PARKLAND COMMUNITY CENTRE - PARK96

Parkland Community Centre Reserve Fund Study

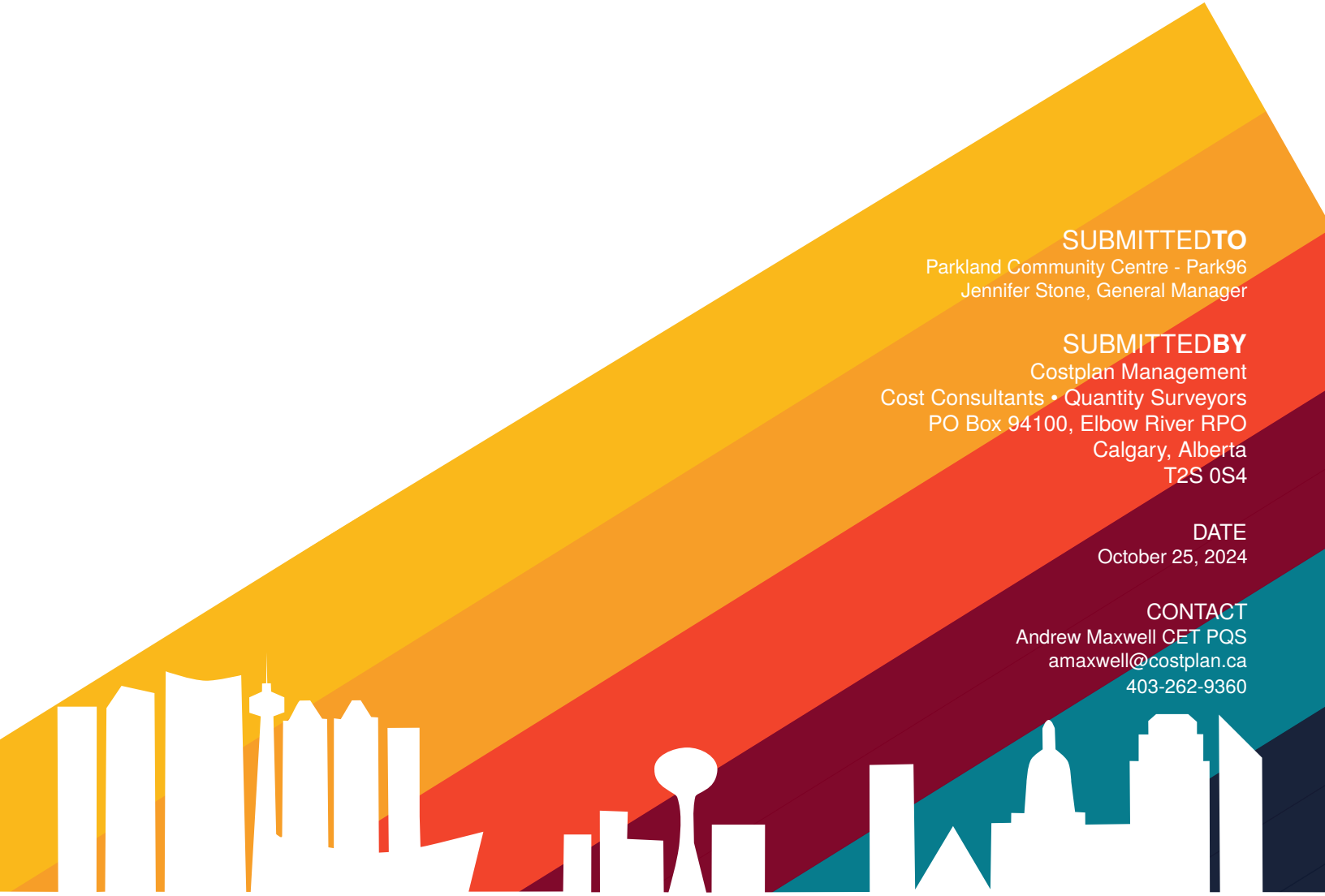
Costplan

SUBMITTED**TO**
Parkland Community Centre - Park96
Jennifer Stone, General Manager

SUBMITTED**BY**
Costplan Management
Cost Consultants • Quantity Surveyors
PO Box 94100, Elbow River RPO
Calgary, Alberta
T2S 0S4

DATE
October 25, 2024

CONTACT
Andrew Maxwell CET PQS
amaxwell@costplan.ca
403-262-9360



Cover Letter

October 25, 2024

Jennifer Stone, General Manager
Parkland Community Centre
14660 Parkland Blvd. SE
Calgary, AB T2J 6L5

RE: Completion of Reserve Fund Study for Parkland Community Centre

Please find attached our Reserve Fund Study for Parkland Community Centre (Park96). This report provides a detailed analysis of your facility's capital expenditure needs over the next 30 years, including projections for annual costs and reserve fund requirements. A copy of the study in excel format will follow for your ongoing use.

We believe this study will equip you with the necessary information to make informed decisions regarding reserve fund contributions and ensure the continued enjoyment and functionality of Park96 facilities for years to come. We are available to discuss the findings in detail and answer any questions you may have.

Sincerely,
Costplan Management Ltd.

per: Andrew Maxwell, C.E.T. P.Q.S.

Contents

1.0 Introduction

1.0 Introduction

1.1 Purpose

This report aims to calculate annual capital expenses over a 30-year period for the Parkland Community Centre, providing a comprehensive analysis of reserve fund requirements. The goal is to deliver beyond a static reserve fund study by providing a dynamic, user-friendly model that the owner can readily update with actual costs as they arise. This approach will enhance ongoing model accuracy and make periodic updates more efficient and cost-effective.

1.2 Scope

This report focuses on developing a 30-year capital expense projection and reserve fund analysis specifically for the assets located at 14660 Parkland Blvd. SE Calgary. The analysis encompasses the following key components:

- **Asset Identification and Inventory:** A comprehensive inventory of all major infrastructure, and site amenities will be documented, including their current condition, installation dates, and relevant specifications. Due to the age of the facility and its components, the majority of items were assessed based on their current condition rather than their installation period.
- **Remaining Useful Life Estimation:** Each asset's remaining useful life will be estimated based on a combination of visual inspection, industry standards, manufacturer data, and expert input.
- **Cost Estimation:** Costs for replacement or repair of each asset type will be projected over the 30-year period, taking into account material costs, labour costs, demolition expenses (where applicable), and a contingency allowance for unforeseen circumstances.
- **Reserve Fund Analysis:** A projected cash flow analysis will be performed to determine the adequacy of reserve fund contributions based on estimated capital expenditures, anticipated investment returns, and funding scenarios.

This analysis excludes:

- Future expansion projects or significant alterations to the existing site layout design or specifications.
- Cost estimates for routine maintenance activities and self performed work (e.g., landscaping, minor repairs).
- A detailed evaluation of alternative financing strategies beyond a basic reserve fund projection.

1.3 Methodology

This analysis uses a systematic approach to project capital expenses for the next 30 years and develop a corresponding reserve fund study.

1. Site Assessment: A comprehensive site visit was conducted on June 10, 2024 with Jennifer Stone, General Manager. This involved a thorough visual inspection of all relevant assets to document existing conditions. In addition, existing documentation such as drawings and any relevant maintenance records were acquired and reviewed to provide historical context and inform the analysis.

2. Determining Remaining Useful Life: To accurately project future costs and inform maintenance planning, we estimated the remaining useful life of each asset. This involved considering current condition through visual assessment, wear and tear, functionality, and any damage present. We also took into account installation dates where appropriate to determine age and potential for obsolescence. Industry standards, manufacturer data, and comparable projects were consulted where available to establish typical expected lifespans. Factors such as high-use areas, exposure to weather elements, and operational demands were factored in to refine the RUL estimations. Desired service levels and acceptable asset condition was also incorporated into the process to ensure alignment with owner/user expectations.

3. Cost Estimation: The cost estimation process commenced with a thorough quantification of each asset type. This involved inclusion and inter-calibration of multiple sources including site plans, aerial imagery, satellite data, and on-site observations to accurately determine both the quantity and dimensions of each asset. In cases where area quantities were unknown or

required refinement, like the interior dimensions of the main building, dimensions were estimated and calibrated against existing known dimensions to create a reconciled dimensional model.

To establish cost rates for replacement or repair, several reliable sources were drawn upon including Costplan's internal cost databases providing reliable current market conditions in Calgary. We also consulted tender data from recent projects of similar scope and nature to gain further perspective on prevailing costs. Additionally, we sought input directly from suppliers and trade contractors specializing in the relevant construction work to ensure our estimates reflect current industry practices and material availability.

Each item encompasses a comprehensive breakdown of potential expenses:

- **Material Costs:** This component accounts for the price of new components or replacement parts needed for repairs or upgrades.
- **Labour Costs:** Standard costs for or number of labour hours required for installation, repair, or demolition activities, factoring in prevailing wage rates and industry standards.
- **Demolition Costs:** If asset replacement necessitates demolition, we include associated costs for removal and disposal.
- **Contingency Allowance:** To account for unforeseen circumstances that may arise during the project lifecycle, a contingency allowance is added to each cost estimate. This provides a buffer to address potential surprises and ensure a realistic projection of total project expenses.

4. Annualization: To create a clear picture of future financial needs, we annualized the total estimated costs for each asset type over a 30-year period. This process generated a comprehensive schedule of projected capital expenditures, outlining the anticipated cost requirements year by year.

5. Reserve Fund Analysis: A projected cash flow analysis was conducted to determine if reserve fund contributions are adequate to meet anticipated capital expenditure needs over the 30-year period. This analysis utilized estimated annual capital expenditures derived from step 4, incorporating projected investment returns on reserves calculated considering current interest rates and inflation. Additionally, various assumptions regarding future funding sources and contribution strategies were integrated into the model to provide a comprehensive assessment of reserve fund sufficiency.

This methodology provides a comprehensive framework for projecting capital expenses and developing a sustainable reserve fund plan.

1.4 Defining Faulty or Failed Assets

Establishing clear criteria for determining when an asset is considered faulty or failed is crucial for accurate cost estimation and reserve fund planning.

General Criteria:

- **Loss of Functionality:** An asset is deemed faulty or failed if it can no longer perform its intended function satisfactorily. This could include equipment breakdowns, structural damage hindering usability, or a decline in performance below acceptable standards.
- **Safety Hazard:** Any asset posing a safety risk to users, the public, or surrounding infrastructure must be considered faulty and prioritized for replacement.
- **Significant Deterioration:** Deterioration beyond acceptable limits, impacting the asset's lifespan, performance, or aesthetics, may warrant replacement even if it's still functionally operational.

Asset-Specific Examples:

- **Playgrounds:**
- Broken swings, slides, or climbing structures posing a safety hazard.
- Worn-out rubber surfacing that fails to provide adequate impact absorption.
- Corrosion or structural damage compromising the integrity of the equipment.
- **Sports Surfaces:**
- Uneven playing surfaces creating an unfair advantage or injury risk.

- Excessive wear and tear leading to significant damage, requiring extensive repairs or replacement.
- Drainage issues causing waterlogging and affecting field usability.
- **Lighting Systems:**
- Malfunctioning fixtures, causing dark areas or uneven illumination.
- Obsolete technology with low energy efficiency and increased maintenance needs.
- **Fencing:**
- Broken posts or panels compromising security and safety.
- Rust or corrosion severely degrading the structural integrity of the fence.
- **Envelope:**
- Leaks, missing shingles/tiles, ponding water, sagging, premature wear and tear exceeding expected lifespan.
- Broken seals leading to drafts and energy inefficiency, cracked glass, difficulty operating, damaged frames.
- Cracks in exterior walls (indicating structural issues), moisture intrusion, deteriorated siding or cladding, pest infestation.
- Cracking, settling, water seepage, erosion, bowing, indicating potential structural instability.
- **Interior Finishes:**
- Excessive wear and tear, uneven surfaces, damage from spills or impacts, tripping hazards.
- Peeling paint, cracked plaster, mold growth, water stains, discolored finishes impacting aesthetics and potentially health.
- Sagging, damaged tiles/panels, leaks, poor insulation leading to energy inefficiency.
- Damage from impact or wear, loose hinges, sticking doors, creating safety hazards or security issues.
- **Mechanical, Electrical, Plumbing Systems:**
- Inoperable heating, ventilation, or air conditioning units, inefficient performance, frequent breakdowns impacting occupant comfort and energy bills.
- Leaky pipes, clogged drains, low water pressure, malfunctioning fixtures creating sanitation concerns and potential damage.
- Faulty wiring, outdated electrical panels, overloaded circuits, posing fire hazards and safety risks.
- **Safety & Accessibility:**
- Insufficient lighting levels in critical areas, malfunctioning fixtures creating hazardous conditions.
- Malfunctioning smoke detectors, fire alarms, or sprinkler systems compromising occupant safety.
- Non-compliant ramps, railings, or signage hindering access for individuals with disabilities.

Important Considerations:

- Regular inspections and preventative maintenance are essential for identifying potential problems early and extending asset lifespan.
- The desired service level and user expectations should be factored into the decision-making process.

2.0 Detailed Observations, Commentary, Recommendations

2.0 Introduction

2.1 Sitework

Landscaping Observations:

- **Disc Golf:** Tees are in good condition and expected to last for at least 15 years. However, potential operational or layout changes may necessitate earlier replacement. The elevated concrete and timber disc golf tees appear structurally sound. While the low PT timber retaining walls and concrete slab tops show minimal wear, erosion and minor undercutting of fill material around some tees were observed and should be filled. PT wood has a typical serviceable life of 10-40 years.
- **Concrete Sidewalks:** The concrete sidewalks adjacent to the main parking lot are in good condition overall. However, they should be regularly inspected for potential issues such as heaving due to tree roots or soil settlement. Surface damage should also be assessed and addressed as needed. A section near the main gate is missing, and lacks curb cuts which may require attention during future improvements. Concrete sidewalks have a serviceable life of 25-50 years in typical conditions. Replacement in 20 years is expected, but could extend beyond.

The following soft landscaping elements are included for completion but currently maintained as part of ongoing operational activities and are therefore excluded from this capital reserve study:

- Garden beds
- Fields (sod and seed)
- Tree replacement
- Arborist services for trees

Furnishings Observations:

Site furniture and furnishing counts are estimates and will require periodic review and adjustment. This is due to ongoing operational needs, replacements necessitated by wear and tear or obsolescence, and the acquisition of new items.

- **Benches:** Timber benches with steel framing and concrete or sonotube foundations are generally in good condition. However, the timber components show signs of wear and will require regular refinishing and selective replacement to ensure longevity. Site furnishings have a typical lifecycle of 10-25 years but with regular maintenance and replacement of worn timber components, serviceable life can be regularly extended.
- **Picnic Tables:** The park features a variety of picnic tables, including both composite and traditional timber versions. Composite tables appear to be in excellent condition and should endure with minimal maintenance. Timber tables, while structurally sound, require regular refinishing and timber replacement to maintain their appearance and usability. The current count of these tables is an estimate and should be periodically updated. Site furnishings have a typical lifecycle of 10-25 years but with regular maintenance and replacement of worn timber components, serviceable life can be regularly extended.
- **Garbage & Recycling Units:** Two types of units are present: prefabricated composite units (in excellent condition) and post-founded enclosures (timber or metal construction). Composite units should remain functional for an extended period with proper care. The enclosed units require regular maintenance, including addressing corrosion on metal components and refinishing timber surfaces, to ensure their continued effectiveness. Site furnishings have a typical lifecycle of 10-25 years but with regular maintenance and replacement of worn timber components, serviceable life can be regularly extended.
- **Light & Flower Standards:** Metal hanging posts used throughout the park for flower baskets and holiday lighting are in good condition overall. Regular inspections for corrosion and finish defects will be necessary to extend their lifespan. Replacement in 15 years has been included.

Playground Equipment Observations:

Playground equipment has a typical lifecycle of 8-20 years depending on material, maintenance, weather, use, and modernization desire. The life of older equipment can extend beyond this point if safety and play trends do not evolve or are not priorities. Quantities were taken from available plans and supplemented with calibrated aerial imaging.

- **Swingsets:** Existing swingsets are in good condition, with functional seats, chains, and hardware. However, they utilize an older design that may raise safety concerns compared to modern standards. Regular maintenance, including hardware replacement and seat/chain refurbishment, will extend their serviceable life. Complete replacement is anticipated within 10-15 years to address component failures, safety concerns, and incorporate current play designs.
- **Red Steel Car Set:** This steel tube structure with rubber tires and limited composite elements is in fair condition. Regular maintenance tasks like repainting and hardware replacement are recommended to maintain its functionality. While not expected to fail immediately, it will likely require sequential replacement over the next 10-15 years as play standards evolve and wear necessitates updates.
- **Yellow Plastic and Pipe Set:** This steel tube structure with yellow composite panels and red slides is in good condition and should remain functional with regular maintenance. Like other equipment, it's expected to be replaced within 10-15 years as play standards and designs advance.
- **Timber Tire Swings:** These swings consist of timber posts, steel horizontals, and chain-supported tires. They are currently in good condition. Regular maintenance will ensure their longevity, but they will likely be replaced within 10-15 years as play trends change and equipment ages.
- **Blue Pipe Set, Climber, Spinner:** This predominantly steel pipe set with curved stainless steel climbers and some nylon rope components is in excellent condition. Regular maintenance will extend its lifespan; however, it's anticipated to be sequentially replaced within 10-15 years as play standards evolve.
- **Playground Gravel and Edging:** Playgrounds feature pea gravel surfaces with timber or composite edging. This surface is currently in good condition. However, regular maintenance is needed to address infiltration of dust and organic material into the gravel. Replacement of both gravel and edging is projected for year 20, addressing worn components and disposal concerns.
- **Misc Playground Items:** The park includes various smaller play items such as excavator scoopers, a shed, and a geodesic dome climber. An allowance has been included to replace these items as they reach the end of their lifespan or become outdated, aligning with the planned replacement schedule for larger playground equipment over the next 10-15 years.

Signage & Flagpoles:

- **Flagpoles:** Metal flagpoles at the hockey rink and main building are in good condition. Periodic inspections are recommended to ensure ongoing serviceability, with an anticipated lifespan of at least 15 years.
- **Main Site Signage:** The Park 96 corner signage installation is in poor condition but remains functional. The timber structure's paint has deteriorated, exposing raw wood, while the reader board appears to be in acceptable condition. While regular maintenance could prolong its life, full replacement is recommended. Selective repairs to failed timber, signage elements, fasteners, and the base might offer a subjective extension of service life indefinitely.

2.2 Parking & Paving Observations:

Typical asphalt service life is between 15 and 25 years and varies based on installation quality, thickness, sub-grade integrity, ponding, drainage, snow clearing activities, traffic, loading, and weather. Concrete curbs can extend beyond this point, anywhere from 15-30 years or more depending on conditions. Quantities were taken from available plans and supplemented with calibrated aerial imaging.

- **Parking Lot Asphalt:** The main parking lot asphalt is in poor to moderate condition. Surface deterioration includes significant ravelling, cracking, and some mild unevenness caused by heaving and settlement. While previous crack filling efforts have been made, cracks will continue to expand. Localized tree root growth contributes to grading issues that will require addressing. Proactive measures include regular removal of organic growth and continued crack filling. However, resurfacing is anticipated within the next 10 years to effectively address the deteriorating surface condition.
- **Concrete Curb & Gutter:** The concrete curb and gutter surrounding the parking lot is in poor to moderate condition with localized failures attributed to tree root heaving. Though the concrete itself remains generally serviceable, grade separation between the gutter and paving exists, along with surface damage from vehicle impacts. Replacement of the curb and gutter is recommended concurrently with asphalt resurfacing to address wear, heaving, and failed areas, ensuring a cohesive and functional parking lot design.

- **Line Painting:** An allowance has been included for repainting parking stall lines and accessible stalls as needed. This can be managed either as part of the resurfacing project or considered an ongoing operational cost.
- **Chain Link Gate & Fence:** The chain link fence and gate separating the east parking lot are currently in good condition. Periodic inspections are recommended to monitor their condition, with a projected replacement in 15 years. Chain link fences and gates typically last 20 or more years, regular maintenance may extend this lifespan further.

2.3 Main Building Paving & Park Pathways Observations:

Quantities were taken from available plans and supplemented with calibrated aerial imaging.

- **Paving Around Main Building:** Resurfacing is expected to be required for the asphalt paving surrounding the main building due to its poor to moderate condition. Surface deterioration includes significant ravelling, cracking, and unevenness caused by both settlement and underground service replacement work. Joints between existing paving and patch work are likely to degrade over time, leading to differential settlement and further cracking. While crack filling has been attempted previously, ongoing degradation is expected to continue. Continued crack filling can temporarily mitigate the issue, but resurfacing is anticipated within the next 10 years.
- **Signage & Wayfinding:** An allowance has been included for potential signage replacement and updates, although this could be considered optional depending on priorities.
- **Asphalt Pathway Resurfacing:** The asphalt pathways are in poor to moderate condition characterized by cracking, surface degradation, ponding areas, raveling edges, root heaving, and deteriorated transitions between paving and sod. Resurfacing could be undertaken at any time but we have included replacement within the next 10 years. Considering the pathway's use as pedestrian-only traffic, a complete failure scenario followed by selective gravel surfacing might be an alternative option to consider.
- **Main Building Concrete Ramps & Entrance Pads:** The concrete ramps and entrance pads leading to the main building are in moderate condition. While surface wear, some cracking, and less than ideal transitions to paving exist, they remain functional. Separation gaps due to settlement exist between the concrete accessible ramp and main building which should be filled to mitigate additional failure. The accessible ramp and entrance does not appear code compliant and short term replacement should be considered. Replacement is recommended concurrently with the asphalt paving resurfacing within 10 years.
- **Main Building Ramp - Balustrade:** The accessible ramp's steel pipe and picket railing is in moderate condition. Regular refinishing should be incorporated into maintenance schedules to extend its serviceable life until eventual replacement, ideally alongside the ramp's redesign and replacement within 10 years.

2.4 Access Control & Security Observations:

- **Access Control Shed:** The access control shed adjacent to the main pedestrian gate is currently in acceptable condition, despite some exterior finish degradation, column base weathering, and issues with downspouts and grading. However, staff indicate it is rarely used for its original purpose and currently is used for storage. An allowance has been included for its replacement with a simpler, site-built or prefabricated structure. If replacement is not desired, repairs to the roof drainage should be completed and this allowance can be removed.
- **Access Shed Exterior Refinishing:** An allowance has been included for exterior work to the potential replacement access control shed. If replacement is not desired this allowance can be removed.
- **Automatic Gate:** The automatic gate received recent servicing and appears to be in excellent condition. However, due to frequent use, component replacement and repairs are expected at relatively short intervals. Costs have been included to accommodate sporadic partial replacements as unpredictable failures occur.
- **Automatic Gate Electrical:** Servicing of the electrical system for the gate and access control shed is currently adequate and likely to remain serviceable until a major renovation project is planned. Costs have been included to address potential electrical needs associated with a future renovation.
- **Perimeter Fencing:** The perimeter fencing is generally in good condition. Localized damage from tree fall has been noted and, according to information received, is being addressed through repairs. While a full replacement cost has

been included, a phased approach to replacement is recommended as the overall condition of the fence degrades. Typical chain link fencing lasts between 20-30 years.

2.5 Spray Park Observations:

The spray park's overall condition is moderate. The equipment vault, along with its piping, valves, and manifold, are in good condition and have an expected lifespan of 8 to 15 years. The concrete pad is also in good condition. However, the water features are nearing the end of their typical 15-year lifespan. Currently, the spray park relies on the city water supply and directly drains to sanitary or storm services, leading to significant water costs. While full replacement is planned within the next 10 years, this timeline could be extended through ongoing maintenance, repairs, and replacement of failing components.

- **Concrete Pad:** The concrete pad is in moderate to good condition, exhibiting a broomed finish and slopes for drainage. Minor cracking is present, but structural integrity remains sound. Previous patching addressed sprinkler plumbing repairs. However, spalling, surface wear, and organic growth within expansion joints warrant attention. Removal of organics from the joints is recommended. Replacement is advisable concurrently with spray park equipment upgrades.
- **Equipment Vault:** The below-grade steel vault housing water valves and control equipment is in good condition. However, replacement is recommended alongside any spray park equipment renovations.
- **Manifold, Pumps & Valves:** Currently in good condition, these components are anticipated to be replaced during renovations due to expected design changes and warranty considerations.
- **Water Piping & Water Features:** In fair condition, exhibiting corrosion and faded finishes requiring refinishing. Replacement is planned with an overall spray park upgrade.
- **Piping, Valves & Associated Controls:** Currently in good condition, these components are anticipated to be replaced during renovations due to expected design changes and warranty considerations.
- **Electrical:** The electrical servicing to the spray park is expected to remain functional until a major renovation. Costs have been included to address potential electrical needs associated with such a renovation.

2.6 Ice Skating Rink and Gazebo Observations:

Concrete Rink Observations:

- **Concrete Flatwork:** The concrete slab on grade is in fair to poor condition, with deteriorating surfaces, cracking, ponding, and differential settlement. Previous crack repairs have since failed, and water infiltration through cracks may accelerate damage via erosion, hydro compaction, and frost action.
- An interim repair strategy is recommended to prolong the slab's serviceable lifespan. Uneven surfaces may not significantly hinder skating functionality for an extended period however, full replacement is ultimately inevitable and costly. Replacement timing should be strategically planned to maximize the existing slab's remaining lifespan while minimizing financial impact.
- **Concrete Curbs:** The edge curbs are in good condition and recommended for replacement concurrently with the concrete slab.

Gazebo Observations:

- **Concrete Pad:** The gazebo pad is raised above the ice slab, with observed sub-grade erosion under the slab. Filling gaps where the gazebo slab meets the rink slab should be completed and grade changes to the adjacent rink slab should modify drainage patterns away from the gazebo. While the pad appears sound, replacement should be considered during an overall rink and gazebo renovation.
- **Timber Framing:** In good condition requiring periodic refinishing and general maintenance. The timber framing should last upwards of 30 years if maintained.
- **Asphalt Shingles:** The asphalt shingles are in excellent condition. Typical lifespan of asphalt shingles is 20-30 years.
- **Trim Details and upper grills:** Serviceable but recommended for refinishing to extend their lifespan.

- **Soffit Ceiling:** Current plywood ceiling is in good condition, and is expected to last 10 years or more with regular refinishing.
- **Column Bases:** Timber shiplap is in contact with the concrete slab and is showing signs of rot, splitting, and finish degredation. Overall the shiplap bases are in poor condition and should be replaced during an overall gazebo renovation. Refinishing will extend their service life until then. Timber is a poor material selection for the column bases environment and a more durable product should be considered.
- **Skate Flooring:** In good condition, with allowance included for eventual replacement. Skate flooring typically lasts 5-7 years in a high use arena setting.
- **Natural Gas Firepit:** The natural gas fireplace was decommissioned for the summer at time of review. With regular maintenance, the firepit should have a servicable life beyond 20 years. Replacement may be considered during a rink slab replacement if required.

2.7 Hockey Rink Observations:

- **Asphalt Paving:** The rink's asphalt paving is in moderate condition, with cracking and ponding observed on the main surface. A separate asphalt surround supports the dasher boards and is in poor condition, exhibiting differential settlement and surface wear. Asphalt paving has a typical service life of 15-25 years. While the existing paving could suffice for several years given its primary function (supporting winter ice slab development), repairs or replacement should be timed with a solution for the dasher boards.
- **Dasher Boards:** The rink's current site-built dimensional wood and plywood dasher boards are showing signs of deterioration, including rot, fastener corrosion, cracking, and splitting. The safety and performance of the system is questionable and the condition is critical. A full replacement with a commercially available aluminum framed system is recommended for improved safety and longevity. A commercial dasher board system will typically last over 20 years.
- **Fencing:** The chain link fencing surrounding the dasher boards is in good condition and requires only routine replacement and repairs as needed. If a replacement dasher board system is installed, replacement is expected to occur.
- **Skate Mats:** Skate mats for the rink, currently stored, are included in the cost estimates. Typical lifespan of skate mats is 5-8 years in indoor arena setting.
- **Lighting:** The current High-Intensity Discharge (HID) lighting system has the potential for replacement with LEDs during a future modernization project or when individual fixtures fail. However, the limited seasonal use of the facility does not currently justify an immediate LED upgrade unless fixture failure occurs. A projected lifespan of 25-30 years is assumed for the existing HID system.

2.8 Tennis Court Observations:

Quantities were taken from available plans and supplemented with calibrated aerial imaging.

Tennis Surface:

- **Asphalt Repair & Crack Control:** The tennis courts are built on an asphalt base that exhibits cracking on both courts. Court 1 is in generally fair condition, while Court 2 suffers from significant cracking in the base asphalt, leading to a poor overall condition. Immediate repair of these cracks is crucial to prevent further deterioration and mitigate potential trip hazards. Regular crack repair and resurfacing are recommended to extend the lifespan of the courts. Asphalt typically lasts 15-25 years. A resurfacing schedule within the next 5-10 years should be considered, allowing for subgrade repairs where possible. The impact of repairs, tolerance for degraded surfaces, and safety considerations will influence the specific timeline.
- **Refinishing & Markings:** The multi-layer acrylic surfacing is in good condition overall but should be patched after any cracked control measures. Acrylic tennis surfaces typically require resurfacing every 10 years.
- **Perimeter Fencing:** Currently in good condition. typically lasts 20 or more years. Replacement included in 20 years.
- **Lighting:** The current High-Intensity Discharge (HID) lighting system has the potential for replacement with LEDs during a future modernization project or when individual fixtures fail. However, the limited seasonal use of the facility does not

currently justify an immediate LED upgrade unless fixture failure occurs. A projected lifespan of 25-30 years is assumed for the existing HID system.

- **Netting & Fixtures:** Netting, inserts, and basketball fixtures appear to be in good condition, with replacement intervals varying based on usage. Typical lifespan of netting is 5-10 years, steel components over 25 years.

2.9 Site Services Observations:

Quantities were taken from available plans.

- **Irrigation:** The irrigation system is currently operational, but potential discrepancies between the installed system and the available plan warrant future investigation. While no major investment is anticipated in the near term, a full system replacement is included at the end of the study timeframe. This accounts for the expected increase in component failures due to age. Valves, heads, manifolds, and control equipment typically have a lifespan of 5-15 years and are replaced as needed. Piping is projected to last beyond 30 years.
- **Water Mains:** Replaced in 2020, water mains are not expected to require additional costs during this study period.
- **Sanitary Sewer & Storm Service:** Full system replacements are planned towards the end of the study timeframe. This is due to anticipated increases in failures related to connections, valves, and piping. The existing system dates back to 1976, making replacement at the study's conclusion a reasonable expectation, as it would be approaching 80 years old.

Electrical Systems:

- **Subpanels & Enclosures:** Existing subpanels and enclosures are nearing the end of their lifespan due to limited availability of parts for older designs. Partial component replacements are not feasible, necessitating full replacement of these systems. Subpanels typically reach end of life in the 25-50 year range when components become unavailable or code changes prevent modifications. Electrical feeders do not typically fail and are assumed to be in acceptable condition.
- **Lighting:** LED fixture replacements are recommended as HID lighting fixtures fail at the following locations:
  - Parking lot
  - Interior pathways
  - Splash park
  - Gazebo
- **Disc Golf Lighting:** Current LED lighting fixtures are in excellent condition and expected to serve beyond the study timeframe, requiring no immediate replacement.

Outdoor Maintenance Garage:

Quantities were taken from available plans, site observations, and supplemented with calibrated aerial imaging.

- **Concrete Slab:** The concrete slab supporting the garage structure is in good condition and should only be considered for replacement when the structure itself is replaced or its use is revised.
- **Exterior Cladding & Structure:** The exterior cladding and supporting structure are in good condition. Replacement of the cladding within ten years is recommended, though regular refinishing can extend its serviceable life.
- **Asphalt Shingles:** The asphalt shingles on the garage roof are significantly worn and curled, indicating they are in poor condition. While immediate structural damage is unlikely, replacement is recommended to prevent further deterioration and potential leaks. The shingles over the attached open-sided shed are in good condition.
- **Overhead Door:** The manually operated wood panel overhead door is currently in moderate condition. Regular maintenance should include repainting along the base to address failing paint due to moisture damage. While a replacement is planned within 5 years, limited use and continued maintenance could potentially extend this timeframe.
- **Wood Shelving:** Both interior and exterior shelving are in good to serviceable condition and should be reassessed as needed based on any major use changes or renovations.
- **Electrical:** The electrical service and fixtures appear adequate for current needs.

2.10 Fuel Lockup Observations:

- **Concrete Pad & Containment Curb:** The concrete pad and containment curb appear to be in serviceable condition, though heavily obscured for a thorough assessment. Replacement is included within 20 years as storage requirements and needs evolve.
- **Roofing:** The fuel lockup's membrane roof appears adequate; however, the underlying OSB sheathing raises concerns. Potential membrane failure could damage the sheathing, necessitating replacement. While the impact is considered low, it should be assessed when failures occur or during other roofing work on-site.
- **Structure:** While currently functional, the structure requires eventual replacement to address potential future concerns.
- **Fencing:** The chain link fencing with vision obscuring material is in good condition and expected to last 20 year or more.
- **Fuel Tanks:** Two Westeel curved top road-vault diesel fuel tanks, manufactured on different dates, are present. Replacement is included within 10 years but should be reassessed periodically after routine inspections. Prior replacement before failure is advised to minimize environmental damage and liability related to potential spills.

2.11 Enclosure and Maintenance Yard Observations:

- **Perimeter Fencing:** The vision-screen chain link fence surrounding the maintenance enclosure is in good condition. The fencing should last upwards of 20 years.
- **Dumpster Bollards:** Painted steel pipe bollards securing the garbage and recycling bins are also in good condition. Regular maintenance, including repainting, is recommended to maintain a lifespan of 20 years or more. Impact damage or use change is likely to require their replacement prior to the bollards failing.
- **Seacans:** The seacans are in good condition. Periodic repainting and spot repairs to address corrosion should be considered as they age. Sea cans have an average lifespan of 25 years but with corrosion control, this can be extended further.

2.12 Bandstand Observations:

The bandstand, constructed in 2005 by volunteer labour without a permit, is in generally poor condition and presents significant safety concerns due to its design and age. Quantities were taken from available plans, site observations, and supplemented with calibrated aerial imaging.

Safety Concerns:

- **Stairs:** Lacking code-compliant handrails or landings, the stairs pose a serious safety and liability risk. Immediate investigation and replacement or decommissioning is recommended.

Structure:

- **Timber Structure:** While the timber structure itself appears in good condition, any renovation will require investigation into any building code deficiencies.
- **Doors:** The rear double doors are bent and non-functional, requiring replacement.
- **Exterior Siding:** The painted wood siding appears serviceable; regular maintenance may extend its lifespan.
- **Roof:** The roof appears to be in good condition.

Interior:

- **Flooring:** The skate flooring covering the interior floor is in good condition but potential separation between sheets raises safety concerns and may limit usable applications.
- **Walls:** Black painted plywood walls are in fair condition.
- **Electrical:** Replacement of electrical outlets with GFCI (Ground Fault Circuit Interrupter) outlets is recommended for safety.

- **Bird Nesting:** Attempts to deter birds from nesting in the lighting tracks have been partially successful, highlighting ongoing maintenance needs.

Recommendation:

Given its age, design flaws, and accumulating maintenance requirements, full or partial replacement of the bandstand is strongly recommended. This should be accompanied by a thorough assessment of current and future park needs to ensure a suitable replacement structure meets those requirements.

2.13 Pavillion Observations:

Quantities were taken from available plans, onsite observations, and supplemented with calibrated aerial imaging.

Pavilion 1:

- **Condition:** Moderate overall.
- **Roofing:** Asphalt shingles are severely deteriorated (mossy, curled, edge deterioration). Gutters have detached and require replacement alongside the roofing.
- **Structure:** Timber structure is in good condition but requires refinishing to address water damage from failed gutters. Note: The wood is not pressure-treated (PT) and in direct contact with the concrete slab; regular inspections for rot and drainage issues are critical.
- **Countertops:** Concrete countertops supported by timber framing should be considered for replacement if the framing shows signs of failure, rot, or if they no longer meet the pavilion's needs.
- **Electrical/Plumbing:** Damaged electrical outlets require replacement with GFCI outlets, along with LED lighting upgrades. Water supply and plumbing are functional but nearing the end of their lifespan and should be modernized soon.

Pavilion 2:

- **Condition:** Good overall.
- **Roofing:** Recently replaced and should last 25 or more years.
- **Exterior:** Fascia boards need repainting.
- **Interior:** Timber frame and gravel pad are in good condition. Laminate countertop and timber framing are also in good condition.

Pavilion 3:

- **Condition:** Good overall.
- **Roofing:** Recently replaced and should last 25 or more years.
- **Exterior:** Repainting of fascia is needed. Decking requires attention due to the non-PT wood, perimeter edging contact with earth, and failed finish; repainting is recommended. Wood deck surface appears good. Missing outlet covers should be replaced or updated to GFCI outlets.

Pavilion 4:

- **Condition:** Good overall.
- **Structure:** Timber columns are not PT and in direct contact with the concrete slab; regular inspections for rot and drainage issues are recommended.
- **Exterior:** Timber cladding needs repainting or replacement due to paint failure and bird damage. Structure and storage room are in good condition. Electrical lighting and outlets appear serviceable.

2.14 Main Building Observations:

Quantities were taken from available plans, onsite observations, supplemented with calibrated aerial imaging, and a reconciled dimension model of the building was created.

Overall Condition: The building is in good condition overall.

Exterior:

- **Roofing:** Asphalt shingles are in good condition; however, damaged gutters need replacement as they are either improperly installed or have failed and no longer properly orientated. A localized roof structure failure near the east entrance requires monitoring and eventual repair. Asphalt shingles typically last 25 years, replacement in 20 years has been included.
- **Cladding & Roofing Structure:** Timber cladding, fascia, and soffits are in moderate condition. Bird damage is a recurring issue requiring ongoing maintenance. Localized rot damage exists due to cladding contact with asphalt; a replacement system is recommended with design or material changes to mitigate this problem. The roofing structure appears generally intact save for the localized roof structure failure near the east entrance.
- **Natural Stone Masonry:** Rundestone or similar masonry is in good condition and will benefit from regular cleaning, isolated repointing, and general upkeep to extend its lifespan beyond the term of this study.
- **Skylights & Windows:** Skylights are reported to be functional and leak-free and no evidence of leaking was observed. Wood-framed double-glazed windows require repainting and reapplication of sealants for maintenance but are nearing the end of their lifecycle and should be replaced as part of a future renovation or if damaged. Windows and skylights typically last 30 years.
- **Doors & Well:** Exterior doors are original and serviceable, but weather sealing and trim damage necessitate replacement. Timber window wells appear good, and steel safety covers are also in good condition.
- **Electrical Safety:** Exterior receptacles lack GFCI protection and should be replaced during any exterior work to ensure safety.

Interior:

- **Main Floor:** Finishes are good overall. The main hall flooring shows wear and should be regularly assessed based on usage frequency. Sports flooring typically lasts 20 years depending on use and varies based on product. An additional 10 or more years may be achieved given its current condition.
- **Office Area:** Carpet is worn and nearing the end of its life, requiring replacement. Office carpeting typically lasts 15 years depending on use.
- **Kitchenette & Washrooms:** Both in good condition with functional fixtures and fittings. Toilet partitions are dated but usable. The washroom's floor, vanities, and flooring are all in good condition. Replacement of washroom components is expected in 10 years. Replacement of kitchenette components is included in 15-20 years.
- **Attached Maintenance Garage & Office:** Condition is moderate but serviceable. The in-floor drainage trench is non-functional and needs investigation, repair, or replacement. The concrete slab exhibits wear consistent with age and use; localized repairs or retopping might be considered. Shelving, cabinets, and storage are dated but functional. The zamboni flood water heater is at the end of its serviceable life and could necessitate complete replacement if it fails.

Vestibule & Stairs:

- **Entrance Vestibule:** In good condition. Flooring is expected to be replaced after 5 years as this is a high wear area. Remaining components including doors, glazing and other finishes are expected to be replaced in 10-15 years as required.
- **Basement Stairs:** In good condition. Handrails and balustrades require replacement to meet current building codes as part of a future renovation. Carpeting is in excellent condition.

Basement:

- **General Condition:** Good overall. Laminate flooring is in good condition but may experience accelerated wear once the surface degrades or joints chip. Walls, ceilings, and finishes are all in good shape. Replacement of components is planned over 10-20 years as required. Partition curtain, AV system, and loose furniture is expected to be replaced earlier, within 5-8 years.
- **Washrooms & Kitchen:** Washrooms are in good condition and are not expected to require work for 15 years. The basement kitchen has dated cabinets and countertops, but they remain functional. A kitchen renovation is included in 10 years, but could be extended if the overall condition is good.

Exterior Basement Fire Exit:

- **Concrete Stairs:** Steps are uneven, requiring remediation, but are otherwise in good condition.

- **Door Frame:** The exterior door frame has suffered from rot and weather damage. Full replacement of the frame is recommended. Further investigation could reveal additional rot or mold.
- **Handrails:** Flat steel bar handrails are not code-compliant and should be replaced during any major renovation.

2.15 Washroom Building Observations:

Overall Condition: Moderate.

- **Exterior:** The timber cladding exhibits significant damage attributed to bird and wildlife activity. This necessitates repairs and repainting to maintain the building's aesthetic appeal and protect its structure. The asphalt roofing is in good condition.
- **Interior:** The painted concrete slab floor is in poor condition due to concrete scaling and chipping paint. Concrete resurfacing and repainting is recommended. Fixtures are currently functional, but their age and potential for wear suggest they may benefit from replacement during a future renovation project. Toilet partitions are in good condition, indicating proper maintenance and care.
- **Accessibility:** The washroom building lacks accessible stalls, making it inaccessible to individuals with disabilities. Accessibility should be considered during any planned major renovation.
- **Lighting:**The existing lighting system is outdated and exhibits damage, necessitating replacement with modern fixtures to improve both functionality and energy efficiency.

3.0 Limitations

This study provides a reasonable projection of capital expenditures and reserve fund needs based on the information available at the time of issue. We note the following limitations:

- **Non-Destructive Methodology:** This analysis relies on non-destructive investigative methods (visual inspection, existing documentation review). Actual component lifetimes may vary from our estimations.
- **Cost Fluctuations:** Actual costs for materials, labour, and construction will fluctuate based on market conditions, supply chain availability, contractor selection, and other external factors beyond our control.
- **Economic Uncertainty:** Economic conditions are inherently unstable. Inflation rates, interest rates, and material costs can change significantly over time, impacting both project costs and reserve fund performance.
- **Modeling Assumptions:** This analysis relies on assumptions regarding asset lifespans, cost trends, and future funding strategies. Actual outcomes may differ from these projections.

This report should be considered a reasonable estimation of expected capital expenditures rather than a definitive guarantee. It is essential to monitor actual costs and adjust the reserve fund strategy as needed throughout the project lifecycle. Costplan Management Ltd assumes no liability for any variances, mistakes, omissions, or errors in this report, nor for any decisions made based on its contents.

4.0 Assessment Documentation

View of Disc Golf Tees

View of Sidewalks

View of Playground

View of Playground

View of Parking Lot Curbs

View of Parking Lot

View of Pathways

View of Perimeter Fencing

View of Spray Park

View of Concrete Rink

View of Gazebo

View of Hockey Rink

View of Hockey Rink

View of Tennis Courts

View of Tennis Courts

View of Garage

View of Fuel Lockup

View of Bandstand

View of Pavillion 1

View of Pavillion 2

View of Pavillion 3

View of Pavillion 4

View of Main Building Common

View of Maintenance Garage

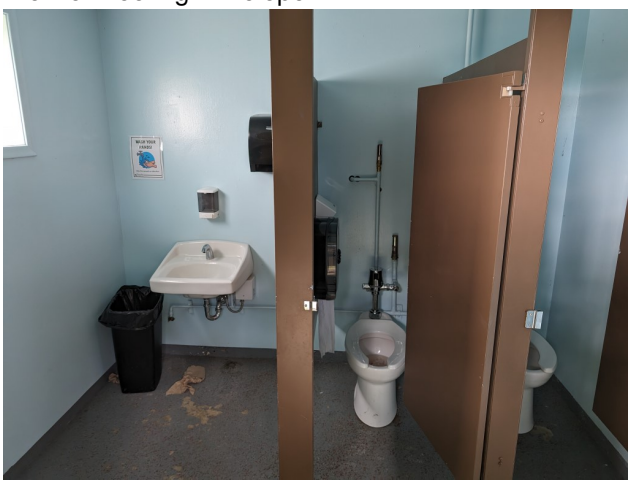
View of Basement Main Area

View of Basement Kitchen

View of Envelope

View of Roofing Envelope

View of Washroom Building



View of Washroom Building

A Appendix: Site Plan


Untitled map
Deersaxon Cir SE
Deerfield Bay SE
Deerfield Cir SE
Deersaxon Rd SE
Deersaxon Rd SE
Deersaxon Cir SE
Bow Bottom Trail SE
Parkridge View SE
Parkvalley Dr SE
Parkvalley Blvd SE
Parkvalley Rd SE
Parkland Community Centre
Parkvalley Way SE
Parkvalley Pl SE
Parkvalley Rd SE
146 Ave SE
146 Ave SE
Tennis 2
Hockey
Entrance Building
Maint Lockup/Garage
Fuel Storage
Bandstand
Gazebo
Pavillion 1
Washrooms
Pavillion 3
Tennis 1
Pavillion 4
Pavillion 2
1:3,450
0
0.03
0.06
0.1
0.12 mi
0
0.05
0.19 km
Esri, NASA, NGA, USGS, FEMA, Esri Community Maps Contributors, City of Calgary, Esri Canada, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, US Census Bureau, USDA, NRCan, Parks Canada
6/12/2024
Buildings from Digital Aerial Survey
World Hillshade

B Appendix: Reserve Fund Study - Summary

Building Name: Parkland Community Centre
Address: 14960 Parkland Blvd SE, Calgary
Floor Area: 845 m²
Base Year 2024

CODE	COMPONENT	COSTS (CURRENT $)	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054
SITEWORK																																	
	LANDSCAPING TOTAL	346,985	-	30,900	-	-	-	-	-	-	-	-	40,425	-	84,000	-	-	110,840	-	-	-	-	63,420	10,500	-	-	-	-	-	-	-	-	27,300
	PARKING & PAVING TOTAL	486,407	-	-	-	-	-	-	-	296,228	-	-	179,329	-	-	-	-	4,850	-	-	-	-	-	-	4,000	-	-	-	-	-	-	-	2,000
	ACCESS CONTROL TOTAL	207,400	-	-	15,000	-	-	-	-	-	-	-	6,825	-	-	-	-	-	-	-	-	-	173,250	-	-	-	-	6,825	-	5,500	-	-	-
	SPRAY PARK TOTAL	144,050	-	-	-	-	-	-	-	-	124,050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20,000	-	-	-	-	-	-	-
	RINK AND GAZEBO TOTAL	539,137	-	14,000	-	-	-	-	-	-	3,150	465,792	19,562	-	-	-	-	30,474	-	-	-	-	-	-	-	3,950	-	12,269	-	-	-	-	-
	HOCKEY RINK TOTAL	382,980	-	309,925	-	-	-	-	-	-	-	-	35,910	-	-	-	-	-	31,575	-	-	-	-	5,670	-	-	-	-	-	-	-	-	-
	TENNIS COURTS TOTAL	161,746	-	10,000	-	-	-	-	-	-	-	-	82,215	-	-	-	-	-	-	-	-	-	40,131	5,400	-	-	-	-	-	24,000	-	-	-
	SITE SERVICES	480,200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	465,200	-	-	15,000
SITEWORK TOTAL		**2,738,905**	**-**	**344,325**	**15,000**	**-**	**-**	**-**	**-**	**296,228**	**127,200**	**465,792**	**364,265**	**-**	**84,000**	**-**	**-**	**126,165**	**31,575**	**-**	**-**	**-**	**276,801**	**21,570**	**4,000**	**23,890**	**-**	**19,094**	**-**	**494,700**	**-**	**-**	**44,300**
MAINTENANCE GARAGE AND LOCKUP																																	
	GARAGE AND FUEL LOCKUP	43,333	-	-	3,413	-	-	3,229	-	-	-	-	13,985	-	-	-	-	1,260	-	-	-	-	14,805	-	-	-	-	2,205	-	3,413	-	-	1,024
	ENCLOSURE AND SITE	20,213	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14,963	-	-	-	-	-	-	-	-	-	5,250
MAINTENANCE GARAGE AND LOCKUP TOTAL		**63,545**	**-**	**-**	**3,413**	**-**	**-**	**3,229**	**-**	**-**	**-**	**-**	**13,985**	**-**	**-**	**-**	**-**	**1,260**	**-**	**-**	**-**	**-**	**29,768**	**-**	**-**	**-**	**-**	**2,205**	**-**	**3,413**	**-**	**-**	**6,274**
ANCILLIARY BUILDINGS																																	
	ANCILLARY BUILDINGS	164,577	-	-	67,106	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9,135	-	-	-	-	-	-	-	-	-	88,337	-	-	-
	PAVILIDONS TOTAL	110,959	-	980	-	-	-	23,625	-	-	-	-	7,998	-	-	-	-	7,658	980	-	-	-	11,769	-	-	-	-	5,742	-	13,500	-	-	39,108
ANCILLIARY BUILDINGS TOTAL		**275,536**	**-**	**980**	**67,106**	**-**	**-**	**23,625**	**-**	**-**	**-**	**-**	**7,998**	**-**	**-**	**-**	**-**	**7,658**	**980**	**9,135**	**-**	**-**	**11,769**	**-**	**-**	**-**	**-**	**5,742**	**-**	**101,837**	**-**	**-**	**39,108**
MAIN BUILDING																																	
	INTERIOR FINISHES	454,167	-	5,250	-	-	-	39,069	-	5,628	4,200	-	84,842	-	48,234	-	-	120,865	-	5,628	-	-	35,844	-	-	4,200	-	14,330	-	5,628	-	-	80,429
	ENVELOPE	208,376	-	-	-	-	-	50,765	-	-	-	-	16,905	-	-	-	-	-	-	-	-	-	49,230	-	-	-	-	-	-	-	-	-	91,476
	STRUCTURAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MECHANICAL	454,090	-	-	-	-	-	9,800	-	-	-	-	-	15,500	-	3,000	-	37,700	-	-	55,500	-	34,450	-	-	-	-	93,600	3,000	-	-	15,500	186,290
	ELECTRICAL	85,000	-	-	-	-	-	-	-	-	-	-	50,000	-	-	-	-	10,000	-	-	-	-	25,000	-	-	-	-	-	-	-	-	-	-
MAIN BUILDING TOTAL		**1,201,633**	**-**	**5,250**	**-**	**-**	**-**	**99,354**	**-**	**5,628**	**4,200**	**-**	**151,747**	**15,500**	**48,234**	**3,000**	**-**	**168,615**	**-**	**5,628**	**55,500**	**-**	**144,524**	**-**	**-**	**4,200**	**-**	**107,930**	**3,000**	**5,628**	**-**	**15,500**	**358,195**
WASHROOM BUILDING 1																																	
	BUILDING ELEMENTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MECHANICAL	14,450	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11,760	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,690
	ELECTRICAL	5,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,000	-	-	-
WASHROOM BUILDING 1 TOTAL		**19,450**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**11,760**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**5,000**	**-**	**-**	**2,690**
TOTAL CONSTRUCTION COSTS		**$4,299,070**	**-**	**350,555**	**85,518**	**-**	**-**	**126,208**	**-**	**301,856**	**131,400**	**465,792**	**537,596**	**15,500**	**132,234**	**3,000**	**-**	**315,458**	**32,555**	**14,763**	**55,500**	**-**	**462,861**	**21,570**	**4,000**	**28,090**	**-**	**134,971**	**3,000**	**610,577**	**-**	**15,500**	**450,566**
OVERHEADS AND CONTINGENCY																																	
	Contingency	7.0% **300,935**	-	24,539	5,986	-	-	8,835	-	21,130	9,198	32,605	37,632	1,085	9,256	210	-	22,082	2,279	1,033	3,885	-	32,400	1,510	280	1,966	-	9,448	210	42,740	-	1,085	31,540
	Overhead	5.0% **214,954**	-	17,528	4,276	-	-	6,310	-	15,093	6,570	23,290	26,880	775	6,612	150	-	15,773	1,628	738	2,775	-	23,143	1,079	200	1,405	-	6,749	150	30,529	-	775	22,528
Total Overheads and Contingency	**12.0%**	**515,888**	**-**	**42,067**	**10,262**	**-**	**-**	**15,145**	**-**	**36,223**	**15,768**	**55,895**	**64,512**	**1,860**	**15,868**	**360**	**-**	**37,855**	**3,907**	**1,772**	**6,660**	**-**	**55,543**	**2,588**	**480**	**3,371**	**-**	**16,197**	**360**	**73,269**	**-**	**1,860**	**54,068**
TOTALS																																	
	Construction Costs	**4,299,070**	-	350,555	85,518	-	-	126,208	-	301,856	131,400	465,792	537,596	15,500	132,234	3,000	-	315,458	32,555	14,763	55,500	-	462,861	21,570	4,000	28,090	-	134,971	3,000	610,577	-	15,500	450,566
	O&C	**515,888**	-	42,067	10,262	-	-	15,145	-	36,223	15,768	55,895	64,512	1,860	15,868	360	-	37,855	3,907	1,772	6,660	-	55,543	2,588	480	3,371	-	16,197	360	73,269	-	1,860	54,068
GRAND TOTAL (current dollars)		**4,814,959**	**-**	**392,622**	**95,780**	**-**	**-**	**141,353**	**-**	**338,078**	**147,168**	**521,687**	**602,108**	**17,360**	**148,103**	**3,360**	**-**	**353,313**	**36,462**	**16,535**	**62,160**	**-**	**518,405**	**24,158**	**4,480**	**31,461**	**-**	**151,168**	**3,360**	**683,846**	**-**	**17,360**	**504,634**
CUMULATIVE ESCALATED COSTS																																	
	Total Costs	**4,814,959**	-	392,622	95,780	-	-	141,353	-	338,078	147,168	521,687	602,108	17,360	148,103	3,360	-	353,313	36,462	16,535	62,160	-	518,405	24,158	4,480	31,461	-	151,168	3,360	683,846	-	17,360	504,634
	Inflation Rate		2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
	Cumulative Construction Escalation Factor		103%	105%	108%	110%	113%	116%	119%	122%	125%	128%	131%	134%	138%	142%	145%	148%	152%	156%	160%	164%	168%	172%	176%	181%	185%	190%	195%	200%	205%	210%	235%
	Future Cost With Inflation		-	412,498	103,145	-	-	163,926	-	411,916	183,788	667,804	790,017	23,347	204,361	4,748	-	524,495	55,481	25,788	99,372	-	870,703	41,390	7,905	56,904	-	287,263	6,545	1,365,296	-	36,414	1,184,957
ESCALATED COSTS (FUTURE VALUE)			**-**	**412,498**	**515,643**	**515,643**	**515,643**	**679,569**	**679,569**	**1,091,484**	**1,275,277**	**1,943,080**	**2,733,098**	**2,756,445**	**2,960,806**	**2,965,353**	**2,965,353**	**3,489,848**	**3,545,329**	**3,571,117**	**3,670,489**	**3,670,489**	**4,541,192**	**4,582,783**	**4,590,688**	**4,647,592**	**4,647,592**	**4,934,855**	**4,941,400**	**6,306,696**	**6,306,696**	**6,343,109**	**7,428,076**

		Component	One Time Replacement / Rebuild Cost	Total Replacement / Rebuild / or Repair Cost over XX years	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
SITEWORK																				
SW	.11	Hard Landscaping Sub-total	91,179	91,179	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	38,259
SW	.12	Soft Landscaping Sub-total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW	.13	Misc Landscaping Sub-total	218,006	255,806	-	10,500	-	-	-	-	-	-	-	-	40,425	-	84,000	-	-	72,581
SW	.10	LANDSCAPING TOTAL	309,185	346,985	-	10,500	-	-	-	-	-	-	-	-	40,425	-	84,000	-	-	110,840
SW	.21	Parking Lot Sub-total	301,079	305,079	-	-	-	-	-	-	-	296,228	-	-	-	-	-	-	-	4,851
SW	.22	Park Paving and Pathway Sub-total	179,329	181,329	-	-	-	-	-	-	-	-	-	-	179,329	-	-	-	-	-
SW	.20	PARKING & PAVING TOTAL	480,407	486,407	-	-	-	-	-	-	-	296,228	-	-	179,329	-	-	-	-	4,851
SW	.31	Access Control Sub-Total	200,575	207,400	-	-	15,000	-	-	-	-	-	-	-	6,825	-	-	-	-	-
SW	.30	ACCESS CONTROL TOTAL	200,575	207,400	-	-	15,000	-	-	-	-	-	-	-	6,825	-	-	-	-	-
SW	.41	Spray Park Infrastructure Sub-total	43,050	43,050	-	-	-	-	-	-	-	-	43,050	-	-	-	-	-	-	-
SW	.42	Spray Park Systems Sub-total	81,000	101,000	-	-	-	-	-	-	-	-	81,000	-	-	-	-	-	-	-
SW	.40	SPRAY PARK TOTAL	124,050	144,050	-	-	-	-	-	-	-	-	124,050	-	-	-	-	-	-	-
SW	.51	Ice Rink Sub-total	460,640	460,640	-	14,000	-	-	-	-	-	-	-	446,640	-	-	-	-	-	-
SW	.52	Gazebo Sub-Total	66,023	68,497	-	-	-	-	-	-	-	-	3,150	19,152	19,562	-	-	-	-	10,474
SW	.50	RINK AND GAZEBO TOTAL	526,663	529,137	-	14,000	-	-	-	-	-	-	3,150	465,792	19,562	-	-	-	-	10,474
SW	.61	Ice Rink Flatwork Sub-total	35,910	35,910	-	-	-	-	-	-	-	-	-	-	35,910	-	-	-	-	-
SW	.62	Ice Rink Fittings Sub-total	315,495	347,070	-	309,825	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW	.60	HOCKEY RINK TOTAL	351,405	382,980	-	309,825	-	-	-	-	-	-	-	-	35,910	-	-	-	-	-
SW	.71	Tennis Courts 1 Flatwork Sub-total	151,746	157,146	-	5,400	-	-	-	-	-	-	-	-	82,215	-	-	-	-	-
SW	.72	Tennis Courts 1 Fittings Sub-total	4,600	4,600	-	4,600	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW	.73	Tennis Courts 2 Flatwork Sub-total	205,135	213,203	-	-	-	-	-	-	122,835	-	-	-	-	-	-	-	-	-
SW	.74	Tennis Courts 2 Fittings Sub-total	6,900	6,900	-	-	-	-	-	-	6,900	-	-	-	-	-	-	-	-	-
SW	.70	TENNIS COURTS TOTAL	156,346	161,746	-	10,000	-	-	-	-	-	-	-	-	82,215	-	-	-	-	-
SW	.81	Irrigation and Mechanical Sub-total	451,800	379,200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW	.82	Electrical Sub-total	101,000	101,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW	.80	SITE SERVICES	1,799,249	1,774,166	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SITEWORK TOTAL			2,913,467	2,959,009	-	344,325	15,000	-	-	-	129,735	296,228	127,200	465,792	364,265	-	84,000	-	-	126,165
MAINTENANCE GARAGE AND LOCKUP																				
ME	.11	Garage Sub-total	25,303	30,920	-	-	3,413	-	-	2,205	-	-	-	-	9,185	-	-	-	-	-
ME	.12	Fuel Lockup Sub-total	11,389	12,413	-	-	-	-	-	1,024	-	-	-	-	4,800	-	-	-	-	1,260
ME	.10	GARAGE AND FUEL LOCKUP	36,692	43,333	-	-	3,413	-	-	3,229	-	-	-	-	13,985	-	-	-	-	1,260
ME	.21	Enclosure Sub-total	20,213	20,213	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ME	.20	ENCLOSURE AND SITE	20,213	20,213	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MAINTENANCE GARAGE AND LOCKUP TOTAL			56,904	63,545	-	-	3,413	-	-	3,229	-	-	-	-	13,985	-	-	-	-	1,260
ANCILLIARY BUILDINGS																				
AB	.11	Bandstand Sub-total	128,426	164,577	-	-	67,106	-	-	-	-	-	-	-	-	-	-	-	-	-
AB	.12	Misc Sub-total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AB	.10	ANCILLIARY BUILDINGS	128,426	164,577	-	-	67,106	-	-	-	-	-	-	-	-	-	-	-	-	-
AB	.21	Pavillion 1 Sub-total	48,385	65,129	-	-	-	-	-	23,625	-	-	-	-	-	-	-	-	-	-
AB	.22	Pavillion 2 Sub-total	17,282	18,642	-	-	-	-	-	-	-	-	-	-	3,381	-	-	-	-	-
AB	.23	Pavillion 3 Sub-total	8,889	9,869	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,978
AB	.24	Pavillion 4 Sub-total	15,751	17,319	-	980	-	-	-	-	-	-	-	-	4,217	-	-	-	-	1,680
AB	.20	PAVILLIONS TOTAL	90,307	110,959	-	980	-	-	-	23,625	-	-	-	-	7,598	-	-	-	-	7,658
ANCILLIARY BUILDINGS TOTAL			218,732	275,536	-	980	67,106	-	-	23,625	-	-	-	-	7,598	-	-	-	-	7,658

		Component	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054
SITEWORK																	
SW	.11	Hard Landscaping Sub-total	-	-	-	-	52,920	-	-	-	-	-	-	-	-	-	-
SW	.12	Soft Landscaping Sub-total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW	.13	Misc Landscaping Sub-total	-	-	-	-	10,500	10,500	-	-	-	-	-	-	-	-	27,300
SW	.10	LANDSCAPING TOTAL	-	-	-	-	63,420	10,500	-	-	-	-	-	-	-	-	27,300
SW	.21	Parking Lot Sub-total	-	-	-	-	-	-	4,000	-	-	-	-	-	-	-	-
SW	.22	Park Paving and Pathway Sub-total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,000
SW	.20	PARKING & PAVING TOTAL	-	-	-	-	-	-	4,000	-	-	-	-	-	-	-	2,000
SW	.31	Access Control Sub-Total	-	-	-	-	173,250	-	-	-	-	6,825	-	5,500	-	-	-
SW	.30	ACCESS CONTROL TOTAL	-	-	-	-	173,250	-	-	-	-	6,825	-	5,500	-	-	-
SW	.41	Spray Park Infrastructure Sub-total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW	.42	Spray Park Systems Sub-total	-	-	-	-	-	-	-	20,000	-	-	-	-	-	-	-
SW	.40	SPRAY PARK TOTAL	-	-	-	-	-	-	-	20,000	-	-	-	-	-	-	-
SW	.51	Ice Rink Sub-total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW	.52	Gazebo Sub-Total	-	-	-	-	-	-	-	3,890	-	12,269	-	-	-	-	-
SW	.50	RINK AND GAZEBO TOTAL	-	-	-	-	-	-	-	3,890	-	12,269	-	-	-	-	-
SW	.61	Ice Rink Flatwork Sub-total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW	.62	Ice Rink Fittings Sub-total	31,575	-	-	-	-	5,670	-	-	-	-	-	-	-	-	-
SW	.60	HOCKEY RINK TOTAL	31,575	-	-	-	-	5,670	-	-	-	-	-	-	-	-	-
SW	.71	Tennis Courts 1 Flatwork Sub-total	-	-	-	-	40,131	5,400	-	-	-	-	-	24,000	-	-	-
SW	.72	Tennis Courts 1 Fittings Sub-total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW	.73	Tennis Courts 2 Flatwork Sub-total	8,068	-	-	-	50,232	-	-	-	-	-	8,068	24,000	-	-	-
SW	.74	Tennis Courts 2 Fittings Sub-total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW	.70	TENNIS COURTS TOTAL	-	-	-	-	40,131	5,400	-	-	-	-	-	24,000	-	-	-
SW	.81	Irrigation and Mechanical Sub-total	-	-	-	-	-	-	-	-	-	-	-	379,200	-	-	-
SW	.82	Electrical Sub-total	-	-	-	-	-	-	-	-	-	-	-	86,000	-	-	15,000
SW	.80	SITE SERVICES	-	-	-	-	-	-	-	-	-	-	-	465,200	-	-	15,000
SITEWORK TOTAL			39,643	-	-	-	327,033	21,570	4,000	23,890	-	19,094	8,068	518,700	-	-	44,300
MAINTENANCE GARAGE AND LOCKUP																	
ME	.11	Garage Sub-total	-	-	-	-	10,500	-	-	-	-	2,205	-	3,413	-	-	-
ME	.12	Fuel Lockup Sub-total	-	-	-	-	4,305	-	-	-	-	-	-	-	-	-	1,024
ME	.10	GARAGE AND FUEL LOCKUP	-	-	-	-	14,805	-	-	-	-	2,205	-	3,413	-	-	1,024
ME	.21	Enclosure Sub-total	-	-	-	-	14,963	-	-	-	-	-	-	-	-	-	5,250
ME	.20	ENCLOSURE AND SITE	-	-	-	-	14,963	-	-	-	-	-	-	-	-	-	5,250
MAINTENANCE GARAGE AND LOCKUP TOTAL			-	-	-	-	29,768	-	-	-	-	2,205	-	3,413	-	-	6,274
ANCILLIARY BUILDINGS																	
AB	.11	Bandstand Sub-total	-	9,135	-	-	-	-	-	-	-	-	-	88,337	-	-	-
AB	.12	Misc Sub-total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AB	.10	ANCILLIARY BUILDINGS	-	9,135	-	-	-	-	-	-	-	-	-	88,337	-	-	-
AB	.21	Pavillion 1 Sub-total	-	-	-	-	4,015	-	-	-	-	150	-	7,500	-	-	29,840
AB	.22	Pavillion 2 Sub-total	-	-	-	-	3,880	-	-	-	-	3,681	-	-	-	-	7,700
AB	.23	Pavillion 3 Sub-total	-	-	-	-	-	-	-	-	-	1,911	-	1,000	-	-	980
AB	.24	Pavillion 4 Sub-total	980	-	-	-	3,875	-	-	-	-	-	-	5,000	-	-	588
AB	.20	PAVILLIONS TOTAL	980	-	-	-	11,769	-	-	-	-	5,742	-	13,500	-	-	39,108
ANCILLIARY BUILDINGS TOTAL			980	9,135	-	-	11,769	-	-	-	-	5,742	-	101,837	-	-	39,108

PAGE 3 of 10

MAIN BUILDING																																			
MB	.11	Office Sub-total	12,170	19,404	-	-	-	-	-	6,395	-	-	-	-	1,050	-	-	-	-	6,909	-	-	-	-	-	-	-	-	-	2,184	-	-	-	-	2,867
MB	.12	Main Floor Common Area Sub-total	81,000	98,556	-	-	-	-	-	-	-	5,628	-	-	-	-	48,234	-	-	15,488	-	5,628	-	-	11,650	-	-	-	-	-	-	5,628	-	-	6,300
MB	.13	Maintenance Garage Sub-total	33,280	43,727	-	-	-	-	-	9,923	-	-	-	-	-	-	-	-	-	23,357	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10,448
MB	.14	Main Washrooms Sub-total	20,650	29,688	-	-	-	-	-	5,103	-	-	-	-	11,767	-	-	-	-	3,780	-	-	-	-	-	-	-	-	-	3,935	-	-	-	-	5,103
MB	.15	Main Floor Kitchenette Sub-total	7,738	8,788	-	-	-	-	-	-	-	-	-	-	1,819	-	-	-	-	3,084	-	-	-	-	2,835	-	-	-	-	-	-	-	-	-	1,050
MB	.16	Vestibules Sub-total	14,580	18,591	-	-	-	-	-	2,835	-	-	-	-	1,176	-	-	-	-	10,569	-	-	-	-	-	-	-	-	-	4,011	-	-	-	-	-
MB	.17	Stairs Sub-total	15,062	17,006	-	5,250	-	-	-	600	-	-	-	-	9,212	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,944
MB	.18	Basement Main Area Sub-total	107,761	170,491	-	-	-	-	-	14,234	-	-	4,200	-	44,297	-	-	-	-	34,230	-	-	-	-	21,359	-	-	4,200	-	-	-	-	-	-	47,972
MB	.19	Basement Kitchen Sub-total	15,564	20,499	-	-	-	-	-	-	-	-	-	-	13,674	-	-	-	-	1,890	-	-	-	-	-	-	-	-	-	4,200	-	-	-	-	735
MB	.11	Lower Washrooms Sub-total	8,666	10,829	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8,666	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,163
MB	.11	Storage & Ancilliary Sub-total	14,741	16,589	-	-	-	-	-	-	-	-	-	-	1,848	-	-	-	-	12,893	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,848
MB	.10	INTERIOR FINISHES	331,209	454,167	-	5,250	-	-	-	39,089	-	5,628	4,200	-	84,842	-	48,234	-	-	120,865	-	5,628	-	-	35,844	-	-	4,200	-	14,330	-	5,628	-	-	80,429
MB	.21	Envelope Walls Sub-total	131,804	133,619	-	-	-	-	-	37,094	-	-	-	-	16,905	-	-	-	-	-	-	-	-	-	1,814	-	-	-	-	-	-	-	-	-	77,805
MB	.22	Roofing Sub-total	61,086	74,757	-	-	-	-	-	13,671	-	-	-	-	-	-	-	-	-	-	-	-	-	-	47,415	-	-	-	-	-	-	-	-	-	13,671
MB	.20	ENVELOPE	192,891	208,376	-	-	-	-	-	50,765	-	-	-	-	16,905	-	-	-	-	-	-	-	-	-	49,230	-	-	-	-	-	-	-	-	-	91,476
MB	.31	Misc Sub-total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MB	.30	STRUCTURAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MB	.41	Plumbing Fixtures Sub-total	24,500	24,500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24,500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MB	.42	Domestic Water Sub-total	84,750	86,900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,150	-	-	-	-	-	-	-	-	-	82,600	-	-	-	-	2,150
MB	.43	Sanitary & Venting Sub-total	37,940	56,940	-	-	-	-	-	9,500	-	-	-	-	-	-	-	-	-	11,100	-	-	-	-	-	-	-	-	-	9,500	-	-	-	-	26,840
MB	.44	Storm Drainage Sub-total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MB	.45	Natural Gas Sub-total	9,200	9,200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,900	-	-	-	-	-	-	-	-	-	7,300
MB	.46	HVAC & Heating Sub-total	256,850	275,350	-	-	-	-	-	-	-	-	-	-	-	15,500	-	3,000	-	-	-	-	55,500	-	31,350	-	-	-	-	1,500	3,000	-	-	15,500	150,000
MB	.47	Fire Protection Sub-total	1,200	1,200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,200	-	-	-	-	-	-	-	-	-	-
MB	.40	MECHANICAL	414,440	454,090	-	-	-	-	-	9,500	-	-	-	-	-	15,500	-	3,000	-	37,750	-	-	55,500	-	34,450	-	-	-	-	93,600	3,000	-	-	15,500	186,290
MB	.51	Electrical Sub-total	85,000	85,000	-	-	-	-	-	-	-	-	-	-	50,000	-	-	-	-	10,000	-	-	-	-	25,000	-	-	-	-	-	-	-	-	-	-
MB	.50	ELECTRICAL	85,000	85,000	-	-	-	-	-	-	-	-	-	-	50,000	-	-	-	-	10,000	-	-	-	-	25,000	-	-	-	-	-	-	-	-	-	-
MAIN BUILDING TOTAL			*1,023,540*	*1,201,633*	-	*5,250*	-	-	-	*99,354*	-	*5,628*	*4,200*	-	*151,747*	*15,500*	*48,234*	*3,000*	-	*168,615*	-	*5,628*	*55,500*	-	*144,524*	-	-	*4,200*	-	*107,930*	*3,000*	*5,628*	-	*15,500*	*358,195*
WASHROOM BUILDING 1																																			
WB	.11	Interior and Exterior Sub-total	40,011	50,212	-	5,591	-	-	-	-	-	-	-	-	25,342	-	-	-	-	9,077	2,520	-	-	-	-	-	-	-	-	3,150	3,071	-	-	-	1,460
WB	.12	Building Structure Sub-total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WB	.10	BUILDING ELEMENTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WB	.21	Plumbing Fixtures Sub-total	9,900	9,900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9,900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WB	.22	Domestic Water Sub-total	1,860	1,860	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,860	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WB	.23	Sanitary & Venting Sub-total	2,690	2,690	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,690
WB	.20	MECHANICAL	14,450	14,450	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11,760	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,690
WB	.31	Electrical Sub-total	5,000	5,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,000	-	-	-
WB	.30	ELECTRICAL	5,000	5,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,000	-	-	-
WASHROOM BUILDING 1 TOTAL			*59,461*	*69,662*	-	*5,591*	-	-	-	-	-	-	-	-	*25,342*	-	-	-	-	*20,837*	*2,520*	-	-	-	-	-	-	-	-	*3,150*	*3,071*	*5,000*	-	-	*4,150*

Reserve Fund Projection

Year	Annual Inflation	Investment Return	Cumulative Inflation	Projected Expenditure (PV)	Projected Expenditure (FV)	Projected Annual Contribution (FV)	Interest	Reserve Fund (FV)	Reserve Fund (PV)
2024	2.5%	3.5%	103%	-	-	30,000	24,729	761,260	**742,693**
2025	2.5%	3.5%	105.1%	392,622	412,498	140,000	26,644	515,406	**490,571**
2026	2.5%	3.5%	107.7%	95,780	103,145	143,500	18,039	573,801	**532,831**
2027	2.5%	3.5%	110.4%	-	-	147,088	20,083	740,971	**671,283**
2028	2.5%	3.5%	113.1%	-	-	150,765	25,934	917,670	**811,087**
2029	2.5%	3.5%	116.0%	141,353	163,926	154,534	32,118	940,396	**810,901**
2030	2.5%	3.5%	118.9%	-	-	158,397	32,914	1,131,707	**952,066**
2031	2.5%	3.5%	121.8%	338,078	411,916	162,357	39,610	921,759	**756,530**
2032	2.5%	3.5%	124.9%	147,168	183,793	166,416	32,262	936,644	**749,997**
2033	2.5%	3.5%	128.0%	521,687	667,804	170,576	32,783	472,199	**368,881**
2034	2.5%	3.5%	131.2%	602,108	790,017	174,841	16,527	(126,450)	**-96,373**
2035	2.5%	3.5%	134.5%	17,360	23,347	179,212	(4,426)	24,988	**18,580**
2036	2.5%	3.5%	137.9%	148,103	204,161	183,692	875	5,394	**3,913**
2037	2.5%	3.5%	141.3%	3,360	4,748	188,284	189	189,120	**133,845**
2038	2.5%	3.5%	144.8%	-	-	192,992	6,619	388,731	**268,405**
2039	2.5%	3.5%	148.5%	353,313	524,495	197,816	13,606	75,658	**50,965**
2040	2.5%	3.5%	152.2%	36,462	55,481	202,762	2,648	225,587	**148,255**
2041	2.5%	3.5%	156.0%	16,535	25,788	207,831	7,896	415,525	**266,420**
2042	2.5%	3.5%	159.9%	62,160	99,372	213,027	14,543	543,723	**340,114**
2043	2.5%	3.5%	163.9%	-	-	218,352	19,030	781,105	**476,686**
2044	2.5%	3.5%	168.0%	518,405	870,703	223,811	27,339	161,552	**96,186**
2045	2.5%	3.5%	172.2%	24,158	41,590	229,406	5,654	355,022	**206,220**
2046	2.5%	3.5%	176.5%	4,480	7,905	235,141	12,426	594,684	**337,006**
2047	2.5%	3.5%	180.9%	31,461	56,904	241,020	20,814	799,613	**442,087**
2048	2.5%	3.5%	185.4%	-	-	247,045	27,986	1,074,645	**579,654**
2049	2.5%	3.5%	190.0%	151,168	287,263	253,222	37,613	1,078,217	**567,395**
2050	2.5%	3.5%	194.8%	3,360	6,545	259,552	37,738	1,368,962	**702,825**
2051	2.5%	3.5%	199.6%	683,846	1,365,296	266,041	47,914	317,621	**159,089**
2052	2.5%	3.5%	204.6%	-	-	272,692	11,117	601,430	**293,895**
2053	2.5%	3.5%	209.8%	17,360	36,414	279,509	21,050	865,575	**412,657**
2054	2.5%	3.5%	215.0%	504,634	1,084,967	286,497	30,295	97,401	**45,303**
Totals				**4,814,959**	**7,428,076**	**6,176,378**	**642,567**		

Starting Balance	706,532
Contribution (annual)	140,000