

# **DEPRECIATION REPORT CHELSEA GARDENS (2021 UPDATE)**

13860 – 13888 70<sup>th</sup> Avenue  
Surrey, British Columbia



Presented to:

Owners of Strata Plan LMS 1416  
c/o Mr. Ross Ruddick, Property Manager  
Crossroads Management Ltd.  
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Report No. 1433.DR00

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## **1.0 Introduction**

### **1.1 Terms of Reference**

McArthur Vantell Limited (MVL) was retained by Mr. Ross Ruddick, Property Manager at Crossroads Management Ltd., on behalf of The Owners of Strata Plan LMS 1416, to prepare an updated Depreciation Report for the residential complex “Chelsea Gardens” located at 13860 – 13888 70<sup>th</sup> Avenue in Surrey, B.C. The original report was completed by MVL in September 2017.

### **1.2 Scope of Service**

#### **Project Overview**

MVL provides Reserve Fund Studies to Owners, to assist them in determining the contributions to the Reserve Fund which are appropriate for each individual property.

Typically, property management firms, accountants and appraisers prepare Reserve Fund Studies based on design drawings and specifications, and on the “textbook” life expectancies of the components of the complex. Unfortunately, construction deficiencies, which cannot be identified on the drawings, often result in the failure of components prior to the expiry of the “textbook” lifespans or expected service lives. In our opinion, the predicted life expectancies of the components of the complex must be based on an engineering assessment of the actual “as-built” and “as-maintained” conditions. Only in this way can one establish realistic reserve fund allocations.

The reserve fund study is an assessment of common area facility systems, including the building enclosure – roofs, exterior walls, mechanical, electrical, plumbing, fire and life safety systems, elevator and landscaping. This assessment includes a review of the design drawings and specifications, and a limited visual review of the complex which will allow us to determine the existing conditions of the various components, since the last review in 2017, and enable us to estimate their expected service lives. We then update estimates of renewal (replacement) costs, based on our observations, experience and previous report. The final report includes a list of the major components; their estimated life spans; estimated replacement costs in current (2021) and future year dollars; and a calculated annual contribution, which is based on current interest and inflation rates, and on the existing reserves. The costs do not include value added taxes and soft costs such as consulting fees, contingency allowances and permit fees. This will assist the Strata in determining the appropriate annual contributions to the contingency reserve fund to avoid special levies, if possible, for a period of 30 years.

#### **Scope of Work**

The scope of our work includes visual reviews of major components and systems, in readily accessible locations, to observe and document existing conditions, and

discussions with Site representatives. The major components and systems to be observed include site improvements, building structure, building envelope, common interior elements, a representative sampling of residential units, mechanical and electrical systems, and life safety / fire protection systems.

The scope of services completed includes:

1. A review of the design drawings and specifications provided to re-acquaint us with the various systems. We will also review the latest maintenance records of the building.
2. Visual examination of the complex by our team of qualified consultants to develop a general assessment of the “as constructed” condition of the various building components and systems. This review includes, but is not limited to the following items:
  - building enclosure;
  - exterior wall systems, including doors and windows;
  - roof system, flashing and caulking, downspouts and gutters;
  - balconies, flashing and caulking and drainage system;
  - mechanical system;
  - electrical system including heating, exterior lighting;
  - fire and life safety systems;
  - elevator;
  - typical suite;
  - common area – finishes, furnishings and equipment;
  - parking garage and patios;
  - landscaping;
  - security.
3. No destructive testing or exploratory openings are carried out on any of the assets and the equipment is not disassembled, operated, or subject to re-commissioning tests.
4. Updated financial forecasting tables (up to three, 30 year Cash Flow charts) that will assist the Strata in determining the necessary annual contribution to the contingency reserve, which will include a listing of the components, estimated life spans, anticipated maintenance, repair and replacement costs (in current year dollars).
5. Our report includes inspection checklists for building envelope maintenance activities for the Strata to use as part of their maintenance program.
6. Discussions of the report with the Strata are included, however, subsequent Strata meetings, structural analysis, material sampling and testing, quantity surveys, our detailed opinions as to the reasons for any deficiencies and detailed recommendations

for repairs are not included within the scope of this proposal. These services, along with others, can be provided at a later date, if required, at an additional cost.

### **1.3 General Service Conditions**

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The findings of this report generally capture the conditions that existed at the time of our site visits. The report is deemed to be in accordance with generally accepted standards for maintenance plans and reserve studies in B.C. as established by the Strata Property Act Regulations. Nothing in the Report is, or is intended to, act as a guarantee or express warranty regarding any matter herein.

This report is to be used only for the specific purpose(s) stated herein and any other use is invalid. No reliance may be made by any third party without our prior written consent. You may show our report in its entirety to those third parties that need to review the information contained herein. No one should rely on our report as a substitute for his or her own due diligence.

### **1.4 Assumptions and Limiting Conditions**

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1. Opinions and recommendations in the Report are rendered in accordance with generally accepted professional standards and are generally based on a review of the original construction drawings, information obtained during our visual review of building components and information provided by the Strata/Property Manager. MVL shall not be responsible for the impact of any design or construction defects, whether or not described in the Report, or any unknown factors that might adversely affect the accuracy our projections. Legal surveys, soil tests, detailed engineering calculations and/or a quantity surveys are not within the scope of the Report.
2. For the purpose of this Report, the existing buildings, property development and related structures are assumed to have been reviewed and approved by local authorities at the time of construction and/or subsequent renovations and inspections. Although in the Report, applicable codes may be referenced, an evaluation (detailed or otherwise) of the Property's compliance with national and/or provincial Building Codes and Fire Codes (as well as local/municipal by-laws, etc.) is not part of the scope of this Report.
3. MVL will rely upon all information provided by the Client, including but not limited to all existing studies, reports and other available data and work done by the Client or other Contractors retained by the Client pertinent to the services. MVL shall not attempt to independently verify and shall not have any responsibility for the accuracy, completeness, workmanship, or any other aspect of the information described above.
4. The Report is prepared for the exclusive use of the Client and relates solely to the services for which MVL has been retained and shall not be used or relied upon by the Client or any third-party for any variation or extension of the services, any other project or any other purpose. The Report may not be used or relied upon by any other

party, without our written consent. We accept no responsibility for damages suffered by a third party resulting from decisions made or actions based on this report.

5. The service life of assets can be affected by a variety of circumstances, including the following:
  - The quality of maintenance conducted on an asset will affect the service life of the asset. Poor maintenance can lead to a reduced service life and may result in the premature failure of an asset.
  - Insurable losses such as earthquakes, fires and floods, which can shorten the life of an asset. These events are not considered in a Depreciation Report.
  - Asset service life in a Depreciation Report is determined according to accepted industry standards.
6. The estimates of probable costs are subject to change and are contingent upon factors, over which MVL has no control, such as vagaries of the marketplace. At the time of tender, costs may vary depending on the time of the year, contractor availability and other factors. Therefore, MVL does not guarantee the accuracy of such estimates. These estimates are intended for planning purposes and not for accounting or tender use. Replacement costs are typically based on like-for-like with a similar asset unless code or other circumstances require the replacement cost to include an upgrade. Actual costs will be determined only after a confirmed scope of work/repair specifications has been developed, when tenders have been received for the Work, and when the Work has been performed.

## **1.5 Basic Information**

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Some of the pertinent/relevant updated information provided to MVL since the last report, by the Strata includes, but is not limited to, the following:

1. Balance Sheet and other financial statements.
2. Annual fire inspection report (2021), prepared by City Fire Prevention Services Ltd.
3. Mechanical equipment list.
4. Infrared Surveyh, prepared by Universal Electrical Services, dated October 27, 2020.
5. Ledger (2017-2021) and invoices of various work completed at Chelsea Gardens.

## **1.6 Property/Building Description & History**

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The property is located on the south side of 70<sup>th</sup> Avenue, between 138<sup>th</sup> Street and 140<sup>th</sup> Street in Surrey. The Kensington (13860) and Mayfair (13870) buildings are located at

the northwest corner of the complex. The Windsor (13880) building is located at southwest corner of the complex. The Clubhouse (13888) is located at the centre of the complex and the Townhouses are spread throughout the entire property. The north half of the site is relatively flat with minimal slope, while the south half of the site slopes gradually south towards 68<sup>th</sup> Avenue.



Below is a summary of some of the key physical parameters of Chelsea Gardens:

<p><b>Original Construction Date:</b></p>	<p>The Kensington ('60) – 1995                  The Mayfair ('70) – 1994                  The Windsor ('80) – 1996                  The Clubhouse ('88) - 1994                  Townhouses – 1996</p> <p><b>For the purposes of this report, we will use 1995 as the year of completion, making the complex currently 26 years old</b></p>
<p><b>Building Age:</b></p>	<p>The Kensington ('60) – 26 years</p>

	<p>The Mayfair ('70) – 27 years                  The Windsor ('80) – 25 years                  The Clubhouse ('88) – 27 years                  Townhouses – 25 years                  For the purposes of this report, we will consider the complex to be 26 years old</p>
<b>Property Type:</b>	Multi-family residential
<b># of Building(s):</b>	3 apartment buildings, 1 Clubhouse building and 234 townhouse units
<b># of Storeys (above grade):</b>	4 (apartment buildings) and 2 (Clubhouse & townhouses)
<b># of Basement/Parkade Levels:</b>	3 parkades (The Kensington, The Mayfair, The Windsor) – each parkade has 1 level of underground parking
<b># of Residential Units:</b>	<p>394 units total                  The Kensington ('60) - 64 units                  The Mayfair ('70) - 32 units                  The Windsor ('80) - 64 units                  Townhouses - 234 units</p>

For the purposes of this report, we will also refer to the buildings as follows:

The Kensington 13860-70<sup>th</sup> Avenue = Building '60

The Mayfair 13870-70<sup>th</sup> Avenue = Building '70

The Windsor 13880-70<sup>th</sup> Avenue = Building '80

The Clubhouse 13888-70<sup>th</sup> Avenue = Building '88

Townhouses (#101-#334) = TH



**Photo #1**

The Kensington – 13860-70<sup>th</sup> Avenue



**Photo #2**

The Mayfair – 13870-70<sup>th</sup> Avenue



**Photo #3**

The Windsor – 13880-70<sup>th</sup> Avenue



**Photo #4**

The Clubhouse – 13888-70<sup>th</sup> Avenue



**Photo #5**


Townhouses (#101-#334)

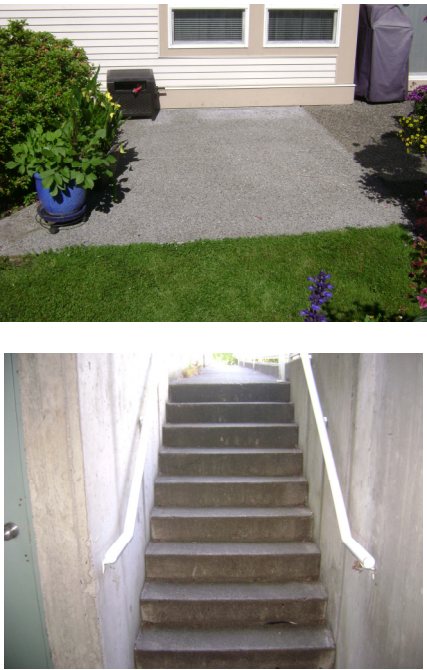
The field investigations consisted of a review of building drawings and a number of site visits by MVL in May and June 2021 to conduct an on-site visual review of the various common element building components. We also spoke to/met with Mr. John Unger, Caretaker, on site who showed us around the complex and provided valuable information of Strata Maintenance & Renewals activities.


## 2.0 Inventory and Assessment of Assets


### 2.1 Site Elements

Item	Site 1
<b>Description:</b>	Utilities: Domestic water supply, Storm water & Sanitary sewer hook-ups, natural gas
<b>Location:</b>	-
<b>Current Age:</b>	26 years
<b>Service Life:</b>	Indefinite
<b>Assessment:</b>	<p>Domestic water supply, storm and sanitary sewer hook-ups are provided by the City of Surrey.</p> <p>Natural gas is supplied by the local service provider.</p> <p>The storm water is collected in many ways: (1) Storm water is directed towards on-site catch basins and patio drains, which are connected to the municipal storm water system (2) Storm water from flat roof drains, sloped roof gutters and balcony drains flow into downspouts (or interior plumbing) which discharge into the municipal storm water system (3) The landscaped areas absorb storm water by natural infiltration.</p>
<b>Recommendation:</b>	<p>It was reported that repairs, relating to perimeter drainage and tree roots, have been (and are being) completed on an as-needed basis, the latest being scheduled at the Windsor. The storm water drainage system should be checked regularly, which includes flushing of the drainage system, as part of ongoing maintenance (operating budget) and minor repairs. Catch basins should be kept clear and unobstructed. The majority of the on-site storm water management system, which is concealed, could not be assessed.</p> <p>Underground culverts and pipes are considered to have an “indefinite” service life, however these systems can require periodic repairs due to wear and/or unforeseen circumstances over the life of the complex. A contingency allowance has been included for minor repairs.</p> <p>Gutter and downspout replacement should be included with the sloped roof replacement cost.</p>


	<b>Item:</b>	<b>Site 2</b>
	<b>Description:</b>	Roads, Visitor parking, Curbs, Driveways, Parking Garage Entrance Driveway
	<b>Location:</b>	Roads and Curbs – through complex Visitor Parking – throughout complex, RV lot (south end of complex) Driveways – townhouse units Parking Garage Entrance Driveway – Buildings '60, '70, '80
	<b>Current Age:</b>	26 years
	<b>Service Life:</b>	35 years
<b>Assessment:</b>	<p>The existing roads and visitor parking throughout the complex are paved with asphalt; roundabouts and parking at the front of the complex are covered with paving stones; the townhouse driveways and parking garage entrance driveways are concrete.</p> <p>The asphalt/concrete surfaces were in reasonable condition. Minor cracking of the asphalt surfaces and concrete ramps was observed throughout the complex. The painted markings throughout the complex have faded. No significant damage was observed.</p>	
<b>Recommendation:</b>	<p>The roadways/driveways should continue to be monitored. Localized maintenance &amp; repairs are recommended to any sections of roadway and driveway which are cracked/damaged. Such repairs may be periodically required to extend the service life. We have included an allowance in the table for future repairs, on an as-needed basis. Re-painting of all faded markings should also be completed (operating budget).</p> <p>The cost for eventual replacement of the entire asphalt paved roadway, including the RV lot, has also been included based on expected service life.</p>	

	<b>Item:</b>	<b>Site 3</b>
	<b>Description:</b>	Walkways, Sidewalks, Patios & Stairs (on grade)
	<b>Location:</b>	Designated walkways/sidewalks – throughout complex and along side of townhouses  Patio – at the backyard of all townhouse  Stairs – to underground parking garage and sidewalks
	<b>Current Age:</b>	26 years (concrete topping)
	<b>Service Life:</b>	N/A
<b>Assessment:</b>	<p>Designated walkways and/or sidewalks are located throughout the complex as well as from the driveways to the front entrances of the townhouse units (some of which lead to the back patios). The walkways/sidewalks consist of concrete topping, or paving stones, and are exposed to the elements.</p> <p>The patios are located the back of the townhouse units and consist of concrete topped slabs. The patios are exposed to the elements.</p> <p>Exterior concrete stairs lead to the underground parking garage of Buildings '60, '70 &amp; '80 and to the sidewalks. These stairs are exposed to the elements.</p> <p>The walkway/sidewalk and patio surfaces, along with the stairs, were, generally, in reasonable condition for their age with no significant problems/major deficiencies noted or reported such as damage or uplifting.</p>	
<b>Recommendation:</b>	<p>The walkway/sidewalk and patio slabs, along with the stairs should be monitored and addressed, as required. Minor, localized repairs may be required from time to time (in areas of cracking, settling and uplifting or tripping hazards) to extend the serviceable life, as these items continue to age. We have included a contingency allowance in the table for ongoing localized repairs.</p>	

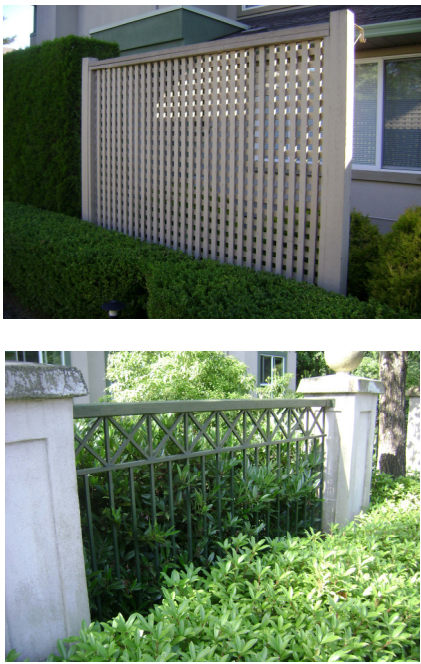
	<b>Item:</b>	<b>Site 4</b>
	<b>Description:</b>	Concrete (pool deck)
	<b>Location:</b>	Building '88 – outdoor pool deck
	<b>Current Age:</b>	26 years (concrete topping)
	<b>Service Life:</b>	5 years (coating)
<b>Assessment:</b>	The concrete floor around the outdoor pool is painted. Some cracking of the concrete surface, and peeling of the surface coating, was noted. The pool deck is exposed to the elements.	
<b>Recommendation:</b>	The pool deck surface should be re-painted/sealed and monitored. We have included an allowance in the table for this work. Minor, localized repairs may be required from time to time (such as crack repairs) to extend the serviceable life	

	<b>Item:</b>	<b>Site 5</b>
	<b>Description:</b>	Patios, Walkways & Sidewalks (over parking garage)
	<b>Location:</b>	Patios - ground floor units of Buildings '60, '70 & '80  Walkways/Sidewalks – around Buildings '60,'70 &'80
	<b>Current Age:</b>	26 years (waterproofing membrane)
	<b>Service Life:</b>	35 years (waterproofing membrane)
<b>Assessment:</b>	<p>The ground floor patios and some walkways/sidewalks are mostly located directly over the parking garage of Buildings '60, '70 &amp; '80. The patios are covered in concrete topping (Buildings '60 &amp; '80) or pavers (Building '70) and are open to the elements with some protection from the balconies above.</p> <p>According to the architectural drawings, below the concrete topping/pavers is pea gravel, protection board and waterproofing membrane. The waterproofing membrane below the patios, walkways and sidewalks is original. The type of waterproofing membrane was not specified in the drawings.</p> <p>Aside from some minor hairline cracking, no significant</p>	

	<p>problems/major deficiencies on the patio/walkway/sidewalk surfaces (such as settling, damage or uplifting of the concrete topping) were reported or observed.</p> <p>Also refer to Encl. 18 Underground Parking Garage for further observations of the parking garage below the patio, walkway and sidewalk areas.</p>
<b>Recommendation:</b>	<p>The patio, walkway and sidewalk slabs above the parking garage should be monitored and addressed (operating budget), where required, especially if they start to present a tripping hazard which is a safety issue. Minor repairs, such as sealing surface cracks may be required from time to time. All patio surfaces and drains should also be kept clear of debris. No allowance has been made in the table.</p> <p>The underground parking garage should be monitored for any leaks directly under the patio, walkways and sidewalks. Refer to Encl 18 Underground Parking Garage for further recommendations and replacement costs of the parking garage membrane.</p>



	<b>Item:</b>	<b>Site 6</b>
	<b>Description:</b>	Landscaping (various)
	<b>Location:</b>	Grounds around building (including over parking garage)
	<b>Current Age:</b>	N/A
	<b>Service Life:</b>	N/A
<b>Assessment:</b>	<p>Various vegetation such as ground cover, shrubs, plants and trees make up the soft landscaping throughout the complex. Some larger trees are located in front of some townhouse units and around the perimeter of the complex. There are also designated planters located around the perimeter of the apartment buildings, over the parking garage. Landscaping ties are also being used at walkways and for retaining walls.</p> <p>The landscaping appears to be in acceptable condition with no major deficiencies observed or reported. The Strata currently has a service contract for landscaping services.</p>	
<b>Recommendation:</b>	<p>Routine maintenance and repair/replacement of landscaping and related components should be completed as required. We have included an allowance in the table for miscellaneous landscaping</p>	

	<p>replacement and ongoing selective repairs of existing wood ties/retaining walls on an as-needed basis.</p> <p>The Strata should be aware of, and monitor, any larger trees, whose roots have a potential to damage the existing waterproofing membrane over the parking garage and/or potentially uplift the concrete/asphalt topped areas around the complex. These areas should be addressed on an as-needed basis (operating budget). The Strata should also be aware of any shrubs, trees and branches up against the exterior walls. The Strata should keep vegetation, shrubs, trees and branches trimmed back from contact with the exterior walls (operating budget).</p>
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	<b>Item:</b>	Site 7
	<b>Description:</b>	Fencing & Railings
	<b>Location:</b>	Around complex, throughout complex
	<b>Current Age:</b>	Varies
	<b>Service Life:</b>	N/A

<b>Assessment:</b>	<p>Wood lattice panels are located between some units along the front of the townhouses. Some townhouses also have privacy fencing at the end of the units, around the back patios and along walkways. Privacy fencing is also located on one side of the RV lot. The wood fencing has been maintained, repaired or replaced over the years. The wood fencing is been painted.</p> <p>Concrete fence/panels and posts w/caps are original and located around the perimeter of the complex (north, west and east sides). The panels and posts are parged with stucco.</p> <p>Sections of metal fencing and gates are original and located around the perimeter of the complex (north, west and east sides), primarily between the concrete posts. Chainlink fencing is located around</p>
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	<p>the RV lot at the south end of the complex.</p> <p>Metal picket and glass panel railings are located adjacent and above the parkade ramps/entrances, at exterior stairs and around the pool at Building '88.</p> <p>Overall, the fencing, gates and railings appear to be in sound condition with no major evidence of instability.</p>
<p><b>Recommendation:</b></p>	<p>Replacement of wood fencing and lattice panels has been ongoing, annually, out of operating budget, on an as-needed basis. The wood fencing should continue to be monitored. Continue with annual replacement, on an as-needed basis (operating budget). No allowance has been made in the table.</p> <p>Concrete fence/panels and posts should be monitored and regularly maintained as required (operating budget). Minor repairs, such as, spot repairs to the stucco parging, spot painting and cleaning should be completed on an as-needed basis (operating budget). We have included an allowance in the table for re-painting all of the concrete fence/panels and posts.</p> <p>The metal fencing, gates and railings should be monitored and regularly maintained as required (operating budget). Minor repairs, such as spot painting or touch-up, may be required from time to time, to maintain the finish and prevent any rusting.</p>


	<p><b>Item:</b></p>	<p><b>Site 8</b></p>
	<p><b>Description:</b></p>	<p>Concrete/Block Walls</p>
	<p><b>Location:</b></p>	<p>Buildings '60,'70,'80,'88, TH – column bases, retaining walls, around electrical boxes</p>
	<p><b>Current Age:</b></p>	<p>26 years</p>
	<p><b>Service Life:</b></p>	<p>10 years (paint)</p>


<b>Assessment:</b>	Overall, no significant deficiencies of the concrete column bases, retaining walls and block walls were noted. Some of the column bases are painted. Re-painting and spot repairs were completed in 2017.
<b>Recommendation:</b>	Monitoring of the concrete column bases, retaining walls and block walls should be ongoing (operating budget). Minor repairs, such as sealing cracks, or replacing cracked blocks, may be required from time to time, the cost of which should be part of the operating budget. We have included a future allowance for painting.


	<b>Item:</b>	<b>Site 9</b>
	<b>Description:</b>	Outdoor Fountains/Ponds
	<b>Location:</b>	At front entrance of complex and at Buildings '60,'70,'88
	<b>Current Age:</b>	26 years
	<b>Service Life:</b>	5 years (paint)
<b>Assessment:</b>	<p>There are multiple outdoor fountains at the complex. There are also ponds and a stream behind the Clubhouse.</p> <p>The outdoor fountains are concrete structures with painted walls on the inside, last painted in 2017.</p> <p>There is a stream and two ponds behind the Clubhouse. The stream is lined with a rubber liner. The ponds are concrete structures, presumably protected by a sealer. No problems were noted or reported.</p>	
<b>Recommendation:</b>	<p>Regular maintenance to the fountains &amp; ponds should ongoing and completed (at least annually), which includes draining the pond, removing all debris and cleaning the drains/outlets (operating budget). The liner should last for the foreseeable future, therefore, replacement is not included in the table. We have, however, allowed for re-painting of the inside walls of the fountains.</p>	


## 2.2 Building Envelope

	<b>Item:</b>	<b>Encl 1</b>
	<b>Description:</b>	Flat Roofs (SBS membrane)
	<b>Location:</b>	Buildings '60, '70 & '80 – Above fourth floor units, lower small roofs, front entrance roofs, elevator roofs  Building '88 – Above second & third floors  TH – Above first floor
	<b>Current Age:</b>	26 years (Buildings '60, '70, '80 & '88)  Varies (2019-current) – TH
	<b>Service Life:</b>	30 years (TH)  35 years (Buildings '60, '70, '80 & '88)
<b>Assessment:</b>	<p>Access to the flat roof areas is by ladder from the 4th floor hallways. Access to the Clubhouse roofs is by 2<sup>nd</sup> floor access door and ladder. Access to the Townhouse roofs is by ladder.</p> <p>The existing flat roofs consist of an SBS membrane (with granulated cap sheet) and are original on the apartment buildings and appear to be in fair condition for their age, with no signs or reports of water ingress. Minor repairs have been ongoing.</p> <p>Replacement of the SBS flat roof membranes on the townhouse units is ongoing.</p>	
<b>Recommendation:</b>	<p>Expected service life of the apartment roof membranes should be attained with regular inspections and minor repairs as required (operating budget). Future membrane replacement has been allowed for based on expected service life. An ongoing allowance for replacement of the townhouses flat roofs has been included.</p>	


	<b>Item:</b>	<b>Encl 2</b>
	<b>Description:</b>	Sloped Roofs (asphalt shingles)
	<b>Location:</b>	Townhouses
	<b>Current Age:</b>	26 years
	<b>Service Life:</b>	35 years
<b>Assessment:</b>	<p>The asphalt shingles are original and appear to be in reasonable condition for their age, with no signs or reports of water ingress. Some moss growth was observed on the roof surfaces (particularly the north sides) as well as under the some of the larger trees. Some of the roof vents were also rusted. The sloped roofs provide adequate overhangs over the first and second floor walls, windows and decks.</p>	
<b>Recommendation:</b>	<p>Expected service life should be attained with regular inspections and routine maintenance such as regular cleaning of the gutters, removing moss from the roof surface and re-painting all rusted roof vents along with regular inspections, with minor repairs as required (operating budget). Cost for future replacement has been included in the table, spread over four years.</p>	

	<b>Item:</b>	<b>Encl 3</b>
	<b>Description:</b>	Skylights (sloped roof)
	<b>Location:</b>	Townhouses – upper roofs
	<b>Current Age:</b>	26 years
	<b>Service Life:</b>	30 years
<b>Assessment:</b>	<p>The sloped roof skylights are original and are located over the open townhouse roof decks.</p>	
<b>Recommendation:</b>	<p>The existing skylights should be reviewed regularly and maintained as required (operating budget). These skylights should be replaced in the future in conjunction with future replacement of the sloped roof shingles (spread over three years). A replacement cost has been included in item Encl 2.</p>	

	<b>Item:</b>	<b>Encl 4</b>
	<b>Description:</b>	Sloped Roofs (metal)
	<b>Location:</b>	Entrance canopies (off street) Buildings '60, '70 & '80 – Above fourth floor units on main flat roof Building '88 – Above second floor on main flat roof & above third floor
	<b>Current Age:</b>	26 years
	<b>Service Life:</b>	40 years
<b>Assessment:</b>	The numerous, small sloped metal roof sections were in reasonable/satisfactory condition for their age with no signs or reports of water ingress.	
<b>Recommendation:</b>	Expected service life should be attained with routine maintenance, such as replacement of rusted fasteners, spot painting and regular cleaning along with regular inspections, with minor repairs as required (operating budget). Future replacement has been allowed for based on expected service life.	

	<b>Item:</b>	<b>Encl 5</b>
	<b>Description:</b>	Glass Canopy
	<b>Location:</b>	Building '88 - Main entrance & lobby
	<b>Current Age:</b>	26 years
	<b>Service Life:</b>	N/A
<b>Assessment:</b>	There is a large steel frame canopy w/glass panels over the main entrance and lobby of the Clubhouse building (Building '88). This structure is performing adequately and in satisfactory condition. No problems were noted or reported.	


<b>Recommendation:</b>	The existing canopy should be reviewed regularly and maintained, as required, including caulking, seals and regular cleaning, to help extend its life (operating budget). Touch up painting may be required from time to time to prevent rust and maintain the finish, and should be reviewed at the same time as other painting is completed around the complex. No allowance has been made in the table.
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	<b>Item:</b>	<b>Encl 6</b>
	<b>Description:</b>	Roof Decks - balconies over living spaces (PVC membrane)
	<b>Location:</b>	Townhouses
	<b>Current Age:</b>	22 years
	<b>Service Life:</b>	30 years

<b>Assessment:</b>	<p>The second floor townhouse roof decks are located at either the front or back of the units. Some units have two roof decks; some units don't have any. The roof decks are open to the elements but protected from the sloped roof above.</p> <p>The existing PVC membranes are original, however, some selective membrane repairs were completed in 2009, during building envelope repairs at Units 169-174, 197-201, 203-208 &amp; 231-236.</p> <p>Overall, the existing roof deck membranes on the townhouse units are in satisfactory condition for their age and performing adequately with no reports of current or ongoing leakage activity.</p> <p>Each roof deck has a drain connected to internal plumbing. The decks are, generally, sloped towards the drain.</p> <p>The roof decks have full height vinyl siding or stucco clad guard walls with a section of wood picket rail in the middle of the guard wall.</p>
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<b>Recommendation:</b>	The membranes are performing adequately and in satisfactory condition, partially due to the fact that the roof decks are protected from the elements. Therefore, the membranes should be
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	<p>monitored, maintained and addressed as required (operating budget).</p> <p>We have included future cost allowance to replace the existing PVC membranes, on an as-needed basis.</p>
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	<b>Item:</b>	<b>Encl 7</b>
	<b>Description:</b>	Balconies (pedestrian liquid membrane)
	<b>Location:</b>	Buildings '60, '70, '80 & '88
	<b>Current Age:</b>	Buildings '60 & '80 – 2008 (9 years) Building '70 – 2007 (10 years) Building '88 – 2009 (8 years)
	<b>Service Life:</b>	12-15 years (top coat)

<b>Assessment:</b>	<p>The balcony membranes on Buildings '60, '70, '80 &amp; '88 were replaced between 2007-2009, as part of the building envelope remediation.</p> <p>The second and third floor balconies are, generally, open to the elements but protected from the balconies above. The fourth floor balconies are exposed.</p> <p>The balcony membranes appear to be performing adequately with no signs or reports of water ingress. The membranes on some of the fourth floor exposed decks, however, are starting to show wear. It should be noted that the original membrane top coat is now 8-10 years old.</p> <p>Each balcony has a drain connected to internal plumbing. The balconies are, generally, sloped towards the drain.</p> <p>The existing guard walls, typically, consist of full height metal picket railings that are fascia or side mounted to the balcony structure or curb wall and installed between full height stucco clad support posts or wrap around the balcony.</p>
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<b>Recommendation:</b>	<p>The typical life expectancy of a liquid applied membrane (top coat) is approximately 12-15 years depending on the membrane thickness, waterproofing details and the exposure of the deck. Over the years, the membrane top coat tends to wear down from</p>
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	<p>foot traffic, weather, exposure, etc. As part of ongoing maintenance, we recommend applying a new, compatible top coat over the existing to build up, maintain and extend the life of the existing membrane, particularly on the exposed decks. An allowance for this work has been included for in the table every 12 years, starting in 2025.</p> <p>The balconies should be inspected regularly. As part of the operating budget, routine maintenance such as cleaning of the membrane surface and drains, and re-caulking of cap flashings seams &amp; penetrations should be completed as required. Furniture should be placed on rubber pads to prevent damage to the membrane.</p>
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	<b>Item:</b>	<b>Encl 8</b>
	<b>Description:</b>	Balcony Guardrails (aluminum picket or glass)
	<b>Location:</b>	Buildings '60, '70 & '80 & TH
	<b>Current Age:</b>	Buildings '60 & '80 – 2008 (13 years) Building '70 – 2007 (14 years) TH – varies/ongoing
	<b>Service Life:</b>	50 years

<b>Assessment:</b>	<p>The existing railings on the apartment balconies consist of aluminum pickets and posts. They were installed in 2007-2008 as part of the building envelope remediation. The railings are either fascia mounted or side mounted to the deck structure or curb wall. They are in satisfactory condition with no problems reported or observed.</p> <p>On the townhouses, annual (ongoing) replacement of the existing wood spindles, with new glass panel, aluminum railings is ongoing.</p>
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<b>Recommendation:</b>	<p>Minimal maintenance of the aluminum guardrails is expected, however, they should be checked as part of the overall deck review and maintained out of the operating budget as required, such as caulking, paint finish and fasteners. Replacement is based on the expected service life and therefore not included in the 30-year Table.</p> <p>Replacement of the wood spindles on the townhouse balconies,</p>
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	with new glass panel, aluminum railings should be ongoing. We have included an annual allowance for this ongoing work.
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	<b>Item:</b>	<b>Encl 9</b>
	<b>Description:</b>	Exterior Walls (stucco)
	<b>Location:</b>	Buildings '60, '70, '80, '88 & TH
	<b>Current Age:</b>	26 years (original cladding) 12-14 years (2007-2009)(rainscreen cladding)
	<b>Service Life:</b>	50 years 12-15 years (paint)

<b>Assessment:</b>	<p>The exterior stucco walls (Buildings '60, '70, '80, '88 (selective locations) and townhouses (selective locations)) were replaced with a new rainscreen stucco system between 2007-2009, as part of the building envelope remediation. There were no reported or observed problems. As a follow-up, MVL conducted a survey in February 2016 of the moisture sensors installed at the buildings (refer to MVL's report dated February 29, 2016). A total of 101 readings were taken with all moisture readings being acceptable.</p> <p>Most of the townhouse units have the original stucco cladding which appeared to be in satisfactory condition with no reported problems of water ingress.</p> <p>The existing caulking at Buildings '60, '70, '80, '88 and townhouses (at previously repaired areas) was in satisfactory condition.</p> <p>The existing caulking at original stucco clad areas (eg. interfaces, window/door perimeters at townhouses) was in reasonable condition in protected locations, however the caulking at many exposed locations was cracked, hardened and/or delaminated.</p> <p>No other problems were visually noted or reported.</p>
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<b>Recommendation:</b>	<p>All stucco areas should be monitored and maintained, as required (operating budget). Minor items to be addressed may include sealing all stucco cracks and selective caulking. Exterior cleaning of the stucco should also be completed as required. With routine maintenance and repairs, the life of the stucco walls should be able to be extended, therefore, total replacement cost has not been</p>
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	<p>included in the table.</p> <p>It should be noted that stucco tie-in repairs will be required in the future, if/when the balcony membranes (at townhouses), windows or doors are replaced.</p> <p>The existing caulking at the townhouse units should be addressed, particularly at exposed locations (operating budget). We have included a contingency allowance for painting and re-caulking the exterior of the buildings (apartments and townhouses). As a cost savings measure, this work could be completed in conjunction with other painting in the complex.</p>
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	<b>Item:</b>	<b>Encl 10</b>
	<b>Description:</b>	Exterior Walls (horizontal vinyl siding)
	<b>Location:</b>	TH
	<b>Current Age:</b>	Varies
	<b>Service Life:</b>	50 years
<b>Assessment:</b>	<p>Most of the vinyl siding on the townhouses is original and appeared to be in satisfactory condition. Selective ongoing building envelope related repairs have been ongoing over the years. No invasive testing of the cladding was conducted.</p> <p>The existing caulking at the vinyl siding (eg. interfaces, window/door perimeters) was in reasonable condition in protected locations, however the caulking at many exposed locations was cracked, hardened and/or delaminated.</p>	
<b>Recommendation:</b>	<p>The vinyl siding should be monitored and maintained, as required, (operating budget), including exterior cleaning.</p> <p>The existing caulking should be addressed, particularly at the exposed locations. We have included a contingency allowance for re-caulking the exterior of the townhouse units in item Encl 11.</p>	

	<b>Item:</b>	<b>Encl 11</b>
	<b>Description:</b>	Exterior Walls (wood trim)
	<b>Location:</b>	TH

	<b>Current Age:</b>	Varies
	<b>Service Life:</b>	12 years (paint)
<b>Assessment:</b>	Most of the wood trim is located around the townhouses (at the base of walls, around windows, sliding doors, garage doors, at corners and the 2 <sup>nd</sup> floor level). Replacement of deteriorated trim and related building envelope repairs are ongoing.	
<b>Recommendation:</b>	<p>The wood trim should be monitored and repaired/replaced as required, including painting. Replacement of deteriorated trim, and envelope related components, should be completed as part of the operating budget.</p> <p>The existing caulking should be addressed, particularly at the exposed locations. We have included a contingency allowance for painting and re-caulking the exterior of the townhouse units. As a cost savings measure, this work could be completed in conjunction with other painting in the complex.</p>	

	<b>Item:</b>	<b>Encl 12</b>
	<b>Description:</b>	Exterior Walls (EIFS)
	<b>Location:</b>	Buildings '60, '70, '80, '88 & TH
	<b>Current Age:</b>	26 years (original cladding) 12-14 years (2007-2009)(selective repairs)
	<b>Service Life:</b>	50 years 12-15 years (paint)
<b>Assessment:</b>	EIFS (Exterior Insulated Finish System) is installed around windows and doors (trim), at roof cornices and around support columns. Selective replacement of this trim was completed in 2007-2009 during the building envelope remediation. There were no reported or observed problems.	
<b>Recommendation:</b>	<p>All EIFS areas should be monitored and maintained, as required (operating budget). Minor items to be addressed may include sealing cracks and selective caulking. With routine maintenance and repairs, the life of the EIFS should be able to be extended, therefore, total replacement cost has not been included in the table.</p> <p>We have included a contingency allowance for painting all EIFS</p>	

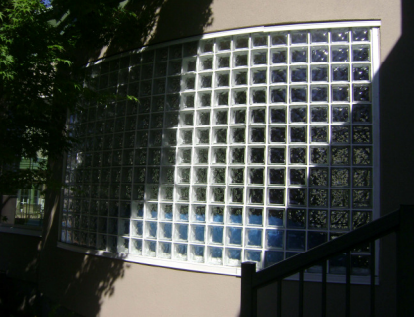
	areas (included as part of costs in Encl 9). As a cost savings measure, this work could be completed in conjunction with other painting in the complex.
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	<b>Item:</b>	<b>Encl 13</b>
	<b>Description:</b>	Windows (PVC, double glazed)
	<b>Location:</b>	Buildings '60, '70, '80, '88 & TH
	<b>Current Age:</b>	Buildings '60 & '80 – 13 years (2008) Building '70 – 14 years (2007) Building '88 – 12 years (2009) or 26 years TH – Varies or 26 years
	<b>Service Life:</b>	35 years

<b>Assessment:</b>	<p>The windows at Chelsea Gardens are PVC, double glazed, thermally broken windows. New PVC windows were installed as part of the building envelope remediation in 2007, 2008 &amp; 2009. Some of the townhouse windows have been replaced throughout the years.</p> <p>Some of the windows are exposed to the elements, while others are protected from the balconies or sloped roof overhang above.</p> <p>Typically, stucco is installed around the windows of Buildings '60, '70, '80 &amp; '88 with a rod and caulk joint (or a fillet caulked bead). The exposed windows have a head and sill flashing.</p> <p>Typically, wood trim or EIFS trim is installed around the windows of the townhouses, with a caulked fillet bead. The exposed windows have a head flashing.</p> <p>No test openings around the windows were conducted. There were no significant reported or observed problems with the windows.</p>
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<b>Recommendation:</b>	<p>The PVC windows in the complex vary in age. The windows should be reviewed regularly and maintained as required to extend the service life (operating budget). Window tracks and weep holes should be kept free of debris, items such as weather stripping, handles, hinges, etc. should be reviewed and repaired/replaced as required. Any failed sealed units should also be replaced on an as-needed basis (operating budget). More attention should be paid to</p>
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	<p>those windows which are directly exposed to the elements. No allowance has been made for maintenance items.</p> <p>We have included an ongoing allowance to replace the existing windows in a phased approach, starting in 2030 and every three years thereafter, replacing the most problematic, original and/or exposed windows first. Windows deteriorate over time due to age, usage, wear and tear and exposure to the weather. Any windows which are replaced should have properly waterproofed rough openings, caulking and new window head and sill flashings. Localized decay repairs should also be completed, where required. Window trim and flashing repairs will also be required during this work.</p> <p>A cost to replace the existing caulking around the windows has been included in Encl. 9.</p>
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	<b>Item:</b>	<b>Encl 14</b>
	<b>Description:</b>	Windows (glass block)
	<b>Location:</b>	Building '88 (south elevation)
	<b>Current Age:</b>	13 years (2009)
	<b>Service Life:</b>	N/A
<b>Assessment:</b>	<p>The glass block units were replaced during the building envelope remediation in 2009.</p> <p>The glass block units are in satisfactory condition with no problems reported or observed. They should not require replacement in the foreseeable future.</p>	
<b>Recommendation:</b>	<p>With routine maintenance, like re-grouting, the glass block units should not require replacement unless physically damaged. Therefore, no allowance has been made in the table. Periodic inspections should be ongoing.</p>	

	<b>Item:</b>	<b>Encl 15</b>
	<b>Description:</b>	Sliding Doors (PVC, double glazed)
	<b>Location:</b>	Buildings '60, '70, '80, '88 & TH
	<b>Current Age:</b>	Buildings '60 & '80 – 13 years

		(2008) Building '70 – 14 years (2007) Building '88 & TH – 26 years
	<b>Service Life:</b>	35 years
<b>Assessment:</b>	<p>The sliding doors at Chelsea Gardens are PVC, double glazed, thermally broken doors. New PVC doors were installed as part of the building envelope remediation in 2007 and 2008. The sliding doors at Building '88 and the townhouses are mostly original.</p> <p>The sliding doors are either protected from the elements by the balconies or roof overhang above or completely exposed.</p> <p>Typically, stucco is installed around the sliding doors of Buildings '70 &amp; '88 with a rod and caulk joint (or a fillet caulked bead). The exposed sliding doors have a head flashing.</p> <p>Typically, wood trim or EIFS trim is installed around the sliding doors of Buildings '60, '80 and the townhouses, with a rod &amp; caulk joint or caulked fillet bead. The exposed sliding doors have a head flashing.</p> <p>No test openings around the sliding doors were conducted.</p>	
<b>Recommendation:</b>	<p>The PVC sliding doors in the complex vary in age. The sliding doors should be reviewed regularly and maintained, as required, to extend the service life (operating budget). Door tracks and weep holes should be kept free of debris, items such as weather stripping, handles, hinges, etc. should be reviewed and repaired/replaced as required. Any failed sealed units should also be replaced on an as-needed basis (operating budget). More attention should be paid to those doors which are directly exposed to the elements. No allowance has been made for maintenance items.</p> <p>We have included an ongoing allowance to replace the existing sliding doors in a phased approach, starting in 2030 and every three years thereafter, replacing the most problematic, original and/or exposed doors first. Similar to the windows, sliding doors deteriorate over time due to age, usage, wear and tear and exposure to the weather. Any sliding doors which are replaced should have properly waterproofed rough openings, caulking and new door head and sill flashings. Localized decay repairs should also be completed, where required. Door trim and flashing repairs will also be required during this work.</p>	


	A cost to replace the existing caulking around the sliding doors has been included in Encl 9.
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	<b>Item:</b>	<b>Encl 16</b>
	<b>Description:</b>	Doors (casement/swing)
	<b>Location:</b>	Buildings '60, '70, '80, '88 & TH  Front entry, unit entrances, balcony, patio and pool access, parkade exits, service rooms
	<b>Current Age:</b>	Varies
	<b>Service Life:</b>	Varies

<b>Assessment:</b>	<p>The exterior casement/swing doors in the complex are original (unless replaced by individual owners) and were re-used during the building envelope remediation completed between 2007-2009.</p> <p>Most of the casement/swing doors are protected from the elements by balconies, roofs or overhangs above with the exception of some of the fourth floor balcony doors, rooftop doors and exit doors on the apartment buildings, which are exposed. No problems were reported or observed.</p> <p>Typically, the townhouse front entry doors have wood trim installed around the door (head and jamb) which butts into the door frame with a caulked fillet bead. No head flashings are installed over these doors.</p> <p>Typically, the apartment patio and balcony doors have stucco which butts into the door frame (head and jamb) with a caulked joint. Head flashings are, typically, installed over the exposed doors, but not the protected doors.</p>
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<b>Recommendation:</b>	<p>Replacement of the casement doors should be completed on an as-needed basis, moving forward. However, since most of the casement doors are protected, replacement of the doors most likely won't be necessary unless they are creating problems or are being removed for other exterior related building repairs. We have included an allowance for replacement of the casement doors on an as-needed basis.</p> <p>The casement doors should be reviewed regularly and maintained,</p>
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	as required, to extend the service life (operating budget). Items such as paint finish, sealant, weather stripping, hardware, etc. should be reviewed and repaired/replaced as required (operating budget). More attention should be paid to those doors which are directly exposed to the elements. No allowance has been made for maintenance items.
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	<b>Item:</b>	<b>Encl 17</b>
	<b>Description:</b>	Doors – Garage
	<b>Location:</b>	Townhouses
	<b>Current Age:</b>	Varies
	<b>Service Life:</b>	20 years
<b>Assessment:</b>	The original townhouse garage doors are wood. Replacement of these doors has been ongoing.	
<b>Recommendation:</b>	Continue with replacement of the townhouse garage doors over the next three years. We have included a cost allowance for this work in the table.	

	<b>Item:</b>	<b>Encl 18</b>
	<b>Description:</b>	Underground Parking Garage (waterproofing membrane)
	<b>Location:</b>	Buildings '60, '70 & '80
	<b>Current Age:</b>	26 years
	<b>Service Life:</b>	35 years
<b>Assessment:</b>	<p>Buildings '60, '70 &amp; '80 each have a single level of underground parking. Building '60 has 97 residential parking stalls and 14 visitor stalls. Building '70 has 49 residential parking stalls and 7 visitor stalls. Building '80 has 111 residential parking stalls and 13 visitor stalls.</p> <p>According to the drawings, the parking garage ceiling slab extends past the building footprint on all elevations. These areas are covered with concrete topping/pavers (patios), concrete topped sidewalks and landscaping.</p>	


	<p>The following observations were made:</p> <ul style="list-style-type: none"> <li>• Previous crack repairs to address minor active leaks into the parking garages.</li> <li>• Efflorescence and some hairline cracking at numerous parkade ceiling (soffit) and wall locations throughout the parkades.</li> </ul> <p>Although no active leaks were observed during our review, active leaks into the parking garage are not uncommon and should be expected given the age of the original waterproofing membrane.</p>
<p><b>Recommendation:</b></p>	<p>Expected service life of the waterproofing membrane of the structural slab should be attained with regular maintenance (such as keeping patio drains clear of debris), monitoring (for future leaks particularly at cracks in the structural slab, walls, wall/slab cold joints and at pipe penetrations) and selective repairs. Any active leaks should be sealed (eg. crack repairs) as required to extend the life of the existing waterproofing membrane (operating budget) and monitored. Minor leaks usually tend to appear as the waterproofing membrane ages.</p> <p>Replacement of the entire parking garage membrane for all three apartment buildings has been allowed for in future costs, spread over three years. Essentially, this work would, typically, involve removing all landscaping (and related components) and concrete topping/pavers above the parking garage slab, installing a new waterproofing membrane over the entire exposed slab and reinstating the landscaping and concrete topping or pavers. This option would be a long term solution with a service life of 30 years.</p>

### 2.3 Mechanical/Plumbing


<b>Item</b>	<b>Mech 1</b>
<b>Description:</b>	Plumbing (domestic water supply)
<b>Location:</b>	Amenity building (Strata responsibility) Buildings '60, '70, '80 – common areas (Strata responsibility) From city property line to the individual TH units (Strata responsibility) In each unit (Owner's responsibility)
<b>Current Age:</b>	26 years (some piping replacement completed over the years)
<b>Service Life:</b>	35 years
<b>Assessment:</b>	The domestic water supply piping is provided by the City of Surrey. The original domestic water supply lines in the complex were reported to be copper. The piping was reported to be mostly original, with the exception of replacement of the main lines in Buildings '70 & '80. Most of the piping was not visible due to obstruction by exterior and interior finishes, with the exception of inside some of the units under the kitchen and bathroom sinks.
<b>Recommendation:</b>	A future allowance has been made in the table to replace the existing copper piping in the complex, based on expected service life and previous repairs already completed (spread over five years). Minor repairs should be ongoing to extend the overall life of the original water supply lines and may be required as the supply lines age. We have included a repair allowance for these repairs.

	<b>Item:</b>	<b>Mech 2</b>
	<b>Description:</b>	Heating – Gas Boiler (Super Hot or Teledyne Laars)
	<b>Location:</b>	Buildings '60, '70, '80 & '88 – Mechanical room (2 in each building = 8 in total)  TH – Owner's responsibility
	<b>Current Age:</b>	26 years


		4 years (2017) – 1 Boiler at Building '88
	<b>Service Life:</b>	Up to 20 years (with routine maintenance)
<b>Assessment:</b>	<p>There are a total of 8 gas boilers for the apartments and Clubhouse. These gas boilers deliver hot water to the apartment units (for domestic hot water, radiant floor heating) and heat up the pool and spa in the Clubhouse. No problems were noted or reported, however 7 of the 8 boilers in the complex are original. The boilers are currently being serviced and maintained regularly.</p> <p>Each townhouse also has its own gas boiler for radiant floor heating (Owner's responsibility).</p>	
<b>Recommendation:</b>	<p>The boilers should be inspected at least semi-annually along with the expansion tanks, burners, valves, heat exchanger, circulation pumps and all other related equipment, as part of the service contract (operating budget). Repairs should be completed as required (operating budget).</p> <p>Based on their current age, the original boilers have reached their expected service life. A cost for replacement has been included.</p> <p>The gas boilers in the townhouses are the Owner's responsibility (no allowance in the table).</p>	

	<b>Item:</b>	<b>Mech 3</b>
	<b>Description:</b>	Commercial Storage Tanks (AO Smith, John Wood or Rheem Ruud)
	<b>Location:</b>	Buildings '60, '70 & '88 – Mechanical room (1 at Building '88, 2 each at Buildings '60 & '70 = 5 in total)
	<b>Current Age:</b>	Building '60 – 4 years (2017) Building '70 – 15+ years Building '88 – 6 years (2015)
	<b>Service Life:</b>	Up to 15 years (with routine maintenance)


<b>Assessment:</b>	There are a total of 5 storage tanks in the complex that have been replaced at various times over the years. These storage tanks store the domestic hot water produced by the boiler. No problems were noted or reported.
<b>Recommendation:</b>	The storage tanks should be inspected at least semi-annually, along with all related equipment, and maintained as part of the service contract (operating budget). A cost for future/ongoing replacement has been included in the table.

	<b>Item:</b>	<b>Mech 4</b>
	<b>Description:</b>	Heating – Natural gas commercial water heater (A.O. Smith) - 2 in total
	<b>Location:</b>	Building '80 - Mechanical
	<b>Current Age:</b>	1 year (2020) 7 years (2014)
	<b>Service Life:</b>	Up to 10 years (with routine maintenance)


<b>Assessment:</b>	There are two natural gas commercial water heaters at Building '80. No problems were noted or reported.  Each unit has its own natural gas water heater (Owner's responsibility)
<b>Recommendation:</b>	The water heaters should be inspected at least semi-annually, including the expansion tank, circulating pumps and all associated equipment, and maintained as part of the service contract (operating budget). Cost for future replacement has been included.  Hot water heaters are Owner's responsibility. No allowance has been made in the table.


	<b>Item:</b>	<b>Mech 5</b>
	<b>Description:</b>	Fireplaces - Gas
	<b>Location:</b>	Building '88 (Strata's responsibility) Buildings '60, '70, '80 & TH

		(Owner’s responsibility)
	<b>Current Age:</b>	N/A
	<b>Service Life:</b>	N/A
<b>Assessment:</b>	<p>The Clubhouse has a natural gas fireplace (Strata responsibility).</p> <p>Each unit in the complex (apartment and townhouses) has its own gas fireplace (Owner’s responsibility).</p>	
<b>Recommendation:</b>	<p>The gas fireplace in the Clubhouse should be checked annually, as part of the service contract (operating budget). No allowance has been made in the table</p> <p>Gas fireplaces in each unit are Owner’s responsibility. Annual inspection is recommended. No allowance has been made in the table.</p>	


	<b>Item:</b>	<b>Mech 6</b>
	<b>Description:</b>	Heat Pumps (6 in total)
	<b>Location:</b>	Building '88 – Above kitchen, above bathroom, mechanical room closets (upper mezzanine and roof), HVAC room
	<b>Current Age:</b>	26 years – Water Furnace (1) 0 years (2021) – York or Fujitsu (5)
	<b>Service Life:</b>	20 years (with routine maintenance)
<b>Assessment:</b>	<p>These units provide heating and cooling to the common areas/rooms of the Clubhouse including the spa room. No problems were noted or reported.</p>	
<b>Recommendation:</b>	<p>These units should be inspected regularly (every three months) and maintained, as part of the service contract. Cost for future replacement has been included.</p>	


<b>Item:</b>	<b>Mech 7</b>
<b>Description:</b>	Air Handling unit with fan coil – Lennox (2 in total)
<b>Location:</b>	Building '88 – Mechanical room closet (workshop)
<b>Current Age:</b>	1 year (2020)
<b>Service Life:</b>	25 years (with routine maintenance)
<b>Assessment:</b>	These units provide heating to the workshop and exercise room. No problems were noted or reported.
<b>Recommendation:</b>	These units should be inspected regularly (at least semi-annually) and maintained, as part of the service contract. Cost for future replacement has been included, based on expected service life.

	<b>Item:</b>	<b>Mech 8</b>
	<b>Description:</b>	Heat Recovery Unit (HRU - Vaneec)
	<b>Location:</b>	Building '88 - HVAC room
	<b>Current Age:</b>	0 years (2021)
	<b>Service Life:</b>	25 years (with routine maintenance)
<b>Assessment:</b>	This unit provides air exchange for the spa room and change rooms of the Clubhouse. No problems were noted or reported.	
<b>Recommendation:</b>	This unit should be inspected regularly (at least semi-annually) and maintained, as part of the service contract. Cost for future replacement has been included, based on expected service life.	


	<b>Item:</b>	<b>Mech 9</b>
	<b>Description:</b>	Make-up Air Units – Engineered Air (natural gas) – 5 in total
	<b>Location:</b>	Building '60 - Main flat roof (2 units) Building '70 – Main flat roof Building '80 – Main flat roof (2 units)

	<p><b>Current Age:</b> 2 years (2019)</p> <p><b>Service Life:</b> 25 years (with routine maintenance)</p>
<b>Assessment:</b>	These roof top units provide make-up air to the hallways. The units are being regularly maintained.
<b>Recommendation:</b>	These units should be inspected at least semi-annually and maintained as part of the service contract including all components such as the heat exchanger, blower motor, belts, etc. Components should be repaired and/or replaced as required. We have included a cost to replace these units in their entirety.

	<b>Item:</b>	<b>Mech 10</b>
	<b>Description:</b>	A/C Units – Rheem (5 in total)
	<b>Location:</b>	Building '60 - Main flat roof (2 units) Building '70 – Main flat roof Building '80 – Main flat roof (2 units)
	<b>Current Age:</b>	2 years (2019)
	<b>Service Life:</b>	25 years (with routine maintenance)
<b>Assessment:</b>	These rooftop units provide cooling to the common areas of the apartment buildings. No problems were noted or reported.	
<b>Recommendation:</b>	These units should be inspected regularly and maintained, as part of the service contract. Cost for future replacement has been included.	


	<b>Item:</b>	<b>Mech 11</b>
	<b>Description:</b>	PRV System
	<b>Location:</b>	Buildings '60, '70 & '80 - Underground parkade
	<b>Current Age:</b>	26 years
	<b>Service Life:</b>	Varies (replacement of components)
<b>Assessment:</b>	This system reduces the city water pressure coming into the building. No problems were noted or reported. Inspection and	

	testing of the PRV system is typically conducted on an annual basis, the date of the last inspection is unknown.
<b>Recommendation:</b>	Testing/inspection of the PRV system should be completed on a regular basis (at least annually), and repairs/replacement, as required. We have included a small allowance in the table for minor repairs/replacement.


	<b>Item:</b>	<b>Mech 12</b>
	<b>Description:</b>	Parkade Exhaust Fans
	<b>Location:</b>	Building '60 – Underground parkade (2 units) Building '70 – Underground parkade Building '80 - Underground parkade (2 units)
	<b>Current Age:</b>	26 years
	<b>Service Life:</b>	Varies (replacement of components)


<b>Assessment:</b>	The Mayfair has one exhaust fan in the underground parking garage; the Kensington and Windsor each have two. These large units are either protected by a metal cage/grill or are located in a separate room. These units extract air from the underground parking garage. Their operation is controlled by the existing gas detection system. No problems were noted or reported. Servicing of the exhaust fans along with repairs/replacement of the fan components has been ongoing, as required.
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<b>Recommendation:</b>	All fan components should be inspected (for proper operation) at least semi-annually and maintained, as part of the existing service contract, including belts, motors and wiring. Components should be replaced as required. We have included an allowance in the table for future replacement of parts.
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	<b>Item:</b>	<b>Mech 13</b>
	<b>Description:</b>	Ventilation Fans
	<b>Location:</b>	Buildings '60, '70, '80 & '88 - Underground parkade service/locker rooms & Clubhouse service rooms

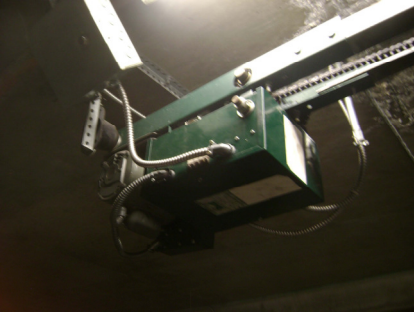
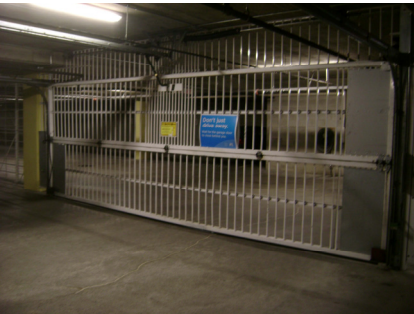
	<b>Current Age:</b>	Varies
	<b>Service Life:</b>	N/A
<b>Assessment:</b>	Numerous smaller size, ventilation fans are located in each service/locker room in the underground parkades and Clubhouse service rooms. These fans extract air from those service rooms and into the main parkade area or to the outside. Their operation is controlled by a manual switch. No problems were noted or reported.	
<b>Recommendation:</b>	These fans should be checked at least semi-annually and maintained, as part of the existing service contract (operating budget). No allowance has been made in the table.	

	<b>Item:</b>	<b>Mech 14</b>
	<b>Description:</b>	Gas Detection System (Carbon Monoxide)
	<b>Location:</b>	Buildings '60, '70 & '80 - Underground parkade
	<b>Current Age:</b>	N/A
	<b>Service Life:</b>	10 years
<b>Assessment:</b>	The gas detection system consists of control panels, c/w carbon monoxide sensors and propane sensors throughout the parkade. Inspection and testing of the gas detection system is typically conducted on an annual basis, the last one being in July 2020 by Global Gas Detection Inc. Some minor deficiencies were noted in their latest inspection report. The next test/inspection date is scheduled for July 2021.	
<b>Recommendation:</b>	Testing/inspection should be ongoing regularly (at least annually) and repairs/replacement completed as required and recommended in the annual inspection reports. The sensors, typically, have a lifespan of approx. 6-10 years and will require replacement from time to time, as will some of the electronic components inside the control panel. We have included a replacement cost allowance in the table.	


	<b>Item:</b>	<b>Mech 15</b>
	<b>Description:</b>	Sump Pump
	<b>Location:</b>	Building '80 - Underground parkade
	<b>Current Age:</b>	26 years
	<b>Service Life:</b>	25 years
<b>Assessment:</b>	<p>There is one storm sump pump in the underground parkade of The Windsor, connected to a control panel. The pump was not visible for review. There was no access to the pump, however, no problems were reported. It is not known how often these pumps currently get checked/serviced.</p>	
<b>Recommendation:</b>	<p>The pump and panel should be inspected at least semi-annually and maintained as part of the service contract (operating budget). Future cost to replace the pump has been included in the table, although the pump most likely gets limited use.</p>	


<b>Item:</b>	<b>Mech 16</b>
<b>Description:</b>	Fountain Pumps
<b>Location:</b>	Outdoor fountains throughout complex
<b>Current Age:</b>	Varies
<b>Service Life:</b>	5 years
<b>Assessment:</b>	<p>There are numerous fountain pumps which help operate the various outdoor fountains in the complex. Repairs/replacement of the pumps is being completed, on an as-needed basis.</p>
<b>Recommendation:</b>	<p>Fountain pumps should be addressed as required. We have included a small allowance to replace the pumps, as required.</p>

	<b>Item:</b>	<b>Mech 17</b>
	<b>Description:</b>	Pool/Spa Equipment (sand filters, spa jet pump, spa & pool heat exchanger)
	<b>Location:</b>	Building '88 – Pool mechanical room
	<b>Current Age:</b>	Varies
	<b>Service Life:</b>	N/A
<b>Assessment:</b>	Various pond equipment in the pool mechanical room consists of pumps (eg.jet pump), sand filters and pool/spa heat exchangers. Repairs/replacement to various components are being completed, on an as-needed basis. No problems were noted or reported.	
<b>Recommendation:</b>	Testing/inspection should be completed on a regular basis (at least semi-annually) and maintained. We have included a contingency allowance for ongoing future replacement of components.	

 	<b>Item:</b>	<b>Mech 18</b>
	<b>Description:</b>	Overhead Door Operators & Gate –  Building '60 & '80 – Chamberlain Liftmaster Elite – 2 in total  Building '60 & '70 – Manaris MTBHS, 1/2HP – 3 in total
	<b>Location:</b>	Buildings '60, '70 &, '80 - Underground Parkade - Exterior overhead gate
	<b>Current Age:</b>	26 years
	<b>Service Life:</b>	Overhead Door Operator - 15 years Overhead Gate – N/A
<b>Assessment:</b>	There are two gates/operators in the underground of Buildings '60 & 70 and one gate/operator in the underground of Building '80. The gate operators were reported to be original. No problems were reported. The operators and gates are being serviced quarterly and/or on an as-needed basis.	
<b>Recommendation:</b>	The gates, operators and all related components should continue to	


	<p>be checked regularly and maintained, as required, as part of the service contract (operating budget). Components should be replaced as required (operating budget) to extend the life of the components. We have included a future cost allowance in the table to replace the operators in the complex. The gates only usually require replace if damaged by vehicles.</p>
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	<b>Item:</b>	<b>Mech 19</b>
	<b>Description:</b>	Security Slide/Swing Gates & Slide Gate Operators
	<b>Location:</b>	North and east entrances of complex
	<b>Current Age:</b>	Gate – 26 years Operator - 26 years
	<b>Service Life:</b>	Gate – N/A Operator – N/A
<b>Assessment:</b>	Security gates and operators are located at the north and east entrances of the complex. No problems were reported.	
<b>Recommendation:</b>	The gates, operators and all related components are being checked regularly and maintained, as required, including painting. Components should be replaced as required (operating budget) to extend the life of the components. No replacement cost has been included.	



	<b>Item:</b>	<b>Mech 20</b>
	<b>Description:</b>	Plumbing fixtures (toilets, urinals sinks, faucets, dishwasher, showers)
	<b>Location:</b>	Building '88 – Guest Rooms, Manager Suite, Kitchen, Bar, Bathrooms, Change Rooms
	<b>Current Age:</b>	Varies


	<b>Service Life:</b>	Varies
<b>Assessment:</b>	Plumbing fixtures are located in various areas/rooms throughout the Clubhouse which get used by the residents. No problems were reported.	
<b>Recommendation:</b>	The existing fixtures should be maintained, repaired and/or replaced, on an as-needed basis (operating budget). No allowance has been made in the table.	

**2.4 Electrical**

	<table border="1"> <tr> <td><b>Item:</b></td> <td><b>Elec 1</b></td> </tr> <tr> <td><b>Description:</b></td> <td>Electrical distribution system – Distribution panel, smartmeters and individual unit panelboards</td> </tr> <tr> <td><b>Location:</b></td> <td>Buildings '60, '70, '80, '88 &amp; TH  Distribution panels &amp; transformers (throughout site, in electrical room in parkades &amp; in exterior electrical closets)  Smartmeters (in hallway closets &amp; in exterior electrical closets)  Individual panelboards (in each townhouse and apartment unit (Owner's responsibility) and in electrical room in parkades)</td> </tr> <tr> <td><b>Current Age:</b></td> <td>26 years</td> </tr> <tr> <td><b>Service Life:</b></td> <td>N/A</td> </tr> </table>	<b>Item:</b>	<b>Elec 1</b>	<b>Description:</b>	Electrical distribution system – Distribution panel, smartmeters and individual unit panelboards	<b>Location:</b>	Buildings '60, '70, '80, '88 & TH  Distribution panels & transformers (throughout site, in electrical room in parkades & in exterior electrical closets)  Smartmeters (in hallway closets & in exterior electrical closets)  Individual panelboards (in each townhouse and apartment unit (Owner's responsibility) and in electrical room in parkades)	<b>Current Age:</b>	26 years	<b>Service Life:</b>	N/A
<b>Item:</b>	<b>Elec 1</b>										
<b>Description:</b>	Electrical distribution system – Distribution panel, smartmeters and individual unit panelboards										
<b>Location:</b>	Buildings '60, '70, '80, '88 & TH  Distribution panels & transformers (throughout site, in electrical room in parkades & in exterior electrical closets)  Smartmeters (in hallway closets & in exterior electrical closets)  Individual panelboards (in each townhouse and apartment unit (Owner's responsibility) and in electrical room in parkades)										
<b>Current Age:</b>	26 years										
<b>Service Life:</b>	N/A										
<p><b>Assessment:</b></p>	<p>Electric service is provided to the complex through underground cables to each building. Electric service for the townhouse units is assumed to be stepped down at the pad-mounted transformers throughout the complex before entering the corresponding exterior electrical closets and being further distributed to each unit (Owner responsibility).</p> <p>Buildings '60, '70 &amp; '80 each have an electrical room in the underground parking garage which houses the distribution panels. There are numerous exterior electrical closets which house the distribution panels and smartmeters for Building '88 and the townhouses.</p> <p>An infrared survey of the electrical equipment was conducted in October 2020.</p>										
<p><b>Recommendation:</b></p>	<p>An infrared survey of the electrical equipment was conducted in October 2020 with deficiencies noted. These items should be addressed in a timely manner as well as any other items that arise</p>										

	<p>(operating budget).</p> <p>Distribution panels, panelboards and smartmeters are expected to operate adequately over the 30 year evaluation of this report and, therefore, provisions for the replacement are not included. We have, however, included a replacement allowance for the various transformers. Continue with infrared surveys/inspections by a qualified electrician every three years. We have included an allowance for this work.</p>
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 	<b>Item:</b>	<b>Elec 2</b>
	<b>Description:</b>	Common Lighting
	<b>Location:</b>	Buildings '60, '70, '80, '88 & TH) - Common areas (Interior - hallways, stairwells, lobby, parking garage, common rooms and Exterior – front entrances, building perimeters, light posts/bollards, parkade ramp)
	<b>Current Age:</b>	Varies
	<b>Service Life:</b>	25 years
<b>Assessment:</b>	No problems were reported with the common area lighting. It was reported that the light fixtures have been upgraded/retrofitted with LED lighting over the years.	
<b>Recommendation:</b>	We have included a future allowance in the table for future lighting upgrade/replacement in the complex.	


	<b>Item:</b>	<b>Elec 3</b>
	<b>Description:</b>	Electrical appliances (dishwasher, range/stove, refrigerator, ice machine, microwave)
	<b>Location:</b>	Building '88 – Kitchen, Bar, Manager Suite

	<b>Current Age:</b>	Varies
	<b>Service Life:</b>	Varies
<b>Assessment:</b>	The kitchen, bar and manager suite in the Clubhouse all contain various electrical appliances. No problems were reported.	
<b>Recommendation:</b>	The existing appliances should be maintained, repaired and/or replaced, on an as-needed basis. A small contingency allowance has been included in the table to replace the existing appliances over time.	


<b>Item:</b>	<b>Elec 4</b>
<b>Description:</b>	Electrical appliances (in suite laundry)
<b>Location:</b>	Buildings '60, '70, '80 & TH - in each unit (Owner's responsibility)  Building '88 - Strata responsibility
<b>Current Age:</b>	N/A
<b>Service Life:</b>	N/A
<b>Assessment:</b>	The Manager's Suite in the Clubhouse contains a washer/dryer (replaced in 2016)(Strata responsibility). There is in-suite laundry in each apartment and townhouse unit (Owner's responsibility)
<b>Recommendation:</b>	In suite laundry in the Clubhouse should be repaired/replaced as required (operating budget). No allowance has been made in the table. In suite laundry in each apartment and townhouse is Owner's responsibility (no allowance in the table). Annual cleaning of the dryer vents and pipes is recommended.

**2.5 Life Safety/Fire Protection**


	<b>Item:</b>	<b>Fire 1</b>
	<b>Description:</b>	Fire Suppression System
	<b>Location:</b>	Buildings '60, '70, '80 - Sprinkler/Mechanical room in underground parkade
	<b>Current Age:</b>	26 years
	<b>Service Life:</b>	Indefinite
<b>Assessment:</b>	<p>The interior of all units are sprinklered, except for Building '88. Inspection and testing of the fire suppression system is typically conducted on an annual basis, the last one being in July 2020 by City Fire Prevention Services. Minor deficiencies were observed reported in the latest inspection report. The next test/inspection date is scheduled for July 2021.</p>	
<b>Recommendation:</b>	<p>Testing/inspection should be completed on a regular basis (at least annually), and repairs/replacement, as required and recommended in the annual inspection reports if required. A contingency allowance for minor repairs/replacement has been included for in the table.</p>	

	<b>Item:</b>	<b>Fire 2</b>
	<b>Description:</b>	Fire Alarm System (Alarm panel & Annunciator panel)
	<b>Location:</b>	Buildings '60, '70, '80 & '88  Fire Alarm Panels – Sprinkler room in underground parkade or electrical closet ('88)  Annunciator Panel - Lobby
	<b>Current Age:</b>	Buildings '60, '70 & '80 – 26 years  Buildings '88 - 5 years (2016)

	<b>Service Life:</b>	20 years (alarm panel) 10 years (smoke alarms/detectors)
<b>Assessment:</b>	<p>Inspection and testing of the fire alarm system (including panels, manual pull stations, smoke alarms, smoke/heat detectors, fire bells, emergency lighting &amp; signs) is typically conducted on an annual basis, the last one being in July 2020 by City Fire Prevention Services. No major deficiencies were noted in the latest inspection report. The next test/inspection date is scheduled for July 2021.</p>	
<b>Recommendation:</b>	<p>The fire alarm system has been performing to date, as intended, however they are aging units. Inspection and testing of the fire alarm system (including panels, pull stations, smoke alarms, smoke/heat detectors, fire bells, emergency lighting &amp; signs) should be completed on a regular/ongoing basis (at least annually), with repairs/replacement, as required and recommended in the annual fire inspection reports if required (operating budget).</p> <p>System upgrade/replacement costs have been allowed for based on expected service life.</p> <p>Any minor repairs required to the alarm panel should be completed, as needed, for as long as manufacturer parts are still available (operating budget). Replacement of the panel will be required as parts become obsolete. An allowance has been made in the table for future replacement of the alarm panels.</p>	


	<b>Item:</b>	<b>Fire 3</b>
	<b>Description:</b>	Fire Doors
	<b>Location:</b>	Buildings '60,'70,'80,'88 – interior hallways and stairwells
	<b>Current Age:</b>	26 years
	<b>Service Life:</b>	N/A
<b>Assessment:</b>	<p>The fire doors appeared to be in acceptable condition with no major deficiencies observed or reported.</p>	

<b>Recommendation:</b>	Fire doors should be inspected on a regular/ongoing basis. Service/replacement, such as hardware, should be completed, as required (operating budget). No allowance has been made in the table.
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	<b>Item:</b>	<b>Fire 4</b>
	<b>Description:</b>	Portable Fire Extinguishers
	<b>Location:</b>	Buildings '60,'70,'80,'88 – interior hallways and parkade
	<b>Current Age:</b>	Varies
	<b>Service Life:</b>	6 years


<b>Assessment:</b>	Inspection of the fire extinguishers is typically conducted on an annual basis. According to the service tags, the fire extinguishers were last tested/inspected (or replaced) in July 2020 by City Fire Prevention Services. The next test/inspection date is scheduled for July 2021.
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<b>Recommendation:</b>	Testing/inspections should be completed on a regular basis (at least annually), and service/replacement, as required (operating budget); replacement/major service usually required every 6 years. No allowance has been made in the table to replace the extinguishers.
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	<b>Item:</b>	<b>Fire 5</b>
	<b>Description:</b>	Emergency Lighting
	<b>Location:</b>	Buildings '60,'70,'80,'88 – interior hallways, stairwells and parkade
	<b>Current Age:</b>	N/A
	<b>Service Life:</b>	N/A

<b>Assessment:</b>	Inspections of the emergency lighting system are typically conducted on an annual basis. According to the service tags, the emergency lighting system was last tested/inspected in July 2020
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	by City Fire Prevention Services. Some of the batteries were replaced. The next test/inspection date is scheduled for July 2021.
<b>Recommendation:</b>	Testing/inspections should be completed on a regular basis (at least annually), and service/replacement, as required (operating budget). No allowance has been made in the table.


	<b>Item:</b>	<b>Fire 6</b>
	<b>Description:</b>	Fire Hydrants
	<b>Location:</b>	Various locations around complex (at Buildings '60, '80, '88, at TH#329, by north entrance & by east entrance)
	<b>Current Age:</b>	N/A
	<b>Service Life:</b>	N/A
<b>Assessment:</b>	There are at least 6 fire hydrants at the complex. Inspection of the fire hydrants are typically conducted on an annual basis, the last time being April 2021. There were no reported problems.	
<b>Recommendation:</b>	Testing/inspection of the fire hydrant should continue on an annual basis with repairs/replacement as required (operating budget). No allowance has been made in the table. All shrubs and other landscaping around fire hydrants should be kept back so that the hydrant is visible at all times.	

## 2.6 Elevator


	<b>Item:</b>	<b>Elev 1</b>
	<b>Description:</b>	Hydraulic Passenger Elevator (Richmond Elevator)
	<b>Location:</b>	Buildings '60, '70 & '80
	<b>Current Age:</b>	26 years (1995)
	<b>Service Life:</b>	30 years
<b>Assessment:</b>	<p>There is one elevator at The Kensington, The Mayfair &amp; The Windsor (3 in total). The elevator machine room is located in the underground parkade. Records indicate that the elevator is currently being serviced on a monthly basis by Richmond Elevator Maintenance Ltd. All service records are up to date and current.</p> <p>According to the service contractor/manufacturer and Strata, no major upgrades to the elevator systems have been completed. Some cosmetic upgrades to the interior cab were noted.</p>	
<b>Recommendation:</b>	<p>The elevator system is of all original equipment (approx. 26 years old). Major/heavy duty components of the elevator tend to wear out over time, therefore, service to these components is critical and usually required every 25-30 years. This includes inspection and full system upgrade/modernization/replacement of the existing control systems, door system, wiring, fixtures, electrical buttons, etc, and any code related items. A cost for this work has been included for in the table (spread over three years). There may be some flexibility with the costs and timelines of some of the major items. MVL recommends that the recommendations of the elevator manufacturer be followed to ensure a high level of service operation and to meet current code requirements. In the mean time, regular servicing of the elevator should be an ongoing maintenance item, as part of the service contract (operating budget).</p> <p>Replacement of the hydraulic cylinder has also not been completed and should be reviewed and most likely replaced at the same time as modernization. We have included a future cost to replace this item for each elevator.</p>	


	<p>Upgrades to the interior of the elevator (cosmetic)(eg. wall, ceiling and floor finishes) is usually completed at the same time, however, this can be at the Strata’s discretion and is not included for in the Table. The cost for the cosmetic upgrade can range from \$10K-\$20K, per elevator, in addition to the costs for full modernization.</p>
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**2.7 Security**

	<p><b>Item:</b></p>	<p><b>Sec 1</b></p>
	<p><b>Description:</b></p>	<p>Security System (Enterphone &amp; FOB)</p>
	<p><b>Location:</b></p>	<p>Buildings '60,'70,'80,'88 (front entry and parkade gates), entry gates at complex (2 entrances)</p>
	<p><b>Current Age:</b></p>	<p>Enterphone – 8 years (2013) FOB System – 4 years (2017)</p>
	<p><b>Service Life:</b></p>	<p>Enterphone - 15 years FOB System – 15 years</p>
<p><b>Assessment:</b></p>	<p>The building security system consists of front panel enterphones and a FOB system for common areas gates and doors. The building security system is currently being serviced on an as-needed basis.</p> <p>According to the Strata, the enterphones were replaced in 2013 and have been operating as intended with minimal maintenance. No current problems were reported with the telephone entry system. The existing FOB system was upgraded in 2017.</p>	
<p><b>Recommendation:</b></p>	<p>These systems are relatively maintenance free, with servicing only required if problems occur. Future replacement of the panels and FOB system has been included for in the table, based on expected service life.</p> <p>The entire security system should be checked after any future repairs are completed to ensure a full functioning and integrated security system.</p>	

## 2.8 Common Area Flooring

	<b>Item:</b>	<b>Floor 1</b>
	<b>Description:</b>	Carpet
	<b>Location:</b>	Buildings '60,'70,'80,'88 – interior hallways, common rooms, mezzanine, guest rooms, manager suite, exercise room and stairwells
	<b>Current Age:</b>	Buildings '80 – 0 years (2021) Building '60 – 0 years (2021) Building '70 – 2 years (2019) Building '88 – 6 years (2015) & 8 years (2013)
	<b>Service Life:</b>	20 years
<b>Assessment:</b>	The carpet in the common areas varies in age.	
<b>Recommendation:</b>	Future replacement of the carpeting has been included for in the table, based on expected service life and current conditions.	

	<b>Item:</b>	<b>Floor 2</b>
	<b>Description:</b>	Tile
	<b>Location:</b>	Building '88 – lobby, hallways, mail room, kitchen, bathrooms
	<b>Current Age:</b>	26 years
	<b>Service Life:</b>	40 years
<b>Assessment:</b>	The observed tile appeared to be in satisfactory condition with no major deficiencies observed or reported.	
<b>Recommendation:</b>	Minor repairs and routine maintenance should be completed, as required, as part of the operating budget. This may include re-grouting of the tile or replacing cracked tiles (operating budget). Future replacement costs have been included in the table, based on expected service life.	

	<b>Item:</b>	<b>Floor 3</b>
	<b>Description:</b>	Vinyl (plank)
	<b>Location:</b>	Building '60 – main lobby, parkade lobby, library Building '70 - main lobby, parkade lobby Building '80 – main lobby, parkade lobby Building '88 – library, lobby, office
	<b>Current Age:</b>	Building '60 - 2 years (2019) Building '70 – 4 years (2017) Building '80 - 1 year (2020) Building '88 - 7 years (2014)
	<b>Service Life:</b>	25 years
<b>Assessment:</b>	The existing hardwood (laminated) was in satisfactory condition for its age with no reported or observed problems.	
<b>Recommendation:</b>	Future replacement costs have been included in the table, based on expected service life.	




	<b>Item:</b>	<b>Floor 4</b>
	<b>Description:</b>	Epoxy
	<b>Location:</b>	Building '88 – spa room, change rooms
	<b>Current Age:</b>	5 years (2016)
	<b>Service Life:</b>	25 years
<b>Assessment:</b>	The observed epoxy flooring was installed in 2016 and appeared to be in satisfactory condition with no major deficiencies observed or reported.	
<b>Recommendation:</b>	Minor repairs and routine maintenance should be completed, as required, as part of the operating budget. Re-finishing/re-sealing of the surface may be required from time to time to maintain the original look. Future replacement cost has been included in the	

	table.
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	<b>Item:</b>	<b>Floor 5</b>
	<b>Description:</b>	Vinyl
	<b>Location:</b>	Building '88 - workshop
	<b>Current Age:</b>	26 years
	<b>Service Life:</b>	35 years
<b>Assessment:</b>	The vinyl flooring was in satisfactory condition for its age with no major deficiencies noted or reported, other than normal wear and tear over time. This area gets limited use.	
<b>Recommendation:</b>	Future replacement of the vinyl has been included for in the table, based on expected service life.	


	<b>Item:</b>	<b>Floor 6</b>
	<b>Description:</b>	Linoleum
	<b>Location:</b>	Building '88 – manager's Suite (kitchen,bath), guest rooms (bath)
	<b>Current Age:</b>	26 years
	<b>Service Life:</b>	35 years
<b>Assessment:</b>	The linoleum was in satisfactory condition for its age with no major deficiencies noted or reported, other than normal wear and tear over time.	
<b>Recommendation:</b>	Future replacement of the linoleum has been included for in the table, based on expected service life.	


<b>Item:</b>	<b>Floor 7</b>
<b>Description:</b>	Hardwood (laminated)
<b>Location:</b>	Building '88 – lounge
<b>Current Age:</b>	18 years (2003)

<b>Service Life:</b>	30 years
<b>Assessment:</b>	The existing hardwood (laminated) was in satisfactory condition for its age with no reported or observed problems.
<b>Recommendation:</b>	Future replacement costs have been included in the table, based on expected service life.


## 2.9 Recreation

	<b>Item:</b>	<b>Rec 1</b>
	<b>Description:</b>	Outdoor Pool
	<b>Location:</b>	Building '88
	<b>Current Age:</b>	5 year (2016) - liner
	<b>Service Life:</b>	6 years
<b>Assessment:</b>	The interior of the swimming pool is protected with a vinyl liner, which was replaced in 2016. Some patch repairs to the liner have been completed over the years.	
<b>Recommendation:</b>	The protective liner should be monitored. Future replacement cost has been included in the table.	


	<b>Item:</b>	<b>Rec 2</b>
	<b>Description:</b>	Hot Tub
	<b>Location:</b>	Building '88
	<b>Current Age:</b>	26 years
	<b>Service Life:</b>	35 years
<b>Assessment:</b>	The hot tub is a one piece, all inclusive unit. No problems were noted or reported.	
<b>Recommendation:</b>	The interior of the hot tub should be cleaned and maintained as required. Future replacement cost has been included in the table.	


	<b>Item:</b>	<b>Rec 3</b>
	<b>Description:</b>	Gym Equipment
	<b>Location:</b>	Building '88 - Exercise Room
	<b>Current Age:</b>	Varies
	<b>Service Life:</b>	Varies


<b>Assessment:</b>	Various gym equipment is available in the exercise room, for use by the residents of Chelsea Gardens. No current problems were reported.
<b>Recommendation:</b>	Repairs/replacement/maintenance to the gym equipment is on an as-needed basis. We have included an ongoing cost allowance in the table to repair/replace the gym equipment, as needed.

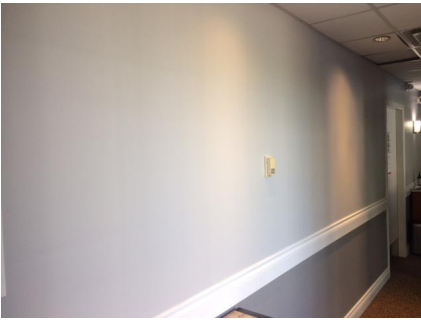
	<b>Item:</b>	<b>Rec 4</b>
	<b>Description:</b>	Workshop
	<b>Location:</b>	Building '88 – Workshop Room
	<b>Current Age:</b>	Varies
	<b>Service Life:</b>	Varies
<b>Assessment:</b>	Various tools and machinery is available in the workshop, for use by the residents of Chelsea Gardens. No current problems were reported.	
<b>Recommendation:</b>	Repairs/replacement/maintenance to the tools and machinery is on an as-needed basis. We have included a small ongoing cost allowance in the table to repair/replace items, as needed.	

## 2.10 Common Rooms

	<b>Item:</b>	<b>Comm 1</b>
	<b>Description:</b>	Office
	<b>Location:</b>	Building '88
	<b>Current Age:</b>	Varies (2019-2020)
	<b>Service Life:</b>	Varies
<b>Assessment:</b>	The main office for the complex is located in the Clubhouse and contains furniture (desk, chair, shelves) and computer equipment. Upgrades have been made over the years. No problems were reported.	
<b>Recommendation:</b>	The above mentioned items should be maintained/repaired/replaced, as needed, as part of the operating budget. No allowance has been made in the table.	

	<b>Item:</b>	<b>Comm 2</b>
	<b>Description:</b>	Lobby, Billiard Lounge, Fireside Lounge, Library, Mezzanine, Guest Rooms, Manager Suite, Pool Deck
	<b>Location:</b>	Buildings '60, '70, '80 & '88
	<b>Current Age:</b>	Varies (2018-2021)
	<b>Service Life:</b>	Varies

		
<p><b>Assessment:</b></p>	<p>The above mentioned common rooms (mainly located in The Clubhouse) are available for ongoing use by the residents of the complex. These rooms contain items such as furniture (tables, chairs, sofas, beds, desks), electronics, games tables, library, piano &amp; barbeque. No problems were reported.</p>	
<p><b>Recommendation:</b></p>	<p>All items outlined above should be maintained/repaired/replaced, as needed. We have included an ongoing cost allowance in the table to repair/replace the various items as required.</p>	

	<p><b>Item:</b></p>	<p><b>Comm 3</b></p>
	<p><b>Description:</b></p>	<p>Paint (interior)</p>
	<p><b>Location:</b></p>	<p>Buildings '60, '70, '80 &amp; '88 (hallways, lobby, common rooms)</p>
	<p><b>Current Age:</b></p>	<p>Building '60 – 0 years (2021) Building '70 – 3 years (2018) Building '80 – 0 years (2021) Building '88 – 0 years (2021)</p>
	<p><b>Service Life:</b></p>	<p>20 years</p>
<p><b>Assessment:</b></p>	<p>The interior (common areas) of the apartment buildings and Clubhouse have been painted at various times throughout the years. No problems were reported or observed.</p>	
<p><b>Recommendation:</b></p>	<p>Future cost of interior painting has been included for in the table, based on expected service life.</p>	

### **3.0 Maintenance of Building Envelope Components – Owner Inspections**

A Maintenance Program of Building Envelope Components should be incorporated into the ongoing operation of the building, to assist Owners in maintain/improve the current condition of the building and extending the life of their building enclosure. It is recommended that the maintenance inspections be included in the program and that the appropriate professionals and/or qualified personnel perform the inspections, every two to three years, or more frequent if required.

Owners should also conduct ongoing periodic inspections, carefully recorded and updated in the maintenance plan, so that appropriate action can be taken. Items include, but are not limited to:

Roofs – inspect semi-annually

Roof decks – inspect semi-annually

Balconies – inspect semi-annually

Exterior Walls (including sealants & flashings) – inspect semi-annually

Windows/Doors/Skylights – inspect semi-annually

Parking garage – inspect annually

The frequency of inspections should be increased as conditions warrant. The guidelines listed are for the Strata corporation. Any maintenance work performed on the building should be reviewed by the appropriate professional in order to avoid affecting existing warranties, if applicable. See Appendix B for Owner Inspection Checklists.

## 4.0 Reserve Fund Study – Estimate of Probable Costs

### Reserve Fund Study Table

The Reserve Fund Study Tables provide a general listing of the inventory of assets, including building components, site services, notes the approximate age typical expected service life (TSL), and remaining useful life based on conditions observed and information gathered during the assessment. Capital replacement reserve costs are based on the anticipated action required for each component over the next 30 years.

The financial analysis presented on the reserve fund study tables reports on the depreciation of assets, the current replacement costs, future replacement costs, current reserve fund and future reserve fund requirements, accumulations and possible adjustments via special assessments or contributions. Opinions of probable cost (adjusted for inflation) are provided over an evaluation period of 30 years for major operational maintenance expenditures and for renewals (capital replacements). (Note: Soft costs, such as consultant's fees, code reviews and value added taxes, etc, **are not included**).

### Financial Input

The Strata's fiscal year runs from March 1 to February 28. According to documents provided, the balance of the Capital (Contingency) Reserve Fund, as of March 1, 2021, was \$2,751,296.74. A contribution of \$534,436.00 is anticipated to be added to the Reserve Fund during the 2021/2022 fiscal year.

### Cash Funding Models

One Cash Flow Funding Model has been prepared (Appendix A, Scenario 1) for the Strata's consideration:

- Scenario # 1 (Interest = 0.50% (Bank of Canada, June 2021); Annual inflation = 2.00% historical average).

Scenario #1 (as per current CRF contributions) outlines the recommended repair costs, as currently required based strictly on their priority, expected service life, current funding and our calculations. The level of contributions outlined in the Table is considered adequate to cover the cost of repair and replacement of building elements until the year 2030, at which point a significant amount of additional contribution to the Capital Reserve Fund, or Special Levy, will be required (from years 2030-2044) to offset the anticipated costs of repairs and replacement of building components going forward.

We recommend that the contribution levels be reviewed annually so that adjustments can be made to reflect actual costs of work, changes to timing and cost of work expected for future years, along with the effects of actual interest and inflation rates.

We trust this report is satisfactory. Please contact the undersigned should you have any questions regarding this report.

**McArthur Vantell Limited**



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**Ikjot Minhas, A.Sc.T.  
Building Technologist**



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**Art McArthur, P.Eng.  
Senior Engineer**

**APPENDIX A**

**RESERVE FUND STUDY TABLE(S)**

**CHELSEA GARDENS**  
**Depreciation Report (2021 Update)**

**Table 1 - Replacement Cost Summary**

Scenario #1 -  
(as per current CRF contributions)

with Interest at 0.50%  
and Inflation at 2.00%

**Table 2 - The Details**

Starting Balance on Mar 1/21 (reserve fund)	\$ 2,751,296.74	\$ 2,772,416.97	\$ 2,651,254.95	\$ 2,588,941.36	\$ 2,606,540.24	\$ 2,824,322.19	\$ 3,175,276.64	\$ 3,463,240.05	\$ 3,929,165.15
Total Expenses	\$ 524,450.00	\$ 676,765.00	\$ 628,454.81	\$ 559,695.11	\$ 371,882.05	\$ 251,967.85	\$ 328,134.05	\$ 164,467.73	\$ 84,600.65
Balance (with Interest if applicable)	\$ 2,237,980.97	\$ 2,106,130.23	\$ 2,032,914.14	\$ 2,039,392.48	\$ 2,245,831.48	\$ 2,585,216.12	\$ 2,861,378.31	\$ 3,315,266.18	\$ 3,863,787.33
Contribution to Reserve Fund	\$ 534,436.00	\$ 545,124.72	\$ 556,027.21	\$ 567,147.76	\$ 578,490.71	\$ 590,060.53	\$ 601,861.74	\$ 613,898.97	\$ 626,176.95
Lump Sum Contribution	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Ending Balance	\$ 2,772,416.97	\$ 2,651,254.95	\$ 2,588,941.36	\$ 2,606,540.24	\$ 2,824,322.19	\$ 3,175,276.64	\$ 3,463,240.05	\$ 3,929,165.15	\$ 4,489,964.28

Item No.	Item	Recommendations	Normal Life Expect'cy	Present Age (Years)	Time To First Action	Time To Subsequent Action	Years Over Which Work is Phased	Repair or Replacement (excl. GST) 2021	2021 (fiscal year - Mar-Feb)	2022	2023	2024	2025	2026	2027	2028	2029
<b>2.1 Site Elements</b>																	
Site 1	Storm Water Drainage	Maintenance & Repairs	N/A	26	0	3	1	\$ 20,000.00	\$ 80,000.00			\$ 21,224.16			\$ 22,523.25		
Site 2	Roads, Parking, Curbs, Driveways	Localized repairs	-	26	1	5	1	\$ 10,000.00		\$ 10,200.00					\$ 11,261.62		
Site 2	Roads, Parking, Curbs, Driveways	Replacement of asphalt roadway	35	26	9	35	1	\$ 650,000.00									
Site 3	Walkways, Sidewalks, Patios, Stairs (on grade)	Localized repairs	-	26	2	5	1	\$ 20,000.00			\$ 20,808.00					\$ 22,973.71	
Site 4	Concrete (pool deck)	Localized repairs and re-coating	5	-	1	5	1	\$ 20,000.00		\$ 20,400.00					\$ 22,523.25		
Site 5	Patios, Walkways, Sidewalks (over PG)	As required - no allowance in table	-	-	-	-	-	-									
Site 6	Landscaping	Replacement allowance	-	-	1	2	1	\$ 15,000.00		\$ 15,300.00		\$ 15,918.12		\$ 16,561.21		\$ 17,230.29	
Site 7	Fencing & Railings	As required - no allowance in table	-	-	-	-	-	-									
Site 7	Fencing & Railings	Painting (concrete)	10	4	6	10	1	\$ 30,000.00							\$ 33,784.87		
Site 8	Concrete/Block Walls	Painting	10	4	6	10	1	\$ 20,000.00							\$ 22,523.25		
Site 9	Outdoor Fountains/Ponds	Re-painting of inner walls	5	5	1	5	1	\$ 10,000.00		\$ 10,200.00					\$ 11,261.62		

<b>2.2 Building Envelope</b>																	
Encl 1	Flat Roofs - SBS Membrane	Replacement ('60 Kensington)	35	26	9	30	1	\$ 310,000.00									
Encl 1	Flat Roofs - SBS Membrane	Replacement ('70 Mayfair)	35	26	9	30	1	\$ 280,000.00									
Encl 1	Flat Roofs - SBS Membrane	Replacement ('80 Windsor)	35	26	9	30	1	\$ 460,000.00									
Encl 1	Flat Roofs - SBS Membrane	Replacement ('88 Clubhouse)	35	26	9	30	1	\$ 160,000.00									
Encl 1	Flat Roofs - SBS Membrane	Replacement (TH)	30	26	0	1	3	\$ 400,000.00	\$ 400,000.00	\$ 408,000.00	\$ 416,160.00						
Encl 2	Sloped Roofs - Asphalt Shingles	Replacement (TH)	35	26	9	30	4	\$ 1,400,000.00									
Encl 3	Sloped Roofs - Skylights	Replacement (included in Encl 2)(TH)	-	-	-	-	-	-									
Encl 4	Sloped Roofs - Metal	Replacement ('60,'70,'80,'88)	40	26	14	40	1	\$ 90,000.00									
Encl 5	Glass Canopy	As required - no allowance in table ('88)	-	26	-	-	-	-									
Encl 6	Roof Decks - PVC Membrane	Replacement allowance (TH)	30	22	8	3	-	\$ 20,000.00									\$ 23,433.19
Encl 7	Balconies - Pedestrian Liquid Membrane	Apply new top coat ('60,'70,'80,'88)	12-15	8-10	4	12	1	\$ 175,000.00					\$ 189,425.63				
Encl 8	Balconies - Guardrails	Replacement ('60,'70,'80)	50	13-14	36	50	-	-									
Encl 8	Balconies - Guardrails	Replacement of spindles (TH)	-	varies	1	1	1	\$ 25,000.00		\$ 25,125.00	\$ 25,250.63	\$ 25,376.88	\$ 25,503.76	\$ 25,631.28	\$ 25,759.44	\$ 25,888.23	\$ 26,017.68
Encl 9	Exterior Walls - Stucco	Painting & re-caulking ('60,'70,'80,'88)	15	12-14	3	12	1	\$ 150,000.00				\$ 159,181.20					
Encl 9 & 11	Exterior Walls - Stucco & Wood Trim	Painting & re-caulking (TH)	12	8	3	12	1	\$ 250,000.00				\$ 265,302.00					
Encl 10	Exterior Walls - Vinyl Siding	As needed - no allowance in table	-	-	-	-	-	-									
Encl 11	Exterior Walls - Wood Trim	Painting (included in Encl 9)	-	-	-	-	-	-									
Encl 12	Exterior Walls - EIFS	Painting (included in Encl 9)	-	-	-	-	-	-									
Encl 13	Windows - PVC	Replacement allowance	35	varies	9	3	1	\$ 25,000.00									
Encl 14	Windows - Glass Block	As needed - no allowance in table	-	-	-	-	-	-									
Encl 15	Doors - PVC Sliding	Replacement allowance	35	varies	9	3	1	\$ 20,000.00									
Encl 16	Doors - Casement	Replacement allowance	varies	varies	3	3	1	\$ 10,000.00				\$ 10,612.08			\$ 11,261.62		
Encl 17	Doors - Garage	Replacement allowance	20	varies	0	1	3	\$ 10,000.00	\$ 10,000.00	\$ 10,200.00	\$ 10,404.00						
Encl 18	Underground Parking Garage	Membrane replacement ('60 Kensington)	35	26	10	35	1	\$ 1,800,000.00									
Encl 18	Underground Parking Garage	Membrane replacement ('70 Mayfair)	35	26	9	35	1	\$ 1,000,000.00									
Encl 18	Underground Parking Garage	Membrane replacement ('80 Windsor)	35	26	11	35	1	\$ 1,250,000.00									

<b>2.3 Mechanical / Plumbing</b>																	
Mech 1	Plumbing - Domestic Water Supply Piping	Repair allowance	-	-	1	2	1	\$ 20,000.00		\$ 20,400.00		\$ 21,224.16		\$ 22,081.62		\$ 22,973.71	
Mech 1	Plumbing - Domestic Water Supply Piping	Replacement ('60 Kensington)	35	26	10	35	1	\$ 700,000.00									
Mech 1	Plumbing - Domestic Water Supply Piping	Replacement ('70 Mayfair)	35	26	9	35	1	\$ 350,000.00									
Mech 1	Plumbing - Domestic Water Supply Piping	Replacement ('80 Windsor)	35	26	11	35	1	\$ 700,000.00									
Mech 1	Plumbing - Domestic Water Supply Piping	Replacement ('88 Clubhouse)	35	26	12	35	1	\$ 150,000.00									
Mech 1	Plumbing - Domestic Water Supply Piping	Replacement (TH)	35	26	13	35	1	\$ 600,000.00									
Mech 2	Heating - Boiler	Replacement (2) ('60 Kensington)	20	26	1	20	1	\$ 24,000.00				\$ 24,120.00					
Mech 2	Heating - Boiler	Replacement (2) ('70 Mayfair)	20	26	1	20	1	\$ 24,000.00				\$ 24,120.00					
Mech 2	Heating - Boiler	Replacement (2) ('80 Windsor)	20	26	1	20	1	\$ 24,000.00				\$ 24,120.00					
Mech 2	Heating - Boiler	Replacement (1) ('88 Clubhouse)	20	4	16	20	1	\$ 12,000.00									
Mech 2	Heating - Boiler	Replacement (1) ('88 Clubhouse)	20	26	1	20	1	\$ 12,000.00				\$ 12,240.00					
Mech 2	Heating - Boiler	Owners responsibility (TH)	-	-	-	-	-	-									
Mech 3	Heating - Storage Tank	Replacement (2) ('60 Kensington)	15	4	11	15	1	\$ 10,000.00									
Mech 3	Heating - Storage Tank	Replacement (2) ('70 Mayfair)	15	15+	0	15	1	\$ 10,000.00	\$ 10,000.00								
Mech 3	Heating - Storage Tank	Replacement (1) ('88 Clubhouse)	15	6	9	15	1	\$ 5,000.00									
Mech 4	Heating - Hot Water Tanks (gas)	Replacement (2) ('80 Windsor)	10	1 & 7	3	10	1	\$ 15,000.00				\$ 15,918.12					
Mech 5	Fireplaces - Gas	As required - no allowance in table	-	-	-	-	-	-									
Mech 6	Heat Pumps	Replacement (1) ('88 Clubhouse)	20	26	0	20	1	\$ 15,000.00	\$ 15,000.00								
Mech 6	Heat Pumps	Replacement (5) ('88 Clubhouse)	20	0	20	20	1	\$ 80,000.00									
Mech 7	Air Handling Unit	Replacement (2) ('88 Clubhouse)	25	1	24	25	1	\$ 20,000.00									
Mech 8	Heat Recovery Unit	Replacement (1) ('88 Clubhouse)	25	0	25	25	1	\$ 8,000.00									
Mech 9	Make-up Air Units	Replacement (5) ('60,'70,'80)	25	2	23	25	1	\$ 150,000.00									
Mech 10	A/C Units	Replacement (5) ('60,'70,'80)	25	2	23	25	1	\$ 50,000.00									
Mech 11	PRV System	Replacement of components (3)	-	26	2	10	1	\$ 10,000.00			\$ 10,404.00						
Mech 12	Parkade Exhaust Fans	Replacement of components (5)	-	26	1	20	1	\$ 25,000.00			\$ 25,500.00						
Mech 13	Ventilation Fans	As required - no allowance in table	-	varies	-	-	-	-									
Mech 14	Gas Detection System	Replacement	8	-	4	8	1	\$ 5,000.00				\$ 5,412.16					
Mech 15	Sump Pump	Replacement (1) ('80 Windsor)	25	26	1	20	1	\$ 3,000.00		\$ 3,060.00							
Mech 16	Fountain Pumps	Replacement	5	varies	2	5	1	\$ 2,500.00			\$ 2,525.06				\$ 2,588.82		
Mech 17	Pool/Spa Equipment	Replacement of components	-	-	2	5	1	\$ 5,000.00			\$ 5,050.13				\$ 5,177.65		



\$ 4,489,964.28	\$ 576,184.98	\$ (2,315,417.92)	\$ (4,679,851.12)	\$ (4,905,664.84)	\$ (5,085,274.02)	\$ (4,611,065.15)	\$ (4,609,830.12)	\$ (4,297,230.30)	\$ (3,775,399.64)	\$ (3,268,675.17)	\$ (2,562,411.99)	\$ (2,256,399.77)	\$ (1,893,129.27)	\$ (1,359,426.36)	\$ (1,049,470.32)
\$ 4,552,479.79	\$ 3,543,077.40	\$ 3,028,937.19	\$ 903,607.79	\$ 870,959.13	\$ 230,968.09	\$ 718,045.46	\$ 421,066.28	\$ 226,508.77	\$ 256,581.75	\$ 72,309.15	\$ 488,131.57	\$ 446,756.15	\$ 292,524.28	\$ 532,795.69	\$ 256,306.45
\$ (62,515.51)	\$ (2,966,892.42)	\$ (5,344,355.11)	\$ (5,583,458.91)	\$ (5,776,623.97)	\$ (5,316,242.11)	\$ (5,329,110.61)	\$ (5,030,896.40)	\$ (4,523,739.06)	\$ (4,031,981.39)	\$ (3,340,984.33)	\$ (3,050,543.56)	\$ (2,703,155.93)	\$ (2,185,653.55)	\$ (1,892,222.05)	\$ (1,305,776.77)
\$ 638,700.49	\$ 651,474.50	\$ 664,503.99	\$ 677,794.07	\$ 691,349.95	\$ 705,176.95	\$ 719,280.49	\$ 733,666.10	\$ 748,339.42	\$ 763,306.21	\$ 778,572.34	\$ 794,143.78	\$ 810,026.66	\$ 826,227.19	\$ 842,751.74	\$ 859,606.77
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 576,184.98	\$ (2,315,417.92)	\$ (4,679,851.12)	\$ (4,905,664.84)	\$ (5,085,274.02)	\$ (4,611,065.15)	\$ (4,609,830.12)	\$ (4,297,230.30)	\$ (3,775,399.64)	\$ (3,268,675.17)	\$ (2,562,411.99)	\$ (2,256,399.77)	\$ (1,893,129.27)	\$ (1,359,426.36)	\$ (1,049,470.32)	\$ (446,170.00)

Item No.	Item	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
<b>2.1 Site Elements</b>																	
Site 1	Storm Water Drainage	\$ 23,901.85			\$ 25,364.84			\$ 26,917.37			\$ 28,564.92			\$ 30,313.33			\$ 32,168.74
Site 2	Roads, Parking, Curbs, Driveways											\$ 12,000.00					\$ 13,248.97
Site 2	Roads, Parking, Curbs, Driveways	\$ 776,810.17															
Site 3	Walkways, Sidewalks, Patios, Stairs (on grade)				\$ 25,364.84					\$ 28,004.83					\$ 30,919.59		
Site 4	Concrete (pool deck)			\$ 24,867.49					\$ 27,455.71					\$ 30,313.33			
Site 5	Patios, Walkways, Sidewalks (over PG)																
Site 6	Landscaping	\$ 17,926.39		\$ 18,650.61		\$ 19,404.10		\$ 20,188.03		\$ 21,003.62		\$ 21,852.17		\$ 22,735.00		\$ 23,653.49	
Site 7	Fencing & Railings																
Site 7	Fencing & Railings								\$ 41,183.57								
Site 8	Concrete/Block Walls								\$ 27,455.71								
Site 9	Outdoor Fountains/Ponds			\$ 12,433.74					\$ 13,727.86					\$ 15,156.66			

<b>2.2 Building Envelope</b>																	
Encl 1	Flat Roofs - SBS Membrane	\$ 370,478.70															
Encl 1	Flat Roofs - SBS Membrane	\$ 334,625.92															
Encl 1	Flat Roofs - SBS Membrane	\$ 549,742.58															
Encl 1	Flat Roofs - SBS Membrane	\$ 191,214.81															
Encl 1	Flat Roofs - SBS Membrane																
Encl 2	Sloped Roofs - Asphalt Shingles	\$ 418,282.40	\$ 426,648.05	\$ 435,181.01	\$ 443,884.63												
Encl 3	Sloped Roofs - Skylights																
Encl 4	Sloped Roofs - Metal						\$ 118,753.09										
Encl 5	Glass Canopy																
Encl 6	Roof Decks - PVC Membrane		\$ 24,867.49				\$ 26,389.58			\$ 28,004.83			\$ 29,718.95			\$ 31,537.99	
Encl 7	Balconies - Pedestrian Liquid Membrane								\$ 240,237.50								
Encl 8	Balconies - Guardrails																
Encl 8	Balconies - Guardrails	\$ 26,147.76	\$ 26,278.50	\$ 26,409.90	\$ 26,541.95	\$ 26,674.66	\$ 26,808.03	\$ 26,942.07	\$ 27,076.78	\$ 27,212.16	\$ 27,348.22	\$ 27,484.96	\$ 27,622.39	\$ 27,760.50	\$ 27,899.30	\$ 28,038.80	\$ 28,178.99
Encl 9	Exterior Walls - Stucco							\$ 201,880.25									
Encl 9 & 11	Exterior Walls - Stucco & Wood Trim							\$ 336,467.08									
Encl 10	Exterior Walls - Vinyl Siding																
Encl 11	Exterior Walls - Wood Trim																
Encl 12	Exterior Walls - EIFS																
Encl 13	Windows - PVC	\$ 29,877.31			\$ 31,706.04			\$ 33,646.71		\$ 35,706.16			\$ 37,891.66			\$ 40,210.93	
Encl 14	Windows - Glass Block																
Encl 15	Doors - PVC Sliding	\$ 23,901.85			\$ 25,364.84			\$ 26,917.37		\$ 28,564.92			\$ 30,313.33			\$ 32,168.74	
Encl 16	Doors - Casement	\$ 11,950.93			\$ 12,682.42			\$ 13,458.68		\$ 14,282.46			\$ 15,156.66			\$ 16,084.37	
Encl 17	Doors - Garage												\$ 15,000.00	\$ 15,300.00	\$ 15,606.00	\$ 15,918.12	\$ 16,236.48
Encl 18	Underground Parking Garage		\$ 2,194,189.96														
Encl 18	Underground Parking Garage	\$ 1,293,606.63															
Encl 18	Underground Parking Garage			\$ 1,554,217.89													

<b>2.3 Mechanical / Plumbing</b>																	
Mech 1	Plumbing - Domestic Water Supply Piping	\$ 23,901.85															
Mech 1	Plumbing - Domestic Water Supply Piping		\$ 853,296.09														
Mech 1	Plumbing - Domestic Water Supply Piping	\$ 418,282.40															
Mech 1	Plumbing - Domestic Water Supply Piping			\$ 870,362.02													
Mech 1	Plumbing - Domestic Water Supply Piping				\$ 190,236.27												
Mech 1	Plumbing - Domestic Water Supply Piping					\$ 776,163.98											
Mech 2	Heating - Boiler												\$ 35,841.05				
Mech 2	Heating - Boiler												\$ 35,841.05				
Mech 2	Heating - Boiler												\$ 35,841.05				
Mech 2	Heating - Boiler							\$ 16,473.43									
Mech 2	Heating - Boiler												\$ 18,188.00				
Mech 2	Heating - Boiler																
Mech 3	Heating - Storage Tank			\$ 12,433.74													
Mech 3	Heating - Storage Tank							\$ 13,458.68									
Mech 3	Heating - Storage Tank	\$ 5,975.46															\$ 8,042.19
Mech 4	Heating - Hot Water Tanks (gas)		\$ 18,284.92			\$ 19,404.10						\$ 22,289.21				\$ 23,653.49	
Mech 5	Fireplaces - Gas																
Mech 6	Heat Pumps											\$ 22,289.21					
Mech 6	Heat Pumps											\$ 118,875.79					
Mech 7	Air Handling Unit																\$ 32,168.74
Mech 8	Heat Recovery Unit																
Mech 9	Make-up Air Units																\$ 236,534.89
Mech 10	A/C Units																\$ 78,844.96
Mech 10	PRV System				\$ 12,682.42										\$ 15,459.80		
Mech 11	Parkade Exhaust Fans												\$ 37,891.66				
Mech 12	Ventilation Fans																
Mech 13	Gas Detection System				\$ 6,341.21							\$ 7,429.74					
Mech 14	Sump Pump												\$ 4,547.00				
Mech 15	Fountain Pumps				\$ 2,654.19					\$ 2,721.22				\$ 2,789.93			
Mech 16	Pool/Spa Equipment				\$ 5,308.39					\$ 5,442.43				\$ 5,579.86			



	\$ (446,170.00)	\$ 335,863.81	\$ 934,630.41	\$ 860,476.76	\$ 1,433,740.56	\$ 2,212,225.45
	\$ 94,765.09	\$ 295,768.76	\$ 986,375.24	\$ 359,706.06	\$ 176,874.78	\$ 280,079.88
	\$ (540,935.09)	\$ 40,295.53	\$ (51,744.82)	\$ 503,274.55	\$ 1,263,150.12	\$ 1,941,806.29
	\$ 876,798.91	\$ 894,334.88	\$ 912,221.58	\$ 930,466.01	\$ 949,075.33	\$ 968,056.84
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ 335,863.81	\$ 934,630.41	\$ 860,476.76	\$ 1,433,740.56	\$ 2,212,225.45	\$ 2,909,863.13

Item No.	Item	2046	2047	2048	2049	2050	2051
<b>2.1 Site Elements</b>							
Site 1	Storm Water Drainage			\$ 34,137.73			\$ 36,227.23
Site 2	Roads, Parking, Curbs, Driveways					\$ 14,627.93	
Site 2	Roads, Parking, Curbs, Driveways						
Site 3	Walkways, Sidewalks, Patios, Stairs (on grade)			\$ 34,137.73			
Site 4	Concrete (pool deck)		\$ 33,468.36				
Site 5	Patios, Walkways, Sidewalks (over PG)						
Site 6	Landscaping	\$ 24,609.09		\$ 25,603.30		\$ 26,637.67	
Site 7	Fencing & Railings						
Site 7	Fencing & Railings		\$ 50,202.54				
Site 8	Concrete/Block Walls		\$ 33,468.36				
Site 9	Outdoor Fountains/Ponds		\$ 16,734.18				

<b>2.2 Building Envelope</b>							
Encl 1	Flat Roofs - SBS Membrane						
Encl 1	Flat Roofs - SBS Membrane						
Encl 1	Flat Roofs - SBS Membrane						
Encl 1	Flat Roofs - SBS Membrane						
Encl 1	Flat Roofs - SBS Membrane						
Encl 2	Sloped Roofs - Asphalt Shingles						
Encl 3	Sloped Roofs - Skylights						
Encl 4	Sloped Roofs - Metal						
Encl 5	Glass Canopy						
Encl 6	Roof Decks - PVC Membrane		\$ 33,468.36			\$ 35,516.89	
Encl 7	Balconies - Pedestrian Liquid Membrane				\$ 304,679.24		
Encl 8	Balconies - Guardrails						
Encl 8	Balconies - Guardrails	\$ 28,319.89	\$ 28,461.49	\$ 28,603.80	\$ 28,746.82	\$ 28,890.55	\$ 29,035.00
Encl 9	Exterior Walls - Stucco			\$ 256,032.97			
Encl 9 & 11	Exterior Walls - Stucco & Wood Trim			\$ 426,721.62			
Encl 10	Exterior Walls - Vinyl Siding						
Encl 11	Exterior Walls - Wood Trim						
Encl 12	Exterior Walls - EIFS						
Encl 13	Windows - PVC			\$ 42,672.16			\$ 45,284.04
Encl 14	Windows - Glass Block						
Encl 15	Doors - PVC Sliding			\$ 34,137.73			\$ 36,227.23
Encl 16	Doors - Casement			\$ 17,068.86			\$ 18,113.62
Encl 17	Doors - Garage	\$ 16,561.21	\$ 16,892.44	\$ 17,230.29	\$ 17,574.89	\$ 17,926.39	\$ 18,284.92
Encl 18	Underground Parking Garage						
Encl 18	Underground Parking Garage						
Encl 18	Underground Parking Garage						

<b>2.3 Mechanical / Plumbing</b>							
Mech 1	Plumbing - Domestic Water Supply Piping						
Mech 1	Plumbing - Domestic Water Supply Piping						
Mech 1	Plumbing - Domestic Water Supply Piping						
Mech 1	Plumbing - Domestic Water Supply Piping						
Mech 1	Plumbing - Domestic Water Supply Piping						
Mech 1	Plumbing - Domestic Water Supply Piping						
Mech 2	Heating - Boiler						
Mech 2	Heating - Boiler						
Mech 2	Heating - Boiler						
Mech 2	Heating - Boiler						
Mech 2	Heating - Boiler						
Mech 2	Heating - Boiler						
Mech 3	Heating - Storage Tank		\$ 16,734.18				
Mech 3	Heating - Storage Tank						\$ 18,113.62
Mech 3	Heating - Storage Tank						
Mech 4	Heating - Hot Water Tanks (gas)						\$ 27,170.42
Mech 5	Fireplaces - Gas						
Mech 6	Heat Pumps						
Mech 6	Heat Pumps						
Mech 7	Air Handling Unit						
Mech 8	Heat Recovery Unit	\$ 13,124.85					
Mech 9	Make-up Air Units						
Mech 10	A/C Units						
Mech 10	PRV System						
Mech 11	Parkade Exhaust Fans						
Mech 12	Ventilation Fans						
Mech 13	Gas Detection System				\$ 8,705.12		
Mech 14	Sump Pump						
Mech 15	Fountain Pumps			\$ 2,860.38			
Mech 16	Pool/Spa Equipment			\$ 5,720.76			



## **APPENDIX B**

### **INSPECTION CHECKLISTS**

**INSPECTION CHECKLIST**

**FLAT ROOF**

Date: \_\_\_\_\_

Name: \_\_\_\_\_

**1.0 General**

	OK	Minor	Major	Comments/Location	Photo	Recommendation	Completed
Debris							
Drainage							
Physical Damage							
General Condition							
New Equipment							
_____							
_____							

**1.1 Surface Condition**

- Bare Spots in Gravel
- Alligatoring/Cracking
- Ponding
- Slippage


**1.2 Membrane Condition**

- Blistering/Splitting/  
Ridging/Tears


**2.0 Metal Flashings**

- Physical Damage
- Attachment/Fasteners
- Staining
- Corrosion

	OK	Minor	Major	Comments/Location	Photo	Recommendation	Completed
Physical Damage							
Attachment/Fasteners							
Staining							
Corrosion							

**INSPECTION CHECKLIST**

Caulking  
Slope


**3.0 Roof Penetrations**

**OK    Minor    Major                      Comments/Location                      Photo                      Recommendation                      Completed**

Roof Vents  
Roof Drains  
Plumbing Stacks  
Skylights


**Additional Comments**

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**INSPECTION CHECKLIST**

**SLOPED ROOF**

Date: \_\_\_\_\_

Name: \_\_\_\_\_

**1.0 General**

	OK	Minor	Major	Comments/Location	Photo	Recommendation	Completed
Debris							
Cupping/Cracks/ Degranulation/Splitting							
Staining/Moss Growth							
Fascia							
Misc. Caulking							
_____							
_____							

**2.0 Gutters/Downspouts**

	OK	Minor	Major	Comments/Location	Photo	Recommendation	Completed
Slope							
Bent/Damaged							
Plugged							
Discharge							
Missing							
Leaking							
_____							

**3.0 Soffits**

	OK	Minor	Major	Comments/Location	Photo	Recommendation	Completed
Damaged/Sagging							
Stained							
_____							

**4.0 Flashings**

	OK	Minor	Major	Comments/Location	Photo	Recommendation	Completed
Physical Damage/Missing							
Seams/Laps							
Caulking							

**INSPECTION CHECKLIST**

Corrosion  
Slope


**5.0 Penetrations**

Skylights  
Roof Vents

OK	Minor	Major	Comments/Location	Photo	Recommendation	Completed

**Additional Comments**

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**INSPECTION CHECKLIST**

**ROOF DECKS/BALCONIES**

Date: \_\_\_\_\_

Name: \_\_\_\_\_

**1.0 General**

	OK	Minor	Major	Comments/Location	Photo	Recommendation	Completed
Staining							
Cuts							
Blisters							
Punctures							
Seams							
Delamination							
Debris							
Membrane Upturn							
Penetrations							
Misc. Caulking							
Fascias							
_____							
_____							

**2.0 Soffits**

	OK	Minor	Major	Comments/Location	Photo	Recommendation	Completed
Damaged/Cracked							
Staining							
Sagging							
Misc. Caulking							
Dryer Vent Condition							
_____							

**3.0 Drainage**

	OK	Minor	Major	Comments/Location	Photo	Recommendation	Completed
Ponding							
Plugged/Blocked Drains							
Screens							
_____							

**INSPECTION CHECKLIST**

**4.0 Flashings**

**OK    Minor    Major                      Comments/Location                      Photo                      Recommendation                      Completed**

**4.1 Cap Flashings**

- Slope
- Staining
- Ponding
- Seams
- Damaged/Missing
- Saddle Joints
- Caulking
- Felt Underlayment
- Dissimilar Materials


**4.2 Wall/Counter/Base**

**Flashings**

- Slope
- Staining
- Vertical Joints
- Seams
- Adequately Fastened
- Lap Under Cladding
- Damaged/Missing
- Caulking
- Dissimilar Materials
- Penetrations


**5.0 Railings**

**OK    Minor    Major                      Comments/Location                      Photo                      Recommendation                      Completed**

Overall Condition

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**Additional Comments**

\_\_\_\_\_

\_\_\_\_\_

**INSPECTION CHECKLIST**

**EXTERIOR WALLS**

Date: \_\_\_\_\_

Name: \_\_\_\_\_

**1.0 General**

	OK	Minor	Major	Comments/Location	Photo	Recommendation	Completed
Stained/Dirty							
Bent/Damaged							
Caulking							
Cracks							
Fastened/Loose							
Delamination							
Efflorescence							
Height Above Grade/Patios							
Terminations/Interfaces							
Trim							
Architectural Features							
Penetrations							
Shrubs/Trees							
_____							
_____							

**2.0 Wall Vents**

	OK	Minor	Major	Comments/Location	Photo	Recommendation	Completed
Back-slope							
Bug Screen/Plugged							
Rusted/Damaged							
Caulking							
_____							

**3.0 Flashings**

	OK	Minor	Major	Comments/Location	Photo	Recommendation	Completed
<b>3.1 Cap Flashings</b>							
Slope							
Staining							

**INSPECTION CHECKLIST**

Ponding  
 Seams  
 Damaged/Missing  
 Saddle Joints  
 Caulking  
 Felt Underlayment  
 Dissimilar Materials


**3.2 Wall/Counter/Base**

**Flashings**

Slope  
 Staining  
 Vertical Joints  
 Seams  
 Adequately Fastened  
 Lap Under Cladding  
 Damaged/Missing  
 Caulking  
 Dissimilar Materials  
 Penetrations


**Additional Comments**

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**INSPECTION CHECKLIST**

**UNDERGROUND PARKING GARAGE**

Date: \_\_\_\_\_

Name: \_\_\_\_\_

**1.0 General**

	OK	Minor	Major	Comments/Location	Photo	Recommendation	Completed
Efflorescence							
Efflorescence							
Efflorescence							
Efflorescence							
Active Leaks							
Active Leaks							
Active Leaks							
Active Leaks							
Penetrations							
Penetrations							
Previous Repairs							
Previous Repairs							
_____							
_____							

**Additional Comments**

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**INSPECTION CHECKLIST**

**OTHER**

Date: \_\_\_\_\_

Name: \_\_\_\_\_

**1.0 Patios**

Debris  
Slope  
Concrete Topping

OK	Minor	Major	Comments/Location	Photo	Recommendation	Completed

**2.0 Fences/Gates**

Stained/Damaged

OK	Minor	Major	Comments/Location	Photo	Recommendation	Completed

**3.0 Exterior Stairs**

Efflorescence

OK	Minor	Major	Comments/Location	Photo	Recommendation	Completed

**4.0**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

OK	Minor	Major	Comments/Location	Photo	Recommendation	Completed