QFES REFERRAL AGENCY RESPONSE

1. *Building work involving fire hydrant coverage via a single street hydrant*

The information contained within this document can be considered as Queensland Fire and Emergency Services (QFES) referral agency response before an application is made to the Assessment Manager for the particular type of building work mentioned below.

Description of QFES Scope Reduction Initiative

For building work involving fire hydrant coverage via a single street hydrant:

- In any class of building where a fire hydrant is the only Special Fire Service (SFS) required by the Deemed-to-Satisfy (DTS) provisions of the National Construction Code (NCC) Volume 1, providing the DTS compliant hydrant system is achieved using a single street hydrant.
- In a Class 2 building where a fire hydrant system and/or interconnected smoke alarms in the Sole Occupancy Unit (SOU) are the only SFS required by the DTS provision of the NCC providing the DTS compliant system is achieved using a single street hydrant.

Advice

Provided that the DTS provisions of the NCC Volume 1 pertaining to this QFES Scope Reduction Initiative (SRI) and the additional advice contained within has been adhered to, it is at the builders discretion as to whether further advice needs to be sought from QFES.

Option to submit Request for Assessment

If the proposed building work meets the scope reduction criteria, a 'Request for Assessment' may still be submitted, at the discretion of the Assessment Manager/ Certifier. In such cases, the normal QFES assessment process will be undertaken and fees charged accordingly.

Clarification

This information is provided to assist the applicant/ Assessment Manager to ensure that the SFS - single street hydrant is designed and installed to satisfy operational and legislative requirements. This Information Sheet must be read in conjunction with the General requirements of the QFES Scope Reduction Initiative.

Referral jurisdiction

The referral jurisdiction relating to this SRI is *Planning Regulation 2017* (PR) Schedule 19 Part 1 and Part 2.

The following is further information specific to the relevant jurisdictions mentioned under PR Schedule 19 Part 2 – Firefighting equipment.

Achievement of specified performance

System design

- Liaise with the local water authority to ensure the street hydrant is fit for use.
- Ensure that a street hydrant is not used to meet the performance requirements of the NCC if a fire brigade booster assembly is incorporated in the design.

Flow requirements

- QFES expect that the flow and pressure of the street hydrant is tested to ensure compliance with Australian Standard (AS) 2419.1- 2005 Table 2.1 and shall be capable of discharging no less than the flow rates specified in Table 2.2.
- QFES expect documentation (QDCMP6.1 Form 72) to be provided proving that the street hydrant has been tested for flow and pressure as part of the building certification.

Location and suitability of the street hydrant

- QFES considers a street hydrant is an external (feed) fire hydrant. When used in the design, consideration should be given to location to enable safe fire brigade access and hose laying. They should be clear of all possible obstructions.
- When measuring the length of laid hose from a fire truck, the truck and street hydrant shall, for calculation purposes, not be located closer than 10 metres to the building it is protecting. The intent is to provide access to the fire hydrant under radiant heat from the fire and give a degree of protection in the event of structural collapse due to fire.
- Street hydrant locations must be identified. Some local councils use a blue cats eye or signage typically on a yellow or white post with a small HR or HP sign mounted on the post. Some may also

paint the hydrant lid and surround yellow for ease of identification. The cover of the hydrant pit is identified by a HP forged into the lid.

- A street hydrant must be located no less than 10 metres from any high voltage main electrical distribution equipment such as transformers and distribution boards and from liquefied petroleum gas and other combustible storage.
- Total hose coverage must be achieved within a distance of 20 metres from the street hydrant to the fire brigade truck, then 60 metres from the fire truck to a point one metre into the most disadvantaged room served. A 10 metre hose stream can then be added for coverage in that room. Note: Hose streams cannot bend around walls.
- When calculating distance, the hose length must be on the ground measured along the normal path of travel and to the outer perimeter in stairs.

Provisions for hardstand for fire trucks

- Hardstand is required to ensure the fire truck does not become immobilised due to water leakage during firefighting operations.
- The street should provide hardstand however in some circumstances the hydrant may not be located on or near the street and hardstand must be provided.

Checklists

Use the following checklists to ensure all document requirements have been met.

Street Fire Hydrant Design Checklist

- ☐ The fire hydrant system flow and pressure requirements comply with the requirements of AS 2419.1 – Table 2.1 and 2.2.
- ☐ The fire hydrant installations minimum water supply requirements comply with AS 2419.1 – 4.2.
- ☐ For a feed fire hydrant (see AS 2419.1 Figure 3.2.2.2 (a), (b), (d) and (e)), the hydrant must:
  - ☐ be within 20 metres of a hardstand so that when a fire brigade pumping truck is connected to it all portions of the building are within reach of a 10 metre hose stream, issuing from the nozzle at the end of a 60 metre length of hose laid on the ground, and
  - ☐ have a minimum of one metre of hose extending into any room served.
- ☐ Consideration is given to the location to ensure safe fire brigade access and hose laying.

Street Fire Hydrant Inspection Checklist

- ☐ The single fire hydrant complies with the requirements of AS 2419.1 for flow, pressure, and location.
- ☐ A flow and pressure report (Queensland Development Code, MP6.1, Form 72) is required indicating the static pressure available at the time of the test and the available pressure from the number of required hydrant outlets at the required flow rate.
- ☐ Street fire hydrants have markers (e.g. blue cats eye location indicators) complying with local council specifications.