



23 July 2012

Capital Insight Pty Ltd
77 Berry Street
NORTH SYDNEY NSW 2060

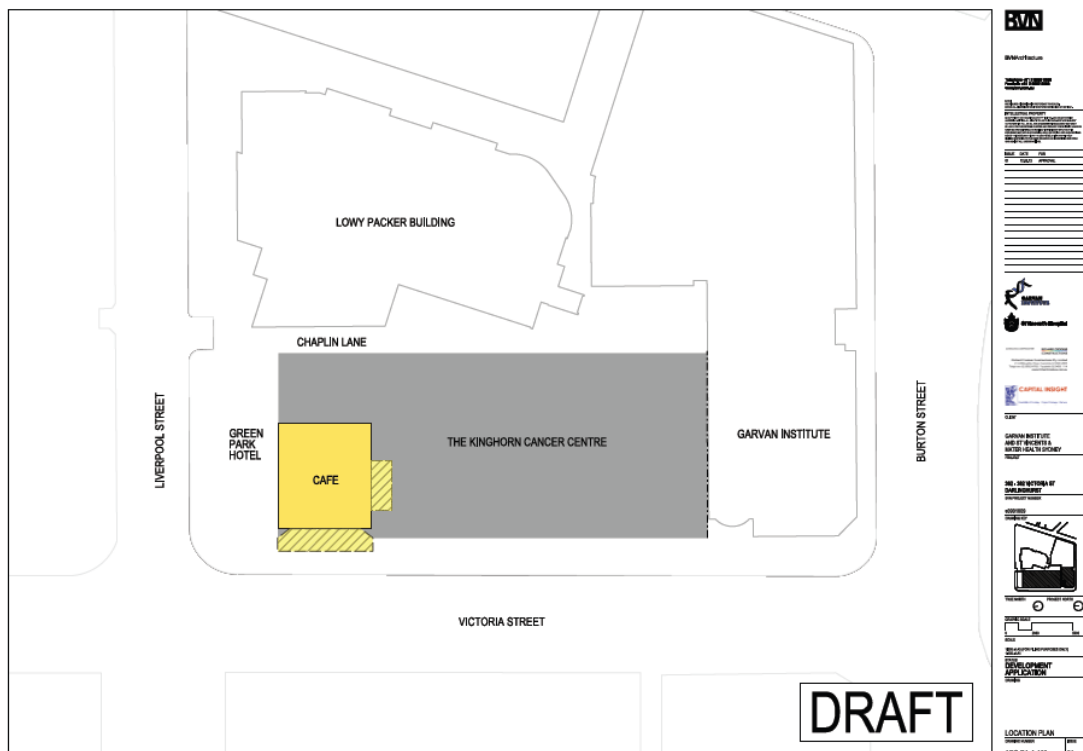
Attn: Tony Carton
Email: Tony.Carton@capitalinsight.com.au

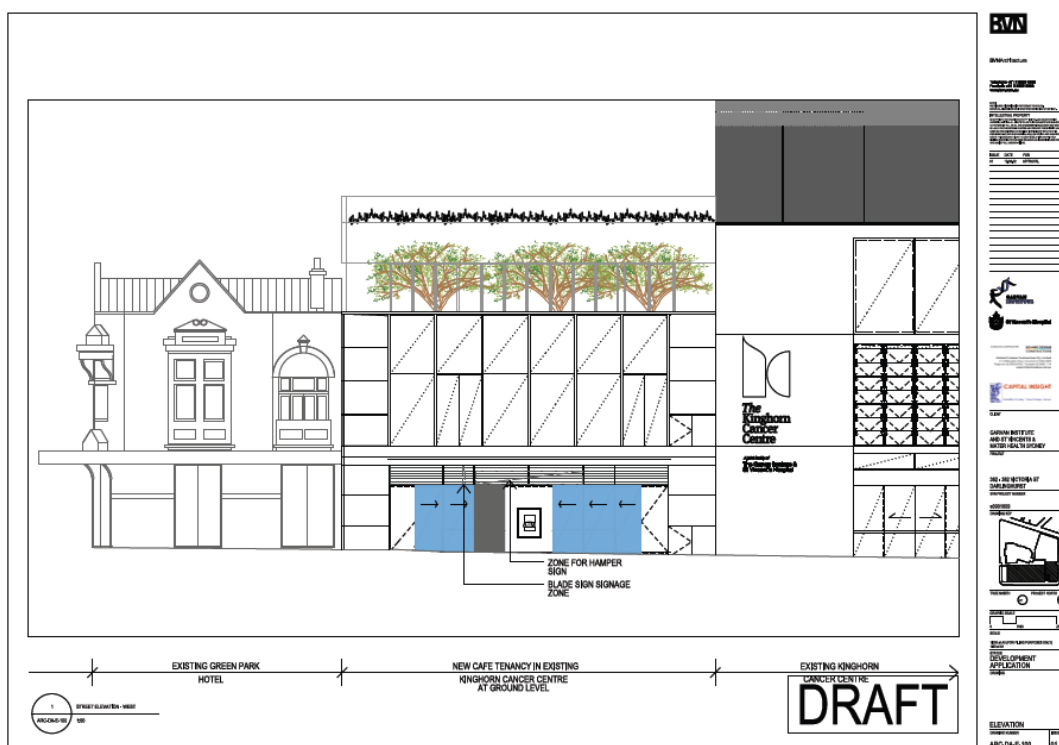
Dear Tony,

**REFERENCE: GARVAN ST VINCENTS CAMPUS CANCER CENTRE
VICTORIA STREET CAFÉ 368 - 382 VICTORIA STREET,
DARLINGHURST - BCA COMPLIANCE STATEMENT**

In accordance with your instructions Blackett Maguire + Goldsmith Pty Ltd (BM+G) has reviewed the plans associated with the proposed new café fitout within level 4 of the newly erected Garvan St Vincent's Campus Cancer Centre, Darlinghurst.

The architectural drawings are illustrated below:-





The following BM+G Team Members have contributed to this assessment:

- David Blackett (Director)
- Matt Morrissey (Senior Building Surveyor)

Our assessment of the design documentation was based on the following:-

- BCA 2012
- Guide to the BCA 2012.
- Access to Premises Standard 2010
- Concept Architectural plans prepared by BVN:

Arising from our review we are satisfied the proposed fitout of the level 4 café is capable of complying with the BCA2012 and the Access to Premises Standards 2010.

The design documentation will be further refined to ensure detailed compliance is achieved at the Construction Certificate stage, however we are of the opinion that such detail refinement will not give rise to any inconsistency with the DA-approved documentation.

The proposed café fitout will require the following essential fire safety measures:-

Statutory Fire Safety Measure	Design/Installation Standard	Existing	Proposed
Access Panels, Doors & Hoppers	BCA Clause C3.13 & AS 1530.4 - 2005	✓	
Alarm Signalling Equipment	AS1670.3 - 2004	✓	✓
Automatic Fail Safe Devices	BCA Clause D2.21	✓	✓



<p>Automatic Fire Detection & Alarm System</p> <p><u>Fire Engineered Solution Requirements:-</u></p> <ul style="list-style-type: none"> ▪ Fully addressable to BCA Specification E2.2a, AS 1670.1-2004 & AS/NZS 1668.1-1998 throughout TKCC. ▪ Multi-point aspirating type detectors (e.g. VESDA) within the Atrium. ▪ Point detectors in the remaining parts of the building. ▪ Detector spacing to AS 1670.1-2004, i.e. not extended spacing. ▪ No smoke detectors in car parks and plant rooms which are fully sprinkler protected, except outside the entry doors to the fire-isolated stairs and the adjacent lift landing doors to activate the stair and lift shaft pressurisation systems as per AS/NZS 1668.1-1998 requirements. ▪ Heat detectors in areas where smoke detectors can cause spurious alarms. If the area is already protected with fire sprinklers, then heat detectors are not considered necessary. ▪ Smoke detection system to automatically activate building occupant warning system. ▪ The smoke detection system is to be interfaced via the Fire Indicator Panel (FIP) with an approved fire alarm monitoring system connected to a fire station or a fire station dispatch centre in accordance with BCA Specification E2.2a. 	<p>BCA Spec. E2.2a & AS 1670.1 – 2004 and Fire Engineering Report FSA-RPT-003 Revision D prepared by Solution Consultants Pty Ltd</p>	<p>✓</p>	<p>✓</p>
<p>Automatic Fire Suppression Systems</p> <p><u>Fire Engineered Solution:-</u></p> <p>The fire services room containing the sprinkler control valves does not have direct egress to a road or open space.</p> <p>Delete sprinklers from the underside of the awnings outside the western main entrance of the building and the awnings to the retail on Level 04.</p> <p><u>Fire Engineered Solution Requirements:-</u></p> <ul style="list-style-type: none"> ▪ BCA Clause E1.5, BCA Specification E1.5, AS 2118.1-1999 & AS 2118.6-1995 throughout the TKCC building. 	<p>BCA Spec. E1.5 & AS 2118.1-1999 or AS2118.4, 6 - 1995 and Fire Engineering Report FSA-RPT-003 Revision D prepared by Solution Consultants Pty Ltd</p>	<p>✓</p>	<p>✓</p>



<ul style="list-style-type: none"> ▪ Grade 1 water supply to AS 2118.1.1-1999 & AS 2118.6-1995. ▪ Sprinklers in the atrium to BCA Specification G3.8. ▪ Internal wall wetting sprinklers to any glazed components of the eastern external wall on Level 04 that will be located within 6m of a path of travel the fire stair discharge, in accordance with BCA Clause D1.7(c). ▪ Fast response sprinklers with RTI $\leq 50 (m.s)^{1/2}$, activation temperature 68° C. ▪ Operation of the sprinklers to automatically activate the building occupant warning system in accordance with BCA Specification E1.5. ▪ The sprinkler system is to be interfaced via the Fire Indicator Panel (FIP) with an approved fire alarm monitoring system connected to a fire station or a fire station dispatch centre in accordance with BCA Specification E2.2a, Clause 7. ▪ To improve the overall reliability of the sprinkler system, the system is to incorporate an isolation valve on each level to enable each level of the building to be isolated for future fit-outs, repairs, and maintenance. ▪ If work is carried out within the building that requires the sprinkler system to be turned off, this has to be carried out outside occupied hours. Written permission is to be obtained from the facilities management to carry out the work. The length of isolation is to be stated. The contractor is to sign off at the completion of the work that the sprinkler system is back on line. <p>NOTE: Where automatic fire sprinklers are not provided within the server room and the electrical communications rooms, and gas suppression is provided in lieu, then these rooms are to be 2 hour fire separated from the remainder of the sprinkler protected building. All doorways to these rooms are to be protected with self-closing fire doors with an FRL of at least -/120/30. Any services penetrations through the enclosing fire rated construction of these rooms are to be protected in accordance with the DTS provisions of the BCA to ensure the 2 hour fire separation is maintained.</p>			
<p>Building Occupant Warning System activated by the Sprinkler System</p>	<p>BCA Spec E1.5 Clause 8 and/ or Clause 3.22 of AS 1670.1 – 2004</p>	<p>✓</p>	<p>✓</p>
<p>Emergency Lifts</p>	<p>BCA Clause E3.4 & AS 1735.2 -</p>	<p>✓</p>	



	2001		
Emergency Lighting	BCA Clause E4.4 & AS 2293.1 - 2005	✓	✓
<p>Sound Systems & Intercom Systems for Emergency Purposes (EWIS)</p> <p><i>Fire Engineered Solution:-Variation to the provision of sound systems and intercom systems for emergency purposes on Level 03 where animals will be accommodated. The variation includes the use of visual indication and signage in lieu of audible alarms.</i></p> <p><i>Fire Engineered Alternative Solution Recommendations:-</i></p> <ul style="list-style-type: none"> ▪ <i>To be provided throughout TKCC building in accordance with BCA Clause E4.9 and AS 1670.4-2004, except the proposed variations listed in Table 1 of this report.</i> ▪ <i>The system is to incorporate an enhanced verbal message that announces in clear and concise English: –"Evacuate the building immediately. This is not a fire drill".</i> ▪ <i>The system is to automatically operate upon activation of either the fire sprinkler or smoke detection systems, in accordance with BCA Specification E1.5 and Specification E2.2a.</i> ▪ <i>For the areas containing research animals sensitive to loud noise, visual indication and adequate signage are to be provided in lieu of audible alarms.</i> 	BCA Clause E4.9 & AS 1670.4 – 2004 & AS 4428.4 – 2004 and Fire Engineering Report FSA-RPT-003 Revision D prepared by Solution Consultants Pty Ltd	✓	✓
<p>Emergency Evacuation Plan</p> <p><i>Fire Engineered Solution Requirements:-</i></p> <ul style="list-style-type: none"> ▪ <i>Emergency evacuation drills are to be held at least every 12 months.</i> ▪ <i>Staff responsibilities and training, including staff induction training is to be undertaken</i> ▪ <i>Staff training is to include initial attack on a fire when safe to do so, using portable fire extinguishers and the fire hose reels.</i> ▪ <i>Staff training is to include operation of push button exit doors during an evacuation drill</i> ▪ <i>Emergency evacuation plans and fire orders are to be prepared and displayed adjacent to each exit. The plans shall include the locations of the fire protection</i> 	AS 3745 – 2002 and Fire Engineering Report FSA-RPT-003 Revision D prepared by Solution Consultants Pty Ltd	✓	



<p><i>equipment - hydrants, hose reels and portable fire extinguishers.</i></p> <ul style="list-style-type: none"> ▪ <i>Emergency evacuation and management procedures for people with disabilities are to be developed.</i> ▪ <i>Exit paths are to be kept clear of items that constitute fire load or impede occupant egress.</i> 			
Exit Signs	BCA Clauses E4.5, E4.6 & E4.8 and AS 2293.1 - 2005	✓	✓
Fire Control Centres	BCA Spec E1.8	✓	
Fire Blankets	AS 3504 - 1995 & AS 2444 - 2001	✓	✓
Fire Dampers	BCA Clause C3.15, AS 1668.1 - 1998 & AS 1682.1 & 2 - 1990	✓	
Fire Doors	BCA Clause C2.12, C2.13, C3.2, C3.4, C3.5, C3.6 & C3.7, C3.8, C3.11 and AS 1905.1 - 2005 and Fire Engineering Report FSA-RPT-003 Revision D prepared by Solution Consultants Pty Ltd	✓	
<p>Fire Resistant Levels</p> <p><i>Fire Engineered Solution:-</i></p> <p><i>Reduction of Fire Resistance Level (FRL) of building elements to 2 hours in lieu of not less than 3 hours for the retail part and in lieu of not less than 4 hours for the laboratory part of the building.</i></p> <p><i>Columns C1 and C2 within the atrium void, adjacent to the lift lobby are to be unprotected steel construction in lieu of construction with a FRL not less than 120/-/-. Columns C1 and C2 are to be designed to withstand a limiting temperature of around 600° C.</i></p> <p><i>Columns C3 and C4 within the atrium, extending from Level 07 to the atrium roof are to be protected with intumescent paint to achieve a FRL of not less than 120/-/-. </i></p> <p><i>The bridge links across the atrium void are to be unprotected steel construction. If considered load bearing, the bridge links would be required to have a FRL of not less than 120/-/-. according to BCA Specification C1.1, Table 3.</i></p> <p><i>Small office enclosures are to be cantilevered into the atrium void using unprotected steel support construction (rods) in lieu of construction with a FRL of at least 120/-/-. </i></p> <p><i>Rationalisation of FRL of the construction elements at the proposed connections between</i></p>	<p>Fire Engineering Report FSA-RPT-003 Revision D prepared by Solution Consultants Pty Ltd</p>	✓	



<p>TKCC and the adjacent LP and GIMR buildings on Levels B1, 03 and 07.</p> <p><u>Level B1</u> <i>The proposed connection between the basement Level B1 car park of TKCC and Level 1 car park of the LP building is not proposed to be protected, considering that both car parks are fully sprinkler protected.</i></p> <p><u>Levels 03 & 07</u> <i>The connection points are to be protected by self-closing -/120/30 fire doors in lieu of construction with FRL as prescribed by Specification C1.1, Table 3. Alternatively, the doors are to be self-closing or automatic closing laminated safety glazing doors not less than 6 mm thick with wall wetting sprinklers on both sides of the glazing, fitted with medium temperature smoke seals.</i></p> <p><i>The bridge link between the TKCC Level 07 and the existing GIMR building is to be unprotected steel construction in lieu of a construction having a FRL of not less than - /240/180.</i></p> <p><i>Smoke separation only between floors at the slab edge to the curtain wall (approximate 50mm gap), in lieu of fire separation.</i></p> <p><i>The proposed atrium connecting all levels of the building (except the basement car parking levels, Level 03 and the roof plant) will vary from the BCA DTS Provisions as follows:</i></p> <ul style="list-style-type: none"> ▪ <i>The atrium bounding wall construction will vary from the design specified in Clauses G3.3 and G3.4.</i> <p><i>It is proposed to use fire retarded Alucobond panels in parts of the external facade.</i></p>			
<p>Fire Hose Reels</p> <p><u>Fire Engineered Solution:-</u> <i>The fire hose reel design includes the hose to pass through required fire/smoke walls to ensure adequate coverage.</i></p> <p><i>For the car park levels, fire hose reels located on the higher half level will also serve the lower half level of the same storey.</i></p> <p><i>The internal fire hose reel on the southern side of Level 04 is up to 5</i></p>	<p>BCA Clause E1.4 & AS 2441 – 2005 and Fire Engineering Report FSA-RPT-003 Revision D prepared by Solution Consultants Pty Ltd</p>	<p>✓</p>	



<p><i>m (> 4 m) from the exit.</i></p> <p><u>Fire Engineered Solution Requirements:-</u></p> <ul style="list-style-type: none"> ▪ <i>BCA Clause E1.4 and AS 2441-2005, except the proposed variations listed in Table 1 of this report.</i> ▪ <i>Additional hose reels are to be provided within the occupied space to ensure adequate coverage is achieved.</i> <p><i>NOTE: Fire hose reels are not proposed to be located in the dedicated small laboratory areas on Levels 07 to 11, which will be fire separated from the remainder of the floors.</i></p>			
<p>Fire Hydrant Systems</p> <p><u>Fire Engineered Solution:-</u></p> <p><i>To locate fire hydrants on the intermediate landings within the fire isolated stairs, in lieu of the landing coincident with the floor.</i></p> <p><i>Location of fire brigade booster assembly does not strictly comply with Clause 7.3(c)(ii) of AS 2419.1-2005.</i></p> <p><i>For the car park levels, fire hydrants located on the higher half level will also serve the lower half level of the same storey.</i></p> <p><u>Fire Engineered Solution Requirements:-</u></p> <ul style="list-style-type: none"> ▪ <i>BCA Clause E1.3, AS 2419.1-2005 & AS 2118.6- 1995, except the proposed variations listed in Table 1 of this report, and to the satisfaction of NSWFB.</i> ▪ <i>Additional hydrants are to be provided within the occupied space to ensure adequate coverage is achieved.</i> ▪ <i>Appropriate signage is to be provided on each floor indicating the location of all fire hydrants, as requested by the NSW Fire Brigades. This could be achieved by the provision of a small Block Plan within the fire stairs adjacent to each hydrant point.</i> ▪ <i>The couplings in the hydrant system shall be compatible with those of the fire appliances and equipment used by the NSWFB. The hydrants are to be fitted with storz hose couplings which comply with Clause 7.1 of AS 2419.1-2005.</i> 	<p>Clause E1.3 & AS 2419.1 – 2005 and Fire Engineering Report FSA-RPT-003 Revision D prepared by Solution Consultants Pty Ltd</p>	<p>✓</p>	



Fire Seals	BCA Clause C3.15, AS 1530.4 & AS4072.1 - 2005	✓	✓
Fire Stopping <i>Fire Engineered Solution:- Fume cupboard exhaust duct penetrations through fire rated shafts are not protected with fire dampers, but are protected with 2 hour fire rated ducts installed similar to a "sub-duct" type arrangement.</i>	BCA Spec. C3.4 and Fire Engineering Report FSA-RPT-003 Revision D prepared by Solution Consultants Pty Ltd	✓	✓
Lightweight Construction	BCA Clause C1.8 & AS 1530.3 - 1999	✓	
Mechanical Air Handling Systems (<i>manual override for carpark levels</i>) <i>Fire Engineered Solution Requirements:-</i> <i>Carpark Ventilation:-</i> <ul style="list-style-type: none"> ▪ <i>All basement car park levels are to be provided with mechanical ventilation in accordance with Table E2.2a of the BCA, and to AS 1668.2-1991.</i> ▪ <i>The car park ventilation fans are not considered to be an essential service, and therefore do not need to be wired using fire rated cables.</i> ▪ <i>The car park ventilation fans are to operate in fire mode as per the requirements of AS/NZS 1668.1-1998. Override controls for fans are also to be provided at the FIP, in accordance with AS/NZS 1668.1-1998 for fire brigade use.</i> <i>General Air Conditioning & Ventilation:-</i> <ul style="list-style-type: none"> ▪ <i>The air handling and ventilation systems serving Levels 03 and 04 are to be independent of the atrium and the other areas of the TKCC.</i> ▪ <i>The air handling and ventilation systems serving the laboratory compartments on Levels 07 to 11 are to be independent of the atrium and the other areas of the TKCC.</i> ▪ <i>The air handling and ventilation systems serving those areas that directly communicate with the atrium on Levels 05 to 11 are to be independent of the lab compartments and those areas on Levels 03 and 04.</i> 	BCA Clause E2.2, AS/NZS 1668.1 - 1998 & AS 1668.2 - 1991 and Fire Engineering Report FSA-RPT-003 Revision D prepared by Solution Consultants Pty Ltd	✓	
Paths of Travel & Travel Distances <i>Fire Engineered Solution:- Extended distance between alternative exits within each of the basement car parking levels of up to a maximum of 65m (in lieu of 60m).</i>	EP & A Regulation Clause 186 and Fire Engineering Report FSA-RPT-003 Revision D prepared by Solution Consultants Pty Ltd	✓	✓



<p>Extended distance between alternative exits on Levels 03, 05, 06, 07, 08, 09, 10 & 11 of up to a maximum of 75m (in lieu of 60m).</p> <p>Extended travel distance on Level 03 of up to 25m to a point of choice from which travel in different directions to 2 exits is available (in lieu of 20m).</p> <p>Extended travel distance on Level 04 of up to 24.1 m to a point of choice in lieu of 20 m, and up to 55.8 m to an exit in lieu of 40 m.</p> <p>The southern fire-isolated stair discharges on Level 04 into a pedestrian corridor that is enclosed over more than 2/3 of its perimeter.</p> <p>The path of travel from the point of discharge of the southern fire-isolated stair passes within 6m of the eastern external wall of TKCC building. Openings on Level 04 within this external wall are not protected internally.</p> <p>Travel distance to a point of choice on Level 12, plant room is up to 30 m in lieu of 20 m.</p> <p>The following doors are to be provided with push button emergency unlock with 24 hr battery back-up:</p> <ul style="list-style-type: none"> ▪ atrium Level 04 east and west exit doors (D04.09, D04.70 and D04.63) ▪ doors on Level 08 to Level 10/ Level 11 connecting the write-up space and the laboratory area (e.g., D07.13, D07.14, D07.44, D08.12, D08.30, D09.13, D09.33 etc.) ▪ external door to the HOAC area Level 04, east façade (D04.28) ▪ doors on Level 07 west connection (D07.48 and D07.49) and De Novo external doors (D07.34) ▪ haplin Lane gate (G1) ▪ HOAC waiting room 4.12 door from Atrium (D04.15) 			
<p>Portable Fire Extinguishers</p> <p><u>Fire Engineered Solution Requirements:-</u></p>	<p>BCA Clause E1.6 & AS 2444 – 2001 and Fire Engineering Report FSA-RPT-003 Revision D prepared by Solution Consultants Pty Ltd</p>	✓	✓



<ul style="list-style-type: none"> Additional portable fire extinguishers are to be provided in areas which are fire-isolated or smoke separated from the remainder of the building, such as the laboratory areas, which are not protected by dedicated fire hose reels. 			
<p>Pressurising Systems</p> <p><u>Fire Engineered Solution Requirements:-Lift Shaft Pressurisation:-</u></p> <ul style="list-style-type: none"> to serve the two goods lifts on the southern side of the TKCC, in accordance with the relevant provisions of AS/NZS 1668.1-1998. the capacity of the lift shaft pressurisation systems is to be sufficient to develop a pressure differential of between 20 and 50 Pa between the lift shafts and the occupied space of the building. to lift shaft pressurisation for the three passenger lifts on the northern side of TKCC. Instead, the northern lift lobbies in the basement car park levels are to be smoke separated from the remainder of the building. <p><u>Fire Engineered Solution Requirements:-Lift Shaft Pressurisation:-</u></p> <ul style="list-style-type: none"> to serve the fire-isolated stairs on both the northern and southern ends of TKCC, including the basement levels, in accordance with the relevant provisions of AS/NZS 1668.1-1998. the capacity of the stair pressurisation system serving the southern fire stair is to be sufficient to sustain airflow of not less than 1 m/s, averaged over the full area of the door into the fire-affected floor, with the main discharge doors and all doors to the fire-affected floor fully open. the capacity of the stair pressurisation system serving the northern and basement fire stairs are to be sufficient to sustain an airflow of not less 	<p>BCA Clause E2.2 & AS/NZS 1668.1 - 1998 and Fire Engineering Report FSA-RPT-003 Revision D prepared by Solution Consultants Pty Ltd</p>	<p>✓</p>	



<p><i>than 1 m/s, averaged over the full area of each door into the fire-affected floor, with the main discharge doors and all doors to the fire-affected floor and the floor above fully open.</i></p>			
<p>Required Exit Doors (power operated)</p>	<p>BCA Clause D2.19(b)</p>	<p>✓</p>	<p>✓</p>
<p>Smoke Hazard Management Systems</p> <p><i>Fire Engineered Solution:-</i> <i>Zone smoke control system is not as required by the DTS Provisions.</i></p> <p><i>The atrium connecting all levels of the building (except the basement car parking levels, Level 03 and the roof plant) will vary from the BCA DTS Provisions as follows:</i></p> <ul style="list-style-type: none"> ▪ <i>The smoke control system within the atrium will be designed on a performance basis, in lieu of strictly in accordance with Specification G3.8.</i> <p><i>Fire Engineered Solution Requirements:-</i> <i>Smoke Control for Atrium;</i></p> <ul style="list-style-type: none"> ▪ <i>Smoke exhaust system generally to Section 3 of Specification G3.8 and AS1668.1-1998.</i> ▪ <i>The atrium is to be provided with a mechanical smoke exhaust system with a total flow rate not less than 60 m³/s.</i> ▪ <i>There shall be a minimum of two smoke exhaust fans, each capable of 50% of the total required smoke exhaust capacity.</i> ▪ <i>Suitable and adequate areas for make-up air are to be provided at the Ground Level of the Atrium following the guidelines of Part 3.8, Specification G3.8.</i> ▪ <i>The smoke exhaust fans shall be capable of continuous and required operation for a period of not less than 1 hour when handling exhaust gases at 200° C.</i> ▪ <i>Grill intake area within the plenum at the top of the atrium to be around 21 m².</i> ▪ <i>Activation of smoke exhaust fans by smoke detection system as well as the sprinklers.</i> 	<p>BCA Part E2 & AS/NZS 1668.1 - 1998 and Fire Engineering Report FSA-RPT-003 Revision D prepared by Solution Consultants Pty Ltd</p>	<p>✓</p>	<p>✓</p>
<p>Smoke Dampers</p>	<p>AS/NZS 1668.1 - 1998</p>	<p>✓</p>	
<p>Smoke Separation</p> <p><i>Fire Engineered Solution Requirements - Lift Lobbies at</i></p>	<p>BCA Spec. C3.4 & C2.5 and Fire Engineering Report FSA-RPT-003 Revision D prepared by Solution Consultants Pty Ltd</p>	<p>✓</p>	



<p>Basement Carpark Levels:- <i>The lift lobbies on all basement car parking levels B2, B1, L01 and L02 are to be smoke separated from the remainder of the car parking areas using smoke walls as per BCA Specification C2.5. Any doors within these smoke walls are to be automatic or self-closing smoke doors as per BCA Specification C3.4. Where glazed construction is proposed for the wall or smoke doors, it will be laminated safety glazing at least 6 mm thick with wall wetting sprinklers on the car park side of the glazing only. The doors are to be provided with smoke seals as detailed in Table 8</i></p>			
<p>Stand-by Power Systems</p>	<p>BCA Clause E1.3, E3.4, E4.2 & E4.5 and AS 3000 – 1991</p>	<p>✓</p>	
<p>Protection of Openings</p> <p><u>Fire Engineered Solution:-</u></p> <ul style="list-style-type: none"> ▪ <i>No protection to the louvres on the external ventilation shaft of the TKCC building at Levels 05 and 06. These louvres are within 6m of the openings on the adjacent existing GIMR building.</i> <p><i>Louvres on the eastern external wall of the cryogenic store on L03 are within 6 m of the adjacent LP building and within 6m of the path of travel after discharging from the northern fire-isolated stairway. These louvres are to be protected with -/60/- fire dampers, closed normally and during fire mode. The louvres are to open automatically following oxygen depletion detection alarm within cryogenic store.</i></p> <p><i>Unprotected opening on the western external wall of Level 08 of GIMR building adjoining the external wall of TKCC building.</i></p> <p><i>Unprotected openings on the eastern external wall of TKCC building within 3 m of the allotment boundary between the TKCC and LP buildings.</i></p> <p><u>Fire Engineered Solution Requirements:-</u></p> <p><i>AS2118.2-2010, with the following specifications:</i></p>	<p>BCA Clause C3.4 & AS 2118.2 – 1995 and Fire Engineering Report FSA-RPT-003 Revision D prepared by Solution Consultants Pty Ltd</p>	<p>✓</p>	



<p>a) Glazing Details - At least 6mm thick toughened (heat strengthened) glazing or laminated safety glazing. The maximum height of the pane should be no more than 3.5m, and the width of the pane should be compatible with the spray pattern of the wall wetting sprinkler system, so that no dry spots occur. No intermediate horizontal transoms on any of the panes.</p> <p>b) Frame Details - Frames shall be constructed of aluminium or steel and shall provide an allowance for the expansion of the glass using flexible seals. No intermediate horizontal transoms on any of the panes. If sprinkler heads are to be less than 2m apart and if there is a potential for the water spray from one head to affect another (cold soldering of sprinklers), vertical mullions of sufficient depth are to be provided. The glazed walls separating the laboratory areas (L07 to L11) from the atrium are to be frameless.</p> <p>c) Sprinkler Head Characteristics - Fast response wall wetting sprinkler head (RTI $\leq 50m^{1/2}s^{1/2}$ and temperature rating of 68°C). The discharge flow rate and pressure shall be such that the spray pattern and water film formed will not leave dry spots anywhere on the surface.</p> <p>d) Sprinkler Head Location - relative to the glazing is to be in accordance with AS 2118.2-2010.</p> <p>e) Water Supply - The water supply requirements should be calculated based the maximum number of wall wetting sprinklers operating simultaneously.</p> <p>f) Testing Facility - Adequate testing facilities, such as end of line testing valves and pressure and volume gauge tapping points shall be provided.</p> <p>g) Maintenance - Routine inspection and maintenance of the wall wetting sprinkler system is to be carried out in accordance with AS1851.3. The glazing system must be inspected to ensure that the glazing is relatively free from dust and grease, and that no</p>			
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<p><i>foreign objects such as stickers or signs are attached to the glazing.</i></p> <p><i>The glazed doors requiring wall wetting sprinklers must comply with the following specifications:</i></p> <p><i>a) The doors shall be self-closing, or automatic closing in accordance with (b) and (c) below.</i></p> <p><i>b) The automatic closing operation of the doors must be initiated by the activation of a smoke detector installed in accordance with the relevant provisions of AS 1670.1, and located at a horizontal distance of not more than 1.5 m from the glazing.</i></p> <p><i>c) Activation of the wall wetting sprinkler system must also initiate the automatic closing of the glazed doors.</i></p> <p><i>d) The glazed doors shall be provided with medium temperature smoke seals. The seal shall be selected such that when tested in accordance with AS1530.7-1998, it will achieve a maximum total leakage rate of 15 m³/h for single leaf doors, and 30 m³/h for double leaf doors, corrected to Standard Temperature and Pressure (STP), at a pressure differential of 25 Pa after more than 30 minutes exposure to 200° C.</i></p>			
Warning & Operational signs	Section 183 of the EP & A Regulations 2000, AS 1905.1 - 2005, BCA Clause C3.6, D2.23, E3.3	✓	✓
<p>Fire Compartmentation</p> <p><i>Fire Engineered Solution:-</i></p> <p><i>The proposed atrium connecting all levels of the building (except the basement car parking levels, Level 03 and the roof plant) will vary from the BCA DTS Provisions as follows:</i></p> <ul style="list-style-type: none"> <i>▪ Fire compartment, comprising the floor areas of all storeys contained within the atrium, will exceed the maximum area permitted in Table C2.2.</i> 	BCA C2.2 and Fire Engineering Report FSA-RPT-003 Revision D prepared by Solution Consultants Pty Ltd.	✓	✓

This compliance statement has been prepared for the purposes of submission with the DA application to the Consent Authority.



Please contact the undersigned should you have any further enquiries on 02 9211 7777 or 0417 247 344.

Yours Sincerely,

A handwritten signature in black ink, appearing to read 'David Blackett', with a long horizontal line extending to the right.

David Blackett

Director - Blackett Maguire + Goldsmith Pty Ltd