

## **A.1 TERMS AND CONDITIONS**

### **PRE- PURCHASE BUILDING & TIMBER PEST INSPECTION REPORTS**

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#### **PURPOSE OF INSPECTION**

The purpose of the inspection is to provide advice to the client (owner) or other interested party regarding the quality and condition of the build and structure of the property.

The report should not be seen as an all-encompassing report dealing with a building from every aspect. Rather it should be seen as a reasonable attempt to identify any major and minor defects, non-compliant work or unsatisfactory workmanship/quality of finish visible at the time of the inspection.

THIS IS A VISUAL INSPECTION ONLY limited to those areas and sections of the property fully accessible and visible to the inspector on the date of the inspection. The inspection DOES NOT include breaking apart, dismantling, removing or moving objects including but not limited to foliage, molding, roof insulation / sisalation, floor or wall coverings, sidings, ceilings, floors, furnishings, appliances or personal possessions. The inspector CANNOT see inside walls, between floors, inside skillion roofing, behind assorted goods in cupboards, other areas that are concealed or obstructed. The inspector CANNOT dig, gouge, force or perform any other invasive procedures. Visible timbers CANNOT be destructively probed or hit without written permission of the property owner.

#### **SCOPE**

Unless specified in writing, this Standard Building (Structural) & Timber Pest Inspection Report (the Report) deals only with the detection, or non-detection of Structural Damage, Conditions Conducive to Structural Damage and any Significant Defect in the general condition of Secondary Elements and Finishing Elements and with the detection, or non-detection of Timber Pest Attack and Conditions Conducive to Timber Pest Attack discernible at the time of inspection. All other reports are Special-Purpose Inspection Reports. Unless specified in writing, this Standard Property Inspection Report ("the Report") assumes that the structural design of building elements was entrusted to experienced structural engineers or similar appropriately qualified persons, and that the execution of such work was carried out under the direction of appropriately qualified persons who are experienced and understand the structural requirements.

As requested by the Client, the inspection assessment was based solely on the following inspection carried out by a Building Consultant ("the Consultant") of the Readily Accessible Areas of the property specified in this report:

Option 1 A visual examination of surface work (but excluding furniture and stored items), and the carrying out of Tests (see Limitation No 1 below).

Option 2 An inspection report, which may include Option 1 as well as the particular requirements of the Client, which are specified and attached to this document, where applicable.

NOTE. If the inspection was limited to assessing the interior of a particular unit or lot, the Client may have additional liability for defects or faults in the common property. This additional liability can only be addressed through the undertaking of a special-purpose inspection report which is adequately specified.

If the Client has any doubt about the Scope of this Report, please discuss your concerns with the Consultant on receipt of the Report. The Client acknowledges that, unless stated otherwise, the Client as a matter of urgency should implement any recommendation or advice given in this Report.

## LIMITATIONS

The Client acknowledges:

1. Visual only inspections are not recommended. A visual only inspection may be of limited use to the Client. In addition to a visual inspection, to thoroughly inspect the Readily Accessible Areas of the property requires the Consultant to carry out whenever necessary appropriate Tests i.e. moisture probing.
2. This Report does not include the inspection and assessment of items or matters outside the scope of the requested inspection and report. Other items or matters may be the subject of a Special-Purpose Inspection Report, which is adequately specified (see Exclusions below).
3. This Report does not include the inspection and assessment of items or matters that do not fall within the Consultants direct expertise.
4. The inspection only covered the Readily Accessible Areas of the property. The inspection did not include areas, which were inaccessible, not readily accessible or obstructed at the time of inspection. Obstructions are defined as any condition or physical limitation which inhibits or prevents inspection and may include – but are not limited to – roofing, fixed ceilings, wall linings, floor coverings, fixtures, fittings, furniture, clothes, stored articles/materials, thermal insulation, sarking, pipe/duct work, builder's debris, vegetation, pavements or earth.
5. Australian Standard AS-4349 Inspection of Buildings. Part 1: Property Inspections – Residential Buildings recognises that a standard property inspection report is not a warranty or an insurance policy against problems developing with the building in the future.
6. The detection of drywood termites may be extremely difficult due to the small size of the colonies. No warranty of absence of these termites is given.
7. The building consultant, shall not be liable to the Applicant for negligence or damages in respect to the inspection and/or report, or for any breach of a term of the Contract to carry out the inspection and prepare the report except to the extent of the cost of rectification of any major defect which should reasonably have been discovered upon inspection in compliance with these Conditions. The liability of any such building consultant in this regard shall not exceed a total sum of \$1,000 in respect of all such defects and must be communicated to the building consultant within 90 days from the inspection date.
8. European House Borer (*Hylotrupes bajulus*) attack is difficult to detect in the early stages of infestation as the galleries of boring larvae rarely break through the affected timber surface. No warranty of absence of these borers is given. Regular inspections including the carrying out of appropriate tests are required to help monitor susceptible timbers.
9. This is not a warranty as to the absence of Timber Pest Attack.
10. If the inspection was limited to any particular type(s) of timber pest (e.g. subterranean termites), then this would be the subject of a Special-Purpose Inspection Report, which is adequately specified.
11. This Report does not cover or deal with environmental risk assessment or biological risks not associated with Timber Pests (e.g. toxic mold) or occupational, health or safety issues. Such advice may be the subject of a Special-Purpose Inspection Report which is adequately specified and must be undertaken by an appropriately qualified inspector. The choice of such inspector is a matter for the Client.
12. This Report does not deal with any timber pest preventative or treatment measures, or provide costs for the control, rectification or prevention of attack by timber pests. However, this additional information or advice may be the subject of a timber pest management proposal which is adequately specified.

13. This Report was produced for the use of the Client. The Consultant is not liable for any reliance placed on this report by any third party.

**Should any of the Limitations and Conditions of Inspection, Report and Service not be acceptable to the Applicant, then such advice must be notified to Superstruct Building Surveyors in writing within 5 days of receipt of this report, otherwise the Applicant hereby agrees to and accepts all Limitations and Conditions herein.**

## EXCLUSIONS

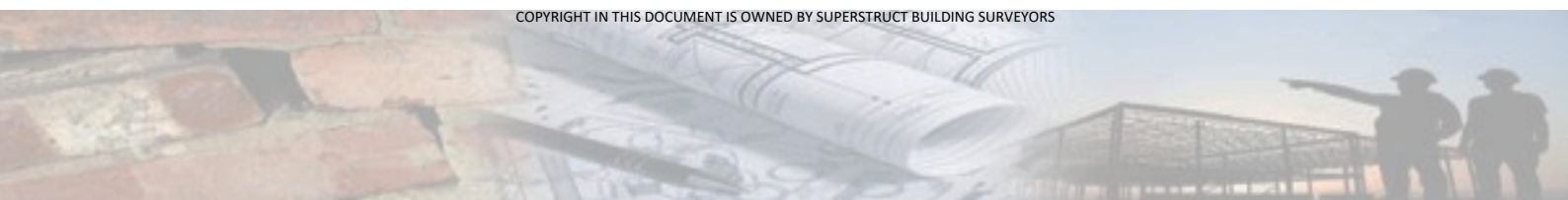
The Client acknowledges that unless specified, this Report does not cover or deal with:

- (i) any minor fault or defect, i.e. a matter, in view of the age, type and condition of the building being inspected, does not require substantial repairs or urgent attention and rectification;
- (ii) solving or providing costs for any rectification or repair work;
- (iii) the structural design or adequacy of any element of construction;
- (iv) the operation of fireplaces and chimneys;
- (v) any services including building, engineering (electronic), fire and smoke detection or mechanical;
- (vi) any swimming pools and associated pool equipment or spa baths and spa equipment or the like;
- (vii) any appliances such as dishwashers, incinerators, ovens, stoves, air-conditioning units and ducted vacuum systems;
- (viii) a review of occupational, health or safety issues such as asbestos content, or the provision of safety glass or swimming pool fencing;
- (ix) a review of environmental or health or biological risks such as toxic mold;
- (x) whether the building complies with the provisions of any Building Act, Code, Regulation(s) or By-Laws; and
- (xi) whether the ground on which the building rests has been filled, is liable to subside, swell or shrink, is subject to landslip or tidal inundation, or if it is flood prone.

Any of the above matters may be the subject of a special-purpose inspection report, which is adequately specified and undertaken by an appropriately qualified inspector.

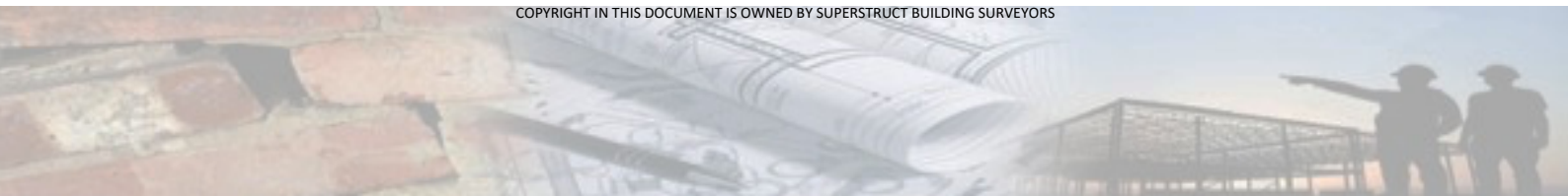
## DEFINITIONS

- **Primary Elements** means those parts of the building providing the basic loadbearing capacity to the Structure, such as foundations, footings, floor framing, loadbearing walls, beams or columns. The term Primary Elements also includes other structural building elements including those that provide a level of personal protection such as handrails; floor-to-floor access such as stairways; and the structural flooring of the building such as floorboards.
- **Secondary Elements** means those parts of the building not providing loadbearing capacity to the Structure, or those non-essential elements which, in the main, perform a completion role around openings in Primary Elements and the building in general such as non-loadbearing walls, partitions, wall linings, ceilings, chimneys, flashings, windows, glazing or doors.
- **Finishing Elements** means the fixtures, fittings and finishes applied or affixed to Primary Elements and Secondary Elements such as baths, water closets, vanity basins, kitchen cupboards, door furniture, window hardware, render, floor and wall tiles, trim or paint. The



term „Finishing Elements“ does not include furniture or soft floor coverings such as carpet and lino.

- **Structure** means the loadbearing part of the building, comprising the Primary Elements.
- **Structural Damage** means a significant impairment to the integrity of the whole or part of the Structure falling into one or more of the following categories:
  - (a) **Structural Cracking and/or Movement** – major (full depth) cracking forming in Primary Elements resulting from differential movement between or within the elements of construction, such as foundations, footings, floors, walls and roofs.
  - (b) **Deformation** – an abnormal change of shape of Primary Elements resulting from the application of load(s).
  - (c) **Dampness** – the presence of moisture within the building, which is causing consequential damage to Primary Elements.
  - (d) **Structural Timber Pest Damage** – structural failure, i.e. an obvious weak spot, deformation or even collapse of timber Primary Elements resulting from attack by one or more of the following wood destroying agents: chemical delignification; fungal decay; wood borers; and termites.
- **Conditions Conducive to Structural Damage** means noticeable building deficiencies or environmental factors that may contribute to the occurrence of Structural Damage. Significant Defect means a matter, in view of the age and type of the building being inspected, requires substantial repairs or urgent attention and rectification.
- **Client** means the person or persons, for whom the Inspection Report was carried out or their Principal (i.e. the person or persons for whom the report is being obtained).
- **Building Consultant** means a person, business or company who is qualified and experienced to undertake a Standard Property Inspection Report in accordance with Australian Standard AS 4349. “Inspection of Buildings. Part 1: Property Inspections – Residential Buildings”. The consultant must also meet any Government licensing requirement, where applicable.
- **Readily Accessible Areas** means areas which can be easily and safely inspected without injury to person or property, are up to 3.6 meters above ground or floor levels, in roof spaces where the minimum area of accessibility is not less than 600 mm high by 600 mm wide and subfloor spaces where the minimum area of accessibility is not less than 400 mm high by 600 mm wide, providing the spaces or areas permit entry. Or where these clearances are not available, areas within the consultants unobstructed line of sight and within arm’s length.
- **Timber Pest Attack** means Timber Pest Activity and/or Timber Pest Damage.
- **Timber Pest Activity** means telltale signs associated with active (live) and/or „inactive (absence of live) Timber Pests at the time of inspection.
- **Timber Pest Damage** means noticeable impairments to the integrity of timber and other susceptible materials resulting from attack by Timber Pests.
- **Conditions Conducive to Timber Pest Attack** means noticeable building deficiencies or environmental factors that may contribute to the presence of Timber Pests.
- **Timber Pests** means one or more of the following wood destroying agents which attack timber in service and affect its structural properties:
  - (a) **Chemical Delignification** - the breakdown of timber through chemical action.
  - (b) **Fungal Decay** - the microbiological degradation of timber caused by soft rot fungi and decay fungi, but does not include mold, which is a type of fungus that does not structurally damage wood.
  - (a) **Wood Borers** - wood destroying insects belonging to the order „Coleopteran which commonly attack seasoned timber.
  - (b) **Termites** - wood destroying insects belonging to the order „Isopteran which commonly attack seasoned timber.



- **Instrument Testing** means where appropriate the carrying out of Tests using the following techniques and instruments:

(a) **electronic moisture detecting meter** - an instrument used for assessing the moisture content of building elements;

(b) **stethoscope** - an instrument used to hear sounds made by termites within building elements;

(c) **probing** - a technique where timber and other materials/areas are penetrated with a sharp instrument (e.g. bradawl or pocketknife), but does not include probing of decorative timbers or finishes, or the drilling of timber and trees; and

(d) **sounding** - a technique where timber is tapped with a solid object.

- **Tests** means where appropriate the carrying out of tests using the following procedures and instruments:

(d) **Dampness Tests** means additional attention to the visual examination was given to those accessible areas which the consultants experience has shown to be particularly susceptible to damp problems. Instrument testing using an electronic moisture detecting meter of those areas and other visible accessible elements of construction showing evidence of dampness was performed.

(e) **Physical Tests** means the following physical actions undertaken by the consultant: opening and shutting of doors, windows and draws; operation of taps; water testing of shower recesses; and the tapping of tiles and wall plaster.

## ACCESSIBILITY

Unless specified in writing, the inspection only covered the Readily Accessible Areas of the property. The inspection did not include areas, which were inaccessible, not readily accessible or obstructed at the time of inspection. Areas, which are not normally accessible, were not inspected and include - but not limited to - the interior of a flat roof or beneath a suspended floor filled with earth.

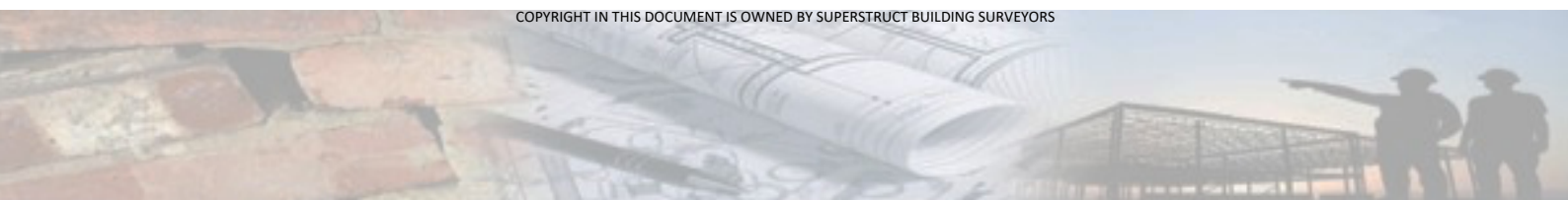
**Building Interior:** The consultant did not move or remove any ceilings, wall coverings, floor coverings (including carpeting and wooden floorboards), furnishing, equipment, appliances, pictures or other household goods. In an occupied property, furnishings or household items may be concealing evidence of defects, which may only be revealed when the items are moved or removed.

**NOTE.** In the case of strata and company title properties or other Class 2 buildings or equivalent, if the inspection was limited to assessing the interior of a particular unit or lot, the Client may have additional liability for defects in the common property. This additional liability can only be addressed through the undertaking of a special-purpose inspection report, which is adequately specified.

**Building Exterior, Roof Exterior and Site** The consultant did not move or remove any obstructions such as wall cladding, awnings, trellis, earth, plants, bushes, foliage, stored materials, debris or rubbish, etc. Such items may be concealing defects, which may only be revealed when the items are moved or removed.

**Roof Space Obstructions** such as roofing, stored articles, thermal insulation, sarking and pipe/duct work may be concealing evidence of defects, which may only be revealed when the obstructions are moved or removed. Also, bodily access should be provided to the interior of all accessible roof spaces. In accordance with Australian Standard As 4349 the minimum requirement is a 450 mm by 400 mm access manhole.

**Subfloor Space Storage** of materials in subfloor areas is not recommended as it reduces ventilation and makes inspection difficult. Obstructions may be concealing evidence of defects, which may only be revealed when the obstructions are moved or removed. Bodily



access should be provided to all accessible subfloor areas. In accordance with Australian Standard AS 4349 the minimum requirement is a 500 mm x 400 mm access manhole. In the case of suspended floors, if the clearance between the ground and structural components is less than 400 mm, then the ground should be excavated to provide the required clearance, subject to maintaining adequate drainage and support to footings. If the subfloor has been sprayed for subterranean termites or if the area is susceptible to mold growth, appropriate health precautions must be followed before entering the area. Also, special care should be taken not to disturb the treated soil. For further advice consult the person who carried out this report.

## IMPORTANT NOTE

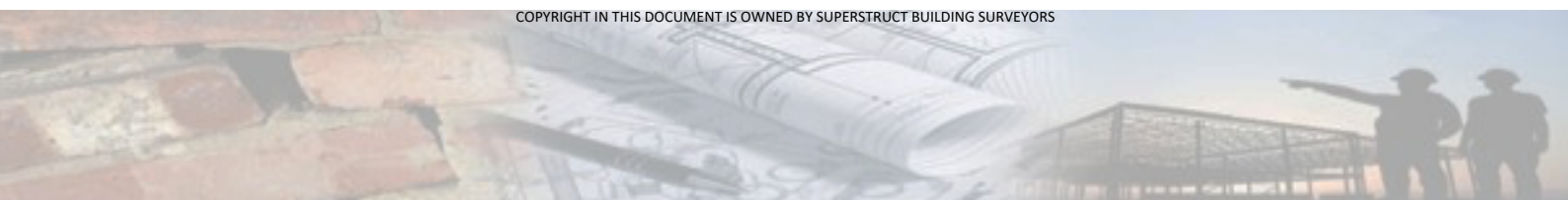
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Special attention should be given to the Scope, Limitations and Exclusions in this document. Unless stated otherwise in this Report, the Client as a matter of urgency should implement any recommendation or advice given in this Report. Importantly, Australian Standard AS-4349 Inspection of Buildings. Part 1: Residential Buildings recognises that a standard property report is not a warranty or an insurance policy against problems developing with the building in the future. Accordingly, a preventative maintenance program should be implemented for the property which includes systematic inspections, detection and prevention of incipient failure. Please contact the Consultant who carried out this inspection for further advice.

The presence of dampness is not always consistent as the prevailing and recent weather conditions at the time an inspection is carried out may affect the detection of damp problems. The absence of any dampness at the time of inspection does not necessarily mean the building will not experience some damp problems in other weather conditions. Likewise, whether or not services have been used for some time prior to an inspection being carried out will affect the detection of dampness. Also, where a shower recess has been water tested for a minimum of ten (10) minutes, and no leakage was evident, this does not necessarily mean that the shower will not leak after prolonged use. Accordingly, to fully detect and assess a damp problem, may require the monitoring of the building over a period of time. This inspection and report only deals with the detection, or non-detection of structural damage, conditions conducive to structural damage and any significant defect in the general condition of secondary elements and finishing elements discernible at the time of inspection.

Consideration should also be given to the inspection and assessment of:

- any “minor fault or defect” i.e. a matter in view of the age, type and condition of the building being inspected, does not require substantial repairs or urgent attention and rectification.
- solving or providing costs for any rectification or repair work.
- the structural design or adequacy of any element of construction.
- the operation of fireplaces and chimneys.
- any services including building, engineering (electronic), fire and smoke detection or mechanical.
- any swimming pools and associated pool equipment or spa baths and spa equipment or the like.
- any appliances such as dishwashers, incinerators, ovens, stoves and ducted vacuum systems.
- a review of occupational, health or safety issues such as asbestos content, or the provision of safety glass or swimming pool fencing.



- a review of environmental or health or biological risks such as toxic mold.

This additional information or advice may be the subject of a special-purpose inspection report, which is adequately specified and undertaken by an appropriately qualified inspector. In addition, this inspection and report does not include the inspection and assessment of items or areas that do not fall within the consultant's expertise. Accordingly, consideration should be given to other specialist inspections and services such as: hydraulics; geotechnics; or building, engineering (electronic), fire and smoke detection or mechanical services. As a matter of course, in the interests of safety, an inspection and assessment of the electrical and plumbing/gas installations should be carried out by a suitably qualified person. Where possible, the records of the appropriate local authority should be checked to determine or confirm:

- whether the ground on which the building rests has been filled, is liable to subside, is subject to landslip or tidal inundation, or if it is flood prone;
- the status of the property and services (e.g. compliance of the building with the provisions of any building Act, code, regulation or by-laws); and
- whether council has issued a building certificate or other notice for the dwelling.

Where appropriate, legal advice (e.g. from a solicitor) should be sought to explain title and ownership matters and to deal with matters concerning easements, covenants, restrictions, zoning certificates and all other law-related matters.

This inspection report was produced for the use of the client. The building consultant is not liable for any reliance placed on the report by any third party.

## **TERMITES**

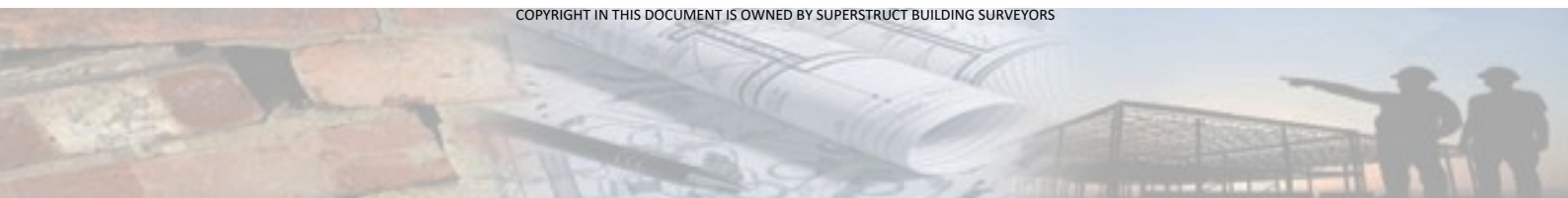
General Description of Attack: Timber hollowed beneath: some cracking at the surface of timber, earthen channels present or pale fecal spots present.

**IMPORTANT NOTE:** As a delay may exist between the time of an attack and the appearance of telltale signs associated with the attack, it is possible that termite activity and damage exists though not discernible at the time of inspection.

Treatment after discovery of an active infestation: It is imperative that the species of termite is accurately identified before costly (and sometimes unnecessary or inappropriate) methods of treatment are initiated. Only economically important species which are known to attack timber structures should be treated. In the case of economically important species, it is important that the termite workings are not further disturbed until the proposed method of control has been determined by a licensed pest control operator. Premature attempts to repair or replace infested timber may cause the termites to withdraw from the area temporarily, thereby hindering effective treatment. Any repair or replacement of infested timber should be carried out after the appropriate treatment has been completed.

Where evidence of active termites is detected within a building or within 50 metres of any building, it must always be assumed that the termites may also be active in areas of the property not inspected. Accordingly, where the termites are known to be of economic significance, a further (more invasive) inspection is strongly recommended of areas which were inaccessible, not readily accessible or obstructed at the time of inspection.

Termite Workings and Damage: Where evidence of damage to building timbers exists, competent advice (e.g. from a licensed or registered building contractor) should be obtained to determine the extent of any structural damage and as to the need or otherwise for rectification or repair work. Where evidence of inactive termites is located within the building,



it is possible that termites are still active in areas of the property not inspected and they may continue to cause damage. A furthermore invasive inspection is strongly recommended of areas which were inaccessible, not readily accessible or obstructed at the time of inspection. Where evidence of an inactive termite infestation exists, it is not possible, without benefit of further investigation and inspections over a period of time, to ascertain whether any infestation is active or inactive. Continued, regular, inspections are essential.

Where evidence of termite attack exists to any trees or tree stumps a more conclusive search should be undertaken. This may require the tree or stump to be drilled to determine the existence of a termite nest. In addition, the soundness and stability of any standing trees identified as being affected by termite attack should be confirmed. Always seek further advice from the Consultant.

**Previous Treatments:** Where evidence of a possible termite treatment was located, the Client should obtain and keep on file all relevant documents pertaining to the extent of the treatment, any service warranties and advice in regard to the building owner's obligation to maintain the treatment and/or barrier. If evidence of a previous treatment of termite infestation is noted, and appropriate documentation is not available, the Client must assume that the termite infestation may still be active in areas of the property not inspected. Accordingly, a re-treatment may be required. Always seek further advice from the Consultant.

**Frequency of Future Inspections:** Australian Standard AS-3660 recognises that regular inspections will not prevent termite attack but may help in the detection of termite activity. Early detection will allow remedial treatment to be commenced sooner and damage to be minimised. Inspections at intervals not exceeding twelve (12) months are recommended. Where the termite risk is high or the building type susceptible to termite attack, more frequent inspections (3-6 months) should be undertaken.

### **CHEMICAL DELIGNIFICATION**

**General Description of Attack:** Surface of timber appears very hairy; and wood and 'hairs' separate. Chemical Delignification of wood in service is only rarely encountered and then only in certain areas. Chemical Delignification is not uncommon in timber roof tile battens, however the process takes many years to develop (>50 years sometimes less). Small dimensional timber members such as roof tiling battens are considered to be a non-structural and non-primary building component and are therefore a non-structural element (roof battens are part of the roof cover). However, in large dimensional timber members such as rafters, bearers and joists, delignification takes many years to affect the strength of timber to the point of collapse (>100-150 years sometimes less). Where evidence of Delignification exists, competent advice from a registered building service provider should be sought to determine the extent of any structural and non-structural damage, and as to the need repair work.

### **FUNGAL DECAY**

**General Description of Attack:** Decaying wood contains sufficient moisture to retain its original shape and may have sufficient strength to withstand normal loads. In contrast decayed wood is reduced both in moisture content and size as indicated by cracking either along or across the grain or fibers coming apart in a stringy manner. Decayed wood will have undergone considerable strength reduction.

**Economic Significance:** Fungal decay can cause at one extreme, structural failure of the affected timber, and at the other purely superficial surface damage. The most critical determination is that of which timber is affected and decaying, because decay will most likely spread (unless sources of moisture are quickly removed). Affected and decayed timber may warrant timber replacement, but the rot should not spread unless a new moisture source becomes available in that area.

Where evidence of decayed timber exists, competent advice (e.g. from a licensed or registered building contractor) should be sought to determine the extent of any structural damage, and as to the need or otherwise for rectification or repair work. It is important to correct any condition conducive to attack prior to replacing decayed wood.



Where evidence of decaying timber exists, competent advice (e.g. from a licensed or registered building contractor) should be sought to remove the condition(s) conducive to attack, and to determine the extent of any structural damage, and as to the need or otherwise for rectification or repair work. Where the full extent of damage or the overall condition of the timber is undetermined a further inspection is strongly recommended by a competent person (e.g. from a licensed or registered building contractor). This may require monitoring of the timber over a period of time and include the assessment of conditions conducive to attack in different weather conditions (e.g. to determine the adequacy of existing drainage).

Management Program: Remove any conditions conducive to attack (e.g. lack of ventilation or the presence of excessive moisture). Regular inspections are recommended at intervals not exceeding 12 months. Always seek further advice from the Consultant.

## A.7 WOOD BORERS

General Description of Attack As the attack proceeds, borer larvae eat through the wood leaving a dust called "frass". Ejection of the frass occurs through the adult beetle's flight (exit) holes, and it is usually present beneath any timber that has been attacked. The presence of frass however, does not indicate whether the attack is active or not. Borer larvae cannot be sighted unless the susceptible timber is broken open.

**IMPORTANT NOTE:** As a delay may exist between the time of an attack and the appearance of telltale signs associated with the attack, it is possible that borer activity and damage exists though not discernible at the time of inspection.

Economic Significance Evidence of borer activity is rarely cause for alarm, but rather for careful consideration of three main points, namely the identification of the particular borer responsible, whether the infestation is still active, and the extent of the damage. Full consideration should be given to each of these items before any action is taken.

The following wood borers cause damage most frequently encountered by building owners. The Lyctid Borer The most common lyctid borer in Australia is *Lyctus brunneus* (powder post beetle). Attack usually takes place during the first six to twelve months of the service life of timber. However, the powder post beetle is not considered a significant pest of timber and treatment of infestation is not usually required. As only the sapwood of certain hardwoods is destroyed, larger-dimensional timbers (such as rafters, bearers and joists) in a building are seldom weakened significantly to cause collapse. In small-dimensional timbers (such as tiling and ceiling battens) the sapwood may be extensive, and its destruction may cause collapse. This may require the support or replacement of the affected battens. Competent advice (e.g. from a licenses or registered building contractor) should be sought to determine the extent of any structural damage, and as to the need or otherwise for rectification or repair work. Page 26 of 27

The Anobiid Borer There are many different species of Anobiid borer, the most frequently encountered being *Anobium punctatum* (furniture beetle) and *Calymmaderus incisus* (Queensland pine beetle). Attack mainly occurs to softwoods especially pine timbers such as floorboards that have been in service for at least ten years. Should any structural timbers be attacked by Anobiid borers it is often difficult to determine what extent the borer damage has weakened such timbers and replacement is often the only way of ensuring safety from collapse. In the case of Anobiid borers, once an attack is initiated it is unlikely to cease or die out of its own accord without some sort of eradication treatment. Therefore, unless proof of treatment is provided, evidence of an attack must always be considered active. Although a chemical treatment is an option, replacement of infested timbers with non-susceptible, or treated timber, is the most effective method of treatment. Before any option is considered, competent advice (e.g. from a licensed building contractor) should be sought to determine the extent of any structural damage, and as to the need or otherwise for rectification or repair

work. Other Borers A further (more invasive) investigation is strongly recommended to determine whether infestation is still active and to positively identify the borer species responsible for the attack. Always seek further advice from the Consultant.

Management Program: Wherever practical, remove any conditions conducive to attack (e.g. Anobium borer thrive in badly ventilated subfloor areas). Regular inspections are recommended at intervals not exceeding 12 months. Always seek further advice from the Consultant.

### **CONDITIONS CONDUCTIVE TO TIMBER PEST ATTACK**

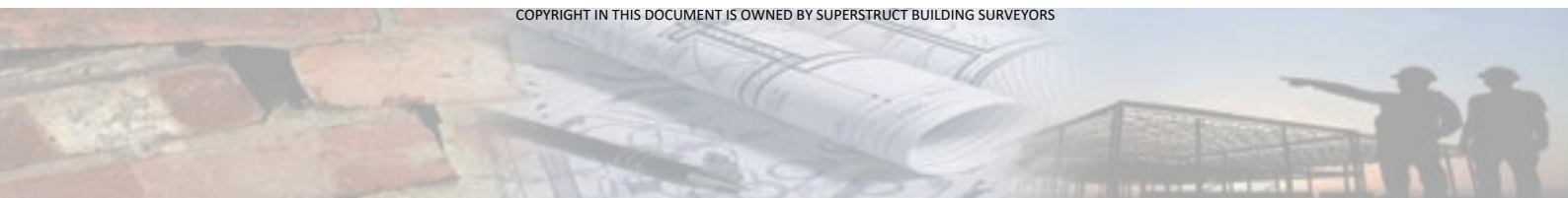
**Lack of Adequate Subfloor Ventilation** Inadequate ventilation provides a condition suitable for timber pest infestation. For example, subterranean termites thrive in damp humid conditions typical of those provided in a poorly ventilated subfloor space. Where evidence of a lack of adequate ventilation has been identified in the report, the Client should seek competent advice (e.g. from a licensed or registered building contractor) in regard to upgrading ventilation.

**The Presence of Excessive Moisture** Ground levels around the building should be maintained in such a way to minimise water entering under the building. Also, the ground surface in subfloor areas should be kept graded to ensure that moisture does not pond or accumulate in any area. Where necessary, sub-surface drains should be installed and maintained to assist with drainage around and under the building. Likewise, the presence of excessive moisture can often be directly related to ventilation limitations and the resultant high humidity. Also, plumbing oversights and defects such as a leaking drain or tap will provide a microclimate conducive to timber pest attack. Where necessary, the Client should seek competent advice (e.g. from a licensed or registered plumbing contractor) to determine the adequacy of existing drainage and remove any conditions conducive to the presence of excessive moisture.

The building may need to be monitored over a period of time to detect or confirm a damp problem. The presence of dampness (including moisture) is not always consistent as the prevailing and recent weather conditions at the time an inspection is carried out may affect the detection of damp problems. Importantly, precipitation at or near the time of inspection does not necessarily guarantee that a damp problem will automatically be evident due to such circumstances as prevailing wind conditions or intensity of rainfall. The absence of any dampness at the time of inspection does not necessarily mean the building will not experience some damp problems in other weather conditions. Likewise, whether or not services have been used for some time prior to an inspection being carried out will affect the detection of dampness.

**Bridging or Breaching of Termite Barriers and Inspection Zones** Physical and/or chemical barrier systems are installed to impede concealed subterranean termite entry into buildings. However, termites may easily enter the building if the barrier is bridged or breached. With a concrete slab building it is essential that the edge of the slab be permanently exposed. An inspection zone of at least 75 mm should be maintained so that termites are forced into the open where they can be detected more readily during regular inspections. In the case of physical sheet material barriers, a minimum inspection zone of 75 mm should be maintained from the sheet material to the finished ground. Importantly, the edge of the slab or sheet material should not be rendered, tiled, clad or concealed by flashings, adjoining structures, paving, soil, turf or landscaping.

Where perimeter termite barriers have been installed, the building owner should ensure that the integrity of the barrier remains intact and that the inspection of possible termite entry points is not impaired. This is especially important where an exposed slab edge is used as an inspection zone around the building (if the edge of the slab or any weep holes at the base of



external walls are concealed by pavements, gardens, lawns or landscaping then it is possible for termites to gain undetected entry).

Also, bridging often occurs when items such as attachments to buildings allow termites to gain access to the building over or around a termite barrier. Where attachments to buildings such as steps are not provided with a termite barrier or cannot be easily inspected, they should be separated by a clear gap of at least 25 mm from the main structure. Where it is not possible to separate attachments from the main building, regular inspections of these areas should be undertaken. In addition, termite barriers are often breached by the installation of services. Any disturbance of the barrier should be promptly repaired.

Where evidence of bridging or breaching exists, to minimise risk of infestation seek further advice from the Consultant.

**Untreated or Non-Durable Timber Used in a Hazardous Environment** To reduce the risk of timber pest attack, it is essential that timber used in a hazardous environment (e.g. in direct contact with the ground or damp masonry) is of sufficient durability and/or is adequately preservative treated. Where evidence of this condition exists, the Client should seek competent advice (e.g. from a licensed or registered building contractor) in regard to the need or otherwise for rectification or repair work.

**Other Conditions Conducive to Timber Pest Attack** If the cause or solution to a problem is not obvious, the Client should seek competent advice (e.g. from a licensed or registered building contractor) in regard to removing any conducive condition.

### **RISK MANAGEMENT OPTIONS**

To help protect against financial loss, it is essential that the building owner immediately control or rectify any evidence of destructive timber pest activity or damage identified in this inspection report. The Client should further investigate any high-risk area where access was not gained. It is strongly advised that appropriate steps be taken to remove, rectify or monitor any evidence of conditions conducive to timber pest attack.

To help minimise the risk of any future loss, the Client should consider whether the following options to further protect their investment against timber pest infestation are appropriate for their circumstances:

Undertake thorough regular inspections at intervals not exceeding twelve months or more frequent inspections where the risk of timber pest attack is high, or the building type is susceptible to attack. To further reduce the risk of subterranean termite attack, implement a management program in accordance with Australian Standard AS-3660. This may include the installation of a monitoring and/or baiting system, or chemical and/or physical barrier. However, AS-3660 stresses that subterranean termites can bridge or breach barrier systems and inspection zones and thorough regular inspections of the building are necessary.

If the Client has any queries or concerns regarding this Report, or the Client requires further information on a risk management program, please do not hesitate to contact the person who carried out this report. [info@superstructwa.com.au](mailto:info@superstructwa.com.au)