

FACILITY ASSESSMENT

Thornton Park

Project # 2125

December 15, 2021







FACILITY ASSESSMENT - THORNTON PARK

SHAKER HEIGHTS FACILITIES MASTER PLAN - ASSESSMENTS

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GENERAL DESCRIPTION

Thornton Park is used for delivery of services to the general public. The Ice Arena, originally constructed in 1968, is a two-story, 28,926 square foot brick structure. An addition to the Ice Arena was completed in 1988. Spaces generally include the ice rink with spectator seating, locker rooms, concessions, offices, and meeting rooms. The structure contains a metal wall panel and brick type exterior wall construction, with cmu and metal stud with gypsum board type wall construction in the interior. The floor structure systems consist of concrete slab on grade, intermediate floors with concrete filled metal deck on steel joist, and metal roof deck on steel joists and steel trusses. The roofing system is built-up asphalt.

The Pool Equipment building, originally constructed in 1961, is a one-story, 3,525 square foot brick structure. An addition to the building was completed in 1993. Spaces generally include pool equipment rooms, storage, restrooms and lifeguard spaces. The structure contains brick type exterior wall construction, with cmu type wall construction in the interior. The floor structure systems consist of concrete slab on grade, and mezzanine with plywood on wood joists, and the roof structure is tongue and groove wood deck on glulam beams. The roofing system is asphalt shingles.

The buildings are located on a 13.034 acre site shared with other recreational amenities. It is adjacent to residential and commercial properties. The property is partially fenced for security. Access onto the site is unrestricted. Parking for staff and visitors during normal operations is adequate.



Ice Arena Main Entrance - South Elevation



Pool Equipment Building - Northeast Elevation



Ice Arena East Elevation



Pool Equipment Building - Southeast Elevation



PROBABLE INFLATION COST SUMMARY FOR SUMMER 2022 - ICE ARENA

The building assessment costs in this report are based on OFCC Assessment Cost Guidelines 2021. Based on current market conditions, the following cost projections have been made for Summer 2022 construction. Cost years beyond 2022 have been calculated with a 3.5% inflation rate.

Facility Cost	t Assessment Adjusted for Inflation through Summer	Estimated 2022	
	2022	Assessement Cost	Cost/sf.
A He	eating System	\$9,973.01	\$0.34
B Ro	oofing	\$457,267.80	\$15.79
C Ve	ntilation / Air Conditioning	\$98,460.00	\$3.40
D Ele	ectrical Systems	\$0.00	\$0.00
E Plu	umbing and Fixtures	\$24,222.27	\$0.84
F Wi	ndows	\$119,322.40	\$4.12
G Str	ructure: Foundation	\$1,003.70	\$0.03
H Str	ructure: Walls and Chimneys	\$41,284.38	\$1.43
I Str	ructure: Floors and Roofs	\$0.00	\$0.00
J Ge	eneral Finishes	\$889,750.85	\$30.72
K Inte	erior Lighting	\$298,986.34	\$10.32
L Se	curity Systems	\$0.00	\$0.00
M Em	nergency / Egress Lighting	\$33,414.47	\$1.15
N Fire	e Alarm	\$126,585.37	\$4.37
O Ha	Indicapped Access	\$124,390.64	\$4.29
P Site	e Condition	\$74,811.71	\$2.58
Q Se	wage Systems	\$0.00	\$0.00
R Wa	ater Supply	\$0.00	\$0.00
S Ex	terior Doors	\$70,488.50	\$2.43
T Ha	zardous Material	\$3,185.82	\$0.11
U Life	e Safety	\$5,688.65	\$0.20
V Loc	ose Furnishings	\$212,255.26	\$7.33
	chnology	\$167,561.28	\$5.79
х Со	nstruction Contingency / Non-Construction Cost	\$679,040.44	\$23.45
ESC	ALATED OFCC GUIDELINE BUDGET (2021) - OME	\$3,437,692.89	\$118.70

OFCC 2021 COST GUIDELINES BUDGET \$2,960,231.27

VARIANCE \$477,461.62 VARIANCE % 16.13%

UNIT PRICE CONCERNS

Total \$330,580.20

REV OFCC GUIDELINE UNIT PRICE BUDGET - OME \$3,768,273.09 \$130.11

OFCC 2021 COST GUIDELINES BUDGET \$2,960,231.27

VARIANCE \$808,041.82 VARIANCE % 27.30%



SCOPE ADJUSTMENTS

Total

REV OFCC GUIDELINE UNIT PRICE BUDGET - OME	\$8,707,948.20	\$300.67
OFCC 2021 COST GUIDELINES BUDGET	\$2,960,231.27	
VARIANCE	\$5,747,716.93	
VARIANCE %	194.16%	

\$4,939,675.11

2022 Costs	\$8,707,948.20
2023 Costs with 3.5% inflation	\$9,012,726.39
2024 Costs with 3.5% inflation	\$9,328,171.81
2025 Costs with 3.5% inflation	\$9,654,657.82
2026 Costs with 3.5% inflation	\$9,992,570.85



PROBABLE COST SUMMARY - ICE ARENA

	FACILITY ASSESSMENT Cost Set: 2021	Rating	Dollar Assessment
Α	Heating System	2	\$7,500.00
В	Roofing	3	\$19,600.00
С	Ventilation / Air Conditioning	2	\$80,000.00
D	Electrical Systems	1	\$0.00
E	Plumbing and Fixtures	2	\$21,600.00
F	Windows	3	\$104,880.00
G	Structure: Foundation	2	\$1,000.00
н	Structure: Walls and Chimneys	3	\$38,925.00
ı	Structure: Floors and Roofs	1	\$0.00
J	General Finishes	3	\$785,925.64
К	Interior Lighting	3	\$265,008.30
L	Security Systems	1	\$0.00
М	Emergency / Egress Lighting	3	\$31,858.20
N	Fire Alarm	3	\$115,848.00
0	Handicapped Access	3	\$108,500.00
Р	Site Condition	3	\$74,150.00
Q	Sewage Systems	1	\$0.00
R	Water Supply	1	\$0.00
S	Exterior Doors	3	\$61,750.00
Т	Hazardous Material	3	\$3,185.82
U	Life Safety	2	\$5,000.00
V	Loose Furnishings	3	\$207,078.30
w	Technology	3	\$143,460.00
Х	Construction Contingency / Non-Construction Cost	N/A	\$506,994.51
			\$2,582,263.77



PROBABLE INFLATION COST SUMMARY FOR SUMMER 2022 - POOL BUILDING

The building assessment costs in this report are based on OFCC Assessment Cost Guidelines 2021. Based

		Estimated 2022	
Facility Cos	st Assessment Adjusted for Inflation through Summer 2022	Assessement Cost	Cost/sf.
Α	Heating System	\$0.00	\$0.00
В	Roofing	\$22,766.62	\$6.46
С	Ventilation / Air Conditioning	\$9,052.50	\$2.57
D	Electrical Systems	\$10,755.00	\$3.05
E	Plumbing and Fixtures	\$2,072.00	\$0.59
F	Windows	\$968.00	\$0.27
G	Structure: Foundation	\$0.00	\$0.00
Н	Structure: Walls and Chimneys	\$18,822.54	\$5.34
I	Structure: Floors and Roofs	\$0.00	\$0.00
J	General Finishes	\$56,143.12	\$15.93
K	Interior Lighting	\$36,494.96	\$10.35
L	Security Systems	\$0.00	\$0.00
М	Emergency / Egress Lighting	\$4,066.92	\$1.15
N	Fire Alarm	\$15,406.86	\$4.37
0	Handicapped Access	\$1,983.52	\$0.56
Р	Site Condition	\$0.00	\$0.00
Q	Sewage Systems	\$0.00	\$0.00
R	Water Supply	\$0.00	\$0.00
S	Exterior Doors	\$0.00	\$0.00
T	Hazardous Material	\$387.75	\$0.11
U	Life Safety	\$0.00	\$0.00
V	Loose Furnishings	\$25,833.84	\$7.33
W	Technology	\$20,586.00	\$5.84
х	Construction Contingency / Non-Construction Cost	\$55,360.40	\$15.71
F	ESCALATED OFCC GUIDELINE BUDGET (2021) - OME	\$280,700.03	\$79.63

OFCC 2021 COST GUIDELINES BUDGET \$247,928.62

VARIANCE \$32,771.41 VARIANCE % 13.22%

UNIT PRICE CONCERNS

Total \$10,063.30

REV OFCC GUIDELINE UNIT PRICE BUDGET - OME \$290,763.33 \$82.49

OFCC 2021 COST GUIDELINES BUDGET \$247,928.62

VARIANCE **\$42,834.71**VARIANCE % **17.28%**



SCOPE ADJUSTMENTS

Total	\$0.00	
REV OFCC GUIDELINE UNIT PRICE BUDGET - OME	\$290,763.33	\$82.49
OFCC 2021 COST GUIDELINES BUDGET	\$247,928.62	
VARIANCE	\$42,834.71	
VARIANCE %	17.28%	
2022 Costs	\$290,763.33	
2023 Costs with 3.5% inflation	\$300,940.05	
2024 Costs with 3.5% inflation	\$311,472.95	
2025 Costs with 3.5% inflation	\$322,374.50	
2026 Costs with 3.5% inflation	\$333,657.61	



PROBABLE COST SUMMARY - POOL BUILDING

	FACILITY ASSESSMENT Cost Set: 2021	Poting	Dollar Assessment
A	Heating System	Rating 1	\$0.00
В	Roofing	3	\$19,600.00
С	Ventilation / Air Conditioning	2	\$7,500.00
D	Electrical Systems	3	\$9,000.00
E	Plumbing and Fixtures	2	\$2,000.00
F	Windows	3	\$800.00
G	Structure: Foundation	1	\$0.00
Н	Structure: Walls and Chimneys	3	\$14,850.00
Ë	Structure: Floors and Roofs	1	\$0.00
J	General Finishes	3	\$50,513.25
К	Interior Lighting	3	\$32,253.75
L	Security Systems	1	\$0.00
M	Emergency / Egress Lighting	3	\$3,877.50
N	Fire Alarm	3	\$14,100.00
0	Handicapped Access	2	\$1,540.00
P	Site Condition	1	\$0.00
Q	Sewage Systems	1	\$0.00
R	Water Supply	1	\$0.00
s	Exterior Doors	1	\$0.00
Т	Hazardous Material	3	\$387.75
U	Life Safety	1	\$0.00
V	Loose Furnishings	3	\$25,203.75
w	Technology	3	\$17,625.00
Х	Construction Contingency / Non-Construction Cost	N/A	\$48,677.62
	garage and a second design		\$247,928.62



A. HEATING SYSTEMS

Description:

- There is a Roberts Gordon infrared heater, approxiately 20-25 years old, around the perimeter of the Ice Arena. Life expectancy is another 10 years.
- The Battery Charging Room has a gas-fired unit heater adjacent to where propane is used periodically for the Zamboni.
- The Pool Building is heated utilizing natural gas unit heaters and ducted unit heaters. Generally this system is in fair condition.

Rating:

Ice Arena 2 Needs Repair Pool Building 1 Satisfactory

Recommendations:

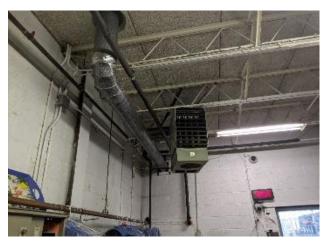
• Relocate gas-fired heater.

Item	Cost	Unit	Whole Building	Sum	Comments
Relocate Unit Heater	\$7,500.00	LUMP SUM	1.00	\$7,500.00	
Ice Arena Sum:				\$7,500.00	

Item	Cost	Unit	Whole Building	Sum	Comments
Pool Building Sum:				\$0.00	



Infrared Control System



Unit Heater in Battery Charging Room



B. ROOFING

Description:

- The sloped roof over the Ice Arena is a built up system, and is in poor condition. There are reports of current leaking. Signs of past leaking were observed during the physical
- The flat roof area is a built up system that and is in fair condition. There are no reports of current leaking. Signs of past leaking were observed during the physical
- Access to the roof was gained by access door that is in good condition.
- There were no significant observations of standing water on the roof. Metal coping and
- The roof over the Pool Building is an asphalt shingle system that was installed in 1994, and is in fair condition. There are no reports of current leaking. Roof storm drainage is addressed through a system of gutters and downspouts, which are properly located, and in fair condition. No problems requiring attention were encountered with any roof penetrations.

Rating:

Ice Arena 3 Needs Replacement Pool Building 3 Needs Replacement

- The roof over the Ice Arena requires replacement due to condition and age of system and projected lifecycle, with work recommended within 2-4 years. The flat roof over the rest of the building requires replacement due to condition, with work recommended within 4-7 years. The flashing and coping on the overall facility require replacement due to condition, with work recommended to be performed with roof replacements.
- Downspouts on the Ice Arena that are broken or missing sections require repairs as soon as possible.
- Add overflow drain or scuppers to the flat roof, with work recommended to be performed with roof replacements.
- The roof over the Pool Building requires replacement due to age of system and projected lifecycle, with work recommended within 2-4 years.
- Replace one broken downspout at the Pool Building, with work recommended as soon as possible.



Item	Cost	Unit	Whole Building	Sum	Comments
Replace Roofing on Ice Rink	\$10.50	SQ. FT.	25,000.00	\$262,500.00	
Replace Flat Roof	\$10.50	SQ. FT.	10,000.00	\$105,000.00	
Replace Copings	\$20.25	LINEAL FT.	670.00	\$13,567.50	
Repair Downspouts	\$1,500.00	LUMP SUM	1.00	\$1,500.00	
Add Overflow Drains	\$3,000.00	EACH	5.00	\$15,000.00	
Ice Arena Sum:				\$397,567.50	

Item	Cost	Unit	Whole Building	Sum	Comments
Replace Roofing on Pool Building	\$4.00	SQ. FT.	4,850.00	\$19,400.00	
Repair Downspouts	\$200.00	LUMP SUM	1.00	\$200.00	
Pool Building Sum:				\$19,600.00	



Ice Arena Roof



Broken Downspout at Ice Arena



Flat Roof at Ice Arena Entrance



Pool Building



C. VENTILATION / AIR CONDITIONING

Description:

- In the Ice Arena, several rooms at the far end of the Rink that are currently being used for storage have no ventilation.
- The Offices are served by gas fired RTUs on the roof. The units were installed in 2011 and 2013.
- The Snack Bar has a commercial style hood. Ventilation should be brought up to code.
- The Ice Arena's Munters unit is original to building. A majority of parts have been replaced, but new parts are hard to find. Exterior duct insulation is deteriorating.
- The exhaust fan is potentially within 10 feet of outside air opening on RTU, which could be a code violation.
- The control system needs to be updated.
- Lifeguard Offices have heating and ventilation only. There is a louvered door into the Maintenance room with a gas-fired Gator.

Rating:

Ice Arena 2 Needs Repair Pool Building 2 Needs Repair

Recommendations:

- · Provide ventilation where it is lacking in both buildings.
- Provide ventilation at the Snack Bar.
- Replace the Munters unit and insulation.

Item	Cost	Unit	Whole Building	Sum	Comments
Provide Ventilation	\$5,000.00	LUMP SUM	1.00	\$5,000.00	
Snack Bar Ventilation	\$25,000.00	LUMP SUM	1.00	\$25,000.00	
Replace Munters Unit	\$50,000.00	EACH	1.00	\$50,000.00	
Ice Arena Sum:				\$80,000.00	

Item	Cost	Unit	Whole Building	Sum	Comments
Rework Ventilation	\$7,500.00	LUMP SUM	1.00	\$7,500.00	
Pool Building Sum:				\$7,500.00	





Deteriorating Duct Insulation at Munters Unit



Exhaust Fan and OA



Door between Lifeguard Offices and Maintenance



D. ELECTRICAL SYSTEMS

Description:

- Electrical service is 800A, 480/277V, 3-phase, 4-wire via a main circuit breaker located in the Ice Arena building.
- The Pool Building is served by a 400A, 480/277V circuit breaker from the Ice Arena main distribution panel.
- Most of the electrical distribution equipment is newer and in good shape.
- The buildings contain some Federal Pacific panelboards and transformers. These should be replaced due to fire hazards associated with Federal Pacific equipment.

Rating:

Ice Arena 1 Satisfactory

Pool Building 3 Needs Replacement

Recommendations:

• Replace Federal Pacific electrical equipment.

Item	Cost	Unit	Whole Building	Sum	Comments
Ice Arena Sum:				\$0.00	

Item	Cost	Unit	Whole Building	Sum	Comments
Replace FPE Equipment	\$3,000.00	EACH	3.00	\$9,000.00	
Pool Building Sum:				\$9,000.00	



Main Circuit Breaker



Newer Branch Panelboards



E. PLUMBING AND FIXTURES

Description:

- The Ice Arena contains 1 public Men's Restroom, 1 public Women's Restroom, 2 unisex Staff Restrooms, 1 Men's Locker Room, and 1 Women's Locker Room.
- The First Floor Men's Restroom contains 1 wall-mounted toilet with flush valve, 2 wall-mounted urinals with flush valves, and 2 wall-mounted lavatories. The First Floor Women's Restroom contains 2 wall-mounted toilets with flush valves and 2 wall-mounted lavatories.
- The Second Floor Men's Staff Restroom contains 1 floor-mounted tank type toilet and 1 countertop lavatory. The Second Floor Women's Staff Restroom contains 1 floormounted tank type toilet and 1 countertop lavatory.
- The Men's Locker Room contains 3 wall-mounted toilets with flush valves, 1 wall-mounted urinal with flush valve, 4 wall-mounted lavatories, and 4 showers. The Women's Locker Room contains 4 wall-mounted toilets with flush valves, 4 wall-mounted lavatories, and 3 showers.
- The public Men's and Women's Restrooms and Locker Rooms are ADA-compliant. The Staff Restrooms on the Second Floor are not ADA-compliant.
- The Pool Building contains 1 public Men's Restroom, 1 public Women's Restroom, and 1 Staff Restroom. The Men's Restroom contains 1 wall-mounted toilet with flush valve, 2 floor-mounted urinals with flush valves, and 2 countertop lavatories. The Women's Restroom contains 3 wall-mounted toilets with flush valves and 2 countertop lavatories. The Staff Restroom contains 1 wall-mounted toilet with flush valve and 1 wall-mounted lavatory.
- Condition of fixtures in both buildings is good. There is a mix of manual and electronic sensor style fixtures.
- The Ice Arena is equipped with 3 electric water coolers, in good condition. The Pool Building is equipped with 1 electric water cooler, in good condition. Ice Arena electric water coolers do not meet ADA and do not have bottle fillers.
- The Concessions Kitchen fixtures consist of 2 fryers, 1 griddle, 1 oven, 1 handwashing sink, 1 three-compartment sink, 1 freezer, and 1 walk-in refrigerator and 1 ice maker, which are in fair to poor condition.
- The Ice Arena Recreation Offices are equipped with a lunch room featuring a microwave, handwashing sink, and refrigerator.
- The Ice Arena has (2) 98-gallon natural gas domestic hot water heaters, installed in 2017, serving the Locker Rooms and front area. There are (2) 199,000 Btuh natural gas domestic hot water heaters, installed in 2016, serving the Zamboni area.

Rating:

Ice Arena 2 Needs Repair Pool Building 2 Needs Repair

- Continue replacement of manual fixtures to electronic style in both buildings.
- Replace EWCs that are not ADA and are not equipped with bottle fillers.
- Refer to Item J. General Finishes for kitchen equipment recommendations.



Item	Cost	Unit	Whole Building	Sum	Comments
Replace Plumbing Fixtures	\$1,000.00	UNIT	15.00	\$15,000.00	
Replace EWC	\$3,300.00	UNIT	2.00	\$6,600.00	
Ice Arena Sum:				\$21,600.00	

Item	Cost	Unit	Whole Building	Sum	Comments
Replace Plumbing Fixtures	\$1,000.00	UNIT	2.00	\$2,000.00	
Pool Building Sum:				\$2,000.00	



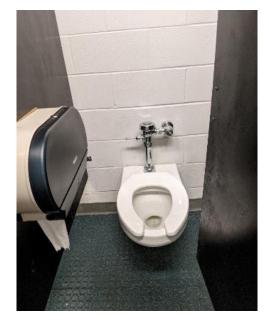
Water Heater Serving Locker Rooms



Electronic Flush Valve at Ice Arena



Water Heater Serving Zamboni Area



Manual Flush Valve at Ice Arena





Manual Faucet at Ice Arena



Non-ADA Lavatory in Staff Men's Restroom



F. WINDOWS

Description:

- The Ice Arena is equipped with aluminum frame windows with insulated glazing which are in good condition. The window system features operable windows throughout the building, and are equipped with opening limiters and insect screens in good condition. Window system seals are in good condition, with no air and water infiltration being experienced. Window system hardware is in good condition. The window system features integral blinds, which are in good condition.
- The Ice Arena does contain 2 aluminum framed skylights with insulated polycarbonate glazing in fair condition. The building does not contain clerestories. Interior glass is not OBC-compliant.
- The exterior doors in the Pool Building are equipped with hollow metal frame sidelights with single pane glazing. The sidelights are operable, without insect screens. Hollow metal frames are in good condition. Glazing kit frames are in poor condition.
- The building does not contain skylights. The building does contain two clerestory windows are in fair condition. Window security grilles are not provided for ground floor windows.

Rating:

Ice Arena 3 Needs Replacement Pool Building 3 Needs Replacement

- Replace Ice Arena exterior storefront doors, frames and transoms with thermally broken storefront framing and insulated glazing, with work recommended to be performed within 4-7 years. Replacement cost addressed in Item S. Exterior Doors replacement
- Replace polycarbonate skylight panels, with work recommended to be performed within 4-7 years.
- Replace the Pool Building window kits in the existing hollow metal frames, with work recommended within 2-4 years.

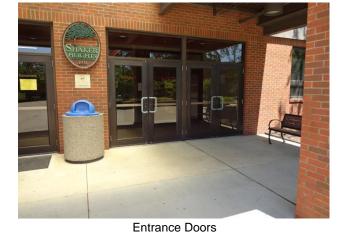
Item	Cost	Unit	Whole Building	Sum	Comments
Skylight Panels	\$138.00	SQ. FT.	760.00	\$104,880.00	
Ice Arena Sum:				\$104,880.00	

Item	Cost	Unit	Whole Building	Sum	Comments
Replace Window Kits	\$400.00	EACH	2.00	\$800.00	
Pool Building Sum:				\$800.00	





Polycarbonate Skylight





Pool Building Window



G. STRUCTURE: FOUNDATION

Description:

- The Ice Arena is equipped with concrete foundation walls on concrete footings, which
 displayed minor wall cracking in the mechanical room. The rest of the facility is in good
 condition. No grading or site drainage deficiencies were noted around the perimeter of
 the structure that are contributing or could contribute to foundation / wall structural
 deterioration.
- The Pool Building is equipped with concrete foundation walls on concrete footings, which displayed no locations of significant differential settlement, cracking, or leaking, and are in good condition. No significant issues related to foundation cracking or spalling were encountered. No grading or site drainage deficiencies were noted around the perimeter of the structure that are contributing or could contribute to foundation wall structural deterioration.

Rating:

Ice Arena 2 Needs Repair Pool Building 1 Satisfactory

- Repair areas of cracking in the Ice Arena Mechanical Room, with work recommended within 0-2 years.
- The Pool Building existing conditions require no renovation or replacement at the present time.

Item	Cost	Unit	Whole Building	Sum	Comments
Epoxy Crack Repair	\$1,000.00	LUMP SUM	1.00	\$1,000.00	
Ice Arena Sum:				\$1,000.00	

Item	Cost	Unit	Whole Building	Sum	Comments
Pool Building Sum:				\$0.00	



Ice Rink Foundation Cracking



Pool Building Foundation



H. STRUCTURE: WALLS AND CHIMNEYS

Description:

- The Ice Arena rink was constructed with a metal building system. The infill between the columns is 13' tall brick veneer on concrete masonry units, with metal wall panels from top of brick to the roof. Overall the brick is in good condition. Brick spalling and deterioration has occurred behind broken downspouts. Metal wall panels are in fair condition with peeling paint. Cracking of CMU has occurred in the Mechanical Room, Locker Room, and the Skate Rental area.
- The rest of the Ice Arena facility has a brick veneer on load bearing masonry wall system which displayed limited of deterioration, and is in good condition. Brick walls that screen the doors to the Men's and Women's Restrooms are capped with a row of brick. Water is penetrating the top of the wall can causing brick spalling and mortar
- The exterior masonry appears to have appropriately spaced and adequately caulked control joints in fair condition. Control joints are not provided at lintel locations, at doors and windows, building corners, and wall offsets though are not needed. The building does have sufficient expansion joints, and they are in fair condition.
- Interior corridor and demising walls are concrete masonry units, and metal stud framed
 partitions with gypsum board, project full height from floor to bottom of deck, and are in
 good condition. Interior masonry appears to have adequately spaced and caulked
 control joints in good condition. Interior soffits are of suspended metal framing with
 gypsum board type construction, and are in good condition.
- The window sills are brick, and are in good condition. The exterior lintels are steel, and are rusting in fair condition. The lintel at the NW paired door in the ice rink is sagging and in poor condition. The chimneys cap stone needs to be repointed and the brick sides are in good condition. Canopies over entrance is exposed structural steel and metal deck type construction, and are in fair condition. There are no exterior soffits.
- The Pool Building has 9 foot tall brick veneer on load bearing masonry walls, which
 displayed deterioration on the brick screen walls, and limited cracks in the main
 building, but is otherwise in good condition. The exterior masonry appears to have
 appropriately spaced and adequately caulked control joints in fair condition. Control
 joints are not provided at lintel locations, at doors and windows, building corners, and
- Brick veneer masonry walls are not cavity walls. Weep holes are provided in sufficient quantity at lintels and the base of masonry cavity walls, and are in fair condition.
- Exterior walls above the brick are tongue and groove redwood siding on wood framing.
 The siding is in fair condition.
- Interior corridor and demising walls are concrete masonry units, do not project full height from floor to bottom of deck, and are in good condition. Interior soffits are of gypsum board attached to wood framing type construction, and are in fair condition.
- The window sills are stone, and are in good condition. The exterior lintels are steel, and are in good condition. The chimneys are in good condition. Exterior soffits are of tongue and groove wood plank type construction, and in fair to poor condition. Fascia boards are wood and in mostly good condition.
- The redwood trellis at the doors to the Restrooms is in poor condition.

Rating:

Ice Arena 3 Needs Replacement Pool Building 3 Needs Replacement



- Repaint Ice Arena metal wall panels, with work recommended within 0 -2 years.
- Replace masonry lintel at paired door at NW corner of Ice Arena, with work recommended within 0 -2 years.
- Tuckpoint brick at screen walls to restrooms and behind broken downspouts, NW corner of ice rink and chimney cap, with work recommended within 0 -2 years.
- Tuckpointing of cmu in all areas of mortar cracking, with work recommended within 0 -2 years.
- Recaulk existing control joints at the NE corner of the ice rink and behind the downspout on the west side of the ice rink, with work recommended within 0 -2 years
- Replace spalled brick at screen walls to restrooms and at broken downspouts, with work recommended within 0 -2 years.
- Prep and paint exposed steel lintels through the overall facility with painting of exterior doors and frames. Cost included with exterior door painting in Item S.
- Repaint entrance canopy metal wall panels, structural steel and metal deck, with work recommended within 0 -2 years.
- Provide tuckpointing at the Pool Building in all areas of mortar deterioration on brick screen walls and minor cracks on main building.
- Replace damaged tongue and groove soffit and fascia board
- Paint steel lintels at screen walls.
- · Paint soffits.
- Stain wood siding and exposed laminated beams.
- Replace redwood trellis.

Item	Cost	Unit	Whole Building	Sum	Comments
Repaint Metal Wall Panels	\$4.00	SQ. FT,	7,400.00	\$29,600.00	
Replace Steel Lintel	\$250.00	EACH	1.00	\$250.00	
Tuckpointing	\$8.25	SQ. FT,	300.00	\$2,475.00	
Caulk Control Joints	\$1,000.00	LUMP SUM	1.00	\$1,000.00	
Replace Brick	\$20.00	EACH	100.00	\$2,000.00	
Repaint Entrance Canopy	\$8.00	SQ. FT.	450.00	\$3,600.00	
Ice Arena Sum:				\$38,925.00	

Item	Cost	Unit	Whole Building	Sum	Comments
Tuckpointing	\$8.25	SQ. FT.	200.00	\$1,650.00	
Tongue & Groove Soffit and Fascia Board	\$30.00	LINEAL FT.	30.00	\$900.00	
Paint Steel Lintels	\$50.00	EACH	2.00	\$100.00	
Paint Soffits	\$4.00	SQ. FT.	650.00	\$2,600.00	
Stain Wood Siding and Exposed Laminated Beams	\$4.00	SQ. FT.	900.00	\$3,600.00	
Replace Redwood Trellis	\$6,000.00	LUMP SUM	1.00	\$6,000.00	
Pool Building Sum:				\$14,850.00	





Ice Arena Entrance



Metal Wall Panels



Wood Soffits and Glulam Beams



Soffit at Entrance



Brick Screen Wall



Redwood Trellis



I. STRUCTURE: FLOORS AND ROOFS

Description:

- The floor construction of the base floor of the Ice Arena is concrete slab on grade type construction, and is in fair condition.
- The floor construction of the second floor is metal form deck on steel joist with concrete topping, and is in good condition.
- The sloped roof construction of the Ice Arena is steel trusses with metal deck. The support areas are steel trusses with tectum. The flat roof area is metal deck on structural steel, and is in good condition.
- The floor construction of the base floor of the Pool Building is concrete slab on grade type construction, and is in good condition.
- The floor construction of the Storage Mezzanine floor is plywood on wood joist type construction, and is in good condition.
- The roof construction of the Pool Building is tongue and groove planks on glulam beam type construction and is in good condition.
- The roof construction of the Pool Building Restroom Addition is wood deck on wood truss type construction, and is in good condition.

Rating:

Ice Arena 1 Satisfactory
Pool Building 1 Satisfactory

- Ice Arena existing conditions require no renovation or replacement at the present time.
- The Pool Building existing conditions require no renovation or replacement at the present time.

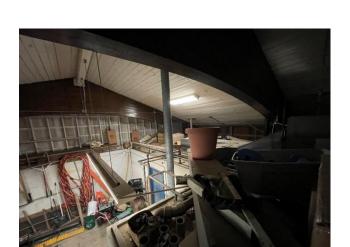
Item	Cost	Unit	Whole Building	Sum	Comments
Ice Arena Sum:				\$0.00	

Item	Cost	Unit	Whole Building	Sum	Comments
Pool Building Sum:				\$0.00	





Ice Arena Roof Structure



Pool Building Wood Deck on Glulams



Tectum Ceiling Panels



Wood Trusses at Pool Building Addition



J. GENERAL FINISHES

Description:

- The Ice Arena features open space with sealed concrete and type flooring, open/exposed and tectum type ceilings, as well as CMU type wall finishes. The walls were in fair condition. A lot of it was bare concrete in fair condition and the carpets located in the ice rink was in poor condition. The main level has restrooms with rubber type flooring, open/exposed type ceilings, as well as painted CMU type wall finishes, and they are in poor condition. The second floor restroom has ceramic tile type flooring, gypsum board wall finish, and acoustical ceiling tile ceiling finish, and they are in poor condition. The facility has locker rooms with rubber sports flooring, painted CMU walls, open/exposed ceilings, and they are in poor condition. Toilet partitions are plastic and are in poor condition.
- The Pool Building features conventionally partitioned spaces with concrete & epoxy type flooring, open/exposed and tectum type ceilings, as well as CMU type wall finishes, and they are in poor condition. The facility has restrooms with epoxy type flooring, gypsum board type ceilings, as well as painted CMU type wall finishes, and they are in good condition.
- The second floor administrative areas features conventionally partitioned spaces.
 Administrative spaces with carpet type flooring, ACT type ceilings, as well as gypsum board type wall finishes with wallcovering, and they are in poor condition.
- Casework in the administrative area is is limited and is solid wood type construction. The casework in the front office and concession stand is wood type construction with plastic laminate. All casework is in poor condition.
- The Ice Arena is equipped with metal non-louvered interior doors on the first floor and wood non-louvered doors on the second floor. All doors are flush mounted and in poor condition.

Rating:

Ice Arena 3 Needs Replacement Pool Building 3 Needs Replacement

- Provide complete replacement of finishes (and casework) due to condition and installation of systems outlined in Items A, C, D, E, I, K, L, M, N, T, U, and W, with work recommended within 4-7 years.
- Funding for replacement of interior doors is provided in Item O, including doors here noted as being in deficient condition.
- ◆ Provide for the replacement of kitchen equipment due to age and condition, with work recommended within 4 – 7 years depending on frequency of use.



Item	Cost	Unit	Whole Building	Sum	Comments
Complete Replacement of Finishes (Excluding Casework)	\$15.50	SQ. FT.	28,962.00	\$448,911.00	
Partial Casework Replacement	\$500.00	LINEAL FT.	107.00	\$53,500.00	
Toilet Partitions	\$1,100.00	SQ. FT.	11.00	\$12,100.00	Includes 2 Urinal Screens
Toilet Accessories	\$0.22	SQ. FT.	28,962.00	\$6,371.64	
Bleacher Replacement	\$121.00	PER SEAT	783.00	\$94,743.00	
Lockers	\$275.00	UNIT	124.00	\$34,100.00	
Kitchen Exhaust Hood	\$56,000.00	UNIT	1.00	\$56,000.00	
Walk-in Cooler	\$32,800.00	UNIT	2.00	\$65,600.00	
Convection Oven	\$10,000.00	UNIT	1.00	\$10,000.00	
Ice Maker	\$4,600.00	UNIT	1.00	\$4,600.00	
Ice Arena Sum:				\$785,925.64	

Item	Cost	Unit	Whole Building	Sum	Comments
Complete Replacement of Finishes (Excluding Casework)	\$14.13	SQ. FT.	3,525.00	\$49,808.25	
Toilet Accessories	\$0.20	SQ. FT.	3525.00	\$705.00	
Pool Building Sum:				\$50,513.25	



First Floor Corridor Wall, Base, and Floor Condition



Damaged Second Floor Carpet



K. INTERIOR LIGHTING

Description:

- Most of the Ice Arena lighting is older T8 fluorescent fixtures. The Skate Rental Shop has new LED strip fixtures.
- The lighting over the Ice Rink is 6-lamp T8 fluorescent high-bay fixtures installed around 2011.
- The newer Lithonia "Blue Box" lighting control panel controls the Ice Rink lighting.
- The Pool Building contains older T12 fluorescent fixtures in the mechanical areas. The restrooms contain newer LED fixtures.

Rating:

Ice Arena 3 Needs Replacement Pool Building 3 Needs Replacement

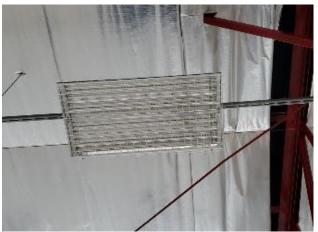
- Replace all T8 and T12 fluorescent fixtures with new LED fixtures.
- Provide additional lighting controls to conform to Ohio energy code.

Item	Cost	Unit	Whole Building	Sum	Comments
Fluorescent Fixture Replacement	\$7.15	SQ. FT.	28,962.00	\$207,078.30	
Lighting Controls	\$2.00	SQ. FT.	28,965.00	\$57,930.00	
Ice Arena Sum:				\$265,008.30	

Item	Cost	Unit	Whole Building	Sum	Comments
Fluorescent Fixture Replacement	\$7.15	SQ. FT.	3,525.00	\$25,203.75	
Lighting Controls	\$2.00	SQ. FT.	3,525.00	\$7,050.00	
Pool Building Sum:				\$32,253.75	



Main Lobby Lighting



Ice Rink Light Fixture



L. SECURITY SYSTEMS

Description:

• Facility contains a security camera system that monitors interior and exterior locations.

Rating:

Ice Arena 1 Satisfactory
Pool Building 1 Satisfactory

Recommendations:

• Existing conditions require no renovation or replacement at the present time.

Item	Cost	Unit	Whole Building	Sum	Comments
Ice Arena Sum:				\$0.00	

Item	Cost	Unit	Whole Building	Sum	Comments
Pool Building Sum:				\$0.00	



Security Camera Monitor



Typical Security Camera



M. EMERGENCY / EGRESS LIGHTING

Description:

- Emergency lighting consists of battery-powered unit emergency fixtures and exit signs.
- There is no egress lighting on the exterior of the exit doors.
- Emergency lighting locations inside the building appear adequate for coverage.

Rating:

Ice Arena 3 Needs Replacement Pool Building 3 Needs Replacement

- Replace interior exit signs and emergency lighting with new LED fixtures.
- Provide emergency egress lighting on the exterior of the exit doors.

Item	Cost	Unit	Whole Building	Sum	Comments
Emergency/Egress Lighting	\$1.10	SQ. FT.	28,962.00	\$31,858.20	
Ice Arena Sum:				\$31,858.20	

Item	Cost	Unit	Whole Building	Sum	Comments
Emergency/Egress Lighting	\$1.10	SQ. FT.	3,525.00	\$3,877.50	
Pool Building Sum:				\$3,877.50	



Exit Sign



Locker Room Emergency Light



N. FIRE ALARM

Description:

- The Ice Arena's main fire alarm panel is an older Simplex 4002 non-addressable panel.
- Fire alarm devices are mainly older devices, with some newer devices provided in select area.
- Battery-powered Kiddie CO detectors are provided throughout.
- Fire alarm devices appear to be adequately located throughout the Ice Arena building.
- The Pool Building does not contain a fire alarm system.

Rating:

Ice Arena 3 Needs Replacement Pool Building 3 Needs Replacement

- In the Ice Arena, replace entire fire alarm system with new addressable system.
 Remove Kiddie carbon monoxide detectors and provide monitored CO detection as part of the new system.
- Provide new fire alarm system for Pool Building.

Item	Cost	Unit	Whole Building	Sum	Comments
New Fire Alarm System	\$4.00	SQ. FT.	28,962.00	\$115,848.00	
Ice Arena Sum:				\$115,848.00	

Item	Cost	Unit	Whole Building	Sum	Comments
New Fire Alarm System	\$4.00	SQ. FT.	3,525.00	\$14,100.00	
Pool Building Sum:				\$14,100.00	



Ice Arena Main Fire Alarm Panel





Typical Fire Alarm Devices



O. HANDICAPPED ACCESS

Description:

- At the site, there is an accessible route provided from the public right-of-way, the
 accessible parking areas, and from the passenger unloading zone to the main entrance
 of the facility. There is an accessible route connecting all or most areas of the site. The
 exterior entrances are ADA accessible. Access from the parking/drop-off area to the
 building entries is not compromised by steps or steep ramps. Adequate handicap
 parking is provided.
- Ice Arena exterior doors are not equipped with ADA hardware. Building entrances should be equipped with 2 ADA power assist doors, and none are provided.
- There is an accessible route through the Ice Arena which does not include protruding objects. Space allowances and reach ranges are mostly compliant. Ground and floor surfaces are compliant. Ramps and stairs generally meet ADA requirements, with the exception of the handrail on the stairs leading to the ice skating lounge.
- Elevation changes within the Ice Arena are facilitated by 2 compliant stairwells in good condition. This multistory building has does not have a compliant elevator that accesses every floor.
- Ice Arena interior doors are not recessed, and some are not provided adequate clearances, but they are provided with ADA-compliant hardware
- There is an accessible route through the Pool area, including to the public restrooms. There are no elevation changes which require accommodation.
- There are Pool Building doors in the staff areas which are not provided with ADAcompliant hardware.
- ADA signage is provided on both the interior and exterior of the buildings.

Rating:

Ice Arena 3 Needs Replacement

Pool Building 2 Needs Repair

- Provide new power-assist doors and frames at Main Entrance.
- Provide new elevator in Ice Arena.
- Provide new handrail for the stair leading to the Ice Skating Lounge. Costs are covered in Item U.
- Provide new hardware at Pool Building doors.

Item	Cost	Unit	Whole Building	Sum	Comments
ADA Assist Door and Frame	\$8,250.00	UNIT	2.00	\$16,500.00	openers, electrical, patching, etc.
New Elevator	\$46,000.00	LEVEL	2.00	\$92,000.00	per stop
Ice Arena Sum:				\$108,500.00	

Item	Cost	Unit	Whole Building	Sum	Comments
Handicapped Hardware	\$385.00	UNIT	4.00	\$1,540.00	
Pool Building Sum:				\$1,540.00	





Lifeguard Door with Knob Hardware



Main Entrance Requiring ADA Operators



P. SITE CONDITION

Description:

- The Ice Arena's relatively flat site is located in a suburban setting with moderate tree and shrub type landscaping. The site is shared with the Pool, Pool Building, and Tennis Courts. There are no apparent problems with erosion or ponding.
- The site is accessed by heavily traveled city streets. A traffic signal is provided at the entrance to the site.
- Staff and visitor parking is facilitated by an asphalt parking lot in fair condition, containing 196 parking places. The site and parking lot drainage design, consisting of storm sewers provides adequate evacuation of storm water, and no problems with parking lot ponding were observed.
- Concrete curbs in fair to poor condition are appropriately placed required. Concrete sidewalks are properly sloped, are located to provide a logical flow of pedestrian traffic, and are in good condition. Trash pick-up and service drive pavement is heavy duty and is in good condition, and is equipped with a concrete pad area for dumpsters, which is in good condition.
- A 6' tall wood fence surrounds the dumpster area service doors to the Ice Arena, and is
 in fair condition.
- Concrete pavers outside the egress doors at the northwest corner of the Ice Arena have moved due to root growth and are hazardous to walk on. They are also about 8" below the floor elevation. They should be at the same grade as the floor.
- The Pool Building's relatively flat site is is provide moderate tree and shrub type landscaping. There are no apparent problems with erosion or ponding.
- Paved sidewalks around the building are in good condition.
- Existing conditions at the Pool Building require no renovation or replacement at the present time.

Rating:

Ice Arena 3 Needs Replacement

Pool Building 1 Satisfactory

- Replace broken sections of concrete curb.
- Paint the wood fence
- Remove the 12" caliper trees that are too close to the north and west sides of the Ice Arena.
- Replace concrete slab outside of egress door at the northwest corner of the ice rink.
- Plant new trees on the north and west sides of the ice rink.



Item	Cost	Unit	Whole Building	Sum	Comments
Concrete Curb Replacement	\$40.00	LINEAL FT.	100.00	\$4,000.00	
Paint Wood Fence	\$1.25	SQ. FT.	1400.00	\$1,750.00	
Remove 12" Caliper Trees	\$3,500.00	EACH	16.00	\$56,000.00	
Concrete Slab at Egress Door	\$1,200.00	LUMP SUM	1.00	\$1,200.00	
2" Caliper Trees	\$700.00	EACH	16.00	\$11,200.00	
Ice Arena Sum:				\$74,150.00	

Item	Cost	Unit	Whole Building	Sum	Comments
Pool Building Sum:				\$0.00	



Trees Growing Close to Ice Arena



Concrete Slab at Egress Doors



Q. SEWAGE SYSTEM

Description:

- The Ice Arena's Snack Bar has a 3-compartment sink which is connected to a grease interceptor and is in good condition.
- The majority of the sanitary systems are cast iron and original to the building. No major issues have been identified.
- The buildings do not have an on-site Sewage System

Rating:

Ice Arena 1 Satisfactory
Pool Building 1 Satisfactory

Recommendations:

• Existing conditions require no renovation or replacement at the present time.

Item	Cost	Unit	Whole Building	Sum	Comments
Ice Arena Sum:				\$0.00	

Item	Cost	Unit	Whole Building	Sum	Comments
Pool Building Sum:				\$0.00	



R. WATER SUPPLY

Description:

- The majority of the domestic water system is copper with soldered fittings. No major problems or repair needs were identified.
- A double-check backflow preventer was observed.

Rating:

Ice Arena 1 Satisfactory
Pool Building 1 Satisfactory

Recommendations:

• Existing conditions require no renovation or replacement at the present time.

Item	Cost	Unit	Whole Building	Sum	Comments
Ice Arena Sum:				\$0.00	

Item	Cost	Unit	Whole Building	Sum	Comments
Pool Building Sum:				\$0.00	



Backflow Preventer (in Background)



S. EXTERIOR DOORS

Description:

- Typical exterior doors in the Ice Arena are hollow metal type construction, installed on hollow metal frames, and in good condition. Typical exterior doors feature single glazed tempered glass vision panels, and appropriate hardware.
- Entrance doors in the Ice Arena are aluminum type construction, installed on aluminum frames, and in fair condition. Entrance doors feature single glazed tempered glass vision panels, transoms, sidelights, and appropriate hardware.
- The Ice Arena is equipped with 1 hollow metal roof access door in a hollow metal frame, which is in good condition.
- Typical exterior doors in the Pool Building are hollow metal type construction, installed on hollow metal frames, and in good condition. Typical exterior doors feature appropriate hardware.
- The Pool Building's overhead doors are sectional steel panel type in fair condition

Rating:

Ice Arena 3 Needs Replacement

Pool Building 1 Satisfactory

- Paint exterior hollow metal doors, frames and lintels due to poor condition, with work recommended within 2 years.
- Paint exterior overhead coiling doors, frames and lintels due to poor condition, with work recommended within 2 years.
- Replacement of single glazed entrance doors, framing and transoms with thermally broken frames and insulated doors with insulated glazing, with work to be performed within 4-7 years.
- The Pool Building existing conditions require no renovation or replacement at the present time.

Item	Cost	Unit	Whole Building	Sum	Comments
Paint Hollow Metal Door	\$150.00	SQ. FT.	25.00	\$3,750.00	
Paint Overhead Coiling Door	\$300.00	SQ. FT.	100.00	\$30,000.00	
Replace Storefront Door	\$3,500.00	UNIT	8.00	\$28,000.00	
Ice Arena Sum:				\$61,750.00	

Item	Cost	Unit	Whole Building	Sum	Comments
Pool Building Sum:				\$0.00	





Ice Arena Main Entrance Doors



Ice Arena Service Entry



T. HAZARDOUS MATERIAL

Description:

- There was no previous Asbestos Inspection Report provided. However, given the date
 of original construction and building methods, it is assumed that Asbestos Containing
 Building Materials (ACBM) were used. A Hazardous Materials Inspection should be
 performed to accurately determine the presence and condition of any ACBM within the
 building.
- Removal and replacement of fluorescent lighting in Item K will require special disposal.

Rating:

Ice Arena 3 Needs Replacement Pool Building 3 Needs Replacement

Recommendations:

• Provide for disposal of fluorescent lighting at both buildings.

Item	Cost	Unit	Whole Building	Sum	Comments
Fluorescent Lamps & Ballasts Recycling/Incineration	\$0.11	SQ. FT.	28,962.00	\$3,185.82	
Ice Arena Sum:				\$3,185.82	

Item	Cost	Unit	Whole Building	Sum	Comments
Fluorescent Lamps & Ballasts Recycling/Incineration	\$0.11	SQ. FT.	3,525.00	\$387.75	
Pool Building Sum:				\$387.75	



Fluorescent Lighting in Recreation Offices



Fluorescent Lighting in Pool Building



U. LIFE SAFETY

Description:

- The overall Ice Arena, not including the rink, is equipped with an automated fire suppression system in good condition. The Pool Building is not equipped with an automated fire suppression system.
- Ice Arena Exit Corridors are situated such that dead-end corridors are not present in either structure.
- The Ice Arena features 2 interior stair towers, which are protected by two hour fire enclosures. Stair towers are not present in the single-story Pool Building. Neither building has exterior stairways.
- Guardrails on the 2 stairs to the second floor do extend past the top and bottom stair
 risers as required by the Ohio Building Code. The guardrail for the stairs leading to the
 lce Skating Lounge do not meet this requirement.
- Rooms with a capacity greater than 50 occupants are equipped with adequate egress.

Rating:

Ice Arena 2 Needs Repair Pool Building 1 Satisfactory

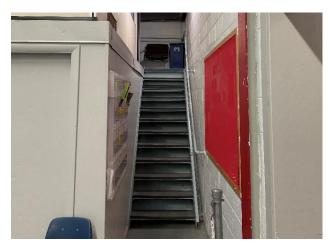
Recommendations:

• Provide new handrail for the stairs leading to the Ice Skating Lounge.

Item	Cost	Unit	Whole Building	Sum	Comments
New Handrail	\$5,000.00	LEVEL	1.00	\$5,000.00	
Ice Arena Sum:				\$5,000.00	

Item	Cost	Unit	Whole Building	Sum	Comments
Pool Building Sum:				\$0.00	





Handrail to be Replaced



Fire Suppression System Equipment



V. LOOSE FURNISHINGS

Description:

 The typical furniture in both buildings is mismatched, and in generally poor condition, consisting of desks & chairs, file cabinets, reading tables, bookcases, and locker room benches. The facility's furniture and loose equipment were evaluated, and on a scale of 1 to 10 the overall facility received a rating of 3 due to observed conditions.

Rating:

Ice Arena 3 Needs Replacement Pool Building 3 Needs Replacement

Recommendations:

• Provide for replacement of outdated or inadequate furnishings, with work recommended within 0-2 years.

Item	Cost	Unit	Whole Building	Sum	Comments
Furniture Replacement	\$7.15	SQ. FT.	28,962.00	\$207,078.30	
Ice Arena Sum:				\$207,078.30	

Item	Cost	Unit	Whole Building	Sum	Comments
Furniture Replacement	\$7.15	SQ. FT.	3,525.00	\$25,203.75	
Pool Building Sum:				\$25,203.75	



Ice Arena Office Chair



Second Floor Office Chair



W. TECHNOLOGY

Description:

- The technology system is in fair condition, but is outdated.
- A central audio-visual rack provides music and paging capabilties for the Ice Arena and is in fair condition.

Rating:

Ice Arena 3 Needs Replacement Pool Building 3 Needs Replacement

Recommendations:

• Provide new updated telecommunication system throughout.

Item	Cost	Unit	Whole Building	Sum	Comments
New Telecom System	\$5.00	SQ. FT.	28,692.00	\$143,460.00	
Ice Arena Sum:				\$143,460.00	

Item	Cost	Unit	Whole Building	Sum	Comments
New Telecom System	\$5.00	SQ. FT.	3,525.00	\$17,625.00	
Pool Building Sum:				\$17,625.00	



Punch-down 66 Blocks



Audio-Visual Rack



X. CONSTRUCTION CONTINGENCY / NON-CONSTRUCTION COST- ICE ARENA

Renovation	Costs (A-W)	\$2,075,269.26
7.00%	Construction Contingency	\$145,268.85
Subtotal		\$2,220,538.11
16.29% Non-Construction Costs		\$361,725.66
Total Project		\$2,582,263.77

Construction Contingency	\$145,268.85
Non-Construction Costs	\$361,725.66
Total for X.	\$506,994.51

Non-Construction Costs Breakdown		
Land Survey	0.03%	\$666.16
Soil Borings / Phase I Envir. Report	0.10%	\$2,220.54
Agency Approval Fees (Bldg. Code)	0.25%	\$5,551.35
Construction Testing	0.40%	\$8,882.15
Printing - Bid Documents	0.15%	\$3,330.81
Advertising for Bids	0.02%	\$444.11
Builder's Risk Insurance	0.12%	\$2,664.65
Design Professional's Compensation	7.50%	\$166,540.36
CM Compensation	6.00%	\$133,232.29
Commissioning	0.60%	\$13,323.23
Non-Construction Contingency (includes partnering and mediation services)	1.12%	\$24,870.03
Total Non-Construction Costs	16.29%	\$361,725.66