Harbourfront Centre, 2020). Similarly, Canada Square features 41 metasequoia (dawn redwood) trees and views to Toronto Harbour. A promenade along the water's edge anchors the park spaces and nearby commercial buildings, which include the Queens Quay Terminal, Harbourfront Centre and the Power Plant, an adaptively reused structure now operating as a theatre and art gallery. Adjacent to these spaces is a privately owned and operated skating rink, a covered outdoor concert venue, restaurants and various businesses. Detailed information related to site conditions, human observations, and site photos can be found in Appendix C.



Path to the waterfront at Harbourfront Centre Park, looking south, photo taken February 2, 2020.

Visual Environment

The visual environment of the Harbourfront Centre Park is appealing, with man-made and natural elements contrasting to enhance the space. Black and gray paving stones delineate the space to indicate accessibility for vehicles while also remaining pedestrian oriented. Landscape elements through the space are found in select locations, and trees are sparse and leafless in the winter. The Power Plant and Harbourfront Centre are visually appealing buildings. For instance, the Power Plant is an adaptively reused space, now containing a theatre and art gallery. Views to Toronto Harbour and the waterfront ensure the space is appealing and attractive.

During the night, the park was well lit only in select areas. Canada Square and Ontario Square were very well lit, with interesting lighting elements and arrangements in these spaces. These lights were somewhat decorative, however all white in colour. The spaces in between the squares were lit from the nearby Power Plant and Harbourfront Centre buildings. The promenade was not lit, with few users utilizing this space after dark. The Natrel Skating rink was very well lit, both with utility and decorative lighting. String lights were placed on trees which made the space appear inviting and picturesque. Further lighting from the Power Plant illuminated the space, with art visible inside the gallery.

Commercial space, lighting, recreation and natural elements appeared to attract users to the park. The skating rink was observed as the main attraction, utilized during all site visits. The skating rink was decoratively lit, encouraging people to linger in the space. The art gallery, artists space, bars and concert venue are also attractions that can be used to get people to the space to linger. Further than landscape, design, and recreational elements, the visual environment of this park may be improved. No outdoor public art was observed. Existing lighting elements in Ontario Square and Canada Square were observed, and may be used as an attraction which enhances the visual environment. Decorative lighting observed near the skating rink may enhance the park spaces.

Human Space Comfort & Urban Protective Devices

Harbourfront Centre Park was the least comfortable of all the parks observed, however it was not detrimental to the space's utilization, even after sunset. Being near the water, a decreased temperature was observed in this park. Wind could be felt coming from the water, even slightly. Comfort in the space was mitigated by high sun exposure, and nearby indoor warming spaces. Sun exposure in the park is high, and not obstructed by nearby buildings. Visually, the overall space was not as comfortable as others, due to less amenities, public art, and light elements.

On days where weather conditions might be more harsh, wind from Toronto Harbour may cause discomfort. Users were observed entering nearby indoor spaces and warming up during particularly colder site visits. The Power Plant, Queens Quay Terminal and the Harbourfront Centre are buildings which are used as indoor warming spaces, linking indoor amenities to the outdoor park spaces. Further, businesses along the pier and near the skating rink may also facilitate this.

Recreation and Leisure

Recreation was evident in this park with a privately operated skating rink located on the western portion of the site. This is the only recreation which may occur in the space due to hard landscaped surfaces in the park areas. The skating rink is privately programmed, with events occurring periodically. Outdoor markets, vendors, and light programmed activities may be used to enhance the space and encourage further utilization of Ontario and Canada Squares. Further, spaces like "The Slip", "Boxcar Social", and the outdoor concert hall are existing infrastructure which may be utilized in the winter. The Power Plant and Harbourfront Centre could further facilitate winter programming and events.

Harbourfront Centre Park would be considered a tourist attraction due to its proximity to the waterfront, the Power Plant, Harbourfront Centre and Queens Quay Terminal. Further, views to the CN tower, Toronto Islands, and Toronto's skyline enhances the space as a tourist destination.

Transportation and Accessibility

The space is accessed by vehicle, public transit, bicycle and by foot. The space is easily accessed from Queens Quay via streetcar. Bicycle lands along Queens Quay make the space easily accessed by cyclists. There is little vehicle traffic through the space for deliveries and servicing of buildings within the space, however paving indicates where vehicles might access the space. Vehicle traffic did not appear to hinder the use of the space, partially due to removable bollards and paving indicators. The space was accessible by walking, especially to adjacent residential condo and apartment towers. The park is 3 streetcar stops away from Union Station, along Queens Quay, with a stop directly north of the park. This may contribute to its function as a tourist destination.

As the waterfront promenade is not connected to the other piers, users must intentionally enter the space to access the waterfront, indicating strong intention of enjoying the waterfront, walking along the promenade, and using the skating rink.

The space was very well maintained during all site visits. Snow build up or lack of clearance was not observed. The snow was cleared through the park space and along the waterfront, shortly following a snowfall. The space appears to be very well maintained in the winter. No barriers to the parks were observed. The space is completely level, without steps or grade changes, and is completely accessible.

5.6 Nathan Phillips Square

Nathan Phillips Square is located at 100 Queen Street West, and is the civic plaza joining Toronto's City Hall. The square is named for Nathan Phillips, former mayor of Toronto, and was designed by the City Hall's architect Viljo Revell and landscape architect Richard Strong (City of Toronto, 2020). Nathan Phillips Square opened in 1965, and is utilized year-round. During the warmer seasons the square contains a large water fountain and pond, and during the winter the water fountain turns into an outdoor skating rink. The square is used as a gathering space for many events and activities. These include festivals, civic events, concerts and holiday celebrations. The square features amenities including a permanent stage, public art, and a skating pavilion and concession stand, which provide skate rentals, public washrooms, change room space and food services. Upper level terraces and walking paths provide views of the square and the picturesque Toronto sign. Nathan Phillips Square is considered a central destination for residents and tourists, connecting City Hall and Queen Street West with the nearby Eaton Centre and Downtown Core. Detailed information related to site conditions, human observations, and site photos can be found in Appendix D.



Nathan Phillips Square signage and skating rink, photo taken February 2, 2020.

Visual Environment

The grandeur of Toronto City Hall, Old City Hall, and views of high-rise buildings surrounding the site adds a special element to Nathan Phillips Square. Varied architectural styles and urban elements add to the visual enhancement of the civic plaza. A central skating rink with lighting, and raised walking space adds visual interest. The Toronto sign is lit nicely, and acts as a tourist attraction. However, further than these built elements, the space is in need of visual improvement.

Minimal public art is found in Nathan Phillips Square, with some located along the northwest side of the space. There is some decorative lighting, including the Toronto sign and lighting along arches above the skating rink. Hard surfaces prevent landscaping in the square, leaving the large space open and exposed. Many people were observed lingering in the space due to location, tourist attraction and recreation. The centre skating rink has become a well known winter activity in Toronto, and is highly utilized. Skate rentals are available, and food vendors are located along Queen Street West. The surrounding architecture and Toronto sign are picturesque elements which encourage people to remain in the space.

Nathan Phillips Square was well lit at night. Strong lighting for the square comes from city hall and nearby structures. Lights are located on the skate rental and food vendor pavilion. Some decorative lighting and elements were found, including via the Toronto sign, and on the arches above the skating rink, however only 1 out of 3 decorative lighting displays were on. Improvements could be made to decorative lighting in this space.

Human Space Comfort & Urban Protective Devices

During the site visits, Nathan Phillips Square was somewhat comfortable. The space is highly exposed to the sun, however little UPDs exist in the space. This further exposes the square to wind and precipitation. Visually, the space could be made more comfortable with decorative elements. The space was comfortable on all site visits, most comfortable when sun exposure was present on Feb 5, 2020. Tall buildings are located adjacent to the space, however have minimal impact on sun exposure to the square. On days where weather conditions might be more harsh, wind may be uncomfortable.

Nathan Phillips Square is an expansive plaza with few elements mitigating the cold climate. Minimal landscaping is located in the space, and may not be appropriate considering the civic purpose of the square. There is a pavilion with skate rentals and a food vendor, along with public washrooms. However, further than this, there are no protective devices employed in the square.

Recreation and Leisure

The central skating rink of Nathan Phillips Square is the primary attraction to the space. This is the only recreation in the square due to the civic nature of the space and hard landscape elements. A permanent stage central to the plaza was observed, however no users were utilizing this space.

Nathan Phillips Square is a tourist attraction. This is due to its proximity to the City Hall, Old City Hall, The Eaton Centre, Queen Street West and concert venues, as well as the downtown core and public transit. The indoors of City Hall might also act as a tourist destination, while further seasonal outdoor activities might be accommodated in the plaza.

Transportation and Accessibility

The space is highly accessible by vehicles, public transit, bicycle and pedestrians in the winter. There is no grade change between the street and the square. As the space is central in Toronto, it is well accessed by all modes of transit. The space is highly accessible by walking, particularly from adjacent businesses and the downtown core. Nathan Phillips Square is located along the Queen Street transit line, and one block away from both the Queen Station and Osgoode Station, a TTC subway station. Vehicle traffic did not appear to hinder the use of the space. Vehicle traffic is not located within the space.

The space was very well maintained during all site visits. The snow was cleared throughout the square with paths created throughout the space. Snow build up or lack of clearance was not observed. Snow was removed throughout the square following snowfall prior to the site visit. The space is completely level, without steps or grade changes, and is completely accessible for the surrounding area. No barriers to accessibility were observed.



Recommendations for Toronto have been developed and may be applied to parks and public spaces throughout the City's Downtown Core. These recommendations have been developed through in-depth site analysis, literature review, and an understanding of City of Toronto policies for parks and public spaces, with specific focus on Downtown Core directives. The recommendations are general in nature and may be applied at all park scales, however implementation may vary based on a park's specific context. Literature review and case study analysis of North American municipalities indicates that by implementing the ideas within the recommendations below, Toronto may positively impact citizens, communities, and the city in general. Positive benefits may include increased year-round urban vibrancy, human comfort, public space use, and opportunities for additional commercial or tourism benefits, resulting in generally positive social and economic outcomes. The benefits indicated by the literature review have been observed in other North American municipalities where winter city principles and ideas have been implemented.

Toronto's park and public spaces policies generally seek to improve and enhance existing park spaces considering their function as social, economic and environmental infrastructure vital to Toronto. Policies specifically relate their function to recreation, relaxation and connection to nature while providing social and economic advantages. Further, parks spaces must offer beauty, comfort, safety, and vibrancy, all contributing to a strong sense of place and community. As such, policies related to enhancing existing parks spaces generally recommend improvements to design, education, experience, and recreational activities.

Although the recommendations are general, their application within each park space may vary based on contextual factors. For instance, parks and public spaces surrounded primarily by residential uses serve a specific demographic and have potential to draw more users and encourage people to linger in these spaces even in the winter season. Users tend to visit these parks with their families or pets, utilizing these spaces as "backyards" as condos or apartments may lack outdoor green space. Small interventions to the visual environment, better use of existing infrastructure, decorative lighting, and increased recreational opportunities may improve the use of these spaces year-round. Further interventions, including better use of existing infrastructure and community programming may further increase vibrancy in these spaces.

Conversely, parks and public spaces surrounded primarily by commercial uses which draw a wide range of users and act as a tourist destination have potential to function better year-round. Users of these spaces range anywhere from residents or tourists to nearby employees. Similarly to all Toronto parks, improved lighting, community programming, improved human comfort through heat sources or shelters, and improved accessibility through snow removal and storage can be implemented to all park types. However, through further upgrades to the visual environment to programming existing infrastructure, these spaces hold high potential as central recreational or commercial attractions in the winter season. Additionally, these spaces are capable of hosting increased commercial initiatives, including fairs, festivals, and winter art or light competitions.

Precedent examples within Toronto and other North American municipalities should be considered to understand the year-round possibilities of Toronto's park spaces. Considering Toronto's policies and case examples, recommendations have been scoped to what may be achievable within the Toronto context. These recommendations conform to existing Toronto policies and plans, including the City of Toronto Official Plan, applicable Secondary Plans, and the City of Toronto Parkland Strategy.

6.1 Visual Environment and Park Vibrancy

• Introduce Enhanced Decorative Lighting: the inclusion of seasonal decorative illumination in parks spaces to enhance park experience and beauty during dark periods. This intervention would enhance park spaces, while not disrupting nearby residential uses or commercial activity. Upgraded decorative lighting may be implemented on a permanent or temporary time period and contribute to the enhanced vibrancy and visual appeal of these spaces. This has been accomplished in parks like Nathan Phillips Square, and public spaces like Ontario Place and the Distillery District. This can be implemented along walkways around Regent Park, the marsh paths of Corktown Common, or throughout commercial parks to enhance these spaces in the winter time.

- Introduce Public Art Installations or Seasonal Installations: inclusion of public art, light installations with bold colours, and civic embellishment to increase the vibrancy of park spaces. Various mediums, including murals or light installations would accomplish this. Increasing lighting may increase the perception of safety and function of the park. This may be implemented through public art competitions or partnerships with local artists. Music was further observed as an attraction in commercial parks, enhancing the vibrancy of the space. This has been accomplished at Woodbine Beach with Winter Stations, in the Distillery District through TOLightFest, and through the Ontario Place Winter Light Exhibition. Existing central, open, and underutilized areas in all park types could facilitate increased public art and seasonal installations. These installations may be permanent or installed for long periods of time as it would not disrupt nearby residents.
- Maintain or Improve Existing Infrastructure: better use of existing infrastructure and nearby buildings or structures in the park may improve human comfort in parks spaces, and further enhance the visual environment of the space. This may be accomplished through improving the quality of existing "light" infrastructure, including walking paths, topography, or urban furniture. All park types tend to contain infrastructure which is closed or improperly maintained throughout the winter season. Improving and maintaining playgrounds, seating, pavilions, and other infrastructure may result in increased function and usability. For instance, Nathan Phillips Square successfully converts the popular water feature to become a skating rink, acting as a major attraction to the space. Further, this might be accomplished through better integrating parks and adjacent spaces, including the Power Plant, Harbourfront Centre, Pam McConnell Aquatic Centre or surrounding commercial spaces.

6.2 Human Comfort and Accessibility

- Introduce Enhanced Landscaping: planting of further landscaping and dense trees, shrubs, and greenery may improve comfort in the space, mitigating cold climate factors such as wind and precipitation. Use of coniferous trees and shrubs retain density in the winter season, and might be considered when implementing this recommendation. Increasing landscaping and vegetation in parks may alleviate negative microclimate conditions and increase human comfort.
- Improve Connections to Existing Buildings and Businesses: connectivity with nearby infrastructure and buildings may improve human comfort. This may be accomplished through opening existing public spaces in the winter season or public-private partnerships with adjacent commercial spaces. This may further contribute to the economic benefit of parks and public spaces in the winter. The Distillery District accomplishes this with local businesses participating with the Christmas Market. This may be further accomplished by integrating the indoor and outdoor spaces of the Pam McConnell Aquatic Centre, the Power Plant, or the Harbourfront Centre as some examples. Pavilions in residential neighbourhood parks may remain open year-round, while community centres may offer shelter and warmth to users of a park space. Further, outdoor stages at Nathan Phillips Square and the Harbourfront Centre park might be activated to accomplish this.
- Introduce Shelter and Protective Spaces: use of protective devices, including temporary shelters, retractable roofs, temporary walls, and structures may improve cold weather conditions in spaces where microclimates occur. Temporary "warming huts" have been designed and employed in a variety of municipalities in parks spaces, including Edmonton, Saskatoon and Winnipeg, and may be utilized in Toronto throughout the winter season. In tourist destination parks, markets and commercial outdoor events may utilize tents or other shelters within these spaces for commercial use and as a protective device.

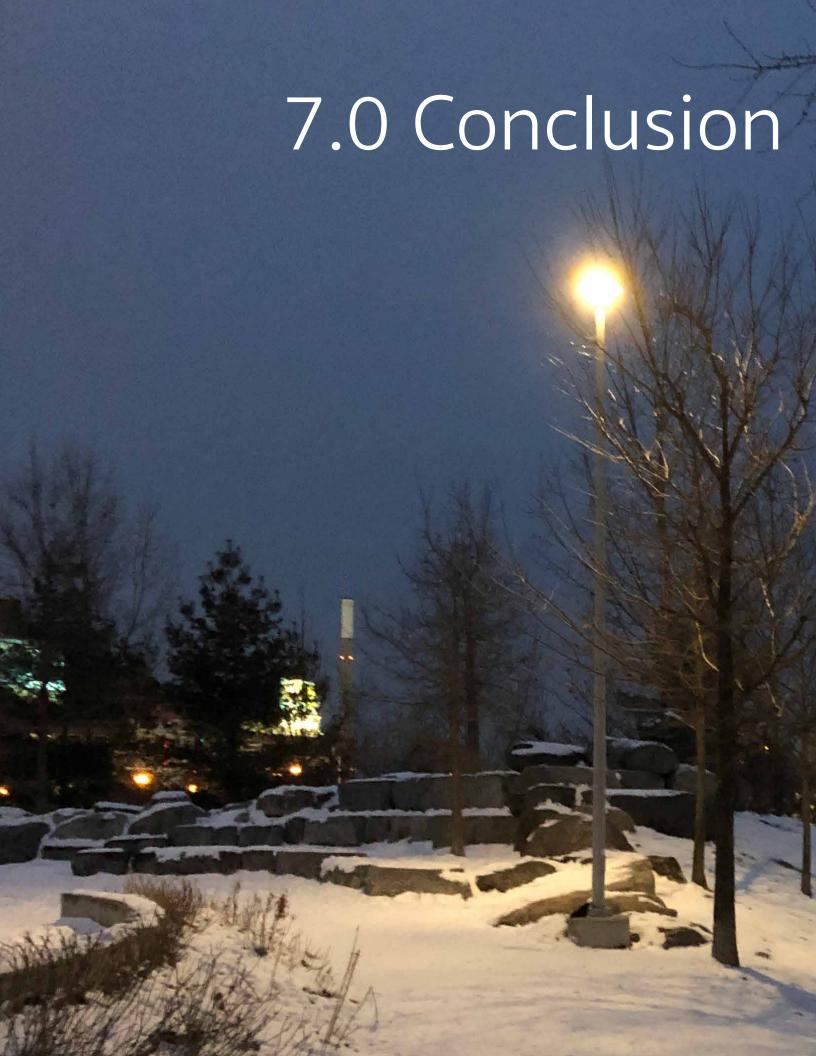
- Improve Permanent Infrastructure and Design: introduction of permanent infrastructure in parks, including multi-use buildings, sidewalk heating and vehicular free spaces may improve comfort, safety and accessibility, providing users of Toronto's parks spaces with increased user experience. Further, natural features of parks, including trees and bodies of water may be included to enhance parks spaces and increase comfort and vibrancy of parks.
- Introduce Heating Solutions: temporary heating, including fire pits and artificial heating spaces may improve human comfort and enhance the visual environment of the parks spaces, allowing users to linger and enjoy the parks space for a longer period of time. Fire pits have been used throughout Toronto, permanently in Trillium Park, Christie Pits Park, while artificial heating sources have been used during outdoor events in Nathan Phillips Square. Permitted fire pits or artificial heat sources might act as gathering spaces, promoting social interaction while enhancing human comfort.
- Improve Park Maintenance and Snow Management: maintenance, snow removal, and snow storage measures may be implemented in parks to ensure users are comfortable and able to access park spaces. Commuters and dog owners were observed utilizing walking paths and open areas all park spaces. Winter maintenance, snow removal, and snow storage measures may be implemented in parks to ensure users are comfortable and able to access park spaces, increasing usability for daily activities.

6.3 Programming and Recreation

- Introduce New Outdoor Recreation: where possible, inclusion of outdoor recreational spaces and opportunities should be considered. This will draw users to linger to the park space and utilize the park more frequently. Users of residential neighbourhood parks were observed tobogganing and using existing recreational infrastructure for recreation, while winter skating facilities and outdoor recreation in commercial and tourist parks appeared to be a popular draw to the spaces. Provision of this infrastructure should be considered when designing and improving residential neighbourhood parks, while leisure equipment rentals may also promote these outdoor activities and give users equitable access to these amenities. Increased recreation in parks may be accomplished by including outdoor skating facilities, snowshoeing, cross country skiing, and winter oriented events, programs, competitions and civic initiatives.
- Introduce Programmed Public Activities: programmed activities, including carnivals, festivals, competitions and installations have indicated increased use of parks and public space. Including these throughout the winter season in Toronto's parks may increase the social vibrancy and economic benefit of a park. Encouraging more permanent or regular events in the winter season in these spaces may increase the social vibrancy and economic benefit of a park. Use of existing infrastructure, including pavilions, stages, public buildings and walkways may assist with implementation of this recommendation. Community centres near or within public parks currently program existing indoor events year-round. Further development of this programming to utilize the outdoor park space may enhance the residential neighbourhood park space while drawing residents to their local community centres.

Annual winter programmed festivals like the Toronto Christmas Market, New Years Eve celebrations, and the Toronto Outdoor Art Fair have been successful in activating public spaces in the winter season. Programming might also include light recreational activities, use of snow or ice, or community competitions and events.

- Promotion of Non-Programmed or Unconventional Park Activities: Winter adds a special element to the natural beauty and civic opportunities in park spaces. Users in park spaces were observed interacting with the fresh snowfall through photography, play and recreation in residential neighbourhood parks. Non-programmed activities, including use of snow and ice, light recreational activities, photography, and others with ongoing promotion of these activities may encourage users to linger in parks space. Further, use of existing infrastructure, including pavilions, stages, public buildings and walkways may assist with implementation of this recommendation, while continuous operation of information pavilions, washrooms, and attractions may encourage users to linger in spaces.
- Introduce Market and Commercial Activities: inclusion of markets and commercial activities in parks throughout the winter season may increase vibrancy and use of parks space in the winter season. This may be accomplished through partnerships with local commercial and retail vendors, including artists at the Harbourfront Centre, Power Plant, or small businesses near the parks. Establishing these outdoor markets may mitigate cold weather conditions within these spaces and may contribute economically to the park and surrounding area.



Designing and planning for Toronto's winter climate responds to sustainable city building practices. By encouraging better planning and design of our spaces, we may increase their utilization and vibrancy throughout the winter season. Fundamental to this idea is a shift in perception; embracing the winter season rather than rejecting it. Further, an understanding of how climate effects public spaces is essential in developing effective planning and design responses. Once accomplished, implementing various interventions at a range of scales can improve the overall quality of a city's parks and public spaces.

Many North American municipalities have already achieved this through policy, design guidelines, winter strategies, community initiatives, political support, and municipal funding. These case studies represent what can be accomplished in the North American context, along with both the benefits and challenges that come with being a winter city. However, although City of Toronto policies and guidelines support of many winter city principles, further implementation is necessary.

Implementing the recommendations from this report may increase the quality of Toronto's park, accomplished through continuous promotion for winter engagement initiatives, political support, municipal funding, and partnerships. As a result, Toronto will have better parks and pubic spacesplaces essential to a city's environmental infrastructure, social interaction, tourism, and economic opportunity, positively impacting Toronto's citizens and communities.

Recent impacts of COVID-19 have illustrated the important function our public spaces play. Parks are an extension of the home; places of socialization, activity and relaxation. As Torontonians, and all Canadians, self-isolate and socially distance, the integral nature of our parks system in our day-to-day lives is unmistakable. Parks are key in supporting community connections, and similar to that of the winter season, their function and design are vital to Toronto's urban fabric. The recommendations of this report can positively impact Toronto on many levels, not only increasing winter urban vibrancy and year-round activity, but by further building community resilience in times of greatest need.

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Appendix A: Regent Park

Regent Park Site Conditions and Human Observations

Site Visit 1: Sunday, February 2, 2020, 12:15PM - 1:00PM (weekend)

Conditions: cloudy, no sun

1c, feels like -3c, <10cm snow/flurry, med visibility Wind: 19km/hr from south, gusting to 29km/hr

Site Visit 2:-Wednesday, Feb 5, 2020 (weekday) 12:30 - 1:00PM

Conditions: Sunny

-5c feels like -11c, no precipitation, full visibility Wind: 15km/hr from the NW, gusts to 25km/hr

Site Visit 3: - Sunday, Feb 9, 2020 5:30 - 6:00PM, evening (sunset 17:38)

Conditions: no sun, overcast, after dark

Oc feels like -3c, no precipitation - light snow

wind 9km/hr from south, up to 14km/hr wind gusts

Site Visit 1: February 2, 2020

Approximately 20 to 30 people were observed in the park during the site visit. Approximately half of the users were visiting the community centre. Other activities included dog walking or commuting through the park, with a few users stopping to take photos or play with their dog. Only one couple (2 people) was observed lingering to play with their dog for about 10 minutes. All users observed appeared comfortable in the park.

Site Visit 2: February 5, 2020

The park was the least attended during this site visit, potentially due to the fact that it occurred during the day on a weekday. Several visitors were observed commuting through the park, some walking dogs and others walking through quickly. About 7 users lingered in the park to eat lunch. One user was observed exercising by walking around the park several times. Between 4 and 6 people were observed at any given moment walking through the park. Some families, which included between 1 and 2 adults and 1 and 2 children, would enter or leave the aquatic centre. All users observed appeared comfortable in the space, as sun exposure made the space enjoyable.

Site Visit 3: February 9, 2020

During this site visit, the highest number of users were observed lingering in the park. This included one user with a dog, who let the dog off leash and played in the centre of the park. About 5 other dog walkers were observed passing through the park. There were 2 parents and 1 child playing with a toboggan on the south side of the hill for the entire site visit. About 4 to 6 users could be observed walking through the park at any given time. The aquatic centre was closed at this time, therefore no one was using this space. All users appeared comfortable in the park.

Regent Park Site Visit Photos February 2, 2020



Looking east to public art and seating



Looking north-east through central landscaped area



Looking west at the central landscaped area in Regent Park



Looking north along the Pam McConnell Aquatic Centre



Looking south-east from the Pam McConnell Aquatic Centre



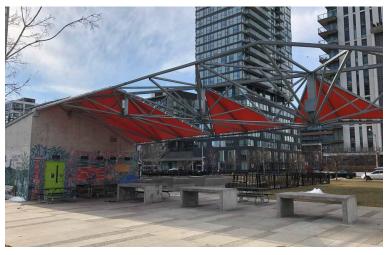
Looking north-west towards the Pam McConnell Aquatic Centre

Regent Park Site Visit Photos





Looking north-east to the central landscaped area



Looking south-west to partially covered seating area



Looking north-west to the playground, located at the north end of the site



Looking south-west to central landscaped area



Looking south-west to central landscaped area



Looking north-west to enclosed dog park, located at the west end of the site

Regent Park Site Visit Photos

February 9, 2020



Looking east to central landscaped area and Pam McConnell Aquatic Centre



Looking south-west to dog park, located on the west end of the site



Looking south along the Pam McConnell Aquatic Centre



Looking west to central landscaped area



Looking east along path located at the north end of the site



Looking north-west to central landscaped area

Appendix B: Corktown Common

Corktown Commons Site Conditions and Human Behaviour

Site Visit 1: Sunday, February 2, 2020, 1:15PM - 2:00PM

Conditions: cloudy, no sun

1c, feels like -3c, <10cm snow/flurry, med visibility Wind: 19km/hr from south, gusting to 29km/hr

Site Visit 2: Wednesday, Feb 5, 2020 (weekday) 1:15PM - 1:45PM

Conditions: Sunny

-5c feels like -11c, no precipitation, full visibility Wind: 15km/hr from the NW, gusts to 25km/hr

Site Visit 3: Sunday, Feb 9, 2020 6:00PM - 6:30PM, evening

Conditions: no sun, overcast, after dark

Oc feels like -3c, no precipitation - light snow

wind 9km/hr from south, up to 14km/hr wind gusts

Site Visit 1: February 2, 2020

Approximately 20 users were observed in the park during the site visit time. About 4 families were observed lingering in the park, with 3 to 5 members in each family. These families were observed playing in the snow, and using a toboggan on the southern portion of the park. There were 2 couples walking through the park, 1 man walking through the park, and 1 man walking a dog. More people were observed lingering in the space rather than walking through. This park might not be described as a commuting space as it is located at the southeastern edge of the neighbourhood. Users observed appeared comfortable in the space.

Site Visit 2: February 5, 2020

Two people were observed lingering in the park, using the park benches. One woman was observed reading a book, and one man in construction uniform was eating his lunch. At any given time, at least 3 to 4 people were observed walking dogs through the park, however none of them lingered in the space to play with their dog. No users were observed lingering in the space for any other purpose. All users observed appeared very comfortable, potentially due to the high sun exposure during this site visit.

Site Visit 3: February 9, 2020

About 6 people with 6 dogs were observed lingering in the space, even though there was no longer daylight. Only 2 people were observed walking through the park. No other users were observed using the space during this site visit. The space was not well maintained or well lit at this time, which may have deterred users from lingering in the space for a recreational or leisure purpose.

Corktown Common Site Visit Photos February 2, 2020



Looking east to central open area



Looking south-east to central open area and pavilion



Looking west to soft-paved surface, family playing in the fresh snowfall



Looking south to a gradual slope located at the south end of the site, family tobogganing in the snow



Looking south-west to pavilion from playground



Looking south through landscaped area

Corktown Common Site Visit Photos February 5, 2020



Looking east to central open area and pavilion



Looking north through landscaped area and walking paths



Looking east through landscaped marsh area



Looking north to open space located at the eastern portion of the site



Looking west through central open area



Looking west to soft-paving, landscaping and pavilion

Corktown Common Site Visit Photos February 9, 2020



Looking east to central open area and pavilion



Looking south to pavilion and park amenities



Looking north-west to walking paths through landscaped marsh area



Looking east to walking paths through landscaped marsh area



Looking south through landscaped area



Looking north through central open area

Appendix C: Harbourfront Centre Park

Harbourfront Centre Park Site Conditions and Human Behaviour

Site Visit 1: Sunday, February 2, 2020, 2:30PM - 3:00PM

Conditions: cloudy, no sun

1c, feels like -3c, <10cm snow/flurry, med visibility Wind: 19km/hr from south, gusting to 29km/hr

Site Visit 2: Wednesday, Feb 5, 2020 (weekday) 2:15PM - 2:45PM

Conditions: Sunny

-5c feels like -11c, no precipitation, full visibility Wind: 15km/hr from the NW, gusts to 25km/hr

Site Visit 3: Sunday, Feb 9, 2020 7:00PM - 7:30PM, evening

Conditions: no sun, overcast, after dark

Oc feels like -3c, light snow

wind 9km/hr from south, up to 14km/hr wind gusts

Site Visit 1: February 2, 2020

Approximately 12 users were observed in the outdoor space. About 4 to 6 users were observed walking along the waterfront, with one user walking their dog. No users were observed in Ontario Square or Canada Square. Approximately 10 users were observed skating at the Natrel Rink. Over 10 users were observed entering or leaving the Power Plant during the site visit. Most users observed in the space were walking along the harbour, skating, or visiting the Power Plant. All users observed appeared to be comfortable.

Site Visit 2: February 5, 2020

An increased number of users were observed utilizing this space. Over 10 users were observed walking along the front waterfront promenade and through the park space. Approximately 6 users were observed walking dogs through Canada Square and Ontario Square, or enjoying the view of the waterfront. The skating rink was busy with about 30 people observed using this space. Music was playing in this area. About 6 people were observed visiting the Power Plant. Nearby businesses were open to the public. About 6 to 8 people were observed walking along the promenade at any given time. No one was observed utilizing the concert space or Slip area. Although conditions were cold, users appeared to be comfortable.

Site Visit 3: February 9, 2020

During this site visit, no users were observed walking along the promenade. This may have been due to lack of lighting and amenities along the waterfront. 2 users were observed walking through Canada Square and Ontario Square, however no one lingered in the space. About 4 people were observed warming up in the Power Plant building. There were about 20 to 25 users observed skating at the Natrel Rink. Although conditions were cold, users appeared to be comfortable.

Harbourfront Centre Park Site Visit Photos February 2, 2020



Looking south to Canada Square and Toronto Harbour



Looking west to seating in Ontario Square



Looking south through Canada Square to Toronto Harbour



Looking north from Canada Square to open area



Looking west along waterfront promenade



Looking west to Natrel Skating Rink, located just west of the Power Plant

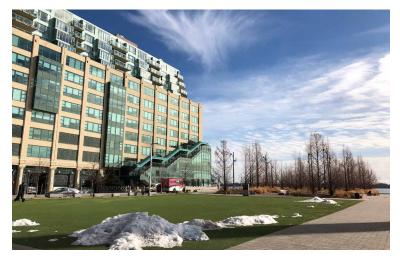
Harbourfront Centre Park Site Visit Photos February 5, 2020



Looking south to Power Plant and Canada Square



Looking west to landscaping at Ontario Square



Looking south to Queens Quay Terminal and Canada Square



Looking south along Canada Square paved area to Toronto Harbour



Looking north-west to Natrel Skating Rink, located just west of the Power Plan



Looking west to Ontario Square, with the Harbourfront Centre in background

Harbourfront Centre Park Site Visit Photos February 9, 2020



Looking south to Canada Square and Toronto Harbour



Looking west to Ontario Square, with the Harbourfront Centre in background



Looking north through Canada Square



Looking north to Natrel Skating Rink, located just west of the Power Plant



Looking west along the waterfront promenade



Looking north-west to Natrel Skating Rink, with several people observed skating

Appendix D: Nathan Phillips Square

Nathan Phillips Sqiare Site Conditions and Human Observations

Site Visit 1: Sunday, February 2, 2020, 3:45PM - 4:30PM

Conditions: cloudy, no sun

1c, feels like -3c, <10cm snow/flurry, med visibility Wind: 19km/hr from south, gusting to 29km/hr

Site Visit 2: Wednesday, February 5, 2020 (weekday) 3:30PM - 4:00PM

Conditions: Sunny

-5c feels like -11c, no precipitation, full visibility Wind: 15km/hr from the NW, gusts to 25km/hr

Site Visit 3: Sunday, Feb 9, 2020 7:45PM - 8:15PM, evening

Conditions: no sun, overcast, after dark

Oc feels like -3c, light snow

wind 9km/hr from south, up to 14km/hr wind gusts

Site Visit 1: February 2, 2020

Over 100 users were observed in the outdoor space, making Nathan Phillips Square the most active outdoor space observed during the first site visit. About 40 to 50 users were observed skating, with approximately another 40 to 50 lingering in the space, renting skates, taking photos, viewing the Toronto sign, or seated to watch skaters. Many users were also observed walking along Queen Street and entering the space. People were observed commuting through Nathan Phillips Square to get to the Eaton Centre or to nearby transit. All users observed appeared comfortable in the space.

Site Visit 2: February 5, 2020

Nathan Phillips Square was again the busiest park space observed. Although less users were observed skating and taking photos than the previous site visit, more users were observed commuting through the plaza and visiting City Hall. A steady flow of users, approximately 5 at any given time were observed renting skates. There were approximately 15 to 20 users observed skating, with about the same amount of users taking photos or lingering in the space. About 10 to 20 users were observed commuting through the plaza. All users observed appeared comfortable in the space.

Site Visit 3: February 9, 2020

Nathan Phillips Square remained busy with approximately 30 to 40 users skating, and about 35 users lingering around the skating rink. These users were observed taking photos of the Toronto sign, sitting in the space, renting skates, eating food from nearby vendors. Music was playing near the skating rink. However, no one was observed lingering in the plaza space to the north. Approximately 5 users were observed walking through the plaze. The majority of users were gathered and lingered at the south of the park next to the Toronto sign and skating rink. People were observed walking along Queen Street West. All users observed appeared comfortable in the space.

Nathan Phillips Square Site Visit Photos February 2, 2020



Looking north to Nathan Phillips Square from Queen Street West



Looking north to Nathan Phillips Square, with City Hall in the background



Looking west to covered stage, located at west end of the square



Looking south-west to skate rental and snack pavilions



Looking south to skating rink



Looking east across Nathan Phillips Square to Old City Hall

Nathan Phillips Square Site Visit Photos

February 5, 2020



Looking north to skating rink and Toronto sign



Looking east to skating rink, with Old City Hall in background



Looking north across Nathan Phillips Square to City Hall



Looking north across Nathan Phillips Square to City Hall



Looking east to skating rink, with Old City Hall in background



Looking south to skating rink and Toronto sign

Nathan Phillips Square Site Visit Photos

February 9, 2020



Looking north to skating rink and Toronto sign



Looking north-east to skating rink and Toronto sign



Looking north across Nathan Phillips Square to City Hall



Looking north-west to stage, located at the west side of the square



Looking south-west to Toronto sign, and skating rental and snack pavilion



Looking south-east across Nathan Phillips Square to Old City Hall