Government of **Western Australia**
Department of **Commerce**

Building Commission

COMPLIANCE REPORT:
A summary of technical building inspections 2015-16

August 2016

BUILDING COMMISSION COMPLIANCE REPORT

2015/16 REPORT

A summary of technical building inspections

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Front cover: Building Commission image of a ceiling collapse inspected during this investigation.

Contents

1. Introduction

As part of its compliance strategy for registered building contractors, the Building Commission has developed an audit program with the specific objectives of:

- monitoring whether building work is performed in accordance with a class of registration;
- monitoring whether a registered building contractor complies with its registration obligations;
- monitoring compliance with the applicable building standards;
- monitoring compliance with the plans and specifications specified in the applicable certificate of design compliance;
- providing advice and assistance to registered building contractors and practitioners;
- taking action to address non-compliant building work, including referring non-compliant work to the relevant permit authority;
- making recommendations to improve compliance; and
- referring serious non-compliance for enforcement action.

The audit program consists of Building Administrative Compliance Audits and Building Technical Compliance Audits (also referred to as building inspections). In addition, random general inspections of buildings may also occur. The Building Commission has invested in new app-based software which allows building inspectors to record inspection information while on site, including any building elements which are deemed satisfactory or unsatisfactory in relation to the applicable building standards and building plans and specifications.

This current approach differs from the historical focus of the Building Commission in conducting building inspections, which was largely driven by consumer complaints. While inspections relating to consumer complaints still occur, the more proactive approach taken by the Building Commission will enable it to provide more in-depth information to registered building contractors as well as developing intelligence on areas of building work that may require greater focus when developing future risk-based audit programs.

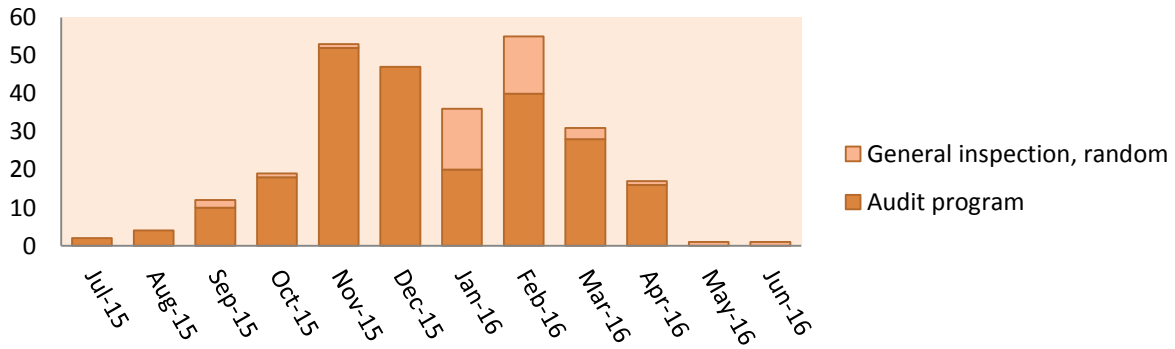
There are 163 separate elements of building work that a building inspector may assess during an inspection, extending from excavation work through to the installation of fixtures, with more elements to be added in the future. In practice, inspectors will only assess a subset of these elements depending on the stage of building work completed and whether any completed work has since become concealed due to later works.

2. Overview

In 2015/16, 278 building inspections were undertaken as part of the building audit compliance program. Of these, 237 were building technical compliance audits and 41 were random general inspections.

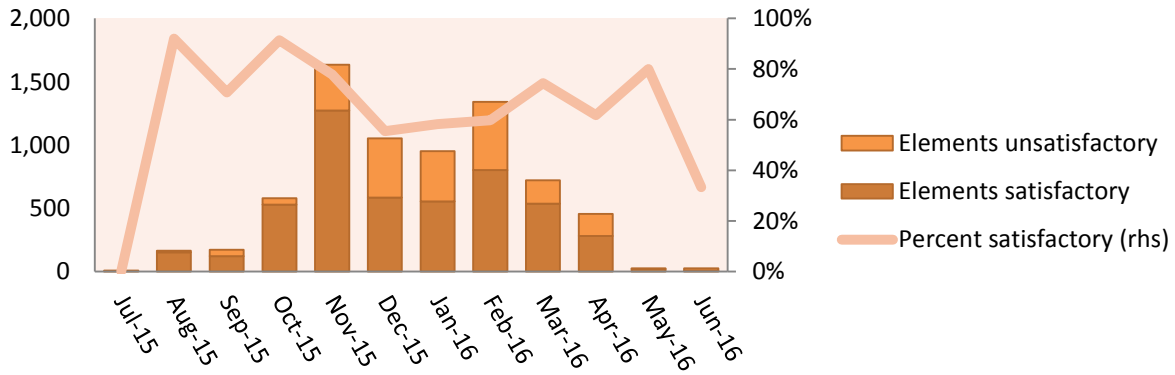
The number of building inspections conducted was below the target of 400 for the year due to building inspectors focussing on inspections relating to building complaints between March and June 2016. This was a temporary distraction and building inspectors should now be able to focus on proactive compliance activities in 2016/17.

Building technical inspections 2015/16



During these audits, 7,125 separate building elements have been inspected, with 4,858 elements found to be satisfactory and 2,267 found to be unsatisfactory – an overall satisfactory level of 68 per cent. Unsatisfactory building elements are where the building work does not comply with the applicable building standard. Compliance with the applicable standard is based on the approved plans where these have been provided. Where approved plans have not been provided, compliance is based on the most relevant Australian Standard. The approved plans have been reviewed as part of all building technical compliance audits since December 2015.

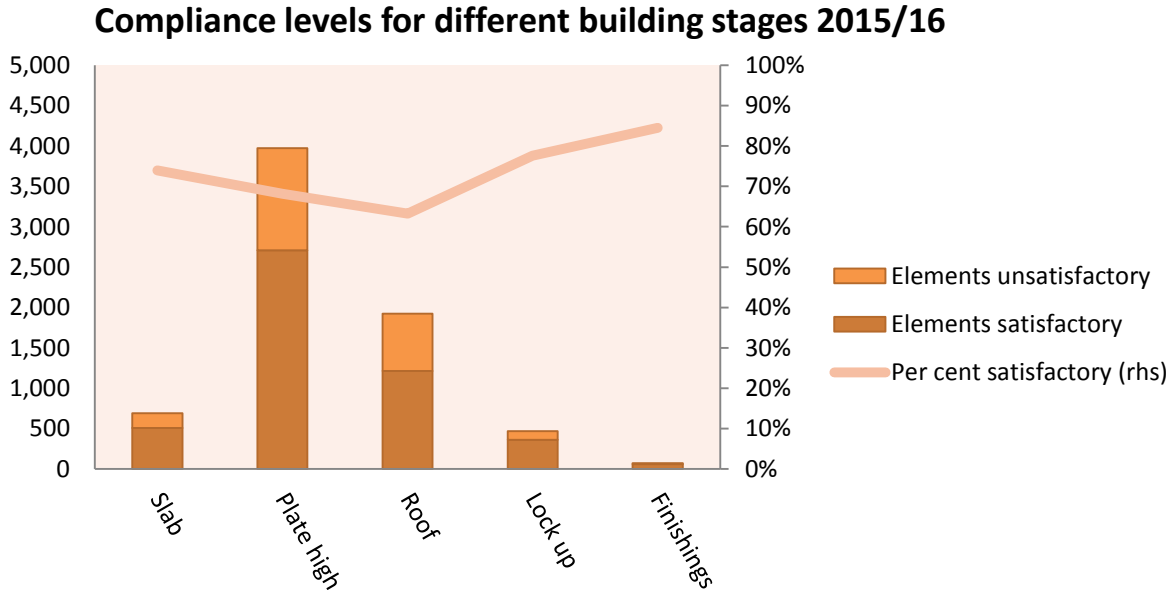
Compliance with building standards/approved plans 2015/16



3. Stages of building work

As per the final column at **Attachment A: Elements of Building Work**, building elements have been grouped into the relevant stage at which they are performed in order to provide an indication of the level of compliance during different stages of building work. This stage is determined by the stage of building work at which this element would normally be completed (e.g. work on termite barriers is recorded in the stage to slab completion regardless of what stage of work the building is up to when it is inspected.

For 2015/16, the stage of work with the highest satisfactory level was in finishing work (85%), while the lowest satisfactory level was for building work between plate high construction and roof completion (63%). Over 55 per cent of all building elements inspected were in the stage that takes the build from slab completion to plate high, indicating both the high number of building elements in this building stage and that many elements relating to this stage of work can be inspected throughout construction. This differs to building elements relating to slab and roof construction given that many of those elements may be concealed at the time the inspection takes place.



4. Types of building work

Trends in compliance relating to the type of building work may also be useful in providing insight into the focus of future audit programs. As can be seen in **Table 1**, the 184 building elements are grouped into 24 separate types of building work.

The building work types with a high satisfactory level (over 85%) in 2015/16 included ventilation (100% from 2 elements inspected), steel framing (93% from 41 elements), painting (89% from 19 elements), internal render/plaster (88% from 128 elements) and fire separation (86% from 70 elements). The painting elements recorded only

relate to the building technical compliance audit program and do not include those conducted by the Building Commission's Painting Inspector, who mainly focusses on specific building service complaints and requests for inspection.

The building work types with a low satisfactory level (under 65%) in 2015/16 include termite treatment (31% from 95 elements), wet areas and external waterproofing (43% from 30 elements), drainage work (43% from seven elements), timber roof framing (62% from 1,367 elements) and roof tie-downs (63% from 651 elements).

Table 1: Types of building work

Building work type	Satisfactory	Unsatisfactory	% Satisfactory
Excavation work	78	17	82%
Drainage work	3	4	43%
Termite treatment	29	66	31%
Slab	465	117	80%
Brickwork	1827	858	68%
Roof tie-down	412	239	63%
Structural steel	210	110	66%
Timber roof framing	844	523	62%
Timber wall framing	98	20	83%
Steel framing	38	3	93%
Roof cladding	370	184	67%
Glazing	17	8	68%
Fire separation	60	10	86%
Bushfire area requirements	0	0	N/A
Wet areas and external waterproofing	13	17	43%
Wall and floor finishes	18	11	62%
Ventilation	2	0	100%
Safe movement and access	10	5	67%
Energy efficiency	32	15	68%
Internal render/plaster	112	16	88%
External render/plaster	58	13	82%
Ceilings	102	20	84%
Painting	17	2	89%
Fixtures	43	9	83%

While it is acknowledged that the level of non-compliance is not the only, or even the major determinant of risk in assessing whether a particular type of building work may provide greater risks to the building structure or the health and amenity of occupants, the level of non-compliance may be a factor in the creation of a more risk-based audit program in the future.

5. Elements of building work

Individual elements of building work may also feed into the Building Commission's risk assessment in determining future audit programs. **Attachment A** provides the percentage deemed satisfactory for each building element from all building technical compliance audits conducted during 2015/16. Of the building elements that have been included in at least 50 inspections, there are nine with less than a 50 per cent satisfactory rate. Five of these elements relate to brickwork, including weep holes, clean cavity, flashings above openings, flashings other than those above or below openings and spacing of wire ties.

Table 2: Elements of building work – compliance

Building work type	Satisfactory	Unsatisfactory	% Satisfactory
Brickwork BCA 3.3 - Workmanship (Optional) Weep Holes:	70	151	32%
Brickwork BCA 3.3 - Technical (Optional) Cavity: Clean	32	62	34%
Brickwork BCA 3.3 - Technical (Optional) Flashings: Other	19	34	36%
Brickwork BCA 3.3 - Technical (Optional) Flashings: Above openings	35	61	36%
Timber Roof Framing - BCA 3.4 (Optional) Struts	64	107	37%
Brickwork BCA 3.3 - Technical (Optional) Wire Ties: Spacing	22	34	39%
Timber Roof Framing - BCA 3.4 (Optional) Tie down of timber roof beams	37	54	41%
Structural Steel BCA 3.4.4 (Optional) Steel Member: Tie-downs	48	50	49%
Roof tie-down (Optional) Tie Down Straps: Attachment & appropriate fixings	60	62	49%

6. Additional analysis – roof inspections

During 2014, the Building Commission conducted an audit program on 123 sheet metal-clad and timber frame roofs in the Perth metropolitan and South Western coastal regions. The final report, 'A general inspection into metal roof construction in Western Australia' (the 'Roof Report') was published in April 2016.

The general inspection looked at 12 critical points in timber-framed roof construction and assessed these against the deemed-to-satisfy requirements of the National Construction Code (NCC). Only 33 per cent of the points inspected satisfactorily met these requirements. Builders were provided with an opportunity to respond to any inspections on their sites, including the capability to provide evidence that the roof met performance requirements. Where evidence was provided, the results of the inspection were amended.

From 30 November 2016, the Building Commission began requesting the approved plans for all buildings prior to conducting an inspection, with inspection officers determining whether the building satisfactorily met the deemed-to-satisfy requirements of the NCC while allowing for any performance solutions incorporated in the approved plans. This allows a point of comparison between the findings in the roof report and those performed with the assistance of building plans since 30 November 2015. Please note that the 'Other compliance' field in the roof report has no direct correlation with the Inspections App data. In addition, the elements of tie down strap dimensions, tie down strap placement and tie down strap attachment and fixings have been combined from the Inspections App to correlate with how it was determined if tie down straps were correctly installed for the Roof Report.

Overall satisfactory level was 43 per cent compared to the 33 per cent recorded in the Roof Report. There was a higher satisfactory percentage reported for all elements inspected except collar ties and the tie down of timber roof beams. Part of the change in the satisfactory level may be related to the increased use of building plans and specifications, although it is also likely that there has been some improvement in practices resulting from the Roof Report.

A comparison of metal-clad and tiled roof construction has also been undertaken to determine if the type of roof construction has any influence on the level of compliance. It is acknowledged that in conducting this comparison there are often different tie down requirements between metal clad and tiled roofs, with an engineer's performance solution often resulting in lesser tie down requirements for tiled roofs.

Between December 2015 and June 2016 there were 143 inspections of metal clad roof buildings, which included 738 elements inspected relevant to the Roof Report.

There were an additional 33 inspections of tiled roof buildings in this period, including 156 elements inspected relevant to the Roof Report.

The overall satisfactory level was 50 per cent in metal-clad roof buildings and 63 per cent in tiled roof buildings. (Note: the satisfactory level is higher than in the table above comparing the results with the roof report as the tie down strap elements

of dimensions, placement and attachment and appropriate fixings have been disaggregated).

There were a number of elements in which there was a large variation in satisfactory levels across the two roof types (e.g. compliance with tie down requirements for timber roof beams was 29 per cent for metal roofs and 50 per cent for tiled roofs).

Table 3: Comparison of metal–clad roof inspections (Roof Report and Inspections App)

	Roof Report		Inspections App (01/12/2015 to 30/06/2016)	
	Elements inspected	% Satisfactory	Elements inspected	% Satisfactory
Tie down straps: Corrosion protection	73	11%	91	42%
Tie down straps: dimensions, placement and attachment and appropriate fixings*	105	21%	138	41%
Timber roof battens 1200 mm edge zone for sheet roofs	64	63%	27	67%
Timber roof batten general area sheet roofs	62	31%	26	58%
Metal roof batten	54	15%	33	21%
Rafter correctly tied down	104	41%	73	45%
Connections remainder of roof	101	30%	71	48%
Collar ties	90	49%	55	47%
Timber truss correctly tied down	9	11%	6	50%
Tie down of timber roof beams	83	35%	63	29%
Steel member: Tie downs	71	27%	54	41%
Other compliance	120	38%	No direct comparison in Inspections App	
Total	**936**	**33%**	**637**	**43%**

* The combination of the tie down strap elements of dimensions, placement and attachment and appropriate fixings has been used as these elements were inspected together in determining if the tie down was correctly installed as part of inspections for the roof report.

Table 4: Comparison of roof construction compliance by roof type (01/12/2015 to 30/06/2016)				
	Metal clad roof		Tiled roof	
	Elements inspected	% Satisfactory	Elements inspected	% Satisfactory
Tie down straps: Corrosion protection	91	42%	16	56%
Tie down straps: dimensions	99	76%	21	81%
Tie down straps: placement	86	58%	23	74%
Tie down straps: attachment and appropriate fixings	54	50%	13	54%
Timber roof battens 1200 mm edge zone for sheet roofs	27	67%	0	N/A
Timber roof batten general area sheet roofs	26	58%	0	N/A
Metal roof batten	33	21%	0	N/A
Rafter correctly tied down	73	45%	20	55%
Connections remainder of roof	71	48%	18	72%
Collar ties	55	47%	18	56%
Timber truss correctly tied down	6	50%	3	33%
Tie down of timber roof beams	63	29%	14	50%
Steel member: Tie downs	54	41%	10	70%
Total	**738**	**50%**	**156**	**63%**

7. Notes

This inaugural Building Technical Compliance Audit report provides an initial snapshot of compliance with applicable building standards and building plans and specifications. As the dataset is increased over time, trends in compliance with building standards will become apparent and enable the Building Commission to proactively address issues before they become systemic (e.g. where common building practices drift away from the building standards or building plans and specifications).

8. Disclaimer

As part of our quality assurance procedure, the Building Commission has held regular calibration training to aid consistency in inspections.

The Building Commission is currently verifying consistency in reporting between inspectors through analysis of the inspection data. Following this comparative evaluation, calibration training will be targeted to improve consistency as required.

Attachment A

Elements of building work (compliance) – 2015/16

	Satisfactory	Unsatisfactory	Percent Satisfactory	Building Stage
Excavation work (Optional) Excavation: Unprotected Embankment	20	4	83.33%	1
Excavation work (Optional) Excavation: Other	25	3	89.29%	1
Excavation work (Optional) Retaining adequate: Other	33	10	76.74%	1
Excavation work	**78**	**17**	**82.11%**	**N/A**
Drainage work (Optional) Drainage Systems: Water diverted away	2	0	100.00%	1
Drainage work (Optional) Drainage Systems: Other	1	4	20.00%	1
Drainage work	**3**	**4**	**42.86%**	**N/A**
Termite Treatment (Optional) Termite System: Durable Notice	2	1	66.67%	1
Termite Treatment (Optional) Termite System: Other	13	33	28.26%	1
Termite Treatment (Optional) Physical barrier placement	14	32	30.43%	1
Termite Treatment	**29**	**66**	**30.53%**	**N/A**
Slab BCA 3.2 - Finished Work (Optional) Footing excavation/ embedment/ foundation material	5	0	100.00%	1
Slab BCA 3.2 - Finished Work (Optional) Footings	3	9	25.00%	1
Slab BCA 3.2 - Finished Work (Optional) Cracking (acceptable): Other	214	15	93.45%	1
Slab BCA 3.2 - Finished Work (Optional) Parging: Other	18	7	72.00%	1
Slab BCA 3.2 - Finished Work (Optional) Alignment: Other	141	49	74.21%	1
Slab BCA 3.2 - Finished Work (Optional) Concrete Paving: Isolation & Control Joints	2	9	18.18%	1
Slab BCA 3.2 - Prep-Work (Optional) Clean fill: Other	9	1	90.00%	1
Slab BCA 3.2 - Prep-Work (Optional) DPM: Placement - (Note: Slab entirely underlaid)	1	1	50.00%	1
Slab BCA 3.2 - Prep-Work (Optional) DPM: Penetrations	6	1	85.71%	1
Slab BCA 3.2 - Prep-Work (Optional) DPM: Other	1	0	100.00%	1
Slab BCA 3.2 - Prep-Work (Optional) Reinforcement: Bar Chairs - Refer Notes if Required	0	0	N/A	1
Slab BCA 3.2 - Prep-Work (Optional) Reinforcement: Re-entrant	0	0	N/A	1
Slab BCA 3.2 - Prep-Work (Optional) Reinforcement: Cover	0	0	N/A	1
Slab BCA 3.2 - Prep-Work (Optional) Reinforcement: Steel lap	0	0	N/A	1
Slab BCA 3.2 - Prep-Work (Optional) Reinforcement: Other	0	1	0.00%	1
Slab BCA 3.2 - Second storey (Optional) Propping: Other - (Suspended slab temporary)	22	7	75.86%	2
Slab BCA 3.2 - Second storey (Optional) Steel Framing: Other - (Floor trusses)	7	4	63.64%	2
Slab BCA 3.2 - Second storey (Optional) Set Out: Other - (All Concrete)	22	8	73.33%	2
Slab BCA 3.2 - Second storey (Optional) Slip Joints: Other	14	5	73.68%	2
Slab	**465**	**117**	**79.90%**	**N/A**

	Satisfactory	Unsatisfactory	Percent Satisfactory	Building Stage
Brickwork BCA 3.3 - Workmanship (Optional) Built In Frames: Alignment	205	15	93.18%	2
Brickwork BCA 3.3 - Workmanship (Optional) Built In Frames: Attachments	146	26	84.88%	2
Brickwork BCA 3.3 - Workmanship (Optional) Built In Frames: Other	65	12	84.42%	2
Brickwork BCA 3.3 - Workmanship (Optional) Weep Holes:	70	151	31.67%	2
Brickwork BCA 3.3 - Workmanship (Optional) Lintel: Coating & thickness	126	32	79.75%	2
Brickwork BCA 3.3 - Workmanship (Optional) Lintel: Other	49	37	56.98%	2
Brickwork BCA 3.3 - Workmanship (Optional) Workmanship: Utility	115	61	65.34%	2
Brickwork BCA 3.3 - Workmanship (Optional) Workmanship: Coarse/ openings	179	21	89.50%	2
Brickwork BCA 3.3 - Workmanship (Optional) Workmanship: Perpends & Joints	130	80	61.90%	2
Brickwork BCA 3.3 - Workmanship (Optional) Workmanship: Bonding	140	54	72.16%	2
Brickwork BCA 3.3 - Workmanship (Optional) Workmanship: Face	121	49	71.18%	2
Brickwork BCA 3.3 - Workmanship (Optional) Workmanship: Other	52	34	60.47%	2
Brickwork BCA 3.3 - Technical (Optional) Structure	52	26	66.67%	2
Brickwork BCA 3.3 - Technical (Optional) Cavity: Cavity Size	109	9	92.37%	2
Brickwork BCA 3.3 - Technical (Optional) Cavity: Clean	32	62	34.04%	2
Brickwork BCA 3.3 - Technical (Optional) Cavity: Other	14	4	77.78%	2
Brickwork BCA 3.3 - Technical (Optional) Insulation:	30	8	78.95%	2
Brickwork BCA 3.3 - Technical (Optional) DPC: Liquid	3	0	100.00%	2
Brickwork BCA 3.3 - Technical (Optional) DPC: Physical	6	2	75.00%	2
Brickwork BCA 3.3 - Technical (Optional) DPC: Other	5	1	83.33%	2
Brickwork BCA 3.3 - Technical (Optional) Flashings: Above openings	35	61	36.46%	2
Brickwork BCA 3.3 - Technical (Optional) Flashings: Below openings	2	38	5.00%	2
Brickwork BCA 3.3 - Technical (Optional) Flashings: Other	19	34	35.85%	2
Brickwork BCA 3.3 - Technical (Optional) Wire Ties: Spacing	22	34	39.29%	2
Brickwork BCA 3.3 - Technical (Optional) Wire Ties: Coating	96	4	96.00%	2
Brickwork BCA 3.3 - Technical (Optional) Wire Ties: Other	4	3	57.14%	2
Brickwork	**1827**	**858**	**68.04%**	**N/A**

Building Element	Satisfactory	Unsatisfactory	Percent Satisfactory	Building Stage
Roof tie-down (Optional) Tie Down Straps: Dimensions	149	38	79.68%	2
Roof tie-down (Optional) Tie Down Straps: Corrosion protection type & mass	95	71	57.23%	2
Roof tie-down (Optional) Tie Down Straps: Placement	108	68	61.36%	2
Roof tie-down (Optional) Tie Down Straps: Attachment & appropriate fixings	60	62	49.18%	2
Roof tie-down	**412**	**239**	**63.29%**	**N/A**
Structural Steel BCA 3.4.4 (Optional) Steel Member: Column, roof beams, champher, fixings	65	26	71.43%	2
Structural Steel BCA 3.4.4 (Optional) Steel Member: Corrosion protection	71	28	71.72%	2
Structural Steel BCA 3.4.4 (Optional) Steel Member: Tie-downs	48	50	48.98%	2
Structural Steel BCA 3.4.4 (Optional) Steel Member: Other	26	6	81.25%	2
Structural Steel	**210**	**110**	65.63%	**N/A**
Timber Roof Framing - BCA 3.4 (Optional) Rafter correctly tied down	67	52	56.30%	3
Timber Roof Framing - BCA 3.4 (Optional) Rafter other	52	14	78.79%	3
Timber Roof Framing - BCA 3.4 (Optional) Timber roof battens in 1200 mm edge zone for sheet roofs	35	15	70.00%	3
Timber Roof Framing - BCA 3.4 (Optional) Timber roof batten general area sheet roofs	24	11	68.57%	3
Timber Roof Framing - BCA 3.4 (Optional) Metal roof batten	15	27	35.71%	3
Timber Roof Framing - BCA 3.4 (Optional) Connections: remainder of roof	94	56	62.67%	3
Timber Roof Framing - BCA 3.4 (Optional) Struts	64	107	37.43%	3
Timber Roof Framing - BCA 3.4 (Optional) Underpurlins	108	49	68.79%	3
Timber Roof Framing - BCA 3.4 (Optional) Collar Ties	73	56	56.59%	3
Timber Roof Framing - BCA 3.4 (Optional) Ridge: Rafter to rafter at ridge connection sheeted roof (AS1684 Table 9.24A & 9.24B)	118	25	82.52%	3
Timber Roof Framing - BCA 3.4 (Optional) Timber truss correctly tied down	4	5	44.44%	3
Timber Roof Framing - BCA 3.4 (Optional) Tie down of timber roof beams	37	54	40.66%	3
Timber Roof Framing - BCA 3.4 (Optional) Timber roof beams other	30	19	61.22%	3
Timber Roof Framing - BCA 3.4 (Optional) Ceiling Joists	102	11	90.27%	3
Timber Roof Framing - BCA 3.4 (Optional) Other compliance	21	22	48.84%	3
Timber Roof Framing	**844**	**523**	**61.74%**	**N/A**

Building Element	Satisfactory	Unsatisfactory	Percent Satisfactory	Building Stage
Timber Wall Framing - BCA 3.4 (Optional) Roof: Other	12	0	100.00%	2
Timber Wall Framing - BCA 3.4 (Optional) Walls: Bracing	12	4	75.00%	2
Timber Wall Framing - BCA 3.4 (Optional) Walls: Insulation - (within and to frames)	9	0	100.00%	2
Timber Wall Framing - BCA 3.4 (Optional) Walls: Bottom plate connection to concrete slab.	8	5	61.54%	2
Timber Wall Framing - BCA 3.4 (Optional) Walls: Other	13	5	72.22%	2
Timber Wall Framing - BCA 3.4 (Optional) Connections: remainder of roof	7	5	58.33%	2
Timber Wall Framing - BCA 3.4 (Optional) Floor: Posts/columns	10	1	90.91%	2
Timber Wall Framing - BCA 3.4 (Optional) Floor: Joists	9	0	100.00%	2
Timber Wall Framing - BCA 3.4 (Optional) Floor: Connections	10	0	100.00%	2
Timber Wall Framing - BCA 3.4 (Optional) Floor: Other	8	0	100.00%	2
Timber Wall Framing	**98**	**20**	**83.05%**	**N/A**
Steel Framing BCA 3.4 & 3.5 (Optional) Roof: Connections	5	1	83.33%	2
Steel Framing BCA 3.4 & 3.5 (Optional) Roof: Tie down - (within and to frames)	5	2	71.43%	2
Steel Framing BCA 3.4 & 3.5 (Optional) Roof: Corrosion	2	0	100.00%	2
Steel Framing BCA 3.4 & 3.5 (Optional) Roof: Framing dimensions	5	0	100.00%	2
Steel Framing BCA 3.4 & 3.5 (Optional) Roof: Other	4	0	100.00%	2
Steel Framing BCA 3.4 & 3.5 (Optional) Walls: Framing dimensions bracing	7	0	100.00%	2
Steel Framing BCA 3.4 & 3.5 (Optional) Walls: Insulation/ thermal break	5	0	100.00%	2
Steel Framing BCA 3.4 & 3.5 (Optional) Walls: Other	4	0	100.00%	2
Steel Framing BCA 3.4 & 3.5 (Optional) Floor: Other	1	0	100.00%	2
Steel Framing	**38**	**3**	**92.68%**	**N/A**
Roof Cladding BCA 3.5 (Optional) Tiles: Other - (installation, fixings-centres, corrosion protection)	21	4	84.00%	3
Roof Cladding BCA 3.5 (Optional) Roof Sheeting: Fixing, including ridges & hips	74	7	91.36%	3
Roof Cladding BCA 3.5 (Optional) Roof Sheeting: Penetrations (Flues)	39	18	68.42%	3
Roof Cladding BCA 3.5 (Optional) Gutters: Other	75	66	53.19%	3
Roof Cladding BCA 3.5 (Optional) Downpipes: Spacing & Size	84	36	70.00%	3
Roof Cladding BCA 3.5 (Optional) Downpipes: Location	77	53	59.23%	3
Roof Cladding	**370**	**184**	**66.79%**	**N/A**

Building Element	Satisfactory	Unsatisfactory	Percent Satisfactory	Building Stage
Wet Areas & External Waterproofing BCA 3.8 (Optional) Waterproofing: Waterproofed areas - (nb wet areas includes balconies)	1	3	25.00%	4
Wet Areas & External Waterproofing BCA 3.8 (Optional) Waterproofing: Floor wall junctions	1	4	20.00%	4
Wet Areas & External Waterproofing BCA 3.8 (Optional) Waterproofing: Penetrations in shower	5	2	71.43%	4
Wet Areas & External Waterproofing BCA 3.8 (Optional) Waterproofing: Bath to wall	0	3	0.00%	4
Wet Areas & External Waterproofing BCA 3.8 (Optional) Waterproofing: Floor wastes	4	1	80.00%	4
Wet Areas & External Waterproofing BCA 3.8 (Optional) Waterproofing: Other	2	4	33.33%	4
Wet Areas & External Waterproofing	**13**	**17**	43.33%	**N/A**
Wall & Floor Finishes (Optional) Wall & Floor Tiling: Workmanship	8	2	80.00%	4
Wall & Floor Finishes (Optional) Wall & Floor Tiling: Other	5	2	71.43%	4
Wall & Floor Finishes (Optional) Floor Tiling: Correct falls to wastes	5	7	41.67%	4
Wall & Floor Finishes	**18**	**11**	**62.07%**	**N/A**
Ventilation (Optional) Ventilation: Exhaust Fan - (nb ducted to outside air)	1	0	100.00%	4
Ventilation (Optional) Ventilation: Other	1	0	100.00%	3
Ventilation	**2**	**0**	**100.00%**	**N/A**
Safe Movement & Access BCA 3.9 (Optional) Stairs: Riser & going dimensions	6	0	100.00%	4
Safe Movement & Access BCA 3.9 (Optional) Balustrades: Structure, handrails	2	1	66.67%	4
Safe Movement & Access BCA 3.9 (Optional) Balustrades: Height and spacings	0	1	0.00%	4
Safe Movement & Access BCA 3.9 (Optional) Balustrades: Other	2	3	40.00%	4
Safe Movement & Access BCA 3.9 (Optional) Swimming Pool: Barrier - (nb access, pre 2005?)	0	0	N/A	4
Safe Movement & Access BCA 3.9 (Optional) Swimming Pool: Climbable gate and latch	0	0	N/A	4
Safe Movement & Access BCA 3.9 (Optional) Swimming Pool: Other	0	0	N/A	4
Safe Movement & Access	**10**	**5**	**66.67%**	**N/A**

Building Element	Satisfactory	Unsatisfactory	Percent Satisfactory	Building Stage
Energy Efficiency BCA 3.12 (Optional) Insulation: Roof foil installed correctly	7	0	100.00%	4
Energy Efficiency BCA 3.12 (Optional) Insulation: Ceiling insulation	13	1	92.86%	4
Energy Efficiency BCA 3.12 (Optional) Insulation: Wall insulation	8	13	38.10%	4
Energy Efficiency BCA 3.12 (Optional) Insulation: Other	2	0	100.00%	4
Energy Efficiency BCA 3.12 (Optional) Building Sealing: Building a conditioned space?	1	1	50.00%	4
Energy Efficiency BCA 3.12 (Optional) Building Sealing: Other	1	0	100.00%	4
Energy Efficiency	**32**	**15**	**68.09%**	**N/A**
Internal Render/Plaster (Optional) Internal Float: Render	26	5	83.87%	4
Internal Render/Plaster (Optional) Internal Float, Set: Hardness/Curing/Workmanship	23	5	82.14%	4
Internal Render/Plaster (Optional) Internal Float, Set: Other	14	1	93.33%	4
Internal Render/Plaster (Optional) Linings: Fixings	17	1	94.44%	4
Internal Render/Plaster (Optional) Linings: Workmanship	17	3	85.00%	4
Internal Render/Plaster (Optional) Linings: Other	15	1	93.75%	4
Internal Render/Plaster	**112**	**16**	**87.50%**	**N/A**
External Render/Plaster (Optional) External Render: Ground level finish	16	4	80.00%	4
External Render/Plaster (Optional) External Render: Other	13	7	65.00%	4
External Render/Plaster (Optional) External Acrylic: Ground level finish	6	1	85.71%	4
External Render/Plaster (Optional) External Acrylic: Workmanship	15	0	100.00%	4
External Render/Plaster (Optional) External Acrylic: Other	8	1	88.89%	4
External Render/Plaster	**58**	**13**	**81.69%**	**N/A**
Ceilings (Optional) Linings: Fixings	20	3	86.96%	4
Ceilings (Optional) Linings: Back Blocking	17	4	80.95%	4
Ceilings (Optional) Linings: Workmanship	27	3	90.00%	4
Ceilings (Optional) Linings: Other	15	5	75.00%	4
Ceilings (Optional) Cornices: Other	23	5	82.14%	4
Ceilings	**102**	**20**	**83.61%**	**N/A**
Painting (Optional) Internal Walls:	2	0	100.00%	5
Painting (Optional) Ceilings:	3	0	100.00%	5
Painting (Optional) Doors â€“ Top and Bottom edges:	0	1	0.00%	5
Painting (Optional) Door Frames:	2	0	100.00%	5
Painting (Optional) Window Frames:	1	0	100.00%	5
Painting (Optional) Skirting:	1	0	100.00%	5
Painting (Optional) Architraves:	1	0	100.00%	5
Painting (Optional) External Walls:	1	0	100.00%	5
Painting (Optional) Eaves:	2	1	66.67%	5
Painting (Optional) Fascia:	2	0	100.00%	5
Painting (Optional) Gutters & Downpipes:	2	0	100.00%	5
Painting	**17**	**2**	**89.47%**	**N/A**

Building Element	Satisfactory	Unsatisfactory	Percent Satisfactory	Building Stage
Fixtures (Optional) Cupboards: Penetration sealing	2	3	40.00%	5
Fixtures (Optional) Cupboards: Support & joists, heat source proximity	2	0	100.00%	5
Fixtures (Optional) Cupboards: Workmanship	3	0	100.00%	5
Fixtures (Optional) Cupboards: Benchtop sealing	2	0	100.00%	5
Fixtures (Optional) Cupboards: Other	2	0	100.00%	5
Fixtures (Optional) Fixing Carpentry: Other	1	1	50.00%	5
Fixtures (Optional) Internal Doors: Sanitary compartment - (nb including lift off hinges)	24	0	100.00%	5
Fixtures (Optional) Internal Doors: Door to frame gaps/alignment	3	2	60.00%	5
Fixtures (Optional) Internal Doors: Furniture	2	0	100.00%	5
Fixtures (Optional) Internal Doors: Other	2	3	40.00%	5
Fixtures	**43**	**9**	**82.69%**	**N/A**
Total	**4858**	**2267**	**68.18%**	**N/A**