



File Ref. No: BFS21/3004 (16912)  
TRIM Ref. No: D21/3707  
Contact: Station Officer Paul Scott

21 February 2022

General Manager  
City of Parramatta Council  
PO Box 32  
Parramatta NSW 2124

Email: [council@cityofparramatta.nsw.gov.au](mailto:council@cityofparramatta.nsw.gov.au)

Attention: Manager Compliance/Fire Safety

Dear Sir Madam,

**Re: INSPECTION REPORT  
HMLET  
109A WIGRAM STREET HARRIS PARK (“the premises”)**

Fire & Rescue NSW (FRNSW) received correspondence in relation to the adequacy of the provision for fire safety in connection with ‘the premises’.

The correspondence stated in part that:

- *The FPAA101D sprinkler system was not installed correctly.*
- *The fire hydrant booster cabinet is narrow and difficult to connect hose.*

Pursuant to the provisions of Section 9.32 (1) of the *Environmental Planning and Assessment Act 1979* (EP&A Act), an inspection of ‘the premises’ on 27 October 2021 was conducted by Authorised Fire Officers from the Fire Safety Compliance Unit of FRNSW.

The inspection was limited to the following:

- A visual inspection of the essential Fire Safety Measures as identified in this report only.
- A conceptual overview of the building, where an inspection had been conducted without copies of the development consent or copies of the approved floor plans.

On behalf of the Commissioner of FRNSW, the following comments are provided for your information in accordance with Section 9.32 (4) and Schedule 5, Part 8, Section 17(1) of the EP&A Act. Please be advised that Schedule 5, Part 8, Section 17(2) requires any

report or recommendation from the Commissioner of FRNSW to be tabled at a Council meeting.

## COMMENTS

The following items were identified as concerns during the inspection:

### 1. Essential Fire Safety Measures

#### 1A. Certification

- A. The Construction Certificate received by FRNSW is dated 26/04/2019, DA Consent No. DA/21/2018.
- B. The Fire Engineering Report (FER), by BCA Innovations, Report No. PRO-03995-G3V5, Issue V5 is dated 12 November 2020.
- C. Neither the fire safety schedule nor the FER state the standard of performance the FPAA101D sprinkler system is installed to.
- D. Neither a final fire safety certificate or an annual fire safety statement were prominently displayed at the premises contrary to the requirements Clause 172 and 177 of the Environmental Planning and Assessment Regulation 2000 (EP&A Reg).

#### 1B. Fire Hydrant System

- A. A dry fire hydrant system is installed at the premises to the intent of Specification E1.5a (vii) (B) of the National Construction Code 2019 Volume One, Building Code of Australia (NCC).

The fire safety schedule and the Fire Hydrant System Compliance Certificate state a fire hydrant system complying with Australian Standard (AS) 2419.1-2005 is installed at the premises. The hydrant system does meet that standard of performance.

FRNSW records do not show any consultation from the certifier regarding the variation to the standard of performance to obtain an exemption from the requirements to install an Australian Standard AS 2419.1-2005 hydrant system at the premises in accordance with National Construction Code 2016 Volume One, Building Code of Australia (NCC) .

The following non-compliances reference AS 2419.1-2005 and the [Australasian Fire and Emergency Service Council \(AFAC\) publication](#),<sup>1</sup>, Version 1, 4 November 2020 in relation to the dry hydrant system.

- B. There is insufficient access to the boost inlets to facilitate hose connection using FRNSW hand tools. FRNSW is of the opinion that

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<sup>11</sup> [https://www.afac.com.au/docs/default-source/doctrine/design-installation-and-maintenance-requirements-for-dry-hydrants\\_v1-0.pdf?sfvrsn=0&download=true](https://www.afac.com.au/docs/default-source/doctrine/design-installation-and-maintenance-requirements-for-dry-hydrants_v1-0.pdf?sfvrsn=0&download=true)

the hydrant booster cabinet is too small to access all valves contrary to the requirements of Clause 3.5.2 of AS 2419.1-2005.

- C. A 100mm drain valve has been installed at the lowest portion of the hydrant riser. The valve is approximately 800 mm from the front of the cabinet contrary to the intent of Clause 7.4 of AS 2419.1-2005. Firefighters need to enter the hydrant booster cabinet, which is only 350mm wide, to access locks and isolation valve handwheels.

The AFAC publication requires a drain valve a minimum of 25mm to be installed. FRNSW are unable to determine if the sudden release of 180 litres of water from the hydrant system may cause a safety concern to firefighters or cause damage to the valve outlets being exposed to a negative pressure within the pipework during draining.

- D. Boost pressure signage is not visible to a firefighter attending the premises contrary to the requirements of Clause 7.10 of AS 2419.1-2005.
- E. Boost pressure signage states that a maximum boost pressure of 530 kPa is required to achieve 700 kPa at the most disadvantaged hydrant. The posted boost pressure is incorrect.
- F. The dry fire hydrant system is not able to be drained fully due to the type of boost inlet connections installed and the fall of the horizontal pipe attached to the riser contrary to the requirements of Part 1.2.1 and 1.2.3 of the AFAC Publication.
- G. An automatic air release valve is not installed at the uppermost portion of the hydrant riser contrary to the requirements of Part 1.4 of the AFAC publication. FRNSW observed a manually operated valve at the hydrant on level 7 of the premises.
- H. FRNSW is of the opinion that the hydrant system has not been commissioned in accordance with Section 10 of AS 2419.1-2005. In this regard,
  - i. There is no sign of water within the pipework or inside the boost inlet connections.
  - ii. The fire safety certificate for the hydrant system (Appendix 1) states, the *“residential portion (Design and Commissioning) results show - Flow (L/s) : N/A. Pressure – (No record of a pressure test).*
- I. Block Plans for both the hydrant and sprinkler system detail conflicting information in relation to the height of the building. The claimed highest sprinkler is 19.5 metres, and the highest hydrant is 22.5 metres. Residential portions of the building are higher than the highest hydrant. FRNSW are unable to determine if this affects the hydraulic calculations at the premises.

- J. The hydrant compliance certificate states that “The fire hydrant pumpset had been installed, commissioned and tested as per the manufacturer’s specifications and procedures in accordance with AS2941-2008”. A fire hydrant pumpset is not installed at the premises.

1C. Automatic Fire Sprinkler System.

- A. FRNSW note that the FPAA 101D automatic sprinkler system was installed to “*permit openings above the entry doorways of the SOUs self-closing toughened glass in lieu of FRL -/60/60 and Extended travel Distances to a single exit within the residential levels*” as detailed in Performance Solution 3 and 4 of the FER (Appendix 3).

A FPAA101D sprinkler system is installed. The following non-compliances reference, *FPAA-101D Design and Installation, Technical Specification Dec 2018* (Technical Specification) and *Guide to Technical Specification October 2019*.

- i. FRNSW observed multiple *dead-legs* in the system greater than three (3) metres contrary to the requirements of Clause 2.5.3.2.1 of the Technical Specification.
- ii. The valve intended to isolate both the sprinkler/drinking water pipes simultaneously has been installed incorrectly contrary to the requirements of Clause 2.5.3.2.2 of the Technical Specification. FRNSW observed the isolation valve for both drinking water and sprinkler control on different water pipe branches.
- iii. FRNSW were unable to locate a backflow prevention device on the ground floor sprinkler system contrary to the requirements of Clause 2.5.3.2.3 of the Technical Specification.
- iv. Fire hose reels were connected to the sprinkler system contrary to the requirements of Clause 2.5.3.3 of the Technical Specification.
- v. Sprinkler/Drinking Water isolation valves are not secured in the open position with a ‘003’ fire service lock contrary to the requirements of Clause 5.3.1 of the Technical Specification.
- vi. Level 7 sprinkler/drinking water isolation valves are installed in the hydraulic cabinet on Level 6. Signage has not been installed detailing the isolation valve isolated water to Level 7 contrary to the requirements of Clause 5.3.1 of the Technical Specification.
- vii. A drain valve is not installed downstream of the double check valve contrary to the requirements of clause 5.3.3 of the Technical Specification.
- viii. FRNSW observed 93° C (green bulb) sprinkler heads with sidewall pattern deflectors in the parking area as well as 68° C

(red bulb) pendant style sprinkler heads. Varying temperature ratings is not discussed in the fire engineering report.

- ix. The automatic fire suppression FPAA101D sprinkler system compliance certificate (Appendix 2) states that “The Alarm Signalling Equipment (ASE) initiates a fire alarm signal to the monitoring service provider”. FRNSW is of the opinion that this statement, in relation to the sprinkler system, is incorrect.

FRNSW received e-mail correspondence on from the Owners of the premises 26 November 2021, advising that works were being undertaken to attend to non-compliances identified during the inspection.

FRNSW is therefore of the opinion that there are inadequate provisions for fire safety within the building.

## RECOMMENDATIONS

FRNSW recommends that Council:

- a. Inspect and address any other deficiencies identified on ‘the premises’, and require item no. 1 of this report be addressed appropriately.

This matter is referred to Council as the appropriate regulatory authority. FRNSW therefore awaits Council’s advice regarding its determination in accordance with Schedule 5, Part 8, Section 17 (4) of the EP&A Act.

Should you have any enquiries regarding any of the above matters, please do not hesitate to contact Station Officer Paul Scott of FRNSW’s Fire Safety Compliance Unit on (02) 9742 7434. Please ensure that you refer to file reference BFS21/3004 (16912) for any future correspondence in relation to this matter.

Yours faithfully



Paul Scott  
Team Leader Fire Safety Compliance  
Fire Safety Compliance Unit

- Attachment
- Appendix 1 – Fire Hydrant System Compliance Certificate (2 pages).
  - Appendix 2 – Automatic Fire Suppression FPAA101D Sprinkler System Compliance Certificate (1 page).
  - Appendix 3 – Extract Fire Engineering report – (2 Pages)

**FIRE HYDRANT SYSTEM COMPLIANCE CERTIFICATE**

<b>BUILDING ADDRESS:</b>	109a Wigram Street Harris Park
<b>BUILDING DESCRIPTION:</b>	41 Boarding Rooms, 7 Levels, 2 x Commercial Shops
<b>AREA OF BUILDING (ENTIRE OR PART)</b>	Entire

Pursuant to the provisions of Clause A2.2 (a) (iii) of the Building Code of Australia 2019 Volume 1;

I Daniel Khoury of Shelby Group hereby certify that we have completed the installation of a fire hydrant system on 11.01.2021 for the abovementioned building in accordance with the following Performance Standards:

- BCA Clause E1.3
- AS2419.1 – 2005, AS2941-2013, AS/NZS 3013-2005 and AS/NZS 3500.1-2013

Fire Engineering Report No:

- PRO-03995-G3V5 V5 by BCA Innovations dated 12<sup>th</sup> November 2020

**Carpark Portion:**

System Design (Required)	System Commissioning Flow Test (Actual)
Flow (L/s) : N/A	Flow (L/s): N/A
Pressure :	Pressure:
No. of Hydrants in operation simultaneously (Table 2.1 of AS 2419.1-2005) :	No. of Hydrants in operation simultaneously (Table 2.1 of AS 2419.1-2005):

**Residential Portion:**

System Design (Required)	System Commissioning Flow Test (Actual)
Flow (L/s) : N/A	Flow (L/s): N/A
Pressure :	Pressure:
No. of Hydrants in operation simultaneously (Table 2.1 of AS 2419.1-2005) :	No. of Hydrants in operation simultaneously (Table 2.1 of AS 2419.1-2005):

I/We also certify that testing and commissioning of the system has been conducted on 11.01.2021 in accordance with Section 10 of AS2419.1-2005 and specifically :

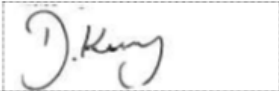
- A pre-test preparation and hydrostatic test has been conducted at the elevation of the highest hydrant outlet for a duration of not less than 2hours without loss of pressure at 1700Kpa or 1.5 times the required system pressure at that location (whichever is the greater);
- Discharge of the required number of most hydraulically disadvantaged hydrants each achieve not less than the required flow and pressure;
- The fire hydrant pumpset had been installed, commissioned and tested as per the manufacturer's specifications and procedures in accordance with AS2941-2008.
- Confirm the outcomes of the commissioning and testing of the fire hydrant system achieve a satisfactory result.
- All landing valve inlets have been installed with "Storz" fittings.

Completion Certificate – Fire Hydrant System

- I am an appropriately qualified person and have a good working knowledge of the relevant codes and standards reference above.  
I have completed the abovementioned works in accordance the approved Construction Certificate documentation.

Additional comments

The information contained in this Certificate is to the best of my knowledge and belief, true and accurate.

Signed:		Name:	Daniel Khoury
Licence No.:	242816C	Date:	19.01.2021

Completion Certificate – Fire Hydrant System

**AUTOMATIC FIRE SUPPRESSION FPAA101D SPRINKLER SYSTEM CO  
CERTIFICATE**

<b>BUILDING ADDRESS:</b>	109A WIGRAM STREET HARRIS PARK
<b>BUILDING DESCRIPTION:</b>	41 BOARDING ROOMS 7 LEVELS AND 2 X COMMERCIAL TENANCIES
<b>AREA OF BUILDING (ENTIRE OR PART)</b>	ENTIRE

Pursuant to the provisions of Clause A 2.2 (a) (iii) of the Building Code of Australia 2019 Volume

I Daniel El-Khouyry of Shelby Group Pty Ltd

hereby certify that we have completed the installation of an automatic Fire Suppression system  
abovementioned building in accordance with the following Performance Standards:

- BCA Clause CV3, C1.5, C1.13, C2.1, C2.6, C2.7, C3.5, C3.6, C3.7, C3.8, C3.11 Spec D1.12, D2.21, D2.25, E1.3, E1.5, Spec E1.5, Spec E1.5a, E2.2, Spec E2.2a, G3.1, G3
- FPAA101D System,

I/We also certify that testing and commissioning of the system has been conducted on 11.01.  
FPAA101D and specifically:

- The Alarm Signalling Equipment (ASE) initiates a fire alarm signal to the monitoring service
- I am an appropriately qualified person and have a good working knowledge of the relevant reference above.
- I have completed the abovementioned works in accordance the approved Construction Certificate
- Additional comments

The information contained in this Certificate is to the best of my knowledge and belief, true and a

Signed:		Name:	Daniel Khoury
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## 8.0. Performance Solution 3 – Openings above the entry doorways of the SOUs self-closing toughened glass in lieu of FRL -/60/60

### 8.1. Summary

Table 20 below summarises the relevant BCA DtS provision departure, proposed Performance Solution and the key elements for fire engineering assessment.

Table 20: Summary of the proposed Performance Solution and its assessment method

BCA DtS Provision Departure and Proposed Performance Solution										
Item	BCA DtS Provision	Proposed Performance Solution	Relevant Performance Requirement(s)	BCA Assessment Method						
3	Clause C3.11	To permit the openings above the entry doorways of the SOU's to be self-closing 10mm toughened glass and smoke sealed in lieu of FRL -- /60/60 are required by Clause C3.11 of the BCA	CP1 and EP2.2	Absolute, qualitative, deterministic assessment based on: <ul style="list-style-type: none"> <li>A0.3 (a)(i) – A Performance Solution which comply with the Performance Requirements</li> <li>A0.5 (b)(ii) – Use of Verification Methods as the appropriate authority accepts for determining compliance with the Performance Requirements.</li> </ul>						
Key elements for the fire engineering assessment										
IFEG Sub-systems	Sub-system C – Fire Spread & Impact & Control Sub-system E – Occupant Evacuation and Control Sub-system F – Fire Services Intervention									
Design fire scenarios	DFS2 and DFS3 (Refer to Section 4.5)									
Fire hazards	Fire and smoke spread via the unprotected openings within the public corridor affecting occupant's evacuation.  Smoke generated from fire within an SOU may migrate to public corridor and circulation space before the occupants reach the exit.									
Assessment and/or any fire engineering modelling tools	Qualitative assessment is provided based on the proposed ventilation within the public corridor and the FPAA 101D sprinkler system throughout the building.									
Methodology	<table border="0" style="width: 100%;"> <tr> <td><input checked="" type="checkbox"/> Absolute</td> <td><input type="checkbox"/> Quantitative</td> <td><input checked="" type="checkbox"/> Deterministic</td> </tr> <tr> <td><input type="checkbox"/> Comparative</td> <td><input checked="" type="checkbox"/> Qualitative</td> <td><input type="checkbox"/> Probabilistic</td> </tr> </table>				<input checked="" type="checkbox"/> Absolute	<input type="checkbox"/> Quantitative	<input checked="" type="checkbox"/> Deterministic	<input type="checkbox"/> Comparative	<input checked="" type="checkbox"/> Qualitative	<input type="checkbox"/> Probabilistic
<input checked="" type="checkbox"/> Absolute	<input type="checkbox"/> Quantitative	<input checked="" type="checkbox"/> Deterministic								
<input type="checkbox"/> Comparative	<input checked="" type="checkbox"/> Qualitative	<input type="checkbox"/> Probabilistic								
Sensitivity and/or redundancy analysis	The worst-case fire scenario is considered in the assessment, i.e. a fully developed fire within one of the SOUs.									



## 9.0. Performance Solution 4 – Extended travel distances to a single exit within the residential levels

### 9.1. Summary

Table 23 below summarises the relevant BCA DtS provision departure, proposed Performance Solution and the key elements for the fire engineering assessment.

Table 23: Summary of the proposed Performance Solution and its assessment method

BCA DtS Provision Departure and Proposed Performance Solution				
Item	BCA DtS Provision	Proposed Performance Solution	Relevant Performance Requirement(s)	BCA Assessment Method
4	Clause D1.4	To permit extended travel distances to a single exit of up to 10m within the residential levels to a single exit (in lieu of BCA DtS 6m).	DP4 and EP2.2	Absolute, qualitative, deterministic assessment based on: <ul style="list-style-type: none"> <li>A0.3 (a)(i) – A Performance Solution which comply with the Performance Requirements</li> <li>A0.5 (b)(ii) – Use of Verification Methods as the appropriate authority accepts for determining compliance with the Performance Requirements.</li> </ul>
Key elements for the fire engineering assessment				
IFEG Sub-systems	Sub-system E – Occupant Evacuation and Control Sub-system F – Fire Services Intervention			
Design fire scenarios	DFS2 and DFS3 (Refer to Section 4.5)			
Fire hazards	Fire and smoke generated from fire may affect evacuation before the occupants reach the exit.			
Assessment and/or any fire engineering modelling tools	Qualitative assessment is provided based on the proposed smoke detectors and alarm system, FPAA 101D sprinkler system, concessions provided in BCA 2019, and additional fire safety measures detailed in Section 5.0 of this report.			
Methodology	<input checked="" type="checkbox"/> Absolute <input type="checkbox"/> Comparative	<input type="checkbox"/> Quantitative <input checked="" type="checkbox"/> Qualitative	<input checked="" type="checkbox"/> Deterministic <input type="checkbox"/> Probabilistic	
Sensitivity and/or redundancy analysis	The worst-case fire scenario is considered in the assessment, i.e. a fully developed fire within one of the residential units.			