



City of Greater Sudbury

Analysis Informing the City's Arena Renewal Strategy

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Prepared by:



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1.0 Introduction

Overview

Under the purview of its Leisure Services Department, the City of Greater Sudbury owns and operates fourteen arenas that contain a total of sixteen ice pads among them. The majority of the City's arenas and ice pads were constructed between 1950 and 1978, with the exceptions being the Countryside Arena (1993 and 2011 expansion) and the recently refurbished Cambrian Arena (2010-2011). Substantial renovations were also made to McClelland Arena in 2008/09 following extensive fire and smoke damage.

With an aging arena infrastructure, many facilities and their associated components are approaching the end of their useful life despite prudent capital reinvestment and maintenance activities undertaken by the City. As a result, the City of Greater Sudbury is currently developing an Arena Renewal Strategy to ensure resources are being used in an efficient and fiscally responsible manner. To assist in the development of the Arena Renewal Strategy, the Consulting Team of Monteith Brown Planning Consultants and the JF Group were retained to explore four specific items:

- 1) Identification of current trends in ice participation, arena demand, and arena provision across Ontario and the country;
- 2) A cursory assessment of the City's arena needs (in terms of quantity) based on utilization and provision targets;
- 3) Discussion of the types of public-private partnerships that may be available to the City for the construction and/or operation of community arenas; and
- 4) A high level examination of the costs to build an OHL-size arena (the home of the Sudbury Wolves – Sudbury Arena – was built in 1951 and there is a need to begin planning for its potential renewal or replacement) and the types of partnership arrangements that might be considered.

The consulting team's assessments contained herein have been conducted without the benefit of public or user group consultations. We understand that City staff has conducted public information sessions and an online survey through the Arena Renewal Strategy process.

Arena & Ice Pad Supply

The City of Greater Sudbury operates a total of sixteen (16) ice pads across fourteen (14) municipal arenas. Only two of the municipal arenas are twin pad facilities while the rest consist of single pad venues that were constructed prior to the amalgamation of the City.

Arena	Ice Pads	Year Built
Cambrian	1	2010-11 (<i>repairs</i>)
Capreol	2	1954, 1972
Carmichael	1	1972
Centennial	1	1969
Chelmsford	1	1969
Dr. Edgar Leclair	1	1970
Garson	1	1972

Arena	Ice Pads	Year Built
Gerry McCrory Countryside	2	1993, 2011
I.J. Coady Memorial	1	1976
McClelland	1	1978
Raymond Plourde	1	1974
Sudbury	1	1951
T.M. Davies	1	1974
Toe Blake Memorial (Coniston)	1	1970

There are no institutional (e.g., post-secondary) arenas in Greater Sudbury, but in 2010, the City's first (and currently only) private facility opened – the RHP Training Centre; this facility houses a small ice rink that is used for training and 3-on-3 hockey, as well as dryland training spaces. This facility does not compete directly with the City's facilities, but rather serves as a complement to local players who are looking to improve their skills.

Population Profile

The community profile of Greater Sudbury is an important foundational element in assessing the need for arenas. Considerations pertaining to population growth (e.g., size of the market) and composition (e.g., characteristics of people within the market) should be factored into analyses of arena needs.

Population Growth

The 2011 Census records the population for the City of Greater Sudbury at 160,274, representing an increase of 1.5% from the 2006 Census year. The City's population declined by nearly 7% between 1996 and 2001¹, but has since been increasing at a rate of about 1.5% every five years (about 0.3% annually).

As part of its five-year Official Plan Review, the City of Greater Sudbury is preparing a "Population, Housing and Employment Projections and Land Needs Background Study". This document and its findings have not yet been released; a draft is expected to be available in early 2013. Once available, the City should review the updated projections and consider revisions to the assessments contained herein. In the absence of new population forecasts, two alternative projections have been reviewed.

The first projection is from the 2005 Housing Background Study² for the current Official Plan. This report articulated three forecasts to the year 2021: out-migration (low) scenario whose population declines by 12.8%; a natural increase (medium) scenario where the population drops more modestly by 3.8%; and an in-migration (high) scenario where the population grows by 9.2%. Based on previous two Census periods, the in-migration scenario most closely reflects the five year historical growth.

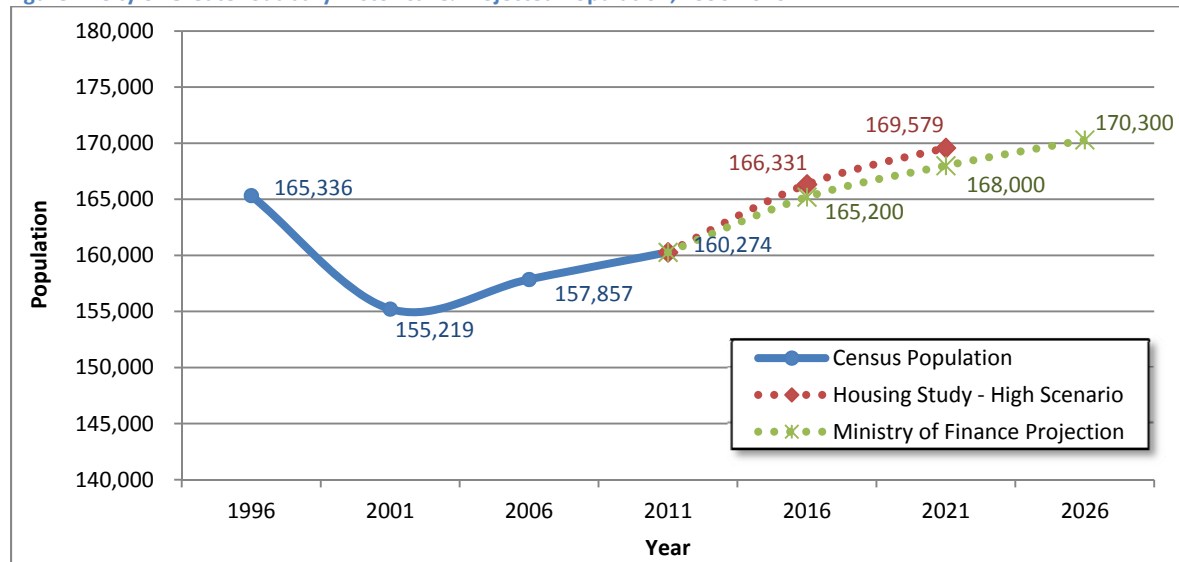
The second projection is from a Ministry of Finance report³ that forecasts about 5% growth by the year 2021. Given that the Ministry of Finance report uses a more recent dataset than the Housing Study forecast (the latter of which was generated using 2001 Census information), ***the Ministry's projections have been utilized as the basis for needs assessments contained herein.***

¹ The pre-amalgamation 1996 figure reflects the population within the current City of Greater Sudbury geographic boundaries.

² City of Greater Sudbury. Housing Background Study: Final Report. April 2005. SHS Inc.

³ Ministry of Finance. Ontario Population Projections Update: 2011-2036 – Ontario and its 49 Census Divisions. Spring 2012.

Figure 1: City of Greater Sudbury Historical & Projected Population, 1996-2026



Note: Housing Study forecast was prepared to the year 2021

Source: Statistics Canada Census, 1996-2011; Housing Background Study, 2005; Ministry of Finance, 2012.

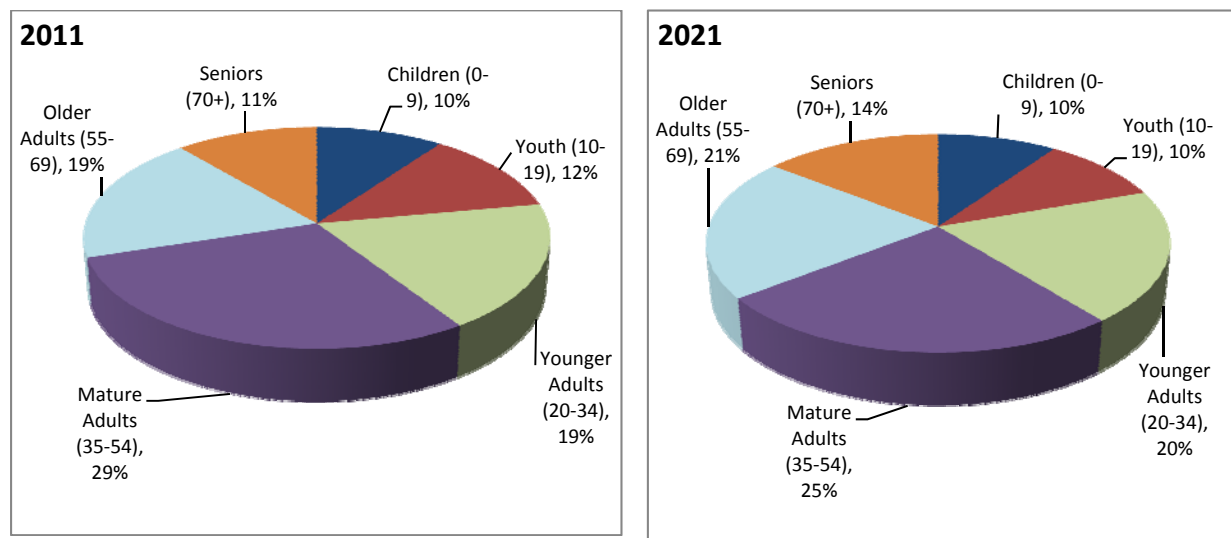
Age Structure

The median age of residents in Greater Sudbury was recorded at 42.3 years through the 2011 Census, placing it about two years above the provincial median of 40.4 years. The City's population is following national aging trends as the median age has increased by about 3.5 years over the past ten years. This aging trend is expected to continue based on both the Ministry of Finance and Housing Background Study projections.

As shown in the following charts, there are some notable implications for local arena demand between 2011 and 2021:

- The proportion of children, as a percentage of the population, is expected to remain consistent at 10% of the population although the actual number is forecasted to increase by about 160. This suggests that arena demand from this major market segment will be largely unchanged, barring any changes in participation rates.
- The proportion of youth is expected to decline to 10% of the population, translating into about 2,750 fewer individuals in this highly important market segment, suggesting membership levels in minor sports could be adversely affected unless participation rates dramatically increase.
- The proportion of younger adults is likely to remain relatively consistent, which bodes well for arena usage given an expected increase of about 3,100 more residents.
- The proportion of older adults and seniors is expected to increase to 35% of the population, or nearly 12,000 more individuals, and may create additional demands on ice time for the older adult market.

Figure 2: City of Greater Sudbury Current & Forecasted Age Structure, 2011 and 2021



Sources: Statistics Canada Census, 2011; Ministry of Finance, 2012

2.0 Arena Trends & Best Practices

Based on our experience doing similar studies throughout Ontario, this section provides a brief overview of some of the key trends and best practices pertaining to arena-related participation, design and operations.

Barriers to Participation

Research across Ontario shows that a lack of free time is the primary barrier to participation in recreation for youth and adults, driven by busy lifestyles at home, work and school. This lack of time issue has greatly impacted arena sports given that it is increasingly difficult to accommodate structured regimens throughout the week. For arena sports such as hockey, there can be significant time commitments associated with weekly practices and games, tournaments, and travel required.

Level of income can also be a significant barrier to participation in recreation, particularly in higher cost sports, as studies have correlated higher household income to higher participation rates due to a greater ability to pay. For hockey, costs can be intensive particularly for rep level play where household expenditures on registration fees, equipment, and travel are much higher than at the house league level; travel costs (as well as time spent) are exacerbated in rural regions such as Greater Sudbury where large distances must be covered for league play. According to an article published by CBC Sports, cost could be the most pressing problem facing hockey at the grassroots level, with a senior Hockey Canada official stating that cost plays a significant role in the stagnant or declining registration numbers faced by many minor hockey associations.⁴

In addition, there are growing concerns over player safety (e.g., concussions) and arena sports also face heavy competition from other leisure-time activities. For example, the popularity and lower cost of indoor soccer has drawn some participants away from local arenas while other individuals may seek non-recreational forms of activity altogether. The latter issue is becoming problematic as physical activity is being replaced with sedentary forms of leisure (e.g., watching television), leading to increasing rates of obesity and inactivity; in fact, the proportion of obese children increased threefold between 1981 and 2006⁵ while less than half of all Canadian children are active enough to achieve optimal growth and development (adults have similar percentages). Participation in physical activity (including skating, hockey, and drop-in and organized activities offered at local arenas) can assist in addressing this issue.

⁴ Rutherford K. Is the cost keeping kids out of minor hockey? Absolutely, players and parents say. CBC Sports. Available online at www.cbc.ca/sports/hockey/ourgame/story/2009/01/16/hockey-costs-too-much.html

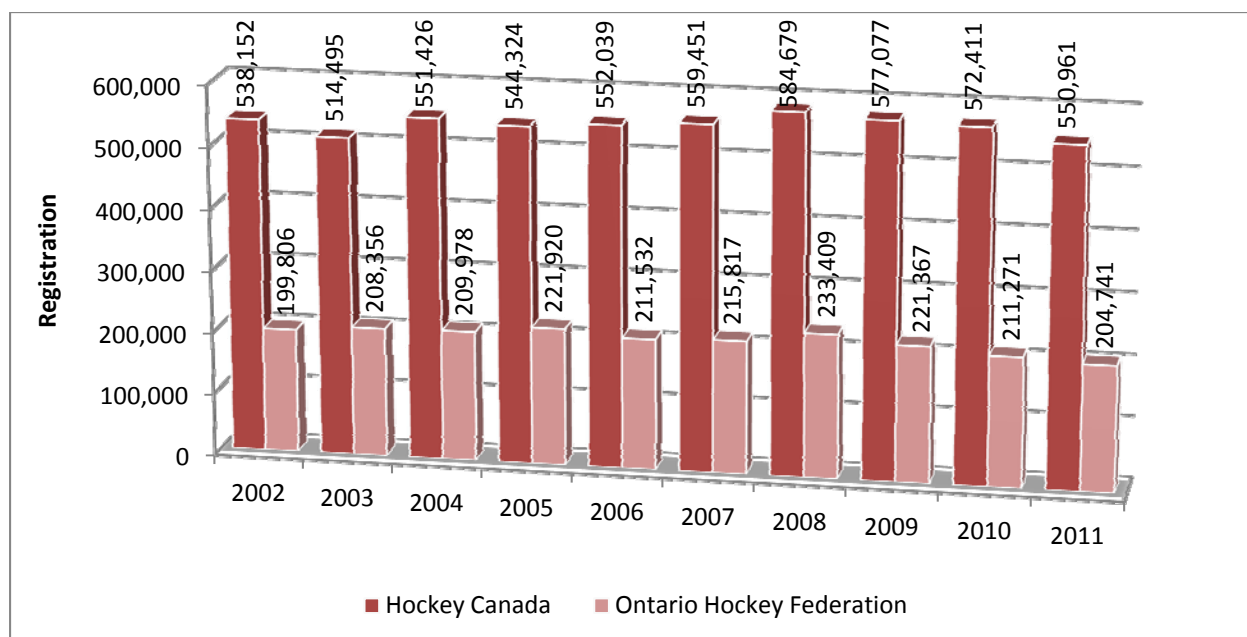
⁵ Health Canada and the Public Health Agency of Canada. (2006). It's Your Health.

Decrease in Organized Sports such as Hockey

Over the course of the last few decades, several organized sports have witnessed declines in participation, largely due to time and cost constraints faced by participants along with competition from new sports and unorganized/self-scheduled activities. Furthermore, participation in many sports is being impacted by immigration – many new Canadians are coming from countries from which hockey is not often played, thus affecting participation rates at the minor level. All of this has affected hockey in the following ways:

- 9% of Canadian children and youth play hockey, half the percentage that played 20 years ago.⁶
- Hockey Canada and the Ontario Hockey Federation experienced a peak in registration for the 2008-2009 season at 584,679 players.⁷

Figure 3: National and Provincial Hockey Registration (youth and adult*), 2002-2011



Source: Hockey Canada, 2012

* For the purposes of consistency, 2011 registration data has been adjusted to remove participants registered in the new joint venture between Hockey Canada and Canlan Ice Sports (this adult recreation league data was first recorded in 2011).

Interestingly, data from the City indicates that there are about 200 more minor hockey players in Greater Sudbury since 2008, although ringette and figure skating have both experienced declines since that time (although registration was up in 2010 and 2011 before declining for this current season).

As mentioned earlier, there is a growing emphasis on spontaneous, non-programmed activities that can easily be scheduled at the last minute. Provision of more self-scheduled/drop-in activities, extending hours of operation, and concentrating multi-generational, multi-interest activities at single locations is becoming more common. Greater Sudbury offers drop-in skating through its shinny and public skate programs at its arenas to encourage spontaneous participation.

⁶ Health Canada and the Public Health Agency of Canada. (2006). *It's Your Health*.

⁷ Kaufman, B. (2011). *Hockey Losing Numbers Game: Minor ranks don't do enough to appeal to new Canadians*. London Free Press. Available online at www.lfpress.com/sports/hockey/2011/10/31/18902646.html

Growth in Female Participation in Hockey

Across the nation, the most recent gains in hockey participation have largely been a result of girls' hockey (played in co-ed or girls'-only leagues). Hockey Canada reports that nationwide female participation has increased by over 50% in the past ten years ago, although growth has been stagnant the past four years, suggesting that the market has reached equilibrium. Female participation has certainly helped to sustain growth in Greater Sudbury, as the increase in 200 minor players over the past four years is largely attributable to girl's hockey. As will be discussed in the next section, however, it would appear that there is no longer any latent demand for girls/women's hockey as some prime time hours remain available within the City's arena system.

Increasing participation among females is also impacting facility designs. Older single pad arena templates were usually designed with four change rooms (two for teams on the ice and two for teams waiting for the next time slot). However, with increasing female participation there is a need for additional dressing rooms to ensure privacy. Through its most recent arena project, the City installed eight dressing rooms to service the second rink at Gerry McCrory Countryside Arena.

High Demand for Desirable Ice Times, Softening Demand for Other Times

Despite declining registration levels and ice rentals, the most desirable prime times consistently remain in high demand in most municipalities; these times are usually between 5pm and 10pm on weekdays (depending on child versus adult users) and weekends. With more households facing time constraints, there is evidence of a shrinking "window" of desirable ice times and more competition for prime time rental slots. As discussed in the subsequent arena assessment, utilization rates of City of Greater Sudbury arenas during prime time (5pm to 10pm on weekdays, 7am to 10pm on weekends) has slipped from a high of 98% in 2008 to 94% in 2012, which is indicative of this downward trend. Furthermore, in the City and elsewhere, weekday morning ice times – which were once the norm – are seldom rented.

Where declining registrations have most adversely affected bookings is during "shoulder" hours that fall just outside of the prime times. During the week, shoulder hour utilization (i.e., between 10pm to 12am) in the City has decreased from 70% to 52% over the past four years; even weekend prime hours have declined from 97% to 92%, whereas it has stayed around 97% during weekday prime hours. Softening demand during shoulder hours and weekends is perhaps indicative that people are less willing to inconvenience themselves to use arenas during perceived inopportune times, particularly when there may be other leisure time activities that are more appealing due to cost, time, etc.

The Impact of an Aging Population

Across Canada, the average age of the population is becoming older as the populous 'Baby Boom' generation moves through their lifecycle. Between 2006 and 2026, the number of Canadian seniors is expected to increase from 4.3 million to 9.8 million.⁸ As mentioned in the population profile, Greater Sudbury is expected to have nearly 12,000 more older adults and seniors by the year 2021 (a 25% increase over 2011).

⁸ CBC News. (2007). Boomers to reshape what it means to be a senior. Available online at www.cbc.ca

The implications of an aging population on arena utilization is potentially significant. On one hand, there may be new opportunities to book ice in non-prime times due to the growing market of older adults who are increasingly making use of daytime ice for dedicated skating times and hockey leagues. On the other hand, an aging population also means that the child and youth market, who are the most common users of arenas, is shrinking (in terms of proportion and number), which in turn may reduce the number of arena users in total.

Implications of Aging Infrastructure

Most of Ontario's recreational infrastructure was built in the 1960s and 1970s, and arenas in Sudbury are no exception – thirteen of the sixteen ice pads are over 35 years old (predating 1978). There are a number of challenges with older arenas, including (but not limited to) the following – older arenas:

- were designed to different construction and design standards and may have antiquated facility components (structural or mechanical);
- lack modern amenities, such as larger change rooms, heated viewing areas, and multi-use designs;
- have smaller ice pads, which creates safety and quality of play concerns with bigger, faster players having less space to skate;
- are single pad designs that cannot offer the convenience and cost savings of multi-pad arenas;
- may not be barrier-free for persons with disabilities; and
- are not energy efficient and thus have higher operating costs.

Recognizing this, recent Federal and Provincial funding programs contributed millions of dollars toward the renewal and construction of recreational infrastructure. Greater Sudbury has invested in the refurbishment of Cambrian Arena and constructed a new ice pad at the Gerry McCrory Countryside Sports Complex; however, renewal of the City's arena stock remains a very real and necessary priority for Greater Sudbury.

Certain municipalities have also explored adaptive re-use of their redundant arena facilities for purposes such as community centre space (e.g., Kingsdale Community Centre in Kitchener), indoor soccer (e.g., Syl Apps Community Centre in Paris, Ontario), indoor playgrounds (Vancouver), commercial or institutional usage (e.g., the former Maple Leaf Gardens in Toronto), and storage for public works or other operations equipment. Re-purposing can extend the life of an existing facility, but is often just as costly as building new given the need to refurbish the building components; as a result, the most common response is to decommission and demolish surplus arenas.

The Move Towards Multi-Pad Arenas & Multi-Purpose Facilities

In this era of user convenience and cost recovery, more often municipalities are centralizing multiple recreational facilities on individual sites. Experience in hundreds of communities across Canada supports the finding that multi-use recreation facilities can provide a great number of benefits. While the specific nature and degree of these benefits will depend on local circumstances, facility design/operation, and a host of other factors, there is no denying that multi-use recreation facilities have the potential generate substantial economic, social, and environmental gains for local municipalities. These benefits are most notable in those municipalities that view sport infrastructure as an investment in the community, not simply an expenditure.

The vast majority of recent arena construction has been in the form of multi-pad venues. Some of the notable benefits of multi-pad arenas and multi-purpose facilities include:

- **One-Stop Shopping:** The creation of a destination where residents can conveniently access recreation and/or other civic and social services (e.g., libraries, aquatic centres, older adult services, municipal information, etc.), making it particularly attractive for time-pressed individuals and multi-generational households.
- **Sport Development and Tourism:** Arena users may benefit from co-located spaces that allow for dry-land training (e.g., fitness spaces or gymnasiums), tournaments or banquets (e.g., multiple ice pads, community halls).
- **Operational Efficiency:** Multi-purpose facilities allow for efficient use of resources for facility operation through the economies of scale that are generated by sharing overhead costs such as staffing, utilities, maintenance, etc. These facilities are also well suited for public-private partnerships, as discussed later in this report.

To build upon the last point, the operational savings of moving from a single pad to a twin pad arena are significant due largely to the reduced per pad staffing complement (labour is the predominant cost factor in arena operating) and other economies of scale. In fact, the net operating deficit for a twin pad arena is typically the same as that for a single pad arena despite offering twice as much ice. Depending on the market and operating profile, additional savings can be achieved with a twin pad such that it runs at or close to break-even. With each single pad arena requiring a subsidy of \$150,000 to \$200,000 per year (an average in rural/urban Ontario), any opportunity to reduce this cost deserves consideration.

Single-purpose facilities, such as single pad arenas, are no longer preferred unless justified by need (or lack thereof). In the case of Greater Sudbury, the existing stock of single pad arenas assists in addressing distributional gaps resulting from the City's expansive territory, although it is accepted that this level of decentralization comes at a cost.

Cost Recovery

As operational costs rise, more municipalities are establishing cost recovery ratios to justify rental fees. Traditionally, municipalities have relied on historical precedent and regional benchmarking, but this is gradually being eschewed in favour of policy-driven pricing strategies.

Financial performance targets based on annual operating expenses are the most common approach (generally ranging from 50% to 95% recovery, depending on the user type), but there are some municipalities that include small capital reserve contributions in their pricing strategies. For example, some municipalities contribute to an annual repair and maintenance fund that is considered as part of the operating budget; the pricing policy is then based on the per hour operating cost (including the reserve contribution), discounted by user type.

The matter of capital reserves is often addressed more directly through an hourly ice fee surcharge. Surcharges are commonly applied for a pre-determined number of years at a consistent rate. Typically, municipalities consider surcharges when there is an identified project on the horizon, which makes it more likely for users to support this form of capital fundraising. Depending on the charge, it may take several years for the contributions to accumulate, which is why alternate forms of funding and/or financing are required for major capital projects.

3.0 Arena Needs Assessment

The following assessment evaluates the overall arena supply in the City of Greater Sudbury based upon an analysis of utilization rates and participation rates over the past five years, consideration of trends and best practices, and application of a market-driven service standard. This analysis does not consider the geographic location / distribution or physical condition of the City's arenas and no recommendations are made regarding specific arena improvements or closures.

The assessment largely focuses on arena utilization during 'prime' and 'shoulder' periods;⁹ it is recognized that certain arenas are also used sporadically throughout the daytime, though there are no organized group rentals during weekday mornings, something that is contrary to historical norms across the province. Further, the needs assessment considers usage during the winter arena season, although it is understood that some arenas are used during the summer (for ice and/or floor rentals).

Utilization Rates

The City of Greater Sudbury's *'Fall & Winter ice Allocation Rules'* (last updated in September 2012) guide ice allocation practices using a progressive formula to determine how ice is allotted to various user groups over the course of the season. The formula is supplemented by a number of rules stipulating the provision of registration data, turning back ice, cancellations, payments, etc.

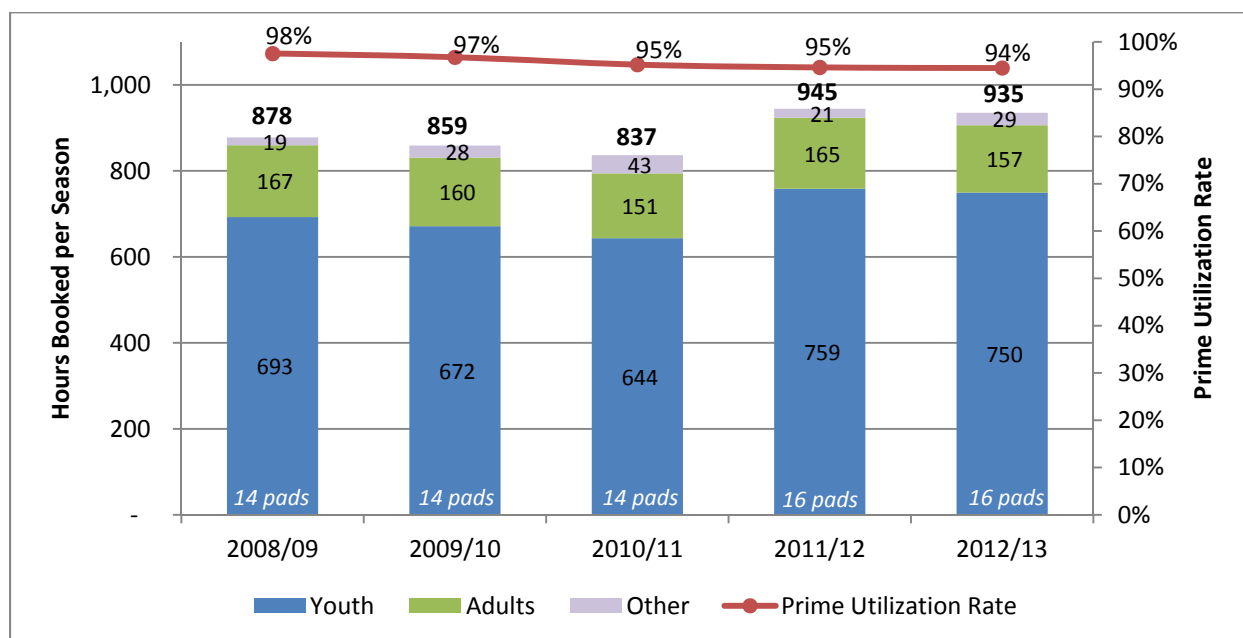
In general, City arenas are well used, with a 94% system-wide prime time utilization rate for the current season (as identified through the master arena schedules and shown in the figure on the following page). While this represents a good level of utilization, the prime utilization rate has steadily declined from its five-year high of 98% during the 2008/09 season. Examination of the number of hours booked during shoulder and prime hours reveals a similar downward trend, recognizing three key factors:

- a) McClelland Arena was not in service for the 2008/09 season for refurbishment due to extensive fire and smoke damage;
- b) Cambrian Arena was not in service during the 2009/10 and 2010/11 seasons due to refurbishment and resulted in fewer hours being available for booking; and
- c) Gerry McCrory Countryside #2 rink was constructed and opened in 2011/12, resulting in additional hours being available for rental.

Accordingly, the City's arena supply was 14 ice pads during the 2008/09, 2009/10, and 2010/11 seasons. Beginning in the 2011/12 season, a total of 16 municipal ice pads were available.

⁹ Prime time hours, for the purposes of this assessment, are considered to be from 5pm to 10 pm on weekdays and 7am to 10pm on weekends. Shoulder hours are considered to be from 10pm to 12am on weekdays and weekends. This definition is considered to represent functional prime hours and is different from the City's definition of prime time (contained in its Ice Allocation Rules) which are largely derived from revenue and pricing considerations.

Figure 4: Weekly Prime & Shoulder Hour Utilization (combined) at all City Arenas, 2008/09 to 2012/13



Notes: Data reflects hours booked only in prime and shoulder times. McClelland Arena was not in service for the 2008/09 season for refurbishment. Cambrian Arena was not in service for the 2009/10 and 2010/11 seasons due to refurbishment. In 2011/12, Gerry McCrory Countryside #2 commenced operations which added capacity for additional opportunities for ice rental.

Source: City of Sudbury Arena Logs, 2008-2012

The number of weekly prime and shoulder hours (combined) booked in 2012/13 is about 57 hours above the 2008/09 level despite the fact that there are now two more ice pads (i.e., a refurbished McClelland Arena and the new Countryside #2 rink). With an additional two pads in operation over this five year period, it is important to note that **only 41% of this additional capacity is being utilized this season** (i.e. 57 of the 138 new shoulder and prime hours per week). Subsequent analysis suggests that arena usage was re-allocated from other arenas to the new Countryside pad due to reasons such as convenience (e.g., closer proximity) or level of amenity/quality.

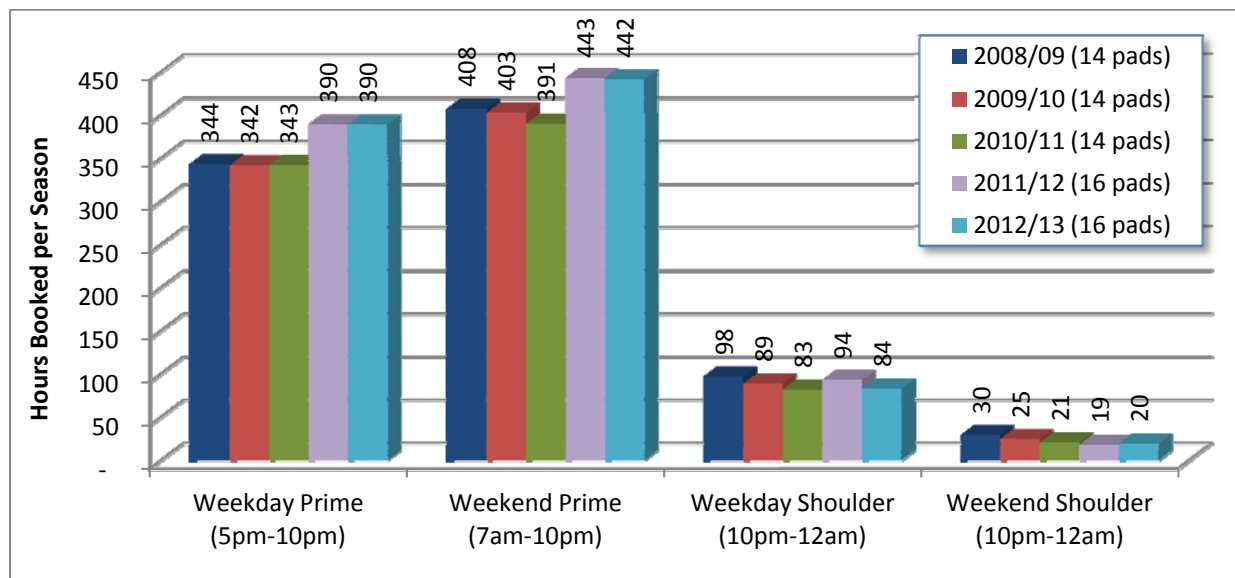
The number of hours booked by user groups has fluctuated slightly as well, though proportional allocation has remained fairly consistent. Over the past five years, youth organizations (e.g., minor hockey, figure skating and ringette) have booked between 77% and 80% of available shoulder and prime hours while the adult allocation has accounted for 17% to 19%; other non-minor users (such as high school hockey, OHL, etc.) have ranged from about 2% to 5%. It is notable that users are renting only a nominal amount of additional time despite the growth in the arena inventory.

Utilization in Prime & Shoulder Hours

Upon closer examination of hours booked, the most desirable time slots (i.e., prime time) continue to be in greatest demand. Interestingly, there appears to be softening demand in the shoulder hours, which explains the modest increase in the total number of hours booked and the declining utilization rate – there are 24 more hours per week available in shoulder periods now compared to five years prior (despite the two additional rinks). While arena users continue to book the most desirable slots, fewer are willing to rent time outside of the prime times; this is consistent with observations from many other communities.

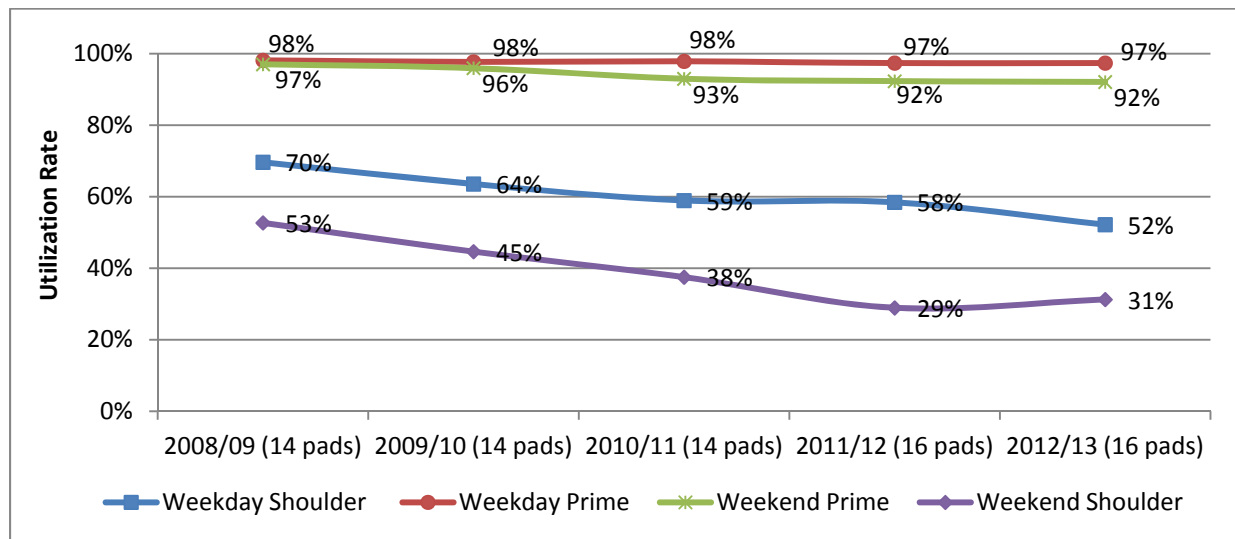
The eroding demand for shoulder hours is further demonstrated by the fact that utilization rates during weekday shoulder periods has decreased from 70% to 52% over the past five seasons, while weekend shoulder rentals have decreased from 53% to 31% utilization. Conversely, prime utilization rates during weekdays has remained fairly consistent, although prime weekend utilization rates are starting to experience a modest decline.

Figure 5: Weekly Hours Scheduled per Winter Season by Time of Use, 2008/09-2012/13



Notes: McClelland Arena was not in service for the 2008/09 season for refurbishment. Cambrian Arena was not in service for the 2009/10 and 2010/11 seasons due to refurbishment. In 2011/12, Gerry McCrory Countryside #2 commenced operations which added capacity for additional opportunities for ice rental.

Figure 6: Utilization Rate per Winter Season, 2008/09-2012/13



The following tables illustrate the prime and shoulder utilization rate for each arena over time. For the most part, prime utilization rates have remained stable with the notable exception of I.J. Coady in Levack. Examination into the shoulder hours, however, yields a very different result with all arenas experiencing declining utilization with the exception of the new Countryside #2 rink.

Table 1: Prime Time Utilization Rate by Arena (Winter Season), 2008/09-2012/13

	2008/09	2009/10	2010/11	2011/12	2012/13	Change (total hours)
Cambrian	100%	<i>Not in Service</i>		98%	98%	-2%
Capreol #1	95%	92%	90%	73%	86%	-9%
Capreol #2	95%	93%	96%	94%	90%	-6%
Carmichael	100%	100%	100%	100%	100%	0%
Centennial	98%	98%	92%	96%	97%	-1%
Chelmsford	100%	97%	95%	97%	98%	-2%
Dr. Ed Leclair	98%	100%	100%	100%	100%	-2%
Garson	100%	100%	99%	97%	100%	0%
Countryside #1	100%	100%	100%	100%	98%	-2%
Countryside #2	<i>Not Yet Constructed</i>			98%	96%	n/a
I.J. Coady	83%	79%	67%	74%	58%	-30%
McClelland	<i>Not in Service</i>	100%	100%	100%	100%	0%
Raymond Plourde	96%	97%	95%	94%	96%	0%
T.M. Davies	100%	100%	100%	100%	100%	0%
Toe Blake Memorial	100%	100%	100%	95%	97%	-3%
Sudbury	100%	98%	98%	98%	95%	-5%
CITY WIDE	98%	97%	95%	95%	94%	--

Table 2: Shoulder Time Utilization Rate by Arena (Winter Season), 2008/09-2012/13

	2008/09	2009/10	2010/11	2011/12	2012/13	Change (total hours)
Cambrian	75%	<i>Not in Service</i>		58%	47%	-14%
Capreol #1	43%	43%	21%	32%	29%	-33%
Capreol #2	39%	43%	43%	21%	25%	-36%
Carmichael	79%	57%	57%	71%	50%	-36%
Centennial	71%	68%	57%	46%	46%	-35%
Chelmsford	64%	39%	36%	54%	50%	-22%
Dr. Ed Leclair	61%	57%	57%	61%	50%	-18%
Garson	89%	79%	75%	61%	61%	-32%
Countryside #1	82%	71%	71%	46%	54%	-35%
Countryside #2	<i>Not Yet Constructed</i>			46%	50%	n/a
IJ Coady	14%	14%	7%	7%	7%	-50%
McClelland	<i>Not in Service</i>	68%	54%	46%	39%	-42%
Raymond Plourde	54%	54%	43%	36%	32%	-40%
TM Davies	79%	54%	61%	46%	43%	-45%
Toe Blake Memorial	71%	86%	86%	68%	68%	-5%
Sudbury	86%	82%	71%	79%	71%	-17%
CITY WIDE	65%	58%	53%	50%	46%	--

Notes: Utilization rates based on 55 prime hours being available each week (M-F 5pm-10pm, S-S 7am-10pm) and 14 shoulder hours each week (M-S 10pm to 12am).

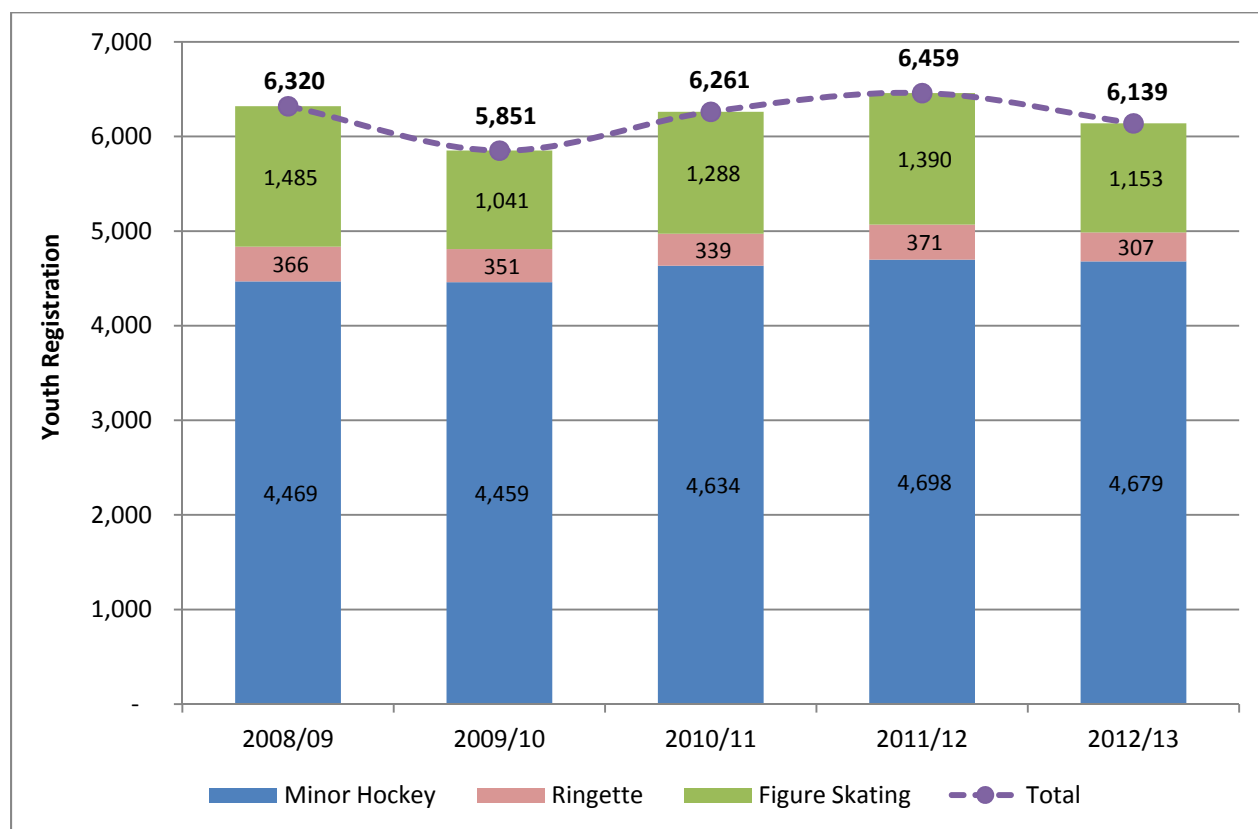
Source: City of Sudbury Arena Logs, 2008-2012

Participation Rates

In addition to hours rented, another complementary indicator of demand is the number of participants registered in arena sports. The local arena market is dominated by users associated with minor sports or figure skating clubs. Based on data provided by the City of Greater Sudbury, the total number of youth users decreased from 6,320 in the 2008/09 season to 6,139 in the 2012/13 season, with some fluctuations in between (the 2011/12 season represented a five year peak). Over the past year, participation declined by about 320.

With about 27,425 residents in Greater Sudbury's 5-19 age cohort and 6,459 registrants (all 2011 data) means that about 23.5% of children and youth participate in organized ice sports; this is in the middle of the common range observed in other communities (typically between 20% and 25%).

Figure 7: Participation in Minor Arena Sports, 2008/09-2012/13



Source: Ice Allocation Formula Summaries, 2008-2012

From the preceding chart, there are some notable trends that can be extracted.

- The total number of participants is trending downwards despite the slight increase when the second pad at Countryside was complete (this may have been impacted by the 'novelty factor' of a new facility). Furthermore, it can be inferred that:
 - the number of skaters on the ice at any one time has declined, as the number of youth registrants has declined but their rental hours have not; and/or
 - youth registrants are getting more ice time than they have in past years.

- The number of minor hockey registrants has increased by about 200 players between 2008/09 and 2012/13, nearly all of which can be attributed to Sudbury Girl's Hockey and is in line with provincial trends that point to recent growth in female hockey participation.
- With respect to figure skating, a sharp decline occurred in 2009/10 likely as a result of closure of the Cambrian Arena which accommodates a great deal of figure skating. That said, figure skating numbers rebounded in 2010/11 and 2011/12 prior to subsequently declining once again in 2012/13.
- Ringette has stayed fairly consistent in the 350 to 370 player range, however, it has declined considerably to just over 300 players for the current season.

It is notable that the population of children and youth (ages 5-19) in the City declined by 7% between the 2006 and 2011 Census periods, suggesting that the potential market for youth sports has been in decline for several years. Despite this, minor hockey in particular has witnessed modest gains – a trend that is not likely to be sustainable.

Given the forecasted contraction of the youth population over the next ten years, it is reasonable to expect that minor hockey, figure skating, and ringette will be challenged in maintaining local participation levels within the youth market, and that the future children's market will remain stable at best given the marginal growth forecasted in that age segment. All of this suggests that there will be fewer children and youth participating in arena sports despite an overall growth projected in the City's population (if the population does in fact grow); new population forecasts are currently being developed based on recent Census data.

While children and youth constitute the primary users of arena time in Greater Sudbury, the adult market must not be overlooked. The City does not collect registration data for adult users and thus an examination into how many hours are booked for adult play has been undertaken. As illustrated in Figure 4, adults rented 167 shoulder and prime hours per week in the 2008/09 season. By comparison, 157 shoulder and prime hours per week were rented by adult users in 2012/13 – a decrease of 6%. The number of prime and shoulder hours booked by adults has decreased over the past five years, although it is recognized that adult groups, like other users, may also rent ice during non-prime hours.

In other municipalities we have analyzed, the allocation of youth versus adult bookings is generally about an 80/20 split, noting that adults typically require less ice time (e.g., no practices) so they can accommodate more users during their allotted hours; provincial norms suggest that about 4% of adults ages 19 to 54 are involved in ice sports. Adult participation in Greater Sudbury appears to generally follow these findings, suggesting that there is nothing unique about adult demand in the City and that adult participation should fluctuate at a rate similar for population growth in this age cohort, all other factors being equal.

Assessment of Need

The City's 2004 *Parks, Open Space & Leisure Master Plan* established a provision standard of 1 ice pad per 12,000 population for the City of Greater Sudbury (the existing service level translates into 1 ice pad per 10,017 residents). The population-based standard, however, does not necessarily capture market-based demand considerations (such as changing participation rates, an aging population, geographic inequities, etc.) and, therefore, a different approach was used in the City's 2007 *Multi-Use Recreational*

Complex Feasibility Study. The 2007 Study applied a market-specific target of 1 ice pad per 500 youth registrants at “core area” rinks only.

A market-specific target continues to be the preferred approach; however, in examining the City’s entire arena supply, a modified target is required to reflect the differences between utilization rates in urban and rural arenas. For example, in urban rinks, utilization can approach 100% in many instances because excess demand can easily be shifted to a nearby rink; in rural areas, a certain amount of excess capacity – particularly for youth – is more common due to smaller populations and challenges in travelling to more distant rinks.

To help establish a reasonable provision target that is reflective of Greater Sudbury’s unique circumstances, it is helpful to consider current utilization as an indicator of demand. Most notably, the number of available prime time hours City-wide has increased every year between 2008/09 and 2012/13, from 18 hours to 48 hours per week. This unused ice equates to the equivalent of 0.9 surplus ice pads (based on 55 hours per week per rink) at present. There is no apparent latent demand (given the availability of prime ice in both the former City and broader community), thereby reinforcing the validity of this finding. With a current supply of 16 pads, demand for 15.1 pads, and youth registration of 6,139, the average provision level is approximately 405 youth registrants per ice pad. This provision level represents the equilibrium where arena demand equals supply in the City of Greater Sudbury.

As such, it is recommended that provision target of 1 ice pad per 405 youth registrants be utilized for assessing City-wide arena needs. This target assumes that youth will use the large majority of minor prime time hours, but also allows for occasional usage from a broader market of users (e.g., tournaments and competitions). This target is meant to be applied across the entire system and not to specific arenas as usage profiles will be different at each facility.

Current youth registration levels (6,139 across 16 rinks) equate to the City providing one rink per 384 youth registrants. When the City had 6,320 youth registrants and 14 rinks available in the 2008/09 season, this average was 451 per ice pad and there was some pressure for expanding the ice supply, particularly in the downtown/Sudbury area. This demand appears to have peaked in 2011/12. The construction of Gerry McCrory Countryside #2 rink helped to alleviate this demand, however, registration has since fallen and this trend is projected to continue, creating additional capacity within the system.

The following table illustrates application of the preferred provision target, assuming the existing rate of participation is maintained (i.e., at 23.5%) and children and youth market segment (5-19) declines at the forecasted rate. Modest declines in arena demand are expected over the next fifteen years with contraction of the primary arena market (i.e., children and youth). The analysis suggests that future population growth will eventually offset this, with the City returning to current demand levels by about 2031.

Table 3: Projection of Ice Pad Needs, City of Greater Sudbury (2011 to 2026)

	2012	2016	2021	2026
Forecasted Number of Youth Registrants (based on a 23.5% participation rate for youth ages 5 to 19)	6,139	5,918	5,836	6,008
Number of Ice Pads Required (based on 16 pads at present and a provision target of 1 ice pad per 405 youth registrants)	15.1	14.6	14.4	14.8
Surplus Ice Pads	0.9	1.4	1.6	1.2

Forecasts based on current youth participation rates applied against Ontario Ministry of Finance Projections (Ontario Population Projections Update, 2011–2036)

This analysis identifies a surplus of 0.9 ice pads at present, growing to 1.6 ice pads by 2021, before population growth decreases this to 1.2 in 2026. Projections between 2026 and 2036 are not shown in the preceding table due to uncertainty in the long-term horizon, but suggest that the current surplus of one ice pad will remain through this period.

While this analysis focuses on youth prime time utilization, trends suggest that the number of hours allocated to adults is trending downward, meaning this group is unlikely to replace hours that may become available should youth demand wane. The current surplus may be impacted to a minor degree by bookings from Laurentian University who are establishing a varsity hockey program and have secured ice time at municipal arenas for the 2013/14 season. These varsity teams, however, will only require ice time over 7 to 9 weekends per year (in addition to practice ice during non-prime hours) and can largely be accommodated within the current schedule through sharing with an established ice contract.

Clearly, the City's arena surplus is impacted by its distribution across a vast geographic territory. Much of the surplus is attributed to arenas in peripheral areas, particularly the I.J. Coady Arena in Levack. Unfortunately, this level of decentralization means that the City is not able to benefit from operational and financial efficiencies that it otherwise might achieve if ice pads were centralized at fewer arena sites.

Based on current participation rates and population projections, there is justification to remove one ice pad from the City's inventory, but insufficient demand to remove two or more rinks. The I.J. Coady Arena in Levack is a likely candidate for removal due to its very low utilization levels and remote location. Longer-term demand is anticipated to remain relatively steady, such that there will continue to be sufficient demand to support a supply of 15 ice pads for the foreseeable future.

Summary of Key Findings

This analysis has been prepared to provide supporting information to the City of Greater Sudbury's Arena Renewal Strategy. Population forecasts utilized in this analysis point to a growing but aging population which has a number of implications on arena usage. Population projections currently being prepared as part of the City's Official Plan Review should be considered in subsequent assessments in order to portray arena needs with the most recent data that is available.

The following is a summary of key findings from the preceding trends analysis and arena needs assessment:

- **Aging Arena Infrastructure:** Many of Greater Sudbury's arenas are approaching or beyond their functional life cycle, based on industry standards. Older arenas do not operate or functionally serve their users as efficiently or effectively as newer facilities, particularly with respect to energy efficiency, required capital maintenance, accessibility, comfort, sport tourism opportunities, etc.
- **Declining Number of Youth:** A decline in the number of children and teens (5-19) between 2006 and 2011 has likely contributed to a 2% decline in minor ice sport registrants over the past five years. Based on the further contraction of the youth population forecasted over the next ten years, declining registrations in arena activities can be expected barring any increase in participation rates. Currently, approximately 24% of youth participate in organized ice activities in Greater Sudbury.
- **Aging Population:** The City's aging population and new varsity teams may generate modest requests for additional ice during prime and non-prime times, however, this is unlikely to have any real impact on overall rental demand.
- **Decreasing Participation in Organized Arena Activities:** In line with provincial and regional trends, Greater Sudbury is experiencing decreasing participation in organized ice sports. Recent increases in female hockey participation has helped to reduce this impact, however, trends suggest that these rates have plateaued.
- **Latent Demand Unrealized:** Any latent demand that was anticipated prior to constructing the City's sixteenth rink (Countryside #2) has not been realized. Despite about 60 more hours per week being booked now compared to five years ago, about 41% of capacity added since then (by re-opening McClelland Arena and constructing Countryside #2 rink) has been filled. This suggests that Countryside #2 is attracting usage away from the City's more remote arenas rather than accommodating "new" utilization.
- **Softening Demand:** The City's arenas continue to be well utilized during prime hours, however, booking data demonstrates a softening of demand during shoulder times (10 p.m. to 12 a.m. throughout the week). Usage during weekday shoulder periods has decreased from 70% to 52% over the past five seasons, while weekend shoulder rentals have decreased from 53% to 31% utilization.
- **Decentralized Operations:** With the twinning of the Gerry McCrory Countryside Complex, Greater Sudbury has begun to move in line with other communities that are concentrating multiple ice pads within one facility, although the City continues to provide a highly decentralized level of service with a number of single-pad arenas across its vast geographic territory.
- **Surplus of Ice:** Looking solely at City-wide supplies and allowing for some unused capacity, it is anticipated that the City will have a surplus of one ice pad beginning in the 2013/14 season. This surplus is expected to persist, such that there will continue to be sufficient demand to support a City-wide supply of 15 ice pads for the foreseeable future. As part of its Arena Renewal Strategy, the City should consider removing a single pad arena from its inventory, with the I.J. Coady Arena in Levack being the likely candidate due to its very low utilization levels and remote location.

4.0 Municipal Partnerships for Arena Facilities

The objective of this section is to provide the City of Greater Sudbury with advice and guidance about public-private partnerships or joint ventures options that could be pursued by the municipality for the development and operation of community arenas.

There is significant appeal for risk transference and attracting private capital to municipal recreation infrastructure developments. Under the right circumstances, and as demonstrated in the following examples, public-private partnerships have successfully achieved these objectives in community arena projects throughout Canada. But, the P3 model must be consistent with the needs of the project and deliver benefits to all those participating in the project. Furthermore, the municipal officials must be committed to the relationship and willing to dedicate the necessary time and effort to work with outside interests to craft a relationship that has the necessary ingredients to make it successful.

Context

Most communities across Canada are challenged to meet the funding requirements of new facilities while keeping their existing stock of assets in good repair. In fact, the *Ontario Infrastructure Inventory Study* that was undertaken by Parks and Recreation Ontario identified that there are more “centennial rinks” in the province than arenas that have been built in the past two decades. And, most municipalities are dealing with substantial levels of deferred arena maintenance which is placing undue pressure on long term capital budgets. The weight of these financial stresses has caused some municipalities to explore – and in certain cases implement – alternative facility provision strategies to advance projects that would have been impossible within a traditional municipal self-development and operate approach.

Developing a relationship with an external group is one of several capital development methods employed by municipalities. As the number of examples grow, it is becoming increasingly clear that partnerships (of any sort) involve nuances not normally found in traditional municipal facility provision models. Consequently, prudent municipalities ensure that ALL potential partnerships undergo rigorous scrutiny through the application of a screening mechanism to examine the benefits and limitations of the opportunity. Municipalities that have adopted an evaluation framework to assess and secure suitable partners have found that the process: (1) informs municipal officials of the merits and drawbacks of each partnership candidate and project; and (2) clarifies the expectations and obligations of organizations looking to partner with the municipality.

Nuances of Partnerships

While linkages between municipal governments and outside interests are not new, certain jurisdictions are contemplating relationships that are dramatic departures from traditional approaches to the delivery of services. Examples of this trend in the recreation field include partnerships through which traditional municipal leisure services are entirely delivered by a third party. For example, the YMCA is operating facilities and providing aquatic and/or community wellness programs in jurisdictions where the municipal recreation department was once the sole provider of services – London Ontario, Kelowna BC, etc. Likewise, certain municipalities have opted to align with private rink operators who help to develop, manage and program community arenas – Hamilton Ontario, Halifax Nova Scotia, etc.

There is no question that the concept of partnerships between governments and non-traditional partners is a growing trend. According to the Canadian Council of Public Private Partnerships, more P3 projects were closed in 2010 than ever before, making that year the most active on record. The CCPPP suggests that this is a testament to the commitment of the Canadian and provincial governments to use the P3 model as well as the capabilities of Canadian and international companies working in the partnership market.¹⁰ And, with national and provincial ministries dedicated specifically to the cultivation of successful partnerships (P3 Canada, Partnerships BC, Infrastructure Ontario, etc.), it is unlikely that the trend will diminish any time soon.

Not surprisingly, alternate service delivery arrangements are becoming more creative and successful as partners learn more about transition issues and the need for ongoing management of these new forms of relationships. There is no single formula that will satisfy all potential partnership situations. However, as the concept evolves, best practices and guidelines are beginning to emerge and be more widely accepted as process templates. Municipal governments are preparing to wrestle with the many facets of alternate service delivery by developing frameworks within which all potential relationships will be conceived, crafted, evaluated, and managed.

Research has found nine factors that should be in place when choosing to enter into a partnership or selecting a potential partner:

- Individual excellence – partners have something of value to contribute to the relationship.
- Importance – the contemplated alliance fits the strategic goals of each partner.
- Interdependence – the partners need each other and their complementary skills, to fulfill the goals and objectives of collaboration.
- Investment – there is tangible commitment of resources by all involved.
- Increased reach – the size of the partners' market or scope of services is expanded.
- Information – there is open communication regarding goals, conflicts, problems and changes.
- Integration – there are many connections between partners at several levels.
- Institutionalization – the alliance has a formal status in all organizations and cannot be abandoned on a whim.
- Integrity – no partner will try to undermine the alliance.

Benefits of Partnerships

Several common elements are inherent with successful municipal partnerships:

- The venture will be mutually beneficial to each partner.
- There are clearly defined roles and responsibilities.
- There is a performance evaluation methodology.
- There is a shared commitment to serve the needs of those affected by the venture.
- There is a commitment to improve.
- There is fair and honest recognition of each partner's contribution.

Relationships with outside groups will only be practical in Greater Sudbury if reasonable benefits accrue to the City and that the relationship supports municipal priorities. To this end, it is the City's responsibility to thoroughly analyze each potential relationship on its own merits.

¹⁰ 2010 CCPPP National Awards Case Study (2010)

It is important that the City's relationships with external entities are with a compatible and willing partner that shares the municipality's long-term vision for the project. Not only should the partner bring the necessary skills and resources to fulfill its project obligations, but also demonstrate a public service attitude. Recognizing that all partnerships should be developed in response to specific circumstances of a particular project, potential partners should understand the City's intent to develop an open and honest relationship where each partner's contribution is important to the success of the project. Furthermore, the partner must be dedicated to the pursuit of mutually accepted objectives and endorse a philosophy of constant improvement. Finally, there must be shared commitment to provide a quality recreation environment that is consistent with the expectations of Greater Sudbury's residents.

Partnerships for Service Delivery

Although there are numerous forms of service delivery partnership available to local governments, our research suggests that most municipal arrangements can be grouped in one of the following categories:

- Strategic Alliance – a relationship that involves two or more organizations collaborating on planning and delivering select services and programs.
- Contract Agreement – services contracted to another organization, whereby the contracting partner may assist in the development of the service but has no responsibility for managing/operating the service other than ensuring the service is delivered to specification.
- Rental Agreement – facilities rented by one partner from another, where the renter either allocates designated times to affiliated groups or directly delivers services and programs to its constituents in the rented facility.
- Service Agreement – services provided through an agreement with two or more partner organizations, where services are jointly controlled, managed and operated by the partners as specified in the agreement.

Realistic Expectations

Our review of partnership case studies suggests that the concept is a reasonable option for creating cost-effective solutions to both capital and operating challenges confronting certain recreation systems. However, partnerships are not a cure-all or a panacea for all the problems currently facing the public leisure sector. Too often, expectations are beyond the capacity of a partnership to deliver and consequently the relationship is eventually perceived as unsuccessful. Also, a partnership must be mutually beneficial and therefore there will likely be considerable give-and-take in terms of the project outputs. It is, therefore, advisable to establish clear and attainable objectives at the outset of the project and to tie the expectations of senior officials directly to the likely results of the relationship.

Myths About Partnerships

As mentioned above, most partnerships will not result in benefits that solve all the problems currently facing municipal leisure service providers. Common misconceptions include the following:

All risks will be transferred – While certain risks may be shared between the partners, the municipality will always be exposed to certain operational and commercial risks. For example,

taxpayers will always look to the municipality to resolve disputes or other operational problems even though an outside entity is responsible for service delivery. Additionally, it is impossible to transfer risk without also transferring control over the elements that will influence risk. For example, a municipal partner will not likely be successful in transferring revenue risk while retaining control over price setting. Even though a local government might decide to contract-out the delivery of certain services, it is likely the municipality will still be on the hook for any complaints or criticisms associated with service quality or interruptions in services. There have been cases in Ontario where third party providers have abandoned projects that were valued by the community forcing the municipality to step in to resurrect the service. These situations are troubling because they are often unforeseen which means municipal staff must respond in an emergency fashion. Also, municipalities have had to deal with financial issues where former third party providers have received advanced payment for services that were not delivered.

Private equity will solve capital funding problems – As mentioned in the discussion in the preceding table private sector capital is often more expensive than traditional municipal funding models. Typically the private sector anticipates returns on investment that are higher than municipal borrowing rates. Furthermore, traditional lending institutions are less likely to provide private partners with financing assistance in the absence of a municipalities covenant to backstop the loan. It is for this reason that many capital projects involving private partners have been entirely funded by local government.

Sponsorships/naming right fees will make an otherwise unviable project viable – While sponsorships, naming rights and creative marketing endeavours can produce useful streams of revenue, we are unaware of any cases where these activities have converted a loser to a winner.

Partners with similar mandates will have a solid and successful relationship – Frequently this is not the case because of conflicts in styles, branding issues or differing approaches to certain aspects of the business. For example, some municipalities that have entered into recreation facility operating agreements with not-for-profit groups have later discovered that the municipality's brand has all but disappeared from the facility. In other cases, under the operating agreement, municipal recreation clients are required to pay membership fees to access the facility or participate in its programs – a client relationship that is significantly different than traditional municipal approach. These issues have resulted in substantial reshaping of the agreement or outright cancellation.

Once the relationship is struck, the municipality has little to do – To be successful, partnerships need to be effectively managed. It is not sufficient for the municipality to nurture a relationship and then leave the partner to its own devices. It is the municipality's obligation to maintain an ongoing relationship with its partner to ensure that service standards are maintained; contractual obligations are met; required supports are provided; and potential problems are addressed through joint planning. A balance must be struck between the municipality's responsibility for audit and oversight and the partner's right to conduct business with minimal interference. Each party should appoint one person to be the main contact point on all matters relating to the administration of the agreement. They should meet on a regular basis to stay abreast of emerging issues, resolve potential problems and identify opportunities where additional resources are required to enhance the success of the relationship.

Public-Private Partnerships (P3s)

The term public-private partnership (P3) often means many different things to different people. While some do not consider a traditional design-build agreement as a partnership, others prefer to use the term for any form of public-private collaboration.¹¹ This report utilizes the following Canadian Council of Public Private Partnerships P3 definition:

“A cooperative venture between the public and private sectors, built on the expertise of each partner that best meets clearly defined public needs through the appropriate allocation of resources, risks and rewards”.¹²

Partnerships between municipalities and private interests generally involve one of the following objectives and/or outcomes:

- create/maintain public infrastructure at less cost than a municipal delivery model
- improve customer service
- reduce the cost of government procurement
- provide the municipality with greater access to new sources of capital
- optimize the use of public sector resources
- undertake major social or economic initiatives
- create public buy-in to the project by engaging the community
- gain access to systems and techniques that are beyond municipal capabilities
- gain access to experience or expertise that is outside the normal municipal approach
- achieve improved operating/financial performance beyond municipal capabilities
- transfer of certain operational risks or financial liabilities

Canadian municipalities are under increasing pressure to provide top quality leisure facilities, programs and services despite reductions or caps on both capital and operating budgets. Several municipalities have examined and ultimately implemented arrangements with private enterprise with the intention of reducing or sharing costs, minimizing capital and operating risks or realizing benefits not generally available through a traditional municipal development and management approach.

P3 Structures

Generally speaking, public-private partnerships follow three basic models.

- privatization
- concession
- operations and maintenance

Privatization involves outright ownership by the private partner for either new or existing facilities. The concession models involve a continued (yet possibly deferred) public ownership of the assets, so are readily distinguished from the privatization model. Under the operations and maintenance models, a

¹¹ The Canadian Council of Public Private Partnerships, 100 Selected Public-Private Partnerships Across Canada, 2000 - 2001

¹² *ibid*

private operator operates a publicly owned facility for a specified term or provides outsourced services to the public sector.¹³

There are numerous forms of partnership opportunities available to the City falling within each of these three categories.

Privatization	
Type of Partnership	Description
Build Own Operate (BOO)	The private sector finances, builds, owns and operates a facility in perpetuity. The public constraints are stated in the original transfer document and in ongoing regulatory authority.
Buy Build Operate (BBO)	Existing public facility is transferred to the private sector, which usually upgrades and owns and operates in perpetuity. Some public control is exercised through the franchise contract at the time of transfer.

Concession	
Type of Partnership	Description
Build Lease Operate Transfer (BLOT)	The private sector designs, finances and constructs a new facility on public land under a long-term lease and operates the facility during the term of the lease. The private owner transfers the new facility to the public sector at the end of the lease term.
Build Own Transfer (BOT)	A private developer receives a franchise to finance, design, build and operate a facility (and to charge user fees), for a specified period after which ownership is transferred back to the public sector.
Build Own Operate Transfer (BOOT)	Same as the BOT model except an agreement is made to transfer the facility to the public sector at some future date.
Build Transfer Operate (BTO)	A private developer designs, finances and constructs a facility, which, upon completion, is transferred to public ownership. The public sector then leases the facility back to the private sector that operates it in order to get a reasonable return for construction and operation while avoiding liability/complexity of private ownership.
Contribution Contract	The private sector agrees to contribute to the construction of a public facility in exchange for the acceleration of the project.
Design Build (DB)	The private sector designs and builds a facility to meet public sector performance specifications-often for a fixed price so risk of cost overruns is transferred to the private sector which has the ability to employ the techniques it wishes to meet the performance specifications.
Design Build Major Maintenance (DBMM)	The proposed DB facility will be the operating responsibility of the public sector, with certain maintenance responsibilities given to the private sector under contract.
Design Build Operate (DBO)	Design Build contract for construction followed up with an operating and maintenance contract. The facility remains publicly owned throughout.
Lease Develop Operate (LDO)	A private operator, under long-term lease, expands and operates an existing public facility. The expanded facility remains publicly owned or is transferred back to the public sector at the end of the lease term.

¹³ The Canadian Council of Public Private Partnerships, The Canadian Case for Hospital P3 Projects, November 2003

Operations and Maintenance	
Type of Partnership	Description
Operation and Maintenance Contract (O&M)	A private operator, under contract, operates a publicly owned facility for a specified term.
Service Contract (SC)	Similar to an operation and maintenance contract, except that any assets remain privately owned.

Examples of Partnerships for Community Facilities

Many municipalities have established relationships with external entities for the development and operations of facilities that primarily focus on satisfying community sport and recreation needs. These relationships come in many forms and are usually structured in accordance with the particulars of the project.

In the latter part of the 1990s, local governments were often reactive to proposals from private companies or not-for-profit groups that were interested in operating publicly owned assets. However, in the past decade municipalities have begun to be more proactive in the pursuit of alternate forms of facility provision and operations. This shift in thinking gave municipal decision makers opportunities to more strategically shape the nature of the arrangements and the methods through which they search for and secure an adequately equipped partner.

The following table illustrates various examples of relationships between municipalities and outside organizations. Input from municipal officials about the benefits, drawbacks and lessons learned from the projects are also presented.

Project and Location	Year	Project Description & Agreement Particulars	Project Contributions
Vaughan Sports Village Vaughan Ontario	2000	Quad-pad Arena and Outdoor Extreme Sports Park Purchase of Service Agreement between City and private arena manager - 130 prime time hours per week. City re-sells hours to user groups at a rate averaging \$30 to \$50 less than agreement price (requiring a subsidy).	City contributed land plus \$10M Private partner contributed \$250,000 equity plus \$10M project financing Facility managed by private partner
Tim Horton's Four Ice Centre Moncton New Brunswick	2002	Quad-pad Arena Complex Management contract involving a not-for-profit Trust and a private arena management company. City pre-purchases hours on behalf of ice user groups and resells hours at subsidized rates.	City provided land and guaranteed the project loan whereas the Trust secured the \$15M project financing

Project and Location	Year	Project Description & Agreement Particulars	Project Contributions
Mohawk 4 Ice Centre Hamilton, Ontario	2004	Quad-pad Arena Complex Management contract between the City and a private arena management company. City pre-purchases hours on behalf of ice user groups and resells hours at subsidized rates.	City provided land and guaranteed the project loan whereas the Trust secured the \$20M project financing
Western Fair Four Rinks London, Ontario	2001	Quad-pad Arena Complex Management contract between the City and a not-for-profit Association plus a purchase of Service Agreement – the City purchases 240 hours per week and resells time to user groups at subsidized rates.	City contributed \$5M plus \$12M loan to the project Western Fair provided the land
Oakville Soccer Centre Oakville, Ontario	2009	Indoor Soccer Facility Operating and license agreement between the Town and a not-for-profit Association.	Town contributed land \$1,075,000 plus issued a \$9.550M debenture to the project Association contributed \$300,000 towards the capital cost of the project
H2O Adventure and Fitness Centre Kelowna BC	2009	Indoor Water Park and Fitness Centre – the largest such publicly owned facility in Western Canada Management and Operating agreement with the Kelowna YMCA.	Municipality contributed land plus 100% of the \$46M capital to the project

Preferred P3 Models

If Greater Sudbury was to pursue a public-private partnership related to community recreation facilities, it is very likely that it would be a concession model. However, the most important aspect of developing a successful P3 is the identification of the risks, rewards and responsibilities of the participating partners and crafting a relationship that produces mutual benefit. The planning process should also involve determining the City's objectives, constraints and the necessary attributes of potential partners that are specifically related to the community arena under consideration. Therefore, the eventual model may become a hybrid of models, reflecting key elements of several approaches employed in other municipalities.

Private Investment

Input from representatives involved in several of the previous examples suggests that capital investment by outside interests is often beneficial to the success of the partnership. The investment not only demonstrates the partner's commitment to the undertaking, it also helps to share the risk if the project is less successful than anticipated. Furthermore, an equity stake in the development creates an

environment in which the partners can more easily agreed to profit sharing formulas and other important ingredients in a mutually beneficial relationship.

Public Asset Ownership

It is advisable that assets of a P3 project remain within public ownership. Not only would this approach be politically advantageous, but it would also produce cost advantages. Furthermore, public ownership of the project would likely spawn greater public approval of private involvement in the delivery of public leisure services.

Risk Transfer

Risk transfer is the key aspect of any P3 relationship. Depending upon the project and the partnership model, the municipality should attempt to allocate most of the commercial risk to the partner and assume risks only for elements for which there must be municipal control – such as controlling fee setting for ice rates applicable to community organizations. Valuation of risk sharing or risk avoidance should be a key aspect of a value for money analysis that would be undertaken as part of the due diligence process.

5.0 Implications Related to OHL-Size Arenas

This section examines the development and high-level operating implications of OHL-size arenas and the types of partnership arrangements that might be considered for a new stadium arena facility.

Greater Sudbury officials have expressed interest in learning more about the capital cost of constructing a new spectator arena capable of accommodating the City's OHL franchise as well as the implications of adopting a new management strategy for a redeveloped facility. In assembling relevant background material and information, the consultants reviewed pertinent previous studies that have been prepared on behalf of municipalities contemplating similar OHL facility redevelopments, examined operating agreements between municipalities and spectator facility management companies and interviewed individuals with specialized knowledge of the topic area. To an extent, the information that was obtained from certain documents and informants was provided in confidence and, therefore, the sources cannot be revealed.

The Ontario Hockey League (OHL)

With teams in Ontario and two northern US states, the OHL is central North America's Major Junior hockey league. Two other junior hockey leagues are the Western Hockey League (WHL) with teams in Manitoba, Saskatchewan, Alberta, British Columbia, Washington, and Oregon and the Quebec Major Junior Hockey League (QMJHL) with teams in Quebec, New Brunswick, Prince Edward Island, Nova Scotia, and Maine. In total, there are 54 teams affiliated with the three leagues.

There are currently 20 OHL franchises, of which seventeen operate in Ontario and three in the United States. Sudbury and Sault Ste. Marie are the two northernmost Ontario-based franchises. A team will also be relocating to the City of North Bay beginning in the 2013/14 season.

According to spectator attendance data available on various web sites, there has been a rise in OHL fan support over the past decade – seemingly as much as a 25% increase in average number of spectators per game. While per game attendance fluctuates between franchises, it seems that teams attracting the largest gates have two common traits – (1) they are successful on the ice and performing well in the standings; and (2) they are playing in new larger multi-purpose arena facilities.

New OHL Arenas

Over the past 15 years, ten new OHL arenas have been developed in Ontario and at least three other existing OHL venues have undergone renovations or revitalization. According to industry specialists, the size and design of each facility was developed to meet the needs of the incumbent OHL franchise and to accommodate non-hockey (entertainment) events that are critical to the financial success of each venue. While the hockey related elements in the new venues – ice size, players benches, dressing rooms, corporate boxes and club seating, team storage areas, etc. – reflect similar characteristics, the entertainment or event components – ticketing areas, concessions and concourse areas, lighting and sound systems, talent support amenities, etc. are quite varied. This is because the non-hockey elements must respond to local market conditions that reflect the competitive nature of the event and entertainment business. Therefore, in large part, the facilities have been designed and developed in response to local hockey and entertainment circumstances.

With the exception of the Barrie facility, all new arenas have hockey seating capacities of 5,000 or more. Event capacities are larger because of floor seating and in certain instances temporary (or overlay) seats that can be deployed on an as required basis. According to arena designers, facility owners are gaining a better grasp of the operating cost implications associated with sizeable “arena bowls” that are necessary to accommodate large numbers of permanent seats. Therefore, owners are becoming increasingly interested in new and creative ways of maximizing potential game or event attendance while containing the number of permanent seats – likely through the use of comfortable yet portable, retractable or temporary seating (such as with the proposed spectator facility in the City of St. Catharines, which is expected to have 4,500 fixed seats and an ability to expand to 5,300 seats).

Many of the new rinks also include a variety of features that have been added to either enhance the experience of arena patrons or to provide additional income streams through new areas of business (tenant rents). These types of features typically include restaurants, retail outlets, board and meeting rooms, advertising podiums, etc. Again, the addition of these features has generally been driven by local circumstances and market conditions.

Cost of Construction

The cost to design and construct a modern sports and entertainment facility has risen dramatically over the past two decades. Capital costs are driven by a number of factors including the size of the facility which is generally linked to the number of permanent seats, the quality of facility’s equipment, furniture and finishes as well as the number and variety of amenity components especially related to event capacity.

In almost every case, the spectator facilities are owned by municipalities that have lease arrangements with OHL teams. Local governments have used a variety of forms of facility development and delivery approaches including the more traditional design-build method or the relatively new P3 model. In certain instances, the OHL franchise was to a certain extent involved in arena design, development and funding process (e.g., London) while in others the design, construction and delivery of the facility was entirely the facility owner’s responsibility. We understand that a small portion of the new sport and entertainment venues have attracted private sector equity or financing assistance, however, the vast majority of the projects were entirely funded by the municipal facility owner. Furthermore, most often the operating and financial risk is completely absorbed by the municipality.

Location	Opened	# Seats	Delivery Model	Cost	Risk Allocation
Barrie	1996	4,200	Design-build	NA	City absorbs all risk
Sarnia	1998	5,000	P3	\$18.5M	Shared risk formula
Brampton	1998	5,000	P3	\$24.5M	City absorbs operating risk
Mississauga	1998	5,400	Design-build	\$22M	City absorbs all risk
Guelph	2000	5,100	P3	\$21.5M	Shared risk formula
London	2002	9,100	P3	\$47M	Shared risk formula
Sault Ste. Marie	2005	5,000	Design-build	\$25M	City absorbs all risk
Oshawa	2006	5,400	Design-build	\$45M	City absorbs all risk
Kingston	2008	5,200	Design-build	\$46.5	City absorbs all risk
Windsor	2008	6,500	Design-build	\$40M	City absorbs all risk

Source: Spectator Facility Feasibility Study, City of St. Catharines, Deloitte, 2011

As mentioned earlier, there has been a significant increase in the costs to develop a modern sport and entertainment facility. As evidenced above, capital costs range from a low of \$3,700 per permanent seat in 1998 to a high of almost \$9,000 per seat in 2008. We extrapolated the preceding capital cost information to calculate the likely development cost (per seat) in 2012 dollars. Based upon a conservative construction inflation rate of 5% per year, we estimate that a capital budget in the range of \$9,000 to \$11,000 per seat would be appropriate for the development of a new sport and entertainment facility with modern amenities and finishes inherent in recently completed OHL arena projects.

Spectator Arena Management Approaches

In Ontario, OHL arenas are either managed by the facility's municipal owner or by a private management company that is contracted to provide specified services. Municipal decision makers determine which approach is most appropriate for their facility based on a number of contributing factors:

- the municipality's experience in operating a spectator venue;
- the nature and complexity of the facility especially in terms of non ice related elements;
- the presence of community facilities adjacent to the spectator venue;
- the position of the venue within the inventory of the municipality's community facilities;
- the amount of community access expected of the spectator venue;
- the availability of municipal resources that can be deployed to manage the new facility;
- the availability of internal expertise – i.e., food and beverage, retail, advertising, etc.
- the degree of operating control that the municipality is willing to forego;
- the competitiveness of the local market – both hockey and entertainment events; and
- the availability of a capable and willing contract manager.

To the best of our knowledge, the vast majority of the new OHL arenas are operated by private sector contract managers. Several of the existing and older buildings are run by municipal staff (e.g., Owen Sound, Greater Sudbury, etc.). According to informants, the apparent trend towards contract management is because the new facilities are more sophisticated than the older buildings and the systems require levels of expertise not normally available from in-house municipal staff. Furthermore, the financial performance of a sport and entertainment facility is directly linked to its ability to secure non-OHL events such as concerts, tournaments, family days, trade shows and other community events. Professional facility managers are generally believed to have superior capabilities in promoting and securing these types of events.

The contractual relationships with professional facility managers usually involve a management fee plus incentive bonuses for achieving pre-established standards such as financial thresholds or the number of non-hockey event days. Basic management fees range from \$12,000 to \$20,000 per month and the structure of bonus packages are dependent on the size, nature and location of the facility.

There does not seem to be a discernible connection between the financial performance of the facility and the management approach selected by the municipality. We are aware of a number of privately managed facilities that require municipal subsidies that are equal to or greater than stadium facilities that are run by the municipality. But, it is impossible to draw definitive conclusions about the likely

financial consequences of management decisions because every facility is unique in terms of its size, quality and market conditions. Furthermore, municipalities have varying degrees of staff competencies and experience not to mention willingness to enter into a new line of business.

While there does not appear to be a single answer regarding the most appropriate management approach for sport and entertainment facilities, our research provides food for thought for municipalities contemplating future venue management decisions:

- Professional managers that operate a number of different spectator facilities are capable of leveraging their portfolio of contracts to the benefit of all venues. This benefit is primarily in the area of attracting entertainment events such as concerts and special performances that could visit a number of facilities managed by a common operator.
- Management companies often have access to technologies and systems that may not be readily available to municipalities – especially local governments that have little or no spectator venue operating experience. Furthermore, due to labour rate differentials, private management companies can generally provide a higher number of on-site staff that can be offered by a municipality for the same payroll budget.
- Management contracts can result in the transfer of certain operating risks to a private entity. However, this generally includes certain “municipal guarantees” that somewhat insulates the private partner from significant financial liability. For example, some deals include municipal guarantees on cash flows and or revenue contributions in the form of pre-purchased time or services. Consequently, the risk transfer is not without certain limitations.
- Operating issues sometimes arise in circumstances where professionally managed stadium arenas are adjacent to municipally operated community facilities. Generally these issues have to do with independent private sector staff working in close proximity to unionized municipal personnel. Wage rates, working flexibility, job responsibilities, work environments, etc. can create friction and become problematic if left unaddressed.
- Certain stadium arena contracts include a provision through which a certain amount of facility time – ice or otherwise – is reserved for community use. However, organizations are sometimes reluctant to utilize the reserved time because OHL games or practices and major events normally take precedence over community time. Therefore, groups have little certainty that their hours will not be “bumped” in favour of the high profile user. We are aware of one situation where the minor sports groups are using less than 20% of the 1,500 hours reserved community use.
- Contract language needs to specifically protect the municipal interests in terms of fee setting, branding, maintenance standards, the inter-relationship between the facility and municipal functions (such as attracting tourists), ownership of intellectual property, reporting structure, etc. Normally, municipalities solicit the support of contract and legal specialists with background and expertise in structuring like relationships and preparing the contract documentation.

OHL Arenas' Financial Performance

Most OHL arenas generate revenues from similar sources. However, the operating philosophy and the degree of priority placed on community use can play a significant role in the net financial performance of the facility.

In most cases, Ontario's spectator arenas were developed to accommodate OHL franchises. It is, therefore, not surprising that the lease agreement with the junior team is significant to the financial health of the facility. Typically, lease agreements involve the team's basic rent commitment to the municipality as well as a proportionate split (between the team and the facility owner) of key revenue sources including ticket sales, concession revenue, pouring rights, advertising, facility naming rights, parking revenue as well as suites and club seat revenue. We have reviewed several OHL leases and have concluded that while the sources of revenue are similar between facilities, there is very little in common between the financial arrangements between the municipalities and the franchises. The dissimilarity between deals is evidenced by the fact that the value of OHL arrangements to the facilities ranges from \$250,000 to \$500,000 per annum.

Over and above OHL revenue, facility managers typically generate revenue from non-hockey events and community use. In certain cases, the stadium arenas are adjacent to other community ice surfaces or dry land facilities that are entirely focused on meeting community user group requirements. Frequently, net revenues generated by these community facilities are used to offset subsidy requirements of the stadium arena.

As mentioned earlier, a municipality's community priorities can have a significant impact on the facility's revenue producing capacity. For example, municipally operated facilities sometimes place a higher priority on community use than commercial events. In so doing, these municipal operators forego higher potential revenue streams on the basis of guaranteed public access to the important municipal asset. This philosophy is less prevalent in stadium facilities that are operated by professional managers.