BLACKETT MAGUIRE+ GOLDSMITH

06 September 2017

Hamptons Property Services Pty Ltd
PO Box 954
EDGECLIFF NSW 2027

Attention: Rachel Condon / Kristy Hodgkinson

Dear Rachel / Kristy,

**RE: 77-79 WALDRON ROAD, CHESTER HILL NSW 2162**
**BCA CAPABILITY STATEMENT FOR DA SUBMISSION**

This statement has been prepared to verify that Blackett Maguire + Goldsmith Pty Ltd have undertaken a review of the architectural documentation that will accompany the Development Application to Canterbury-Bankstown Council for the proposed development against the Building Code of Australia 2016 (BCA).

## PROPOSED DEVELOPMENT

The proposed development comprises of demolition of the existing structures on the site and construction of a mixed use development comprising:

- Ground floor car parking and landscaping;
- Ground floor retail shops (x2); and
- Approximately 52 boarding rooms contained over 3 levels above the ground floor. Also 1 Managers room is located on ground floor.

The site is bound by Wellington Rd to the South, Hector Street to the East; refer to Site Location image below:

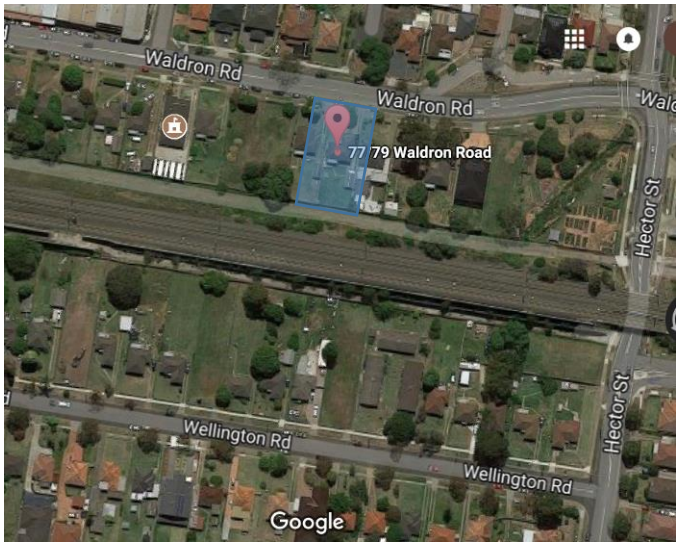


*Figure 1 - Site Location*
*(Source: Google Maps)*

Address | Suite 2.01, 22-36 Mountain St Ultimo NSW 2007
Postal | PO Box 167 Broadway NSW 2007
ABN | 18 408 985 851
Contact | Ph: 02 9211 7777 Fax: 02 9211 7774 Email: admin@bmplusg.com.au

## COMPLIANCE STATEMENT OBJECTIVES

The objectives of this statement are to:

a) confirm that the DA architectural documentation has been reviewed by an appropriately qualified Building Surveyor and Accredited Certifier.

b) confirm that the proposed new building works can readily achieve compliance with the BCA pursuant to clause 145 of the *Environmental Planning & Assessment Regulation 2000*.

c) accompany the Development Application submission to enable the Consent Authority to be satisfied that subsequent compliance with the fire & life safety and health & amenity requirements of the BCA, will not necessarily give rise to design changes to the building which may necessitate the submission of an application under Section 96 of the *Environmental Planning and Assessment Act 1979*.

It should be noted that it is not the intent of this statement to identify all BCA provisions that apply to the subject development. The development will be subject to further assessment following receipt of more detailed documentation at Construction Certificate stage.

This statement has been prepared pursuant to clause 18 of the *Building Professionals Regulation 2007*.

## RELEVANT VERSION OF THE BCA

Pursuant to clause 145(1)(b) the proposed building is subject to compliance with the relevant requirements of the BCA as in force at the time the application for the Construction Certificate was made. The current version of the BCA is the BCA 2016, with the BCA 2019 coming into effect on the 1 May 2019.

## REFERENCED DOCUMENTATION

This report has been prepared based on a review of the BCA review of the following DA architectural plans prepared by Project Tourism International Architects Pty Ltd:

| Drawing No. | Revision | Date | Drawing No. | Revision | Date |
|---|---|---|---|---|---|
| 00 | | 28.08.2017 | DA 01 | A | 28.08.2017 |
| DA 02 | A | 28.08.2017 | DA 03 | A | 28.08.2017 |
| DA 04 | A | 28.08.2017 | DA 05 | A | 28.08.2017 |
| DA 06 | A | 28.08.2017 | DA 07 | A | 28.08.2017 |
| DA 08 | A | 28.08.2017 | DA 09 | A | 28.08.2017 |
| DA 10 | A | 28.08.2017 | DA 11 | A | 28.08.2017 |
| DA 12 | A | 28.08.2017 | DA 13 | A | 28.08.2017 |
| DA 14 | A | 28.08.2017 | DA 15 | A | 28.08.2017 |

## BUILDING CLASSIFICATION

The new building works have been classified as follows:

| | |
|---|---|
| + **BCA Classification:** | Class 3 – Residential SOU's – boarding rooms (Levels 1-3) and manager's quarters/ancillary/common areas (Ground floor);<br>Class 6 – Retail SOU's (Ground floor); and<br>Class 7a – Carpark containing more than 3 vehicles (Ground floor); |
| + **Rise in Storeys:** | The building has a rise in storeys of four (4). |
| + **Effective Height:** | The building has an effective height of 8.9*m*; RL37.400 - RL 28.500) |
| + **Type of Construction:** | Type A Construction |
| + **Climate Zone:** | Zone 6 |
| + **Maximum Floor Area:** | < 5,000m² for retail and carpark areas & NA to Residential portions |
| + **Maximum Volume:** | < 30,000m³ for retail and carpark areas & NA to Residential portions |

## SUMMARY OF KEY BCA COMPLIANCE ISSUES

Arising from our review, the following comprises a summary of the key BCA compliance issues that will need to be addressed prior to issue of the Construction Certificate:

### MATTERS REQUIRING PLAN AMENDMENTS AND/OR SUBMISSION OF FURTHER INFORMATION

1) BCA Part B – Structural Engineering details, prepared by an appropriately qualified structural engineer, are to be provided with the Construction Certificate application to demonstrate compliance with Part B1 and AS1170 in relation to the structural elements of the building.

2) BCA Cl. C1.1 – All new building elements are to comply with the Fire Resistance Levels (FRL's) detailed in Table 3 of BCA Specification C1.1 for Type A Construction; refer to Appendix 1 relative to residential, retail and carpark uses.

   A Fire Engineered Performance Solution should be assessed with the Construction Certificate application which seeks to rationalise fire separation to common rooms in the Class 3 areas and also assess/rationalise FRL's to fire walls OR loadbearing building elements associated with the different classifications on ground floor (e.g. rationalise to 2hrs in lieu of 3hrs).

   All external walls are to be non-combustible pursuant to AS1530.1; this includes any proposed Aluminium Composite Panel (ACP) installations. Also where there are external feature linings or attachments these are to comply with BCA Spec C1.1 Clause 2.4 and BCA Cl/spec.C1.10. Any departure from these provisions will require assessment under the Fire Engineered strategy for the building with the Construction Certificate application.

3) BCA Cl. C2.6 – It is understood that the building will be provided with a fire suppression system throughout which allows concessions to omit vertical spandrels or horizontal projections under Cl. 2.6.

4) BCA Cl. C2.8 – If a building has parts of different classifications located alongside one another in the same storey (a) each building element in that storey must have the higher FRL prescribed in Specification C1.1 for that element for the classifications concerned OR the parts must be

separated in that storey by a fire wall for that element for the Type of construction and the classifications concerned.

Incorporating a fire wall on ground floor is problematic with the current design therefore we understand that the building elements in that storey must have the higher FRL prescribed in Specification C1.1 for that element for the classifications concerned i.e. 3hrs (FRL180/180/180) for the retail use to building elements throughout the ground floor.

Based on consult with a Fire Engineer at Construction Certificate stage there may be opportunity to rationalise FRL's to 2hrs (FRL 120/120/120) throughout ground floor subject to the building being provided with a fire (suppression) system throughout.

5) BCA Cl. C2.9 – For a building of type A construction the floor between the adjoining parts must have an FRL of not less than that prescribed in Specification C1.1 for the classification of the lower storey e.g. the floor separating the retail and residential level next above is required to achieve and FRL of 180/180/180 unless rationalised under a Fire Engineered Performance Solution at Construction Certificate stage with the building being provided with a fire (suppression) system throughout.

   A floor separating residential uses need only achieve an FRL of 90/90/90 as per the table 3 (Appendix 1) which is derived from Spec. C1.1.

6) BCA Cl. C2.11 - The required fire-isolated stairway and fire-isolated lift are to be located in separate fire-resisting shafts.

7) BCA Cl. C3.9 - Any service proposed within the fire-isolated exit that is not permitted under C3.9 must be relocated accordingly. The below services permitted within an fire-isolated exit include:
   a) Electrical wiring permitted by D2.7(e) within the stairway system (lighting, detection, security, surveillance or management system, intercommunication system or an audible or visual alarm system, monitoring of hydrant or sprinkler isolating valves serving the exit); and
   b) Water supply pipes for fire services.

8) BCA Cl. D1.3 - The single central stairway system connects and passes by four storeys (more than two storeys or three storeys in a sprinkler-protected building) in a Class 3 building and therefore is required to be contained in a fire-resisting shaft and contain no more than two (2) access doorways open into the exit; compliance is readily achievable with this requirement.

   Refer to comments under BCA D1.7 below regarding discharge of fire-isolated exits.

9) BCA Cl. D1.4 – The exit travel distances from the entrance doorway of any SOU in the Class 3 use must not be more then 6m from an exit or from a point from which travel in different directions to 2 exits is available OR no more than 20 m from a single exit serving the storey at the level of egress to a road or open space.

   The exit travel distances from areas not within an SOU are required to be not less than 20 metres to a single exit, or a point of choice between two (2) alternative exits. Where there is a point of choice of two exits, all points on the floor are required to be within 40m to one of the exits.

   Based on the provision of a single core fire-isolated stairway the worst-case exit travel distance is approximately 12m from an SOU entrance door to a single exit. It is understood that this departure will be assessed under a Fire Engineered Performance Solution which will most likely require other enhancements in the building under their assessment (e.g. sprinkler protection throughout and refinement of evacuation strategies).

   Note: Should the type of detector in each residential SOU be a single multi-criteria detector in lieu of a smoke detector then this will also require consideration under the Fire Engineered strategy for the building with a separate Performance Solution.

10) BCA Cl. D1.6 – The unobstructed height in a required exit or in a path of travel to an exit must not exceed 2m, except for a doorway where there is concession for it to be reduced to 1,980mm minimum. All paths of travel to an exit must attain a minimum width of 1m however there is concession for doorways to be reduced to 750mm minimum (where strictly for egress) OR 850mm (when the doorway is located along an accessway based on Access Consultants assessment).

An unobstructed egress width of 1m will accommodate one hundred (100) boarding house occupants on each floor and it is understood that approximately seven-teen (17) occupants will occupy each floor; compliance is therefore achieved with aggregate egress widths.

11) BCA Cl. D1.7 - Each fire-isolated stairway or fire-isolated ramp must provide independent egress from each storey served and discharge directly, or by way of its own fire-isolated passageway to a road or open space under D1.7(b)(i); compliance is readily achieved with this provision.

Under D1.7(c) where a path of travel from the point of discharge of a fire-isolated exit necessitates passing within 6 m of any part of an external wall of the same building, measured horizontally at right angles to the path of travel, that part of the wall must have an FRL of not less than 60/60/60; and any openings protected internally in accordance with C3.4, for a distance of 3 m above or below, as appropriate, the level of the path of travel, or for the height of the wall, whichever is the lesser.

The reference plans suggest that occupants are likely to be exposed to openings within 6m of the external walls as they discharge from the required fire-isolated stairway. It is understood that this matter is to be assessed under the proposed Fire Engineered strategy for the building where a DTS solution is not possible.

12) BCA Cl. D1.10 – The current design requires occupants from the building discharge into the courtyard/side vehicular carriageways which are open-to-the-sky. The large gates (x2) are to be provided with break-out gates/doors with unobstructed egress to facilitate occupant evacuation to Waldron Road.

13) BCA Cl. D2.20 - The swing on the doors out of the required fire isolated stairway on ground floor requires refinement as they must swing inward.

14) Part D3/F2.4 - It's is understood that an Access Consultant is undertaking an assessment under D3/F2.4 and providing a report for both DA and CC applications. This assessment will include (but not be limited to) access to retail tenancies and main entrances to the building, accessible features to common stairway and ramp systems, circulation to corridors serving residential areas, handrail/landing arrangements to fire-isolated stairway systems etc.

Note 1: Given the number of SOU's proposed (53 of) D3.1 requires that at least three (3) SOU's be fully accessible for persons with a disability. Table D3.1 identifies that no more than 2 required accessible SOU's may be located adjacent to each other. Where more than 2 accessible SOU's are required, they must be representative of the range of rooms available as per Table D3.1.

Note 2: Unless the ground floor communal entrance single swing door is automated it will not meet the latch-side clearance requirements for the user seeking to operate the door from the inside.

15) BCA Cl. E.1.3 - By virtue of the total floor area exceeding 500sqm (approx. floor area is 2,000sqm) a fire hydrant system is required to serve this building as per BCA Cl. E1.3 and AS 2419.1 – 2005.

Under AS2419.1-2005 Clause 7.2 a fire hydrant booster is required where external on-site fire hydrants are installed (more than 20 m from a fire brigade pumping appliance hardstand) OR internal fire hydrants are provided OR more than 6 external on-site above ground fire hydrants are installed OR a pumpset is installed.

Where required, a fire hydrant booster is to be provided within sight of the main entrance to the building and within the external wall. Unless assessed under a Fire Engineered Performance

Solution, the separating wall is to be provided with an FRL of 90/90/90 which extends 2 m each side of the fire hydrant outlet and extending not less than 3 m above the ground adjacent to the fire hydrant or the height of the building, whichever is the lesser.

Any electrical substation/kiosk, LPG gas installations and gas metering equipment must be located a minimum of 10 metres from the hydrant booster outlets.

Also, fire-isolated stairway landings should be designed to ensure that circulation is provided for internal fire hydrants with 1m minimum clearance between obstructions.

Where required, the location fire hydrant pump room is to be included on the plans to verify compliance.

16) BCA Cl. E1.5 – Sprinkler protection (under E1.5 AS2118.1) is not a DTS requirement given the effective height of the building and its proposed characteristic. Notwithstanding, under the Construction Certificate stage Fire Engineered assessment it is likely that a fire (suppression) system will be required throughout to address (a) common areas that are not fire separated whether these areas be common areas to a Class 3 use or areas where different uses are in effect (i.e. Class 3 vs Class 6 or Class 7a) and (b) the extent of egress departures under D1.4 and discharge of fire-isolated stairway systems under D1.7.

Any sprinkler protection required to demonstrate a Fire Engineered Performance Solution will be required to comply with BCA Spec. E1.5 and AS 2118.1-1999 and all new tanks, boosters, valve sets etc. are to comply with AS 2118. Notwithstanding, should the hydraulic engineer promote a sprinkler system to AS2118.4 – 2012 this type of system is also a Fire Engineered Performance Solution given that the building is not strictly a residential use building i.e. it also contains Class 6 parts.

Note: A fire sprinkler valve/pump room is required to have direct egress to road or open space to facilitate FRNSW intervention; the location of this infrastructure is to be refined on the architectural plans particularly where it may encroach on the size of retail tenancies.

17) BCA Cl. E1.4/E1.6 - For residential parts Portable Fire Extinguishers can be provided in lieu of Fire Hose Reels where ABE type fire extinguishers (with a minimum size of 2.5 kg) are distributed outside a sole-occupancy unit such that they serve only the storey at which they are located and so that the travel distance from the entrance doorway of any sole-occupancy unit (residential room) to the nearest fire extinguisher is not more than 10 m.

Note although Fire Hose Reels can be omitted from the residential levels they are required to be provided to serve retail (in both tenancies) and carpark areas in accordance with Cl. E1.4 and AS2441-2005.

18) BCA Cl. E2.2 - A Class 3 building must be provided with a smoke detection system complying with Clause 4 of Spec. E2.2 where a Class 3 part is located more than 2 storeys above ground level OR it accommodates more than 20 residents and is used for accommodation for the aged, children or people with a disability. In this regard to whole building is to be provided with a smoke detection and alarm system and BOW system complying with AS1670.1-2015.

Where the mechanical ventilation system penetrates floors or walls that require an FRL the installation is to comply with AS/NZS 1668.1. Where a central ducted mechanical air-handling system passes through common areas into residential rooms this system will need to automatically shut down in fire mode. Also, in addition to fire dampers being provided locally at the bounding construction penetration, the ductwork must also be provided with a smoke damper to mitigate the free passage of smoke into the residential rooms. Noting that for the purposes of E2.2 a residential SOU is deemed as a fire compartment.

Confirmation is to be provided as to whether the residential rooms are to be provided with a single smoke detector in each room that is equivalent to a multi-criteria detector or similar in order to mitigate spurious alarms. Where a single multi-criteria detector in residential SOU's this

arrangement is to be assessed as a separate Performance Solution by the project Fire Engineer with the Construction Certificate application.

Part E2.2 also requires that the building be provided with an Alarm Signalling Equipment (a requirement which is also required should the building be sprinkler protected).

19) BCA Part E3 – As the passenger lift does not travel more than 12m in effective height it will not require stretcher lift facility and will not need to be fire service recall control switch function.

In an accessible building, every passenger lift must (a) be one of the types identified in Table E3.6a, subject to the limitations on use specified in the Table; and (b) have accessible features in accordance with Table E3.6b; and (c) not rely on a constant pressure device for its operation if the lift car is fully enclosed.

Note: A passenger lift travelling no more than 12m can be a small sized, low-speed automatic lift as per BCA Table E3.6a). By virtue of the distance travelled the minimum lift floor dimension of 1,100 mm wide x 1,400 mm deep is to be provided as per Tables E3.6b).

20) BCA Cl.4.9 - In a Class 3 building having a rise in storeys of more than 2 and used for accommodation for the aged, children or people with a disability the building is requirement to be provided with Sound systems and intercom systems for emergency purposes (formally known as EWIS) in accordance with AS1670.4-2015.

SSISEP requires (but is not limited to) a more enhanced panel at the FIP; WIP phones at each exit or zone; and the BOW system is to be enhanced such that at least 75dB(A) is received at the bedhead with all doors closed.

Although an SSISEP system can allow up to a 10 min delay to strategies occupant evacuation, given the extent of DTS departures (to be rationalised to 12m to a single exit) it is understood that the Fire Engineering strategy may adopt immediate evacuation with no cascading evacuation sequence.

21) BCA Cl. F2.1 / F2.3 - Given the building contains more than 10 sole occupancy units, a closet pan and washbasin is required to be provided at or near Ground level for employees. The provision of an accessible sanitary facility will accommodate 10 employees.

Notwithstanding, base building sanitary facilities are to be provided for the retail tenancies; this is to be reflected on the Construction Certificate architectural plans.

BCA Cl. F3.1 – A review of the plans suggests that compliance is readily achievable with the below ceilings heights in the Class 3, 6 and 7a parts:

(i) Above a stairway, ramp, landing or the like: 2 m measured vertically above the nosing line of stairway treads or the floor surface of the ramp, landing or the like.
(ii) Kitchen, laundry, or the like: 2.1m.
(iii) A corridor, passageway, or the like: 2.1m
(iv) A habitable room excluding a kitchen: 2.4m

22) BCA F4.2 - Natural lighting is to be provided to all bedrooms and dormitories via windows, excluding roof lights, that have an aggregate light transmitting area measured exclusive of framing members, glazing bars or other obstructions of not less than 10% of the floor area of the room and are open to the sky or face a court or other space open to the sky or an open verandah, carport or the like.

23) ESD – The development is required to be designed in accordance with the energy efficiency provisions under Section J; ESD or Energy Efficiency consultant to verify compliance with BCA Section J or JV3 model assessment with the CC application.

The Construction Certificate documentation from the design consultants are to incorporate details demonstrating compliance with the above provisions (as applicable to their respective disciplines).

We hope the above is of assistance in refining the design and for the relevant consultants to proceed with their design documentation. This is a summary of key BCA compliance issues and is not intended as a detailed compliance review of the proposed design; this will be required with the CC application.

**PRELIMINARY FIRE SAFETY SCHEDULE**

Part E - The below *indicative* Fire Safety Schedule has been prepared for this building based on our initial assessment which will be refined during the design development phase of the project with the Construction Certificate application:

| **Statutory Fire Safety Measure** | **Design / Installation Standard** |
|---|---|
| Access Panels, Doors & Hoppers | BCA Clause C3.13 & AS 1530.4 – 2005 and Manufacturer's specifications |
| Alarm Signalling Equipment | AS 1670.3 – 2004 |
| Automatic Fail Safe Devices | BCA Clause D2.21 |
| Automatic Fire Detection & Alarm System | BCA Spec. E2.2a & AS 1670.1 – 2015 |
| Automatic Fire Suppression Systems<br>*(Required throughout where adopted under the Fire Engineered Strategy for the building)* | BCA Spec. E1.5 & AS 2118.1 – 1999 or AS 2118.4-2012 |
| Building Occupant Warning System activated by the Sprinkler System | BCA Spec. E1.5, Clause 8 and / or Clause 3.22 of AS 1670.1 – 2015 |
| Emergency Lighting | BCA Clause E4.4 & AS 2293.1 – 2005 |
| Exit Signs | BCA Clauses E4.5, E4.6 & E4.8; and AS 2293.1 – 2005 |
| Fire Blankets | AS 3504 – 1995 & AS2444 – 2001 |
| Fire Dampers | BCA Clause C3.15, AS 1668.1 – 1998 & AS 1682.1 & 2 – 1990 and manufacturer's specification |
| 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 manufacturer's specification |
| Fire Hose Reels (to retail and carpark areas only) | BCA Clause E1.4 & AS 2441 – 2005 |
| Fire Hydrant Systems | BCA Clause E1.3 & AS 2419.1 – 2005 |
| Fire Seals | BCA Clause C3.15, AS 1530.4 & AS 4072.1 – 2005 and manufacturer's specification |
| Lightweight Construction | BCA Clause C1.8 & AS 1530.3 – 1999 and manufacturer's specification |
| Mechanical Air Handling Systems | BCA Clause E2.2, AS/NZS 1668.1 – 2015 & AS 1668.2 – 2012 |
| Paths of Travel | EP&A Regulation Clause 186 |
| Portable Fire Extinguishers | BCA Clause E1.6 & AS 2444 – 2001 |

| Statutory Fire Safety Measure | Design / Installation Standard |
|---|---|
| Required Exit Doors (power operated) | BCA Clause D2.19(b) |
| Smoke Dampers | AS/NZS 1668.1 – 1998 |
| Sound System & Intercom Systems for Emergency Purposes (SSISEP) | BCA E4.9 and AS1670.4-2015 |
| Wall-Wetting Sprinklers | BCA Clause C3.4 & AS 2118.2 – 1995 |
| Warning & Operational Signs | Section 183 of the EP&A Regulation 2000, AS 1905.1 – 2005, BCA Clause D2.23, D3.6, E3.3 |
| *Fire Engineered Performance Solution Report* | *TBC* |

Please note that the above schedule will need to be revised prior to issue of the Construction Certificate to reference any proposed Fire Engineering Report and incorporate any additional measures or rationalise measures required by the proposed Performance Solutions.

## DISABILITY (ACCESS TO PREMISES-BUILDINGS) STANDARDS 2010

The Disability (Access to Premises-Buildings) Standards 2010 (the Access to Premises Standards) requires the building to comply with the Access Code (BCA Part D3 & AS 1428.1-2009).

With respect to the proposed new building, compliance with the Access Code is achieved if the building complies with:

- BCA clauses D3.1 to D3.12;
- BCA clause E3.6;
- BCA clauses F2.2 and F2.4.

It is understood that an Access Consultant is undertaking an assessment and providing a report for both DA and CC applications. This assessment will include (but not be limited to) access to retail tenancies and main entrances to the building, accessible features to common stairway and ramp systems, circulation to residential corridors, handrail/landing arrangements to fire-isolated stairway systems, carparking spaces relative to the proposed building uses etc.

## CONCLUSION

This report confirms that BM+G have undertaken a review of the DA architectural plans for the proposed mixed use development at against the deemed-to-satisfy provisions of the Building Code of Australia 2016.

Arising from our review, it is considered that the proposed development can readily achieve compliance with the relevant provisions of the BCA under a combination of DTS solutions and/or Performance Solutions.

In this instance, we are of the opinion that any amendments required to the design documentation in order to comply with the BCA can be addressed in the preparation of the detailed documentation for Construction Certificate without giving rise to significant changes to the proposal as submitted for Development Application.

Yours sincerely,

David Martin
Building Surveyor
***Blackett Maguire + Goldsmith Pty Ltd***

## APPENDIX 1 – FRL REQUIREMENTS FOR BUILDING ELEMENTS (TYPE A CONSTRUCTION)

Specification C1.1 contains the following FRL's specific to building elements to a building of Type A Construction relative to a residential, retail and carpark uses:

| BUILDING ELEMENT | Class 3 (SOU's) | Class 6 (Retail) | Class 7a (Carpark) |
|---|---|---|---|
| **EXTERNAL WALL** (including any column and other building element incorporated therein) or other external building element, where the distance from any fire-source feature to which it is exposed is – | | | |
| For load bearing parts- | 90/90/90 | 180/180/180 | 120/120/120 |
| Less than 1.5m | 90/60/60 | 180/180/120 | 120/90/90 |
| 1.5 to less than 3m | 90/60/30 | 180/120/90 | 120/60/30 |
| 3m or more | | | |
| For non-load bearing parts- | --/90/90 | --/180/180 | --/120/120 |
| Less than 1.5m | --/60/60 | --/180/120 | --/90/90 |
| 1.5 to less than 3m | --/--/-- | --/--/-- | --/--/-- |
| 3m or more | | | |
| **EXTERNAL COLUMN** not incorporated in an external wall, where the distance from any fire source feature to which it is exposed is – | | | |
| Less than 3m | 90/--/-- | 180/--/-- | 120/--/-- |
| 3m or more | --/--/-- | --/--/-- | --/--/-- |
| **COMMON WALLS & FIRE WALLS** | 90/90/90 | 180/180/180 | 120/120/120 |
| **INTERNAL WALLS** | | | |
| Fire Resisting lift and stair shafts – | | | |
| Loadbearing | 90/90/90 | 180/120/120 | 120/120/120 |
| Non-loadbearing | --/90/90 | --/120/120 | --/120/120 |
| Bounding public corridors, public hallways and the like – | | | |
| *Loadbearing* | 90/90/90 | 180/--/-- | 120/--/-- |
| *Non-loadbearing* | --/60/60 | --/--/-- | --/--/-- |
| Between or bounding SOU's – | | | |
| *Loadbearing* | 90/90/90 | 180/--/-- | 120/--/-- |
| *Non-loadbearing* | --/60/60 | --/--/-- | --/--/-- |
| Ventilating, pipe, garbage, and the like shafts not used for the discharge of hot products of combustion – | | | |
| *Loadbearing* | 90/90/90 | 180/120/120 | 120/90/90 |
| *Non-loadbearing* | --/90/90 | --/120/120 | --/90/90 |
| **OTHER LOADBEARING INTERNAL WALLS & COLUMNS** | 90/--/-- | 180/--/-- | 120/--/-- |
| **FLOORS** | 90/90/90 | 180/180/180 | 120/120/120 |
| **ROOFS** | Refer to Note 2 below | Not Applicable | Not Applicable |

**Note 1**: In the absence of a Fire Engineered Performance Solution each common room and the bathrooms / toilets associated with the Class 3 use (including the ground floor rooms) are required to be fire separated from common corridors with the FRL's identified in the above table. A Fire Engineered Performance Solution should be assessed with the Construction Certificate application which seeks to rationalise fire separation to common rooms in the Class 3 areas and also assess/rationalise FRL's to fire walls OR loadbearing building elements associated with the different classifications on ground floor (e.g. rationalise to 2hrs in lieu of 3hrs).

Note 2: The concession granted under Sub-Clause 3.5 of Specification C1.1 does not necessitate the roof of the residential part of the building to have an FRL, however it must be non-combustible construction**,** and where the roof structure is designed to provide lateral support, it needs to be protected with an incipient ceiling in accordance with BCA Spec Sub-Clause 2.2(b)(iii)(A).

Note 3: All loadbearing internal walls including loadbearing shaft walls are to be concrete or masonry.

Note 4: The walls to fire rated shafts must achieve the fire rating from both directions i.e. from inside and outside the shaft. Shafts are required to be enclosed at the top of the shaft with fire rated construction having an FRL similar to the shaft. The bottom of each shaft if it is non-combustible and laid directly on the ground.

Note 5: Where a combustible material is used as a finish or lining to an external wall or roof, or sunscreen, or awning, to a building element required to have an FRL the material must be exempted or complies with the fire hazard properties prescribed under C1.10 or C1.10a and does not otherwise constitute an undue risk of fire spread via the façade of the building.

Note 6: External walls and common walls must be non-combustible construction within the meaning of AS1530.1.

Note 7: For a building of Type A Construction all building elements requiring an FRL must achieve this fire rating in both directions. Should single skin brick veneer construction be considered as a design option the loadbearing elements (be it steel or timber) will not achieve the required FRL in both directions and will need to form part of a Fire Engineered Performance Solution if this construction methodology is required.

Note 8: Set downs in the slab to wet areas or balconies must not reduce the FRL required for that floor element as per the above table. Likewise, the use of post-tension slabs must not reduce the FRL achieved in design or construction.

Note 9: There may be concessions to rationalise FRL's where the carpark area constitutes an open deck carpark.