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**SACFS Regulation 45 Referral Application - DAS07**

To be completed and forwarded to the SACFS Development Assessment Services – Commercial Team

|  |  |  |
| --- | --- | --- |
| **OFFICE USE ONLY** | **Date received:**  | **File No.:**  |
| **Submitted by:** | **Name:**  | **Company:**  |
| **Development Application number:** |  / /  |
| **Premises Name & Address:** |  |
| **Owners Name:** |  |
| **Council Area:** |  |
| **Approving Authority:** | (Organisation & address) | **Contact:** **Phone:**  |
| **Fire / Building Services Consultant:** | (Organisation & address) | **Contact:** **Phone:**  |
| **Building Classification/s:** | [ ]  1b | Choose an item. | [ ]  7a | Choose an item. |
| [ ]  2 | Residential | [ ]  7b | Choose an item. |
| [ ]  3 | Choose an item. | [ ]  8 | Choose an item. |
| [ ]  4 | Dwelling in a Class 5, 6, 7, 8 or 9 | [ ]  9a | Choose an item. |
| [ ]  5 | Choose an item. | [ ]  9b | Choose an item. |
| [ ]  6 | Choose an item. | [ ]  9c | Residential care building |
| **Description of “Other”** |  |
| **Building use / occupancy:** |  |
| **Type of Construction:** | Choose an item. |  |
| **Total floor area:** |  **m2** | **Max. fire compartment:** |  **m2**  |
| **Large Isolated Building:** | Choose an item. | **Max. fire compartment volume:** |  **m3** |
| **Rise in storeys:** |  | **Number of storeys contained:** |  |
| **Effective Height:** |  |

**PROPOSED PERFORMANCE SOLUTIONS**

Please add additional tables as required

|  |  |  |  |
| --- | --- | --- | --- |
| **No.** | **Relevant *Performance Requirement(s)*** | **Relevant *Deemed-to-Satisfy Provision(s)*** | ***Assessment Method* BCA A2G2(2)** |
|  | **BCA-** | **BCA-** | [ ]  (a)[ ]  (b) (i) [ ]  FSVM[ ]  (b) (ii)[ ]  (c)[ ]  (d) |
| **Proposed *Performance Solution*** |
| **Justification for *Performance Solution*** |

|  |  |  |  |
| --- | --- | --- | --- |
| **No.** | **Relevant *Performance Requirement(s)*** | **Relevant *Deemed-to-Satisfy Provision(s)*** | ***Assessment Method* BCA A2G2(2)** |
|  | **BCA-** | **BCA-** | [ ]  (a)[ ]  (b) (i) [ ]  FSVM[ ]  (b) (ii)[ ]  (c)[ ]  (d) |
| ***Proposed Performance Solution*** |
| ***Justification for Performance Solution*** |

**SYSTEM INFORMATION**

Tick all that apply / Cross out tables that do not apply.

**BCA E1P3 – Fire Hydrants**

|  |  |
| --- | --- |
| [ ]  Performance Solution/s applicable |  |
| [ ]  Installed in accordance with AS 2419.1-2021 |  |
| System arrangement: | [ ]  Onsite – hydrants only[ ]  Combined hydrant & sprinkler system[ ]  Street plugs[ ]  Ring main[ ]  Multiple pressure zones[ ]  Dry hydrant system |
| [ ]  Booster/s | Location (hydrant / combined): Location (sprinkler only):  |
| Water supply |
| [ ]  Town main | Connection size: |  mm dia. |
| Street name: |  |
| Town main size |  mm dia. |
| [ ]  Tank/s | Serving: | Choose an item. |
| Number: |  |
| Location: |  |
| Quickfill: | [ ]  Auto | [ ]  Manual |
| [ ]  Remote tank level indication at booster |
| [ ]  Pumps (main) | Serving: | Choose an item. |
| Number - electric: |  |
| Number – diesel: |  |
| Location: |  |
| Number of pressure zones: |  |
| [ ]  Booster relay pump | Number: |  |
| Location: |  |
| [ ]  Controls & pressure gauge at booster |
| [ ]  Pressure reducing stations | Number: |  |
| Location/s: |  |
| [ ]  Drainage for testing purposes | Details: |  |
| Other relevant details: |  |

**BCA E1D3 – Fire Hose Reels**

|  |  |
| --- | --- |
| [ ]  Performance Solution/s applicable |  |
| [ ]  Installed in accordance with AS 2441-2005 |  |
| Water supply | Choose an item. |
| Other relevant details: |  |

**BCA E1D4 – Sprinkler System**

|  |  |
| --- | --- |
| [ ]  Performance Solution/s applicable |  |
| [ ]  Installed in accordance with: | Choose an item. |
| Other details of sprinkler installation standard: |  |
| Extent of sprinkler installation: | Choose an item. |
| Other details of sprinkler installation extent: |  |
| [ ]  Specialist fire suppression system installed: | Choose an item. |  |
| [ ]  Specification E1.5a concessions applied | List those applicable: |  |
| Hazard Classification: | *Classification:* | *Area/s served:* |
| [ ]  Light Hazard |  |
| [ ]  Ordinary Hazard Group 1 |  |
| [ ]  Ordinary Hazard Group 2 |  |
| [ ]  Ordinary Hazard Group 3 |  |
| [ ]  Ordinary Hazard Car stacker |  |
| [ ]  High Hazard |  |
| [ ]  ESFR / Suppression Mode |  |
| [ ]  Drenchers |  |
| [ ]  Exposure/window protection |  |
| [ ]  Deluge |  |
| [ ]  Other (provide details) |  |
| [ ]  Concealed space sprinklers |  |
| [ ]  Underfloor sprinklers | Served by: | Choose an item. |
| [ ]  Individual sprinkler control valves | Location/s: |  |
| [ ]  Car stacker | Location of control/isolation valve: |  |
| [ ]  Jet impulse fans in sprinklered area | [ ]  Automatic shutdown on detection of smoke |
| [ ]  Annubar test facility | Location: |  |
| [ ]  Gaseous suppression system installed to AS ISO 14520-2009 | Area/s served: |  |
| Extinguishing agent: |  |
| [ ]  Separation between sprinklered and unsprinklered areas | FRL provided: |  |
| Other relevant details: |  |
| Water supply | [ ]  Independent water supply*[detail below]* | [ ]  As for hydrant system above***[no further details required – delete rows below]*** |
| [ ]  Town main | Connection size: |  mm dia. |
| Street name: |  |
| Town main size |  mm dia. |
| [ ]  Tank/s | Serving: | Choose an item. |
| Number: |  |
| Location: |  |
| Quickfill: | [ ]  Auto | [ ]  Manual |
| [ ]  Remote tank level indication at booster |
| [ ]  Pumps (main) | Serving: | Choose an item. |
| Number - electric: |  |
| Number – diesel: |  |
| Location: |  |
| Number of pressure zones: |  |
| [ ]  Pressure reducing stations | Number: |  |
| Location/s: |  |

**BCA E1D14 – Portable Fire Extinguishers**

|  |  |
| --- | --- |
| [ ]  Performance Solution/s applicable |  |
| [ ]  Installed in accordance with NCC / AS 2444-2001 |  |
| Other relevant details: |  |

**BCA E1D15 – Fire Control Centre**

|  |  |
| --- | --- |
| [ ]  Performance Solution/s applicable |  |
| [ ]  Fire control centre | [ ]  Fire control room |
| Location: |  |
| Other relevant details: |  |

**BCA Specification 20 – Automatic Detection System**

|  |  |
| --- | --- |
| [ ]  Performance Solution/s applicable |  |
| [ ]  Installed in accordance with AS 1670.1-2018: | Choose an item. |
| [ ]  Installed on an extended grid basis per AS 1668.1-2015 in the following area/s: |  |
| [ ]  Installed in accordance with SACFS “Condition of Connection requirements” (inc Schedule 1) |  |
| [ ]  Monitored system | Choose an item. |
| Main FIP location: |  |
| Other controls located at/with FIP: | [ ]  Remote pump control and indication panel[ ]  Remote tank level indication[ ]  Fire fan control panel[ ]  Carpark / Car stacker exhaust controls[ ]  Car stacker controls[ ]  Roller shutter controls |
| Other panels provided | Type: | Choose an item. |
| Location: |  |
| Devices: | *Type:* | *Area/s served:* |
| [ ]  Smoke detectors (AS 1670) |  |
| [ ]  Aspirated smoke detection |  |
| [ ]  Thermal detectors |  |
| [ ]  Carbon monoxide |  |
| [ ]  Optical beam |  |
| [ ]  Linear heat detectors |  |
| [ ]  Infrared or UV |  |
| [ ]  Multi-criteria *(detail type & setting)* |  |
| [ ]  Jet fan in-duct *(non-latching)* |  |
| [ ]  Smoke alarms (AS 3786) |  |
| [ ]  Manual call points |  |
| [ ]  Other *(provide details)* |  |
| [ ]  SOUs (residential) | Detection arrangement: | Choose an item. |
| Device locations (in SOUs) | Choose an item. |
| Device locations (public areas) | Choose an item. |
| Sound pressure levels: | [ ]  75 dB(A) at bedhead[ ]  Speakers / sounders in bedrooms |
| Programming (SOU detectors): | Choose an item. |
| False alarm mitigation: | Choose an item.[ ]  Ducted, mechanical kitchen exhaust |
| [ ]  Occupant warning system | Type: | Choose an item. |
| [ ]  MECP, location: |  |
| [ ]  WIPs |  |
| Other relevant details: (including model and type) |  |

**BCA Specification 22 – Smoke Exhaust System**

(refer Smoke Hazard Management Table later for further details)

|  |  |
| --- | --- |
| [ ]  Performance Solution/s applicable |  |
| [ ]  Installed in accordance with: | Choose an item. |
| Location of system/s |  |
| [ ]  Smoke exhaust fans sequentially operated, via: | Choose an item. |
| Make-up air | [ ]  Low level | *Details / Method:*  |
| [ ]  Permanent openings |  |
| [ ]  Automatic opening |  |
| [ ]  Manual operation required |  |
| [ ]  Perforated roller shutters | Open free area:  |
| Smoke reservoirs | [ ]  Permanent smoke baffles | Depth:  |
| [ ]  Smoke curtains | Depth:  |
| Activated by:  |
| [ ]  Guide rails |
| [ ]  Delayed activation |
| [ ]  Fail safe closed |
| Other relevant details: |  |

**BCA Specification 22 – Natural Ventilation**

(refer Smoke Hazard Management Table later for further details)

|  |  |
| --- | --- |
| [ ]  Performance Solution/s applicable |  |
| Ventilation achieved via: | Choose an item. |
| Permanent ventilation openings | Floor area served: |  m2 |
|  | Minimum free area of opening/s: | [ ]  at least 1.5% of floor area\_\_\_\_ m2 |
|  | Low level make-up air: | [ ]  at least 1.5% of floor area\_\_\_\_ m2 |
| Make-up air | [ ]  Low level | *Details / Method:*  |
| [ ]  Permanent openings |  |
| [ ]  Automatic opening |  |
| [ ]  Manual operation required |  |
| [ ]  Perforated roller shutters | Open free area:  |
| Smoke reservoirs | [ ]  Permanent smoke baffles | Depth:  |
| [ ]  Smoke curtains | Depth:  |
| Activated by:  |
| [ ]  Guide rails |
| [ ]  Fail safe closed |
| Other relevant details: |  |

**BCA Specification 22 – Other** (refer Smoke Hazard Management Table later for further details)

|  |  |
| --- | --- |
| [ ]  Performance Solution/s applicable |  |
| [ ]  Zone pressurisation system | [ ]  Installed in accordance with AS/NZS 1668.1-2015 |
| [ ]  Stairwell pressurisation system | [ ]  Installed in accordance with AS/NZS 1668.1-2015 |
| [ ]  Atrium smoke control system | [ ]  Installed in accordance with BCA Specification 31 |
| [ ]  Performance based design |
| [ ]  Car stacker smoke control system, via: |  |
| Make-up air | [ ]  Low level | *Details / Method:*  |
| [ ]  Permanent openings |  |
| [ ]  Automatic opening |  |
| [ ]  Manual operation required |  |
| [ ]  Perforated roller shutters | Open free area:  |
| Smoke reservoirs | [ ]  Permanent smoke baffles | Depth:  |
| [ ]  Smoke curtains | Depth:  |
| Activated by:  |
| [ ]  Guide rails |
| [ ]  Delayed activation |
| [ ]  Fail safe closed |
| Other relevant details: |  |

**BCA E3P2 – Emergency Lift**

|  |  |
| --- | --- |
| [ ]  Performance Solution/s applicable |  |
| [ ]  Emergency lift/s provided (>25m) |  |
| [ ]  Stretcher facility provided in lift (>12m) |  |
| [ ]  Fire service controls provided to lifts (>12m) |  |
| Other relevant details: |  |

**BCA E4D8 – Emergency Lighting and Exit Signage**

|  |  |
| --- | --- |
| [ ]  Performance Solution/s applicable |  |
| [ ]  Installed in accordance with AS 2293.1-2018 |  |
| [ ]  Photoluminescent signage to BCA Spec. E4D8 |  |
| [ ]  Photoluminescent wall/floor/stair markings: |  |
| [ ]  Enhanced exit identification measures | [ ]  Green & white chevron striping (‘DHUD’) |
| [ ]  ‘Jumbo’ sized exit signs |
| [ ]  Green strobe lights |
| [ ]  Dynamic exit signs |

**EV Charging Station**

|  |  |
| --- | --- |
| [ ]  EV Charging Stations being installed. | Location: |

**Specific Operational Requirements**

Please include additional rows of data in the tables below as appropriate.

Delete a table if it is not applicable to the project (e.g. there is no smoke hazard management system).

|  |
| --- |
| **FIREFIGHTING WATER – SUMMARY TABLE** |
| System type: | Choose an item. |
| Flow test received: | Choose an item. |
| **Performance – Maximum system demand** |
|  | **Type** | **Flow rate** | **Pressure** |
| Fire hydrants | Choose an item. |  L/s |  kPa |
| Sprinklers | Choose an item. |  L/s |  kPa |
| Total maximum demand: |  L/s |  kPa |
| Are street plugs used? | Choose an item. | Correct operation of all street plugs confirmed: | Choose an item. |
| No. street plugs required to flow 10 L/s: |  | No. street plugs required for coverage: |  |
| No. external hydrants required to flow 10 L/s: |  | No. internal hydrants required to flow 10 L/s: |  |
| **Booster & Supply Arrangements** |
| Booster location(s) satisfactory? | Choose an item. | No. booster cabinets: |  |
| No. 65mm dia. booster hydrants: |  | No. 65mm dia. booster inlets: |  |
| Tanks used: | Choose an item. | No. 150mm, 125mm, 100mm dia. tank large bore and 65mm small suction connections: |  |
| Effective tank capacity: |  kL | Effective tank duration: |  min |
| Pumps used: | Choose an item. | Pump arrangement: | Choose an item. |
| Duty pump type: | Choose an item. | Standby pump type: | Choose an item. |
| Booster relay pump/s: | Choose an item. | Booster relay pump duty point: |  L/s @ kPa |

|  |
| --- |
| **ALARMS – SUMMARY TABLE** |
| Fire system connected to Fire Service: | Choose an item. | FIP / bell / strobe location satisfactory: | Choose an item. |
| Fire detection (AS 1670.1): | Choose an item. | Extended grid – common areas & paths of egress (AS 1668.1 / BCA): | Choose an item. |
| Fire alarms (AS 3786): | Choose an item. | EWIS (AS 1670.4) installed: | Choose an item. |
| 75 dB(A) achieved at bedhead: | Choose an item. | OWS (AS 1670.1 / BCA) installed? | Choose an item. |
| Installed in accordance with SACFS “Condition of Connection requirements” (inc Schedule 1) | Choose an item. | Hot smoke test required under Reg. 103: | Choose an item. |

**SA Development rEGULATION 103 TESTING Requirements**

The following tables have been developed to better capture the hydraulic testing requirements for the premises. Care must be taken to determine the correct testing regimes and duty points as these criteria will be adopted by SACFS and other parties when undertaking Regulation 103 commissioning/ Functional testing.

Please include additional rows of data in the tables below as appropriate.

Delete table that is not applicable to the project.

|  |
| --- |
| **ADDITIONAL INFORMATION FOR WATER TESTING**Fire Hydrant System Only |
| **Pumped:** | Choose an item. |
| **Test** | **Purpose** | **Location** | **Type** | **No. FH** | **Total flow** | **Pressure** |
| 1 | Choose an item. |  | Choose an item. |  |  L/sec |  kPa |
| 2 | Choose an item. |  | Choose an item. |  |  L/sec |  kPa |

|  |
| --- |
| **ADDITIONAL INFORMATION FOR WATER TESTING**Combined Hydrant & Sprinkler Systems |
| **Pumped:** | Choose an item. | **Sprinkler annubar location:** |  |
| **Test** | **Purpose** | **Location** | **Type** | **No. FH** | **System Component** | **Total flow** | **Pressure** |
| 1 | Choose an item. |  | Choose an item. |  | Hydrants |  L/sec |  kPa |
| Choose an item. |  L/sec |  kPa |
| 2 | Choose an item. |  | Choose an item. |  | Hydrants |  L/sec |  kPa |
| Choose an item. |  L/sec |  kPa |

The following Appendices are for information purposes only for completing this form and these pages should be removed when submitting this form to the SACFS for a SA Development Regulation 45 Relevant Fire Authority Comment Report.

**APPENDIX A – NCC 2022 Volume One, Section A – Governing Requirements**

***A2G2 Performance Solution***

*]*

1. *A Performance Solution is achieved by demonstrating—*
	1. *compliance with all relevant Performance Requirements; or*
	2. *the solution is at least equivalent to the Deemed-to-Satisfy Provisions.*
2. *A Performance Solution must be shown to comply with the relevant Performance Requirements through one or a combination of the following Assessment Methods:*
	1. *Evidence of suitability in accordance with Part A5 that shows the use of a material, product, plumbing and drainage product, form of construction or design meets the relevant Performance Requirements.*
	2. *A Verification Method including the following:*
		1. *The Verification Methods provided in the NCC.*
		2. *Other Verification Methods, accepted by the appropriate authority that show compliance with the relevant Performance Requirements.*
	3. *Expert Judgement.*
	4. *Comparison with the Deemed-to-Satisfy Provisions.*
3. *Where a Performance Requirement is satisfied entirely by a Performance Solution, in order to comply with (1) the following method must be used to determine the Performance Requirement or Performance Requirements relevant to the Performance Solution:*
	1. *Identify the relevant Performance Requirements from the Section or Part to which the Performance Solution applies.*
	2. *Identify Performance Requirements from other Sections or Parts that are relevant to any aspects of the Performance Solution proposed or that are affected by the application of the Performance Solution.*
4. *Where a Performance Requirement is proposed to be satisfied by a Performance Solution, the following steps must be undertaken:*
	1. *Prepare a performance-based design brief in consultation with relevant stakeholders.*
	2. *Carry out analysis, as proposed by the performance-based design brief.*
	3. *Evaluate results from (4)(b) against the acceptance criteria in the performance-based design brief.*
	4. *Prepare a final report that includes—*
		1. *all Performance Requirements and/or Deemed-to-Satisfy Provisions identified through A2G2(3) or A2G4(3) as applicable; and*
		2. *identification of all Assessment Methods used; and*
		3. *details of steps (4)(a) to (4)(c); and*
		4. *confirmation that the Performance Requirement has been met; and*
		5. *details of conditions or limitations, if any exist, regarding the Performance Solution.*