

List of approved specified systems included in the building consent

ATTACHMENT TO BUILDING CONSENT

Site address:	2-6 Wharf Street, Warkworth 0910	
Building consent no:	ABA-1018632 (Espresso Bar Fitout)	
Building name:		
Maximum occupancy:	97	
Intended use:	Commercial	
Key to type of compliance schedule:	☐ New building - new compliance schedule ☒ Existing building with compliance schedule - amended compliance schedule ☐ Existing building no previous compliance schedule - new compliance schedule	
Definition of terms:	New	A new system or feature is being installed into a new building or a compliance schedule is being applied for the first time, for an existing building which has specified systems installed in it
	Altered	A system or feature is being modified, altered or added to an existing building resulting in an amendment to an existing compliance schedule
	Removed	A system or feature is being removed from the building

COMPLIANCE SCHEDULE INSPECTION, MAINTENANCE AND REPORTING PROCEDURES

Specified system	Inspection, maintenance & reporting standards (please list standard if not referenced)	System notification (tick as applicable)		
		New	Altered	Removed
1 Automatic systems for fire suppression				
1.1 Sprinkler system	☐ NZS 4541:2013 ☐ NZS 4515:2009 ☐ NFPA 25 ☐	☐	☐	☐
1.2 Gas and foam flood or deluge systems; dry and wet fire extinguishing systems	☐ NZS 4541:2013 ☐ NZS 4515:2009 ☐ NFPA 25 ☐	☐	☐	☐
2 Automatic or manual emergency warning systems for fire or other dangers				
2.1 Manual and automatic fire alarms; smoke / heat detectors; gas; radiation systems Type 2 Alarm System ☒ Audible ☐ Visual	☒ NZS 4512:2010 ☐ AS 1851:2005 ☐ NFPA 25 ☐	☒	☐	☐
2.2 Automatic gas leak detection systems for the detection and measurement of combustible gases	☐ NZS 5263:2003 ☐	☐	☐	☐
3 Electromagnetic or automatic doors or windows				
3.1 Automatic doors e.g. sliding or revolving doors Are doors interfaced with emergency warning system? ☐ Yes ☐ No	☐ NZS 4239:1993 ☐	☐	☐	☐

COMPLIANCE SCHEDULE INSPECTION, MAINTENANCE AND REPORTING PROCEDURES

Specified system		Inspection, maintenance & reporting standards (please list standard if not referenced)	System notification (tick as applicable)		
			New	Altered	Removed
3.2	Access controlled doors (swipe card, key pad, sensor-delayed egress, etc)	☐ NZS 4239:1993 ☐	☐	☐	☐
3.3	Interfaced fire or smoke door or windows (electromagnetic door holders)	☐ AS 4178:1994 ☐ NZS 4232.2:1988 ☐ NZS 4520:2010 ☐	☐	☐	☐
4	Emergency lighting systems	☒ AS/NZS 2293.2:1995 ☐ NZS 6104:1981 ☐	☒	☐	☐
5	Escape route pressurisation systems	☒ AS 1851.6:2012 ☐ AS/NZS 1668.1:1998 ☐	☐	☐	☐
6	Riser mains for use by fire services	☐ NZS 4510:2008 ☐	☐	☐	☐
7	Automatic backflow preventers connected to a potable water supply	☐ AS/NZS 2845.1:2010 ☐ AS 2845.3:2010 ☐	☐	☐	☐
8	Lifts, escalators, travelators or other systems for moving people or goods within a building				
8.1	Passenger carrying lifts	☐ NZS 4332:1997 ☐ NZS 4334:2012 ☐ EN 81:2003 ☐	☐	☐	☐
8.2	Goods or service lifts	☐ NZS 4332:1997 ☐ EN 81:2003 ☐	☐	☐	☐
8.3	Escalators and moving walks	☐ EN 115:2008 ☐	☐	☐	☐
9	Mechanical ventilation or air-conditioning systems Cooling tower installed ☐ Yes ☐ No Interfaced with fire alarm ☐ Yes ☐ No Spray booth ☐ Yes ☐ No	☐ AS/NZS 3666.2:2011 ☐ AS/NZS 4114.1:2003 ☐ AS/NZS 4114.2:2003 ☐	☐	☐	☐
10	Building maintenance units or other devices providing access to the interior / exterior of a building	☐ BS 6037.1:2003 ☐ AS/NZS 1891.4:2009 ☐	☐	☐	☐
11	Laboratory fume cupboards	☐ AS/NZS 2243.8:2014 ☐ NZS 7203:1992 ☐	☐	☐	☐
12	Audio loops or other assistive listening systems				
12.1	Audio loop	☐ AS 60118.4:2007 ☐ NZS 4121:2001 ☐	☐	☐	☐

COMPLIANCE SCHEDULE INSPECTION, MAINTENANCE AND REPORTING PROCEDURES

Specified system		Inspection, maintenance & reporting standards (please list standard if not referenced)	System notification (tick as applicable)		
			New	Altered	Removed
12.2	FM radio frequency systems and infrared beam transmission	☐ AS 60118.4:2007 ☐ NZS 4121:2001 ☐	☐	☐	☐
13	Smoke control systems				
13.1	Mechanical smoke control systems	☐ AS/NZS 1668.1:1998 ☐ AS 1851:2005 ☐	☐	☐	☐
13.2	Natural smoke control systems	☐ AS/NZS 1668.1:1998 ☐ AS 1851:2005 ☐	☐	☐	☐
13.3	Smoke curtains	☐ AS/NZS 1668.1:1998 ☐ AS 1851:2005 ☐	☐	☐	☐
14	Emergency power systems for, or signs relating to, a system or feature in any of the specified systems 1 - 13				
14.1	Emergency power systems installed for the purpose of supplying power to any of the specified systems 1 - 13	☐ NZS 6104:1981 ☒ F6/AS1 F8/AS1	☒	☐	☐
14.2	Signs for all systems	☒ NZS 4121:2001 ☒ F8/AS1 ☒ AS/NZS 2293	☒	☐	☐
15	Any or all of the following systems and features, so long as they form part of a building's means of escape from fire, and so long as those means also contain any or all of the systems or features specified in clauses 1 to 6, 9 and 13:				
15.a	System for communicating spoken information intended to facilitate evacuation	☐ NZS 4512:2010 ☐ AS 1851:2012 ☐	☐	☐	☐
15.b	Final exits	☐ AS/NZS 2293.2:1995 ☐ NZS 4121:2001 ☐	☐	☐	☐
15.c	Fire separation	☐ NZS 4520:2010 ☐ NZS 4232.2:1998 ☐	☐	☐	☐
15.d	Signs for communicating information intended to facilitate evacuation; and such signs as required by: - the NZBC (all systems); and - S.120 of the Act	☒ NZS 4121:2001 ☒ F8/AS1 NZBC ☒ AS/NZS 2293	☒	☐	☐
15.e	Smoke separation	☐ AS/NZS 1668.1:1998 ☐	☐	☐	☐
16	Cable cars	☐ NZS 5270:2005 ☐	☐	☐	☐

FIRE REVIEW APPRAISAL

FOR

DG & KM MUNRO FAMILY TRUST BUILDING

AT

WHARF ROAD - WARKWORTH ABA 31972

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Introduction

Mr Dean Munro applied for Building Consent to enclose a small area of verandah. This was to form an extension to the restaurant in Shop No.2 on the ground floor of the building. Although this is a minor variation, and we have already replied to two faxes requesting further information on other matters from Council. The third fax dated 18 September has required a Fire Review Appraisal of the whole building.

Existing Building

I understand that the existing building was built in 1989 and is therefore of relatively recent construction. The plans show the boundary wall to the adjoining property to be a Concrete Masonry block wall, having a four hour fire rating. The internal partition walls separating the shops are also of 200mm block masonry.

Up stairs, the office layout has been framed up in timber framing and lined with gib board. The wall adjacent to the stairs on the permit plan, was shown as having a 30 minute fire rating. The floor between the two storeys appears to be timber frame with a gib or fire lined ceiling. I could not ascertain as to what the fire rating would be, but would anticipate that as the building consent was issued and obviously from what drawings available, fire rating was considered, I can only assume that the floor has sufficient rating.

Purpose Groups

i. Restaurant

The Restaurant would be classified as purpose group CL (crowd activities of less than 100 occupant loading). Fire hazard category would be 2. The occupant density rate for dinning, beverage and cafeteria space is 0.8 users per square metre. For kitchens, the occupants density is 0.1 users per square metre. The kitchen area is approximately 20 square metres and the restaurant area is approximately 84 square metres. This gives a patronage loading rate of 67 people, plus two cooks in the kitchen.

ii. Hair Saloon

Shop No.1 next door is fitted out as Hair Saloon and occupancy would definitely be less than 50 people. The Hair Dressing Saloon would be classed as WL (Hair Dressing Shops) and have a fire hazard category of 2.

iii. Upstairs Office

The upstairs office area, inclusive of kitchen, bathroom and storage areas but excluding stairway, has a net area of 290 square metres. Office space is assessed as having an occupancy density of 0.1 users per square metre, which would equate to 29 people. I would be surprised if loading ever exceeded half that amount. The upstairs office would have a purpose group rating as WL with a fire hazard category of 2.

Means of Escape

The upper floor containing the office has only one escape path via the front entry way stairway leading down to the street. The maximum open path length to the doorway at the top of the stairs is 16m. The stairway walls have a half hour rating and so the stairway may be considered as a safe path.

With respect to the upstairs office, for purpose group WL a dead end open path maximum length is 24m. Therefore the maximum length of 16m is acceptable. The maximum length of protected path is 60m, which would apply to the stairwell, which would in fact have a length of only some 9m. Therefore the escape route length for the upper floor is quite adequate.

Considering the Hair Dressing Saloon, this does have a rear exit to a courtyard but about a 1.2m drop down to ground below at the northern end of the courtyard. However ignoring this alternative route, the maximum cul de sac length is only 9m and therefore the single exit from the shop is quite adequate.

With respect to the restaurant, this has three sets of doors along the western side, plus a back door on the eastern side from the kitchen out into a service area courtyard from which one can jump down 1.2m onto ground below. The maximum dead end open path length for purpose group CL is 18m. The restaurant easily complies with this, the maximum travel distance even from the back corner of the kitchen to the doors on the western side would be less than 14m.

All doors on escape routes open outwards and have adequate width.

Requirements for Fire Cells

With reference to the restaurant, this is purpose group CL less than 100 which is considered as purpose group CS. For purpose group CS, on a ground floor an F rating of zero minutes is required. A manual fire alarm system is not required where the escape route serve an occupant loading of no more than 50 people. In this case the loading is 67 people and a manual fire alarm system is required. It is noted that one is fitted within the restaurant and checked and serviced at least annually by Fire Watch Ltd. A fire hydrant is located within reasonable distance to the building. An extra hydrant is not required in this case.

With respect to the Hair Dressing Saloon and the Office space, both have occupancy of less than 50 people, and therefore a manual fire alarm system is not required from table 4.1/1 even though the office is on the second floor.

It is of interest to note that in terms of the Fire Code, fire hose reels are not required. However a hose reel has been fitted to serve the upper floor and is located at the top of

the stairs on the right hand side going up. A further fire hose reel has been fitted within the service area at the rear of the lower storey shops.

The upper floor does require an F30 rating, which I would conclude it has been provided with.

Conclusion

From my inspection of the building, I am satisfied that the building meets and exceeds the requirements of the Fire Code.



Colin W. Ashby
MIPENZ. BE. NZCE. Reg. Eng.

Part 2: Firecells, fire safety systems and fire resistance ratings

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- 2.1 Provision of firecells
- 2.2 Fire safety systems
- 2.3 Fire resistance ratings

2.1 Provision of firecells

Firecell floor area limits

2.1.1 The floor area of an unsprinklered *firecell* shall not exceed 5000 m².

2.1.2 If a *firecell* is sprinklered, the *firecell* floor area may be unlimited, except if specified otherwise in this Acceptable Solution when *building* areas require subdivision or other area limitations are imposed.

2.1.3 THIS PARAGRAPH DELIBERATELY LEFT BLANK

2.2 Fire safety systems

2.2.1 The *fire safety systems* for *firecells* required for this *risk group* shall be as follows. *Fire safety system* types shall be as defined in Table 2.1.

For <100 people and <4.0 m escape height

- a) Type 2 alarm system. A direct connection to the Fire Service is not required if a phone is available at all times for emergency calls. This system is not required if the *escape routes* serve no more than 50 people in a single-level *building*, and
- b) Type 18 *building fire* hydrant system, unless the Fire Service hose run distance from the point of Fire Service vehicular access to any point on any floor is less than 75 m.

For 100 to 1000 people or 4.0 m to 25 m escape height

- a) Type 4 alarm system, and
- b) Type 9 smoke control in air handling systems, and
- c) Type 18 *building fire* hydrant system, unless the Fire Service hose run distance from the point of Fire Service vehicular access to any point on any floor is less than 75 m. However, a *building fire* hydrant system is required in all cases if the *building* is four storeys or higher.