

Town of Stellarton								
Rink Structural Assessment								
October 2018								
Discipline	System	Ref.	Rank	Item	Cost SNC	Priority		
Arch	Doors	A4,A5	1	Replace all exterior doors, include emergency egress hardware	\$ 24,000	24,000		
Arch	Interior	A6	1	Relocate items that are stored in utility rooms (electrical, mechanical)	\$ -			
Arch	Interior		1	Remediate mold on second floor; provide adequate ventilation to all access spaces	\$ 7,500	7,500		
Arch	Doors	A8	1	Relocate or remove door to hospitality room away from stairs	\$ -			
Arch	Doors	A5	1	Replace interior door hardware to allow for emergency egress from all rooms	\$ 3,000	3,000		
Electrical	Electrical Room	E11	1	Install heat & ventilation in electrical room to reduce condensation on electrical equipment	\$ 10,000	10,000		
Electrical	Electrical Room	E10	1	Label electrical equipment with Lamacoids with voltage/amprage/CCT #	\$ 500	500		
Electrical	Iceplant	E10	1	Label electrical equipment with Lamacoids with voltage/amprage/CCT #	\$ 300	300		
Electrical	Electrical Room		1	Have an Electrical Single Line drawing made showing all electrical connections	\$ 2,500			
Electrical	Iceplant		1	Have an Electrical Single Line drawing made showing all electrical connections	\$ 2,500			
Electrical	Life Safety/Fire	E14/E15	1	Replace Aged Fire Panel, smoke detectors and replace bells with horn/strobes	\$ 60,000	60,000		
Electrical	Iceplant	E2/E3	1	Replace Compressor Transfer Switch (provide 1 meter clearance)	\$ 10,000			
Electrical	Iceplant	E4	1	Replace Iceplant Electrical Conduits	\$ 10,000	10,000		
Electrical	Electrical Room	E2/E4	1	Check Grounding and Bonding of equipment	\$ 5,000			
Electrical	Iceplant	E1	1	Remove Storage Items off of Electrical Panels in Iceplant	\$ -			
Electrical	Lighting		1	Test Emergency Lights and replace as required	\$ 3,000	3,000		
Electrical	Distribution		1	Install GFCI (ground fault) breakers and receptacles for devices 1 meter from wet areas	\$ 1,000	1,000		
Mechanical	Refrigeration		1	Replace Brine Pump #2 and associated steel fittings	\$ 15,000			
Mechanical	Space Heating		1	Replace existing boiler breeching	\$ 3,000			
Mechanical	Ventilation		1	Inspect & repair exhaust ventilation in the dressing rooms, washrooms. Replace as required.	\$ 2,500	2,500		
Mechanical	Ice Resurfacing		1	Relocate & replace if necessary P&T safety valves on DHW tanks	\$ 500			
Mechanical	Space Heating		1	Anchor existing fuel tanks to concrete floor	\$ 1,000			
Mechanical	plumbing		1	Annually test backflow preventers	\$ 500			
Mechanical	plumbing		1	Replace floor drains in washrooms (painted-over)	\$ 500			
Mechanical	Ventilation		1	Install exhaust ventilation in office 'pink' washroom	\$ 500			
Mechanical	Ventilation		1	Replace gravity backdraft damper & install safety guard on wall fan in Refrigeration plant	\$ 500			
Mechanical	Ice Resurfacing		1	Install vacuum breaker on Zamboni fill hose	\$ 100			
Struct/Arch	Interior		1	In hospitality room, provide guard rail at window	\$ 3,000			
Structural	Masonry/Brick	S13-17	1	Remove speed tile/brick exterior walls, reinstate with concrete block/brick wall (Alternative 1)	\$ 1,050,000			
Structural	Masonry/Brick	S13-17	1	Remove speed tile/brick exterior walls, and reinstate with steel cladding (Alternative2)	\$ 500,000	500,000		
Structural	Foundations	S7-8	1	Replace concrete pilaster along back (east) wall supporting wind post.	\$ 25,000	25,000		
Structural	Exit Structures	S41-48	1	Replace entire concrete exit structure in south-east corner of main building	\$ 10,000	10,000		
Structural	Structural Steel	S27	1	Replace steel columns in basement area that have experienced severe corrosion	\$ 5,000	5,000		

Structural	Foundations	S10-11	1	Install new support for beam where foundation wall in basement has cracked, and repair crack	\$ 8,000	8,000
Structural	Exit Structures	S39-40	1	Replace brick columns supporting North-west exit structure	\$ 6,000	6,000
Structural	Foundations	S9	1	Repair concrete perimeter foundation wall (west side) where leaking has occurred	\$ 4,000	4,000
Structural	Foundations	S6	1	Repair perimeter foundation in South-East corner	\$ 3,000	3,000
						682,800
				Alternative 1 (Brick walls) Total Priority 1 Cost Estimate	\$ 1,277,400	
				25% Contingency	\$ 1,596,750	170,700
				Alternative 2 (Steel Cladding walls) Total Priority 1 Cost Estimate	\$ 727,400	
				25% Contingency	\$ 909,250	
				Subtotal Rank 1		853,500
Discipline	System	Ref.	Rank	Item	Cost SNC	Priority
Arch	Interior		2	Remove peeling paint from ceiling, repaint or otherwise treat	\$ 20,000	
Arch	Access	A9	2	Provide barrier free washroom, optimally with dual use as a barrier free change room	\$ 10,000	10,000
Arch	Exterior		2	Infill windows on East façade with brick to match other infilled windows	\$ 7,500	
Arch/Struct	Study	A7	2	Study replacing wood stands with a more appropriate material (Composite or metal) - COST TO REPLACE NOT STUDY	\$ 9,000	9,000
Civil	Site		2	Provide drainage at East and South sides of building	\$ 20,000	
Civil	Site	A2,A3	2	Remove vegetation; create gravel strip beside foundation to discourage future growth	\$ 2,000	
Electrical	Distribution	E12	2	Referee Dressing Room Electrical Panel requires 1 meter clearance	\$ 20,000	20,000
Electrical	Lighting	E17	2	Outdoor Light Replacement w photo cell	\$ 5,000	
Electrical	Distribution		2	Replace aged receptacles and switches	\$ 5,000	5,000
Electrical	Distribution	E16	2	Replace canteen fused electrical panel with a circuit breaker panel	\$ 2,000	
Electrical	Electrical Room	E10	2	Label electrical equipment with Arc Flash warning stickers	\$ 500	
Electrical	Iceplant	E10	2	Label electrical equipment with Arc Flash warning stickers	\$ 200	
Electrical	Iceplant		2	Add lockable disconnect switches to motor/compressor loads	\$ 10,000	10,000
Electrical	Distribution		2	Add a row of lights to the spectator walkway	\$ 5,000	5,000
Mechanical	Space Heating		2	Replace boiler system, controls, pumps, piping, and associated components	\$ 80,000	80,000
Mechanical	Refrigeration		2	Replace Compressor #2 and associated accessories & fittings	\$ 60,000	60,000
Mechanical	Space Heating		2	Replace Shell & Tube Heat Exchanger (used for In-Floor heating system)	\$ 60,000	60,000
Mechanical	plumbing		2	Replace cast iron sanitary drainage piping in basement & inspect lateral to municipal connection	\$ 4,000	
Structural	Foundations	S12	2	Provide support to beam and repair cracking in concrete wall (east side of basement)	\$ 6,000	6,000
						265,000
				Total Priority 2 Cost Estimate	\$ 326,200	
				25% Contingency	\$ 407,750	66,250
				Subtotal Rank 2		331,250
				Subtotal Rank 1 & 2		1,184,750

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Arch	Access		3	Provide lift from foyer to hospitality room - COST SEEMS TOO LOW	\$ 10,000	100,000
Arch	Interior	A7	3	In stands, provide railings and steps to code, and provide barrier free ice viewing area	\$ 10,000	10,000
Arch	Exterior	A1	3	Replace existing plywood door infill on West façade with brick	\$ 7,500	
Arch	Access	A5	3	Renovate ticket booth and concession counter to improve accessibility	\$ 5,000	5,000
Arch	Access	A7	3	Provide high-contrast paint strips/bump strips	\$ 1,000	
Arch	Interior		3	Update "no smoking" signs and signage for gender-neutral washroom	\$ 500	
Civil	Site	A1,A3	3	Repair/patch damaged asphalt as necessary	\$ 7,500	
Civil	Site	A1	3	Paint lines in parking area to the South of main entrance for barrier free spaces	\$ 500	
Electrical	Electrical Room		3	Rebuild Main Electrical Room with 1 hour fireproof rating. Cannot be used as storage	\$ 100,000	100,000
Electrical	Iceplant		3	Rebuild Iceplant Electrical Room with 1 hour fire rating. Cannot be used as storage	\$ 100,000	100,000
Electrical	Electrical Room		3	Replacement of the electrical distribution panels below the main office	\$ 20,000	20,000
Electrical	Iceplant		3	Add a 600VAC Distribution Panel with Circuit Breakers	\$ 20,000	20,000
Electrical	Lighting		3	Interior lights, bleachers, entry way, dressing rooms	\$ 15,000	15,000
Electrical	Electrical Room		3	Arc Flash Calculation Study	\$ 5,000	5,000
Electrical	Iceplant		3	Arc Flash Calculation Study	\$ 5,000	5,000
Electrical	PA System		3	Replace Public Address system	\$ 5,000	
Mechanical	Refrigeration		3	Replace Refrigeration Plant equipment / components	\$ 300,000	300,000
Mechanical	Space Heating		3	Replace electric forced air heaters in dressing rooms, office, washrooms	\$ 20,000	
Structural	Ice Surface	S29-38	3	Replace existing ice surface and dasher boards (Optional) NOT OPTIONAL	\$ 1,500,000	1,500,000
Structural	Slab on Grade	S52	3	Replace Zamboni Room concrete/asphalt floor	\$ 10,000	10,000
Structural	Exit Structures	S50	3	Repair or replace concrete stair treads (main entrance on west side)	\$ 5,000	5,000
Structural	Foundations	S1-5	3	Repair medium to severe cracks in perimeter foundation	\$ 3,500	3,500
Structural	Exit Structures	S49	3	Repair concrete stair treads by replacing spalled concrete	\$ 2,500	2,500
Structural	Masonry/Brick	S18-20	3	Repair areas around steel beams where concrete block walls have been partially removed for pipe passing	\$ 2,000	2,000
						2,203,000
				Total Priority 3 Cost Estimate	\$ 2,155,000	
				25% Contingency	\$ 2,693,750	550,750
				Alternative 1 (Brick Walls) with 25% Contingency	\$ 4,698,250	
				Alternative 2 (Steel Cladding walls) with 25% Contingency	\$ 4,010,750	
				Subtotal Rank 3		2,753,750
				Subtotal Rank 1 & 2 & 3		3,938,500
				Items not included in above:		
				Sprinkler System required if using building other than as a Rink		100,000
				Ramp out front		10,000
				Complete revamping of public washrooms		15,000
				Foundation not yet assessed as could not see		
				Subtotal additional possible costs		125,000
				Total Estimated Cost		\$ 4,063,500