

# **SUDBURY COMMUNITY ARENA**

# RENOVATION & EXPANSION PROGRAM COST PLAN R1

May 24, 2021





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#### **DOCUMENT CONTROL**

Report Title	Sudbury Community Arer	Sudbury Community Arena								
Doc ID	Renovation & Expansion	– Program Cost Plan	Project Ref	2102003						
File Path	B_Projects - Documents\	.CC_CP\2102003 - Sudl	oury Pricing Ex	ercisel\500-D	)eliverables					
Client	lan McKay Architect Inc.									
Rev	Date	Details	Author	Verifier	Approver					
1	May 24, 2021	Program Cost Plan	SL	SK	SK					







#### 1 BASIS OF REVIEW

#### 1.1 **BASELINE DOCUMENTATION**

Our cost plan report is based on the following documents:

- 1414 Sudbury Arena EXTG received April 26<sup>th</sup>, 2021
- 2021 04 26 400 Plans with Notes received April 26<sup>th</sup>, 2021
- 2021\_04\_26\_400 Sections with Notes received April 26<sup>th</sup>, 2021
- 2021\_04\_30\_400 Revised Plans with Outdated Concourse received April 30<sup>th</sup>, 2021
- 2021\_04\_30\_400 Revised Sections with Notes received April 30<sup>th</sup>, 2021
- 2021 04 30 400 Plan for Concert Seating received April 30<sup>th</sup>, 2021
- 2021\_05\_04\_400 Plans received May 4<sup>th</sup>, 2021

#### 1.2 **ASSUMPTIONS AND CLARIFICATIONS**

Our cost plan report is based on the following assumptions and clarifications:

- Existing refrigeration plant will be removed and replaced
- Existing roofing to main roof will be removed and replaced, main roof structure will remain
- Low roofs will be demolished
- All slabs on grade, including rink slab, will be removed and replaced
- Majority of existing concrete seating bowl will remain and a new light weight steel seating system will be built on top of it
- 19,482 SF is included in the estimate for sitework development as a placeholder
- Existing chiller will be reused

#### 1.3 OTHER COSTS NOT INCLUDED IN THIS ESTIMATE

The following additional costs have been identified as being required to complete this project, and are not included in this cost plan report:

- Project construction contingency; required to accommodate change orders, unforeseen conditions, etc.
- Project soft costs design and project management fees, taxes and uses fees levied by local jurisdictions and the like
- Escalation





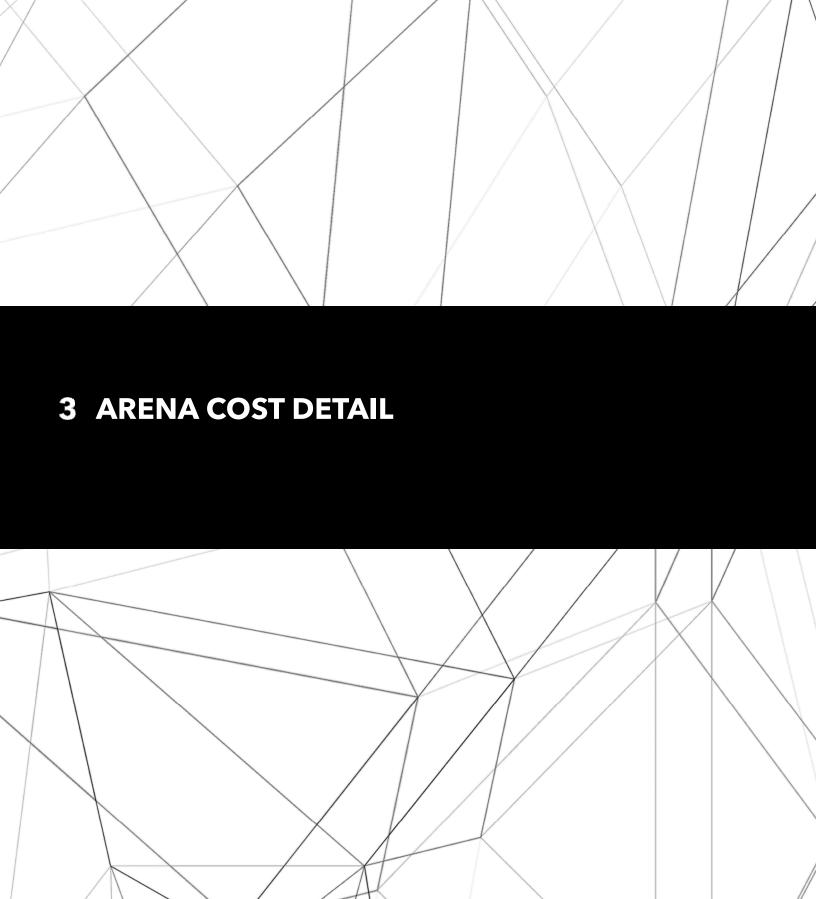




**Project:** Sudbury Community Arena Renovation **Details:** Program Estimate in CAN - R1

**Building:** Sudbury Community Arena Renovation Program

Code	Description	Quantity	Unit	Rate	Total
	SUDBURY COMMUNITY ARENA RENOVATION & EXPANSION				
	PROGRAM COST PLAN				
	ARENA	191,857	SF	534.98	102,639,993
	TOTAL BUILDING	191,857	SF	534.98	102,639,993
	SITE	19,482	SF	118.46	2,307,865
	TOTAL SITE				<u>2,307,865</u>
	TOTAL				104,947,858





**Project:** Sudbury Community Arena Renovation **Details:** Program Estimate in CAN - R1

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Code	Desc	ription	Quantity	Unit	Rate	Total
ARENA	1					
	ARENA					
	AREAS:					
	Event Level		95,516	SF		
	Entrance Level		12,439	SF		
	Concourse Level		44,061	SF		
	Suite Level		12,583	SF		
	Seating Bowl		27,258	SF		
	TOTAL GROSS FLOOR AREA		191,857	SF		
	CONTROL QUANTITIES:					
	Number of Stories (x1,000)		4	EA		
	Reporting Floor Area		191,857	SF		
	Gross Wall Area		55,001	SF		
	Finished Wall Area		44,008	SF		
	Windows or Glazing		10,993	SF		
	Roof Area - Flat - including Decks		59,618	SF		
	Roof Area - Sloping		53,843	SF		
	Roof Area - Total		113,461	SF		
	Elevators (x10,000)		6	EA		
A10	FOUNDATIONS		191,857	SF	25.08	4,812,679
A20	BASEMENT CONSTRUCTION		191,857	SF	4.07	781,448
	SUBSTRUCTURE		191,857	SF	29.16	<u>5,594,127</u>
B10	SUPERSTRUCTURE		191,857	SF	50.30	9,650,888
B20	EXTERIOR ENCLOSURE		191,857	SF	25.94	4,976,878
B30	ROOFING		191,857	SF	22.46	4,309,989
	SHELL		191,857	SF	98.71	18,937,755
C10	INTERIOR CONSTRUCTION		191,857	SF	64.74	12,420,478
C20	STAIRWAYS		191,857	SF	1.75	335,000
C30	INTERIOR FINISHES		191,857	SF	22.99	4,410,479
	INTERIORS		191,857	SF	89.47	<u>17,165,957</u>
D10	CONVEYING SYSTEMS		191,857	SF	2.35	450,000
D20	PLUMBING SYSTEMS		191,857	SF	19.57	3,755,600



**Project:** Sudbury Community Arena Renovation **Details:** Program Estimate in CAN - R1

**Building:** Sudbury Community Arena Renovation Program

Code	Description	Quantity	Unit	Rate	Total
ARENA					(Continued)
D30	HEATING, VENTILATION & AIR CONDITIONING	191,857	SF	41.81	8,020,600
D40	FIRE PROTECTION	191,857	SF	4.80	920,300
D50	ELECTRICAL LIGHTING, POWER & COMMUNICATIONS	191,857	SF	54.04	10,368,000
	SERVICES	191,857	SF	122.56	23,514,500
E10	EQUIPMENT	191,857	SF	12.60	2,416,986
E20	FURNISHINGS	191,857	SF	12.83	2,461,999
	EQUIPMENT & FURNISHINGS	191,857	SF	25.43	4,878,985
F10	SPECIAL CONSTRUCTION	191,857	SF	0.26	50,000
F20	SELECTIVE DEMOLITION	191,857	SF	22.23	4,265,246
	SPECIAL CONSTRUCTION & DEMOLITION	191,857	SF	22.49	<u>4,315,246</u>
	NET BUILDING, DEMOLITION COST	191,857	SF	387.82	74,406,569
Z10	GENERAL CONDITIONS - 12%	1	LS	8,928,788.28	8,928,788
Z11	BONDING - 2%	1	LS	1,666,707.15	1,666,707
Z12	OVERHEAD AND PROFIT - 5%	1	LS	4,250,103.22	4,250,103
Z13	ESTIMATING CONTINGENCY - 15%	1	LS	13,387,825.15	13,387,825
Z14	ESCALATION - EXCLUDED				
	RECOMMENDED BUDGET - BUILDING	191,857	SF	534.98	102,639,993



**Project:** Sudbury Community Arena Renovation **Details:** Program Estimate in CAN - R1

**Building:** Sudbury Community Arena Renovation Program

Cod	e Description	Quantity	Unit	Rate	Total
	ARENA				
<u>A10</u>	<u>FOUNDATIONS</u>				
A1010	Standard Foundations	105,428	SF	14.08	1,484,820
	Allow for miscellaneous adjustments to existing foundations	68,374	SF	10.00	683,740
	Allow for standard foundation to new expansion area - event level	27,143	SF	20.00	542,860
	Allow for standard foundation to new expansion area - entrance level	9,911	SF	20.00	198,220
	Elevator pit	2	EA	30,000.00	60,000
A1020	Special Foundations	19,656	SF	50.00	982,800
	Allow for special foundations to north side of new expanded area	19,656	SF	50.00	982,800
A1030	Slab On Grade	89,169	SF	26.30	2,345,059
	Slab on grade to loading dock, assume 6" thick, including reinforcement, concrete, and formwork	9,842	SF	9.00	88,578
	Slab on grade, assume 4" thick, including reinforcement, concrete, and formwork	79,327	SF	8.00	634,616
	New rink slab, ice plant and piping included in HVAC	16,259	SF	70.00	1,138,130
	Vapor barrier to SOG	89,169	SF	4.00	356,676
	Premium on ramp slab	2,151	SF	30.00	64,530
	4" Granular base	1,059	CY	31.00	32,829
	Tie new and existing slab on grade	594	LF	50.00	29,700
	<u>FOUNDATIONS</u>				<u>4,812,679</u>
<u>A20</u>	BASEMENT CONSTRUCTION				
A2010	Basement Excavation	105,428	SF	1.42	<u>150,006</u>
	Excavation for new loading dock area	474	CY	23.00	10,902
	Excavation for new SOG	6,048	CY	23.00	139,104
A2020	Basement Walls	4,223	SF	149.52	<u>631,442</u>
	Retaining wall	4,223	SF	60.00	253,380
	Rigid insulation to retaining wall	4,223	SF	4.00	16,892
	Waterproofing to retaining wall	4,223	SF	15.00	63,345
	Shoring	3,135	SF	95.00	297,825
	BASEMENT CONSTRUCTION				<u>781,448</u>
<u>B10</u>	SUPERSTRUCTURE				
B1010	Floor Construction	86,430	SF	81.74	7,065,135
	Allow for miscellaneous repair to existing floor structure	20,972	SF	50.00	1,048,600
	New suspended floor slab, including columns, beams, structural steels, etc.	38,200	SF	80.00	3,056,000



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Cod	e Description	Quantity	Unit	Rate	Total
	ARENA				(Continued)
<u>B10</u>	SUPERSTRUCTURE				(Continued)
	Extra over for stepped slab at suite level	1,341	SF	50.00	67,050
	New light weight steel seating bowl	27,258	SF	75.00	2,044,350
	Tie new and existing suspended slab	726	LF	50.00	36,300
	Precast concrete vomitory walls	1	EA	70,000.00	70,000
	Allow for miscellaneous metals	191,857	SF	1.85	354,935
	New catwalk decking and structure	3,879	SF	75.00	290,925
	Railings to new catwalk system	1,293	LF	75.00	96,975
B1020	Roof Construction	113,461	SF	22.79	<u>2,585,753</u>
	Steel framed roof with metal deck	59,618	SF	35.00	2,086,630
	Allow for miscellaneous repair to existing main roof structure	53,843	SF	7.50	403,823
	Connect new and existing roof structure	953	LF	100.00	95,300
	SUPERSTRUCTURE				9,650,888
<u>B20</u>	EXTERIOR ENCLOSURE				
B2010	Exterior Walls	44,008	SF	74.76	3,289,888
	Brick base to administration and commercial spaces	562	SF	35.00	19,670
	Brick veneer	16,414	SF	25.00	410,350
	Insulated metal panels	15,616	SF	65.00	1,015,040
	Insulated air space to exterior wall, including vapor and air barrier	32,030	SF	20.00	640,600
	Concrete block to interior face of exterior wall, 8" thick, painted	32,030	SF	35.00	1,121,050
	Metal panel to soffit	2,734	SF	10.00	27,340
	Allow for repainting to existing exterior wall around high roof	11,416	SF	2.00	22,832
	Allow for miscellaneous sealant	44,008	SF	0.75	33,006
B2020	Exterior Windows	10,993	SF	128.94	1,417,490
	Curtain wall	3,764	SF	130.00	489,320
	Insulated curtain wall	2,023	SF	150.00	303,450
	Insulated storefront glazing	5,206	SF	120.00	624,720
B2030	Exterior Doors	44,008	SF	6.12	<u>269,500</u>
	Double flush glass door to lobby entrance, exit stair, commercial and administration spaces	17	PAIR	8,000.00	136,000
	Single flush hollow metal door to BOH spaces, allow	4	EA	3,000.00	12,000
	Door operator	17	EA	4,500.00	76,500



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Cod	e Description	Quantity	Unit	Rate	Total
	ARENA				(Continued)
<u>B20</u>	EXTERIOR ENCLOSURE				(Continued)
	Allow for overhead coiling door at loading dock	1	LS	45,000.00	45,000
	EXTERIOR ENCLOSURE				4,976,878
<u>B30</u>	ROOFING				
B3010	Roof Coverings	113,461	SF	37.99	4,309,989
	Membrane roofing with insulation to low roof	59,618	SF	20.00	1,192,360
	Standing seam metal roof with insulation to main roof	53,843	SF	50.00	2,692,150
	Allow for roof drainage system, gutters, downspouts, etc.	113,461	SF	0.45	51,057
	Allow for miscellaneous roof flashing	113,461	SF	2.00	226,922
	Allow for fall arrest system	113,461	SF	1.30	147,499
	ROOFING				4,309,989
<u>C10</u>	INTERIOR CONSTRUCTION				
C1010	<u>Partitions</u>	181,060	SF	51.80	9,379,000
	CMU Partitions	160,162	SF	50.00	8,008,100
	Drywall Partitions	20,898	SF	25.00	522,450
	Rolling shutter screen to private suite	1,420	SF	200.00	284,000
	Open-grille type side-retracting security screen to Commercial, 8' high	1	LS	70,000.00	70,000
	Rolling shutter grille to concessions	2,401	SF	150.00	360,150
	Allow for glazed partition	191,857	SF	0.70	134,300
C1020	Interior Doors	191,857	SF	2.80	<u>537,200</u>
01020	Allow for interior doors	191,857		2.80	537,200
	Allow for interior doors	101,001	Oi	2.00	307,200
C1030	<u>Fittings</u>	191,857	SF	13.05	2,504,279
	Metal railing to seating bowl	818	LF	179.00	146,422
	Allow for toilet accessories and partitions	9,097	SF	14.00	127,358
	Lockers	50	EA	500.00	25,000
	Player locker	30	EA	2,500.00	75,000
	Drinkrail to suites	334	LF	250.00	83,500
	Loge enclosure	13	EA	2,500.00	32,500
	Allow for rough carpentry	191,857	SF	1.75	335,750
	Allow for firestopping	191,857	SF	1.00	191,857
	Allow for caulking and sealant	191,857	SF	1.00	191,857
	Allow for code signage	191,857	SF	0.75	143,893
	Allow for wayfinding/directories	191,857	SF	2.00	383,714



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Cod	le Description	Quantity	Unit	Rate	Total
	ARENA				(Continued)
<u>C10</u>	INTERIOR CONSTRUCTION				(Continued)
	Allow for graphics	191,857	SF	2.00	383,714
	Allow for miscellaneous fittings	191,857	SF	2.00	383,714
	INTERIOR CONSTRUCTION				12,420,478
<u>C20</u>	<u>STAIRWAYS</u>				
C2010	Stair Construction	191,857	SF	1.75	335,000
	Exit stair, per flight	6	EA	20,000.00	120,000
	Monumental stair at main lobby, per flight	1	EA	150,000.00	150,000
	Short stair at east and west exit	2	EA	15,000.00	30,000
	Suite step pourbacks	12	EA	2,500.00	30,000
	Elevator pit ladder	2	EA	2,500.00	5,000
C2020	Stair Finishes				
	Included in Stair Construction				Note
	<u>STAIRWAYS</u>				<u>335,000</u>
<u>C30</u>	INTERIOR FINISHES				
C3010	Wall Finishes	394,712	SF	2.93	<u>1,157,891</u>
	Ceramic wall tile	15,141	SF	20.00	302,820
	Paint to wall	379,571	SF	2.00	759,142
	Allow for miscellaneous wall finishes	191,857	SF	0.50	95,929
C3020	Floor Finishes	148,340	SF	12.15	<u>1,802,591</u>
	Ceramic floor tile to dressing room - wet area	1,432	SF	20.00	28,640
	Carpet	24,665	SF	12.00	295,980
	Porcelain floor tile to restrooms	9,096	SF	20.00	181,920
	Stone tile to lobbies	4,821	SF	50.00	241,050
	Polished concrete	39,484	SF	8.00	315,872
	Sealed concrete	50,774	SF	5.00	253,870
	Quarry tile to Food Service and Concession	8,017	SF	20.00	160,340
	Resilient flooring to Tickets and Storage	2,529	SF	8.00	20,232
	Skate flooring rubber tile to dressing room - dry area	7,522	SF	15.00	112,830
	Allow for miscellaneous floor finishes	191,857	SF	1.00	191,857
C3030	Ceiling Finishes	164,599	SF	8.81	1,449,998
	Gypboard ceiling, including paint	10,528	SF	22.00	231,616
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MIREIORE FINISHES	Cod	le Description	Quantity	Unit	Rate	Total
Acoustical ceiling tile		ARENA				(Continued)
Acoustical ceiling title, washable, to Food Service and Concession   8,017   SF   15,00   120,255   Paint to exposed ceiling   61,337   SF   2,00   122,674   Allow for acoustic upgrade to main roof   53,843   SF   5,00   2569,215   Allow for anscellaneous ceiling finishes   1918,87   SF   1,00   191,857   Allow for miscellaneous ceiling finishes   1918,87   SF   0,75   143,803   INTERIOR FINISHES   191,857   SF   2,35   450,000	<u>C30</u>	INTERIOR FINISHES				(Continued)
Paint to exposed ceiling		Acoustical ceiling tile	30,874	SF	12.00	370,488
Allow for acoustic upgrade to main roof   53,843   SF   5.00   269,215     Allow for soffit   191,857   SF   1.00   191,857     Allow for miscellaneous celling finishes   191,857   SF   0.75   143,893     INTERIOR FINISHES   191,857   SF   0.75   143,893     INTERIOR FINISHES   191,857   SF   2.35   450,000     D10		Acoustical ceiling tile, washable, to Food Service and Concession	8,017	SF	15.00	120,255
Allow for soffit		Paint to exposed ceiling	61,337	SF	2.00	122,674
Allow for miscellaneous ceiling finishes   191,857   SF   0.75   1.43,883   1.41,0479		Allow for acoustic upgrade to main roof	53,843	SF	5.00	269,215
D10   CONVEYING SYSTEMS   191,857   SF   2.35   450,000   A50,000   A50,00		Allow for soffit	191,857	SF	1.00	191,857
D1010 D1010		Allow for miscellaneous ceiling finishes	191,857	SF	0.75	143,893
D1010   Elevators & Lifts   191,857   SF   2.35   450,000   A50,000   A50,		INTERIOR FINISHES				4,410,479
Passenger elevator, per stop	<u>D10</u>	CONVEYING SYSTEMS				
D200   PLUMBING SYSTEMS   191,857   SF	D1010	Elevators & Lifts	191,857	SF	2.35	<u>450,000</u>
D20         PLUMBING SYSTEMS         191,857         SF         4.49         860,700           D2010         Plumbing Fixtures         191,857         SF         4.49         860,700         860,700           D2020         Domestic Water Distribution         191,857         SF         2.60         498,000           D2030         Sanitary Waste         191,857         SF         4.56         875,100           D2040         Waste piping, vent piping, floor drains and sanitary waste equipment         1         LS         875,100.00         875,100           D2040         Rain Water Drainage         191,857         SF         4.92         943,700           Storm water piping, roof drains and rainwater drainage equipment         1         LS         943,700.00         943,700           D2090         Other Plumbing Systems         191,857         SF         3.01         578,100           Food service plumbing         1         LS         216,100.00         216,100           Gas piping and other piping systems         1         LS         252,600.00         252,600           Testing and commissioning         1         LS         194,400.00         109,400           PLUMBING SYSTEMS         3,755,600         3,755,600         259,		Passenger elevator, per stop	6	EA	75,000.00	450,000
D2010         Plumbing Fixtures         191,857         SF         4.49         860,700           D2020         Domestic Water Distribution         191,857         SF         2.60         498,000           D2020         Domestic Water Distribution         191,857         SF         2.60         498,000           D2030         Sanitary Waste         191,857         SF         4.56         875,100           D2040         Waste piping, vent piping, floor drains and sanitary waste equipment         1         LS         875,100.00         875,100           D2040         Rain Water Drainage         191,857         SF         4.92         943,700           D2040         Storm water piping, roof drains and rainwater drainage equipment         1         LS         943,700.00         943,700           D2040         Other Plumbing Systems         191,857         SF         4.92         943,700           D2040         Other Plumbing Systems         191,857         SF         3.01         578,100           D2040         Other Plumbing Systems         1         LS         216,100         226,600           Food service plumbing         1         LS         252,600         252,600           Testing and commissioning         1		CONVEYING SYSTEMS				450,000
Water closets, urinals, lavatories, sinks, showers and other plumbing fixtures   1	<u>D20</u>	PLUMBING SYSTEMS				
D2020   D0mestic Water Distribution   191,857   SF   2.60   498,000   498,	D2010	Plumbing Fixtures	191,857	SF	4.49	860,700
Cold water service, hot water service and water supply equipment		Water closets, urinals, lavatories, sinks, showers and other plumbing fixtures	1	LS	860,700.00	860,700
Cold water service, hot water service and water supply equipment						
D2030         Sanitary Waste Waste piping, vent piping, floor drains and sanitary waste equipment         191,857         SF         4.56         875,100           D2040         Rain Water Drainage Storm water piping, roof drains and rainwater drainage equipment         191,857         SF         4.92         943,700           D2090         Other Plumbing Systems Food service plumbing Gas piping and other piping systems Gas piping and other piping systems Testing and commissioning Festing and commissioning Full MBING SYSTEMS Food SYSTEMS Food Service Plumbing Service Plumbing Systems Food Service Plumbing Service Plumbing Service Plumbing Service Plumbing Service	D2020	Domestic Water Distribution	191,857	SF	2.60	<u>498,000</u>
Waste piping, vent piping, floor drains and sanitary waste equipment       1 LS       875,100.00       875,100         D2040       Rain Water Drainage Storm water piping, roof drains and rainwater drainage equipment       191,857       SF       4.92       943,700         D2090       Other Plumbing Systems Food service plumbing Gas piping and other piping systems Testing and commissioning PLUMBING SYSTEMS       191,857       SF       3.01       578,100         D300       HEATING, VENTILATION & AIR CONDITIONING Boilers, pumps and accessories       191,857       SF       1.35       259,200		Cold water service, hot water service and water supply equipment	1	LS	498,000.00	498,000
Waste piping, vent piping, floor drains and sanitary waste equipment       1 LS       875,100.00       875,100         D2040       Rain Water Drainage Storm water piping, roof drains and rainwater drainage equipment       191,857       SF       4.92       943,700         D2090       Other Plumbing Systems Food service plumbing Gas piping and other piping systems Testing and commissioning PLUMBING SYSTEMS       191,857       SF       3.01       578,100         D300       HEATING, VENTILATION & AIR CONDITIONING Boilers, pumps and accessories       191,857       SF       1.35       259,200						
D2040         Rain Water Drainage Storm water piping, roof drains and rainwater drainage equipment         191,857         SF         4.92         943,700           D2090         Other Plumbing Systems Food service plumbing Gas piping and other piping systems         191,857         SF         3.01         578,100           Testing and commissioning PLUMBING SYSTEMS         1         LS         252,600.00         252,600           D30         HEATING, VENTILATION & AIR CONDITIONING Boilers, pumps and accessories         191,857         SF         1.35         259,200	D2030	Sanitary Waste	191,857	SF	4.56	<u>875,100</u>
Storm water piping, roof drains and rainwater drainage equipment   1		Waste piping, vent piping, floor drains and sanitary waste equipment	1	LS	875,100.00	875,100
Storm water piping, roof drains and rainwater drainage equipment   1						
D2090         Other Plumbing Systems         191,857         SF         3.01         578,100           Food service plumbing         1         LS         216,100.00         216,100           Gas piping and other piping systems         1         LS         252,600.00         252,600           Testing and commissioning         1         LS         109,400.00         109,400           PLUMBING SYSTEMS         3,755,600         3,755,600         3,755,600           D30         HEATING, VENTILATION & AIR CONDITIONING         4         191,857         SF         1.35         259,200           Boilers, pumps and accessories         1         LS         259,200.00         259,200	D2040	Rain Water Drainage	191,857	SF	4.92	943,700
Food service plumbing   1 LS   216,100.00   216,100   216,100   252,600		Storm water piping, roof drains and rainwater drainage equipment	1	LS	943,700.00	943,700
Food service plumbing   1 LS   216,100.00   216,100   216,100   252,600						
Gas piping and other piping systems       1 LS       252,600.00       252,600         Testing and commissioning       1 LS       109,400.00       109,400         PLUMBING SYSTEMS       3,755,600         D30       HEATING, VENTILATION & AIR CONDITIONING         D3020       Heating Generation Systems       191,857       SF       1.35       259,200         Boilers, pumps and accessories       1 LS       259,200.00       259,200	D2090	Other Plumbing Systems	191,857	SF	3.01	<u>578,100</u>
Testing and commissioning       1 LS       109,400.00       109,400         PLUMBING SYSTEMS       3,755,600         D30 HEATING, VENTILATION & AIR CONDITIONING         D3020 Heating Generation Systems       191,857       SF       1.35       259,200         Boilers, pumps and accessories       1 LS       259,200.00       259,200		Food service plumbing	1	LS	216,100.00	216,100
PLUMBING SYSTEMS         3,755,600           D30         HEATING, VENTILATION & AIR CONDITIONING           D3020         Heating Generation Systems         191,857 SF         1.35         259,200           Boilers, pumps and accessories         1 LS         259,200.00         259,200		Gas piping and other piping systems	1	LS	252,600.00	252,600
D30         HEATING, VENTILATION & AIR CONDITIONING           D3020         Heating Generation Systems         191,857         SF         1.35         259,200           Boilers, pumps and accessories         1         LS         259,200.00         259,200		Testing and commissioning	1	LS	109,400.00	109,400
D3020       Heating Generation Systems       191,857       SF       1.35       259,200         Boilers, pumps and accessories       1 LS       259,200.00       259,200		PLUMBING SYSTEMS				<u>3,755,600</u>
Boilers, pumps and accessories 1 LS 259,200.00 259,200	<u>D30</u>	HEATING, VENTILATION & AIR CONDITIONING				
	D3020	Heating Generation Systems	191,857	SF	1.35	<u>259,200</u>
D3030 <u>Cooling Generating Systems</u> <b>191,857</b> SF 3.15 <u>604,800</u>		Boilers, pumps and accessories	1	LS	259,200.00	259,200
D3030 <u>Cooling Generating Systems</u> <b>191,857</b> SF 3.15 <u>604,800</u>						
	D3030	Cooling Generating Systems	191,857	SF	3.15	604,800



**Project:** Sudbury Community Arena Renovation **Details:** Program Estimate in CAN - R1

**Building:** Sudbury Community Arena Renovation Program

Cod	e Description	Quantity	Unit	Rate	Total
	ARENA				(Continued)
<u>D30</u>	HEATING, VENTILATION & AIR CONDITIONING				(Continued)
	Chillers, cooling towers, pumps and accessories	1	LS	604,800.00	604,800
D3040	<u>Distribution Systems</u>	191,857	SF	23.08	<u>4,428,400</u>
	Air movement equipment	1	LS	1,624,300.00	1,624,300
	Heating and cooling water piping	1	LS	1,284,600.00	1,284,600
	Air distribution systems	1	LS	1,519,500.00	1,519,500
D3050	Terminal and Package Units	191,857	SF	1.97	<u>378,900</u>
	Self-contained and packaged AC units	1	LS	378,900.00	378,900
D3060	Controls and Instrumentation	191,857	SF	3.29	<u>631,600</u>
	Building automation system	1	LS	631,600.00	631,600
D3070	Systems Testing & Balancing	191,857	SF	0.63	<u>120,400</u>
	Testing and commissioning	1	LS	120,400.00	120,400
D3090	Other HVAC Systems and Equipment	191,857	SF	8.33	<u>1,597,300</u>
	General construction items and miscellaneous systems	1	LS	97,300.00	97,300
	Refrigeration plant	1	LS	1,500,000.00	1,500,000
	HEATING, VENTILATION & AIR CONDITIONING				8,020,600
<u>D40</u>	FIRE PROTECTION				
D4010	Sprinklers	191,857	SF	4.80	920,300
	Sprinkler heads, piping, pumping equipment	1	LS	920,300.00	920,300
	FIRE PROTECTION				920,300
<u>D50</u>	ELECTRICAL LIGHTING, POWER & COMMUNICATIONS				
D5010	Electrical Service & Distribution	191,857	SF	23.20	4,450,600
	Normal power distribution	1	LS	2,206,800.00	2,206,800
	Emergency power distribution	1	LS	521,500.00	521,500
	Feeders	1	LS	1,394,800.00	1,394,800
	Lightning protection	1	LS	160,600.00	160,600
	Grounding	1	LS	166,900.00	166,900
D5020	Lighting & Branch Wiring	191,857	SF	18.51	<u>3,551,100</u>
	Branch wiring devices	1	LS	655,000.00	655,000



**Project:** Sudbury Community Arena Renovation **Details:** Program Estimate in CAN - R1

**Building:** Sudbury Community Arena Renovation Program

MRENA   (Continued)	Cod	le Description	Quantity	Unit	Rate	Total
Food services power supply		ARENA				(Continued)
Light fixtures and lighting controls	<u>D50</u>	ELECTRICAL LIGHTING, POWER & COMMUNICATIONS				(Continued)
D5030   Communications & Security   191,857   SF   10.42   1.999.500		Food services power supply	1	LS	321,200.00	321,200
D5030   Communications & Security   191,857   SF   10.42   1,999,500   Fire alarm system   1		Light fixtures and lighting controls	1	LS	2,239,300.00	2,239,300
Fire alarm system		Sports lighting	1	LS	335,600.00	335,600
Fire alarm system						
Communications system   1 LS   232,800.00   232,800   Audio/video system (Rough-in only)   1 LS   272,500.00   272,500   Security and detection systems (Rough-in only)   1 LS   276,100.00   276,100   Cable tray and raceway   1 LS   398,800.00   398,800   Emergency responder radio system   1 LS   153,400.00   153,400   Broadcast cabling pathway   1 LS   151,400.00   101,100.00	D5030	Communications & Security	191,857	SF	10.42	1,999,500
Audio/video system (Rough-in only)		Fire alarm system	1	LS	564,800.00	564,800
Security and detection systems (Rough-in only)		Communications system	1	LS	232,800.00	232,800
Cable tray and raceway		Audio/video system (Rough-in only)	1	LS	272,500.00	272,500
Emergency responder radio system   1 LS   153,400.00   153,400		Security and detection systems (Rough-in only)	1	LS	276,100.00	276,100
Broadcast cabling pathway		Cable tray and raceway	1	LS	398,800.00	398,800
D5090   Other Electrical Systems   191,857   SF   1.91   366,800   General construction items and miscellaneous systems   1   LS   210,200.00   210,200   Testing and commissioning   1   LS   156,600.00   156,600   ELECTRICAL LIGHTING, POWER & COMMUNICATIONS   10,368,000     E102   EQUIPMENT		Emergency responder radio system	1	LS	153,400.00	153,400
General construction items and miscellaneous systems   1 LS   210,200,00   210,200   156,600		Broadcast cabling pathway	1	LS	101,100.00	101,100
General construction items and miscellaneous systems   1						
Testing and commissioning	D5090	Other Electrical Systems	191,857	SF	1.91	<u>366,800</u>
ELECTRICAL LIGHTING, POWER & COMMUNICATIONS         10,368,000           E10         EQUIPMENT           E1020         Institutional Equipment         191,857         SF         6.74         1,292,500           Allow for game clocks/locker room clocks         4         EA         5,000.00         20,000           Allow for projection screen         1         LS         50,000.00         50,000           Ribbon board, assume 3' high         545         SF         500.00         272,500           Ice rink dasher boards         1         LS         350,000.00         350,000           Allow for center hung scoreboard         1         LS         600,000.00         600,000           E1030         Vehicular Equipment         191,857         SF         0.18         35,000           Allow for loading dock equipment         1         LS         35,000.00         35,000           E1090         Other Equipment         8,017         SF         5.68         1,089,486           Allow for food service equipment         8,017         SF         15.00         287,786           E20         FURNISHINGS         F         1.50         2,416,986		General construction items and miscellaneous systems	1	LS	210,200.00	210,200
E10         EQUIPMENT           E1020         Institutional Equipment Allow for game clocks/locker room clocks         191,857 SF 6.74 1.292.500 20,000 20,000 20,000 20,000 20,000 Allow for projection screen         1 LS 50,000.00 50,000 50,000 2		Testing and commissioning	1	LS	156,600.00	156,600
E1020		ELECTRICAL LIGHTING, POWER & COMMUNICATIONS				10,368,000
Allow for game clocks/locker room clocks	<u>E10</u>	<u>EQUIPMENT</u>				
Allow for projection screen   1 LS   50,000.00   50,000     Ribbon board, assume 3' high   545 SF   500.00   272,500     Ice rink dasher boards   1 LS   350,000.00   350,000     Allow for center hung scoreboard   1 LS   600,000.00   600,000     E1030   Vehicular Equipment   191,857 SF   0.18   35,000     Allow for loading dock equipment   1 LS   35,000.00   35,000     E1090   Other Equipment   191,857 SF   5.68   1,089,486     Allow for food service equipment   8,017 SF   100.00   801,700     Allow for miscellaneous equipment   191,857 SF   1.50   287,786     EQUIPMENT   2,416,986	E1020	Institutional Equipment	191,857	SF	6.74	1,292,500
Ribbon board, assume 3' high   545 SF   500.00   272,500     Ice rink dasher boards   1 LS   350,000.00   350,000     Allow for center hung scoreboard   1 LS   600,000.00   600,000     E1030   Vehicular Equipment   191,857 SF   0.18   35,000     Allow for loading dock equipment   1 LS   35,000.00   35,000     E1090   Other Equipment   191,857 SF   5.68   1,089,486     Allow for food service equipment   191,857 SF   100.00   801,700     Allow for miscellaneous equipment   191,857 SF   1.50   287,786     EQUIPMENT   2,416,986   E20   FURNISHINGS		Allow for game clocks/locker room clocks	4	EA	5,000.00	20,000
Ice rink dasher boards		Allow for projection screen	1	LS	50,000.00	50,000
Allow for center hung scoreboard		Ribbon board, assume 3' high	545	SF	500.00	272,500
E1030       Vehicular Equipment       191,857       SF       0.18       35,000         Allow for loading dock equipment       1 LS       35,000.00       35,000         E1090       Other Equipment       191,857       SF       5.68       1,089,486         Allow for food service equipment       8,017       SF       100.00       801,700         Allow for miscellaneous equipment       191,857       SF       1.50       287,786         EQUIPMENT       2,416,986		Ice rink dasher boards	1	LS	350,000.00	350,000
Allow for loading dock equipment 1 LS 35,000.00 35,000  E1090 Other Equipment 191,857 SF 5.68 1,089,486 Allow for food service equipment 8,017 SF 100.00 801,700 Allow for miscellaneous equipment 191,857 SF 1.50 287,786 EQUIPMENT 2,416,986		Allow for center hung scoreboard	1	LS	600,000.00	600,000
Allow for loading dock equipment 1 LS 35,000.00 35,000  E1090 Other Equipment 191,857 SF 5.68 1,089,486 Allow for food service equipment 8,017 SF 100.00 801,700 Allow for miscellaneous equipment 191,857 SF 1.50 287,786 EQUIPMENT 2,416,986						
E1090 Other Equipment Allow for food service equipment Allow for miscellaneous equipment EQUIPMENT  E20 FURNISHINGS  191,857 SF 5.68 1,089,486 100.00 801,700 801,700 191,857 SF 1.50 287,786 2,416,986	E1030	Vehicular Equipment	191,857	SF	0.18	<u>35,000</u>
Allow for food service equipment 8,017 SF 100.00 801,700 Allow for miscellaneous equipment 191,857 SF 1.50 287,786  EQUIPMENT 2,416,986		Allow for loading dock equipment	1	LS	35,000.00	35,000
Allow for food service equipment 8,017 SF 100.00 801,700 Allow for miscellaneous equipment 191,857 SF 1.50 287,786  EQUIPMENT 2,416,986						
Allow for miscellaneous equipment 191,857 SF 1.50 287,786	E1090	Other Equipment	191,857	SF	5.68	<u>1,089,486</u>
EQUIPMENT         2,416,986           E20         FURNISHINGS		Allow for food service equipment	8,017	SF	100.00	801,700
E20 FURNISHINGS		Allow for miscellaneous equipment	191,857	SF	1.50	287,786
		EQUIPMENT				2,416,986
E2010 <u>Fixed Furnishings</u> <b>191,857</b> SF 12.83 <u>2,461,999</u>	<u>E20</u>	<u>FURNISHINGS</u>				
	E2010	Fixed Furnishings	191,857	SF	12.83	<u>2,461,999</u>



**Project:** Sudbury Community Arena Renovation **Details:** Program Estimate in CAN - R1

**Building:** Sudbury Community Arena Renovation Program

Cod	de D	escription	Quantity	Unit	Rate	Total
	ARENA					(Continued)
E20	<u>FURNISHINGS</u>					(Continued)
	General seating		4,850	EA	185.00	897,250
	Club seating		150	EA	185.00	27,750
	Loge seating		52	EA	185.00	9,620
	Retractable seating		320	EA	1,750.00	560,000
	Suite seating		96	EA	650.00	62,400
	Blinds to exterior glazing, allow for 50%	of glazing area	5,497	SF	25.00	137,425
	Allow for millwork to suites		4,798	SF	80.00	383,840
	Allow for miscellaneous millwork		191,857	SF	2.00	383,714
	<u>FURNISHINGS</u>					<u>2,461,999</u>
<u>F10</u>	SPECIAL CONSTRUCTION					
F1010	Special Structures		191,857	SF	0.26	<u>50,000</u>
	Allow for temporary structures		1	LS	50,000.00	50,000
	SPECIAL CONSTRUCTION					<u>50,000</u>
<u>F20</u>	SELECTIVE DEMOLITION					
F2010	<b>Building Elements Demolition</b>		125,675	SF	18.94	<u>2,380,121</u>
	Allow for removing existing interior part	tions and doors based on GFA	125,675	SF	3.00	377,025
	Sawcut existing slab on grade		1,046	LF	5.00	5,230
	Remove existing slab on grade, including	ng rink slab	68,374	SF	5.00	341,870
	Sawcut existing suspended floor slab		192	LF	3.00	576
	Remove existing suspended floor slab		10,295	SF	15.00	154,425
	Remove existing stairs - per flight		13	EA	3,000.00	39,000
	Remove existing exterior wall		32,653	SF	2.00	65,306
	Remove existing exterior door and fram	e, per leaf	47	EA	800.00	37,600
	Sawcut existing seating bowl		130	LF	3.00	390
	Remove existing seating bowl		1,939	SF	10.70	20,747
	Remove existing refrigeration room plan	nt	1	LS	36,000.00	36,000
	Remove existing roof structure and roo	covering	12,035	SF	15.00	180,525
	Remove existing roofing to main roof, s	tructure to remain	53,843	SF	10.00	538,430
	Remove existing elevators		1	EA	25,000.00	25,000
	Allow for removing existing interior finis	nes	20,972	SF	3.00	62,916
	Allow for removing existing seating bow	l seats, railings, etc.	22,996	SF	6.50	149,474
	Allow for miscellaneous demolitions		125,675	SF	1.00	125,675
	Allow for miscellaneous patch and repa	ir	125,675	SF	1.00	125,675
	Allow for temporary protection		125,675	SF	0.75	94,256

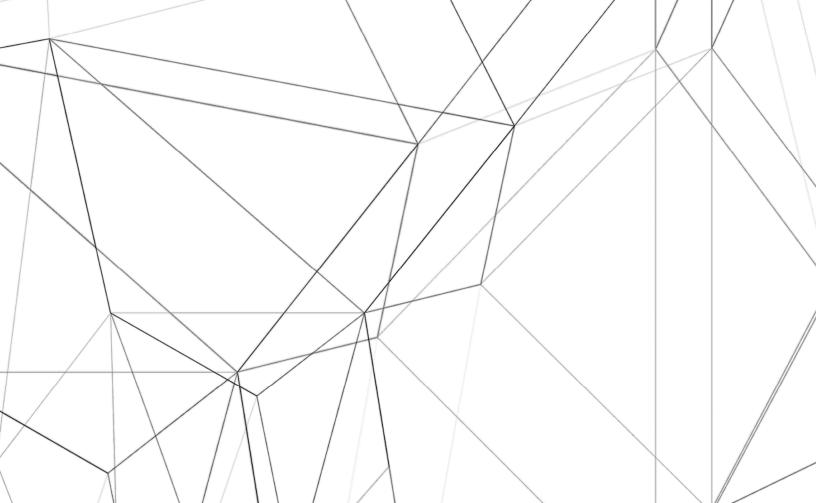


**Project:** Sudbury Community Arena Renovation **Details:** Program Estimate in CAN - R1

**Building:** Sudbury Community Arena Renovation Program

Cod	e Description	Quantity	Unit	Rate	Total
	ARENA				(Continued)
<u>F20</u>	SELECTIVE DEMOLITION				(Continued)
F2020	Hazardous Components Abatement	125,675	SF	15.00	<u>1,885,125</u>
	Allow for hazmat abatement	125,675	SF	15.00	1,885,125
	SELECTIVE DEMOLITION				4,265,246
	ARENA				102,639,993







**Project:** Sudbury Community Arena Renovation **Details:** Program Estimate in CAN - R1

**Building:** Sudbury Community Arena Renovation Program

Code	Description	Quantity	Unit	Rate	Total
SITE					
	SITEWORK				
	AREAS:				
	Site Development	19,482	SF		
	NET SITE AREA	19,482	SF		
	Building Footprint Area	105,428	SF		
	TOTAL SITE AREA - PHASE 2	124,910	SF		
G10	SITE PREPARATION	124,910	SF	5.50	687,005
G20	SITE IMPROVEMENTS	19,482	SF	15.00	292,230
G30	SITE MECHANICAL UTILITIES	19,482	SF	18.09	352,500
G40	SITE ELECTRICAL UTILITIES	19,482	SF	17.52	341,300
	SUBTOTAL - BUILDING SITEWORK - PHASE 2	19,482	SF	85.88	<u>1,673,035</u>
Z10	GENERAL CONDITIONS - 12%	1	LS	200,764.20	200,764
Z11	BONDING - 2%	1	LS	37,475.98	37,476
Z12	OVERHEAD AND PROFIT - 5%	1	LS	95,563.76	95,564
Z13	ESTIMATING CONTINGENCY - 15%	1	LS	301,025.84	301,026
Z14	ESCALATION - EXCLUDED				
	RECOMMENDED BUDGET - BUILDING	19,482	SF	118.46	<u>2,307,865</u>



**Project:** Sudbury Community Arena Renovation **Details:** Program Estimate in CAN - R1

**Building:** Sudbury Community Arena Renovation Program

Cod	e Description	Quantity	Unit	Rate	Total
	SITE				
<u>G10</u>	SITE PREPARATION				
G1010	Site Clearing	124,910	SF	3.00	<u>374,730</u>
	Allow for site clearing and grading	124,910	SF	2.00	249,820
	Allow for erosion control	124,910	SF	1.00	124,910
G1020	Site Demolition & Relocations	124,910	SF	2.50	<u>312,275</u>
	Allow for miscellaneous site demolition	124,910	SF	2.50	312,275
G1030	Site Earthwork				
	See A2010 for mass excavation on new building foundation, no other site earthwork expected				Note
	SITE PREPARATION				687,005
<u>G20</u>	SITE IMPROVEMENTS				
G2040	Site Development	19,482	SF	15.00	292,230
	Allow for site development, 15' around building footprint	19,482	SF	15.00	292,230
	SITE IMPROVEMENTS				<u>292,230</u>
<u>G30</u>	SITE MECHANICAL UTILITIES				
G3010	Water Supply	19,482	SF	5.77	112,500
	Fire/water line, isolation valves, hydrants, trenching, connection to existing utility main	1	LS	112,500.00	112,500
G3020	Sanitary Sewer	19,482	SF	4.62	90,000
	Sanitary line, manholes, trenching, connection to existing utility main	1	LS	90,000.00	90,000
G3030	Storm Sewer	19,482		7.70	<u>150,000</u>
	Storm drain line, catch basins, manholes, trenching, connection to existing utility main	1	LS	150,000.00	150,000
	SITE MECHANICAL UTILITIES				<u>352,500</u>
<u>G40</u>	SITE ELECTRICAL UTILITIES				
G4010	Electrical Distribution	19,482		6.74	<u>131,300</u>
	Underground ductbanks, trenching		LS	75,000.00	75,000
	EV charger infrastructure		LS	56,300.00	56,300
	Incoming power feeders	1	LS	By Utility	0
0.4000	O'the Linkship or		05		440.500
G4020	Site Lighting	19,482		5.77	<u>112,500</u>
	Pole mounted fixtures, other site lighting, lighting controls, wiring, trenching	1	LS	112,500.00	112,500



**Project:** Sudbury Community Arena Renovation **Details:** Program Estimate in CAN - R1

**Building:** Sudbury Community Arena Renovation Program

Cod	de Description	Quantity	Unit	Rate	Total
	SITE				(Continued)
<u>G40</u>	SITE ELECTRICAL UTILITIES				(Continued)
G4030	Site Communications & Security	19,482	SF	5.00	<u>97,500</u>
	Underground ductbanks, trenching	1	LS	60,000.00	60,000
	Incoming telecom cables	1	LS	By Utility	0
	Site security and alarm system	1	LS	37,500.00	37,500
	SITE ELECTRICAL UTILITIES				<u>341,300</u>
	SITE				2,307,865