# MOISIO RESIDENCE

## 2101 CLARKE STREET, PORT MOODY
## (FORMERLY 2614 ST. JOHNS STREET)

# CONSERVATION PLAN

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# 1.0 INTRODUCTION

HISTORIC NAME: MOISIO RESIDENCE
ORIGINAL ADDRESS: 2614 ST. JOHNS STREET
CURRENT LOCATION: 2101 CLARKE STREET
ORIGINAL OWNER: ESA MOISIO
CONSTRUCTION DATE: 1912
HERITAGE STATUS: MUNICIPAL HERITAGE REGISTER; PROPOSED LEGAL PROTECTION

The Moisio Residence is a handsome example of a Craftsman bungalow, typical of the housing built during the pre-World War One boom period in Port Moody. Constructed in 1912, the Moisio Residence is a one and one-half storey, rectangular-plan house that features a side-gabled roof with central, gabled dormer and full-width front porch.

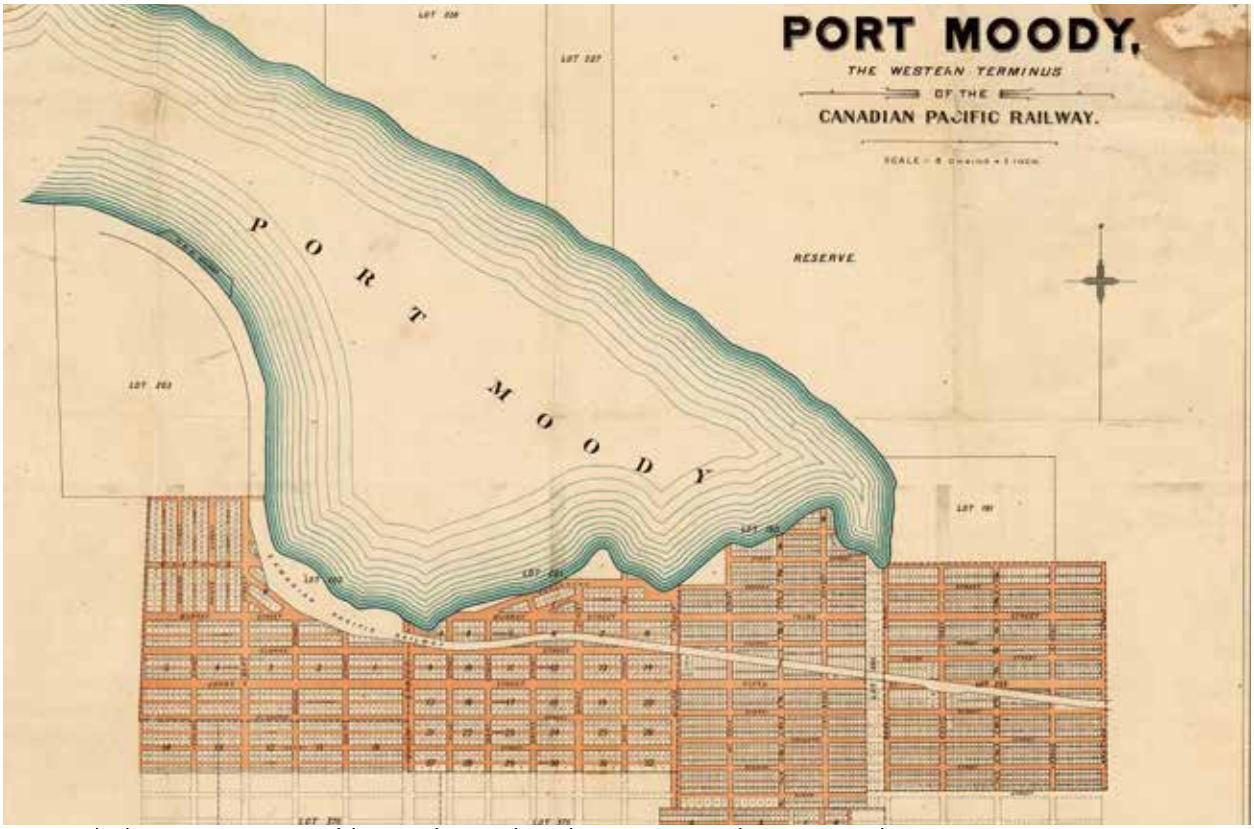
The proposed conservation strategy for the Moisio Residence involves the preservation of its exterior features and character-defining elements while relocating the historic house to nearby 123 Douglas Street. The relocation will be the second in the life of the Moisio Residence; this action will ensure the conservation and retention of one of Port Moody's historic houses and will situate the house among other buildings of a similar vintage. The character-defining heritage elements to be preserved are listed in the Statement of Significance, but include: its residential form, scale and massing; simple rectangular plan; side-gabled roof with projecting bellcast roofs over the front and rear verandahs; gabled dormers at the front and rear; wood-frame construction materials; Arts and Crafts style details; and variety of wooden sash windows.

The conservation of the house is enabled under a Heritage Revitalization Agreement with the City of Port Moody, which will include the relocation and conservation of three historic houses: the Moisio Residence; the Siddall Residence; and the Sutherland Residence.

# 2.0 HISTORIC CONTEXT

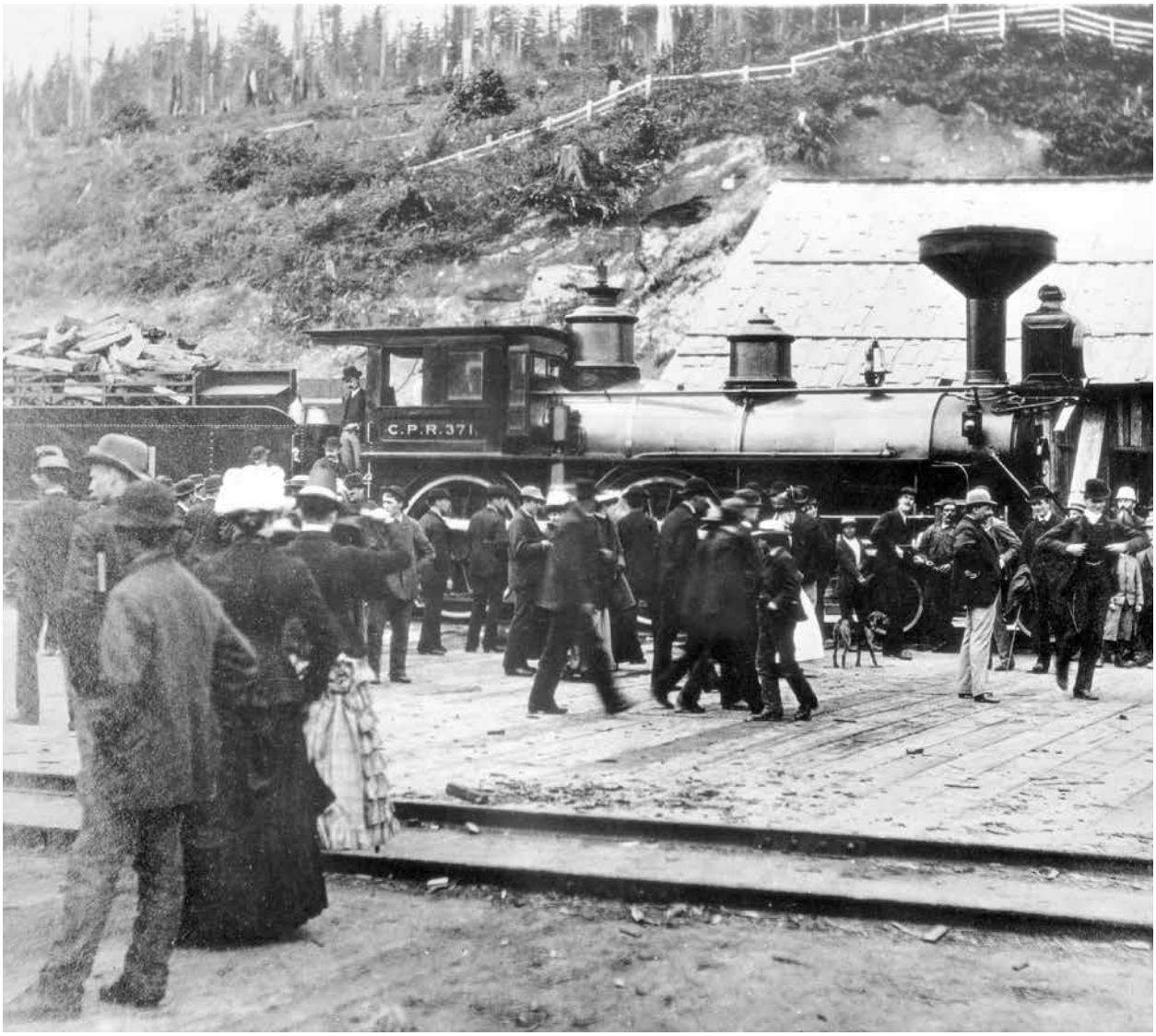
The Moisio Residence is located in Moody Centre, one of Port Moody's two Heritage Conservation Areas (HCA); the other being the Ioco Townsite. Encompassing the south shore of Burrard Inlet, and located adjacent to the Canadian Pacific Railway (CPR) tracks, Moody Centre was Port Moody's historic commercial and residential downtown. The main commercial area of Moody Centre includes Clarke Street and St. Johns Street, which run east-west and parallel to one another. The residential community of Moody Centre was developed immediately south of the commercial areas and extends up the Chines escarpment, a steep forested slope, which is still home to a plethora of wild flora and fauna. The character of the area is augmented by superb views to the north and by many mature landscaping elements.

Port Moody was originally surveyed by the Royal Engineers who arrived in British Columbia in 1858. The detachment was created by an Act of British Parliament and commanded by Colonel Richard Moody, after whom the area is named. Among the Royal Engineers was John Murray, who accepted the Crown's offer to sappers such as himself of 150 acres of land if they remained in British Columbia following their assignment; Murray is known today as one of Port Moody's first settlers. Following the surveying work, development in Port Moody began to increase. Settlement and construction in the area reached a new height when the CPR named Port Moody as the western terminus of the Company's cross-country line.




Port Moody, the Western Terminus of the Canadian Pacific Railway, 1884, City of Vancouver Archives (CVA) AM1594-: MAP 91

By 1880, the area was under heavy construction in anticipation of the arrival of the railway. Infrastructure to support the impending arrival was quickly established, along with the construction of hotels, stores, offices, and houses. On July 4, 1886 the first cross-Canada train, Engine 371, arrived in Port Moody. Shortly following this momentous event however, the CPR began construction on the extension of the rail line that would see Vancouver as the western terminus, effectively halting the rapid development of Port Moody. Development did not permanently cease however - due to its position on the CPR rail line, its location on Burrard Inlet, its variety of industries, and its proximity to Vancouver, Port Moody remained an attractive and desirable place to settle.




Arrival of train 371 to Port Moody, CVA AM54-S4-- Can P3

John Murray Property, Port Moody, 1884, CVA AM54-S4-: Out P30

Flavelle Mill, Port Moody Station Museum

View of Port Moody, 1908, CVA Out P259

Many of the houses in the vicinity of the Moisio Residence were built during the Edwardian era boom and the subsequent interwar period. A sawmill had opened in the area in 1905, employing 125 men, followed by several oil refineries. In 1915, the Imperial Oil Company established a large development just outside of the Port Moody city boundary, attracting labourers to the area. The lumber industry continued to grow and dominate Port Moody, peaking in the 1920s, when the area was occupied by many private homes and several general stores. The Moisio Residence was one of the early Port Moody residences constructed in 1912 during the pre-war residential construction boom.

# 3.0 STATEMENT OF SIGNIFICANCE

**Description of Historic Place**
The Moisio Residence is a one and one-half storey Arts and Crafts bungalow with a bellcast side-gabled roof, gabled dormers at the front and rear, triangular eave brackets, notched bargeboards, and exposed rafters. There are two full-width open verandahs, located on the front and rear of the house. The Moisio Residence is situated on the north side of St. Johns Street in Port Moody, British Columbia.

**Heritage Value**
The Moisio Residence, built in 1912, is significant for its association with first owner Esa Moisio, who was employed as a millwright at the Thurston-Flavelle Mill, one of the major sawmills in the area. Moisio's connection with the mill demonstrates the importance that resource industries played in the growth and economic development of Port Moody. Moisio was a noted local citizen, and served as alderman for the City of Port Moody between 1915 and 1917.

The Moisio Residence is also valued as a well-maintained example of an Arts and Crafts bungalow. The modest detailing reflects the type of residence typically built for the working class in the era prior to the outbreak of World War One.

The Moisio Residence is further valued for its location within the residential neighbourhood of Moody Centre, which is associated with the economic and population growth of Port Moody in the early twentieth century. Situated at the eastern edge of the downtown area, the house is valued for its association with Port Moody's early development patterns; some of the City's most prominent homes were located on the lots closest to the downtown.

**Character-Defining Elements**
Key elements that define the heritage character of the Moisio Residence include its:

- location on St. Johns Street in Port Moody
- residential form, scale and massing as expressed by its one and one-half storey plus full basement height, simple rectangular plan, side-gabled roof with projecting bellcast roofs over the front and rear verandahs, and gabled dormers at the front and rear
- wood-frame construction materials such as lapped wooden siding, and cedar shingles in the gable ends
- Arts and Crafts style details such as triangular eave brackets, open soffits with exposed rafter tails, full-width open verandahs with tapered columns, and notched bargeboards
- additional exterior elements such as closed balustrades with drainage scuppers, internal corbelled red-brick chimney, panelled wooden front door with multi-paned glazing, and panelled wooden rear door
- variety of windows including one-over-one double-hung wooden sash windows with horns in single, double and triple assembly; feature window beside main entry; and multi-paned casement windows at the basement level

Source: City of Port Moody Planning Department

# 4.0 CONSERVATION GUIDELINES

## 4.1 STANDARDS AND GUIDELINES

The 1912 Moisio Residence, originally located at 2614 St. Johns Street in Moody Centre, is an important heritage resource in Port Moody. The Parks Canada *Standards and Guidelines for the Conservation of Historic Places in Canada* is the source used to assess the appropriate level of conservation and intervention. Under the *Guidelines*, the work proposed for the historic house includes aspects of preservation, rehabilitation and restoration.

> ***Preservation:*** *the action or process of protecting, maintaining, and/or stabilizing the existing materials, form, and integrity of a historic place or of an individual component, while protecting its heritage value.*
>
> ***Restoration:*** *the action or process of accurately revealing, recovering or representing the state of a historic place or of an individual component, as it appeared at a particular period in its history, while protecting its heritage value.*
>
> ***Rehabilitation:*** *the action or process of making possible a continuing or compatible contemporary use of a historic place or an individual component, through repair, alterations, and/or additions, while protecting its heritage value.*

Interventions to the Moisio Residence should be based upon the *Standards* outlined in the *Standards and Guidelines*, which are conservation principles of best practice. The following **General Standards** should be followed when carrying out any work to an historic property.

### STANDARDS

**Standards relating to all Conservation Projects**

1. Conserve the heritage value of a historic place. Do not remove, replace, or substantially alter its intact or repairable character-defining elements. Do not move a part of a historic place if its current location is a character-defining element.
2. Conserve changes to a historic place, which over time, have become character-defining elements in their own right.
3. Conserve heritage value by adopting an approach calling for minimal intervention.
4. Recognize each historic place as a physical record of its time, place and use. Do not create a false sense of historical development by adding elements from other historic places or other properties or by combining features of the same property that never coexisted.
5. Find a use for a historic place that requires minimal or no change to its character defining elements.
6. Protect and, if necessary, stabilize a historic place until any subsequent intervention is undertaken. Protect and preserve archaeological resources in place. Where there is potential for disturbance of archaeological resources, take mitigation measures to limit damage and loss of information.
7. Evaluate the existing condition of character-defining element to determine the appropriate intervention needed. Use the gentlest means possible for any intervention. Respect heritage value when undertaking an intervention.
8. Maintain character-defining elements on an ongoing basis. Repair character-defining element by reinforcing the materials using recognized conservation methods. Replace in kind any extensively deteriorated or missing parts of character-defining elements, where there are surviving prototypes.

9. Make any intervention needed to preserve character-defining elements physically and visually compatible with the historic place and identifiable upon close inspection. Document any intervention for future reference.

**Additional Standards relating to Rehabilitation**

10. Repair rather than replace character-defining elements. Where character-defining elements are too severely deteriorated to repair, and where sufficient physical evidence exists, replace them with new elements that match the forms, materials and detailing of sound versions of the same elements. Where there is insufficient physical evidence, make the form, material and detailing of the new elements compatible with the character of the historic place.
11. Conserve the heritage value and character-defining elements when creating any new additions to a historic place and any related new construction. Make the new work physically and visually compatible with, subordinate to and distinguishable from the historic place.
12. Create any new additions or related new construction so that the essential form and integrity of a historic place will not be impaired if the new work is removed in the future.

**Additional Standards relating to Restoration**

13. Repair rather than replace character-defining elements from the restoration period. Where character-defining elements are too severely deteriorated to repair and where sufficient physical evidence exists, replace them with new elements that match the forms, materials and detailing of sound versions of the same elements.
14. Replace missing features from the restoration period with new features whose forms, materials and detailing are based on sufficient physical, documentary and/or oral evidence.

## 4.2 CONSERVATION REFERENCES

The proposed work entails the permanent Relocation, Restoration and Rehabilitation of the Moisio Residence.

The following conservation resources should be referred to:

*Standards and Guidelines for the Conservation of Historic Places in Canada*, Parks Canada, 2010. http://www.historicplaces.ca/en/pages/standards-normes/document.aspx

**National Park Service, Technical Preservation Services Preservation Briefs:**

*Preservation Brief 4: Roofing for Historic Buildings*
http://www.nps.gov/tps/how-to-preserve/briefs/4-roofing.htm

*Preservation Brief 9: The Repair of Historic Wooden Windows.*
http://www.nps.gov/tps/how-to-preserve/briefs/9-wooden-windows.htm

*Preservation Brief 10: Exterior Paint Problems on Historic Woodwork.*
http://www.nps.gov/tps/how-to-preserve/briefs/10-paint-problems.htm

*Preservation Brief 45: Preserving Historic Wood Porches*
http://www.nps.gov/tps/how-to-preserve/briefs/45-wooden-porches.htm

*Preservation Brief 47: Maintaining the Exterior of Small and Medium Size Historic Buildings.*
http://www.nps.gov/tps/how-to-preserve/briefs/47-maintaining-exteriors.htm

## 4.3 GENERAL CONSERVATION STRATEGY

**Proposed Redevelopment Scheme**
The primary intent is to move the Moisio Residence from its temporary location at 2101 Clarke Street to 123 Douglas Street in Port Moody. It is proposed to subdivide the parcel at 123 Douglas Street into three lots. The house will be rehabilitated and historic architectural features restored. As part of the redevelopment scheme two other heritage homes will also be relocated to the subdivided lots and restored.

An overall rehabilitation scheme has been provided by the client (refer to application drawings dated 14 July 2016). As part of the conservation work the exterior elevations of the Moisio Residence will be restored, while undertaking interior rehabilitation and upgrades to its structure and services to increase the functionality for residential use. Character-defining elements will be preserved, while missing or deteriorated elements will be restored. The major proposed interventions of the overall project are:

- Proposed permanent relocation of the Moisio Residence to 123 Douglas Street.
- Preserve exterior character-defining elements.
- Restore character-defining elements that have been altered or removed.

**Proposed Infill Guidelines**
Due to the proposed residential development on the subdivided lot, all new visible construction including new foundations and basements will be considered a modern intervention on the historic site. The *Standards and Guidelines* list recommendations for new construction related to historic places, which applies to new construction in the near vicinity of a historic house.

The proposed design scheme for the new construction should follow **Standards 11 and 12**:

- Conserve the heritage value and character-defining elements when creating any new additions to a historic place and any related new construction. Make the new work physically and visually compatible with, subordinate to and distinguishable from the historic place.
- Create any new additions or related new construction so that the essential form and integrity of a historic place will not be impaired if the new work is removed in the future.

## 4.4 SUSTAINABILITY STRATEGY

The four-pillar model of sustainability identifies four interlinked dimensions: environmental, economic, social and cultural sustainability, the latter including the built heritage environment. This four pillar approach was also adopted by the City of Port Moody in their Community Sustainability Plan.

Current research links sustainability considerations with the conservation of our built and natural environments. A competitive, sustainable economy requires the conservation of heritage buildings as an important component of a high quality urban environment. In a practical context, the conservation and re-use of historic and existing structures contributes to environmental sustainability by:

- Reducing solid waste disposal (reduced impact on landfills and their expansions);
- Saving embodied energy (defined as the total expenditure of energy involved in the creation of the building and its constituent materials);
- Conserving historic materials that are significantly less consumptive of energy than many new replacement materials (often local and regional materials, e.g. timber, brick, concrete, plaster, can be preserved and reduce the carbon footprint of manufacturing and transporting new materials).

The following considerations for energy efficiency in historic structures are recommended in the Parks Canada *Standards and Guidelines for the Conservation of Historic Places in Canada* (2010) and can be utilized for the Moisio Residence.

**Sustainability Considerations**

- Add new features to meet sustainability requirements in a manner that respects the exterior form and minimizes impact on character-defining elements.
- Comply with energy efficiency objectives in a manner that minimizes impact on the character-defining elements and overall heritage value of the historic building.


Four Pillar Approach, City of Port Moody

## 4.5 HERITAGE EQUIVALENCIES & EXEMPTIONS

Through the Heritage Revitalization Agreement the Moisio Residence will become legally protected. It will be eligible for heritage variances that will enable a higher degree of heritage conservation and retention of original material, including considerations available under the following municipal legislation.

### *4.5.1 BRITISH COLUMBIA BUILDING CODE*

Building Code upgrading ensures life safety and long-term protection for historic resources. It is important to consider heritage buildings on a case-by-case basis, as the blanket application of Code requirements do not recognize the individual requirements and inherent strengths of each building.

Over the past few years, a number of equivalencies have been developed and adopted in the British Columbia Building Code (2012) that enable more sensitive and appropriate heritage building upgrades. For example, the use of sprinklers in a heritage structure helps to satisfy fire separation and exiting requirements. Table A-1.1.1.1., found in Appendix A of the Code, outlines the "Alternative Compliance Methods for Heritage Buildings."

Given that Code compliance is such a significant factor in the conservation of heritage buildings, the most important consideration is to provide viable economic methods of achieving building upgrades. In addition to the equivalencies offered under the current Code, the City of Port Moody can also accept the report of a Building Code Engineer as to acceptable levels of code performance.

If fire separation needs to be upgraded between the heritage house and adjacent buildings, sprinklers or intumescent paint are recommended. The installation of fibre-cementitious siding, such as Hardie Board, is not a recommended intervention on the heritage building.

### *4.5.2 ENERGY EFFICIENCY ACT*

The provincial *Energy Efficiency Act* (Energy Efficiency Standards Regulation) was amended in 2009 to exempt buildings protected through heritage designation or listed on a community heritage register from compliance with the regulations. Energy Efficiency standards therefore do not apply to windows, glazing products, door slabs or products installed in heritage buildings. This means that exemptions can be allowed to energy upgrading measures that would destroy heritage character-defining elements such as original windows and doors. These provisions do not preclude that heritage buildings must be made more energy efficient, but they do allow a more sensitive approach of alternate compliance to individual situations and a higher degree of retained integrity. Increased energy performance can be provided through non-intrusive methods of alternate compliance, such as improved insulation and mechanical systems. Please refer to the *Standards and Guidelines for the Conservation of Historic Places in Canada* (2010) for further detail about "Energy Efficiency Considerations."

### *4.5.3 HOME OWNER PROTECTION ACT*

Amendments to the Homeowner Protection Act Regulation made in 2010 allow for exemptions for heritage sites from the need to fully conform to the BC Building Code under certain conditions, thus removing some of the barriers to compliance that previously conflicted with heritage conservation standards and guidelines. The changes comprised

(1) an amendment to the Homeowner Protection Act Regulation, BC Reg. 29/99 that allows a warranty provider, in the case of a commercial to residential conversion, to exclude components of the building that have heritage value from the requirement for a warranty, and

(2) clarification of the definition of 'substantial reconstruction.' The latter clarification explains that 75% of a home must be reconstructed for it to be considered a 'new home' under the Homeowner Protection Act, thus enabling single-family dwelling to multi-family and strata conversions without the Act coming into play. The definition of a heritage building is consistent with that under the Energy Efficiency Act.

## 4.6 SITE PROTECTION

It is the responsibility of the owner to ensure the heritage resource is protected from damage at all times. In 2013, the historic Moisio Residence was temporarily moved from its original location at 2614 St. Johns Street to its interim location at 2101 Clarke Street in Port Moody. The structure is presently lifted and the windows on the main floor and the exterior doors are boarded up. A fence is installed around the house to avoid unauthorized access. The development scheme intends to permanently move the house to its final location on Douglas Street in Port Moody.

The following checklist should be implemented to ensure the continuous protection of the historic house.

**Moisture**
- Is the roof watertight?
- Are openings protected?
- Is exterior cladding in good condition to keep water out?

**Ventilation**
- Have steps been taken to ensure proper ventilation of the building?
- Have interior doors been left open for ventilation purposes?
- Has the secured building been checked within the last 3 months for interior dampness or excessive humidity?

**Pests**
- Have nests/pests been removed from the building's interior and eaves?
- Are adequate screens in place to guard against pests?
- Has the building been inspected and treated for termites, carpenter ants, rodents, etc.?

**Security**
- Are smoke and fire detectors in working order?
- Are wall openings boarded up and exterior doors securely fastened?
- Are plans in place to monitor the building on a regular basis?
- Are the keys to the building in a secure but accessible location?
- Are the grounds being kept from becoming overgrown?

In addition to the above recommendations, a sign should be installed at the site to inform the public that this house is a historic resource and will be conserved. A contact number should be provided for concerned citizens who observe trespassing or other unauthorized activities at the site.

# 5.0 CONDITION REVIEW & CONSERVATION RECOMMENDATIONS

A condition review of the exterior elevations of the Moisio Residence was carried out during a site visit in October 2015. The structure is presently lifted and secured with a fence. The following chapter describes the materials, physical condition and recommended conservation strategy for the historic structure based on Parks Canada's *Standard and Guidelines for the Conservation of Historic Places in Canada* (2010).

## 5.1 SITE

Prior to the relocation of the Moisio Residence in 2013, the house was prominently located at 2614 St. Johns Street in the Moody Centre neighbourhood. When the lot was slated for redevelopment, the historic structure was temporarily moved near the intersection of Clarke Street and Barnet Highway. The house is presently lifted and surrounded by a fence. The proposed conservation strategy considers the permanent move of the Moisio Residence to 123 Douglas Street in the Moody Centre neighbourhood. Two additional historic houses will also be relocated to this property (the Siddall Residence, 2901 St. Johns Street, and the Sutherland Residence, 2830 St. George Street). Design guidelines for new construction are listed in 4.3 General Conservation Strategy. They aim to preserve the heritage value and character-defining elements of the Moisio Residence and to make the new work compatible with the historic place. The proposed permanent relocation of the Moisio Residence within Moody Centre is an acceptable intervention. It will ensure the ongoing conservation of the historic structure while retaining its overall neighbourhood context.

**Conservation Strategy: Rehabilitation**
The ongoing site protection measures at the temporary location should be continued in order to preserve the structure. Before moving the house to its permanent location, the following **Relocation Guidelines** should be implemented:

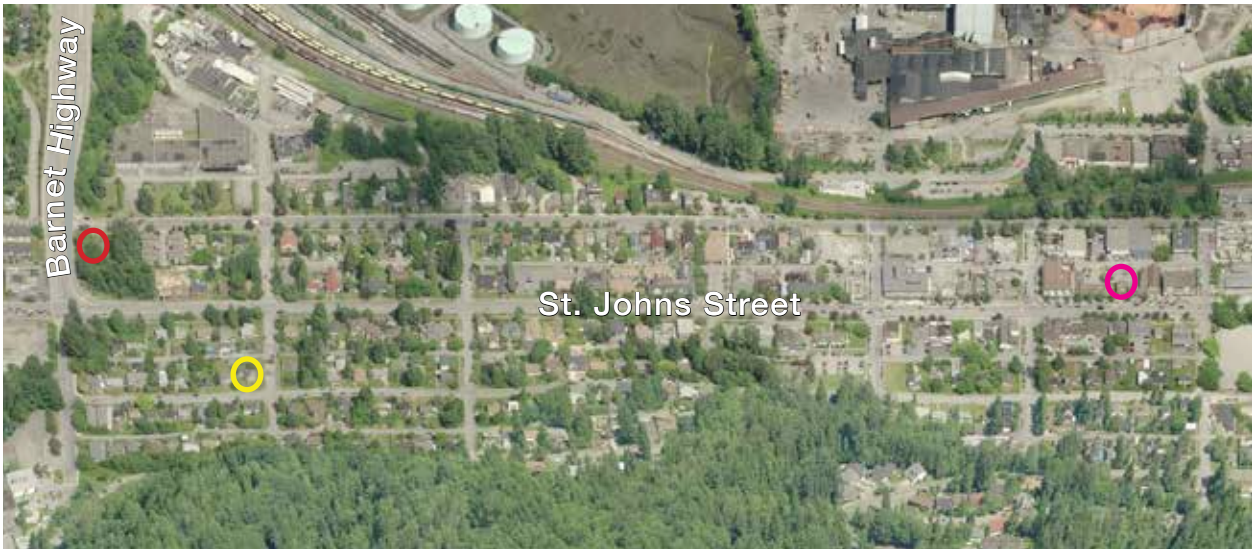
- A relocation plan can be prepared that ensures that the least destructive method of relocation will be used. The front and rear verandahs should be moved with the main house, if possible.
- The existing structural bracing should be reviewed by a qualified engineer or a professional building relocation company.
- An experienced and qualified contractor should undertake the physical relocation of the historic structure.
- Appropriate foundation materials can be used at the new site, which can include reinforced concrete basement walls and slab.
- Provide utility installations for electricity, communication and other service connections underground. Installations located above ground should be incorporated harmoniously into the design concept for the relocated structure.
- Implement measures for site protection, in particular when the house sits vacant, and until construction work commences.

## 5.2 FORM, SCALE AND MASSING

The original house features a residential form, scale and massing as expressed by its one and one-half storey and side-gabled roof with two dormers. Notable are the full-width verandahs on the front and rear elevations of the house. The Moisio Residence is a good example of an Arts and Crafts house and the design intent is to preserve the original volume. The construction of a new single car garage attached to the west elevation is an acceptable intervention (refere to proposed site plan, page 11).

**Conservation Recommendation: Preservation**
- Preserve the overall form, scale and massing of the historic house. The design of the new garage should be sympathetic to the historic character of the house. Use wooden siding and roof shingles matching the historic house and an appropriate wooden garage door.

Front elevation of the Moisio Residence facing north.




**Current Address:** 2101 Clarke St. **Future Address:** 123 Douglas St. **Original Address:** 2614 St. Johns St.

## 5.3 FOUNDATION

After the temporary relocation of the structure, the original foundation including a full basement was demolished. The proposed move of the house requires lifting the structure at the main floor and placing it onto new concrete foundations.

**Conservation Recommendation: Rehabilitation**

- The house will be permanently relocated and placed onto new reinforced concrete foundation.
- New door and window openings at the basement level can be designed. They should be sympathetic to the historic character of the house. Windows and doors at the basement level may be made of wood.
- To ensure the prolonged preservation of the new foundations, all landscaping may be separated from the foundations at grade by a course of gravel or decorative stones, which help prevent splash back and assist drainage.

## 5.4 EXTERIOR WALLS

### *5.4.1 WOOD FRAME WALLS*

The Moisio Residence is built in traditional wood-frame construction with dimensional lumber. Wood-frame construction is one of the most affordable housing construction methods that utilized in the past old growth lumber.

**Conservation Recommendation: Preservation**

- Preserve the existing wood-frame structure of the original house if possible.
- Design structural and seismic upgrades, if required, from the inside without impacting exterior character-defining elements.
- Consider utilizing Alternate Compliance Methods outlined in the applicable building code for fire and spatial separations including installation of sprinklers where required.

### *5.4.2 WOOD SIDING*

The original cedar shingle siding on the main and upper floors is in place and in good condition except for peeling paint. At the basement level, cedar shingles were originally installed, but removed during the relocation process. The cedar shingle siding may be preserved and restored. Severely damaged cedar shingle siding can be replaced with appropriate replica siding matching the original profile. The basement will be rehabilitated and new cedar shingles similar to the original may be installed.

**Conservation Recommendation: Restoration**

- Retain cedar shingle siding and restore in-place where possible. Replace any damaged cedar shingle siding to match existing in material, size, profile.
- Combed or textured lumber, vinyl or fibre cement siding are not acceptable replacement materials on the historic house.
- Cleaning procedures of cedar shingle siding should be undertaken with non-destructive methods. Areas can be cleaned using a soft, natural bristle brush, without water, to remove dirt and other material. If a more intense cleaning is required, this can be accomplished with warm water, mild detergent (such as Simple Green) and a soft bristle brush. High-pressure power washing, abrasive cleaning or sandblasting should not be allowed under any circumstances on any historic material of the exterior elevations.
- Install new cedar shingles at the basement level closely matching the originals in overall dimensions and installation pattern.

### *5.4.3 WOOD TRIM*

Original wood trim is visible on the elevations including window and door trim, fascia boards and bargeboards, and watertable which should be preserved and repaired in-situ. Severely damaged or deteriorated trim and other original woodwork can be replaced in kind.

**Conservation Recommendation: Restoration**

- Original trim that is in good or repairable condition may be retained, including window and door trim, fascia boards and bargeboards, and watertable.
- Cut out deteriorated trim sections and install matching trim board that is visually and physically compatible with the original.


West elevation


Bargeboard with notched ends


Cedar shingles on main floor and plywood at basement level


Door trim


Belt course separating the main and upper floors

## 5.5 VERANDAH

The Moisio Residence features two original verandahs running the full length of the front and rear sides of the house. Both verandahs have very similar configurations consisting of four tapered timber columns with small capitals supporting the verandah roofs, extensions of the main side-gabled roof. The sloping verandah ceilings feature exposed rafter tails and tongue-and-groove soffits. An architectural detail are notched bargeboards. The closed and shingled balustrades have solid wood sills and drainage scuppers.

While the front verandah retained the tongue-and-groove decking, the original flooring of the rear verandah was replaced with plywood. A further distinction is that the front verandah is accessed at the mid-section, while the rear verandah is accessible from one side. The wooden stairs leading to both verandahs were removed prior to moving the structure. They can be replaced with new wooden stairs and handrails that are sympathetic to the historic character of the house.

**Conservation Recommendation: Restoration/ Rehabilitation**

- Preserve the front and rear verandahs as important architectural elements of the house.
- Move both verandahs with the main structure to its permanent location, if possible.
- Restore original verandah elements that are in good condition where feasible, including tapered columns with capitals and rounded base, wooden sills, exposed rafter tails and tongue-and-groove soffits.
- The closed and shingled balustrades with drainage scuppers can preserve their original detailing and height. Building code requirements can be met with alternate compliance method, e.g. installing glass panels or metal railings to meet the required height. The Heritage Consultant can advise on the design.
- Design new wooden front and rear stairs with closed treads and risers. The Heritage Consultant can advise on the design.

Front verandah with closed and shingled balustrades

Top Left: Front verandah with tapered columns Top Right: Rear verandah ceiling featuring exposed rafter tails and tongue-and-groove soffits; Bottom: Rear verandah

## 5.6 WINDOW & WINDOW TRIM

*Windows and doors are among the most conspicuous feature of any building. In addition to their function — providing light, views, fresh air and access to the building — their arrangement and design is fundamental to the building's appearance and heritage value. Each element of fenestration is, in itself, a complex assembly whose function and operation must be considered as part of its conservation.*
*– Standards and Guidelines for the Conservation of Historic Places in Canada* (2010).

The original windows of the Moisio Residence are still in place and consist of single, paired and triple sets of one-over-one, double-hung wooden sash windows on the main floor. This floor also features a piano window with leaded glass on the front facade and a narrow sliding window with two sashes on the rear elevation. All windows on the main floor are currently boarded up.

The side gables feature pairs of double-hung wooden sash windows front and rear dormers have single double-hung wooden sash windows. Interestingly the front and rear dormer windows and one sash of each of the paired side gable windows are fitted with storm sashes.

The windows at the basement were removed prior to relocation of the house and can be newly designed in a sympathetic fashion.

All original window trim and sills may be retained. The wide trim boards, smaller crown mouldings and sills may be preserved and restored.

**Conservation Recommendation: Restoration**

- Retain all original wood sash windows and surrounding trim in their original openings where possible. Deteriorated or damaged wood elements may be restored (e.g. sashes, trim, sills). Missing or deteriorated elements can be replaced.
- Overhaul, tighten/reinforce joints of original windows where possible. Repair frame, trim and hardware. Each original window can be made weather tight by re-puttying and weather-stripping as necessary.
- Retain historic glass of original windows where possible.
- Retain the existing storm sashes if possible and install new storm sashes, where desired, to improve the thermal performance of the single-glazed windows.
- Window restoration should be undertaken by a contractor skilled in heritage restoration.
- New windows at the basement level can be made of wood and the design should respectful to the historic character of the house.
- Prime and paint all wood windows as required in appropriate colours, based on colour schedule devised by the Heritage Consultant.

Front verandah with inset piano window





Typical windows of the Moisio Residence

## 5.7 DOOR & DOOR TRIM

The original front door of the Moisio Residence is still in place. The panelled front door has an upper glazing element with six true divided lites. The rear door is presently boarded up, but was reportedly in place before relocation and is a panelled wooden door. Original wide trim boards and crown mouldings exist at both door openings and should be preserved.

**Conservation Recommendation: Restoration**

- Preserve original front and surrounding trim and mouldings of both door openings, if possible.
- If the front door is being retained, verify that the door fits properly in its frame and joints are tight. Verify that hardware is operational, particularly that hinges are tight and hinge pins not worn. Remove built-up paint at door and jamb. Repair damaged elements to match original. To reduce air infiltration, weather stripping can be installed between door and frame.
- New doors should be sympathetic to the historic character of the house.

Top: Rear door; Bottom: Front door

## 5.8 ROOF AND GUTTER

The original roof design of the Moisio Residence consists of a side-gabled main roof and dormers at the front and rear elevations. Triangular eave brackets are supporting the wide overhangs. The existing roof is presently covered with asphalt shingles, which replaced the original cedar shingles. Some debris and organic growth is visible in certain locations and would require to re-shingle the roof as part of the proposed conservation work. The existing gutters and downspouts are in fair condition and can be replaced.

**Conservation Recommendation: Restoration / Rehabilitation**

- Preserve the historic roof design including front and rear dormers, if possible.
- The roof can be reshingled with cedar shingles. An alternate material is 'Enviroshingle Silvered Cedar' by Enviroshake or approved equivalent. Asphalt roof shingles may also be acceptable for full reshingling or to replace damaged existing shingles. The recommended colours for asphalt shingles are dark grey or black colour after a review by the Heritage Consultant.
- Design an adequate rainwater disposal system and ensure drainage from the elevations.

Clockwise from top left: bracket and soffit; tarp covering the chimney roof opening; and overall roof structure

## 5.9 CHIMNEY

The original internal common-red brick chimney was removed prior to relocation. The roof opening is currently covered with tarp to prevent water ingress. As part of the conservation work the brick chimney may be rebuilt including the brick corbelling as part of the architectural features of the house.

**Conservation Recommendation: Restoration**

- The brick chimney may be reconstructed in its original location and original dimensions as shown in photographs. Use red-common bricks and replicate corbelling detail. Install metal flashings at the base.

Internal brick chimney with corbelling before removal

## 5.10 COLOUR SCHEDULE

An important part of the restoration process of the Moisio Residence is to finish the building in historically accurate paint colours based on Benjamin Moore's *Historical True Colours for Western Canada*. The house is presently lifted and secured with a fence. At the time of the site visit the house was not accessible and paint samples from the exterior elevations could not be removed for a historic colour analysis. Once access to the house is possible, paint samples should be collected from historic materials and analyzed in order to determine the historic paint layers. The following colour schedule is preliminary and based on similar houses of the same era. Once access is available, a historic paint analysis should be carried out.

**Conservation Recommendation: Restoration**

- When access to the exterior elevations is available, remove paint samples from original materials and analyze to determine the historic layers of paint.
- Reinstate a historically appropriate colour scheme for the Moisio Residence, complete with historically appropriate finishes, hues and placement of applied colour. Complete all basic repairs and replacements and remove surface dust and grime before preparing, priming and painting. Be sure that all surfaces to be painted are dry. Scrape and sand painted surfaces only as deep as necessary to reach a sound base. Do not strip all previous paint except to repair base-material decay.
- Paint all areas of exposed wood elements with paint primer. Select an appropriate primer for materials being painted (e.g. if latex paint is used over original oil paint, use an oil-based primer).
- Any substitutions or matching of custom colours shall be reviewed by the consultant. Test samples should be applied to the building prior to the commencement of painting so that the colour scheme can be reviewed under field conditions and approved.

**PRELIMINARY COLOUR SCHEME  Moisio Residence, 2101 Clarke Street, Port Moody**

Based on similar houses of that era. Paint colours to be confirmed on site.
Benjamin Moore's *Historical True Colours*

| ELEMENT | COLOUR & CODE | SAMPLE |
|---|---|---|
| Basement Shingles | Harris Green<br>VC-21 | |
| Main and Upper Floor Shingles | Oxford Ivory<br>VC-1 | |
| Wood Sash Windows | Gloss Black<br>VC-35 | |
| Window & Door Trim,<br>Bargebaord, Fascia Board,<br>Watertable, Other Trim | Oxford Ivory<br>VC-1 | |
| Door | Medium-Dark Brown<br>Stain & Varnish | |
| Wood Tread & Risers, Front Stair | Edwardian Porch Grey<br>VC-26 | |
| Gutters & Downspouts | Gloss Black<br>VC-35 | |
| Brick Chimney | unpainted | |

# 6.0 MAINTENANCE PLAN

A Maintenance Plan should be adopted by the property owner, who is responsible for the long-term protection of the heritage features of the historic building. The Maintenance Plan should include provisions for:

- Copies of the Maintenance Plan and Conservation Plan to be incorporated into the terms of reference for the management and maintenance contract for the building;
- Cyclical maintenance procedures to be adopted as outlined below;
- Record drawings and photos of the building to be kept by the management / maintenance contractor; and
- Records of all maintenance procedures to be kept by the owner.

A thorough Maintenance Plan will ensure the integrity of the Moisio Residence is preserved. If existing materials are regularly maintained and deterioration is significantly reduced or prevented, the integrity of materials and workmanship of the structure will be protected. Proper maintenance is the most cost effective method of extending the life of a building, and preserving its character-defining elements. The survival of historic buildings in good condition is primarily due to regular upkeep and the preservation of historic materials.

## 6.1 MAINTENANCE GUIDELINES

A maintenance schedule should be formulated that adheres to the *Standards and Guidelines for the Conservation of Historic Places in Canada* (2010). As defined by the *Standards and Guidelines*, maintenance is defined as:

Routine, cyclical, non-destructive actions necessary to slow the deterioration of a historic place. It entails periodic inspection; routine, cyclical, non-destructive cleaning; minor repair and refinishing operations; replacement of damaged or deteriorated materials that are impractical to save.

The assumption that newly renovated buildings become immune to deterioration and require less maintenance is a falsehood. Rather, newly renovated buildings require heightened vigilance to spot errors in construction where previous problems had not occurred, and where deterioration may gain a foothold.

Routine maintenance keeps water out of the building, which is the single most damaging element to a heritage building. Maintenance also prevents damage by sun, wind, snow, frost and all weather; prevents damage by insects and vermin; and aids in protecting all parts of the building against deterioration. The effort and expense expended on an aggressive maintenance will not only lead to a higher degree of preservation, but also over time potentially save large amount of money otherwise required for later repairs.

## 6.2 PERMITTING

Once the project is completed, any repair activities, such as simple in-kind repair of materials, should be exempt from requiring municipal permits. Other more intensive activities will require the issuance of a Heritage Alteration Permit.

## 6.3 ROUTINE CYCLICAL AND NON-DESTRUCTIVE CLEANING

Following the *Standards and Guidelines for the Conservation of Historic Places in Canada*, be mindful of the principle that recommends "using the gentlest means possible." Any cleaning procedures should be undertaken on a routine basis and should use non-destructive methods. Exterior elements are usually easily cleaned, simply with a soft, natural bristle brush, without water, to remove dirt and other material. If a more intensive cleaning is required, this can be accomplished with warm water, mild detergent and a soft bristle brush. High-pressure washing, sandblasting or other abrasive cleaning should not be undertaken under any circumstances.

## 6.4 REPAIRS AND REPLACEMENT OF DETERIORATED MATERIALS

Interventions such as repairs and replacements must conform to the *Standards and Guidelines for the Conservation of Historic Places in Canada*. The building's character-defining elements – characteristics of the building that contribute to its heritage value (and identified in the Statement of Significance) such as materials, form, configuration, etc. - must be conserved, referencing the following principles to guide interventions:

- An approach of minimal intervention must be adopted - where intervention is carried out it will be by the least intrusive & gentlest means possible.
- Repair rather than replace character-defining elements.
- Repair character-defining elements using recognized conservation methods.
- Replace 'in kind' extensively deteriorated or missing parts of character-defining elements.
- Make interventions physically and visually compatible with the historic place.

## 6.5 INSPECTIONS

Inspections are a key element in the maintenance plan, and should be carried out by a qualified person or firm, preferably with experience in the assessment of heritage buildings. These inspections should be conducted on a regular and timely schedule. The inspection should address all aspects of the building including exterior, interior and site conditions. It makes good sense to inspect a building in wet weather, as well as in dry, in order to see how water runs off – or through – a building.

From this inspection, an inspection report should be compiled that will include notes, sketches and observations. It is helpful for the inspector to have copies of the building's elevation drawings on which to mark areas of concern such as cracks, staining and rot. These observations can then be included in the report. The report need not be overly complicated or formal, but must be thorough, clear and concise. Issues of concern, taken from the report should then be entered in a log book so that corrective action can be documented and tracked.

An appropriate schedule for regular, periodic inspections would be twice a year, preferably during spring and fall. The spring inspection should be more rigorous since in spring moisture-related deterioration is most visible, and because needed work, such as painting, can be completed during the good weather in summer. The fall inspection should focus on seasonal issues such as weather-sealants, mechanical (heating) systems and drainage issues. Comprehensive inspections should occur at five-year periods, comparing records from previous inspections and the original work, particularly in monitoring structural movement and durability of utilities. Inspections should also occur after major storms.

## 6.6 INFORMATION FILE

The Moisio Residence should have its own information file where an inspection report can be filed. This file should also contain a log book that itemizes problems and corrective action. Additionally, this file should contain building plans, building permits, heritage reports, photographs and other relevant documentation so that a complete understanding of the building and its evolution is readily available, which will aid in determining appropriate interventions when needed.

The file should also contain a list outlining the finishes and materials used, and information detailing where they are available (store, supplier). The building owner should keep on hand a stock of spare materials for minor repairs.

LOG BOOK

The maintenance log book is an important maintenance tool that should be kept to record all maintenance activities, recurring problems and building observations and will assist in the overall maintenance planning of the building.

Routine maintenance work should be noted in the maintenance log to keep track of past and plan future activities. All items noted on the maintenance log should indicate the date, problem, type of repair, location and all other observations and information pertaining to each specific maintenance activity. Each log should include the full list of recommended maintenance and inspection areas noted in this Maintenance Plan, to ensure a record of all activities is maintained. A full record of these activities will help in planning future repairs and provide valuable building information for all parties involved in the overall maintenance and operation of the building, and will provide essential information for long term programming and determining of future budgets. It will also serve as a reminded to amend the maintenance and inspection activities should new issues be discovered or previous recommendations prove inaccurate.

The log book will also indicate unexpectedly repeated repairs, which may help in solving more serious problems that may arise in the historic building. The log book is a living document that will require constant adding to, and should be kept in the information file along with other documentation noted in section 6.6 Information File.

## 6.7 EXTERIOR MAINTENANCE

Water, in all its forms and sources (rain, snow, frost, rising ground water, leaking pipes, back-splash, etc.) is the single most damaging element to historic buildings. The most common place for water to enter a building is through the roof. Keeping roofs repaired or renewed is the most cost-effective maintenance option. Evidence of a small interior leak should be viewed as a warning for a much larger and worrisome water damage problem elsewhere and should be fixed immediately.

### *6.7.1 INSPECTION CHECKLIST*

The following checklist considers a wide range of potential problems specific to the historic building such as water/moisture penetration, material deterioration and structural deterioration.

EXTERIOR INSPECTION

**Site Inspection**
- ☐ Is the lot well drained?
- ☐ Is there pooling of water?
- ☐ Does water drain away from foundation?

**Foundation**
- ☐ Moisture: Is rising damp present?
- ☐ Is there back splashing from ground to structure?
- ☐ Is any moisture problem general or local?
- ☐ Is uneven foundation settlement evident?
- ☐ Do foundation openings (doors and windows show: rust; rot; insect attack; paint failure; soil build-up?

**Masonry**
- ☐ Are moisture problems present? (Rising damp, rain penetration, condensation, water run-off from roof, sills, or ledges?)
- ☐ Are there cracks due to shrinking and expansion?
- ☐ Are there cracks due to structural movement?
- ☐ Are there unexplained cracks?
- ☐ Do cracks require continued monitoring?
- ☐ Is stucco well adhered or bulging? Location?
- ☐ Are there signs of steel or iron corrosion?
- ☐ Does the surface need cleaning?

**Condition of Exterior Painted Materials**
- ☐ Paint shows: blistering, sagging or wrinkling, alligatoring, peeling. Cause?
- ☐ Paint has the following stains: rust, bleeding knots, mildew, etc. Cause?
- ☐ Paint cleanliness, especially at air vents?

**Windows**
- ☐ Is there glass cracked or missing?
- ☐ If the glazing is puttied has it gone brittle and cracked? Fallen out? Painted to shed water?
- ☐ If the glass is secured by beading, are the beads in good condition?
- ☐ Is there condensation or water damage to the paint?
- ☐ Are the sashes easy to operate? If hinged, do they swing freely?
- ☐ Is the frame free from distortion?
- ☐ Do sills show weathering or deterioration?

**Doors**
- ☐ Do the doors create a good seal when closed?
- ☐ Are the hinges sprung? In need of lubrication?
- ☐ Do locks and latches work freely?
- ☐ Is the glass in good condition? Does the putty need repair?
- ☐ Are door frames wicking up water? Where? Why?
- ☐ Are door frames caulked at the cladding? Is the caulking in good condition?
- ☐ What is the condition of the sill?

**Gutters and Downspouts**
- ☐ Are downspouts leaking? Clogged? Are there holes or corrosion? (Water against structure)
- ☐ Are downspouts complete without any missing sections? Are they properly connected?
- ☐ Is the water being effectively carried away from the downspout by a drainage system?
- ☐ Do downspouts drain completely away?

**Roof**
- ☐ Are there water blockage points?
- ☐ Are flashings well seated?
- ☐ Are metal joints and seams sound?
- ☐ If there is a lightening protection system are the cables properly connected and grounded?
- ☐ Is there rubbish buildup on the roof?
- ☐ Are there blisters or slits in the membrane?
- ☐ Are the drain pipes plugged or standing proud?
- ☐ Are flashings well positioned and sealed?
- ☐ Is water ponding present?

### *6.7.2 INSPECTION CYCLE*

**Daily**
- Observations noted during cleaning (cracks; damp, dripping pipes; malfunctioning hardware; etc.) to be noted in log book or building file.

**Semi-annually**
- Semi-annual inspection and report with special focus on seasonal issues.
- Thorough cleaning of drainage system to cope with winter rains and summer storms
- Check condition of weather sealants (Fall).
- Clean the exterior using a soft bristle broom/ brush.

**Annually (Spring)**
- Inspect foundation for cracks, deterioration.
- Inspect metal elements, especially in areas that may trap water.
- Inspect windows for paint and glazing compound failure, corrosion and wood decay and proper operation.
- Complete annual inspection and report.
- Clean out of all perimeter drains and rainwater systems.
- Touch up worn paint on the building's exterior.
- Routine cleaning, as required.

**Five-Year Cycle**
- A full inspection report should be undertaken every five years comparing records from previous inspections and the original work, particularly monitoring structural movement and durability of utilities.
- Repaint wood windows every five to fifteen years.

**Ten-Year Cycle**
- Check condition of roof every ten years after last replacement.

**Twenty-Year Cycle**
- Confirm condition of roof and estimate effective lifespan. Replace when required.

**Major Maintenance Work (as required)**
- Replacement of deteriorated building materials as required.

North elevation (Clarke Street façade), October 2015

Southeast elevation, October 2015

East elevation, October 2015

West elevation, October 2015