



Manitoulin-Sudbury District Services Board Ten Year Capital Management Plan

September 2020

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1.0 Executive Summary

Strong and healthy communities depend on having a range of housing options available for their residents. The existing community housing stock in the Manitoulin-Sudbury area is an important resource that ensures that safe and secure housing is attainable for all demographic groups and income levels.

While the community housing properties represent important social assets, they are also significant financial assets. Presently, Manitoulin-Sudbury District Services Board (DSB) funds and administers 18 community housing buildings, the majority of which are owned and managed by the District, with three buildings owned and managed by non-profit housing providers. The District also manages and maintains ten Paramedic Services buildings and three District administrative offices.

Strategic asset management is critical to ensuring that the District is able to gain the highest economic and social value from its community housing assets and to ensure that these assets remain available to the community over the long term. The purpose of this 10 Year Capital Plan is to provide an assessment of the current state of the District's community housing assets and to recommend the financial costs that will be necessary over the next ten years to maintain each location within its portfolio. The goal of this Plan is to provide the District with asset management and financial approach that will enable it to make strategic decisions on how to ensure the most cost-effective use of public funds over the next 10 years.

Asset management planning is an ever changing and ongoing process that supports making the best possible decisions for the buildings. The forecast outlined in this plan provide a foundation from which the District can begin to consider options and opportunities for its community housing stock. This plan is a living document that will change regularly as further analysis is conducted and more accurate costing information is received.

Immediate next steps in order to successfully implement the recommendations in this Plan include:

- Investment in detailed engineer studies. These building components also have the greatest cost consequence of failure. These studies include:
 1. Balcony studies
 2. Thermal Scans of Electrical Equipment
 3. Sanitary Drain Line Inspections
- Discussions with current trusted service providers (HVAC/Fire System Technicians) to better understand the current condition of the internal building components (i.e. Make-Up Air units, Sprinkler systems) in order to better prioritize and direct limited finances.
- Training of in-house staff on how to use the database currently in AssetPlanner in order to revise the data as more accurate information becomes available. AssetPlanner can be a valuable planning tool if the system information is updated regularly.

The information provided in this Plan is just the beginning and provides the District with an asset management framework which will help guide the approach that the District takes to managing its housing assets now and over the next 10 years.

2.0 Introduction

2.1 Background

The Manitoulin-Sudbury District Services Board (DSB) is a municipal service manager that delivers social service programs for individuals and families residing in its territory. DSB administers Ontario Works, Early Learning and Child Care Services and Paramedic Services, and also plays a critical role in the provision of affordable housing services for low-income households in the region. DSB's social housing portfolio includes thirty-five DSB-owned housing buildings and three Non-Profit buildings, representing a combined 344 housing units.

In late 2019, DSB partnered with Housing Services Corporation (HSC) to provide services to support the development of a 10-Year Capital Management Plan (the "Plan") for its existing social housing, paramedic services, and administrative building assets. In total, eighteen social housing assets (15 DSB sites and 3 Non-Profit housing provider buildings), ten paramedic buildings and three administrative buildings were examined. The purpose of this undertaking was to identify the current state of the portfolio and define the future capital investments necessary to ensure the long-term health and sustainability of the building portfolio.

Overall, the building stock is in good condition, however, it is aging. The majority of the housing portfolio was built during the 1970's, and there are core building components that are nearing end of their expected service life and are in need of attention (e.g. electrical switch gears, sewer lines). Many of these items are critical to the function and liveability of these assets and although expensive and intrusive to replace, will allow the building to remain a safe and comfortable home for the residents.

This report highlights HSC's observations from the existing AssetPlanner data for each site. It provides analysis and commentary on the stock of the assets and identifies the capital needs over a 10-year period (Appendix A). It is not a complete engineered assessment, but a professional opinion based upon our industry knowledge. The report identifies critical capital projects, approximate costs and where bulk procurement opportunities are available. The report concludes with best practices, identifies additional opportunities for consideration and provides recommendations on next steps.

2.2 The District of Manitoulin-Sudbury

The service area of DSB is comprised of over 45,000 square kilometers of territory in Northern Ontario and is home to the largest freshwater island in the world, Manitoulin Island. Bordering the area is Algoma, Cochrane, Timiskaming, Nipissing, and Parry Sound Districts, please see **Figure 1**.

Figure 1: DSB Service Area



The housing that is administered by DSB is spread across eleven different communities in the area, including four communities in Manitoulin Island.

Manitoulin-Sudbury

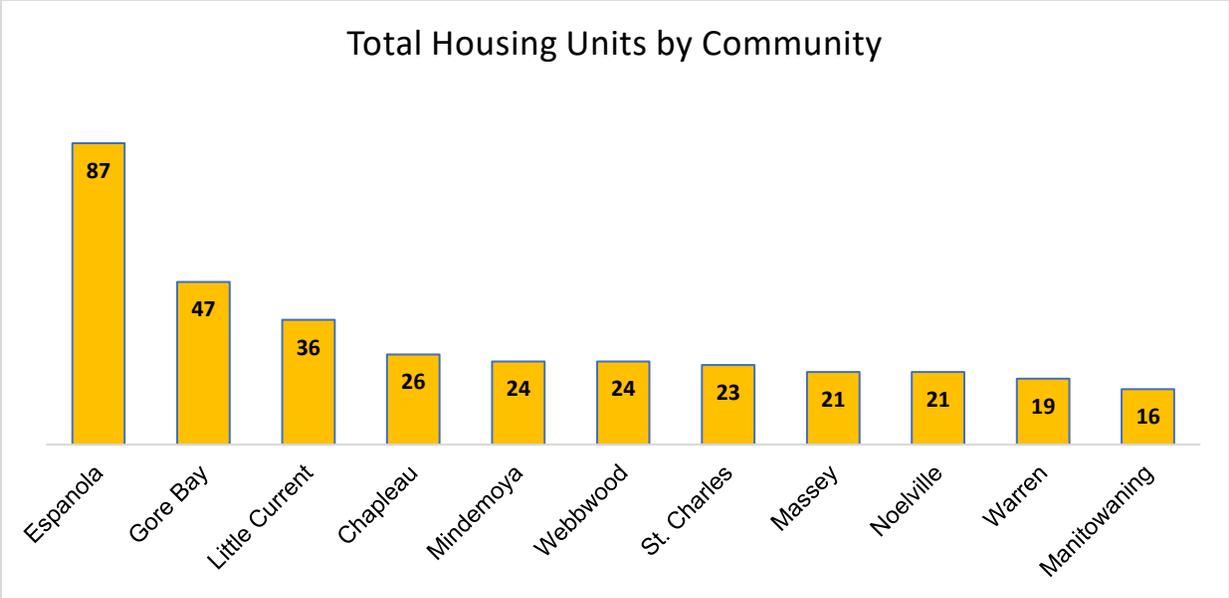
- Espanola
- Chapleau
- Massey
- Noëlville
- St. Charles
- Warren
- Webbwood

Manitoulin Island

- Gore Bay
- Little Current
- Manitowaning
- Mindemoya

Together, these communities represent 344 units of affordable housing for families, seniors, and individuals. The breakdown of number of units per community is represented in **Figure 2**.

Figure 2: Total Housing by Community



2.3 Goals and Objectives

The goal of this undertaking was to first, validate and update the AssetPlanner data. Second, to provide DSB with an analysis of its building stock, and third, to develop a portfolio-wide capital needs forecast for the next ten years.

This report aims to provide DSB with information on:

- The existing condition of each building, its functionality and current performance;
- The urgent capital repairs that should be addressed immediately;
- Key building components, their estimated useful life
- The estimated costs and investment required to ensure the sustainability and ongoing operational viability of the building portfolio.

2.4 Limitations and Assumptions Made

Unit Access

The data collection and on-site data validation exercise was conducted during the COVID-19 Pandemic. Due to restrictions and limitations of the pandemic, access to units was limited. Where empty units were available for access, they were examined, and data was gathered from on-site staff. Several buildings did not have available units for inspection at the time of the visit, therefore information was obtained from site staff and/or past reports.

Cost Estimates

The cost estimates provided in the Plan should be considered preliminary estimates, they have been put together by:

- Examining industry standards;
- Past invoices and Purchase Orders provided by Manitoulin-Sudbury housing staff;
- Information on current and past projects HSC has been involved with;
- The cost of previous and similar projects in the Manitoulin-Sudbury region.

Unless otherwise noted, cost estimates represent the cost to replace the specific building element. All costs are in 2020 Canadian dollars.

Bulk procurement and/or grouping projects similar in nature together, can offer an opportunity to reduce costs and take advantage of economies of scale. This report highlights where such an opportunity may be possible.

Prior to project execution, more detailed investigations and design work will be required to obtain more accurate and current pricing. HSC does not guarantee the actual costs will not exceed the estimated amounts outlined in the Plan.

Non-Critical Building Components

As the purpose of the 10 Year Capital Plan is to highlight the critical projects needed to keep the building safe and sustainable, non-core projects have been left out of Scope for the purposes of this Plan. The purpose of eliminating non-critical projects (e.g. Interior doors) is to streamline the information and only highlight the costs of core building components that contribute to the functioning of the building as a whole.

Some items that may appear within the ten year period in Asset Planner, are not included in the Plan. For example, unit turnover cost items (kitchens and bathrooms, painting, flooring, and appliances), although updated and provided in AssetPlanner, are not accounted for in this Plan. These items are flexible in nature (i.e. replacement of the kitchen countertop only at the time of turnover rather than a full cabinetry replacement) and while important, can be difficult to accurately assess. It is recommended that DSB continue allotting an annual budget amount for this work. Secondly, it should be noted that several items carried in the AssetPlanner building profiles and subsequent FCI calculations (Appendix B), include items that are generally covered under operations. A good example of this is fire protection devices (i.e. heat detectors, emergency light batteries). These are rarely replaced on mass and are more often identified and replaced at the time of the annual fire inspection.

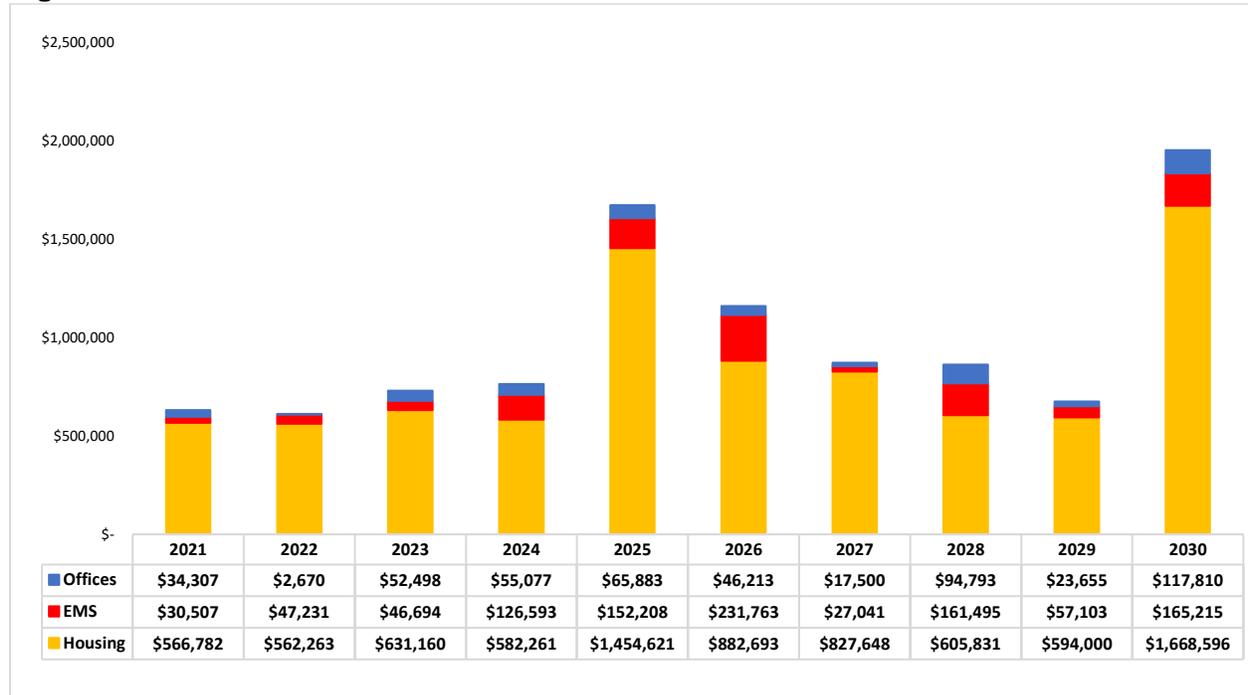
Professional Opinion

This report does not constitute a building condition audit that would be conducted by an engineering firm. The contents of this report are based upon the writer's professional judgement and any estimates or opinions regarding probable costs, schedules, or technical information are based upon the professional judgement of HSC's experience as well as the information provided at the time of the report writing.

3.0 Total Portfolio Costs

A total needs analysis can still be accounted for but as shown below, exceed the current funding available. This information is presented within the AssetPlanner database and a breakdown of each building’s total cost and Facility Cost Index can be found in Appendix B.

Figure 3: Total Portfolio Costs



It is important to note that these figures represent all of the components of the building, including items that may have past their industry accepted life cycle but, with proper maintenance, will most likely not need replacement. A good example of this would be the hallway railings.

Furthermore, the data shown above does have a discrepancy in Years 2025 and 2030. The reason for the spike shown in costs is due to how the data is captured in the AssetPlanner system. Items generally covered under unit turn-over (painting, flooring, kitchen, and bathroom refurbishment) are summarized in five year increments rather than annually (i.e. Replacement of three unit floors every five years). This is primarily for the ease of maintaining the data by the user. Therefore, the reality of annual costs to the housing portfolio budget will be more evenly distributed than what is shown above.

The Plan outlined in Appendix A attempts to plot a way forward with a financial allotment closer to the current budgetary constraints.

4.0 HSC Methodology

4.1 Asset Planner Analysis & Onsite Technical Inspections

To create the Plan, it was critical for HSC to first conduct a data collection and validation exercise. Prior to the analysis, HSC worked with DSB staff to collect and review all AssetPlanner and BCA data available for each of the buildings

The second step was to perform technical site inspections for each building and validate the information stored in AssetPlanner. The visits included an inspection of building site, exterior conditions, and interior common areas, building equipment, as well as an inspection of the units (where possible). Asset Planner information was updated with any changes to the building condition that were noted during the inspection. Visits were performed by Jim Kroesen, HSC's Technical Services Department Manager.

4.2 Creating Capital Needs Forecasts

Based on the information gathered during the site inspections and from AssetPlanner, Capital Needs Forecasts were created for each building. Below is a list of critical components that are necessary to operate a safe and secure building. The priority filter used to finalize the list was based upon the following requirements: Life Safety, Structural Integrity and Legislative Requirements.

The final listing of components considered include the following items:

1. Structure
2. Balconies – Slab & Railings
3. Balcony - Doors
4. Roof
5. Cladding – Masonry and Siding
6. Windows
7. Sealants
8. Elevator – Modernization and Upgrades
9. Heating Systems
10. Hot Water Supply
11. Ventilation System
12. Plumbing Services
13. Fire Protection System – alarm & sprinkler
14. Emergency Power Generator
15. Electrical System – Primary
16. Electrical System – Secondary
17. Fire Alarm System
18. Accessibility
19. Doors (main entrance)
20. Security and Access System

The completed and updated data in Asset Planner that outlines the capital needs over the next decade, taken together, created a portfolio-wide picture of the future projects and investments needed, and form the foundation of the ten-year Capital Plan. This is a living document and should be refined regularly as more information becomes available. Much of the costs included within the first few years is in the investment of further studies to accurately assess hidden conditions (i.e. sanitary sewer lines, main electrical services). This information will be invaluable to ascertain which capital project can be deferred and which require immediate attention.

5.0 Capital Needs and Key Findings

The below information details the capital repairs and replacements required over the next ten years, in order to keep the portfolio in fair to good condition and extend the life of the building stock. Anticipating the future capital needs will help DSB plan for future investments and find ways of maximizing cost efficiencies.

5.1 Capital Plan Portfolio Needs

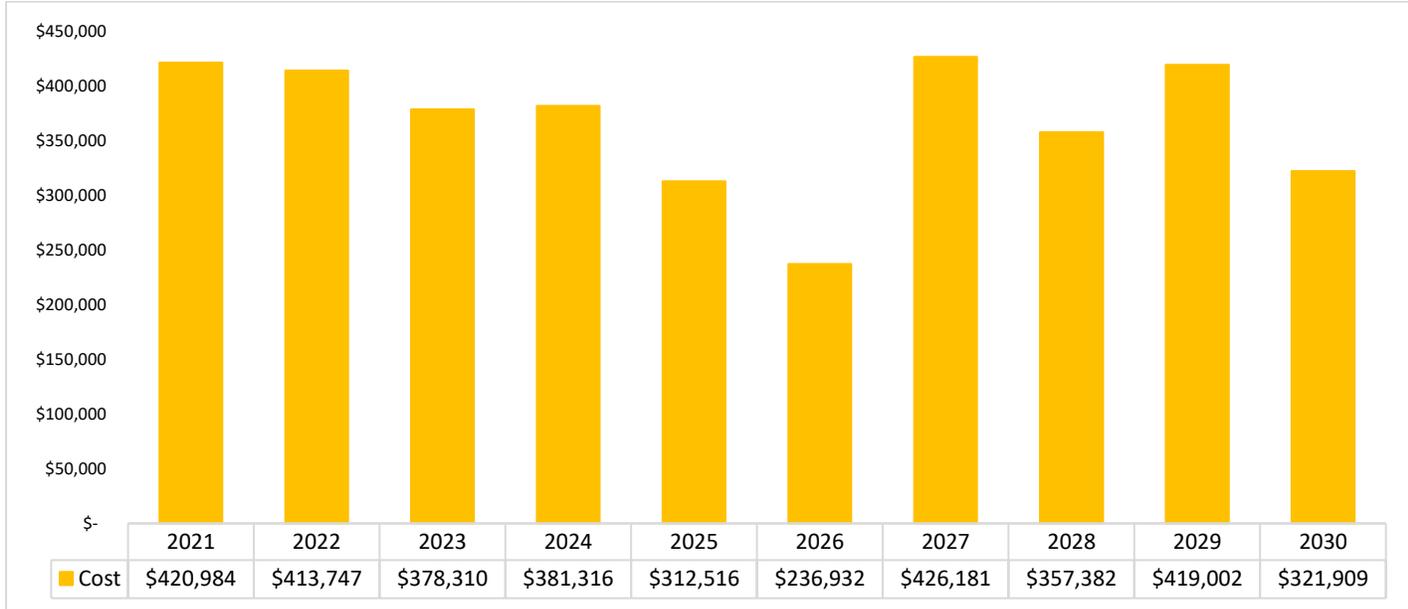
Below is a table of the major capital repairs needed over the next three years. Projects are grouped by the recommended procurement of services in order to maximize efficiencies. This list does not include all items included in the plan but does provide a snapshot of the key items.

Project	2021	2022	2023	General Comments
	Location	Location	Location	
Thermal Scan of main electrical equipment	10 O'Neil - Webbwood 17 Stanhope -Warren 25 John – St. Charles 29 Nixon - Mindemoya 3 Water – Gore Bay 40 St. Christopher – Noëlville 410 Bell – Massey 60 Barber – Espanola 66 Robinson – Little Current 70 Barber – Espanola 76 Wellington – Manitowaning 70 Pine - Chapleau			One consultant & one contractor for multiple sites
Camera Scope and flush of sanitary sewer line	10 O'Neil - Webbwood 17 Stanhope -Warren Arthur Court - Espanola 25 John – St. Charles 29 Nixon - Mindemoya 3 Water – Gore Bay 40 St. Christopher – Noëlville 60 Barber – Espanola 70 Barber – Espanola 76 Wellington - Manitowaning			One consultant & one contractor for multiple sites
Balcony Structural Review	10 O'Neil - Webbwood 17 Stanhope -Warren 25 John – St. Charles 29 Nixon - Mindemoya 3 Water – Gore Bay 40 St. Christopher – Noëlville 410 Bell – Massey 66 Robinson – Little Current			One consultant & one contractor for multiple sites

	76 Wellington - Manitowaning			
Balcony Replacement		70 Barber - Espanola	29 Nixon - Mindemoya 66 Robinson – Little Current	
Make-Up Air unit review/design	3 Water – Gore Bay 410 Bell – Massey 66 Robinson – Little Current 76 Wellington - Manitowaning	10 O’Neil - Webbwood 210 Mead (Admin) - Espanola	17 Stanhope -Warren 25 John – St. Charles 40 St. Christopher – Noëlville 70 Barber – Espanola 7 Second – (Admin) - Espanola	One consultant & one contractor for multiple sites
Make-Up Air unit replacement		3 Water – Gore Bay 66 Robinson – Little Current 76 Wellington - Manitowaning	10 O’Neil - Webbwood 410 Bell – Massey 210 Mead (Admin) - Espanola	
Sprinkler system and Fire Panel review		25 John – St. Charles 40 St. Christopher – Noëlville *60 Barber - Espanola	66 Robinson – Little Current	One consultant & one contractor for multiple sites *Review back-up generator at the same time
Sprinkler system and Fire Panel replacement			25 John – St. Charles 40 St. Christopher – Noëlville 60 Barber - Espanola	
Window & Door Replacement	25 John – St. Charles	29 Nixon - Mindemoya 293 Queensway (Paramedic Services) - Espanola 3B McQuarrie – Gore Bay 210 Mead (Admin)		One engineer & one contractor retained to replace windows and caulking at multiple sites (except Chapleau and Gogama)
Caulking/sealant replacement	40 St. Christopher – Noëlville 6 Broomhead Rd - Chapleau	10 O’Neil - Webbwood	6 Henry (Paramedic Services) - Gogama	
Cladding repairs	*25 John – St. Charles			*Use same engineer and contractor as window project
Site work	17 Stanhope -Warren 1. Retaining Wall 2. Brick work 3. Walkway 4. Concrete Curbs 5. Exterior Light Pole	70 & 80 Pine – Chapleau 1. Asphalt/interlocking brick walkways 2. Concrete curbs 3. Retaining Walls 4. Accessibility Ramp (70 Pine) 5. Patio Pavers (80 Pine)		
Sanitary Drain Line replacement	579-597 Marguerite - Espanola			

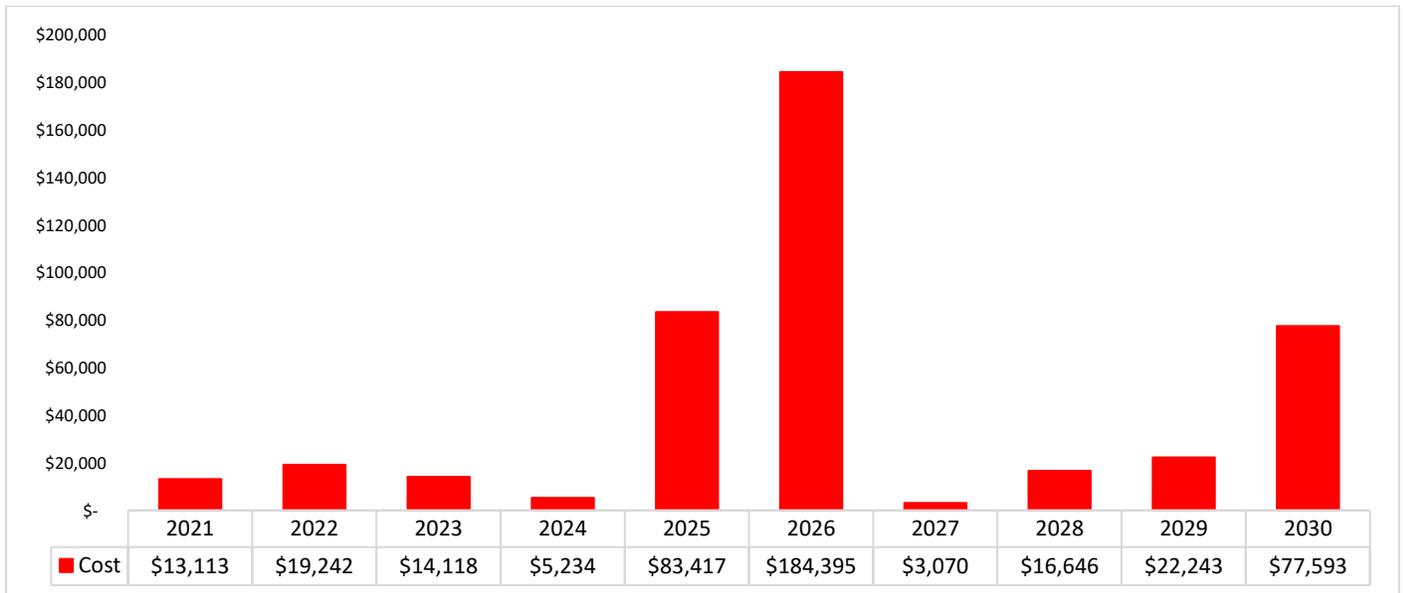
5.2 Planned Estimated Capital Needs

Figure 4: Annual Plan Cost Forecast – Housing



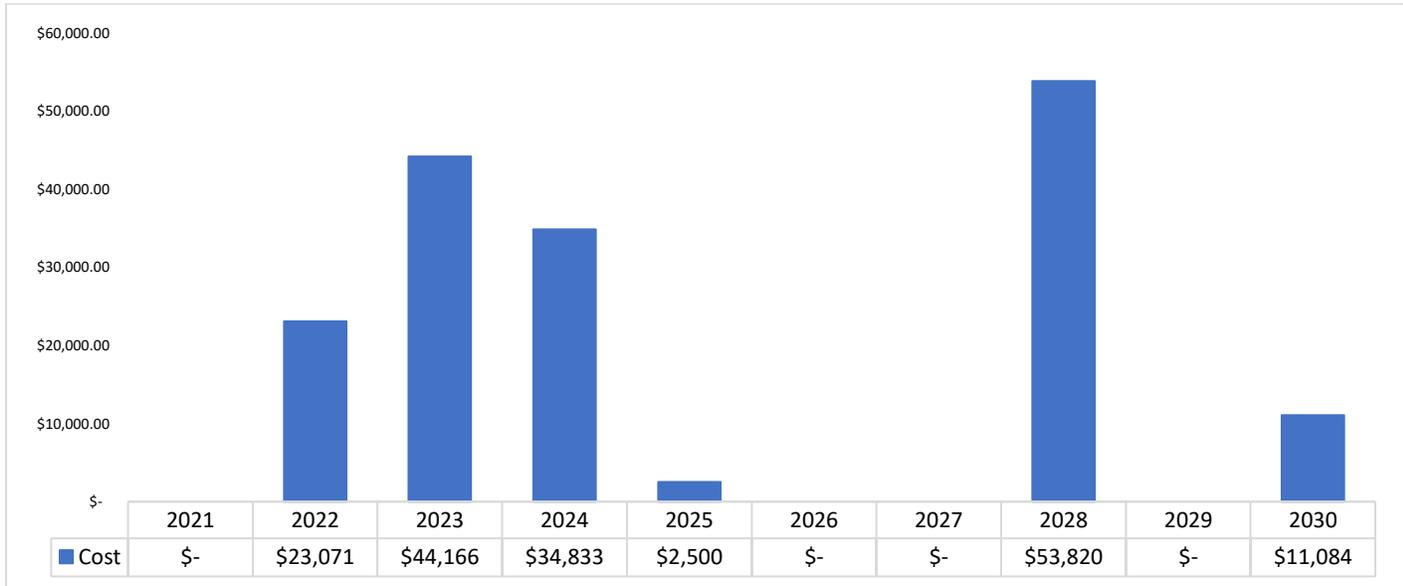
**Costs shown include estimated engineering studies. Does not include project management fees. Approximate project management fees for Year 1 projects can be found in Section 7.1.*

Figure 5: Annual Plan Cost Forecast – Paramedic Services Buildings



**Spike in 2025 and 2026 is due to several cladding (roof & window) projects and possible sanitary replacement at Hagar Paramedic Services*

Figure 5: Annual Plan Cost Forecast – Offices Buildings



**Spike in 2023/2024 is due to HVAC replacement at both Mead and Second Ave locations. Spike in 2028 is due to expected Mead Ave. roof replacement*

Table 1: Summary of Total Investment Years – Housing 1-2, 3-5 & 6-10

Capital Expenditure (\$) Years 1-2	\$ 890,156
• Housing	\$ 834,731
• Paramedic Services	\$ 32,355
• Offices	\$ 23,071
Capital Expenditure (\$) Years 3-5	\$1,256,410
• Housing	\$1,072,142
• Paramedic Services	\$ 102,769
• Offices	\$ 81,499
Capital Expenditure (\$) Years 6-10	\$2,444,673
• Housing	\$1,761,407
• Paramedic Services	\$ 303,947
• Offices	\$ 64,904
Total 10-Yr Expenditure (\$)	\$4,276,824

5.3 Planned Ten Year Cost Forecast by Building

Figure 7: Cost Forecast by Building – Housing

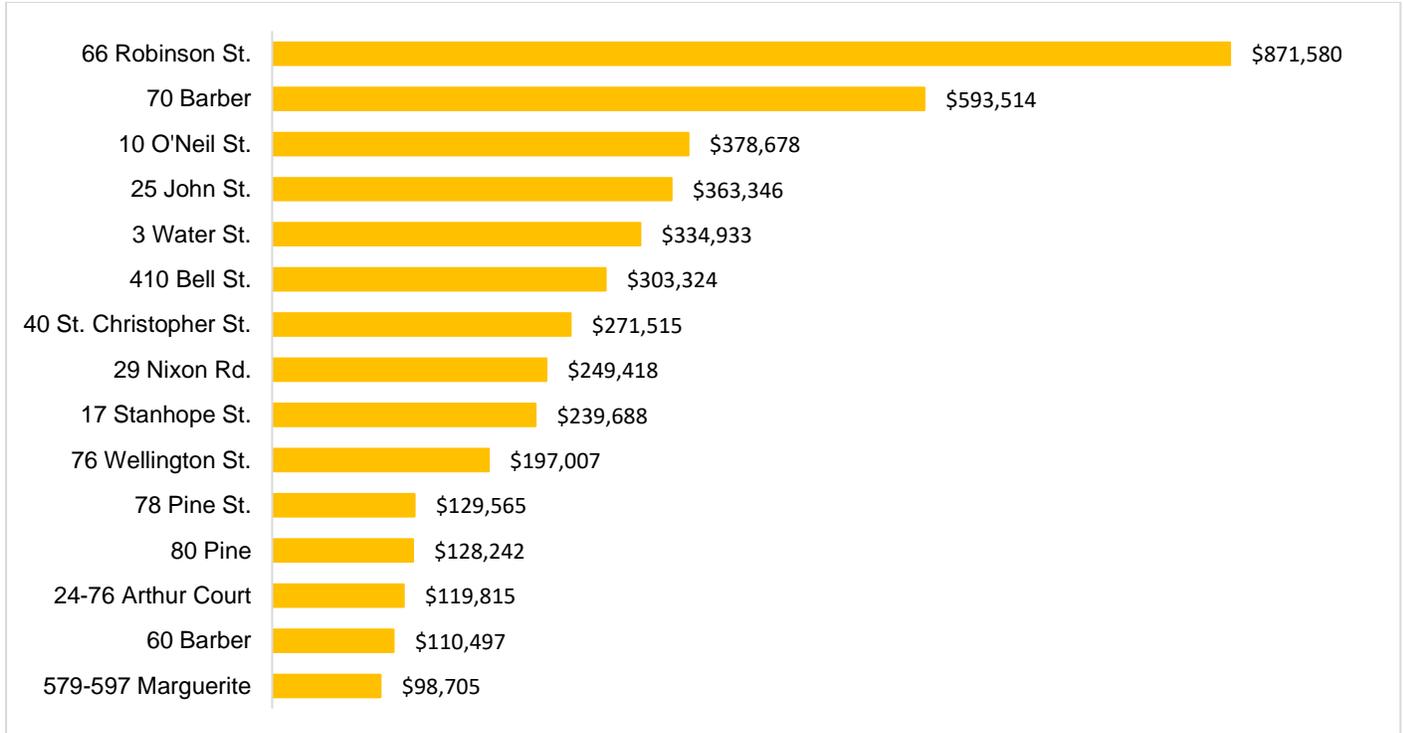


Figure 8: Cost Forecast by Building – Paramedic Services Buildings

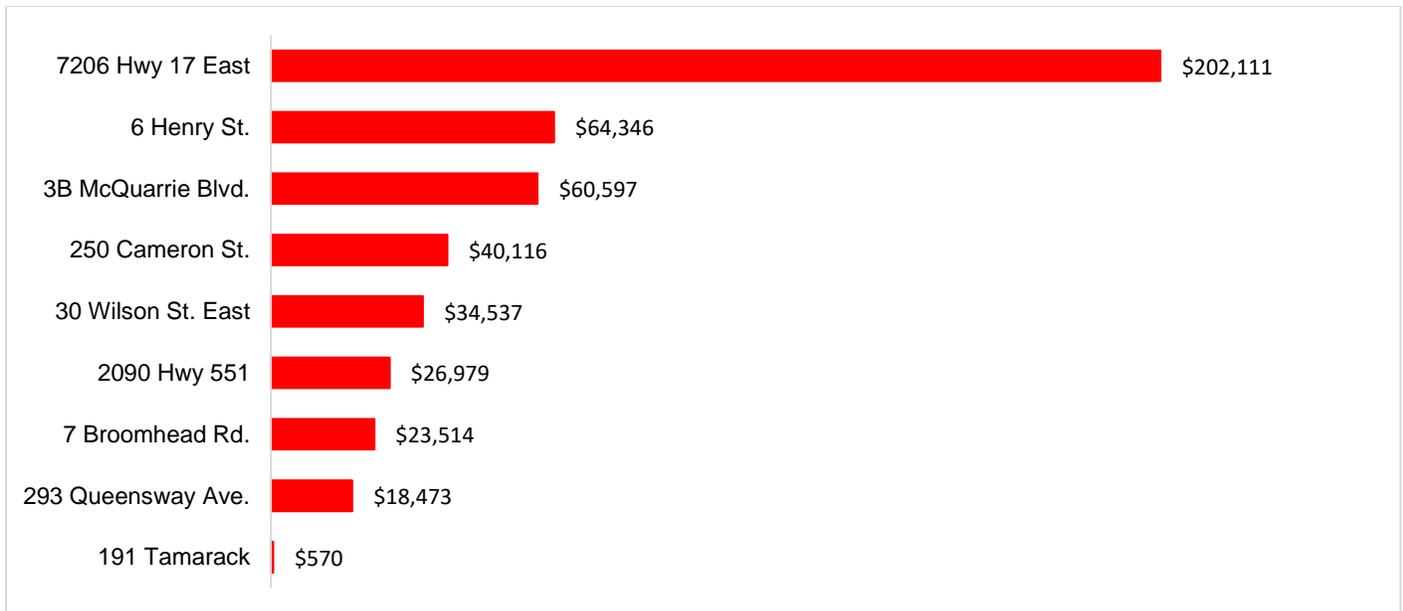
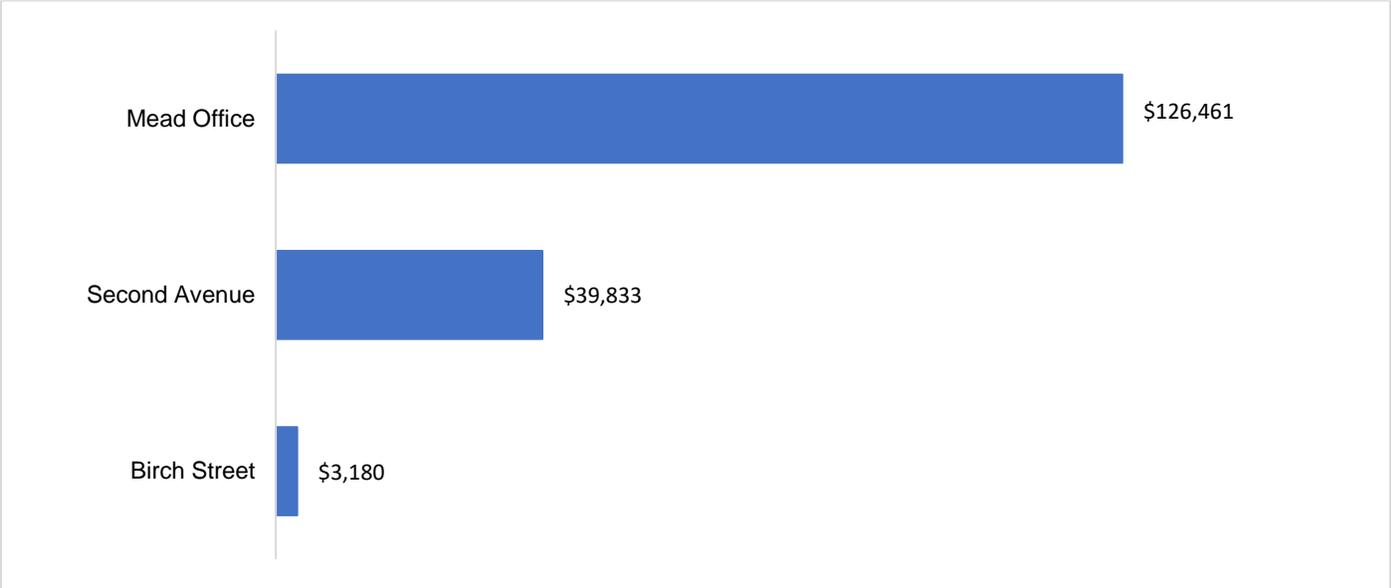


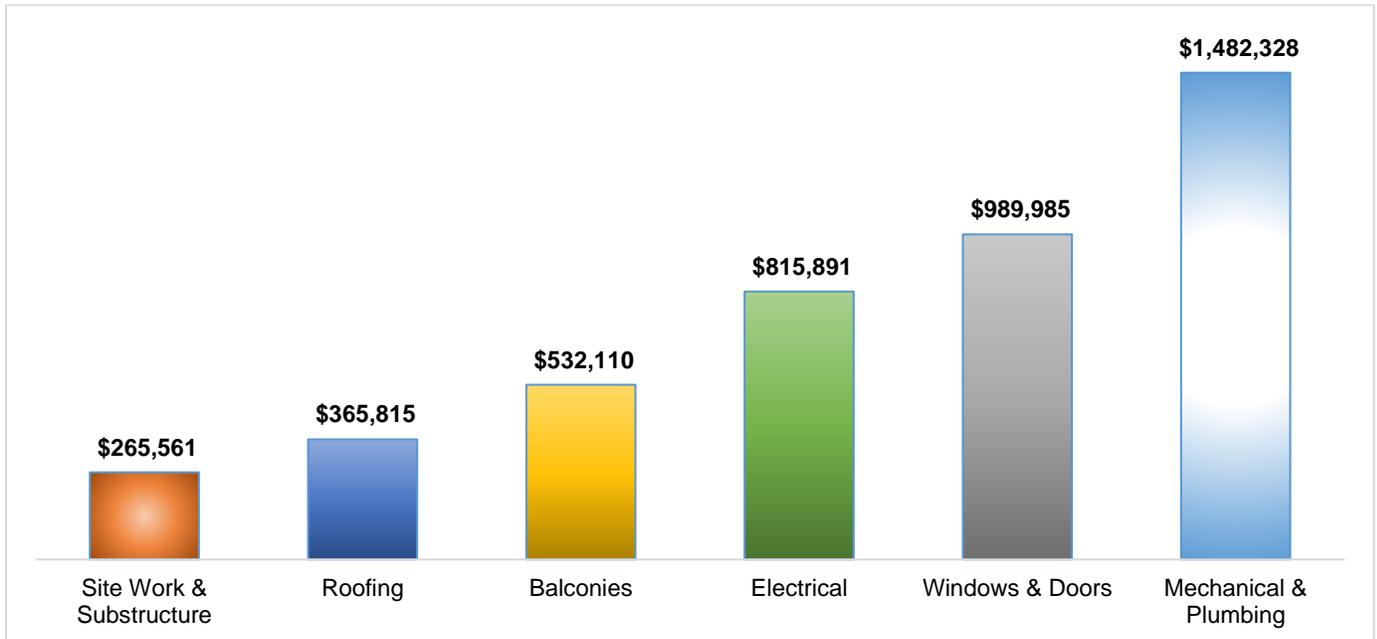
Figure 9: Cost Forecast by Building – Office Buildings



5.4 Planned Forecast by Building Component

It can be informative to identify the forecasted cost as it corresponds to the individual building components that will need replacement over the ten-year term.

Figure 7: Plan Forecast by Building Components



As the chart above suggests, a high percentage of capital dollars over the next 10 year period should be directed to Mechanical & Plumbing infrastructure, primarily the make-up air units, furnaces, and sprinkler & fire alarm systems.

5.5 Bulk Procurement Opportunities

Bulking similar projects together can be extremely advantageous for driving down costs, attracting reliable, reputable vendors and reducing procurement risks by attracting firm commitments from interested providers.

While conducting this analysis, HSC took into consideration years where there are similar projects are scheduled to take place, and this Plan has attempted to bulk the projects together. The projects that are similar in nature offer DSB the opportunity of engaging in bulk procurement. This strategy maximizes the chance of:

- ✓ Driving down costs for major projects and improve purchasing power
- ✓ Having access to reliable, reputable vendors
- ✓ Obtaining better warranties
- ✓ Reducing procurement risk by adhering with procurement requirements.

Engineering services for similar projects across multiple sites is a good example of where this can be most effective. This advantage has been built into this Plan for the electrical thermal scans & balcony reviews (see 6.0 Summary of Observations for more detail).

This same concept also works with general contractors. By grouping buildings in the same geographic region and packaging the work into one tender package, it presents an attractive bid to potential vendors. This is particularly advantageous when attempting to carry out work on the smaller sites. For instance, window replacements for an office or Paramedic Services base, presented by itself, may not provide a contractor with enough incentive to submit an aggressive price. When this work is packaged with a multi-residential building, however, it increases the likelihood of receiving more bid submissions, better quality proponents and lower costing.

See Appendix E for Case Studies on Bulk Procurement

6.0 Summary of Observations

6.1 Thermal Scans of Electrical Equipment

The electrical equipment is critical to the building's ability to function. Unexpected breakdowns can be inconvenient and extremely costly, particularly during the winter months. The majority of buildings within the portfolio have electrical equipment that has past its expected lifespan. Although currently functional, the equipment has the potential of presenting underlying problems that are not visible to the naked eye.

Infrared thermal scans detect system overloads, loose defective components, and damaged switchgear. These thermal scans locate areas of excess heat (caused by increased resistance) so that problems can be corrected before a component fails, causing damage to the component, or worse, create a fire safety hazard.

In this Plan, thermal scans have been carried in Year 1 for each of the sites with 600 Amp service or greater. The findings of these studies will be critical to developing preventative measures that are essential to keep the system operating. The studies will also provide a clearer picture as to the replacement budgetary costs that may be necessary in future years.

The results of these studies will determine the following:

- Can the system remain operational for several more years? If so, it is recommended that thermal scans be conducted every 2-3 years in order to maintain the system.
- Are the defects too numerous that it is more cost effective to replace the system? If this is the result, DSB staff can plan accordingly and arrange for temporary back-up generators, as the disruption of power to the building may be for several days. It also offers the ability to obtain electrical engineers and contractors at a more preferred cost, rather than on an emergency reactionary basis.

Further analysis would need to be undertaken by an engineer to provide details on possible options and costing.

6.2 Sewer Scans

Rational for the assessment of the sanitary sewer lines is similar to the rational for conducting thermal scans. Many of the buildings are over forty years old and the underground sewer pipes are possibly a hundred feet in length. A sanitary sewer scope provides an interior view of these pipes to properly assess their condition. Replacement of these lines can be particularly costly as they often run under paved surfaces such as parking lots or walkways.

As in the previous recommendation, a proper assessment will allow for more accurate costing and an ability to plan for the disruption. Costs carried within the AssetPlanner database include the cost of the replacement of hard/soft landscaping that may be necessary.

It should also be noted that during the writing of this report, the duplexes on Marguerite St. in Espanola experienced a significant failure of the sewer line. A cost has been carried in Year 1 for replacement of the sanitary sewer lines for all three buildings.

Further analysis would need to be undertaken by an engineer to provide details on possible options and costing.

6.3 Balcony Deck Replacement

The concrete balcony decks on several buildings show deficiencies that are indicative of ongoing water infiltration issues. Over time, these issues compromise the steel reinforcement and decking underneath. The following locations displayed the most outward signs of underlying issues:

- 17 Stanhope - Warren
- 29 Nixon - Mindemoya
- 40 St. Christopher - Noëlville
- 66 Robinson – Little Current
- 70 Barber

A cost has been budgeted for a structural review to be undertaken for each of these sites in Year 1 (with the exception of 70 Barber as it is our understanding that this may have already been completed). A structural review will allow for a better prioritization of which sites need to be restored earlier in the ten year period and which sites can be deferred.

It is important to note that the budget presently shows a cost for the full replacement of the balcony railings. Many of these railings are in fair condition and cost savings may be found by simply removing the existing railings, removing any existing rust, repainting, and reinstalling them. Some modifications may need to occur in order to meet current Building Code (climb ability), but this may be cheaper than a full replacement. This will need to be determined by the professional consultant hired at that time.

Further analysis would need to be undertaken by a professional consultant to provide details on possible options and costing.

6.4 Make-Up Air Unit Replacement

The majority of make-up air units (MUA) within the portfolio appear to be original or well beyond their expected lifespan. At the time of the site inspections, all MAUs had timer controls, so the operability was not observed. At one site (66 Robinson), however, HSC was informed that the heating element has not worked for some time and the unit only runs for a limited time in the summer. These timers were likely installed as a cost saving measure, as heating 100% outdoor air during the winter months with an electric unit coil can be costly.

Providing proper Indoor Air Quality (IAQ) within the building is the primary function of a make-up air unit. When air within the building is vented out, via bathroom/kitchen exhaust fans, and not replenished from another source, the building becomes depressurized. Consequently, air from

the outside will seep through drafty buildings, causing discomfort to the residents. Conversely, if the building is well sealed, ventilation systems will have difficulty exhausting the air which can lead to increased odors & humidity.

A more preferable solution to an on/off timer would be to install a Variable Frequency Drive (VFD). The function of a VFD on a make up air unit is to slow down the motor and deliver less outside air (unlike an on/off control which provides no air). A VFD is programmed to provide various levels of air volume throughout the day, depending on the need and occupancy during certain times of the day. The peak demands tend to occur in the morning when residents are getting up, and at the end of the day when they return from work. During the day and overnight there is not as many exhausting appliances operating. When the air flow is reduced during these times there can be significant operational cost savings without compromising the building's IAQ. When the make up air unit delivers less air during the winter it means less air needs to be heated when the outside temperature is -10C or colder.

Unfortunately, many of the MAUs are located in the attic crawl space, making a replacement difficult. A newer unit itself will not be too costly, but the steps needed to facilitate access will drive the cost up. Ideally, the replacement of these units would coincide with the roof replacement. This would allow for a section of the roof sheathing to be removed so that a new unit could be hoisted into place. The alignment of the roof replacement and the MUA replacement may not be possible at all sites, as several roofs still have a number of years left before they need to be replaced.

Further analysis is needed to determine the following:

- The location of the units where the heating coil has failed and are no longer operational during the winter months. The replacement year of these units will need to be adjusted based on this information.
- Can the location of the unit be moved to a more accessible location in order to facilitate easy maintenance and lower future replacement costs?

It is recommended that a mechanical engineer be consulted in order to determine: if the units are sized properly, if they can be moved, and how best to implement the option of VFD controls.

6.5 Fire Safety

The original AssetPlanner data conducted by the Stonewell Group in 2011 indicates that several of the building sprinkler systems will reach the end of their serviceable life over the next ten years. As these systems are critical the health and safety of the building occupants, the date of replacement was not adjusted in this Plan. However, several locations had the replacement dates of the main fire alarm panel within a year of the sprinkler replacement. Where possible, these dates have been aligned for efficiencies and cost savings.

It is recommended that at the time of replacement a fire code consultant be engaged to study both systems, particularly where upgrading to digital devices is anticipated, or if expansion of the sprinkler system is desired.

7.0 Asset Management Best Practices

7.1 Project Management/Oversight

When implementing large capital projects, DSB may want to consider professional project management or oversight services, depending on the complexity of the project. Project Management services help to effectively monitor everything from defining project scope, tendering for design and construction, providing project oversight, and performing risk mitigation. These tasks are performed all while ensuring the project is staying on scope, on schedule and that the financial resources are being used as effectively as possible. Another advantage of project management services helps to relieve resource capacity and workload of DSB staff.

HSC Technical Services does provide Project Management Services. High level estimates for our services for the following Year 1 projects would be as follows:

Project	PM Costs
Procurement of Balcony Slab Study (9 sites)	\$ 5,500.00
Procurement of Thermal Scan/Review Main electrical Systems (12 sites)	\$ 3,500.00
Procurement of Sanitary Drain line inspections (10 sites)	\$ 3,500.00
Project Management of Exterior repairs - 17 Stanhope	\$ 10,700.00
Project Management of Cladding/Windows - 25 John St & Re-caulking – 40 St. Christopher	\$25,000.00
Procurement of MUA replacement studies - (4 sites - 76 Wellington, 66 Robinson, 3 Water, 410 Bell)	\$ 5,500.00
Project Management of Sanitary Drain line replacement - Marguerite	\$ 6,600.00
Total	\$60,300.00

**Costs are estimates only and may vary depending on scope and timing of work. Further details of services and costs can be provided if interested.*

7.2 Energy Efficiency

There are significant advantages in exploring more energy efficient designs and equipment, rather than opting for like-for-like replacement when undertaking capital repairs. By increasing the energy efficiency of equipment, money can be saved on annual utility and operating costs, decreasing the payback of a retrofit. Enbridge Gas and the Independent Electricity System Operator (IESO) offer utility incentive programs and be financial rebates for installing equipment with greater efficiencies.

Examples of existing incentive programs include:

Enbridge Gas

<https://www.enbridgegas.com/Commercial-and-Industrial/Data-Sources/Affordable-Housing>

Incentive offerings on: gas fired projects such as make-up air replacement, heating, and domestic hot water boilers

SaveONenergy (administered by the IESO)

<https://saveonenergy.ca>

Incentive offerings on: electricity reduction projects such as LED lighting, pumps, equipment controls

SaveONenergy Home Assistance Program (HAP)

<https://saveonenergy.ca/For-Your-Home/Home-Assistance-Program>

Incentive offerings on: in-suite measures such as lights, power bars, refrigerators, insulation, and window A/C units

8.0 Conclusion

Manitoulin-Sudbury District Services Board provides essential services to the community of Manitoulin-Sudbury. Together, the administration buildings, paramedic buildings and housing stock are important assets in the region and help to support individuals and families of Manitoulin-Sudbury.

In order to protect and maintain the building stock, DSB partnered with HSC to validate the current condition of the buildings and develop a Ten Year Capital Management Plan. While the stock is older, it is in good condition overall.

This report aims to provide DSB with information on both the total financial need of each asset within their portfolio, but also with a Plan that is closer to the financial reality of their current budgetary constraints. If additional funding does become available (i.e. COCHI) further work can easily be collected and allocated from the AssetPlanner building profiles.

Immediate next steps in order to successfully implement the recommendations in this Plan include:

- Investment in detailed engineer studies. These building components also have the greatest cost consequence of failure. These studies include:
 1. Balcony studies
 2. Thermal Scans of Electrical Equipment
 3. Sanitary Drain Line Inspections

As each of the studies are completed, the District will have a more accurate idea as to the condition of these critical components to the operability of the building along with a better picture as to the estimated year of replacement and cost. These findings will then be reflected into a revised plan in 2021.

- Project management of the procurement and management of the studies listed above and any significant capital work in 2021 may be more work than the current District staffing resources can undertake. If the projects cannot be managed by in-house staff it is recommended that the DSB consider contracting out a professional project management firm. Approximate fees for these services can be found in Section 7.1.
- Discussions with current trusted service providers (HVAC/Fire System Technicians) to better understand the current condition of the internal building components (i.e. Make-Up Air units, Sprinkler systems) in order to better prioritize and direct limited finances.
- Training of in-house staff on how to use the database currently in AssetPlanner in order to revise the data as more accurate information becomes available. AssetPlanner can be a valuable planning tool if the system information is updated regularly.

The information provided in this Plan is just the beginning and provides the District with an asset management framework, which will help guide the approach that the District takes to managing its housing assets now and over the next 10 years.

Appendix A: The Capital Plan

Appendix A: Manitoulin Sudbury District Services Board - 10 Year Capital Plan														
Program	Address	City	Cost	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total by Building
CH	10 O'Neil St.	Webbwood	Total	\$ 13,000	\$ 12,365	\$ 20,000	\$ -	\$ -	\$ 128,254	\$ 4,691	\$ 118,886	\$ 28,141	\$ 53,341	\$ 378,678
CH	34 Stanhope St.	Warren	Total	\$ 77,000	\$ -	\$ 5,000	\$ 82,896	\$ 28,540	\$ 12,051	\$ -	\$ 34,200	\$ -	\$ -	\$ 239,688
CH	24-76 Arthur Court	Espanola	Total	\$ 2,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 7,399	\$ -	\$ 56,208	\$ 56,208	\$ 122,315
CH	44 John St.	St. Charles	Total	\$ 151,344	\$ 8,000	\$ 32,483	\$ 30,570	\$ 4,800	\$ -	\$ 34,500	\$ -	\$ 24,101	\$ 77,548	\$ 363,346
CH	41 Nixon Rd.	Mindemoya	Total	\$ 13,000	\$ 90,129	\$ 81,983	\$ -	\$ -	\$ -	\$ 37,964	\$ 21,141	\$ 5,202	\$ -	\$ 249,418
CH	20 Water St.	Gore Bay	Total	\$ 18,000	\$ 40,319	\$ 6,448	\$ 8,000	\$ 54,681	\$ 31,130	\$ 84,564	\$ -	\$ -	\$ 91,791	\$ 334,933
CH	58 St. Christopher Street	Noëlville	Total	\$ 19,690	\$ 8,000	\$ 31,141	\$ 53,341	\$ 62,621	\$ 32,602	\$ 60,420	\$ -	\$ -	\$ 3,700	\$ 271,515
CH	422 Bell St.	Massey	Total	\$ 15,500	\$ -	\$ 30,000	\$ 8,000	\$ 78,433	\$ 6,535	\$ -	\$ 114,161	\$ 40,168	\$ 19,027	\$ 311,824
CH	579-597 Marguerite	Espanola	Total	\$ 48,177	\$ -	\$ 29,175	\$ -	\$ 3,171	\$ -	\$ -	\$ -	\$ 4,230	\$ 13,952	\$ 98,705
CH	70 Barber	Espanola	Total	\$ 4,500	\$ 8,000	\$ 50,463	\$ 19,160	\$ 17,970	\$ -	\$ -	\$ 7,283	\$ 3,121	\$ -	\$ 110,497
CH	83 Robinson St.	Little Current	Total	\$ 25,700	\$ 46,913	\$ 86,618	\$ 132,253	\$ 23,400	\$ -	\$ 6,342	\$ 30,000	\$ 84,564	\$ -	\$ 435,790
CH	82 Barber	Espanola	Total	\$ 12,573	\$ 75,286	\$ 5,000	\$ 35,202	\$ 21,141	\$ 18,360	\$ 10,404	\$ -	\$ 118,791	\$ -	\$ 296,757
CH	86 Wellington St.	Manitowaning	Total	\$ 18,000	\$ 42,769	\$ -	\$ -	\$ -	\$ 8,000	\$ 110,705	\$ -	\$ 11,191	\$ 6,342	\$ 197,007
CH	89 Pine St.	Chapleau	Total	\$ 2,000	\$ 56,766	\$ -	\$ 3,948	\$ 17,758	\$ -	\$ 17,382	\$ 31,711	\$ -	\$ -	\$ 129,565
CH	85 Pine	Chapleau	Total	\$ -	\$ 25,200	\$ -	\$ 7,945	\$ -	\$ -	\$ 51,811	\$ -	\$ 43,286	\$ -	\$ 128,242
PS	193 Tamarack	Foleyet	Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 570	\$ -	\$ -	\$ -	\$ 570
PS	2095 Hwy 551	Mindemoya	Total	\$ -	\$ -	\$ 10,778	\$ -	\$ 13,640	\$ 2,561	\$ -	\$ -	\$ -	\$ -	\$ 26,979
PS	260 Cameron St.	Massey	Total	\$ 3,757	\$ -	\$ -	\$ -	\$ 21,074	\$ -	\$ -	\$ -	\$ 10,285	\$ 5,000	\$ 40,116
PS	298 Queensway Ave.	Espanola	Total	\$ -	\$ 5,731	\$ -	\$ -	\$ 12,742	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 18,473
PS	40 Wilson St. East	Little Current	Total	\$ -	\$ -	\$ -	\$ -	\$ 1,330	\$ -	\$ -	\$ -	\$ 2,200	\$ 31,007	\$ 34,537
PS	3B McQuarrie Blvd.	Gore Bay	Total	\$ -	\$ 13,303	\$ -	\$ -	\$ 10,404	\$ -	\$ -	\$ 16,646	\$ -	\$ 20,244	\$ 60,597
PS	12 Henry St.	Gogama	Total	\$ -	\$ -	\$ 3,340	\$ -	\$ -	\$ 26,334	\$ 2,500	\$ -	\$ -	\$ -	\$ 32,173
PS	14 Broomhead Rd.	Chapleau	Total	\$ 690	\$ -	\$ -	\$ -	\$ 15,066	\$ -	\$ -	\$ -	\$ 7,758	\$ -	\$ 23,514
PS	7218 Hwy 17 East	Hagar	Total	\$ 8,666	\$ 208	\$ -	\$ 5,234	\$ 9,161	\$ 155,500	\$ -	\$ -	\$ 2,000	\$ 21,342	\$ 202,111
ADMIN	218 Mead Blvd.	Espanola	Total	\$ -	\$ 23,071	\$ 39,166	\$ -	\$ -	\$ -	\$ -	\$ 53,820	\$ -	\$ 10,404	\$ 126,461
ADMIN	14 Birch Street	Chapleau	Total	\$ -	\$ -	\$ -	\$ -	\$ 2,500	\$ -	\$ -	\$ -	\$ -	\$ 680	\$ 3,180
ADMIN	351 Second Avenue	Espanola	Total	\$ -	\$ -	\$ 5,000	\$ 34,833	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 39,833
Total Annual				\$ 434,097	\$ 456,059	\$ 436,594	\$ 421,383	\$ 398,433	\$ 421,327	\$ 429,251	\$ 427,848	\$ 441,246	\$ 410,586	\$ 4,276,824
				2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Community Housing				\$ 420,984	\$ 413,747	\$ 378,310	\$ 381,316	\$ 312,516	\$ 236,932	\$ 426,181	\$ 357,382	\$ 419,002	\$ 321,909	
Paramedic Services				\$ 13,113	\$ 19,242	\$ 14,118	\$ 5,234	\$ 83,417	\$ 184,395	\$ 3,070	\$ 16,646	\$ 22,243	\$ 77,593	
Admin				\$ -	\$ 23,071	\$ 44,166	\$ 34,833	\$ 2,500	\$ -	\$ -	\$ 53,820	\$ -	\$ 11,084	

Appendix B: Facility Cost Index (FCI) Community Housing

Facility Cost Index (FCI) Calculation - Housing Buildings												
Asset Replacement Value	\$45,555,159.00											
Opening Balance	\$1,725,832.00											
Annual Allocations	\$431,901.00											
Additional Annual Allocations	\$0.00	\$ 12,358.00	2011 Board Decision till 2024									
Minimum Allowable Closing Balance	\$0.00											
Year 2030 FCI:	4%											
YEAR		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Opening Balance	\$	1,725,832	1,603,309	1,497,663	1,335,478	1,234,549	261,261		-	-	-	
Annual Allocations	\$	444,259	456,617	468,975	481,333	481,333	481,333	481,333	481,333	481,333	481,333	
Additional Planned Contributions	\$	-	-	-	-	-	-	-	-	-	-	
Annual Capital Expenditure	\$	566,782	562,263	631,160	582,261	1,454,621	882,693	827,648	605,831	594,000	1,668,596	
Cumulative Capital Expenditure	\$	566,782	562,263	631,160	582,261	1,454,621	882,693	967,747	1,092,245	1,204,912	2,392,174	
Closing Balance (excl. Upgrades)	\$	1,603,309	1,497,663	1,335,478	1,234,549	261,261	-	-	-	-	-	
Remaining Capital Expenditure	\$	-	-	-	-	-	140,099	486,414	610,912	723,579	1,910,841	
Facility Condition Index		0.00%	0.00%	0.00%	0.00%	0.00%	0.31%	1.07%	1.34%	1.59%	4.19%	
Housing Portfolio Wide Costs per Site												
YEAR		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Address	Facility Replacement Cost	\$ 566,782	\$ 562,263	\$ 631,160	\$ 582,261	\$ 1,454,621	\$ 882,693	\$ 827,648	\$ 605,831	\$ 594,000	\$ 1,668,596	
10 O'Neil St.	\$	2,465,963	11,394	52,196	49,300	20,205	69,099	11,685	107,282	133,984	33,536	94,041
17 Stanhope St.	\$	3,380,071	55,196	75,216	52,956	37,066	177,459	45,944	41,600	11,997	-	55,670
24-76 Arthur Court	\$	2,685,060	3,000	-	-	-	86,337	28,210	28,342	59,302	78,897	128,073
25 John St.	\$	3,977,373	50,298	144,585	77,630	54,229	128,083	128,617	-	13,670	30,001	153,574
29 Nixon Rd.	\$	4,580,625	105,703	7,785	16,816	84,564	75,443	55,381	95,102	25,062	28,845	147,537
3 Water St.	\$	3,717,951	33,699	45,819	29,041	18,511	90,452	55,344	157,232	23,255	-	191,924
40 St. Christopher St.	\$	3,455,829	12,847	89,332	5,824	24,496	121,960	92,338	180,338	52,618	-	140,048
410 Bell St.	\$	3,876,014	5,000	-	13,914	36,570	168,350	183,233	26,343	26,638	40,168	107,247
579-597 Marguerite	\$	1,298,680	5,483	-	30,705	-	27,208	-	24,438	-	23,790	58,592
60 Barber	\$	2,084,173	10,985	2,500	125,493	9,692	61,279	-	20,552	18,816	69,044	134,166
66 Robinson St.	\$	2,588,832	58,849	48,616	95,268	132,254	105,327	140,368	24,886	49,548	67,356	112,252
70 Barber	\$	4,494,370	111,752	19,000	16,050	117,717	72,757	80,001	37,358	68,698	138,891	94,455
76 Wellington St.	\$	2,247,400	36,540	24,113	105,158	20,874	153,268	31,408	2,304	34,626	37,332	99,422
78 Pine St.	\$	1,615,758	59,036	27,520	13,006	17,758	48,875	29,784	30,059	87,237	2,854	57,771
80 Pine 1-14	\$	3,087,060	7,000	25,581	-	8,326	68,725	381	51,811	381	43,286	93,826

Appendix C: Facility Cost Index (FCI) Paramedic Services

FCI Calculation - Paramedic Services Buildings											
Asset Replacement Value	\$3,855,525.00										
Opening Balance	\$12,269.00										
Annual Allocations	\$95,000.00										
Additional Annual Allocations	\$0.00										
Minimum Allowable Closing Balance	\$0.00										
Year 2030 FCI:	2%										
YEAR		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Opening Balance		\$ 12,269	\$ 76,762	\$ 124,531	\$ 172,836	\$ 141,244	\$ 84,036	\$ -	\$ 15,233	\$ -	\$ -
Annual Allocations		\$ 95,000	\$ 95,000	\$ 95,000	\$ 95,000	\$ 95,000	\$ 95,000	\$ 95,000	\$ 95,000	\$ 95,000	\$ 95,000
Additional Planned Contributions		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Annual Capital Expenditure		\$ 30,507	\$ 47,231	\$ 46,694	\$ 126,593	\$ 152,208	\$ 231,763	\$ 27,041	\$ 161,495	\$ 57,103	\$ 165,215
Cumulative Capital Expenditure		\$ 30,507	\$ 47,231	\$ 46,694	\$ 126,593	\$ 152,208	\$ 231,763	\$ 79,767	\$ 161,495	\$ 108,366	\$ 178,581
Closing Balance (excl. Upgrades)		\$ 76,762	\$ 124,531	\$ 172,836	\$ 141,244	\$ 84,036	\$ -	\$ 15,233	\$ -	\$ -	\$ -
Remaining Capital Expenditure		\$ -	\$ -	\$ -	\$ -	\$ -	\$ 52,727	\$ -	\$ 51,262	\$ 13,366	\$ 83,581
Facility Condition Index		0.00%	0.00%	0.00%	0.00%	0.00%	1.37%	0.00%	1.33%	0.35%	2.17%
Paramedic Services Portfolio Wide Costs per Site											
YEAR		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Address	Facility Replacement Cost	\$ 30,507	\$ 47,231	\$ 46,694	\$ 126,593	\$ 152,208	\$ 231,763	\$ 27,041	\$ 161,495	\$ 57,103	\$ 165,215
191 Tamarack	\$ 216,080	\$ -	\$ 780	\$ 4,162	\$ -	\$ 1,092	\$ -	\$ 10,367	\$ -	\$ -	\$ -
2058 Wikwemikong Way	\$ 261,735	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,898	\$ 2,448	\$ -	\$ 1,450
2090 Hwy 551	\$ 654,070	\$ 400	\$ 6,950	\$ 13,339	\$ 3,253	\$ 13,640	\$ 11,984	\$ -	\$ 749	\$ -	\$ 14,514
250 Cameron St.	\$ 434,900	\$ 10,317	\$ 3,550	\$ 2,814	\$ 1,238	\$ 31,003	\$ 4,270	\$ 1,942	\$ -	\$ 10,985	\$ 22,149
293 Queensway Ave.	\$ 347,920	\$ 5,731	\$ -	\$ 6,342	\$ 3,641	\$ 17,171	\$ 4,499	\$ -	\$ 58,709	\$ 1,200	\$ 8,211
30 Wilson St. East	\$ 584,170	\$ -	\$ -	\$ -	\$ 1,000	\$ 1,330	\$ 951	\$ -	\$ 793	\$ 2,200	\$ 40,887
3B McQuarrie Blvd.	\$ 329,585	\$ 1,040	\$ 13,303	\$ 500	\$ 14,677	\$ 35,592	\$ 4,500	\$ 3,060	\$ 16,646	\$ -	\$ 36,573
6 Henry St.	\$ 345,565	\$ 3,152	\$ 22,140	\$ 3,400	\$ 56,916	\$ -	\$ 50,058	\$ 3,451	\$ 36,298	\$ -	\$ 15,300
7 Broomhead Rd.	\$ 333,580	\$ 690	\$ -	\$ -	\$ 27,358	\$ 14,023	\$ -	\$ 1,322	\$ 45,851	\$ 36,619	\$ 850
7206 Hwy 17 East	\$ 347,920	\$ 9,177	\$ 508	\$ 16,137	\$ 18,510	\$ 38,357	\$ 155,500	\$ -	\$ -	\$ 6,099	\$ 25,282

Appendix D: Facility Cost Index (FCI) Administration Building

FCI Calculation - Offices											
Asset Replacement Value											
	\$2,278,831.00										
Opening Balance	\$0.00										
Annual Allocations	\$15,000.00										
Additional Annual Allocations	\$0.00										
Minimum Allowable Closing Balance	\$0.00										
Year 2030 FCI:	17%										
YEAR		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Opening Balance		\$ -	-\$ 19,307	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Annual Allocations		\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000
Additional Planned Contributions		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Annual Capital Expenditure		\$ 34,307	\$ 2,670	\$ 52,498	\$ 55,077	\$ 65,883	\$ 46,213	\$ 17,500	\$ 94,793	\$ 23,655	\$ 117,810
Cumulative Capital Expenditure		\$ 34,307	\$ 21,977	\$ 78,782	\$ 118,859	\$ 169,742	\$ 200,955	\$ 203,455	\$ 283,247	\$ 291,902	\$ 394,712
Closing Balance (excl. Upgrades)		-\$ 19,307	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Remaining Capital Expenditure		\$ 19,307	\$ 26,284	\$ 63,782	\$ 103,859	\$ 154,742	\$ 185,955	\$ 188,455	\$ 268,247	\$ 276,902	\$ 379,712
Facility Condition Index		0.85%	1.15%	2.80%	4.56%	6.79%	8.16%	8.27%	11.77%	12.15%	16.66%
Office Portfolio Wide Costs per Site											
YEAR		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Address	Facility Replacement Cost	\$ 34,307	\$ 2,670	\$ 52,498	\$ 55,077	\$ 65,883	\$ 46,213	\$ 17,500	\$ 94,793	\$ 23,655	\$ 117,810
12 Birch Street Office	\$ 297,995	\$ -	\$ 2,670	\$ 8,323	\$ -	\$ 15,390	\$ -	\$ -	\$ 15,403	\$ 350	\$ 49,414
Mead Office	\$ 982,376	\$ 2,620	\$ -	\$ 40,774	\$ 10,122	\$ 22,933	\$ 44,210	\$ 17,500	\$ 73,547	\$ 20,808	\$ 41,622
Second Avenue Office	\$ 998,460	\$ 31,687	\$ -	\$ 3,401	\$ 44,955	\$ 27,560	\$ 2,003	\$ -	\$ 5,842	\$ 2,497	\$ 26,774

Appendix E: Bulk Procurement Case Studies

Mini Case Study 1: Designated Substance Surveys (DSS)

In 2017, HSC bulk tendered for Designated Substance Surveys (DSS) for a grouping of 5 housing providers, each having a building over 150 units. The project was awarded to a single vendor.

In 2018, HSC tendered another DSS on behalf of a small provider with 60 units. The same vendor as above submitted the lowest compliant bid, however, the bid was still **105% higher** than the bid the vendor submitted on the bulk project, even though the building (and therefore scope) is much smaller in size.

Mini Case Study 2: Mechanical Repairs

During 2011-2012 HSC bulk tendered the City of Toronto's SHRP mechanical retrofits. Two tenders were conducted, one for an engineering team and another for the general contractor. Not only did the tenders attract top quality engineer and contractor bids, it was also estimated by the engineers and project team that the bids submitted were **10-15% lower** than what would have been submitted had it been a single building project.

Bottom Line: Bulk tendering is proven to provide greater cost efficiency, more attractive and high quality vendors, and minimize procurement risk.