Guideline

March 2018

Welcome to this update on technical and informative advice for the building and construction industry on issues relating to building controls and good construction practices.

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Gas hob clearances and splashbacks

Avoiding issues

There has been a change in the reference standard for sourcing information on clearances around and suitable materials for splashbacks installed adjacent to gas hobs. The new reference document is AS/NZS 5601.1:2013 *Gas installations – Part 1: General installations*.

For splashback requirements, use Table C1 on page 148. For the most common splashback materials, the requirements are:

- ceramic tiles – 5 mm minimum thickness over a minimum thickness of 10 mm gypsum plasterboard or 6 mm fibre-cement
- toughened safety glass – 5 mm minimum thickness over a minimum thickness of 10 mm gypsum plasterboard or 6 mm fibre-cement
- sheet metal – 0.4 mm minimum thickness over a minimum thickness of 12 mm gypsum plasterboard or 6 mm fibre-cement. (12 mm plasterboard is not an available thickness in New Zealand so use 13 mm.)

Clearances around a domestic gas cooking appliance (stove or cooktop) are given in section 6.10 and Figure 6.3. Key clearances include:

- no less than 600 mm to the underside of a range hood (750 mm for an exhaust fan)
- splashback heights – not less than 150 mm above the periphery of the nearest burner
- side or back clearances to the splashback – if less than 200 mm, the surface shall be protected in accordance with clause 6.10.1.2, which is summarised above.

For full details, always refer to the standard.

Relocating and/or relocatable buildings

Ship, shape and shifted

Buildings that are designed to be transported should be designed for the wind, earthquake and corrosion zone at the location they will ultimately be placed in. If this is not known, it is considered prudent for the them to be designed for the worst case. For structural design, this would encompass wall and roof framing connections, bracing, roof fixings and so on.

For an existing building being relocated, the building consent authority (BCA) needs to be given sufficient evidence that the building will be structurally sound and durable when placed in its new location. Where the conditions on the new site are less severe than the original site, this shouldn't be an issue. Where the location is more severe (a higher wind zone or more exposed site), it is likely the BCA will require engineering evidence to demonstrate an adequate level of structural performance.

Generic bracing ratings for construction common in older buildings can be obtained in the 2014 *Build* article Bracing ratings.

Coating smooth surfaces
Sticking and staying stuck

There is a range of options available from paint suppliers for recoating smooth surfaces such as aluminium (powder-coated or anodised), stainless steel, epoxy fillers, glass or uPVC. The key is ensuring that the new coating will stick and stay adhered to the smooth surface.

To achieve this, it is likely a specific primer will be required (such as an etch primer or smooth surface sealer) to ensure adhesion of the finish coats. There are also other considerations:

- Check with the specific paint supplier for a recommended system.
- For metals, sand out any corrosion (but don't use steel wool or a wire brush).
- Thoroughly clean and degrease the surface.
- Do not sand the primer/sealer too vigorously – any additional coating will not adhere to the raw surface that may be exposed where the primer has been sanded through.

Winder stairs and handrails
Unwinding the rules

Winders on a stair are permitted by D1/AS1 where the stair is a private stairway or service stairway provided that all the following conditions are satisfied:

- Riser heights and tread depths on the pitch line comply with Table 6 and Figure 11.
- Riser height is uniform and the same as that on adjoining straight flights of stairs.
- Tread depth on the pitch line is no less than that on adjoining straight flights of stairs.
- Winders have a uniform taper angle.
- Consecutive winders do not turn through an angle of more than 180°.

For a stairway width of less than 1000 mm, the pitch line shall be located along the centre line of the stair (see Figure 17b of D1/AS1 for wider stairs). Stair width is measured from the handrail to the opposing wall. D1/AS1 allows a handrail on either side of the stair where the stair is installed between two walls.

Extra high wind zone
Additional requirements for low-risk buildings

A building may be considered a low-risk design when using the E2/AS1 risk matrix but requires installation of a cavity behind the cladding if located in an extra high wind zone. (Note that vertical corrugate cladding is considered to be a cavity system.)

Being in an extra high wind zone also triggers the requirement (if using E2/AS1 as a means of compliance) for:

- a rigid wall underlay overlaid with a flexible wall underlay – a proprietary rigid air barrier is outside the scope of E2/AS1 but may be submitted for consent as an alternative method
- an increase of 25 mm in flashing upstands, and all upstands must have a hem or hook – see Table 7 of E2/AS1 for flashing dimensions for given situations and/or wind zones

- a seal between the top flange of an aluminium window and the head flashing
- flashing cover of 90 mm to facings, bargeboards and capping downturns (Table 7 Situation 3).

BRANZ eLearning modules
New releases

Four new timber framing eLearning modules have been released that cover:
- general timber framing
- suspended floors
- roof framing
- wall framing.

Also just released is a module covering restricted building work.

All BRANZ eLearning modules can be accessed here, and each module costs $8.50.

BRANZ seminars 2018 *Passive Fire Protection Risk Assessment*
Questionable fire and smoke stopping in New Zealand buildings has been widely reported recently

Determining the extent of the problem has been difficult. Many components of passive fire protection (PFP) are typically not easy to access or assess. Poor performance of PFP will not be apparent until a fire occurs.

This problem has been brought to a head in buildings currently undergoing extensive weathertightness remediation work. Consent for weathertightness remediation work falls under the Building Act 2004 section 112. This requires the building to comply as nearly as is reasonably practicable (ANARP) with the Building Code provisions for means of escape from fire. PFP plays a key role in maintaining a safe means of escape during a fire. The cost of making the PFP compliant is significant and in the same order of magnitude as the weathertightness work itself.

This seminar aims to deliver information and tools to make good decisions on what is reasonable and practicable when addressing fire and smoke-stopping deficiencies in existing buildings. The seminar will describe the research (including testing) to date to develop a process for assessing whether it is reasonable and practicable to address PFP non-compliance. Examples of a risk analysis tool already used in industry for this purpose will be provided.

You will take away an understanding of the options for determining fire and smoke-stopping compliance and what kind of information should be collected and have tools to technically evaluate proposed options.

Presenters
Kevin Frank – Fire Research Engineer – BRANZ
Greg North – Fire Engineer – Beca

Remaining dates and locations

Fri 23 Mar	Christchurch	Chateau on the Park, a DoubleTree by Hilton
Tue 27 Mar	Auckland	Beca Auditorium
Wed 28 Mar	Wellington	InterContinental Wellington

All seminars run from **1.00–4.00pm**.

Register online.