

GUIDELINES FOR INSPECTING CLASS 1 TO CLASS 10 BUILDINGS OR STRUCTURES

PURPOSE

Along with significant amendments to the *Building Act 1993* the regulations have now been amended to require prescribed inspection stages to be carried out for class 1(a)(i), 1(a)(ii) & 2 buildings, associated class 10 buildings and retaining walls that provide support to the class 1 or 2 building.

Prescribed inspection stages have been introduced along with the registration of building contractors and home warranty insurance as a package to provide the general community additional protection and uniformity by providing minimum standards that need to be met in the construction of residential building work.

The purpose of this guideline is to assist building certifiers and building contractors in meeting their respective responsibilities for inspection stages under the legislation. This guideline sets out the various aspects of building work that make up a particular inspection stage.

The guideline is to assist building certifiers when inspecting building work to meet their statutory obligations and to ensure compliance with the structural adequacy, safety, health and amenity requirements for each stage of building work.

WHAT ARE THE LEGISLATIVE REQUIREMENTS?

The relevant *Building Act* requirements relating to inspections are as follows:

Section 59(1D) Requires that the building certifier must specify in the building permit granted for building work prescribed for building contractors (Part 4A) and owner-builders (Part 4B) the inspection stages required under the regulations.

The prescribed inspection stages required to be nominated in the building permit are listed under regulation 15A of the Regulations.

The prescribed inspection stages for Classes 1, 2 & 10 are listed below

- **The Pre-Pour Stage**—before pouring the footings, ground floor slab or other in situ concrete building element; Components of this stage include— approved plans on site, boundary clearances, floor level check, termite treatment, etc (see the guideline checklist for a comprehensive but not an exhaustive list of aspects for the slab stage of work).
- **The frame stage**—before covering the framework for floor, walls, roof or other building element; Components of this stage include—sub-floor framing; lower wall framing fire separation etc. (see the guideline checklist for a comprehensive but not limited, list of the aspects for the frame stage of work).
- **Masonry wall stage** - before pouring any reinforced masonry or block walls; Components of this stage include - wall thickness, reinforcement size and spacing and cover in accordance with the approved plans. (see the guideline checklist for a comprehensive but not limited, list of the aspects for the frame stage of work).
- **Fire separation stage** - before covering any walls, floors or ceilings for the purpose of checking that fire resistant levels comply with the Building Code; Components of this stage include - checking of penetrations in fire rated walls, floor and ceilings and that firewalls extend to the underside of the ceiling or roof sheeting. (see the guideline check list for a comprehensive, but not limited, list of the aspects for the fire separation stage)
- **Waterproofing of wet areas stage** - before covering waterproofing in wet areas; Components of this stage include – flashing installation, sealing around taps and fittings, falls etc. (see the guideline checklist for

- a comprehensive, but not limited, list of the aspects for the waterproofing stage of work).
- **The final stage**—after completion of the building work but before issuing an occupancy permit in relation to the work; aspects of this stage include—evidence of suitability; site preparation; fire safety; energy efficiency, etc. (see the guideline checklist for a comprehensive, but not limited, list of the aspects for the final stage of work).

Note 1: *The building certifier may require inspection stages additional to the prescribed inspection stages listed above. Any additional inspection will need to be nominated on the building permit.*

Note 2: *Drainage works are still required to be inspected prior to covering up the works.*

Section 62 (1) Requires the person carrying out, or in charge of, the building work to notify the building certifier who granted the permit when the building work is ready for an inspection.

Section 62 (3) Requires that the person carrying out, or in charge of, the building work **not** carry out any further building work under the building permit that is dependant on the **inspection** until the work already done has been inspected and the building certifier has advised the person that the building work may proceed. **Penalty \$1000**

Section 63 (1) Requires that the building certifier may, at any reasonable time, on being notified that an inspection stage has been completed, inspect the building work concerned.

Section 63 (4) Requires that a building certifier may do anything that is reasonably necessary to be done, to inspect building work, including demolishing, opening, cutting into and testing the building work.

Section 62 (5) Requires that after inspecting the building work and being satisfied that the building work has in all material respects, been carried out in accordance with the Regulations the building certifier must issue an inspection certificate to the person who carried out or is in charge of carrying out the building work.

Section 64(1) Requires that the building certifier after inspecting building work may direct the person carrying out the work or in charge of the carrying out of the work to carry out work so that the building work complies with the relevant building permit, the Act or the Regulations, as the case requires.

The inspection process is summarised below.

1. Call for an inspection

The person responsible for carrying out the building work must notify the building certifier that the building work is completed and ready for inspection and **must not** carry out any further building work dependant on that inspection, until the building work has been inspected by the building certifier and approval given to proceed.

Inspection request

There is no formal format for requesting an inspection.

The format for the request should be agreed between the person responsible for carrying out the building work and the building certifier. In practical terms the notice may be a phone call, email or fax. As part of adopting good business practices, it is anticipated the person responsible for carrying out the building work will keep a record of their requests to the building certifier for inspections.

2. Inspection of building work.

Upon receipt of advice from the person responsible for carrying out the building work that an inspection stage of building work is completed, the building certifier shall arrange for the inspection to be carried out on the building work. The inspection is to be at a time agreed between the person responsible for carrying out the building work and the building certifier.

The building certifier is responsible for the inspection of the building work at each inspection stage specified on the building permit no matter how he/she causes it to be carried out.

The building certifier may accept a section 40 certificate from a registered building practitioner for the relevant component/s of the building work at each inspection stage. The certifier needs to be satisfied that the building practitioner signing the section 40 certificate is appropriately qualified to sign off on the component/s of building work required of the inspection. (eg a structural engineer is not signing off plumbing work or BCA requirements unless he/she is qualified and registered to do so).

Each stage of building work comprises various components. The inspection of building work must be of the components for each particular stage of the work. The components for each stage of building work are listed in the guideline checklist.

The owner of the premises and the person responsible for carrying out the building work must, at all reasonable times during business hours, allow the building certifier or a building practitioner to enter the premises to inspect the building work.

3. Inspection Certificate

After causing the inspection to be carried out and the building certifier is satisfied that the building work described has, in all material respects, been carried out in accordance with the Regulations and the approved drawings, the building certifier must issue an inspection certificate.

The building certifier must provide a copy of the inspection certificate to the building contractor or the person who carried out the building work.

The inspection certificate must be in the approved form.

4. Final Inspection

Final stage inspection—a building certifier must not issue a final inspection certificate unless he or she is satisfied that the building work has been inspected at the required stages as listed on the building permit and is satisfied that, associated with these required inspections:

- a) the building work is completed;
- b) any directions given under the Act have been complied with; and
- c) the building work complies in all material aspects with the regulations.

The final inspection is a particularly important stage in the approval process. Together with the inspection certificates issued at the various stages of the building project, it is a certification that the project has been completed in accordance with the Act, the Regulations and the relevant building permit, thereby allowing the grant of an occupancy permit. It is therefore recommended that the building certifier carry out the final inspection.

5. Inspected work does not comply

Where the inspected building work does not comply, the certifier may give the person carrying out the work or in charge of carrying out the work a written direction stating how the inspected work does not comply. The initial direction may be given orally but then must be followed up in writing.

Where a person **other than** the building certifier decides that the stage of building work inspected does not comply, that person may give the person carrying out the work or in charge of carrying out the building work and the building certifier a copy of the written direction stating how the inspected work does not comply.

The person carrying out the work or in charge of carrying out the building work must carry out the work in accordance with the direction and then arrange for inspection for the rectified building work before proceeding with the building work.

Upon re-inspection, if the building certifier is satisfied that the building work described has, in all material respects been carried out in accordance with the regulations and the approved drawings, the building certifier must issue an inspection certificate.

Building Notice

Where the person carrying out the building work or in charge of carrying out the work **fails** to carry out the work required in the direction or continues with the building work before being re-inspected, the building certifier may, under Part 10 of the Building Act, cause a building notice to be served on the person in charge of carrying out the building work.

Where a person **other** than the building certifier becomes aware that the person carrying out the work or in charge of carrying out the building work has **failed** to carry out the work required in the direction or continues with the building work before being re-inspected, that person must notify the building certifier. The building certifier may then issue a building notice and serve it on the person in charge of carrying out the building work.

The building certifier must forward a copy of the building notice to the director to be placed on the building permit file.

GUIDELINE FOR INSPECTIONS

INSPECTION STAGES
1. PRE POUR STAGE
1.1 Boundary clearances as per approved plans
1.2 Site drainage
1.3 Water removed from trenches (if applicable)
1.4 Cut and fill batters to required slope
1.5 Dry loose material removed, size, stepped foundation, material consistent with approval. (geotechnical report)
1.6 Fill material compacted (if necessary)
1.7 Piers through fill to natural ground or engineers requirements
1.8 Depth & width of footing or slab beams
1.9 Reinforcement (Type, size, placement) as per the approved design
1.10 Reinforcement (Laps, cover, penetrations) as per the approved design
1.11 Verification that Starter bars or connections are on site
1.12 Termite management has been installed
1.13 Moisture barrier (Laps, taped, penetrations)
1.14 Plumbing and Sanitary drainage is in place
1.15 Floor level check (height above ground, flooding)
2. REINFORCED MASONRY/BLOCK COREFILLED WALLS STAGE
2.1 Reinforcement location, size, spacing and cover, cores clear
2.2 Tie down connections – cast in connection on site
2.3 Width and depth of block/brick as per design plans
2.4 Clean out (holes or blocks)
2.5 Damp proof course installation
3. FRAME STAGE INSPECTION
Aspects
3.1 Sub-floor framing
3.1.1 Sub-floor clearance adequate
3.1.2 Member size and spacing
3.1.3 Bracing
3.1.4 Fixing
3.1.5 Ventilation
3.2 Wall framing details and design
3.2.1 Member size and spacing
3.2.2 Bracing
3.2.3 Fixing
3.3 Flooring
3.3.1 Member size and spacing
3.4 Is timber termite resistant (if applicable)
3.5 Roof Framing
3.5.1 Member size and spacing
3.5.2 Bracing
3.5.3 Fixing
3.5.4 Truss design details
3.5.5 Girder trusses adequately supported
3.5.6 Point loads adequately supported
3.5.7 Truss clearances over internal walls
3.5.8 Battens adequately fixed to rafters
3.6 Durability of Timber (if applicable)

3.7 Cold formed steel wall framing as per design specification
3.8 Sound transmission construction (if applicable)

4. FIRE SEPARATION STAGE
4.1 Fire separation between SOU's (to underside of roof or ceiling)
4.2 Fire separation (from fire source feature)
4.3 Fire protection to openings and penetrations in walls, floors & shafts etc
4.4 Fire protection of openings (external walls)

5. WET AREA INSPECTION STAGE
5.1 1.8m high wall corner proofing to shower
5.2 Floor, wall joints and penetrations sealed
5.3 Extent of cover
5.4 Shower tray installed (if applicable)
5.5 Adequate fall to waste
5.6 Angle water stop to shower screen and entry door
5.7 Flashings
5.8 Bath area
5.9 Laundry / WC

6. FINAL STAGE INSPECTION
6.1 Outstanding aspects from previous inspection stages finalised
6.2 EVIDENCE OF SUITABILITY
6.2.1 Registered Surveyor Plans (if applicable)
6.2.2 Inspection certificates
6.2.3 Concrete slab test report/s (if applicable)
6.2.4 Termite protection certificate
6.2.5 Wet area seal certificate
6.2.6 Glazing certificate & certification
6.2.7 Prefabricated frames and/or trusses & certification
6.2.8 Structural Engineering section 40 certificate
6.2.9 Smoke alarms certificate (fire safety)
6.2.10 Energy efficiency certificate (if verification method or performance solution used)
6.2.11 Plumbing compliance certificate
6.2.12 Electrical compliance certificate
6.2.13 Gas Compliance certificate
6.2.14 Any other certification (eg stair / balustrade certificate)
6.3 SITE PREPARATION
6.3.1 Site surface drainage
6.3.2 Floor height above finished ground level
6.3.3 Adjoining properties protected from Stormwater runoff
6.3.4 Batters stabilised
6.3.5 Inter allotment drainage
6.3.6 Retaining walls
6.4 WEATHERPROOFING OF MASONRY
6.4.1 Weatherproof coating and/or protection applied to single leaf masonry.
6.5 FIRE SAFETY
6.5.1 Fire protection around fuel burning appliances
6.5.2 Fire separation distance correct (set out etc)
6.5.3 Fire isolated (non isolated) stairway
6.5.4 Essential fire safety measures in place and operational Class 2 (refer certificates)
6.5.5 Exit signs & emergency lighting
6.5.6 Smoke Alarm & detection systems

6. FINAL STAGE INSPECTION
6.5.7 Hose reels, Hydrants,
6.5.8 Protection of openings
6.5.9 Occupant warning system
6.5.10 Fire / solid core doors including tags
6.5.11 Extinguishers
6.5.12 Smoke alarms installed in correct location and operational Class 1 (refer certificate)
6.5.13 Other
6.6 HEALTH AND AMENITY
6.6.1 Disable persons Facilities (if applicable)
6.6.2 Natural ventilation
6.6.3 Mechanical ventilation
6.6.4 Toilet door open out or removable
6.6.5 Ceiling heights
6.6.6 Sound transmission and insulation (if applicable)
6.7 DRAINAGE
6.7.1 Surface water drainage
6.7.1 (a) Slab-on-ground – finished ground level adjacent to building
6.7.1 (b) Slab-on-ground – finished slab heights
6.7.1 (c) Suspended floors – area beneath building above adjacent external finished ground level
6.7.2 Subsoil drainage
6.7.3 Stormwater drainage (multiple class 1 & class 2 - 9 buildings)
6.8 DAMP AND WEATHERPROOFING
6.8.1 Wall flashing and flashing around openings
6.8.2 Zero-lot-line maintenance free system
6.8.3 Damp proof course installation
6.8.4 Timber protected
6.9 TERMITE RISK MANAGEMENT
6.9.1 Termite notice (if applicable)
6.9.2 Termite management system installed
6.9.3 Sub-floor termite shields
6.9.4 Other
6.10 SAFE MOVEMENT & ACCESS
6.10.1 Stair construction (riser & going)
6.10.2 Handrail & balustrade (heights and spacing & fixing)
6.10.3 Disabled persons access (if applicable)
6.10.4 Provision for escape (if applicable)
6.10.5 Construction of exit (if applicable)
6.11 ENERGY EFFICIENCY REQUIREMENTS
6.11.1 Insulation complies with BCA requirements
6.11.2 Ventilation including breeze paths
6.11.3 Glazing area
6.11.4 Shading
6.11.5 Roof lights
6.11.6 Roof vents fixed DTCM
6.12 RELEVANT AUTHORITY APPROVAL
6.12.1 Planning re conditions of consent
6.12.2 Power & Water
6.12.3 Fire service (where applicable)
6.12.4 Dept Transport & Works
6.12.5 Local Municipality/Town council

CLASS 10 BUILDING – FINAL STAGE INSPECTION
Outstanding aspects from previous inspections finalized
1. EVIDENCE OF SUITABILITY
1.1 Registered Surveyor Plans (if applicable)
1.2 Termite protection certificate (if applicable)
1.3 Structural Engineering certificate
1.4 Footing inspection report/s
1.5 Concrete slab report/s
1.6 Steel frame
1.7 Plumbing certificate (if applicable)
2. SITE PREPARATION
2.1 Platform appears to be self-draining
2.2 Batters stabilised
2.3 Set out in accordance with approved plans
2.4 Other systems. (describe)
2.5 Timber protected (durability if timber species requires)
3. SAFE MOVEMENT & ACCESS
3.1 Stair construction
3.2 Ceiling heights
3.3 Disabled access (if applicable)
4. FIRE SAFETY
4.1 Fire separation (correct distance etc)
5. STORMWATER DISCHARGE
5.1 Away from adjoining neighbour
6. STRUCTURAL ELEMENTS
6.1 Complies with approved plan/s
6.2 Roof Frame & fixings
6.3 Wall frame – bracing & fixings