



Corporation of the Township of Brock

Staff Report to the Mayor and Members of Council

From: Joint Report from Ingrid Svelnis & Trena DeBruijn
Position: Chief Administrative Officer as well as the Director of Finance/Treasurer
Title / Subject: Current Arena Status Report and Sunderland Arena Renovation and Expansion Project
Date of Report: July 7, 2023
Date of Meeting: July 17, 2023
Report No: 2023-FI-017

1.0 Issue / Origin

This report aims to provide Council with an update on the issues surrounding the Sunderland Arena Renovation and Expansion Project and to seek direction from Council on next steps in advancing the project. The intent of the report is to provide an overview on the condition assessment of the current arena inventory, costs associated with future maintenance, cost recovery and finally the proposed Sunderland Arena renovation project.

Preamble

This report was requested by Council in 2021/2022 with the intention of gaining a better understanding of the future maintenance required at each facility and to address the long term capital needs. In drafting this report, significant references is made to the building condition assessment reports undertaken for each facility (a copy of each facility assessment is attached to this report).

This report will also provide history on the Sunderland Arena and Expansion Project, which is focused on the asset maintenance and expansion designed to increase the life of the facility and to address some of the major capital works associated with making ice. Staff would like to make Council and the public aware of a number of considerations to be cognizant of throughout consideration of this report.

Township of Brock

In 1974, as part of the municipal restructuring and creation of the Regional Municipality of Durham, Brock was amalgamated with Thorah Township and the villages of Sunderland, Beaverton and Cannington, to form The Township of Brock ("Township").

As a result, the Township is unique as the Township has multiple, similar facilities, spread across the entire Township. While not a comprehensive list, the following demonstrates some of the facilities owned and managed:

- Three fire halls located in Beaverton, Sunderland and Cannington
- Five community halls located in Beaverton, Cannington (also the library), Sunderland, Wilfrid and Manilla
- Three arenas in Beaverton, Sunderland and Cannington
- Two curling rinks in Cannington and Beaverton (both are leased)
- Three libraries in Beaverton, Sunderland and Cannington
- Two medical centres in Beaverton and Sunderland (both are leased)
- One municipal office located in Cannington
- One museum located in Sunderland (building is leased) and two additional museums throughout the Township
- Three public works depots located in Beaverton (main depot/yard), Cannington and Sunderland
- One animal shelter in Cannington
- Ten public parks (Beaverton Ball Park, Thorah Centennial Park, Beaverton Harbour Park, Beaverton King Street Park, Mill Gateway Park, Cannington Clair Hardy Baseball Fields, Cannington MacLeod Park, Manilla Park, Port Bolster Park and Brock Soccer Park, Sunderland Park). Each of the parks have specific assets (skatepark, playgrounds, ball diamonds, fairgrounds (with the exception of Cannington which does not have a fairground), etc.)
- One splash pad
- Five Hiking Trails (Beaver River Wetland Conservation Area, Lagoon Reserve Walk, MacLeod Park Nature Trail, Trans Canada Trail and Walking Trails in Beaverton and Sunderland)
- One Harbour (Thorah Island Harbour)

2022 Budget

In the 2022 Budget, Council has approved funds to complete a comprehensive review of the Township of Brock's ("Township") three community arenas. Half of the budgeted funds were spent on the comprehensive review, reviewing the eligible DC funds that could be used for the Sunderland project (not known when the 2019 DC study was completed). The comprehensive review resulted in completion of a Structural Condition Investigation on each arena and these were used to generate a list of future maintenance projects and, where possible, cost projections and a well defined percentage of DC eligibility that could be used for Sunderland. Arenas were reviewed and given an overall condition assessment as follows:

Beaverton

The Beaverton arena was built in 1972 and the recent structural condition report gave the structure a rating of fair to good condition, with some areas of deterioration noted and recommended repairs over the next two to five years were provided. The condition assessment rated the facility as fair to good (see Attachment #1, to this report). The Beaverton Arena has an ice surface of 180' x 80'.

Cannington

The Cannington arena was built in 1964 and last updated in 1976. The structural condition report indicated that a general review of the interior and exterior of the building identified several areas of concern which would need to be addressed to improve the long-term sustainability of the structure. The condition assessment rated the facility as fair to good (see Attachment #2, to this report). Cannington has an ice surface of 175' x 75'.

Sunderland

The Sunderland ice surface was built in 1948 and the structure was built in 1977 and has an ice surface of 170' x 70'. The structural condition report indicated that a general review of the interior and exterior of the building identified several areas of concern which would need to be addressed to improve the long-term sustainability of the structure, however, was rated fair to good. A summary of recommendations were provided.

The list of future maintenance projects and capital projects at each arena is included as an attachment to this report (see attachment #4). It is Important to note that capital project costs were updated in 2022 and there are significant increases in those costs in the capital from the 2021 forecasts. In some cases the costs have doubled.

While total costs were not known when this list was developed, it is fair to say that the work required is significant and not immaterial. These projects are work which need to be done to maintain the arena and are important considerations from an Asset Management perspective.

Asset Management Considerations

The Township completed an Asset Management Plan in 2019 and since then, it was updated in early 2023 to recognize that inflationary pressures continue to create fiscal challenges for the Township (see Attachment #7, attached to this report).

Asset Management is an important consideration in municipal operations as any asset that the Township owns and uses to provide a community service, needs to be properly maintained and replaced when required. Asset management planning is an on-going and long-term process that allows municipalities to make the best possible investment decisions for their infrastructure assets.

The Township is not alone in that it faces a significant infrastructure deficit in the future replacement of its assets over the funding that is currently being made available for this purpose.

The total value of the Township's assets is approximately \$451 million in 2022 as follows:

- Roads - \$285,260,000
- Buildings - \$78,984,000
- Bridge and Culverts - \$57,654,000,
- Vehicles and Machinery - \$11,492,000
- Land Improvement - \$9,195,000
- Stormwater Infrastructure - \$4,790,000
- Equipment & Furnishings - \$3,095,000
- Sidewalks & Pathways - \$604,000

From an Asset Management perspective, over the next 40 years, the Township needs to spend approximately \$655.1 million on asset management replacement and lifecycle maintenance activities. The bulk of this value or approximately \$550 million is for capital renewal and replacement and another approximate \$88 million on operating and maintenance costs.

An extrapolation of current annual spending, assuming no further increases, projects a funding shortfall (over the next 40 years) of approximately \$543 million. This is commonly referred to as the infrastructure deficit gap.

In order to close this gap, an increase in capital contributions of approximately \$590,000 per annum (compounded) would be required (over and above current annual spending) over the next 40 years.

Currently, in the 2023 budget, capital expenses approximated a total of \$5,519,700 funded as follows:

Source	\$
Capital Reserves (tax levy contributions)	\$2,606,500
Ontario Community Infrastructure Funds	\$1,175,500
Development Charges	\$953,500
Gas Tax (CCBF)	\$466,200
Modernization Grant	\$150,000
Tax Rate Stabilization	\$73,000
Other	\$95,000
Total	\$5,519,700

The table above illustrates that tax levy is funding approximately 47% of capital expenses and it is expected that this will need to be increased significantly in the coming years to address asset management requirements/needs (as it is unlikely that significant and consistent funding will be available from the other levels of government to assist with the infrastructure deficit).

It is critically important for the Township to keep this infrastructure deficit in mind as decisions are made around infrastructure renewal, expansion, etc. In this regard, the Township has undertaken to complete a Core Services Review as well as a Parks and Recreation Master Plan (both of which are currently underway). These reviews and plans will likely highlight some concerns and/or further considerations from an ongoing asset management perspective.

Recreation Master Plan

In 2012, the Township undertook a Recreation Master Plan, prepared by Monteith Brown Planning Consultants, with the core of the plan being:

- Undertake a Needs Assessment for Parks, Recreation Facilities and Programs;
- Identification, Assessment and Recommendations Concerning Key Issues; and
- Provide a 10 year Implementation Strategy for Parks and Recreation Services.

From an arena perspective, the 2012 report identified that the Township is providing arena at a rate of 1 ice pad per 3,780 residents. Further, the report indicated that this is higher (on a per capita and a per user level) than other similar municipalities to the Township.

In more rural areas such as the Township, the typical rate of provision is one ice pad per 600 to 799 registered players, suggesting that a total of 1.6 to 1.8 ice pads would be sufficient to meet the Township's needs. In 2012, the Township was providing one ice per pad per 367 registered players.

In addition, the report indicated that major arena users experienced a collective decline in their memberships. If this decline has continued, it would correlate that the Township is providing even more services than other neighbouring municipalities.

As a summary, the master plan indicated that only two ice pads were needed across the entire Township to sufficiently service the Township's population.

Alternatively, the report did indicate that a second alternative strategy would be to reduce the number of arenas down to one, twin pad arena only.

At the time, back in 2012, the report estimated the cost of a twin pad arena at around \$12 to \$15 million, however, experience shown recently by other municipalities indicate a cost of upwards of \$40 million for a twin pad arena project. Further, a new, single pad arena (based on other municipal awards, appears to be in the budget range of \$24 million and up.

Neither of these options are financially feasible for the Township, especially given our ongoing Asset Management concerns.

To put this into perspective, assuming the Township undertook borrowing of approximately \$40,000,000 to proceed with the construction of a twin pad arena versus borrowing of approximately \$24,000,000 for a single pad arena (assuming interest of 4% per annum, repayment monthly over 15 years and compounded annually)

	Twin Pad	Single Pad
Borrowing	\$40,000,000	\$24,000,000
Monthly Payment	\$294,444	\$176,666
Total Payments over 15 years	\$52,999,877	\$31,799,926
Total Interest Paid over 15 years	\$12,999,877	\$7,799,926

For comparison purposes, a 1% increase in the Township's tax levy (based on 2023 tax levy of \$10,531,591) is approximately \$105,316. The Township's total budget for 2023 is approximately \$14,130,626, of which, approximately 75% is funded by tax levy. Funding a twin pad or single pad area, would equate to a tax levy increase of around 20% to 34%.

It should also be noted that the Township's Annual Repayment Limit, as set by the Province for 2022, is \$1,778,237. This represents the maximum amount that the Township can commit to payments related to debt and financial obligations annually, without seeking approval to expand these parameters (approval from the Province). An annual repayment limit of \$1,778,237 (at a 5% interest rate) would support maximum borrowing of approximately \$18.45 million (which is below the funding required to build a new single pad arena). Further, the Township does have a debenture which is being repaid for the Sunderland Fire Hall project, of approximately \$840,000, which will not be repaid in full until 2030.

Based on our current ARL, the Township does not have the capacity or the ability to borrow sufficient funds required to do a single pad or a twin pad project.

Although it is a moot point, (as the Township does not have sufficient funds or capability to borrow) should the Township want to consider a new single pad or twin pad in the future, this would require demolition of a current facility or current facilities. Staff have not undertaken any formal discussions or costing around the potential elimination/demolition of an arena, it is important that, if this becomes a possibility in the future, that the following items are considered (this is not meant to be an exhaustive list but rather considerations for future discussions, if required):

- The Township would need to conduct a full Hazardous Substance Site Survey for each facility being demolished (which may impact demolition costs);
- Permits or licences required for demolition;
- Preliminary demolition costs are upwards of \$350,000 per facility or around \$1,050,000 for all three (including removal and disposal of debris);
- Demolition insurance costs;
- Site restoration plans and costing;
- Disruption to community and services during demolition period;
- Commitment to keep full time staff to be used in other facilities and potentially assist with year-round facility maintenance and reduce reliance on part-time staffing and potentially eliminating positions as natural staff attrition occurs.

The Township is in the process of updating its Parks and Recreation Master Plan and it is planned to be finalized by year-end.

Repurposing an Arena

In 2015, following completion of the Recreation Master Plan, Council created the Brock Arena Repurposing Feasibility Committee (“BARFC”), made up of members of both the community and Council, to research the feasibility of repurposing an arena for the 2016-2017 winter season. The mandate of the Committee was as follows:

- Identify “non-ice” activities which could be considered within the arena during the winter/summer seasons;
- To canvass external organizations as to their interest in participating in such activities;
- To identify building capital costs required to support “non-ice” recreations activities;
- To identify other capital costs to support “non-ice” recreational activities;
- To conduct a financial analysis of repurposed and non-repurposed options which shall address the following:
 - Capital & Operating Costs to maintain each arena
 - Capital & Operating Costs to maintain three (3) ice surfaces
 - Capital and Operating Costs to maintain one (1) “non-ice” surface
 - Ice-time usage and associated revenue
 - Potential non-ice time usages and associated revenue
- To review the financial sustainability of providing “non-ice” recreational activities in buildings not under Township ownership;
- To conduct public consultations at appropriate intervals as determined by the Committee;
- To visit repurposed facilities to obtain information with respect to their decision-making process, interactions with user groups and implementation; and
- Ensure that Council is provided with updates on the Committee’s activities.

To assist with this project, a consultant was hired to conduct a review of repurposing and to work with the Committee on making recommendations.

While it appears that there was a clear commitment and desire of Council to explore re-purposing in 2015, the decision was deferred until a later date and the BARFC was disbanded.

Future of Cannington Arena

It is understood that, back in 2015/2016, while the repurposing discussions were happening, that the Cannington Arena was a key factor in the analysis.

The Cannington Arena is a very old building, that is not insulated. This causes challenges with ice installation as the weather plays a big factor into the timing of ice preparation.

Per the structural condition reports (and from visual inspection), some of the building and structures, including ice plant maintenance equipment, is outdated and in poor condition. The building was built with a bow string truss roof which is all wood and the wood is quite old.

It is staff's recommendation that this arena should remain operational for the next 5—7 years while renovations are done to the Sunderland arena and as further discussions take place regarding the continued operations of both the Beaverton and Cannington arenas.

It is very costly for the Township to maintain three arenas and it is anticipated that the Core Services Review (which is currently underway) will provide further comment on the continued operations of all three in the future, especially in light of the current prime time ice utilization.

Further, it is expected that the Parks and Recreation Master plan, to be finalized for year-end, will speak to future Parks and Recreation needs across the Township. This may identify needs such as increased park facilities and/or another facility that might be recommended for the Cannington and Beaverton areas.

It is recommended that both the 2024 and 2029 Development Charge Studies be prepared in reference to the outcomes of the Parks and Recreation Master Study and that these be used to support the Township's decisions moving forward.

Utilization Rates – 2022-2023 Period

Over the 2022 to 2023 ice rental period, the three arenas were open and operational (i.e. less hours required for ice maintenance time) a total of approximately 312 hours per week (7 a.m. to 11 p.m. each day). Of this, approximately 140 hours (in total, between minor sport rentals, private ice rentals and Township programming) a combined ice utilization rate of 45%.

Of the 140 hours of ice rented per week, approximately 71 hours (or 51%) were for minor sport purposes, 38 hours (or 27% for Township purposes (public skating, mom and tot programming and stick and puck) and 31 hours (or 22%) for private/outside rentals.

The majority of user bookings are during prime time hours which are between the hours of 5 p.m. to 11 p.m., Monday to Friday and between 9 a.m. and 11 p.m., Saturdays and Sundays. An analysis of the average weekly prime time usage is as follows:

User	Beaverton	Cannington	Sunderland	Total
Private/Outside	5 hours (15%)	14 hours (41%)	10 hours (24%)	29 hours (26%)
Minor User Group	23.5 (70%)	18 hours (53%)	29 hours (67%)	70.5 hours (64%)
Township Purposes	5 hours (15%)	2 hours (6%)	4 hours (9%)	11 hours (10%)
Total Hours Rented	58 hours of prime time ice available per week and utilized approx. 58% of prime time hours	58 hours of prime time ice available per week and utilized approx. 57% of prime time hours	58 hours of prime time ice available per week and utilized approx. 74% of prime time hours	174 hours of prime time ice available per week and utilized approx. 64% of prime time hours

Overall, the prime time ice utilization across all three arenas is approximately 64%, meaning, the arena(s) are underutilized (the utilization results are worse if you consider the full hours of operation at each facility).

Utilization Rates - 2023-2024 Period

For the 2023 to 2024 ice rental period, it is proposed that the three arenas will be open and operational (i.e. less hours required for ice maintenance time) for a total of 312 hours per week. Of this, approximately 147 hours of ice is currently being rented per week, approximating a combined ice utilization rate of 47% (an projected increase of approximately 2% over the 2022/2023 period).

Of the projected 147 hours of ice rented per week, approximately 83.5 hours (or 56.8%) were for minor sports, 30 hours (or 20.41%) for Township purposes and 33.5 hours (or 22.79%) for private/outside rentals.

The majority of user bookings are during prime time hours which are between the hours of 5 p.m. to 11 p.m., Monday to Friday and between 9 a.m. and 11 p.m., Saturdays and Sundays.

An analysis of the average weekly **prime time** usage is as follows:

User	Beaverton	Cannington	Sunderland	Total
Private/Outside	5 hours (12%)	12.5 hours (39%)	9 hours (19%)	26.5 hours (22%)
Minor User Group	32.5 hours (78.3%)	17.5 hours (55%)	34 hours (72%)	84 hours (70%)
Township Purposes	4 hours (9.7%)	2 hours (6%)	4 hours (9%)	10 hours (8%)
Total Hours Rented	58 hours of prime time ice available per week and utilized approx.. 72% of prime time hours	58 hours of prime time ice available per week and utilized approx.. 55% of prime time hours	58 hours of prime time ice available per week and utilized approx.. 81% of prime time hours	174 hours of prime time ice available per week and utilized approx. 69% of prime time hours

Again, the prime time ice utilization appears to indicate that the ice times at all arenas are being underutilized.

BARFC Utilization Rates from 2015

From the findings of the BARFC analysis performed in 2015, it was determined that the prime time usage of the three arenas, at that time, were as followed:

- Beaverton – 48%
- Cannington – 50%
- Sunderland – 71%

It appears that overall, the prime time ice utilization has increased from the 2015 utilization rates for all three arenas, however, the BARFC analysis did indicate that the industry standard for prime time ice usage (from 2015) was 90%.

Financial Cost Analysis

A review of the 2023 budget as well as the 2019 to 2022 actuals, indicates that the operating expense recovery is approximately 21% for the Beaverton Arena, 19% for Cannington (2021 is removed from calculations as the facility was closed for a period of time in 2021) and 32% for Sunderland (see Attachment #'s 8, 9, and 10, to this report).

	2023 Budget	2022 Actual	2021 Actual	2020 Actual	2019 Actual	Average
Beaverton	21%	27%	16%	15%	22%	20%
Cannington	21%	19%	-	13%	21%	19% (removes 2021 from average as facility was closed for a period of time in 2021)
Sunderland	29%	28%	23%	27%	36%	29%

This means that the revenue the arena is generating is covering significantly less than 50% of the ongoing operating costs and therefore, the tax base (or reserves, which is traditionally funded from tax levy) is picking up the remainder.

This does not include capital revenue or capital costs as capital costs are primarily funded by transfers from the arena reserves and from grants (arena reserves are funded through the operating budget tax levy).

A five year analysis of the operating revenue and expenses for each arena is attached as an appendix to this report.

User Rate Review

In 2022, staff undertook a preliminary review of the Township's user rates for ice rental, in comparison with other local or like municipalities and the summary is as follows:

Municipality	Prime Time Rates	Non-Prime Rates	Minor Rates
Brock	\$153/hr	\$130/hr	\$130/hr
Orillia	Adult - \$194.76/hr	Adult \$120.36/hr	Prime - \$161.77/hr Non Prime - \$92.34/hr
West Gwillimbury	\$230/hr	\$145/hr	\$179/hr
Clearview	\$170.8/hr	\$117.7/hr	\$131.86/hr
King	Resident - \$310.75/hr Non-Resident - \$341.82/hr	Resident - \$154.81/hr Non-Resident - \$170.29/hr	-
Caldeon	Resident - \$249.52/hr Non-Resident - \$299.43/hr	Resident - \$137.24/hr Non-Resident - \$164.69/hr	-
Norfolk	\$190/hr	\$135/hr	\$125
Essa	\$220/hr	\$138/hr	\$170
Grant Valley	\$195/hr	\$80/hr	\$150
Milton	\$285.45/hr	\$200.20/hr	\$214.90
Scugog	Youth - \$182.83/hr Adult - \$235.19/hr	Youth - \$134.15/hr Adult - \$166.27/hr	\$201.62 (minor hockey)
Oshawa	\$206.04/hr	\$155.74/hr	Prime - \$157.80 Non Prime - \$124.08
Uxbridge	\$253/hr	\$148/hr	Prime - \$243/hr Non-Prime - \$142/hr
Georgina	Adult - \$253.67/hr Youth - \$162.67/hr	7 a.m. – 4 p.m. - \$140.89/hr After 11 p.m. - \$164.89/hr	\$162.67

The Township's ice rental user rates are significantly lower than other municipal comparators and historically has not been increased annually.

In comparison, the Township of Uxbridge's rate is significantly higher than the rate charged by the Township and we understand that the fees are increased annually. For the 2023/2024 season, the Township of Uxbridge has recently posted their ice rates as follows:

User	Rate	% Increase for Period
Adult – Prime	\$269	3%
Adult – Prime (Stat Holiday Premium)	\$323	New
Adult – Non Prime	\$157	3%
Youth – Prime	\$257	3%
Youth – Prime (Stat Holiday Premium)	\$308	
Youth – Non Prime	\$150	3%
Summer Ice	\$318	3%

For the 2024/2025 season, the Township of Uxbridge have posted their ice rates as follows:

User	Rate	% Increase for Period
Adult – Prime	\$277	3%
Adult – Prime (Stat Holiday Premium)	\$333	3%
Adult – Non Prime	\$162	3%
Youth – Prime	\$265	3%
Youth – Prime (Stat Holiday Premium)	\$317	3%
Youth – Non Prime	\$155	3%
Summer Ice	\$328	3%

It is recommended that staff undertake a full user rate review in 2023, in advance of 2024 budget preparation.

Sunderland Arena Expansion and Renovation

2.0 Background- Pre Grant Application – Sunderland Arena History

In 2017, the Township of Brock (“Township”) began working with Barry Bryant Architects (“BBA”) on expansion and renovation plans for the Sunderland Arena (“Arena”). In conjunction with the Township and the Sunderland Lions Club (“Lions”), BBA had developed conceptual plans for improvements and expansion of the arena. This work was the impetus which led to a subsequent grant submission for the arena expansion and renovation project and successfully cemented the future ongoing operations of the Sunderland Arena. At the time, the proposed renovations budget was approximately \$3,890,000 and the work plan/phases were as follows:

- Phase 1 – Current rink slab replacement and ice surface expansion at estimated cost of \$1,650,000.
- Phase 2 – Addition for new dressing rooms at an estimated cost of \$1,290,000.
- Phase 3 – Renovations to main entrance and lobby at an estimated cost of \$950,000.

Since 2017, the renovation and expansion project has undergone several revisions and a condensed summary of changes is below.

2019 Update

In early 2019, the Lions presented Council with an updated proposal and budget of \$3,900,000 as follows:

- Phase 1 – Expansion of the building envelope to include an expanded ice surface, refrigeration updates and dasher board changes at an estimated cost of \$2,100,000;
- Phase 2 – Addition for new dressing rooms, an ice surfacer room and storage room(s) at an estimated cost of \$1,300,000
- Phase 3 – Renovations to main entrance and lobby at an estimated cost of \$500,000.

Based on this proposal, the Township entered into a Preliminary Design stage and a Class C cost estimate was prepared to determine an appropriate cost estimate that is used to make asset investment decisions (a Class C cost estimate is prepared based upon a comprehensive list of requirements and assumption, including a description of the preferred schematic design options, construction/design experience and market conditions; however exemptions are noted in proposal which includes soft costs, etc.).

2019 Class C Estimate

Class C estimates are prepared when a project is at the preliminary design stage. Currently the drawings for the Sunderland Arena project are 60% complete. Class C estimates are generally prepared to form the basis for budget allocation and/or funding.

The Class C cost estimate was compiled in March 2019, and the budget outlined, at that time, was approximately \$6,900,000 and included at contingency of approximately \$329,000 (Note: This estimate did not include soft costs such as drawings, contract administration and contract oversight expenses).

Staff understand that following the March estimate, there were discussions with Council, the Lions and staff and a second Class C estimate was completed.

A revised Class C estimate was prepared in May 2019 and the cost estimate at the time, with a few changes in project scope to reduce construction costs, and suggested a revised budget of approximately \$6,499,500, including a contingency of approximately \$309,500 (Note: this estimate did not include soft costs such as drawings, contract administration and contract oversight expenses).

In the 2020 budget deliberations, Council approved a budget of \$7,500,000 and committed a total of \$910,000 from Development Charges.

Subsequent to these estimates, staff understand that many discussions were undertaken and this lead to the Township submitting a grant, in 2019, to the Investing in Canada Infrastructure Program (“ICIP”) as well as completing an updated Development Charge Background Study which included plans and budget estimates for the Arena expansion, in case the grant application was not successful and to assist with future expansion.

In 2019, Council made the decision to proceed with an ICIP Grant application and to add the Sunderland Arena to the DC Study in the event that the grant application was not successful. The end result of these decisions (i.e. grant application submission and inclusion in DC study), has ensured that the Sunderland Arena was going to be the facility that will stay open in the future and forces the decision of whether to maintain two additional ice surfaces in the future between the Beaverton and Cannington arenas. Further, the decision to renovate and expand the Sunderland area has eliminated or at the least deferred future discussions the Township might undertake regarding a potential future twin pad facility.

ICIP Grant Application Scope of the Arena Renovation and Expansion Project

The initial scope of the Sunderland arena Renovation and Expansion project, as outlined in the ICIP grant, was as follows:

- Expansion of the building to include: 6 new dressing rooms, community use room and ice re-surfacer room.
- Replacement of concrete ice pad, expansion of ice surface to regulation size, updated refrigeration system and reconfigured seating around the rink.

- Renovation of the existing lobby area and dressing rooms to create a larger lobby and new food booth.
- Renovation of second floor auditorium to create heating viewing space.
- All works to make building fully accessible to accommodate sledge hockey.

It was estimated that approximately 60 to 65% of the arena building would be addressed with the expansion and renovation project, at an estimated cost of approximately \$7,480,000.

Funds Spent in Preparation for Sunderland Expansion Project

In 2018, the Township began working with Barry Bryan Architects, to inform the budget and funding application process. On March 8, 2021 the ICIP funding application was approved. Costs incurred prior to March 8, 2021 of approximately \$182,182 cannot be claimed through the ICIP grant. These costs were funded through general levy, capital reserve fund and development charge reserve draws.

ICIP Grant Approval

As mentioned above, on March 8, 2021, the Township received word that the ICIP Grant was approved, with funding being provided from the Federal and Provincial Governments of approximately \$5,485,084. The ICIP Grant is only for the Sunderland Arena Renovation and Expansion Project.

At the time the grant submission was made, the budget for the proposed work of \$7,480,000 was prepared as follows:

Funding Source	\$
Federal Government Grant	\$2,992,000
Provincial Government Grant	\$2,493,084
Township Contribution	\$918,916
Lions Fundraising	\$500,000
Kaitlin Contribution **	\$576,000
Total	\$7,480,000

**The Kaitlin contribution was to be provided, following the outcome of an appeal in 2019 to the enactment of zoning bylaw 2780-2018 PL., between the Concerned Citizens of Sunderland and Kaitlin Development. A settlement to this matter was achieved that stipulated that Kaitlin Development would enter into a private agreement with the Sunderland Lions club to do the following:

- Contribute \$1,000/unit to the Sunderland Lions Club to be paid on issuance of Building Permit for 268 units in Phase 2 of the Sunderland Meadows Project;
- Contribute \$2,000 per unit to the Sunderland Lions Club for the next 154 units in Phase 3 of the same development.

To-date, this agreement between both parties (the Sunderland Lions Club and Kaitlin Development) has not been signed, however, the Sunderland Lions Club is continuing efforts to make this happen.

The major issue with agreement completion is that development is currently stalled as servicing is not available for this development. It is assumed that once the servicing issues are resolved, a formal agreement will be signed, however, the funding estimated of \$576,000 will not be available immediately to assist with the Sunderland Arena renovation and expansion project.

In the meantime, this proposed allocation from Kaitlin Development will need to be funded in another manner or bridge financing be provided by the Township (until such time as the funds are received).

Development Charges Study – Sunderland Arena

During the 2019 Development Charge study, the Sunderland Arena project was added to the study in the event that grant funding wasn't approved. This project was added to help ensure that the project would proceed.

Engineering details on the project were not fully available at the time the DC study was concluded and the amount of \$6,500,000 was the DC charge that was added to the study.

Extensive discussions have taken place with Hemson Consulting Ltd. (who completed the 2019 DC Study) in conjunction with the engineer who completed the preliminary design to confirm the percentage eligible. Following these discussions, it has been determined that the Development Charges eligible for this project are estimated at 65% of the cost (after reduction for the Federal and Provincial grant funding) based on the scale of the project as it currently exists.

If this project proceeds, staff recommends that the DC's to be used come from the current DC balance and that the next Development Charge Study to be completed for 2024 (and 2029) reference the updated Parks and Recreation Master Plan to determine priorities across the Township.

Staff have attached, to this report, a copy of the Hemson Consulting, Development Charge presentation, presented to Council on April 3, 2023. It is important to note that recent Bill 23 changes will affect the timing and collection of development charges in the future. As a result, it is important to be cautious about what goes in the Development Charge study in the future as there will be a delay in collecting funds required, due to phasing (the reality is that the collection of the full funds required as part of the Development Charge Study may be uncertain, or at a minimum, the expected timing of collection may be uncertain). In addition, the legislation requires greater clarity around the projects that the Township can collect DC's for.

Design and Investigative Work Undertaken Following ICIP Funding Announcement since the Project was approved for funding announcement April 2021

Additional engineering investigation to proceed with the project took place in the fall of 2021 and included the following:

1. Deploy camera to review the existing sanitary piping to confirm:
 - General inverts at clean out locations
 - General routing through the facility
2. Conduct a flow test of the water system. This is required to be completed for verification of pressure for both the added building area and sprinklers that will be required on the addition.
3. Remove the Interior liner panel at the rink to confirm the existing wall assembly where the siding will be removed.
4. Conduct interior utility locate scans around the rink where we will be removing the apron slab to confirm interferences that may be encountered during removal of the slab.
5. Conduct exterior building locates to consider the additional change rooms/storage/ice expansion.

This work was concluded in September 2021 and will assist with the design work required if a decision is made to proceed through a traditional tender approach (i.e. this means that construction/renovation drawings would be finished and a formal tender issued).

A further Class C Cost Estimate, performed by AJ Hooker, completed October 20, 2021, estimates the update cost of the project to be approximately \$8,400,000. This estimate does not include soft costs for items such as design services, drawings, project management and building permits. A project contingency of approximately 8% is included.

The contingencies are based on standard market conditions and past project reference. It is noted in all three Class C estimates that the contingency can easily be consumed in the event unforeseen conditions are encountered that greatly effect the project scope of work. It is also important to note that unforeseen conditions are more likely at the Sunderland Arena where original reference drawing information does not exist.

Given current market conditions and given that we are in unprecedented times with material and labour shortages which could affect the construction budget makes this project challenging. We also note that the septic tank and tile bed removal may lead to possible site remediation if it is found that contaminated soil is present. If this is the case, this will add to further increased costs for this project.

We are also aware of mastic (a type of caulking which often contains designated substances) around the units on the roof which and this has been identified by a consultant, Golder, who performed a review of the facility for designated harmful substances. The scope of this remediation will be identified in advance and addressed in the tender to ensure that this does not become an extra charge.

In addition to this, we are also aware that there may be damage that could occur to the siding of the building with the work and contingency funds should be retained to cover this cost if need be.

While we do have the structural condition report for the arena, there were a number of areas noted that require further investigation. It is recommended that staff undertake further investigation of these items, so as to better inform the RFP process and to obtain reasonable estimates of the cost of the project. Some of the items identified for further investigation include:

- Due to the presence and condition of the existing liner systems within the arena, the existing pre-finished metal roof and deck and the cold formed z-purlins could not be confirmed. As a result, further investigation is required to confirm the structural composition and assess the existing condition of the roof deck/purlins throughout the Arena.
- The inspection noted staining on the suspended ceiling in the community room. Further investigation is required to determine the source and severity.
- Outside grade issues as well as staining and moisture on the north end of the building need to be re-visited.
- Mechanical platforms need to be assessed from an engineering perspective.
- The second floor framing was not checked and the condition needs to be reviewed.
- The front entrance needs to be addressed in the renovation/expansion project. New exterior bollards, plus repairs to the canopy are required.
- The roof on the re-surfacer room is damaged.

Given the additional considerations outlined above, staff estimate an appropriate budget projection for this project be set at a minimum of \$9,400,000 to a maximum of \$10,000,000 to allow for enhanced contingencies that may arise and to address soft cost items.

Proposed Project Scope Change

As Council is aware, the construction industry is continuing to face challenges which are causing increases across the board. The recent non-residential construction price index, used for indexation of development charges, pegged construction related increases over the period from April 1, 2022 to March 31, 2023 at 12.3%. This is on top of the increase experienced over 2021 to 2022.

After discussions with our engineer and contractors involved in this type of work, staff feel that the entire scope of the project, as initially planned, cannot proceed with a budget of \$9,400,000. To complete the entire project would require increased Township contributions.

As part of the due diligence on addressing increased costs, staff reached out to the Province to find out if additional funding could be made available for this project. From discussions with the Province, we understand that other municipalities are also facing the same challenges as the Township and potential around scope changes were discussed.

In conversations with the Province, we understand that no additional funds will be forthcoming from the other levels of government and that we have to work within the funding parameters provided. This being said, the Province indicated that we can submit a formal scope change to revise the proposed work, provided key areas such as accessibility enhancements (i.e. accessible changerooms) and viewing rooms were maintained as part of the project.

Staff suggest that a formal project scope reduction may be required. We understand that the approval process for a scope reduction could take upwards of four (4) to six (6) months and it is suggested that if we decide to go this route, that we only submit one de-scope request (doing additional de-scope requests will add time to this project and the project needs to be completed by 2027).

In addition, the initial grant application indicated that the ice surface would be expanded to regulation size. Full regulation size ice surface is considered to be 200 x 85 feet, and unfortunately, it has been determined to date that this size is not achievable. If a scope change is submitted, the application will be changed to “expansion of ice surface”, without including a specific size, however, it is the Township’s intent to work towards an ice surface size as close as possible to regulation.

Once a formal de-scope submission is made, the Province will review and if they agree with the recommendations, the submission will then move to the Federal Government for their sign off and approval. Approval from both levels of government is required as the funding is being provided jointly from the Federal and Provincial governments.

Project Procurement

As the Township does not have staff resources in-house to oversee a project of this nature or size, staff recommend that a project management firm be hired to oversee the entire project, including the procurement of a construction services manager (either on an Agency or Principal basis).

We have recommended an increase to the project budget to cover the costs of managing the project. Additional details will be available when this report comes back as we work to refine our recommendation on the procurement and project oversight.

When hiring a project management firm, the Township can choose their level of risk and involvement in the project and the cost of each will vary.

The first is called an Agency capacity in that the project manager represents the Township and the Township is involved in the project, however, the Township carries all project risk.

A Principal capacity means that the project manager will take on the project for the Township, make decisions related to the project (with some Township involvement) and will carry all project risk.

Analysis

Based on the foregoing, a summary of the steps involved in the Sunderland Expansion/Renovation project include the following:

- That Council set a firm budget, in the range of \$9,400,000 to \$10,000,000 for this project and provide authority to an internal staff team, consisting of the CAO, the Director of Finance and the Manager of Facilities to undertake the steps required for project completion;
- That an RFP for Project Management Services be prepared and released after staff further refine this request.
- That staff undertake communications with local user groups to gauge their priorities for this project and to set expectations around what can be achieved with the funding available. Priorities will need to be set as the funding is limited.
- That the project team, consisting of the CAO, Treasurer and the Manager of Facilities, in conjunction with the Project Manager, complete an RFP for Construction Management.

Staff will commit to keeping Council and the public updated on the progress of this project, however, if a formal de-scope submission is made to the Province, the Township is very limited on further changes that can be made to the project.

The Sunderland Arena will be out of commission for a period of time to complete the renovation and expansion work. Beaverton and Cannington Arenas will accommodate our user groups and ice will be allocated through the use of the Ice Allocation Policy (see Attachment # 6, to this report).

At the present time, staff believes that a formal de-scope submission, if required, will possibly include (Note – this is what staff currently anticipates, however, a formal de-scope, if required, will follow once a design build process has commenced):

- Removal of the word “regulation” ice size in the ICIP grant submission but will commit to an expansion of the ice surface (our intent is to work towards an ice surface of a minimum of 200 feet x 80 feet, however, we recognize that there may be factors that might limit this and will keep everyone informed if this is in fact the case. We understand that full regulation size is not achievable, however, it is out intention is to work towards a ice surface size as close as possible to regulation).
- Consider reducing the number of dressing rooms from six (6) to four (4), but keep a minimum of two (2) dressing rooms as accessible dressing rooms; and

- Limit front lobby renovations to matters concerning accessibility only at the present time.

Community Fundraising

The Sunderland Lions Club (“Lions”) has been an active partner with the Township for many years on various numerous projects and is keenly interested in seeing the Sunderland Arena Renovation and Expansion project commence.

The Lions have expressed that they would like the Sunderland project to be undertaken to address long overdue improvements needed to the Sunderland Arena and to ensure it continues to serve the Sunderland and broader Brock Township communities well into the future.

Back in the 1960’s, the Lions successfully fundraised to install artificial ice and build a new structure to the front of the building to include four (4) dressing rooms, a washroom, a food booth and a second floor auditorium. Further, in the 1970’s, the Lions conducted additional fundraising to build a new concrete and steel structure over the ice pad, replacing the old wooden structure build many years before and in 2010, funded the creation of concept plans required for a facility upgrade. This history demonstrates the importance of the Sunderland Arena to the Sunderland community and to the Lions Club.

Attached to this report, is a letter from the Sunderland Lions Club which outlines their desires for the Sunderland Arena and predicates their funding support on the following (see Attachment # 5, to this report):

- Expansion of the ice surface to regulation size, however, should this not be possible (or financially feasible), an expansion to the ice surface to incorporate 80 feet x 200 feet (with seating areas provided);
- Construction of four new dressing rooms, including two fully accessible for sledge hockey;
- Storage space to replace existing storage area under the seats;
- Accessibility enhancements to ensure the building is fully accessible, including new double accessible doors between the lobby and the ice pad viewing area, automatic sliding doors at the main building entrance and the installation of viewing windows in the second-floor auditorium.

While it is acknowledged that improvements to the lobby area and front exterior façade are needed, these will likely be required to be deferred until additional funds are available.

With a budget of \$9,400,000, the Lions Club have committed a sizeable contribution of \$500,000 to this project, however, if the budget is set at \$10,000,000, the Lions have advised that they will increase their funding commitment to a total of \$800,000.

In their letter, the Lions have also indicated that when and IF, the eventual funds are received from Kaitlin Developments, that these funds will be provided to the Township for additional Sunderland Arena improvements.

The Lions have also asked that Council consider keeping the Sunderland Arena in the 2024 Development Charge Background Study and that funds be allocated to complete an additional two further dressing rooms (the original concept submitted had contemplated adding six new dressing rooms (two of which would be fully accessible), however, due to cost constraints, they are suggesting that it may only be possible to complete four dressing rooms as part of the expansion and renovation project.

No decision has been made on the final scope of this project and therefore no decisions have been made on reducing the number of dressing rooms from the original design. This exercise will take place as we work through the process.

Financing

The proposed budget of \$10,000,000 would be all inclusive. This means that soft costs such as project managers, consultants, financing costs, contingency, etc. will be incurred as part of the approved budget. To be clear, the budget of \$10,000,000 will not be used solely for “brick and mortar” items but will also have to fund the soft cost items mentioned above. Staff do not recommend adding any further funding to the proposed budget to cover these soft costs and they must be absorbed within the proposed budget.

If Council approves the staff recommended budget of \$10,000,000, a tentative, proposed financing strategy could be as follows (to be finalized once full budget is approved):

	\$
Proposed Budget	\$10,000,000
Less:	
ICIP Grant	\$5,485,084
Sub-total	\$4,514,916
Development Charges (Township Funding)	\$2,934,695
Sub-total	\$1,580,221
Less: Sunderland Lions Contribution	\$500,000
Sub-total	\$1,080,221
Less: Arena Reserve Fund Draw (Township Funding)	\$300,000
Sub-total	\$780,221
*Less: Additional Sunderland Lions Contribution	\$300,000
** Additional Township Contribution Required	\$480,221

The total proposed Township contribution to this project, not including the \$182k previously incurred on this project, is approximately \$3,714,916 (and not including the \$175k spent in 2023 budget on, the Sunderland Arena). Development Charges are collected and to be used on projects across the entire Township, therefore, by allocating a significant portion of DC's to the Sunderland Arena, takes away from other equally important required projects across the entire Township. While the funds were placed in the last DC study for the Sunderland Arena purposes, by allocating significant funds to this project, this does re-allocate from other needed projects across the entire Township that are of equal importance.

If the budget for this project is set at \$10,000,000, the Lions have graciously agreed to continue fundraising for an additional \$300,000 contribution towards this project. Staff recommend increasing the budget to ensure that the project is managed appropriately by a third party consultant who manages these types of projects. The Lions have advised that they currently have \$500,000 available to contribute to this project and believe it would take them approximately two (2) years to raise an additional \$300,000.

*The Township would be required to bridge finance these funds while fundraising efforts continue, however, once the funds are raised, they will be provided to the Township (see the Letter from the Sunderland Lions Club, attached).

**The Township's proposed additional contribution to this project (over and above the funds already expended) is approximately \$480,221 and it is staff's recommendation that this be funded from rate stabilization (addressed later in this report).

Based on preliminary analysis, the Township's 2022 surplus is approximately \$886,703 (this is subject to year-end finalization and audit). Once finalized, the 2022 surplus will be closed into the Township's rate stabilization reserve.

To reduce borrowing requirements for this project, staff suggest that a possible source to be used to fund the Township's additional funding contribution of \$480,000 include a withdrawal from the Tax Rate Stabilization Fund. The Tax Rate Stabilization balance, including the contribution from the 2022 estimated surplus is included below in this report.

Staff are currently working on finalizing the 2022 surplus balance and this will be updated with the next report to Council on this project.

If sufficient funds are available within the Tax Rate Stabilization Reserve, staff suggest that Council give consideration to directing funds from the reserve to address capital and maintenance requirements in both the Beaverton and Cannington arenas. This will be proposed in the 2024 budget process for Council consideration.

Based on the timing of expenses and receipt of reimbursement of grant funds (and to assist with the bridge required for the additional Lions Fundraising), it is likely that the Township will be required to increase its operating line of credit from \$1,000,000 to \$4,000,000. These funds will only be used as required, therefore, it is difficult at present time to estimate the interest costs that might be incurred, however, assuming that the full \$4,000,000 is required immediately and will be repaid within two and a half years, interest expense would be approximately \$210,000 (4% interest, 2 year term, compounded monthly). It is suggested that a placeholder for interest expenses be included as part of the overall project cost and that

It is not likely that the full \$4,000,000 will be required immediately and it is likely that payments will be made as funds are received (from the other levels of government), therefore, the interest expense will likely be significantly less.

Bridge of Lions Club Fundraising

As previously mentioned, the Lions have offered to continue additional fundraising of \$300,000 (assuming project budget is set at \$10,000,000) over the next two years. As these funds are not available immediately, the Township will be required to bridge finance this contribution.

The Township could either borrow the funds externally through the bank or use Tax Rate Stabilization or another reserve, until such time as the funds are repaid.

The cost of borrowing versus the lost investment (interest) revenue to the Township from a tax rate stabilization reserve draw is illustrated as follows:

	Borrowing	Tax Rate Stabilization
Amount	\$300,000	\$300,000
Term	2 Years	2 Years
Interest Rate	4%	2.8% (approx. return)
Compounded	Annually	Annually
Total Interest Cost	\$24,480	\$17,035

If the Township were to borrow \$300,000 for 2 years (at an interest rate of 4%), the cost of borrowing would be approximately \$24,480.

If the Township was to use Tax Rate Stabilization to bridge finance the fundraising efforts, the Township would forgo investment interest (assuming investment rate of 2.8%), of approximately \$17,035.

As the Lions are fundraising for enhancements to a community asset (and providing the funds to the Township), Council may decide to forgo the repayment of any interest on these funds (from the Lions). It is staff's recommendation that no interest on the bridge financing be charged back to the Lions as they have been an active partner in this project and are making a sizeable investment in the Township's community asset.

Development Charge Reserve Balance

In the 2019 Development Charge Background Study, the Sunderland Memorial Arena Expansion Project was included at a project cost of \$7,000,000. This assumed that there would be no grant funding eligible for this project and assumed total eligible DC costs of \$5,850,000.

However, since the preparation of the 2019 Background Study, the project did receive ICIP Grant Funding and the work originally planned has changed.

Based on discussions with our Development Charge consultant, the maximum Development Charges that could be allocated to this project is 65% of the net project costs (after reduction for the ICIP grant). Accordingly, the maximum Development Charge withdrawal is \$2,934,695.

As of year-end 2022, the Parks and Recreation component of the Development Charge Reserve balance was approximately \$4,294,021.

Assuming no Development Charges are collected throughout the year, it is estimated the balance as of December 31, 2023, will be approximately \$4,012,211.

Given the above, there are sufficient funds within the Parks and Recreation Development Charge Reserve component to fund the estimated withdrawal for the Sunderland Expansion and Renovation project of \$2,934,695. A withdrawal of this amount would estimate the balance at year-end (assuming no development charges are collected throughout 2023) of approximately \$1,077,516.

As previously mentioned, the Sunderland Arena project was put into the Development Charge Background Study a safeguard in case the ICIP grant was not approved. A total of \$6,500,000 was included in the Development Charge Background Study, however, at the time of grant submission, a full project scope had not been completed.

If the grant had not been approved, it is envisioned that the project financing (at the time) would have been as follows:

	\$
Project Cost	7,400,000
Development Charge Draw	(\$6,500,000)
Lions Club Contribution	(\$500,000)
Kaitlin Contribution	(\$576,000)
Net Township Contribution	\$nil

Since that time, it has been determined that the maximum Development Charge allocation for this project is limited to 65%. Based on this, the revised project funding would have been as follows:

	\$
Project Cost	7,400,000
Max Development Charge Draw	(\$4,810,000)
Lions Club Contribution	(\$500,000)
Kaitlin Contribution	(\$576,000)
Net Township Contribution	\$1,514,000

As the Development Charges Draw is limited, the net Township contribution, without the grant, would have been higher.

Subsequently, the grant was approved, however, the project plans have been expanded and as the cost escalation continues, the Township is committing approximately \$2.9 million to this project from Development Charges. Staff do not recommend a phased approach to accomplish this project. The project should be based upon an established budget and the scope should be based on Community and Council priorities.

Staff are recommending that the 2024 DC study be prepared in reference to the Parks and Recreation Master Plan which is currently ongoing, however, Council should be aware that there is a possibility that the Parks and Recreation Master Plan may not suggest additional funding towards the Sunderland Arena given that there is a long list of recreational needs across the Township that require funding.

Arena Reserve Fund

For the past couple of years, an allocation of \$300,000 per year has been made to an arena reserve, to address work that is needed and identified in the structural condition reports. While not specifically allocated, the idea was that each arena would have approximately \$100,000 per year to be used for capital related upgrades/replacement.

As of year-end 2022, the estimated balance in the arena reserve was \$1,586,650 and the balance is estimated to be approximately \$1,545,650 at year-end 2023. Assuming that the arena reserves are to support all three arenas, equally, there is approximately \$500,000 in reserve for each arena.

The Sunderland expansion/renovation project will address a number of needed improvements at the facility (including the ice plant technology which is at end of life and could be deemed unsafe by TSSA at any time in the future), however, the entire building is not being renovated and it is estimated that approximately 40% of the original building will be untouched. These areas will still require ongoing attention in the coming years; therefore, it is recommended that only \$300,000 be used for the Sunderland expansion/renovation project and that the remaining funds be retained to address upcoming repairs in other parts of the facility.

The Beaverton and Cannington arenas also require ongoing maintenance and capital improvements, therefore, it is recommended that funds be retained in the arena reserve to assist with these projects as well. Currently, there are plans in the works for a smaller renovation to the auditorium at the Beaverton arena and while the Township is working with the Beaverton Lions Club on a Trillium grant, it is anticipated that additional Township contributions may be required towards this project.

Attached to this report is a list of capital projects required for each arena in the next 10 years. Each arena continues to require significant capital contributions and it is recommended that the annual arena reserve contributions be increased by an additional \$50,000 in each of the 2024 (total \$350,000 contribution for 2024) and 2025 budget (total \$400,000 contribution for 2025) to assist with these projects.

Tax Rate Stabilization Reserve

The Tax Rate Stabilization Reserve is a discretionary reserve (meaning that Council can direct how funds and where are used from the reserve) that is typically funded by prior year surpluses and is generally used to fund specific one off projects, rather than funding the project from further tax levy.

The estimated balance in the tax rate stabilization reserve, before any withdrawals for the Sunderland Arena project and assuming the transfer of 2022 year-end surplus into the stabilization reserve is as follows:

	\$
Opening Balance	\$1,907,840
Add: 2022 Surplus	\$886,703
Sub-total	\$2,794,543
Less 2023 Budget Items:	
2023 Transfer to Roads Capital Reserve	(\$1,080,000)
CAO Recruitment	(\$40,000)
Core Services Review	(\$50,000)
Strategic Plan	(\$10,000)
Manilla Hall Flooring	(\$10,000)
Gamebridge Hall Sign	(\$3,000)
Asset Retirement Obligations	(\$15,000)
New Council Training	(\$7,000)
Ash Tree Remediation	(\$25,000)
Street Calming Initiatives	(\$50,000)
Double Surface Treatment	(\$10,000)
Fire Certification Training	(\$36,000)
Contract Planning Technician	(\$39,400)

Estimated Balance Year-End 2023	\$1,419,143
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If the staff suggestion to use tax rate stabilization towards the Sunderland project is approved in the amount of \$480,221, it is estimated that that the reserve balance will be approximately \$938,922.

3.0 Climate Change Impacts

The updated facility will be more energy efficient as we will replace outdated compressors, arena refrigeration equipment with the best we can find based on energy saving. Low flow toilets, showers and sink taps with timers to reduce water use will also be considered. Design considerations around maintenance requirements will also be considered as we will strive to use materials and design to help streamline our operation. The design build exercise will also look at the overall project through the energy efficient lens designed to minimize environmental impacts.

4.0 Communications

As the facility will be closed to the public, regular updates along with photos will be shared on the Townships website. We are proposing to have a dedicated section on the website that is specific to this project.

5.0 Conclusion

Undertaking the renovation and expansion at the Sunderland arena will extend the life of the arena and provide for a greater user experience. As both grant funding, development charge funding and community fundraising is available for the renovation and expansion project, staff recommends that the Township proceeds to the stage of issuing an RFP for Project Management Consulting Services.

Keeping both the Beaverton and Cannington arenas open during the Sunderland expansion and renovation will assist the Township in continuing and maintaining operations during the time required to close and complete the Sunderland arena renovations (which is estimated to be approximately 12 to 18 months).

In order to ensure that ice is evenly distributed, staff will continue to use the ice allocation policy to distribute the ice as per the policy.

In keeping with the Recreation and Master Plan recommendations, staff suggest that, once the Sunderland project is complete, that Council give consideration towards the ongoing operations of both the Beaverton and Cannington arenas and that the review consider such factors as ice utilization and ongoing renovation and operational costs.

The Beaverton area is projected to become the largest growth area within the Township and it is estimated that Beaverton could build out at a population around 14,000 persons. Growth projections are forecasting a build-out of 4,300 residents for Sunderland and 5,400 residents for Cannington. This growth would rely on servicing upgrades to be completed by the Region.

In light of this, staff suggest that, with the next Development Charge Background Study that is completed, that consideration be given to the recreation needs identified in the Parks and Recreation Master Plan.

6.0 Attachments to Report

The following list of attachments have been referenced in this report and are appended as additional context for review in consideration of this report:

Attachment #1 – Beaverton-Thorah Community Centre, Structural Investigation and Report

Attachment #2 – Rick MacLeish Memorial Community Centre (Cannington), Structural Condition Investigation Report

Attachment #3 – Sunderland Brock Memorial Arena, Structural Condition Investigation Report

Attachment #4 – Township of Brock, Forecasted Arena Maintenance Expenses

Attachment #5 – Letter from the Sunderland Lions Club

Attachment #6 – Ice Allocation Policy

Attachment #7 – Memorandum from Hemson Consulting, dated March 23, 2023, regarding the Review of 2018 Township of Brock Asset Management Plan

Attachment #8 – Summary of Beaverton Arena Operating Revenue and Expenses, 2019 to Budget 2023

Attachment #9 – Summary of Cannington Arena Operating Revenue and Expenses 2019 to Budget 2023

Attachment #10 – Summary of Sunderland Arena Operating Revenue and Expenses 2019 to Budget 2023

Attachment #11 – Hemson Consulting Inc., Development Charges 101 Presentation, dated April 3, 2023.

6.0 Recommendation

BE IT RESOLVED THAT Report FI-017, dated July 17, 2023, titled "Current Arena Status Report and Sunderland Arena Renovation and Expansion Project

That Council provide direction on any additional opportunities for input they wish to hear prior to making a final decision on the budget for the Sunderland Arena Expansion and Renovation Project; and

That Council direct staff to conduct a user group survey to assess user group priorities within the project scope for the Sunderland Arena Renovation and Expansion Project; and

That Council direct staff to report back in Q3 following additional input received from Council as well as input received from the public and user groups; and

That the arena reserve budget be increased by a further \$50,000 per year in each of 2024 and 2025, to be shared equally amongst all three of the arena project reserves;

That an Arena Rehabilitation project of \$200,000 be included in the 2024 budget, to be funded from the Arena Capital Project Reserve, to address necessary repairs to each arena, including the hiring of engineers and contractors as required. These funds are to be allocated equally amongst all three arenas;

THAT Council direct staff to conduct an arena user rate review to be completed in 2023, in preparation for the 2024 budget; and

THAT Council direct staff to bring back a formal budget request in the amount of \$10,000,000 including funding as discussed within Report 2023-FI-017, Current Arena Status Report and Sunderland Arena Renovation and Expansion Project, as well as a request to engage Project Management Services to oversee the Sunderland Arena Expansion Project

Structural Investigation and Report
BEAVERTON-THORAH COMMUNITY CENTRE

Township of Brock



BBA PROJECT NO. 17176
NOVEMBER 23, 2021



BARRY BRYAN ASSOCIATES

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PART 1 – INTRODUCTION

1.1 AUTHORIZATION

This structural condition audit has been undertaken by Barry Bryan Associates, Architects, Engineers, and Project Managers, for the Beaverton-Thorah Community Centre Arena, on behalf of the Township of Brock. Authorization to undertake this study was received from Ms. Ingrid Svelnis, Chief Administrative Officer, for the Township of Brock.

1.2 OBJECTIVES

The objective of the structural review, as outlined in Barry Bryan Associates proposal for Structural Investigation and Report, dated November 25, 2021 are as follows:

1. Gather and review all previous structural audit reports and existing building plans for Beaverton-Thorah Community Centre Arena
2. Visit the building and perform a visual survey of the building structure and note the condition and status of applicable items exposed to view. The review will be done in accordance with the “Guidelines for the Investigation and Repair of Arena Structures” published by the Association of Professional Engineers of Ontario in cooperation with the Safety and Technical Services division of the Ministry of Labour. We will be assisted during our inspections by a member of staff of the Township. In order to complete a thorough review, we will require that the Township provide us with safe access to the building structure. This will require the rental of lifting equipment and the provision of qualified operators to assist in our review. We have not included the costs for equipment rental in our proposal.
3. Note any items of concern that may be observed during our review.
4. Prepare a summary report on the structural conditions as observed on site. The report will include high level recommendations for alterations or repairs if required.

1.3 REVIEW METHODOLOGY

Barry Bryan Associates completed a visual inspection of the building on October 28, 2021. During our inspection we undertook a detailed visual review of the various building structural components, and photographed areas reviewed including any areas of concern.

During the review we checked for evidence of deterioration and/or distress within the pre-engineered frame. In general, the structural review included looking for evidence of the following signs of distress:

- Surface deterioration on the pre-engineered steel frame
- Deterioration/cracking of concrete
- Deterioration/cracking of concrete masonry block walls
- Excessively deflected pre-engineered steel frame

Where reference is made in this report to a Code or other standard, the most recent edition of that referenced material was used.

1.4 STATEMENT OF LIMITATION

All comments and observations contained in this report are based on visual observations made during the inspection on October 28, 2021.

No destructive testing or opening of the building systems was completed during the inspection. Further we did not review the structural steel connections.

We are unable to comment or access structure which is not exposed to view.

Any design and/or construction deficiencies not recorded herein were not evident at the time of the inspection.

PART 2 – BUILDING DESCRIPTION

The Beaverton-Thorah Community Centre Arena consists of a single pad arena with a Zamboni room, condenser/electrical room, ammonia room, change rooms, storage rooms, and bleacher seating. The Beaverton-Thorah Community Centre Arena was constructed and opened for operation in 1972.

The building structure at the ice pad generally consists of steel roof decking, cold formed steel z-purlins, pre-engineered rigid steel frames, concrete masonry block walls, metal siding and concrete slab-on-grades.

PART 3 - OBSERVATIONS

BBA attended a site visit on October 28, 2021 to visually review the condition of the structural building components and exterior building façade. We did not complete any intrusive/destructive testing to expose any concealed structural elements and our observations are based on structural elements that were visually accessible where safe access was provided.

We have summarized our observations below:

3.1 BUILDING INTERIOR

3.1.1 Rink Roof Deck and Purlins

The roof framing above the ice pad consists of steel roof deck spanning across cold formed steel z-purlins. We were unable to complete a detailed review of the steel roof deck or purlins directly above the ice rink as this framing was concealed by the existing low “E” ceiling insulation system throughout the arena.

3.1.2 Pre-Engineered Frames

The main structure of the arena consists of a pre-engineered structural frame system with tapered steel girders supporting the steel purlins. The steel frames span approximately 100'-0" and are spaced at approximately 25'-0" centre to centre. We were unable to complete a detailed review of the entire extents of the tapered girders as this framing was enclosed by the existing insulation system (Photo 001). Our observations are as follows:

- Minor localized surface corrosion and peeled paint was observed on the bottom flange of the frames at several locations (Photos 002-004). This is likely due to condensation and high humidity during occupancy. We recommend for the corroded areas to be wire brushed clean to bare metal and an epoxy protective coating is applied.
- The bolted connection of the pre-engineered frame web appeared to be experiencing localized minor corrosion (Photos 005-007). This is likely due to condensation and high humidity during occupancy. We recommend for the corroded areas to be wire brushed clean to bare metal and an epoxy protective coating is applied.
- The pre-engineered steel frame at the south wall elevation appeared to have moisture staining along the bottom flange (Photo 008 & 009). This is likely due to condensation and high humidity during occupancy. We recommend for the corroded areas to be wire brushed clean to bare metal and an epoxy protective coating is applied.
- The base of several frames appeared to not consist of a protective epoxy coating and appears to have experienced minor surface rusting (Photo 010 & 011). We recommend for the rusted areas to be wire brushed clean to bare metal and a protective coating is applied.
- The bridging of several pre-engineered frames appeared to be peeling (Photo 012). This is likely due to condensation and high humidity during occupancy. We recommend for the peeled paint areas to be removed and repainted with a suitable coating for the high humidity environment.
- The pre-engineered frame bracing located along the east and west perimeter walls and the

bracing at roof level appeared to be experiencing localized minor corrosion (Photo 013-015). We recommend for the corroded areas to be wire brushed clean to bare metal and an epoxy protective coating is applied.

Generally, the pre-engineered frames appeared to be in fair to good condition. The minor observations noted above are recommended to be addressed to maintain the original condition of the building structure.

3.1.3 Bleacher Seating Area

There are two (2) bleacher seating areas, within the ice pad area along the east side and west side of the arena complete with six (6) rows and three (3) rows of seating. The bleacher seating is constructed of precast concrete slabs supported on concrete walls. Our observations are as follows:

- There appeared to be localized honeycombing at the exposed sides of the bleacher seating (Photo 016). This appears to be an existing condition and is not a structural concern at this time.
- Minor cracking was observed on the vertical face of the bleachers (Photo 017). These cracks are not a structural concern at this time however we recommend that they be monitored over a five (5) year period for continued propagation.
- Minor cracking was observed at the base of the pre-engineered frames (Photo 018 & 019). These cracks are not a structural concern at this time however we recommend that they be monitored over a five (5) year period for continued propagation.
- Minor deterioration was observed along the bleacher seating (Photo 020). We recommend that this area be cleaned, and a non-slip industrial coating be applied.

The concrete bleacher seating generally observed to be in fair to good condition.

3.1.4 Masonry Block Walls

The perimeter walls of the arena are constructed of concrete masonry block walls with metal siding above at each elevation. Our observations are as follows:

- Efflorescence accumulation was observed along the base of the concrete block walls in the Zamboni room (Photo 021 & 022). The efflorescence accumulation is likely due to moisture absorption through the wall system. We recommend for the area to be cleaned and coated with a protective coating.
- Efflorescence accumulation was observed along the concrete block walls in the Ammonia room and Mechanical room (Photo 023 & 024). The efflorescence accumulation is likely due to high humidity in the room with poor ventilation. We recommend for the area to be cleaned and coated with a protective coating.
- Minor deterioration of the paint on the concrete masonry block wall was observed within the ammonia room (Photo 025). This is likely a result of condensation within the room due to the high humidity. We recommend for the peeled paint areas to be removed and repainted with a suitable coating for the high humidity environment.

- Water staining on the masonry block walls was observed beneath the condensing unit in the northeast corner of the arena (Photo 026). This is likely a result of moisture from the condensing unit causing water staining on the walls. We recommend the walls be cleaned and a new protective coating applied.
- Minor localized cracking was observed in the mortar joints (Photo 027). We recommend this crack be repaired with a suitable repair mortar.

Generally, the masonry block walls generally appeared to be in fair to good condition with localized areas requiring minor remedial repairs to restore to original conditions.

3.1.5 Concrete Rink Slab

The reinforced concrete rink slab was not exposed at the time of our site visit, and we were unable complete our structural review due to ice being present on the rink.

3.1.6 Concrete Apron Slab

The reinforced concrete apron slab extends around the concrete rink slab at the perimeter of the arena. The north side of the slab, at the Zamboni entrance, the players bench and penalty box locations was concealed and not accessible for our review. Our observations include:

- Localized cracking at the apron slab surface was observed at the corner of the floor drain location extending towards the rink slab (Photo 028). The cracking is likely a result of concrete shrinkage and is not a structural concern.
- Efflorescence accumulation was observed at multiple areas on the exposed concrete apron slab (Photo 029 & 030). The efflorescence accumulation is likely due to high moisture content due to the nearby ice. We recommend for the area to be cleaned and coated with a protective coating.
- Larger cracking at the apron slab surface was observed in the southeast corner of the arena (Photo 031). This crack should be epoxy injected to try and extend the long-term serviceability of the pad.
- Surface deterioration was observed along the bleacher seating (Photo 032 & 033). We recommend that this area be cleaned, and a non-slip industrial coating be applied.

The concrete apron slab generally observed to be in fair to good condition.

3.1.7 Partial Roof Framing

The partial second floor area is located along the South side of the arena above the main lobby and consists of a storage room, community gathering room, kitchen, viewing area, and washrooms. The majority of the roof structure consists of steel decking spanning across steel Z girts supported by the pre-engineered frames (Photo 034). We were unable to complete a detailed review of the steel roof deck as this was concealed by the existing low "E" ceiling insulation system throughout the arena. We completed our review of localized areas of the underside of the roof structure within the suspended ceiling. Our observations are as follows:

- There appeared to be some water staining on the underside of the Z girts (Photo 035). We recommend these stains be removed and a protective coating be applied.

The Z girts and pre-engineered frame reviewed generally appeared to be in fair to good condition.

3.2 BUILDING EXTERIOR

3.2.1 SOUTH ELEVATION

The exterior South wall elevation generally consists of pre-finished metal cladding wall. Our observations are as follows:

- There appears to be an opening beneath the metal cladding at ground level (Photo 036). This opening will allow moisture to enter the building and should be repaired by a suitable repair mortar the exposed portion.
- The block wall was observed to be corroded around a mechanical unit (Photo 037). This is most likely due to leaks from the mechanical unit. We recommend for the corroded areas to be cleaned and an epoxy protective coating is applied.
- Vegetation growth on the concrete masonry block wall was observed behind a gutter (Photo 038). This is likely due to the moisture from gutter. We recommend this area be cleaned and a protective coating be applied.
- Efflorescence accumulation was observed along the block wall (Photo 039). We recommend for the area to be cleaned and coated with a protective coating.
- Parging at the base of the block wall appeared to be deteriorating (Photo 040). This is likely due to de-icing salts and snow accumulation against the wall. We recommend a protective coating be applied and this area be re-parged to prevent further deterioration.

Generally, the exterior metal cladding and architectural concrete masonry block wall along the South elevation appeared to be in fair to good condition.

3.2.2 EAST ELEVATION

The exterior East wall elevation generally consists of prefinished metal cladding above an architectural concrete masonry block wall (Photo 045). Our observations are as follows:

- Vegetation growth on the concrete masonry block wall was observed at the base of the wall (Photos 041 & 042). The walls should be cleaned and coated with a suitable protective coating.
- The metal cladding was observed to be corroded around a mechanical unit (Photo 043). This is most likely due to leaks from the mechanical unit. We recommend for the corroded areas to be wire brushed clean to bare metal and an epoxy protective coating is applied.
- Efflorescence accumulation was observed along the block wall (Photo 044). We recommend for the area to be cleaned and coated with a protective coating.

Generally, the exterior metal cladding and architectural concrete masonry block wall along the East elevation appeared to be in fair to good condition.

3.2.3 NORTH ELEVATION

The exterior North wall elevation generally consists of prefinished metal cladding above an architectural concrete masonry block wall (Photo 046). Our observations are as follows:

- The metal cladding was observed to be corroded around a mechanical unit (Photo 047). This is most likely due to leaks from the mechanical unit. We recommend for the corroded areas to be wire brushed clean to bare metal and an epoxy protective coating is applied.
- Parging at the base of the block wall appeared to be deteriorating and in return the block wall was observed to be deteriorating (Photo 048 & 049). This is likely due to de-icing salts and snow accumulation against the wall. We recommend a protective coating be applied and this area be re-parged to prevent further deterioration.
- Vegetation growth on the concrete masonry block wall was observed at the base of the wall below a water supply (Photos 050). This is likely due to the moisture from the water supply. We recommend this area be cleaned, a protective coating be applied and this area be re-parged to prevent further deterioration.
- Localized deterioration of the block was observed (Photo 051 & 052). We recommend for the deteriorated concrete to be repaired with a suitable repair mortar and protective coating to prevent further deterioration of the exterior wall.

Generally, the exterior metal cladding and architectural concrete masonry block wall along the North elevation appeared to be in fair to good condition.

3.2.4 WEST ELEVATION

The exterior West wall elevation generally consists of prefinished metal cladding above an architectural concrete masonry block wall. Our observations are as follows:

- The base of the exterior column supporting the partial second floor appeared to be experiencing localized minor corrosion (Photos 053 & 054). This is likely due to condensation and high humidity during occupancy. We recommend for the corroded areas to be wire brushed clean to bare metal and an epoxy protective coating is applied.
- Vegetation growth and efflorescence on the concrete foundation wall was observed at the base of the wall (Photos 055 & 056). We recommend this area be cleaned and a protective coating be applied.
- Minor cracking was observed on the concrete foundation wall (Photo 057). We recommend the wall be repaired with a suitable repair mortar.

Generally, the exterior metal cladding and architectural concrete masonry block wall along the West elevation appeared to be in fair to good condition.

PART 4 – CONCLUSION AND RECOMMENDATIONS

We completed a structural condition review of the existing building framing and exterior building façade where safe access was available for our review. The building structure generally appeared in fair to good condition. We observed several areas of deterioration that should be addressed to ensure the long term serviceable life of the building structure. We have summarized our recommendations with appropriate time frames below.

RECOMMENDED REPAIRS: (Recommended to be completed within next 2 – 5 years)


1. The efflorescence and algae accumulation on the exterior walls should be cleaned from the structural systems and an adequate protective coating applied.
2. All deteriorated/open/cracked mortar joints should be routed and infilled with a suitable repair mortar to restore the integrity of the existing building envelop.
3. Patch any locations of spalled concrete masonry block with a suitable repair mortar to restore the integrity of the existing building envelop. Replace any damaged/cracked concrete masonry block with new block to match existing as required.
4. Any corroded areas should be wire brushed to bare metal and epoxy painted to prevent further deterioration of the structural framing.
5. Any peeled/flaked paint areas to be removed and repainted with a new coat of epoxy paint.
6. Any areas of moisture staining on structural framing should be cleaned and a protective coating should be applied.

We trust the above information meets your requirements. Should you have any further questions, please do not hesitate to contact our office.

Yours very truly,

BARRY BRYAN ASSOCIATES

Architects, Engineers, Project Managers



Doug McLaughlin, P. Eng.

DM/do



APPENDIX

PHOTOGRAPHS

Structural Investigation and Report for the
BEAVERTON-THORAH COMMUNITY CENTRE ARENA
BBA PROJECT 17176



Photo 01 - Pre Engineered Frames



Photo 02 - Pre Engineered Frame Bottom Flange Corrosion



Photo 03 - Pre Engineered Frame Bottom Flange Corrosion



Photo 04 - Pre Engineered Frame Bottom Flange Corrosion



Photo 05 - Pre Engineered Frame Bolted Connection Corrosion



Photo 06 - Pre Engineered Frame Bolted Connection Corrosion



Photo 07 - Pre Engineered Frame Bolted Connection Corrosion



Photo 08 - Pre Engineered Frame Moisture Staining

Structural Investigation and Report for the
BEAVERTON-THORAH COMMUNITY CENTRE ARENA
BBA PROJECT 17176



Photo 09 - Pre Engineered Frame Moisture Staining



Photo 10 - Pre Engineered Frame Base Corrosion



Photo 11 - Pre Engineered Frame Base Corrosion



Photo 12 - Pre Engineered Frame Bridging Peeling



Photo 13 - Pre Engineered Frame Bracing Corrosion

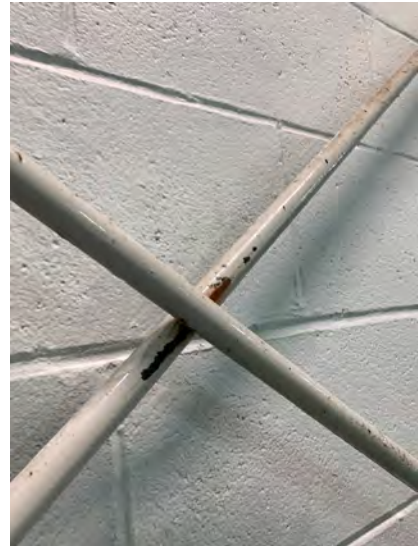


Photo 14 - Pre Engineered Frame Bracing Corrosion



Photo 15 - Pre Engineered Frame Bracing Corrosion



Photo 16 - Bleacher Seating Honeycombing



Photo 17 - Bleacher Seating Minor Cracking



Photo 18 - Bleacher Seating Cracking



Photo 19 - Bleacher Seating Cracking



Photo 20 - Bleacher Seating Deterioration

Structural Investigation and Report for the
BEAVERTON-THORAH COMMUNITY CENTRE ARENA
BBA PROJECT 17176



Photo 21 - Masonry Block Wall Efflorescence

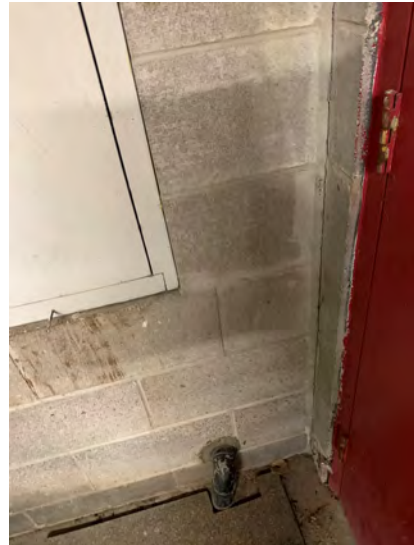


Photo 22 - Masonry Block Wall Efflorescence



Photo 23 - Masonry Block Wall Efflorescence



Photo 24 - Masonry Block Wall Efflorescence



Photo 25 - Masonry Block Wall Deterioration



Photo 26 - Masonry Block Wall Staining

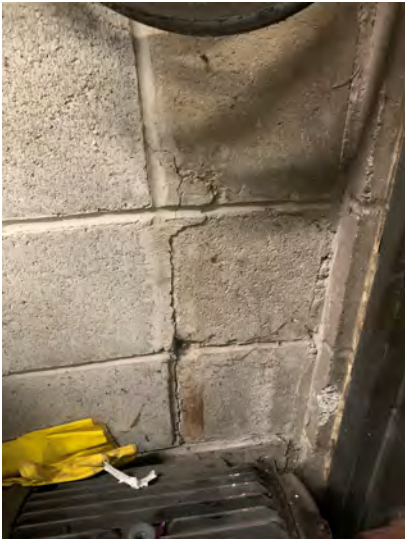


Photo 27 - Masonry Block Wall Cracking



Photo 28 - Concrete Apron Slab Cracking



Photo 29 - Concrete Apron Slab Efflorescence



Photo 30 - Concrete Apron Slab Efflorescence

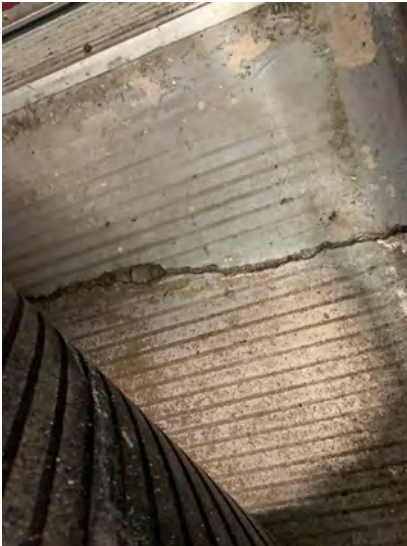


Photo 31 - Concrete Apron Slab Bigger Cracking



Photo 32 - Concrete Apron Slab Deterioration



Photo 33 - Concrete Apron Slab Deterioration

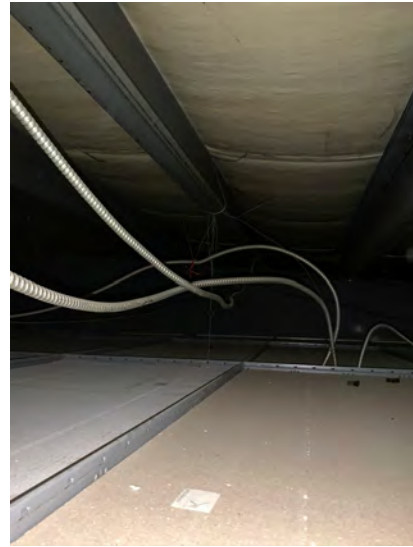


Photo 34 - Partial Second Floor Framing



Photo 35 - Partial Second Floor Z Girt Water Staining



Photo 36 - South Elevation Opening

Structural Investigation and Report for the
BEAVERTON-THORAH COMMUNITY CENTRE ARENA
BBA PROJECT 17176

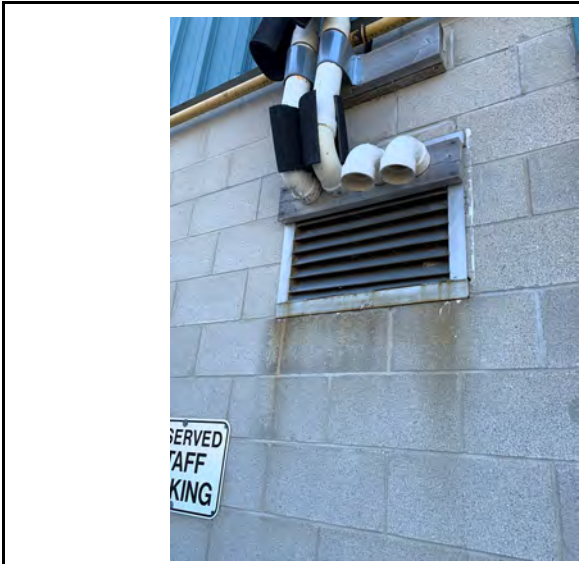


Photo 37 - South Elevation Block Wall Corrosion



Photo 38 - South Elevation Block Wall Vegetation



Photo 39 - South Elevation Block Wall Efflorescence



Photo 040 - South Elevation Block Wall Parging

Structural Investigation and Report for the
BEAVERTON-THORAH COMMUNITY CENTRE ARENA
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Photo 41 - East Elevation Vegetation



Photo 42 - East Elevation Vegetation 2

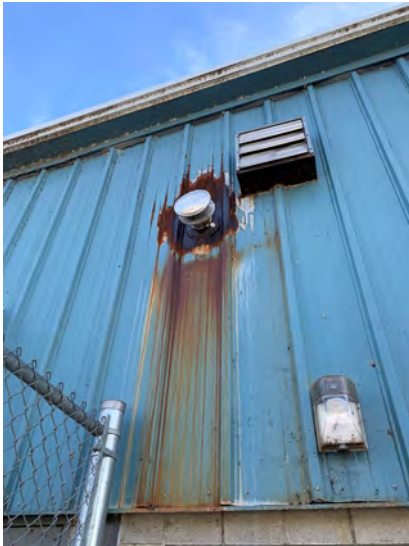


Photo 43 - East Elevation Corroded Cladding



Photo 44 - East Elevation Block Wall Efflorescence

**Structural Investigation and Report for the
BEAVERTON-THORAH COMMUNITY CENTRE ARENA
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Photo 45 - East Elevation



Photo 46 - North Elevation



Photo 47 - North Elevation Corroded Cladding



Photo 48 - North Elevation Parging

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Photo 49 - North Elevation Parging2



Photo 50 - North Elevation Vegetation and Deteriorated Parging



Photo 51 - North Elevation Deterioration



Photo 52 - North Elevation Deterioration 2

Structural Investigation and Report for the
BEAVERTON-THORAH COMMUNITY CENTRE ARENA
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Photo 53 - West Elevation Exterior Column Bolted Connection Corrosion



Photo 54 - West Elevation Exterior Column Base Corrosion



Photo 55 - West Elevation Foundation Wall Vegetation and Efflorescence



Photo 56 - West Elevation Block Wall Efflorescence

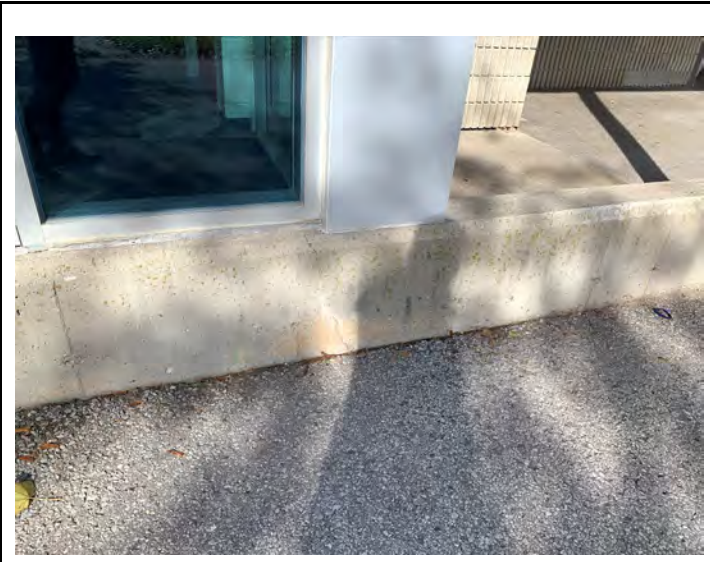


Photo 57 - West Elevation Foundation Wall Minor Cracking

Structural Condition Investigation, Report and Review for
Rick MacLeish Memorial Community Centre
91 Elliot Street, Cannington, ON
The Corporation of the Township of Brock



BBA PROJECT NO. 22124

OCTOBER 13, 2022



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PART 1 – INTRODUCTION

1.1 AUTHORIZATION

This structural condition assessment has been undertaken by Barry Bryan Associates, Architects, Engineers, and Project Managers (BBA), for the existing arena at the Rick MacLeish Memorial Community Centre located at 91 Elliot Street, Cannington, on behalf of The Corporation of the Township of Brock. Authorization to undertake this study was received from Ingrid Svelnis, Chief Administrative Officer from The Corporation of the Township of Brock.

1.2 OBJECTIVES

The objective of the structural assessment of the Rick MacLeish Memorial Community Centre arena, as outlined in the BBA Proposal for Structural Engineering Services for Structural Condition Audits and Reports dated June 15, 2022, are as follows:

1. Perform a visual review of all accessible areas of the building structure and note the condition and status of the items observed.
2. Identify any items of structural concern.
3. Prepare a summary report outlining the structural condition of the building based on the visual review.

1.3 REVIEW METHODOLOGY

BBA completed a non-intrusive, non-destructive, visual review of the building structure on July 28, 2022. During the investigation, the structural and non-structural elements were investigated for evidence of varying levels of deterioration, distress, and/or corrosion and any areas of concern were documented. Vertical access to the existing arena roof framing was achieved via scissor lift operated by Township of Brock personnel.

In brief, the structural assessment included review of the following:

- Surface deterioration and/or corrosion of structural framing.
- Deterioration of structural components including, but not limited to concrete, wood and engineered wood products, bearing walls, and slabs.
- Deterioration/cracking of external wall systems.
- Excessively deflected structural elements.

Reference drawings of the existing structure were not available at the time of review. After completion of the review, BBA obtained a drawing package issued as final print, dated 1964, that was used as reference during the completion of this report.

Where reference is made in this report to a Code or other standard, the most recent edition of that reference material was used.

1.4 STATEMENT OF LIMITATION

All comments and observations in this report are based on visual observations made during the inspection on July 28, 2022.

No intrusive or destructive testing or opening of the building system was completed during the inspection. Further, a detailed structural review of the steel connections was not completed.

There are no comments on the components that were not exposed to view.

Any design and/or construction deficiencies not recorded were not evident at the time of the inspection.

PART 2 – BUILDING DESCRIPTION

The Rick MacLeish Memorial Community Centre arena is located at 91 Elliot Street in Cannington, Ontario. We understand that the original structure was constructed in 1964, with renovations to the rink slab and refrigeration systems completed in 1990. In 2004, accessibility renovations were completed, which included the addition of an elevator and accessible washroom. Most recently, insect damage required isolated replacement of the timber roof decking.

The facility includes a single pad arena with an ice resurfacing vehicle room, ground level viewing area, kitchen, change rooms, storage and maintenance rooms, and second floor gathering/viewing area.

The arena roof structure generally consists of pre-finished metal roof deck on 1" thick wood decking on 2x12 purlins at 16" c/c. The purlins are supported by timber bowstring trusses that span 95'-0" and bear on 7"x11-3/8" glulam columns.

The roof structure of the viewing area consists of 2x12 joists at 16" c/c, supported by 7"x30-7/8" glulam beams. The glulam beams frame into 7"x13" glulam columns and 10" concrete masonry block piers. The floor framing consists of 2x12 joists and multi-ply wood beams and columns. The ice-resurfacer room consists of concrete slab-on-grade, concrete masonry block walls, and wood framed roof.

PART 3 – OBSERVATIONS

BBA attended the Rick MacLeish Memorial Community Centre arena on July 28, 2022, to visually review the condition of the structural building components and exterior façade. A summary of findings is itemized as follows:

3.1 BUILDING INTERIOR

3.1.1 ROOF FRAMING

The existing roof framing system within the arena consists of pre-finished metal roof deck on 1" thick wood decking on 2x12 wood purlins spaced at 16" centres. These purlins are supported by timber bowstring trusses at 20'-0" centres (Photo 01). The existing roof framing system in the viewing area consists of 2x12 joists supported by 7"x30-7/8" glulam beams. The glulam beams frame into 7"x13" glulam columns (Photo 02).

Observations of the interior roof framing are as follows:

- We understand that previously completed banding repairs to the bowstring trusses, purlins, girts, and columns were completed at various locations (Photo 03). It appears that the repairs included the caulking and banding of truss elements with severe checking. Previously repaired elements do not appear to be further deteriorated. At some locations, banding showed signs of surface corrosion. Banding corrosion should be monitored to maintain the structural integrity of previously completed repairs.
- Checking, delamination, and damage was observed at additional, unaddressed, bowstring truss elements, girts, and columns (Photo 04, 05). We recommend these areas be repaired to maintain the structural integrity of these elements.
- Localized evidence of moisture was observed on the purlins, truss elements and on the underside of the wood decking (Photo 06, 07). Moisture penetration should continue to be monitored. Further investigation into the source may be required.
- Surficial corrosion was observed on most bracing rods (Photo 08). The corrosion levels appear minor at this time, however they should continue to be monitored for continued degradation.
- Short thread extensions were observed at various truss and column connections (Photo 09), as well as at column connections. Short threads should be extended to achieve the required design capacities. Further investigation is required to determine the specific requirements and potential methods of executing this repair.
- It appears that a figure skating support hoist has been installed along one of the frames near the South end of the arena. It is unclear whether the hoist connections or supporting framing have been engineered or analyzed for the required loading conditions. Further review is required to determine whether the existing system is sufficient, or if previous analysis has been completed verifying the capacity.

Generally, the arena roof framing appeared to be in fair condition.

3.1.2 CONCRETE RINK SLAB

The concrete rink slab was exposed at the time of visit. We understand that renovations to the rink slab and refrigeration system were completed in 1990. Observations are as follows:

- Hairline surface cracks were observed throughout the rink slab. These are not a structural concern at this time however should continue to be monitored for further propagation.
- More significant cracking was observed at the south end of the rink slab (Photo 10). These cracks should be repaired to protect against continued deterioration.

The concrete rink slab generally appeared to be in fair condition.

3.1.3 BLEACHER SEATING AREA

The existing concrete bleachers are located along the west side of the ice surface (Photo 11). Observations of the existing bleacher seating are as follows:

- Minor cracks were observed throughout the concrete bleachers, however these are not structural concerns at this time (Photo 12).
- Spalling and delaminating concrete were observed at a single location on the southernmost stair (Photo 13). This area requires to be repaired.

The bleacher seating area generally appeared to be in fair condition.

3.1.4 CONCRETE APRON SLAB

The reinforced concrete apron slab-on-grade extends around the perimeter of the rink. Most areas were concealed below rubber tread coverings and other visual obstructions. Existing conditions could not be verified at these locations. Where visible, apron slab observations are as follows:

- Minor hairline/shrinkage cracks were observed on the surface of the apron slab (Photo 14). This surface cracking is typical of slab-on-grade and is not currently a structural concern. These should continue to be monitored for further deterioration.
- Concrete ramps around the apron slab appeared to be in good condition with no notable deterioration or damage.

Generally, the concrete apron slab is in fair condition.

3.1.5 CONCRETE SLAB-ON-GRADE

The concrete slab-on-grade was only able to be observed in the mechanical rooms, including the ice-resurfacer and ice-making plant. Observations are as follows:

- Significant damage, deterioration and rutting was observed in the ice-resurfacer room (Photo 15). Localized areas of settlement may have also occurred around trench drains. Given the current condition, we recommend that the ice-resurfacer room slab be repaired or replaced.
- In the ice-making plant, the slab-on-grade appeared to be in good condition, with only minor hairline cracks observed. These cracks are not a structural concern at this time.
- Damage to the housekeeping pads within the ice-making plant was observed (Photo 16). We recommend these areas to be repaired.

Generally, the areas with exposed slab-on-grade appeared to be in fair condition however the ice-resurfacer room slab is in poor condition.

3.1.6 CONCRETE BLOCK MASONRY WALLS

The concrete block masonry walls consist of 8" thick masonry units. Observations are as follows:

- Staining and efflorescence were observed on the interior face of the concrete block masonry walls in the ice-making plant, indicating the presence of moisture (Photo 17, 18). These areas should be cleaned and monitored for worsening conditions.
- Minor cracking, deteriorated mortar joints and other damage were observed in the ice-resurfer and mechanical rooms (Photo 19, 20, 21). These areas should be cleaned and monitored for worsening conditions.
- Deteriorated mortar joints were observed at some locations throughout the partition walls at the ground floor (Photo 22). It is recommended that these be routed and repointed with appropriate repair mortar.

The concrete block masonry walls generally appear to be in fair condition.

3.1.7 SECOND FLOOR & ROOF FRAMING

The second floor framing was not fully observable at the time of visit due to the floor finish and fixed ceiling. Further intrusive investigation is required to confirm the existing conditions.

The roof framing consists of steel deck on 2x12 joists at 16" c/c, supported by 7"x30-7/8" glulam beams that bear on 7"x13" glulam columns and masonry piers (Photo 23, 24). Observations are as follows:

- Staining on suspended ceiling tiles indicate presence of moisture (Photo 25, 26, 27). Further investigation is required to determine the source and severity of moisture infiltration.
- Glulam beams and columns appeared to be in good condition with no notable damage or deterioration.

Generally, the observable structural elements on the second floor were in good condition.

3.2 BUILDING EXTERIOR

3.2.1 NORTH ELEVATION

The north elevation generally consists of concrete block masonry (Photo 28). Located on the north elevation are two building entrances with cantilevered canopies, as well as the more recent addition of the elevator shaft. The addition consists of split-face concrete block masonry walls. The canopy framing was concealed from view during our investigation. Observations are as follows:

- Minor deterioration and staining were observed on the split-face block at the elevator room roof down spout location; it appears that the downspout has been removed (Photo 29).
- Deteriorated mortar joints, damage and staining were observed below the windows (Photo 30). It is recommended that cracked joints be routed and repointed with appropriate repair mortar.
- Significant cracking was observed in the concrete landscaping retaining walls and stairs (Photo 31). Repair is recommended as to avoid further damage and deterioration from water penetration and freeze-thaw action.

The north elevation was generally in fair condition.

3.2.2 EAST ELEVATION

The exterior east elevation generally consists of full height pre-finished metal cladding (Photo 32). Observations are as follows:

- Minor corrosion was observed on the metal cladding below windows (Photo 33). These areas should continue to be monitored for further degradation.
- Damaged and deformed metal cladding observed at various locations (Photo 34, 35).

The east elevation generally appeared to be in fair condition.

3.2.3 SOUTH ELEVATION

The south elevation generally consists of concrete masonry block walls with pre-finished metal cladding above (Photo 36). Located on the south elevation is the ice-resurfacers and ice-making plant extensions, as well as a mechanical unit support structure (Photo 37). Observations are as follows:

- Paint peeling and deterioration were observed along timber roof framing at the ice-resurfacers and mechanical rooms. Any areas of rot should be removed and replaced. Other areas should be re-painted.
- Concrete block masonry walls appear to be in fair condition (Photo 38).
- Minor surface corrosion was observed throughout original metal cladding (Photo 39). Corrosion should continue to be monitored.

The exterior south elevation generally appeared to be in fair condition.

3.2.4 WEST ELEVATION

The exterior west elevation generally consists of full height metal cladding (Photo 40). Also located on the east elevation are two external steel stairs. Observations are as follows:

- Minor surface corrosion was observed throughout original metal cladding (Photo 41). Corrosion should continue to be monitored.
- Surface corrosion and paint peeling was observed on the steel stair. Corroded steel and peeling paint should be cleaned and the framing re-coated.
- The north-most steel stair column is not bearing on proper foundation and is missing anchor bolts (Photo 42). A suitable foundation should be installed below support posts. Further analysis would be required to confirm the adequacy of the stair framing for support of current dead and live loading.

The west elevation generally appeared to be in fair condition.

PART 4 – CONCLUSIONS AND RECOMMENDATIONS

BBA has completed our structural condition investigation at the Rick MacLeish Memorial Community Centre arena on July 28, 2022. The existing building framing, external façade, and other structural elements were visually reviewed where possible.

The general review of the interior and exterior of the building identified several areas of concern which should be addressed to improve the long-term serviceability of the structure. A summary of remedial recommendations is as follows:

RECOMMENDED IMMEDIATE REPAIRS (Repairs to be completed within next 6 – 12 months):

1. Complete an analysis of the figure skating support hoist system and support framing, if not previously complete.
2. Repair concrete at bleacher stairs.
3. Extend short erection bolts at roof framing connections.
4. Provide proper support of exterior stair posts.

RECOMMENDED REPAIRS (Recommended to be completed within next 2-5 years):

1. Repair or replace concrete slab-on-grade at ice-resurfacers room.
2. Repair or replace concrete housekeeping pads.
3. Repair cracks in rink slab.
4. Rout out and repoint deteriorated/open/cracked mortar joints.
5. Repair damage to landscaping concrete retaining/stair structures.
6. Clean staining/efflorescence from concrete block walls.

The structural framing and exterior walls are generally in fair condition, however remedial repair work is required to preserve the integrity of the existing building structure and restore the building envelope to original conditions.

We trust the above information meets your requirements. Should you have any further questions, please do not hesitate to contact our office.

Yours very truly,

BARRY BRYAN ASSOCIATES

Architects, Engineers, Project Managers



Matthew Ficara, EIT



Doug McLaughlin, P. Eng.



APPENDIX

PHOTOGRAPHS



Photo 01



Photo 02



Photo 03

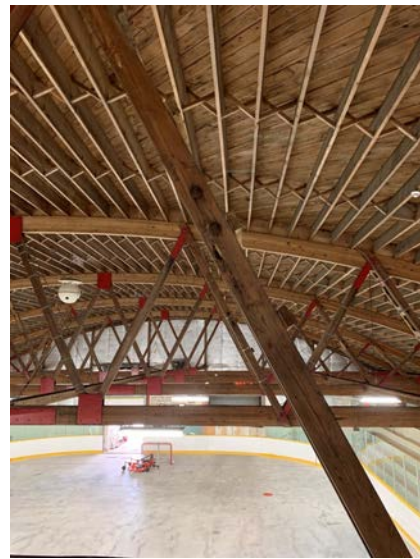


Photo 04



Photo 05



Photo 06



Photo 07



Photo 08



Photo 09



Photo 10



Photo 11



Photo 12



Photo 13



Photo 14



Photo 15



Photo 16



Photo 17



Photo 18



Photo 19



Photo 20



Photo 21



Photo 22



Photo 23



Photo 24



Photo 25



Photo 26



Photo 27



Photo 28



Photo 29



Photo 30



Photo 31



Photo 32



Photo 33



Photo 34



Photo 35



Photo 36



Photo 37



Photo 38



Photo 39



Photo 40



Photo 41



Photo 42

Structural Condition Investigation, Report and Review for
Sunderland Brock Memorial Arena
20 Park Street, Sunderland, ON
The Corporation of the Township of Brock



BBA PROJECT NO. 22124

OCTOBER 13, 2022



BARRY BRYAN ASSOCIATES
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PART 1 – INTRODUCTION

1.1 AUTHORIZATION

This structural condition assessment has been undertaken by Barry Bryan Associates, Architects, Engineers, and Project Managers (BBA), for the existing Sunderland Brock Memorial Arena located at 20 Park Street in Sunderland, ON, on behalf of The Corporation of the Township of Brock. Authorization to undertake this study was received from Ingrid Svelnis, Chief Administrative Officer from The Corporation of the Township of Brock.

1.2 OBJECTIVES

The objective of the structural assessment of the Sunderland Brock Memorial Arena, as outlined in the BBA Proposal for Structural Engineering Services for Structural Condition Audits and Reports dated June 15, 2022, are as follows:

1. Perform a visual review of all accessible areas of the building structure and note the condition and status of the items observed.
2. Identify any items of structural concern.
3. Prepare a summary report outlining the structural condition of the building based on the visual review.

1.3 REVIEW METHODOLOGY

BBA completed a non-intrusive, non-destructive, visual review of the building structure on July 26, 2022. During the investigation, the structural and non-structural elements were investigated for evidence of varying levels of deterioration, distress, and/or corrosion and any areas of concern were documented. Vertical access to the existing arena roof framing was achieved via scissor lift operated by Township of Brock personnel.

In brief, the structural assessment included review of the following:

- Surface deterioration and/or corrosion of structural framing.
- Deterioration of structural components including, but not limited to concrete, timber, bearing walls, and slabs.
- Deterioration/cracking of external wall systems.
- Excessively deflected structural elements.

Reference drawings of the existing structure were not available at the time of review. After completion of the review, BBA obtained a drawing package that was issued for approval and dated November 19, 1976, that was used as reference during the completion of this report.

Where reference is made in this report to a Code or other standard, the most recent edition of that reference material was used.

1.4 STATEMENT OF LIMITATION

All comments and observations in this report are based on visual observations made during the inspection on July 26, 2022.

No intrusive or destructive testing or opening of the building system was completed during the inspection. Further, a detailed structural review of the steel connections was not completed.

There are no comments on the components that were not exposed to view.

Any design and/or construction deficiencies not recorded were not evident at the time of the inspection.

PART 2 – BUILDING DESCRIPTION

The Sunderland Brock Memorial Arena is located at 20 Park Street in Sunderland, Ontario. We understand that the original two storey structure was constructed in 1971, with the pre-engineered arena structure being constructed over the existing ice surface in 1977.

The facility includes a single pad arena with an ice resurfacing vehicle room, ground level viewing area, kitchen, change rooms, storage and maintenance rooms, second floor gathering area, and partial basement.

The building roof structure generally consists of pre-finished metal roof deck on cold-form Z-purlins spanning between pre-engineered steel frames above the ice surface. The ground floor consists of composite deck supported by structural steel beams and columns above the basement and a concrete slab-on-grade, and metal roof deck on open-web steel joists (OWSJ) spanning between interior steel beams and exterior load-bearing concrete block masonry.

Where visible, the existing foundation consisted of concrete block masonry pilasters and cast-in-place concrete walls and footings.

PART 3 – OBSERVATIONS

BBA attended the Sunderland Brock Memorial Arena on July 26, 2022, to visually review the condition of the structural building components and exterior façade. A summary of findings is itemized as follows:

3.1 BUILDING INTERIOR

3.1.1 ROOF FRAMING

The existing roof framing system consists of pre-finished metal roof deck on cold formed Z-purlins spanning between pre-engineered steel frames spaced at approximately 20'-0" in the arena (Photo 001). Throughout the remainder of the building, the roof framing is metal roof deck on regularly spaced open-web steel joists (OWSJ) supported on 10" concrete block masonry walls (Photo 002). Observations of the roof framing are as follows:

- Due to the presence of the condition of existing liner system within the arena, the existing pre-finished metal roof deck and cold formed Z-purlins could not be confirmed in this area. Further investigation is required to confirm the structural composition and assess the existing condition of the roof deck/purlins throughout the arena.
- Minor surface corrosion and peeling paint was observed throughout the pre-engineered frames, most notably on the bottom flange members and at connections/bolts (Photos 003). These areas should be cleaned to bare metal and prime painted to prolong the service life of the steel framework.
- Missing and/or damaged lateral support braces and bolts were observed at several locations throughout the pre-engineered steel frames. (Photos 004, 005, 006, 007). These must be replaced to reinstate the structural integrity of the frame.
- Short thread extensions were observed on several of the column baseplate anchor bolts and should be extended (Photo 008, 009, 010). Further review is required to determine the specific requirements and options for repair.
- Lateral support bracing has been removed to accommodate platform at the column in the northeast corner of the arena (Photo 011). Missing bracing components must be replaced to reinstate the structural integrity of the frame.
- It appears that a figure skating support hoist has been installed along one of the frames near the south end of the arena. It is unclear whether the hoist connections or supporting framing have been engineered (Photo 012, 013). Further review is required to determine whether the existing system is sufficient to support the necessary loading conditions.
- Localized staining at suspended ceiling tiles was observed within the second floor community room, indicating potential areas of roof leaks (Photo 014). Further investigation is required to determine the source and severity of any moisture infiltration.
- The OWSJ and metal roof deck appear in good condition with no signs of damage or deterioration (Photo 015).

Generally, the existing roof framing appeared in fair condition with localized areas of repair being required.

3.1.2 BLEACHER SEATING AREA

The existing bleachers are located along the west side of the ice surface and consists of concrete slabs on concrete block masonry units along the lowest level and at each end (Photo 016). Observations of the existing bleacher seating are as follows:

- Concrete damage was observed through the northmost stairs (Photo 017, 018). It is recommended that this damage be repaired to prohibit further structural degradation and eliminate the potential tripping hazard that currently exists.
- Minor cracking and damage was observed throughout (Photo 019, 020). These cracks are not currently a structural concern however, they should continue to be monitored for further deterioration.
- On the underside of the bleachers, minor honeycombing was observed. As the honeycombing is not significant, and no spalling or delamination was observed, no structural action is required. It is recommended that these areas continue to be monitored.

The bleacher seating area generally appeared to be in fair condition.

3.1.3 CONCRETE BLOCK MASONRY WALLS

The existing concrete block masonry walls generally consisted of 8" thick units which acted as the perimeter wind-bearing structure, localized interior load-bearing sections and partition walls. Observations of the existing concrete block walls are as follows:

- Step cracking, peeling paint, staining, evidence of moisture and deteriorated mortar and control joints were observed along each of the perimeter concrete block walls, including at the ice-resurfacers room (Photo 021, 022, 023, 024). In many areas the block wall is unprotected from the elements and is uninsulated.

Continued exposure to the elements and freeze-thaw cycles will lead to more significant structural deterioration in time. Deteriorated mortar joints should be routed and repointed while areas of minor staining, peeling paint, etc. should continue to be monitored for further deterioration. Consideration should be given to painting/sealing the exterior block to add further protection should installation of a proper rainscreen not be viable.

- Significant staining and evidence of moisture was observed on the interior side of the base of the north concrete block wall (Photo 025). The exterior grade in this area appears to be higher than the apron slab, which is likely contributing to the higher moisture levels.

Continued exposure to moisture and freeze-thaw cycles could result in significant damage to the exterior wall. Damaged block should be repaired or replaced and consideration given to improving exterior drainage or adjusting the grade to suit.

- Concrete block partition walls in the viewing area, changerooms and washrooms appear to be in good condition.
- The south block wall was not observable due to obstructions.

The concrete block masonry walls throughout the facility generally appear to be in fair condition. The structural damage observed to date is relatively minor, however given the nature of the exterior wall system, continued monitoring and repairs should be completed to prevent further degradation due to moisture infiltration and freeze-thaw action.

3.1.4 CONCRETE RINK SLAB

The concrete rink slab was exposed at the time of visit. Observations are as follows:

- Cracks were observed throughout the rink slab (Photo 026). These should be repaired to prevent further degradation.
- Previous repairs have been completed to other more substantial areas of cracking (Photo 027). Some areas of repair appear to have performed while others appear to have worsened. Worsening slab conditions may indicate a larger issue at hand. Further investigation and review should be completed to determine a reasonable timeframe for replacement.
- Various areas of damage around concrete inserts were observed (Photo 028). These areas should be repaired.

The concrete rink slab generally appeared to be in fair condition but should continue to be monitored for further degradation which could require full replacement.

3.1.5 MECHANICAL PLATFORMS

Three (3) mechanical unit platforms have been constructed at the northeast, southeast and southwest corners of the arena, respectively. None of the platforms appear to have been engineered and are in various states of deterioration. We recommend that further investigation and analysis be conducted to confirm whether the structures are suitable to support the imposed loading.

3.1.6 CONCRETE APRON SLAB

The reinforced concrete apron slab-on-grade extends around the perimeter of the rink, with some areas not visible due to the presence of rubber floor finish. Existing conditions could not be verified at these locations. Where visible, observations of the existing concrete apron slab are as follows:

- Cracks were observed throughout the apron slab (Photo 029). While not a structural concern at this time, we recommend that these areas continue to be monitored and eventually repaired.
- Minor surface wear and damage were observed at some locations (Photo 030, 031). These areas should continue to be monitored for further deterioration.

Generally, the concrete apron slab is in fair condition.

3.1.7 CONCRETE SLAB-ON-GRADE

The concrete slab-on-grade was only observable in the mechanical rooms, janitor's closet, and basement. Observations of the existing concrete slab on grade are as follows:

- Minor to moderate staining and damage were observed at the slab on grade and housekeeping pads within the mechanical pump room and janitor's closet (Photo 032).
- Minor cracking was observed throughout the basement slab on grade.

Generally, the exposed concrete slab-on-grade areas appeared to be in fair condition. Areas of cracking, staining or damage should continue to be monitored for worsening conditions and repaired if necessary.

3.1.8 SECOND FLOOR FRAMING

Based on our review of the building reference drawings we understand that the second floor framing consists of 2x12 joists at 12" c/c supported on steel beams that frame into steel columns or 10" masonry walls. However, due to the presence of the second floor finish and fixed ceiling below, these areas were not visible for review. Further intrusive investigation is required to confirm the existing conditions.

3.1.9 ROOF FRAMING

Generally, the existing roof framing appears in good condition, where visible.

3.2 BUILDING EXTERIOR

3.2.1 SOUTH ELEVATION

The exterior south elevation generally consists of full height, concrete block masonry walls and a wood framed canopy (Photo 033). We understand that both the wood framed canopy and elevator shaft portion of this area were additions to the original two-storey structure. Observations are as follows:

- Significant checking was observed in most timber columns (Photo 034, 035). Further investigation is required to determine the severity of the checking and to confirm whether there has been any reduction in column capacity.
- It appears that one (1) wood column has been impacted, likely from a vehicle, is damaged/skewed and has shifted off the supporting foundation (Photo 036, 037). This column and associated connections must be replaced or repaired to replaced.
- Various columns appear to have shifted and are no longer centered along the main canopy support beam (Photo 038, 039). Repairs to this area are required to ensure proper connection between the beam and columns.
- Evidence of moisture and staining was observed at the underside of the plywood liner below the canopy framing (Photo 040). Further intrusive investigation is required to confirm the condition of the canopy framing system and whether moisture has adversely affected the structural system.
- Concrete spalling was observed at various locations on the exterior concrete sidewalk (Photo 041, 042). While not a structural concern, loose concrete and void in the slab should be removed and repaired to prevent further degradation and to eliminate potential tripping hazards.
- Various damage was observed at the entryway thresholds (Photo 043, 044). These areas should continue to be monitored for further deterioration.
- Deteriorated mortar joints were observed at some locations along the south elevation. These should be routed and repointed.

The existing structures along the south elevation generally appeared to be in fair condition. However, the wood canopy framing requires to be repaired as various structural components are damaged and have shifted, presumably from vehicular impact loading. Consideration should be given to construction of new exterior bollards to protect against future impacts once the repairs are made.

3.2.2 EAST ELEVATION

The exterior east elevation generally consists of full height, concrete masonry block wall at the original two-storey structure, and concrete masonry block wall with a partial height metal cladding system around the arena (Photo 045). Additionally, an external steel stair provides access to the second level. Observations are as follows:

- Minor surface corrosion and paint peeling was observed on the steel stair (Photo 046). This condition should be monitored, and the stair eventually repainted to protect against more significant corrosion.
- The existing stair acts as an exit from the second floor community room however does not appear to be structurally stable to support the required loading currently prescribed by the Ontario Building Code. While this is an existing condition and may not require upgrade by code, we recommend that this stair be further reviewed for potential upgrades to landing grating and support connections.

- Various areas of damage were observed at the base of the concrete masonry block wall throughout the wall, particularly at downspout discharge locations (Photos 047, 048, 049). Block wall damage and staining should be repaired and consideration given to modifying the downspouts to direct water away from the building structure.
- Caulking at expansion joints was cracked, damaged, or missing in several locations (Photo 050). It is recommended that the caulking be replaced to avoid further damage from water penetration and freeze-thaw action.
- Deteriorated mortar joints were observed at some location along the east elevation, including at the arena plant (Photo 051, 052, 053). It is recommended that cracked joints be routed and repointed with appropriate repair mortar.

The east elevation generally appeared to be in fair condition.

3.2.3 NORTH ELEVATION

The north elevation generally consists of concrete masonry block walls with a partial height metal cladding system above (Photo 054). Located on the north elevation is the ice resurfacers extension, as well as a mechanical unit support structure adjacent to the arena plant. Observations are as follows:

- Surficial corrosion was observed on the mechanical unit support structure (Photo 055). This structure should continue to be monitored.
- Minor deterioration and staining were observed at various locations along the base of the concrete masonry block wall on the north elevation (Photo 056, 057). Recommendations regarding exterior concrete block walls are discussed previously.
- Deteriorated mortar joints were observed at some locations along the block wall (Photos 058, 059, 060). It is recommended that cracked joints be routed and repointed with appropriate repair mortar.
- Damage to the metal roof flashing was observed at the northwest corner of the ice-resurfacers room (Photo 061). This damage should be repaired to protect against further moisture infiltration.

The north elevation is generally in fair condition, however the ice resurfacers concrete masonry block walls appeared to be in poor condition and require to be repaired.

3.2.4 WEST ELEVATION

The exterior west elevation generally consists of concrete masonry block wall with a partial height metal cladding system above (Photo 062). Additionally, an external steel stair provides access to the second level. Observations are as follows:

- Various areas of damage were observed at the base of the concrete masonry block wall throughout the wall, particularly at downspout discharge locations. Block wall damage and staining should be repaired, and consideration given to modifying the downspouts to direct water away from the building structure.
- Deteriorated mortar joints were observed at some locations (Photos 063, 064, 065). It is recommended that cracked joints be routed and repointed with appropriate repair mortar.
- Louver grates/screens are missing at a few locations (Photo 066).
- Minor surface corrosion and paint peeling was observed on the steel stair (Photo 067). This condition should be monitored, and the stair eventually repainted to protect against more significant corrosion.

- The posts for the steel stair are not properly connected to the supporting concrete block structure (Photo 068). Further, the concrete block is not an acceptable foundation. New base connections and foundation structures are required for support of this stair.
- The existing stair acts as an exit from the second floor however does not appear to be structurally stable to support the required loading currently prescribed by the Ontario Building Code. While this is an existing condition and may not require upgrade by code, we recommend that this stair be further reviewed for potential upgrades to landing grating and support connections.

The west elevation generally appeared to be in fair condition. However, the existing second floor exit stair requires to be upgraded or replaced.

PART 4 – CONCLUSIONS AND RECOMMENDATIONS

BBA has completed our structural condition investigation at the Sunderland Brock Memorial Arena on July 26, 2022. The existing building framing, external façade, and other structural elements were visually reviewed, where possible.

The general review of the interior and exterior of the building identified several areas of varying levels of concern which should be addressed to improve the long-term serviceability of the structure. A summary of remedial recommendations is as follows:

RECOMMENDED IMMEDIATE REPAIRS (Repairs to be completed within next 6 – 12 months):

1. Complete repairs to wood canopy at south entrance including replacement of any damaged wood columns, reinstating shifted/damaged connections, confirming extent of column checking and potentially installing bollards to protect against further impact.
2. Complete repairs to exterior exit stairs and associated foundations on the east and west sides of the arena.
3. Reinststate damaged or missing lateral support braces at the pre-engineered frames.
4. Replace missing bolts on pre-engineered frames.
5. Extend short anchor bolt threads at bases of pre-engineered columns.
6. Complete an analysis of figure skating support hoist system and supporting framing.
7. Repair concrete stairs at bleachers.

RECOMMENDED REPAIRS (Recommended to be completed within next 2-5 years):

1. Rout out and repoint deteriorated/open/cracked mortar joints.
2. Repair cracks in rink slab or consider full replacement.
3. Clean corrosion and repaint pre-engineered framing.
4. Repair damage to concrete foundation wall on east elevation.
5. Replace sealant at external expansion joints.
6. Replace guards on west wall louvres.

All masonry repaired noted above must be completed using techniques which best match the original construction of the existing building

We trust the above information meets your requirements. Should you have any further questions, please do not hesitate to contact our office.

Yours very truly,

BARRY BRYAN ASSOCIATES

Architects, Engineers, Project Managers



Matthew Ficara, EIT



Doug McLaughlin, P.Eng.



APPENDIX

PHOTOGRAPHS



Photo 01



Photo 02



Photo 03



Photo 04



Photo 05



Photo 06



Photo 07



Photo 08



Photo 09



Photo 10



Photo 11

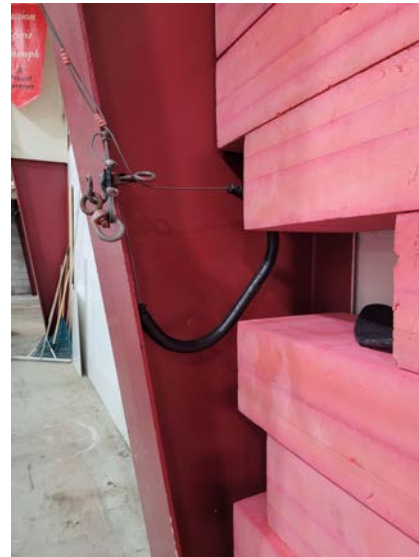


Photo 12

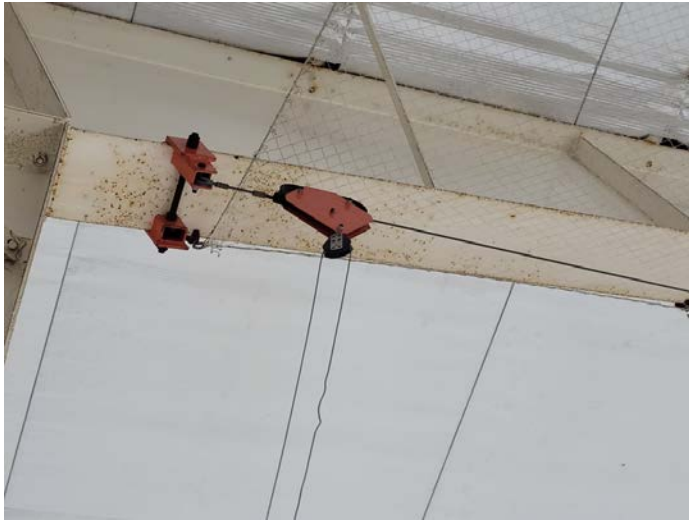


Photo 13



Photo 14



Photo 15

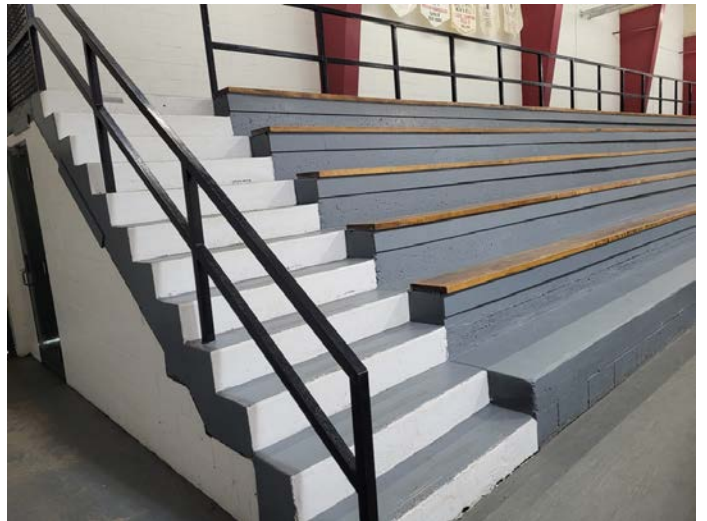


Photo 16



Photo 17

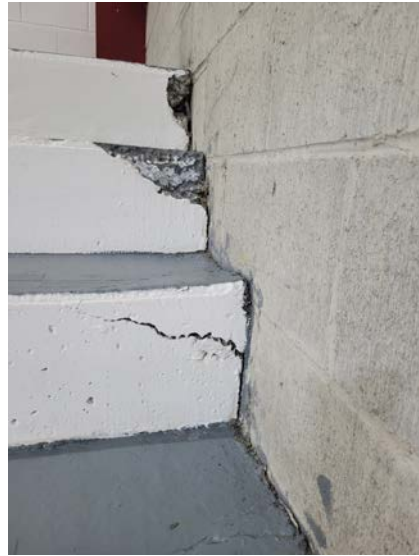


Photo 18



Photo 19



Photo 20



Photo 21



Photo 22



Photo 23



Photo 24



Photo 25



Photo 26



Photo 27



Photo 28



Photo 29



Photo 30



Photo 31



Photo 32



Photo 33



Photo 34



Photo 35



Photo 36



Photo 37



Photo 38



Photo 39



Photo 40



Photo 41



Photo 42



Photo 43



Photo 44



Photo 45

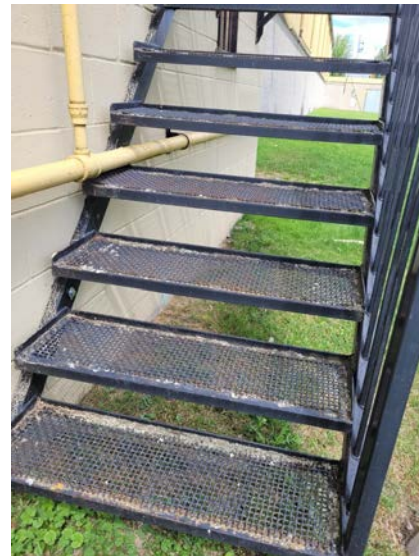


Photo 46



Photo 47

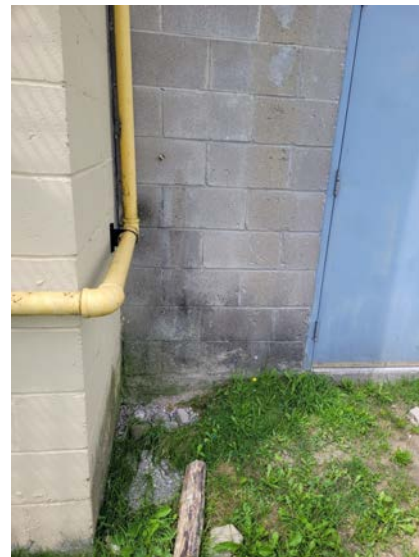


Photo 48



Photo 49



Photo 50

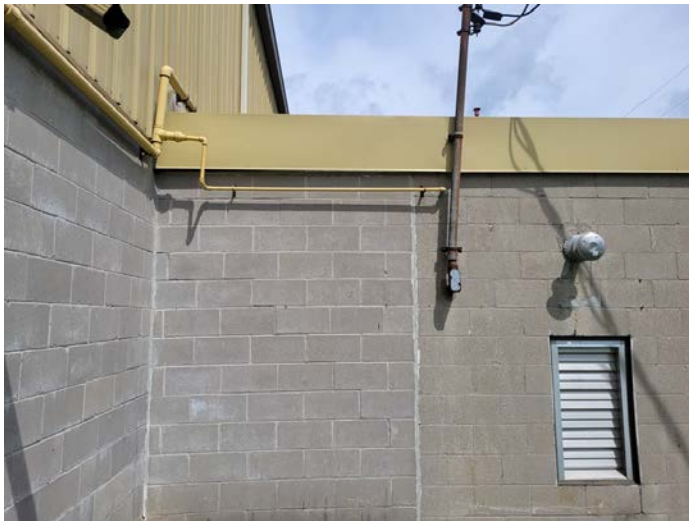


Photo 51



Photo 52



Photo 53



Photo 54



Photo 55



Photo 56



Photo 57



Photo 58



Photo 59



Photo 60



Photo 61



Photo 62



Photo 63



Photo 64



Photo 65



Photo 66



Photo 67



Photo 68

Township of Brock - Forecasted Arena Maintenance Expenses

Sunderland Arena

Project	2023 Cost Estimate \$	Year Estimated Required & Status Update
Dehumidifiers	45,000	2023 - part of grant
Dehumidifiers	45,000	2023 - part of grant
Chiller	110,000	2023 - part of grant
Condensor	125,000	2023 - part of grant
Headers	90,000	2023 - part of grant
Flooring, including in floor piping	1,200,000	2023 - part of grant
Brine Pump	25,000	2023 - part of grant
Compressors	200,000	2023 - part of grant
Ice Plant Structures	TBD	2023 - part of grant
Auditorium Roof	100,000	2023 - In 2023 Budget
Concrete Repairs	TBD	2023 - some work to be done 2023
Block Repairs	TBD	2023 - some work to be done 2023
South Walkway Canopy	TBD	2023 - part of grant
Main Entrance Doors	TBD	2023 - part of grant
Exterior Exit Stairs	TBD	2023 - Review of work being done 2023
Ice Plant Roof	TBD	2023 - part of grant (if does not proceed, work required immediately)
Metal Flashings and Downspouts	TBD	2023 - being done in 2023 budget
Total	1,940,000	

Beaverton Arena

Project	2023 Cost Estimate \$	Year Estimated Required & Status Update
Chiller	120,000	2027
Brine Pump	200,000	2027
Dehumidifiers	55,000	2024
Dehumidifiers	55,000	2028
Flooring, including in floor piping	1,200,000	2030
Compressors	200,000	2031 and 2038
Headers	100,000	2030
Condensor	150,000	2038
Glycol Loop	70,000	2045
Control System Panel	125,000	2023 - Will be installed during summer
HVAC	125,000	2034
Boilers	45,000	2023
Concrete Repairs	TBD	2023
Block Repairs	TBD	2023
Dressing Rooms	200,000	2025-2027
Total	2,645,000	

Cannington Arena

Project	2023 Cost Estimate \$	Year Estimated Required & Status Update
Condensor	100,000	2025
Chiller	150,000	2042
Brine Pump	20,000	2025
Headers	100,000	2040
Flooring, including in floor piping	1,500,000	2040
Compressors	200,000	2026
Roof Covering	600,000	2028
Ice Surface Roof	TBD	2023
Auditorium Roof	TBD	2024
Concrete Repairs	TBD	2023 - being done in 2023
Metal Cladding and Downspouts	TBD	2023 - being done in 2023
Dressing Rooms	TBD	5-7 years
Washrooms	TBD	5-7 years (will depend on long term strategy around arenas)
HVAC	15,000	2023 - being done in 2023
Total	2,685,000	



SUNDERLAND LIONS CLUB

"SERVING OUR COMMUNITY"

June 20, 2023

Trena DeBruijn, CPA, CGA
Director of Finance/Treasurer
Township of Brock
1 Cameron St. E.
Cannington, ON, L0C 1H0

Ms. DeBruijn:

Re: Sunderland Memorial Arena & Community Centre Renovation & Expansion Project

We acknowledge receipt of your June 15, 2023 letter concerning the ongoing Sunderland Arena project.

We appreciate the constructive dialogue with Township staff as both the Township and the Lions Club work to move this important community project forward.

Our Club's motivation with this project has been to see long overdue improvements made to the Sunderland Arena and ensure it continues to serve the Sunderland and broader Brock Township communities well into the future. This is not just a facility for winter sports; it serves as a community hub for a multitude of activities, including fundraising activities of the Sunderland Lions Club. Over the years, the Club has raised hundreds of thousands of dollars hosting our annual car draw, Blue Rodeo concerts, Summerfest and other activities at the arena. That money is invested right back into the community, in many cases, to improve Township-owned properties and facilities.

With respect to the arena specifically, the Lions Club undertook community fundraising in the '60s to install artificial ice and also build a new structure on the front of the building comprised of four dressing rooms, washrooms, a food booth and a second-floor auditorium. In the '70s, the Club fund-raised to build a new concrete and steel structure over the ice pad, replacing the old wooden structure built just after WWII. The '70s saw many community arenas condemned and replaced, including those in Sunderland, Beaverton, Uxbridge and Port Perry, and countless others throughout Ontario.

The ice surface in the Sunderland Arena is probably one of the smallest in the Province at 70 feet x 170 feet. At the time the new structure was erected over the pad in the '70s, it was designed with a future expansion in mind, as noted on the construction drawings. This is something that has been long anticipated by the community.

**WWW.SUNDERLANDLIONSCLUB.CA
BOX 418, SUNDERLAND, ON L0C 1H0**

In addition, the dressing rooms are now vastly undersized by current standards and have inadequate shower facilities, which render them practically unusable for adult hockey, in particular.

The Sunderland Lions Club began working on the current project in 2010, and used its own funds to have concept plans prepared showing various facility upgrades. In addition to the expansion of the ice surface and new dressing rooms, the improvements envisaged the renovation of the existing lobby and dressing rooms to include new public washrooms, new referee rooms, a new food booth and a more contemporary lobby space.

It was understood at the time that such a project could not be undertaken without senior government financial support, so both the Lions Club and the Township bided their time until such a program came along. Finally, in 2018, the Investing in Canada Infrastructure Program (ICIP) was announced and the Township and Lions Club filed a joint application for funding. Initial estimates indicated the project could be undertaken for approximately \$7.5 million. In 2020, the announcement was made that the application had been successful. Shortly thereafter, the COVID pandemic struck and, to say the least, the world changed, including with respect to our project. Construction prices increased dramatically, and what was a \$7.5 million project became a \$12.0 million project.

Discussions ensued between the Township and the Lions Club to address the affordability of the project. From day one, the Lions Club had made it clear that it was not interested in creating a massive debt burden for the Township; the project had to be financially responsible and affordable. A total project budget of \$10.0 million is now being proposed and is considered appropriate in that regard, although it is unlikely the preferred plan can be undertaken fully with that budget. Some elements are, therefore, likely to be deferred until additional funding is available. That includes the lobby area renovations, in particular.

Attached to this letter is a preferred project scope of work and budget that was endorsed by the Sunderland Lions Club membership at its June 14, 2023 meeting. The Club's support for the project is based on the following key elements:

- Expansion of the ice surface to 80 feet x 200 feet;
- Construction of four new dressing rooms, including two fully accessible ones for sledge hockey teams; two more conventional dressing rooms would be added in the future as funding permits;
- Improvements to the lobby area and front exterior façade will likely need to be deferred due to funding constraints;
- Several accessibility enhancements are proposed to ensure the building as a whole is made fully accessible, including new double accessible doors between the lobby and the ice pad viewing area, automatic sliding doors at the main building entrance, and the installation of viewing windows in the second-floor auditorium.

For its part, the Lions Club has pledged \$0.5 million to the project and has agreed to undertake additional community fundraising in the amount of \$300,000.

It is noteworthy that the Township's proposed use of development charge revenues, arena reserve funds and rate stabilization funds mean no new tax-based funds would be used for the project.

With the above provided as background, we will address the questions raised in your June 15, 2023 letter.

DESCRIPTION

- building extension to north to achieve 200 feet in ice surface length;
- expansion of ice surface into existing seating area to the west to achieve 80 feet in width; new seating area to be comprised of two rows of seating and walkway along west wall; additional portable seating to be added to four corner locations adjacent to ice pad;
- replacement/expansion of concrete pad and refrigeration system, new dasher boards and glass, as well as new convertible players benches to accommodate sledge hockey; new Zamboni room to be built at the north end of extended structure;
- Four new dressing rooms, including two fully accessible rooms for sledge hockey teams, and two conventional rooms along east side of building; two additional conventional dressing rooms to be added in future as funding permits;
- new storage space on east side of building, north of new dressing rooms to replace existing storage area under seats;
- new double accessible doors between the lobby and the ice pad viewing area to replace existing single door access;
- new viewing windows to be installed in upper south wall between the second-floor arena auditorium and ice pad;
- lobby and façade renovations to be undertaken in the future as funding permits.

FUNDING SOURCES & BUDGET

ICIP grant	\$ 5.5 million
Development charge contribution	\$ 2.9 million
Lions Club pledge	\$ 0.5 million
Township (Sunderland Arena) reserves	\$ 0.3 million
Additional Lions community fundraising	\$ 0.3 million
Township rate stabilization fund	\$ 0.5 million
Total cost	\$ 10.0 million

Revised June 14/23

SUNDERLAND LIONS CLUB SUBMISSION TO TOWNSHIP OF BROCK RE: PREFERRED SCOPE AND BUDGET FOR SUNDERLAND MEMORIAL ARENA EXPANSION AND RENOVATION PROJECT

SUMMARY

The Sunderland Lions Club supports the implementation of the Sunderland Arena Expansion & Renovation project based on three main project components, as follows:

Ice Surface Expansion and Related Works are the cornerstone of the project. The expansion of the ice surface from 70 feet x 170 feet to 80 feet x 200 feet has long been a goal of the Sunderland community and is now achievable with the Investing in Canada Infrastructure Program (ICIP) funding provided. It should be noted that the current structure was designed and built in the mid-70s so that it could be expanded to the north to accommodate an increase in the length of the ice surface. A widening of the ice surface to the west, into the existing seating area, was also contemplated.

New Dressing Rooms are proposed along the east side of the existing building. This includes two fully accessible dressing rooms for use by sledge hockey teams, plus four conventional dressing rooms. These dressing rooms will replace the four existing ones adjacent to the lobby which are all undersized and without proper shower facilities. They are, therefore, no longer suitable for adult use. Should it be required for budget compliance purposes, the construction of two of the conventional dressing rooms could be deferred until funding permits them to be built in the future.

Lobby and Front Façade Renovations include the replacement of the four existing dressing rooms to enable the installation of new public washrooms, new referee rooms, a new canteen area and a modest internal expansion of the lobby itself. In addition, the front exterior façade of the building would be refreshed. This phase of the project may have to be deferred due to budget constraints and undertaken in the future as funding permits. Automatic sliding entrance doors are proposed to be installed at the front of the building however, to ensure barrier free access to the new dressing room area.

A **budget** of \$10 million is proposed and is based on estimates prepared for the Township by Ball Construction in March of 2023.

The budget includes the use of \$ 0.3 million from the Township's arena reserve fund, as well as \$ 0.5 million from the Township's rate stabilization fund. No new tax-based funding is otherwise proposed for the project.

In addition, the budget includes a \$0.5 million pledge from the Sunderland Lions Club, as well as an additional \$0.3 million in community fundraising proposed by the Club.

While not included in the budget, a future contribution of \$0.6 million is anticipated from Kaitlin Corporation for additional arena improvements, although its timing is uncertain.

Finally, we would like to address your comment that *"The Township does not intend to expand the budget in coming months/years for this project (due to cost escalation) and any decisions around the scope of work to be done must fit within the approved project budget"*. **We trust this does not include the possible use of future development charges to fund the completion of the dressing room component of the project in the event construction of two of the rooms has to be deferred for cost reasons. Including provision for this in the new DC by-law to be adopted in 2024 would be entirely appropriate and, of course, would ensure completion of the project without any property tax burden.**

We thank you for the opportunity to provide this input and look forward to continuing our work with the Township to deliver a project that the Brock community can be very proud of. If you have any questions, feel free to contact us.

Sincerely,



Ralph Maleus,
Incoming President



Don Gordon,
Arena Project Chair

1. *"What are the absolute requirements for the renovation and expansion that the Lions have, that they would not be willing to deviate from should a need arise with budget, design or build limitations?"*

Our preferred ice surface dimensions are 80 feet x 200 feet, which our \$500,000 pledge is based on. If the bid price from the selected contractor turns out to be significantly higher than the estimate for this component of the project, we would consider something smaller, however, we are not prepared to identify a minimum. The ultimate size we would support depends on the cost of the alternative design that meets the budget available. This would involve a de-scoping of the project at which time we would revisit and confirm our financial contribution to the project.

2. *Under what circumstances, if any would the Lions be willing to consider in providing further funding for this project completion. Knowing that the budget target is approximately \$9,400,000 to \$10,000,000, would the Lions consider further activities, and at what amount (in relation to budget suggested above). Further, are there any additional requirements that must be included and achieved in this project to ensure this additional contribution.*

We have agreed to conduct a community fundraising campaign to raise an additional \$300,000. This would be in addition to our pledge of \$500,000. Again, this is based on an 80 feet x 200 feet ice surface. If a de-scoping exercise is required, and a smaller ice surface is needed to achieve compliance with the available budget, we would evaluate what level of additional support we could provide at that time.

3. *If the Lions were to consider additional fundraising for this project, would a financial bridge be required by the Township, until such time as funds were raised by the Lions? If so, how long would bridge financing be expected to be required and how would the repayment of funds be provided to the Township? (i.e. semi-annually, annually, etc.)*

We are in the process of establishing a Sunderland Lions Charitable Foundation which would enable us to issue tax receipts for all donations made to the Club in support of the arena project. We expect to have Canada Revenue Agency (CRA) approval for the Foundation in mid-2024, at which time we would begin our campaign. Notionally, we expect to be able to raise the additional \$300,000 over two years, so any bridging would depend on the timing of the contract award and progress payment requirements. This is something that would have to be discussed with the Township at that time.

4. *If and when the Lions receive funding from the Kaitlin Corporation ("Kaitlin"), will the Lions provide these funds, in its entirety, to the Township for use on the Sunderland arena. If the project budget precludes the Township from addressing the renovations to the front lobby (as part of the renovation and expansion), the Kaitlin funds could be used to assist with these renovations in the future (and potentially leveraged for additional grant funding from the other levels of government).*

Any and all funds received by the Club from Kaitlin Corporation will be made available to the Township for improvements to the Sunderland Arena, as required in the draft agreement between the Club and Kaitlin. The Club would like to be able to provide input into the how these funds will be used at such time as they are received. We anticipate having the agreement with Kaitlin executed by the end of this year. As you are aware, any contribution from Kaitlin is predicated on the approval of phase two of their Sunderland development project.



Township of Brock Corporate Policy

Policy Name: Ice Allocation Policy

Policy Type: Parks and Recreation

Policy Number: PR10

Reference: COW-2022-067

Date Approved: May 9, 2022

Date Revised:

Approval By: Council

Point of Contact: Manager of Facilities, Parks and Recreation

Policy Statement and Rationale:

The Township wishes to facilitate recreational opportunities by providing quality facilities for the recreational and leisure needs of its citizens.

The Township wishes to ensure that access to its facilities is fair and equitable for all of its existing and potential users.

The Township recognizes the need to consider the following when managing the allocation of indoor ice:

- Coordinated allocation of its various facilities to make the most effective and efficient use of facilities;
- To provide appropriate time slots and opportunities for all levels and types of users;
- To promote and allow growth toward maximum utilization of facilities;
- To service the demand and warranted change resulting from changing demographics and recreation/leisure trends by maintaining sufficient flexibility of scheduling;
- To accommodate local community user groups; and
- To establish a clear priority listing for allocation of available facility time.

The Township therefore revises this policy to guide staff in the allocation of recreational facility space.

Purpose:

The purpose of the Ice Allocation Policy is to provide a set of consistent guidelines for ensuring fair and equitable ice time that allows optimal facility utilization.

The policy applies to all user groups who use the Foster Hewitt Memorial Community Centre, Rick MacLeish Memorial Community Centre and the Sunderland Memorial Arena.

Please contact the Clerk's Department at 705-432-2355 or clerks@townshipofbrock.ca.

This policy will also outline the decision-making criteria used to determine the seasonal allocation of ice and the permit administration process involved.

Scope:

This policy shall apply to all indoor, artificial ice facilities owned and operated directly by the Township of Brock.

Definitions:

"Township of Brock Programs" are public programs such as, but not limited to Public Skating, Parent & Tot/Senior Skate, Stick & Puck, Shinny, Drop in Figure Skating etc. that are run solely by the Township of Brock.

"Designated Minor Groups" are organizations located within the Township of Brock, providing developmental programming to youth less than 18 years of age, meeting the residency requirements or established boundary requirements as established by governing bodies and utilizing full season ice on a consistent basis.

"Designated Adult Groups" are organizations located within the Township of Brock, meeting the residency requirements and utilizing full season ice on a consistent basis.

Policy, Procedures & Implementation:

1.0 Ice Allocation Responsibility

The Township of Brock Public Works Department has the responsibility to manage the allocation and distribution of ice on a yearly basis to reflect population, registration, utilization, and participant patterns in addition to applying municipal provincial and federal directives where required. The Township of Brock staff are responsible for implementation of the policies as outlined.

2.0 Ice Facility Operations and Capacities

The Township of Brock will responsibly manage its ice resources to ensure optimum usage and programming, to reflect municipal directives and to minimize risk and operational issues.

On an annual basis, township staff will organize area wide meetings with facility user groups to review information including, but not limited to: the ice season, hours of operation, facility closures, proposed ice allocation schedule, conflicts in scheduling, and policy changes. The results of these meetings will enable township staff to update related portions of this document, as well as the Fees Bylaw, the annual Ice Allocation Schedule, and provide an opportunity for user groups to network and discuss concerns.

As a general guideline, the length of the ice season will be from October 1st until March 31st. Any requests for ice outside of these dates will require a written request to Council by July 1. As a general guideline, early ice cannot be provided until 7 days after the last scheduled event.

The ice season, as well as any variation of hours and season extensions will be based on the following criteria in no specific order:

1. Local ice user demand
2. Cost effectiveness/best practices
3. Equipment/facility requirements
4. Availability of Staff

Season extensions may require an increased hourly rate due to increased costs of operation.

Each arena will be closed for regular operation on:

- National Day for Truth and Reconciliation
- Thanksgiving Day
- Remembrance Day
- Christmas Eve (at 11:00 a.m.)
- Christmas Day
- Boxing Day
- New Years Eve (at 11:00 a.m.)
- New Years Day
- Family Day
- Good Friday
- Easter Monday

3.0 Ice Allocation and Distribution

On an annual basis Recreation Staff will develop an Ice Allocation Schedule that best reflects the expressed needs of the users and application of this Policy's directives and guidelines. The Township of Brock reserves the right to reassign ice annually as required.

The Township of Brock reserves the right to allocate ice time to maximize the rental of available ice time in all arenas in order to increase the efficiency of each ice surface having regard to the ice allocation time frame set forth below.

It is recognized that it is advantageous to maintain a reasonable amount of consistency in ice time scheduling from year to year. Therefore, consideration shall be given to the allocation of ice time based on previous years as well as current demands.

To be formally recognized, groups must file the following information annually with the Township of Brock. The information collected will be kept confidential. Those not providing this information would not be entitled to the Township of Brock's Designated Minor Sports Organizations and group ice rental rates.

- Participant Roster (last names, and street addresses redacted)
- Executive list;
- Copy of Insurance Certificate
- Copy of minutes from the Annual General meeting

To be formally recognized as a Designated Adult User Group, the group must submit a complete player roster including players addresses to the Township of Brock prior to taking the ice.

Team Rosters from the previous season will be utilized to determine residency

requirements are met for allocation of ice.

Ice requests for the following season will be sent out April 1st, and will be accepted until May 15th of each year with the final allocations to be confirmed by June 1st, of each year. Additional black out dates due to Tournaments and Competitions must be provided to the Township by October 30th. User Groups will have until September 15th of each year to confirm their ice requirements. Requests are to include regular and special event ice schedule, as well as ice not required. All ice is based on a minimum 50-minute hour, all ice preparation time will come out of the allocated time for each group.

3.1 Client and Scheduling Priorities

Ice will be allocated according to the following priority levels.

1. Township of Brock Programs
2. Designated Minor Groups
3. Designated Adult Groups
4. Other

3.2 Residency

The Township of Brock recognizes the tax-based contribution provided by its residents toward the development and operation of recreation ice facilities and recognizes that residents will always receive priority over non-residents in the allocation of ice time. For the purpose of supporting the ongoing development of ice user groups, the Township of Brock will accept the residency requirements defined by the Sport Governing Bodies which will govern the actions of local ice user groups. Where there is no affiliation with a Sport Governing Body, the residency requirement is a minimum of 60 percent.

The Township will accommodate the regular use of Township ice by non-residents after resident demand is satisfied and under special circumstances. Non-residents will not achieve historical status with regards to permit allocation on a year to year basis. Non-resident use will be reviewed on a case by case basis.

3.3 Other Rental Clients

The Township of Brock acknowledges that the 5:00-11:00 p.m. prime time period may not be fully utilized by the community user organizations and there may be opportunities annually for non-affiliated rental clients to apply for and gain access to prime time ice. This access does not entitle the permit holder to future consideration for the same time period each year. Opportunities for adult rental clients will be reviewed annually and on an as available basis.

The Township will not bump any of the existing adult groups until such time that minor user groups pick up ice time at 5:00pm.

3.4 Prime and Non-Prime Ice

A designated user, regardless of gender and level of competitiveness and total demand shall not receive relatively more or less prime time ice access than a similar user group.

3.5 Prime Time:

Mondays through Fridays – 5:00 p.m. to 11:00 p.m.

Saturdays & Sundays – 9:00 a.m. to 11:00 p.m.

3.6 Non-Prime Time:

Weekdays - 7:00 a.m. to 4:00 p.m.

4.0 Processing and Management of Tournaments and Special Events

The Township of Brock recognizes the significant positive impact that tournaments, special events and championships can provide to the community. In order to accommodate these events and minimize disruption to regular programs and league play, they will be considered and permitted in advance of seasonal applications. The Township is committed to achieving a balance between recreational and special event use during the regular ice season.

4.1 Permit Amendments and Cancellations

The Township will effectively manage any client requests for tournament and special event permit amendments or cancellations with the goal of minimizing administrative, revenue and operational impacts. When changes or cancellations are requested the guidelines outline in the Policy will be strictly applied.

5.0 Processing and Management of Ice Contracts

The Township has the right to control all ice distribution and use at municipally owned facilities for the duration of the ice contract. Controls must be in place to minimize the negative impacts that unused, returned and amended and cancelled ice can have on the Township and its users. As such the township will apply all guidelines outlined in this Policy to reasonably and responsibly manage unused ice or changed ice needs once permits have been issued. Groups shall be denied access to the ice until they have signed and dated their contract for said ice, and made payment for their first month. February and March ice time may be manipulated to accommodate playoff schedules. These decisions are at the discretion of the Department in consultation with user groups. User groups should ensure they have their accounts fully paid before requesting ice as groups with delinquent accounts will not be granted their request.

5.1 Transferred Ice / Ice Trades / Sub-Leased Ice

The Township of Brock is the sole permit authority for all ice times. The Township must always be aware of and be able to control the intended use of all ice permitted within its facilities. The practice of occasionally transferring ice, trading ice or subleasing ice between contract holders is strictly prohibited and may lead to the cancellation of a season permit and future ice allocation reductions.

Changing the intended use or specific users of the ice time within a single organizations contract is acceptable upon written advance notification and forwarding of related scheduled updates to the Arena Staff.

5.2 Permit Cancellations by the Contract Holder (for Casual-One Time Rentals)

Once a contract is signed, single or occasional ice use cancellations will be permitted only if initiated by the contract holder's designated ice scheduler and under the following conditions:

10 business days written notice is provided to the Recreation and Leisure Coordinator as well as Arena Manager and;

Payment of a \$20 cancellation fee per facility affected by the cancellation request. .

5.3 Permit Cancellations by the Contract Holder for Seasonal Permit Holders

The municipality may accept cancellations of ice time in the event that the vacant time slot(s) can be filled. Should ice time not be filled, the user shall be held responsible for the full payment of the rental.

September 15th – User groups may cancel up to 10% of their ice time due to lower registration numbers. The provision for additional time after September 1 shall only be for ice time not under contract to other users.

5.4 Permit Cancellations by the Township of Brock

In the case of inclement weather, the Township reserves the right to waive the cancellation requirements at their discretion. The Township reserves the right to cancel any rental agreement upon notice to the user should the facility be required for emergency purposes.

The municipality shall not be held responsible for any failure in supplying ice time due to circumstances beyond its control. In such cases the user will be credited for ice time not provided.

The Township shall not be liable for any general, special, indirect, consequential, incidental or other costs or damages arising from the Township's cancellation of scheduled ice time.

Failure to comply with guidelines set within the Ice Allocation Policy may result in cancellation of ice. Should disciplinary action be required, procedure is as follows:

1. First Offence – Verbal Warning will be given to the user group representative.
2. Second Offence – Written Warning will be given to the user group representative, and suspension of ice may occur.
3. Third Offence – Expulsion of Ice.

6.0 General Ice Management

6.1 Ice Use and Flood Schedules

All ice booked consists of a 50-minute hour with the remaining 10 minutes for resurfacing where applicable.

Where groups have several consecutive hours of ice rented, the resurfacing time may be grouped together depending upon the organization. The arrangement is at the sole discretion of the arena attendant to ensure safe conditions.

The decision to resurface the ice at any time is at the sole discretion of the arena attendant.

No person(s) is allowed on the ice until the ice resurfacing machine and all arena employees have left the ice surface and the doors have been closed.

Organizations that require the use of rink half boards and mini nets will be responsible for the installation, stacking and removal onto and from the ice surface within their

designated rental time.

6.2 Dressing Rooms

The arena attendant reserves the right to allocate dressing rooms based on the number of participants and/or teams using the ice and other uses occurring in the facility.

Any damages are to be reported to the arena manager or designate.

Dressing rooms will be available 30 minutes prior to the scheduled agreement times and shall be vacated within 30 minutes of the expiration of the agreement time.

Drugs and Alcohol is strictly prohibited in all dressing rooms.

6.3 Curfewed Ice

During seasonal playoffs, all efforts will be made to maintain the arena's regular ice schedule. However, should a game run over its scheduled time, subsequent users will have their times adjusted accordingly.

6.4 New Organization or Emerging Sport

When reasonable, the municipality will recognize a new organization or emerging ice sport and will make reasonable effort to allocate ice time to enable the establishment of its programs and services. Recognition and ice allocation will occur once the conditions and criteria outlined in this policy are met and existing users are not adversely impacted. New organizations/programs will be accommodated only to provide for unmet community needs. Where possible, the development of new programs or the expansion of groups shall be encouraged to be extensions of organizations already established (e.g. creating umbrella organizations).

6.5 Opening Arena Facility Outside of Standard Hours of Operation

The opening of arena facilities on statutory holidays, when they are normally closed, or beyond established operating hours will be considered only if the applicant agrees to pay a 60 percent premium on the requested ice time and a minimum of three consecutive hours is scheduled. All reasonable requests will be reviewed and responded to on a case by case basis determined by the Manager of Recreation, Parks and Facilities. Application does not guarantee approval.

7.0 General Administration

7.1 Application

All applicants and users must submit all requests for ice time applications, amendments and cancellations on township approved forms.

The Township reserves the right to reject applications and requests from users submitting forms which are incomplete or contain incorrect information.

7.2 Ice Rental Fees

All users will be charged ice rental fees as outlined in the Township of Brock Fees Bylaw. Rates and Fees are reviewed annually and set by council by March 1st.

7.3 Insurance

Liability insurance is mandatory. As a User of a facility owned and/or operation by the Corporation of the Township of Brock, you are required in advance, to provide a

certificate of insurance confirming Commercial General Liability Insurance for a limit of at least \$2 million per occurrence. The Corporation of the Township of Brock is to be named as an 'Additional insured'.

If the required certificate cannot be obtained, insurance can be purchased through BFL Canada at a nominal cost. The Corporation of the Township of Brock provides administrative support to BFL for this program to assist users of the facilities and remits all fees collected to BFL.

7.4 Health & Safety

The operators of the facility strongly recommend that CSA approved safety equipment including head, eye and facial protection to be worn by all participants. The user shall advise their participants to wear such protection. The user shall have available an adequate first aid kit.

The user will inspect the facility areas that are being rented immediately prior to use and advise the facility attendant of any hazards or areas of concern requiring maintenance.

Youth groups using dressing rooms must be accompanied by a responsible/competent adult.

7.5 Township Municipal Alcohol Policy

Users shall comply with the provisions of the Municipal Alcohol Policy. The full policy is available for review on the Township of Brock website at www.townshipofbrock.ca

Alcoholic beverages are strictly prohibited on the premises including dressing rooms, spectator areas and the parking lot.

Persons or organizations using the arena shall not conduct themselves in a disorderly manner including the possession of illicit drugs, illegal alcohol consumption, use of foul language, misuse of facilities, or other illegal activity.

Should there be any contravention of the above noted conditions, the ice rental contract becomes null and void and the user shall pay the Township of Brock for clean up and/or repairs. The user shall be subject to an administrative review which may include the revocation of ice privileges without refund.

7.6 Smoke Free Facility

All municipal buildings are 'Smoke Free'.

7.7 Payment for Ice

As a general principle, payments for ice time shall be made at the time of booking or, in advance of usage. User groups making commitments for ice time in advance of the season, in accordance with the ice allocation policy, shall remit payment on the 1st of the month, prior to their monthly rentals beginning. Any discrepancies will be credited on the next months invoice.

Payment for liability insurance or a certificate of liability insurance is required prior to the ice being used.

The Township reserves the right to cancel and reallocate ice time due to delinquent

accounts.

Late payments beyond 60 days will result in ice time being cancelled and may result in denial of future requests.

The user shall be responsible for any damage incurred to the premises or property of the municipality as a result of any act or omission of the applicant or the group named or their members. Damages which occur to the arena facility shall be the responsibility of the group or individual who signs the rental agreement.

7.8 Ice Allocation and Management Policy Review

The Ice Allocation Policy shall be reviewed on an annual basis. The Township has the authority to adjust procedural items related to timing, process etc. as appropriate and to respond to overarching Council directions related to revenue achievement and strategic business approaches.



MEMORANDUM

To: Lisa, Chen, Township of Brock
From: Andrew Mirabella, Hemson Consulting Ltd
Date: March 23, 2023
Re: Review of 2019 Township of Brock Asset Management Plan for consistency with O. Reg. 588/17

The following outlines a review undertaken by the Township of Brock and Hemson Consulting of the Township's 2019 Asset Management Plan (2019 AMP). As part of the Township's regular review of its AMP, this document aims to undertake a detailed look at the 2019 AMP to ensure that it is consistent with the requirements of O. Reg. 588/17 while at the same time continuing to be the main tool to guide long-term asset management planning in the Township. This memorandum maintains all key inputs from the 2019 AMP and updated the base dataset with the effects of inflation. It is recommended that the Township initiate a more fulsome update of the AMP soon to comply with the 2025 proposed level of service requirements of O. Reg. 588/17 – at this time the key inputs of the 2019 AMP would be updated.

A. BACKGROUND

In December 2017, Ontario Regulation 588/17 Asset Management Planning for Municipal Infrastructure (O. Reg. 588/17) was passed under the *Infrastructure for Jobs and Prosperity Act*. The regulation requires municipalities to develop a Strategic Asset Management Policy, which will help municipalities document the relationship between their Asset Management Plan and existing policies and practices as well as provide guidance for future capital investment decisions. The regulation also contains more specific requirements on the type of analyses municipal asset management plans should include. The aim is to provide guidance to municipalities so that asset management plans are more consistent across the Province. Furthermore, in March 2021 the Province amended the regulation to extend the regulatory timelines by one year.

In 2018, Hemson Consulting was retained by the Township of Brock to prepare a Strategic Asset Management Policy and undertake an Asset Management Plan (2019 AMP) consistent with the requirements of *Ontario Regulation 588/17 Asset Management Planning*

for *Municipal Infrastructure* (O. Reg. 588/17). In November 2019, the Plan was prepared which followed the format set out in the *Building Together: Guide for Municipal Asset Management Plans* and defined the current levels of service for all core and non-core assets in compliance with the asset management regulation.

The objectives of the 2019 AMP were to develop a guide for long-term investment decisions for tax funded infrastructure as well as meet the reporting requirements of O. Reg. 588/17. Furthermore, the 2019 AMP was based on development of an Excel based financial model which was provided to staff for use.

One of the key deliverables of the 2019 AMP was to develop a financing strategy to ensure that Township infrastructure is maintained while keeping with the principles of financial sustainability and affordability over the long-term. Three financing strategy options were developed as part of the exercise and Council approved the study and approved the financing strategies in principle with the goal of formally adopting a capital funding increase in the future. Note that the financing strategy is discussed in more detail later in this review.

B. OBJECTIVES OF THE AMP REVIEW

Since completion of the 2019 AMP, the Township has continued to improve and adapt lessons learned and best practices to its asset management processes. Notwithstanding the Covid-19 pandemic, which created financial challenges for the Township over the past three years, there has been continued effort to improve both the asset management practices at the Township and continue to fund operating and capital obligations to maintain levels of service. With this in mind, the objective of this review is to determine:

1. That the 2019 AMP continues to be consistent with the requirements of O. Reg. 588/17;
2. Identify any areas for improvement in the 2019 AMP and address them through this review and identify other improvements which should be addressed in a future plan; and,
3. Provide a high level assessment of the progress the Township has made in implementing the 2019 AMP.

To facilitate the review, a line-by-line assessment of the 2019 AMP was developed. Appendix A of this review outlines the key details of the assessment. Appendix A includes the following elements¹:

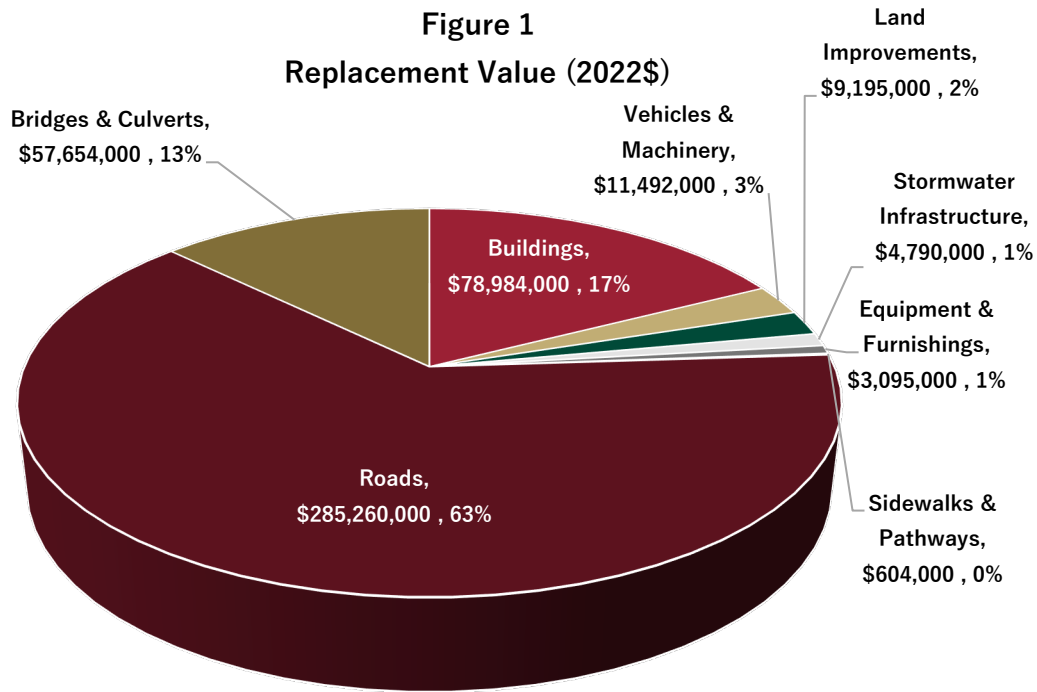
- The actual language from the O. Reg. 588/17 outlined by each section;
- A summary, in simplified terms, of the regulation requirement;
- An indication of the relevant section of the 2019 AMP that relates to the specific requirements of the regulation; and
- Action plan notes which relate to whether the particular requirement is complete, in-progress or not complete. If not complete, then an approximate timeline for completion is outlined.

C. REVIEW OF STATE OF LOCAL INFRASTRUCTURE

Section 2 of the 2019 AMP outlines a summary of the state of local infrastructure which is complemented with detailed asset report cards in Appendix B of the 2019 Plan for each asset category. Based on the review, the reporting done through the 2019 Plan meets all the requirements of O. Reg. 588/17 in that reports are included for both core and non-core assets. Furthermore, the reports outline a description of the assets in the category, their quantity (where available), replacement cost, remaining useful life (a function of age), and condition assessments and methodology used. Appendix A of this review includes the detailed assessment of the 2019 AMP with reference to the reporting of assets.

Recognizing that inflationary pressures continue to create fiscal challenges for the Township, a review of the replacement values was undertaken at a high-level. Based on the Statistics Canada Non-Residential Construction Price Index, the replacement value of the Township's assets was updated. The total value of the assets amount to approximately **\$451.1 million (\$2022)**. Of this the largest shares continue to be related to the Township's core services of roads, and bridges/culverts. Buildings make up the largest category of non-core infrastructure. Figure 1 below outlines the replacement value breakdown. Importantly, this updated replacement value should be considered to be more representative of the value of the Township's assets today but recognizing that as data continues to be refined, the valuations will again be adjusted in a more fulsome study update during the next AMP.

¹ Note that Appendix A Table 1 and 3 are relevant to this review as they relate to requirements of the regulation associated to reporting on current levels of service for core assets (by July 2022) and all other assets (by July 2024). Table 2 relates to reporting on proposed levels of service (by July 2025) which the Township will undertake in a future AMP update.



D. REVIEW OF LEVEL OF SERVICE FOR CORE ASSETS

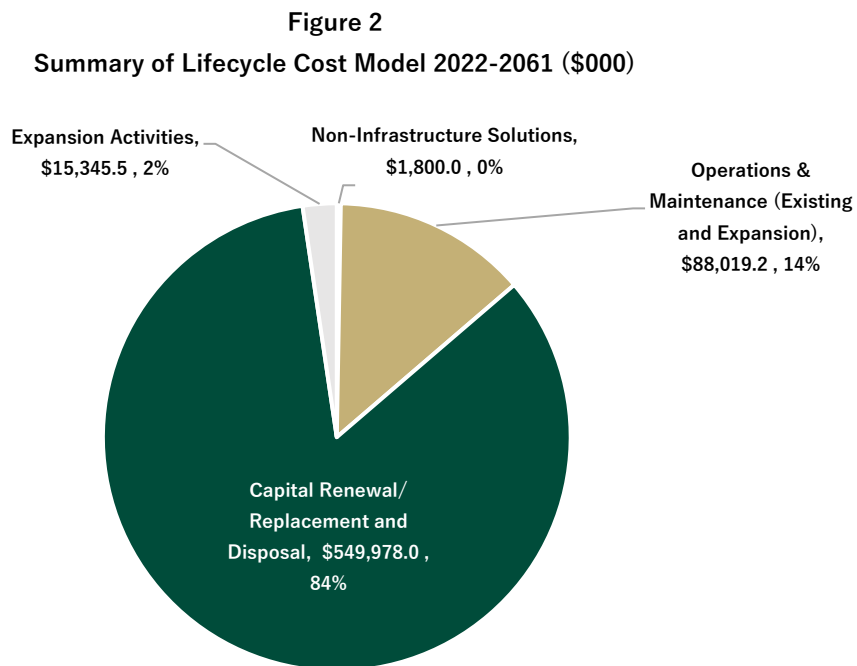
The Township's 2019 AMP included the development of a level of service tracker to identify current levels of service. It is noted that the current levels of service were defined for the core services of roads, bridges/culverts, water, sewer and storm as prescribed by O. Reg. 588/17. Furthermore, the Township included all non-core assets in the 2019 AMP and therefore developed level of service measures for those services with the best available information. It is noted that the Township uses a blended methodology of level of service measures and performance measures.

Based on the Township's review, it has been determined that the current levels of service outlined in the 2019 AMP continue to generally represent the levels of service the Township currently provides and therefore no major changes to the data presented is proposed at this time. However, some level of service measures required by the regulation were not defined at the time of the 2019 AMP due to lack of data available at that time. With this said, the Township has made effort to define the measures on current levels of service through this review based on more current information. The revised level of service table, including additional level of service measures previously undefined, is included in Appendix B of this review. The Township continues to undertake internal improvements of the asset data in preparation for the 2025 proposed level of service requirements of O. Reg. 588/17.

E. REVIEW OF FINANCING STRATEGY

The financing strategy lifecycle costs associated to the 2019 AMP have been updated to reflect long-term expenditures that represent more up to date costing based on the Statistics Canada Non-Residential Construction Price Index. Furthermore, the financing strategy analysis has been updated to reflect the full lifecycle costs of the Township's assets as discussed in Section 4 of the 2019 AMP. The expansion activities are generally estimated based on growth assets in the 2019 Development Charges Background Study and recent DC spending trends. Note, that no provisions for level of service adjustments to account for requirements of O. Reg. 588/17 to define and implement proposed levels of service have been included in the analysis – this will be further addressed in the next plan to coincide with the regulatory deadline.

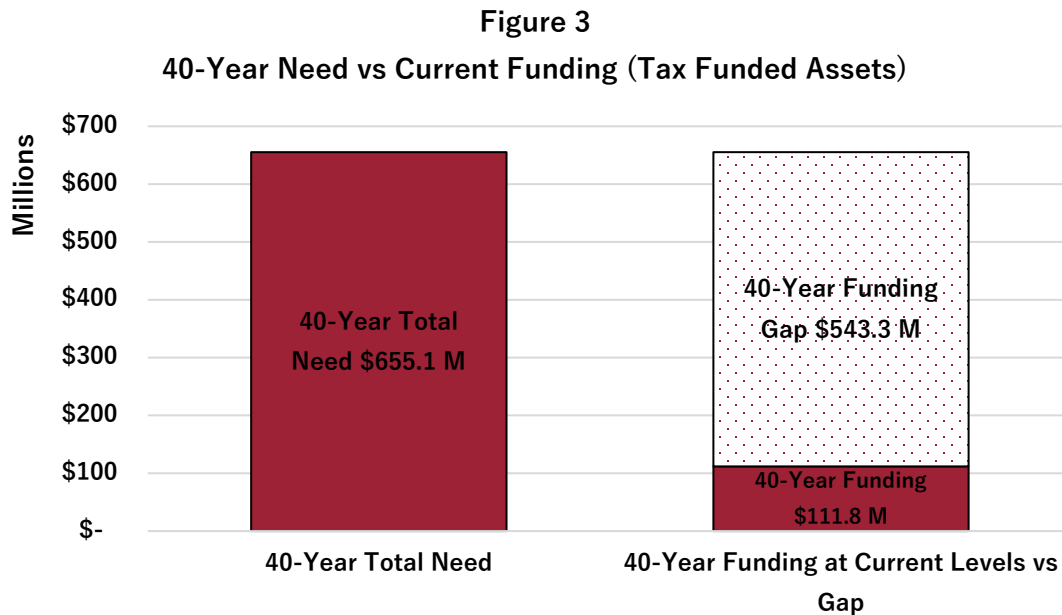
For tax funded services, over the next forty years, the analysis indicates a spending need of about \$655.1 million. Figure 2 summarizes the cumulative 40-year investment needs across the tax supported service areas for the various lifecycle activities identified in Section 4 of the 2019 AMP. Of the total life cycle cost, most costs can be attributed to saving for the renewal and replacement of existing infrastructure making up about \$550.0 million (84%). About \$88.0 million (14%) of the total is related to operating and maintenance costs while any potential future capital infrastructure requirements associated to expansions is estimated at \$15.3 million (2%). The remaining \$1.8 million (less than 1%) is associated to non-infrastructure solutions.



F. COSTS TO MAINTAIN CURRENT LEVELS OF SERVICE

As noted in Part E, costs associated to the full lifecycle of assets have been restated to reflect 2022 dollars and the cumulative full lifecycle costs over the 40-year period. Therefore, a consistent approach has also been used to restate the level of funding currently available to undertake regular capital repair/replacement activities. With this information, a restated analysis of the cumulative 40-year infrastructure gap can be developed if current funding levels are maintained with no further increases.

The 40-year infrastructure deficit shown in Figure 3 represents the difference between the required lifecycle costs and the current contributions to capital, without further increases, for the tax funded assets. The graph indicates that existing funding levels are insufficient to cover projected costs over the planning period; as a result, a gap of \$543.3 million exists over the 40-year period. In order to close this gap, an increase in capital contributions of about \$588,200 per annum would be required over the 40-year period (Table 1). As a result, it is unrealistic to expect the Township to address the total infrastructure deficit in the short-term. Therefore, the three long-term funding strategies that identify options for addressing current and future asset expenditures was developed as part of the 2019 AMP and updated through this memorandum (Tables 2-4)².



² Table 1 represents the baseline scenario to close the cumulative infrastructure gap by 2041 while Tables 2 – 4 illustrate various options to manage the infrastructure deficit.

The financing strategies represent options at maintaining the current levels of service from a long-term perspective. In summary, the following conclusions can be made:

- Township Council approved the study in principle with the goal of formally adopting a capital funding increase in the future. As a result, since the 2019 AMP, capital funding contributions for asset repair and replacement have not materially increased. That said, part of the reason for maintaining capital asset management funding contributions is a result of the COVID-19 pandemic. Moreover, the option to maintain a “do nothing” approach over the long-term and allow the infrastructure back-log to accumulate by not continuing to increase funding would mean that existing funding levels would not be sufficient to manage the infrastructure in place over the long-term. Therefore, the assets in service would deteriorate which could cause a series of assets to move into Poor and Very Poor condition resulting in a reduction in the level of service over the short and long-term period. This scenario is reflected in Figure 3 and would not be the recommended course of action over the long-term.
- A funding strategy more in line with Strategy 3 would strive to ensure, that over the long-term, the funding gap-stabilizes and the infrastructure deficit is controlled. Under this approach, the additional funding would allow for increased targeted investments in asset areas currently in Fair condition to ensure these assets don’t transition into the Poor category in the next 5 -10 years therefore maintaining the existing level of service.
 - Also of importance, the assets in Good/Very Good condition require continued investment to ensure service levels are maintained. As these assets age, they may also transition into Fair or lower category. Continued contributions to reserves will ensure funds are available whenever assets require works to be completed.
- Although funding Strategies 1 and 2 are most fiscally prudent and looks to eliminate the infrastructure deficit in the planning horizon, it would require more substantial tax rate implications that may be unfeasible at this time.

Importantly, under all options, Hemson has maintained a very conservative approach on the level of grant funding received – only the Canada Community Building Fund (formerly gas tax) is considered a confirmed funding source over the 40-year period while we have assumed a small share of OCIF funding is allocated to capital through to 2041. All other one-time grants, modernization funding or more substantial OCIF funding is not accounted

for in the financing strategy. Should funding be received, the Township's asset management goals could be advanced.

G. CONTINUOUS IMPROVEMENT

The completion of the 2019 AMP not only provided the Township with the opportunity to develop a plan to develop a sustainable funding strategy for its assets, but also helped the Township to identify the gaps in its asset data. With this in mind, the Township is undertaking several key improvements. These improvements are expected to help develop the information needed to meet the 2025 requirements of O. Reg. 588/17 particularly those to develop proposed levels of service and the costs associated to meeting proposed levels of service. The Township recognizes that a key component of asset management is the principle of continuing to improve its practices. Some initiatives the Township is undertaking include:

- The Township has continued its annual updates of the corporate asset inventory. Based on information from departmental staff and other available reports, work is being done to amalgamate all the information from various sources into a centralized database.
- The Township has developed annual asset management reports in the past to help keep the reporting on assets up to date. It is expected that the Township will continue to develop annual reports on the state of local infrastructure.
- The Township expects to continue to track the current level of service on an annual basis. Furthermore, the Township also expects to better track the specific lifecycle activities and costs needed to maintain the current levels of service at a more granular level. This information will be necessary to help inform development of the proposed levels of service.

Table 1
Township of Brock
Review of 2019 Asset Management Plan
Close Cumulative Infrastructure Deficit by 2058

Year	1. Lifecycle Costs					2. Forecast of Revenues							3. Funding Gap Calculation			
	Non-Infrastructure Solutions	Operations & Maintenance (Existing and Expansion)	Capital Renewal/Replacement and Disposal	Expansion Activities	Total Lifecycle Costs	O&M from Taxation	Capital from Taxation	Yearly Increase in Capital Tax Levy (\$)	Yearly Increase in Capital Tax Levy (%)	Reserves/Reserve Funds	Canada Community Building Fund CCBF (formerly Gas Tax)	OCIF & Other Grants	Other Revenue	Total Funding	Annual Funding Gap	Cumulative Infrastructure Deficit
2022	\$ 45,000	\$ 2,106,417	\$ 52,261,883	\$ -	\$ 54,413,301	\$ 2,106,417	\$ 1,957,300			\$ 11,126,482	\$ 369,228	\$ 377,000	\$ -	\$ 15,936,427	\$ 38,476,874	\$ 41,954,705
2023	\$ 45,000	\$ 2,115,605	\$ 30,792,642	\$ 19,674	\$ 32,972,920	\$ 2,115,605	\$ 2,545,455	\$ 588,155	30.0%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 5,396,341	\$ 27,576,580	\$ 69,531,284
2024	\$ 45,000	\$ 2,120,199	\$ 28,345,268	\$ 39,347	\$ 30,549,815	\$ 2,120,199	\$ 3,133,609	\$ 588,155	23.1%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 5,989,090	\$ 24,560,725	\$ 94,092,010
2025	\$ 45,000	\$ 2,124,793	\$ 26,719,536	\$ 59,021	\$ 28,948,350	\$ 2,124,793	\$ 3,721,764	\$ 588,155	18.8%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 6,581,838	\$ 22,366,512	\$ 116,458,522
2026	\$ 45,000	\$ 2,129,387	\$ 23,812,877	\$ 78,695	\$ 26,065,959	\$ 2,129,387	\$ 4,309,918	\$ 588,155	15.8%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 7,174,587	\$ 18,891,372	\$ 135,349,894
2027	\$ 45,000	\$ 2,133,981	\$ 22,002,905	\$ 98,369	\$ 24,280,254	\$ 2,133,981	\$ 4,898,073	\$ 588,155	13.6%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 7,767,335	\$ 16,512,919	\$ 151,862,813
2028	\$ 45,000	\$ 2,138,575	\$ 18,055,126	\$ 118,042	\$ 20,356,744	\$ 2,138,575	\$ 5,486,228	\$ 588,155	12.0%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 8,360,084	\$ 11,996,660	\$ 163,859,472
2029	\$ 45,000	\$ 2,143,169	\$ 15,717,082	\$ 137,716	\$ 18,042,967	\$ 2,143,169	\$ 6,074,382	\$ 588,155	10.7%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 8,952,833	\$ 9,090,134	\$ 172,949,607
2030	\$ 45,000	\$ 2,147,763	\$ 14,261,956	\$ 157,390	\$ 16,612,109	\$ 2,147,763	\$ 6,662,537	\$ 588,155	9.7%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 9,545,581	\$ 7,066,528	\$ 180,016,134
2031	\$ 45,000	\$ 2,152,357	\$ 13,117,353	\$ 177,063	\$ 15,491,774	\$ 2,152,357	\$ 7,250,691	\$ 588,155	8.8%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 10,138,330	\$ 5,353,444	\$ 185,369,578
2032	\$ 45,000	\$ 2,156,951	\$ 11,929,716	\$ 196,737	\$ 14,328,405	\$ 2,156,951	\$ 7,838,846	\$ 588,155	8.1%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 10,731,078	\$ 3,597,326	\$ 188,966,904
2033	\$ 45,000	\$ 2,161,545	\$ 11,762,728	\$ 216,411	\$ 14,185,684	\$ 2,161,545	\$ 8,427,001	\$ 588,155	7.5%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 11,323,827	\$ 2,861,857	\$ 191,828,762
2034	\$ 45,000	\$ 2,166,139	\$ 11,466,138	\$ 236,084	\$ 13,913,361	\$ 2,166,139	\$ 9,015,155	\$ 588,155	7.0%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 11,916,576	\$ 1,996,786	\$ 193,825,547
2035	\$ 45,000	\$ 2,170,733	\$ 11,278,769	\$ 255,758	\$ 13,750,261	\$ 2,170,733	\$ 9,603,310	\$ 588,155	6.5%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 12,509,324	\$ 1,240,936	\$ 195,066,484
2036	\$ 45,000	\$ 2,175,327	\$ 10,309,564	\$ 275,432	\$ 12,805,322	\$ 2,175,327	\$ 10,191,465	\$ 588,155	6.1%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 13,102,073	\$ (296,750)	\$ 194,769,734
2037	\$ 45,000	\$ 2,179,921	\$ 10,159,148	\$ 295,106	\$ 12,679,175	\$ 2,179,921	\$ 10,779,619	\$ 588,155	5.8%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 13,694,821	\$ (1,015,647)	\$ 193,754,087
2038	\$ 45,000	\$ 2,184,515	\$ 10,159,112	\$ 314,779	\$ 12,703,406	\$ 2,184,515	\$ 11,367,774	\$ 588,155	5.5%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 14,287,570	\$ (1,584,164)	\$ 192,169,923
2039	\$ 45,000	\$ 2,189,109	\$ 10,153,609	\$ 334,453	\$ 12,722,171	\$ 2,189,109	\$ 11,955,928	\$ 588,155	5.2%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 14,880,319	\$ (2,158,147)	\$ 190,011,776
2040	\$ 45,000	\$ 2,193,703	\$ 10,028,325	\$ 354,127	\$ 12,621,155	\$ 2,193,703	\$ 12,544,083	\$ 588,155	4.9%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 15,473,067	\$ (2,851,912)	\$ 187,159,863
2041	\$ 45,000	\$ 2,198,297	\$ 10,031,968	\$ 373,800	\$ 12,649,066	\$ 2,198,297	\$ 13,132,238	\$ 588,155	4.7%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 16,065,816	\$ (3,416,750)	\$ 183,743,113
2042	\$ 45,000	\$ 2,202,891	\$ 10,029,906	\$ 393,474	\$ 12,671,272	\$ 2,202,891	\$ 13,720,392	\$ 588,155	4.5%	\$ -	\$ 385,281	\$ -	\$ -	\$ 16,308,565	\$ (3,637,293)	\$ 180,105,820
2043	\$ 45,000	\$ 2,207,485	\$ 10,028,707	\$ 413,148	\$ 12,694,339	\$ 2,207,485	\$ 14,308,547	\$ 588,155	4.3%	\$ -	\$ 385,281	\$ -	\$ -	\$ 16,901,313	\$ (4,206,974)	\$ 175,898,847
2044	\$ 45,000	\$ 2,212,079	\$ 10,011,102	\$ 432,821	\$ 12,701,002	\$ 2,212,079	\$ 14,896,701	\$ 588,155	4.1%	\$ -	\$ 385,281	\$ -	\$ -	\$ 17,494,062	\$ (4,793,059)	\$ 171,105,787
2045	\$ 45,000	\$ 2,216,673	\$ 10,010,323	\$ 452,495	\$ 12,724,491	\$ 2,216,673	\$ 15,484,856	\$ 588,155	3.9%	\$ -	\$ 385,281	\$ -	\$ -	\$ 18,086,810	\$ (5,362,319)	\$ 165,743,468
2046	\$ 45,000	\$ 2,221,267	\$ 9,989,652	\$ 472,169	\$ 12,728,088	\$ 2,221,267	\$ 16,073,011	\$ 588,155	3.8%	\$ -	\$ 385,281	\$ -	\$ -	\$ 18,679,559	\$ (5,951,471)	\$ 159,791,997
2047	\$ 45,000	\$ 2,225,861	\$ 9,988,112	\$ 491,843	\$ 12,750,816	\$ 2,225,861	\$ 16,661,165	\$ 588,155	3.7%	\$ -	\$ 385,281	\$ -	\$ -	\$ 19,272,308	\$ (6,521,492)	\$ 153,270,505
2048	\$ 45,000	\$ 2,230,455	\$ 9,988,112	\$ 511,516	\$ 12,775,084	\$ 2,230,455	\$ 17,249,320	\$ 588,155	3.5%	\$ -	\$ 385,281	\$ -	\$ -	\$ 19,865,056	\$ (7,089,973)	\$ 146,180,532
2049	\$ 45,000	\$ 2,235,049	\$ 9,855,862	\$ 531,190	\$ 12,667,102	\$ 2,235,049	\$ 17,837,474	\$ 588,155	3.4%	\$ -	\$ 385,281	\$ -	\$ -	\$ 20,457,805	\$ (7,790,703)	\$ 138,389,829
2050	\$ 45,000	\$ 2,239,643	\$ 9,855,862	\$ 550,864	\$ 12,691,369	\$ 2,239,643	\$ 18,425,629	\$ 588,155	3.3%	\$ -	\$ 385,281	\$ -	\$ -	\$ 21,050,553	\$ (8,359,184)	\$ 130,030,645
2051	\$ 45,000	\$ 2,244,237	\$ 9,819,516	\$ 570,537	\$ 12,679,290	\$ 2,244,237	\$ 19,013,784	\$ 588,155	3.2%	\$ -	\$ 385,281	\$ -	\$ -	\$ 21,643,302	\$ (8,964,012)	\$ 121,066,633
2052	\$ 45,000	\$ 2,248,831	\$ 9,819,516	\$ 590,211	\$ 12,703,558	\$ 2,248,831	\$ 19,601,938	\$ 588,155	3.1%	\$ -	\$ 385,281	\$ -	\$ -	\$ 22,236,051	\$ (9,532,492)	\$ 111,534,141
2053	\$ 45,000	\$ 2,253,425	\$ 9,819,516	\$ 609,885	\$ 12,727,826	\$ 2,253,425	\$ 20,190,093	\$ 588,155	3.0%	\$ -	\$ 385,281	\$ -	\$ -	\$ 22,828,799	\$ (10,100,973)	\$ 101,433,168
2054	\$ 45,000	\$ 2,258,019	\$ 9,813,846	\$ 629,558	\$ 12,746,423	\$ 2,258,019	\$ 20,778,247	\$ 588,155	2.9%	\$ -	\$ 385,281	\$ -	\$ -	\$ 23,421,548	\$ (10,675,125)	\$ 90,758,043
2055	\$ 45,000	\$ 2,262,613	\$ 9,813,846	\$ 649,232	\$ 12,770,691	\$ 2,262,613	\$ 21,366,402	\$ 588,155	2.8%	\$ -	\$ 385,281	\$ -	\$ -	\$ 24,014,296	\$ (11,243,606)	\$ 79,514,437
2056	\$ 45,000	\$ 2,267,207	\$ 9,813,747	\$ 668,906	\$ 12,794,860	\$ 2,267,207	\$ 21,954,557	\$ 588,155	2.8%	\$ -	\$ 385,281	\$ -	\$ -	\$ 24,607,045	\$ (11,812,185)	\$ 67,702,252
2057	\$ 45,000	\$ 2,271,801	\$ 9,813,747	\$ 688,580	\$ 12,819,127	\$ 2,271,801	\$ 22,542,711	\$ 588,155	2.7%	\$ -	\$ 385,281	\$ -	\$ -	\$ 25,199,794	\$ (12,380,666)	\$ 55,321,586
2058	\$ 45,000	\$ 2,276,395	\$ 9,788,343	\$ 708,253	\$ 12,817,991	\$ 2,276,395	\$ 23,130,866	\$ 588,155	2.6%	\$ -	\$ 385,281	\$ -	\$ -	\$ 25,792,542	\$ (12,974,551)	\$ 42,347,035
2059	\$ 45,000	\$ 2,280,989	\$ 9,788,343	\$ 727,927	\$ 12,842,259	\$ 2,280,989	\$ 23,719,021	\$ 588,155	2.5%	\$ -	\$ 385,281	\$ -	\$ -	\$ 26,385,291	\$ (13,543,032)	\$ 28,804,003
2060	\$ 45,000	\$ 2,285,583	\$ 9,782,095	\$ 747,601	\$ 12,860,278	\$ 2,285,583	\$ 24,307,175	\$ 588,155	2.5%	\$ -	\$ 385,281	\$ -	\$ -	\$ 26,978,039	\$ (14,117,761)	\$ 14,686,242
2061	\$ 45,000	\$ 2,290,177	\$ 9,782,095	\$ 767,274	\$ 12,884,546	\$ 2,290,177	\$ 24,895,330	\$ 588,155	2.4%	\$ -	\$ 385,281	\$ -	\$ -	\$ 27,570,788	\$ (14,686,242)	\$ 0
40-Year Infrastructure Deficit					\$ 655,142,612									\$ 658,620,443		

Total Tax Funding	\$ 535,095,295
2022 Total Tax Levy	\$ 9,723,191 <i>Note: Estimated</i>
Inc. as % of Tax Levy	6.05%

Table 2
Township of Brock
Review of 2019 Asset Management Plan
Financing Strategy 1: Close In-Year Funding Gap by 2041

Legend	1. Lifecycle Costs					2. Forecast of Revenues							3. Funding Gap Calculation			
	Year	Non-Infrastructure Solutions	Operations & Maintenance (Existing and Expansion)	Capital Renewal/Replacement and Disposal	Expansion Activities	Total Lifecycle Costs	O&M from Taxation	Capital from Taxation	Yearly Increase in Capital Tax Levy (\$)	Yearly Increase in Capital Tax Levy (%)	Reserves/Reserve Funds	Canada Community Building Fund CCBF (formerly Gas Tax)	OCIF & Other Grants	Other Revenue	Total Funding	Annual Funding Gap
2022	\$ 45,000	\$ 2,106,417	\$ 52,261,883	\$ -	\$ 54,413,301	\$ 2,106,417	\$ 1,957,300	\$ -	-	\$ 11,126,482	\$ 369,228	\$ 377,000	\$ -	\$ 13,830,010	\$ 40,583,291	\$ 44,061,122
2023	\$ 45,000	\$ 2,115,605	\$ 30,792,642	\$ 19,674	\$ 32,972,920	\$ 2,115,605	\$ 2,481,326	\$ 524,026	26.8%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 3,216,607	\$ 29,756,314	\$ 73,817,436
2024	\$ 45,000	\$ 2,120,199	\$ 28,345,268	\$ 39,347	\$ 30,549,815	\$ 2,120,199	\$ 3,005,351	\$ 524,026	21.1%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 3,740,632	\$ 26,809,183	\$ 100,626,619
2025	\$ 45,000	\$ 2,124,793	\$ 26,719,536	\$ 59,021	\$ 28,948,350	\$ 2,124,793	\$ 3,529,377	\$ 524,026	17.4%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 4,264,658	\$ 24,683,692	\$ 125,310,311
2026	\$ 45,000	\$ 2,129,387	\$ 23,812,877	\$ 78,695	\$ 26,065,959	\$ 2,129,387	\$ 4,053,402	\$ 524,026	14.8%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 4,788,683	\$ 21,277,276	\$ 146,587,587
2027	\$ 45,000	\$ 2,133,981	\$ 22,002,905	\$ 98,369	\$ 24,280,254	\$ 2,133,981	\$ 4,577,428	\$ 524,026	12.9%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 5,312,709	\$ 18,967,545	\$ 165,555,132
2028	\$ 45,000	\$ 2,138,575	\$ 18,055,126	\$ 118,042	\$ 20,356,744	\$ 2,138,575	\$ 5,101,453	\$ 524,026	11.4%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 5,836,734	\$ 14,520,009	\$ 180,075,142
2029	\$ 45,000	\$ 2,143,169	\$ 15,717,082	\$ 137,716	\$ 18,042,967	\$ 2,143,169	\$ 5,625,479	\$ 524,026	10.3%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 6,360,760	\$ 11,682,207	\$ 191,757,349
2030	\$ 45,000	\$ 2,147,763	\$ 14,261,956	\$ 157,390	\$ 16,612,109	\$ 2,147,763	\$ 6,149,504	\$ 524,026	9.3%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 6,884,785	\$ 9,727,324	\$ 201,484,672
2031	\$ 45,000	\$ 2,152,357	\$ 13,117,353	\$ 177,063	\$ 15,491,774	\$ 2,152,357	\$ 6,673,530	\$ 524,026	8.5%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 7,408,811	\$ 8,082,963	\$ 209,567,635
2032	\$ 45,000	\$ 2,156,951	\$ 11,929,716	\$ 196,737	\$ 14,328,405	\$ 2,156,951	\$ 7,197,555	\$ 524,026	7.9%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 7,932,836	\$ 6,395,568	\$ 215,963,204
2033	\$ 45,000	\$ 2,161,545	\$ 11,762,728	\$ 216,411	\$ 14,185,684	\$ 2,161,545	\$ 7,721,581	\$ 524,026	7.3%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 8,456,862	\$ 5,728,823	\$ 221,692,026
2034	\$ 45,000	\$ 2,166,139	\$ 11,466,138	\$ 236,084	\$ 13,913,361	\$ 2,166,139	\$ 8,245,606	\$ 524,026	6.8%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 8,980,887	\$ 4,932,474	\$ 226,624,500
2035	\$ 45,000	\$ 2,170,733	\$ 11,278,769	\$ 255,758	\$ 13,750,261	\$ 2,170,733	\$ 8,769,632	\$ 524,026	6.4%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 9,504,913	\$ 4,245,348	\$ 230,869,848
2036	\$ 45,000	\$ 2,175,327	\$ 10,309,564	\$ 275,432	\$ 12,805,322	\$ 2,175,327	\$ 9,293,657	\$ 524,026	6.0%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 10,028,938	\$ 2,776,384	\$ 233,646,232
2037	\$ 45,000	\$ 2,179,921	\$ 10,159,148	\$ 295,106	\$ 12,679,175	\$ 2,179,921	\$ 9,817,683	\$ 524,026	5.6%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 10,552,964	\$ 2,126,211	\$ 235,772,443
2038	\$ 45,000	\$ 2,184,515	\$ 10,159,112	\$ 314,779	\$ 12,703,406	\$ 2,184,515	\$ 10,341,708	\$ 524,026	5.3%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 11,076,989	\$ 1,626,417	\$ 237,398,860
2039	\$ 45,000	\$ 2,189,109	\$ 10,153,609	\$ 334,453	\$ 12,722,171	\$ 2,189,109	\$ 10,865,734	\$ 524,026	5.1%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 11,601,015	\$ 1,121,157	\$ 238,520,017
2040	\$ 45,000	\$ 2,193,703	\$ 10,028,325	\$ 354,127	\$ 12,621,155	\$ 2,193,703	\$ 11,389,759	\$ 524,026	4.8%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 12,125,040	\$ 496,115	\$ 239,016,132
2041	\$ 45,000	\$ 2,198,297	\$ 10,031,968	\$ 373,800	\$ 12,649,066	\$ 2,198,297	\$ 11,913,785	\$ 524,026	4.6%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 12,649,066	\$ -	\$ 239,016,132
2042	\$ 45,000	\$ 2,202,891	\$ 10,029,906	\$ 393,474	\$ 12,671,272	\$ 2,202,891	\$ 12,437,810	\$ 524,026	4.4%	\$ -	\$ 385,281	\$ -	\$ -	\$ 12,823,091	\$ (151,820)	\$ 238,864,312
2043	\$ 45,000	\$ 2,207,485	\$ 10,028,707	\$ 413,148	\$ 12,694,339	\$ 2,207,485	\$ 12,961,836	\$ 524,026	4.2%	\$ -	\$ 385,281	\$ -	\$ -	\$ 13,347,117	\$ (652,777)	\$ 238,211,534
2044	\$ 45,000	\$ 2,212,079	\$ 10,011,102	\$ 432,821	\$ 12,701,002	\$ 2,212,079	\$ 13,485,861	\$ 524,026	4.0%	\$ -	\$ 385,281	\$ -	\$ -	\$ 13,871,142	\$ (1,170,140)	\$ 237,041,394
2045	\$ 45,000	\$ 2,216,673	\$ 10,010,323	\$ 452,495	\$ 12,724,491	\$ 2,216,673	\$ 14,009,887	\$ 524,026	3.9%	\$ -	\$ 385,281	\$ -	\$ -	\$ 14,395,168	\$ (1,670,677)	\$ 235,370,717
2046	\$ 45,000	\$ 2,221,267	\$ 9,989,652	\$ 472,169	\$ 12,728,088	\$ 2,221,267	\$ 14,533,912	\$ 524,026	3.7%	\$ -	\$ 385,281	\$ -	\$ -	\$ 14,919,193	\$ (2,191,106)	\$ 233,179,612
2047	\$ 45,000	\$ 2,225,861	\$ 9,988,112	\$ 491,843	\$ 12,750,816	\$ 2,225,861	\$ 15,057,938	\$ 524,026	3.6%	\$ -	\$ 385,281	\$ -	\$ -	\$ 15,443,219	\$ (2,692,403)	\$ 230,487,209
2048	\$ 45,000	\$ 2,230,455	\$ 9,988,112	\$ 511,516	\$ 12,775,084	\$ 2,230,455	\$ 15,581,963	\$ 524,026	3.5%	\$ -	\$ 385,281	\$ -	\$ -	\$ 15,967,244	\$ (3,192,161)	\$ 227,295,048
2049	\$ 45,000	\$ 2,235,049	\$ 9,855,862	\$ 531,190	\$ 12,667,102	\$ 2,235,049	\$ 16,105,989	\$ 524,026	3.4%	\$ -	\$ 385,281	\$ -	\$ -	\$ 16,491,270	\$ (3,824,168)	\$ 223,470,880
2050	\$ 45,000	\$ 2,239,643	\$ 9,855,862	\$ 550,864	\$ 12,691,369	\$ 2,239,643	\$ 16,630,014	\$ 524,026	3.3%	\$ -	\$ 385,281	\$ -	\$ -	\$ 17,015,295	\$ (4,323,926)	\$ 219,146,953
2051	\$ 45,000	\$ 2,244,237	\$ 9,819,516	\$ 570,537	\$ 12,679,290	\$ 2,244,237	\$ 17,154,040	\$ 524,026	3.2%	\$ -	\$ 385,281	\$ -	\$ -	\$ 17,539,321	\$ (4,860,030)	\$ 214,286,923
2052	\$ 45,000	\$ 2,248,831	\$ 9,819,516	\$ 590,211	\$ 12,703,558	\$ 2,248,831	\$ 17,678,065	\$ 524,026	3.1%	\$ -	\$ 385,281	\$ -	\$ -	\$ 18,063,346	\$ (5,359,788)	\$ 208,927,135
2053	\$ 45,000	\$ 2,253,425	\$ 9,819,516	\$ 609,885	\$ 12,727,826	\$ 2,253,425	\$ 18,202,091	\$ 524,026	3.0%	\$ -	\$ 385,281	\$ -	\$ -	\$ 18,587,372	\$ (5,859,546)	\$ 203,067,589
2054	\$ 45,000	\$ 2,258,019	\$ 9,813,846	\$ 629,558	\$ 12,746,423	\$ 2,258,019	\$ 18,726,116	\$ 524,026	2.9%	\$ -	\$ 385,281	\$ -	\$ -	\$ 19,111,397	\$ (6,364,974)	\$ 196,702,614
2055	\$ 45,000	\$ 2,262,613	\$ 9,813,846	\$ 649,232	\$ 12,770,691	\$ 2,262,613	\$ 19,250,142	\$ 524,026	2.8%	\$ -	\$ 385,281	\$ -	\$ -	\$ 19,635,423	\$ (6,864,732)	\$ 189,837,882
2056	\$ 45,000	\$ 2,267,207	\$ 9,813,747	\$ 668,906	\$ 12,794,860	\$ 2,267,207	\$ 19,774,167	\$ 524,026	2.7%	\$ -	\$ 385,281	\$ -	\$ -	\$ 20,159,448	\$ (7,364,589)	\$ 182,473,294
2057	\$ 45,000	\$ 2,271,801	\$ 9,813,747	\$ 688,580	\$ 12,819,127	\$ 2,271,801	\$ 20,298,193	\$ 524,026	2.7%	\$ -	\$ 385,281	\$ -	\$ -	\$ 20,683,474	\$ (7,864,347)	\$ 174,608,947
2058	\$ 45,000	\$ 2,276,395	\$ 9,788,343	\$ 708,253	\$ 12,817,991	\$ 2,276,395	\$ 20,822,218	\$ 524,026	2.6%	\$ -	\$ 385,281	\$ -	\$ -	\$ 21,207,499	\$ (8,389,508)	\$ 166,219,439
2059	\$ 45,000	\$ 2,280,989	\$ 9,788,343	\$ 727,927	\$ 12,842,259	\$ 2,280,989	\$ 21,346,244	\$ 524,026	2.5%	\$ -	\$ 385,281	\$ -	\$ -	\$ 21,731,525	\$ (8,889,266)	\$ 157,330,173
2060	\$ 45,000	\$ 2,285,583	\$ 9,782,095	\$ 747,601	\$ 12,860,278	\$ 2,285,583	\$ 21,870,269	\$ 524,026	2.5%	\$ -	\$ 385,281	\$ -	\$ -	\$ 22,255,550	\$ (9,395,272)	\$ 147,934,901
2061	\$ 45,000	\$ 2,290,177	\$ 9,782,095	\$ 767,274	\$ 12,884,546	\$ 2,290,177	\$ 22,394,295	\$ 524,026	2.4%	\$ -	\$ 385,281	\$ -	\$ -	\$ 22,779,576	\$ (9,895,030)	\$ 138,039,871
40-Year Infrastructure Deficit					\$ 655,142,612									\$ 520,580,572	\$ 134,562,040	

Total Tax Funding	\$ 485,074,595
2022 Total Tax Levy	\$ 9,723,191
Inc. as % of Tax Levy	5.39%

Table 3
Township of Brock
Review of 2019 Asset Management Plan
Financing Strategy 2: Close In-Year Funding Gap by 2051

Legend	1. Lifecycle Costs						2. Forecast of Revenues						3. Funding Gap Calculation			
Year	Non-Infrastructure Solutions	Operations & Maintenance (Existing and Expansion)	Capital Renewal/Replacement and Disposal	Expansion Activities	Total Lifecycle Costs	O&M from Taxation	Capital from Taxation	Yearly Increase in Capital Tax Levy (\$)	Yearly Increase in Capital Tax Levy (%)	Reserves/Reserve Funds	Canada Community Building Fund CCBF (formerly Gas Tax)	OCIF & Other Grants	Other Revenue	Total Funding	Annual Funding Gap	Cumulative Infrastructure Deficit
2022	\$ 45,000	\$ 2,106,417	\$ 52,261,883	\$ -	\$ 54,413,301	\$ 2,106,417	\$ 1,957,300			\$ 11,126,482	\$ 369,228	\$ 377,000	\$ -	\$ 13,830,010	\$ 40,583,291	\$ 37,609,491
2023	\$ 45,000	\$ 2,115,605	\$ 30,792,642	\$ 19,674	\$ 32,972,920	\$ 2,115,605	\$ 2,313,738	\$ 356,438	18.2%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 3,049,019	\$ 29,923,901	\$ 67,533,392
2024	\$ 45,000	\$ 2,120,199	\$ 28,345,268	\$ 39,347	\$ 30,549,815	\$ 2,120,199	\$ 2,670,177	\$ 356,438	15.4%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 3,405,458	\$ 27,144,357	\$ 94,677,749
2025	\$ 45,000	\$ 2,124,793	\$ 26,719,536	\$ 59,021	\$ 28,948,350	\$ 2,124,793	\$ 3,026,615	\$ 356,438	13.3%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 3,761,896	\$ 25,186,454	\$ 119,864,203
2026	\$ 45,000	\$ 2,129,387	\$ 23,812,877	\$ 78,695	\$ 26,065,959	\$ 2,129,387	\$ 3,383,053	\$ 356,438	11.8%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 4,118,334	\$ 21,947,625	\$ 141,811,828
2027	\$ 45,000	\$ 2,133,981	\$ 22,002,905	\$ 98,369	\$ 24,280,254	\$ 2,133,981	\$ 3,739,491	\$ 356,438	10.5%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 4,474,772	\$ 19,805,482	\$ 161,617,310
2028	\$ 45,000	\$ 2,138,575	\$ 18,055,126	\$ 118,042	\$ 20,356,744	\$ 2,138,575	\$ 4,095,930	\$ 356,438	9.5%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 4,831,211	\$ 15,525,533	\$ 177,142,843
2029	\$ 45,000	\$ 2,143,169	\$ 15,717,082	\$ 137,716	\$ 18,042,967	\$ 2,143,169	\$ 4,452,368	\$ 356,438	8.7%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 5,187,649	\$ 12,855,318	\$ 189,998,161
2030	\$ 45,000	\$ 2,147,763	\$ 14,261,956	\$ 157,390	\$ 16,612,109	\$ 2,147,763	\$ 4,808,806	\$ 356,438	8.0%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 5,544,087	\$ 11,068,022	\$ 201,066,182
2031	\$ 45,000	\$ 2,152,357	\$ 13,117,353	\$ 177,063	\$ 15,491,774	\$ 2,152,357	\$ 5,165,244	\$ 356,438	7.4%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 5,900,525	\$ 9,591,248	\$ 210,657,430
2032	\$ 45,000	\$ 2,156,951	\$ 11,929,716	\$ 196,737	\$ 14,328,405	\$ 2,156,951	\$ 5,521,683	\$ 356,438	6.9%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 6,256,964	\$ 8,071,441	\$ 218,728,871
2033	\$ 45,000	\$ 2,161,545	\$ 11,762,728	\$ 216,411	\$ 14,185,684	\$ 2,161,545	\$ 5,878,121	\$ 356,438	6.5%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 6,613,402	\$ 7,572,282	\$ 226,301,154
2034	\$ 45,000	\$ 2,166,139	\$ 11,466,138	\$ 236,084	\$ 13,913,361	\$ 2,166,139	\$ 6,234,559	\$ 356,438	6.1%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 6,969,840	\$ 6,943,521	\$ 233,244,675
2035	\$ 45,000	\$ 2,170,733	\$ 11,278,769	\$ 255,758	\$ 13,750,261	\$ 2,170,733	\$ 6,590,997	\$ 356,438	5.7%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 7,326,278	\$ 6,423,982	\$ 239,668,657
2036	\$ 45,000	\$ 2,175,327	\$ 10,309,564	\$ 275,432	\$ 12,805,322	\$ 2,175,327	\$ 6,947,436	\$ 356,438	5.4%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 7,682,717	\$ 5,122,606	\$ 244,791,263
2037	\$ 45,000	\$ 2,179,921	\$ 10,159,148	\$ 295,106	\$ 12,679,175	\$ 2,179,921	\$ 7,303,874	\$ 356,438	5.1%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 8,039,155	\$ 4,640,020	\$ 249,431,283
2038	\$ 45,000	\$ 2,184,515	\$ 10,159,112	\$ 314,779	\$ 12,703,406	\$ 2,184,515	\$ 7,660,312	\$ 356,438	4.9%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 8,395,593	\$ 4,307,813	\$ 253,739,096
2039	\$ 45,000	\$ 2,189,109	\$ 10,153,609	\$ 334,453	\$ 12,722,171	\$ 2,189,109	\$ 8,016,750	\$ 356,438	4.7%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 8,752,031	\$ 3,970,140	\$ 257,709,235
2040	\$ 45,000	\$ 2,193,703	\$ 10,028,325	\$ 354,127	\$ 12,621,155	\$ 2,193,703	\$ 8,373,189	\$ 356,438	4.4%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 9,108,470	\$ 3,512,685	\$ 261,221,921
2041	\$ 45,000	\$ 2,198,297	\$ 10,031,968	\$ 373,800	\$ 12,649,066	\$ 2,198,297	\$ 8,729,627	\$ 356,438	4.3%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 9,464,908	\$ 3,184,158	\$ 264,406,079
2042	\$ 45,000	\$ 2,202,891	\$ 10,029,906	\$ 393,474	\$ 12,671,272	\$ 2,202,891	\$ 9,086,065	\$ 356,438	4.1%	\$ -	\$ 385,281	\$ -	\$ -	\$ 9,471,346	\$ 3,199,925	\$ 267,606,004
2043	\$ 45,000	\$ 2,207,485	\$ 10,028,707	\$ 413,148	\$ 12,694,339	\$ 2,207,485	\$ 9,442,503	\$ 356,438	3.9%	\$ -	\$ 385,281	\$ -	\$ -	\$ 9,827,784	\$ 2,866,555	\$ 270,472,559
2044	\$ 45,000	\$ 2,212,079	\$ 10,011,102	\$ 432,821	\$ 12,701,002	\$ 2,212,079	\$ 9,798,942	\$ 356,438	3.8%	\$ -	\$ 385,281	\$ -	\$ -	\$ 10,184,223	\$ 2,516,780	\$ 272,989,339
2045	\$ 45,000	\$ 2,216,673	\$ 10,010,323	\$ 452,495	\$ 12,724,491	\$ 2,216,673	\$ 10,155,380	\$ 356,438	3.6%	\$ -	\$ 385,281	\$ -	\$ -	\$ 10,540,661	\$ 2,183,830	\$ 275,173,169
2046	\$ 45,000	\$ 2,221,267	\$ 9,989,652	\$ 472,169	\$ 12,728,088	\$ 2,221,267	\$ 10,511,818	\$ 356,438	3.5%	\$ -	\$ 385,281	\$ -	\$ -	\$ 10,897,099	\$ 1,830,988	\$ 277,004,157
2047	\$ 45,000	\$ 2,225,861	\$ 9,988,112	\$ 491,843	\$ 12,750,816	\$ 2,225,861	\$ 10,868,256	\$ 356,438	3.4%	\$ -	\$ 385,281	\$ -	\$ -	\$ 11,253,537	\$ 1,497,278	\$ 278,501,436
2048	\$ 45,000	\$ 2,230,455	\$ 9,988,112	\$ 511,516	\$ 12,775,084	\$ 2,230,455	\$ 11,224,695	\$ 356,438	3.3%	\$ -	\$ 385,281	\$ -	\$ -	\$ 11,609,976	\$ 1,165,108	\$ 279,666,543
2049	\$ 45,000	\$ 2,235,049	\$ 9,855,862	\$ 531,190	\$ 12,667,102	\$ 2,235,049	\$ 11,581,133	\$ 356,438	3.2%	\$ -	\$ 385,281	\$ -	\$ -	\$ 11,966,414	\$ 700,688	\$ 280,367,231
2050	\$ 45,000	\$ 2,239,643	\$ 9,855,862	\$ 550,864	\$ 12,691,369	\$ 2,239,643	\$ 11,937,571	\$ 356,438	3.1%	\$ -	\$ 385,281	\$ -	\$ -	\$ 12,322,852	\$ 368,517	\$ 280,735,748
2051	\$ 45,000	\$ 2,244,237	\$ 9,819,516	\$ 570,537	\$ 12,679,290	\$ 2,244,237	\$ 12,294,009	\$ 356,438	3.0%	\$ -	\$ 385,281	\$ -	\$ -	\$ 12,679,290	\$ (0)	\$ 280,735,748
2052	\$ 45,000	\$ 2,248,831	\$ 9,819,516	\$ 590,211	\$ 12,703,558	\$ 2,248,831	\$ 12,650,448	\$ 356,438	2.9%	\$ -	\$ 385,281	\$ -	\$ -	\$ 13,035,729	\$ (332,171)	\$ 280,403,577
2053	\$ 45,000	\$ 2,253,425	\$ 9,819,516	\$ 609,885	\$ 12,727,826	\$ 2,253,425	\$ 13,006,886	\$ 356,438	2.8%	\$ -	\$ 385,281	\$ -	\$ -	\$ 13,392,167	\$ (664,341)	\$ 279,739,236
2054	\$ 45,000	\$ 2,258,019	\$ 9,813,846	\$ 629,558	\$ 12,746,423	\$ 2,258,019	\$ 13,363,324	\$ 356,438	2.7%	\$ -	\$ 385,281	\$ -	\$ -	\$ 13,748,605	\$ (1,002,182)	\$ 278,737,054
2055	\$ 45,000	\$ 2,262,613	\$ 9,813,846	\$ 649,232	\$ 12,770,691	\$ 2,262,613	\$ 13,719,762	\$ 356,438	2.7%	\$ -	\$ 385,281	\$ -	\$ -	\$ 14,105,043	\$ (1,334,353)	\$ 277,402,702
2056	\$ 45,000	\$ 2,267,207	\$ 9,813,747	\$ 668,906	\$ 12,794,860	\$ 2,267,207	\$ 14,076,201	\$ 356,438	2.6%	\$ -	\$ 385,281	\$ -	\$ -	\$ 14,461,482	\$ (1,666,622)	\$ 275,736,080
2057	\$ 45,000	\$ 2,271,801	\$ 9,813,747	\$ 688,580	\$ 12,819,127	\$ 2,271,801	\$ 14,432,639	\$ 356,438	2.5%	\$ -	\$ 385,281	\$ -	\$ -	\$ 14,817,920	\$ (1,998,793)	\$ 273,737,287
2058	\$ 45,000	\$ 2,276,395	\$ 9,788,343	\$ 708,253	\$ 12,817,991	\$ 2,276,395	\$ 14,789,077	\$ 356,438	2.5%	\$ -	\$ 385,281	\$ -	\$ -	\$ 15,174,358	\$ (2,356,367)	\$ 271,380,920
2059	\$ 45,000	\$ 2,280,989	\$ 9,788,343	\$ 727,927	\$ 12,842,259	\$ 2,280,989	\$ 15,145,515	\$ 356,438	2.4%	\$ -	\$ 385,281	\$ -	\$ -	\$ 15,530,796	\$ (2,688,537)	\$ 268,692,383
2060	\$ 45,000	\$ 2,285,583	\$ 9,782,095	\$ 747,601	\$ 12,860,278	\$ 2,285,583	\$ 15,501,954	\$ 356,438	2.4%	\$ -	\$ 385,281	\$ -	\$ -	\$ 15,887,235	\$ (3,026,956)	\$ 265,665,427
2061	\$ 45,000	\$ 2,290,177	\$ 9,782,095	\$ 767,274	\$ 12,884,546	\$ 2,290,177	\$ 15,858,392	\$ 356,438	2.3%	\$ -	\$ 385,281	\$ -	\$ -	\$ 16,243,673	\$ (3,359,127)	\$ 262,306,300
40-Year Infrastructure Deficit					\$ 655,142,612									\$ 389,862,512	\$ 265,280,100	

Total Tax Funding	\$ 354,356,535
2022 Total Tax Levy	\$ 9,723,191
Inc. as % of Tax Levy	3.67%

Table 4
Township of Brock
Review of 2019 Asset Management Plan
Financing Strategy 3: Close In-Year Funding Gap by 2061

Legend	1. Lifecycle Costs						2. Forecast of Revenues						3. Funding Gap Calculation			
Year	Non-Infrastructure Solutions	Operations & Maintenance (Existing and Expansion)	Capital Renewal/Replacement and Disposal	Expansion Activities	Total Lifecycle Costs	O&M from Taxation	Capital from Taxation	Yearly Increase in Capital Tax Levy (\$)	Yearly Increase in Capital Tax Levy (%)	Reserves/Reserve Funds	Canada Community Building Fund CCBF (formerly Gas Tax)	OCIF & Other Grants	Other Revenue	Total Funding	Annual Funding Gap	Cumulative Infrastructure Deficit
2022	\$ 45,000	\$ 2,106,417	\$ 52,261,883	\$ -	\$ 54,413,301	\$ 2,106,417	\$ 1,957,300	\$ -		\$ 11,126,482	\$ 369,228	\$ 377,000	\$ -	\$ 13,830,010	\$ 40,583,291	\$ 37,739,525
2023	\$ 45,000	\$ 2,115,605	\$ 30,792,642	\$ 19,674	\$ 32,972,920	\$ 2,115,605	\$ 2,227,607	\$ 270,307	13.8%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 2,962,888	\$ 30,010,032	\$ 67,749,558
2024	\$ 45,000	\$ 2,120,199	\$ 28,345,268	\$ 39,347	\$ 30,549,815	\$ 2,120,199	\$ 2,497,914	\$ 270,307	12.1%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 3,233,195	\$ 27,316,620	\$ 95,066,178
2025	\$ 45,000	\$ 2,124,793	\$ 26,719,536	\$ 59,021	\$ 28,948,350	\$ 2,124,793	\$ 2,768,220	\$ 270,307	10.8%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 3,503,502	\$ 25,444,848	\$ 120,511,026
2026	\$ 45,000	\$ 2,129,387	\$ 23,812,877	\$ 78,695	\$ 26,065,959	\$ 2,129,387	\$ 3,038,527	\$ 270,307	9.8%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 3,773,808	\$ 22,292,151	\$ 142,803,177
2027	\$ 45,000	\$ 2,133,981	\$ 22,002,905	\$ 98,369	\$ 24,280,254	\$ 2,133,981	\$ 3,308,834	\$ 270,307	8.9%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 4,044,115	\$ 20,236,139	\$ 163,039,316
2028	\$ 45,000	\$ 2,138,575	\$ 18,055,126	\$ 118,042	\$ 20,356,744	\$ 2,138,575	\$ 3,579,141	\$ 270,307	8.2%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 4,314,422	\$ 16,042,322	\$ 179,081,638
2029	\$ 45,000	\$ 2,143,169	\$ 15,717,082	\$ 137,716	\$ 18,042,967	\$ 2,143,169	\$ 3,849,448	\$ 270,307	7.6%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 4,584,729	\$ 13,458,238	\$ 192,539,876
2030	\$ 45,000	\$ 2,147,763	\$ 14,261,956	\$ 157,390	\$ 16,612,109	\$ 2,147,763	\$ 4,119,754	\$ 270,307	7.0%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 4,855,036	\$ 11,757,073	\$ 204,296,949
2031	\$ 45,000	\$ 2,152,357	\$ 13,117,353	\$ 177,063	\$ 15,491,774	\$ 2,152,357	\$ 4,390,061	\$ 270,307	6.6%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 5,125,342	\$ 10,366,431	\$ 214,663,381
2032	\$ 45,000	\$ 2,156,951	\$ 11,929,716	\$ 196,737	\$ 14,328,405	\$ 2,156,951	\$ 4,660,368	\$ 270,307	6.2%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 5,395,649	\$ 8,932,755	\$ 223,596,136
2033	\$ 45,000	\$ 2,161,545	\$ 11,762,728	\$ 216,411	\$ 14,185,684	\$ 2,161,545	\$ 4,930,675	\$ 270,307	5.8%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 5,665,956	\$ 8,519,728	\$ 232,115,865
2034	\$ 45,000	\$ 2,166,139	\$ 11,466,138	\$ 236,084	\$ 13,913,361	\$ 2,166,139	\$ 5,200,982	\$ 270,307	5.5%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 5,936,263	\$ 7,977,099	\$ 240,092,963
2035	\$ 45,000	\$ 2,170,733	\$ 11,278,769	\$ 255,758	\$ 13,750,261	\$ 2,170,733	\$ 5,471,288	\$ 270,307	5.2%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 6,206,569	\$ 7,543,691	\$ 247,636,654
2036	\$ 45,000	\$ 2,175,327	\$ 10,309,564	\$ 275,432	\$ 12,805,322	\$ 2,175,327	\$ 5,741,595	\$ 270,307	4.9%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 6,476,876	\$ 6,328,446	\$ 253,965,101
2037	\$ 45,000	\$ 2,179,921	\$ 10,159,148	\$ 295,106	\$ 12,679,175	\$ 2,179,921	\$ 6,011,902	\$ 270,307	4.7%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 6,747,183	\$ 5,931,992	\$ 259,897,092
2038	\$ 45,000	\$ 2,184,515	\$ 10,159,112	\$ 314,779	\$ 12,703,406	\$ 2,184,515	\$ 6,282,209	\$ 270,307	4.5%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 7,017,490	\$ 5,685,916	\$ 265,583,009
2039	\$ 45,000	\$ 2,189,109	\$ 10,153,609	\$ 334,453	\$ 12,722,171	\$ 2,189,109	\$ 6,552,515	\$ 270,307	4.3%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 7,287,797	\$ 5,434,375	\$ 271,017,383
2040	\$ 45,000	\$ 2,193,703	\$ 10,028,325	\$ 354,127	\$ 12,621,155	\$ 2,193,703	\$ 6,822,822	\$ 270,307	4.1%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 7,558,103	\$ 5,063,052	\$ 276,080,435
2041	\$ 45,000	\$ 2,198,297	\$ 10,031,968	\$ 373,800	\$ 12,649,066	\$ 2,198,297	\$ 7,093,129	\$ 270,307	4.0%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 7,828,410	\$ 4,820,656	\$ 280,901,091
2042	\$ 45,000	\$ 2,202,891	\$ 10,029,906	\$ 393,474	\$ 12,671,272	\$ 2,202,891	\$ 7,363,436	\$ 270,307	3.8%	\$ -	\$ 385,281	\$ -	\$ -	\$ 7,748,717	\$ 4,922,554	\$ 285,823,645
2043	\$ 45,000	\$ 2,207,485	\$ 10,028,707	\$ 413,148	\$ 12,694,339	\$ 2,207,485	\$ 7,633,743	\$ 270,307	3.7%	\$ -	\$ 385,281	\$ -	\$ -	\$ 8,019,024	\$ 4,675,316	\$ 290,498,961
2044	\$ 45,000	\$ 2,212,079	\$ 10,011,102	\$ 432,821	\$ 12,701,002	\$ 2,212,079	\$ 7,904,049	\$ 270,307	3.5%	\$ -	\$ 385,281	\$ -	\$ -	\$ 8,289,331	\$ 4,411,672	\$ 294,910,632
2045	\$ 45,000	\$ 2,216,673	\$ 10,010,323	\$ 452,495	\$ 12,724,491	\$ 2,216,673	\$ 8,174,356	\$ 270,307	3.4%	\$ -	\$ 385,281	\$ -	\$ -	\$ 8,559,637	\$ 4,164,854	\$ 299,075,486
2046	\$ 45,000	\$ 2,221,267	\$ 9,989,652	\$ 472,169	\$ 12,728,088	\$ 2,221,267	\$ 8,444,663	\$ 270,307	3.3%	\$ -	\$ 385,281	\$ -	\$ -	\$ 8,829,944	\$ 3,898,143	\$ 302,973,629
2047	\$ 45,000	\$ 2,225,861	\$ 9,988,112	\$ 491,843	\$ 12,750,816	\$ 2,225,861	\$ 8,714,970	\$ 270,307	3.2%	\$ -	\$ 385,281	\$ -	\$ -	\$ 9,100,251	\$ 3,650,565	\$ 306,624,194
2048	\$ 45,000	\$ 2,230,455	\$ 9,988,112	\$ 511,516	\$ 12,775,084	\$ 2,230,455	\$ 8,985,277	\$ 270,307	3.1%	\$ -	\$ 385,281	\$ -	\$ -	\$ 9,370,558	\$ 3,404,526	\$ 310,028,720
2049	\$ 45,000	\$ 2,235,049	\$ 9,855,862	\$ 531,190	\$ 12,667,102	\$ 2,235,049	\$ 9,255,583	\$ 270,307	3.0%	\$ -	\$ 385,281	\$ -	\$ -	\$ 9,640,865	\$ 3,026,237	\$ 313,054,957
2050	\$ 45,000	\$ 2,239,643	\$ 9,855,862	\$ 550,864	\$ 12,691,369	\$ 2,239,643	\$ 9,525,890	\$ 270,307	2.9%	\$ -	\$ 385,281	\$ -	\$ -	\$ 9,911,171	\$ 2,780,198	\$ 315,835,155
2051	\$ 45,000	\$ 2,244,237	\$ 9,819,516	\$ 570,537	\$ 12,679,290	\$ 2,244,237	\$ 9,796,197	\$ 270,307	2.8%	\$ -	\$ 385,281	\$ -	\$ -	\$ 10,181,478	\$ 2,497,812	\$ 318,332,967
2052	\$ 45,000	\$ 2,248,831	\$ 9,819,516	\$ 590,211	\$ 12,703,558	\$ 2,248,831	\$ 10,066,504	\$ 270,307	2.8%	\$ -	\$ 385,281	\$ -	\$ -	\$ 10,451,785	\$ 2,251,773	\$ 320,584,740
2053	\$ 45,000	\$ 2,253,425	\$ 9,819,516	\$ 609,885	\$ 12,727,826	\$ 2,253,425	\$ 10,336,811	\$ 270,307	2.7%	\$ -	\$ 385,281	\$ -	\$ -	\$ 10,722,092	\$ 2,005,734	\$ 322,590,474
2054	\$ 45,000	\$ 2,258,019	\$ 9,813,846	\$ 629,558	\$ 12,746,423	\$ 2,258,019	\$ 10,607,117	\$ 270,307	2.6%	\$ -	\$ 385,281	\$ -	\$ -	\$ 10,992,399	\$ 1,754,025	\$ 324,344,499
2055	\$ 45,000	\$ 2,262,613	\$ 9,813,846	\$ 649,232	\$ 12,770,691	\$ 2,262,613	\$ 10,877,424	\$ 270,307	2.5%	\$ -	\$ 385,281	\$ -	\$ -	\$ 11,262,705	\$ 1,507,985	\$ 325,852,484
2056	\$ 45,000	\$ 2,267,207	\$ 9,813,747	\$ 668,906	\$ 12,794,860	\$ 2,267,207	\$ 11,147,731	\$ 270,307	2.5%	\$ -	\$ 385,281	\$ -	\$ -	\$ 11,533,012	\$ 1,261,848	\$ 327,114,332
2057	\$ 45,000	\$ 2,271,801	\$ 9,813,747	\$ 688,580	\$ 12,819,127	\$ 2,271,801	\$ 11,418,038	\$ 270,307	2.4%	\$ -	\$ 385,281	\$ -	\$ -	\$ 11,803,319	\$ 1,015,568	\$ 328,130,140
2058	\$ 45,000	\$ 2,276,395	\$ 9,788,343	\$ 708,253	\$ 12,817,991	\$ 2,276,395	\$ 11,688,345	\$ 270,307	2.4%	\$ -	\$ 385,281	\$ -	\$ -	\$ 12,073,626	\$ 744,366	\$ 328,874,506
2059	\$ 45,000	\$ 2,280,989	\$ 9,788,343	\$ 727,927	\$ 12,842,259	\$ 2,280,989	\$ 11,958,651	\$ 270,307	2.3%	\$ -	\$ 385,281	\$ -	\$ -	\$ 12,343,933	\$ 498,327	\$ 329,372,833
2060	\$ 45,000	\$ 2,285,583	\$ 9,782,095	\$ 747,601	\$ 12,860,278	\$ 2,285,583	\$ 12,228,958	\$ 270,307	2.3%	\$ -	\$ 385,281	\$ -	\$ -	\$ 12,614,239	\$ 246,039	\$ 329,618,872
2061	\$ 45,000	\$ 2,290,177	\$ 9,782,095	\$ 767,274	\$ 12,884,546	\$ 2,290,177	\$ 12,499,265	\$ 270,307	2.2%	\$ -	\$ 385,281	\$ -	\$ -	\$ 12,884,546	\$ -	\$ 329,618,872
	\$ 1,800,000	\$ 88,019,171	\$ 549,977,953	\$ 15,345,487	\$ 655,142,612									\$ 322,679,974	\$ 332,462,637	

Total Tax Funding	\$ 287,173,998
2022 Total Tax Levy	\$ 9,723,191
Inc. as % of Tax Levy	2.78%

Table 5
Township of Brock
Review of 2019 Asset Management Plan
No Yearly Increase Scenario

Legend	1. Lifecycle Costs						2. Forecast of Revenues						3. Funding Gap Calculation			
	Year	Non-Infrastructure Solutions	Operations & Maintenance (Existing and Expansion)	Capital Renewal/Replacement and Disposal	Expansion Activities	Total Lifecycle Costs	O&M from Taxation	Capital from Taxation	Yearly Increase in Capital Tax Levy (\$)	Yearly Increase in Capital Tax Levy (%)	Reserves/Reserve Funds	Canada Community Building Fund CCBF (formerly Gas Tax)	OCIF & Other Grants	Other Revenue	Total Funding	Annual Funding Gap
2022	\$ 45,000	\$ 2,106,417	\$ 52,261,883	\$ -	\$ 54,413,301	\$ 2,106,417	\$ 1,957,300			\$ 11,126,482	\$ 369,228	\$ 377,000	\$ -	\$ 13,830,010	\$ 40,583,291	\$ 37,739,525
2023	\$ 45,000	\$ 2,115,605	\$ 30,792,642	\$ 19,674	\$ 32,972,920	\$ 2,115,605	\$ 1,957,300			\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 2,692,581	\$ 30,280,339	\$ 68,019,865
2024	\$ 45,000	\$ 2,120,199	\$ 28,345,268	\$ 39,347	\$ 30,549,815	\$ 2,120,199	\$ 1,957,300			\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 2,692,581	\$ 27,857,234	\$ 95,877,099
2025	\$ 45,000	\$ 2,124,793	\$ 26,719,536	\$ 59,021	\$ 28,948,350	\$ 2,124,793	\$ 1,957,300			\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 2,692,581	\$ 26,255,769	\$ 122,132,867
2026	\$ 45,000	\$ 2,129,387	\$ 23,812,877	\$ 78,695	\$ 26,065,959	\$ 2,129,387	\$ 1,957,300			\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 2,692,581	\$ 23,373,378	\$ 145,506,245
2027	\$ 45,000	\$ 2,133,981	\$ 22,002,905	\$ 98,369	\$ 24,280,254	\$ 2,133,981	\$ 1,957,300			\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 2,692,581	\$ 21,587,673	\$ 167,093,918
2028	\$ 45,000	\$ 2,138,575	\$ 18,055,126	\$ 118,042	\$ 20,356,744	\$ 2,138,575	\$ 1,957,300			\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 2,692,581	\$ 17,664,162	\$ 184,758,081
2029	\$ 45,000	\$ 2,143,169	\$ 15,717,082	\$ 137,716	\$ 18,042,967	\$ 2,143,169	\$ 1,957,300			\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 2,692,581	\$ 15,350,386	\$ 200,108,466
2030	\$ 45,000	\$ 2,147,763	\$ 14,261,956	\$ 157,390	\$ 16,612,109	\$ 2,147,763	\$ 1,957,300			\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 2,692,581	\$ 13,919,528	\$ 214,027,994
2031	\$ 45,000	\$ 2,152,357	\$ 13,117,353	\$ 177,063	\$ 15,491,774	\$ 2,152,357	\$ 1,957,300			\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 2,692,581	\$ 12,799,193	\$ 226,827,186
2032	\$ 45,000	\$ 2,156,951	\$ 11,929,716	\$ 196,737	\$ 14,328,405	\$ 2,156,951	\$ 1,957,300			\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 2,692,581	\$ 11,635,823	\$ 238,463,010
2033	\$ 45,000	\$ 2,161,545	\$ 11,762,728	\$ 216,411	\$ 14,185,684	\$ 2,161,545	\$ 1,957,300			\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 2,692,581	\$ 11,493,103	\$ 249,956,113
2034	\$ 45,000	\$ 2,166,139	\$ 11,466,138	\$ 236,084	\$ 13,913,361	\$ 2,166,139	\$ 1,957,300			\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 2,692,581	\$ 11,220,780	\$ 261,176,893
2035	\$ 45,000	\$ 2,170,733	\$ 11,278,769	\$ 255,758	\$ 13,750,261	\$ 2,170,733	\$ 1,957,300			\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 2,692,581	\$ 11,057,679	\$ 272,234,573
2036	\$ 45,000	\$ 2,175,327	\$ 10,309,564	\$ 275,432	\$ 12,805,322	\$ 2,175,327	\$ 1,957,300			\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 2,692,581	\$ 10,112,741	\$ 282,347,314
2037	\$ 45,000	\$ 2,179,921	\$ 10,159,148	\$ 295,106	\$ 12,679,175	\$ 2,179,921	\$ 1,957,300			\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 2,692,581	\$ 9,986,594	\$ 292,333,907
2038	\$ 45,000	\$ 2,184,515	\$ 10,159,112	\$ 314,779	\$ 12,703,406	\$ 2,184,515	\$ 1,957,300			\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 2,692,581	\$ 10,010,825	\$ 302,344,732
2039	\$ 45,000	\$ 2,189,109	\$ 10,153,609	\$ 334,453	\$ 12,722,171	\$ 2,189,109	\$ 1,957,300			\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 2,692,581	\$ 10,029,590	\$ 312,374,322
2040	\$ 45,000	\$ 2,193,703	\$ 10,028,325	\$ 354,127	\$ 12,621,155	\$ 2,193,703	\$ 1,957,300			\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 2,692,581	\$ 9,928,574	\$ 322,302,896
2041	\$ 45,000	\$ 2,198,297	\$ 10,031,968	\$ 373,800	\$ 12,649,066	\$ 2,198,297	\$ 1,957,300			\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 2,692,581	\$ 9,956,485	\$ 332,259,381
2042	\$ 45,000	\$ 2,202,891	\$ 10,029,906	\$ 393,474	\$ 12,671,272	\$ 2,202,891	\$ 1,957,300			\$ -	\$ 385,281	\$ -	\$ -	\$ 2,342,581	\$ 10,328,690	\$ 342,588,071
2043	\$ 45,000	\$ 2,207,485	\$ 10,028,707	\$ 413,148	\$ 12,694,339	\$ 2,207,485	\$ 1,957,300			\$ -	\$ 385,281	\$ -	\$ -	\$ 2,342,581	\$ 10,351,758	\$ 352,939,830
2044	\$ 45,000	\$ 2,212,079	\$ 10,011,102	\$ 432,821	\$ 12,701,002	\$ 2,212,079	\$ 1,957,300			\$ -	\$ 385,281	\$ -	\$ -	\$ 2,342,581	\$ 10,358,421	\$ 363,298,251
2045	\$ 45,000	\$ 2,216,673	\$ 10,010,323	\$ 452,495	\$ 12,724,491	\$ 2,216,673	\$ 1,957,300			\$ -	\$ 385,281	\$ -	\$ -	\$ 2,342,581	\$ 10,381,910	\$ 373,680,160
2046	\$ 45,000	\$ 2,221,267	\$ 9,989,652	\$ 472,169	\$ 12,728,088	\$ 2,221,267	\$ 1,957,300			\$ -	\$ 385,281	\$ -	\$ -	\$ 2,342,581	\$ 10,385,506	\$ 384,065,667
2047	\$ 45,000	\$ 2,225,861	\$ 9,988,112	\$ 491,843	\$ 12,750,816	\$ 2,225,861	\$ 1,957,300			\$ -	\$ 385,281	\$ -	\$ -	\$ 2,342,581	\$ 10,408,235	\$ 394,473,902
2048	\$ 45,000	\$ 2,230,455	\$ 9,988,112	\$ 511,516	\$ 12,775,084	\$ 2,230,455	\$ 1,957,300			\$ -	\$ 385,281	\$ -	\$ -	\$ 2,342,581	\$ 10,432,502	\$ 404,906,404
2049	\$ 45,000	\$ 2,235,049	\$ 9,855,862	\$ 531,190	\$ 12,667,102	\$ 2,235,049	\$ 1,957,300			\$ -	\$ 385,281	\$ -	\$ -	\$ 2,342,581	\$ 10,324,520	\$ 415,230,924
2050	\$ 45,000	\$ 2,239,643	\$ 9,855,862	\$ 550,864	\$ 12,691,369	\$ 2,239,643	\$ 1,957,300			\$ -	\$ 385,281	\$ -	\$ -	\$ 2,342,581	\$ 10,348,788	\$ 425,579,712
2051	\$ 45,000	\$ 2,244,237	\$ 9,819,516	\$ 570,537	\$ 12,679,290	\$ 2,244,237	\$ 1,957,300			\$ -	\$ 385,281	\$ -	\$ -	\$ 2,342,581	\$ 10,336,709	\$ 435,916,422
2052	\$ 45,000	\$ 2,248,831	\$ 9,819,516	\$ 590,211	\$ 12,703,558	\$ 2,248,831	\$ 1,957,300			\$ -	\$ 385,281	\$ -	\$ -	\$ 2,342,581	\$ 10,360,977	\$ 446,277,399
2053	\$ 45,000	\$ 2,253,425	\$ 9,819,516	\$ 609,885	\$ 12,727,826	\$ 2,253,425	\$ 1,957,300			\$ -	\$ 385,281	\$ -	\$ -	\$ 2,342,581	\$ 10,385,245	\$ 456,662,643
2054	\$ 45,000	\$ 2,258,019	\$ 9,813,846	\$ 629,558	\$ 12,746,423	\$ 2,258,019	\$ 1,957,300			\$ -	\$ 385,281	\$ -	\$ -	\$ 2,342,581	\$ 10,403,842	\$ 467,066,485
2055	\$ 45,000	\$ 2,262,613	\$ 9,813,846	\$ 649,232	\$ 12,770,691	\$ 2,262,613	\$ 1,957,300			\$ -	\$ 385,281	\$ -	\$ -	\$ 2,342,581	\$ 10,428,110	\$ 477,494,595
2056	\$ 45,000	\$ 2,267,207	\$ 9,813,747	\$ 668,906	\$ 12,794,860	\$ 2,267,207	\$ 1,957,300			\$ -	\$ 385,281	\$ -	\$ -	\$ 2,342,581	\$ 10,452,278	\$ 487,946,873
2057	\$ 45,000	\$ 2,271,801	\$ 9,813,747	\$ 688,580	\$ 12,819,127	\$ 2,271,801	\$ 1,957,300			\$ -	\$ 385,281	\$ -	\$ -	\$ 2,342,581	\$ 10,476,546	\$ 498,423,420
2058	\$ 45,000	\$ 2,276,395	\$ 9,788,343	\$ 708,253	\$ 12,817,991	\$ 2,276,395	\$ 1,957,300			\$ -	\$ 385,281	\$ -	\$ -	\$ 2,342,581	\$ 10,475,410	\$ 508,898,830
2059	\$ 45,000	\$ 2,280,989	\$ 9,788,343	\$ 727,927	\$ 12,842,259	\$ 2,280,989	\$ 1,957,300			\$ -	\$ 385,281	\$ -	\$ -	\$ 2,342,581	\$ 10,499,678	\$ 519,398,508
2060	\$ 45,000	\$ 2,285,583	\$ 9,782,095	\$ 747,601	\$ 12,860,278	\$ 2,285,583	\$ 1,957,300			\$ -	\$ 385,281	\$ -	\$ -	\$ 2,342,581	\$ 10,517,697	\$ 529,916,205
2061	\$ 45,000	\$ 2,290,177	\$ 9,782,095	\$ 767,274	\$ 12,884,546	\$ 2,290,177	\$ 1,957,300			\$ -	\$ 385,281	\$ -	\$ -	\$ 2,342,581	\$ 10,541,965	\$ 540,458,170
	\$ 1,800,000	\$ 88,019,171	\$ 549,977,953	\$ 15,345,487	\$ 655,142,612									\$ 111,840,677	\$ 543,301,935	

Total Tax Funding	\$ 76,334,700
2022 Total Tax Levy	\$ 9,723,191
Inc. as % of Tax Levy	2.78%

APPENDIX A

DETAILED REVIEW OF 2019 AMP

Appendix A - Table 1
Township of Brock
Asset Management Regulation (O.Reg. 588/17) and Action Plan Summary

Section	Regulation	Summary of Regulation	Relevant Section of AMP	Action Plan	Timeline to Complete
5. Asset management plans, current level of service				Action Items or Notes	
(1)	Every municipality shall prepare an asset management plan in respect of its core municipal infrastructure assets by July 1, 2022, and in respect of all of its other municipal infrastructure assets by July 1, 2024.	<i>This requirement establishes timelines for core and non-core municipal assets to be included in the asset management plan in relation to current levels of service.</i>		<ul style="list-style-type: none"> All assets are included in the 2019 AMP. Non-core assets: vehicles and machinery, equipment and furnishings, land improvements, buildings, sidewalks and pathways Core assets: roads, bridges and culverts, storm 	Complete
(2)	A municipality's asset management plan must include the following: 1. For each asset category, the current levels of service being provided, determined in accordance with the following qualitative descriptions and technical metrics and based on data from at most the two calendar years prior to the year in which all information required under this section is included in the asset management plan:	<i>This section outlines reporting requirements for existing levels of service. Historical data should be at least 2 years old.</i>	Section 3 Levels of Service	<ul style="list-style-type: none"> Levels of service were developed as part of the 2019 AMP. Upon review of the level of service measures included, it has been determined that the continue to represent the current level of service in 2022 based on a high-level review of existing data. Note that the level of service tracker (Table 6) of the 2019 AMP has been restated to include some level of service measures that were not included. 	Complete
	i. With respect to core municipal infrastructure assets, the qualitative descriptions set out in Column 2 and the technical metrics set out in Column 3 of Table 1, 2, 3, 4 or 5, as the case may be.	<i>Include the community and technical levels of service from Table 4 in this appendix in the AMP for core assets.</i>	Section 3 Levels of Service	<ul style="list-style-type: none"> The required level of service measures associated to the core assets as per O.Reg. 588/17 for roads, bridges/culverts and storm were developed as part of the 2019 AMP. 	Complete
	ii. With respect to all other municipal infrastructure assets, the qualitative descriptions and technical metrics established by the municipality.	<i>Include the qualitative and quantitative descriptors outlined by the municipality for assets such as facilities, vehicles, equipment, land improvements, etc. These will have to be defined by the municipality.</i>	Section 3 Levels of Service	<ul style="list-style-type: none"> Level of service measures for non-core assets were developed as part of the 2019 AMP. 	Complete
	2. The current performance of each asset category, determined in accordance with the performance measures established by the municipality, such as those that would measure energy usage and operating efficiency, and based on data from at most two calendar years prior to the year in which all information required under this section is included in the asset management plan.	<i>Include the performance of each asset category which is measured using data less than 2 years old as outlined by the municipality. Performance measures will vary by asset category.</i>	Section 3 Levels of Service	<ul style="list-style-type: none"> The 2019 AMP includes a blend of performance measures and level of service measures. The Township is currently undertaking several initiatives to improve its available asset data. This will facilitate development of additional performance measures in future years. 	Complete

Appendix A - Table 1
Township of Brock
Asset Management Regulation (O.Reg. 588/17) and Action Plan Summary

Section	Regulation	Summary of Regulation	Relevant Section of AMP	Action Plan	Timeline to Complete
5. Asset management plans, current level of service				Action Items or Notes	
3.	For each asset category,				
i.	a summary of the assets in the category,	<i>A summary describing the assets in each category. For assets that are broken down into components, a summary can be developed by component.</i>	Section 2 State of Local Infrastructure	•State of the local infrastructure report cards were developed as part of the 2019 AMP. The report cards summarize the assets in each asset category in a table.	Complete
ii.	the replacement cost of the assets in the category,	<i>Include total replacement cost of all assets in each category.</i>		•State of the local infrastructure report cards were developed as part of the 2019 AMP. The report cards summarize the replacement value of assets by type/components wherever possible.	Complete
iii.	the average age of the assets in the category, determined by assessing the average age of the components of the assets,	<i>Include the weighted average age of all assets in each category weighted relative to their replacement cost.</i>		•State of the local infrastructure report cards were developed as part of the 2019 AMP. The report cards summarize the remaining useful life of the assets. Although the remaining useful life of the assets does not explicitly state the age of the assets, it is a direct function of the age. The remaining useful life is reported as this value is a key measure of condition utilized wherever engineered or staff condition assessments are not available.	Complete
iv.	the information available on the condition of the assets in the category, and	<i>Where available, include the weighted condition rating of assets in each category weighted relative to their replacement cost.</i>	Section 2 State of Local Infrastructure	•State of the local infrastructure report cards were developed as part of the 2019 AMP. The report cards summarize the condition of assets based on a 5-tier scale from Very Poor to Very Good.	Complete
v.	a description of the municipality's approach to assessing the condition of the assets in the category, based on recognized and generally accepted good engineering practices where appropriate.	<i>Include the engineering methods used to assess condition rating of all assets in each category. This can include staff visual inspections, remote sensors, etc.</i>		•State of the local infrastructure report cards were developed as part of the 2019 AMP. Appendix B of the 2019 AMP outlines the methodology used to determine conditions of assets.	Complete

Appendix A - Table 1
Township of Brock
Asset Management Regulation (O.Reg. 588/17) and Action Plan Summary

Section	Regulation	Summary of Regulation	Relevant Section of AMP	Action Plan	Timeline to Complete
5. Asset management plans, current level of service				Action Items or Notes	
4.	For each asset category, the lifecycle activities that would need to be undertaken to maintain the current levels of service as described in paragraph 1 for each of the 10 years following the year for which the current levels of service under paragraph 1 are determined and the costs of providing those activities based on an assessment of the following:	<i>Include all maintenance activities required to maintain current service levels for at least a 10 year period. For example, for buildings this can include frequency of inspections, maintenance schedules, maintenance procedures, etc.</i>	Section 4 Asset Management Strategy	•Appendix D of the 2019 AMP documents lifecycle activities needed to maintain current levels of service at a high level. It is noted that the Township expects to improve documentation of its asset management strategies on an ongoing basis. The 2019 AMP also discusses the lifecycle activities: non-infrastructure solutions, maintenance activities, renewal/rehabilitation, replacement, disposal and expansion.	Complete
i.	The full lifecycle of the assets.	<i>The activities listed should be relevant to the useful life of the asset.</i>	Section 5 Financing Strategy	•The 2019 Plan focuses on the to lifecycle costs associated to maintenance and replacement activities. This 2022 review includes an updated methodology that captures costs for all lifecycle activities.	Complete
ii.	The options for which lifecycle activities could potentially be undertaken to maintain the current levels of service.	<i>Discuss alternative options that can be undertaken to maintain current service levels and what options work best.</i>	Section 5 Financing Strategy	•Appendix D of the 2019 AMP documents lifecycle activities needed to maintain current levels of service at a high level. It is noted that the Township expects to improve documentation of its asset management strategies on an ongoing basis. The 2019 AMP also discusses the lifecycle activities: non-infrastructure solutions, maintenance activities, renewal/rehabilitation, replacement, disposal and expansion.	Complete
iii.	The risks associated with the options referred to in subparagraph ii.	<i>Discuss the risks involved with the options in sub-section 4.ii.Risks include discussion of consequences of not undertaking such maintenance activities.</i>	Section 4 Asset Management Strategy	•Section 4 of the 2019 AMP discusses risks associated to not implementing the key outcomes of the plan. It is expected that the Township will continue to update the information to provide additional details over time.	Complete
iv.	The lifecycle activities referred to in subparagraph ii that can be undertaken for the lowest cost to maintain the current levels of service.	<i>Discuss the lowest cost options that can be undertaken to maintain current service levels.</i>	Section 5 Financing Strategy	•The costs identified in the 2019 Plan associated to the 40-year planning period are based on the Township's budget and associated lifecycle activities identified through Appendix D. The Township considers this to be the lowest cost options based on the best available information available today and the current level of service provided. This 2022 review provides additional details on the financing strategy to supplement the 2019 Plan.	Complete

Appendix A - Table 1
Township of Brock
Asset Management Regulation (O.Reg. 588/17) and Action Plan Summary

Section	Regulation	Summary of Regulation	Relevant Section of AMP	Action Plan	
5. Asset management plans, current level of service				Action Items or Notes	Timeline to Complete
5.	For municipalities with a population of less than 25,000, as reported by Statistics Canada in the most recent official census, the following:				
i.	A description of assumptions regarding future changes in population or economic activity.	<i>This can include: population forecasts, development forecasts or economic reports.</i>	Section 5 Financing Strategy	•The 2019 Plan includes a Future Demand section which discusses the Township's expected future development and costs associated to growth-identified through the DC study which are considered expansion activities. The costs associated to expansion have also been included in updated financing strategy discussion in this review.	Complete
ii.	How the assumptions referred to in subparagraph i relate to the information required by paragraph 4.	<i>Discussion on the relationship of growth on maintenance activities. For example as population grows, further maintenance activities are required for roads as more roads experience larger traffic volumes.</i>		•The 2019 Plan includes a Future Demand section which discusses the Township's expected future development and costs associated to growth-identified through the DC study which are considered expansion activities. The costs associated to expansion have also been included in updated financing strategy discussion in this review.	Complete
(3)	Every asset management plan must indicate how all background information and reports upon which the information required by paragraph 3 of subsection (2) is based will be made available to the public.	<i>Include the sources of the information and ensure that the information is available to the public.</i>	Section 6 Making Asset Management Operational	•The 2019 Plan indicates that the report and strategic asset management policy should be made available to the public. Both are available on the Township website.	Complete

Appendix A - Table 2
Township of Perth East
Asset Management Regulation (O.Reg. 588/17) and Action Plan Summary

Section	Regulation	Summary of Regulation	Relevant Section of Future AMP	Action Plan	
6. Asset management plans, proposed level of service				Action Items	Timeline to Complete
(1)	Subject to subsection (2), by July 1, 2025, every asset management plan prepared under section 5 must include the following additional information:	<i>The regulations has additional requirements which must be included in the asset management plan by 2025.</i>		•It is expected that the 2019 Plan will be updated to include the additional information required by 2025.	To be completed by 2025
^{1.}	For each asset category, the levels of service that the municipality proposes to provide for each of the 10 years following the year in which all information required under section 5 and this section is included in the asset management plan, determined in accordance with the following qualitative descriptions and technical metrics:	<i>This section refers to the proposed or planned level of service for a minimum of 10 years.</i>	Section 3 Levels of Service	<ul style="list-style-type: none"> • Proposed levels of service should be defined with consideration of the current levels of service determined through the 2019 AMP. It is noted the proposed levels of service are those expected to be achieved over a minimum 10-year period. • Consultation with Council and the public should occur before establishing targets. 	Q4 2024
^{1.}	With respect to core municipal infrastructure assets, the qualitative descriptions set out in Column 2 and the technical metrics set out in Column 3 of Table 1, 2, 3, 4 or 5, as the case may be.	<i>Include the community and technical levels of service from Table 4 in this appendix in the AMP for roads, water, wastewater and stormwater infrastructure.</i>	Section 3 Levels of Service	<ul style="list-style-type: none"> • Proposed levels of service should be defined with consideration of the current core levels of service determined through the 2019 AMP. 	Q4 2024
^{ii.}	With respect to all other municipal infrastructure assets, the qualitative descriptions and technical metrics established by the municipality.	<i>Include the qualitative and quantitative descriptors outlined by the municipality for assets such as facilities, vehicles, equipment, land improvements, etc. These will have to be defined by the municipality.</i>	Section 3 Levels of Service	<ul style="list-style-type: none"> • Proposed levels of service should be defined with consideration of the current non-core levels of service determined through the 2019 AMP. 	Q4 2024

Appendix A - Table 2
Township of Perth East
Asset Management Regulation (O.Reg. 588/17) and Action Plan Summary

Section	Regulation	Summary of Regulation	Relevant Section of Future AMP	Action Plan	
6. Asset management plans, proposed level of service				Action Items	Timeline to Complete
2.	An explanation of why the proposed levels of service under paragraph 1 are appropriate for the municipality, based on an assessment of the following:	<i>An explanation on how levels of service targets have been determined will need to be outlined.</i>	Section 3 Levels of Service	• Describe why the proposed levels of service are appropriate, this should include the process that was used to establish the proposed levels of service and how Council and the public was consulted.	Q4 2024
i.	The options for the proposed levels of service and the risks associated with those options to the long term sustainability of the municipality.	<i>Options to achieve the proposed levels of service and all risks associated to not meeting the targets.</i>	Section 3 Levels of Service	• Ensure that the proposed levels of service are based on measurable targets that the Town can track over time and maintain up to date. Include a discussion on the risks associated with not meeting proposed levels of service and if possible the consequence (ie. costs).	Q4 2024
ii.	How the proposed levels of service differ from the current levels of service set out under paragraph 1 of subsection 5 (2).	<i>Include a description of how proposed service levels differ from current service levels. Include quantitative and qualitative differences. Identify which service measures are new.</i>	Section 3 Levels of Service	• Compare the proposed levels of service to the current levels of service. They can be added as an additional "column" in the level of service tracker of the 2019 AMP once it is updated.	Q4 2024
iii.	Whether the proposed levels of service are achievable.	<i>Discuss whether proposed service levels are attainable. Only feasible and realistic level of service targets should be included in any plan.</i>	Section 3 Levels of Service	• Ensure that the proposed levels of service are achievable, feasible and realistic. Include a discussion in the AMP on why the proposed levels of service are achievable.	Q4 2024
iv.	The municipality's ability to afford the proposed levels of service.	<i>Discuss whether proposed service levels are affordable. This will require a cost of analysis of work required to achieve the proposed targets.</i>	Section 5 Financing Strategy	• Costs associated to meeting the proposed levels of service will need to be included as part of the financing strategy. The financing strategy in the 2019 AMP can be utilized as a basis for the analysis. The tax impact of undertaking these costs can be assessed.	Q2 2025

Appendix A - Table 2
Township of Perth East
Asset Management Regulation (O.Reg. 588/17) and Action Plan Summary

Section	Regulation	Summary of Regulation	Relevant Section of Future AMP	Action Plan	Timeline to Complete
6. Asset management plans, proposed level of service				Action Items	
3.	The proposed performance of each asset category for each year of the 10-year period referred to in paragraph 1, determined in accordance with the performance measures established by the municipality, such as those that would measure energy usage and operating efficiency.	<i>Include the planned performance levels established by the municipality. Performance measures will vary by asset category.</i>	Section 3 Levels of Service	• The Township is currently undertaking several initiatives to improve its available asset data. This will facilitate development of additional performance measures in future years and defining proposed levels of service.	Q4 2024
4.	A lifecycle management and financial strategy that sets out the following information with respect to the assets in each asset category for the 10-year period referred to in	<i>Lifecycle cost analysis for each asset category. Should be for at least a 10 year period.</i>	Section 4 Asset Management Strategy	•The work required for this would are related to the Asset Management Strategy and Financing Strategy sections of the AMP which are expected to be updated by July 2025.	Q2 2025
i.	An identification of the lifecycle activities that would need to be undertaken to provide the proposed levels of service described in paragraph 1, based on an assessment of the following:	<i>Identify the lifecycle activities that need to be performed to provide proposed service levels based on:</i>		•Section 4 of the AMP and Appendix D which outline the lifecycle activities associated to maintainin current levels of service would need to be updated to reflect the lifecycle activities needs to meet proposed levels of service (if any change is warranted).	Q2 2025
A.	The full lifecycle of the assets.	<i>The activities listed should be relevant to the useful life of the asset.</i>		•Consistent with the full lifecycle of assets consideration needs to be made for all lifecycle activities: non-infrastructure solutions, maintenance, renewal/rehabilitation, replacement, disposal and expansion.	Q2 2025
B.	The options for which lifecycle activities could potentially be undertaken to achieve the proposed levels of service.	<i>Discuss alternative options that can be undertaken to achieve proposed service levels and what options work best.</i>		•Section 4 of the AMP and Appendix D which outline the lifecycle activities associated to maintainin current levels of service would need to be updated to reflect the lifecycle activities needs to meet proposed levels of service (if any change is warranted).	Q2 2025
C.	The risks associated with the options referred to in sub-subparagraph B.	<i>Discuss the risks involved with the options to achieve proposed service levels. Risks include discussion of consequences of not undertaking such maintenance activities.</i>		•A discussion on the risks associated to not meeting the objectives of the AMP. Section 4 of the 2019 AMP discusses risks associated to not implementing the key outcomes of the plan. It is expected that the Township will continue to update the information to provide additional details over time.	Q2 2025
D.	The lifecycle activities referred to in sub-subparagraph B that can be undertaken for the lowest cost to achieve the proposed levels of service.	<i>Discuss the lowest cost options that can be undertaken to achieve proposed service levels.</i>	•The costs identified in the 2019 Plan associated to the 40-year planning period are based on the Township's budget and associated lifecycle activities identified through Appendix D. The Township would need to discuss why the activities are considered to be the lowest	Q2 2025	

Appendix A - Table 2
Township of Perth East
Asset Management Regulation (O.Reg. 588/17) and Action Plan Summary

Section	Regulation	Summary of Regulation	Relevant Section of Future AMP	Action Plan	
6. Asset management plans, proposed level of service				Action Items	Timeline to Complete
ii.	An estimate of the annual costs for each of the 10 years of undertaking the lifecycle activities identified in subparagraph i, separated into capital expenditures and significant operating costs.	<i>Forecast of capital and operating costs associated to achieving the proposed levels of service. Forecast should be for at least a 10 year period.</i>	Section 5 Financing Strategy	•The financing strategy will need to be updated to reflect the full lifecycle costs associated to meeting the proposed levels of service for each lifecycle activity: non-infrastructure solutions, maintenance, renewal/rehabilitation, replacement, disposal and expansion.	Q2 2025
iii.	An identification of the annual funding projected to be available to undertake lifecycle activities and an explanation of the options examined by the municipality to maximize the funding projected to be available.	<i>Identify funding options and forecast funding for a minimum of 10 years. Funding is associated to the lifecycle cost forecast above.</i>		•The financing strategy will need to be updated to reflect the expected funding available to meet the proposed level of service.	Q2 2025
iv.	If, based on the funding projected to be available, the municipality identifies a funding shortfall for the lifecycle activities identified in subparagraph i,	<i>Conditions if a funding shortfall is identified.</i>			
A.	an identification of the lifecycle activities, whether set out in subparagraph i or otherwise, that the municipality will undertake, and	<i>Identify lifecycle activities that the municipality will undertake.</i>		•The financing strategy will need to be updated to reflect the full lifecycle costs associated to meeting the proposed levels of service for each lifecycle activity: non-infrastructure solutions, maintenance, renewal/rehabilitation, replacement, disposal and expansion.	Q2 2025
B.	if applicable, an explanation of how the municipality will manage the risks associated with not undertaking any of the lifecycle activities identified in subparagraph i.	<i>Discussion on risk management activities associated to the funding shortfall.</i>		•A discussion on the risks associated to not meeting the objectives of the AMP. Section 4 of the 2019 AMP discusses risks associated to not implementing the key outcomes of the plan. It is expected that the Township will continue to update the information to provide additional details over time.	Q2 2025
5.	For municipalities with a population of less than 25,000, as reported by Statistics Canada in the most recent official census, a discussion of how the assumptions regarding future changes in population and economic activity, set out in subparagraph 5 i of subsection 5 (2), informed the preparation of the lifecycle management and financial strategy referred to in paragraph 4 of this subsection.	<i>For municipalities with a population less than 25,000, explain how population and economic forecasts assumptions tie into the lifecycle management and financial strategy for the municipal asset management plan.</i>		Section 5 Financing Strategy	•The 2019 Plan includes a Future Demand section which discusses the Township's expected future development and costs associated to growth-identified through the DC study which are considered expansion activities. This section should be updated in the future.

Appendix A - Table 2
Township of Perth East
Asset Management Regulation (O.Reg. 588/17) and Action Plan Summary

Section	Regulation	Summary of Regulation	Relevant Section of Future AMP	Action Plan	
6. Asset management plans, proposed level of service				Action Items	Timeline to Complete
7.	An explanation of any other key assumptions underlying the plan that have not previously been explained.	<i>All assumptions in the AMP should be clearly laid out.</i>	Where Applicable	•Expand the documentation of assumptions in the AMP that are used to develop future updates (if applicable)	Q2 2025
(2)	With respect to an asset management plan prepared under section 5 on or before July 1, 2022, if the additional information required under this section is not included before July 1, 2024, the municipality shall, before including the additional information, update the current levels of service set out under paragraph 1 of subsection 5 (2) and the current performance measures set out under paragraph 2 of subsection 5 (2) based on data from the two most recent calendar years.	<i>If proposed level of service analysis is not included in the AMP by July 1, 2025 then the municipality will need to update the current level of service analysis with the most recent 2 years of data.</i>	Section 3 Levels of Service	•The current level of service is recommended to be updated with every update of the AMP. This said, it should be tracked on an ongoing basis to identify if there are any differences between the current level of service relative to the proposed level of service.	Q2 2025

**Appendix A - Table 3
Township of Perth East
Asset Management Regulation (O.Reg. 588/17) and Action Plan Summary**

Section	Regulation	Summary of Regulation	Relevant Section of AMP	Action Plan	
			Action Items		Timeline to Complete
7. Update of asset management plans					
(1)	Every municipality shall review and update its asset management plan at least five years after the year in which the plan is completed under section 6 and at least every five years thereafter.	<i>The AMP should be updated every 5 years after July 1st 2024.</i>	Section 6 Making Asset Management Operational	<ul style="list-style-type: none"> The Township expects to update the AMP at minimum every 5-years or as needed. Although it is noted that the information utilized through the AMP should be reviewed more frequently. All future updates of the asset management plan should be consistent with O. Reg. 588/17. 	Every 5-years after 2025
(2)	The updated asset management plan must comply with the requirements set out under paragraphs 1, 2 and 3 and subparagraphs 5 i and 6 i, ii, iii, iv and v of subsection 5 (2), subsection 5 (3) and paragraphs 1 to 7 of subsection 6 (1).	<i>Any updates to the AMP should comply with the requirements of O.Reg 588/17 as well.</i>			
8. Endorsement and approval required					
	Every asset management plan prepared under section 5 or 6, or updated under section 7, must be,		Section 6 Making Asset Management Operational	<ul style="list-style-type: none"> The 2019 Plan was endorsed by the CAO and approved by Council. Council has not yet supported a financing strategy. 	Complete
(a)	endorsed by the executive lead of the municipality; and	<i>The AMP must be endorsed by the executive lead of the municipality.</i>			
(b)	approved by a resolution passed by the municipal council.	<i>The AMP must be approved by Council.</i>			
9. Annual review of asset management planning progress					
(1)	Every municipal council shall conduct an annual review of its asset management progress on or before July 1 in each year, starting the year after the municipality's asset management plan is completed under section 6.	<i>Review the AMP annually before or on July 1st of each year starting after all requirements of O.Reg 588/17 have been met.</i>	Section 6 Making Asset Management Operational	<ul style="list-style-type: none"> Monitor asset management plan progress on an annual basis. This can be done through the AMP Report Cards. A discussion on barriers and gaps in progress on the AMP should be included. Progress on the plan can be monitored by considering the points outlined in Section 6. 	after 2025
(2)	The annual review must address,				
(a)	the municipality's progress in implementing its asset management plan;	<i>The annual review should discuss the progress made in implementing the AMP.</i>			
(b)	any factors impeding the municipality's ability to implement its asset management plan; and	<i>The annual review should discuss any factors that act as barriers, gaps or challenges in implementing the AMP.</i>			
(c)	a strategy to address the factors described in clause (b).	<i>The annual review should discuss a strategy to address any factors that act as barriers, gaps or challenges in implementing the AMP.</i>			
10. Public Availability					
	Every municipality shall post its current strategic asset management policy and asset management plan on a website that is available to the public, and shall provide a copy of the policy and plan to any person who requests it.	<i>Post the asset management policy and plan on the municipality's website so that the public can access it. Provide a copy of the asset management policy and plan to any person who requests it.</i>	Section 6 Making Asset Management Operational	<ul style="list-style-type: none"> The 2019 Plan and policy are posted on the Township website. 	Complete

Summary of Beaverton Arena Operating Revenue and Expenses - 2019 to Budget 2023

Revenue

	Budget 2023	2022	2021	2020	2019
Sign Advertising		688	0	899	
Gate Receipts	3,500	1,965	1,384	2,817	5,283
Hall Rentals	2,000	240	752	310	1,719
Ice Rentals	80,900	103,511	61,867	55,367	77,344
Floor Rentals	1,700	2,442	0		1,726
Refreshment Booth/Vending	500	177	0		470
Total Revenue	<u>88,600</u>	<u>109,023</u>	<u>64,004</u>	<u>59,393</u>	<u>86,541</u>

Expenses

Payroll	188,800	162,660	189,450	168,588	165,589
Telephone	1,100	973	2,069	1,912	1,731
Membership	500	199	455	449	1,081
Clothing & Safety Equipment	1,150	1,449	1,512	819	597
Floor Mat Rentals	3,500	4,142	115	1,208	2,712
Machine Rentals	2,500	1,017	3,950	3,697	2,271
Building Maintenance	33,000	46,731	25,883	38,200	31,359
Zamboni Repairs	5,000	6,642	1,174	812	6,349
Refrigeration Repairs	12,200	23,483	5,935	9,594	9,115
Facility Heat/Hydro/Water	68,000	52,923	49,662	59,338	68,283
Miscellaneous	1,300	21	1,202	996	1,158
COVID	0	5,391	16,319		
Transfer to Capital Reserve	100,000	100,000	100,000	100,000	100,000
Mileage	500		521.74	204	75
Training	0				342
Small Tools	2,000				
	<u>419,550</u>	<u>405,631</u>	<u>398,248</u>	<u>385,818</u>	<u>390,664</u>

Net Operating Costs	<u>330,950</u>	<u>296,608</u>	<u>334,244</u>	<u>326,425</u>	<u>304,122</u>
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Operating Expense Recovery	21%	27%	16%	15%	22%
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Average 5 Year Expense Recovery	20%
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Attachment # 9

Summary of Cannington Arena Operating Revenue and Expenses - 2019 to Budget 2023

Revenue

	Budget 2023	2022	2021	2020	2019
Sign Advertising	200	223	0	259	155
Other Revenue	100	11,898	0	80	53
Gate Receipts	500	336	0	1,252	1,432
Hall Rentals	1000	5,994	390	1,399	3,106
Ice Rentals	74000	43,559	-135	38,985	70,130
Floor Rentals	1500	1,478	0	0	4,469
Concession/Vending	0	0	0	0	211
	<u>77,300</u>	<u>63,488</u>	<u>255</u>	<u>41,976</u>	<u>79,555</u>

Expenses

Payroll	177,200	156,882	118,106	147,200	183,306
Telephone	3,200	1,193	2,256	2,391	2,323
Mileage	200	0	55	0	75
Memberships	500	224	257	449	1,081
Training	0	2,200	0	0	342
Clothing and Boots	1,150	690	1,313	310	796
Mat Rentals	3,000	3,208	988	1,152	2,477
Machine Rentals	2,500	0	0	875	3,517
Building Maintenance	28,000	17,696	13,468	26,308	27,822
Zamboni Repairs	5,000	6,485	249	3,278	1,973
Refrigeration	12,400	11,961	5,237	5,839	11,302
Heat/Hydro/Water	39,300	32,583	18,577	32,437	37,778
Miscellaneous	2,500	300	1,216	1,090	1,169
Sign Rental Commission		0		0	16
Transfer to Capital	100,000	100,000	100,000	100,000	100,000
Small Tools	2,000	0	0		
	<u>376,950</u>	<u>333,422</u>	<u>261,723</u>	<u>321,328</u>	<u>373,976</u>

Net Operating Costs	<u>-299,650</u>	<u>-269,934</u>	<u>-261,468</u>	<u>-279,352</u>	<u>-294,421</u>
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Operating Expense Recovery	21%	19%		13%	21%
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Average 4 Year Expense Recovery	19%				
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Summary of Sunderland Arena Operating Revenue and Expenses - 2019 to Budget 2023

Revenue

	Budget 2023	2022	2021	2020	2019
Sign Advertising	1,000	333	0	1,534	345
Other Revenue	100	0	0	0	0
Gate Receipts	2,000	2,626	1,509	2,351	5,265
Hall Rentals	3,000	4,199	925	840	3,169
Ice Rentals	113,000	107,378	79,706	92,933	131,006
Floor Rentals	2,100	3,496	0	0	2,076
Concession/Vending	500	177	0	664	1,106
	<u>121,700</u>	<u>118,209</u>	<u>82,140</u>	<u>98,322</u>	<u>142,967</u>

Expenses

Payroll	200,100	205,333	180,673	186,894	195,604
Telephone	1,100	982	1,901	1,854	1,686
Mileage	200	328	492	13	75
Memberships	500	199	455	449	1,081
Training	0	0	0	0	342
Clothing and Boots	1,150	1,018	1,685	1,213	496
Mat Rentals	2,000	2,058	1,004	674	1,636
Machine Rentals	2,500	0	288	693	3,346
Building Maintenance	33,000	23,802	20,313	23,237	27,102
Zamboni Repairs	5,000	6,347	1,921	4,623	1,839
Refrigeration	12,400	39,253	2,274	6,864	17,791
Heat/Hydro/Water	59,800	44,478	34,960	35,236	46,239
Miscellaneous	1,200	8	1,209	993	1,161
COVID		5,422	17,703	0	
Sign Rental Commission	0	0	-260	0	35
Transfer to Capital	100,000	100,000	100,000	100,000	100,000
Small Tools	2,000	0			
	<u>420,950</u>	<u>429,226</u>	<u>364,618</u>	<u>362,741</u>	<u>398,431</u>
Net Operating Costs	<u>-299,250</u>	<u>-311,017</u>	<u>-282,478</u>	<u>-264,418</u>	<u>-255,464</u>

Operating Expense Recovery	29%	28%	23%	27%	36%
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Average 5 Year Expense Recovery	29%
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Council Information Session

Development Charges 101



Today We Will Discuss...

- Overview of Development Charges
- Development Charges Legislation
 - *Bill 23, More Home Built Faster Act, 2022*
- DC Process in Brock
 - Timeline of changes to DC Rates and Capital Program
- Paying for Growth-Related Projects
 - DC eligible and ineligible portions
- Next Steps



What Are Development Charges?

- Charges imposed on development to fund “growth-related” capital costs
- Pays for new infrastructure and facilities to maintain service levels
 - County
 - Area municipal
 - Education
- Other tools available:
 - Development Charges, Community Benefits Charges and Parkland Provision
 - Direct Developer Contributions
 - Property Taxes

Principle is “growth pays for growth”

Development Charges Act Requirements (DCs)

- DCs imposed by by-law
- Maximum life of a DC by-law is now 10 years after the day it comes into force (for new by-laws)
- Prior to passing a by-law municipality must:
 - undertake a background study
 - hold at least one public meeting
- Right of appeal



Bill 23: Background

- Housing Supply Action Plan and subsequent legislation
 - Bill 108, the *More Homes, More Choice Act*
 - Bill 197, the *COVID-19 Economic Recovery Act*
- June 2022 election mandate:
 - Affordability (house sales/rents are outpacing incomes)
 - Goal of 1.5 million new homes over next 10 years

Bill 23: Mandatory Phase-In of ALL New DC Rates + Rental Housing Discount

- 5 year phase-in of **total** DC imposed by by-law
- Retroactive to DC by-law passed since January 1, 2022

Year	Maximum DC
1	80%
2	85%
3	90%
4	95%
5	100%

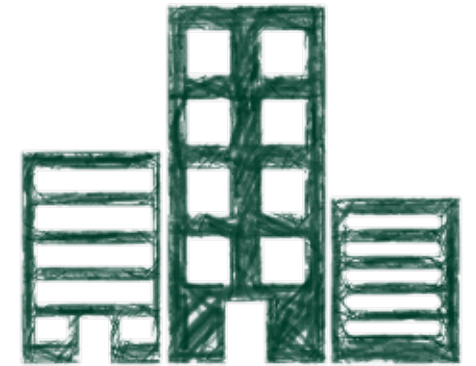
- Rental housing development (now defined as 4+ units)
 - 25% for 3+ bedrooms
 - 20% for 2 bedrooms
 - 15% for 1 bedroom and bachelor

Bill 23: Exemptions from DCs (in effect now)

- In existing rentals (4+ units), greater of:
 - One unit
 - 1% of existing units
- Residential intensification in existing and new units
- Non-profit housing (now defined)
- Inclusionary zoning units (must be affordable)

Bill 23: Exemptions for Affordable & Attainable

- Affordable
 - Rental – 80% of average market rent
 - Ownership – 80% of average purchase price
 - Province to issue bulletins to establish market rents and purchase price
 - Administered through agreement – 25 years, with ability to register on title
 - Possible standard forms of agreement
- “Select” Attainable
 - Not affordable and not rental
 - Administered through agreement – until unit is sold, with ability to register on title
 - What is “select” is to be prescribed



Bill 23: Other Changes

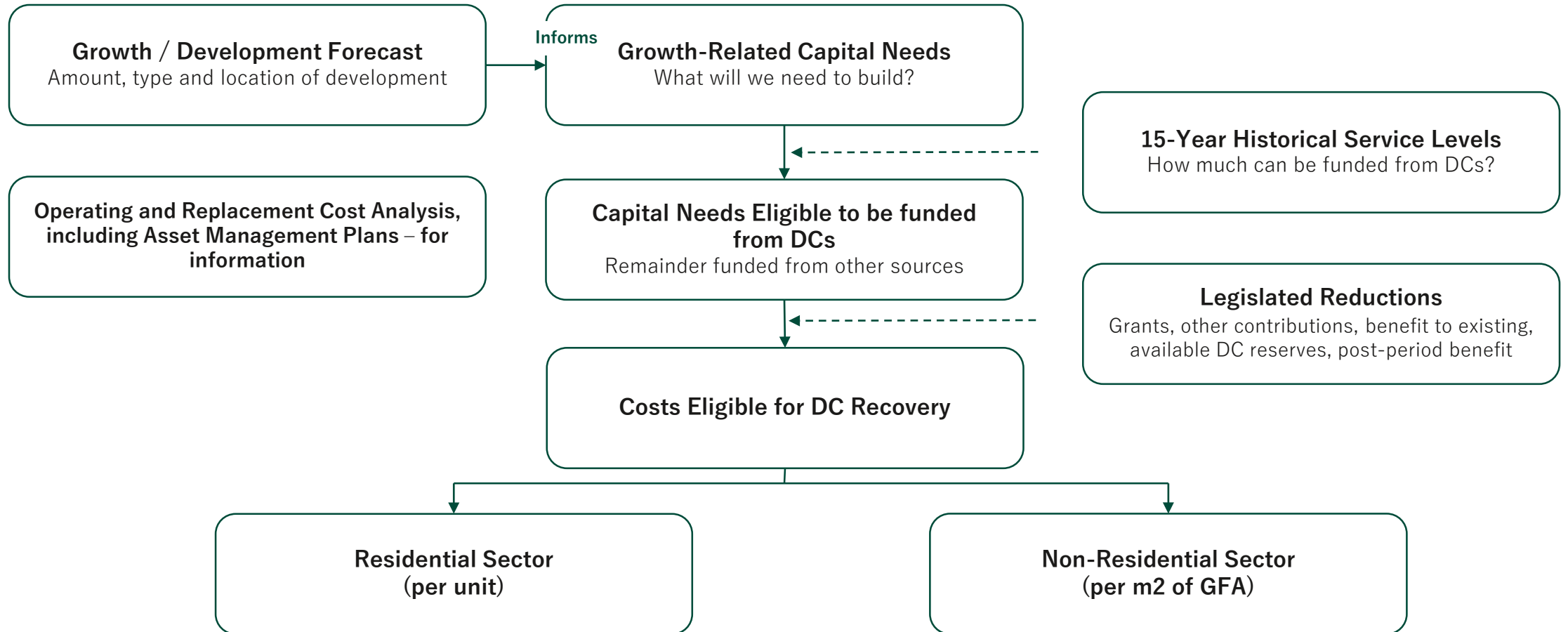
- Removal of Housing as an eligible service
- Removal of Studies as an eligible cost
- Historical service levels basis extended from 10 years to 15 years prior
- Services for which land is an ineligible cost may be prescribed
- Maximum life of DC by-law extended from 5 years to 10 years
- Interest rate for DC freezes and payment plans now prescribed
 - Prime +1%
- Must spend or allocate at least 60% of reserve fund balances each year for
 - Water, wastewater, and roads DCs
 - Other DC services may be prescribed

DC Eligible Services (DCA)

- Water Supply Services
- Wastewater Services
- Stormwater Drainage and Control Services
- **Services Related to a Highway (Roads, Public Works Buildings, and Fleet)**
- Transit
- **Waste Diversion**
- Policing Services
- **Fire Protection Services**
- Ambulance Services
- **Public Libraries (Including resources)**
- **Recreation (Arena, centres, etc.)**
- **Park Development (Excluding parkland acquisition)**
- Long-term Care
- Public Health
- **Provincial Offences Act incl. By-law Enforcement**
- Emergency Preparedness
- Child Care

Note: Parking, Cemeteries, Housing, and Studies are no longer eligible for recovery through DCs.

Development Charges Study Process

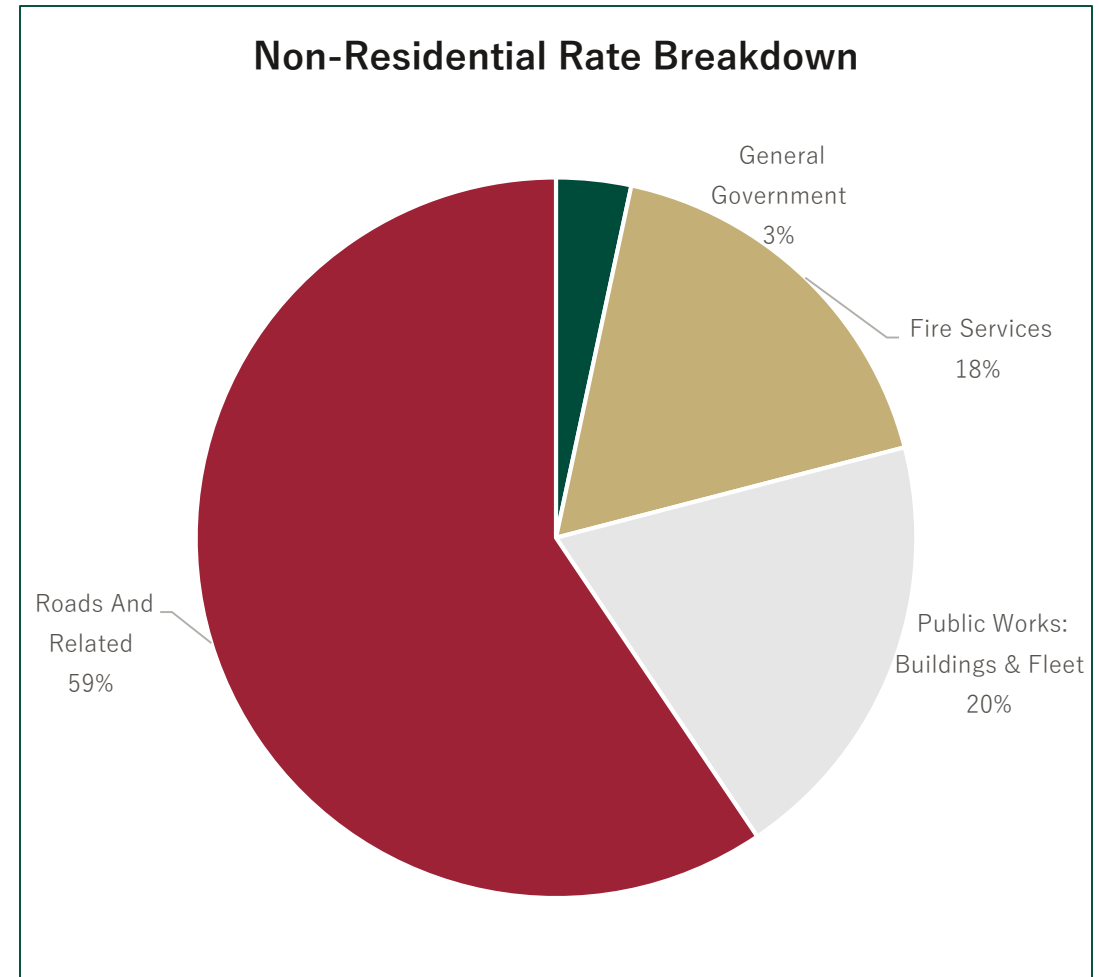
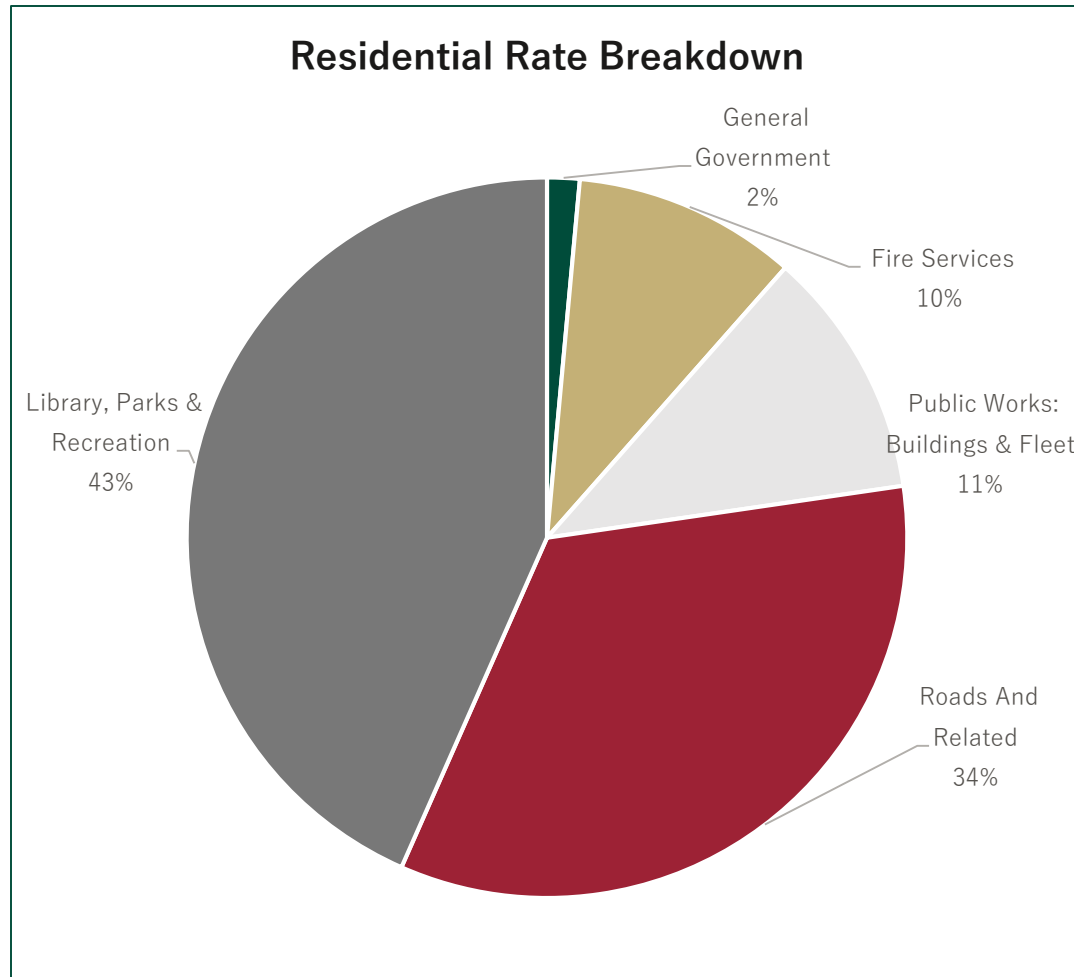


Current DC Rates in Force

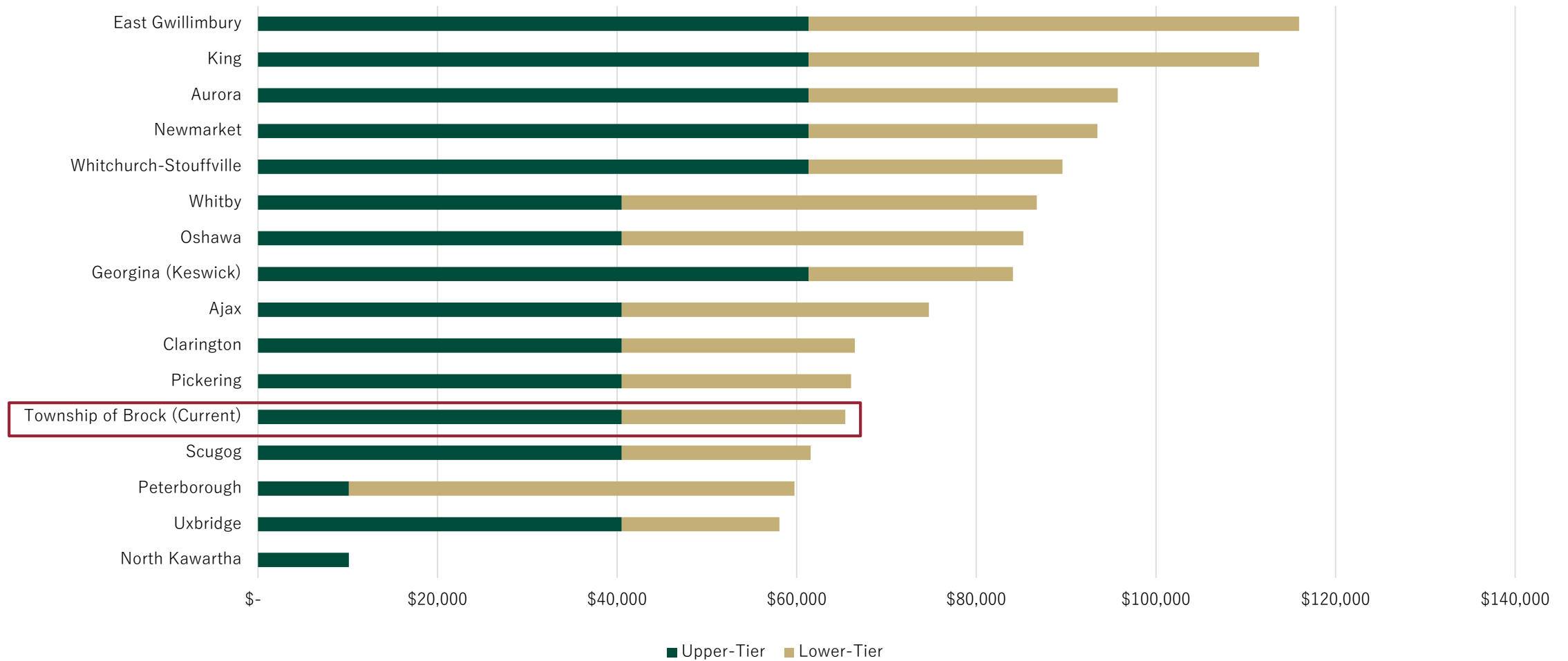
Service	Single & Semi – Detached Dwelling	Row Dwelling	Apartment & Garden Suite Dwelling	(%)	Non- Residential (\$/m ²)	(%)
General Government	\$363	\$296	\$215	1%	\$0.75	3%
Library, Parks and Recreation	\$10,797	\$8,788	\$6,392	43%	\$22.37	0%
Fire Services	\$2,502	\$2,036	\$1,481	10%	\$5.18	18%
Public Works	\$2,784	\$2,266	\$1,648	11%	\$5.77	20%
Roads and Related	\$8,444	\$6,873	\$4,999	34%	\$17.50	59%
Current Rates	\$24,889	\$20,259	\$14,734	100%	\$51.57	100%

As of July 1, 2022.

Allocation of DC Rate by Service Category



Residential DC Rate Comparison: (Single Detached Unit - SDU)



DC Process in Brock (2019)

Date	Event	Comments	SDU Rate
February 11, 2019	Presentation to Council with draft DC rates	<ul style="list-style-type: none"> Rates included in this meeting were based on a \$3.0M cost for the Sunderland Arena 	\$18,007
March 6, 2019	DC Background Study	<ul style="list-style-type: none"> Rates generally unchanged from those presented to Council. Capital program maintains \$3.0M cost for the Arena. 	\$18,096
April 2, 2019	Public Meeting	<ul style="list-style-type: none"> As directed by staff, Hemson had increased the Arena costs from \$3.0M to \$7.0M (with \$6.5M being Township share). <ul style="list-style-type: none"> Detailed plans were not available and the direction was that this cost would only reflect the expansion related share of cost At this meeting Council directed the rates to be lower than the calculated. 	\$22,701
May 2, 2019	Bill 108, More Homes More Choice Act	<ul style="list-style-type: none"> Proposed that all “discounted”* services be removed from DC eligible and moved under Planning Act. 	N/A
May 6, 2019	DC By-law Passage	<ul style="list-style-type: none"> Council passed DC rates that were lower than the maximum permitted. <ul style="list-style-type: none"> Rate deduction disproportionately applied to the Library, Parks and Recreation and General Government Rates to mitigate potential Bill 108 Impact on DC revenue collections An updated DC Background Study (staff consolidation) was prepared following by-law passage. 	\$20,000

**Under previous DCA rules, certain services (including Library, Parks and Recreation) were subject to a 10% legislated discount. Additionally, these services were proposed to be removed from DCs to a separate charge under the Planning Act. Later in 2019, this was reversed and the services were codified as eligible in the Act and the 10% statutory deduction was no longer required.*

Fire Service Capital Program: Sample from 2019 DC Study

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Municipal Cost	Ineligible Costs			Total DC Eligible Costs	DC Eligible Costs			
					Replacement & BTE Share		0% Reduction		Available DC Reserves	2019-2028	Post 2028	
					\$	%						
3.0 FIRE SERVICES												
3.1 Buildings, Land, Furniture & Equipment												
3.1.1	Brock Fire Station #1 Debenture Principal Payment	2019	\$ 70,897	\$ -	\$ 70,897	\$ 45,891	65%	\$ -	\$ 25,006	\$ 25,006	\$ -	\$ -
3.1.2	Brock Fire Station #1 Debenture Principal Payment	2020	\$ 1,006,690	\$ -	\$ 1,006,690	\$ 651,616	65%	\$ -	\$ 355,074	\$ 355,074	\$ -	\$ -
	Subtotal Buildings, Land, Furniture & Equipment		\$ 1,077,587	\$ -	\$ 1,077,587	\$ 697,507		\$ -	\$ 380,080	\$ 380,080	\$ -	\$ -
3.2 Vehicles and Equipment												
3.2.1	Tanker (increased to 3,000gal from 1,500gal)	2019	\$ 300,000	\$ -	\$ 300,000	\$ 150,000	50%	\$ -	\$ 150,000	\$ 145,484	\$ 4,516	\$ -
3.2.2	SUV	2019	\$ 35,000	\$ -	\$ 35,000	\$ -	0%	\$ -	\$ 35,000	\$ -	\$ 35,000	\$ -
3.2.3	Auto Extrication Equipment	2019	\$ 15,000	\$ -	\$ 15,000	\$ -	0%	\$ -	\$ 15,000	\$ -	\$ 15,000	\$ -
3.2.4	Auto Extrication Equipment	2020	\$ 15,000	\$ -	\$ 15,000	\$ -	0%	\$ -	\$ 15,000	\$ -	\$ 15,000	\$ -
3.2.5	Pumper (Aerial)	2021	\$ 950,000	\$ -	\$ 950,000	\$ -	0%	\$ -	\$ 950,000	\$ -	\$ 930,484	\$ 19,516
	Subtotal Vehicles and Equipment		\$ 1,315,000	\$ -	\$ 1,315,000	\$ 150,000		\$ -	\$ 1,165,000	\$ 145,484	\$ 1,000,000	\$ 19,516
TOTAL FIRE SERVICES			\$ 2,392,587	\$ -	\$ 2,392,587	\$ 847,507	35%	\$ -	\$ 1,545,080	\$ 525,564	\$ 1,000,000	\$ 19,516

Notes:

- DC in-period recoverable \$1.0M < Funding Envelope \$1.3M
- Amounts allocated in “Available Reserves” does not commit Township to spend in that manner

Library, Parks and Recreation Capital Program: Sample from 2019 DC Study

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Municipal Cost	Ineligible Costs			Total DC Eligible Costs	DC Eligible Costs		
					Replacement & BTE Share		10% Reduction		Available DC Reserves	2019-2028	Post 2028
					\$	%					
2.0 LIBRARY, PARKS & RECREATION											
2.1 Library											
2.1.1 Provision for Additional Collection Materials	Various	\$ 158,000	\$ -	\$ 158,000	\$ -	0%	\$ 15,800	\$ 142,200	\$ -	\$ 142,200	\$ -
Subtotal Library		\$ 158,000	\$ -	\$ 158,000	\$ -		\$ 15,800	\$ 142,200	\$ -	\$ 142,200	\$ -
2.2 Indoor Recreation											
2.2.1 Sunderland Memorial Arena Expansion (Township Share)	2021	\$ 7,000,000	\$ 500,000	\$ 6,500,000	\$ -	0%	\$ 650,000	\$ 5,850,000	\$ 2,074,098	\$ 3,775,902	\$ -
2.2.2 Cannington Curling Club	2020	\$ 250,000	\$ -	\$ 250,000	\$ -	0%	\$ 25,000	\$ 225,000	\$ -	\$ 225,000	\$ -
Subtotal Indoor Recreation		\$ 7,250,000	\$ 500,000	\$ 6,750,000	\$ -		\$ 675,000	\$ 6,075,000	\$ 2,074,098	\$ 4,000,902	\$ -
2.3 Parks											
2.3.1 Harbour Infrastructure Expenditures	Various	\$ 400,000	\$ -	\$ 400,000	\$ 300,000	75%	\$ 10,000	\$ 90,000	\$ -	\$ 90,000	\$ -
2.3.2 New Playground Equipment	2019	\$ 50,000	\$ -	\$ 50,000	\$ -	0%	\$ 5,000	\$ 45,000	\$ -	\$ 45,000	\$ -
2.3.3 New Playground Equipment	2020	\$ 50,000	\$ -	\$ 50,000	\$ -	0%	\$ 5,000	\$ 45,000	\$ -	\$ 45,000	\$ -
2.3.4 New Playground Equipment	2021	\$ 50,000	\$ -	\$ 50,000	\$ -	0%	\$ 5,000	\$ 45,000	\$ -	\$ 45,000	\$ -
2.3.5 New Playground Equipment	2022	\$ 50,000	\$ -	\$ 50,000	\$ -	0%	\$ 5,000	\$ 45,000	\$ -	\$ 45,000	\$ -
2.3.6 Beaverton King Street Soccer Pitch	2020	\$ 60,000	\$ -	\$ 60,000	\$ -	0%	\$ 6,000	\$ 54,000	\$ -	\$ 54,000	\$ -
2.3.7 Sunderland Park Construction (0.3355ha)	2020	\$ 38,583	\$ -	\$ 38,583	\$ -	0%	\$ 3,858	\$ 34,724	\$ -	\$ 34,724	\$ -
2.3.8 Marydel Park Construction	2025	\$ 68,583	\$ -	\$ 68,583	\$ -	0%	\$ 6,858	\$ 61,724	\$ -	\$ 61,724	\$ -
2.3.9 Trail Development (1.5km per year)	Various	\$ 375,000	\$ -	\$ 375,000	\$ -	0%	\$ 37,500	\$ 337,500	\$ -	\$ 337,500	\$ -
2.3.10 Cannington Claire Hardy Park	Various	\$ 300,000	\$ -	\$ 300,000	\$ -	0%	\$ 30,000	\$ 270,000	\$ -	\$ 270,000	\$ -
Subtotal Parks		\$ 1,442,165	\$ -	\$ 1,442,165	\$ 300,000	21%	\$ 114,217	\$ 1,027,949	\$ -	\$ 1,027,949	\$ -
TOTAL LIBRARY, PARKS & RECREATION		\$ 8,850,165	\$ 500,000	\$ 8,350,165	\$ 300,000	4%	\$ 805,017	\$ 7,245,149	\$ 2,074,098	\$ 5,171,051	\$ -

Notes:

- DC in-period recoverable \$5.17M < Funding Envelope \$5.95M
- Available Reserves were “allocated” for DC Study purposes. Council has discretion through annual capital budgets to allocate those reserves to other growth-related capital costs

Spending DC Reserves and Key Considerations

- Through the DC Study process, Council expresses its intent to undertake the capital program

Key Considerations:

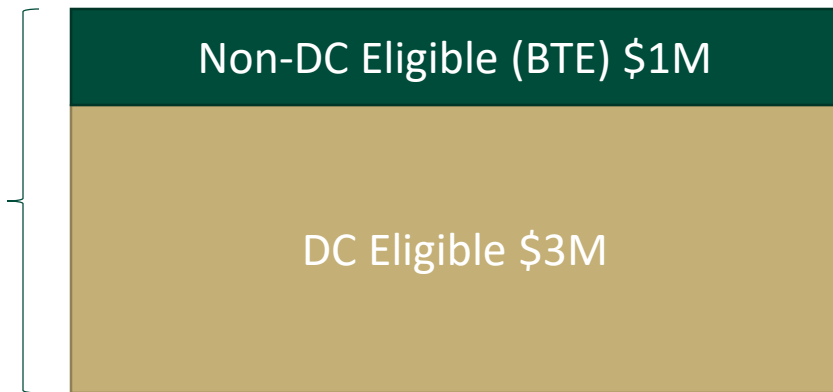
- DC Capital program is a snapshot in time and the DCA provides flexibility for Council to adjust projects
 - Funding of capital projects subject to annual capital budget review
- DC monies can only be spent on the growth-related shares of capital costs. Non-DC eligible shares of the project must be paid for from non-DC sources (i.e. property taxes)
- DC monies could be allocated to projects which are not included in the current DC Background Study but must still be growth-related and follow the same rules to address the non-growth share of the project

Example Facility Funding

- The Benefit to Existing (BTE) share is required to be recalculated if the scope of the project changes
- Increased cost of the project does not always mean the BTE value or share remains the same
- Ability to fund the growth and non-growth components of the project should be considered

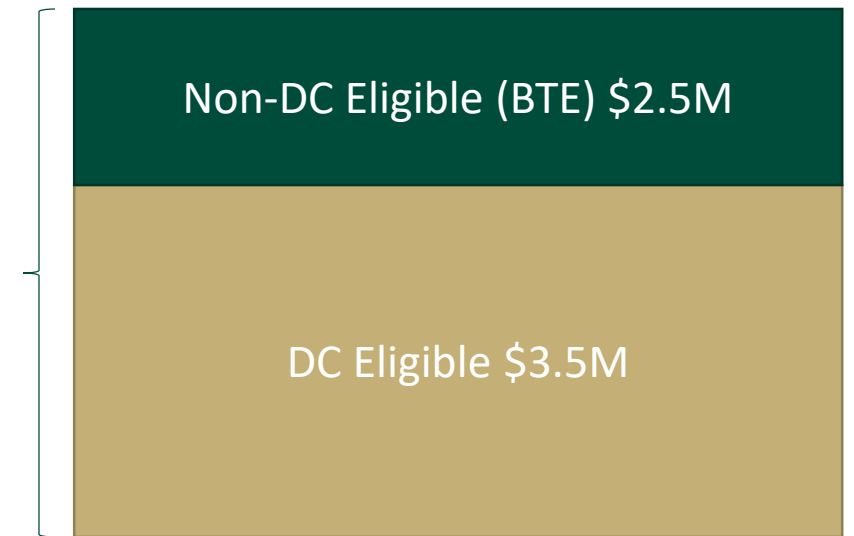
Scope 1

Total project cost \$4M

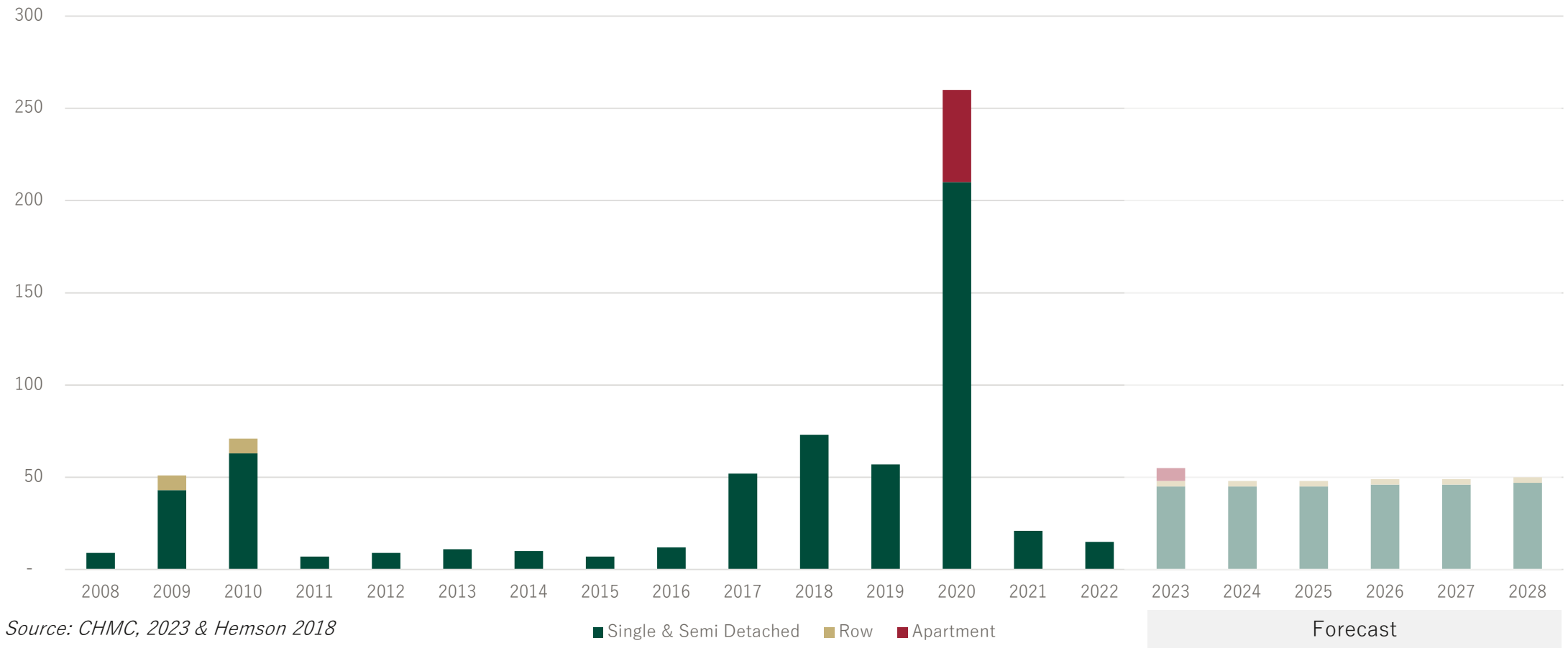


Scope 2

Total project cost \$6M



Residential Completions & Forecast (2008-2028)



Projected growth:

- Regional servicing constraints (Water & Wastewater) effecting development in Sunderland and Cannington
- Continued growth projected in Beaverton

Summary of DC Reserves: Library, Parks and Recreation

- 2018 year-end balance = \$2.07M (2019 DC Study)
- 2021 year-end DC Reserve Balance for Library, Parks & Recreation = **\$2.9M** (excludes \$910k for Sunderland Area project committed)
- Since 2021, the Township collected a total of **\$874,000*** to date
 - \$379,000 or 43% of residential collections allocated to Library, Parks and Recreation DC Reserve
- Bill 23 may further impact the collections for Brock.

Overview of Proposed Arena Expansion

- Changes to the design and use of the facility directly impact the amount which could be funded from DCs.
 - If a share of the project is not related to expanding the capacity of the service being delivered, that portion cannot be funded from DCs.
- In 2021 the Township received estimates for construction from A.W. Hooker for a renovation and addition to the Sunderland Arena
- DC-eligible share would be determined once final design plan is agreed upon and incorporated into the next DC by-law update



Next Steps

- Township's DC By-laws 2880-2019-PL & 2881-2019-PL expire on June 17th, 2024
- New DC by-law(s) must be passed prior to the expiry to permit Township in continuing collecting DCs
- New rules under *Bills 108, 109 & 23* will apply to future Township DC By-laws. Notably:
 - Mandatory 5-year phase-in (starting at 80% of maximum)
 - Removal of studies as an eligible capital cost (potentially land as well)
 - Extending historical inventory from 10 years to 15 years
 - Removal of 10% discount for Library, Parks and Recreation
 - Increased life of the by-law from 5 years to 10 years
 - Other legislative changes forthcoming?