BUILDING CONDITION ASSESSMENT
& CAPITAL RESERVE FUND FORECASTS
Ottawa, Ontario
TS Job #11226

Prepared for:
CENTRETOWN CITIZENS OTTAWA CORPORATION

Prepared by:
ALTUS GROUP LIMITED

Issued: **March 25, 2012**

143-153 ARLINGTON, OTTAWA, ONTARIO
Building Condition Assessments at March, 2012

March 25, 2012 Our Ref: 11226

Ms. Leanna Falkenhagen
Manager, Maintenance Department
Centretown Citizens Ottawa Corporation
P.O. Box 2787 Station D
Ottawa, Ontario
K1P 5W8

Dear Ms. Falkenhagen,

Re: 143-153 Arlington Street, Ontario
Building Condition Assessment & Capital Reserve Fund Forecasts

Pursuant to your instructions, we enclose our Building Condition Assessment & Capital Reserve Fund Forecasts for the above noted property. This report provides a general overview of the building components and systems, including a commentary on the mechanical, electrical, structural, building envelope, site work and architectural components. In addition, we have identified conditions observed which may result in future capital expenditures above those associated with routine maintenance.

Exclusions and assumptions and all limiting conditions and qualifications are identified in Section 4.

We trust this report meets your requirements and we would be pleased to meet and discuss this in detail at your convenience.

Yours truly,

ALTUS GROUP LIMITED

Per: Melissa Woods, B. Arch. Sc., MAATO
Senior Consultant
Cost Consulting & Project Management

Per: John Porter, MRICS, PQS, LEED AP
Director
Cost Consulting & Project Management

Contents

1 Executive Summary

1.1 General Description

The residential 12-unit stacked row house under review is located at 143-153 Arlington Street, Ottawa, Ontario. The building is a 3-storeys with limited parking on-grade. The building is of load bearing masonry walls and concrete block foundations on strip footings. The building was constructed in 1900.

The following major findings are recommended be attended to within the first five years of the Component Inventory Table. Other items as noted in the Report are recommended to be addressed also.

Item	Major capital repairs/replacements
Substructure	Foundation wall investigation
Shell	Masonry wall and chimney repairs, stairwell enclosure investigation, joint sealant and partial window replacement, roof and drainage repairs/replacements
Interiors	Kitchen countertop replacement
Services	Toilet and vanity replacements and flooring, HVAC replacement
Equipment & Furnishings	Appliance replacement
Special Construction & Demolition	Nil.
Building Site Work	Paving replacement, pedestrian paving replacements, fencing

There are items that require immediate attention, due to either premature deterioration, lack of maintenance or poorly executed repairs. All anticipated capital expenditures are forecasted over a thirty year period, with the first year on the accompanying spreadsheet included in Appendix I starting in 2011. Immediate term is considered 2011, short term is considered years 2012 to 2016 and long term is considered 2017 to 2041 as shown in the attached spreadsheets.

CCOC has implemented an energy-efficiency program, which includes efficient lighting, high-efficiency mechanicals systems, appliances, low-flow toilets and other building maintenance protocols. Most of the items are in the process of conversion with future replacement. Additional upgrades are recommended for further improvement. Our energy-efficiency recommendations are outlined herein.

1.2 General Condition

The property is in good condition based on the Facility Condition Index (FCI).

1.3 Significant Issues & Deficiencies

Although grandfathered, current code infractions are present and are considered under life safety and should be carried out immediately. Otherwise, there are no other significant issues at this time. Overall, if the maintenance program is performed, all systems should operate satisfactorily for the next 5 years.

1.4 Recommendations for Additional Investigation or Action

- Further investigation into the foundation walls and stairwell enclosure
- A hazardous substance survey.
- Infrared thermography of electrical equipment.

1.5 Capital Forecast Summary

The following table summarizes the capital forecast funding requirement for this project in the thirty (30) years.

Term	Inflated Cost (2011) excl. HST
Immediate Repairs	$28,500
Short Term (1-5 years)	$274,857
Long Term (6-30 years)	$768,272
Total	**$1,071,629**

1.6 Cash Flow Analysis Summary

The present Reserve with the current Annual Contribution, will be not be sufficient to cover all of the current and future expenditures of CCOC at the subject property. As the units and their associated components age, it is obvious that additional funds are required to maintain the items in a functional state.

We propose a funding recommendation to enable the reserve to meet the requirement minimum balance threshold over the entire 30-year period.

2 Introduction

Altus performed a Building Condition Assessments & Capital Reserve Fund Forecasts for Centretown Citizens Ottawa Corporation (CCOC) at the request of Social Housing Services Corporation (SHSC) for the aforementioned residential building.

The study was performed to establish construction cost estimates for the replacement of, or major repair to, the common building and site components for the building. This undertaking consists of a physical analysis, by reviewing present reserve amounts, annual contributions and associated factors, such as interest rates and inflation.

The report consists of the following a general description of the building components including current condition and a Component Inventory Table, which includes all common elements, cost estimates and remaining useful life (refer to Appendix A).

The 30-Year Expenditures Table illustrates all of the estimated expenditures that are anticipated to occur over the 30-year period based on the input from the Component Inventory Table (refer to Appendix B).

The financial analysis consists of the current position matching inflation rates and a proposed increase in contributions as a result of funding requirements (refer to Appendix C).

The site visit was performed on September 29, 2011.The units reviewed include153-2, 149-2 and 147-1.

3 Principles, Methodology & Definitions

3.1 Objective, Mandate & Scope

The intent of the Building Condition Assessment & Capital Reserve Fund Forecasts is to provide cost estimates of various building components, subject to major repairs and/or replacement over the life time of the property.

This study intended to form part of a financial document, the Capital Reserve Fund Forecast, that provides the basis for the funding of major repairs to, and replacement of, the building elements and assets of CCOC. It is a practical guide to planning budgets and maintenance programs and, unlike a technical audit, it does not deal with detailed technical matters but rather takes a business approach to reserve fund management.

This report has been prepared in general accordance with the scope of work as outlined in Altus' proposal #P11273 dated August 26, 2011.

We understand our terms of reference to be as follows:

1. Review all documentation provided with a view to integrating the findings, conclusions and recommendations into one due diligence review report.
2. Visually review the buildings.
3. Identify any major issues of note and provide resolutions along with any costs involved.
4. Prepare a report on our findings including the identification of all the issues and our estimate of the individual capital expenditures required over a 30-year period specifically identifying any immediate action, with a threshold of $1,000. All work under this threshold is considered under regular building maintenance.

3.2 General Methodology

The methodology of the study includes the examination of:

- all recent and available documentation, such as financial statements, budgets and existing reserve funds, the physical inspection of the Building Components, etc.; and
- a review of all building plans and associated specifications and reports, field notes, and other relevant information in order to prepare various estimates and value judgements.

The study uses the component method of valuation to estimate replacement reserves. The Building Components items consist of building or site components such as roof systems, exterior walls, pavement and sidewalks, each of which is deemed to have a limited life span, and must therefore be replaced or undergo major repair to maintain the property in an as-new condition.

Estimates of replacement costs are based on the assumption that quality materials, as specified, will be used. In the case of older developments, newer materials may be required under current building code regulations. Installation costs are assumed to be at contractor's prices, using union labour and current construction techniques, including contractor's overhead and profit. Cost for removal and disposal are also factored in.

These estimates are intended only for global budgeting purposes; they should be used as a guide only, as costs may vary according to the time of year, quality of materials used, volume of work, actual observed conditions, etc. Note that the estimates do not include applicable taxes. Actual costs for work can only be determined after preparing specifications and tender documents, understanding site restrictions that may impact work, and the establishing of a construction schedule.

The range of prices for the roofing, where applicable, depends on various factors, such as the condition of the insulation and the correction of the slopes for drainage. Also, increasing the number of roof sections (splitting a large roof into smaller sections is recommended) could extend the timeframe for the re-roofing program. Prices are estimated assuming that each section is repaired (or re-roofed) alone; hence, the estimation could decrease when work is for more than one section at a time. Furthermore, the estimates are based on the replacement of a given roofing system with an equivalent system, thus the estimation could vary significantly if upgrades are implemented, such as increasing the thickness of the insulation or using an alternative membrane. The implementation of a regular maintenance program could also extend the service life of the roof and delay the proposed schedule.

The range of estimated costs for asphalt repairs, where applicable, depends on whether the granular foundation should be upgraded or reconstructed and if additional drainage is needed. Since shallow boreholes or other testing such as sieve analyses etc., have not been carried out, the asphalt repair assumes the sub-grade is acceptable and that only surface work is required.

Physical deterioration, functional obsolescence and environmental factors are all factors for consideration when estimating the expected life span of the various components. In measuring the reserve requirements, we have considered the effect of depreciation and normal life span experience of components. Finally, when assessing the current condition and remaining life span of building components, we have relied on our own judgement and expertise.

There are components with an indefinite life cycle that have not been included in the study. Indefinite life components include concrete foundations, infill concrete walls, exterior back-up wall systems and superstructure components. We are currently aware of no substantial defects with these items that would warrant carrying a contingency amount in the study for replacement.

Some components are shown with a percentage of replacement, as full replacement is not expected to occur. The replacement/repair cost of each component is estimated based on conventional building materials using current construction techniques with standard quality control.

Information and quantities are derived from the site review and/or information provided.

The effective ages are modifications to the actual calendar age of the components based on our assessment of the conditions observed during the site inspection.

As requested, Altus has conducted a representative review of interior units which is approximately 10% of the total number of units at the subject property. The units selected allowed us to review the various layouts and exposures available. The findings are extrapolated for the building.

Digital photos were taken of various building components and systems as a method of record; pertinent photos are included within the report to illustrate systems or conditions.

We identified some evident building code infractions or otherwise discretionary installation or detailing that would or is currently causing deterioration and/or possible life and safety concerns. We did not however, research any data, cross-reference building codes etc. as this was not mandated. This is not a code or regulatory audit.

We have included practical energy-efficiency recommendations to which supplement the study. The recommendations are not considered a detailed Energy Audit. The categories with the most opportunity for savings are the HVAC and the building envelope. It was reported that CCOC has already implemented a green program.

Identification and description of the Reserve Components of the building and site, categorized under the the ASTM E1557-05 Standard Classification for Building Elements and Related Sitework – Uniformat II.

The study uses the component method of valuation to estimate replacement reserves. The financial analysis consists of:

(a) The financial analysis consists of:
(b) a description of the financial status of the reserve fund as of the date of the study; and
(c) a recommended funding plan projected over a period of at least 30 consecutive years, beginning with the current fiscal year of the housing provider, that shows the minimum balance of the reserve fund during the period and, for each projected year,
(d) the annual inflation rate,
(e) the estimated opening balance of the reserve fund,

(f) the recommended amount of contributions to the reserve fund, determined on a cash flow basis, that are required to offset adequately the expected cost in the year of the expected major repair or replacement of each item in the component inventory,
(g) the estimated interest that will be earned on the reserve fund based on an assumed annual interest rate,
(h) the annual interest rate
(i) the total of the amounts
(j) the increase, if any, expressed as a percentage, in the recommended amount of contributions to the reserve fund over the recommended amount of contributions for the immediately preceding year, and
(k) the estimated closing balance of the reserve fund.

3.3 Basis of Analysis

The assessment of Capital Expenditures required is based on the following:

1. Building systems failing to meet their performance level; and
2. Building systems that have reached or are projected to reach the end of their productive life cycle within a 30-year period.

3.4 Physical Analysis – Definition of Terms

3.4.1 Condition

Good	Component is performing adequately and no work is foreseen in the next 5 years
Fair	Component is operational but replacement or major repair action is expected in 3-5 years
Poor	Component requires replacement or major repair action in next 1-3 years
Critical	Component is past the point of economic repair or is not functioning and should be replaced or repaired within 1 year

3.4.2 Action Type

Replacement	Component is at the end of economic life and should be replaced
Repair	Component can be repaired and its life extended
Install	Component that didn't exist before to be installed
Study	A deficiency exists (or is likely to exist) and a study or further testing should be commissioned to determine what action, cost, and timeline is appropriate

3.4.3 Safety & Security

Not applicable	The action does not affect the life safety or security of tenants
Life Safety	The action will help avert serious injuries or health deterioration of tenants (e.g. mold, asbestos, loose handrails, tripping hazards, etc.)
Security	The action will improve the security of tenants (doors, locks, intercom systems, lighting)

3.4.4 Code Related

Not applicable	The action is not related to complying with code
Compliance with Legislative Change	The action is necessary to comply with a recent legislative change in code
Compliance with Applicable Code	The action is necessary to comply with applicable code
Grandfathered Code Issue	The action would be necessary to comply with current code, but the condition has been "grandfathered" so the action is not required, usually until other work is performed in the future

3.4.5 Operation/Energy Savings

No Impact	The action will not effect operational or energy savings
Energy – Significant savings	The action will result in significant energy savings (typically new lighting, building automation systems)
Energy – Moderate savings	The action will result in moderate energy savings (typically heating, windows, insulation)
Operational – Significant savings	The action will reduce significant maintenance or ongoing repair expenses
Operational – Moderate Savings	The action will reduce moderate maintenance or ongoing repair expenses.
If deferred, energy or operating costs increase	The action does not reduce current expenses, but if deferred will result in greater expenses or collateral damage (i.e. not fixing a leaking roof will lead to additional related repairs.)

3.5 Component Inventory Table – Basis of Analysis, Definitions and Concepts

3.5.1 General

Identification and description of the Building Components of the building and site, categorized under the following major headings under the Uniformat breakdown.

3.5.2 Current Repair or Replacement Cost

The estimated cost of replacing or providing major repairs to a Building Component at current prices including factors such as demolition, disposal, material, labour and contractor's overhead and profit. The Harmonized Sales Tax (HST) is excluded to these costs on the 30-Year Expenditure table.

3.5.3 Normal Life Span

The estimated life expectancy of a Building Component in terms of years under normal service conditions. Each reserve component is analyzed in terms of component type, quality of construction, statistical records and normal life experience. Life Cycles are calculated through one or all of the following:

1. AJ Dell'Isola and SJ Kirk. (2003). Life Cycle Costing for Facilities. RS Means. Kingston, MA.
2. ASHRAE Standards: American Society of Heating, Refrigerating and Air-Conditioning Engineers.
3. CMHC Research Report: Service Life of Multi-Unit Residential Building Elements and Equipment.
4. Experience and good practice.

3.5.4 Actual Age

The chronological age of the building or site component, expressed in years.

3.5.5 Effective Age

The adjudged age of the Reserve Component, expressed in years. Maintenance procedures, original workmanship or defective materials are determining factors. The subjective assessment is based on the experience of the Consultant.

3.5.6 Remaining Life Span

The difference, in years, between the Actual Age and the Effective Age of the Reserve Component.

Some Building Components have been phased over two (2) or more years as to accommodate the significant impacts of the component to the reserve. Those items commence in the Remaining Life Span year.

3.5.7 Estimated Future Cost

This is the estimated cost of the replacement or major repair for each Building Component in future dollars. The value is derived from multiplying the Current Repair or Replacement Cost by the interest rate over the Remaining Life Span of the component. This is the fundamental compound interest formula.

3.5.8 Description of Major Repair Work or Replacement

This is a brief description of the nature of the work involved with each of the Reserve Components. This involves only major repair or replacement items and not upgrades. The percentage of the replacement or major repair is also stated.

3.6 Annual Expenditure Table - Basis of Analysis, Definitions and Concepts

3.6.1 General

The 30-Year Expenditures Table illustrates all of the estimated expenditures that are anticipated to occur over the 30-year period based on the input from the Reserve Component Summary Table.

3.6.2 Components

These are building and site components that make up the common elements of the Corporation. The components are the same ones used in the Component Invenotry Table.

3.6.3 Years

The years of the study, commencing with the current fiscal year.

3.6.4 Annual Expenditures

The estimated un-inflated of the Reserve Component expenditures totaled annually. HST has been excluded.

3.7 Cash Flow Tables – Basis of Analysis, Definitions & Concepts

3.7.1 General

A Cash Flow Table illustrates the financial status of the housing provider over a 30-year period. It shows annual opening balances less expenditures plus interest and contributions.

3.7.2 Year

The years of the study, commencing with the current fiscal year 2011 (Year 0).

3.7.3 Opening Balance

The opening balance of the reserve fund study for each of the 30 years.

3.7.4 Annual Expenditures

The estimated future dollar value totals of the Building Component expenditures summarized annually.

3.7.5 Revised Contribution (%)

The increase or decrease, if any, expressed as a percentage, in the recommended amount of contributions to the Reserve over the recommended amount of contributions for the immediately preceding year.

3.7.6 Contribution ($)

The contributions are shown in total and monthly per unit basis, for each of the years of the study.

3.7.7 Annual Interest

The Annual Interest figure is comprises two figures:

Interest on the Opening Balance less the Expenditures

plus

Interest on the Monthly Contributions (assumed to be 12 equal installments totaling the Annual Contribution) or the Accumulated Value of an Ordinary Simple Annuity.

In the case of an Ordinary Simple Annuity, the payment interval (the time between successive payments of an annuity) and interest conversion period coincide. Payments are assumed to be paid at the beginnings of the payment intervals; referred to as an annuity due.

3.7.8 Funding Requirement

A Funding Requirement refers to an additional funding to the housing provider in order to pay for major repairs or replacement of the building components, which is separate from the Annual Contributions.

3.7.9 Closing Balance

The Closing Balance is the balance of the study at the end of the year.

3.7.10 Adequately Funded

Altus has not determined a level to be "adequately funded" (i.e. minimum reserve fund threshold) for Cash Flow Table – Scenario No. 2. We have utilized the minimum balance threshold of $0 as required.

3.8 Conclusions Methodology

Our conclusions are based on the following:

(a) On-site identification and measurement (where possible) of a specific deficiency item priced accordingly.
(b) Measurement of areas from drawings where available (e.g. roofing) and priced at current replacement cost prevailing unit rates. It should be noted that floor areas and parking counts reported are taken directly from documents provided and detailed quantities will need to be assessed for any tendering purposes. Altus Group Limited has carried out no independent verification or measurement.
(c) Information available from maintenance logs relating to mechanical equipment, etc., priced at prevailing replacement costs for similar or equivalent equipment.
(d) A percentage of units were reviewed. Findings are extrapolated.
(e) The gross floor area is taken from drawings, where available. When unavailable, we have estimated the area.
(f) We have used a minimum closing balance threshold of $0 for Cash Flow Table II. As such, we have not included our recommendation for a minimum threshold.

4 Qualifications, Exclusions & Limitations

1. Tenant improvement allowances.
2. Expenditure for capital items which are categorized as maintenance or operational in nature.
3. Review or comment on tenant leases or tenant lease requirements is not included as part of this property condition assessment.
4. In the context of the *ASTM E 2018-08: "Standard Guide for Property Condition Assessments" (Baseline Property Condition Assessment Process),* an Out of Scope Issue is defined as "Any aspect the condition of the subject building that cannot be readily ascertained during a walkthrough investigation."
5. Our mandate did not include non-destructive or destructive testing, openings of roofing systems, wall assemblies or other enclosures, or testing of mechanical, electrical or life-safety systems.
6. Our mandate did not include verification or engineering calculations of the building or component design.
7. The assessment of the mechanical and electrical systems was strictly visual to determine the type of system, age and aesthetic condition. No physical testing or intrusive investigative techniques were used. Cost estimates are based on the assumption that phenolic foam insulation does not exist in the roof assembly as roof cuts were not performed as part of this review to determine the type of insulation existing.
8. It should be noted that the mandate did not include a review of the Building and Fire Codes or compliance of the property to these codes. Playground and standard compliance is excluded. We have excluded the Americans with Disabilities Act (ADA) or Ontario accessibility survey.
9. Costs estimates for repairs presented in this report are not based on quantity surveys or detailed engineering calculations and are intended only for global budgeting purposes.
10. It should be noted that our verification for the presence of organic bacterial growth organisms, commonly referred to as mould during our walkthrough visit of the Property, was strictly visual and limited to exposed surfaces. No physical testing or intrusive investigative techniques were used.
11. Determining the extent of infestation or remedy for treatment, pertaining to any type of pests such as wood damaging organisms, rodents, or insects.
12. Miscellaneous storage limited the review of areas. Altus did not disturb or move any items such as landscaping, furniture or drapes or gain access to confined areas.
13. Generally, we have not included any items considered as minor operating costs, maintenance contracts and/or maintenance repairs. As requested, we have not

included for items that such as painting and repairs to interior walls that may be considered a maintenance on a small individual unit by unit basis. However, when multiplied over a large number of units generate large cash expenditures.

14. Although the report may reference or imply operation and maintenance procedures, the report is not to be used as an Operation and Maintenance schedule as this was not the intention of the original proposal. Our minimum threshold limit repair cost used was $1,000.
15. It is assumed that the buildings will be properly operated and maintained over their life span in order for the assessment to be of any significance.
16. In several cases within the report under each building element, we have referred to inspection criteria that have been used as guidelines when reviewing components. This was done as a supplemental reference tool and not as the definitive means for qualification.
17. The recommendation given for future work to any of the Building Elements is non-descriptive in most cases. This is intentional as this was not rationale behind the project. In most cases the response is simply a replace or refurbish. It is prudent that CCOC investigate all referenced repairs described within this report prior to execution to determine or locate the cause. In the same regard, the effect of the repair or replacement should also be investigated. These investigative costs would be typically covered under the work item cost as a mark-up for Engineering. Altus has added additional fees to the work item, as determined necessary, to cover for investigative work for larger items such as parking garage, roofing, etc..
18. In some cases, on larger unit costs, we have intentionally made the repair or replacement coincide with other similar work. Also, pricing for one building component may be covered in other building components for similar work. If this done, it is described in the report. We will not be accountable for any errors or omissions in the logistics of the scheduling of the repairs.
19. Some work has been shown or presented in phases. This may or may not occur.
20. The Remaining Life, as shown on the Component Inventory Table (Appendix A), is the number of years left before the first repair or replacement is scheduled. It may not, in most cases, show the true remaining life of that particular building element.
21. The qualifications described below apply to this report:

    (a) The rate of escalation and rates of return are based on current market conditions and this study should be updated annually to ensure that these factors are sufficiently accurate in November 2011 to predict market factors going forward 30 years, starting in 2011 to the conclusion of the reserve fund study period.

    (b) This report is intended to provide the client with a general description of the systems employed in the building and to comment on their general condition,

which may be apparent at the time of our review. No calculations were performed to confirm the adequacy of the elements. No findings contained in this report shall be construed as a guarantee or warranty of the quality or sufficiency of any particular aspect of the building or the adequacy of any particular element of any system employed in the building.

(c) The timing of site visits is critical to building performance reviews. To observe the actual extent of problem areas, it is necessary to monitor the building conditions throughout the year and under varying weather conditions (for example, contraction and expansion of all component joints occurs at different times of the year) in each specific area. As a result, all problems may not be visible at the time of our review and we shall not be responsible for any problems not readily visible or apparent at the time of our review.

(d) Any timeframe given for repair or replacement work represents a judgement based on the apparent condition and theoretical life span of components. Failure of the item, or optimum repair/replacement time, may be earlier or later than the time estimate due to conditions unknown and beyond our control. The property manager should pro-actively assess the time lines identified going forward.

(e) Any and all previous opinions expressed by Altus Group either verbally or in writing, regarding the condition of the building or cost estimates for repair of the above elements of the building cannot be relied upon unless contained herein and are superseded by this report. No portion of this report may be used as a separate entity; it is written to be read in its entirety.

(f) We draw your specific attention to the qualifications in the independent consultants' reports appended herein. Altus Group shall have no liability whatsoever for the actions of the independent consultants including liability for tort, negligence or breach of contract. As agreed, our mandate has been to co-ordinate and summarise the findings reached by the consultants.

(g) Where drawings or related information has been provided, it should be noted that those dimensions have been used. No independent verification, measurement or assessment has been carried out by Altus Group.

(h) We have endeavoured to examine all the information provided and have assumed full disclosure of information from all parties on all building and maintenance issues.

(i) We are not responsible for the effects of any actions taken as a result of this report unless we are specifically advised of and participate in such action in which case our responsibility will be agreed to at that time.

(j) Altus Group shall have no liability either in contract or in tort for services or matters beyond the scope of the services as outlined and qualified in this report.

(k) It should be noted that this report may not be circulated, published, reproduced or quoted from in whole or in part by any person without the express written permission of Altus Group in each instance. Furthermore, this report is for the exclusive use and benefit of Centretown Citizens Ottawa Corporation (CCOC). Altus permits CCOC the circulation of this report with other parties for the purpose of general building information and the history of capital repairs/replacements at the subject property. However, no other party may rely on any information provided in this report. Altus Group does not hold reporting responsibility to any other party and does not assume any liability whatsoever to any other party.

5 Building Description

Physical Description

SHSC Development ID:	F01085
Address:	143-153 Arlington Street, Ottawa
Building Type:	Row house
Building Construction:	Masonry construction
Age:	49 years (1900)
Number of Units:	12
Parking:	On-grade

6 Physical Evaluation & Analysis of Building Elements

The Component Inventory Descriptions are described on the following pages and are based on information provided. The Component Inventory Table is included in Appendix A. This section of the report describes the building components that were visually assessed during the site visit.

Unless otherwise noted below, the building or reserve components are wearing as anticipated, in fair condition and is based on normal life expectancy and actual ages. Where required, we have elaborated on particular components that deviate from a standards remove-and-replace scenario or are of major impact as an expenditure, in the report.

A SUBSTRUCTURE

A10 Foundations*					
Normal Life Span:	25	Effective Age:	111	Condition:	N/A
Actual Age:	111	Remaining Life:	0	Action:	Study
Unit:	Item	Quantity:	Allow	Current Cost:	$5,000
Comments:				Action Year:	2011

The foundation walls consist of stone block and were visible at grade level around the building perimeter. The rear foundation wall has parging on concrete block or poured concrete, where visible. The footings are not visible as they are concealed below grade level.

At the rear, modifications have been made for drainage. Timber termination bars affixes a drainage layer (i.e. dimple board) to the foundation walls and descends below under the stone granular. The extent of the work is not known. It was reported that since these modifications, no issues are present with the foundation walls. A flood was reported at the basement of Unit 147-1 in 1996. The area should be monitored to ensure proper drainage away from the foundation walls. Refer to Photo 2 below.

Cracks were observed at the foundation wall that requires repairs. These cracks should be monitored along with the step-cracks at the brick masonry. It is not known if these items are related, but requires investigation.

Non-active staining is present at the interior basement walls/floors. No active water leaks were observed.

Window wells were reviewed and some were found to contain miscellaneous items by tenants. This is considered under general housekeeping. The drainage was not visible.

Proper sealing of openings through foundation walls should be carried out and is considered under regular building maitenance.

Minor re-grading at perimeter walls should be carried out. This is considered under regular building maitenance.

Photo: F01085_A10 Foundations_Sept 2011_1

Description: Stone foundation walls near front.

Photo: F01085_A10 Foundations_Sept 2011_2

Description: Rear drainage modifications at rear.

The front porches and decks were concealed and the review of the foundations was limited. The decks are framed on concrete piles. At the interior of the enclosures, there are signs of movement.

It was reported that other properties have experienced issues with unstable soils or other underlying conditions. All cracks and movement should be closely monitored. A further investigation is recommended of all foundation walls and the stairwell enclosure structure.

Photo: F01085_A10 Foundations_Sept 2011_3

Description: Front entrance enclosures.

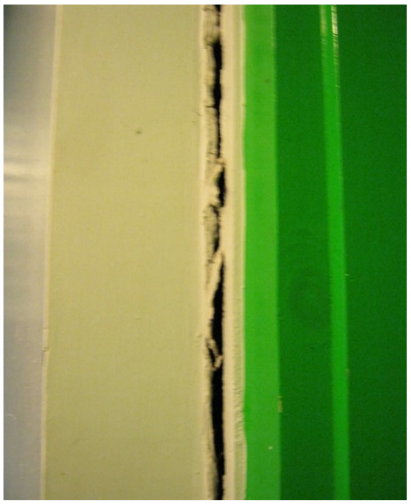

Photo: F01085_A10 Foundations_Sept 2011_4

Description: Interior finishes - debonding joints/cracking.

In general, energy-efficiency and maintenance recommendations include:

• Repair cracks and grading at foundation walls routinely to mitigate potential water leakage.

• Any planters near foundation walls should be relocated.

• Any downspouts that terminate at grade level be extended away from the building and equipped with a concrete pad. Alternatively where drainage ascends below grade level, ensure downpouts-to-weep tile connections are sealed properly.

B SHELL

B10 Superstructure

Comments:

A the front, the building structure is comprised of solid-masonry construction with wood-framing members and stone block foundation walls. The stairwell enclosures are constructed of metal-stringer stairs. The structure is concealed by finishes.

The rear additions are constructed of similar construction.

Interior finishes conceal structural components. Otherwise noted above, no anomalies were present that would suggest there is an issue with structural components.

B101003 Floors Decks and Slabs

Comments:

No other anomalies were present that would suggest that the structural floor/roof components are not functioning as intended.

The basement slab was hidden beneath the interior finishes and/or miscellaneous storage and were not fully accessible for visual evaluation. No allowances are carried. No significant issues were observed.

B201001 Exterior Closure - Brick - Tuckpointing

Normal Life Span:	35	Effective Age:	25	Condition:	Good
Actual Age:	111	Remaining Life:	10	Action:	Repair

Unit:	m	Quantity:	50	Current Cost:	$2,500
Comments:				Action Year:	2021

The exterior walls are comprised of solid-brick masonry construction. Repairs have been already conducted at a number of step-cracks. Minor repairs are anticipated during the study period. An allowance is carried for future brick masonry repairs including tuck-pointing and brick replacement. Vandalism is considered under regular building maintenance.

As noted above, all cracks should be monitored for movement.

Photo: F01085_B201001 Exterior Closure - Brick_Sept 2011_1
Description: Spalled brick masonry.

Photo: F01085_B201001 Exterior Closure - Brick_Sept 2011_2
Description: Previous step-cracking repairs.

B201001 Exterior Closure - Brick - Replacement

Normal Life Span:	35	Effective Age:	34	Condition:	Poor
Actual Age:	111	Remaining Life:	1	Action:	Repair
Unit:	sm	Quantity:	4	Current Cost:	$1,200
Comments:				Action Year:	2012

As noted above.

B201001 Exterior Closure - Brick - Chimney*

Normal Life Span:	35	Effective Age:	34	Condition:	Poor
Actual Age:	109	Remaining Life:	1	Action:	Repair
Unit:	#	Quantity:	2	Current Cost:	$4,000
Comments:				Action Year:	2012

There are six (6) masonry chimneys at the rooftops. The chimneys are brick masonry, with concrete cap stones and newer prefinished metal flashing at bases. Metal liners are present in clay flues.

The chimneys have been partially rebuilt. The top side of the chimneys could not be reviewed. Re-sealing is considered under regular building maintenance.

No allowances are carried during the study period.

Photo: F01085_B201001 Exterior Closure - Brick - Chimney Sept 2011_1

Description: View of chimneys from grade level.

Photo: F01085_B201001 Exterior Closure - Brick - Chimney Sept 2011_2

Description: Typical chimney.

B201002 Exterior Stair Construction - Fire Escapes

Normal Life Span:	30	Effective Age:	20	Condition:	Good
Actual Age:	40	Remaining Life:	10	Action:	Replace
Unit:	#	Quantity:	3	Current Cost:	$45,000
Comments:				Action Year:	2021

There are three (3) sets of metal fire escapes located at the rear of the property. Signs of corrosion was observed and repairs are needed. The replacements is anticipated during the study period.

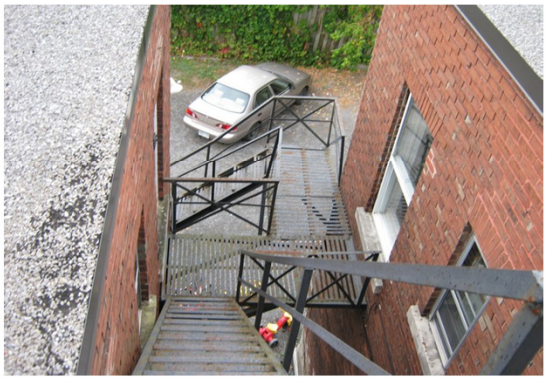

Photo: F01085_B201002 Exterior Stair Construction - Fire Escapes Sept 2011_1

Description: Typical fire escape

B201002 Exterior Stair Construction - Fire Escapes*					
Normal Life Span:	30	Effective Age:	20	Condition:	Good
Actual Age:	40	Remaining Life:	10	Action:	Repair
Unit:	#	Quantity:	3	Current Cost:	$1,500
Comments:				Action Year:	2021

This item is a repair allowance.

B201002 Exterior Stair Construction - Stairs					
Normal Life Span:	35	Effective Age:	20	Condition:	Good
Actual Age:	20	Remaining Life:	15	Action:	Replace
Unit:	#	Quantity:	3	Current Cost:	$12,000
Comments:				Action Year:	2026

There are three (3) combined stairs/decks at the exterior located at the rear of the property. Overall, the stairs are in fair-to-good condition. An allowance is carried for replacement in the long term.

B201002 Exterior Stair Construction - Enclosure					
Normal Life Span:	35	Effective Age:	30	Condition:	Fair
Actual Age:	30	Remaining Life:	5	Action:	Replace
Unit:	#	Quantity:	3	Current Cost:	$105,000
Comments:					

The exterior stairwell enclosure at the front elevation shows signs of movement, as noted above. Damages were noted at the interior finishes (i.e. staining, paint peeling etc.). A further investigation is required. An allowance is carried for replacement of the enclosure and decks. Sub-surface conditions are not known and excluded.

B201011 Joint Sealant					
Normal Life Span:	11	Effective Age:	11	Condition:	Critical
Actual Age:	10	Remaining Life:	0	Action:	Replace
Unit:	m	Quantity:	800	Current Cost:	$16,000
Comments:				Action Year:	2011

The current sealant found around all openings was found to be poor/critical condition and should be replaced. Windows are poorly fitted in openings or unfinished.

B202001 Windows					
Normal Life Span:	19	Effective Age:	8	Condition:	Good
Actual Age:	8	Remaining Life:	11	Action:	Replace
Unit:	sm	Quantity:	150	Current Cost:	$52,500
Comments:				Action Year:	2022

Majority of the windows are vinyl fixed and operable sliders with insulated-glass units (IGUs) and concrete sills. The older wood windows are up for replacement.

It was noted in some locations that the windows are poorly fitted, unfinished or not sealed properly. This is considered under regular building maintenance.

We did not remove curtains or fixtures to gain access to windows at interior spaces. Where accessible, we reviewed random window units for failure and overall condition. Glazing unit replacement is consider under regular building maintenance.

The windows are in good condition and anticipated for replacement in the long term.

Photo: F01085_B202001 Windows - Vinyl Sept 2011_1

Description: Front elevation windows.

Photo: F01085_B202001 Windows - Vinyl Sept 2011_2

Description: Poorly fitted, sealed unit.

B202001 Windows

Normal Life Span:	19	Effective Age:	18	Condition:	Poor
Actual Age:	50	Remaining Life:	1	Action:	Replace
Unit:	Item	Quantity:	Allow	Current Cost:	$2,000
Comments:				Action Year:	2012

This is an allowance for the replacement of older wood windows with vinyl IGUs.

B202002 Storefronts

Comments:

Not applicable.

B202003 Curtain Walls

Comments:

Not applicable.

B202004 Exterior Glazing

Comments:

This is considered under regular building maintenance.

B203001 Solid Doors - Wood

Normal Life Span:	21	Effective Age:	15	Condition:	Good

Actual Age:	15	Remaining Life:	6	Action:	Replace
Unit:	#	Quantity:	6	Current Cost:	$5,400
Comments:				Action Year:	2017

Some exterior doors are wood doors. It is recommend to upgrade these doors to insulated metal-clad doors and costs are carried.

B203001 Solid Doors - Metal Clad

Normal Life Span:	25	Effective Age:	15	Condition:	Good
Actual Age:	15	Remaining Life:	10	Action:	Replace
Unit:	#	Quantity:	7	Current Cost:	$6,300
Comments:				Action Year:	2021

Some exterior doors are metal-clad doors. A replacement cost is carried.

B203001 Solid Doors - Storm Doors

Comments:

A replacement cost is not carried for storm doors as it was reported that the doors will be abandoned. Hardware replacement is considered under regular building maintenance.

B3010 Roof Coverings - Shingled

Normal Life Span:	18	Effective Age:	14	Condition:	Fair
Actual Age:	14	Remaining Life:	4	Action:	Replace
Unit:	sm	Quantity:	200	Current Cost:	$9,000
Comments:				Action Year:	2015

The mansards are shingled and have prefinished metal open-valley flashings and perimeter flashings. No significant signs of deterioration was observed. Minor deterioration is present. Staining was observed at the interior. The item is near the end of its normal life span.

Photo: F01085_B3010 Roof Coverings - Shingled_Sept 2011_1
Description: Mansard shingled.

B3010 Roof Coverings - BUR					
Normal Life Span:	20	Effective Age:	8	Condition:	Good
Actual Age:	8	Remaining Life:	12	Action:	Replace
Unit:	sm	Quantity:	400	Current Cost:	$52,000
Comments:				Action Year:	2023

The roof systems are combination of roof types. There is a conventional built-up roof (BUR) located on multiple levels with mansard shingles and modified bitument 2-ply membranes at the stairwell enclosures. The roof perimeters includes prefinished-metal flashing. It was reported that the roof is approximately 8 years old. The roof is showing signs of deterioration such as "blueberries." No ponding water was observed that would suggest roof draining issues.

No active leaks were observed at the underside of the interior finished spaces, where accessed. No water leaks were reported. Non-active stains are present at the interior.

Photo: F01085_B3010 Roof Coverings - BUR_1

Description: View of overall roof.

Photo: F01085_B3010 Roof Coverings - BUR_2

Description: Roof edge deficiencies.

B3010 Roof Coverings - BUR*					
Normal Life Span:	20	Effective Age:	19	Condition:	Poor
Actual Age:	8	Remaining Life:	1	Action:	Repair
Unit:	sm	Quantity:	40	Current Cost:	$5,200
Comments:				Action Year:	2012

This item is a repair item.

B3010 Roof Coverings - Modified Bitumen					
Normal Life Span:	22	Effective Age:	19	Condition:	Fair
Actual Age:	30	Remaining Life:	3	Action:	Replace
Unit:	sm	Quantity:	60	Current Cost:	$8,400
Comments:				Action Year:	2014

The stairwell enclosures have a 2-ply modified bitumen roof membrane. The roof could was not accessibile for review. No issues were reported. However, non-active staining is present at the interior spaces. Replacement is scheduled to coincide with stairwell replacement.

The dormers feature prefinished metal flashings and are anticipated to last the duration of the study.

Photo: F01085_B3010 Roof Coverings - Mod Bit_1

Description: View of modified bitumen.

B3010 Roof Coverings - Roof Drains - Eaves/Downspouts					
Normal Life Span:	20	Effective Age:	15	Condition:	Fair
Actual Age:	30	Remaining Life:	5	Action:	Replace
Unit:	m	Quantity:	200	Current Cost:	$6,000
Comments:				Action Year:	2016

There are prefinished aluminum eavestroughs and downspouts that collect and dispose of stormwater. There are eavestroughs at the front stairwell enclosures. Downspouts terminate below grade and should be sealed at the connections. Some connections are missing. The downpouts are due for replacement during the short term. Minor repairs are considered under regular building maintenance and carried out in the meantime.

Photo: F01085_B3010 Roof Coverings - Roof Drains - Downpouts BUR_1

In general, energy-efficiency and maintenance recommendations include:

• Replacing windows with energy-efficient insulated-glass units (IGU) at a minimum rating or equivalency to Energy Star. Review window framing and sills to ensure that rotten wood is removed and the window is flashed appropriately. Cap window sills where necessary. Ensure that sill have drip edge profiles etc.

• Replace sealant at windows and doors to ensure air and water tightness.

• Seal all exterior wall penetrations. Install insulation and/or seal wood-framing headers in basements areas.

• Improve roof insulation values with future projects to exceed minimum current building code requirements.

C INTERIORS

C1010 Partitions

Comments:

The interior partitions are not anticipated for repair or replacement during the study period. Any damages to interior partitions is considered under regular building maintenance.

C1020 Fittings

Comments:

Not used.

C1030 Interior Doors - Units - Suite Doors

Comments:

The suite doors in the enclosure are wood doors.

Hardware and door replacement is considered under regular building maintenance and on an as-need basis.

C1030 Interior Doors - Units - Interior Unit

Comments:

The units feature hollow-wood doors.

Hardware and door replacement is considered under regular building maintenance and on an as-need basis.

C1060 Kitchen Refurbishment - Countertops - PHI

Normal Life Span:	20	Effective Age:	19	Condition:	Poor
Actual Age:	30	Remaining Life:	1	Action:	Replace
Unit:	m	Quantity:	12	Current Cost:	$1,800
Comments:				Action Year:	2012

The kitchen countertops are standard laminated over pressboard/plywood. The countertops have no significant signs of deterioration.

Of the units reviewed, 33% are older kitchens. The findings are extrapolated accordingly.

Photo: F01085_C1060 Kitchen Refurbishment - Countertops_1

Description: Old kitchen finishes.

Photo: F01085_C1060 Kitchen Refurbishment - Countertops_2

Description: Newer kitchen finishes.

C1060 Kitchen Refurbishment - Countertops - PHII

Normal Life Span:	20	Effective Age:	13	Condition:	Good
Actual Age:	13	Remaining Life:	7	Action:	Replace
Unit:	m	Quantity:	24	Current Cost:	$3,600
Comments:				Action Year:	2018

This is a phased item.

C1060 Kitchen Refurbishment - Cabinets - PHI

Normal Life Span:	30	Effective Age:	29	Condition:	Poor
Actual Age:	30	Remaining Life:	1	Action:	Replace
Unit:	#	Quantity:	4	Current Cost:	$10,000
Comments:				Action Year:	2012

The older cabinets shows signs of wear and tear and are dated. The replacement is scheduled to coincide with future countertop replacement.

Hardware repairs (i.e. hinges and handles) is considered under regular building maintenance. Re-securing the cabinets is required in Unit 706.

C1060 Kitchen Refurbishment - Cabinets - PHII

Normal Life Span:	30	Effective Age:	13	Condition:	Good
Actual Age:	13	Remaining Life:	17	Action:	Replace

Unit:	#	Quantity:	8	Current Cost:	$20,000
Comments:				Action Year:	2028

This is a phased item.

C1070 Bathroom Refurbishment

Comments:

This item is carried under Fixtures and Flooring.
Hardware repairs (i.e. hinges and handles) is considered under regular building maintenance.

C3050 Wall Finishes - Units

Comments:

The wall finishes are painted plaster. With tenant turnaround, it was reported that painting of unit wall finishes are routinely being conducted. No allowances are carried as this is considered under normal operations and maintenance.

C3070 Floor Finishes - Units - Carpet to Parquet

Normal Life Span:	10	Effective Age:	8	Condition:	Poor
Actual Age:	15	Remaining Life:	2	Action:	Replace
Unit:	sm	Quantity:	700	Current Cost:	$42,700
Comments:				Action Year:	2013

The units feature carpeting upstairs at the bedrooms and living/dining room. It was reported that carpet will be changed to parquet with future replacement.

C3070 Floor Finishes - Units - Vinyl Tile

Comments:

The units have vinyl composite tile (VCT) in the kitchen areas, foyers and some bathrooms. The VCT is showing their age and wear. The replacement is carried under regular building maintenance.

C3070 Floor Finishes - Units - Ceramic

Comments:

Ceramic tile flooring was present within the units at the bathroom areas. The replacement is carried under regular building maintenance.

C3070 Floor Finishes - Units - Parquet					
Normal Life Span:	25	Effective Age:	20	Condition:	Fair
Actual Age:	40	Remaining Life:	5	Action:	Replace
Unit:	sm	Quantity:	150	Current Cost:	$16,500
Comments:				Action Year:	2016

Parquet is present in one of the units reviewed. Re-finishing of floors has occurred over the years and considered under regular building maintenance and on an as-need basis. A replacement allowance is carried during the study period in the long term.

C3090 Ceiling Finishes - Units

Comments:

The ceiling finishes include painted flat ceilings throughout. With tenant turnaround, it was reported that painting of unit wall finishes are routinely being conducted. No allowances are carried as this is considered under normal operations and maintenance. Painting is required.

C3200 Interior Renovations - Common

Comments:

Not used.

C3300 Accessibility - Units

Comments:

At the units reviewed, there are no provisions for accessibility (i.e. undersink clearances, turning radius etc.). Major renovations would be required to upgrade existing units.

No funds are carried for upgrades or modifications to existing accessible units as there is none.

D SERVICES

D201001 Waterclosets - Units - Toilets - PHI					
Normal Life Span:	35	Effective Age:	20	Condition:	Good
Actual Age:	20	Remaining Life:	15	Action:	Replace
Unit:	#	Quantity:	8	Current Cost:	$3,200
Comments:				Action Year:	2026

Some toilets are beyond their normal life span. No issues were reported with the toilets and are still functional. The plumbing fixtures were observed to be functional and in fair condition.

66% of the toilets reveiwed have been replaced.

It was reported that with future toilet replacement, new low-flush toilets will be incorporated as part of the energy management plan for the building.

D201001 Waterclosets - Units - Toilets - PHII					
Normal Life Span:	35	Effective Age:	30	Condition:	Fair
Actual Age:	35	Remaining Life:	5	Action:	Replace
Unit:	#	Quantity:	4	Current Cost:	$1,600
Comments:				Action Year:	2016

This is a phased item.

D201003 Sinks - Units - Vanities - PHI					
Normal Life Span:	25	Effective Age:	15	Condition:	Good
Actual Age:	15	Remaining Life:	10	Action:	Replace
Unit:	#	Quantity:	8	Current Cost:	$6,000
Comments:				Action Year:	2021

The bathrooms are equipped with single vanities with ceramic countertops and laminate cupboards. The plumbing fixtures were observed to be functional and in fair condition. No significant damages or deterioration was observed. Normal wear and tear, based on its age, was observed.

66% of the vanities reveiwed have been replaced.

D201003 Sinks - Units - Vanities - PHII					
Normal Life Span:	25	Effective Age:	20	Condition:	Fair
Actual Age:	35	Remaining Life:	5	Action:	Replace
Unit:	#	Quantity:	4	Current Cost:	$3,000
Comments:				Action Year:	2016

This is a phased item.

D2010 Showers/Tubs - Units - PHI					
Normal Life Span:	30	Effective Age:	15	Condition:	Good

Actual Age:	15	Remaining Life:	15	Action:	Replace
Unit:	#	Quantity:	8	Current Cost:	$16,000
Comments:				Action Year:	2026

The bathrooms are equipped with a tub and full-height ceramic surround. Normal wear and tear, based on its age, was observed. The replacement of the tub and tub surround is anticipated in the short term. The plumbing fixtures were observed to be functional and in fair condition.

Recaulking and grouting is considered under regular building maintenance and should be carried out for all kitchen and bathroom fixtures.

D2010 Showers/Tubs - Units - PHII

Normal Life Span:	30	Effective Age:	20	Condition:	Good
Actual Age:	35	Remaining Life:	10	Action:	Replace
Unit:	#	Quantity:	4	Current Cost:	$8,000
Comments:				Action Year:	2021

This is a phased item.

D202001 Domestic Water Distribution

Comments:

The incoming domestic water main enters the building below grade. The water main then feeds to the water meter and then is distributed throughout the building. The laundry/locker room is equipped with a meter as well as the units with basements. Where visible, domestic water distribution was copper piping. Visual inspection of the distribution systems was limited due to the concealed service spaces. This item includes for domestic cold water distribution from the municipal service to the meter.

No anomalous conditions were observed or reported that would suggest this systems is not functioning as intended. Minor repairs are considered under regular building maintenance. Repairs are carried below.

Photo: F01085_B202001 Domestic Water Distribution_Sept 2011_1
Description: Incoming water main and metre at Unit 153-2.

D202001 Domestic Water Distribution

Normal Life Span:	30	Effective Age:	20	Condition:	Good
Actual Age:	35	Remaining Life:	10	Action:	Repair
Unit:	Item	Quantity:	Allow	Current Cost:	$8,100

Comments:

Beyond the water meter, the domestic water is fed throughout the building. This item includes the domestic water (hot and cold) distribution within the units and associated fixtures (i.e. shut-offs).

No anomalous conditions were observed or reported that would suggest this systems is not functioning as intended. A repair allowance is carried during the long term.

D202003 Domestic Water Equipment - HW Storage Tanks

Comments:

Gas-fired domestic hot-water tanks are located in the basements. It was reported that tanks will be going to rentals to avoid capital replacement costs. No issues were reported. No allowances are carried since assumed to be a rental.

D3012 Gas Supply System

Comments:

The gas service, associated meters and distribution are assumed to be the property of the local service provider. The service enters through the exterior of the building in the laundry/locker room. Gas lines should be typically painted yellow or tagged yellow. No significant signs of corrosion were noted on service lines. Painting/tagging of the gas lines is considered under regular building maintenance. No allowances are carried.

D302003 Furnaces					
Normal Life Span:	18	Effective Age:	16	Condition:	Poor
Actual Age:	22	Remaining Life:	2	Action:	Replace
Unit:	#	Quantity:	6	Current Cost:	$15,000
Comments:				Action Year:	2013

The units are equipped with a gas-fired forced-air furnaces located in the basement. The ductwork is anticipated to last the duration of the study. These units were installed in 1996 in Unit 147-1. However, the units are still reported functional. Replacement is anticipated in the short term in the next 1-2 years.

CCOC has already employed energy-effeciency undertakings such high-effeciency furnaces with recent replacements. We recommend continuing to upgrade furnaces with high-effeciency types.

It was reported that regular HVAC maintenance servicing is carried out.

Photo: F01085_D302003 Furnaces_Sept 2011_1

Description: Gas-fired forced-air furnace.

D3024 Boiler Room Piping And Specialties

Comments:

Not used.

D3025 Primary HVAC Pumps

Comments:

Not applicable.

D3026 Heating Generating Auxiliary Equipment

Comments:

Not used.

D3027 Heating Generating Equipment & Piping Insul

Comments:

Not used.

D3031 Chillers

Comments:

Not applicable.

D3032 Cooling Towers & Evaporative Coolers

Comments:

Not applicable.

D3033 Condensing Units

Comments:

Not applicable.

D3034 Packaged Air Conditioning Units

Comments:

Not applicable.

D3035 Cooling Piping And Fittings

Comments:

Not applicable.

D3036 Cooling Generating Equipment & Piping Insul

Comments:

Not applicable.

D3037 Sounds, Vibration And Seismic Control For Cooling Generating Systems

Comments:

Not applicable.

D3041 Air Distribution Systems

Comments:

The building is equipped with galvanized ductwork that provides circulation of hot air throughout the interior space. The ductwork is not anticipated for replacement during the study period. Cleaning is recommended and considered under regular building maintenance.

D3042 Steam Heat Distribution Systems

Comments:

Not applicable.

D3043 Hydronic Distribution Systems

Comments:

Not applicable.

D3045 Exhaust Ventilation Systems - Bathrooms - PHI

Normal Life Span:	25	Effective Age:	19	Condition:	Good
Actual Age:	25	Remaining Life:	6	Action:	Replace
Unit:	#	Quantity:	6	Current Cost:	$1,500
Comments:				Action Year:	2017

The bathrooms are equipped with exhaust fans.

D3045 Exhaust Ventilation Systems - Bathrooms - PHII

Normal Life Span:	25	Effective Age:	19	Condition:	N/A
Actual Age:	25	Remaining Life:	6	Action:	Install

Unit:	#	Quantity:	6	Current Cost:	$3,750
Comments:				Action Year:	2017

Some units are not equipped with bathroom exhausts. Provisions for new exhausts are carried.

D3045 Exhaust Ventilation Systems - Kitchens - Ducting

Normal Life Span:	25	Effective Age:	24	Condition:	Poor
Actual Age:	30	Remaining Life:	1	Action:	Install
Unit:	#	Quantity:	12	Current Cost:	$2,400
Comments:				Action Year:	2012

The older kitchen is equipped with a rangehood. However, duct plenums were not present. We have carried a cost for installation.

D3045 Exhaust Ventilation Systems - Kitchens

Normal Life Span:	25	Effective Age:	24	Condition:	Poor
Actual Age:	30	Remaining Life:	1	Action:	Replace
Unit:	#	Quantity:	12	Current Cost:	$3,000
Comments:				Action Year:	2012

This item is for the rangehoods. They can replaced at the time of ducting.

D3060 Controls And Instrumentation

Comments:

The replacement of controls is considered under regular building maintenance.

Digital programmable thermostats are recommended.

In general, HVAC energy-efficient recommendations include:

- Conducting regular maintenance, service and cleaning on all HVAC equipment.
- Clean all supply and return ductwork, exhaust ducts and grilles within the building.
- With future equipment replacement, including high-efficiency boilers, heaters and furnaces etc.
- Installing exhaust ventilation is kitchens and bathrooms where none.
- Installing Energy-Recovery Ventilators (ERVs) with forced-air heaters.

D40 Fire Protection

General

The subject building includes some provisions for fire protection (i.e. smoke detectors). Smoke detector replacement is carried under regular building maintenance.

Verification of the fire-resistance ratings of fire-separations was not conducted.

It was reported that monthly and annual inspections are carried out on all fire protection equipment.

D5013 Main Electrical Service and Distribution*

Normal Life Span:	26	Effective Age:	30	Condition:	N/A
Actual Age:	30	Remaining Life:	0	Action:	Study
Unit:	Item	Quantity:	Allow	Current Cost:	$2,500

Comments:

The incoming electrical service enters the building below grade into the basement. The incoming service is rated at low voltage. No identification labels are present. The basement electrical includes disconnect switches, a meter, a splitter and a panelboard.

Overall, electrical systems are found to be in fair condition, however will require proper labelling/identification of panels, disconnects and other electrical equipment. General housekeeping issues are noted including the removal of storage items near electrical systems, removal of abandoned equipment and the provision of general labelling/identification. Minor repairs are considered under regular building maintenance.

A one-time non-recurring contingency is carried in the immediate term for infrared thermography scanning of all electrical equipment (i.e. main, distribution etc.) to find "hot spots." No previous scanning has been performed at the property. An allowance is carried.

D5014 Intermediate Electrical Service and Distribution

Comments:

Not used.

D5015 Unit Electrical Service and Distribution

Normal Life Span:	23	Effective Age:	20	Condition:	Poor
Actual Age:	30	Remaining Life:	3	Action:	Repair
Unit:	#	Quantity:	12	Current Cost:	$3,000

Comments: Action Year: 2014

The units with basements are equipped with two (2) 60AMP disconnects. The laundry/locker room is equipped with three (3) disconnects and a panelboard. No issues were reported. Replacement is not anticipated. There are house meters at the exterior.

D5021 Branch Wiring

Comments:

Not used.

D5023 Lighting Equipment - Units

Comments:

The units are equipped with incandescent light fixtures in the kitchens, bathrooms, bedrooms and living rooms. This item is considered under regular building maintenance.

D5024 Lighting Equipment - Common Area

Comments:

Not applicable.

D5032 Intercommunications And Paging

Comments:

Not applicable.

D5033 Telephone Systems

Comments:

Not applicable.

D5035 Television System

Comments:

Not applicable.

D5037 Fire Alarm System - Fire Alarm Panel

Comments:

Not applicable.

D5037 Fire Alarm System - Detectors

Comments:

The smoke detectors are considered under regular building maintenance.

D5038 Security Systems

Comments:

Not applicable.

D5091 Exit & Emergency Light Systems

Comments:

Not applicable.

E1010 Commercial Equipment

Comments:

Not applicable.

E1041 Residential Appliances - Fridge

Normal Life Span:	3	Effective Age:	0	Condition:	Fair
Actual Age:	10	Remaining Life:	3	Action:	Replace
Unit:	#	Quantity:	4	Current Cost:	$2,000
Comments:				Action Year:	2014

The units are equipped with standard-sized fridges. No issues were reported.
All future replacements should incorporate Energy-Star products.

E1041 Residential Appliances - Stove

Normal Life Span:	3	Effective Age:	0	Condition:	Fair
Actual Age:	10	Remaining Life:	3	Action:	Replace
Unit:	#	Quantity:	4	Current Cost:	$1,600
Comments:				Action Year:	2014

The units are equipped with stoves. No issues were reported.
All future replacements should incorporate Energy-Star products.

E1042 Laundry Room Equipment - Washers

Comments:

The units are equipped with washers and dryers and are reported to be tenant owned. The dryers were checked for venting and were present.

E1042 Laundry Room Equipment - Dryers

Comments:

Refer to above commentary - Washers.

F1010 Special Structures - Playground

Comments:

Not applicable.

F1046 Trash Compactors

Not applicable.

F2020 Hazardous Components Abatement*

Normal Life Span:	1	Effective Age:	111	Condition:	N/A
Actual Age:	111	Remaining Life:	0	Action:	Study
Unit:	Item	Quantity:	Allow	Current Cost:	$2,500
Comments:				Action Year:	2011

No Asbestos Survey or Asbestos Management Plan (AMP) was available for review. We have included for the Asbestos Survey, in compliance with Ontario Regulation 278/05, Designated Substance – Asbestos on Construction Projects and in Buildings and Repair Operations, and an AMP as a one-time non-recurring cost in the immediate term. Other hazardous materials are recommended to form part of this survey (i.e. PCBs, lead and mercury etc.).

It is recommended that no renovation or repair work be carried out at the subject property until it is confirmed by accredited laboratory analysis that no hazardous materials are present at the subject property.

A management plan and awareness training should be implemented.

G BUILDING SITEWORK

G2020 Parking Lots - Asphalt

Normal Life Span:	20	Effective Age:	18	Condition:	Fair
Actual Age:	20	Remaining Life:	2	Action:	Replace
Unit:	sm	Quantity:	60	Current Cost:	$2,100

Comments:

The asphalt is showing its age. Replacement is carried.

Photo: F01085_GA10 Foundations_Sept 2011_1

Description: Asphalt driveway.

G2020 Parking Lots - Asphalt*

Comments:

This is repair work is carried under regular building maintenance.

G2020 Parking Lots - Granular

Normal Life Span:	30	Effective Age:	20	Condition:	Fair
Actual Age:	20	Remaining Life:	10	Action:	Repair
Unit:	m	Quantity:	240	Current Cost:	$2,400

Comments:

There is a gravel parking lot at the rear. Repairs are recommended due to pot holes etc. Repairs are considered under regular building maintenance.

G2030 Pedestrian Paving - Brick Paver

Normal Life Span:	20	Effective Age:	15	Condition:	Fair
Actual Age:	15	Remaining Life:	5	Action:	Replace
Unit:	sm	Quantity:	20	Current Cost:	$2,200

Comments:

There are brick pavers located at the rear of the property.

Settlement was observed and a trip hazard. This is considered under regular building maintenance. No repair allowance is carried. An allowance is carried for replacement.

G2040 Site Development - Fencing - Wood

Comments:

The site is equipped with wood fencing at the rear. The sides are considered non-ownership by CCOC. Minor repairs are required.

Replacement is considered under regular building maintenance.

G2040 Site Development - Fencing - Chain Link

Comments:

Not applicable.

G2040 Site Development - Retaining Walls

Comments:

Not applicable.

G2046 Fountains, Pools, And Watercourses

Comments:

Not applicable.

G2049-A Garbage Area & Structure

Comments:

Not applicable.

G2049-B Sheds

Comments:

Not applicable.

G2050 Landscaping - General - Low-Rise

Comments:

This is considered under regular building maintenance.

G3010 Water Supply

Comments:

No allowance is carried for refurbishment/repair of the main domestic water supply. No issues were observed or reported.

G3020 Sanitary Sewer*

Normal Life Span:	25	Effective Age:	24	Condition:	Fair
Actual Age:	111	Remaining Life:	1	Action:	Study
Unit:	Item	Quantity:	Allow	Current Cost:	$1,200

Comments:

No allowance is carried for refurbishment/repair of the sanitary system. Prior flooding was reported in 1996. In addition, it was reported that sanitary sewer repairs were performed at majority of the basement and there is a sump pump located in one of the basements. The extent of the work is not known. Further investigation is recommended.

G3030 Storm Sewer

Comments:

No allowance is carried for refurbishment/repair of the storm system. No issues were observed or reported.

G3040 Heating Distribution

Comments:

Not used.

G3050 Cooling Distribution

Comments:

Not used.

G3060 Fuel Distribution

Comments:

Not used.

G4010 Electrical Distribution

Comments:

Not used.

G4020 Site Lighting

Comments:

Site lighting is provided by incandescent light fixtures at the front and rear of the property. They are considered under regular building maintenance. High-efficiency sensored lighting is recommended.

Other - Professional Fees

Comments:

We have included into the reserve the cost for performing this study.

7 Financial Analysis

7.1 Present Scenario

Cash Flow Table I is based on using current contribution amounts and assumed interest and inflation rates provided, or as otherwise amended.

For properties which fall under Provincial Reformed or Section 95 Municipal programs an annual inflation rate of 2% will be applied to the annual contribution amount beginning in fiscal year 2012. For all properties under Federal programs, no inflation factor has been applied to the annual contribution amount.

The 2011 annual contribution and increase in contribution escalating by the current inflation rate will result in a deficit condition in the study period.

Cash Flow Table I is provided in Appendix C.

7.2 Proposed Reserve Amounts

Cash Flow Table II is based on using current contribution amounts and assumed interest and inflation rates provided, and an increase in annual contributions.

CCOC's intention is that the reserve fund closing balance be stabilized (i.e. overall flat trend line) with a marginal increase during the study period. We propose a funding recommendation to enable the reserve to meet the required closing balance trend line over the entire 30-year period.

Cash Flow Table II is provided in Appendix C. The revised Annual Contribution is shown in 2012.

8 Summary & Recommendations

8.1 Summary

The present Reserve Fund with the current Annual Contribution, will be not be sufficient to cover all of the current and future expenditures of CCOC. As the units and their associated components age, it is obvious that additional funds are required to maintain the items in a functional state. Funding recommendations are provided in Capital Reserve Fund Forecasts, Scenario No. 2.

8.2 Recommendations

We recommend the following:

1. Carry out life safety issues immediately.

2. Create a maintenance plan that will help extend the normal life expectancies for major components to support the assumptions.

3. Reserve funds be fully invested in qualified securities to earn maximum interest.

4. CCOC increase its Annual Contribution to the highest level acceptable with the understanding that the Reserve must be built up to offset future costs of repair/replacement of the various Building Components.

5. As large expenditures approach, have the component reviewed to determine its condition to better plan for its repair or replacement (e.g. benefits of phasing/non-phasing on other components within the complex).

6. Changes in the economy that correspondingly change interest rates and inflation rates will have a dramatic effect on the values generated in the Cash Flow tables. Forecasting the future cost of expenditures are fully dependent on the current rates used. CCOC is strongly urged to have the study updated regularly to reflect any economic changes; reviewed annually and updated a maximum of 3 years.

APPENDIX A – COMPONENT INVENTORY TABLE

AltusGroup

Component Inventory Table

Centretown Citizens Ottawa Corporation
143-153 Arlington

Address: 143-153 Arlington Street, Ottawa
Size (GFA): 11,200 Description: Three-storey stacked rowhouse
Construction Year: 1900 SHSC ID: F01085
Building Type: Stacked Row Floors AG: 2.5
Age: 111 Floors BG: 1

Present Reserve as of December 31, 2010: $56,673
Projected Interest Rate: 2.00%
Projected Inflation Rate: 2.00%
Number of Units: 12

	BUILDING COMPONENTS	Current Repair or Replacement Cost 2011	Normal Life Span (Years)	Actual Age (Years)	Effective Age (Years)	Remaining Life Span (Years)	Estimated Future Cost	Description of Major Repair or Replacement	Repair Percentage (%)	COSTING Unit	COSTING Quantity	COSTING 2011	Condition (G/F/P)	Urgency of Action	Life Safety or Security	Code Related	Operational/Energy Savings
	A SUBSTRUCTURE																
1.1.1	A10 Foundations*	$5,000	25	111	111	0	$5,000	Study		Item	Allow	$5,000.00	N/A	Urgency	Life Safety	N/A	If deferred, energy or operating costs increase
	B SHELL																
	B2010 Exterior Walls																
1.2.1.1	B201001 Exterior Closure - Brick - Tuckpointing	$2,500	35	111	25	10	$3,047	Repair		m	50	$50.00	Good	Low	N/A	N/A	If deferred, energy or operating costs increase
1.2.1.2	B201001 Exterior Closure - Brick - Replacement	$1,200	35	111	34	1	$1,224	Repair		sm	4	$300.00	Poor	Low	N/A	N/A	If deferred, energy or operating costs increase
1.2.1.3	B201001 Exterior Closure - Brick - Chimney*	$4,000	35	109	34	1	$4,080	Repair		#	2	$2,000.00	Poor	High	N/A	N/A	If deferred, energy or operating costs increase
1.2.2.1	B201002 Exterior Stair Construction - Fire Escapes	$45,000	30	40	20	10	$54,855	Replace		#	3	$15,000.00	Good	Low	Life Safety	Compliance with Applicable Code	No Impact
1.2.2.2	B201002 Exterior Stair Construction - Fire Escapes*	$1,500	30	40	20	10	$1,828	Repair		#	3	$500.00	Good	Low	Life Safety	Compliance with Applicable Code	No Impact
1.2.4.1	B201002 Exterior Stair Construction - Stairs	$12,000	35	20	20	15	$16,150	Replace		#	3	$4,000.00	Good	Low	Life Safety	Grandfathered Code Issue	No Impact
1.2.4.3	B201002 Exterior Stair Construction - Enclosure	$105,000	35	30	30	5	$115,928	Replace		#	3	$35,000.00	Fair	Medium	Life Safety	N/A	No Impact
1.2.6	B201011 Joint Sealant	$16,000	11	10	11	0	$16,000	Replace		m	800	$20.00	Critical	High	N/A	N/A	Energy – Moderate savings
	B2020 Exterior Windows																
1.3.1.1	B202001 Windows	$52,500	19	8	8	11	$65,277	Replace		sm	150	$350.00	Good	Low	N/A	N/A	Energy – Significant savings
1.3.1.2	B202001 Windows	$2,000	19	50	18	1	$2,040	Replace		Item	Allow	$2,000.00	Poor	High	N/A	N/A	Energy – Significant savings
	B2030 Exterior Doors																
1.4.1	B203001 Solid Doors - Wood	$5,400	21	15	15	6	$6,081	Replace		#	6	$900.00	Good	Low	N/A	N/A	Energy – Moderate savings
1.4.2	B203001 Solid Doors - Metal Clad	$6,300	25	15	15	10	$7,680	Replace		#	7	$900.00	Good	Low	N/A	N/A	Energy – Moderate savings
	B30 Roofing																
1.5.1	B3010 Roof Coverings - Shingled	$9,000	18	14	14	4	$9,742	Replace		sm	200	$45.00	Fair	Medium	N/A	N/A	If deferred, energy or operating costs increase
1.5.2.1	B3010 Roof Coverings - BUR	$52,000	20	8	8	12	$65,949	Replace		sm	400	$130.00	Good	Medium	N/A	N/A	If deferred, energy or operating costs increase
1.5.2.2	B3010 Roof Coverings - BUR*	$5,200	20	8	19	1	$5,304	Repair	10%	sm	40	$130.00	Poor	High	N/A	N/A	If deferred, energy or operating costs increase
1.5.3	B3010 Roof Coverings - Modified Bitumen	$8,400	22	30	19	3	$8,914	Replace		sm	60	$140.00	Fair	Medium	N/A	N/A	If deferred, energy or operating costs increase
1.5.4	B3010 Roof Coverings - Roof Drains - Eaves/Downspouts	$6,000	20	30	15	5	$6,624	Replace		m	200	$30.00	Fair	Medium	N/A	N/A	No Impact
	C INTERIORS																
	C10 Interior Construction																
1.6.2.1	C1060 Kitchen Refurbishment - Countertops - PHI	$1,800	20	30	19	1	$1,836	Replace	33%	m	12	$150.00	Poor	Medium	N/A	N/A	No Impact
1.6.2.2	C1060 Kitchen Refurbishment - Countertops - PHII	$3,600	20	13	13	7	$4,135	Replace	66%	m	24	$150.00	Good	Low	N/A	N/A	No Impact
1.6.3.1	C1060 Kitchen Refurbishment - Cabinets - PHI	$10,000	30	30	29	1	$10,200	Replace	33%	#	4	$2,500.00	Poor	Medium	N/A	N/A	No Impact
1.6.3.2	C1060 Kitchen Refurbishment - Cabinets - PHII	$20,000	30	13	13	17	$28,005	Replace	66%	#	8	$2,500.00	Good	Low	N/A	N/A	No Impact
	C30 Interior Finishes																
1.7.1	C3070 Floor Finishes - Units - Carpet to Parquet	$42,700	10	15	8	2	$44,425	Replace		sm	700	$61.00	Poor	Medium	N/A	N/A	No Impact
1.7.2	C3070 Floor Finishes - Units - Parquet	$16,500	25	40	20	5	$18,217	Replace		sm	150	$110.00	Fair	Medium	N/A	N/A	No Impact
	D SERVICES																
	D20 Plumbing																
1.8.1.1	D201001 Waterclosets - Units - Toilets - PHI	$3,200	35	20	20	15	$4,307	Replace	66%	#	8	$400.00	Good	Low	N/A	N/A	Energy – Moderate savings
1.8.1.2	D201001 Waterclosets - Units - Toilets - PHII	$1,600	35	35	30	5	$1,767	Replace	33%	#	4	$400.00	Fair	Medium	N/A	N/A	Energy – Moderate savings
1.8.2.1	D201003 Sinks - Units - Vanities - PHI	$6,000	25	15	15	10	$7,314	Replace	66%	#	8	$750.00	Good	Low	N/A	N/A	No Impact
1.8.2.2	D201003 Sinks - Units - Vanities - PHII	$3,000	25	35	20	5	$3,312	Replace	33%	#	4	$750.00	Fair	Medium	N/A	N/A	No Impact
1.8.3.1	D2010 Showers/Tubs - Units - PHI	$16,000	30	15	15	15	$21,534	Replace	66%	#	8	$2,000.00	Good	Low	N/A	N/A	No Impact
1.8.3.2	D2010 Showers/Tubs - Units - PHII	$8,000	30	35	20	10	$9,752	Replace	33%	#	4	$2,000.00	Good	Low	N/A	N/A	No Impact
1.8.4	D202001 Domestic Water Distribution	$8,100	30	35	20	10	$9,874	Repair		Item	Allow	$8,100.00	Good	Low	N/A	N/A	No Impact
	D30 HVAC																
1.9.1	D302003 Furnaces	$15,000	18	22	16	2	$15,606	Replace		#	6	$2,500.00	Poor	High	N/A	N/A	Energy – Significant savings
1.9.2.1	D3045 Exhaust Ventilation Systems - Bathrooms - PHI	$1,500	25	25	19	6	$1,689	Replace	50%	#	6	$250.00	Good	High	Life Safety	Grandfathered Code Issue	No Impact
1.9.2.1	D3045 Exhaust Ventilation Systems - Bathrooms - PHII	$3,750	25	25	19	6	$4,223	Install	50%	#	6	$625.00	N/A	N/A	Life Safety	Grandfathered Code Issue	No Impact
1.9.2.2	D3045 Exhaust Ventilation Systems - Kitchens - Ducting	$2,400	25	30	24	1	$2,448	Install		#	12	$200.00	Poor	Low	Life Safety	Grandfathered Code Issue	No Impact
1.9.2.3	D3045 Exhaust Ventilation Systems - Kitchens	$3,000	25	30	24	1	$3,060	Replace		#	12	$250.00	Poor	Medium	Life Safety	Grandfathered Code Issue	No Impact
	D50 Electrical																
1.10.1	D5013 Main Electrical Service and Distribution*	$2,500	26	30	30	0	$2,500	Study		Item	Allow	$2,500.00	N/A	High	Life Safety	N/A	No Impact
1.10.2	D5015 Unit Electrical Service and Distribution	$3,000	23	30	20	3	$3,184	Repair		#	12	$250.00	Poor	High	Life Safety	N/A	No Impact
	E EQUIPMENT & FURNISHINGS																

AltusGroup

Component Inventory Table

Centretown Citizens Ottawa Corporation

143-153 Arlington

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Size (GFA): 11,200 Description: Three-storey stacked rowhouse
Construction Year: 1900 SHSC ID: F01085
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Present Reserve as of December 31, 2010: $56,673
Projected Interest Rate: 2.00%
Projected Inflation Rate: 2.00%
Number of Units: 12

	BUILDING COMPONENTS	Current Repair or Replacement Cost 2011	Normal Life Span (Years)	Actual Age (Years)	Effective Age (Years)	Remaining Life Span (Years)	Estimated Future Cost	Description of Major Repair or Replacement	Repair Percentage (%)	COSTING Unit	COSTING Quantity	COSTING 2011	Condition (G/F/P)	Urgency of Action	Life Safety or Security	Code Related	Operational/Energy Savings
1.11.1	E1041 Residential Appliances - Fridge	$2,000	3	10	0	3	$2,122	Replace		#	4	$500.00	Fair	Medium	N/A	N/A	Energy – Moderate savings
1.11.2	E1041 Residential Appliances - Stove	$1,600	3	10	0	3	$1,698	Replace		#	4	$400.00	Fair	Low	N/A	N/A	Energy – Moderate savings
	F SPECIAL CONSTRUCTION & DEMOLITION																
1.12.1	F2020 Hazardous Components Abatement*	$2,500	1	111	111	0	$2,500	Study		Item	Allow	$2,500.00	N/A	N/A	Life Safety	Compliance with Legislative Change	No Impact
2	**G BUILDING SITEWORK**																
	G20 Site Improvements																
2.1.1	G2020 Parking Lots - Asphalt	$2,100	20	20	18	2	$2,185	Replace		sm	60	$35.00	Fair	Medium	N/A	N/A	No Impact
2.1.2	G2020 Parking Lots - Granular	$2,400	30	20	20	10	$2,926	Repair		m	240	$10.00	Fair	Low	N/A	N/A	No Impact
2.2.1	G2030 Pedestrian Paving - Brick Paver	$2,200	20	15	15	5	$2,429	Replace		sm	20	$110.00	Fair	Low	N/A	N/A	No Impact
2.3.1	G2040 Site Development - Fencing - Wood	$6,600	15	10	10	5	$7,287	Repair		m	120	$55.00	Fair	Low	N/A	N/A	No Impact
	G30 Site Civil/Mechanical Utilities																
2.4.1	G3020 Sanitary Sewer*	$1,200	25	111	24	1	$1,224	Study		Item	Allow	$1,200.00	Fair	Medium	No	N/A	N/A
	G40 Site Electrical Utilities																
3	**OTHER**																
3.1.1	BCA & CRFF*	$2,500	3	3	3	0	$2,500	Study		Item	Allow	$2,500.00	N/A	N/A	N/A	N/A	No Impact
		$542,399					**$626,632**										

NOTES:

1. All expenditures are based on 100% removal and replacement unless specifically noted otherwise.
2. HST has not been added to any values shown on this table. HST is excluded.
3. The property's assumed fiscal year is December 31, 2010
4. * Represents a one-time nonrecurring cost. If present, these items should be removed from further updates to the Reserve Fund.
5. Costs shown above do not include abatement work, further investigations (unless specified) or testing.

APPENDIX B – 30-YEAR EXPENDITURE TABLE

Altus Group

Centretown Citizens Ottawa Corporation

143-153 Arlington

Expenditure Table

	ITEM COMPONENT	Year 0 2011	1 2012	2 2013	3 2014	4 2015	5 2016	6 2017	7 2018	8 2019	9 2020	10 2021	11 2022	12 2023	13 2024	14 2025	15 2026	16 2027	17 2028	18 2029	19 2030	20 2031	21 2032	22 2033	23 2034	24 2035	25 2036	26 2037	27 2038	28 2039	29 2040
1.1.1	A10 Foundations*	$5,000																												
1.2.1.1	B201001 Exterior Closure - Brick - Tuckpointing											$2,500																		
1.2.1.2	B201001 Exterior Closure - Brick - Replacement		$1,200																											
1.2.1.3	B201001 Exterior Closure - Brick - Chimney*		$4,000																											
1.2.2.1	B201002 Exterior Stair Construction - Fire Escapes											$45,000																		
1.2.2.2	B201002 Exterior Stair Construction - Fire Escapes*											$1,500																		
1.2.4.1	B201002 Exterior Stair Construction - Stairs																$12,000													
1.2.4.3	B201002 Exterior Stair Construction - Enclosure						$105,000																							
1.2.6	B201011 Joint Sealant	$16,000											$16,000										$16,000							
1.3.1.1	B202001 Windows												$52,500																	
1.3.1.2	B202001 Windows		$2,000																		$2,000									
1.4.1	B203001 Solid Doors - Wood							$5,400																				$5,400		
1.4.2	B203001 Solid Doors - Metal Clad											$6,300																		
1.5.1	B3010 Roof Coverings - Shingled					$9,000																	$9,000							
1.5.2.1	B3010 Roof Coverings - BUR													$52,000																
1.5.2.2	B3010 Roof Coverings - BUR*		$5,200																											
1.5.3	B3010 Roof Coverings - Modified Bitumen				$8,400																					$8,400				
1.5.4	B3010 Roof Coverings - Roof Drains - Eaves/Downspouts						$6,000																			$6,000				
1.6.2.1	C1060 Kitchen Refurbishment - Countertops - PHI		$1,800																			$1,800								
1.6.2.2	C1060 Kitchen Refurbishment - Countertops - PHII								$3,600																			$3,600		
1.6.3.1	C1060 Kitchen Refurbishment - Cabinets - PHI		$10,000																											
1.6.3.2	C1060 Kitchen Refurbishment - Cabinets - PHII																		$20,000											
1.7.1	C3070 Floor Finishes - Units - Carpet to Parquet			$42,700										$42,700									$42,700							
1.7.2	C3070 Floor Finishes - Units - Parquet						$16,500																							
1.8.1.1	D201001 Waterclosets - Units - Toilets - PHI																$3,200													
1.8.1.2	D201001 Waterclosets - Units - Toilets - PHII						$1,600																							
1.8.2.1	D201003 Sinks - Units - Vanities - PHI											$6,000																		
1.8.2.2	D201003 Sinks - Units - Vanities - PHII						$3,000																							
1.8.3.1	D2010 Showers/Tubs - Units - PHI																$16,000													
1.8.3.2	D2010 Showers/Tubs - Units - PHII											$8,000																		
1.8.4	D202001 Domestic Water Distribution											$8,100																		
1.9.1	D302003 Furnaces			$15,000																		$15,000								
1.9.2.1	D3045 Exhaust Ventilation Systems - Bathrooms - PHI							$1,500																						
1.9.2.1	D3045 Exhaust Ventilation Systems - Bathrooms - PHII							$3,750																						
1.9.2.2	D3045 Exhaust Ventilation Systems - Kitchens - Ducting		$2,400																								$2,400			
1.9.2.3	D3045 Exhaust Ventilation Systems - Kitchens		$3,000																								$3,000			
1.10.1	D5013 Main Electrical Service and Distribution*	$2,500																												
1.10.2	D5015 Unit Electrical Service and Distribution				$3,000																						$3,000			
1.11.1	E1041 Residential Appliances - Fridge				$2,000			$2,000			$2,000			$2,000			$2,000			$2,000			$2,000			$2,000		$2,000		
1.11.2	E1041 Residential Appliances - Stove				$1,600			$1,600			$1,600			$1,600			$1,600			$1,600			$1,600			$1,600		$1,600		
1.12.1	F2020 Hazardous Components Abatement*	$2,500																												
2.1.1	G2020 Parking Lots - Asphalt			$2,100																			$2,100							
2.1.2	G2020 Parking Lots - Granular											$2,400																		
2.2.1	G2030 Pedestrian Paving - Brick Paver						$2,200																			$2,200				
2.3.1	G2040 Site Development - Fencing - Wood						$6,600															$6,600								
2.4.1	G3020 Sanitary Sewer*		$1,200																											
3.1.1	BCA & CRFF*	$2,500																												
	Total Annual Expenditures	$28,500	$30,800	$59,800	$15,000	$9,000	$140,900	$14,250	$3,600	$0	$3,600	$79,800	$68,500	$98,300	$0	$0	$34,800	$0	$20,000	$3,600	$0	$23,600	$5,400	$69,800	$0	$3,600	$16,600	$8,400	$12,600	$0	$0
	Facility Condition Index (FCI)	2	2	3	1	0	8	1	0	0	0	4	4	5	0	0	2	0	1	0	0	1	0	4	0	0	1	0	1	0	0

NOTES:

1. The fiscal year end for this property is December 31, 2010.
2. Expenditures are assumed to be debited during the beginning of the year.
3. The first year shown is the current fiscal year.
4. Engineering Fees are included where noted; cost is estimated and not a quotation.
5. * Represents a one-time nonreoccuring cost. If present, these items should be removed from further updates to the Reserve Fund.
6. The Facility Condition Index (FCI) is based on the Cost per Square Foot values as provided by SHSC.

APPENDIX C – CASH FLOW TABLES

Present Reserve as of December 31, 2010:	$56,673
Projected Interest Rate:	2.00%
Projected Inflation Rate:	2.00%
Total Number of Units:	12
First Year Contribution:	$17,075

143-153 Arlington

CASH FLOW TABLE I

Current Position (not matching Inflation Rates)

YEAR		OPENING BALANCE	EXPENDITURES	REVISED CONTRIBUTION FROM PREVIOUS YEAR	CONTRIBUTIONS		ANNUAL INTEREST	FUNDING REQUIREMENT	CLOSING BALANCE
					Total Annual	Monthly per Unit			
0	2011	$56,673	$28,500	0.00%	$12,806	$119	$682		$41,661
1	2012	$41,661	$31,416	0.00%	$17,075	$119	$362		$27,682
2	2013	$27,682	$62,216	0.00%	$17,075	$119	$0		($17,459)
3	2014	($17,459)	$15,918	0.00%	$17,075	$119	$0		($16,302)
4	2015	($16,302)	$9,742	0.00%	$17,075	$119	$0		($8,969)
5	2016	($8,969)	$155,565	0.00%	$17,075	$119	$0		($147,459)
6	2017	($147,459)	$16,048	0.00%	$17,075	$119	$0		($146,432)
7	2018	($146,432)	$4,135	0.00%	$17,075	$119	$0		($133,492)
8	2019	($133,492)	$0	0.00%	$17,075	$119	$0		($116,417)
9	2020	($116,417)	$4,302	0.00%	$17,075	$119	$0		($103,644)
10	2021	($103,644)	$97,276	0.00%	$17,075	$119	$0		($183,845)
11	2022	($183,845)	$85,171	0.00%	$17,075	$119	$0		($251,941)
12	2023	($251,941)	$124,668	0.00%	$17,075	$119	$0		($359,534)
13	2024	($359,534)	$0	0.00%	$17,075	$119	$0		($342,459)
14	2025	($342,459)	$0	0.00%	$17,075	$119	$0		($325,384)
15	2026	($325,384)	$46,836	0.00%	$17,075	$119	$0		($355,146)
16	2027	($355,146)	$0	0.00%	$17,075	$119	$0		($338,071)
17	2028	($338,071)	$28,005	0.00%	$17,075	$119	$0		($349,000)
18	2029	($349,000)	$5,142	0.00%	$17,075	$119	$0		($337,067)
19	2030	($337,067)	$0	0.00%	$17,075	$119	$0		($319,992)
20	2031	($319,992)	$35,068	0.00%	$17,075	$119	$0		($337,985)
21	2032	($337,985)	$8,185	0.00%	$17,075	$119	$0		($329,095)
22	2033	($329,095)	$107,909	0.00%	$17,075	$119	$0		($419,929)
23	2034	($419,929)	$0	0.00%	$17,075	$119	$0		($402,854)
24	2035	($402,854)	$5,790	0.00%	$17,075	$119	$0		($391,570)
25	2036	($391,570)	$27,234	0.00%	$17,075	$119	$0		($401,729)
26	2037	($401,729)	$14,057	0.00%	$17,075	$119	$0		($398,711)
27	2038	($398,711)	$21,507	0.00%	$17,075	$119	$0		($403,142)
28	2039	($403,142)	$0	0.00%	$17,075	$119	$0		($386,067)
29	2040	($386,067)	$0	0.00%	$17,075	$119	$0		($368,992)

NOTES:

1. "Annual Interest" is calculated monthly, and is based upon the expenditures taking place at the beginning of the year.
2. All values exclude HST.
3. Year 0 is the 2011 Fiscal Year for the Corporation.
4. The fiscal year end for this property is December 31, 2010.
5. The opening balance in 2011 is based on the balance at the end of the Corporation's previous fiscal year.

Present Reserve as of December 31, 2010:	$56,673
Projected Interest Rate:	2.00%
Projected Inflation Rate:	2.00%
Total Number of Units:	12
First Year Contribution:	$17,075

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CASH FLOW TABLE II

Proposed Scenario

YEAR		OPENING BALANCE	EXPENDITURES	REVISED CONTRIBUTION FROM PREVIOUS YEAR	CONTRIBUTIONS		ANNUAL INTEREST	FUNDING REQUIREMENT	CLOSING BALANCE
					Total Annual	Monthly per Unit			
0	2011	$56,673	$28,500	0.00%	$17,075	$119	$721		$45,969
1	2012	$45,969	$31,416	91.00%	$32,613	$226	$592		$47,758
2	2013	$47,758	$62,216	0.00%	$32,613	$226	$0		$18,155
3	2014	$18,155	$15,918	0.00%	$32,613	$226	$345		$35,196
4	2015	$35,196	$9,742	0.00%	$32,613	$226	$810		$58,877
5	2016	$58,877	$155,565	0.00%	$32,613	$226	$0		($64,075)
6	2017	($64,075)	$16,048	0.00%	$32,613	$226	$0		($47,510)
7	2018	($47,510)	$4,135	0.00%	$32,613	$226	$0		($19,032)
8	2019	($19,032)	$0	0.00%	$32,613	$226	$0		$13,582
9	2020	$13,582	$4,302	0.00%	$32,613	$226	$486		$42,379
10	2021	$42,379	$97,276	0.00%	$32,613	$226	$0		($22,284)
11	2022	($22,284)	$85,171	0.00%	$32,613	$226	$0		($74,842)
12	2023	($74,842)	$124,668	0.00%	$32,613	$226	$0		($166,897)
13	2024	($166,897)	$0	0.00%	$32,613	$226	$0		($134,283)
14	2025	($134,283)	$0	0.00%	$32,613	$226	$0		($101,670)
15	2026	($101,670)	$46,836	0.00%	$32,613	$226	$0		($115,893)
16	2027	($115,893)	$0	0.00%	$32,613	$226	$0		($83,280)
17	2028	($83,280)	$28,005	0.00%	$32,613	$226	$0		($78,671)
18	2029	($78,671)	$5,142	0.00%	$32,613	$226	$0		($51,200)
19	2030	($51,200)	$0	0.00%	$32,613	$226	$0		($18,587)
20	2031	($18,587)	$35,068	0.00%	$32,613	$226	$0		($21,042)
21	2032	($21,042)	$8,185	0.00%	$32,613	$226	$0		$3,387
22	2033	$3,387	$107,909	0.00%	$32,613	$226	$0		($71,909)
23	2034	($71,909)	$0	0.00%	$32,613	$226	$0		($39,296)
24	2035	($39,296)	$5,790	0.00%	$32,613	$226	$0		($12,473)
25	2036	($12,473)	$27,234	0.00%	$32,613	$226	$0		($7,094)
26	2037	($7,094)	$14,057	0.00%	$32,613	$226	$0		$11,463
27	2038	$11,463	$21,507	0.00%	$32,613	$226	$0		$22,569
28	2039	$22,569	$0	0.00%	$32,613	$226	$752		$55,934
29	2040	$55,934	$0	0.00%	$32,613	$226	$1,419		$89,967

NOTES:

1. "Annual Interest" is calculated monthly, and is based upon the expenditures taking place at the beginning of the year.
2. All values exclude HST .
3. Year 0 is the 2011 Fiscal Year for the Corporation.
4. The fiscal year end for this property is December 31, 2010.
5. The opening balance in 2011 is based on the balance at the end of the Corporation's previous fiscal year.

APPENDIX D – LIST OF CORRESPONDENCE REVIEWED

List of Documentation Provided

1. The subject property's Building Condition Assessment and Reserve Fund Study by Stonewell Group Inc. dated 2005.