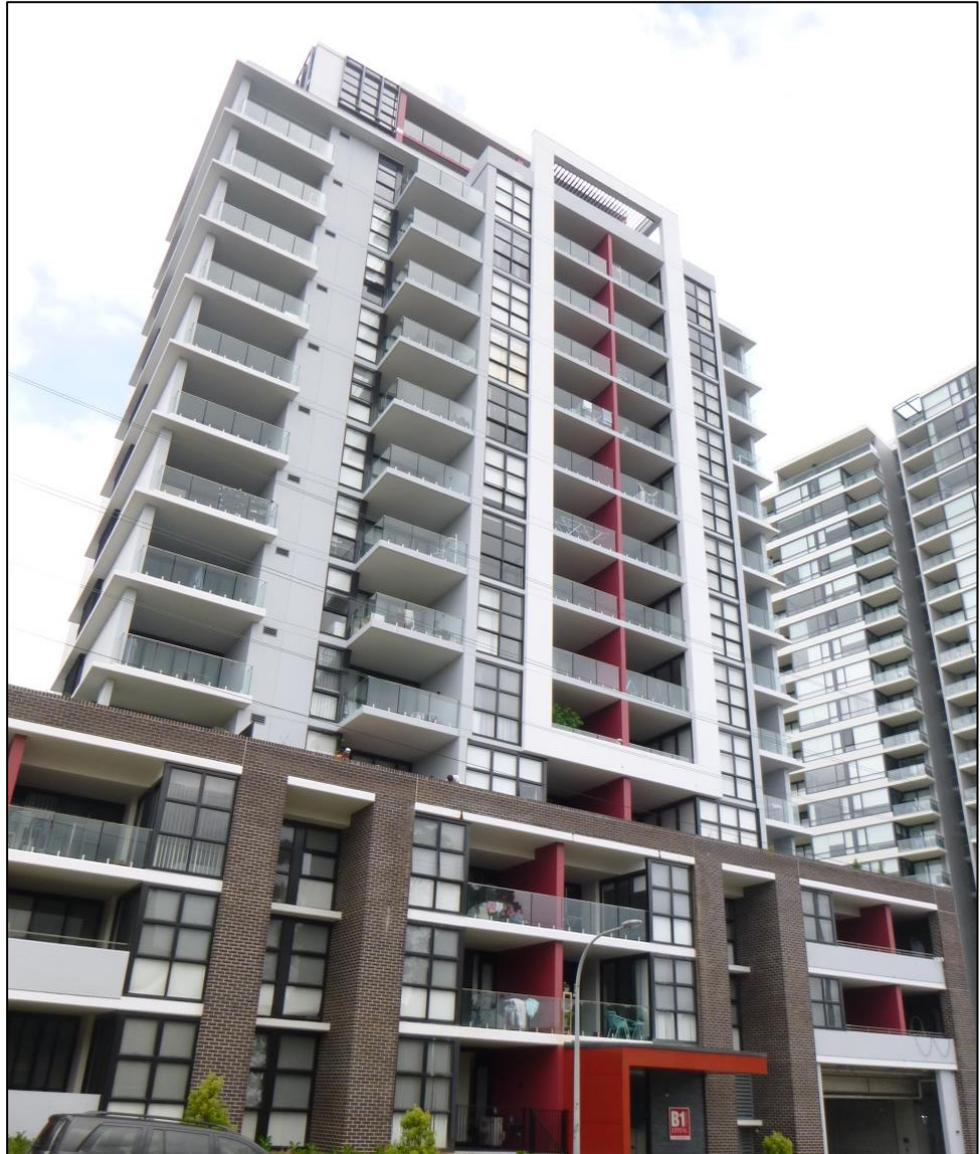


JANUARY 15, 2019



# BUILDING DEFECTS REPORT

SP2651: 1 SAMPLE ROAD, EXAMPLE NSW 2035

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## Summary

<b>Client</b>	SP24121
<b>Client Address</b>	1 Sample Road, Example NSW 2035
<b>Client Representative</b>	Noble Management Group
<b>Attention</b>	Samantha Repice
<b>Job #</b>	1640

## Revision History

<b>Revision</b>	<b>Date</b>	<b>Author/s</b>
1	December 28, 2018	Example

## Limitation of the report

See section 5 – Report Conditions

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# 1 Executive Summary

We performed an independent inspection of the property at 1 Sample Road, Example on the 28<sup>th</sup> November 2018 and the 4<sup>th</sup> December 2018. During the inspections, the weather was overcast/raining on the 28<sup>th</sup> and fine on the 4<sup>th</sup>. A visual inspection and measurement was performed only. No destructive or intrusive testing was undertaken.

The construction of the apartments is considered average with average anticipated defects for a property of this age and type.

Systemic defects located within this report describes the defects observed, the location and rectification procedures.

## 2 Introduction

### 2.1 Brief

Noviion Pty Ltd has been retained by Noble, being Strata Managers for SP31101, to conduct a building defects inspection and report on the residential complex including common areas only at 1 Sample Road, Sample.

### 2.2 Building Description

The property includes 25 apartments and multi-level common basement car park. The property was completed c. 2013. The property is approximately flat from the street towards the rear. For the purposes of description in this report the front of the property faces north.

The complex is a nine-story building and is constructed with composite materials including reinforced concrete framed structure with masonry infill, a metal clad façade and a flat concrete roof. General construction of apartments is masonry and lightweight stud walls with reinforced concrete floors.

### 2.3 Building Classification

The building is classified in accordance with Section A3.2 of the Building Code of Australia as follows:

*Class 2: a building containing 2 or more sole-occupancy units each being a separate dwelling*

*Class 7a: a building which is a carpark*

### 2.4 Inspection and Scope of Report

Inspection of common areas was completed by Noviion on the 28<sup>th</sup> November and 4<sup>th</sup> of December 2018. All inspections were visual in nature and in those reasonably accessible areas of the building. No destructive or intrusive testing was undertaken. Visual inspection and measurement were performed only. Photographs included in this report were taken using a Panasonic Lumix DMC-FT25 digital camera. The photographs have not been enhanced or altered in anyway.

### 2.5 Qualifications

I have the following qualifications and experience:

Bachelor of Engineering (Structural)

Member of Engineers Australia

I have over 10 years' experience in design engineering and construction

## 2.6 Field of Expertise

I have specialised knowledge in the area of building, defect identification and remediation. My qualifications as an engineer allow me to provide detailed reporting and findings on all areas of building defects. Major clients include Strata Managers, building owners and building contractors.

## 2.7 Assumptions

I have made no assumptions in the assessment of building defects and in preparing this report.

## 2.8 Documents Provided

The following documents were provided to me (included in Annexure A):

- Strata Plan Form SP91983

## 2.9 Applicable Standards and Codes

I have relied on the following codes and standards:

- Building Code of Australia Volume 1 Class 2 - 9 - 2013 (referred to as BCA within this report).  
The subject building works are required to comply with Division 8A, Section 98 of the Environmental Planning & Assessment Regulation 2000 '*Compliance with Building Code of Australia and insurance requirements under the Home Building Act 1989*' Clause (3)' which in summary states that building works subject to authority approval are required to comply with the Building Code of Australia that was adopted and in use at the time of lodgment of the Construction Certificate relevant to those building works.
- NSW Office of Fair Trading – Guide to Standards and Tolerances 2007  
As reference for guidelines applicable to these works and used as a means of initial identification of possible defects as applicable.
- Home Building Act 1989 (NSW)
- AS1680.0-2009 Interior Lighting – Safe Movement
- AS2293.1-2005 Emergency Escape Lighting
- AS3600-2009 Concrete structures
- AS3700-2011 Masonry structures
- AS3958.1-2007 Ceramic tiles.
- AS4654.2-2012 Waterproofing membranes for external use

## 2.10 Moisture Metering

Moisture metering is performed with a calibrated *GE Protimeter Surveymaster* moisture measurement system which is used for measuring the moisture level of non-conductive and porous construction materials. Refer to Annexure D for further information relating to moisture metering.

## 2.11 General Building Defects

Defects identified in this report and detailed in the Table 1 - Table of Building Defects create a breach one or more of the below statutory warranties;

### Home Building Act 1989

The following warranties by the holder of a contractor license, or a person required to hold a contractor license before entering into a contract, are implied in every contract to do residential building work

#### Part 2C Section 18B:

- a) a warranty that the work will be done with due care and skill and in accordance with the plans and specifications set out in the contract,
- b) a warranty that all materials supplied by the holder or person will be good and suitable for the purpose for which they are used and that, unless otherwise stated in the contract, those materials will be new,
- c) a warranty that the work will be done in accordance with and will comply with, this or any other law,
- d) a warranty that the work will be done with due diligence and within the time stipulated in the contract, or if no time is stipulated, within a reasonable time,
- e) a warranty that, if the work consists of the construction of a dwelling, the making of alterations or additions to a dwelling or the repairing, renovation, decoration or protective treatment will result in a dwelling that is reasonably fit for occupation as a dwelling,
- f) a warranty that the work and any materials used in doing the work will be reasonably fit for the specified purpose and to achieve the result that the owner desires the work to achieve, so as to show that the owner relies on the holder's or person's skill and judgment

Other Australian Acts, Codes, Standards and Guides that support the assessment of a building defect are included in Table 1 - Table of Building Defects.

## 3 Further Investigation

The rectification procedures outlined in Table 1 of this report are based on a visual non-invasive assessment of the building.

Invasive assessment of the building may assist in determining the extent of rectification required of concealed elements where there is no agreement between the builder/developer and owners corporation in terms of acceptance of building defects and rectification methods.

Invasive testing could be performed by the author of this report with an assisting licensed Builder, followed by preparation and submission of a supplementary report if required to assist in resolving disputed building defects.

# 4 Systemic Defects

## 4.1 Uncontrolled water seepage into Carpark

### 4.1.1 Defect Description and Breach

<b>Defect</b>	Uncontrolled water seepage from the base of the block wall at the junction with the slab. Seepage ranged from minor presence of water to considerable pooling on the carpark slab. In some areas the observed seepage was flooding storage cages.
<b>Breach</b>	<p><b>Home Building Act (HBA) (NSW) 1989</b> Part 2C, 18B (a) and (c).</p> <p><b>National Construction Code (NCC) 2103 – Volume 3 – Plumbing Code of Australia</b> <b>Part D2 Surface and Subsurface Drainage Systems</b> <i>DP2.1 Surface Drainage Systems</i> Surface drainage systems must dispose of stormwater flows from rainfall events having an average recurrence interval appropriate to the importance of the site and the severity of potential damage to property, loss of amenity, illness or injury that would result from the failure of such a system.</p> <p><i>DP2.3 Surface drainage installation</i></p> <ul style="list-style-type: none"> <li>(j) avoid the likelihood of loss to buildings or property; and</li> <li>(k) avoid the likelihood of uncontrolled discharge</li> </ul> <p><b>Loss Suffered</b> The owners of the storage affected storage cages are suffering a loss as the water is causing damage to the stored personal property.</p> <p>Additionally, the presence of excessive water in basement areas may be a health concern as it can remain stagnant for extended periods of time.</p>

### 4.1.2 Rectification

Further investigation required to determine the source of water ingress.

### 4.1.3 Photos



## 4.2 Water Ingress Through Cracked Concrete

### 4.2.1 Defect Description and Breach

<b>Defect</b>	Uncontrolled water seepage from the base of the block wall at the junction with the slab. Seepage ranged from minor presence of water to considerable pooling on the carpark slab. In some areas the observed seepage was flooding storage cages.
<b>Breach</b>	<p><b>Home Building Act (HBA) (NSW) 1989</b> Part 2C, 18B (a) and (c).</p> <p><b>National Construction Code (NCC) 2103 – Volume 3 – Plumbing Code of Australia</b> <b>Part D2 Surface and Subsurface Drainage Systems</b> <i>DP2.1 Surface Drainage Systems</i> Surface drainage systems must dispose of stormwater flows from rainfall events having an average recurrence interval appropriate to the importance of the site and the severity of potential damage to property, loss of amenity, illness or injury that would result from the failure of such a system.</p> <p><i>DP2.3 Surface drainage installation</i></p> <ul style="list-style-type: none"> <li>(j) avoid the likelihood of loss to buildings or property; and</li> <li>(k) avoid the likelihood of uncontrolled discharge</li> </ul> <p><b>Loss Suffered</b> The owners of the storage affected storage cages are suffering a loss as the water is causing damage to the stored personal property.</p> <p>Additionally, the presence of excessive water in basement areas may be a health concern as it can remain stagnant for extended periods of time.</p>

### 4.2.2 Rectification

Further investigation required to determine the source of water ingress.

### 4.2.3 Photos



## 4.3 Inadequate fire proofing of service penetrations through fire rated slabs

### 4.3.1 Defect Description and Breach

<b>Defect</b>	<p>During the inspections it was noted that all penetrations through the slabs for the provision of services have not been completed in a manner that is considered fire-resistant. In all communications and electrical cupboards, it was observed that penetrations through the slab had been sealed without the use of fire pillows and only with an expanding foam. The manner in which it has been completed leaves voids through the penetrations and will allow for the spread of fire between levels. It is unknown whether the installed expanding foam is fire rated.</p> <p>It was also observed that in various areas where service penetrations are present, there is unused conduits penetrating the slab which have not had any fire-resistant finishing applied.</p>
<b>Breach</b>	<p><b>Home Building Act (NSW) 1989</b></p> <ul style="list-style-type: none"> <li>• Part 2C, 18B (a), (B) and (c).</li> </ul> <p><b>National Construction Code (NCC) 2013 – Volume 1 – Class 2-9 Buildings</b></p> <ul style="list-style-type: none"> <li>• Section C Fire Resistance             <ul style="list-style-type: none"> <li>○ Part CO1                 <ul style="list-style-type: none"> <li>▪ Performance Requirements CF2 &amp; CP8.</li> </ul> </li> </ul> </li> </ul> <p>This is a breach of the BCA as it requires suitable fire-resistant elements to prevent spread of fire between separate levels.</p> <p><b>Loss Suffered</b> Loss suffered is the cost of rectification.</p>

### 4.3.2 Rectification

Engage a suitably qualified fire engineer to assess the defects and provided a detailed rectification procedure.

### 4.3.3 Photos



## 5 Report Conditions

We wish to clarify the terms and conditions applying to the provision of our Services.

In the unlikely event of a misunderstanding or mistake we will strive to resolve all your reasonable queries and complaints quickly and efficiently.

This report has been prepared for the Client mentioned above in accordance with the terms and conditions of appointment for the inspection as per the fee proposal.

Noviion Engineering Pty Ltd (ABN 63 607716 772) cannot accept any responsibility for any use of or reliance on the contents of this report by any third party.

All comments and recommendations mentioned in this report are based on our visual observations which are in line with our previous experience dealing similar issues. Unless noted otherwise, no destructive investigations were undertaken.

- 1 **Subject to the terms of this Agreement You will pay Us the Fee and We will deliver the Report to You.**
- 2 **Scope of Report:**
  - 2.1 The Report shall be a Property Report and/or a Timber Pest Report, as You have requested Us to deliver.
- 3 **Our Reports are on the following Terms:**
  - 3.1 We will visually inspect such parts of the Property as are reasonably accessible at the time of the Inspection.
  - 3.2 We do not, for the purposes of the Inspection, remove, move, dismantle, unscrew or break apart any components including, but not limited to floor coverings, wall, ceiling or roof linings, insulation, debris, stored goods, furniture, soil or vegetation.
  - 3.3 We make no representations and the contents of our Report make no warranty as to the suitability and fitness of the Property for Your requirements or any particular purpose.
  - 3.4 The Report is provided subject to the qualifications and disclosures stated in it and in our letter of engagement.
  - 3.5 Our liability is limited by these terms:
    - 3.5.1 We do not report or advise on any question of law or any other information, including planning information or services relating to the Property.
    - 3.5.2 We do not report minor defects or issues (including timber pests) unlikely to materially affect the use or value of the Property, or which it would be reasonable to expect would be repaired or replaced during the course of reasonably regular and prudent maintenance of the property, or any proposed renovations or construction.
    - 3.5.3 We do not provide any estimates of costs or quotations for remedial work or the extent of any damage, any costs indications provided by Us are indicative only. Costs for remedial work may increase significantly after detailed measurement, investigation and quotation by a licensed contractor or quantity surveyor from whom advice should be sought concerning the cost and scope of remedial work required where We report a defect or other matter.
- 4 **The Property Report shall report on the following:**
  - 4.1 The physical condition of the parts of the Property that were reasonably accessible at the time of our Inspection and that We were able to inspect.
- 5 **The Property Report excludes:**
  - 5.1 We do not inspect or test pipe-work, or mechanical or electrical equipment including, but not limited to, air-conditioning equipment, alarms, spa equipment, saunas, steam room, burglar alarms, pool equipment, pool cleaners, hot water heaters, solar equipment, lifts, inclinators, sprinklers, fire protection equipment, water purifiers, filters, pumps, garage doors, other appliances or any materials and/or equipment forming part of the Property.
  - 5.2 Common Property, except for the common area(s) immediately adjoining the property, as required by **AS 4349.1 for Standard Reports on Strata and Company Title Property. While we may provide comments about Common Property, it is your responsibility to check records and ensure the Scheme's funding is sufficient to cover accrued and reasonably foreseeable maintenance**
- 6 **The Timber Pest Report shall report on the following:**
  - 6.1 The existence of timber pests or previous timber pest damage as revealed by the actual physical condition of the parts of the Property that were reasonably accessible at the time of our Inspection and that We were therefore able to inspect.
    - 6.1.1 The Report is confined to reporting on the discovery or non-discovery of infestation and/or damage caused by subterranean and dampwood termites (white ants), borers of seasoned timber and wood decay fungi (timber pests), present on the date of the Inspection. The Timber Pest Inspection does not cover any other timber pests and this Report does not comment on them. Dry wood termites (family: Kalotermitidae) are excluded from the Inspection.
  - 6.2 Hazards in the property that arise as a result of timber pest damage.
  - 6.3 Conditions at the property that are considered to be conducive to timber pest infestation and activity.
  - 6.4 The susceptibility of the property improvements to timber pest infestation, activity and damage.
  - 6.5 Recommendations for further investigations if found to be required or prudent.
- 7 **The Timber Pest Report is carried out on the basis that:**
  - 7.1 No attempt will be made to assess the full extent of damage caused by current activity of timber pests or caused by prior activity of timber pests.
  - 7.2 Nothing contained in the Timber Pest Report implies that any inaccessible or partly inaccessible areas or sections of the Property being inspected by the Inspector on the date of the Inspection were not, or have not been, infested by timber pests. A Timber Pest Report is neither a guarantee that an infestation or damage does not exist in any inaccessible or partly inaccessible areas or sections of the Property, nor a guarantee that future infestation of timber pests will not occur or be found.
  - 7.3 If timber pest activity or damage is found either within the structures or the grounds of the Property, then extensive damage or extensive activity may exist in concealed or inaccessible areas, e.g. framing timbers. Damage to these

areas may only be found when wall linings, cladding or insulation are removed to reveal previously concealed timbers. We recommend further invasive inspections in such circumstances. This invasive inspection is known as an Extent of Damage Assessment and is costly to undertake. It is beyond the scope and extent of this Inspection.

#### 8 The Timber Pest Report excludes:

- 8.1 An inspection of the Property other than for the existence of timber pest or previous timber pest damage.
- 8.2 An inspection of any tree less than 300mm in diameter.

#### 9 Cancellation and Non-Access to Property:

- 9.1 If We are denied access to the Property, or You cancel the Report, or We cannot reasonably gain access to the Property without danger of injury or without trespass to the Property, We are not bound to deliver the Report and shall be entitled to receive from You our reasonable expenses, including costs incurred travelling to and from the Property and a reasonable sum for the time expended by us, or such cancellation fees as we may determine from time to time.

#### 10 Payment:

- 10.1 The Report Fee shall be the Report Fee recorded in the Main Agreement and shall be paid when booking the Inspection or, at our discretion, as invoiced by us.
- 10.2 A Further Fee shall be charged for any further work requested by You at the rate of AU\$286 per hour plus reasonable travel travelling time and expenses.
- 10.3 Fees not fully paid shall incur an administration fee of 2% of the unpaid balance of the fees per month for each month such fees are outstanding. You further expressly agree that such administration fee is a fair value of the labour and some of the costs expended by us in the collection of any such unpaid balance.

#### 11 Subsequent Investigations:

- 11.1 If, after receiving our Report/s, You have any concerns about the condition of the Property, We will carry out any further Inspection, and provide You with the Property and/or Timber Pest Report, as appropriate, for which We will charge You a fee.

#### 12 Concerns, Unforeseen or Undetected Property Damage and other issues:

- 12.1 Where any concern, unforeseen or undetected property damage or other defects might lead to a claim against Us, it is a condition precedent to any such claim that You must:
  - 12.1.1 Notify Us in writing, attaching copies of any relevant documents in Your control, within 14 days of becoming aware of the basis of the claim.
  - 12.1.2 You must jointly inspect the Property with Us, and negotiate in good faith to reach an agreement as to the extent of the necessary repairs, and as to what extent, if any, We should pay for those repairs.
  - 12.1.3 You must allow Us to do all things that We deem necessary to investigate the claim including, but not limited to, opening and entering the Property for re-inspection and for the taking of samples.
  - 12.1.4 You must promptly take all necessary steps in liaison with Us to mitigate the cost of any associated repairs.
  - 12.1.5 You must allow Us to appoint a licensed contractor of our choice to make any repairs where We consider the repairs are necessary, and You must pay Us the cost of any enhancement to the Property or any repairs not our responsibility under this Agreement.
  - 12.1.6 You must, at our request, pursue any claim against a third party to recover any loss or damage suffered by You where possible. We will reimburse You for costs so incurred, and You must repay to Us any amount that We have so paid to You, to the extent it is recovered.
  - 12.1.7 If any claim by You or Us remains in dispute for more than 7 (seven) days, it shall be expeditiously resolved by a member of the Institute of Building Consultants acting as an expert and not as an arbitrator. You and We agree to brief the expert fully within 7 (seven) days of a notice of dispute by either of Us, and to be finally bound by the expert determination. The costs of such expert determination shall be shared equally by You and Us.

#### 13 Claims and Excess:

- 13.1 In the unlikely event that any damage or timber pest is discovered that should reasonably have been reported in our Report, or in any oral on-site or telephonic advice, and was not so reported, We will cover the full the cost of any reasonably necessary repairs, subject to the following:
  - 13.1.1 An initial excess of \$3,000.00 is payable by You for any such claim.
  - 13.1.2 Where the cost of the repairs exceeds \$25,000.00 (including the excess payable by You), We will pay 50% of the cost of repairs in excess of \$25,000.00. This is because most remedial working in excess of \$25,000.00 will improve the Property and thus provide a benefit to You.
  - 13.1.3 You agree that all claims arising out this agreement will be brought solely against Us, and You indemnify all of our agents, subcontractors and employees in respect of any claim You may bring against them arising out of this agreement including, but not limited to reimbursement of any legal costs incurred by them or Us in defending such claim/s.
  - 13.1.4 You further indemnify us in respect of any claim You make against us that is not in accordance with this agreement. You acknowledge that this agreement may be used as a bar against any claim brought that is not in accordance with this agreement.

#### 14 General:

- 14.1 You agree that the law applicable to this agreement is the law of New South Wales.
- 14.2 You are entitled to a signed copy of this agreement in the form that it was made within 5 (five) working days of it being entered into and, should We have omitted to provide one to You within this time, We will provide one to You immediately upon request.
- 14.3 If the services provided by Us do not constitute services of a kind ordinarily acquired for personal, domestic or household use, or consumption pursuant to the *Competition and Consumer Act* or equivalent or similar legislation, then our liability to You shall in the case of any and all loss sustained by You be limited, in our absolute discretion, to supplying our services again, or the payment of the cost of resupplying our services. We shall in no way be liable for any alleged consequential loss, damage, destruction, injury or harm of any nature whatsoever that may be caused to persons or property, arising directly or indirectly, from the use of the Property Report and/or Timber Pest Report.

- 14.4 All conditions and warranties implied by Statute, whether State, Commonwealth and/or at common law are hereby excluded so far as the law permits.
- 14.5 You warrant that You will read our Report fully, and will not rely instead on any oral advice received from us.
- 14.6 These Terms may only be varied in writing and constitute the entire agreement between the parties, and supersede and take precedence over all other communications between the parties, whether oral or written.
- 14.7 In the event of a conflict between the terms of this Schedule and the terms of the Main Agreement, the Main Agreement will prevail.
- 14.8 This report remains our property and We retain full copyright in the Report, and We may provide it to other persons, including other prospective purchasers for consideration.
- 15 Legal Advice:**
- 15.1 You should obtain Your own independent legal advice in respect of this agreement. In respect of any claim arising out of or associated with the Agreement, each party pays its own legal costs.
- 15.2 In the unlikely event that any dispute over our report or advice arises we will pay the cost of obtaining independent legal advice (from an agreed expert panel) on a "without prejudice" basis and have that advice provided to You in order to facilitate the resolution of the dispute.
- 16 No Liability to Third Parties:**
- 16.1 The Property Report and/or Timber Pest Report are made solely for Your use and benefit, and no liability or responsibility whatsoever, in contract or tort, is accepted to any third party who may rely on the Property Report and/or Timber Pest Report wholly or in part. Further You agree not to copy either report in any form including email or hard copy. Any third party acting or relying on this Property Report and/or Timber Pest Report, whether in whole or in part, does so at their own risk.
- 17 Definitions:**
- 17.1 Unless the context otherwise requires, in these terms and conditions:
- **Inspection** means a visual examination of the Property in accordance with the requirements of AS 4349.1 'Inspection of Buildings Part 1: Property Inspections' (if a property Inspection) and/or the requirements of AS4349.3 'Inspection of Buildings Part 3: Timber Pest Inspections' (if a Timber Pest Inspection).
  - **Property** means the building or land to be inspected within the boundaries as indicated by fences. We do not view the Property from any adjoining property or other allotments.
  - **Unforeseen Property Damage** means damage that We should have reasonably identified in our Property and/or Timber Pest Reports and does not include damage that We would not have reasonably identified, or is attributable to the age of the Property, or damage that is normally incurred as part of the normal maintenance programme of the Property, considering the age and quality of the Property, or damage that may have occurred as a result of an act or omission by You or a third party employed by You to mitigate or repair damage or maintain the Property.
  - **We, Us and Our** means Noviiion Pty Ltd and includes such of its agents, servants and consultants as carry out the inspection.
  - **You and Your** means the person for whom the inspection is carried out and to whom the Report is addressed.
- 18 Additionally**
- This Report has been prepared in response to the instructions received by Noviiion Pty Ltd by the Client.
  - This Report and its contents are prepared for the use by the Client and may not be distributed to any third parties without the written approval of Noviiion Pty Ltd. Noviiion Pty Ltd provides no warranty for its contents to any third parties.
  - Noviiion Pty Ltd retains full copyright ownership in this Report. When full payment for the completion of this Report is received, Noviiion Pty Ltd grants a license to the Client to use this Report only for the purposes under which Noviiion Pty Ltd was instructed to prepare it.
  - The inspection/s undertaken to complete this Report included only those safely accessible areas and areas that were within the Noviiion Pty Ltd Engineer's line of sight and were close enough to enable reasonable appraisal.
  - Note the following in relation to the preparation of this Report:
    - destructive testing was not undertaken
    - insitu materials, vegetation, fixtures or other building elements were not removed or disturbed
    - furniture and other chattels were not moved
    - enquiries to planning or other authorities were not undertaken
    - minor faults are not highlighted in this Report unless when taken together they constitute an area of concern to be addressed.
  - This report does not consider the possible locations, affects, risks or otherwise general reporting of the presence of asbestos within the property.
  - Waterproofing of buildings is a challenging task. Typically water will penetrate the external envelope of every type of building. When water or the effects of water can be observed inside a structure it is likely that penetration has been occurring for some time often by multiple ingress mechanisms. To address all possible mechanisms is generally unnecessary and often requires destructive investigation and remediation works that is not cost-effective. It is our approach to provide practical, cost-effective solutions to waterproofing defects by identifying and addressing primary ingress mechanisms, and to then monitor the outcome of these solutions. It is possible that after a primary ingress mechanism has been rectified a secondary or tertiary mechanism is seen to be also contributing to a waterproofing defect, and may need to be addressed in the future.
  - Noviiion Pty Ltd limits its liability by producing this Report to a maximum of the value of the services it has provided for this item of work and will not be liable for any indirect or consequential loss or damages including loss of profits or loss of opportunity.
  - Works quantities where stated are estimates only. Final quantities cannot be confirmed until appropriate access and all investigative works are complete. Contractors shall allow for quantified items as a provisional sum to be adjusted up or down depending on the final quantity required. The Contractor is responsible for final measurement and quantification of work items.

- Note the following in relation to cost estimates in this Report:
  - Costs are estimates only based on estimated quantities and average market rates where available.
  - Costs above are exclusive of GST.
  - Costs are exclusive of consultancy fees for preparation of specifications, tender management and project supervision.
  - Access costs have not been allowed for. Grouping of project items should be conducted to allow for accurate estimates of access costs.

## 6 Annexure A – Documents Provided

## 7 Annexure B – Moisture Metering

Moisture metering is performed with a calibrated *GE Protimeter Surveymaster* moisture measurement system which is used for measuring the moisture level of non-conductive and porous construction materials.

It has two modes of operation; search and measure, when both modes of operation are used together, the modes greatly enhance the user's ability to identify the extent and profile of excess moisture and diagnose the cause of moisture related problems.

The Surveymaster incorporates a digital display that is synchronized with a color coded LED scale. Whereas the digital display shows the actual moisture level of the material under investigation, the LED scale indicates the material's moisture condition as below:

Acceptable "air dry stated" readings are based on the average equilibrium moisture content for the NSW Sydney (coastal) regional area being between 10-15% as identified within table C1 of AS1684.4-2006.

The meter shows the following moisture ranges:-

- **Green** zone readings represent a safe, air dry state (7 – 16.9%)
- **Yellow** zone readings represent a borderline state (17 – 19.9%)
- **Red** zone readings represent a damp condition (20-99.9%)

The areas referred to in this report as having moisture related defects produced as Red zone reading representing a damp condition when measured with the *GE Protimeter Surveymaster* moisture measurement system.

**PROTIMETER**

**Surveymaster®**  
Protimeter Dual-Function Moisture Meter



Instruction Manual

**Amphenol**  
Advanced Sensors

IN55365 Rev. B  
May 2014