CITY OF PETERBOROUGH
MULTI-USE SPORT AND EVENT CENTRE

FEASIBILITY STUDY

SEPTEMBER 2018

Sierra Planning and Management
advice • strategy • implementation

DIALOG

ICC International Coliseums Company

Contents

Executive Summary

There is no single measure of viability of a facility of this nature. Rather, it is determined through a combination of work streams that together address the relative merits of the project, the proposed capital spend and operational impacts (both financial and "below-the-line" economic benefits) and the tolerance toward the range of risks (capital cost, market, timing, and operational) that must be understood prior to embarking on a funding strategy to develop the facility.

Key Questions Answered

- **Is the Peterborough Memorial Centre (PMC) worth re-investing in as the City's sports and entertainment (event) centre?**

There is no capacity to add additional fixed seating to meet a modern standard of expectation for hosting major sporting events (5,000+ seats).

The increasing lack of functionality of the PMC, relative to its competition, is the most significant future risk. The required investment to maintain the building in essentially its current functional state is not supportable and is made more apparent when considering the likely future subsidies required to support annual operations over and above the required capital expenditures to maintain it.

Future life cycle costs are based on a 2011 Building Condition Assessment which identified the remaining life of all building systems and FF&E (furniture, fixtures and equipment) and their replacement cost in current dollars (2011).

Future Capital Investment Required for PMC

Estimated Replacement Year	Budget
2012 - 2020[1]	$3,369,467
2021 - 2030	$4,850,643
2031 - 2040	$4,750,647
2041 - 2050	$7,364,754
2051 +	$ 819,315
Total	**$21,154,825**

Source: Sierra Planning and Management based on Accent Building Science Inc. Memorial Centre Building Condition Report, 2011

All of this additional capital spending, which in 2018 dollars is approximately $26 million, is simply to maintain the **current** level of functionality. None of this spending improves the capacity or functionality of the building in a materially significant way or enables it to compete better against buildings in other centres in the region. Less charitably, it can be viewed as the spending required to maintain the same level of disfunction of the building. An analogy

[1] Short-term costs do not include expenditures planned and pre-approved for ice pad and dasher boards replacement of $3.5 million. However, refrigeration plant upgrades planned for 2025 per this 2011 report have been undertaken; and dasher boards, now part of the 2019 expenditures, were planned for 2023.

with treading water doesn't do justice to the fact that this can only occur for so long.

The operating gap – the gap between market potential and the performance of the building - is more than just a comparison of the current to future deficit of the PMC, it is between the future deficit in this building and the operating performance of a new building. That is likely to represent a wider gap still.

The resulting economic impacts of the building also can be expected to decline as the competitive position of the building in the market place further declines.

All together, these growing margins between what is possible and what is apparent, represent opportunity costs that are potentially every bit as important over time as capital costs are in terms of initial funding needs for a new building.

- **Should the City of Peterborough be involved in the entertainment and events business?**

The City of Peterborough, through its investment and operation of the PMC, has been a longstanding player in the events market in Central and Eastern Ontario. In general, the PMC has hosted a consistent number of sporting events and has seen steady growth in the concert market in the last few years.

A review of historic events indicates there is opportunity for growth in live shows, family events and the tradeshow/conventions market.

Trends in facility performance indicate the importance of the concert market at the PMC. Despite hosting fewer of these events compared to tenant events, concerts generate a significant share of gross revenues for the facility. Additionally, on a per event basis, concerts generate the largest gross revenues compared to other activities.

A review of PMC **tenant** event ticket sales indicates the market for these activities is more local than regional. However, non-tenant events (for example concerts) tend to pull a larger share of attendees from beyond the local and county area. This can be expected to have both direct economic impacts, through spending at the PMC, as well as indirect economic impacts, as out-of-area visitors can be expected to spend dollars outside of the PMC on food and beverage, accommodations and other items locally.

The City of Peterborough is fully invested in the spectator events market in addition to the spectator market for hockey and lacrosse. The market draw for events to the PMC is expectedly broad for even the most typical of events – extending well beyond the City and into southern Durham Region and parts of the GTA to the west of Durham. The City of Peterborough is both the beneficiary of its proximity to the GTA market as well as a partial casualty in terms of enhanced competitive offer at other GTA venues. There is an emerging strong rationale for investing in renewed facilities to better access this market potential, with greater frequency and the potential for improved economic and reputational benefits for the City.

The existing spending impact arising from the operations of the PMC and the spending of patrons in the City associated with visiting the PMC is not inconsiderable. The direct spending impact coupled with the wider impacts to the region is in the order of $8 million to $9 million annually.

Profiling the Market Area for Concerts

2017 Concerts Attendance (excl. OHL and Lakers)			
	General Area	Patrons	%
1	City of Peterborough	10,642	46.2%
2	Peterborough County and North Hastings County Lindsay, Kawartha Lakes, Haliburton, West	4,252	18.5%
3	Northumberland County Belleville, Trenton, Cobourg, Port Hope, Quinte	2,119	9.2%
4	Shores East	1,819	7.9%
5	Oshawa, Whitby, Pickering, Ajax	553	2.4%
6	Bowmanville, Newcastle, Courtice, East Durham	417	1.4%
7	Toronto	360	1.6%
8	International	257	1.6%
9	Other: Renfrew /Lanark, London	215	0.9%
10	Port Perry/Uxbridge, Keswick, Barrie	146	0.6%
	Sub-Total	20,780	90.2%
	Other	2,259	9.8%
	Total	**23,039**	**100.0%**

- **What is the future market for events in the City and at a major sports and entertainment facility?**

Tenants

- Clearly two tenants remains the aim with a goal to ensure stable enhancement in non-tenant events as well;
- The goal for tenant events is to increase attendance commensurate with the higher seat count in the new facility and ensure sustainability of this annual attendance. This speaks to the responsibility of the teams to create an evergreen business planning framework which is capable of sustaining growth in the target audience market; and
- Comminute with this, new license agreements will reflect the importance of achieving higher attendance and patron spending at all events.

Non-Tenant Events

- The aim should be attendance growth leveraging the higher seat count, the greater functionality of the building, its renewed competitive position and the market that is growing;
- The aim should be continued diversification of event types and growth in all categories of event;
- If a second pad is an option the aim should be to maximize the trade show and convention market working with the hotel sector and, depending on the site capacity, utilizing the campus as a whole;
- Armed with a new building, actively seek a place in the market for major provincial and national sporting competitions / championships. This includes not only ice but dry floor sports as well (i.e. gymnastics, dance, court sports, even pool events - see Windsor's successful use of a 50-metre competition Myrtha pool in its sport and event centre); and
- A second pad adds significant potential for tapping new ice rental opportunities (for example, adult summer leagues, as is the case in Oshawa's Tribute Communities Centre), as well

as major tournaments. A second pad would be scheduled primarily as a community recreational facility to meet those future needs but with its complimentary use for major events. This is particularly the case if the community facility includes a number of meeting / break-out rooms for use during conventions.

The goal for a new MUSEC should be to attract, on a sustainable basis, between 25 to 30 commercial ticketed events in addition to the roughly 55 game days of the two tenants that typically occur each year. While yearly numbers vary, the 2017 calendar included 18 such events over and above the 56 tenant events.

It is estimated that the annual operating and visitor spending impact arising from a new MUSEC is an order of magnitude greater than at present – likely to be in the range of $12 million to $13 million.

Proposed Concept and Capital Cost

Following the review of market opportunities, the balance of the report addresses the proposed concept which is recommended to be a new facility with approximately 5,500 to 6,000 fixed seats (our proposed concept is 5,500 to 5,800 fixed seats). The capital cost, potential approach to a funding strategy, as well as an estimate of the operating costs and revenues are also included.

Order of Magnitude Capital Costs

Cost (*Note: Costs exclude land, off-site servicing and extra-ordinary development costs.)*	**Event Centre ($2018)**		**Plus Community Ice Pad ($2018)**	
	5800 Seats Approx. 155,000 sq. ft.	**% of Total**	**Approx. 190,000 sq. ft.**	**% of Total**
A. Hard Construction Costs	$43,975,000	61.0%	$55,756,000	64.9%
B. General Consultations & Selected Soft Costs	$9,710,000	13.5%	$9,710,000	11.3%
C. Other Soft Costs	$4,570,000	6.3%	$5,470,000	6.4%
D. FF&E	$13,877,000	19.2%	$14,971,000	17.4%
Total	**$72,132,000**		**$85,907,000**	

Relationship with Community Ice Needs

The business case for a second ice surface lies in its relationship to the overall scale of capital cost and the constraints of site location. Other things being equal, we would recommend the active consideration of an integrated community ice surface as a second pad. There are significant benefits to the community and marketability of the centre for space extensive events. There are also obvious economics of scale in both capital and operating costs.

Locational Opportunities

The choice of location is complex and represents an ongoing discussion, as it should. The benefits of a second ice pad and the successful search for a site to accommodate a larger footprint such as would result from a two-pad facility clearly intersect with the viability of a downtown versus a near-downtown location. Choices will have to be made. This report, as well as the location assessment report under separate cover, provides the range of choices and the implications of each.

The locational assessment is predicated on Council's endorsement of the search for a site within the existing Central Area planning boundaries (Official Plan Schedule J) which precludes the easy accommodation of a second ice surface. This is not to suggest that the ultimate project exclude a second surface; examples exist of two sheet buildings in the context of tight urban sites, including Oshawa's Tribute Communities Centre.

As required by the Council Motion in this regard, the locational assessment of sites outside of the Central Area is necessary given the constraints or otherwise of existing Central Area sites; regardless, the decision to accommodate a second sheet may represent an opportunity dependent on site and funding availability rather than a predetermined component of a new event centre.

Understanding the Benefits and Costs of Status Quo Versus Change

A new Multi-Use Sport and Event Centre will in all likelihood return an annual deficit. Very few venues of this nature are operationally in surplus and even fewer account for additional costs such as necessary capital reserve funding as an annual charge.

The status quo is represented by the current deficit which has increased as a result of changes to the licensing agreements for the two teams and the sharing of revenues. A new building offers the potential to achieve the same goals of revenue generation for both the City and the tenants but with less risk assumed by the City.

PMC Financial Position Summary (2017)

	2017 (Actuals)
REVENUES	
Administration	(1,028,716)
Operations	0
Events	(699,192)
Vending	(20,853)
Food & Beverage Services	(137,327)
Transit Advertising	(83,727)
TOTAL REVENUES	**(1,969,814)**
EXPENSES	
Administration	710,128
Operations	1,199,844
Events	851,168
Vending	18,411
Food & Beverage Services	7,911
Transit Advertising	0
TOTAL EXPENSES	**2,787,462**
NET	**817,648**

Revenues/Expenses of Note:

Ice/floor rentals: $242,570
Advertising: $135,038
License Fees: $289,600
Box Office: $109,262

Admissions: $293,320
Contractual Rec.: $363,780

Salaries/benefits: $507,100

Salaries/benefits: $425,806
Utilities: $538,173
Building Mtce: $122,477

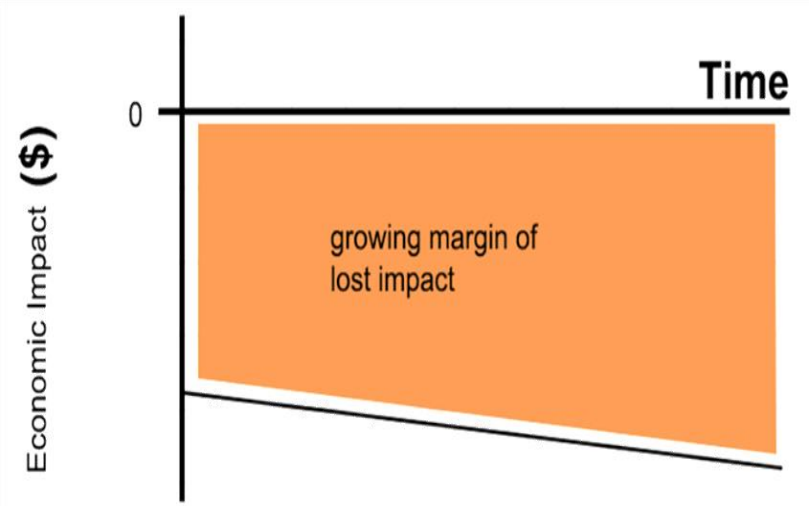
Salaries/benefits: $509,177
Contractual Services: $310,489

A process to renew the principles of licensing arrangements at a new venue is important as a first step, creating a partnership of collaboration to maximize the success of the new facility. The Peterborough Petes and the Lakers are core partners to ensuring the success of the new business plan and a collaborative arrangement of revenue sharing to achieve growth and sustainable operations at a new MUSEC is a fundamental principle going forward.

Our estimates in this report are that a new facility can achieve a reduction in deficit compared to the current position. The amount of that deficit (approximately $500,000 before consideration of any management fees for a third-party operator) is a conservative assessment. It is anticipated that, as the project moves forward, opportunity will exist to further consider the range of revenues but also costs to determine and reconfirm the expected nature of the deficit for a new building over the long term.

Regardless of the final projections, it is evident that the deficit in the current building will likely grow if the role of that building remains the premier sport and event centre in the City. We have witnessed this in other venues which, as they age and their functionality declines, see the more financially beneficial events decline, replaced with more local events, and the overall operating position deteriorates. This can reasonably be expected in the case of the PMC.

Growing Gap of Lost Impact



The comparison of benefits and costs (the Benefit-Cost Ratio) firmly indicates that the status quo results in a net cost compared to embarking on an implementation plan to replace the PMC. The estimated Benefit-Cost Ratio (BCR) is 2.40, indicating substantial benefits from this project over the long-term.

Benefit-Cost Ratio (BCR)

	Net Present Value (NPV at 5% discount rate)	New MUSEC	PMC – Maintain to 2040 then Build	Benefit-Cost Ratio (BCR) >1.0 = ✓ <1.0 = ✗
A	PV Total Capital	($78 Million)	($57 Million)	
B	PV Total Net Operating	($10 Million)	($21 Million)	
C	PV Economic Impact Benefits	$213 Million	$130 Million	
Total Benefit (Cost) (A+B+C)		**$125 Million**	**$52 Million**	**2.40**

Source: Sierra Planning and Management

Among other positive social impacts, such as an increase in reputation for a community, multi-use facilities also play an influential role in creating vibrant areas that can attract higher income/higher educated households to the local environment. MUSECs can also act as anchors for regeneration efforts, based on the ability to draw a critical mass of visitors to the area for events, which can help support restaurants and retail shops. Additionally, these large-scale projects can stimulate infrastructure investment in the district and attract other development projects.

These broader regenerative impacts are difficult to predict but, based on case examples, there is a reasonable expectation that a new MUSEC as part of a more comprehensive development framework for Peterborough can effect change.

As part of the decision-making process, it is important that City planning initiatives like the Official Plan Review continue to create a vision for the central areas of the City.

Priorities Going Forward

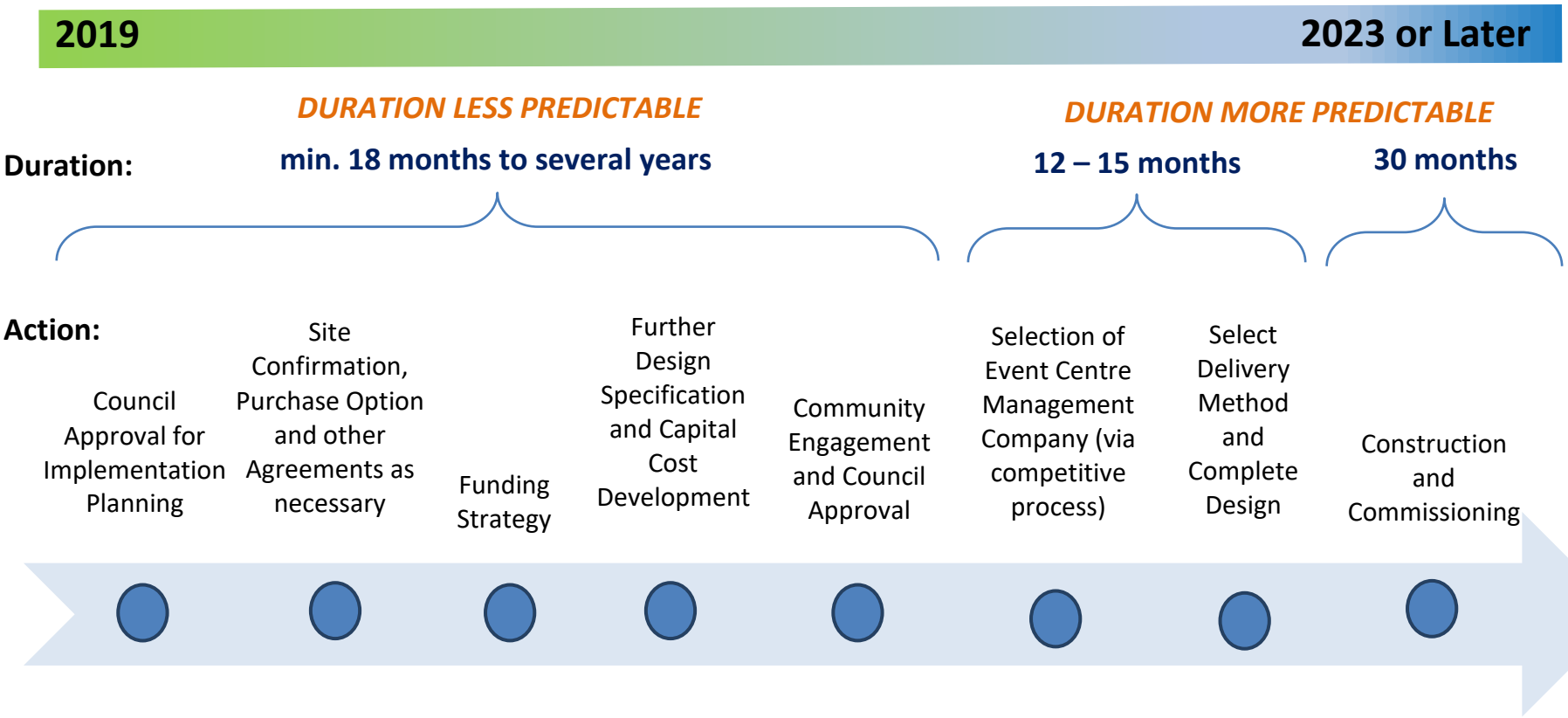
Based on the assumption of timely and concurrent work on the range of location, funding, and downtown planning work that is required, the following represents a schematic timeline to achieve development with 5 years. This is based on the assumption of a) Council approval to continue the work required toward implementation and b) funding is achieved within the timeframe prior to planned construction.

These two caveats – council approval to proceed and achievement of sufficient funding or a likelihood of achieving funding – are critical to the timeline. If a decision to proceed with further site selection work, funding assessment and project planning were immediate, it is likely that a minimum 5-year window is required before the building is completed. Evidence from elsewhere suggests the timeline may be longer by several years, with the delay not in the design and construction phase but in the project definition, location selection and funding approval stages.

Faced with this reality, implementation planning should commence in 2019, so as to ensure a replacement facility in the medium-term. Any delay and replacement becomes more akin to a long-term plan which, based on the findings of this report, represents a risk to the City operating successfully in the events market.

Potential Project Timeline

Potential Timing:



Site Location

Alongside this report Council has received our analysis which effectively ranks several sites according to our preference based on a range of factors. However, every site has significant questions regarding its validity which can only be answered once the current study is complete and additional site investigation is conducted.

Site selection drill-down analysis for the preferred site(s) is a key next step which enables further consideration of all other aspects of the project. Site selection informs:

- Site development costs;
- Scale and capital cost of the facility;
- Funding Strategy; and
- Delivery Strategy and timing of implementation of a competitive process to select a design-build consortium.

Surrounding all of this is a need to frame the locational choice firmly in the context of the vision for downtown and the central area of Peterborough over the next 20 years. This involves an understanding of the big-moves in land use planning under consideration including the gateways and corridors which are positioned for increased density and redevelopment, planning for the open space system and its connections across downtown, along and across the river and how the future of the GE lands offers a new an innovative direction for the City.

Design Work

The level of design work in the next phase is tied to the selected method of delivering the facility). At the very least, there is a need to develop the project from a concept plan, developed to articulate expected scale and capacity to fit on candidate sites, to a design which is capable of informing the specifications for a detailed design-build package.

Funding Strategy

This is likely to involve the following:

1. Continued capital cost estimating based on design specifications work and increasing certainty as to overall scale of land-related acquisition and site development costs/extra-ordinary development costs, etc.;

2. Development of a funding strategy based on a range of potential sources, and a potential approach to itemizing and estimating the funding potential of each; and

3. Undertaking necessary risk analysis for each of the funding sources to determine the potential impact to the tax base arising from different combinations of funding.

The funding strategy should commence immediately in the next phase of work following any decision of Council to accept and approve the feasibility study.

New License Agreements

New License agreements will be required. Work should commence in the shorter term following any approval of this feasibility study. This is because the nature of the license agreement is centrally relevant to the emerging operating model, business planning documents and revenue projections, and even the agreement with the third-party operator and its capacity to manage the building effectively. These agreements also impact the design assignment and functional space program, as well as the capital costs and the extent to which the tenants are expected to contribute capital dollars.

The principles of an agreement with each licensee should be established. More detailed discussion leading to an agreed license agreement can occur with the third-party operator involved alongside the consulting team.

Council Updates

Throughout the process, Council will need to be kept apprised of the outcome of each substantive stage of the work so that decisions can be taken as to whether the project remains viable as the specifics of capital cost, timing, and funding are brought clearer into focus.

Future of the Peterborough Memorial Centre (PMC)

The future use of the PMC should be part of this process. The current study identifies the principles on which any future planning should occur, recognizing the historic value of the PMC to the community. Key among those principles is the need to minimize municipal operating and capital costs for the facility if the City develops a new MUSEC to replace the PMC.

Implementation Planning Does Not Equate to Final Approval

An Implementation plan is essential. There are, as described, a number of concurrent and sequential tasks involved in determining in the final manner whether the City can, or should, invest in the replacement of the facility now, or later. The City will need to address the long-term future of the asset but has a choice to continue the status quo or invest in the process leading to change.

An implementation plan must respect the Council's fiduciary responsibility to assess the feasibility and timing of the project relative to other needs and impacts on the City. Accordingly, there are a number of decision points which are provided in the implementation plan going forward where Council can assess the process of implementation.

The implementation plan is an immediate step to provide greater certainty to the project – its definition, location, cost and affordability to the City.

1

INTRODUCTION + OBJECTIVES

1.1 Study Aims and Objectives

Sierra Planning and Management, together with our sub-consultants DIALOG and International Coliseums Company (ICC), have been retained by the City of Peterborough to determine the overall feasibility and cost-benefit of investment in a new Multi-Use Sport and Event Centre (MUSEC) in the City. This equates to a detailed assessment of the viability of a new facility from a number of perspectives: relative need for a new facility; market opportunity, design and capital cost, operational performance and locational options. In order to achieve all of this, and recognize that these issues are interwoven, the analysis was comprised of two (2) phases: an initial assessment of key findings and a more detailed assessment of feasibility, site location and next steps. Together, the resulting analysis reported here provides answers to key questions based on detailed research as well as the experience of the consulting team working closely with City administration.

Key questions which drive conclusions as to not only the principle but the relative timing of the development of a new sport and event centre include:

1. **Is the Peterborough Memorial Centre (PMC) worth re-investing in as the City's sport and event destination?** This includes consideration for the level of historic and required future investment in the existing facility and the extent to which the facility can be cost-effectively improved functionally compared to the opportunities associated with a new venue.

2. **Is there a role for the City of Peterborough in the events market?** This is based on a review of the performance of the existing PMC including historic trends in event hosting, attendance by type of event as well as associated revenues.

3. **What is the nature of the market for events?** This includes an assessment of the existing market draw to the PMC as well as considerations as to how the market area is expected to change over time.

4. **What are the views of the stakeholder community?** Over the course of the study, the consulting team met with and reported to a Steering Committee comprised of a number of interests. Members of that committee included existing tenants of the PMC, the Peterborough Downtown Business Improvement Area (DBIA), as well as a range of City departments and the Peterborough and the Kawarthas Economic Development Agency.

   This was supplemented by one-on-one interviews with a number of cultural organizations, including the Canadian Canoe Museum, the Art Gallery of Peterborough, Heritage Planning, existing theatrical and musical venues, and a range of other City departments. A public meeting was also held in early April 2018 to address our initial findings and gain input on the preferences of people for a new facility, its location and the future of the PMC.

5. **What is the range of possible locations for the development of a new multi-use sport and event centre** and how is that decision related to the overall community benefits likely as a result of development? and

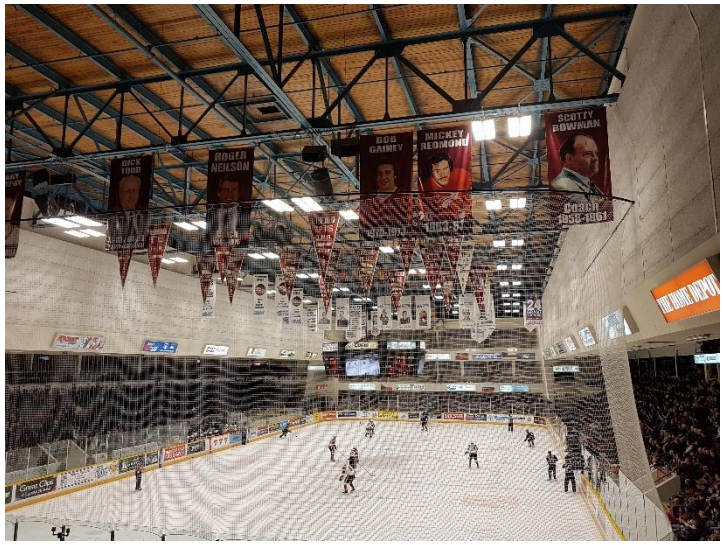
6. **What are the alternative futures for the Peterborough Memorial Centre if a new building is developed?** The current study does not include detailed assessment of the re-use potential associated with the PMC. However, recommended principles which should inform decisions regarding its future are addressed in this report. The City of Peterborough is not alone in facing the challenge of investment decisions regarding aging but well-loved assets, and while the solution in each community may be unique, there are similarities in the decision-making process.

1.2 The Importance of the Peterborough Memorial Centre

The Peterborough Memorial Centre is located south of the City's Central Area on Lansdowne Street West, adjacent to the Morrow Building and the R.A. Morrow Memorial Park. It is home to the Ontario Hockey League's Peterborough Petes, the Major Series Peterborough Lakers Lacrosse teams, and District Sports Hall of Fame.

In undertaking an assessment of the costs and benefits surrounding the replacement of the Peterborough Memorial Centre, there is the inevitable reality that a study of this nature cannot adequately measure the importance of this building to the community over the last 60 years. There is an emotional attachment to this public gathering space, rich in history, honouring the veterans of combat, that perhaps should simply be stated rather than measured.

PMC's Heritage on Display



The building, commissioned in November 1956, remains a solid structure (current floor slab aside), but is now outdated as a spectator venue.

The history of the Peterborough Petes franchise, established for the 1956/57 hockey season, is synonymous with that of the building. The record of the Petes in this building is impressive: Nine (9) OHL Championships, one (1) Memorial Cup (1978/79), well over 800 talented players on the roster over that time, and nearly 100 players who had multi-season careers in the NHL.

The Peterborough Memorial Centre continues to serve the City and region and is part of its history more broadly. It has served to showcase the City in good times and during challenging times such as the aftermath of the 2004 flood and the concert in support of the community held at the PMC.

This report commences with an investigation as to whether a replacement of the PMC is required. To some, the need for a new building is self-evident based on the functional challenges of the building at present. However, significant investment decisions require a full exploration of the alternatives, including whether the PMC can be expanded further and still represent value for money. That potential no longer exists. Based on the findings of this report, the PMC is not sustainable as the City's primary sport and event centre. A new building is required.

The heritage of the PMC and the legacy that it offers should be core principles to another piece of work which will be required in due course: the consideration of the re-use potential of the PMC. This report does not include a detailed foray into the likely feasibility of one or other future uses of the PMC. That consideration should be the centerpiece of a dedicated study addressing re-use potential and hence should occur following the findings of this report.

However, this report provides recommendations as to how to that process should unfold and under what conditions the successful adaptive re-use of the building should occur. Those conditions largely gravitate around the need to ensure that the City does not maintain the facility at considerable subsidy without a justified basis for such.

At its core, the determination of a future for the PMC is not a linked question with that of the actual commercial viability of a new MUSEC, although it may appear so. The viability of a new venue is not diminished because of future challenges involved in decision-making around the existing building. Many communities have faced the same challenge. In all cases, it is the decision to build new that spurs action on the separate question of how to reinvent, decommission, or otherwise use the old, large volume spectator venue. By way of example:

- The successful adaptive re-use of Maple Leaf Gardens occurred well over a decade after the development of the Air Canada Centre, spurred by public funding of the expansion of Ryerson University;

- The future use challenges of the Rexall Centre in Edmonton were initially considered by some as a reason to avoid building a new NHL arena downtown. However, once the decision was taken to build the new arena downtown, more active consideration was given to the re-use potential. This included the prospect of multiple ice pads on different levels of the Rexall Centre, a costly plan that was ultimately not supported. Further consideration is ongoing including the potential for demolition and redevelopment of the site for residential and commercial development; and

- The development of the Downtown Centre in Moncton to replace the 7,800 seat Coliseum led to several studies to address the future of the 1973 Coliseum and the Trade Centre attached to it. As of June 2018, after 18 months of additional study, Moncton City Council approved plans to re-focus the building away from sports and concerts and utilize its potential as part of an upgraded (120,000 sq. ft.) trade and exhibition centre that will result from the repurposing of the arena.

Rexall Place, Edmonton

New Rogers Place, Edmonton

1.3 Outline of Report

The report is organized into 14 sections, as follows:

Section 1: Introduction and Objectives	This section identifies the purpose and aims of the study, as well as the process of analysis followed.
Section 2: What is a Multi-Use Sport and Event Centre?	In order to fully understand the concept of a modern multi-purpose spectator facility, this section describes the character of these buildings, their form, function and provides examples of such centres recently built in Canada.
Section 3: Functional Assessment: The PMC in 2018	An important decision point is whether the existing building is in the need of replacement based on its condition, functionality and costs to maintain. Accordingly, this report provides a review of the existing condition of the Peterborough Memorial Centre as well as its relative functionality as an event centre.
Section 4: Situational Assessment: The PMC in 2030 and Beyond	Identifies the future capital building requirements of the PMC, future community ice needs, and principles for the re-use of the PMC.
Section 5: Market Opportunities for Multi-Use Sport and Event Centres	Defines the market area for the existing PMC and presents its demographic characteristics, as compared to the market areas for other venues in the broader region.
Section 6: Current Event Market	This section provides a detailed review of the recent history of event hosting at the PM, both in terms of sport and non-sport events. The relative importance of different types of events, financially as well as in terms of spectator volumes is assessed, together with a comparison to other venues elsewhere in Canada.
Section 7: Future Event Market	The potential growth of the market for a range of non-sport spectator events in a new building is influenced by several market and other dynamics including the approach to the management of the facility. This section outlines the range of considerations and their implications for the capacity of a future event centre to capture the market opportunity for events.
Section 8: Potential Components of a Multi-Use Sport and Event Centre	Identifies the appropriate scale of facility, recommends a general design concept, and considers the order of magnitude capital cost of the building.

Section 9: Expected Operational Performance	Examines the existing operational performance of the PMC, as well as the indicative financial performance of a new MUSEC.
Section 10: Locational Considerations	Identifies the process and methodology undertaken as part of the locational analysis. This assessment of alternative locations is included in a separate report.
Section 11: Economic Impact Considerations	Sets out the range of measures in determining economic impact, including construction, operational, off-site spending impacts and addresses the longer-term potential for urban regeneration that is often anticipated as part of these significant infrastructure projects, particularly in a downtown context.
Section 12: Costs, Benefits and Approach to Funding Availability	This section compares the benefit-cost ratio of maintaining the PMC in its current role versus constructing a new event centre. A potential approach to developing a funding model is provided.
Section 13: Risk Analysis and Facility Delivery Options	This section identifies the range of risks associated with major development projects and potential risk mitigation / minimization measures.
Section 14: Where Do We Go From Here? Next Steps and Priorities	The recommendations of this report are presented as well as the required next steps of project planning necessary to advance these recommendations.

1.4 Limitations of Analysis

The contents of this report and its analysis is based, in part, upon a range of primary and secondary sources. Sierra Planning and Management endeavours to ensure the accuracy of all secondary sources of information but cannot warranty the accuracy of secondary source material. In the event that secondary source information is inaccurate or incomplete, Sierra Planning and Management, DIALOG, and International Coliseums Company (ICC), will not be held liable for original errors in data.

The report and the information contained within it is prepared specifically for the purposes as laid out in this report. Reliance on information and opinion contained in this report for other purposes is not recommended. The contents of this report should not be extracted in part from the entire report without the permission of Sierra Planning and Management.

2

WHAT IS A MULTI-USE SPORT AND EVENT CENTRE?

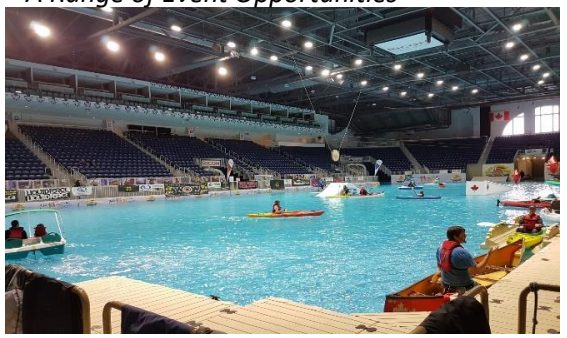
2.1 Dynamic Range of Events

A multi-use sport and event centre (MUSEC) is a facility designed specifically to accommodate the detailed requirements of a broad range of ticketed activities including:

- Sports franchises (typically hockey, and in Canada possibly supplemented by other sports such as lacrosse or basketball);
- Musical concerts;
- Theatrical Shows (Broadway, ice shows, dance and a range of family entertainment performances;
- Sports events and championships (curling, hockey, band, wrestling/combative, gymnastics);
- Circuses; dirt events (motocross, monster trucks);
- Public assembly (religious gathering, graduations, political rallies, awards ceremonies, etc.);
- Animal/equestrian events (grand prix, rodeo, bull riding, Lipizzaner Stallions);
- Flat floor events (trade shows, consumer fairs, boat/home & garden shows, banquets, etc.); and
- Competitively bid or rotational competitions at the regional, provincial and possibly national level.

In Canada and the United States, the majority of large MUSECs (10,000-20,000 seats) and mid-size ones (3,500-10,000 seats) are built with the seating bowl designed around an NHL (85' x 200') ice surface.

A Range of Event Opportunities



2.2 Scale and Flexibility of Use

One of the main goals in the design of a MUSEC is to provide the operator with the greatest flexibility and opportunity to maximize the "event calendar". Fundamental to that is the ability to quickly change from one event or format to another.

As an example, an evening hockey game could be followed the next with either a concert or dirt track event. The approaches to changing the event format of a MUSEC are provided below.

Exhibit 1: Approaches to Changing MUSECs Event Formats

Concert Scenario	Dirt Event Scenario
Directly after game	**Directly after the game**
Rink board glazing removed normally the boards are just covered with drape cloths	Rink board glazing removed
Ice covering installed	Rink boards covered with protector
Stage set up	Ice cover or layer of sawdust installed over ice
Following day	**Following day**
Seating set up on floor by building	Engineered earth placed over ice cover/sawdust
Show enters building around 6:00am	Show enters building mid-day and sets up
Performers do test in afternoon	Drives test run in afternoon
Concert opens that evening	Event opens that evening
After concert, equipment removed within 3-4 hours	After performance, all equipment removed
Morning after concert	**Morning after event**
Facility staff remove seating, stage, any curtaining, ice covering	Facility coordinates removal of earth/sawdust, Rinkboard glazing reinstalled
Facility staff reinstall rink board glazing	Rink re-flooded
Facility ready for hockey game the afternoon or evening following concert	Facility ready for hockey game the afternoon or evening following concert

Several components that form part of a typical MUSEC that are not found in a community arena even if that arena has spectator seating include the following:

- An open type roof structure capable of accommodating show loads. It is common for speaker/lighting loads to be in the 50,000 – 75,000 lb. range and these need to be easily and quickly suspended from the underside (typically) of the roof structure. Access to the structure through catwalks is critical for show setup, for spotlight locations and general management of the lighting for the building.

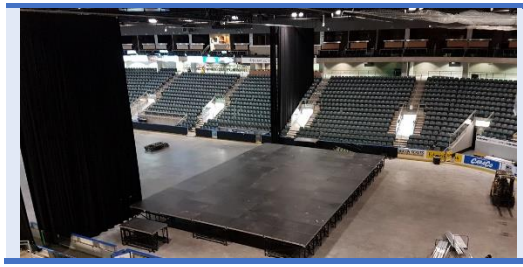
- Appropriate power distribution throughout the building. Critical areas of power concentration include the back of house for concerts and end-stage events (this is the largest single power source), the bowl corners (used for even distribution of power for trade shows and other floor type events), catwalk level (from spots and special lighting), and shore power (easily accessed for use by show-oriented vehicles including television broadcasting support).

- Sufficient, accessible and secure storage areas. All equipment and furnishings necessary for event-hosting should be stored on site. This includes rinkboards and glass (stored separately), flat floor seating, tables, portable stage, ice covering, and other equipment as necessary.

Examples of Event Set-up

2.3 Examples of Competitive Venues

There are a number of newer venues in Southern Ontario that offer a high quality of spectator experience as well as, importantly, catering to the needs of the touring events industry.

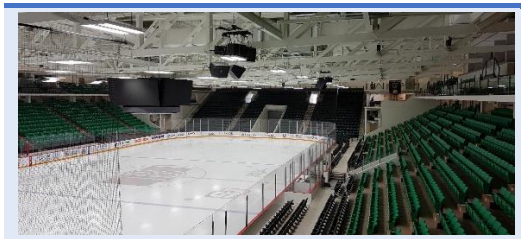


K-Rock Centre, Kingston

- Opened in 2008
- 5,200 seats
- $43 Million Capital Cost
- Downtown Location

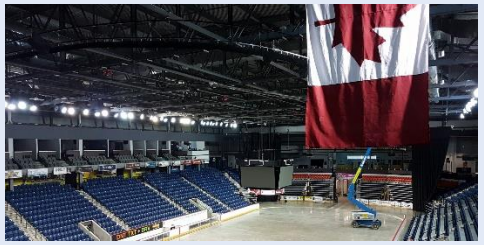
Tribute Centre, Oshawa

- Opened in 2006
- 5,400 seats
- $45 Million Capital Cost
- Downtown Location
- Limited on-site parking
- Single Bowl



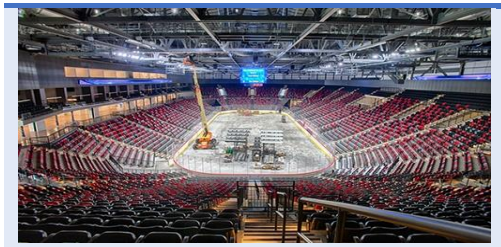
Yardmen Arena, Belleville

- Opened in 1978, expanded in 2017
- 4,400 seats
- $21 Million Capital Cost



Meridian Centre, St. Catharines

- Opened in 2014
- 5,300 seats
- $50 Million Capital Cost
- Downtown Location
- Limited on-site parking
- Single Bowl



Moncton Event Centre

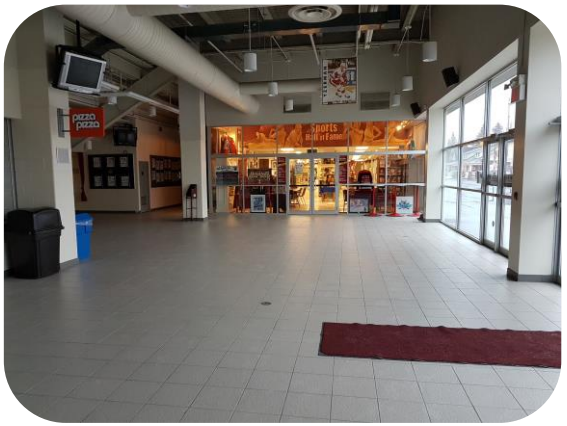
- Opening in Fall 2018
- 7,500 seats
- $104 Million Capital Cost
- Highfield Site
- Single Bowl

Canalta Centre, Medicine Hat

- Opened in 2015
- 7,000 seats
- $75 Million Capital Cost
- 10-minute drive to city core

3

FUNCTIONAL ASSESSMENT: THE PMC IN 2018



3.1 Description of the Existing PMC

The City-owned and operated facility has a total fixed seating capacity of 4,050 in a three-sided bowl, including: 2,236 regular seats, 948 Club seats, 24 executive suites seating 395, 124 Sky Box seats, and 347 restaurant seats. An additional 1,600 non-fixed licenced seats can be accommodated on the floor for concerts and events.

Major facilities provided at the Centre include: an 85'x190' ice surface (non-regulation as official NHL sizing is 85' x 200'), Peterborough Petes' team room, visiting team room, green room (used by Lakers Lacrosse), (4) paired public change rooms, the District Sports Hall of Fame, ticket office, and team offices. Food services are provided via a restaurant, and three concession areas located in the Club Lounge, as well as the East and North Lobby Concourses.

A total of 687 parking stalls are provided immediately to the south and west of the Centre and are accessed from Roger Nielson Way and Locke Street. The parking area is regularly used in the summer season to host a farmer's market. The remainder of the parking needs are accommodated on adjacent city streets.

The Centre had an ice surface replacement in 1977, with its only major renovation in 2003, adding 24 Executive Suites, a licensed restaurant, improved concessions, air conditioning, and new seating, including Premium Club seating and a Club entrance.

Exterior View of Existing PMC

3.2 Observed Condition of the PMC

The Peterborough Memorial Centre has served the City of Peterborough well over the years. Despite a major renovation in 2003, there are a number of systems and facility components that are at or nearing their end-of-life. Some of the more significant components that have been identified as requiring replacement in the near term (through 2023) are:

- Exterior building envelope;
- Ice surface slab and subsurface, dasher boards;
- Primary Heating Ventilation and Air Conditioning (HVAC) equipment;
- Electrical: Primary distribution throughout;
- Interior millwork, floor, wall, and ceiling finishes throughout;
- Domestic water, rainwater and sanitary plumbing systems upgrades throughout; and
- Exterior site work, landscaping, and fencing.

An updated detailed building condition assessment is required to adequately determine the condition, remaining lifecycle of the building elements, and anticipated replacement costs. The most recent condition assessment was undertaken in 2011.

When viewed against the amenities typically provided within a modern sport and event facility, the PMC is exhibiting a significant number of present-day challenges. These can generally be divided into two categories: functional challenges and building code challenges. The following sections highlights some of the more significant of these. The numbers referenced in the text below are identified on the diagrams provided within each subsection, as applicable.

3.2.1 Functional Challenges

Site and Context Challenges

Parking (1) is predominantly provided to the west and south of the Centre. It is not evenly distributed around the facility and causes significant access issues during maximum capacity events. There is a distinct absence of sidewalks, lighting, and wayfinding to direct users to the building's primary entries. The general condition of the site and pedestrian approaches (2) to the building are in various states of disrepair. These issues ultimately result in a poor first impression, and user experience.

The main entry points off Lansdowne (3) & Locke Street (4) have poor relationships to the primary parking area. Pedestrian access to the Lansdowne entry from adjacent on-street parking is cut off by vehicles using the drop off and parking at the entry. Pre and post-function pedestrian queuing and vehicular circulation has become increasingly problematic outside the Locke Street entry, due to the limited pedestrian and vehicular space provided. The placement and the small number of exit doors appear to limit spectator access and egress during maximum capacity events.

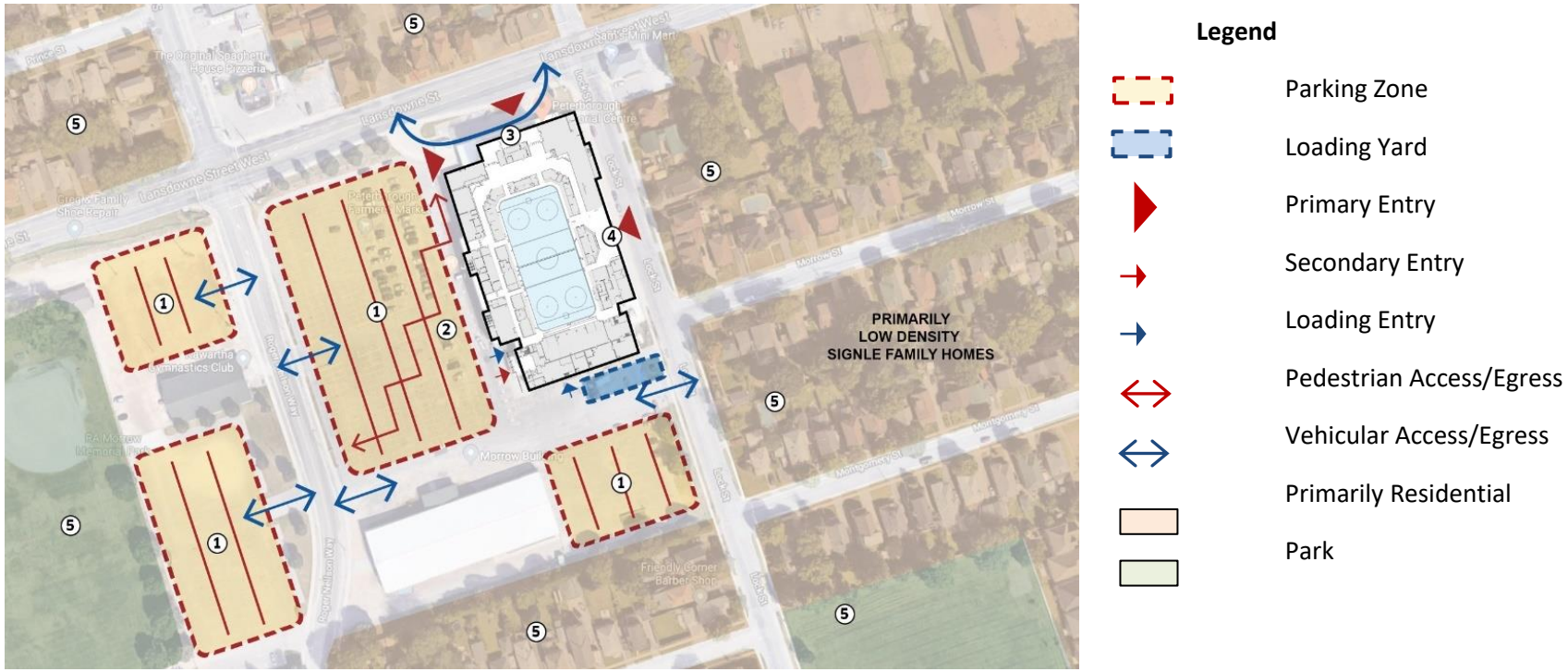
The adjacent land use context (5) is primarily low density single detached dwellings and park space. The PMC is in conflict with the adjacent residential areas due to large spectator pedestrian and vehicular volumes and late evening events schedule.

Despite the circulatory challenges, which in theory can be fixed through a reconfiguration of the site's landscaping and circulation system, and easterly proximity to existing residential, which is a problem that can't be fixed, the R.A. Morrow site has some significant advantages:

- The site is large and the ability to stage events with multiple truckloads of equipment is a decided advantage of this location over some "tighter" downtown spectator event centres in other cities;
- Touring events can obtain easy loading into and out of the building as well as park vehicles onsite, improving the capacity of the staging company to manage its logistics; and
- Other things being equal, this supports the opportunity for larger events, as well as events of a longer duration including trade show events.

The expansive nature of R.A. Morrow Park is a competitive advantage of the PMC at present.

Exhibit 2: Site and Context Functional Challenges



Circulation Challenges

Identified circulation challenges at the event level include:

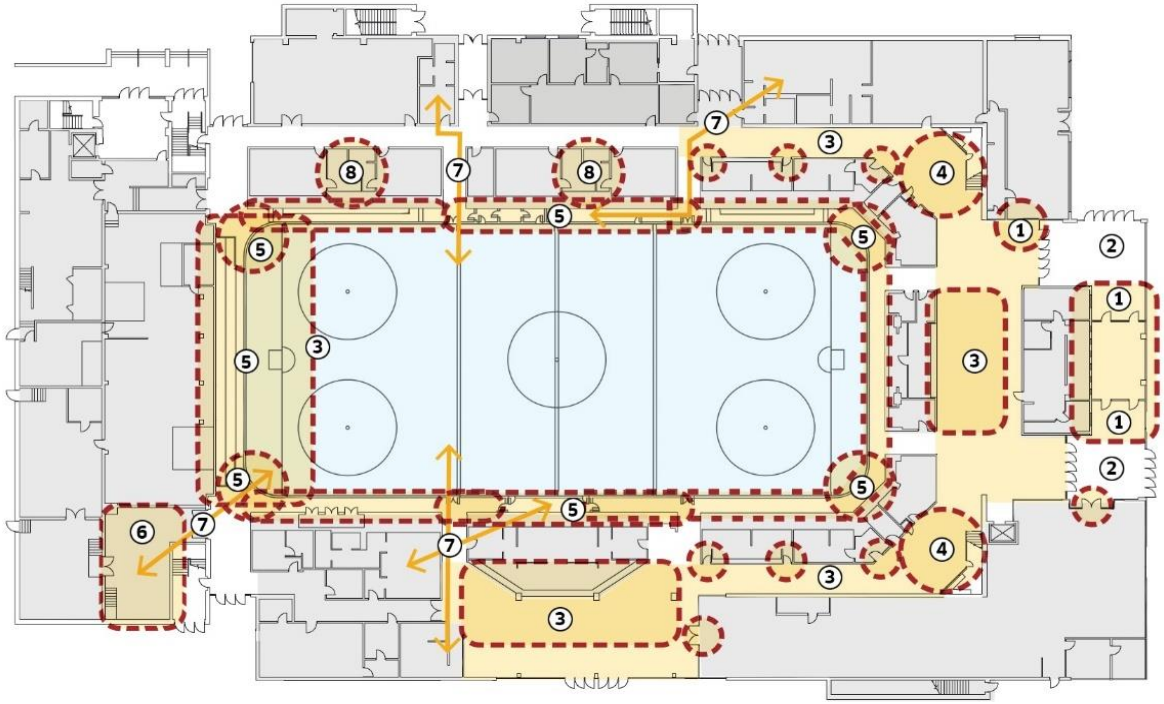
Main Entry Lobbies

The amount of space provided in each lobby appears to be adequate. However, the box office and Petes' Team Store, and Hall of Fame locations (1) are awkwardly positioned, and queuing compromises circulation. The low clear interior height of the Lansdowne entry (2) does not showcase the building as a special event centre.

Concourse and Circulation

The main level concourse (3) exhibits a general lack of breathing room and is undersized for maximum capacity events. Already tight circulation is frequently compromised by kiosks and vendor table placement, queuing, and a number of undersized washroom and food service access points. These issues are particularly pronounced in the north corners (4) of the building. As a result, the concourse is not a welcoming place for spectators to stretch their legs.

Exhibit 3: Circulation Challenges: Event Level



Ice Surface

The ice surface and geometry (5) has many significant challenges. The player's and penalty box locations, length of ice, corner radii, and dasher board condition/design specifications do not meet current hockey and lacrosse standards. The ice resurfacer room (6) does not accommodate two machines. In addition, participants cross spectator circulation (7) areas when moving to and from the ice surface.

Community Changerooms

The community changerooms are undersized, with insufficient washroom, shower, and drying areas. The shared washroom and shower facilities (8) significantly limit usability and security for concurrent mixed gender users.

Additionally, circulation challenges at the spectator level include:

- Seat spacing is generally constricted throughout the facility, with steep and restricted access aisles;
- Access to seating is convoluted and challenged to accommodate maximum capacity events;
- Significant conflicts between spectator and participant circulation also exist; and
- Barrier free viewing locations are often compromised. This is particularly pronounced in the north corners of building.

Utilization/Amenity Location Challenges

Utilization and amenity locational challenges at the event level include:

Food Services

The restaurant anchors the south end of the seating bowl, and positively adds to the variety of seating product available at the Centre. The location of the back-of-house kitchen space (1) on a separate level from the front-of-house seating area, while not uncommon in special events facilities, is a functional challenge for the restaurant tenant.

The remainder of the primary food services (2) appear undersized, particularly in the amount of food preparation space provided. Significant conflicts exist between queuing areas and adjacent concourse circulation, ultimately creating an unwelcome environment that encourages spectators to avoid food services and remain in their seats.

Washrooms

The number of public washroom facilities (3) appear to be insufficient in number and are undersized for maximum occupancy events. The north corners of the spectator area are underserved and should have their own washroom facilities. Doors, in lieu of open weave accesses, produces substantial bottlenecks during periods of intermission.

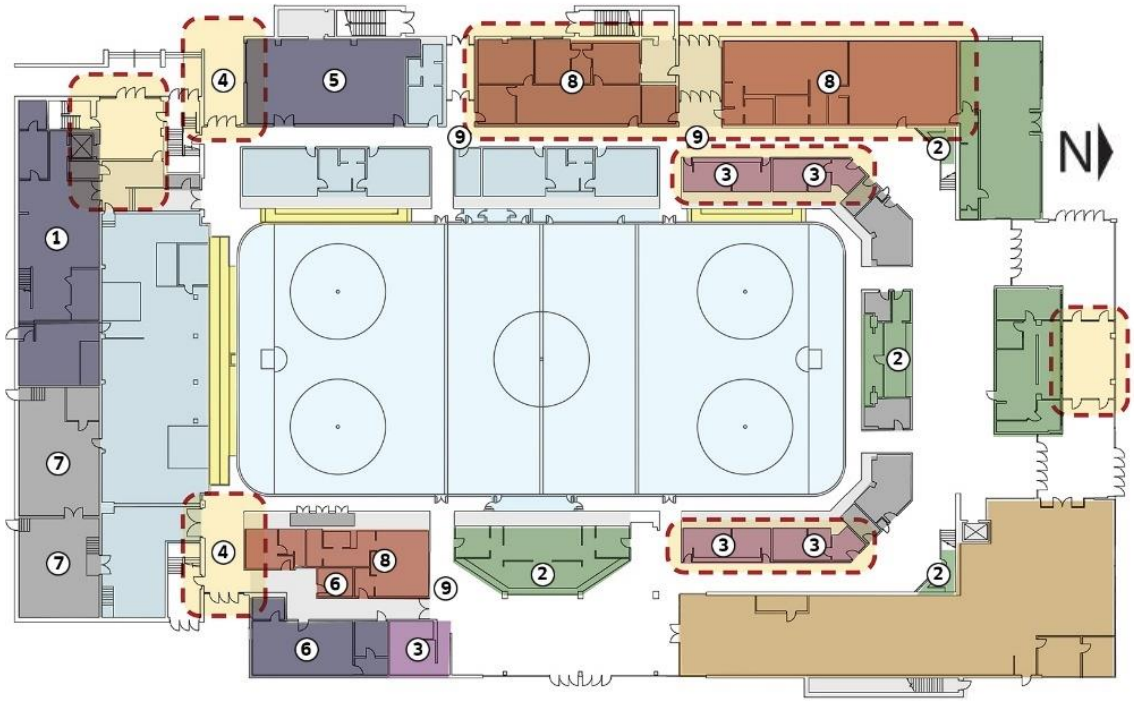
Special Event Hosting

The Centre falls significantly short in meeting basic demands of contemporary shows and special events. Some of the major areas of concern include undersized: back of house loading (4), staging (5), media broadcasting, dedicated dressing rooms, green room (6), event power and communications (7), sound system, dedicated rigging points, and roof height.

Primary Tenant Leased Space

Primary tenant leased space (8) is generally undersized, and poorly configured to meet OHL and Major Series Lacrosse standards. In addition, these spaces are located in the publicly accessible portion of the facility and generate significant spectator/participant conflicts. This is particularly pronounced in the concourse area, outside of team rooms (9).

Exhibit 4: Utilization / Amenity Location Challenges: Event Level



Legend

- Spectator
- Concession
- Washroom
- Team Space
- Hall of Fame
- Ice Support
- Event Support
- Support
- Utilization/Location

Constricted Circulation and Concession Space

Utilization and amenity locational challenges at the spectator level include:

Seating Bowl and Spectator Experience

The intimate seating bowl generates a high energy atmosphere for seating positions in the lower bowl, and suites. However, the circulation zone adjacent to the dasher boards (see adjacent image), low roof, structural elements, pageantry, and scoreboard, compromise sightlines and reduce spectator immersion. This is particularly pronounced in the skybox and second level south seating tier where these seats are disconnected from the remainder of the spectator experience.

Given the robust nature of the Centre's concrete structure, and the placement of the executive suites, the total seat count is fixed for the foreseeable future.

Washrooms

As with event level, the number of public washroom facilities appear to be insufficient in number and are undersized for maximum occupancy events. The north corners of the spectator area are underserved and should have their own washroom facilities. Doors, in lieu of open weave accesses, produce substantial bottlenecks during periods of intermission.

Petes' Alumni Space

The north corner location for the Petes' Alumni space and Hall of Fame storage is not the highest and best use of these areas. Ideally additional spectator washroom facilities would be placed here.

Problematic Seat Spacing

Constricted Circulation Space

Washrooms Doors Produce Bottlenecks

3.2.2 Building Code Challenges

Over time the facility has fallen behind modern building codes. While this work is outside the scope of this study, we anticipate that the following items may require building code upgrades if the facility were to undergo renovations of any nature:

- Exiting and egress: occupant load, exit width, number of exits, travel distance, seating bowl, stair, hand & guardrail geometry;
- Fire Protection: Sprinklers, fire resistance and flame spread ratings, location of fire rated assemblies, and extent of combustible finishes;
- Washrooms: fixture and stall counts, sizing, distribution, and finishes;
- Barrier free design: vertical conveying, access & egress;
- Mechanical: Heating & cooling capacity, ventilation rates, smoke exhaust, plumbing system; and
- Electrical: Primary distribution service, power condition assessment.

A detailed building code and life safety analysis is required to adequately determine where the existing Centre does not comply with existing regulations. However, currently it is understood that the trigger that renovations create with regard to broader upgrades throughout the building to meet code are one reason why full length, centre-mounted hand rails have not been installed on the stairs serving the fixed seating. Furthermore, it is the steep rake at the seating areas that was identified by the public and other stakeholders as a major challenge to the positive experience of patrons in the building.

3.2.3 Conclusion

Given the order of magnitude of the building condition and functional and building code challenges currently facing the existing Peterborough Memorial Centre, and the anticipated capital costs associated with addressing them in a substantial manner, it is becoming increasingly timely for the City of Peterborough to consider a new multi-use special events centre to host entertainment, Major/Junior sports, and special events.

4

SITUATIONAL ASSESSMENT: THE PMC IN 2030 AND BEYOND

4.1 Recent, Committed and Anticipated Expenditures

4.1.1 Historical Expenditures

Based on information provided by the City, it is understood that over the course of the facility's lifespan the following major capital investments have been made:

Exhibit 5: Historic Major Capital Investments

Year	Description	Initial Investment (+/-)
2003	Major Renovation	**$14,000,000**
2007		**$242,900**
	Parking Lot Repair	$2,100
	Doors	$3,900
	4th Floor Railing	$12,300
	Refrigeration Plant	$188,200
	Refrigeration Room Doors	$2,100
	Electrical	$10,400
	Change Room Floors	$23,900
2008		**$37,700**
	Dasher Board Glass Supports	$18,400
	Piping	$7,700
	Refrigeration Compressor Overhaul	$11,600
2017		**$1,165,000**
	Refrigeration Plant Upgrades	$940,000
	LED Lighting Replace & Low E Ceiling	$225,000
TOTAL		**$15,445,600**

Source: Sierra Planning and Management based on City of Peterborough data

It is also understood that the ice surface slab was replaced in 1979, however the capital expenditures for this improvement are not known.

4.1.2 Recently Committed Expenditures

The City has committed financial resources in recent budgets to the capital improvement of the PMC. These pertain to leaky roof and HVAC issues, where several roof areas are beyond their life expectancy and require replacement, as well as replacement of the concrete slab, dasher boards and glass, and refrigeration plant equipment.

Exhibit 6: Immediate Capital Cost Requirements for the PMC

Project and Year	Budget
Roof and HVAC Replacement (2017, not completed to date)	$1,423,000
Ice Pad and Dasher Board Replacement (2019)	$3,500.000
Roof and HVAC Replacement (2019)	$1,305,000
Total	**$6,228,000**

Source: Sierra Planning and Management based on City of Peterborough Staff Reports CPPS17-008 and CPPS17-015

4.1.3 Anticipated Future Investment

A Building Condition Assessment was completed in 2011 by Accent Building Science Inc., which identified over $21 million in maintenance and lifecycle replacement costs to 2050 and beyond, as detailed below.

Exhibit 7: Future Capital Investment Required for PMC

Estimated Replacement Year	Budget
2012 - 2020[2]	$3,369,467
2021 - 2030	$4,850,643
2031 - 2040	$4,750,647
2041 - 2050	$7,364,754
2051 +	$ 819,315
Total	**$21,154,825**

Source: Sierra Planning and Management based on Accent Building Science Inc. Memorial Centre Building Condition Report, 2011

Note: $ Figures are nominal (i.e. not escalated to 2018 dollars)

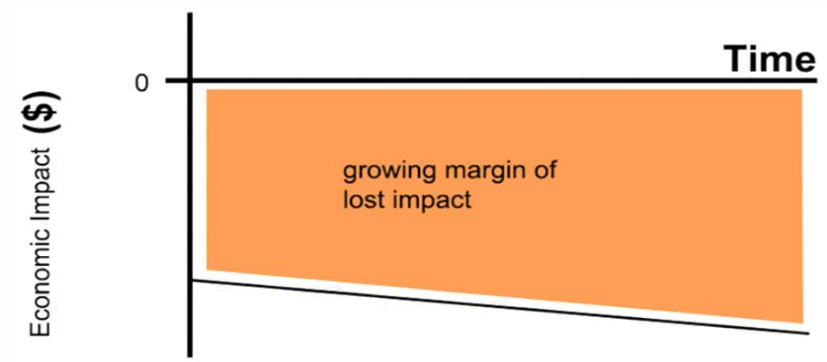
Some of the more significant capital investments required over the medium-term (to 2030) include: elevator upgrades, new entertainment stage, new main entrance door and other doors, exterior way finding signage, new main entrance flooring, exterior windows and doors, benches, wall coverings, floor finishes, ceiling finishes, millwork, bleacher seating, flooring, suspended acoustic ceiling, elevator code changes, domestic water distribution, sanitary waste, rainwater discharge, water treatment system, heating systems, fire protection, electrical, communications / security, parking lot paving, and site fencing.

All of this additional capital spending, which in 2018 dollars is approximately $26 million, is simply to maintain the **current** level of functionality. None of this spending improves the capacity or functionality of the building in a materially significant way or enables it to compete better against buildings in other centres in the region. Less charitably, it can be viewed as the spending required to maintain the same level of disfunction of the building. An analogy with treading water doesn't do justice to the fact that maintaining the status quo can only occur for so long.

4.2 Opportunity Costs of the PMC

The increasing lack of functionality of the PMC relative to its competition is the most significant future risk. The required investment to maintain the building in essentially its current functional state is not supportable as strategic goal. This is made more apparent still when considering the likely future subsidies required to support annual operations over and above the required capital expenditures to maintain the building.

Exhibit 8: Growing Gap of Lost Impact



[2] Short-term costs do not include expenditures planned and pre-approved for ice pad and dasher board replacement of $3.5 million. However, refrigeration plant upgrades planned for 2025 per this 2011 report have been undertaken; and dasher boards now part of the 2019 expenditures were planned for 2023.

While accurate projections of future revenues and costs, if the current building is not replaced, are not possible, it is reasonable to assume that the operating deficit will widen over time. The rate of that decline will be determined by many things including the quality of building management, regional competition, the strength of the events market itself, and the degree to which the limitations of the building further jeopardize the ability of the tenants to improve their businesses.

This operating gap – the gap between market potential and the performance of the building - is more than just a comparison of the current to future deficit of the PMC, it is between the future deficit of the PMC and the operating performance of a new building. That is likely to represent a wider gap still.

The resulting economic impacts of the building also can be expected to decline as the competitive position of the building in the market place further declines.

All together, these growing margins between what is possible and what is apparent, represent opportunity costs that are potentially every bit as important over time as capital costs are in terms of initial funding needs for a new building.

4.3 Future Community Ice Needs and Future Use Potential of the PMC

4.3.1 The Requirement for Arenas in the Future

An Arena Needs Assessment was conducted for the City in 2013 (by ReThink Group) to determine the number of ice surfaces required to meet existing community needs as well as the arena facilities required as the City grows.

The study recommended that an appropriate arena service level going forward would be 1 ice surface per 11,000 residents[3]. This results in the following requirements for ice surfaces to 2031 based on the upper and lower limits of forecasted population growth. The exhibit below takes into account the anticipated decommissioning of the Northcrest Arena but does not consider the new twin-pad facility which is to be located at Trent University. Once the new facility is open, the Northcrest Arena will be closed.

Exhibit 9: Ice Surface Requirements to Meet Current and Future Demand

Year	Required Ice Surfaces
2018	**+2.7 to 2.9 ice surfaces** (7.7 to 7.9 ice surfaces required)
2021	**+3.1 to 3.2 ice surfaces** (7.7 to 7.9 ice surfaces required)
2031	**+3.7 to 4.1 ice surfaces** (7.7 to 7.9 ice surfaces required)

Source: Sierra Planning and Management based on ReThink Group's Arena Needs Assessment, 2013

[3] This service standard is high compared to some other similar sized communities and should over time be tested against service standards based on registered ice users (participants) rather than population as a whole, and further verified based on ice time utilization.

The Arena Needs Assessment conducted for the City suggests the need for a net addition of as many as four (4) new indoor ice pads to meet demand by 2031. This assessment also treats the PMC ice sheet as equivalent to a full community ice surface, whereas in reality its OHL and event centre function reduces that role considerably. Whether that is a material consideration depends on whether the targeted arena service level is a hard and fast policy goal, and second whether the anticipated population growth occurs as quickly as projected to 2031. Assuming it does, the City may be faced with a need to invest in new ice in addition to the recently proposed twin pad facility which is planned for construction by 2021. Key conclusions include:

- With a new twin pad, the net requirement for ice is two (2) additional ice surfaces;
- The development of a new spectator event centre will add an ice surface to the inventory but as the intent is to maximize its use as a commercial event centre, community use of the ice should be considerably discounted to perhaps as little as 25% of ice time;
- Therefore, even if the PMC is retained as a community ice arena, there may still be a requirement to plan for an additional twin pad arena; and
- If population growth is slower than projected, the need for additional ice by 2031 is, accordingly, lower.

4.3.2 Is the PMC part of the Community Ice Solution?

The City needs to consider the options, and this is part of the repurposing assessment for the PMC. In looking at the opportunities over the long term, the consulting team is of the opinion that full consideration should be given to repurposing the PMC for dry-floor uses of some kind. There are a number of reasons for this:

- The building has structural integrity and the seating is not part of the structure and can be removed, yielding a larger volume of space for participant sports and activities or enabling the easy demising of space into a series of uses;
- The floor to ceiling height and large span of the structure is a costly investment, even if it represents a sunk cost in this case, and hence the full value of this type of space for appropriate events should be sought. Retaining this space for sport, gymnasium, trade show, or other functions in a complementary fashion with a new building is a potential goal and saves on future costs of building new. Complementarity is made easier if the replacement building is also located on Morrow Park;
- The recent investment in a new ice plant represents a movable investment and could be transferred to another facility, resulting in cost savings at a new community ice facility; and
- The City's recent commitment to repair the foundations and slab at the PMC provides a number of flexible futures including the retention of ice over the short to medium term.

With respect to whether the PMC can or should be repurposed to function as a community ice surface, funding availability and the reality (and benefit) of sunk costs can be expected to come into play. In the absence of sufficient funding for building new

community ice arenas, the PMC as a single sheet of ice represents a minimal capital cost, promotes heritage and legacy, but will undoubtedly represent an inefficient level of operating expense compared to a modern twin pad facility. This may, however, represent a case of "needs must" in the shorter term, enabling the longer-term plans for the PMC to be developed over time, in much the same way as has occurred in other communities.

The consulting team has concluded that twining the PMC is also less than ideal despite the capital cost savings that a renovation and twinning could bring compared to an entirely a new double rink facility. Given the likely unconventional design that would be required to add a second ice surface and ensure effective circulation, those capital cost savings could be partially eroded. The inefficiency and large volume of space of the PMC itself (119,000 sq. ft.) begs the question as to whether there is a complex of other activities that can be accommodated alongside a community ice arena. These are questions that a repurposing study can address assuming that the Morrow Park site is not required for the building of the new event centre itself.

The ice needs of the City also can be partially met by the development of a community ice pad as a second pad at a new MUSEC. This of course, as detailed elsewhere in this report, is dependent on the site that is ultimately selected.

To summarize options:

- An event centre with an additional community ice pad, along with the planned twin-pad in the north end of the City will substantially contribute to the required ice supply.
- The retention of the PMC for ice would further solidify the community ice supply but likely does not represent a long-term solution.

4.4 Principles for the Re-Use of the PMC

Suggested approaches to the re-use of the PMC follow on from the discussion about its role as a long-term ice arena versus another use or range of uses. Recognizing that potential funding limitations will determine matters in the short term, its long-term future should be based on the following principles:

1. **Uses that respect its heritage and legacy** – translates into a building for public use.

2. **Financially manageable** – the City should not be expected to operate this building over the long term based on a high operating deficit when its use is as a community recreation facility. The high deficits of many event centres are justified by the economic and social contribution of these facilities whereas modern dedicated arenas operate on much lower deficits. Greater levels of subsidy could be justified if a greater range of uses are accommodated in the building, including new and emerging activities.

3. **Partnerships** - to reduce or eliminate the City's exposure to operating cost liabilities, partnerships are also possible where not-for-profit or private companies wish to use the building, in part or in whole, for dedicated use.

4. **Broader Campus** – If a new event centre were to be built at Morrow Park, it is important to understand how, or if,

the existing PMC could contribute to a broader campus function related to trade, exhibitions, and other hosting opportunities.

5. **Consider the potential to demolish the PMC** - if the above principles cannot be met or if the site on which the PMC sits is potentially more valuable in another use related to the broader goals of the City demolition may be an ultimate decision. However, given the intrinsic value of the building for community use, it is likely that a range of feasible adaptive reuse scenarios may exist upon more careful investigation.

   If demolition is considered an option, the heritage and legacy of the Memorial Centre needs to be actively transferred to the new facility in some meaningful way, whether this be in terms of dedicated spaces, naming opportunities within the building, working with the Sports Hall of Fame or by other means.

   As an example, the MUSEC which opened in downtown Sault Ste. Marie in 2006 was constructed adjacent to the old Sault Memorial Gardens Arena. The latter was then demolished with important heritage from the site including the cenotaph protected and retained on site.

Sault Memorial Gardens (opened 1949)

GFL Memorial Gardens (formerly Essar Centre, opened 2006) with retained Cenotaph on site

5

MARKET OPPORTUNITIES FOR A MUSEC

5.1 Defined Market Area

The following provides a profile of the patron market for events for a MUSEC in Peterborough, including:

- The size of the market population;
- Demographic trends; and
- Household spending on sport and non-sport events.

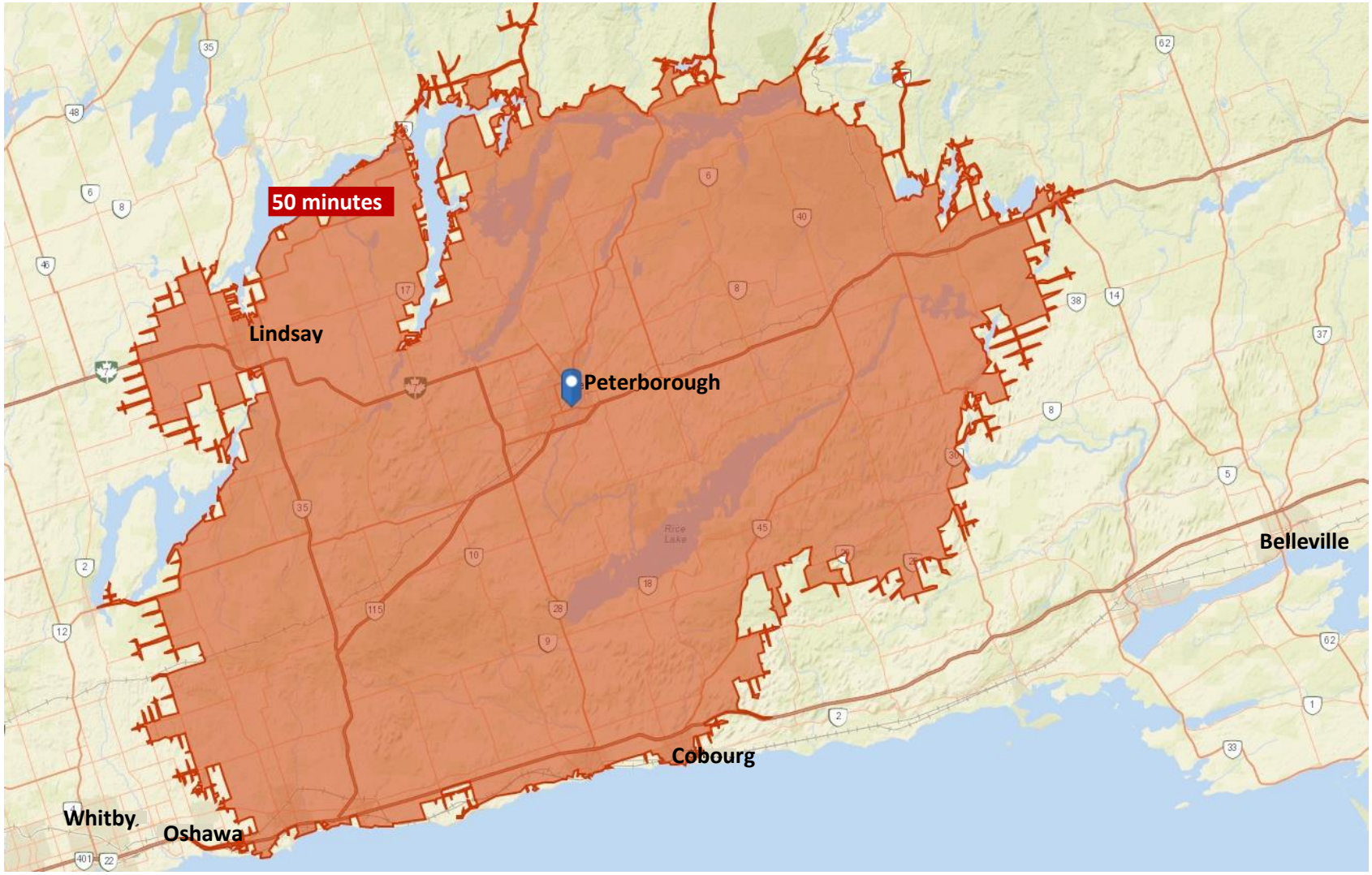
The broader market area for a Multi-Use Sport and Event Centre is defined to be residents and households within a 50-minute drive time of the existing PMC. This is corroborated by place of residence data for recent patrons/ticket purchasers at the PMC.

The market area for a MUSEC in Peterborough is currently home to approximately 300,000 residents based on the 50-minute drive time.

As documented in this report, the market area for the most frequent events, namely hockey events, represents a primary trade area that is more closely defined as the City of Peterborough and Peterborough County.

Attendees at a Peterborough Petes Game

Exhibit 10: Market Area within 50-minute drive time to the Peterborough Memorial Centre



Source: Sierra Planning and Management based on Business Analyst by ESRI, 2017

5.2 Market Area Profile

The market area for a MUSEC in Peterborough spans a geographic area over 5,000 km and comprises all or portions of the following jurisdictions:

- Peterborough County (southern portion);
- Northumberland County (including Cobourg and portions of Alnwick/Haldimand);
- Hastings County (to the west);
- Kawartha Lakes (just north of Lindsay); and
- Durham Region (east of Oshawa).

5.2.1 Population Growth

Long term projections of population growth are not available for the trade area based on our drive-time. However, this trade area is part and parcel of three counties plus Durham Region for which projections exist.

The counties within which the market area exists have experienced population growth since 2011, with Kawartha Lakes, Peterborough and Northumberland Counties growing by approximately 3 or 4% each. Durham Region grew by 6%, while Hastings County only grew marginally (1%).

Ontario Ministry of Finance projections[4] (Spring 2018 update, reference scenario) identified that the populations for these combined county areas totalled just over 1 million people in 2018 and are expected to grow by 29% to 1,298,144 by 2041. This represents a compound annual growth rate of 1.12%. This compares to a provincial compound annual growth rate over the same period of 1.08%.

Exhibit 11: Market Area Population Projections

	Peterborough County	Northumb-erland County	Kawartha Lakes	Durham Region	Total
2018	145,356	88,784	78,290	692,608	1,005,038
2021	149,097	91,237	80,052	722,199	1,042,585
2026	154,007	95,021	82,936	772,559	1,104,523
2031	158,646	98,716	85,867	825,590	1,168,819
2036	162,936	102,174	88,684	879,480	1,233,274
2041	167,102	105,432	91,423	934,187	1,298,144

Note: Peterborough County includes the City of Peterborough. Hastings County is not included in the projections developed by the Ministry of Finance. According to the Hastings County Official Plan (Draft, April 2017) the population is expected to increase modestly from 42,840 in 2018 to 45,956 in 2038 (an increase of 0.28% per annum).

Source: Sierra Planning and Management based on Ministry of Finance Population Projections, Spring 2018

[4] The 2018 Ministry of Finance population projections are produced for Ontario and each of the 49 census divisions from the base year of 2017 to 2041 and are based on 2017 population estimates from Statistics Canada (based on 2011 Census). Projections are updated on an annual basis to provide a demographic outlook reflecting the most up-to-date trends and historical data. The projections do not represent policy targets and therefore differ from City projections which are part of the Provincial Growth Plan for the GGHA.

In addition, the City of Peterborough, based on the City's 2016 Official Plan, is targeted to grow to 88,000 by 2031 (per the Provincial Growth Plan for the Greater Golden Horseshoe Area) and 115,000 by 2041 (as per the City's Official Plan Update, currently underway).

5.2.2 Age Profile

In general, the market area is characterized by a relatively older demographic compared to the City's population whose median age is 43.6 years. The median age of the market area population is 45.9 years, which is similar to that of the of the County (46.9 years). Ontario's median age is lower than each of these at 41.3 years in 2016.

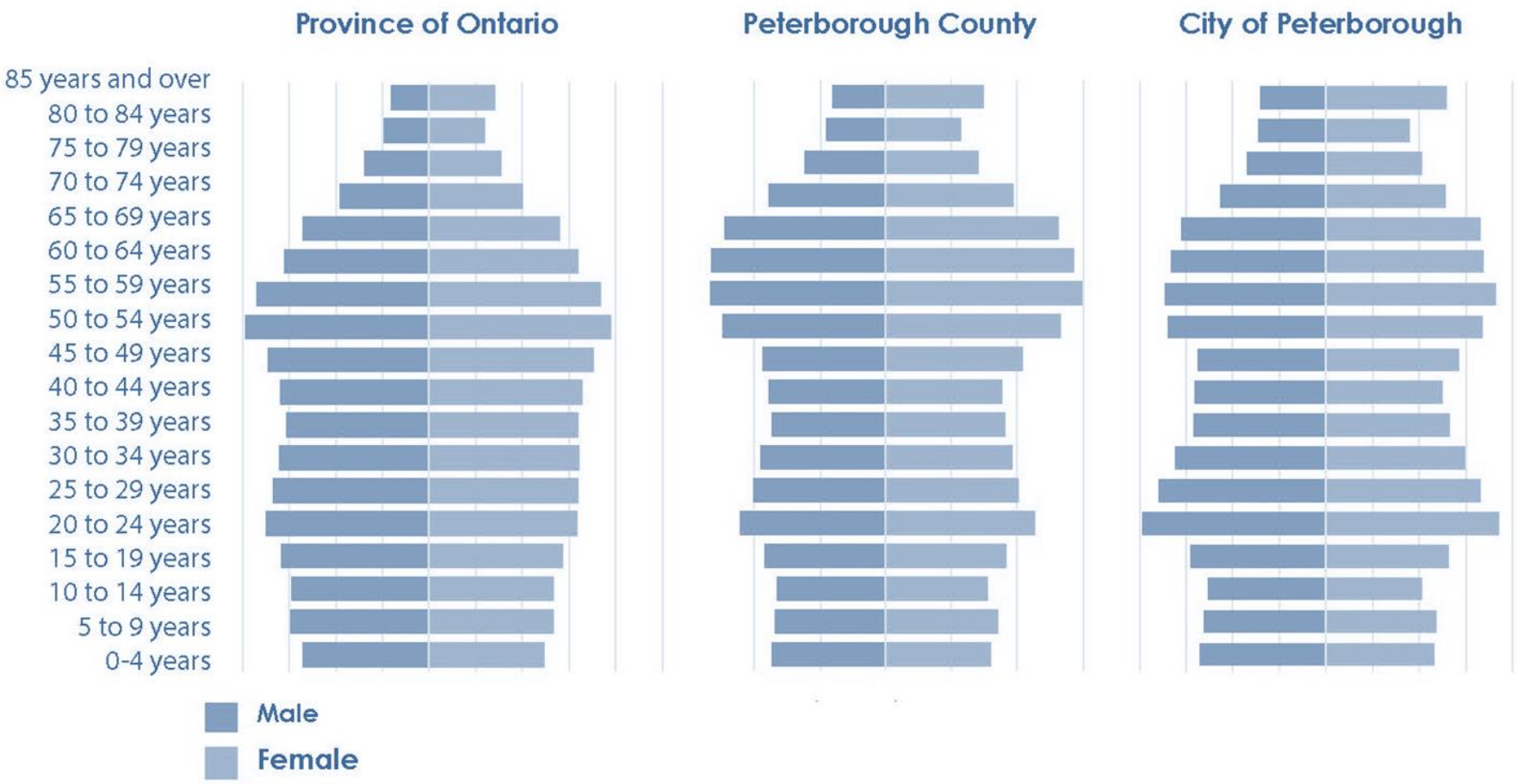
Based on the population projections developed by the Ministry of Finance, the age distribution of Peterborough County is expected to continue to be older than that of the Province. By 2041, 32% of the County's total population is forecast to be over the age of 65, compared to 25% of Ontario's total population.

Exhibit 12: 2041 Age Distribution Comparison

	Peterborough County		Ontario	
	2041 Population	**% share of total**	**2041 Population**	**% share of total**
Children and Youth (0-19 years)	30,509	18%	3,757,789	20%
Young Adults (20-39 years)	34,527	21%	4,470,205	24%
Adults (40-64 years)	49,152	29%	5,676,475	31%
Older Adults (65+ years)	52,914	32%	4,573,364	25%
Total	**167,102**	**100%**	**18,477,833**	**100%**

Source: Sierra Planning and Management based on Ministry of Finance Population Projections, Spring 2018

Exhibit 13: Existing Age Distribution Comparison

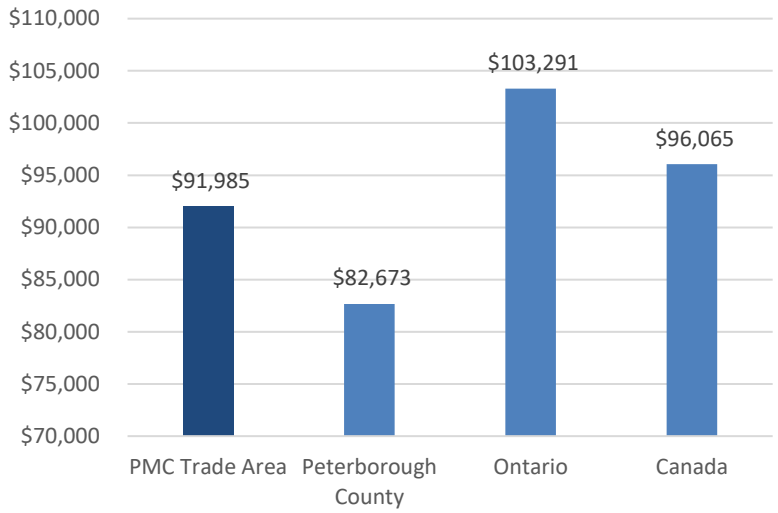


Source: Sierra Planning and Management based on Statistics Canada, 2016 Census data

5.2.3 Income and Spending

2017 Business Analyst by ESRI data showed that the market was comprised of 85,743 households and had a higher average household income ($91,985, 2017 estimate) compared to Peterborough County ($82,673). This is lower than the average household income for Ontario and Canada.

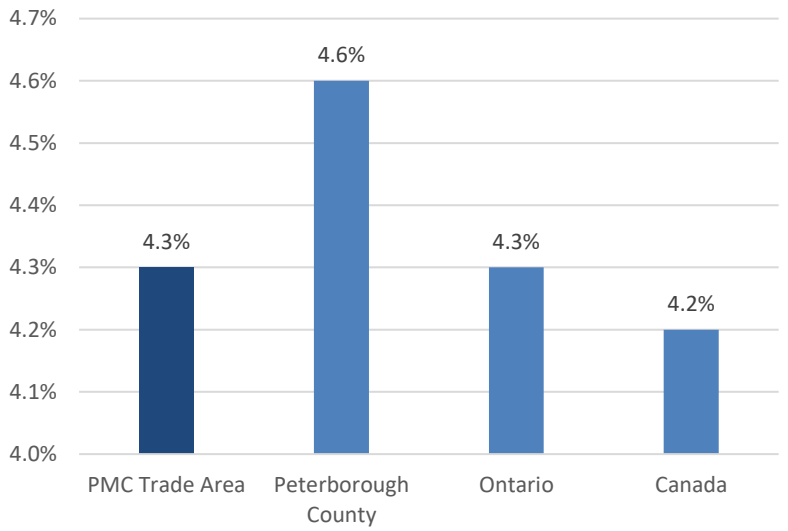
Exhibit 14: Average Household Income



Source: Sierra Planning and Management based on Business Analyst by ESRI, 2017

As a percentage of total income, household spending on recreation as a whole by residents within the broader market area (4.3%) is on par with the provincial (4.3%) and national (4.2%) average, but slightly lower than Peterborough County (4.6%).

Exhibit 15: Annual Spending on Recreation as a % of Household Income



Source: Sierra Planning and Management based on Business Analyst by ESRI, 2017

Contrasting with this, a more detailed assessment of spending by type of recreational activity showed that the market area and Peterborough County households spent more on live events per annum than their provincial and national counterparts.

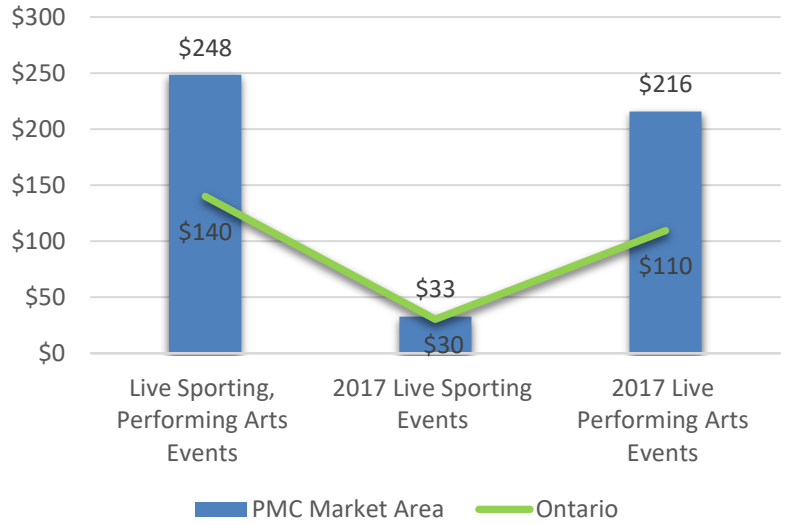
Exhibit 16: Comparison of Spending on Recreation and Live Events

	Avg. HH Spending on Recreation	Avg. HH Spending on Live Events	% of Total Recreation Spending
PMC Trade Area	$4,530	$248	5.5%
Peterborough County	$4,140	$252	6.1%
Ontario	$4,662	$140	3.0%
Canada	$4,577	$133	2.9%

Source: Sierra Planning and Management based on Business Analyst by ESRI, 2017

Taking a closer look at the types of live events the market area attends, it becomes clear that compared to the provincial average residents of the market area spends more overall, and in particular on Live Performing Arts Events ($110 for the Province compared to $216 for the market area).

Exhibit 17: Annual Household Spending on Live Events

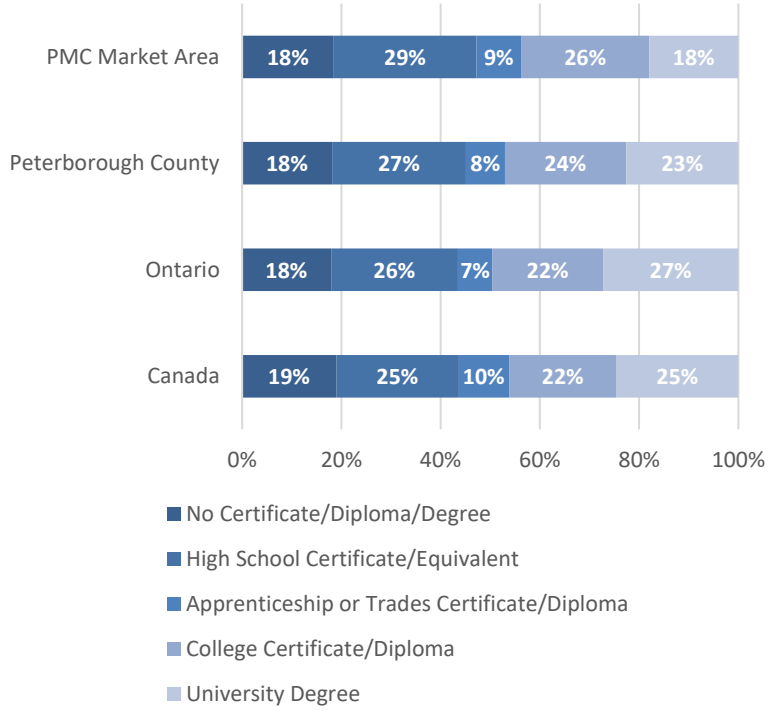


Source: Sierra Planning and Management based on Business Analyst by ESRI, 2017

5.2.4 Educational Attainment and Employment

The educational attainment of the market area differs slightly than that of the County, Province and nation as a whole. Specifically, the market area has a lower percentage (18%) of the population who have obtained a University Degree but slightly higher percentage (26%) who have obtained a College Certificate or Diploma. The proportion of the population who have No Certificate, Diploma or Degree is in parity with the population proportions of Peterborough County, Province and County.

Exhibit 18: Highest Educational Attainment of Population 15 Years and Above (%)



Source: Sierra Planning and Management based on Business Analyst by ESRI, 2017

The labour force within the market area is estimated to include 141,132 people in 2017, representing a 57% labour force participation rate. The market area and Peterborough County (55%) have lower participation rates than Ontario and Canada (64% and 65% respectively); this relates to the fact that these areas have a higher prevalence of older adults who have retired from the labour force.

Most of the employment within the market area is focused in the Retail Trade (6.83% of labour force) and Health Care and Social Assistance (6.72%) sectors. This is consistent with County, Province and national employment data. It is interesting to note that the market area has a higher proportion of its labour force employed in the Construction sector (4.24%) when compared to the County (2.99%) but is on par with the national average (4.35%).

5.2.5 Key Take-Aways

- The market is growing.
- Spending for events based on Environics data demonstrates a propensity to spend on live sporting events and arts events at a rate higher than a number of significant urban centres, indicative perhaps of the City's reputation for high quality performing arts and a vibrant cultural sector.
- A 50-minute drive time represents a realistic market trade area despite the evidence that regular attendance at sports events at the PMC is drawn from a far more local market – that reality is one of the attributes of the trade area that needs to change as a result of progressive efforts of the Petes to re-engineer the fan base to lower the average age of the regular attendees, boost seasons ticket sales, enhance visitor experience and tap the market for group sales, and otherwise have a greater

impact on the existing market place which is far from under-performing in terms of socio-economic profile and spending capacity.

5.3 Trade Area Comparisons

A comparison with other markets served by similarly scaled MUSECs can help describe the relative strength of the Peterborough market area and form a basis for comparison with the operational performance of the other venues.

Two directly comparable venues in Eastern Ontario are the newly renovated Yardmen Arena in Belleville and the Rogers K-Rock Centre in Kingston. As of July 1, 2018, the Rogers K-Rock Centre was approved to be renamed as the Leon's Centre as part of a new 5-year naming rights deal with Leon's Kingston. The Tribute Communities Centre in Oshawa is of some part of the comparative set and is showcased later in this report. However, that market area includes a greater reach into the Greater Toronto Area (GTA) and as such is less comparable than the geographically noted district markets of Belleville and Kingston.

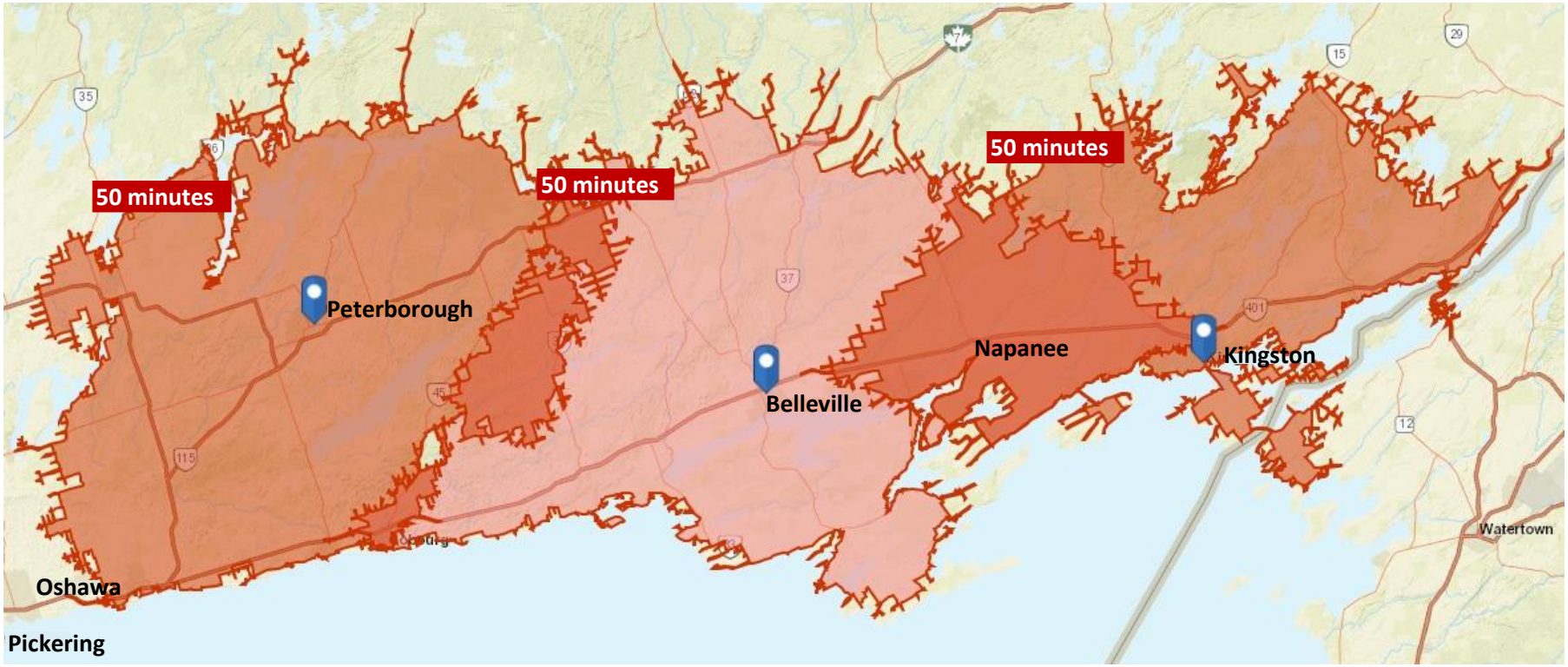
5.3.1 Comparative Size of Markets

The market for a MUSEC in Peterborough is estimated to be larger than comparable Eastern Ontario venues given its relative proximity to the GTA communities (compared to Kingston or Belleville).

50-Minute Drive Time Market as of 2017:

- Peterborough: 299,000 persons
- Kingston: 204,000 persons
- Belleville: 269,000 persons

Exhibit 19: Market Area within 50-minute drive time to the Peterborough Memorial Centre, Yardmen Arena (Belleville ON) and the K-Rock Centre (Kingston ON)

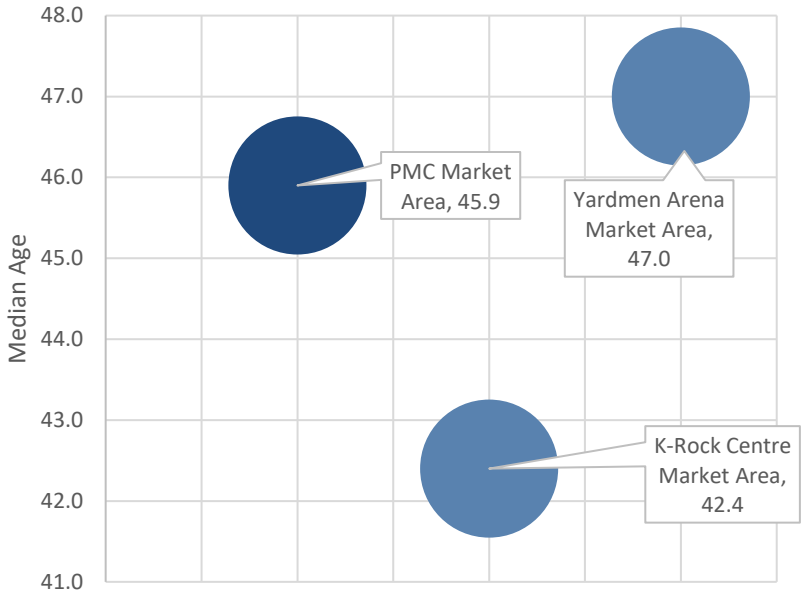


Source: Sierra Planning and Management based on Business Analyst by ESRI, 2017

5.3.2 Age Profile of Comparative Markets

The age profile of the market areas – a proxy measure of propensity to spend on active pursuits – is generally consistent: the median age of the market area population for a MUSEC in Peterborough (45.9 years) is slightly younger than that of the Yardmen Arena (47.0 years) and higher than that for the K-Rock Centre (42.4 years).

Exhibit 20: Median Age of Market Area Population for Eastern Ontario MUSECs

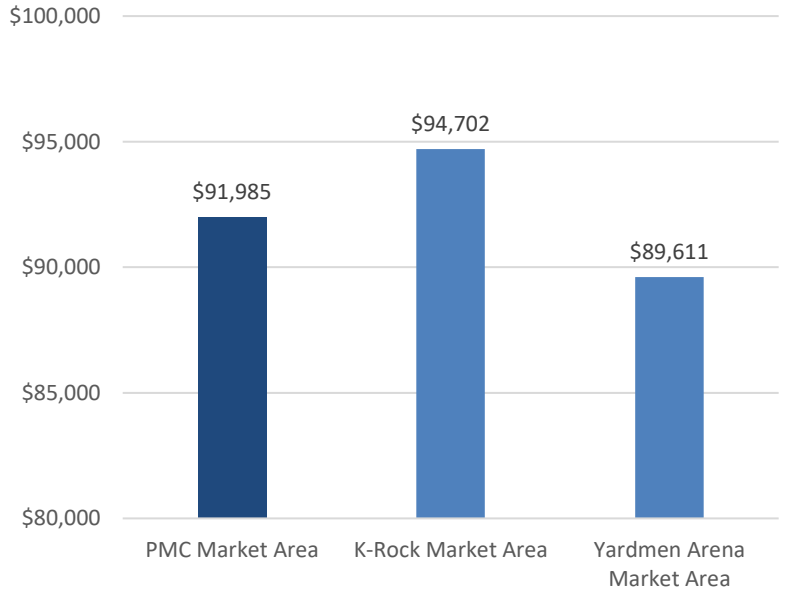


Source: Sierra Planning and Management based on Business Analyst by ESRI, 2017

5.3.3 Income and Spending Profile of Comparative Markets

The market for a MUSEC in Peterborough is estimated to have higher per household spending on live events (both sporting and non-sporting) per year compared to other Eastern Ontario and GTA markets.

Exhibit 21: 2017 Average Household Income for MUSEC Market Areas



Source: Sierra Planning and Management based on Business Analyst by ESRI, 2017

Both the average household income and average household spending on recreation pursuits of the comparative trade areas are quite similar to the market area for a MUSEC in Peterborough.

The difference lies in the type of recreation activities they are spending on. Specifically, those within the Peterborough market area spend a larger proportion of total recreation spending on live sporting events and performing arts events compared to those within the K-Rock Centre and Yardmen Arena market areas.

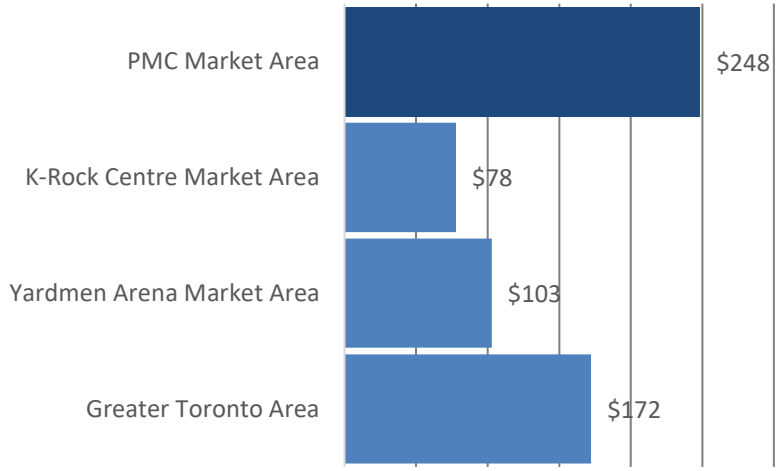
Exhibit 22: Market Area Comparison of Spending on Recreation and Live Events

	Avg. HH Spending on Recreation	Avg. HH Spending on Live Events	% of Total Recreation Spending
PMC Market Area	$4,530	$248	5.5%
K-Rock Centre Market Area	$4,429	$78	1.8%
Yardmen Arena Market Area	$4,183	$103	2.4%

Source: Sierra Planning and Management based on Business Analyst by ESRI, 2017

Households within the market area for a MUSEC for Peterborough spent more on live sporting and performing arts events in 2017 than those within the markets of the comparator venues as well as the GTA market area.

Exhibit 23: Average Annual Household Spending on Live Sporting and Performing Arts Events within Market Areas (2017)



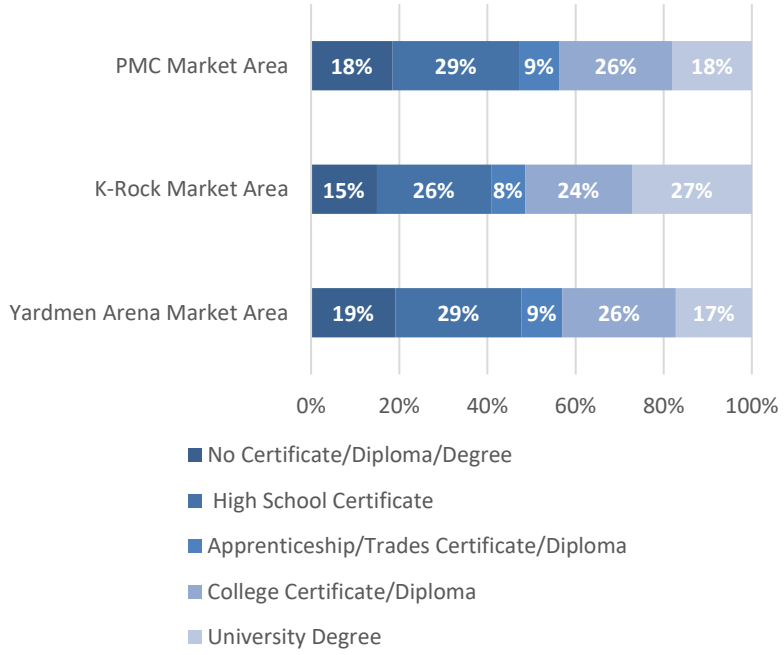
Source: Sierra Planning and Management based on Business Analyst by ESRI, 2017

Households within the market area for a MUSEC in Peterborough – despite spending comparatively less on sporting events per annum ($33) compared to the GTA market ($44) – are estimated to spend more on non-sport live entertainment ($215 for the PMC market versus $128 for the GTA market). The lower metrics of the Kingston trade area reflects the considerable rural extent within the 50-minute corridor east and west along Highway 401; within the main urban area of the City of Kingston spending levels on the arts and events rises considerably although not as high as for Peterborough.

5.3.4 Education and Employment within Comparative Markets

The educational attainment of the market area for a MUSEC in Peterborough is very similar to that of the Yardmen Arena in Belleville. Both of which have post-secondary institutions – Trent University in Peterborough and Loyalist College in Belleville.

Exhibit 24: Highest Educational Attainment of Population 15 Years and Above (%) for MUSEC Market Areas



Source: Sierra Planning and Management based on Business Analyst by ESRI, 2017

The market area for the K-Rock Centre has a much higher proportion of the population who have obtained a University Degree, attributable to the downtown Kingston location of Queens's University, St. Lawrence College, various Federal and Provincial Government offices, Canadian Forces Base Kingston and the Royal Military College. All of which tend to attract those with high degrees of education and training.

Not surprisingly, the K-Rock Centre market area has a higher proportion of its labour force employed within the educational (7.7%) and public administration (7.67%) sectors when compared to the market areas of the PMC (4.33% and 3.76% respectively) and Yardmen Arena (4.33% and 6.07%). Health Care and Social Assistance (8.08%) sector within the K-Rock Centre market area is marginally higher than that of the PMC (6.72%) and Yardmen Arena (7.0%) market areas.

5.3.5 Key Take-Aways

Despite differences in the market profile between Peterborough and Kingston reflecting in part the more densely populated nature of regions that are closest to the GTA, the success of the Kingston event market demonstrates an important reality: those venues that are located more distant from the competition, are more likely to retain rather than leak market share from within their own trade area. By comparison, Peterborough undoubtedly faces significant competition from Toronto venues as well as the Oshawa event centre, while the same is true of St. Catharines regarding the west side of the GTHA. However, centres such as Kingston have not succeeded simply because they are further from the competition. The example of Kingston demonstrates the importance of having a strategic location:

1. Kingston is equidistant between Toronto and Montreal and part of the Quebec City and Windsor Corridor. This corridor represents the most densely populated and commonly developed region of Canada.

2. The same strategic location and separation from the largest urban market (the GTA) describes the London, Ontario market, another highly successful mid-scale event centre.

3. Multiple access points to the international border with the U.S. along the corridor help make this region highly accessible by U.S.-based touring acts.

Peterborough benefits from its general locational proximity to major population centres, transportation rate and the U.S. border. However, the City cannot claim the same locational advantages as Kingston or London, or even Oshawa as touring stop on a cross country basis region tour. As demonstrated in the analysis of tour flow pattern later in this report, Peterborough has benefited from tours who have travelled to bypass the major market of Toronto.

With the completion of Highway 407, as well as the satellite connections from Highway 401 through Whitby and eventually from Clarington (2020), regardless of it being a toll road, the potential exists for Peterborough to narrow that perceived gap between it and its competition – both in terms of its market draw but also its ease of access for touring acts.

Exhibit 25: Highway 407 Eastward Extension

Source: Sierra Planning and Management based on graphic from The Star

6

CURRENT EVENTS MARKET

6.1 Classification of Events

There are a wide variety of entertainment offerings and events that can occur within a MUSEC. In addition to hockey and lacrosse games, concerts, banquets, comedy shows and theatrical productions, there are circuses, equestrian, agricultural, other dirt shows including truck and motocross events, "on ice" shows and family entertainment, among others. For the purposes of this analysis, events have been classified into the following categories:

Games/Tournaments

Games and Tournaments are defined to include Petes and Lakers competitive games and exhibitions, as well as community tournaments.

Other Sport Events

The Other Sport Events category includes all sporting events other than regular and post-season hockey and lacrosse and other games and tournaments, such as national bid events, rotational sporting events, competitive and entertainment-based sporting exhibitions. This category also includes various specialist sporting and exhibitions that occur infrequently.

Concerts

Concerts are defined to include international, national and regional music performances (e.g. Elton John, Dallas Smith, etc.). Concerts held in Peterborough are typically one-night events.

Theatre/Live Shows

Theatre/Live Shows includes international, national theatre series, as well as showcases of regional or local artists. This includes stand-up comedy, live theatre, children's shows, etc., and are more likely to run over several days.

Family Entertainment

Family Entertainment includes any category of matinee and evening performance that uses the rink surface (e.g. monster truck shows, circus performances).

Trade Shows and Conventions

This category includes all types of trade shows and conventions, and may include home shows, auto shows, and expositions, among others.

6.2 Existing Sporting and Other Events at the PMC

The significant variability in commercial event days at the PMC over the period since 2010 is due primarily to the number of tenant sports events as the Lakers and Petes played more or less play-off games, and the Mann Cup boosted the number of events in two years. This demonstrates the advantages of two-tenant buildings, with a significant upside potential as the attendance figures demonstrate.

Between 2013 and 2017 with less variability in the number of games, the total event days schedule has in the order of 60-74, with other events ranging from 9 to 18 per year over that period. Going forward this is lower than the market opportunity which a modern venue under incentivized third-party management might achieve.

It is important to note that statistics presented are for large commercial events. This is an important distinction when comparing event day schedules among a range of other venues which often include a full slate of smaller, often non-commercial events in their event day reporting. Our purpose in this report is not to track full utilization of the building – the PMC is well used as a community venue for ice rental, floor rentals for banquets and other community functions; our purpose is establishing the target for large scale commercials events ranging from tenant sporting events to trade shows.

With over 50% of the total events that were held at the PMC between 2010 and 2017 being Petes games and 27% being Lakers games, the remaining share (18%) is split amongst the other event types with other sport events and tradeshows and conventions each comprising 5% of the event type breakdown.

Exhibit 27: Breakdown of PMC Events by Type (2010 – 2017)

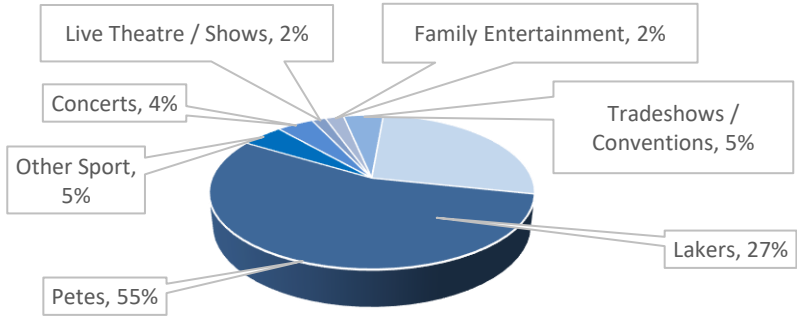


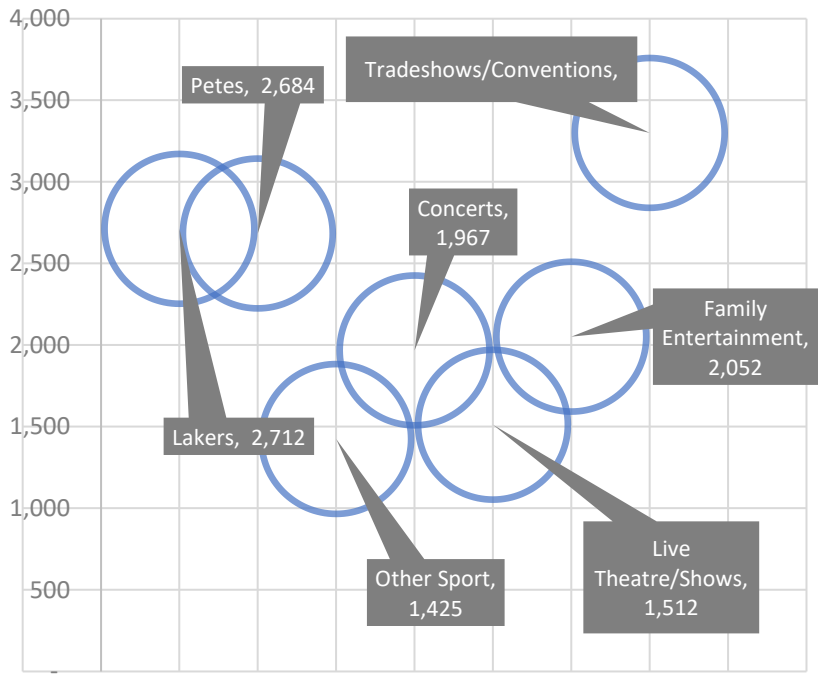
Exhibit 26: Historic Event Hosting Trends at the PMC (Total Events by Type of Event)

Historic Event Hosting Trends at the PMC										
	2010	2011	2012	2013	2014	2015	2016	2017	Total	8-Yr Avg.
Lakers	29	18	25	14	16	15	16	15	148	15
Petes	36	37	36	36	40	39	39	41	304	39
Other Sport Events	2	2	3	3	5	3	3	6	27	4
Concerts	3	1	1	3	3	3	4	6	24	4
Live Theatre / Shows	3	1	2	0	1	0	1	1	9	1
Family Entertainment	4	2	3	1	0	0	0	2	12	1
Tradeshows / Conventions	2	3	4	3	4	3	4	3	26	3
Total	**79**	**64**	**74**	**60**	**69**	**63**	**67**	**74**	**550**	**67**
Total Attendance	**199,866**	**169,732**	**183,722**	**178,625**	**171,006**	**178,634**	**219,169**	**-**	**1,300,754**	**185,822**

Source: Sierra Planning and Management based on information provided by the City of Peterborough

The one hundred and twenty thousand square foot (119, 286 sf) facility hosts on average and nearly 200,000 spectators / attendees annually. Tradeshows and conventions held at the PMC have the highest levels of paid attendance of all event types. This can be attributed to the fact that they are day-long events with people flowing through, compared to the other event types such as a hockey or lacrosse game or a theatrical show, which occurs for a set period of time (typically a few hours).

Exhibit 28: Average Paid Attendance at the PMC by Event Type (2013-2017)



Source: Sierra Planning and Management based on City of Peterborough data

6.3 Anchor Tenant Considerations and Attendance

6.3.1 Hockey

Attendance at Peterborough Petes home games has improved in the last two seasons in response to the commencement of organized efforts to comprehensively market the hockey product to under-represented markets. The City of Peterborough contributes financially to that endeavor through marketing support. The Petes organization has demonstrated to the consulting team its aim to continue to grow the attendance to reach the building's seats maximum of around 3,700 over the next several years through the application of target-specific marketing. Therefore, the following observations therefore on the comparative standing among league teams in terms of attendance are not intended to criticize these efforts – on the contrary, they serve to underline the importance of strategic marketing as the basis for long-term growth.

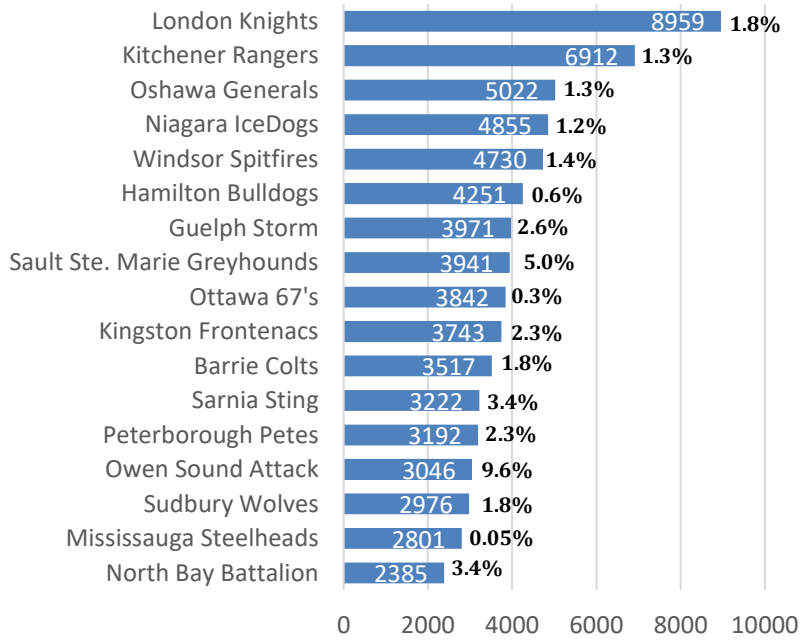
Exhibit 29: Ontario Hockey League Attendance Stats (10 Year Comparison) by percentage filled

	Capacity	*2017-18*	*2016-17*	*2015-16*	*2014-15*	*2013-14*	*2012-13*	*2011-12*	*2010-11*	*2009-10*	*2008-09*	*2007-08*
London Knights	9100	98%	99%	99%	99%	99%	99%	98%	98%	99%	99%	99%
Kitchener Rangers	7700	90%	91%	91%	91%	92%	94%	83%	83%	81%	81%	78%
Oshawa Generals	5500	91%	95%	97%	95%	88%	87%	80%	80%	76%	87%	93%
Windsor Spitfires	6500	73%	77%	73%	78%	82%	88%	90%	96%	97%	78%	51%
Niagara IceDogs	5300	92%	91%	86%	82%	56%	57%	56%	55%	55%	56%	52%
Erie Otters	5500	67%	78%	81%	90%	81%	57%	52%	63%	65%	64%	64%
Hamilton Bulldogs	17500	24%	24%	22%								
Guelph Storm	4540	87%	89%	93%	99%	95%	94%	85%	87%	88%	90%	91%
Ottawa 67's	10000	38%	39%	35%	36%	43%	56%	65%	72%	75%	79%	81%
Sault Ste. Marie Greyhounds	5000	79%	74%	81%	87%	85%	83%	86%	90%	88%	89%	92%
Barrie Colts	4100	86%	90%	93%	91%	91%	91%	89%	83%	91%	85%	86%
Kingston Frontenacs	5400	69%	66%	76%	73%	70%	64%	47%	53%	53%	57%	49%
Saginaw Spirit	5500	59%	61%	61%	65%	67%	67%	69%	71%	65%	68%	72%
Sudbury Wolves	4600	65%	71%	68%	81%	82%	85%	82%	75%	83%	91%	90%
Sarnia Sting	5200	62%	59%	60%	55%	58%	63%	67%	59%	62%	67%	71%
Flint Firebirds	4400	65%	67%	68%								
Owen Sound Attack	3500	87%	83%	81%	84%	84%	87%	82%	78%	68%	69%	71%
Mississauga Steelheads	6000	47%	45%	50%	48%	43%	39%	0%	0%	0%	0%	0%
Peterborough Petes	4000	80%	67%	64%	62%	63%	64%	63%	68%	70%	74%	78%
North Bay Battalion	4200	57%	62%	79%	82%	80%						
Belleville Bulls	3700				69%	63%	69%	67%	71%	74%	80%	75%
Plymouth Whalers	4000				60%	62%	64%	66%	68%	67%	59%	66%
Brampton Battalion	6000						37%	33%	31%	35%	40%	42%
Missisauga St. Michael's Majors	6000							41%	52%	37%	40%	36%
Average Attendance		**71%**	**71%**	**73%**	**76%**	**74%**	**72%**	**67%**	**68%**	**68%**	**69%**	**69%**

Source: Sierra Planning and Management based on the website ohlarenaguide.com

Despite achieving a relatively high % occupancy (attendees as % of seats) in recent times, the fact that the building is one of the smaller venues serves to indicate the limits to growth. Accordingly, in terms of actual attendance, the Petes are in the bottom third of teams. None of these teams operate out of new buildings (North Bay renovated its arena) and the Hershey Centre (built in 1996) is home to a team that faces significant competition by virtue of its location within the competitive Toronto spectator sports market.

Exhibit 30: Average Attendance of OHL Teams (2017-2018) and Market Penetration Rates



Source: Sierra Planning and Management based on average attendance from hockeyDB.com and Statistics Canada 2016 Census Data.

In terms of the historic attendance as a percentage of the market area, penetration rates for the Petes (average attendance as a percentage of the Census Division population) at 5-year intervals provides a useful benchmark. Penetration rates for the OHL teams vary considerably but are correlated with population. In the London market, the high attendance equates approximately into a penetration rate of some 1.8%.

Exhibit 31: Historic Rate of Market Penetration for the Peterborough Petes

Census Year	Season	Average Attendance	County Population (Census Div.)	Local Market Penetration Rate
1996	Season 96/97	2,606	123,448	2.11%
2001	Season 01/02	2,415	125,856	1.92%
2006	Season 06/07	3,182	133,080	2.39%
2011	Season 11/12	2,537	134,933	1.88%
2016	Season 16/17	2,666	138,236	1.93%

County = Census Division (i.e. City & County Official Plan areas combined)
Population based on online StatsCan Census Profiles 2001 to 2016
Source: Sierra Planning and Management

A penetration rate of 2.5% by 2041 would suggest an average attendance of some 4,175 people. It is important to emphasise that we are referring to average attendance – there are a number of events that will draw much larger crowds over the course of a season but the achievement of approximately 4,000 people as an average attendance over the course of several seasons represents an order of magnitude advance compared to recent attendance.

Based on market capacity, an assumption of continued attention given to sales growth, and the opportunity afforded by a new venue, 4,000 people represents a reasonable expectation for attendance. This achievement will not likely occur passively but requires active and continual market development by eh Hockey Club.

Our principal purpose in this report is in aligning the attendance growth potential to a decision over the appropriate fixed seat count for the facility. It is not an exercise in projecting aggressive attendance statistics on the back of planned marketing, nor is it a reference to historic or even current patterns of attendance. It is an estimate based on structural market considerations which should then allow for additional capacity to "grow" into the market place as the population increases, ease of transportation improves, and the City/County evolves over the next two decades. With this in mind, it is important to recognize the average OHL attendance and how the combination of a growing population base and a new building can bring about a sustained change in the hockey spectator market.

Above all, it is important to mitigate uncertainty by not underbuilding the facility. As will be discussed, there are a number of reasons other than attendance for hockey that suggest a significant increase in seat count in a new facility.

Exhibit 32: Average Pete's Attendance by Year

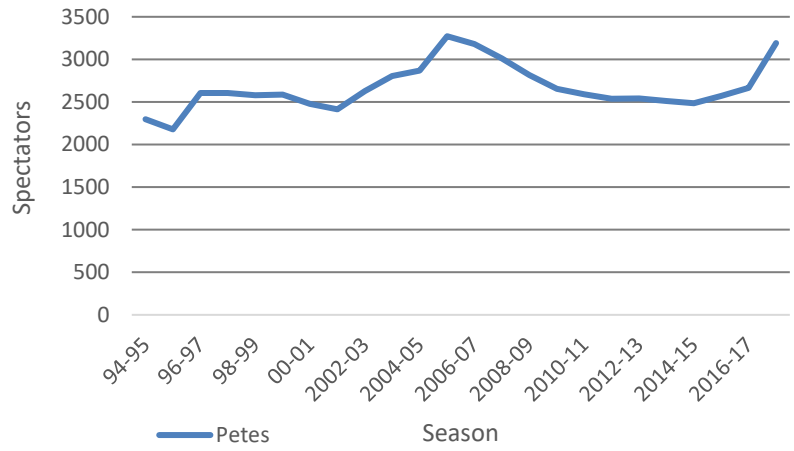


Exhibit 33: Average Attendance of Peterborough Petes vs. OHL as a Whole

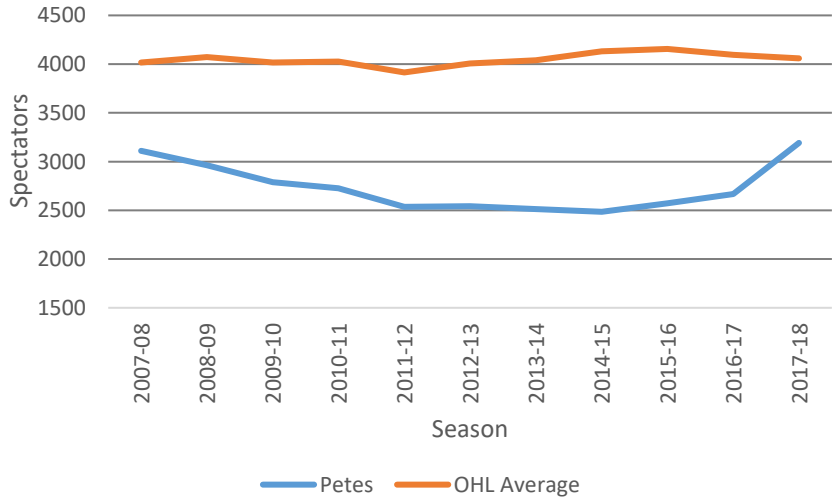
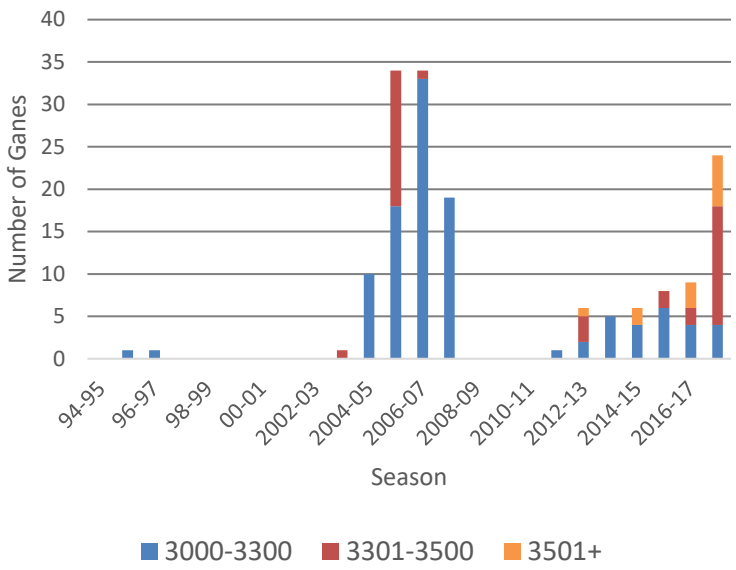


Exhibit 34: Occurrence of Peterborough Petes Attendance over 3,000 spectators



Sources: Sierra Planning and Management based on Peterborough Petes data

6.3.2 Lacrosse

The Peterborough Lakers Major Series Lacrosse have, as a secondary tenant, achieved good attendance. Data for 2017 shows an average paid attendance at regular season games of 2,619 per game and a total (with complimentary tickets) of 3,022 per game (23,372 paid total for the season / 27,199 total tickets for the season). For the 6 games of the 2017 season play-offs, the paid attendance was 14,946 overall at an average of 2,491 per game (and total attendance of 17,612 at an average of 2,935 per game).

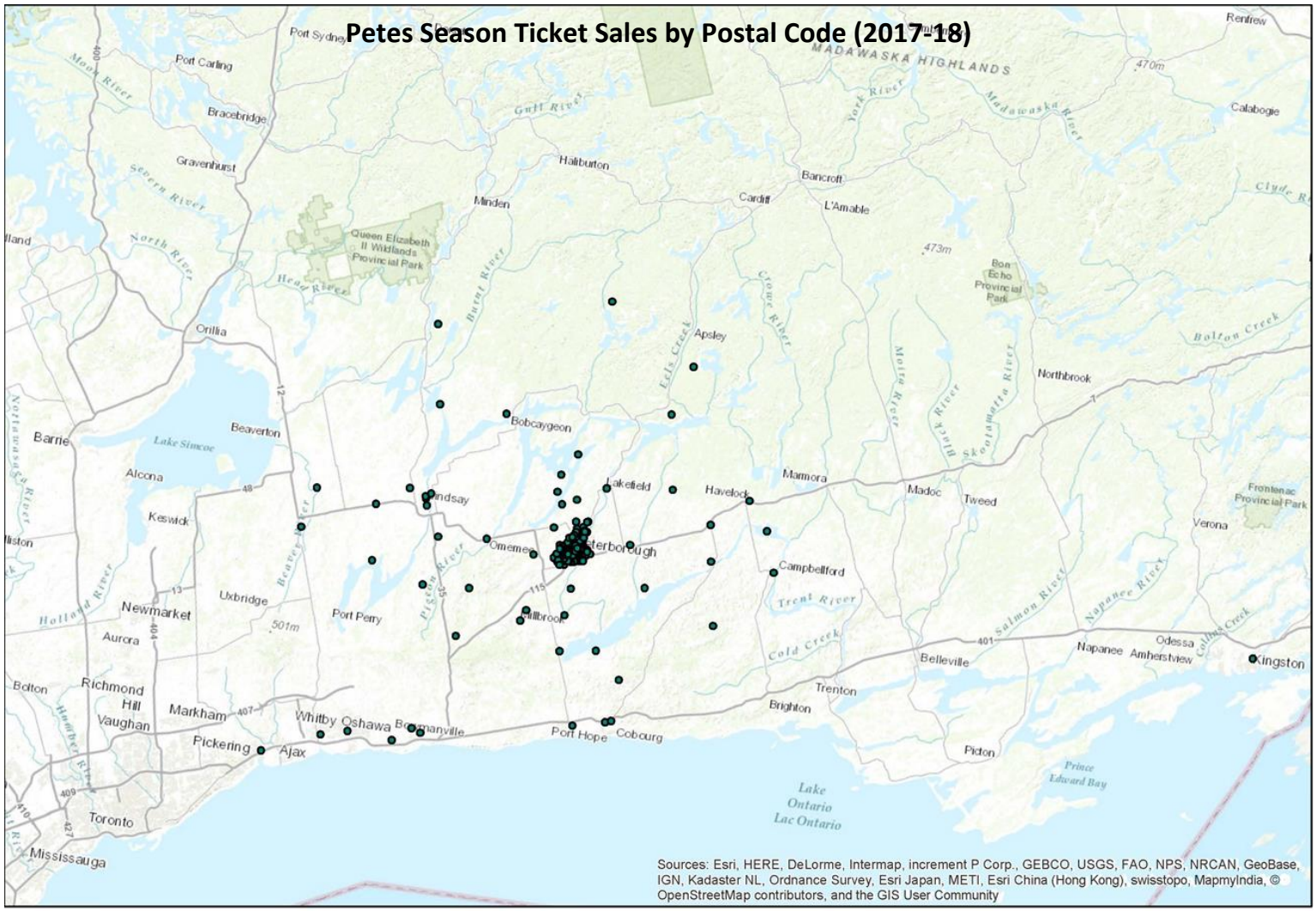
6.3.3 Season Tickets Market Draw

Season tickets holders are limited for the Petes as of early 2018 when information was received by the consulting team – as low as 450 compared to close to 1,000 for the Lakers franchise. This reflects the stability of the core hockey market, but it also demonstrates that there is ample opportunity within the market place to improve the value for money for fans, including the corporate sector. The opportunities that a new modern facility can bring are important to growing that season-ticket market but the building itself is not the entire solution. All parties, including the tenants, the operator and the City as owner of the building, need to ensure the opportunities to create value through an improved fan experience are apparent. This is the strongest form of competitive positioning that the teams and the facility can offer, sufficient to ensure season-long commitments and repeat purchases of suite licenses.

A hockey and lacrosse game day experience that is worth investing in club seats and seasons tickets, multi-year commitments to suite licenses (already a strong market with 22 of 24 sold for next season), widening group sales and a renewed appeal to families should also result in gradual broadening of the geographic base of all but the suite license purchasers. The value associated with the Peterborough Petes in a new building should result in a higher absolute number of tickets purchased from further afield, but it may also translate into a deepening of the City market for season tickets. Once that is achieved, initially created through a new venue, it is the willingness of the franchises to engage in effective customer relations management (CRM) that will, to a large extent, dictate future success.

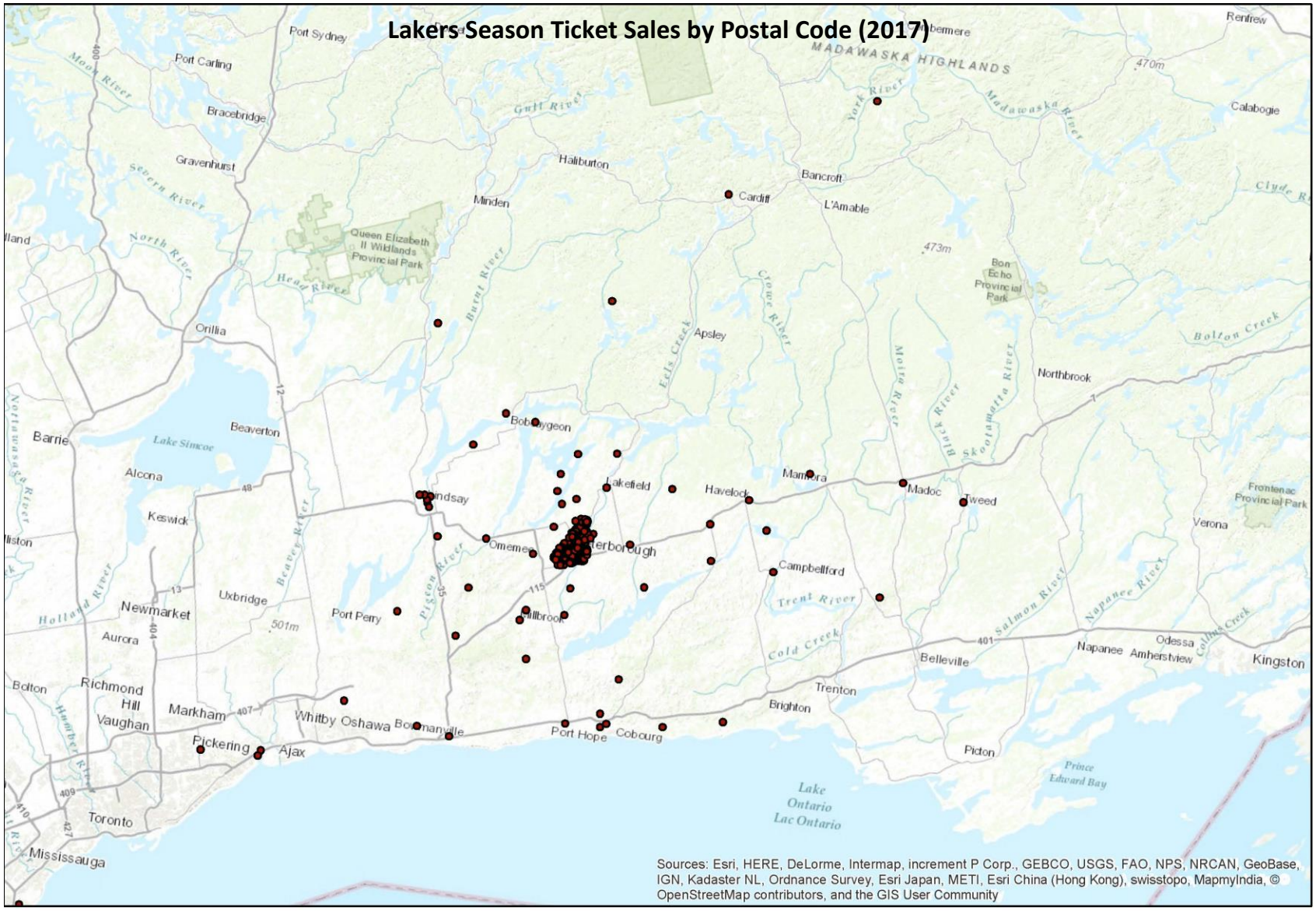
The success witnessed in London is not only a function of strong latent demand for watching hockey and the geographic distance of the London market from competing markets, it is the results-oriented approach of the team ownership group and its management in running the franchise its staff.

Exhibit 35: Market Draw – Petes Season Ticket Sales (2017-18)



Note: dots equate to postal codes and may each include multiple season ticket purchases

Exhibit 36: Market Draw - Lakers Season Ticket Sales (2017)



Note: dots equate to postal codes and may each include multiple season ticket purchases

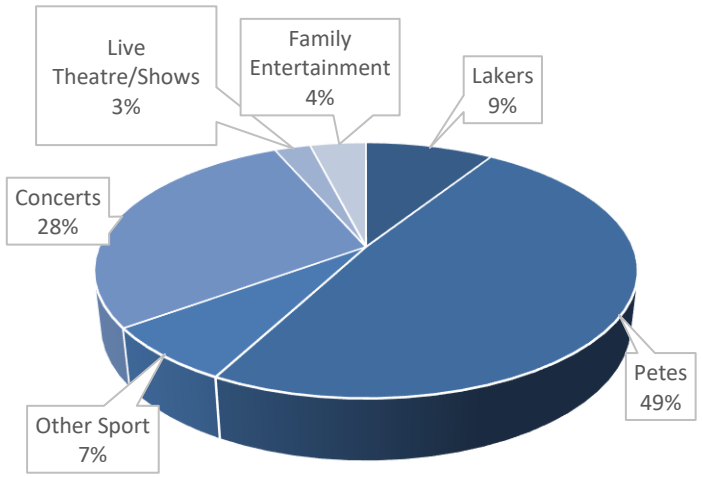
6.4 Non-Sport Event Attendance and Related Entertainment Market at the PMC

Despite fewer events, concerts accounted for 28% gross revenues for the PMC following tenant hockey events (49%).

Average gross revenues per concert are estimated at $160,000 (compared to $86,000 for Theatre/Live Shows and $20,000 to $40,000 for sporting events).

The following table provides a comparative review of revenues, event-related expenses/payments and sell-out/attendance shares for the various types of events hosted at the PMC.

Exhibit 37: 2017 Breakdown of Gross Revenues by Event Source

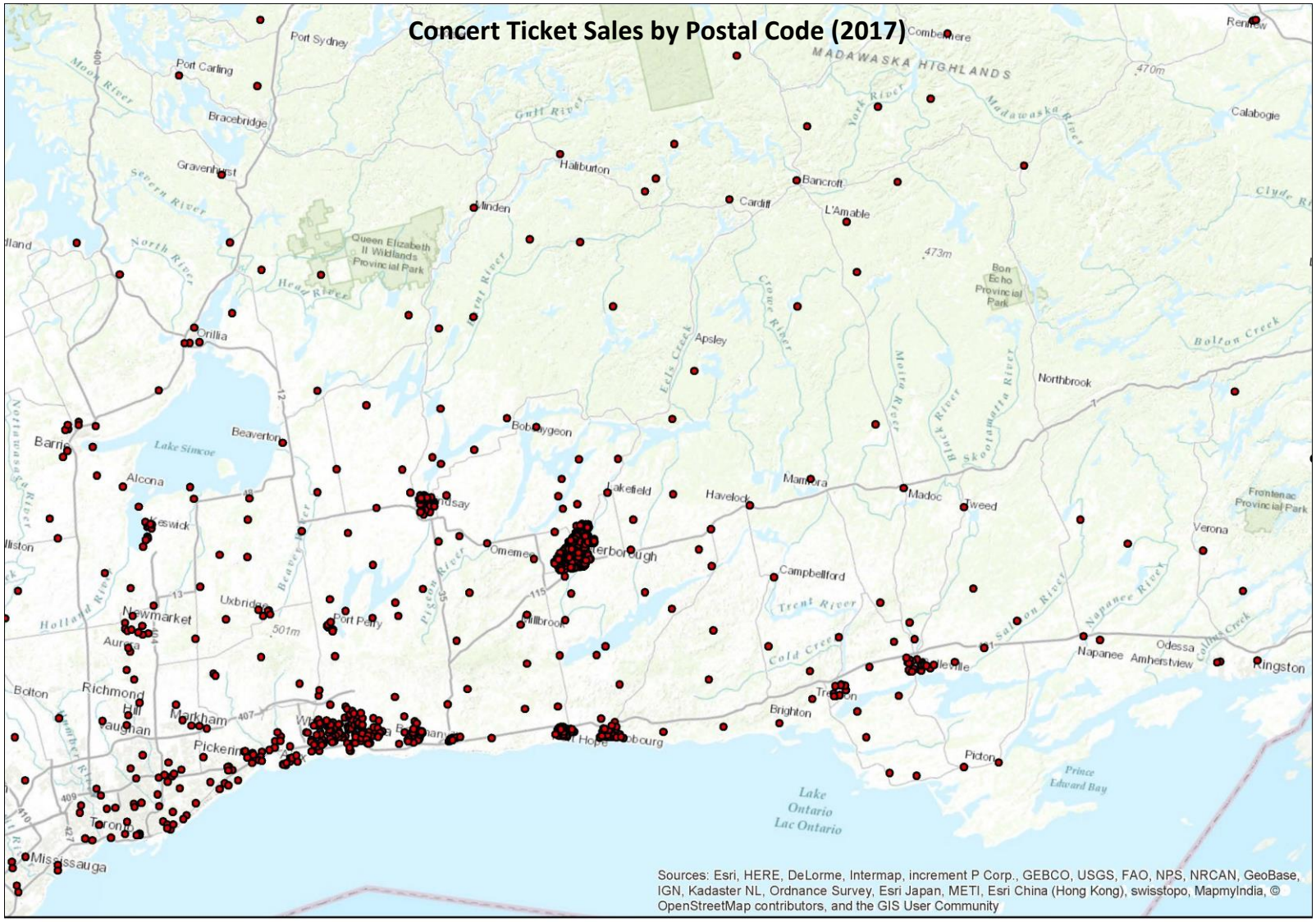


Source: Sierra Planning and Management based on City of Peterborough data

The market draw for concerts is considerably larger than for the sports teams as evidenced based on records for ticket purchases in the years 2010, 2014 and 2017. Apparent is the consistent draw from the City and County but also the existence of meaningful concentrations of attendees from communities including Toronto, but also Belleville, Port Hope and Cobourg, as well as eastern Ontario and Ottawa. The map below shows the postal code location of concert tickets for the events at the PMC during the 2017 calendar year (the postal code is only reported once and not the number of tickets per purchase). In the tables which directly follow, the actual volume of ticket purchases is established by sub-regions in Ontario, enabling a very clear picture of the market draw to the PMC.

The importance of this lies in terms of how a new MUSEC can be viewed as an *agent of change* – adding to the inventory of opportunity to draw visitors to Peterborough and seeking opportunities for out-competing other cities in delivering high quality, popular musical and theatrical acts. This includes acts that will potentially be able pull a greater share of patrons to Peterborough from across the GTA than has been possible to date with the PMC.

Exhibit 38: Market Draw – Concert Ticket Sales (2017)



Note: dots equate to postal codes and may each include multiple season ticket purchases

Exhibit 39: PMC and Future Peterborough MUSEC – Profiling the Market Area for Concerts

	2010 Concerts Attendance (excl. OHL and Lakers)		
	General Area	Patrons	%
1	City of Peterborough	11,743	53.0%
2	Peterborough County and North Hastings County	3,926	17.7%
3	Lindsay, Kawartha Lakes, Haliburton, West Northumberland County	1,816	8.2%
4	Belleville, Trenton, Cobourg, Port Hope, Quinte Shores East	1,297	5.9%
5	Oshawa, Whitby, Pickering, Ajax, West Durham	313	1.4%
6	Bowmanville, Newcastle, Courtice, East Durham	264	1.2%
7	Toronto	560	2.5%
8	Frontenac, Lennox and Addington County	76	0.3%
9	Other: Renfrew /Lanark	23	0.1%
10	Port Perry/Uxbridge	40	0.2%
	Sub-Total	20,058	90.6%
	Other	2,091	9.4%
	Total	**22,149**	**100.0%**

	2014 Concerts Attendance (excl. OHL and Lakers)		
	General Area	Patrons	%
1	City of Peterborough	9,875	51.0%
2	Peterborough County and North Hastings County	2,969	15.3%
3	Lindsay, Kawartha Lakes, Haliburton, West Northumberland County	1,403	7.2%
4	Belleville, Trenton, Cobourg, Port Hope, Quinte Shores East	1,002	5.2%
5	Toronto	822	4.2%
6	Ottawa and National Capital Region	498	2.6%
7	Oshawa, Whitby, Pickering, Ajax, West Durham	377	1.9%
8	Bowmanville, Newcastle, Courtice, East Durham	246	1.3%
9	Port Perry/Uxbridge, Keswick, Barrie, Lake Simcoe North Shore, Newmarket	179	0.9%
10	Mississauga, Burlington, Hamilton, Brampton Caledon	128	0.7%
11	International	82	0.4%
12	Kingston	38	0.2%
13	Other: Renfrew /Lanark	22	0.1%
	Sub-Total	17,641	91.1%
	Other	1,731	8.9%
	Total	**19,372**	**100.0%**

Exhibit 39 (Cont'd)

2017 Concerts Attendance (excl. OHL and Lakers)			
	General Area	Patrons	%
1	City of Peterborough	10,642	46.2%
2	Peterborough County and North Hastings County	4,252	18.5%
3	Lindsay, Kawartha Lakes, Haliburton, West Northumberland County	2,119	9.2%
4	Belleville, Trenton, Cobourg, Port Hope, Quinte Shores East	1,819	7.9%
5	Oshawa, Whitby, Pickering, Ajax	553	2.4%
6	Bowmanville, Newcastle, Courtice, East Durham	417	1.4%
7	Toronto	360	1.6%
8	International	257	1.6%
9	Other: Renfrew /Lanark, London	215	0.9%
10	Port Perry/Uxbridge, Keswick, Barrie	146	0.6%
	Sub-Total	20,780	90.2%
	Other	2,259	9.8%
	Total	**23,039**	**100.0%**

Source: Sierra Planning and Management based on City of Peterborough data

6.5 Other Competitive Venues in the Market Area

6.5.1 Event Days at Major Facilities

The PMC hosts fewer concerts than comparable venues in Kingston and Oshawa – potentially due to its relatively smaller capacity. Comparable venues also appear to be 'well-heeled' in trade shows and conventions. The focus on event days alone is problematic unless the full picture of financial sustainability is understood. The higher number of events recorded in Oshawa compared to Kingston does not equate to a better financial performance – the Tribute Communities Centre also operates a community ice pad which typically would draw municipal subsidy. For the snap shot presented below, Kingston has fewer events than Oshawa and more than the PMC, but it is the quality and scale of the concert market in particular that has likely enabled Kingston to achieve a significant operating surplus in recent years.

Exhibit 40: Competitive Venues Event Comparison

	PMC (2017 data)		K-Rock (2016 data)		Tribute CC (2017 data)	
Category	No. Events	Events %	No. Events	Events %	No. Events	Events %
OHL Hockey	41	55%	41	51%	41	46%
Lacrosse	15	20%	0	0%	15	17%
Other Sports Events	6	8%	9	11%	7	8%
Concerts	6	8%	13	16%	12	13%
Theatre/Live Show	1	1%	2	3%	1	1%
Family Entertainment	2	3%	2	3%	4	4%
Trade Shows/Convention	3	4%	7	9%	8	9%
Community	0	0%	6	8%	2	2%
Total	**74**	**100%**	80	100%	90	100%

Source: Sierra Planning and Management. Data for the K-Rock and Tribute facilities is based on online event calendar and published business planning reports for each of these facilities and may not be complete.

6.5.2 Smaller Event Venues

The smaller venues located in and around the City of Peterborough, and elsewhere in the region, play an important role in the cultural life of the City and their sustainability should not be undermined by the emergence of a new multi-use entertainment complex that has, as its mandate, a significant increase in the number of commercial entertainment events held at the centre.

These venues, including Market Hall and Showplace, among others, have a different mandate and audience capacity than that of the large event centre. Market Hall and Showplace together receive an annual operating subsidy from the City of Peterborough roughly equivalent to $200,000 per annum. Market Hall is estimated to receive upwards of 60,000 visitors per year – roughly one third of the visitors to the PMC. This reflects the importance of these smaller and mid-sized venues which also play an important role in the life of Downtown Peterborough. Market Hall, designated as a Heritage building in 1977, provides a range of services beyond live performance including drama camps and clinics, space rentals, and a range of community supporting activities.

Although a modern, state-of-the-art event centre can be flexibly configured to host far more intimate stage/seating arrangements than older arena facilities, it is important that policies are put in place to ensure that the target market for a new event centre is focused on the large capacity events, as well as events that cannot reasonably be held in the smaller venues in town.

Above and beyond the concern that exists over the potential competition for events that could otherwise occur in the absence of clear policies and practices of the City and its event centre operator to avoid this, there is also the potential for leakage in advertising and sponsorship revenues to the new venue. In order to prevent any undue impacts from the advent of a new, state-of-the-art hosting venue in the City, the City should, as part of its planning process, work in partnership with the existing venue operators to ensure complementarity in the pursuit of target markets – both in terms of stage product and the audience. The avoidance of competition where feasible should be an important goal given the current investedness of the City in these existing venues.

The financial analysis of operations included in this feasibility report assumes that a new MUSEC remains focused on the larger format concerts, theatre and cultural events.

It should be recognized that a new MUSEC is not a negative development for the existing cultural performance spaces in the City. On the contrary, it provides the opportunity to grow the cultural sector and improve the ability of the City to build on its existing track record of event hosting. The spin-off from this growth in hosting capacity is an ingredient in further developing the richness of the cultural offer in the City as a whole. A greater range of cultural products in the City can help sustain repeat attendance from a wider trade area.

Exhibit 41: Smaller Event Venues in the Peterborough Area

Venue		Capacity		Facility Details
Venue Name	**Location**	**Seated**	**Standing**	
Academy Theatre	Lindsay	900		Not for Profit; receives no Municipal, Provincial or Federal grants; 50,000 patrons a year;
Cameco Capitol Arts Centre	Port Hope	380		Regional Theatres: Live Professional Theatre, Live Concerts, Films from TIFF, HD Opera Live from the MET
		150		Flexible rental space for live concerts, theatre, cabarets, weddings
Concert Hall at Victoria Hall	Cobourg	318		Flexible rental space for theatre, corporate meetings and seminars, lectures, exhibits, balls and receptions
Durham Banquet Hall	Oshawa			
Empire Theatre & Centre for the Performing Arts	Belleville	650		Concerts, theatre, comedy, film
Market Hall Performing Arts Centre	Peterborough	348		Music, theatre, dance, presentation, film
Pinnacle St Playhouse, Belleville	Belleville	154		Regional Theatre
Showcase Performance Centre	Peterborough	647		Regional Theatre for music, stage, drama and comedy
		200		
			60	
The Venue	Peterborough	400	900	Conference, Convention, Trade Shows, Live Concerts, Bar
Trent University	Peterborough	364		

Source: Sierra Planning and Management

7

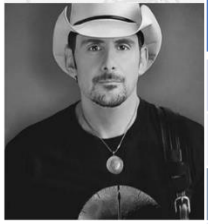
FUTURE EVENTS MARKET

7.1 Consideration of Tour Market Dynamics

Based on a sample of historic concert tours flows to the PMC, the market for non-sporting event is understood to support a mid-range line of North American-based acts – largely in the country and western and pop-rock musical genres.

Recent (2017) tour flows for acts visiting the PMC illustrate the demand for mid-sized concert venues. The PMC acts illustrate a tendency to play a larger number of venues – typically outside of the GTA, for which the PMC serves as a destination prior to moving on to venues in proximity to Highway 401 west to Windsor, east to venues in Nova Scotia and north through Sudbury to Western Canada. The tour flows for these acts are provided below.

Exhibit 42: Concert Market for Existing PMA – The Acts that Came



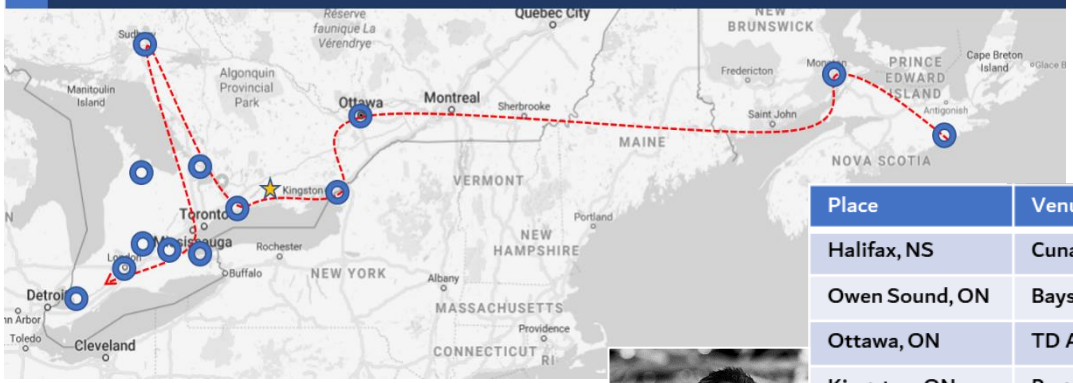
Place	Venue	Capacity
Sault Ste. Marie, ON	Essar Centre	5,000
Sudbury, ON	Sudbury Arena	5,100
Peterborough, ON	Peterborough Memorial Centre	5,442 (4,000 fixed)
Kingston, ON	Rogers K-Rock Centre	6,800 (5,200 fixed)
Moncton, NB	Moncton Coliseum Complex	7,500
Sydney, NS	Centre 200	6,500

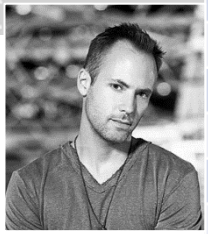
Exhibit 42 (Cont'd)

DEAN BRODY – BEAUTIFUL FREAKSHOW TOUR 2017

Place	Venue	Capacity
Hamilton, ON	Hamilton Place Theatre	2,200
London, ON	Budweiser Gardens	9,000
Kingston, ON	Rogers K-Rock Centre	6,800
Oshawa, ON	Tribute Communities Centre	6,400
Kitchener, ON	Centre in the Square	2,100
Sudbury, ON	Sudbury Community Arena	5,100
Peterborough, ON	Peterborough Memorial Centre	5,422

DALLAS SMITH – SIDE EFFECTS TOUR 2017





Place	Venue	Capacity
Halifax, NS	Cunard Event Centre	4,000
Owen Sound, ON	Bayshore Community Centre	4,000
Ottawa, ON	TD Arena	10,500 (9,500 fixed)
Kingston, ON	Rogers K-Rock Centre	6,800
Oshawa, ON	Tribute Communities Centre	6,400
Sudbury, ON	Sudbury Community Arena	5,100
Hamilton, ON	Hamilton Place/FirstOntario Concert Hall	2,200
Kitchener, ON	Centre In The Square	2,100
St Catherines, ON	Meridian Centre	6,000
Peterborough, ON	Peterborough Memorial Centre	5,442 (4,000 fixed)
London, ON	Centennial Hall	2,200

A review of select concert tours that did not visit the PMC, depicts a roster of artists of international acclaim (e.g. Bob Dylan), which play comparatively fewer but larger venues (6,000 to 20,000 capacity) in Toronto, the GTA, southern and western Ontario as well as Quebec (Montreal). The capacity of these artists to draw larger and audiences naturally lends itself to the larger venues. Notwithstanding a larger venue in Peterborough (e.g. 5,000 fixed seats) could, in concert mode, cater to well over 6,000 people.

Competitive venues in Oshawa and Kingston are understood to be 'better-heeled' in the tradeshow and convention market – an opportunity that is currently limited at the existing PMC given its largely residential surroundings and distance from the 400 series highways. Much of this is may be overcome over time in a new MUSEC and future highway improvements/extensions.

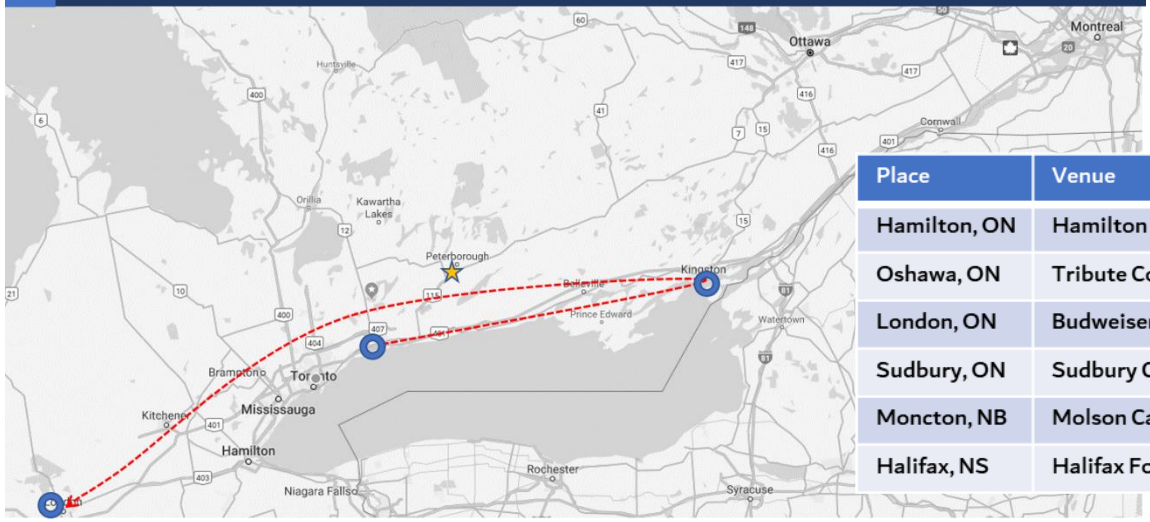
As the existing PMC continues to age, it is expected that it will see a gradual loss in its market share for events to other modern competitive facilities. This is an opportunity-cost if investment in a new MUSEC is not pursued.

Exhibit 43: The Acts that did not Visit the PMC

Place	Venue	Capacity
Kingston, ON	Rogers K-Rock Centre	6,800
Ottawa, ON	Canadian Tire Centre (Richcraft Live)	17,300
Montreal, QC	Centre Bell	7,300
Barrie, ON	Molson Centre	5,000
Oshawa, ON	Tribute Communities Centre	7,300
Toronto, ON	Air Canada Centre	19,800
London, ON	Budweiser Gardens	9,000

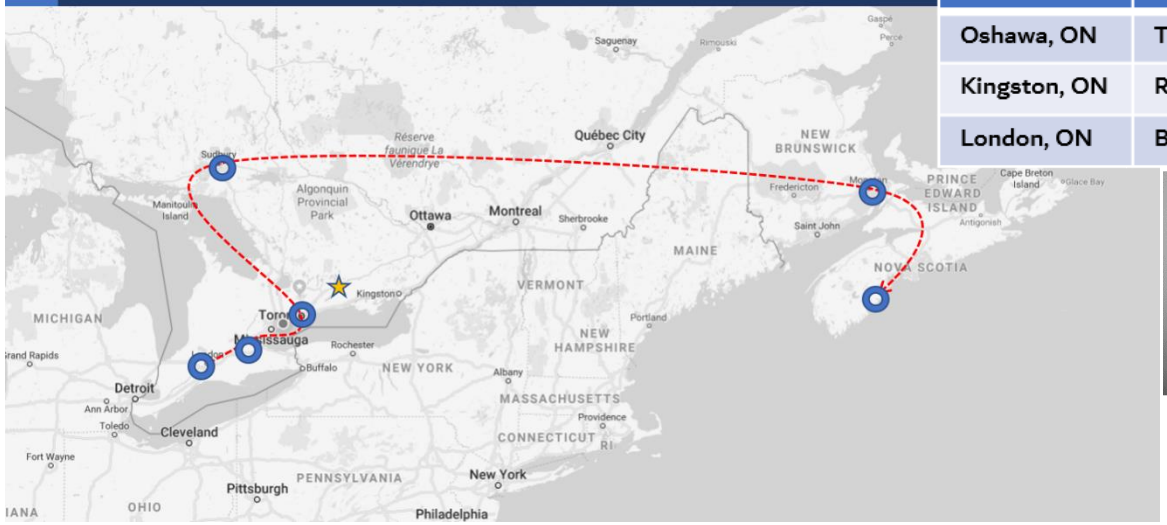
Exhibit 43 (Cont'd)

ARKELLS, 'KNOCKING AT THE DOOR' TOUR 2017



Place	Venue	Capacity
Hamilton, ON	Hamilton Place/FirstOntario Concert Hall	2,200
Oshawa, ON	Tribute Communities Centre	7,300
London, ON	Budweiser Gardens (RBC Theatre)	3,200
Sudbury, ON	Sudbury Community Arena	5,100
Moncton, NB	Molson Canadian Centre at Casino NB	2,500
Halifax, NS	Halifax Forum Multi-Purpose Centre	2,200

TIM HICKS, 'SHAKE THESE WALLS' TOUR 2017



Place	Venue	Capacity
Oshawa, ON	Tribute Communities Centre	7,300
Kingston, ON	Rogers K-Rock	6,800
London, ON	Budweiser Gardens	9,000

7.2 Factors Impacting Events Market Growth Potential

The events market can and should be viewed in terms of demand and supply: demand for the product from the market trade area, and supply of touring product or other events hosted by promoters or the City. Taking this further, the supply of event product is very much subject to market dynamics of its own: the level of interest (demand) of the tour promoters and the supply of venues which are capable of ensuring the financial success of the tour at each stop along the route.

Previous sections of this report have described the events market in terms of the range of tour flow through Peterborough, as well as the profile of the trade area population and its propensity for consumption of arts, cultural, sporting and other spectator events. There are therefore two markets to consider: (1) the depth of capacity or demand for entertainment product within the primary trade area and (2) the relative appeal of the market and the venue in particular to the business case of the tour promoters and others who supply commercial events.

This is true for typical entertainment events, major sporting events and trade shows, but is less applicable to the conference market. The latter is based more fundamentally on the hosting capacity of the City (conference infrastructure and accommodations), appealing to provincial and national conference markets. The future potential of the conference market and its relevance to the opportunity for a new MUSEC is addressed elsewhere in this report.

There are a number of factors which together impact the growth of the events market over time. Some of these influences are structural and long-term (for example population growth, local economic development, and the timely investment in event hosting infrastructure), while other are more cyclical (international exchange rates and general economic conditions).

Factors include:

- **Macro-economic conditions** such as US/Canada currency exchange rates which impact relative demand from US acts coming north; economic growth/decline/recession; societal preferences and trends in lifestyle;

- **Regional economic conditions** such as market population growth, quality of road infrastructure and ease of access (the completion of Highway 407 to Highway 115 as a good example of improving ease of access to the broader reaches of the Eastern GTA); and the advent of new competitive venues in the general market area. The improvement of the Yardmen Arena in Belleville is an example of modest changes to the competitive mix of facilities that, because of its event centre-oriented retrofit, can now vie for a broader range of entertainment events; and

- **Local circumstances** – focused on the building and its sufficiency to draw and retain the touring product. The quality of the building – and the site – in terms of ease of production set-up, take-down, loading and staging is important to all promoters and has a direct impact on the bottom line.
    - Those venues that maximize the capacity of the artists to make money, maintain their brand, meet or exceed fan expectations and perform with ease will, over time, outperform those venues that cannot deliver in this

way. Newer event centres will outcompete older arena venues in this particular asset class of MUSECs.

- Functionality, seating capacity, and ambience (often overlooked but crucial to those events that do not require the full building), are important determinants of success. Added to this, modern facilities are often seen as more aligned with the risk associated with promoting events compared to older facilities that, because of more limited revenue opportunities, may resort to flat fee rental agreements for events in the building.

- In many new facilities the value of the event to the facility operator lies not in the rent but in the volume of tickets sold and the expenditure of concert-goers inside the building on concessions, merchandising and more. Placing the building at risk by foregoing rent in favour of these supplementary revenue gains is far more palatable where the means exist to generate additional revenues. This is a distinct advantage over smaller, older venues and applies equally to hockey and other tenant events.

7.3 Market Capacity to Support MUSEC Project

The creation of a new MUSEC which is highly capable of hosting a range of events geared to an equally wide range of seat and stage configurations should not be seen as equivalent to creating undue competition among the City's smaller theatrical, musical and cultural venues. Research conducted for this report included an accounting for the markets served by those existing venues in the City, as well as the symbiotic relationship that exists between these venues and the City of Peterborough by way of municipal funding for programs and facilities, and the contribution of these venues to the cultural fabric of the City and Downtown.

A new MUSEC should not therefore cannibalize the existing market served by these smaller, established venues. Notwithstanding, the market exists for a new facility to capture a higher number of non-tenant, non-sporting events (concerts, family shows, theatre and live entertainment). The new venue will in part generate this renewed capacity for the reasons set out in the section above, but the relative strength of the market area at present, coupled with population growth, will support this capacity.

The table below provides an approximate estimate of the show of spending at the PMC by residents of the broad 50-minute drive time market area, as a percentage of available expenditure on live arts.

Exhibit 44: Capacity of PMC to Absorb Additional Events

Current Market Share	2016	2017	2041 (est.)
No. Events	12	16	21
Attendance	44,007	58,676	76,866
Revenues	$2,200,350	$3,021,814	$8,046,971
Avg. Ticket Price	$50	$52	$105
Avg. Attendance	3,667	3,667	3,667
No. Households (HH)		124,539	163,146
Compound Annual Growth			1.13%
Market HH spending (live arts)		$215	$437
Market expenditure on events		$26,775,831	$71,302,975
PMC Market Share		11%	11%
Share of pop. attending PMC events		20%	20%
Impact of Higher Share			
PMC Share			**15%**
No. of Events			**28**

Based on the existing expenditure patterns for live performing arts events by households in the market area, the overall spending availability is apparent. Based on an average household expenditure of some $215 per annum for live performing arts events, (which excludes live sporting events), the events which occur at the PMC (demonstrated through the 2017 events calendar for non-sport events) account for somewhere in the region of 11% of the total available expenditure in the trade area.

With population growth to 2041 (approximately 30%), and escalating expenditures and available spending power on a straight line (3% per annum), this alone will enable greater capacity to host events (based on an average of some 3,700 attendees). Should the new facility experience an improvement in market share, through its improved competitive standing, successful marketing and management which secures that market gain, this would translate directly into the potential for more events.

Arguably, the age and functional limits of the PMC will, if not remedied, more than likely result in a loss of market share over time in contrast to the opportunities afforded by improvements in regional accessibility, population growth and economic development.

7.4 Theory vs. Reality

The market potential referred to is an important finding in its own right. However, while the market potential exists, including the potential through improved travel time to the GTA market, it is the capacity of the City to successfully draw that demand and retain it that matters most. That process starts with the new building, but it doesn't end there. The capacity to draw additional market share is a fundamental question of management and governance of the building and the extent to which the City engages with third party management expertise to maximize revenue potential.

It is also important to recognize that the market for acts and a range of events is highly competitive and even the most effective projection and marketing techniques cannot guarantee that the number of events achieved will meet budgeted targets. We see

that with respect to the observed business plans of other existing venues: as examples, in 2015, the Rogers K-Rock Centre in Kingston achieved only half the concerts which had been forecast; while the family shows far exceeded expectations, and performing arts underperformed in terms of the number of events. Even in 2017 event revenues for that facility were below budget by 15%.

Other venues have experienced similar shifts in their ability to book events and this represents an ongoing reality. The importance of this realty is the ability to function across a number of different markets, providing a true multi-use building that is able to achieve expected financial results.

7.5 Projected Event Days/Opportunities for a MUSEC

7.5.1 Comparables

Examples of mid-sized venues east and west in Canada and in the United States help book-end the range of event days for core commercial activities and also demonstrate that the event day count is one marker of the potential success of a building, but it is the overall gate (attendance) and the financial impacts of this that are the actual measures of success.

Exhibit 45: Event Attendance Comparison (2015)

	Event Totals - Bemidji (Sanford Center) 4,700 Seats				Event Totals - Evansville (Ford Center) 10,000 Seats				Event Totals - Cedar Rapids (USCC) 9,000 Seats				Event Totals - Dodge City (UWA) 5,300 Seats			
Event Type	**Events**	**Event Days**	**Use Days**	**Attendance**	**Events**	**Event Days**	**Use Days**	**Attendance**	**Events**	**Event Days**	**Use Days**	**Attendance**	**Events**	**Event Days**	**Use Days**	**Attendance**
Banquets	32	32	32	5,580	1	1	1	560	0	0	0	0	14	9	0	1,439
Concert	18	18	21	32,146	11	11	13	65,549	12	12	28	48,039	26	38	0	20,642
Broadway/Theatrical-Commercial	3	3	22	1,163	0	0	0	0	0	0	0	0	0	0	0	0
Community/Educational Theatrical	0	0	0	0	0	0	0	0	9	9	12	23,037	0	0	0	0
Family Shows	2	2	3	1,585	5	12	18	65,192	9	18	44	51,204	5	14	0	3,585
Convention	4	11	11	4,159	2	6	8	28,500	0	0	0	0	12	7	0	6,129
Meeting/Conf	86	130	130	10,241	0	0	0	0	0	0	0	0	205	197	0	7,077
Consumer Show	2	2	3	903	0	0	0	0	0	0	0	0	0	0	0	0
Trade Show	9	15	17	9,890	0	0	0	0	0	0	0	0	0	0	0	0
Wedding Reception	15	15	15	3,445	0	0	0	0	0	0	0	0	19	21	0	2,934
Community/Civic	105	164	164	22,621	4	4	4	18,631	0	0	0	0	14	17	0	6,278
Sporting	48	48	48	72,150	76	56	56	204,451	29	38	108	77,237	114	130	0	45,527
Recreational Sports	52	69	69	3,292	0	0	0	0	3	3	4	3,033	69	66	0	7,148
Film/Movie	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Internal Use	9	10	10	649	0	0	0	0	0	0	20	29	2	2	0	95
Total for Year	**385**	**519**	**545**	**167,824**	**99**	**90**	**100**	**382,883**	**62**	**80**	**216**	**202,579**	**480**	**501**	**0**	**100,854**
CORE EVENTS COMPARABLE	**138**	**168**	**194**	**125,288**	**94**	**85**	**95**	**363,692**	**62**	**80**	**196**	**202,550**	**226**	**255**	**0**	**83,031**

Exhibit 45 (cont'd)

	Event Totals - Wenatchee (Toyota Center) 4,300 Seats				Event Totals - Kingston (K-Rock Centre) 5,700 Seats				Event Totals - St. Catharines (Meridian Centre), 5,300 Seats				Event Totals - Peterborough (PMC) 3,730 Seats			
Event Type	**Events**	**Event Days**	**Use Days**	**Attendance**	**Events**	**Event Days**	**Use Days**	**Attendance**	**Events**	**Event Days**	**Use Days**	**Attendance**	**Events**	**Event Days**	**Use Days**	**Attendance**
Banquets	2				12	12		1,504	1	1		420				
Concert	8	8	12		7	7		25,253	2	2		9,001	3	3		20,600
Broadway/Theatrical-Commercial	1	1	4		4	4		12,806	6	6		12,376				
Community/Educational Theatrical	1				5	5		5,550	1	1		2,250				
Family Shows	2	2	4		9	9		7,862	1	1		1,757	3	3		
Convention					3	3		1,000	0	0		0				
Meeting/Conf					7	7		353	1	1		80				
Consumer Show	3	3	9		4	4		4,924	0	0		0				
Trade Show	5	5	14		0	0		0	0	0		0	3	9		
Wedding Reception	6	6														
Community/Civic	4	4	4													
Sporting	34	34	34		47	47		135,626	56	56		164,482	54	57		158,034
Recreational Sports					12	12		12,180	14	14		20,157				
Film/Movie																
Internal Use																
Total for Year	**66**	**63**	**81**		**110**	**110**		**207,058**	**82**	**82**		**210,523**	**63**	**72**		**178,634**
CORE EVENTS COMPARABLE	**54**	**53**	**77**		**91**	**91**	**0**	**205,201**	**80**	**80**	**0**	**210,023**	**63**	**72**	**0**	**178,634**

Exhibit 45 (cont'd)

	Event Totals - Penticton (SOEC) 4,700 Seats				Event Totals - Abbotsford, BC 7,000 Seats				Event Totals - Charlottetown (Eastlink Centre), 3,700 Seats				Event Totals - Kent, WA (ShoWare Centre) 6,500 Seats			
Event Type	**Events**	**Event Days**	**Use Days**	**Attendance**	**Events**	**Event Days**	**Use Days**	**Attendance**	**Events**	**Event Days**	**Use Days**	**Attendance**	**Events**	**Event Days**	**Use Days**	**Attendance**
Banquets	4	4			8	8				2			24	24		
Concert	10	10			9	9				2			13	13		
Broadway/Theatrical-Commercial																
Community/Educational Theatrical	9	9														
Family Shows	1	1			26	26				14			31	31		
Convention					2	2				2						
Meeting/Conf																
Consumer Show																
Trade Show	1	3	Note: Penticton has Trade Centre		15	45				56	Note: Eastlink has Trade Centre		4	12		
Wedding Reception																
Community/Civic										15			15	15		
Sporting	38	38			47	47				56			59	59		
Recreational Sports																
Film/Movie																
Internal Use																
Total for Year	**63**	**65**			**107**	**137**				**147**			**146**	**154**		
CORE EVENTS COMPARABLE	**59**	**61**			**99**	**129**			**130**				**107**	**115**		

The above research is for the 2015 calendar year and is believed to be generally representative of year-to-year performance while recognizing the general fluctuation in the number of events (+ / -) that typically occurs for all venues.

Bemidji, Minnesota: high number of core commercial event days / low overall attendance.

Evansville, Pennsylvania (a bigger facility): fewer events but very high attendance (363,000).

Kingston, Ontario: a true comparable at 91 events (single tenant) and attendance of over 205,000.

Penticton, BC: a single tenant building with a trade centre adjacent and connected – a lower event schedule but all trade shows are accounted for by the Penticton Trade and Convention

Centre (PTCC). Together, however, the buildings play an important function in the trade and convention sector set within a campus environment.

Abbotsford, BC: higher event days - both this and Penticton are managed by Spectra, demonstrating the importance of the trade show function to the building – in Abbotsford the 7,000 plus seat venue caters to the trade show market, differentiating itself from the Abbotsford Tradex Centre located some distance away. In Peterborough, any new building needs to target the trade centre function given the lack of competing venues in the immediate area.

Charlottetown, Prince Edward Island: An older building which is contiguous with a 50,000 sq. ft. trade centre. As both are managed under one entity, the trade show numbers are reported as part of the event days for the Eastlink Centre as a whole. The majority of trade events are held in the trade centre. The Eastlink Centre also has two tenants (QMJHL hockey and NBLC Basketball).

Given the market dynamics of Peterborough:
University/College town, a regional employment centre, strategically located on the main inter-city road network and with a large trade area, the opportunity for continuing the trade centre function and developing an improved convention opportunity (while not competing significantly with the TIER 3 Convention market) is evident. A second ice pad serves that purpose in part, a future exhibition hall adjacent to the arena would serve this explicitly, and the importance of developing the accommodations plant (hotels and commercial services which are either located on-site or nearby) is another opportunity.

7.5.2 New MUSEC Targets

Tenants

- Clearly two tenants remains the aim with a goal to ensure stable enhancement in non-tenant events as well;
- The goal for tenant events is to increase attendance commensurate with the higher seat count in the new facility and ensure sustainability of this annual attendance. This speaks to the responsibility of the teams to create an evergreen business planning framework which is capable of sustaining growth in the target audience market;
- Comminute with this, new license agreements will reflect the importance of achieving higher attendance and patron spending at all events.

Non-Tenant Events

- The aim should be attendance growth leveraging the higher seat count, the greater functionality of the building, its renewed competitive position and the market that is growing;
- The aim should be continued diversification of event types and growth in all categories of event;
- If a second pad is an option the aim should be to maximize the trade show and convention market working with the hotel sector and, depending on the site capacity, utilizing the campus as a whole;

- Armed with a new building, actively seek a place in the market for major provincial and national sporting competitions/championships. This includes not only ice but dry floor sports as well (i.e. gymnastics, dance, court sports, even pool events - see Windsor's successful use of a 50-metre competition Myrtha pool in its sport and event centre); and

- A second pad adds significant potential for tapping new ice rental opportunities (for example adult summer leagues as is the case in Oshawa's Tribute Communities Centre), as well as major tournaments. A second pad would be scheduled primarily as a community recreational facility to meet those future needs but with its complimentary use for major events. This is particularly the case if the community facility includes a number of meeting / break-out rooms for use during conventions.

The goal for a new MUSEC should be to attract on a sustainable basis between 25 to 30 commercial ticketed events in addition to the roughly 55 game days of the two tenants that typically occur each year. While yearly numbers vary, the 2017 calendar included 18 such events over and above the 56 tenant events.

This would place the centre in similar standing to both Oshawa and Kingston and is achievable based on effective management and leveraging the potential of a new building. At its core however, is a requirement for the tenants to create the conditions under which the weekly use of the venue includes a growing audience, a younger profiled audience and resulting financial success of the building through improved expenditure on concessions, merchandizing and more. The achievement of a stable second tenant should always be a goal for this building.

Exhibit 46: Example Distribution of Events Based on Targets

	PMC (2017 data)		New Building Normalized Target (Non-Tenant Events)	
Category	**No. Events**	**Events %**	**No. Events**	**Events %**
OHL Hockey	41	55.4%	41	49.4%
Lacrosse	15	20.3%	15	18.1%
Other Sport Events	6	8.1%	6	7.2%
Concerts	6	8.1%	9	10.8%
Theatre/Live Show	1	1.4%	3	3.6%
Family Entertainment	2	2.7%	4	4.8%
Trade Shows / Convention[5]	3	4.1%	5	6.0%
Total	74	100.0%	83	100.0%

Source: Sierra Planning and Management

Critical in our view is the need to ensure success by enabling the operating entity to control the approach to event development, scheduling, business development and marketing. This means that the licensing agreements which provide rights and obligations to the tenants for their use of the building must contribute to the ability of the operator to maximize revenues. These agreements should also incentivize the tenants to maximize their own revenues geared fundamentally to higher levels of attendance and in-building

[5] *Trade Show/convention are event days which will likely exceed one day – Assume 2.5 days per trade show/convention, with target is 12.5 event days.*

spending. A shared revenue approach is appropriate to achieve this, with clear distinctions between tenant event rights and obligations and those which fall to the operator and building owner for non-tenant events.

Conflicts arise in schedule between users and these will need to be managed – clear and effective licensing agreements serve that purpose as does recognition by the City that the purpose of the operator is primarily to commercial event development for the main spectator bowl (treatment of a second ice sheet can be somewhat different).

7.6 Convention Market

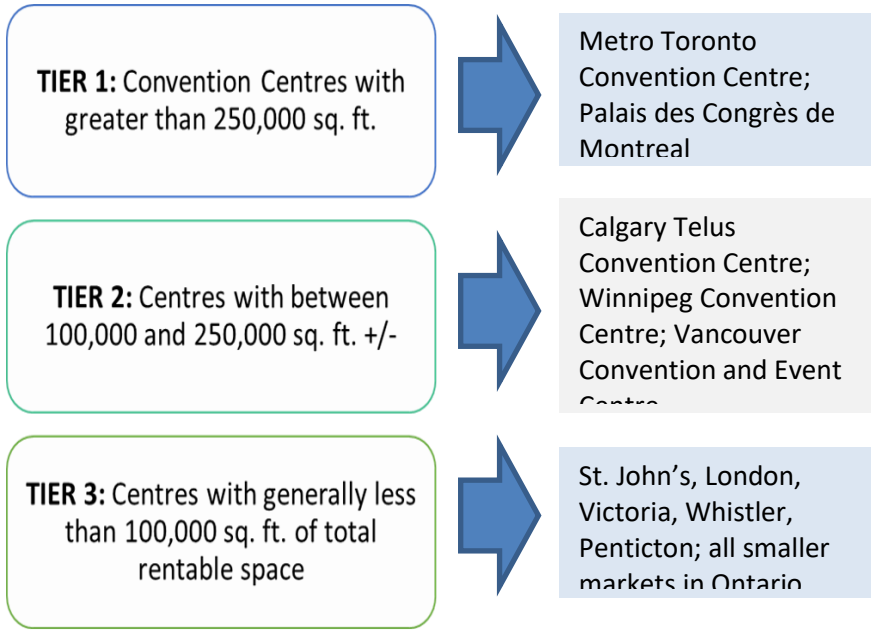
The convention market is comprised of a number of types of providers: dedicated, generally publicly supported convention centres, fully private operations as part of hotel and resort destination complexes; and a hybrid of trade and convention space in multi-use civic, trade centres, and other community buildings such as recreation complexes.

The development of a new MUSEC in Peterborough will likely create additional opportunities to host a wider range of trade show, consumer show and convention events but this is not to suggest the potential exists for the development of significant dedicated convention space as part of the multi-use complex.

There are a number of dedicated facilities in Canada and these are separated by scale and the extent of market reach.

The utilization (event days) often not high in TIER 3 venues and the majority of operations run at a deficit. Needless to say, private providers, such as convention facilities attached to hotels and resorts, represent integrated facilities which serve to drive hotel occupancies within these businesses. The most apparent opportunity in Peterborough would be the development of banquet/meeting/conference space of a modest scale as part of a destination hotel developed in close proximity to the sport and event centre. Whether this is achievable is very much a function of site location for the arena. The development economics for a full-service hotel in Downtown Peterborough remains a question which should be further assessed but the trend toward focused (or select) service hotels is also readily apparent.

Exhibit 47: Convention Market Facility Tiers



Source: Sierra Planning and Management based on industry data

8

POTENTIAL COMPONENTS OF A MULTI-USE SPORTS AND EVENT CENTRE

8.1 Appropriate Scale of Facility

8.1.1 A View to the Future

As noted earlier in this report, the lens of analysis is not 2018 but rather a reasonable point in the future, be that 2028 or 2038, when the City and its market place has continued to evolve. In that context, what is an appropriate scale of the facility – how large should it be – and how many fixed seats should it offer.

The answer to that question is not a definitive number although for the purposes of capital cost estimation and site planning we have arrived at an approximate scale and seat count. In reality, the functional plan of the facility, if approved, will represent the outcome of a longer conversation with the community as to what importance it places on creating (and funding) additional valuable components in the building – meeting rooms, additional ice surface, even a range of other recreational or exhibition functions. This is driven by what the chosen site can accommodate – and the choice of site itself can reflect the desire to add additional uses to the building.

For this analysis, the concepts of a multi-use event centre and community recreation facility are deemed separate – the principal goal being to understand the feasibility of a new commercial event centre to replace the aging PMC. That dedicated community uses can be added to this complex is an additional opportunity but at its core, the question of feasibility is about the scale of building to maximize the potential for the commercial spectator sports and events market over the next 30-40 years.

For this reason, it is important to take a long-term view as to the needs and opportunities surrounding a new building and not be limited by perceptions of current requirements. A good example is the Budweiser Gardens Centre in London (opened in 2002 as the John Labatt Centre) which as a new building had more than double the seating capacity of the existing OHL venue (the Ice House). The building has routinely achieved near-full occupancy for hockey games. The demand for the far higher seat count was evident and the decision to build to this scale was clearly justified.

This picture is not so clear cut in Peterborough, however, the strength of the market trade area as well as the potential for the hockey club to leverage its history and brand into stronger attendance likely exists.

8.1.2 Seat Count Considerations

There are a number of considerations related to seat count, including:

- **Take a longer-term view**, recognizing that expansion in the future can be both technically challenging and expensive, and have obvious limits;

- **For a given building design based on a targeted seat count, an incremental addition in fixed seating** may not result in a pro-rated increase in capital costs because of the ability of the existing design to accommodate the additional seats efficiently. There is a point of course when the level of fixed seating requires a fundamental change to the facility – a much broader footprint, additional level(s) and the attendant amenities required to enable higher building occupancies. The job of the design and costing exercise is to suggest, within the limits of the site and the commitment

to fund other components within the capital budget, where this appropriate balance lies;

- **Balance this with a realistic appreciation of how the building will likely function in terms of seat demand over the next 10 years**. While some designs for buildings enable easy curtaining of unused seats, this is not preferable and hence an appropriate balance has to be struck between capacity to meet immediate demand and capacity to meet a growing need in the future. It remains tempting but dangerous to simply address future needs by looking at current or historic hockey game attendance as this takes no account of the dynamics of growth in communities and the potential for unmet demand (now or in the future) to be accommodated. A good example of a balanced approach is the decision to peg the seat count at the Meridian Centre in St. Catharines at 5,300. This recognized the need to considerably increase capacity but recognize the strong competition for spectator and entertainment spending in the Niagara Region from venues in Hamilton and south of the Border. Conversely the plan to build a new event centre in Fort McMurray with 7,000 seats was likely an ambitious number even in the medium to long-term.

Exhibit 48: OHL Arena Capacities

	Capacity	Built	Seats Replaced
London Knights	9,100	2002	4,000
Kitchener Rangers	7,700	1950	plus expansion late 1990s / 2000s
Oshawa Generals	5,500	2008	3,625
Windsor Spitfires	6,500	2008	
Niagara IceDogs	5,300	2014	2,800
Erie Otters	5,500	1981	
Hamilton Bulldogs	17,500	1985	
Guelph Storm	4,540	1998	3,999
Ottawa 67's	10,000	1966	
Sault Ste. Marie Greyhounds	5,000	2006	3,990
Barrie Colts	4,100	1995	
Kingston Frontenacs	5,400	2008	3,300
Saginaw Spirit	5,500	1972	
Sudbury Wolves	4,600	1950	proposal for 5,800 seats
Sarnia Sting	5,200	1998	
Flint Firebirds	4,400	1969	
Owen Sound Attack	3,500	1983	
Mississauga Steelheads	6,000	1996	
Peterborough Petes	4,050	1956	
North Bay Battalion	4,200	1954	Reno in 2012
Belleville Bulls	4,400	1978	3,700, reno in 2017
Plymouth Whalers	4,000		
Brampton Battalion	6,000		
Mississauga St. Michael's Majors	6,000		

Source: Sierra Planning and Management

The evidence from the buildings developed over the last 10 years is that seat counts increase by an order of magnitude – Guelph being an exception and a facility with the physical constraints imposed by placing the footprint on that of the old Eaton Centre.

In order to grow event days and ensure relevance to the growing opportunity for major championships, tournaments, Grand Prix and World Cup events, and other one-off bid events, a minimum seat count is often cited as part of the hosting requirements.

Concert Event Considerations

Concerts are an opportunity to showcase how versatile the facility is to create a memorable visitor experience. Attendance at concerts held at the PMC since 2010 demonstrates that the existing venue can accommodate a wide range of acts and capacity requirements. With the additional floor seating available for concerts, a building of 5,800 fixed seats will certainly be able to accommodate the range of acts which have previously played in Peterborough. But some acts have not and have played at bigger venues. Leaving aside any debate about the capacity of the market to generate demand for any one event beyond 6,000 people (that discussion is moot as market capacity exists), there may well be an opportunity for larger acts – not routinely, but occasionally – and when these occur the one-time economic impacts are considerable.

Exhibit 49: Minimum Fixed Seating Concert Capacity (2010 to 2017)

Year	Description	Total Attendance
2017	Let It Be	638
2017	Old Dominion	966
2016	Gord Bamford & Joe Nichols	1,275
2013	Charley Pride	1,475
2015	The Tenors	1,569
2010	Metric	1,572
2017	Brit Floyd	1,775
2015	Barenaked Ladies	1,792
2014	Gordon Lightfoot	1,937
2013	Marianas Trench	1,969
2016	Marianas Trench	1,969
2011	Charley Pride	2,039
2010	Gordon Lightfoot	2,177
2014	Blue Rodeo	2,387
2013	Johnny Reid	2,529
2017	Dallas Smith	2,552
2016	Hedley	2,727
2014	Hedley	2,951
2017	Dean Brody	2,998
2015	ZZ Top	2,999
2016	Johnny Reid	3,517
2012	Hedley	3,630
2017	Brad Paisley	3,673
2010	Hedley	3,938
2012	Elton John	5,375

Source: Sierra Planning and Management

8.2 Recommended General Concept

As part of the feasibility exercise, the study team developed, at a high level, the conceptual options – this includes a functional program of space possibilities based on the primary or core functions of a MUSEC. Any considerations of additional components whether this includes commercial lease space, community space, meeting and seminar spaces, additional ice and recreational uses, etc., would all be additional to the space programs outlined as a basis for our site analysis.

A detailed listing of the spaces included within the functional space program, together with floorplans showing adjacencies, is provided in Appendix A.

There are two design alternatives presented: conventional bowl and staggered bowl. The differences are apparent from the review of floor plans with a staggered bowl providing a split concourse over two levels compared to a full lower concourse in the conventional design. Under the conventional design, the seats are fed from the ground (concourse level) for general seating with the club lounge and suites accessed from the suite level. In the staggered configuration, both top loading and bottom-up loading occurs.

These are examples to illustrate design opportunities. The staggered bowl is an opportunity where grade differences across a site present design opportunities. In addition, a sunken bowl design (ice floor below grade) is another option used in a number of buildings.

The principal elements of the concept for any MUSEC include the event space and seating bowl itself, but also important sufficient back of house capability, floor to roof truss heights that meet or exceed industry standards for stage creation and rigging purposes, and all of the necessary spaces and circulation to enable the facility to maximize its revenue generation from concession outlets, restaurant, suites and so forth.

The particulars of the concept in terms of executive suites, loge and club seating, the restaurant and other spaces are addressed as part of the financial analysis of the concept.

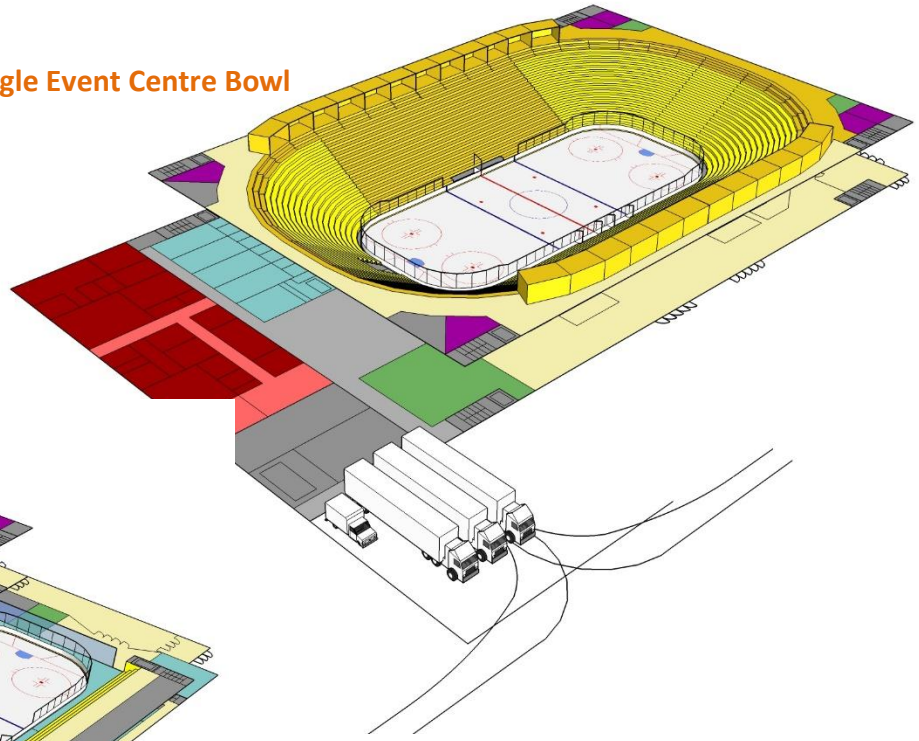
Exhibit 50: Space Comparison – Conventional vs. Staggered Bowl

	Conventional Bowl	Staggered Bowl
Ice / Main Bowl	21,393	21,264
Spectator Seating	43,109	42,679
Concourse (Circulation / Queuing)	35,467	40,634
Kitchen, Food Services & Retail	10,086	6,894
Team Rooms	11,813	11,813
Officials Dressing Room	431	431
Event Support / Green Rooms	10,656	10,549
Washrooms	6,674	7,911
Building Support	13,815	17,131
TOTAL (Sq. Ft.)	**153,445**	**159,306**

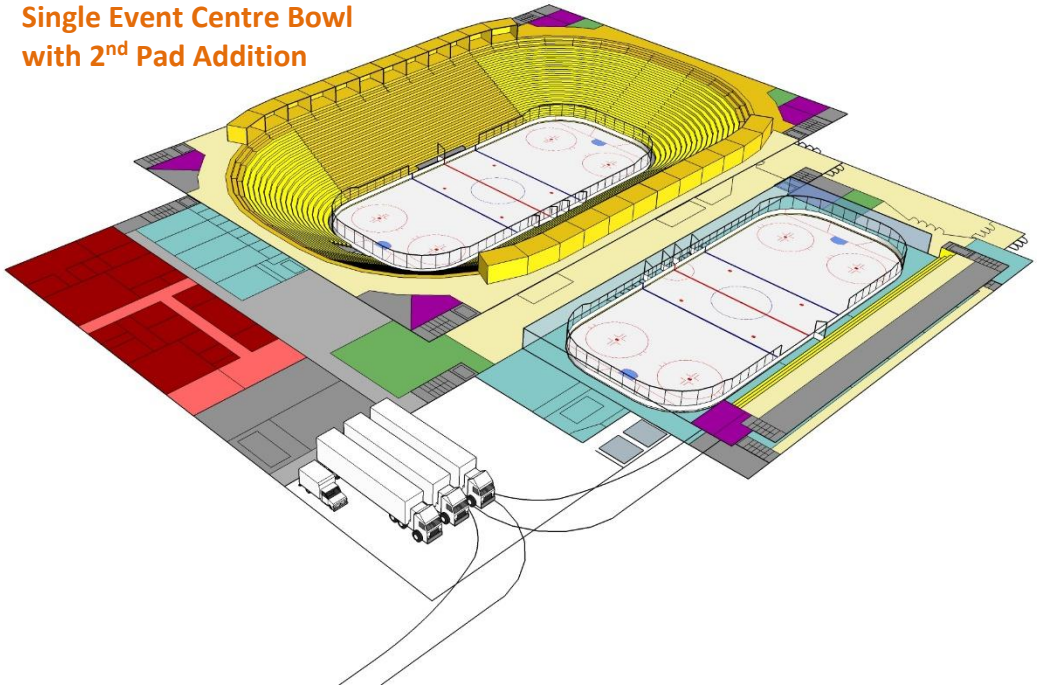
Source: Sierra Planning and Management based on DIALOG Functional Space Program

Conventional Bowl

Single Event Centre Bowl



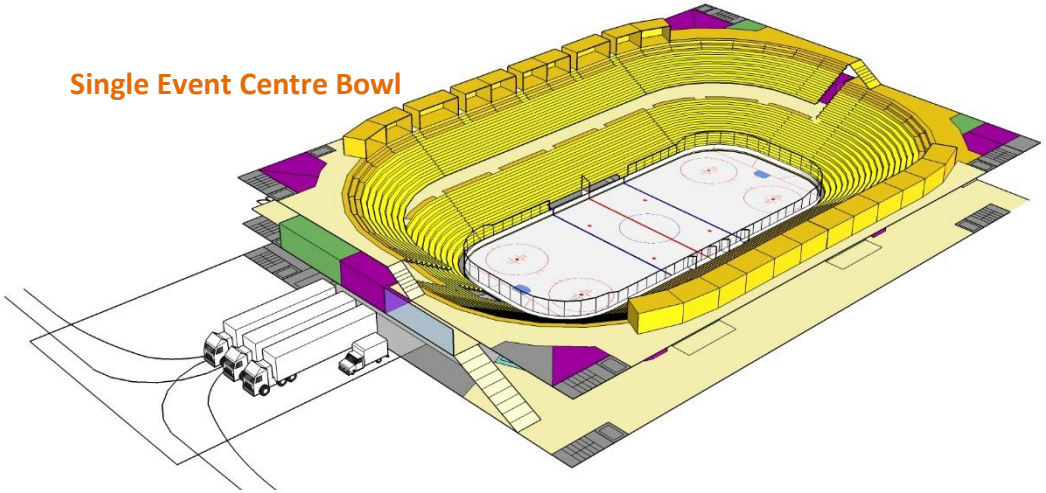
Single Event Centre Bowl with 2nd Pad Addition



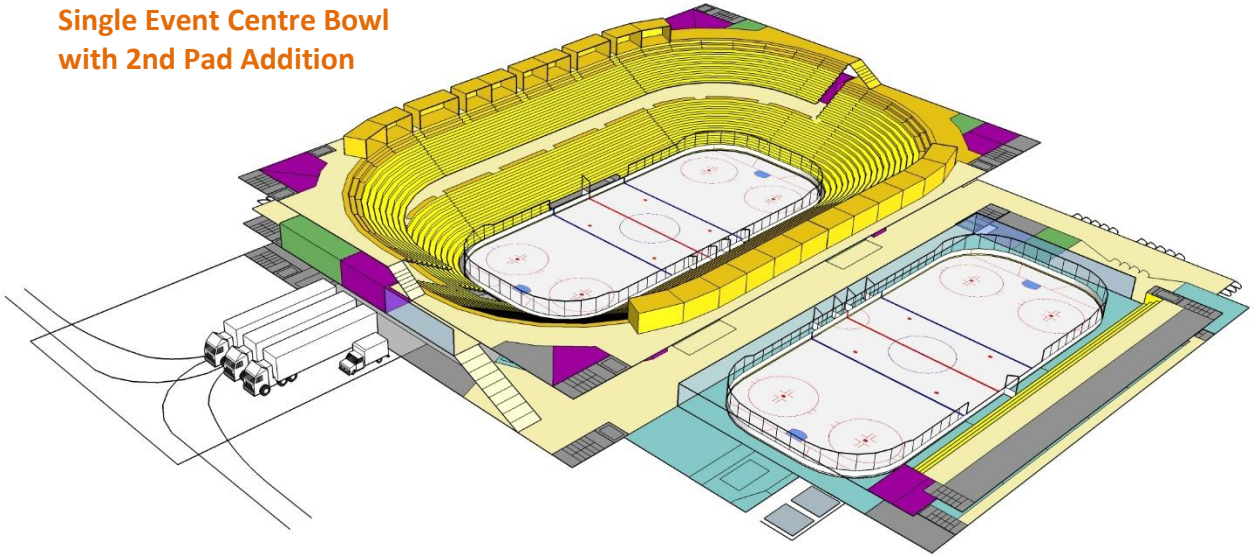
- Circulation
- SEC Support/Service
- Ice Support
- Petes Team Room
- Food Services
- Washroom
- Spectator Seating
- Premium Seating
  Club Seats, Suites, Etc

Staggered Bowl

Single Event Centre Bowl



Single Event Centre Bowl
with 2nd Pad Addition

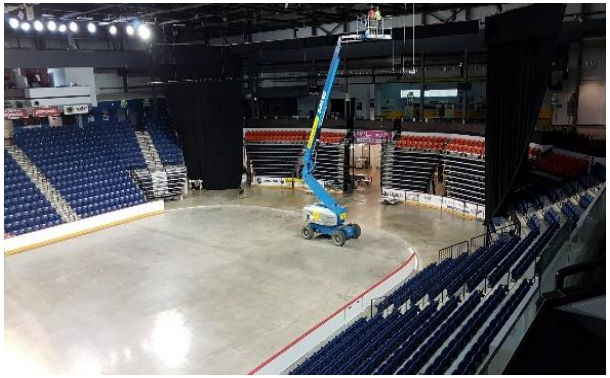


- Circulation
- SEC Support/Service
- Ice Support
- Petes Team Room
- Food Services
- Washroom
- Spectator Seating
- Premium Seating
  Club Seats, Suites, Etc

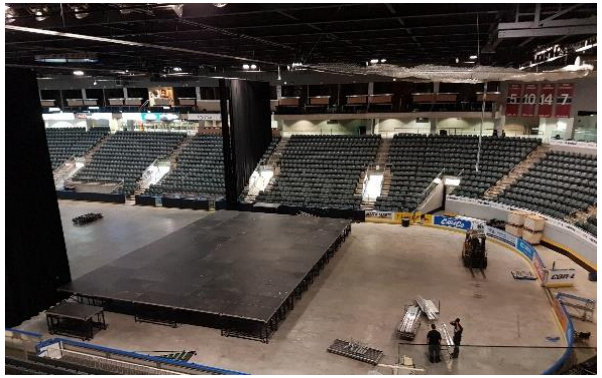
For reference we have also included the adjacency of a second ice pad as part of the design – this can occur regardless of the design of the event bowl can be included within the existing structure (at higher cost but better aesthetics) or as a building with shared walls and is accessible from the event centre but is essentially a separate structural element.

As to the choice of design option, when or if the principle of the replacement of the PMC is approved. A more fulsome conversation (which should involve the community) can determine the design and functional preferences for the building. This can include the configuration of all elements of the design including sunken bowl versus at grade and opportunities to tie the key retail and restaurant functions of the building into street access opportunities to further enhance the potential of the building.

It is important to note that the capital cost estimates provided in the following section are not based on an elemental costing of the functional space program elements provided here. These concepts are not sufficiently developed to assist in providing a meaningful Class D[6] cost estimate. The intent of the concept development included in this report is to begin the process of understanding the core requirements and to assist in the analysis of appropriate sites (site fit assessment) reported under separate cover.



Conventional Bowl (Meridian Centre)



Conventional Bowl (K-Rock Centre)

Sunken Bowl (daylight mid-elevation) (Tribute Communities Centre)

[6] Class D cost estimate (per Government of Canada Treasury Board as well as other major organizations such as the Canadian Institute of Quantity Surveyors) is defined as an indicative cost estimate based on the application of a unit rate of costs to a general concept, list of space requirements or scale of development. Class C (estimate) is a more rigorous costing based on a schematic design assumed to reflect 33% design completion; Class B (substantive estimate) is based on design development drawings (66% design completion in most cases); and Class A (pre-tender) is based on completed construction drawings (100% design completion) and is provided both in elemental form as well as trade divisional form sufficient to inform the tender bid process.

8.3 Capital Cost Considerations

8.3.1 Comparables

The study team undertook a capital cost estimation exercise to better understand the likely envelope of costs associated with the proposed concept recommended by this feasibility exercise – both in terms of a single event bowl option and a second, community ice pad.

Comparable facilities provide a benchmark for the consideration of capital costs for a new facility in Peterborough. These other facilities presented below vary in terms of their components – some are 1 rink event centres (e.g. Kingston), others are multi-pad (Oshawa and Hershey Centre originally built as an event centre plus practice pad), and some include other recreational elements (Summerside has an indoor pool and fitness centre as well). In the case of Moncton, the costs include significant outdoor civic space development. However, on a cost per fixed seat basis, these projects fall within a general range.

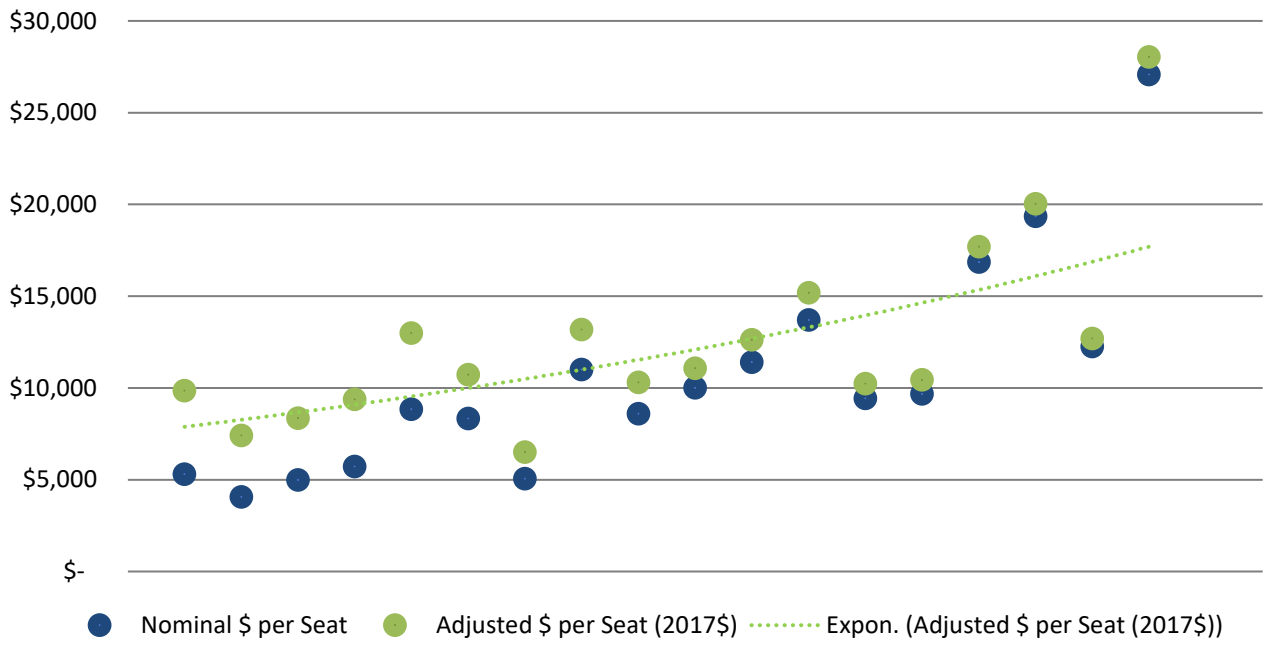
Exhibit 51: MUSEC Historic Capital Cost Comparison Detail Table

Facility	Seats	Year Built	Project Cost ($ Nominal)	Nominal $ per Seat	Adjusted $ per Seat (2017$)
Powerade Centre, Brampton	5,000	1997	$26,500,000	$5,300	$9,843
Hershey Centre, Mississauga	5,420	1998	$22,000,000	$4,059	$7,413
Kal Tire Place, Vernon BC	3,006	2001	$15,000,000	$4,990	$8,355
John Labatt Centre, London	9,090	2002	$52,000,000	$5,721	$9,379
MTS Centre, Winnipeg MB	15,105	2004	$133,500,000	$8,838	$12,982
General Motors Centre, Oshawa	5,400	2006	$45,000,000	$8,333	$10,715
Essar Centre, Sault Ste. Marie	5,000	2006	$25,300,000	$5,060	$6,506
WFCU Centre, Windsor	6,450	2007	$71,000,000	$11,008	$13,189
K-Rock Centre, Kingston	5,000	2007	$46,000,000	$9,200	$11,023
Credit Union Place, Summerside	4,200	2008/7	$42,000,000	$10,000	$11,066
Events Centre, Langley BC	5,000	2008	$57,000,000	$11,400	$12,615
Mosaic Place, Moose Jaw SK	4,465	2011	$61,200,000	$13,707	$15,177
Meridian Centre, St Catharines	5,300	2012	$50,000,000	$9,434	$10,227
Canalta Centre, Medicine Hat, AB	5,760	2013	$55,728,404	$9,675	$10,447
Fort McMurray Events Centre	6,200	2016	$120,000,000	$19,355	$20,034
Moncton Event Centre, NB	8,500	2016	$104,205,000	$12,259	$12,690
Rogers Place, Edmonton AB	18,647	2016	$505,000,000	$27,082	$28,033
Average (excl. Rogers Place)					**$11,354**

Source: Sierra Planning and Management based on Statistics Canada. Table 327-0043 (index, 2002=100)

By indexing the capital costs for escalation in general commercial/institutional construction pricing in Canada, it is evident that costs are generally increasing. This likely reflects other changes – either inflationary pressures for specific materials or services, the level of inclusions/amenities/quality or terms of capital delivery of the facility (the type of business deal with the proponent and the treatment of risk). In the case of a proposed facility in Fort McMurray this was to be delivered on a no financial risk-basis to the Regional Municipality of Wood Buffalo, the result of which was a higher premium for both capital costs and annual operating cost support.

Exhibit 52: MUSEC Historic Capital Cost Comparison Chart



Source: Sierra Planning & Management based on Statistics Canada. Table 327-0043 - Price indexes of non-residential building construction, by class of structure, quarterly (index, 2002=100)

8.3.2 Capital Cost Exclusions

The following outlines the estimated capital cost for a new 5,800 seat MUSEC with and without a second (community) ice pad. The costs exclude items which cannot be determined at present, specifically:

1. Acquisition costs for land;

2. Any extra-ordinary land development costs such as may arise with environmentally contaminated land, geotechnical constraints, requirements for significant shoring or site dewatering, or off-site development constraints. These costs are all over and above normal servicing and site development;

3. Costs associated with any other site unknowns such as archaeological finds;

4. Time constraints or delays in approvals which results in financial penalties to the project; and

5. Significant external parking development costs.

The cost estimates provided herein include site servicing for the building with necessary access and egress as well as a broad provision for landscaping, but exclude any costs associated with providing dedicated parking associated with this facility. The costs associated with parking are typically addressed in several ways:

1. Onsite surface parking where sufficient land exists at no additional acquisition cost;

2. Reliance on the existing and future supply of public and private parking off-site to accommodate the market demand for parking associated with the site, such as often happens in a downtown context; and

3. Provision of a complement of customer parking on site (essential where the venue also acts as a community recreation centre) supplemented largely by off-site parking supply.

By way of example neither Kingston nor St. Catharines provide onsite parking (the latter provides some for staff and community users).

8.3.3 Parking

The parking strategy, and hence extent of parking-related capital cost which can be attributed to this project, depends on the site selected. The locational analysis which has been performed in support of this project is reported under separate cover. Notwithstanding, the amount of new off-street parking required will be subject to the necessary studies should this project be implemented. Because any new facility can expect to include community use, it will be important to provide sufficient parking either on-site or immediately off-site for the typical number of staff and facility users based on the expected occupancy and type of use: meeting rooms, ice rink(s), etc. This should also include all required accessibility considerations. This does not have to include the parking for spectators as long as this need can be supported in the surrounding nearby area.

Our capital cost estimates do not define a cost which City Council or the public should view as final – at this stage of the analysis, understanding the potential order of magnitude of capital costs can

contribute to effective decision-making; but so too is it important to understand that these costs will change once the concept is translated onto a specific recommended site for which capital costs of acquisition and development are known. Cost will also be revised as the design and functional space program is further refined.

8.3.4 Costing Methodology

The estimates provided in this report exclude taxes and are current estimates (2018).

The methodology followed does not rely only on measures of expected cost per square foot or total capital cost per fixed seat, applied to a notional scale of facility. In our view, there is little merit in that approach at this stage unless there is a sufficiently detailed design concept that enables cost estimates beyond a Class D estimate to be undertaken. The requirements to carry such significant cost estimation contingencies (+/- 25% to 30%) at this pre-design level renders the unit cost-based approach less meaningful until site specifics are more advanced.

Our method involves identification of a similar facility which was actually built and for which all costs are known and adjusting costs to reflect locational differences, and escalation in costs. As such, if City Council moves forward with replacement plans, the scale, form, and massing and quality of construction will be subjects for further enquiry and may impact costs. The resulting cost estimate is provided below, with further details presented in Appendix B.

For a 155,000 square foot building, the resulting order of magnitude total project cost (less cited exclusions) is approximately $465 per sq. ft., well within the expected range based on an assumed medium level of quality and fit-out.

Exhibit 53: Order of Magnitude Capital Costs

Cost	Event Centre ($2018)		Plus Community Ice Pad ($2018)	
	5800 Seats Approx. 155,000 sq. ft.	% of Total	Approx. 190,000 sq. ft.	% of Total
A. Hard Construction Costs	$43,975,000	61.0%	$55,756,000	64.9%
B. General Condition & Selected Soft Costs	$9,710,000	13.5%	$9,710,000	11.3%
C. Other Soft Costs	$4,570,000	6.3%	$5,470,000	6.4%
D. FF&E	$13,877,000	19.2%	$14,971,000	17.4%
Total	**$72,132,000**		**$85,907,000**	

Note: Costs exclude land, off-site servicing and extra-ordinary development costs.

Source: Sierra Planning and Management based on capital cost estimates provided by ICC

9

EXPECTED OPERATIONAL PERFOMANCE

9.1 Existing Financial Performance

The following schedules summarize the financial position of the PMC for 2016 and 2017. The results are for the PMC building and exclude the additional costs and revenues associated with Morrow Park itself.

Exhibit 54: PMC Financial Position Summary (2016 and 2017)

	2016 (Actuals)
REVENUES	
Administration	(1,300,084)
Operations	0
Events	(582,085)
Vending	(30,598)
Food & Beverage Services	(165,823)
Transit Advertising	(106,454)
TOTAL REVENUES	**(2,185,044)**
EXPENSES	
Administration	747,963
Operations	1,252,399
Events	597,482
Vending	14,005
Food & Beverage Services	3,547
Transit Advertising	18,283
TOTAL EXPENSES	**2,633,679**
NET	**448,635**

Revenues/Expenses of Note:

- Ice/floor rentals: $257,900
  Advertising: $164,231
  License Fees: $508,816
  Box Office: $94,598
- Admissions: $292,272
  Contractual Rec.: $225,279
- Salaries/benefits: $544,385
- Salaries/benefits: $528,280
  Utilities: $533,949
  Building Mtce: $140,932
- Salaries/benefits: $355,111
  Contractual Services: $212,236

	2017 (Actuals)
REVENUES	
Administration	(1,028,716)
Operations	0
Events	(699,192)
Vending	(20,853)
Food & Beverage Services	(137,327)
Transit Advertising	(83,727)
TOTAL REVENUES	**(1,969,814)**
EXPENSES	
Administration	710,128
Operations	1,199,844
Events	851,168
Vending	18,411
Food & Beverage Services	7,911
Transit Advertising	0
TOTAL EXPENSES	**2,787,462**
NET	**817,648**

Revenues/Expenses of Note:

- Ice/floor rentals: $242,570
  Advertising: $135,038
  License Fees: $289,600
  Box Office: $109,262
- Admissions: $293,320
  Contractual Rec.: $363,780
- Salaries/benefits: $507,100
- Salaries/benefits: $425,806
  Utilities: $538,173
  Building Mtce: $122,477
- Salaries/benefits: $509,177
  Contractual Services: $310,489

9.2 New MUSEC: Indicative Operating Performance

The following summary of financial performance of the facility is based on its role as the City's primary spectator sport and event centre. The financials represent a schematic assessment, despite the considerable level of detail of the assumptions regarding operations that is part and parcel of generating these projections. The projections are also based on the continuance of the existing licensing agreements between the City of Peterborough and the Peterborough Petes and Peterborough Lakers.

Under no circumstances is it likely that the existing agreements will be carried into a new building and an immediate step should the project be implemented is to establish the process by which to negotiate the terms of a new series of license agreements.

Until such time as that occurs, it is important to respect the existing arrangements while recognizing that there are likely to be more effective business arrangements which better serve the interests of the City and its tenant partners.

9.3 Key Assumptions

Revenue Sources

As a commercial operation that offers flexibility in programming and a broad base of revenue generating potential for the owner, revenue sources are often as follows:

- Ticketing service and/or facility fees;
- Sponsorship opportunities both inside and outside of the facility;
- Premium seat licenses (luxury suites, loge boxes and club seats);
- Concessions (food and beverage sales);
- Retail space rentals (team stores, merchandise kiosks, team offices, and possibly other leases);
- Facility rental agreements (sports teams, community groups and entertainment promoters) – this financial analysis excludes a second ice surface but includes partial use of the main event ice sheet by community groups; and
- Parking charges.

Maintenance of Current Licensing Approach

Our approach includes a detailed assessment of revenues from the standpoint of a number of categories. In maintaining the current approach to concession revenues and costs, a third party operates the concessions be it the concessionaire area of the building operator or another provider. The City is assumed to take a share of the gross revenues and, explicitly as it pertains to the Petes and Lakers games, and pursuant to the license agreements amended in 2016, provides a share of these revenues to the teams.

The aims of the amended agreements - to incentivize the teams to grow their attendance bases through improved access to in-facility spending by patrons – is maintained in the projections contained in this report. However, as noted there are a number of ways to recast

the license agreements to achieve these same ends and in due course these discussions should occur with the teams.

Staffing

Staffing complements vary depending on the size of the facility, its age, and the history of use of the facility and whether actively managed as a true event centre or more of a community venue with legacy tenants.

Core staffing responsibilities can involve a combination of the following types of function:

- Executive Director: Overseeing the entire operation of the MUSEC.
- Business Manager: Responsible for all accounting functions.
- Box Office Manager: Responsible for all ticketing related functions.
- Executive Assistant: Basic administrative support and customer service.
- Director of Sales and Marketing: Responsible for the sale of all commercial opportunities within the MUSEC. This would include all premium seating sales, naming rights and sponsorships. In addition, this person would have the added responsibility of marketing the MUSEC within the local community and the entertainment marketplace.
- Guest Services Manager: Responsible for all customer service related duties plus event night coordination for premium seat customers and major sponsors.
- Concession and Catering Manager: Responsible for all food and beverage operations (only where this function is retained in-house by the owner). For this report, the assumption is maintained of third party operation of the concession.
- Event Coordinator: Responsible for planning all events developed by the MUSEC and for coordinating events with outside promoters, agents and community groups.
- Operations Manager: Responsible for all day to day operations of the MUSEC. This would include all mechanical, electrical, plumbing and maintenance responsibilities within the MUSEC.
- Custodial Manager: Responsible for all custodial and housekeeping functions within the MUSEC.
- Conversion Manager: Responsible for coordinating any and all conversions for various events. For example, preparing the building to go from a hockey configuration to a concert configuration, etc.

In addition to the key management personnel within the MUSEC, most facilities require part time support personnel such as accounting clerk, assistant box office manager, building operations, sales and marketing representatives, depending on the size of operations.

Further, MUSEC's require a significant compliment of part time employees who work only on event days or on the days immediately following events. Such would include ushers, ticket takers, security, custodial staff, housekeeping staff, concession workers, servers, food preparation staff, and conversion crews).

These functions are required regardless of whether they are staffed from the owner's side (municipality) or via a third-party management firm, concessionaire, or contracted services.

9.4 Indicative Performance

The preliminary financial results are provided below showing the amount of deficit before and after management fees and capital reserve payments.

A variety of assumptions necessary to create a financial picture of how the facility might operate under normalized conditions have been developed, and include the following key areas of operating revenues and expenses:

Facility Revenues

These would typically, but not exclusively, comprise revenues related to its spectator event use and those drawn from its role as a community recreation centre. Revenues are therefore categorized in terms of the main types of events:

1. Those of the anchor tenants (ticketed spectator hockey and lacrosse games);
2. Other ticketed sporting events;
3. Other major sporting events such as tournaments which are not likely to be ticketed;
4. A range of entertainment product (concerts, family shows, special interest events)
5. Some trade show and corporate functions; and
6. Community use of the ice, meeting rooms and other recreational facilities within the complex.

Attendance at these events and their frequency create the sources of net revenue from concessions, other food and beverage, merchandizing and more, all of which is partially retained by the City as owner of the facility. The degree of facility participation in net revenues varies by type of revenue category and will ultimately be determined through the final approach to managing the facility and the role of the anchor tenant in maximizing facility revenues through its events. For example, third party management of the venue will result in a stronger hand in controlling these additional sources of revenue – advertising, concessions etc., compared to a municipal operating model in which municipalities have typically not managed these sources to maximize their potential.

Facility Expenses

Facility expenses are comprised in a number of operating departments. These costs include general fixed costs as well as those related to the scale of activity (events) at the venue.

No Debt Service Ratio

In other sectors where a private market exists, the resulting net operating income (NOI) can be evaluated in terms of its ability to offer a sufficient debt service ratio: that is the amount of coverage from operating surpluses to adequately cover annual repayment of debt. Because a multi-use sports and entertainment centre of this scale does not typically result in operating surplus, there is no capacity to support debt from the operations of the facility.

Management Fees: Risk and Reward

Management fees payable to a third-party management company to operate the venue represent an additional expense line, the value of which is the expertise brought to bear on revenue maximization, operational efficiency and cost management. The purpose of third party management is to increase revenues on a sustainable, multi-year, basis and improve the overall operation and enjoyment of the facility, thereby justifying the quantum of the annual management expenses. However, the value of third party management goes beyond this to encompass the philosophical position that the success of a commercial event facility is more likely to be achieved with a commercially oriented management team, particularly if its remuneration is incentivized or subject to the achievement of specific financial targets. Not all municipalities follow this approach and examples do exist of successful municipal operation as well as operation by non-arms-length agencies of municipalities.

In contemplating a third-party management firm, it is ideal if the management portions are incentivized; that is, rather than paying a flat fee to a management company on a monthly basis, the financial risks as well as the rewards are shared between owner and operator. This represents a risk-sharing partnership of the balance of which between the parting sis the subject of negotiation and agreement. It is important that any transfer of risk to the operators is counter balanced by their sharing in the operational success of the building. This should be the business objective of the City in pursuing its governance model for a new facility. At this time, therefore, management fees are not included in our estimate of costs. It should also be recognized that our costs base represents a more municipal cost model. Both costs and revenues (including the treatment of concessions) can be expected to be adjusted depending whether a third-party management agreement is an at-risk arrangement for the operator.

Capital Reserve

Any major capital facility should have provision for the payment of a contribution from operating revenues to a reserve, the purpose of which is to fund future life cycle repairs to the facility. A growing number of municipalities have adopted policies to collect these payments, which in those instances where deficits exist, amounts to a commitment to fund a reserve from general municipal revenues.

Generally speaking, there is no consistent practice across Canadian municipalities with regard to the calculation and implementation of a capital reserve and the amount diverted to these reserves is generally defined in Any major capital facility should have provision for the payment of a contribution from operating revenues to a reserve, the purpose of which is to fund future life cycle repairs to the facility. A growing number of municipalities have adopted policies to collect these payments, which in those instances where deficits exist, amounts to a commitment to fund a reserve from general municipal revenues.

Generally speaking, there is no consistent practice across Canadian municipalities with regard to the calculation and implementation of a capital reserve and the amount diverted to these reserves is generally defined in relation to the specific infrastructure in question. For this exercise we have assumed that the annual reserve is 0.5% of original capital costs subject to escalation. In other places, capital reserve policies vary – with some not instigating any requirement for a reserve until the asset reaches a certain age.

Asset management practices are evolving and we therefore assume that the funding of a reserve from year 1 of operations should be a working target.

The following projection of operating performance is based on the assumption of the facility operating at full market capacity in year 1. This is for simplicity to demonstrate how the facility should ultimately perform and perform quickly assuming sufficient time and effort has been placed into pre-opening business planning, marketing and sales.

Exhibit 55: Peterborough MUSEC - 25 Year Annual Operating Revenue / Cost Projections

		NPV @ 6.00%	Year 1	Year 2	Year 3	Year 4	Year 5	Year 10	Year 15	Year 25
Escalation	2.00%	Per Annum	1.00	1.02	1.04	1.06	1.08	1.20	1.32	1.61
Facility Revenues										
Spectator Use Revenue										
Petes Hockey										
Petes Club Games		$3,984,698	$250,609	$255,621	$260,733	$265,948	$271,267	$299,501	$330,673	$403,088
Lakers Lacrosse										
Lakers Club Games		$775,324	$48,762	$49,738	$50,732	$51,747	$52,782	$58,275	$64,341	$78,431
All Other Events										
Tournaments		$124,021	$7,800	$7,956	$8,115	$8,277	$8,443	$9,322	$10,292	$12,546
Non-Tenant Sporting Events		$381,602	$24,000	$24,480	$24,970	$25,469	$25,978	$28,682	$31,667	$38,602
Concerts / Family Shows		$6,550,834	$412,000	$420,240	$428,645	$437,218	$445,962	$492,378	$543,625	$662,676
Trade Shows / Community Events		$1,383,307	$87,000	$88,740	$90,515	$92,325	$94,172	$103,973	$114,795	$139,934
Suite Licensing / Advertising										
Naming Rights		$3,736,520	$235,000	$239,700	$244,494	$249,384	$254,372	$280,847	$310,078	$377,983
Luxury Boxes		$4,865,426	$306,000	$312,120	$318,362	$324,730	$331,224	$365,698	$403,761	$492,182
Club Seats		$1,928,229	$121,272	$123,697	$126,171	$128,694	$131,268	$144,931	$160,015	$195,058
General Advertising		$2,862,015	$180,000	$183,600	$187,272	$191,017	$194,838	$215,117	$237,506	$289,519
Party Suites		$294,152	$18,500	$18,870	$19,247	$19,632	$20,025	$22,109	$24,410	$29,756
Concessions		$3,041,808	$191,308	$195,134	$199,037	$203,017	$207,078	$228,630	$252,426	$307,706
Novelties (Net)		$1,662,440	$104,555	$106,647	$108,779	$110,955	$113,174	$124,953	$137,959	$168,171
Beer		$1,092,898	$68,735	$70,110	$71,512	$72,943	$74,401	$82,145	$90,695	$110,557
Restaurant		$1,166,010	$73,334	$74,800	$76,296	$77,822	$79,379	$87,640	$96,762	$117,952
Ticket Surcharge		$6,752,920	$424,710	$433,204	$441,868	$450,705	$459,719	$507,567	$560,395	$683,119
Sub-Total		**$40,602,203**	**$2,553,584**	**$2,604,656**	**$2,656,749**	**$2,709,884**	**$2,764,082**	**$3,051,770**	**$3,369,400**	**$4,107,280**
Recreational Use Revenue										
Ice Rental (Fall/Winter)		$1,248,878	$78,545	$80,116	$81,719	$83,353	$85,020	$93,869	$103,639	$126,335
Concessions (Fall/Winter)		$240,409	$15,120	$15,422	$15,731	$16,045	$16,366	$18,070	$19,951	$24,320
Ice Rental (Spring/Summer)		$915,845	$57,600	$58,752	$59,927	$61,126	$62,348	$68,837	$76,002	$92,646
Concessions (Spring/Summer)		$183,169	$11,520	$11,750	$11,985	$12,225	$12,470	$13,767	$15,200	$18,529
Sub-Total		**$2,588,301**	**$162,785**	**$166,041**	**$169,362**	**$172,749**	**$176,204**	**$194,544**	**$214,792**	**$261,830**
Total Facility Revenues (2% annual escalation)		**$43,463,575**	**$2,716,370**	**$2,770,697**	**$2,826,111**	**$2,882,633**	**$2,940,286**	**$3,246,313**	**$3,584,192**	**$4,369,110**

Exhibit 55 (Cont'd)

Escalation	2.00%	NPV @ 6.00% Per Annum	Year 1 1.00	Year 2 1.02	Year 3 1.04	Year 4 1.06	Year 5 1.08	Year 10 1.20	Year 15 1.32	Year 25 1.61
Facility Expenses										
Total Salaries		$19,183,451	$1,206,500	$1,230,630	$1,255,243	$1,280,347	$1,305,954	$1,441,879	$1,591,951	$1,940,580
Event Operations		$13,397,410	$842,600	$859,452	$876,641	$894,174	$912,057	$1,006,985	$1,111,793	$1,355,269
Concession and Beer Costs		$0	$0	$0	$0	$0	$0	$0	$0	$0
Marketing Budget		$1,590,008	$100,000	$102,000	$104,040	$106,121	$108,243	$119,509	$131,948	$160,844
Repairs & Maintenance		$795,004	$50,000	$51,000	$52,020	$53,060	$54,122	$59,755	$65,974	$80,422
Utilities		$11,706,436	$736,250	$750,975	$765,995	$781,314	$796,941	$879,887	$971,466	$1,184,212
Insurance		$1,844,410	$116,000	$118,320	$120,686	$123,100	$125,562	$138,631	$153,060	$186,579
Other Expenses (leased property and equipment, admin, property tax, misc.)		$2,782,515	$175,000	$178,500	$182,070	$185,711	$189,426	$209,141	$230,909	$281,477
Sub-Total Expenses (2% annual escalation)		**($51,299,234)**	**($3,226,350)**	**($3,290,877)**	**($3,356,695)**	**($3,423,828)**	**($3,492,305)**	**($3,855,787)**	**($4,257,100)**	**($5,189,382)**
Net Cash Flow (revenues over expenses)		**($7,835,660)**	**($509,980)**	**($520,180)**	**($530,584)**	**($541,195)**	**($552,019)**	**($609,474)**	**($672,908)**	**($820,271)**
NET CASH FLOW BEFORE CAPITAL RESERVE		**($7,835,660)**	**($509,980)**	**($520,180)**	**($530,584)**	**($541,195)**	**($552,019)**	**($609,474)**	**($672,908)**	**($820,271)**
Capital Reserve (CR) 0.50% of Capital Costs (Unescalated)		($4,901,203)	($362,500)	($362,500)	($362,500)	($362,500)	($362,500)	($362,500)	($362,500)	($362,500)
NET CASH FLOW BEFORE DEBT SERVICING		**($12,736,863)**	**($872,480)**	**($882,680)**	**($893,084)**	**($903,695)**	**($914,519)**	**($971,974)**	**($1,035,408)**	**($1,182,771)**

9.5 Period of Facility Ramp-Up to Achieve Market Potential

The facility can be expected to undergo a more gradual ramp-up toward the target event days and this is discussed below. However, the target event days do not represent a long-term vision that is only achievable after a number of years of presence in the marketplace. Peterborough currently operates in the market and the intention through private sector management should be to achieve market penetration for non-tenant events within several years.

As regards the tenant events, the facility has a risk associated with underperformance of the tenants in drawing crowds to their games. The achievement of the financial projections is based on the effective collaboration between the City and the tenants in sustaining growth in attendance.

In summary, the assumption of more modest market penetration in the first several years of the project can be expected to increase the annual deficit in years 1 and 2 over and above that identified above. To the extent that operational learning also results in an initial higher level of operating expenses and their gradual improvement over the first few years, this would also add to the margin of the deficit in years 1 and 2. However, we assume that with a third-party management team and considerable experience in the industry, the potential to achieve cost efficiencies early on is built into the business plan.

Exhibit 56: Facility Net Operating Income (NOI)

Facility Net Operating Income (NOI) ($2018)	Year 1	Year 2	Year 3
NOI Before Management Fee	($682,730)	($591,668)	($530,584)

9.6 Sensitivity for Tenant Event Attendance / Presence of Second Tenant

The proforma assessment of operations is based on a range of guided assumptions which have a reasonable likelihood of being achieved.

However, the current approach to the licensing agreements is based on revenue sharing with the teams while the City maintains a vastly disproportionate share of operating costs for games day expenses. In a new building context, the basic parameters of the licensing agreements can be expected to change, while revenue sharing remains important to incentivize all parties.

However, if attendance does not meet expectations the implications of this are presented below. It is important to recognize that if attendance-related financial risks are mitigated in the first place through the licensing agreement, the degree of decline in the operating performance of the facility can be mitigated.

Exhibit 57: Facility Net Operating Income (NOI) Before Management Fee

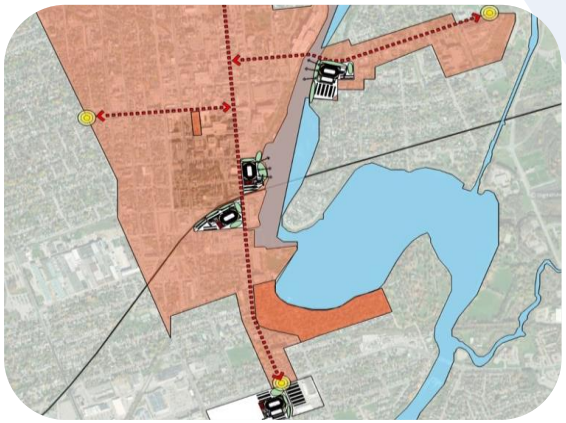
Facility Net Operating Income (NOI) Before Management Fee ($2018)	Year 1	Year 2	Year 3
Petes Average Attendance 3,000 per game	($670,992)	($684,412)	($698,100)
NOI – Petes Attendance 3,000 per game; No Second Tenant	($821,320)	($837,746)	($854,501)

These sensitivity assessments represent worst case scenarios in addition to which the conservative (high) assessment of operating costs associated with the new building further increases the net operating deficit. It is likely in our judgement that operating expenses can be moderated down with an appropriate approach to management of the facility and the hiring of a third-party professional management group.

In addition, the need for a new license agreement is illustrated in the case of a tenant license arrangement that places the facility at unnecessary financial risk arising from fluctuation in attendance. Accordingly, it is important to obtain a strong partnership arrangement with the teams through the licensing process to ensure that risk is shared.

10

LOCATIONAL CONSIDERATIONS



An objective and sequential process of site-finding and analysis was followed, which resulted in the identification of a shortlist of sites that merit more detailed due diligence and investigation.

A Locational Analysis has been prepared and submitted to City staff under separate cover.

Methodology: The methodology which was used to identify and compare the opportunities and challenges presented by each of the candidate sites can be summarized as follows:

- **Defining the search area:** As per the project Terms of Reference, the focus of the site search was the Official Plan's 'Central Area' (which includes the downtown commercial core). However, for the analysis to be as robust and objective as possible, the search area was expanded to consider the suitability and feasibility of sites outside the Central Area.
- **Pre-screening**: Identified sites were screened out where they were too small and/or where they were subject to constraints which were considered likely to be insurmountable or of such difficulty that the merit of the site was severely compromised (e.g. demolition of heritage buildings, or removal of significant existing economic uses on a site).
- **Initial desk-based due diligence**: Proformas were prepared for each of the remaining shortlisted sites which enabled them to be compared on a like-for-like basis, using the following range of land-use, design and environmental criteria.

The preparation of proformas was also a useful tool for identifying where further information was required.

Exhibit 58: Locational Considerations and Details

Consideration	Detail
Site Characteristics	• Site Description (and uses) • Vehicular access • Site area • Ownership • Leases/tenancies (and terms, where known) • Restrictive covenants • Proximity to railway tracks/requisite setbacks
Land Use Planning	• Inside or outside Central Area (Schedule J) • Official Plan Designations • Zoning By-Laws (including land use / restrictions)
Environmental Constraints	• Flooding and Wetlands • Contamination • Heritage
Site Prospects (Pros and Cons)	• Site Characteristics, Location & Transportation • Cost and Ease of Acquiring Development Land • Urban Context / Physical Elements • Economic Impact / Synergies

Source: Sierra Planning and Management

Scoring criteria: The sites were scored against a wide range of criteria.

Candidate site analysis and concepts: Where risks had been identified further due diligence was undertaken where information was readily available. Site concepts were also drawn up to illustrate in each case the form of MUSEC may take, and the extent to which complementary uses could be accommodated.

Recommendations and Next Steps: Clear directions were given on additional work required to further clarify site-specific opportunities and risks.

11

ECONOMIC IMPACT CONSIDERATIONS

Construction Impacts

Operating Impacts

Off-site Spending

Urban Regeneration

11.1 Overview

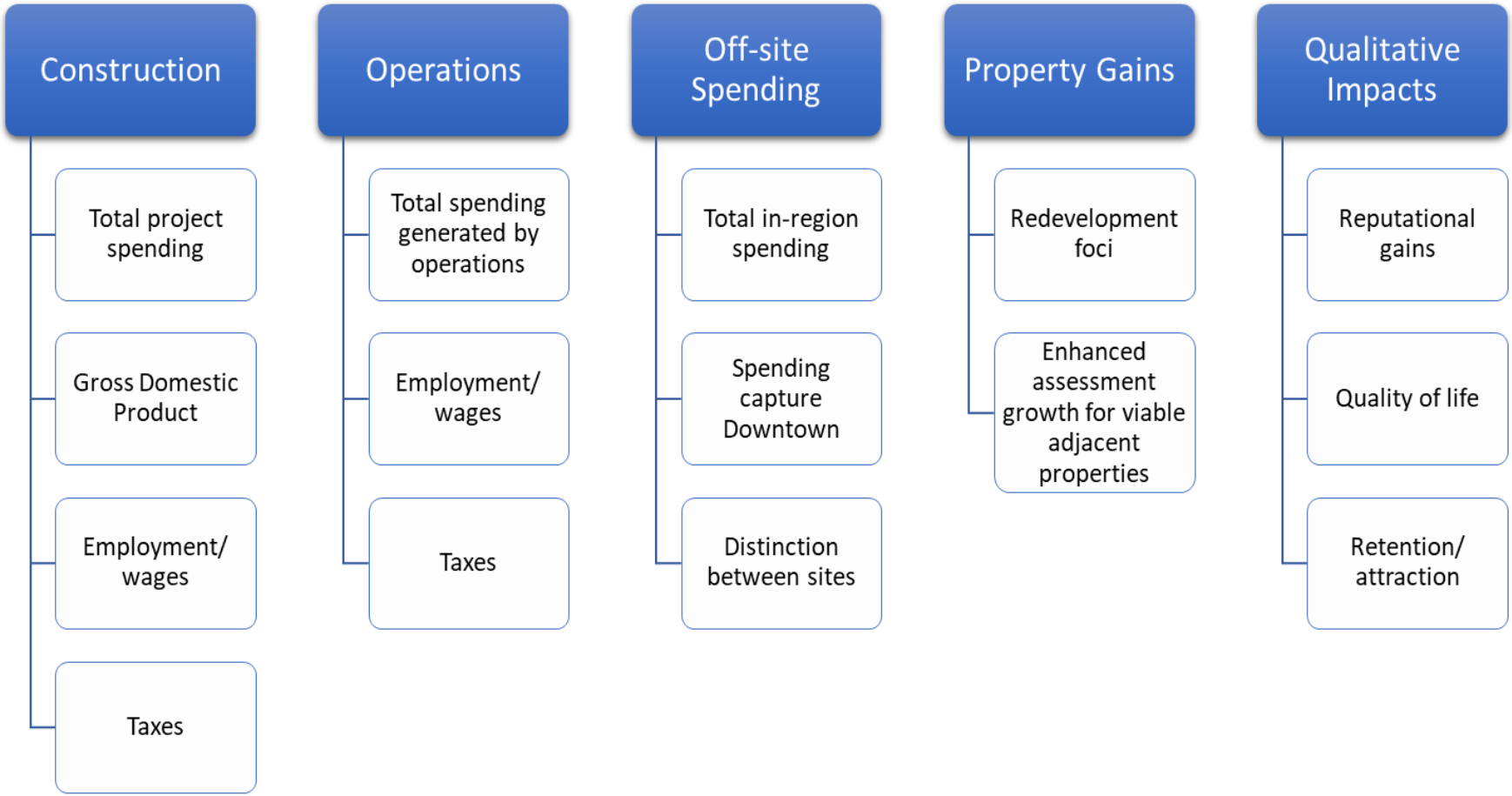
The results of this analysis should be treated as a guideline to economic impact of the MUSEC based on the range of assumptions regarding its design, scale, operations and location. Should any of the key assumptions which underlie the analysis change – such as the capital costs of the facility or its seating capacity, the economic impacts can be expected to vary. Importantly, the analysis of impact assumes that the macro-economic environment remains stable and that normal business cycles are assumed to occur. It also assumes that the City of Peterborough continues to actively support Downtown and the surrounding area as a tourist destination, enhancing the public realm, and facilitating regeneration of the City's brownfields and under-utilized lands.

Public policy decisions above and beyond the decision to invest in a new facility can be expected to influence how much of a contribution the MUSEC can make to localized economic development. Evidence from elsewhere demonstrates that impacts are maximized only where wider public investment and policy decisions are moving in the same direction. While there are significant impacts which can be estimated (our proformas on event days, visitation and spending are the inputs to this) it is also important to recognize that economic impact is less about the number than it is about the stimulus that significant investment in public infrastructure can have on investor confidence and building activity.

11.2 Range of Measures

Without consideration to development of arenas as part of bigger urban regeneration projects (the Ice District development in the City of Edmonton as the latest example) the construction-related economic impacts are based on the costs to develop the arena itself. Similarly, the operation of the MUSEC (based on the costs and revenues generated inside the venue) can also be readily estimated. So too can off-site expenditures but this requires a consideration of the propensity of the surrounding area to capture the available trade from the event centre-goers. Are there sufficient hotels and service providers in the surrounding area and is one site better than another in creating beneficial impacts? The following sections address this.

Exhibit 59: Ideal Range of Measures



Source: Sierra Planning and Management

11.3 Definition of Terms

Several measures of impact assessment including **direct, indirect** and **induced** effects are employed in the analysis which follows. These terms are briefly described below.

Direct Impact

Direct effects are associated with immediate changes in demand generated by employment, personal and household income, government expenditures, and private and public capital investment. This includes investment in construction, the spending and wages in the facility, and the spending outside of the facility by patrons. Direct impacts can be measured in a number of ways – all of which are alternatives and not cumulative measures. These include: total spending, Gross Domestic Product (GDP), income, employment and of other related measures such as sales and income taxes generated. Direct investment and employment will create iterative rounds of income, employment creation and spending. These multiplier impacts are referred to as indirect effects and induced impacts.

Indirect Impact

Indirect effects essentially are inter-industry impacts. Changes in employment, household income, governmental expenditures, and private and public capital investment added from industry purchases of all items needed to furnish a product or service are measured. Indirect effects measure the impacts of these purchases.

In terms of the employment impacts during construction, indirect employment refers to the employment created in other industries which supply the materials (goods) and other inputs (services) necessary for the construction work. In terms of the ongoing operations of any facility or surrounding business, indirect impact relates to employment created in businesses which supply goods and services necessary for the ongoing operations of the business.

Induced Impact

Input-Output modeling also can potentially estimate induced effects. Induced effects are changes in spending patterns of households caused by changes in household income generated by direct and indirect effects. These new expenditures are reintroduced into the economy as a new demand and are more diffused across the national economy. Given this, we focus on the direct and indirect impacts which have a greater regional impact.

11.4 Construction and Operational Impacts

Construction-related impacts (one-off impacts) represented in terms of the (i) Gross Domestic Product (GDP) and (ii) jobs created (person-years[7] of employment) are summarized below.

Exhibit 60: GDP Impacts from Construction Activity – Construction Employment

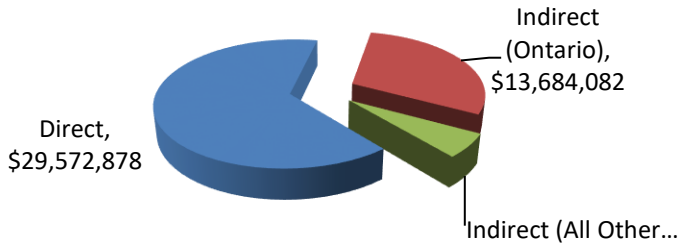
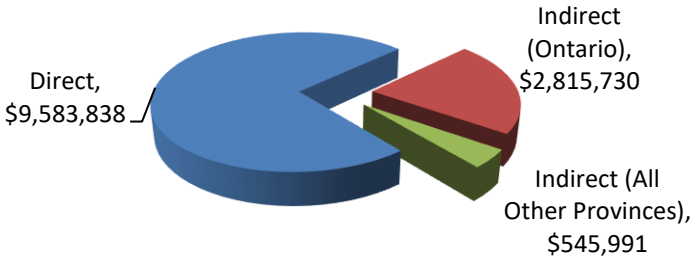


Exhibit 61: GDP Impacts from Construction Activity – Consulting Employment



Source: Sierra Planning and Management

The person years of employment is based on the portion of capital costs of the facility comprised of labour expenses.

Exhibit 62: One-Time Job Creation from Construction (Person-Years)

	In-Province Construction-Related Employment			Out-of-Province Construction-Related Employment		
	Direct	**Indirect**	**Total**	**Direct**	**Indirect**	**Total**
Estimated Employment on Total Labour Costs	226	111	337	0	18	18
Estimated Employment on Soft Cost Labour	124	32	156	0	5	5
Total Employment	**350**	**143**	**493**	**0**	**23**	**23**

Source: Sierra Planning and Management

[7] Person-year of employment is a standardized measure of full-time equivalent employment representing a single year of full-time employment for one person or its equivalency over a longer or shorter period of time.

The impact of operational spending can be assessed from several perspectives including the total flow through of revenues and expenses to the facility as well as the tenant teams, event promoters and others who stage events. Given that the focus is on local economic development a more reasonable approach is to focus on the impacts arising from the facility operations itself. The employment generated by the operations of the facility expressed in terms of total full-time equivalent (FTE) is estimated.

Exhibit 63: Annual Employment Impacts from Operations

Staffing Descriptors	Number of Direct Employment (FTE)	Multiplier (In Province)	Indirect Employment (FTE) In Province	Sub- Total	Multiplier (Out of Province)	Indirect Employment (FTE) Out of Province	Total
Central Services							
Event Staff[8]	12.12	0.32	3.8	**15.9**	0.04	**0.52**	**16.47**
Concessions + Restaurant Service	14						
Corporate Boxes	1.5	0.18	0.3	**1.8**	0.06	**0.09**	**1.86**
Total	**43.62**		**12.6**	**56.2**		**2.19**	**58.41**

Source: Sierra Planning and Management

[8] Calculated as 50 per event day x 85 event days, 6-hour shifts.

11.5 Off-Site Spending Impact

There is a need to separate out the impacts of off-site spending by visitors to the event centre from the broader question of downtown regeneration and the contribution of facilities like these to that end. While they are linked in terms of the economic activity of MUSEC visitors that occurs in businesses located in downtowns (which therefore supports business, their rents, higher property values and development opportunities), it is not accurate to suggest that the arena-related entertainment and hotel spending is the principal driver of regeneration. Rather, it is the decision to invest in significant public infrastructure in the first place that has a stimulative effect on property development and economic activity, with the actual spending generated by attendees at events at the MUSEC only one of many contributing factors leading to downtown regeneration.

It is also important to accurately differentiate between the potential of one site over another to help make these changes occur. Ideally, distinguishing between sites in terms of their economic impact is clear and reasonable. Distance from downtown is one possible method of differentiating impact, but this becomes less clear where the sites are closer together or where neither site has a clear advantage in terms of proximity to restaurants, hotels and other services.

In Peterborough, the choice is not between a Downtown and Out-of-Town site but, in the case of perhaps Morrow Park versus the lands within the Central Area (Schedule J lands), a near Downtown site versus a site demarcated as within the Schedule J. Our review of Schedule J lands is reported fully in our locational assessment report. Apparent is the lack of available sites in the Central Area which provide a significant land holding in one or two ownerships or which are otherwise unconstrained redevelopment sites.

It is therefore more appropriate to consider the overall impact in terms of spending off-site that a new venue will create, and which is likely to be captured in the City as a whole.

Exhibit 64: City-Wide Retention of Impact

Summary: Moderate Revenue Scenario				
Expenditure by All Patrons All Events	Total Annual Expenditure by Category			Total Annual Expenditure
	Food & Beverage	Retail	Accom.	
A: Peterborough Petes Hockey	$1,413,386	$463,405	239,692	$2,116,483
B: Peterborough Lakers Lacrosse	$340,692	$111,702	$57,777	$510,171
C: Tournaments	$279,855	$123,525	$85,050	$488,430
D: Non-Petes Sporting Events	$235,463	$181,125	$101,250	$517,838
E: Concerts / Family Shows	$470,925	$100,800	$189,000	$760,725
F: Other / Community Events (Incl Trade Shows)	$272,000	$221,000	$153,000	$646,000
Total Annual Expenditure	**$3,012,320**	**$1,201,557**	**$825,769**	**$5,039,646**

Source: Sierra Planning and Management

Summary: Lower Revenue Scenario				
Expenditure by All Patrons All Events	Total Annual Expenditure by Category			Total Annual Expenditure
	Food & Beverage	Retail	Accom.	
A: Peterborough Petes Hockey	$1,130,748	$393,894	$203,738	$1,728,381
B: Peterborough Lakers Lacrosse	$289,588	$94,947	$49,110	$433,645
C: Tournaments	$251,870	$111,173	$76,545	$439,587
D: Non-Petes Sporting Events	$200,143	$153,956	$86,063	$440,162
E: Concerts / Family Shows	$423,833	$90,720	$170,100	$684,653
F: Other / Community Events (Incl Trade Shows)	$256,000	$208,000	$144,000	$608,000
Total Annual Expenditure	**$2,552,182**	**$1,052,690**	**$729,556**	**$4,334,428**

Source: Sierra Planning and Management

These estimates of direct spending have multiplier impacts, a portion of which can be reasonably expected to the retained locally and a majority regionally. These combined estimates of annual direct and indirect spending impact by visitors to the centre each year (when it is operating at full market draw) are indicated below.

Exhibit 65: Summary of Multiplier Impacts

Summary of Direct Spending by Site: Moderate Attendance Scenario	Total DIRECT Annual Spending by Category			Total Direct Annual Expenditure		Total INDIRECT Annual Spending by Category			Total Indirect Annual Expenditure	Total
	Food & Beverage	Retail	Accom.			Food & Beverage	Retail	Accom.		
	$3,012,320	$1,201,557	$825,769	**$5,039,646**	**Central Area**	$2,094,112	$689,175	$574,060	**$3,357,347**	**$8,396,993**

Summary of Direct Spending by Site: Lower Attendance Scenario	Total DIRECT Annual Spending by Category			Total Direct Annual Expenditure		Total INDIRECT Annual Spending by Category			Total Indirect Annual Expenditure	Total
	Food & Beverage	Retail	Accom.			Food & Beverage	Retail	Accom.		
	$2,552,182	$1,052,690	$729,556	**$4,334,428**	**Central Area**	$1,774,232	$603,789	$507,175	**$2,885,195**	**$7,219,623**

Note: indirect spending totals shown are for indirect spending impacts occurring in all provinces

In Facility Operations		**$3,200,000**	**$1,835,417**	**$5,035,417**
Total Operational	**Moderate Scenario**	**$9,374,074**		**$13,432,410**
	Lower Scenario	**$7,534,428**		**$12,255,041**

Multipliers	F&B	Retail	Accom.
	0.70	0.57	0.70

Source: Sierra Planning and Management

When annual direct or indirect impacts from in facility spending are included, this improves the impact still further. These impacts compare with an estimated current facility (PMC) impact as follows:

1) Annual direct and indirect impacts of off-site spending of approximately $5 million;

2) Annual direct and indirect spending impact of operations of $4.2 million.

11.6 Quantitative Estimates of Bed-Night Demand Generation

As an approximate estimate the City has approximately 675 hotel/motel rooms comprised in 7 providers. Hotel occupancy rates for the hotel/motel sector in the Kawarthas and Northumberland are considerably less than more urbanized centres in part due to the wide array of alternative forms of accommodation in the region. Nevertheless, by considering the potential overnight stays in the City as a result of events at the PMC, this equates to a potential 5%of total hotel bed nights - generated by the event centre. This is only an exercise in scaling the potential demand which could be generated in proximity to the event centre and is not a consideration of the extent of competition for hotel stays in the region. However, it is an argument in support of any economic development policies which seek to target additional hotel development in the southern end of the City. Additional hotel development can help improve the overall brand experience of a new MUSEC and contribute to generating additional events including modest trade and convention opportunities.

11.7 Downtown Regeneration Impacts

The economic impact of sports and entertainment facilities varies widely by venue and is highly dependent on a range of contextual factors, including the surrounding economic region, physical linkages and connections with surrounding development as well as the intensity of use of the building.

Generally, there are two differing perspectives when it comes to looking at the economic impacts of sports/entertainment facilities: (1) that insignificant economic growth is generated and (2) that sports/entertainment facilities produce positive economic benefits and help to revitalize depressed urban areas.

Much of the scepticism over the magnitude of economic growth that is generated is that sports/entertainment development projects generate only a small increase in economic activity and simply serve to redirect spending from one activity to another. However, the information tends to focus on only the quantifiable economic costs and benefits of these multi-use centres, often discounting the non-quantifiable outcomes.

On the other hand, it is often argued that these non-economic benefits – such as social and development impacts – could be significant. Among other positive social impacts, such as an increase in reputation for a community, multi-use facilities also play an influential role in creating vibrant areas that can attract higher income/higher educated households to the local environment. MUSECs can also act as anchors for regeneration efforts, based on the ability to draw a critical mass of visitors to the area for events, which can help support restaurants and retail shops. Additionally, these large-scale projects can stimulate infrastructure investment in the district and attract other development projects.

In Canadian cities, the investment in multi-use sports and entertainment centres has often been part of continued efforts (both before and after) to regenerate economically challenged areas. For example, in Kingston, Ontario, the K-Rock Centre was the first development of the run-down North Block and has since anchored plans for broader redevelopment on the north side of Kingston's downtown.

Similarly, the development of the Budweiser Gardens (formerly John Labatt Centre (JLC)) on Talbot Street in Downtown London, along with the Covent Garden Market, and a range of residential developments spurred by tax incentives, has made a discernable difference to the assessment as well as livability of Downtown London. Public investment in the John Labatt Centre was sizable as it was considered an integral part of the City's Millennium downtown revitalization strategy. The JLC is credited with playing a significant role in London's downtown regeneration.

The capacity of the arena to promote urban regeneration through surrounding property redevelopment is not only a function of proximity to the urban core, but the existence of lands which can be redeveloped, where additional density is economically achievable, and where property owners are willing participants.

It can also be influenced dramatically by the willingness of the public sector to support redevelopment efforts through intervention in the land market and partnerships with the development community.

The complexities of downtown redevelopment, in particular where this involves site assembly, can delay the build-out around the arena. We have witnessed this in a number of centres, where densification of development around the arena has occurred only gradually because of the general complexities of downtown land development. This also includes the persistence of uses which no longer represent the highest and best use of sites in the vicinity of the arena, but which remain viable.

- The literature does not support unequivocally the direct link between public infrastructure developments like arenas and event centres and the regeneration that occurs over time.
- But the literature and experience does support the evidence of combined impacts of a multi-policy focus on downtown investment. Investment of this kind can change perceptions of the downtown property market for investors, businesses and residents alike. It can drive a change in behaviour, and shepherd additional investment – public, private and institutional-because it improves certainty for the future of the local area.

- The impact is generally greatest in proximity to the new facility – certainly in terms of new shops and restaurants - but can widen considerably especially if the investment in downtown incudes public realm improvements, road and transit improvements, as well as hard services.

- MUSEC projects offer potential to showcases urban regeneration involving the redevelopment of derelict and/or contaminated sites. Public infrastructure projects can more readily carry the cost associated with site clean-up which can be more problematic for private capital.

- Allied to other major public projects, development can represent a strong commitment toward change as illustrated by the redevelopment of the Downtown Northside in Edmonton, the smaller development in

Oshawa (arena and consolidated courthouse close by) and Guelph (redevelopment of the Eaton Centre).

These broader regenerative impacts are of course difficult to predict but, based on case examples, there is a reasonable expectation that a new MUSEC as part of a more comprehensive development framework for Peterborough can effect change.

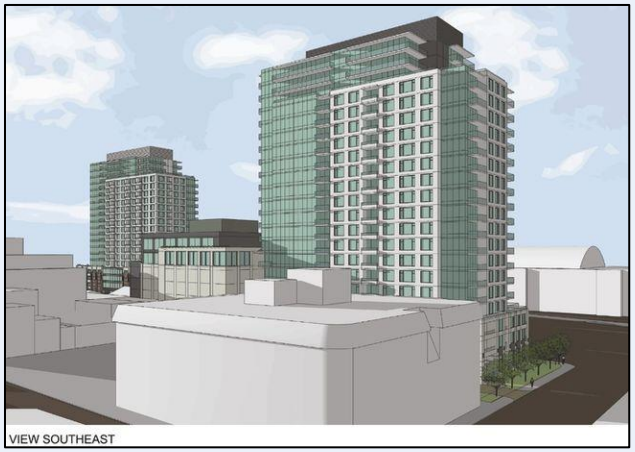
As part of the decision-making process, it is important that City planning initiatives like the Official Plan Review continue to create a vision for the central areas of the City. Based on a forward-thinking strategy the relative merits of the alternative sites – downtown sites versus those on the edges of downtown but which may increasingly become gateways to Downtown – can be assessed.

Above all it requires a uniform direction in policy terms to support Downtown and its "shoulder" areas (those neighbourhoods surrounding downtown) which are a vital ingredient in sustaining downtown commercial activity. Spending impacts from events themselves may not reverse decline if policies are not maintained in support of an improved business climate, accessibility and movement around downtown, and overall visitor experience.

City of Kingston

- The Leon's Centre (renamed from Rogers K-Rock in June of 2018) opened in 2008; Its impacts on downtown are gradual.
- Since 2008, retail and hotel development has continued to occur on the edge of town while investment in downtown is also apparent; the event centre is not the driver for hotel development on the waterfront that has occurred or residential intensification which is occurring in the central and downtown city areas. However, the event centre is the anchor in the long-planned North Block development and is an important contributor to the long-term plans for renewal of that area.

Block 4: Existing Condition



Block 4: Proposed Development

City of London

- Public investment in John Labatt Centre (now Budweiser Gardens) was sizable as it was considered an integral part of its downtown revitalization strategy (The Millennium Plan).
- The JLC is credited with playing a significant role in London's downtown regeneration.
- Between 2002 to 2009, current value assessment (CVA) in London's downtown core increased by 22%.
- High rise residential growth was spurred by development incentives under Community Improvement Plans – an example of taking a multi-sectoral approach to downtown regeneration.
- From 2001 to 2006, the downtown population increased by 22.5% and dwelling counts grew by 19%.
- Public realm enhancements leveraged the capacity of the City to co-ordinate the looks and ambience of redevelopment areas: e.g. Forks of the Thames Park.

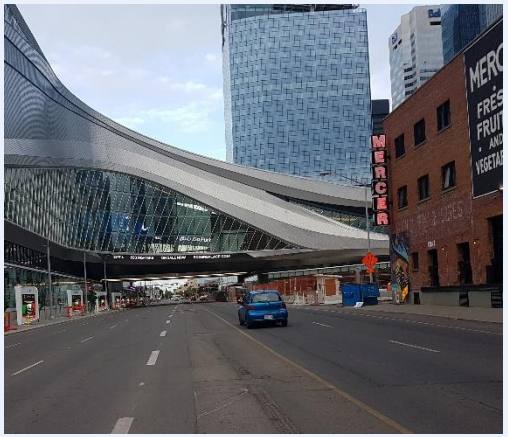
Budweiser Gardens

Forks of the Thames Park

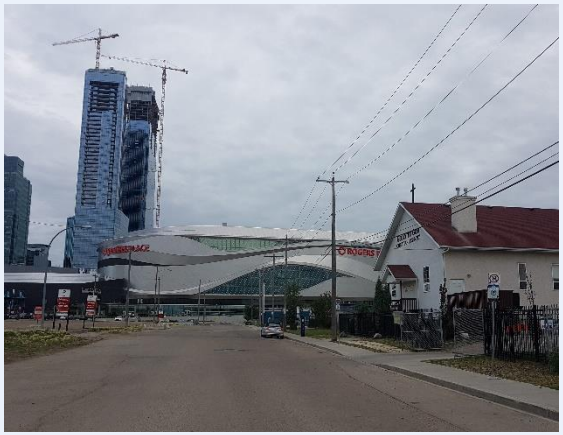
City of Edmonton

- Although of a different scale and located in a provincial capital, the $500 million Rogers Place Arena is a relevant example of integrated downtown planning, part of a comprehensive and on-going redevelopment of the north side of downtown Edmonton.
- Public investment including supporting transit infrastructure, office development backed by public sector leases, and a commitment to public space is expected to transform the previously derelict and under-developed northside.
- Property value enhancements in the hundreds of millions in a 2km radius around the arena and significant high-rise residential development are expected.

Renewed Economic Activity



Design Innovations



Comprehensive Redevelopment Takes Time

"Ice District" Branding

12

COSTS, BENEFITS AND APPROACH TO FUNDING AVAILABILITY

12.1 Benefit-Cost Ratio (BCR)

The lens of City planning is not a snap-shot picture of 2018 as it relates to the value of the existing PMC and opportunities for its replacement but is long-term as is the City's approach to asset management in general. Short term capital costs involved in building new are set against lower but accruing capital costs associated with sustaining the aging PMC over time as well as the eventual need to replace it; and the annual operational success of a new facility relative to the old becomes cumulatively important.

The Benefit-Cost Ratio (BCR) is a single comparison of all of these aspects.

- The Benefit-Cost Ratio is a measure of the expected benefits of a project relative to the costs, expressed generally in monetary terms.
- In a public infrastructure context, it is broadly defined as all measurable benefits including economic impact.
- The BCR is based on net present value (NPV) of benefits and costs (i.e. discounted value of future benefits over the project life less discounted costs).
- A BCR greater than (>) 1 = project has a net value.
- The BCR is different from risk-assessment which can be part of the adjustment of future individual costs and revenues.
- The BCR includes wider economic benefits to the extent only that those can be measured.

The resulting analysis is a comparison of financial costs and benefits (or cost avoidance as the case may be). It is not capable of directly measuring the intangible factors such as the lack of functionality that persists if the decision is not to build and the PMC remains the City's event centre for an indefinite future. Indirectly, however, the assumption of lost economic impacts, and widening operating deficits in an attempt to maintain the current level of building utilization, reflect the degree of functional obsolescence.

Other intangibles include assigning future investment in the City and Downtown to the presence of the new arena (or measuring the opportunity cost in investment terms of not building), the economic and societal benefits of brownfield clean-up (although the contingent liability costs of such sites could be used), or the broader community and societal benefits (including reputation and brand) that surround any decision to invest in public infrastructure.

12.2 Comparison between Existing PMC and a New Venue

The comparison below is between maintaining the PMC in its current role versus constructing a new event centre. What happens to the PMC if it is replaced but retained in some other use is not part of this comparison – the options have been addressed in this report and the underlying principle governing its future is successful adaptation to become a viable community recreational asset.

Exhibit 66: Comparison Between Existing PMC and a New Venue

Short-Term Capital	**New Building:** $72.5 Million (with exclusions)	**PMC:** Short-Term $5.5 Million
Longer-Term Capital (to 2040)	**New Building:** Normal Lifecycle Replacement costs in the order of $14 - $15 million (20% of original cost); equates to $725,000 p.a.	**PMC:** 2012 Condition Assessment: Approximately $13 Million in Lifecycle over period to 2040. This investment is only to maintain current building functionality. Cost of life cycle repairs is over ONE THIRD of the likely replacement value of the building, representing a Facility Condition Index of 34%. This is considered a poor rating.
Long-Term Functionality By 2040	**New Building:** Lifecycle Investment will maintain existing functionality	**PMC:** Decommissioning and Replacement with New Building Assumed by 2040
Annual Operating Position	New Building: Assume ($550,000) annual deficit	**PMC:** ($800,000) 2017 Annual Rate of Real Increase in Deficit (3% p.a.) over long-term
Annual Economic Impact	New Building: Assume $14.0 Million annual operation and off-site spending	**PMC:** Assume $5.0 Million annual off-site spending

Source: Sierra Planning and Management

Based on the above, the BCR for the period to 2040 is as follows:

Exhibit 67: Benefit-Cost Ratio (BCR)

	Net Present Value (NPV at 5% discount rate)	New MUSEC	PMC – Maintain to 2040 then Build	Benefit-Cost Ratio (BCR) >1.0 = ✓ <1.0 = ✗
A	PV Total Capital	($78 Million)	($57 Million)	
B	PV Total Net Operating	($10 Million)	($21 Million)	
C	PV Economic Impact Benefits	$213 Million	$130 Million	
	Total Benefit (Cost) (A+B+C)	**$125 Million**	**$52 Million**	**2.40**

Source: Sierra Planning and Management

A natural difficulty with this approach is the simplicity of the long-term outlook to 2040 which raises the importance of unknown future circumstances that impact decision-making. Nonetheless important conclusions can be drawn:

- There are costs on both sides of the ledger: whether maintaining **business as usual** or investing in new;
- Pushing back capital spending has its advantages but it too comes with a cost in terms of lost revenues and lost regional economic benefits;
- Unmeasurable, but highly likely, is the lost opportunity for renewed private investment that is stimulated by public infrastructure projects.

The main advantage of maintaining the status quo is that it removes the need for an aggressive capital funding strategy at a time when other draws on both City and grant funding are likely.

However, if capital funding from upper levels of government does occur, this further reinforces our opinion that it is the lost opportunities from facility operations that are the costliest to the City.

12.3 Approach to Funding

A funding strategy is required as an immediate next step. The choice of site, the extent to whether this involves acquisition and other costs to ensure site readiness, and the potential for private sector development adjacent to the site, impacts the funding approach. To the extent additional private-sector led development can occur nearby or in association with the new MUSEC, the potential exists to develop funding sources which transfer some of the burden of capital costs to the private sector while maintaining a synergy with the publicly funded MUSEC.

Private sector development that occurs as part of a broader master plan for a MUSEC precinct enables the City to direct the property taxation created by this additional development toward the long-term capital debt of the project.

A more detailed assessment of funding is warranted however a range of potential sources is outlined below.

Exhibit 68: Potential Funding Model for Peterborough MUSEC

	Key Features	Notes
A - Direct Capital Funding Available to Project		
1 - Federal Gas Tax Funding Grant	City Determines	Current majority of funding is directed to linear infrastructure (roads and wastewater).
2 - Canada-Ontario Infrastructure Bilateral Agreement: Community, Culture & Recreation	Discretionary and only for community recreation component.	OHL Sports Complexes are not eligible for funding; Capital cost of a second ice pad for dedicated community use is eligible.
3 - Additional Grant Option #2 TBD		
4 - Additional Grant Option #3 TBD		
5 - Net Proceeds from Potential Municipal Asset Dispositions		
6 - Fundraising	Can include a range of large and small cap.	Philanthropic donations - example Milton Velodrome and potential for contributions in-kind from Development Community.
7 - Development Charge Funded	Limited	Applicable to growth-related portion of capital cost only.
B - Net Capital Costs		Equates to Net Capital to be Funded by Debt.
C - Long-Term Debt - Annual P&I Payment		Investigate Infrastructure Ontario (IO) low interest loans for municipal infrastructure projects.
D - Annual Funding Sources to Defray Annual Long-Term Debt Charge		
1 - Redirection of Tax Increment from Surrounding Development	Future assessment growth (and taxes) could be applied, in part, to facility debt.	Assumes commercial development in surrounding area in response to investment in new MUSEC.
2 - Ticket Surcharge	Preferred for use as Capital Reserve	Retain in Operating Account and transfer to capital reserve.
3 - Contribution of Hotel Marketing Levy to Capital	Requires Consultation	Determine if local levy can be directed to capital.
4 - Contribution of User Group Registration Fees to Capital	Requires Consultation	Within City authority to request payment as part of ice rental agreements.
5 - Naming Rights	Capitalized	By capitalizing sponsorship $ this removes them from the operating account.
6 - Casino Revenue	Important source	May be available if not utilized for another priority project.
7 - BIA Contribution via levy	Negotiated; Requires Downtown Location	
8 - Operational Surplus	Unlikely	
9 - Reduced Operating Deficits in Existing Facilities (from closure or dry-floor repurposing) of PMC transferred as implicit annual savings	Transfer Operating cost savings from PMC	
10 - PMC Renovation (2023) Debt Retirement	Annual $947,000	Could be maintained assuming debt capacity not already directed
E - Special Levy to Tax Base	Identified on property tax charge as debt retirement levy	Some municipalities have adopted this approach.

13

RISK ANALYSIS AND FACILITY DELIVERY OPTIONS

13.1 Risks at this Initial Study Phase

At the outset, a range of risks exist for any major development project. Where possible, the majority of such risks are mitigated through effective management of the business planning, design and delivery of process.

13.1.1 Capital Costs

Capital costs for facilities of this type are not pre-determined and decision makers have considerable control in establishing the balance between budget and what goes "into" a building for this budget. Decisions makers, through their advisors, can control scale, quality and business conditions surrounding the allocation of risks in delivery of the project.

The capital cost estimates contained in this report are estimated based on the potential scale of development recommended in this report. Size, quality and types of use are all yet to be determined in detail through subsequent business planning, such that capital cost estimates at this time are reasonable estimates of possible cost, excluding land and any extra-ordinary development costs.

The stages required to better inform capital cost estimates are as follows:

1. Confirm building components and a final functional space program– those elements that are essential, and those optional per the results of this report; and

2. Confirm, select or otherwise acquire the site and establish more detailed design and land development costs, including any and all extraordinary development costs.

13.1.2 Development, Design and Construction Risks

All construction projects involve risk in their design, development and construction. These risks relate to a range of factors including the following principle elements:

- *Insufficient detail in design* leading to scope creep to meet anticipated functional requirements - This translates into longer timeframes for completion and often increases in capital costs as well as insufficiencies in design and layout of buildings;

- *Design errors and omissions* – this is the risk associated with building features and requirements being either underrepresented or absent and necessitating patched design and construction solutions and potential cost additions in addition to usual project delays associated with such changes in scope. Additionally, there is an ultimate risk in any development project that the intended design is not fulfilled due the failure of the constructor to build the facility to design;

- *Procurement risks* – these risks pertain to problems which arise between prospective contractors and the procurement agency (i.e. the City);

- *Construction delays* – from a variety of potential sources related to overall management, individual trades, materials or unforeseen site-related matters; and

- *Cost overruns* – for a variety of reasons, there is a risk associated with the capital cost as estimated in the design stage.

13.2 Operating Risks

Facilities, and in particular public sector municipal capital facilities, have a number of operating risks related to revenue generation, operating costs reduction and expense management. There is the additional market dynamics of the commercial touring and event markets which can be expected to change over time and which otherwise represent a specialized business niche activity for a municipally-owned facility. The following outlines specifically how these combined risks should be (1) anticipated and (2) mitigated.

Some of the principal operating risks for this facility include:

- **Macro-economic shock:** the potential for global economic conditions to impact the consumption of entertainment and other event products due to constraints on discretionary income or currency impacts. As it relates to a facility of this nature, the goal should be a diversification of events including a range of trade show/convention events to family leisure and entertainment product so as to minimize impacts from economic decline.

- **Revenue Risk:** as in any exercise, the budgeting and estimating process with regard to operating performance should be developed as the design of the facility is further specified, as partners are made known, and as more certainty exists regarding the range of operating costs closer to the time of the commissioning of the building. Achieving events through competitive bid processes is part and parcel of any spectator facility business plan but is inherently a risk. Accordingly, our analysis at this stage excludes any event days and revenues associated with large-scale competitively won hosting opportunities.

- **Competition:** competitive venues in the region and elsewhere (as part of cross region tour flows) are always a risk.

- **Anchor Tenant(s):** The current tenancy agreements with the Peterborough Petes and the Lakers will require revision to create necessary conditions under which both the City and the clubs can maximize the new sources of revenue potential that come with a modern facility.

- **Operating costs risk:** There is a risk that some operating costs will be higher than projected due to the range of factors some of which can be estimated and some of which are difficult to estimate in advance. In a new facility, this risk should not be significant.

- **Management performance:** The management performance is a significant risk and can often be the difference between revenue growth and systemic revenue attrition. The approach of the management team to operating and marketing the facility is particularly important.

  It should be noted that the limitations placed on the management of the venue from an unsatisfactory licensing agreement(s) with the primary tenant(s) can also impact the performance of the building.

- **Compatibility of uses present in facility**: The potential exists for multiple users and events to create conflict in scheduling and loss of revenue. Part of the skills of an adept and experienced facility management team is to maximize the seamless transition of the facility between uses to minimize revenue losses. The management team at

the PMC currently achieves this and is limited only by the constraints imposed by the aging building.

Risk mitigation strategies that can be undertaken to reduce the range and scale of risks include:

- **High quality management of the facility** – a key feature of risk mitigation which is based on utilization of industry expertise to maximize the revenue, ensure efficient operation and cost reduction in operating expenses.
- **Minimize lifecycle costs through lifecycle cost planning** – this can include the provision of capital reserve budgets to meet certain capital replacement costs in future years.
- **Pre-opening business planning** –a detailed plan of action is undertaken to create the necessary departmental operating cost budgets, marketing resource requirements, and pre-opening expenses. A lack of planning, delay in achieving licensing agreements, or failure to hire the operating team at the onset of the detailed design process, can result in under-performance in the early years. Typically, a private operator would be brought on board at the detailed design stage (whether or not part of a pre-selected design-build-operate consortium) to ensure preparedness to capture and retain market share upon opening.
- **Facility revenue and event opportunities** can be expected to continuously evolve, but the initial "ramp-up" period of the first few years is a risk for facilities in this market niche with smaller scale anchor tenants.

The above risks can be further mitigated to a lesser or greater degree by the particular method of delivery and operation of the facility. These options are addressed in the following sections.

13.3 Process for Delivering the Facility

13.3.1 The Traditional Public Procurement Approach

This is less likely in the case of a building of this scale and specificity. In the traditional municipal procurement method, municipal or other public sector funds are used to fund capital construction costs and the municipality is responsible for facility operation, maintenance and life cycle works.

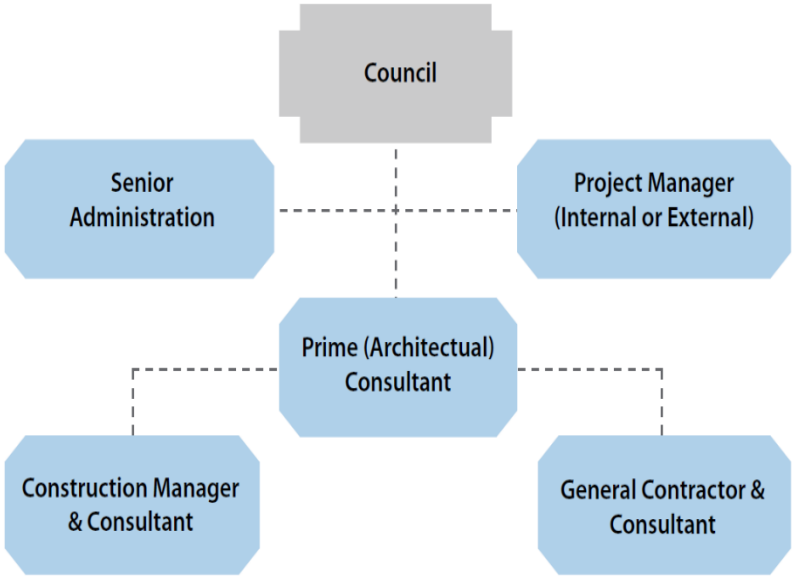
Under the traditional approach, the public sector owner of the facility separates out the components of project design, construction and delivery, through one or more design development contracts, and a series of construction tenders, managed by a project manager contracted by the municipality.

The operation and maintenance of the facility is the responsibility of the Municipality with necessary short-term contracts with private sector companies to provide supplies and specific services. Under this model, the municipality has 100% control of the facility, its financing and operations, and therefore assumes all risks associated with the project including any delays or cost overage prior to completion, and any ongoing operating liabilities (financial or otherwise) during the operation phase of the project.

With respect to the process to design and deliver the facility under the Traditional Public Procurement approach, this is most appropriately one of two traditional approaches: 1) Construction Management Contract or 2) a Stipulated Sum General Contract.

There are other variants of these approaches that involve Cost-Plus contracts, Guaranteed Maximum Price contracts and other more integrative project delivery models (IPDs).

Exhibit 69: Traditional Public Procurement Approach



Source: Sierra Planning and Management

Construction Management Approach

In terms of actions required under this approach the municipality will be required to ensure that the following occurs:

- Select, through competition, a Prime Architectural Consultant (Prime Consultant) to undertake the next steps in functional program development and design. Because the focus is on these initial tasks, it is not necessary to hire a Construction Management firm at the same time as the Prime Consultant. However, it is generally good practice to select a Construction Management firm, if this is the desired approach, relatively early in the detailed design process.

- The Prime Consultant will engage in the following key milestone tasks:
    - Functional Program development (to advance the high-level program to the concept design stage.)
    - Schematic Design
    - Design Development
    - Ultimately Contract Drawings, Tendering, and Contract Administration for construction.

- The resulting approach is a collaborative venture in which the qualifications of the Construction Management firm (often these firms are part and parcel of broader construction firms) are of critical importance. Significant reliance is placed on the Construction Management firm to bring the project in on schedule and budget.

A Construction Management contract can help overcome the inherent price uncertainty by establishing a maximum upset price

which will factor in contingencies to mitigate the degree of uncertainty in setting the maximum price.

Stipulated Sum Approach (General Contractor)

If this is the chosen approach it is characterized in the following way:

- The contract is between the Owner and Contractor.
- The Prime Consultant is retained by the Owner (as described above) and advances the Owner's interests through the design process.
- The Prime Consultant then acts as an impartial, fair mediator of the construction contract between the Owner and the Contractor during the construction period.

13.3.2 Public-Private Partnership Options

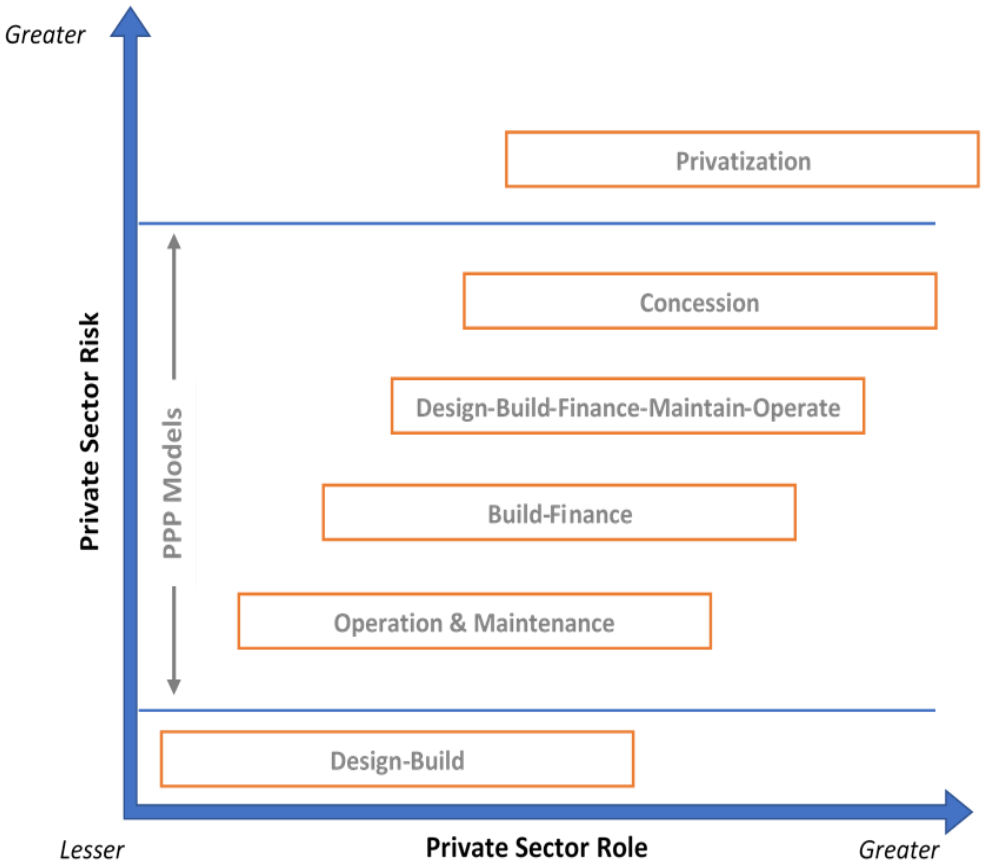
This option is more likely to align with the requirements of the MUSEC project. Several essential principles define public private partnerships and the reasons that municipalities and other public sector organizations seek these models:

- Involving the private sector in project delivery and/or operations enables the transfer of risks to the private sector while also providing the necessary profit incentive for the private sector;
- Partnerships are based on reducing overall costs both in the short term and over the long term;
- Roles and responsibilities reflect the relative expertise of the public vs. private sector parties; and
- The arrangement potentially frees-up scarce public sector resources.

The extent of the private sector involvement, and therefore the degree of project risk transferred to the private sector, varies depending on the type of private sector partnership. In this first limited form, the involvement of the private sector is in the provision of the design-build services whereby the design and construction (not necessarily the financing) is undertaken by the private sector. Ownership and operation of the facility, when complete, remains with the public sector.

At the other end of the spectrum is full-out privatization whereby the private sector fully substitutes the public sector in the provision of the facility, service or other activity under consideration. Between these two limits lie a range of risk transfer mechanisms, which have proven valuable to a number of municipalities in the delivery of large scale, long term capital facilities. These are illustrated below:

Exhibit 70: Public -Private Partnership Options



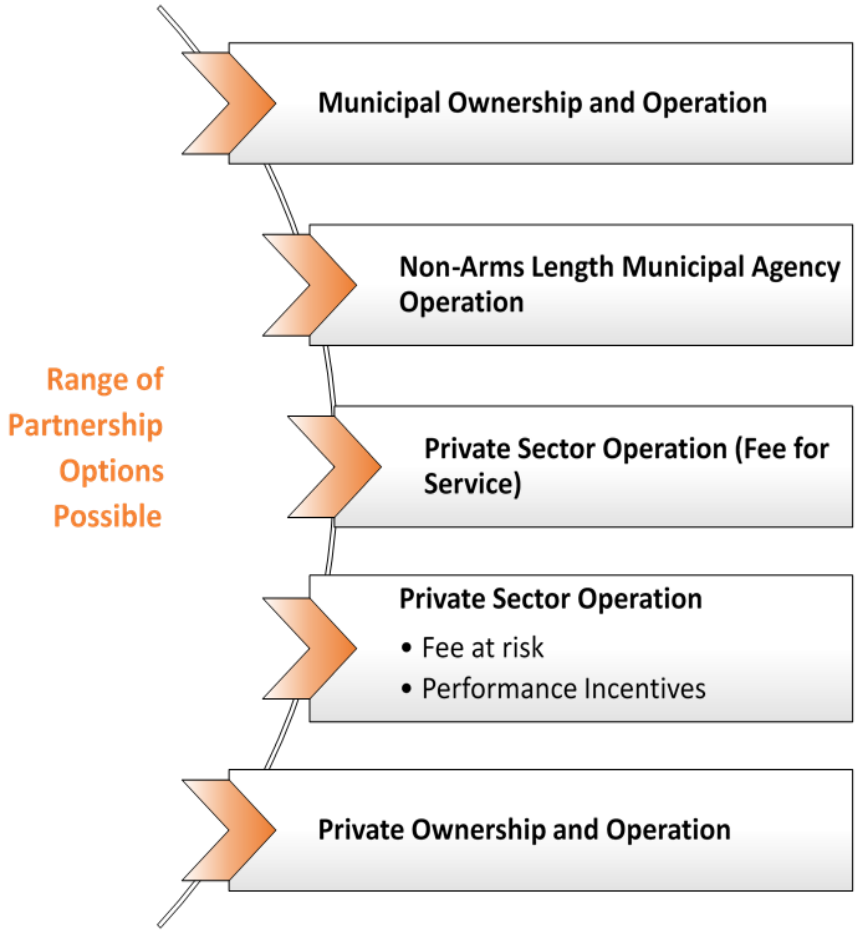
These options should be explored and there are several variants along a gradient of lesser or greater reliance on the private sector in providing a turnkey facility.

A possible outcome is that of an integrated design-build process to deliver the facility and the operation of the facility by private sector, third party management. Integrated design-build refers to the process whereby the design of the building is not simply given over to the construction-design consortium but involves the ongoing involvement of the City's architectural consultant until a point is reached where all parties are satisfied with the design solutions.

With specific regard to the risks involved in operations, there is also a range of possible involvement by the private sector - from full public ownership and operation, wherein the municipality operates the facility without any third-party management services, to a fully private service owned and operated by the private sector. At this scale of facility, there is essentially no private market for taking on the full risks of development and operations of the facility, unless the municipality is prepared to pay a private provider to mitigate their risks. In facility operations there are any number of possible combinations of risk and reward which characterize a partnership between the municipality and a private operator. The resulting partnership can be expected to reflect a number of things including the anticipated strength of the market as well as the opportunities for revenue generation created by the building. Examples include the following:

- The use of non-arms length agencies of the municipality to operate one or a number of City-owned venues (an example is the Hamilton Entertainment and Convention Facilities Inc. (HECFI), now branded as Core Entertainment, in the City of Hamilton);
- Third party, professional management firms retained on a fee for service basis. This may also include a combination of flat fee along with some revenue and risk sharing for key services such as concessions; and
- A fuller form of partnership with the fee of the operator either minimalized or otherwise at risk, and a net revenue sharing model based on targets for operational success.

Exhibit 71: Range of Partnership Options Possible



14

WHERE DO WE GO FROM HERE? NEXT STEPS AND PRIORITIES

The following outlines the possible paths forward for implementing a plan to develop a MUSEC in the City of Peterborough. The following assumes that Council approval is given to continue with work towards effectively scoping the project, creating the necessary funding strategy and delivering both the facility and its operational model.

Overall Timeline for Implementation

The nature of this project does not lend itself to rapid implementation, particularly because of the need to establish a funding plan and subsequently secure that funding, including any funding from other levels of government. In a number of cases, the initial feasibility assessment which results in Council approval of the principle of developing a new facility, often to replace an existing facility, is undertaken a number of years in advance of the initial development of the building. This is because of a number of factors, including debate around location, what to do with the existing venue, and of course funding. In most cases of recent date, the market and operational viability of the proposed venue is less contentious.

The lesson from Canadian projects since the turn of the century is that implementation is a multi-step process which can take time. It can however, be a quicker process if several conditions are in place:

- A firm and unequivocal choice of site and agreement as to the exact scale of the facility and any associated civic or other development contiguous with the project;
- Allied to this, strong commitment of the municipality with sufficient resources dedicated to implementation;
- Again, allied to this, a strong policy foundation that helps set a larger, often generational planning context to the development of the event centre. We have seen this at a number of scales: in Edmonton with the broader vision of the Ice District, in London Ontario in 2000 with the Downtown Millennium Plan, and in Sault Ste. Marie the Downtown Regeneration Plan which placed a new event centre at its core; and
- Funding: the ability to move forward knowing that a plan to pay for the event centre is in place.

It is important therefore to work concurrently on a number of these items. In the examples given, these projects all took several years before construction itself was a reality and together this added to the overall time from in-principle approval to doors-open of 4 or more years. In the most recent building – The Downtown Centre in Moncton, New Brunswick – a considerable amount of feasibility and site location work was undertaken in 2009-2011 but owing to changes in federal (P3 Canada) funding policy for this type of asset, the achievement of funding was delayed several years. Regardless, plans continued to establish funding options leading to an eventual plan that was balanced across funding agencies and the City, as well as other stakeholders. Most important - during the period of funding uncertainty, the City moved effectively to select and purchased the eventual site at the Highfield Mall – a contaminated property centrally located in Downtown, with significant land availability but a complicated ownership/land lease structure in place, and a tired mall anchored by The Bay and nearing the end of its productive life. The result – some 8 years after analytical work commenced – will be open to the public in September of this year for the inaugural season.

Based on the assumption of timely and concurrent work on the range of location, funding, and downtown planning work that is required, the following represents a schematic timeline to achieve development. This is based on the assumption of a) Council approval to continue the work required toward implementation and b) funding is achieved within the timeframe prior to planned construction.

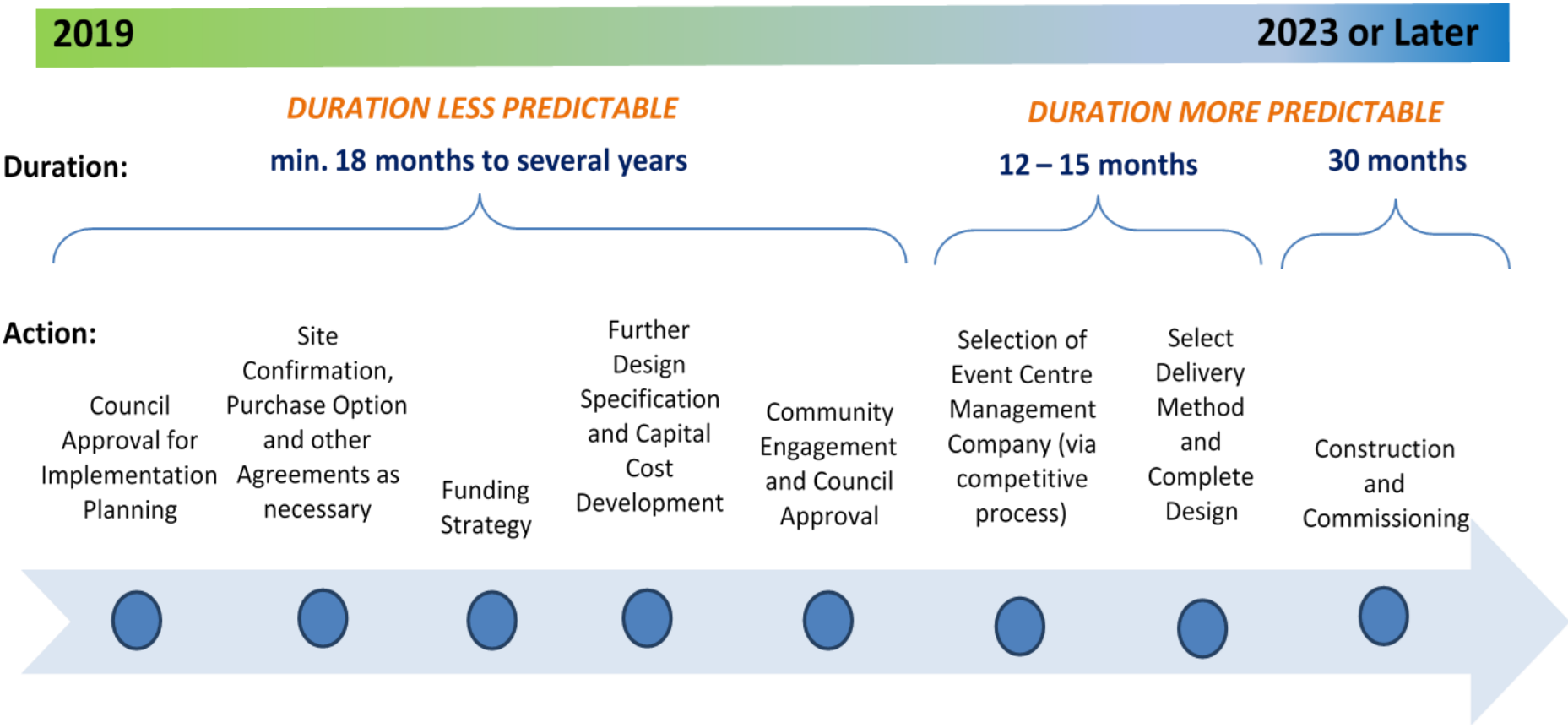
These two caveats – council approval to proceed and achievement of sufficient funding or a likelihood of achieving funding – are critical to the timeline. If a decision to proceed with further site selection work, funding assessment and project planning were immediate, it is likely that a minimum 5-year window is required before the building is completed. Evidence from elsewhere suggests the timeline may be longer by several years, with the delay not in the design and construction phase but in the project definition, location selection and funding approval stages.

Faced with this reality, implementation planning should commence in 2019, so as to ensure a replacement facility in the medium term. Any delay and replacement becomes more akin to a long-term plan which, based on the findings of this report, represents a risk to the City operating successfully in the events market.

As a result, the timeline is likely in the order of 5 years from approval to opening. While the PMC can be retained in its current use for that length of time and likely more, if the decision is to replace this facility, implementation planning need to commence early and focus on the choice of site as a first step. So many subsequent questions are either answered or more clearly defined when the choice of site is made.

Exhibit 72: Potential Project Timeline

Potential Timing:



Site Location

Alongside this report Council has received our analysis which effectively ranks several sites according to our preference based on a range of factors. However, every site has significant questions regarding its validity which can only be answered once the current study is complete and additional site investigation is conducted.

For whichever site(s) is (are) supported by Council for further review, there is a work program that involves the following key technical items:

1. Environmental assessment (Phase 1);

2. Geotechnical Assessment;

3. Environmental assessment (Phase 2) conditional on the viability of the site from a site geotechnical conditions perspective;

4. For all sites other than the Morrow Park site, there is a need for in-depth discussion with the Otonabee Region Conservation Authority (ORCA) regarding the likelihood of development approval for these sites. That consideration also involves, we understand from ORCA, the need for expedited completion of several modelling exercises, undertaken to remove unnecessary restrictions on an in-principle approval of any site;

5. Separately, there is a need to consider the ownership aspects of these sites. Work will potentially need to be undertaken to successfully negotiate the transfer of these lands (including the treatment of the Agricultural Society lease on Morrow Park if that site were chosen). Specifically, those sites that include non-City owned land would require an initial indication of willingness on the part of the owners to consider the site(s) for sale to the City, as well as a prospective valuation of the lands subject to the due diligence described.

6. Additional site planning work for the approved building type (scale of MUSEC and opportunity for a second ice pad) will be necessary based on the outcome of the technical site analysis conducted above. At this time, transportation impact and parking management studies related to the facility are likely to be warranted.

7. Surrounding all of this is a need to frame the locational choice firmly in the context of the vision for downtown and the Central Area of Peterborough over the next 20 years. This involves an understanding of the big-moves in land use planning under consideration including the gateways and corridors which are positioned for increased density and redevelopment, planning for the open space system and its connections across downtown, along and across the river and how the future of the GE lands offers a new an innovative direction for the City.

8. We have taken the view that the GE lands represent a significant opportunity but one that does not likely align with the timing required for the replacement of the PMC which, as discussed, involves a multi-year planning process. A confirmed site is at the very start of that process.

Site selection drill-down analysis for the preferred site(s) is a key next step which enables further consideration of all other aspects of the project. Site selection informs:

- Site development costs;
- Scale and capital cost of the facility;
- Funding strategy; and
- Delivery strategy and timing of implementation of a competitive process to select a design-build consortium.

Design Work

The level of design work in the next phase is tied to the selected method of delivering the facility). At the very least, there is a need to develop the project from a concept plan, developed to articulate expected scale and capacity to fit on candidate sites, to a design which is capable of informing the specifications for a detailed design-build package.

There are a number of variants to the concept of a design-build approach and can include: Traditional Design-Build (DB) competition; Integrated DB (no Bridging Documents); Modified DB based more on team qualifications and not price; and Integrated Project Delivery.

Funding Strategy

This is likely to involve the following:

4. Continued capital cost estimating based on design specifications work and increasing certainty as to overall scale of land-related acquisition and site development costs/extra-ordinary development costs, etc.;
5. Development of a funding strategy based on a range of potential sources, and a potential approach to itemizing and estimating the funding potential of each; and
6. Undertaking necessary risk analysis for each of the funding sources to determine the potential impact to the tax base arising from different combinations of funding.

The funding strategy should commence immediately in the next phase of work following any decision of Council to accept and approve the feasibility study.

Delivery Strategy (including RFEOI/RFP Process)

Developing the delivery strategy will require decisions as to the best way to implement the project based on the assumptions of (1) any approved site which will be in the control of the City within a timely period; and (2) an approved funding strategy.

Assuming the decision is to follow a process of an integrated delivery mechanism, comprising a variant of Design-Build, Design-Build-Operate and Design-Build-Finance-Operate, the process involves the following steps:

1. Agreement to a two stage RFP process for selection of a consortium.
2. Through analysis determine whether a full public-private partnership is worthwhile (some risks can be effectively transferred to the private sector while other risks are essentially paid for through higher costs to the municipality from the partnership approach).

3. Our experience suggests a likely approach is a two stage a Request for Expressions of Interest / Request for Proposals (RFEOI/RFP) for the facility operator separate and apart from the design and construction. The operator will work with the City in defining the particulars of the functionality of the building, the approach to licensed users (tenants) and the overall operational model.

4. A two stage RFEOI/RFP process would be required to select a design-build consortium based on the type of design-build arrangement determined by the City working with its consultant.

New License Agreements

New license agreements will be required. Work should commence in the shorter term following any approval of this feasibility study. This is because the nature of the license agreement is centrally relevant to the emerging operating model, business planning documents and revenue projections, and even the agreement with the third-party operator and its capacity to manage the building effectively. These agreements also impact the design assignment and functional space program, as well as the capital costs and the extent to which the tenants are expected to contribute capital dollars.

The principles of an agreement with each licensee should be established. More detailed discussion leading to an agreed license agreement can occur with the third-party operator involved alongside the consulting team.

Council Updates

Throughout the process Council will need to be kept apprised of the outcome of each substantive stage of the work so that decisions can be taken as to whether the project remains viable as the specifics of capital cost, timing, and funding are brought clearer into focus.

Future of the Peterborough Memorial Centre (PMC)

The future use of the PMC should be part of this process only to the extent that the decisions regarding future investment in that facility do not undermine the attempt to maximize the success of the new building. In previous years, we have observed that several studies have been undertaken on the existing venues which are being replaced (Moncton Coliseum, Rexall Place, Maple Leaf Gardens) in an attempt to determine future use potential. Such detailed study may be appropriate here too. The current study identifies the principles on which any future planning should occur, recognizing the historic value of the PMC to the community. Key among those principles is the need to minimize municipal operating and capital costs for the facility if the City develops a new MUSEC to replace the PMC.

APPENDIX A:

MUSEC Conceptual Program

DIALOG

Peterborough MUSEC Conceptual Program
Conventional Bowl

12/06/2018

	14,255.5	TOTAL GFA
Event Level / Lower Concourse	9,041.5	Sub-TOTAL GFA

Component	Component Area (sm)	#	Program Area (sm)	Notes
Concourse (Circulation/Queuing)	**2,660.0**	**1**	**2,660.0**	
Vestibules			300.0	
Circulation/ queuing			2,360.0	
Washrooms	**400.0**	**1**	**400.0**	
Mens			135.0	(4) multi-stall washrooms
Womens			265.0	(4) multi-stall washrooms
Food Service & Retail	**670.5**			
General Concession	**220.0**	**4**	**55.0**	
General Grill	**110.0**	**2**	**55.0**	
Team Store	**72.0**	**1**	**72.0**	
Ticket Office	**72.0**	**1**	**72.0**	
Central Kitchen	**196.5**	**1**	**196.5**	
Office			9.5	
Men's Washroom			9.5	
Women's Washroom			9.5	
Dry Stores			22.0	
Cold Stores			26.0	
Preparation/CookingArea			100.0	
Dishwashing Area			20.0	

Component	Component Area (sm)	#	Program Area (sm)	Notes
Ice	**2,027.5**			
Ice Surface	**1,556.0**			
Ice Surface	1,515.0	1	1,515.0	NHL (200'x85')
Player's Boxes	26.0	2	13.0	
Official's Box	5.0	1	5.0	
Penalty Box	10.0	2	5.0	
Ice Support	**60.0**	**1**	**60.0**	
Ice resurfacer			60.0	(2) ice resrufacers
First Aid	**23.5**	**1**	**23.5**	
Room			14.0	
Washroom			9.5	
Public Change Rooms	**348.0**	**4**	**87.0**	
Change Room			58.0	(24) players ea.
Shower			8.5	

Drying			6.5	
Washroom/Vanity			14.0	
Official Change	**40.0**	**1**	**40.0**	
Change Room			20.0	
Washroom/Shower			20.0	

Component	Component Area (sm)	#	Program Area (sm)	Notes
Team Rooms	**1,097.5**			
Petes'	**412.0**	**1**	**412.0**	
Head Coach Office			13.5	
Assistant Coaches Office			42.5	
Coaches Change			17.0	
Coaches Washroom			12.0	
Coaches Shower			5.5	
Doctor's Office			13.5	
Street Change Room			28.0	(28) lockers, c/w benches
Change Room			80.0	(28) stalls
Shower			17.0	
Drying/Ice Bath			8.5	
Washroon			20.0	
Vanity / Grooming			23.0	
Treatment			24.5	
Circulation			80.0	
Equipment Office			13.5	
Stick Storage			13.5	
Laker's	**342.0**	**1**	**342.0**	
Coaches Office			42.5	
Coaches Change			17.0	
Coaches Washroom			12.0	
Coaches Shower			5.5	
Doctor's Office			13.5	
Street Change Room			28.0	(28) lockers, c/w benches
Change Room			80.0	(28) stalls
Shower			17.0	
Drying/Ice Bath			8.5	
Washroon			20.0	
Vanity / Grooming			23.0	
Treatment			24.5	
Circulation			37.0	

DIALOG

Peterborough MUSEC Conceptual Program
Conventional Bowl

12/06/2018

Equipment Office			13.5	
Stick Storage			13.5	
Shared Space	**343.5**	**1**	**343.5**	
Shrine/Media			40.0	
Player's Lounge			40.0	
Equipment / Laundry Room			90.0	work benches, laundry, jersey storage
Theatre			60.0	
AV Room			13.5	
Fitness			100.0	

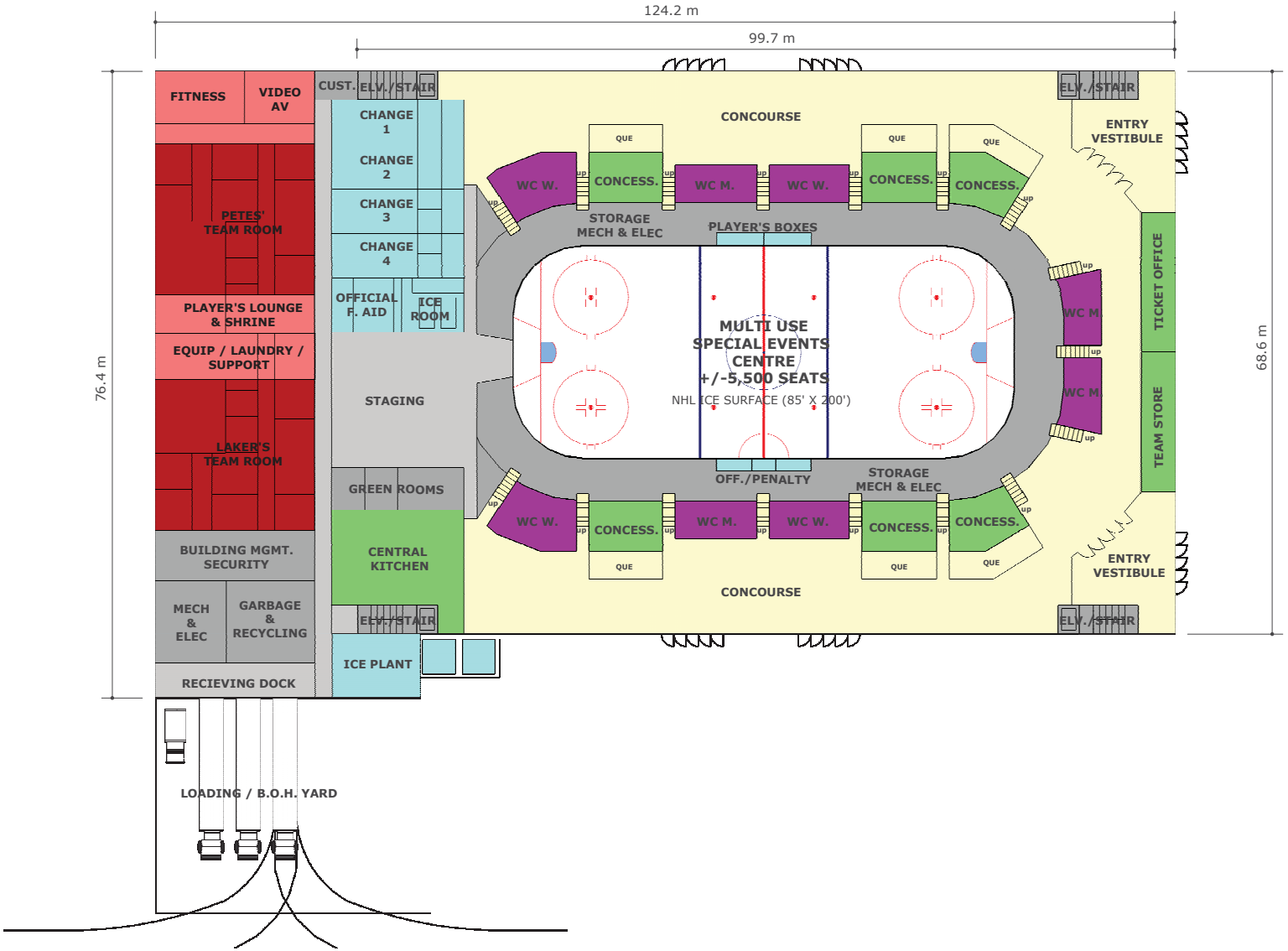
Component	Component Area (sm)	#	Program Area (sm)	Notes
Building Support	**1,989.5**			
Circulation	165.0	1	165.0	
Custodial	38.0	4	9.5	(2) rooms
Building Management	**71.5**			
Office	**24.5**	**1**	**24.5**	
Building Service Manager Office			9.5	
Staff Room			15.0	
Staff Change	**47.0**	**2**	**23.5**	(1) Mens & (1) Womens change rooms
Washroom/Shower			9.5	
Change			14.0	
Security	**33.0**	**1**	**33.0**	
Office			14.0	
Holding			9.5	
Washroom			9.5	
Event Support	**990.0**			
Green Rooms				
Headliner Act	40.0	1	40.0	
Supporting Acts	50.0	2	25.0	
Under Seating Storage			670.0	
Staging			230.0	
Shipping & Receiving	**190.0**	**1**	**190.0**	
Receiving Dock			83.0	
Waste/Recycling			107.0	
Mechanical	**290.0**	**1**	**290.0**	
Electrical	**85.0**	**1**	**85.0**	
Vertical Conveying	**127.0**	1	**127.0**	
Exit Stairs	25.0	4	100.0	(4) exit stairs
Elevatoring	9.0	3	27.0	(2) elevators. (1) freight elevator

DIALOG

Peterborough MUSEC Conceptual Program
Conventional Bowl

12/06/2018

Suite Level	5,214.0	Sub-TOTAL GFA		
Component	**Component Area (sm)**	**#**	**Program Area (sm)**	**Notes**
Concourse	**635.0**			
Circulation / Queuing	635.0	1	635.0	
Spectator Seating	**2,140.0**			
General Seating	2,140.0	1	2,140.0	
Premium Spectator Seating	**1,865.0**			
Club Seats	575.0	1	575.0	
Club Area	850.0	1	850.0	
Private Suites	440.0	22	20.0	
Washrooms	**220.0**	**1**	**220.0**	
Mens			90.0	(3) multi-stall washrooms
Womens			130.0	(3) multi-stall washrooms
Food Service & Retail	**70.0**			
General Concession	50.0	2	25.0	
Suite Pantry	20.0	2	10.0	
Building Support	**284.0**			
Technical	**30.0**	**1**	**30.0**	
press box			15.0	
AV box			15.0	
Custodial	**19.0**	**2**	**9.5**	
Mechanical	**50.0**	**1**	**50.0**	
Electrical	**38.0**			
Communications Room	**22.0**	2	11.0	
Data Room	**16.0**	2	8.0	
Vertical Conveying	**127.0**	1	**127.0**	
Exit Stairs	25.0	4	100.0	(4) exit stairs
Elevatoring	9.0	3	27.0	(2) elevators. (1) freight elevator



DIALOG

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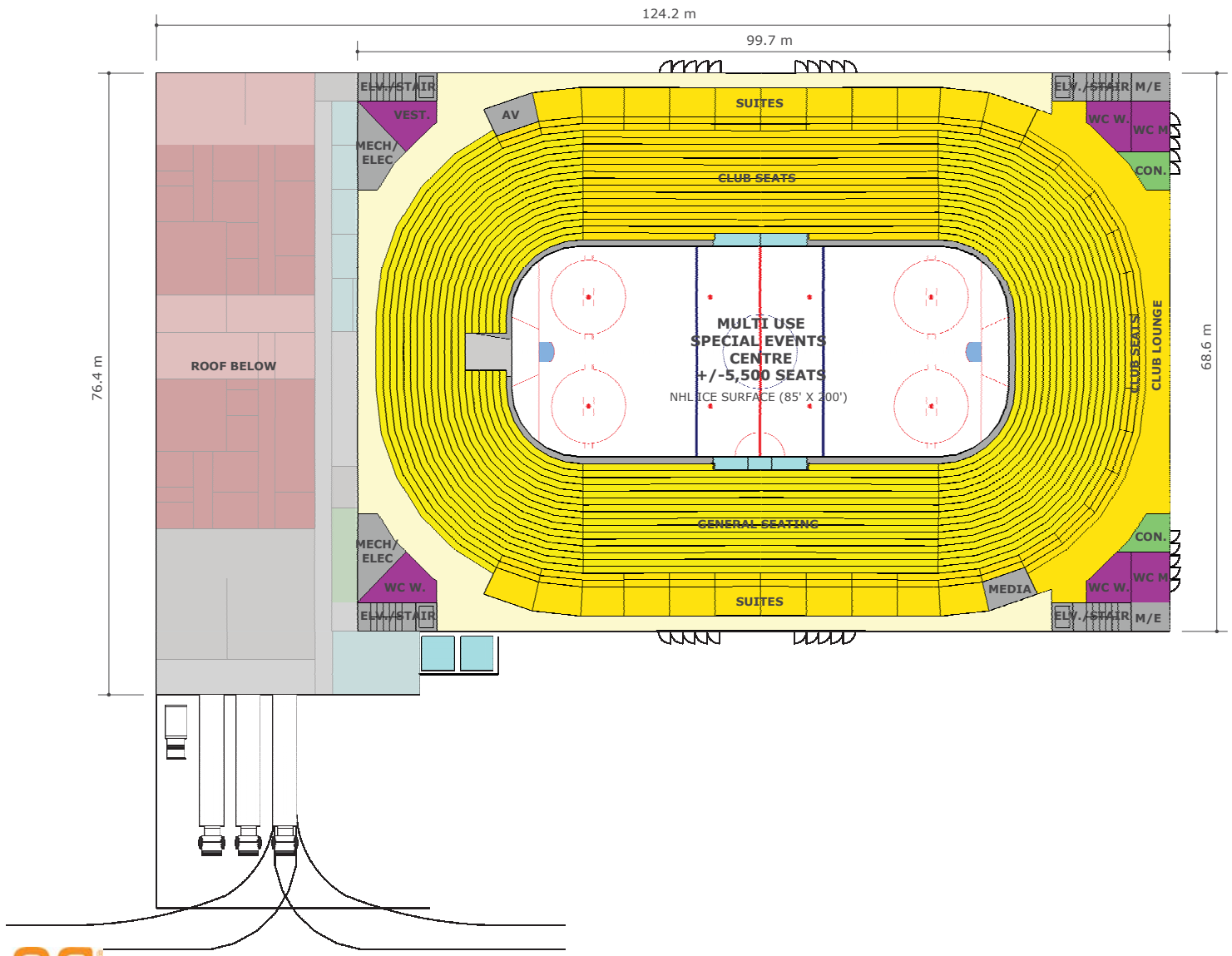
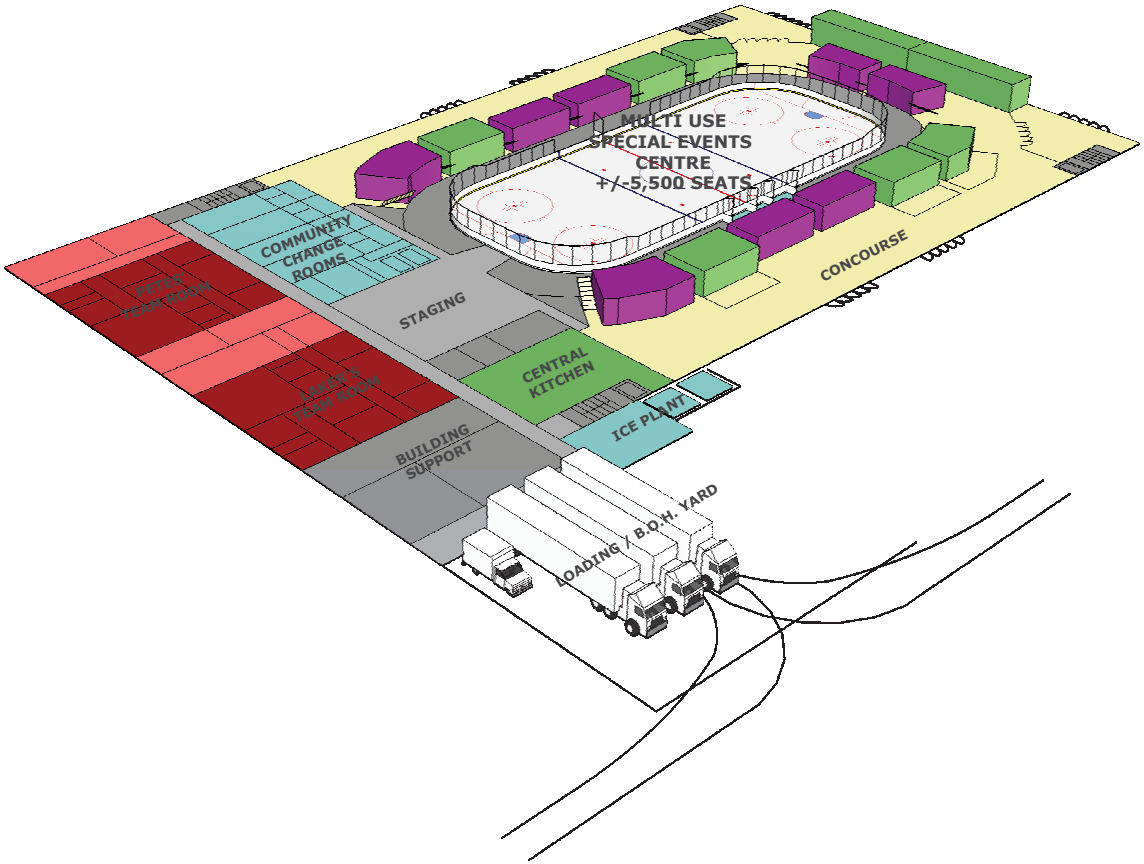


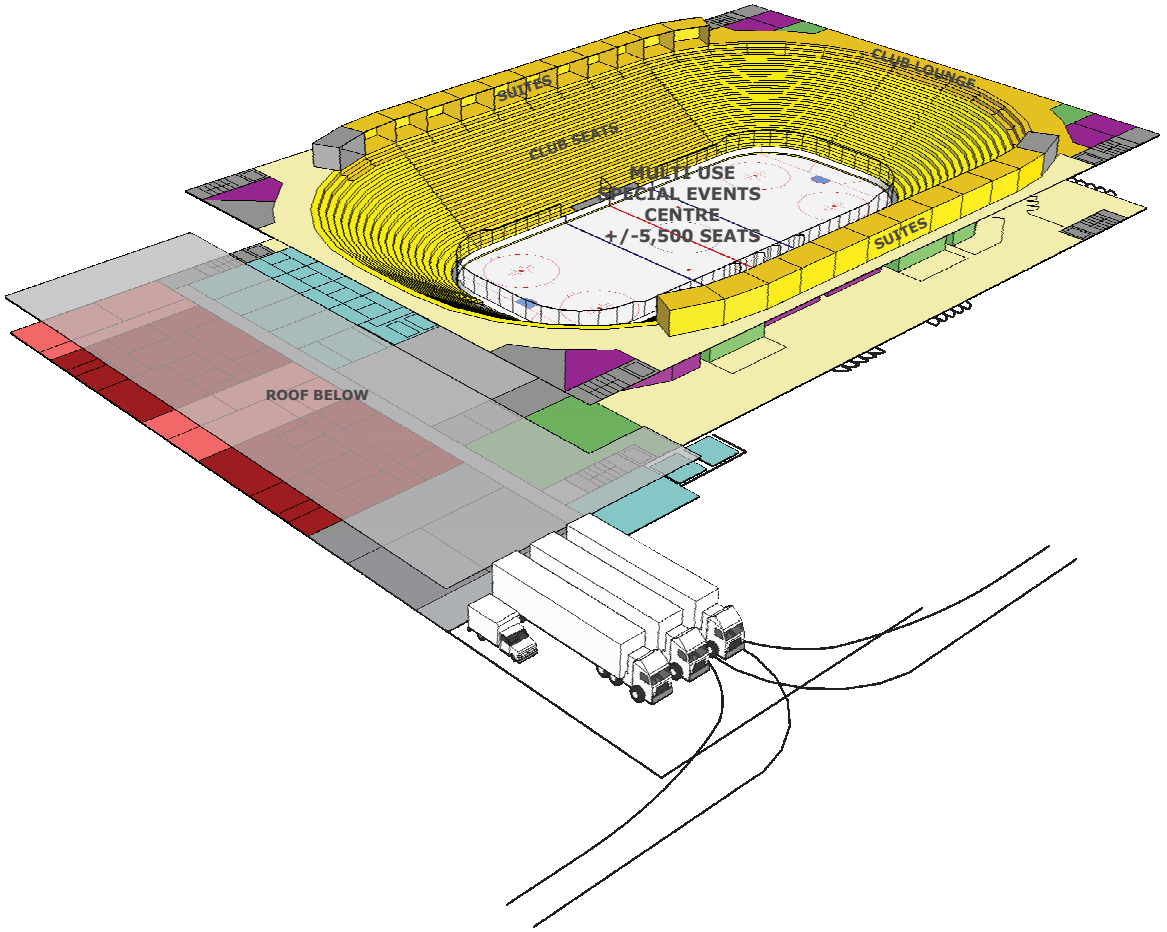
DIALOG

0 5 10 25m

SCALE 1:500


MULTI USE
SPECIAL EVENTS
CENTRE
+/-5,500 SEATS
CONCOURSE
COMMUNITY
CHANGE
ROOMS
STAGING
CENTRAL
KITCHEN
ICE PLANT
BUILDING
SUPPORT
LOADING / B.O.H. YARD

DIALOG


SUITES
CLUB SEATS
CLUB LOUNGE
MULTI USE
SPECIAL EVENTS
CENTRE
+/-5,500 SEATS
SUITES
ROOF BELOW

DIALOG

APPENDIX B:

CAPITAL COSTS

PETERBOROUGH EVENT CENTRE

Peterborough, Ontario

(5800 Seat Arena) **25-Jul-18**

Project Ratios:

Escalation Factor (2008 vs 2018)	1.257
Location Factor (Independence,Missouri Vs Peterborough, ON)	1.046
US$ Exchange Factor	1.28
Combined Factor	1.683

		Independence Event Centre (2008) 5800 seats 190,000 sq.ft w/ Community Rink	Peterborough Event Centre (2018) 5800 seats 155,000 sq.ft.
A. Professional Fees			
	A/E Design Fees & Reimbursables	2,200,000.00	2,889,712.00
	Project Management Fee and Reimbursables	1,200,000.00	1,680,752.00
	Total Project Soft Costs	**$ 3,400,000.00**	**$ 4,570,464.00**
B. Overall Construction Project Capital Costs			
2	SITEWORK (pad ready site)	$ 719,388.00	954,895.80
3	CONCRETE	$ 4,188,184.00	5,559,280.00
4	MASONRY	$ 1,271,521.00	1,687,781.93
5	METALS	$ 8,705,063.00	11,554,860.69
6	WOOD & PLASTICS	$ 631,181.00	837,812.26
7	THERMAL/MOISTURE PROTECTION	$ 1,519,041.00	2,016,333.15
8	DOORS & WINDOWS	$ 1,910,365.00	2,535,765.84
9	FINISHES	$ 3,105,155.00	4,121,697.16
10	SPECIALTIES	$ 285,926.00	379,530.29
11	EQUIPMENT	$ 24,750.00	32,852.47
12	FURNISHINGS	$ 12,320.00	16,353.23
13	SPECIAL CONSTRUCTION	$ 1,400,000.00	1,858,321.41
14	CONVEYING SYSTEMS	$ 215,000.00	285,385.07
15	MECHANICAL	$ 6,126,721.00	8,132,440.58
16	ELECTRICAL	$ 3,014,784.00	4,001,741.18
	SUBTOTAL	**$ 33,129,399.00**	**$ 43,975,051.07**
C. GC and Selected Soft Costs			
	General Conditions	$ 1,700,000.00	2,861,052.67
	Sub Bonds	$ -	$ -
	Contingency for Construction Costs	$ 1,928,095.00	3,244,930.21
	Builders Risk	$ 57,780.00	97,242.13
	General Liability Insurance	$ 394,828.00	664,484.53
	Performance and Payment Bond	$ 288,898.00	486,207.29
	Taxes	By Owner	Not Included
	Building Permits and Fees	By Owner	By Owner
	Construction Management Fee	$ 1,400,000.00	2,356,161.02
	SUBTOTAL - GC and Selected	**$ 5,769,601.00**	**$ 9,710,077.86**
D. Total Construction and Soft Costs		**$ 38,899,000.00**	**$ 53,685,128.93**
E. Estimated FF&E Costs			
	BUILDING SIGNAGE AND SCOREBOARDS	$ 3,376,250.00	5,471,759.76
	SPORTS RELATED EQUIPMENT	$ 1,237,000.00	1,576,936.56
	BUILDING SYSTEMS	$ 352,150.00	592,658.65
	FIXED AND PORTABLE SEATING	$ 1,746,915.00	2,813,784.31
	CONCESSIONS	$ 1,022,000.00	1,467,547.55
	SUITE FURNITURE & APPLIANCES	$ 223,800.00	376,649.17
	TICKETING EQUIPMENT	$ 88,294.00	148,596.34
	STAGE, ADA RAMPS AND INTERIOR EQUIPMENT	$ 81,500.00	137,162.23
	OFFICE FURNITURE AND EQUIPMENT	$ 111,100.00	186,978.21
	BACK OF HOUSE AND MAINTENANCE EQUIPMENT	$ 283,945.00	477,871.53
	DRESSING ROOMS, GREEN ROOMS, LOCKER ROOMS, ETC.	$ 32,760.00	55,134.17
	DECORATING SERVICES	$ 140,100.00	235,784.40
	CONTINGENCY	$ 200,000.00	336,594.43
	Sales Tax on Furniture, Fixtures and Equipment	By Owner	Not Included
	Total Project FF&E Costs	**$ 8,895,814.00**	**$ 13,877,457.30**
F. TOTAL PROJECT COSTS		**$ 51,194,814.00**	**$ 72,133,050.23**
	Cost Per Seat	$ 8,826.69	$ 12,436.73

Total Project Cost Range: Subject to programming; alternates for interior finishes; adjustment to amenities; adjustment to exterior finishes and value engineering. **$71M to $74M**

Excluded: 1. Land, 2. Taxes and Building Permits, 3. Parking, 4. Extraordinary Development Costs.

PETERBOROUGH EVENT CENTRE

Peterborough, Ontario

(5800 Seat Arena) **25-Jul-18**

Project Ratios:

Escalation Factor (2008 vs 2018)	1.257
Location Factor (Independence,Missouri Vs Peterborough, ON)	1.046
US$ Exchange Factor	1.28
Combined Factor	1.683

		Independence Event Centre (2008) 5800 seats, 190,000 sq.ft w/ Community Rink	Peterborough Event Centre (2018) 5800 seats, 190,000 sq.ft. w/ Community Rink
A. Professional Fees			
	A/E Design Fees & Reimbursables	2,200,000.00	3,539,712.00
	Project Management Fee and Reimbursables	1,200,000.00	1,930,752.00
	Total Project Soft Costs	**$ 3,400,000.00**	**$ 5,470,464.00**
B. Overall Construction Project Capital Costs			
2	SITEWORK (pad ready site)	$ 719,388.00	1,210,709.98
3	CONCRETE	$ 4,188,184.00	7,048,597.07
4	MASONRY	$ 1,271,521.00	2,139,934.44
5	METALS	$ 8,705,063.00	14,650,378.68
6	WOOD & PLASTICS	$ 631,181.00	1,062,260.05
7	THERMAL/MOISTURE PROTECTION	$ 1,519,041.00	2,556,503.71
8	DOORS & WINDOWS	$ 1,910,365.00	3,215,091.11
9	FINISHES	$ 3,105,155.00	5,225,889.42
10	SPECIALTIES	$ 285,926.00	481,205.50
11	EQUIPMENT	$ 24,750.00	41,653.56
12	FURNISHINGS	$ 12,320.00	20,734.22
13	SPECIAL CONSTRUCTION	$ 1,400,000.00	2,356,161.02
14	CONVEYING SYSTEMS	$ 215,000.00	361,839.01
15	MECHANICAL	$ 6,126,721.00	10,311,100.88
16	ELECTRICAL	$ 3,014,784.00	5,073,797.54
	SUBTOTAL	**$ 33,129,399.00**	**$ 55,755,856.19**
C. GC and Selected Soft Costs			
	General Conditions	$ 1,700,000.00	2,861,052.67
	Sub Bonds	$ -	$ -
	Contingency for Construction Costs	$ 1,928,095.00	3,244,930.21
	Builders Risk	$ 57,780.00	97,242.13
	General Liability Insurance	$ 394,828.00	664,484.53
	Performance and Payment Bond	$ 288,898.00	486,207.29
	Taxes	By Owner	Not Included
	Building Permits and Fees	By Owner	By Owner
	Construction Management Fee	$ 1,400,000.00	2,356,161.02
	SUBTOTAL - GC and Selected	**$ 5,769,601.00**	**9,710,077.86**
D. Total Construction and Soft Costs		**$ 38,899,000.00**	**$ 65,465,934.05**
E. Estimated FF&E Costs			
	BUILDING SIGNAGE AND SCOREBOARDS	$ 3,376,250.00	5,682,134.76
	SPORTS RELATED EQUIPMENT	$ 1,237,000.00	2,081,836.56
	BUILDING SYSTEMS	$ 352,150.00	592,658.65
	FIXED AND PORTABLE SEATING	$ 1,746,915.00	2,940,009.31
	CONCESSIONS	$ 1,022,000.00	1,719,997.55
	SUITE FURNITURE & APPLIANCES	$ 223,800.00	376,649.17
	TICKETING EQUIPMENT	$ 88,294.00	148,596.34
	STAGE, ADA RAMPS AND INTERIOR EQUIPMENT	$ 81,500.00	137,162.23
	OFFICE FURNITURE AND EQUIPMENT	$ 111,100.00	186,978.21
	BACK OF HOUSE AND MAINTENANCE EQUIPMENT	$ 283,945.00	477,871.53
	DRESSING ROOMS, GREEN ROOMS, LOCKER ROOMS, ETC.	$ 32,760.00	55,134.17
	DECORATING SERVICES	$ 140,100.00	235,784.40
	CONTINGENCY	$ 200,000.00	336,594.43
	Sales Tax on Furniture, Fixtures and Equipment	By Owner	Not Included
	Total Project FF&E Costs	**$ 8,895,814.00**	**$ 14,971,407.30**
F. TOTAL PROJECT COSTS		**$ 51,194,814.00**	**$ 85,907,805.35**
	Cost Per Seat	$ 8,826.69	$ 14,811.69

Total Project Cost Range: Subject to programming; alternates for interior finishes; adjustment to amenities; adjustment to exterior finishes and value engineering. **$84M to $88M**

Excluded: 1. Land, 2. Taxes and Building Permits, 3. Parking, 4. Extraordinary Development Costs

Sierra Planning and Management

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