# BUILDING PERFORMANCE

### **Operation Magazine**

Association of Building Compliance - Conference - July 2024

Brad Hislop

**Technical Lead, Assurance and Monitoring** 



#### **Overview**

- Loafers Lodge/background
- Operation Magazine
  - Background and process
  - Property reports and recommendations
  - Findings
  - Follow-up programme
- What's next?



### **Loafers Lodge**

#### Loafers Lodge:

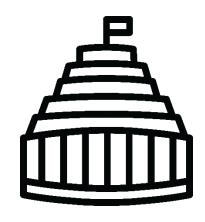
- A four-storey building constructed in 1971 as an office and warehouse building
- From 2006, the building was used as accommodation
- At 12:25am on Tuesday 16 May 2023, emergency services were called to a fire at Loafers Lodge, Wellington
- Five people died and 20 people were injured because of the fire
- There is currently an ongoing FENZ investigation into the fire.



#### **Operation Magazine – Initiation**

Following the Loafers Lodge Fire:

 The Minister asked MBIE to investigate whether there were similar buildings to Loafers Lodge in New Zealand which were vulnerable to fire.



- The decision was taken to inspect properties meeting a similar profile throughout New Zealand to:
  - o identify and address any immediate fire safety concerns
  - inform any future work to strengthen fire safety requirements in boarding houses.

# **Operation Magazine – Building scope**

Buildings were chosen based on those with a similar profile to that of Loafers Lodge with the specific requirement that the buildings needed to:

- be a boarding house; and
- be three storeys or more in height; and
- have no sprinkler system.



### **Operation Magazine – Building selection**

- MBIE wrote to councils requesting they "provide information on the stock of boarding houses in their area"
- Request take a broad approach in determining what a boarding house is
- Result 70 buildings spread across 13 council areas
- More detailed review reduced the number of buildings to be inspected down to 40 across 9 council areas
- The total of 40 was further reduced to 37 buildings following an inspection refusal by three building owners.

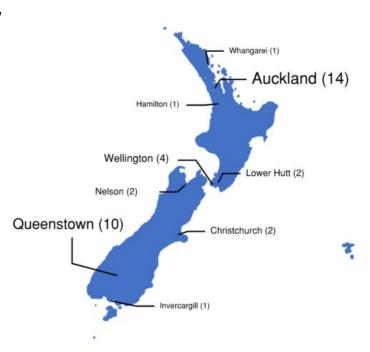


#### Operation Magazine – Building location

The buildings were spread across New Zealand.

Two thirds in three council areas:

- Auckland Council
- Queenstown Lakes District Council
- Wellington City Council



### Inspection – Purpose and duration

#### Purpose:

- to check compliance with:
  - the Residential Tenancy Act for landlord tenancy obligations
  - the Building Act in relation to fire safety
- identify any immediate risks to the safety of the people residing in the buildings.

#### **Duration:**

A 2-month Operation: 28 August 2023 (Wellington) to 27 October 2023 (Whangārei)

### Inspection – Who?

#### Who

The inspections were led by staff from MBIE's Tenancy Compliance and Investigations Team (TCIT) and Building System Delivery and Assurance (BSDA) Team.



BSDA and TCIT were supported by:

- MBIE's fire engineers and Fire and Emergency New Zealand (FENZ)
- the relevant council.

### Inspection – What?

#### What

The fire safety assessments comprised 3 broad categories of checks:

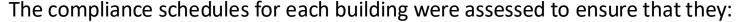
- compliance with the compliance schedule (CS) and building warrant of fitness (BWoF) requirements of the Act; and
- the general level of fire safety in the building, and
- compliance with tenancy and landlord obligations.



#### Inspection – CS and BWoF

Buildings were checked to ensure the BWoF

- was current
- was publicly displayed
- complied with the requirements of the Building Act and regulations



- complied with the Act requirements
- aligned with the specified systems that were present in the building.



### Inspection – Fire safety

The assessments for fire safety consisted of visual checks of:

- the fire alarm
- fire and smoke separations
- emergency lighting
- fire hydrant systems
- escape routes.



Documentation for the above systems and features was also reviewed where available.

### Inspection – Tenancy and landlord

TCIT's landlord assessments focused on landlord compliance with:

- general maintenance obligations
- general health and safety obligations
- fire safety obligations (eg smoke alarms and fire evacuation procedures)
- healthy homes' obligations
- provisions specific to boarding houses.



#### **Outputs – Property reports**

At the completion of each inspection an individual inspection report was written.

Each report covered an overview of:

- the condition, suitability and (where possible) the compliance of fire safety features in the building
- compliance with BWoF and CS requirements
- compliance in relation to landlord obligations.



#### **Outputs – Recommendations**

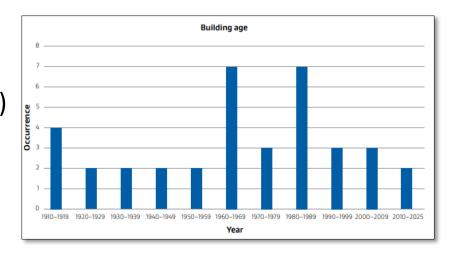


- Many buildings inspected had fire safety issues or non-compliances with the BWoF requirements
- MBIE provided a list of initial observations and recommendations to each council
- Councils were requested to comment on each recommendation and describe their plan to rectify the associated issue
- All councils responded positively to the need to address the recommendations.

#### Findings – Building age



- Average age = 60 years
- Oldest = 114 years (constructed in 1910)
- Newest = 2 years (constructed 2022)
- Majority not built as a boarding house or as accommodation
- More than 75% of the buildings were constructed prior to 1991 (before the Building Act).

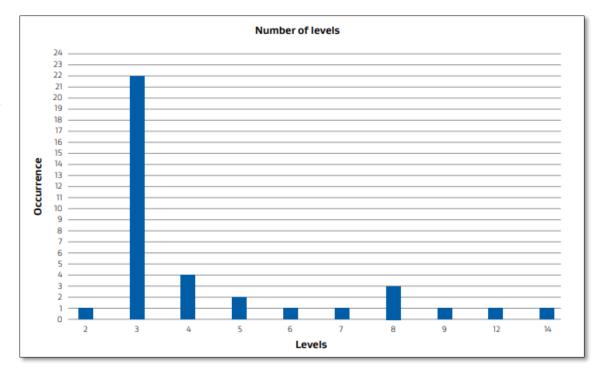


# Findings – Building size



- 2 to 14 storeys
- 60% of cases = 3 storeys

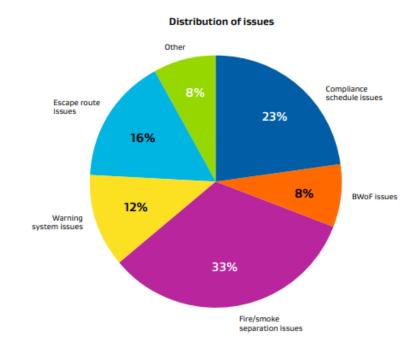
- Beds average = 95
- Range 5 to 350 beds



#### Findings – Distribution of issues

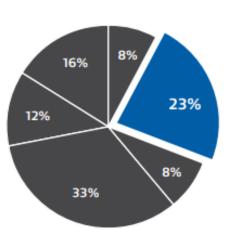
 Operation Magazine identified 134 distinct issues across the 37 buildings inspected

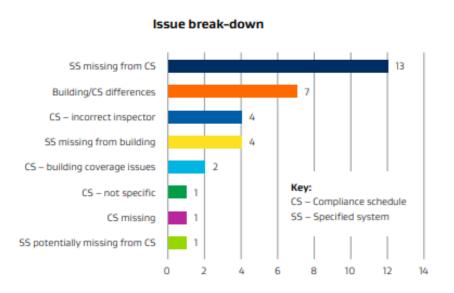
 The issues identified were placed into 6 broad categories.



Compliance schedule (CS) issues

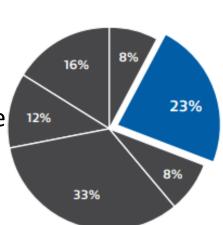
 Accounted for 23% (33) of the 134 distinct issues

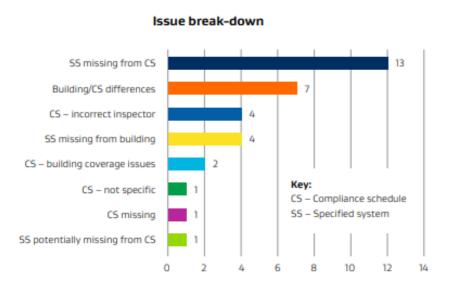




Compliance schedule (CS) issues

#1 issue =
 Specified
 systems
 missing from
 the compliance
 schedule



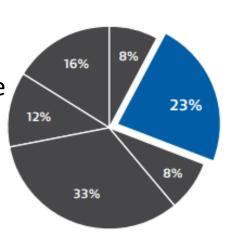


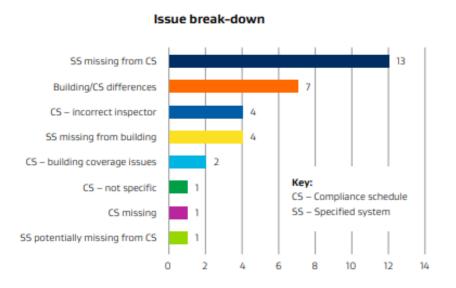
#### **Exploring specified systems missing from the compliance schedule**

- All specified systems in the building are required to be listed on the building's compliance schedule
- Not listed = unlikely inspected or maintained = increased likelihood of failure = could be catastrophic in the event of a fire
- Potential reason not listed = Specified systems installed without a building consent
- The installation of access control doors (SS3/2) without building consent is a common occurrence.

Compliance schedule (CS) issues

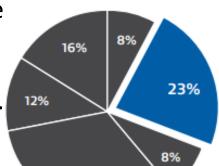
 In 7 buildings the system described on the compliance schedule differed to the system installed in the building.



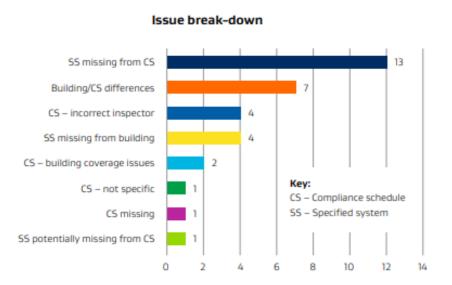


Compliance schedule (CS) issues

 In other cases, the compliance schedule lacked the required detail.

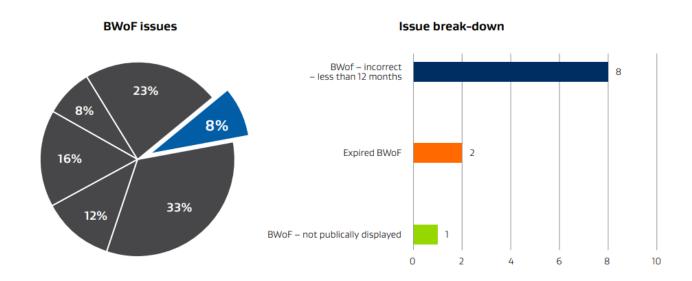


33%



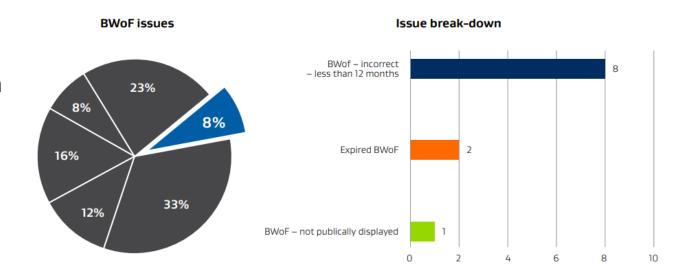


 Accounted for 8% (11) of the 134 distinct issues.





 #1 issue = Less than 12 months' worth of compliance (IMR procedures).



#### **Exploring missed IMR procedures**

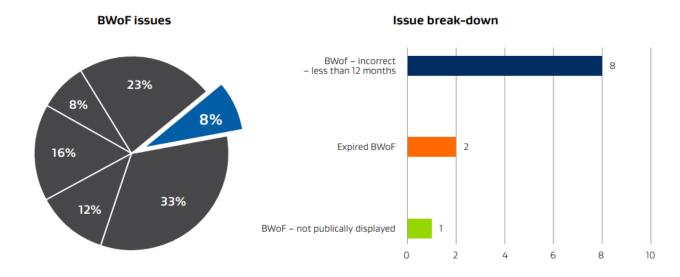
- It is an offence under the Building Act to not have had the full 12 months' worth of inspection, maintenance and reporting procedures.
- The Building Act does not provide any flexibility or exemptions to the requirement, even if the systems are performing as required (the legislative purpose of the BWoF regime).

#### **Exploring missed IMR procedures**

- This means
  - at the time the next BWoF is due, a valid BWoF cannot legally be supplied or displayed
  - there were significant periods of time where the specified systems had not been inspected to ensure they were operating correctly.

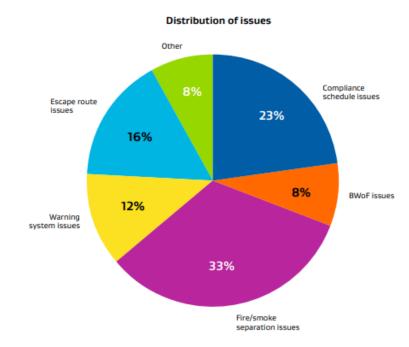


 In a few cases, the BWoF for the building was either expired, or not on display.



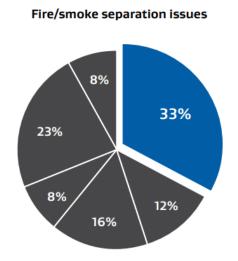
#### Findings – Fire safety systems and features

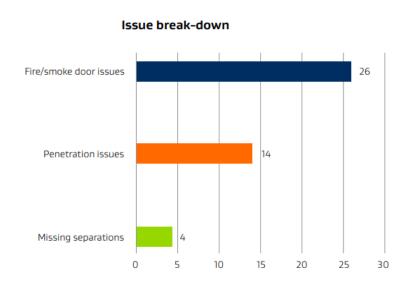
- Issues with the fire safety systems and features accounted for 69% (92/134) of the overall issues found during Operation Magazine
- These 92 issues were grouped into the following categories:
  - 1. Fire and smoke separation issues
  - 2. Emergency warning system issues
  - 3. Escape route issues
  - 4. Other issues.



### Findings – Fire and smoke separations

 Issues with fire and smoke separations accounted for a third (44) of overall issues found during Operation Magazine.





### Findings – Fire and smoke separations

- More than 50% of the issues with fire and smoke separations related the fire and smoke doors, including doors:
  - Not 'tagged' showing their fire and smoke resistance ratings
  - Damaged or missing seals
  - Held open with nothing in place to release those doors on activation of the fire alarm
  - In some cases, fire doors appeared to have been removed.

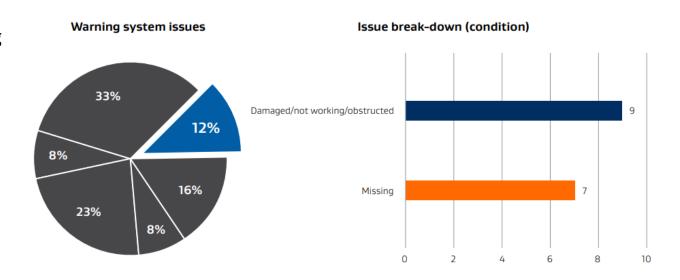


## Findings – Fire and smoke separations

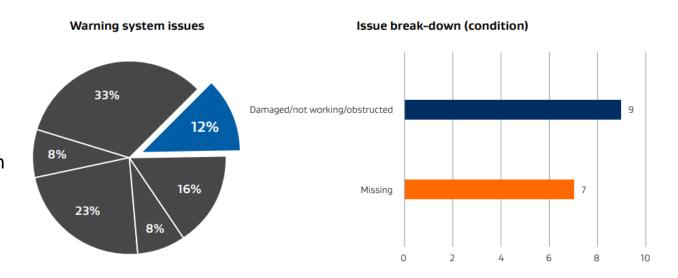
- Issues with fire ratings of walls and floors were common and, in some cases, a major concern. Examples:
  - major damage to walls and partitions
  - lack of fire separation between floors
  - penetrations for services not correctly protected through fire separations, in turn compromising their effectiveness. Penetrations were:
    - not sealed off
    - pipe penetrations had collars that were incorrectly or only partially fitted
    - wire and cable penetrations were overloaded ie, more wires or cables being used than the application was rated for.



 Issues with emergency warning systems accounted for 16 of the 134 of overall issues found during Operation Magazine.



- Fire alarm systems were found to be damaged, obstructed, or not working.
- More than 50% of all issues found with the fire alarm system related to parts of the system (eg smoke detectors) missing.



- Most boarding houses inspected had 'upgraded' alarm systems with less-than-ideal resulting systems
- 50% of smoke detectors tested were found to have issues including:
  - batteries removed
  - dead batteries
  - alarm mechanism removed.





- Of the alarm systems that were required to be monitored we found a few issues such as:
  - the wires cut
  - the Certificate of Compliance issued showed the alarm was monitored,
    but the compliance schedule notes the alarm is not monitored
  - monitoring was discontinued.



- In 13 (35%) of the buildings the owner/staff silences the alarm when it activates
- Panels were found in areas accessible to all occupants with the silence key in the key switch or tied to/near the panel with string
- In three (8%) of the buildings it was found that the owner (or staff) resets the alarm when activated.

#### Findings – Escape routes

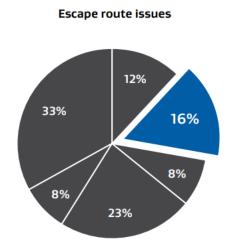
The following was checked in relation to escape routes:

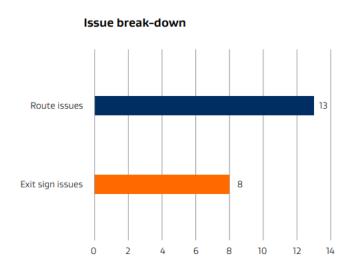
- Exit signage to ensure it was clear, visible, and lit up when applicable
- Emergency lighting a quick check was done to ensure it lit up
- Doors checked to ensure they opened easily, were unlocked and that there were no obstructions along the way out of the building.



# Findings – Escape routes

 Accounted for 16% (22) of the 134 distinct issues





#### Findings – Escape routes



Escape routes were a major concern in some buildings, the types of things found included:

- The egress out of the building was obstructed
- The escape route itself was not adequate, safe or structurally sound
- Many signs used to aid egress from a building in the event of a fire (eg exit signs) were found to be missing, misleading or illegible.

#### Operation magazine – Follow-up

#### The follow-up programme:

- All councils received a list of issues and proposed recommendations
- Councils were required to come back with proposals
- Monthly check ins on progress
- 134 issues = 119 recommendations
- 119 reduced to 4 recommendations (as at 4 July 2024)
- All scheduled for completion next month.



#### What's next?

#### Programmes of work:

- Fire programme
  - A review of the Building Code fire clauses
  - MBIE met with a variety of stakeholders to collect feedback on the issues in the Building Code
  - MBIE are drafting a document for consultation on issues
- IQP register alignment
- IQP offences
- TA guidance



#### **Final Word**

#### What we know:

- Lots of issues with specified systems
- Buildings have BWoFs...

#### So what does this mean?

 IQPs responsible for oversight have certified (via a Form 12A) that the inspection and maintenance procedures had been carried out, allowing a BWoF to be issued.



Thank you!