



SUDBURY COMMUNITY ARENA

Options Study February 11, 2015

PREPARED FOR



MJMA

macLennan jaunkalns miller architects

SUDBURY COMMUNITY ARENA

Executive Summary

In order to compare a 'new build' OHL arena with a 'refurbished' Sudbury Community Arena, an analysis of the existing area was made, and investigations conducted, to determine what new program areas ,needed to be added, and what internal elements of the existing arena, needed to be resolved operationally, in order to accommodate a 'typical' OHL program.

Significant area and operational deficits were identified with the existing facility.

It was established that the Arena must be able to continue in operation during the hockey season – construction and renovation would be limited from May to August. This also means that extensive demolition of the main arena space would not be possible.

Investigation into the Downtown Sudbury Plan was undertaken to realize possible areas where the Arena could expand.

A space planning diagram was created to show how the components could be added in sequence.

Shortcomings of the diagrams were identified.

Costing and schedule exercises were undertaken to look at order of magnitude costs and time-frames of refurbished vs. new build vs. upgrades and retrofits.

SUDBURY COMMUNITY ARENA

Overview

Mandate

Refurbishment Features

Program Area: Recently Built Typical OHL Arena

Program Area: Existing Program Area & Existing Conditions

Characteristics of a New Build

Characteristics of a Refurbished Program

Cost & Schedule of a Refurbished Program

Market Comparable Refurbishments

New Build Comparable

Comparison Summary

Retrofit option

Next Step

SUDBURY COMMUNITY ARENA

Mandate

Provide guidance and recommendations regarding refurbishing the Sudbury Community Arena, build new or retrofit

Provide sufficient detail to allow City Council to make an informed decision

Consider costs and values associated with the options



SUDBURY COMMUNITY ARENA

Refurbishment Features

Refurbished Features	
Typical Components of an OHL Arena	Show Requirements
6,000 seats (4,500 existing + 1500 new)	New Event Loading dock with direct access
Concourse	State-of-the-Art Mechanical and Electrical Systems inclusive of dehumidification system
Concessions & Merchandisers	Change Rooms
Increased circulation meeting all barrier free code requirements	24 Suite (18 existing, 6 new) located at east end of Arena
Limitations	Constraints
Accommodate seasonal use of Existing Facility (construction limited may to August)	Working within existing building Structure, Refrigeration, Ice Slab, Roof, Seating

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Typical New OHL Facility

Building Program Area range 160,000sf to 190,000sf

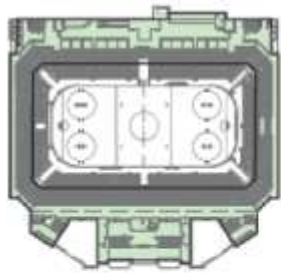


Medicine Hat AB
Regional Event Centre

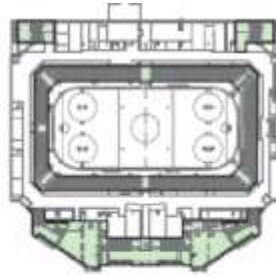
Programming function
Illustrated in color shown
In refurbishment Option

SUDBURY COMMUNITY ARENA

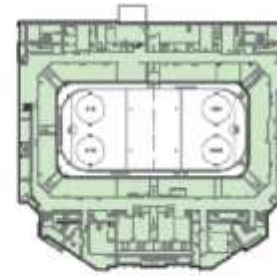
Existing Community Arena Program Area 103,000sf



UPPER PLAN
3192m²



GROUND PLAN
1903m²



BASEMENT PLAN
8877m²

- Constructed in 1951 (Retrofit ice-pad & life safety)
- Various upgrades since 2000 (Value: \$4.6M to 2012)
- 2013 BCR rating: Building is in marginally fair condition overall
- Maximum electrical power shows in 900 amps, three phase 208
- Event floor access has steep ramp with limited vehicular access
- Customers mix w/ht users, and service areas on basement level
- Ground floor provide ticketing and vertical circulation and accessibility
- Upper concourse services, club lounge, and 18 suites (addition)
- Ice surface: 200' x 85' (NHL standard)
- Open Roof Truss Structure System
- Ice Level to Underside Truss: 46' - 55'
- Ice Level to Score Clock: 30'
- Maximum seating: 4,500 (standing: 5,100)
- Accessibility throughout facility is limited (2 person lift)
- Services: washroom and concession on basement level

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Characteristics of Refurbished Program

Optimal Concourse / Bowl Configuration

Improved Ticketing

Good Access for Shows Add 68,500 sf New Building Area

All new Mechanical & Electrical Systems

Renovate 46,600 sf Existing Building Area

Completely Upgraded Change Rooms / Total Program Area 171,000 sf
Concessions



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Current Facility Programming

Sudbury Community Arena	2013 2012 2011						Reference - 2008 data	
User / Tenant	Annual Number of Event Days	Average Attendance	Annual Number of Event Days	Average Attendance	Annual Number of Event Days	Average Attendance	K-Rock Centre Kingston	Essar Centre Sault Ste Marie
Lead Tenant (OHL Team)	38	3,848	39	3,742	39	3,705	37	43
Concerts	11	3,372	6	4,014	8	3,097	19	9
Family Shows	2	1,410	2	2,150			14	13
Other Sports	1	4,000	1	2,312	4	1,298	5	17
Other Entertainment	3	1,936	6	2,960	3	2,041	9	7
Trade & Consumer Shows / Day Rentals	8	2,201	8	2,172	8	2,333	21	21
Total	63	213,544	62	209,426	62	199,244	105	110
							Source: Deloitte & Touch LLP	

- Stats on event programming not readily available
- There is no specific market benchmark for programming
- Each market is unique and competitive
- Business case is driven by hockey, concerts events and family shows - K Rock targets 80 main event days
- Operating cost factors into the attractiveness of community usage



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Characteristics of a Refurbished Program

To preserve optimal sight lines, extension to the bowl will result in areas toward the top of the bowl with dwindling seats, comprising 'feel' of the bowl as a sports venue..

Suites currently located at the west end of the ice. Suites would be arranged along north or south edges of ice. Current roof configuration does not allow for this.

Current proposal keeps the existing ice slab and refrigeration system. Probable replacement in 10 - 12 years vs. 20 - 30 years on a new build.

In order to keep the existing facility operational the new build and renovation would have to be done in phases.

To keep the existing building operational, total construction time 9 - 12 months longer than a new build. Space and access would be compromised throughout construction.

Compromise on ideal spatial configuration due to nature of additions required. New concourse requires an extension of the existing building; support structure will be required for the existing structure, compromising clear views of the ice from the concourse.

Supported on pile foundations. Extensive geotechnical investigation required to determine effect of new construction on existing structure.

Addition has potential to dwarf existing building in terms of size. Would not alter the primary façade. Would substantially alter the experience of the building to an arena user.

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Existing Condition



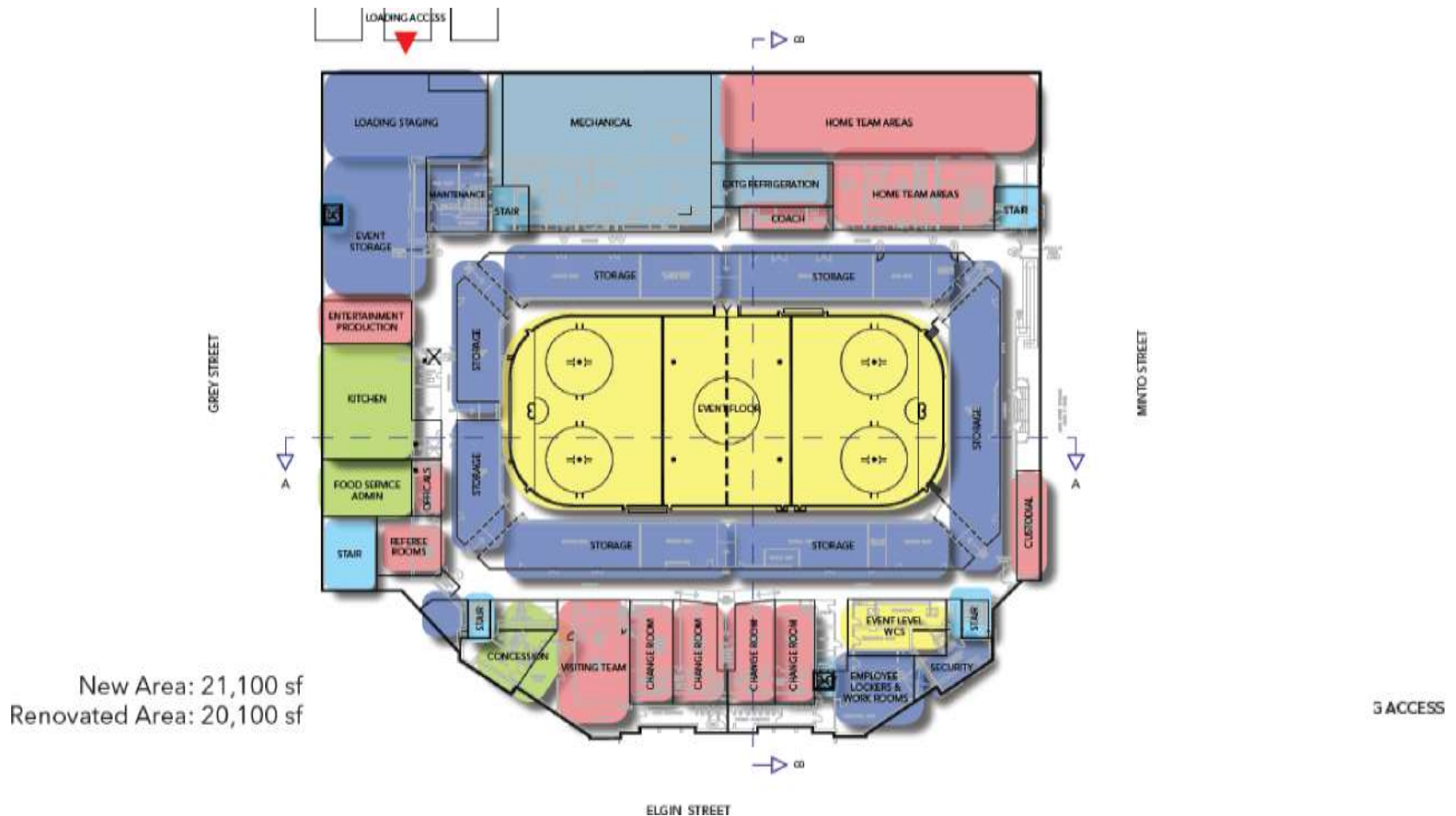
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Additional Area & Loading



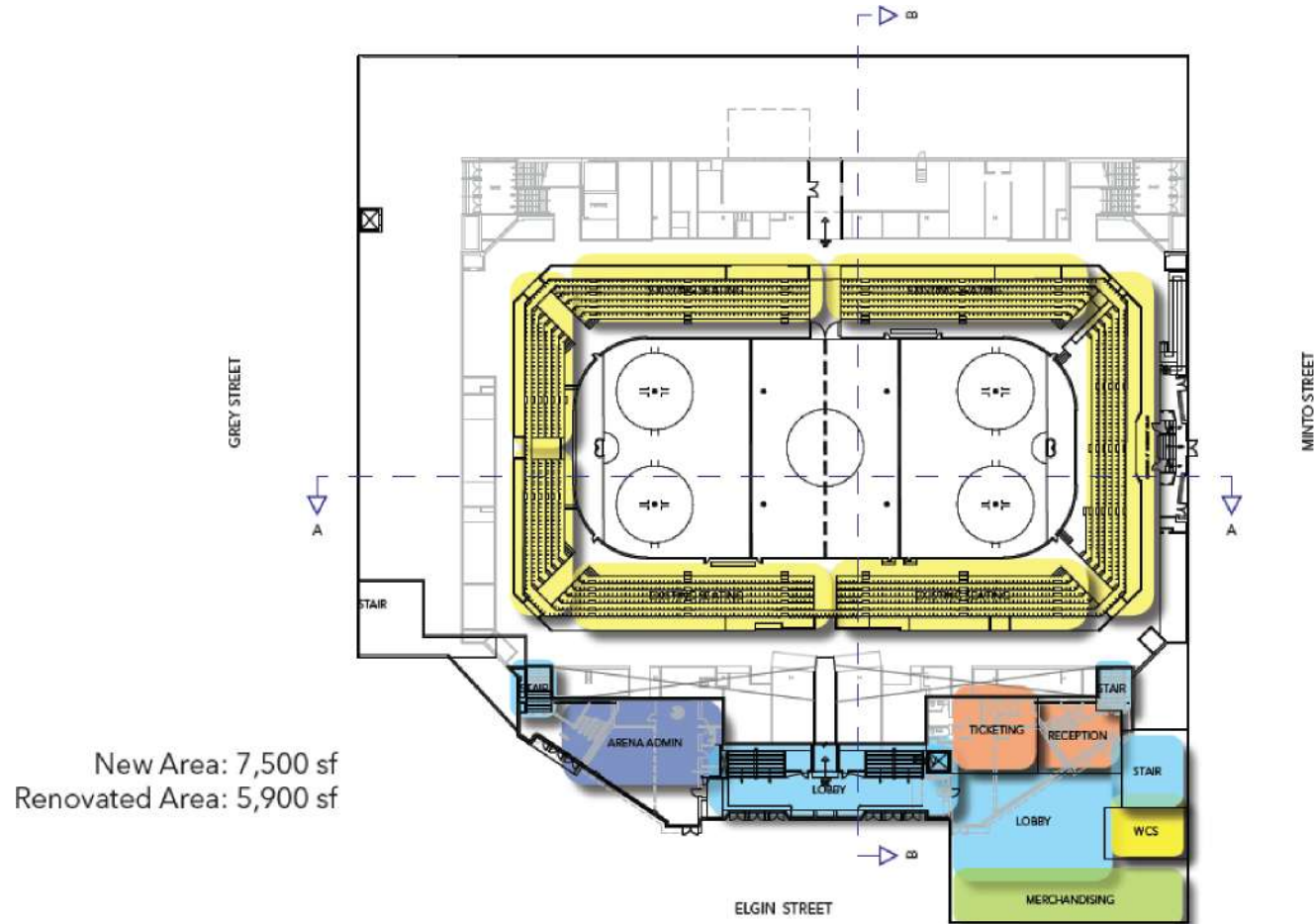
SUDBURY COMMUNITY ARENA

Proposed Refurbished Lower Level Plan

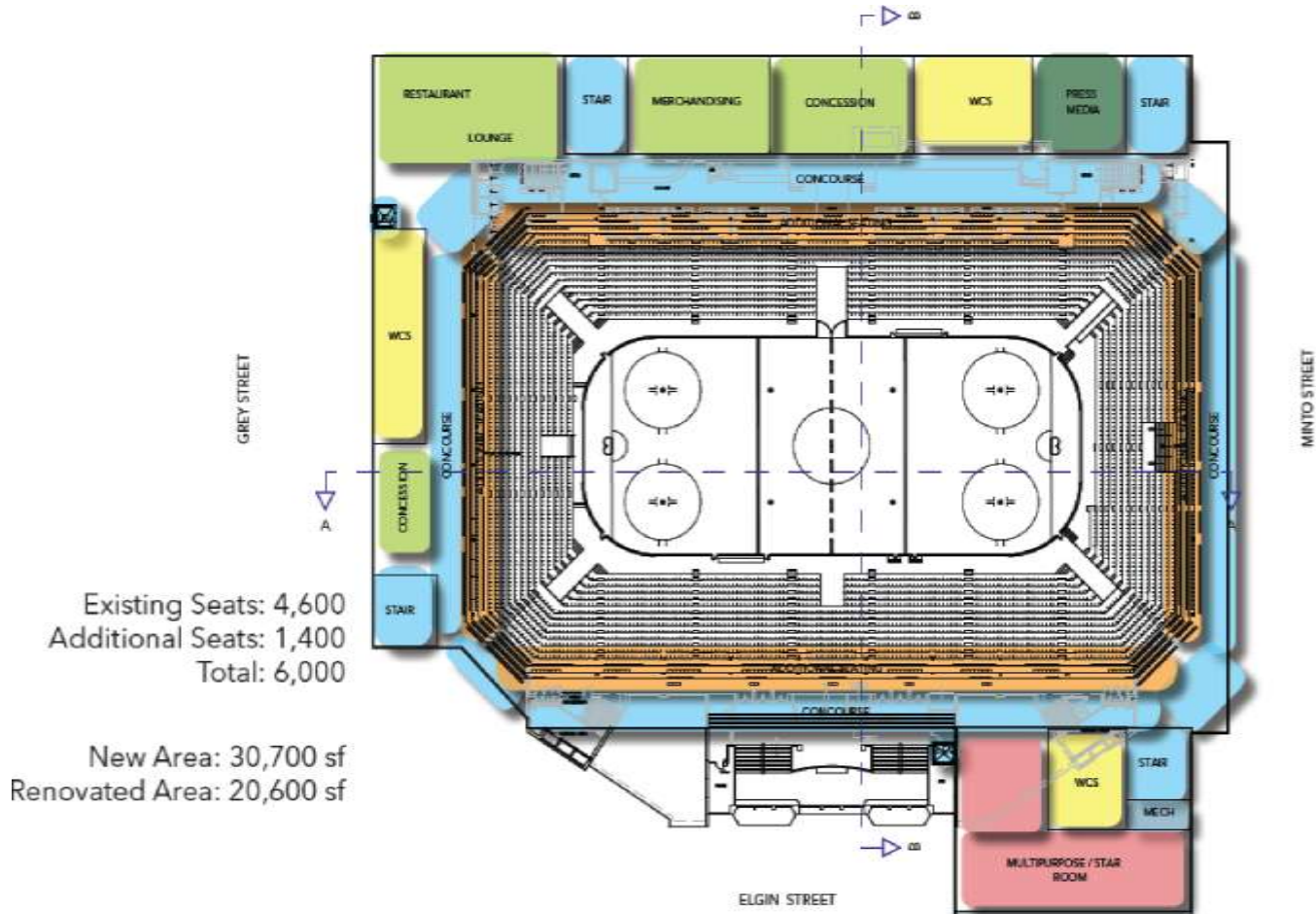


SUDBURY COMMUNITY ARENA

Proposed Refurbished Entry Level Plan

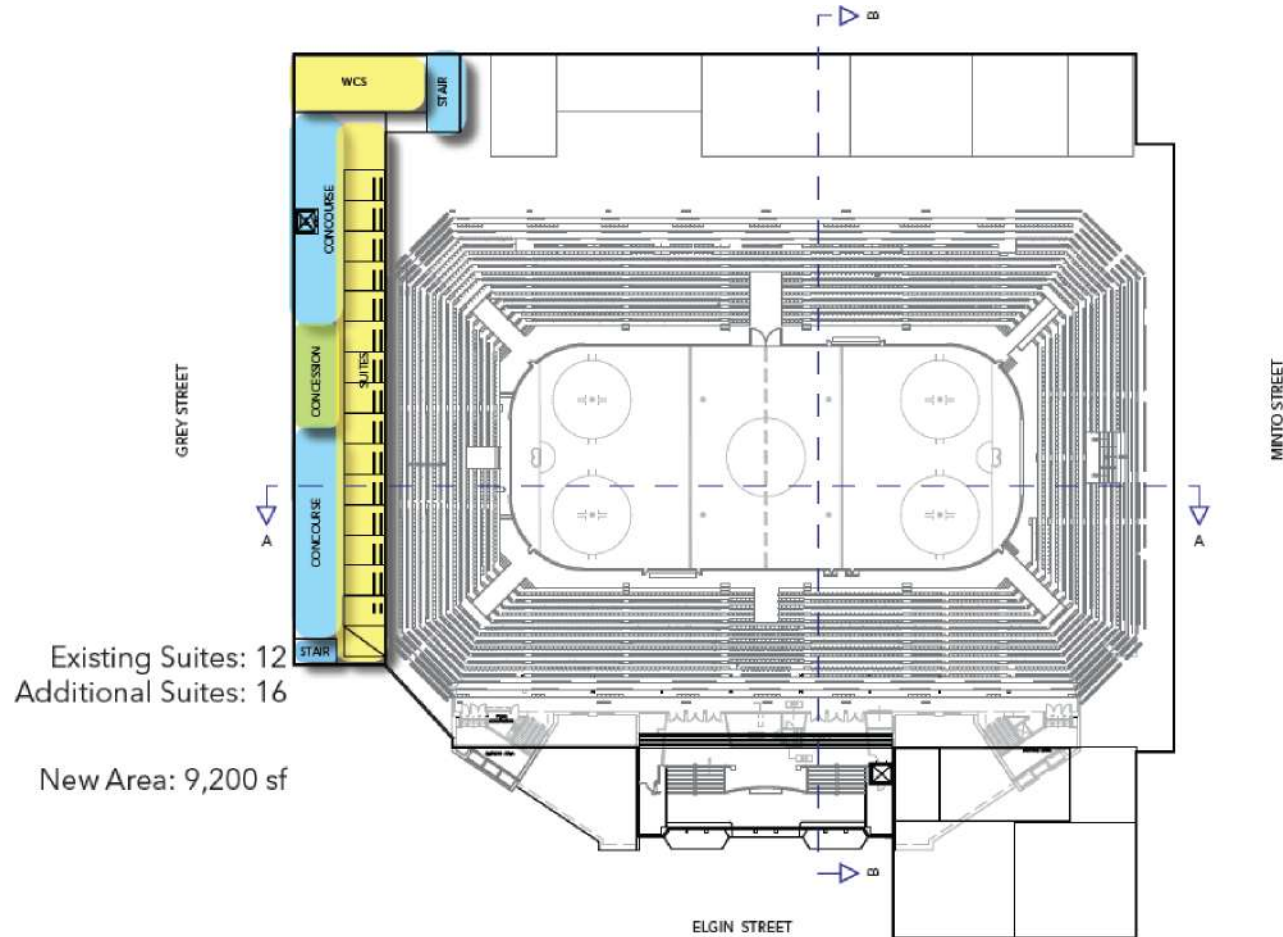


Proposed Refurbished Concourse Level Plan



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Proposed Refurbished Box Level Plan



SUDBURY COMMUNITY ARENA

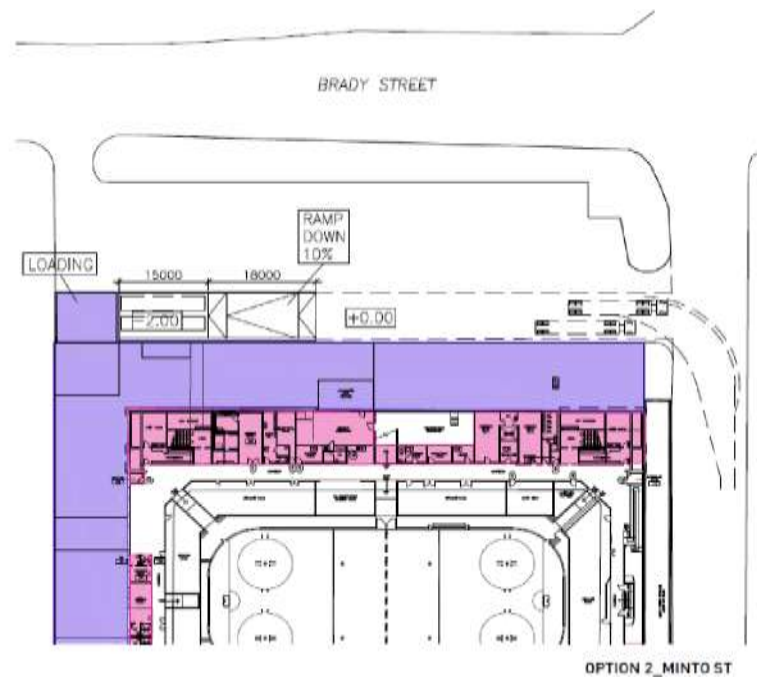
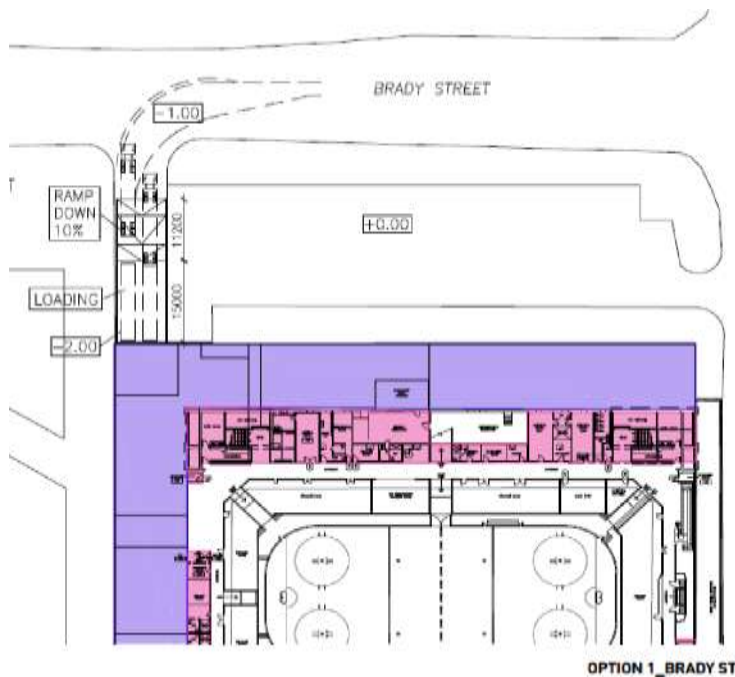
Proposed Refurbished Total Area

Total New	68,500 sf
Total Renovated	46,600 sf
Total Proposed Area	171,000 sf

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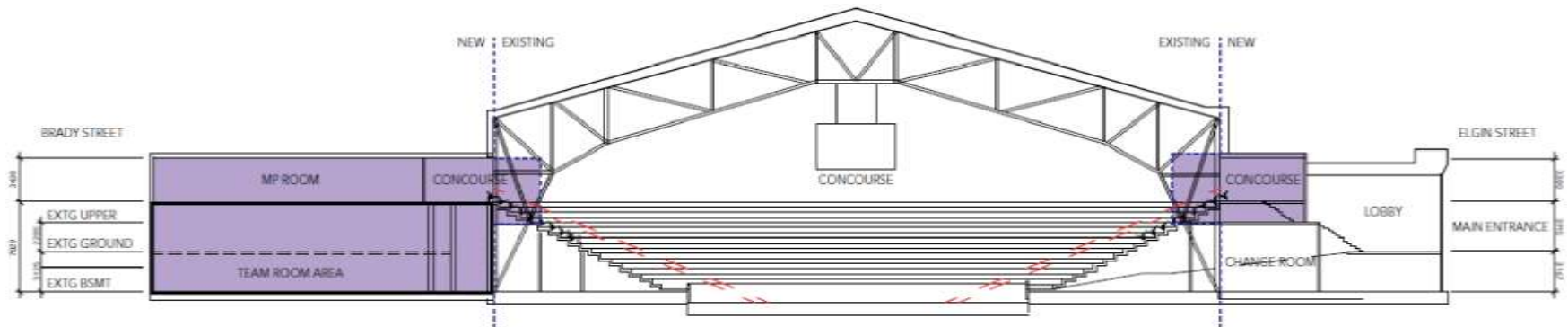
Proposed Refurbished Loading Area Options

OPTION 1- Brady St OPTION 2 – Minto St.

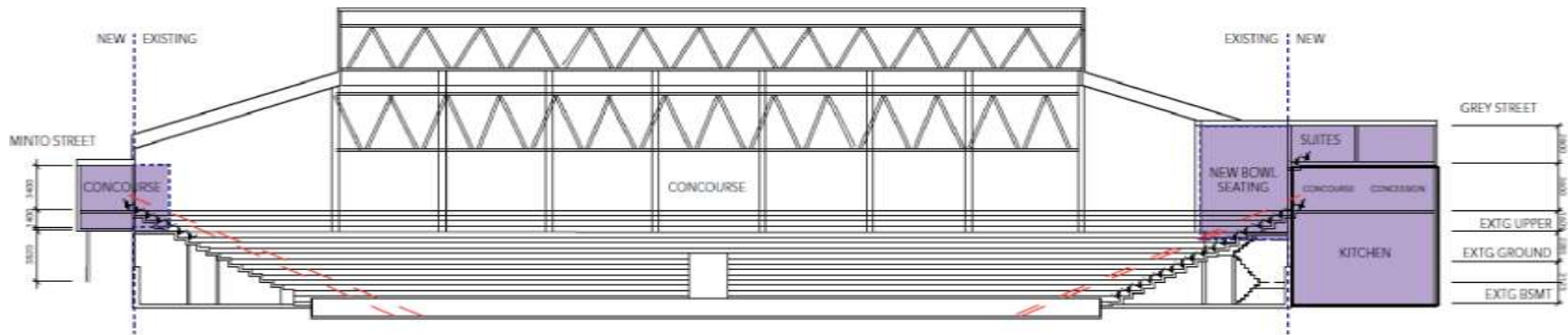


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Proposed Refurbished Sections



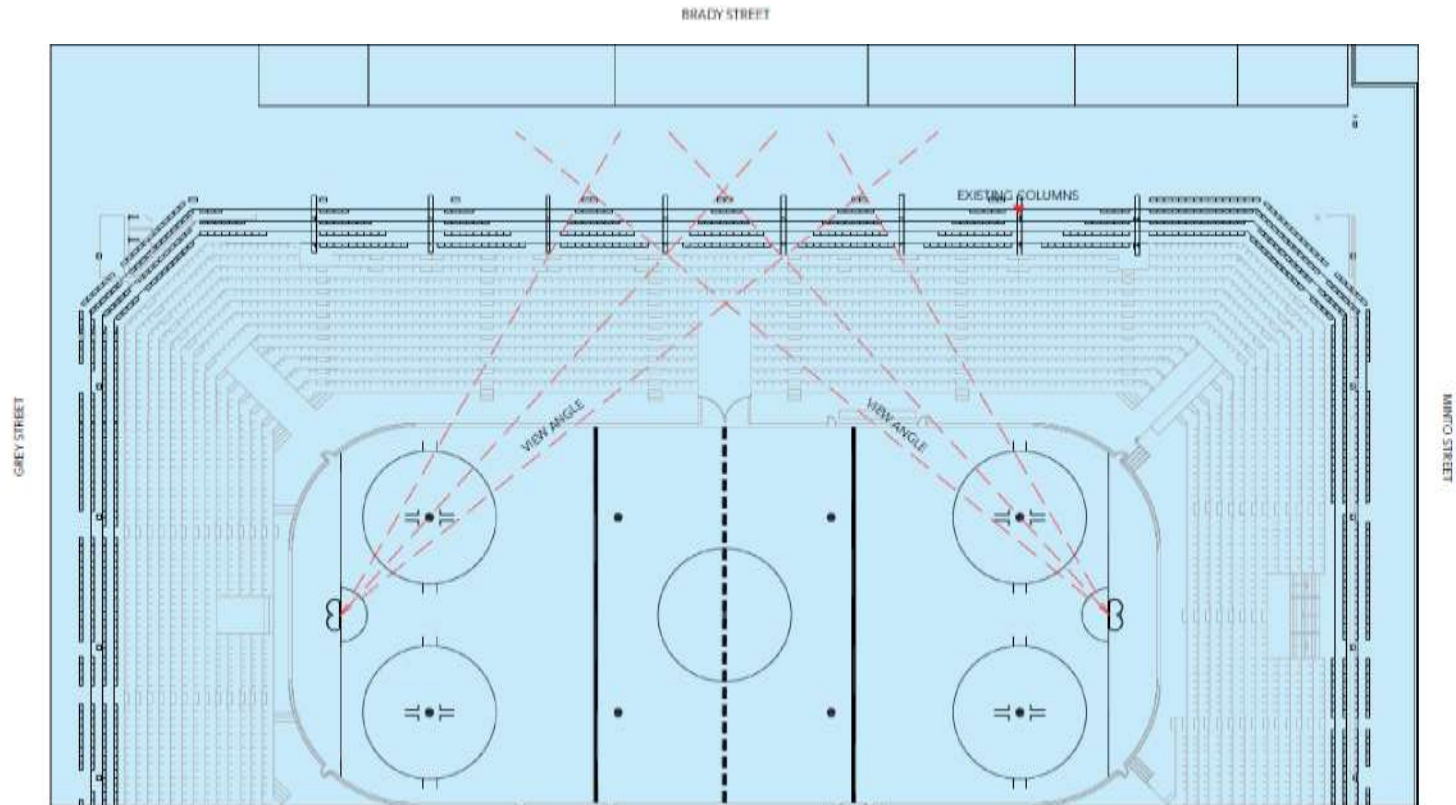
SECTION B-B: NORTH-SOUTH SECTION



SECTION A-A: EAST-WEST SECTION

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Proposed Refurbished Additional Bowl Seating



Additional Bowl Seating - Approx. 550 Seats would have obstructed views. These have been revised in the New Seat Total.

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Cost & Schedule - Refurbishment

The above program of proposed additions and renovations was priced at a high level to identify an order of magnitude cost and implementation schedule

The scheduled time of work was set to maintain the Wolves operations.

REFURBISHMENT - CM DELIVERY			GENERAL EXCLUSIONS
New Build 68,500sf / Renovation Space 46,600 sf	Range		All Development Fees
Construction	\$31,655,000	\$25,964,240	All Land Transfer Fees
Contingency Design & Construction & Escalation	\$6,840,000	\$7,200,000	Site Plan Approvals
Insurance GL only & Bonding	\$445,000	\$450,000	Removal of Hazardous and/or Contaminants (including abatement)
Construction Fee	<u>\$2,060,000</u>	<u>\$1,875,000</u>	Furnishing, Fittings & Equipment (FF&E)
Subtotal	\$41,000,000	\$35,489,240	3rd Party Commissioning Agent Fees
Professional Fees Design, PM, Studies, Legal other- @ 15%	\$6,150,000	\$6,150,000	Removal Underground Services
Inspection & Testing @1%	\$400,000	\$400,000	Premiums - Accelerating Schedule
Permits, Insurance, Utilities, Others @ 1.5%	<u>\$620,000</u>	<u>\$620,000</u>	Premiums – Single Source Products
Subtotal	\$48,170,000	\$42,659,240	
Project Contingency @4.0%	<u>\$1,830,000</u>	<u>\$1,706,370</u>	
Estimated Cost	\$50,000,000	\$44,365,610	

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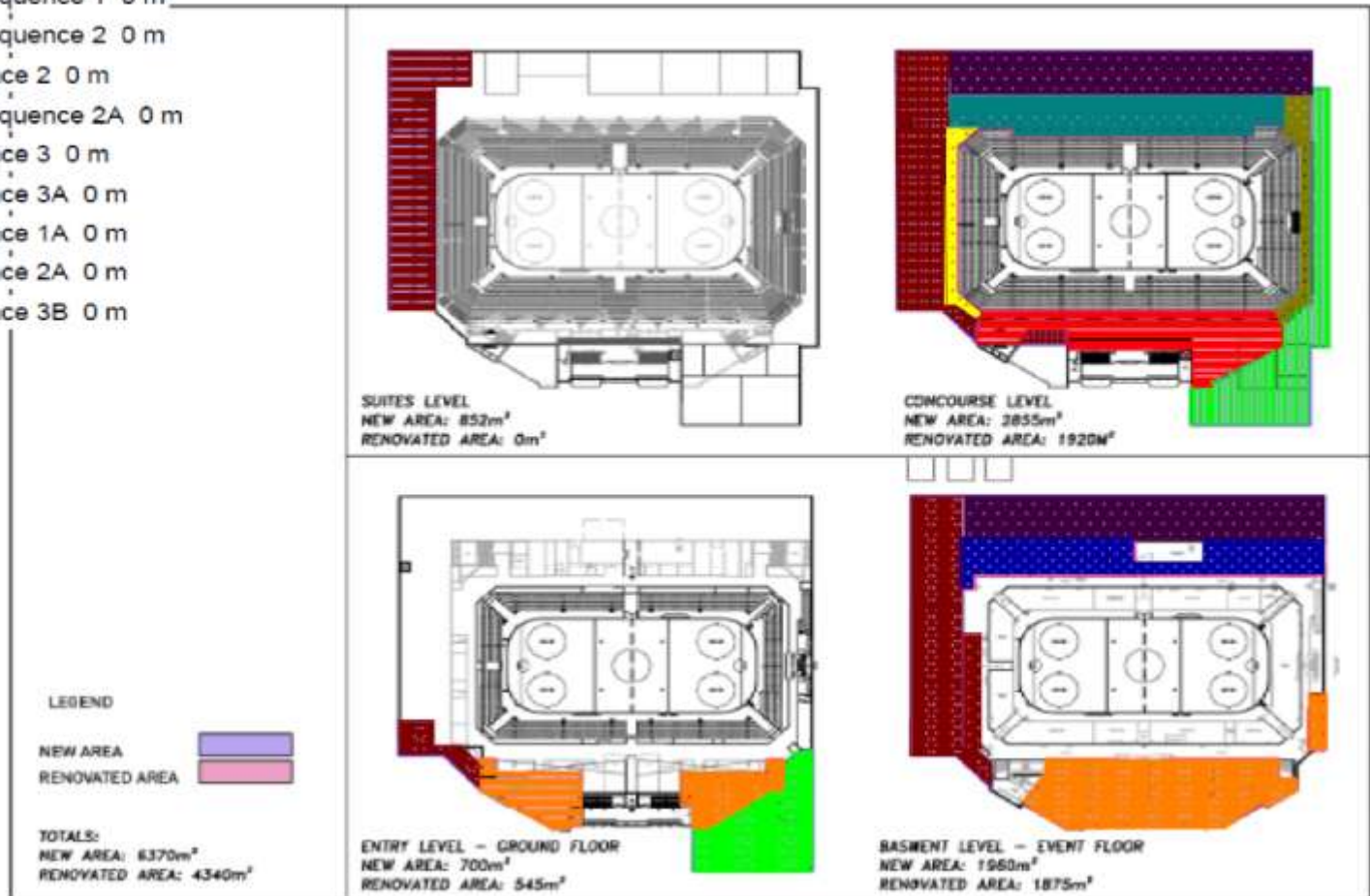
OHL Season Work Around

		2015												2016												2017												2018											
SUDBURY ARENA	MONTHS	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
SUDBURY ARENA																																																	
REFURBISHMENT PROGRAM																																																	
(CONSTRUCTION MANAGEMENT DELIVERY)																																																	
APPROVAL																																																	
PLANNING	5																																																
INVESTIGATIONS	7																																																
DESIGN	8																																																
PROCUREMENT	3																																																
CM - CONSTRUCTION																																																	
NEW BUILD SEQUENCE 1	5																																																
RENOVATION SEQUENCE 1	5																																																
RENOVATION SEQUENCE 1A (oast bleachers)	3																																																
NEW BUILD SEQUENCE 2 (M&E switch over Aug 31, 2017)	12																																																
RENOVATION SEQUENCE 2	6																																																
NEW BUILD SEQUENCE 2A	13																																																
RENOVATION SEQUENCE 3B (Suites unavailable for 16/17 season)	4																																																
RENOVATION SEQUENCE 3	4																																																
RENOVATION SEQUENCE 3A	4																																																
NEW MECHANICAL & ELECTRICAL INSTALLATION	29																																																
REMOVE / DISMANTLE EXISTING MECHANICAL & ELECTRICAL	12																																																
FINAL COMMISSIONING	4																																																
PROJECT CLOSE OUT	3																																																

SUDBURY COMMUNITY ARENA

Sequence Program

- Reno Sequence 1 0 m
- New Build Sequence 1 0 m
- New Build Sequence 2 0 m
- Reno Sequence 2 0 m
- New Build Sequence 2A 0 m
- Reno Sequence 3 0 m
- Reno Sequence 3A 0 m
- Reno Sequence 1A 0 m
- Reno Sequence 2A 0 m
- Reno Sequence 3B 0 m



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Market Comparable Refurbishments

North Bay Memorial Gardens

Built in 1955	Super Suite - 10 open air rooms overlooking the ice surface - 60 capacity
Ice Surface - 200' x 85	Spectator Capacity - 4,250 for hockey events & 5,000 for concerts

\$16.5M Refurbishment - Completed 2013

Additional 140 standing-room locations	New seats, including the addition of 570 seats in south end and 180 rink-side seats
Installation of an HVAC system	An expanded entrance between the existing access doors and the north end
A reconfigured ice surface measuring 200' x 85'	10 suites and a media box on the west side
A Battalion dressing-room complex incorporating two levels that will house a fitness rooms, study area, and lounge; team administrative; video boards above centre ice	A new elevator and common meeting rooms

Risks

Mitigate Scope Creep, Contain Cost, Maintain Schedule

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Market Comparable Refurbishments

Peterborough Memorial Centre	
Built in 1956	24 luxury box suites
Ice Surface - 200' x 85	Spectator Capacity - 3,729 (4,329 with standing room)

\$13.3M Refurbishment - Completed 2003	
Creation of New Modern Concession Areas	Group Sales Viewing Area
24 Luxury Suites	Licensed Restaurant
Club Seating Section	Installation of Air Conditioning
New Seats Throughout	New Rink Boards
New Sound System and Time Clock	Renovated Box Office

Risks
Mitigate Scope Creep, Contain Cost, Maintain Schedule

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Market Comparable Refurbishments

Kitchener Memorial Auditorium Complex

Built in 1951	26 luxury suites
Ice Surface - 200' x 85	Spectator Capacity – 7,234 for hockey events & 8,462 for concerts

\$12.0M Refurbishment - Completed 2012

7 stage construction program maintaining the OHL schedule.	Concessions and washrooms
Expanded seating (968)	Dressing room
New concourses	Medical and training facilities
Media areas	New heating and cooling system to improve fan comfort and ice quality.

Risks

Contain Scope, Contain Cost, Maintain Schedule

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New Build Comparable

	St. Catharines Meridian Centre (2014)	Medicine Hat Regional Event Centre (2015)
Building Program	160,000 sf	194,000 sf
Game Seats	5,300 seats (4,500 fixed, 800 retractable)	5,890 seats
Concert Seating	6,000 seating	7,055 seating
Suites	25	22
Dressing Rooms	OHL Home & Visitors Dressing Rooms (tenant IceDogs)	WHL Home & Visiting Dressing Rooms (tenant Tigers)
Ceiling Height	52ft (current entertainment standard)	52ft (current entertainment standard)
Stalls	60 stalls on site & 4 bus parking (links to city owned parking)	1,400 parking spaces & 6 bus parking
Project Delivery	Design / Build Project Management & Advocacy	Design / Build Project Management & Advocacy
Schedule	Duration: 32 Months PM Awarded: Feb. 2012 Occupancy: Oct. 2014	Duration: 42 Months PM Awarded: Feb. 2012 Occupancy (forecast): Aug. 2015
Cost	Design / Construction: \$47.5M (Building \$46.5M + Site \$1.0M) Other: \$4.5M (FFE, Contingencies, Other) Total Capital Budget: \$52.0M (\$8,775 per seat building cost)	Design / Construction: \$61.4M (Building \$56.4M + Site \$5.0M) Other: \$13.4M (FFE, Contingencies, Other) Total Capital Budget: \$74.9M (\$9,575 per seat building cost)
Funding Source	Capital Reserves (\$46.0M) Grants (\$1.0M) Fundraising (\$5.0M)	Capital Reserves (\$62.5M) Grants (\$2.4M) Fundraising (\$10.0M)

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Retrofit Option

Selected Upgrades to the existing Community Arena 10 year time horizon

1. Accessibility – Improvements & new elevator/lift	\$630,000	CCI - BCA 2013 estimate – elevator is assumed to be external to the existing structure
1. Washrooms additions and upgrade	\$1,350,000	Scope includes adding 3,900sf or 15% of existing space to the service function. Cost does not include infrastructure work for new sanitary system.
1. Install a dehumidification system	\$750,000	Cost is an based on a recent City estimate for the installation
1. New backup generator system (life & safety system)	\$275,000	Existing electrical distribution system has been upgraded over time – may be difficult to tie-in
1. Enhancements/improvements to loading / unloading/docking area for events	\$3,000,000	A new exterior ramp to event level would be installed – newly created staging and transfer areas would displace existing functional areas
1. Building Condition Report CCI (2013)		Includes internal building system and building envelop areas. Items identified electrical, mechanical, plumbing system, refrigeration plan, repairs and replace items, life / safety, roof, exterior walls and grounds.
a. Short term 1 to 5 years	\$1,745,000	
a. Long term 6 to 10 years	\$1,450,000	
Subtotal	\$9,200,000	The opinion of cost provided is a desktop estimate based on the cost to perform similar work and on estimates provided by CCI in their 2013 BCR 2013.
Design, PM and contingencies (at 30%)	\$2,760,000	
Total	\$11,960,000	

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Comparison Summary

REFURBISHED OPTION	RETROFIT OPTION	NEW BUILD OPTION
Approx. \$50M Project > 5 years (Phased Construction 48 months)	Approx. \$12M Over 10 years	Approx. \$55M to \$65M Project > 2 1/2 to 3 1/2 years (Construction 24 - 30 months)
Significant Cost & Schedule Risk Construction Management	Moderate Cost Risk Construction Management & Design Bid Build	Normal Construction Cost and Schedule Risk Design Bid Build or Design - Build (Comparables) or Public Private Partnership (PPP) (DBO-F-M)
New Construction Envelop Existing Building Envelop, Seating Structure & Refrigeration plant & ice pad	Building Condition Report <ul style="list-style-type: none">• Life Safety• Capital Replacement• Accessibility	PPP - Project Screening Required Value For Money Analysis (Go-No Go) Planning & Procurement 12 to 18 months lead time Construction same as Design - Build
Cost / Benefit Value Proposition Difficult to Justify	Remains primarily an Arena with limited event opportunity growth	Provides new opportunities for events – facility designed as multi-purpose

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Next Step

1. Pursuant to a Refurbishment Option > validate assumption and attempt to mitigate risk through site investigations

1. Pursuant to a New Build options > assess project delivery methodology > screen the proposed new build for a PPP

1. Pursuant to a Retrofit Option > develop a workplan based on priorities

For more information regarding this presentation please contact:

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