

# **Structural Warranty Review For The Compton**

**1316 West 11<sup>th</sup> Avenue, Vancouver, British Columbia**



Presented to: Strata Plan LMS 4382

McCuaig and Associates Engineering Ltd.

Project Number: 20110107

Date: March 18, 2011

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## EXECUTIVE SUMMARY

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The Compton is a 12-story residential tower that has been constructed above two levels of underground parking. The building, which is located at 1316 West 11<sup>th</sup> Avenue Vancouver, British Columbia, is collectively owned by Strata Plan LMS 4382 (The Strata).

McCuaig & Associates Engineering Ltd. (MAE) was retained by The Strata to inspect the structural framing components that support the building. The building's structural framing system consists of steel reinforced concrete slabs, beams, columns and walls.

The primary purpose of the investigation was to determine if there are any issues that may trigger a claim against the building's structural warranty, which expires on March 28, 2011.

Numerous cracks in concrete elements and building finishes were observed; however, we are of the opinion that the majority of the cracks do not indicate structural deficiencies and therefore should not initiate a claim against the structural warranty.

### ISSUES THAT MAY TRIGGER A CLAIM AGAINST THE STRUCTURAL WARRANTY

1. One of the masonry walls that enclose the generator room has cracked in a step-wise fashion. The cracked wall is not a bearing wall, therefore there are no structural integrity issues associated with this item. We believe that the one of the wall's functions is to protect the generator room from a potential fire.

The cracked wall may initiate a structural warranty claim if:

- The cracks are a result of excessive deflection or vibration of the supporting floor, *and*;
- The cracks adversely affect the room's fire resistance rating.

An evaluation by a consultant who has knowledge of the fire resistance ratings of building components is recommended.

We estimate that it would cost approximately \$2,500 to dismantle and reconstruct the wall. Less expensive repair schemes may be available.

2. It was reported that the glazing in the west living room window of Suite 603 cracked, was replaced and then cracked again in the same location. At the time of our inspection the cracked glazing was still in place.

The recurring crack may be a result of excessive deflection or distortion of either the floor slab or the window frame assembly, in which case a claim against the structural warranty may be justified.

If the window frame is defective, it may be necessary to replace both the frame and the glazing in order to ensure that the crack does not recur. Our order of magnitude estimate to remove and replace the entire window assembly is approximately \$15,000.

## **ISSUES THAT REQUIRE THE STRATA'S ATTENTION THAT ARE UNRELATED TO THE STRUCTURAL WARRANTY**

We are of the opinion that none of the issues described below require urgent attention.

<b>Item</b>	<b>Recommendation</b>
Isolated leaks through the ground floor slab were observed.	Further investigation is recommended to determine the source of the leakage and to devise a scheme to control leakage through the slabs.
Leaks through the walls on either side of the parking area access ramp were observed.	
Leaks into the storage room at the southwest corner of the P2 level.	
Water stains were noted at two locations on the ceiling of Suite 102.	
Steel bollards that protect a water pipe from vehicle impact are not adequately fastened to the supporting floor, rendering them ineffective.	The bollards should be re-fastened to the floor slab.
There are isolated breaches in the water proofing membrane that protects the P1 floor slab.	The membrane should be repaired with a material that is compatible with the existing membrane.
A sealed glazing unit has failed in Suite 803, which has caused condensation to accumulate between the glazing panels.	The Strata should determine if the failed seal is confined to one location or if other glazing seals in other suites have failed. Failed sealed glazing units should be replaced. The window supplier should be contacted, as the sealed units may still be under warranty.
There are no opening restrictors on any of the operable windows that we observed. This will increase the risk of a person accidentally falling out of the window and may contravene the Vancouver Building By-Law.	The Strata should confirm that the operable areas of windows are at least 39 inches from the floor. If the floor-to-opening distance is less than 39 inches, the non-conforming window assemblies should be fitted with new restrictors that limit the opening width to 4 inches.

# 1. INTRODUCTION

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The Compton consists of a 12-story residential tower that has been constructed on top of two levels of underground parking. The building's municipal address is 1316 West 11<sup>th</sup> Avenue, Vancouver, British Columbia. The building is collectively owned by Strata Plan LMS 4382 (The Strata).

The two levels of underground parking are referred to as P2 and P1, with the P2 level being the lowest level.

McCuaig & Associates Engineering Ltd. (MAE) was retained by The Strata to inspect the structural framing components that support the building. The primary purpose of this investigation is to determine if there are any issues that may trigger a claim against the building's structural warranty.

## 2. TERMS OF REFERENCE

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The detailed terms of reference for this investigation are described in the Client/Consultant agreement dated February 9, 2011 (Reference Number 20110107-B-CNT-CNT-01-FNL) and the proposal entitled:

The Compton

1316 West 11<sup>th</sup> Avenue, Vancouver, B.C.

Fee Proposal For 10 Year Structural Warranty Inspection”

Proposal Reference Number 20110107-A-QTS-QTS-01-FNL

Dated: January 13, 2011

The structural components are covered by a 10-year warranty, which is provided by London Guarantee. A copy of the warranty has been reproduced in Appendix A. The portion of the warranty that is relevant to this investigation is summarized below:

### 3.0 Structural Defects Warranty – 10 years

*3.1 This warranty provides coverage for Structural Defects for up to ten years for:*

- (a) any defect in Materials and Labour that results in the failure of a Load Bearing part of the new home, and*
- (b) any Defect which causes Structural Damage that materially and adversely affects the use of the New Home residential occupancy.*

The purpose of this investigation is to review the condition and performance of the building's structural elements, comment on areas of concern, distress, or failure, and provide recommendations pertaining to potential warranty claims.

In this report the term 'structural element' pertains to an element that is intended to act as the building's primary structural support and generally consists of interior and exterior concrete walls, floor or roof slabs, concrete or steel columns, and concrete or steel beams.

Structural elements must be designed to safely resist applied loads that may result from:

- Self weight;
- Superimposed dead weight;
- Occupant live weight;
- Earthquakes;
- Wind;
- Foundation settlement, and/or;

- Volumetric changes that may result from temperature differentials or concrete curing processes.

For the purpose of this investigation, we have defined a structural defect as follows:

*A structural defect occurs when, as a result of one or more of the above applied loads (with the exception of earthquake induced loads), a structural element becomes damaged or undergoes deflections, deformations or other movement such that safety or protection of personnel or property becomes compromised.*

The remaining sections of this report will be based on the above definition. Note that our definition of a structural defect may differ from the warranty provider's definition, which may lead to some uncertainty as to whether or not a particular defect is covered by the warranty.

### 3. METHODOLOGY

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Prior to our site work, a web based occupant survey requesting information about suspected structural issues was conducted. All of The Compton's residents were requested to complete the survey. The survey responses have been reproduced in Appendix B.

The Strata provided The Compton's original construction drawings to MAE to assist with this investigation. The construction drawings that were perused for this investigation are listed in Table 1:

***Table 1 – Construction Drawings***

<b>Drawing Description</b>	<b>Consultant</b>
Structural Drawings S1 to S14 Issued For Construction - March 7, 2000	Read Jones Christoffersen Ltd.
Architectural Drawings A-1 to A-26 Issued For Construction - March 7, 2000	Lawrence Doyle Architect Inc.

The construction drawings were perused to become familiar with the project, and, where warranted, to become familiar with normally hidden structural components.

MAE conducted on-site visual non-invasive inspections of a representative sample of exposed structural elements as well as inspections of representative samples of architectural components. The purpose of the inspections was to determine if there are any indications of structural distress, excessive settlement, excessive movement, or excessive deflections.

Areas that were inspected included: exterior walls viewed from the ground, selected balconies and the roof, parking areas, public and service areas, stair shafts, roofs and roof level mechanical rooms, and the interior spaces and balcony floors of the following suites:

102, 201, 502, 503, 603, 803, 1005, 1201, 1204, and 1205

Our inspections took place on February 28, 2011 (common areas) and March 7, 2011 (individual suites).

## 4. STRUCTURAL SYSTEMS AND THEIR EXPECTED BEHAVIOUR

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The following descriptions of the structural systems that pertain to this project were developed from our perusal of the structural drawings, our site work, and our experience with similar projects. Note that due to the non-invasive nature of this investigation there was no attempt to confirm the existence of hidden components.

The structural framing that supports The Compton consists of concrete that has been reinforced with embedded steel rods (rebar). This type of structural framing is commonly referred to as reinforced concrete, or simply, concrete framing. In the case of substantial structures, the term concrete framing generally implies that the concrete contains embedded rebar.

The P2 slab bears directly on, and is supported by, the underlying soil. The structural drawings indicate that this slab is unreinforced. The remainder of the floors are supported by suspended slabs and thus would contain normal levels of reinforcing.

The underside of the P1 slab and a portion of the underside of the ground floor slab are visible from the P2 and P1 levels respectively. Large areas of the underside of the ground floor slab are covered with insulation and therefore are not directly visible.

Concrete is a mixture of water, cement, aggregate (gravel), and various chemicals. During construction the concrete is poured from mixer trucks into forms. After the concrete has been cast, chemical reactions take place between the various components, the result of which is a gradual increase in the concrete's strength. The concrete's design strength is usually achieved in about two to four weeks. The chemical reactions are referred to as a curing process. During the curing process, the volume of the concrete decreases which causes small cracks to appear at locations where the volumetric changes are restrained. These cracks are referred to as **shrinkage cracks**. Shrinkage cracks generally occur shortly after the concrete has been cast and do not continue to form once the curing process is complete.

Changes in ambient temperature can also cause concrete structures to undergo volumetric changes. If the concrete structure is restrained against the temperature induced volumetric changes, **temperature cracks** can appear or existing shrinkage cracks may expand.

When a concrete structure is loaded it deforms and becomes stressed. Certain components of the concrete stresses are transferred to the rebar, which causes additional cracks to occur in the concrete. These cracks are referred to as **flexure or shear cracks**. Flexure or shear cracks can occur at any time during the life of the structure.

The absolute deflection of a concrete structure will continue to increase under the influence of sustained loading, even if the intensity of the load does not change. This phenomenon is known as **creep**. Sustained loading may be due to a slab's self weight, landscaping or other heavy

material that continuously remains in place for a long time. The influence of creep may cause temperature, shrinkage, shear, or flexure cracks to widen over time.

If the concrete and reinforcing steel have been adequately designed, shrinkage, flexure, shear, and temperature cracks generally do not have an adverse effect on the concrete's structural properties.

If water is allowed to continually pass through a section of concrete it will increase the likelihood that rebar or other embedded metal components will corrode. The corrosion process causes the steel to expand and exert outward pressure on the surrounding concrete. Eventually, the outward pressure will cause the concrete to delaminate and spall away. If corrosion occurs in several adjacent bars and if it is severe enough, the structure's load carrying capacity will be reduced. It may take several years of water ingress before the level of corrosion is severe enough to become a structural concern.

Other consequences of ongoing water ingress through concrete include:

- The appearance of rust stains, which often indicate that the corrosion process has started;
- The appearance of efflorescence, which is a milky liquid that forms when water mixes with the lime in the concrete. The appearance of efflorescence is not detrimental to the concrete; however, if it comes into contact with vehicles, it can damage their finish.
- If the water within the concrete freezes it will expand and exert an outward pressure on the surrounding concrete. Several **freeze/thaw cycles** can cause the concrete to spall away and deteriorate.

## 5. OCCUPANT SURVEY RESULTS

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Completed electronic surveys were returned from 15 of the building's 57 suites. One survey was conducted by telephone. Of the 16 completed surveys, two reported cracked concrete either in the vicinity of their suite or in the parkade area. One occupant reported a window pane that had cracked, been repaired, and then cracked again.

As discussed in Section 2 (definition of structural defect) and Section 4 (Behavior Of Reinforced Concrete), cracked concrete does not necessarily indicate a structural defect. Nonetheless, a representative sample of the cracks reported by the occupant survey were inspected.

## **6. OBSERVATIONS AND DISCUSSIONS – STRUCTURAL ISSUES**

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Concrete cracks were observed at numerous exterior walls, both above grade and below grade. We are of the opinion that all of the observed cracks can be attributed to concrete shrinkage, temperature induced volume changes, or routine flexural and shear stresses; therefore, we do not consider any of the observed cracks to be cause for concern with regards to the building's structural integrity. Specific observations and their effect on the building's structural performance are described in the following sub sections. Some of these observations relate to localized failure of adjacent waterproofing assemblies. An evaluation of waterproofing assemblies is beyond the scope of this investigation, however some recommendations for further investigation, based on the observations from this study, are presented in Section 7.

We are of the opinion that items 6.1 through 6.5 are not items that justify a claim against the structural warranty, however items 6.6 and 6.7 may give rise to a claim.

### **6.1 P2 Floor Slab**

As previously noted, the unreinforced P2 floor slab is supported by the soil beneath it and does not play a role in supporting the building's structure. Some floor cracks were noted, which we believe are shrinkage or temperature cracks that may have expanded as result of localized settlement of the soil below the slab. Several of the cracks were sealed with flexible sealant, which will prevent water from entering the slab/soil system. All sealants have a finite effective lifespan after which they lose their flexibility and/or their ability to bond to adjacent surfaces. Good quality sealant that has been installed in accordance with the manufacturer's specifications should provide between five and ten years of reliable service, provided the crack does not expand or contract beyond the sealant's ability to stretch.

Excessive damage to the floor slab may occur if water were to enter the cracks and then undergo several freeze-thaw cycles. Considering the absence of reinforcing steel (no corrosion can occur), our relatively mild climate, and the fact that the floor slab is two levels below grade (freeze thaw cycles are unlikely), we are of the opinion that should the sealant within the P2 floor slab cracks fail, the effects on the performance of the floor slab would be insignificant.

### **6.2 Ground Floor Slab**

Fresh efflorescence was noted at two locations – in the vicinity of parking stall #8 and directly north of parking stall #25. There were no visible indications of rebar corrosion and, when probed, the concrete in the vicinity of the efflorescence was sound; therefore, we conclude that, at the time of our inspection, no significant structural damage had occurred in the vicinity of the efflorescence.

The reader is referred to Section 4 and the discussion regarding water ingress through reinforced concrete structures. This issue will be revisited in Section 7 – Non Structural Issues.

### 6.3 Exterior Ramp Walls

A ramp provides access to the underground parking area. The exterior walls on both sides of the ramp have numerous vertical cracks that have been sealed with flexible sealant. Above the ramp the major structural loading on these walls is due to the horizontal pressure from the soil that is retained by the walls. The orientation of the cracks suggests that they were initiated as a result of volumetric changes rather than structural loading. Fresh efflorescence, pooled water, and rust stains were observed at some cracks – refer to Photo 1. The concrete in the vicinity of the rust stains and efflorescence was probed and found to be sound. The rust stains suggest that the deterioration process described in Section 4 has begun, although observations suggest that the process has not advanced enough to warrant immediate concerns. We consider this issue to be related to a localized failure of waterproofing components; therefore this issue will be revisited in Section 7.



**Photo 1 - Cracked Ramp Wall With Efflorescence**

### 6.4 Exterior Tower Walls

Cracks, which have been sealed with flexible sealant, were observed at all elevations and all levels of the exterior concrete tower walls and columns. We are of the opinion that the cracks initiated as a result of the volumetric changes described in Section 4. There was no indication of structural distress in the vicinity of the cracks that were observed up close; therefore, we do not consider the presence of these volume change related cracks to be a structural issue.

### 6.5 Cracked Finishes

Vertical cracks in the drywall finishes were observed at similar locations in Suites 502, 503 and 803. Vertical cracks in the drywall finishes were also observed at similar locations in Suites 1005 and 1205. The crack locations are indicated in Figure 1 on page 10, which was developed from the Architectural Drawing – Typical Floor Plan. The cracks may have been formed after the supporting concrete floor slab experienced long-term creep deflection (refer to Section 4 for a discussion pertaining to this phenomenon). It is common practice to rigidly connect the drywall to primary or secondary structural members; however, movement or deflection of underlying structural members cannot be accommodated by the more rigid drywall, causing the drywall to crack. If our hypothesis is correct, the majority of the long-term creep should be complete by now; therefore if the drywall is repaired, the cracks may not return.



## **6.6 Cracked Masonry Wall Between Generator Room And Janitor Room – P1 Level**

The generator room houses the building's emergency generator, which would become operational in the event of a power failure. The generator may be used to supply power to emergency exit lights, fire suppression equipment, one designated fire fighter's elevator, and other emergency equipment. Several electrical and mechanical conduits pass through the masonry walls that enclose the room. The openings in the walls that the conduits pass through appear to have been sealed with a fire resistant sealant the purpose of which is to reduce the likelihood of flames entering the emergency generator room. We have reason to believe that the masonry walls that enclose the generator room have been designed to deter the spread of fire from one side of the wall to the other.

One of the masonry walls that enclose the generator room has cracked in a step-wise fashion following the mortar joints. While it is difficult to know for certain what has caused the cracks, some possible causes include:

- A minor earthquake;
- Excessive vibration of the floor below or the roof above the wall. Vibrations may be caused by vehicle movement or by the operation of the generator.
- Excessive deflection of the floor below the wall.

The cracked wall is not a bearing wall, therefore there are no structural integrity issues associates with this item; however, the cracks in the wall may adversely impact the wall's fire resistance rating. It is beyond MAE's area of expertise to evaluate the room's fire resistance requirements.

The cracked wall may trigger a structural warranty claim if:

- The cracks are a result of excessive deflection or vibration, *and*;
- The cracks adversely affect the room's fire resistance rating.

### **Recommended Action:**

- 6.6.1. This issue may justify a claim against the structural warranty and should be brought to the attention of the warranty provider.
- 6.6.2 This issue should be brought to the attention of a consultant who has expertise in the fire resistance requirements of buildings. In order to reinstate the wall's fire resistance rating it may be necessary to rebuild it or to apply a fire resistant coating.

### **Estimated Cost of Repair:**

We estimate that it would cost approximately \$2,500 to dismantle and reconstruct the wall. Less expensive repair schemes may be available.

## **6.7 Cracked Glazing – Suite 603**

The occupant reported that the glazing within the west living room window assembly had previously cracked, been replaced, and cracked again. At the time of our inspection the cracked glazing was still in place. Refer to Figure 1 for location.

The recurring crack may be a result of excessive deflection or distortion of either the floor slab or the window frame assembly.

Although the structural engineer of record is typically not responsible for the design of the window assembly, he is obligated to provide the window assembly designer with deflection limits that the primary structure (the floor slab in this case) is expected to experience under the influence of service loads. The structural engineer of record is then obligated to ensure that the deflection of the primary structure, under the influence of service loads, does not exceed those limits. It is the responsibility of the window designer to ensure that the window assembly is designed to accommodate the deflection limits associated with the primary structure. Furthermore, the window designer must also accommodate expected window assembly distortions that are a result of wind loading. The design wind loading, which is specified by the structural engineer of record, is indicated on the structural drawings.

Failure to accommodate deflections and distortions of either the primary structure or the window assembly can cause excessive stresses to accumulate within various components of the window assembly. If the stresses exceed the assembly's ability to resist the stresses, failure of one or more components will occur. It is possible that the repeated failure of the glazing is due to a failure to accommodate deflections or distortions of either the primary structure or the window assembly.

### **Recommended Action:**

- 6.7.1 The Strata should determine if the cracked glazing described above is isolated to Suite 603 only or if this condition has occurred at other suites.
- 6.7.2 Considering that the cracked glazing may be due to the deflection or distortion of either the primary structure or the window assembly, this issue may justify a claim against the structural warranty and should be brought to the attention of the warranty provider.

### **Estimated Cost of Repair:**

Our estimate of the order of magnitude cost to remove one existing window assembly in its entirety and replace it with a new assembly is presented in Table 2. Note that economies of scale may be realized if more than one window assembly needs to be replaced, however each time the swing stage is moved to access a different section of the exterior wall, a charge of approximately \$200 would be incurred.

**Table 2 – Order of Magnitude Estimate To Replace One Window Assembly**

<b>Item</b>	<b>Cost</b>
Swing stage rental for one week plus set-up and dismantle:	\$5,000
Remove finishes as required to access the window assembly and then re-instate finishes:	\$5,000
Purchase and install new window assembly:	\$1,000
Consulting fees to provide drawings and specifications and to conduct site reviews:	\$2,000
<b>Sub Total:</b>	<b>\$13,000</b>
12% HST:	\$1,560
<b>GRAND TOTAL:</b>	<b>\$14,560</b>

## **7. OBSERVATIONS, DISCUSSIONS AND RECOMMENDATIONS – NON STRUCTURAL ISSUES**

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During the course of our inspection of the building's structural components numerous collateral observation were recorded which, although non-structural and outside the scope of this investigation, should nevertheless be brought to the attention of The Strata. The pertinent observations, along with recommendations for further action by The Strata where warranted, are described in the following paragraphs. The list below is for information only and should not be considered a complete list of items that require The Strata's attention.

### **7.1 Water Ingress – Ground Floor Slab**

Refer to Item 6.2.

The consequences of water passage through the ground floor slab are discussed in Section 4. The source of the leakage may be difficult to determine considering:

- The top surface of the slab is covered with landscaping;
- The water may enter a breach in the protective membrane at one location, travel along the top surface of the slab (in the plane between the underside of the membrane and the top surface of the slab), and then penetrate the slab through a crack, thus the location where the water appears on the bottom surface of the slab is not likely aligned with the top surface entry point.

#### **Recommended Action:**

Further investigation is recommended to attempt determine the source of the leakage and to devise a scheme to control leakage through the slab.

### **7.2 Leakage Through Ramp Walls**

Refer to Item 6.3.

The consequences of water passage through the walls are discussed in Section 4.

#### **Recommended Action:**

Further investigation is recommended to devise a scheme to prevent or control leakage through the walls.

### 7.3 P2 Storage Room – Southwest Corner – Water Ingress

There are two pipes that pass through this room's ceiling. Water is leaking through the slab openings that the pipes pass through – see Photo 2. Note the water stains on the floor. The stains on the floor suggest that water regularly pools against the storage room wall. If the water is passing through the opening in the slab rather than through the slab, the assembly will not likely suffer any damage as a result of this water ingress and water related damage would be confined to items that may be stored in the room.

#### **Recommended Action:**

Further investigation is recommended to determine the source of the leakage and to evaluate the leak's effect on the performance of adjacent assemblies.

### 7.4 P2 - Disconnected Bollards

Refer to Photo 3 – which shows two concrete filled steel bollards that are intended to protect a water pipe from vehicle impact. Each bollard bears on a mortar bed, which bears on the P2 floor slab. There does not appear to be any mechanical connection between the mortar beds and the floor slab. The mortar beds have deteriorated and the bollards move easily when shaken. We are of the opinion that in their present state, the bollards would not be capable of resisting a reasonable vehicle impact.

#### **Recommended Action:**

The existing mortar should be removed and discarded. The existing bollards can then be placed directly on the floor slab. If the existing bolts are not damaged it may be possible to re-use them. If the existing bolts cannot be re-used, new expansion bolts should be used to fasten the bollards directly to the slab. The diameter of the new bolts should match the diameter of the existing bolts. The new bolts should embed approximately 3 inches into the floor slab.



**Photo 2 - Water Ingress At P2 Storage Room**



**Photo 3 - Damaged Bollard Support At P2**

## **7.5 Breached Water Proof Membrane – P1 Slab**

A waterproofing membrane has been applied to the top surface of the P1 slab. The purpose of the membrane is to deter surface water from passing through the slab. Isolated breaches in the membrane were observed on the east side of the slab at locations where top surface cracking had occurred.

### **Recommended Action:**

The membrane should be repaired to reduce the likelihood of water passing through the P1 slab. The material used to seal the membrane breach should be compatible with the existing membrane material and should be selected with due consideration of the width and expected movement of the cracks that are to be bridged.

## **7.6 Suite 102 – Water Stain On Ceiling**

A water stain was observed on the ceiling above the living room – refer to Figure 2 on page 17 for location. The proximity of the water stains suggests that water may be entering the building from the exterior.

### **Recommended Action:**

Retain a qualified consultant to conduct a detailed investigation of the exterior of the building in the vicinity of the water stain.

## **7.7 Suite 102 – Water Stain On Ceiling**

A water stain was observed on the ceiling above the master bedroom, adjacent to the ensuite bathroom wall – refer to Figure 2 on page 17, which was developed from the original architectural drawing – ground floor plan, for location. The proximity of the water stain suggests the source of the water may be either a plumbing line or the exterior.

### **Recommended Action:**

Retain qualified consultants to review the plumbing drawings and to conduct a detailed investigation of the exterior of the building in the vicinity of the water stain.

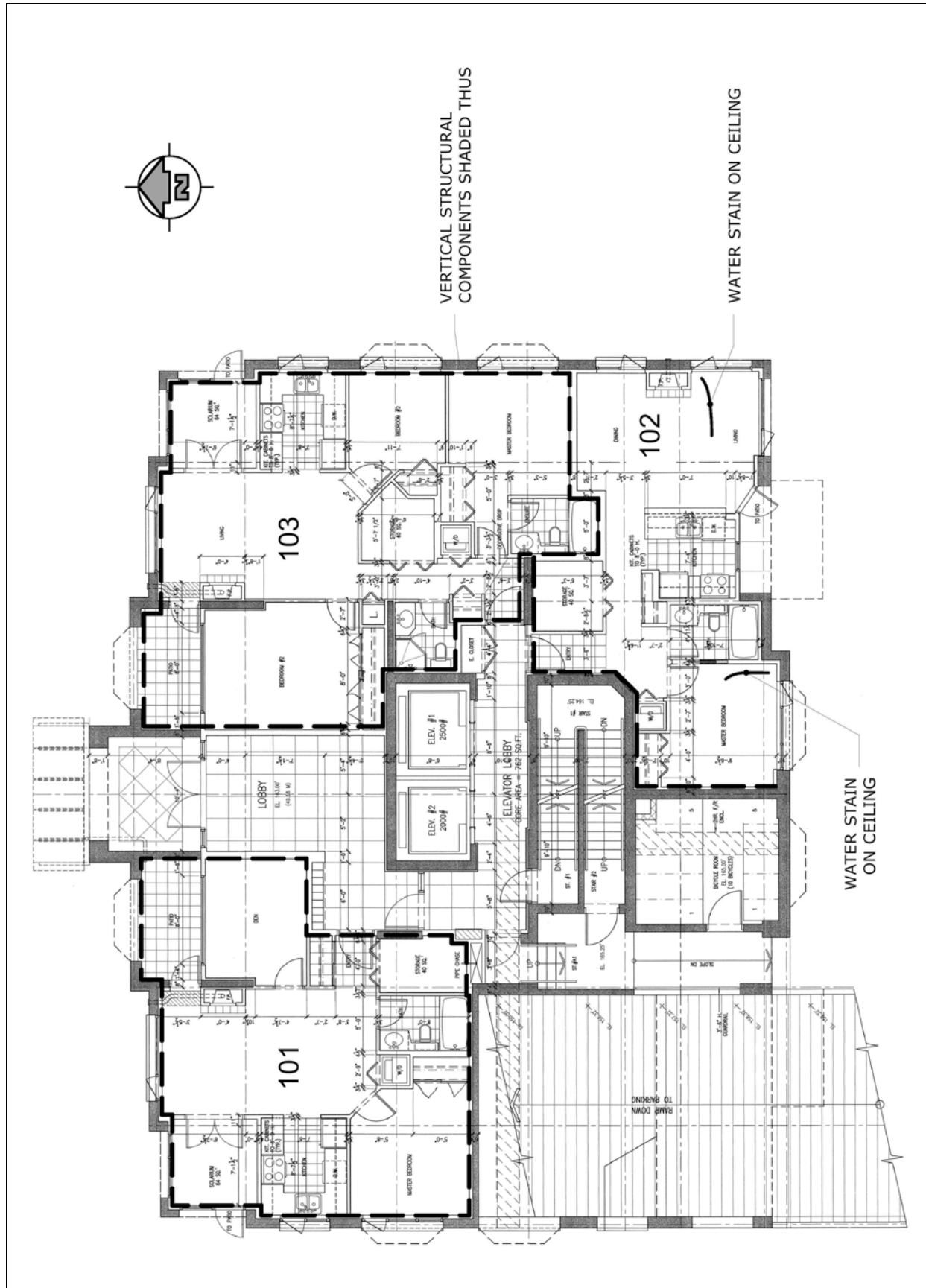


Figure 2 – Ground Floor Plan

## **7.8 Suite 803 – Moisture Build-Up Between Glazing Layers**

Moisture build-up was observed between two layers of glazing in the bedroom window assembly. The moisture build-up suggests that the seal between the two glazing units has failed. A failed seal will result in increasing levels of condensation between the two layers of glazing as well as a reduction of the window assembly's resistance to heat flow. The reduced resistance to heat flow will increase energy costs.

### **Recommended Action:**

The strata should conduct a survey to determine if similar conditions exist at other windows. It is unlikely that this is an isolated occurrence. Once the number of affected windows are known, The Strata should contact the general contractor and/or window manufacturer to review the concerns. The sealed units may still be under warranty. The window manufacturer can advise the strata on the best method to replace the failed units.

As the windows age, increasing numbers of failed units should be anticipated.

## **7.9 All Inspected Suites - No Restrictors On Operable Windows**

We noted that none of the operable windows that we observed were fitted with restrictors. The Vancouver Building By-Law (VBBL) specifies that restrictors are required where the window opening is less than 39¼ inches (1 meter) from the floor or other permanent climbable surface. The purpose of the restrictors is to prevent persons from climbing through the window by preventing the window from opening more than 4 inches.

### **Recommended Action**

Further investigation is recommended to determine if the windows meet the fall protection requirements that are specified in the Vancouver Building By-Law. If the requirements of the VBBL have not been satisfied, the affected windows should be fitted with appropriate restrictors.

The recommendations described in Items 7.1 to 7.9 do not require urgent attention. Prior to addressing the issues noted above, The Strata may wish retain a consultant to review and evaluate the condition of all of the building's major systems including:

- Electrical;
- Fire suppression;
- Roof Assemblies – at the main roof level and beneath the landscaped areas at the ground floor level;

- Vertical building enclosure assemblies, including wall, window and door assemblies;
- Mechanical equipment including boilers and exhaust fans, and;
- Plumbing.

The above noted systems are composed of components that require regular maintenance and renewal. For example, the membrane that protects that parkade roof from water ingress will likely require replacement when the building is fifteen to twenty years old. Considering that access to the membrane is only possible after all of the landscaping has been temporarily removed, the total costs associated with replacing the membrane may exceed \$750,000.

An evaluation of the above noted systems will facilitate preparation of a realistic maintenance and renewal budget which will enhance the strata's ability to manage the building's maintenance and renewal projects.

McCuaig and Associates has the expertise to assist the strata with implementation of the recommendations listed above as well as prepare a long-term maintenance and renewal budget for this building.

## 8. FINAL REMARKS

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It should be noted that inspections that are described in this report were limited to the areas and assemblies that are specifically noted in the report. No testing or dismantling of any assemblies was performed, no structural analysis was performed and inspections were made on a random basis with no attempt to review or inspect every element or portion of the building, therefore, it is possible that some deficiencies may not have been discovered. Our comments are not a guarantee or warranty of any aspect of the condition of the building whatsoever.

This report was prepared by McCuaig and Associates Engineering Limited (MAE) for the account of Strata Plan LMS 4382. MAE accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report. The observations and recommendations that are described in this report are not intended to replace detailed engineering specifications and therefore the recommendations contained in this report should not be used as the basis of a contract to perform remedial work on this building.

We trust this meets your requirements at this time, and should you have any questions or concerns, please contact our office.


### **MCCUAIG AND ASSOCIATES ENGINEERING LTD.**

***Prepared by:***



Paul Good, P.Eng.

***Reviewed by:***



Andrew Leonard, P.Eng.

Ref. No. **20110107**-C-RPT-RPT-01-FNL

## **APPENDIX A – WARRANTY DOCUMENT**



**2-5-10 HOME WARRANTY CERTIFICATE**  
(For Dwelling Units in Multi Family Buildings and Common Property)

650 W. Georgia Street,  
Suite 2500,  
P.O. Box 11542  
Vancouver British Columbia  
V6B 4N7  
Phone (604) 682-3095  
Fax (604) 682-3096  
Toll Free (800) 555-9431  
[www.londonguarantee.com](http://www.londonguarantee.com)

**Address:** The Compton: 1316 West 11th Avenue , Vancouver, BC

**Legal Description:** Strata Lots 1-58, Parcel D, Block 392, D.L. 526, Plan LMP36970

**Warranty Certificate #:** 75008839 **Builder #:** 00001012

**Builder Name:** Polygon Compton Homes Ltd.

**Builder's Phone:** (604) 877-1131

**Builder's Fax:** (604) 876-1258

**Builder's Address:** 1800 Spyglass Place, Vancouver, BC, V5Z 4K8

This is your Warranty Certificate which should be read and kept in a safe place. To ensure your Warranty rights are preserved, ensure that you understand what your rights and obligations are. Please note that all notice(s) of a claim under this Warranty Certificate must be delivered to the Builder and London Guarantee **in writing** prior to the expiry of the applicable warranty coverage. Important dates to note are:

- |  |   |
|--|---|
| 1. <b><u>Warranty Commencement Date:</u></b>   | <b><u>March 29, 2001</u></b>              |
| 2. <b><u>Materials &amp; Labour Warranty:</u></b>  |   |
| a) 15 Months for Common Property:  | <b>Expiry Date: <u>June 28, 2002</u></b>  |
| b) 2 Years defects in Materials and Labour supplied for;   |   |
| i. the gas, electrical, plumbing, heating, ventilation and air conditioning delivery and distribution systems; and     |   |
| ii. the exterior cladding, caulking, windows and doors that may lead to detachment or material damage to the New Home: | <b>Expiry Date: <u>March 28, 2003</u></b> |
| 3. <b><u>5 Years Building Envelope Warranty:</u></b>   | <b>Expiry Date: <u>March 28, 2006</u></b> |
| 4. <b><u>10 Years Structural Defects Warranty:</u></b>   | <b>Expiry Date: <u>March 28, 2011</u></b> |

For your convenience, enclosed with this Warranty Certificate please find a sticker outlining the important dates for you to affix in a conspicuous location in your new home.

In consideration of the payment to London Guarantee Insurance Company (hereinafter called "London Guarantee") of the premium for this Warranty Certificate, London Guarantee agrees to provide Warranty coverage subject to limits as set out herein, in accordance with the terms, conditions, forms, riders and endorsements contained in this Warranty Certificate.

In witness whereof London Guarantee has duly executed this Warranty Certificate.

**LONDON GUARANTEE INSURANCE COMPANY ("London Guarantee")**

President and Chief Executive Officer

Dated: November 9, 2001

## A. WARRANTY COVERAGE

### .0 Materials and Labour Warranty – 2 Years

1.1 This Warranty provides coverage for Materials and Labour for up to two years as set out below:

- (a) in the first 12 months of the Warranty, for other than the Common Property, common facilities and other assets of a Strata Corporation, coverage for any Defect in Materials and Labour,
- (b) in the first 15 months of the Warranty, for the Common Property, common facilities and other assets of a Strata Corporation, coverage for any Defect in Materials and Labour,
- (c) in the first 24 months of the Warranty,
  - (i) coverage for any Defect in Materials and Labour supplied for the gas, electrical, plumbing, heating, ventilation, and air conditioning Delivery and Distribution Systems,
  - (ii) coverage for any Defect in Materials and Labour supplied for the exterior cladding, caulking, windows, and doors that may lead to detachment or material damage to the New Home or Common Property,
  - (iii) coverage for any Defect in Materials and Labour which renders the New Home unfit to live in, and
  - (iv) subject to Subsection A.1.2, coverage for non-compliance or a violation of the Building Code.

1.2 Non-compliance with, or a violation of the Building Code is considered a Defect covered by *London Guarantee* only if the non-compliance or violation:

- (a) constitutes an unreasonable health or safety risk, or
- (b) has resulted in, or is likely to result in, Material Damage to the New Home.

### .0 Building Envelope Warranty – 5 Years

2.1 This Warranty provides coverage for the Building Envelope for up to five years for Defects in the Building Envelope of a New Home, including a Defect which permits unintended water penetration such that it causes, or is likely to cause, Material Damage to the New Home.

### .0 Structural Defects Warranty – 10 Years

3.1 This Warranty provides coverage for Structural Defects for up to ten years for:

- (a) any Defect in Materials and Labour that results in the failure of a Load Bearing part of the New Home, and
- (b) any Defect which causes Structural Damage that materially and adversely affects the use of the New Home for residential occupancy.

### .0 Limitation of Warranty

4.1 This Warranty Certificate may be issued to Owners of Fee Simple New Homes, Owners of Co-operatives, Owners of Strata Title New Homes and to Strata Corporations. Notwithstanding anything contained herein, the Warranty coverage provided by this Warranty Certificate for Common Property is only applicable to a Strata Corporation and may only be enforced pursuant to the terms and conditions of the Warranty Certificate issued to such Strata Corporation. All Common Property issues must be dealt with by authorized representatives of the strata council. All issues relating to Cooperatives must be dealt with by authorized representatives of the Cooperative council.

## COMMENCEMENT DATES

### .0 Fee Simple New Homes

1.1 The Commencement Date for the Warranty coverage of a New Home held in fee simple is as follows:

- (a) for a New Home constructed by a Builder on land owned by the Owner, the Commencement Date is the earliest of:
  - (i) the date of actual occupancy of the New Home,
  - (ii) the granting of an occupancy permit or similar right to occupy by the authority having jurisdiction, and
  - (iii) the date that the New Home is completed and ready for occupancy;
- (b) for a New Home constructed by a Builder on land not owned by the Owner, the Commencement Date is the earlier of:
  - (i) the date of actual occupancy of the New Home, and
  - (ii) the transfer of the legal title of the New Home to the Owner.

1.2 For the purposes of Subsection B.1.1(a), in a jurisdiction where occupancy permits are not issued, a New Home is deemed to have reached the stage of occupancy when it is:

- (a) "completed" as that term is defined by the *Builders' Lien Act* in effect from time to time, and
- (b) capable of being legally occupied.

### .0 Strata Titled New Homes

2.1 If a New Home is included in a Strata Plan, *London Guarantee* will provide Warranty coverage for the following:

- (a) the New Home comprising the strata lot;
- (b) the Common Property.

2.2 The Commencement Date for the Warranty coverage of a New Home comprising the strata lot, is the earlier of:

- (a) actual occupancy of the New Home, and
- (b) the transfer of legal title to the strata lot.

### 3.0 Common Property and Multi-Unit Buildings Not in a Strata Plan

3.1 The Commencement Date of Warranty coverage of Common Property and multi-unit buildings is concurrent with the first Commencement Date for a New Home in each separate multi-unit building comprising the Strata Plan or multi-unit building.

### 4.0 Unsold Units used as Rental Units

4.1 If an unsold New Home owned by a Builder is occupied as a rental unit, the Commencement Date is the date the New Home is first occupied by a tenant.

## C. LIMITS ON COVERAGE

1.1 The limits of the Warranty coverage are as follows:

- (a) for a New Home in fee simple ownership, the lesser of:
  - (i) the original purchase price paid by the Owner, and
  - (ii) \$200,000.00;
- (b) for a New Home in a strata titled or multi-unit building, the lesser of:
  - (i) the original purchase price paid by the Owner, and
  - (ii) \$100,000.00;
- (c) for the Common Property in a strata titled building or in a multi-unit building that is not strata-titled, the least of:
  - (i) the total original contract price for the multi-unit building,
  - (ii) \$100,000 times the number of dwelling units, and
  - (iii) \$2,500,000.

1.2 If a Strata Plan consists of a number of buildings, the limit under Subsection C.1.1(c) applies to each multi-unit building.

1.3 When calculating the cost of Warranty claims in respect of the standard limits under this Warranty Certificate, *London Guarantee* may include:

- (a) the cost of repairs,
- (b) the cost of any investigation, engineering, and design required for the repairs, and
- (c) the cost of supervision of repairs, including professional review, but excluding legal costs; and
- (d) any of the costs referred to in C.1.3(a), (b), and (c), may include *London Guarantee's* own personnel and other expenses, including adjusting expenses, at rates established by *London Guarantee* from time to time.

1.4 The Warranty coverages provided by this Warranty Certificate are conditional upon the Owner completing all reasonable maintenance of the New Home, including that set out in the maintenance information provided to the original owner, in a timely manner, as well as the Strata Corporation completing all reasonable maintenance of the Common Property in a timely manner.

## D. WARRANTY EXCLUSIONS

1.1 This Warranty does not cover the following:

- (a) weathering, normal wear and tear, deterioration or deflection consistent with normal industry standards;
- (b) normal shrinkage of materials caused by drying after construction;
- (c) any loss or damage which arises while the New Home is being used primarily or substantially for non-residential purposes;
- (d) materials, labour, or design supplied by an Owner;
- (e) any damage to the extent that it is caused or made worse by an Owner or Third Party, including:
  - (i) negligent or improper maintenance or improper operation by anyone other than the Builder or its employees, agents, or sub-contractors,
  - (ii) failure of anyone, other than the Builder or its employees, agents, or sub-contractors, to comply with the Warranty requirements of the manufacturers of appliances, equipment, or fixtures,
  - (iii) alterations to the New Home, including the conversion of non-living space into living space or the conversion of the New Home into two (2) or more units, by anyone other than the Builder or its employees, agents, or sub-contractors while undertaking their obligations under the sales contract, and changes to the grading of the ground by anyone other than the Builder or its employees, agents, or sub-contractors;
- (f) failure of an Owner to take timely action to prevent or minimize loss or damage, including the failure to give prompt notice to *London Guarantee* of a Defect or discovered loss or a potential Defect or loss;
- (g) any damage caused by insects or rodents and other animals, unless the damage results from non-compliance with the Building Code by the Builder or its employees, agents, or sub-contractors;
- (h) accidental loss or damage from acts of nature including, but not limited to, fire, explosion, smoke, water escape, glass breakage, windstorm, hail, lightning, falling trees, aircraft, vehicles, flood, earthquake, avalanche, landslide, and changes in the level in the underground water table which are not reasonably foreseeable by the Builder;

- (f) bodily injury or damage to personal property or real property which is not part of the New Home;
- (j) any Defect in, or caused by, materials or work supplied by anyone other than the Builder or its employees, agents, or sub-contractors;
- (k) changes, alterations, or additions made to the New Home by anyone after initial occupancy, except those performed by the Builder or its employees, agents, or sub-contractors under the construction contract or sales agreement, or as required by *London Guarantee*.
- (l) contaminated soil;
- (m) subsidence of the land around the New Home or along utility lines, other than subsidence beneath footings of the New Home or under Driveways or Walkways;
- (n) diminution in the value of the New Home;
- (o) landscaping, both hard and soft, including plants, fencing, detached patios, planters, gazebos and similar structures;
- (p) non-residential detached structures including sheds, garages, carports or outbuildings, or any structure or construction not attached to or forming an integral part of a multi-unit building or the New Home;
- (q) any commercial use area and any construction associated with a commercial use area;
- (r) roads, curbs, and lanes;
- (s) subject to Subsection D.1.1(m), site grading and surface drainage, except as required by the Building Code;
- (t) the operation of municipal services, including sanitary and storm sewer; septic tanks or septic fields;
- (u) the quality or quantity of water, either from a piped municipal water supply or from a well;
- (v) a water well, but excluding equipment installed for the operation of a water well used exclusively for the New Home, which equipment is considered to be part of the plumbing system for that the New Home.
- (x) damage caused or made worse by the failure of an Owner to take reasonable steps to mitigate any damage.

#### E. WARRANTY TERMS

- 1.1 If *London Guarantee* makes a payment or undertakes a repair, or assumes liability for any payment or repair under the Warranty coverage:
  - (a) *London Guarantee* is subrogated to all rights of recovery of an Owner against any person or persons who may have caused or contributed to the requirement for the payment or repair under the Warranty;
  - (b) *London Guarantee* may bring an action at its own expense, in the name of the Owner or of *London Guarantee* to enforce such rights; and
  - (c) the Owner will fully support and assist *London Guarantee* in the pursuit of those rights if *London Guarantee* pursues such subrogated rights;
- 1.2 Implied or expressed warranties or representations made by a Builder to an Owner are not binding on *London Guarantee* except as set out in this Warranty Certificate;
- 1.3 An Owner, or occupant, must permit *London Guarantee* or the Builder, or both, to enter the New Home at all reasonable times, upon giving reasonable notice to the Owner:
  - (i) to monitor the New Home or its components,
  - (ii) to inspect for required maintenance,
  - (iii) to investigate complaints or claims, or
  - (iv) to undertake repairs under the Warranty Certificate;
- 1.4 If any reports are produced as a result of any of the activities referred to in paragraph E.1.3, the reports will be provided to the Owner on request;
- 1.5 An Owner must provide to *London Guarantee* all information and documentation that the Owner has available, as reasonably required by *London Guarantee*, in order to investigate a claim or maintenance requirement, or to undertake repairs under the Warranty Certificate;
- 1.6 To the extent that damage to a New Home is caused by the unreasonable refusal of an Owner or occupant to permit *London Guarantee* or the Builder access to the New Home for the reasons set out in paragraph E.1.3, or to provide the information required by paragraph E.1.5, such damage is excluded from the Warranty coverage.

#### F. NOTICE OF CLAIM

- 1.1 Within a reasonable time after the discovery of a Defect and before the Expiry Date of the applicable Warranty coverage, an Owner must give *London Guarantee* and the Builder written notice in reasonable detail that provides particulars of any specific alleged Defects which may be covered by the Warranty.
- 1.2 *London Guarantee* will require the notice under Subsection F.1.1 to be in a prescribed form and include:
  - (a) the Home Warranty Certificate Number of the New Home,
  - (b) copies of all relevant documentation and correspondence between the Owner and the Builder, and
  - (c) Particulars of the claim as determined to be necessary by *London Guarantee* to comply with its obligations pursuant to this Warranty Certificate.
- 1.3 The obligations of *London Guarantee* absolutely cease unless:
  - (a) Proper notice is given to *London Guarantee* of a claim prior to the Expiry Date; and
  - (b) The Owner conducts reasonable inspections of the New Home from

time to time in order to discover defects or potential defects and gives notice pursuant to Subsection F.1.1.

#### G. DUTY TO MITIGATE AND MAINTAIN

- 1.1 *London Guarantee* requires the Owner to maintain the New Home and mitigate any damage to the New Home, including damage caused by Defects or water penetration, as set out in the Warranty Certificate.
- 1.2 The Owner must take all reasonable steps to restrict damage to the New Home if the Defect requires immediate attention.
- 1.3 Subject to Subsection G.1.2, for Defects covered by this Warranty, the duty to mitigate is met through timely notice in writing to *London Guarantee*.
- 1.4 The Owner's duty to mitigate survives even if:
  - (a) the New Home is unoccupied,
  - (b) the New Home is occupied by someone other than the Owner,
  - (c) water penetration does not appear to be causing damage, or
  - (d) the Owner advises the Strata Corporation about the Defect.

#### H. LIVING-OUT ALLOWANCE

- 1.1 If repairs are required under the Warranty Certificate and damage to the New Home or the extent of the repairs renders the New Home uninhabitable, *London Guarantee* covers reasonable living-out expenses incurred by the Owner.
- 1.2 The maximum amount per day for claims for living-out expenses is \$100.00, for the complete reimbursement of the actual accommodation expenses incurred by the Owner at a hotel, motel, or other rental accommodation up to the day the New Home is ready for occupancy, subject to the Owner receiving 24 hours advance notice.
- 1.3 Where the New Home comprises part of a Strata Plan and *London Guarantee* or the Builder, as the case may be, is required to carry out repairs to Common Property as a result of which, in the opinion of *London Guarantee*, the New Home is rendered uninhabitable, Section H.1.1 and H.1.2 shall apply.

#### I. WARRANTY ON REPAIRS AND REPLACEMENTS

- 1.1 All repairs and replacements made under this Warranty are warranted against defects in materials and labour until the later of:
  - (a) the first anniversary of the date of completion of the repair or replacement, and
  - (b) the expiry of the applicable Warranty coverage.
- 1.2 All repairs and replacements made under the Warranty will be completed in a reasonable manner using materials and labour conforming to the Building Code and industry standards.
- 1.3 *London Guarantee* reserves the right to use the Builder or any third party to perform the Warranty obligations imposed on *London Guarantee*, and the Owner agrees to cooperate with *London Guarantee* and the Builder and any Third Party in carrying out any such obligations.

#### J. MANDATORY CONDITIONS

##### 1.0 MEDIATION

In this Section:

- 1.1 (a) "Mediation" means a collaborative process in which two (2) or more parties meet and attempt, with the assistance of a Mediator, to resolve issues in dispute between them;
  - "Mediation Session" means a meeting between two (2) or more parties to a dispute during which they are engaged in Mediation;
  - "Mediator" means a neutral and impartial facilitator with no decision-making power, who assists parties in negotiating a mutually acceptable settlement of issues in dispute between them;
  - "Roster Organization" means any body designated by the Attorney General to select Mediators for the purpose of this regulation.
- (b) If a dispute between *London Guarantee* and an Owner arising under this Warranty Certificate cannot be resolved by informal negotiation within a reasonable time, the Owner may, at the Owner's sole election, require that the dispute be referred to Mediation by delivering to *London Guarantee* a written request to mediate.
- (c) If the Owner delivers a request to mediate under Subsection J.1.1(b), *London Guarantee* and the Owner must attend a Mediation Session in relation to the dispute.
- (d) In addition to the requirements of Subsection J.1.1(c), *London Guarantee* or an Owner may invite to participate in the Mediation any other party to the dispute who may be liable.
- (e) Within twenty-one (21) days after the Owner has delivered a request to mediate under Subsection J.1.1(b), the parties must, directly or with the assistance of an independent, neutral person or organization, jointly appoint a mutually acceptable Mediator.
- (f) If the parties do not jointly appoint a mutually acceptable Mediator within the time required by Subsection J.1.1(e), the Owner may apply to a Roster Organization which must appoint a Mediator taking into account:
  - (i) the need for the Mediator to be neutral and independent,
  - (ii) the qualifications of the Mediator,
  - (iii) the Mediator's fees,
  - (iv) the Mediator's availability, and

- (v) any other consideration likely to result in the selection of an impartial, competent, and effective Mediator.
- (g) Promptly after a Roster Organization selects the Mediator under Subsection J.1.1(f), the Roster Organization must notify the parties in writing of that selection.
- (h) The Mediator selected by a Roster Organization is deemed to be appointed by the parties effective the date of the notice sent under Subsection J.1.1(g).
- (i) The date, time, and place of the first Mediation Session must be scheduled by the Mediator, and the first Mediation Session must occur within twenty-one (21) days of the appointment of the Mediator.
- (j) Despite Subsection J.1.1(c), a party may attend a Mediation Session by representative if:
  - (i) the party is under legal disability and the representative is that party's guardian ad litem,
  - (ii) the party is not an individual, or
  - (iii) the party is a resident of a jurisdiction other than British Columbia and will not be in British Columbia at the time of the Mediation Session.
- (k) A representative who attends a Mediation Session in the place of a party referred to in Subsection J.1.1(j):
  - (i) must be familiar with all relevant facts on which the party, on whose behalf the representative attends, intends to rely, and
  - (ii) must have full authority to settle, or have immediate access to a person who has full authority to settle, on behalf of the party on whose behalf the representative attends.
- (l) A party or a representative who attends the Mediation Session may be accompanied by counsel.
- (m) Any other person may attend a Mediation Session if that attendance is with the consent of all parties or their representatives.
- (n) At least seven (7) days before the first Mediation Session is to be held, each party must deliver to the Mediator a statement briefly setting out:
  - (i) the facts on which the party intends to rely, and
  - (ii) the matters in dispute.
- (o) Promptly after receipt of all of the statements required to be delivered under Subsection J.1.1(n), the Mediator must send each party's statement to each of the other parties.
- (p) Before the first Mediation Session, the parties must enter into a retainer with the Mediator which must:
  - (i) disclose the cost of the Mediation Services, and
  - (ii) provide that the cost of the Mediation will be paid:
    - (1) equally by the parties, or
    - (2) on any other specified basis agreed by the parties.
- (q) The Mediator may conduct the Mediation in any manner he or she considers appropriate to assist the parties to reach a resolution that is timely, fair, and cost-effective.
- (r) A person must not disclose, or be compelled to disclose, in any proceeding oral or written information acquired or an opinion formed, including, without limitation, any offer or admission made in anticipation of or during a Mediation Session.
- (s) Nothing in Subsection J.1.1(r) precludes a party from introducing into evidence in a proceeding any information or records produced in the course of the Mediation that are otherwise predicable or compellable in those proceedings.
- (t) A Mediation Session is concluded when:
  - (i) all issues are resolved,
  - (ii) the Mediator determines that the process will not be productive and so advises the parties or their representatives, or
  - (iii) the Mediation Session is completed and there is no agreement to continue.
- (u) If the Mediation resolves some, but not all, issues, then at the request of all parties the Mediator may complete a report setting out any agreements that the parties to the Mediation have made as a result of the Mediation, including, without limitation, any agreements made by the parties on any of the following:
  - (i) facts;
  - (ii) issues;
  - (iii) future procedural steps.

## **0 DISCLOSURE OF CLAIMS HISTORY**

- 2.1 (a) On receipt of an inquiry from an Owner of a New Home covered by Home Warranty coverage regarding the claims experience of that New Home, London Guarantee will provide the Owner with a history of claims.
- (b) The history of claims referred to in Subsection J.2.1(a) will include, for each claim, the following information for both the Dwelling Unit and, if applicable, the associated Common Property:
  - (i) the type of claim that was made;
  - (ii) the resolution of the claim;
  - (iii) the type of repair performed;
  - (iv) the date of the repair; and
  - (v) the cost of the repair.
- (c) London Guarantee will charge a fee to provide the history of claims.

## **3.0 HANDLING OF CLAIMS**

- 3.1 (a) London Guarantee will, on receipt of a notice of a claim from the Owner under the Warranty Certificate, promptly make reasonable attempts to contact the Owner to arrange an evaluation of the claim.
- (b) London Guarantee will make all reasonable efforts to avoid delays in responding to a claim under the Warranty Certificate, evaluating the claim, and scheduling any required repairs.
- (c) If, following evaluation of a claim under the Warranty Certificate, London Guarantee determines that the claim is not valid or not covered under the Warranty Certificate, it will notify the Owner of the decision in writing, setting out the reasons for the decision.
- (d) The notice under Subsection J.3.1(c) will also set out the rights of the parties under the third party dispute resolution process referred to in Section J.1.1 of this Warranty Certificate.
- (e) Repairs will be undertaken in a timely manner, with reasonable consideration given to weather conditions and the availability of Materials and Labour.
- (f) On completion of any repairs, London Guarantee will deliver a copy of the repair specifications to the Owner, along with a letter confirming the date the repairs were completed and referencing the Warranty on repairs. Refer to Section I of this Warranty Certificate.

## **4.0 TRANSFER OF WARRANTY TO SUBSEQUENT PURCHASERS**

- 4.1 (a) The Warranty Certificate pertains solely to the New Home for which it provides Warranty coverage and no notice to London Guarantee is required on a change of ownership.
- (b) All of the applicable obligations and unused warranty benefits under the Warranty Certificate are automatically transferred to any subsequent Owner(s) on a change of ownership.

## **K. DEFINITIONS**

- 1.1 "Act of God" means an act occasioned by the forces of nature and beyond the reasonable control of the Builder, and includes but is not limited to: fire, flood, changes in or actions of the underground water table or any other subsurface water, earthquake, hail, landslide, lightning, strong winds, and freezing.
- 1.2 "Builder" means the person named in this Warranty Certificate.
- 1.3 "Building Code" means, as applicable,
  - (a) the British Columbia Building Code established under the *Municipal Act*, or
  - (b) The Vancouver Building Bylaw established under the *Vancouver Charter*, in force at the time that the building permit was issued for the New Home or, in jurisdictions where a building permit is not required, in force when construction commences;
- 1.4 "Building Envelope" means the assemblies, components and materials of a New Home which are intended to separate and protect the interior space of the New Home from the adverse effects of exterior climatic conditions. Interior space of the New Home includes all material not directly exposed to exterior climatic conditions. Exterior climatic conditions means the direct effect of weather on the above-grade portion of the New Home.
- 1.5 "Building Envelope Warranty" means the Warranty against Building Envelope Defects provided pursuant to Subsection A.2;
- 1.6 "Commencement Date" means in respect of the New Home, Common Property or multi-unit building, the date the Warranty coverage commences, and as set out in part B hereof. Any determination by London Guarantee of the Commencement Date shall be binding on the parties to this Warranty Certificate;
- 1.7 "Common Property" has the same meaning as in the *Condominium Act*, but does not include land;
- 1.8 "Cooperative" means a building, or a portion of a building, provided for residential occupancy purposes to members of an association incorporated or continued under the *Cooperative Association Act*;
- 1.9 "Defect" means any design or construction that is contrary to the Building Code or that requires repair or replacement due to the negligence of a Builder or person for whom the Builder is responsible at law;
- 1.10 "Delivery and Distribution Systems" means the mechanical and electrical systems for delivery and distribution of electricity, water, waste, heat and air within and throughout a New Home, but excludes plumbing and electrical fixtures and appliances.
- 1.11 "Driveway" means a surface intended and constructed primarily to be used for vehicular access to or from the New Home;
- 1.12 "Expiry Date" means the expiration dates referenced in this Warranty Certificate pertaining to each applicable Warranty and after which such Warranty absolutely ceases to exist;
- 1.13 "Load Bearing" means subjected to or designed to carry loads in addition to its own dead load, but does not include a wall element subjected only to wind or earthquake loads in addition to its own dead load. The Load Bearing portions of the New Home are limited to the following:

- (a) foundation systems,
- (b) support beams, posts, and columns,
- (c) load bearing walls, and
- (d) floor and roof support system.
- 1.14 "Materials and Labour" means only Materials and Labour supplied by the Builder for construction of the New Home
- 1.15 "Materials and Labour Warranty" means the Warranty against defects in materials and labour provided to an Owner pursuant to Section A hereof;
- 1.16 "Material Damage" means damage which materially and adversely affects the use of the New Home for residential occupancy
- 1.17 "New Home" means the New Home specified in this Warranty Certificate and which is a building or portion of a building, that is newly constructed and intended for residential occupancy, or a non-residential building, or portion thereof, converted to use for residential occupancy and sale, that is a single, self-contained residence usually containing cooking, eating, living, sleeping, and sanitary facilities.
- 1.18 "Owner" means the person who:
  - (a) purchases an interest in the New Home, or
  - (b) contracts with a Builder to construct a New Home, and includes
  - (c) a person who purchases a life interest in the New Home,
  - (d) a Cooperative, corporation or society having an ownership interest in the New Home, and
  - (e) a subsequent Owner of the New Home;
- 1.19 "Strata Corporation" means the corporation created pursuant to the *Condominium Act R.S.B.C. 1996, Chapter 64*, and amendments thereto for the purpose of the Warranty, that body charged with the obligation to administer the Common Property Warranty;
- 1.20 "Strata Plan" means a strata plan as defined in the *Condominium Act R.S.B.C. 1996, Chapter 64*, and amendments thereto; including strata units and common property as therein defined.
- 1.21 "Structural Damage" means damage which results from a Structural Defect and must be visible and measurable, and must exceed allowable tolerances established by London Guarantee, provided always that Structural Damage caused by an Act of God, an act or omission of a Third Party, or other causes not directly related to Material and Labour provided by the Builder, or those for whom the Builder is responsible at law, are excluded from the Warranty herein provided. The presence of water in itself, in any form, will not be considered as a Structural Damage;
- 1.22 "Structural Defect" means a Defect in the New Home resulting in failure of any Load Bearing portion which affects the Load Bearing function of the New Home.
- 1.23 "Structural Defects Warranty" means the Warranty against Structural Defects provided to an Owner pursuant to Section A hereof;
- 1.24 "Third Party" means any third party or combination of third parties for whom the Builder is not at law responsible.
- 1.25 "Warranty" means only this Certificate and those Warranty coverages, terms, and conditions set out in this Warranty Certificate.

**This Warranty Certificate is to be read and interpreted as a whole and represents the entire contract between *London Guarantee* and the Owner.**



650 W. Georgia Street,  
Suite 2500,  
P.O. Box 11542  
Vancouver British Columbia  
V6B 4N7  
Phone (604) 682-3095  
Fax (604) 682-3096  
Toll Free (800) 555-9431  
[www.londonguarantee.com](http://www.londonguarantee.com)

## 2-5-10 HOME WARRANTY STICKER

(For Dwelling Units in Multi Family Buildings and Common Property)

**Address:** The Compton: 1316 West 11th Avenue, Vancouver, BC

**Legal Description:** Strata Lots 1-58, Parcel D, Block 392, D.L. 526, Plan LMP36970

**Warranty Certificate #:** 75008839      **Builder #:** 00001012

**Builder Name:** Polygon Compton Homes Ltd.

**Builder's Phone:** (604) 877-1131      **Builder's Fax:** (604) 876-1258

**Builder's Address:** 1800 Spyglass Place, Vancouver, BC, V5Z 4K8

This is an adhesive label listing important expiry dates relating to the warranty coverage of the above captioned New Home. To ensure your Warranty rights are preserved, please refer to the 2-5-10 Home Warranty Certificate and ensure that you understand what your obligations are. Please note that all notice(s) of a claim must be provided to the Builder and London Guarantee **in writing** prior to the expiry of the applicable warranty coverage. The important dates to note are:

- |  |   |
|--|---|
| 1. <b><u>Warranty Commencement Date:</u></b>   | <b><u>March 29, 2001</u></b>              |
| 2. <b><u>Materials &amp; Labour Warranty:</u></b>  |   |
| a) 15 Months for Common Property:  | <b>Expiry Date: <u>June 28, 2002</u></b>  |
| b) 2 Years defects in Materials and Labour supplied for;   |   |
| i. the gas, electrical, plumbing, heating, ventilation and air conditioning delivery and distribution systems; and     |   |
| ii. the exterior cladding, caulking, windows and doors that may lead to detachment or material damage to the New Home: | <b>Expiry Date: <u>March 28, 2003</u></b> |
| 3. <b><u>5 Years Building Envelope Warranty:</u></b>   | <b>Expiry Date: <u>March 28, 2006</u></b> |
| 4. <b><u>10 Years Structural Defects Warranty:</u></b>   | <b>Expiry Date: <u>March 28, 2011</u></b> |

**Please place this sticker in a conspicuous location.**

## **APPENDIX B – COMPLETED SURVEYS**

## **RESIDENT SURVEY FOR STRUCTURAL ASSESMENT FOR 10 YEAR WARRANTY**

### **The Compton 1316 W. 11<sup>th</sup> Avenue, Vancouver, B.C**

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The 10 year warranty on your building's structural systems will expire soon. McCuaig & Associates is conducting an assessment of the structural components that support your building in order to determine if there are any issues which may trigger a warranty claim. Typical structural components include concrete or steel walls, floors, balcony floors, beams and columns. Structural defects might include excessive deflections, settlements, cracking, spalling concrete, exposed reinforcing steel, corrosion, or other deterioration.

The field work portion of our investigation is tentatively scheduled for the week of February 21, 2011, at which time we will be inspecting common areas, service areas, roofs and a selection of individual suites. Individual suites selected for inspection may depend on the results of this survey.

In order to assist us with this investigation, please fill out this form and email or fax it to McCuaig & Associates Engineering Ltd. no later than **Thursday February 17, 2011** after which we will contact the owners of the suites that we wish to inspect.

Email to: [paul@mccuig.net](mailto:paul@mccuig.net)

Fax to: 604 255-0992

If you have any questions, please feel free to contact **Paul Good** at our office.

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**NAME:**

**UNIT #:**

**PHONE NUMBER WHERE YOU CAN BE REACHED DURING THE DAY:**

Are you aware of any deficiencies as described above that you think might give rise to a structural warranty claim? Please report deficiencies that may be in your suite, in the parkade or other common areas that you frequent. Please be as specific as possible, for example "crack noted in Level P1 parkade, near stall #100"

## Resident Survey Results - The Compton

Unit:	Response
102	Evidence of water ingress in bedroom, ceiling, southeast corner of room. I had national air technologies come and 'blow-out' the dryer duct, as it was suggested by the property manager that that was the likely cause...however this appears unlikely because 1) the dryer duct does not route thru that area, and 2) the N.A.T. technician said he was getting very good airflow thru the duct even before he hooked up the blower. 3) subsequent investigation by rudy fehr indicated probable cause as being flashing/caulking at bay window of suite above unit 102 ( ie unit 202 ?)-
103	We're not aware of any deficiencies.
202	NO
205	None.
301	No.
302	Survey taken via telephone call with Occupant: Cracks noted in ceiling of Parkade Level P2; no issues noted in Suite.
304	None as noted
403	No.
501	Noticing a lot of water condensation on the bedroom's windows during the colder winter months.  Dents on the balcony wall (outside the wall).
504	I have not noticed any problems.
603	in 2002 the lower window in the southwest corner of the living room cracked due to what we believed was building settlement . It was replaced in early 2003 but in 2004 cracked again . I reported this to our Property Manager but then she left and there has not been any follow up .
701	no structural defects noted
805	None that I know of
1102	none
1105	An appearance of small brown, slightly gummy patches on all 4 (four) east-facing window sills in January 2011. They appeared to be dried condensation? My painter who had been painting my suite just before Christmas came in January to finish re-touching. He inspected these patches and felt that they were somehow coming from the exterior.  They were wiped off with a moist towel. Definitely, I am concerned if there are exterior cracks that may be wicking moisture into my suite, perhaps coupled with high wind? I have lived here since Aug. 2009 and this is my 2nd winter in my suite. Nothing like this has occurred before.
1203	Exterior wall by balcony has cracks.