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CITY PLAN SERVICES

BCA Report

BUILDING CODE OF AUSTRALIA ASSESSMENT REPORT

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Client: Hutchinson Builders

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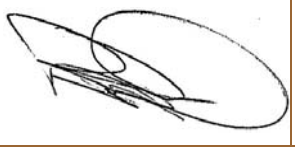
Approved by:	Brendan Bennett		26.03.09

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EXECUTIVE SUMMARY

The development, the subject of this report, is for the alterations and additions to an existing University of Technology Sydney (UTS) building, known as the Peter Johnson building, on Harris Street, Ultimo. The proposal includes the construction of a student accommodation tower above the existing university building and the extension of the UTS space at podium level.

This report has been prepared, on behalf of Hutchinson Builders, to establish compliance to the Building Code of Australia and relevant Acts and Regulations, of the proposed building work indicated on the Development Application documentation.

The following non-compliances with the deemed-to-satisfy provisions of the BCA, in relation to the proposed building work, have been identified and are proposed to be dealt by justification against the performance requirements of the BCA in accordance with BCA Clause A0.5 (b).

Spec C1.1 Clause 3.1	The glazed wall separating the study/tutorial rooms and the common study rooms from the common corridor in the accommodation tower do not have the required FRL of -/60/60.
Spec. C1.1, Clause 3.5	The roof is not required to have an FRL if its covering is non-combustible and a sprinkler system is installed throughout the building. The roof over the roof terrace area is proposed to be metal clad and the existing portion of the building does not contain a sprinkler system throughout.
C2.6	Vertical separation does not apply to buildings which have a sprinkler system installed throughout. The building does not contain a sprinkler system throughout therefore any proposed vertical separation DTS non-compliances, within the sprinkler protected part, are to be performance justified.
C3.2	Protection of openings in external walls
D1.2	Level 7 southern plant room 7 fire hydrant relay pump room has access to only one exit.
D1.4	The unit on grid X8/Y5 is 8.5 m to a point of choice. Performance justification is required.
D1.7	Access from the Level 7 plant room and fire hydrant relay pump room opens directly into the fire stair.
E1.3	Location of hydrant pumps.
E1.5	The building or building part determined to be the building over 25 m in effective height, by performance justification, is required to be served by a sprinkler system. The sprinkler valve room located on Level 1 does not have direct egress to a road or open space. This is to be assessed by performance justification against the relevant performance requirements of the BCA.
E1.8	A fire control room is required in accordance with Specification E1.8 as the building is over 50 m in effective height. The proposed fire

control room identified on Level 2 does not comply as follows:

a) A fire control room must be accessed by two paths of travel –
(i) One from the front entrance of the building; and
(ii) One direct from a public place or fire isolated passageway which leads to public place. The door does not open into the room;
b) Doors to the room must swing in.

E2.2 Zone smoke control is to be provided only to the Class 5, 6 & 9b building part deemed a building over 25 m in effective height, by performance justification.

E4.9 Sound systems and intercom systems for emergency purposes are to be provided only to the building part deemed a building over 25 m in effective height, by performance justification.

The design as proposed is capable of complying with the Building Code of Australia, and will be subject to construction documentation that will provide appropriate details to demonstrate compliance. This report has identified areas of non-compliance with the deemed-to-satisfy provisions that are intended to be addressed by Alternative Solution. Whilst these performance based solutions are to be design developed, it is our view that the solutions will not significantly impact on the current design.

1.0 INTRODUCTION

1.1 General

The development, the subject of this report, is for the alterations and additions to an existing University of technology Sydney (UTS) building, known as the Peter Johnson building, on Harris Street, Ultimo. The proposal includes the construction of a student accommodation tower above the existing university building and the extension of the UTS space at podium level.

1.2 Description

The building has the following uses and number of storeys

AREA	EXISTING USE	PROPOSED USE
Level 1 podium level	Carparking	Carpaking New storage and workshop uses
Level 2	University Carparking & loading Retail	University Carparking & loading Retail Office
Level 3	University Retail	University Retail
Level 4	University	University
Level 5	University	University
Level 6	University Office	University Office
Level 7	University	University
Level 8	N/A	Student accommodation
Level 9 – 20	N/A	Student accommodation
Roof terrace	N/A	Ancillary

1.3 Purpose of the Report

This report has been prepared, on behalf of Hutchinson Builders, to establish compliance with the Building Code of Australia and relevant Acts and Regulations, of the proposed building work indicated on the Development Application documentation.

An assessment of the level of compliance with BCA 2008 of the existing building has not been made. The below assessment only comments on the impact of the proposed building works on the existing building, in terms of the deemed to satisfy provisions of the BCA.

The existing building is less than 25 m in effective height. The student accommodation tower results in the building being over 25 m in effective height. Level 2 – 8 of existing building will be divided by a fire wall in the approximate location of the line of the western elevation of the proposed tower to create a low-rise building part and a high-rise building part. The whole of Level 1 and the high-rise building part is to comply with the performance requirements of the BCA in relation to the additional requirements that apply to buildings over 25 m in effective height, and this will be achieved by a combination of compliance with the deemed-to-satisfy provisions of the BCA and justification against the performance requirements of the BCA.

The low-rise building part will be performance justified such that the over 25 m rules need not apply to this part.

1.4 Report Basis

This report is based on:

i. Architectural plans prepared by Nettleton Tribe as identified in the attached Appendix 1.
ii. The Building Code of Australia 2008, inclusive of NSW variations (See Note 1).
iii. Environmental Planning and Assessment Act 1979.
iv. Environmental Planning and Assessment Regulation 2000.

Note (1) Building Code of Australia (BCA) 2008 was adopted in NSW on 1 May 2008 The amendment of the BCA in force at the date of lodgement of a Construction Certificate application is the version called up by Clause 98 of the Environmental Planning & Assessment Regulation 2000 for the purpose of the building design. Therefore comments may be subject to changes to comply with updated versions of the Building Code of Australia.

1.5 Exclusions

This report does not consider the following except where specifically mentioned;

i. Structural design.
ii. The Disability Discrimination Act 1992.

2.0 BUILDING CODE OF AUSTRALIA DESCRIPTION

2.1 Classification (A3.2)

Class 7a carparking & loading
Class 7a carparking & loading

Classification per storey has been assessed as follows;

AREA	EXISTING CLASSIFICATION AND USE	PROPOSED CLASSIFICATION AND USE
Level 1 podium level	Class 7a carparking	Class 7a carparking*
Level 2	Class 9b – university Class 7a carparking & loading Class 6 – retail**	Class 9b – university Class 7a carparking & loading Class 6 – retail** Class 5 – office
Level 3	Class 9b – university Class 6 retail**	Class 9b – university Class 6 retail**
Level 4	Class 9b - university	Class 9b - university
Level 5	Class 9b - university	Class 9b - university
Level 6	Class 9b – university Class 5 office	Class 9b – university Class 5 - office
Level 7	Class 9b – university	Class 9b – university
Level 8	N/A	Class 3 – student accommodation

Level 9 – 20	N/A	Class 3 – student accommodation
Roof terrace	N/A	Class 3 ancillary

* New storage and workshop uses on level 1 occupy less than 10% floor area of the storey therefore Class 7a carparking classification is maintained
** The Class 6 retail tenancies are less than 10% the area of the storey they are located in and therefore can adopt the classification of the Class 9b University.

2.2 Effective Height (A1.1)

The existing building has an effective height of less than 25 m. The proposed additions will result in the building having an effective height of 64m in effective height.

2.3 Rise in Storeys (C1.2)

The building has a rise in stories of twenty one (21).

2.4 Type of Construction (C1.1)

Type A construction in accordance with Specification C1.1 of the BCA, is the applicable type of construction.

3.0 BUILDING CODE OF AUSTRALIA ASSESSMENT

3.1 Structure (BCA Section B)

BCA Clause	Title	Assessment and Comment	Status
B1.0	Deemed-to-satisfy conditions	Where a Building Solution is proposed to comply with the Deemed-to-Satisfy Provisions, Performance Requirement BP1.1 to BP1.3 are satisfied by complying with either- (i) B1.1, B1.2 and B1.4; or (ii) B1.3 and B1.4.	Note
B 1.1, B1.2 & B1.3	Resistance to actions, Determination of individual actions, & Loads	The structure is to be designed by a structural engineer in accordance with the standards required by this part. In addition, the structural engineer is to provide certification, at the Construction Certificate stage, that the existing building is capable of supporting the proposed loads.	The proposed building is capable of complying
B1.4	Determination of structural resistance of materials and forms of construction. Materials & forms of construction	The proposed materials and forms of construction are to be designed/selected to comply with the required Australian Standards. The structure is to be designed by a Structural Engineer in accordance with the standards required by this part. Glazed assemblies are required to be designed to comply with AS 2047and AS1288 as relevant. Termite risk management is to be provided in accordance with this clause.	The proposed building is capable of complying

3.2 Fire Resistance (BCA Section C)

3.2.1 Fire Resistance and Stability (Part C1)

BCA Clause	Title	Assessment and Comment	Status
C1.1	Type of construction required	The type of fire resisting construction applicable is Type A construction. Type A construction is the highest of the fire resistant types of construction. (Refer to Item 3.2.2 of this report – Specification C1.1 Fire-resisting Construction).	Note
C1.8	Lightweight construction	Any proposed lightweight fire resisting construction is required to be designed / selected to preserve its integrity from mechanical damage in accordance with this clause.	The proposed building is capable of complying
C1.10	Fire hazard properties	Proposed materials are required to be selected to comply with the required fire hazard properties.	The proposed building is capable of complying

3.2.2 Fire-Resisting Construction (Specification C1.1)

BCA Clause	Title	Assessment and Comment	Status
2.2	Fire protection for support of another part	When determining FRL's applicable to a particular building element, the requirements of this clause are required to be complied with. (Refer to Item 3.2.2 of this report – Specification C1.1 Fire-resisting Construction, Clause 3.1).	Note
2.3	Lintels	Certain lintels are required to have an FRL not less than that part of the building they are situated.	The proposed building is capable of complying
2.4	Attachment not to impair fire resistance	The building does not contain combustible attachments to the facade.	The proposed building is capable of complying
2.5	General concessions	The plant rooms on the roof need not have an FRL if it only contains equipment mentioned in this clause.	Note
2.6	Mezzanine floors: concession	The building does not contain mezzanine's that are subject to this provision.	N/A
2.7	Enclosure of shafts	Any proposed services and stair shafts are to be designed to comply with this provision. The bottom of fire rated shaft are required to be enclosed by fire rated construction. The top of fire rated shaft is to be enclosed by fire rated construction, except for service shafts that pass beyond the roof covering.	The proposed building is capable of complying
3.1	Fire resistance of building elements	The proposed new building work is required to be designed to comply with the required fire resistance levels applicable to Type A construction. The following fire resistance requirements generally apply:	The proposed building is capable of complying

BCA Clause	Title	Assessment and Comment	Status
		Student accommodation – 90 minutes University – 2 hrs Office – 2 hrs Carpark – 2hrs The Level 2 podium café has been assessed as part of the Class 9b use as it is less than 10% the floor area of the storey. This clause requires the study/tutorial rooms and the common study rooms, within the accommodation tower, to be fire separated from the public corridors with -/60/60 FRL construction. The proposal is for a glazed wall and this will be addressed by performance justification The proposed glazed walls do not comply.	Alternative solution
3.5	Roof: Concession	The roof is not required to have an FRL if its covering is non-combustible and a sprinkler system is installed throughout the building. The roof over the roof terrace area is proposed to be metal clad and the existing portion of the building does not contain a sprinkler system throughout. This is to be performance justified	Alternative solution
3.6	Roof lights	Roof lights are not proposed.	Note

3.2.3 Compartmentation and Separation (Part C2)

BCA Clause	Title	Assessment and Comment	Status
C2.2	General floor area & volume limitations	The maximum fire compartment size permitted by the BCA for Class 9b universities & Class 5 offices is 8,000 m² and 48,000 m³. The additional floor area provided on Level 3, 4, 5, 6 & 7 increases the fire compartment size, unless fire separated. Fire walls may be required as necessary to restrict fire compartment sizes to within allowable limits. Similarly the proposed works on Level 2 are to be designed not to result in fire compartments exceeding DTS limits.	The proposed building is capable of complying
C2.6	Vertical separation of openings in external walls	Vertical separation does not apply to buildings which have a sprinkler system installed throughout. The building does not contain a sprinkler system throughout therefore any proposed vertical separation DTS non-compliances, within the sprinkler protected part, are to be performance justified. Any proposed building portion not proposed to be sprinkler protected, are to comply with the vertical separation requirements of this clause.	Alternative solution
C2.7	Separation by firewalls	The building will not contain fire walls required deemed-to satisfy provisions of the BCA. The building will contain fire walls required by fire engineering analysis. The design & construction requirements of fire walls are to be identified in the fire engineering report.	Note
C2.8	Separation of classifications in the same storey	A storey containing more than one classification is required to be: 1. constructed to the higher FRL throughout; or 2. the different classifications are separated by a fire wall having the higher FRL and each classification is constructed to the applicable FRL's. The building does not contain different classifications to the extent that fire separation or higher FRL construction is required.	Note

BCA Clause	Title	Assessment and Comment	Status
C2.9	Separation of classifications in different storeys	The reinforced concrete floors 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.	The proposed building is capable of complying
C2.10	Separation of lift shafts	The proposed passenger lifts are to be in a fire rated shaft as required by this clause.	The proposed building is capable of complying
C2.11	Stairways and lifts in one shaft	The design does not involve stairs and lifts in the same shaft.	The proposed building is capable of complying
C2.12	Separation of equipment	The following equipment is to be fire separated from the remainder of the building by 120/120/120 FRL construction: • Lift motor rooms and lift control panels. • Emergency generators or Central smoke control plant • Boilers	The proposed building is capable of complying
C2.13	Electricity supply system	The main switchboard board, sustaining emergency equipment, is to be fire separated from the remainder of the building by 120/120/120 construction. Electrical conductors located within a building that supply- (i) a substation located within a building which supplies a main switchboard covered by C2.13(b); or (ii) a main switchboard covered by C2.13(b), must have classifications required by this clause and enclosed or otherwise protected by 120/120/120 FRL construction. The electrical conductors located within the building and supply the main switchboard are required be designed to comply with this clause. The switchboards in the electrical distribution system, which sustain the electricity supply to the emergency equipment, must provide full segregation by way of enclosed metal partitions designed to prevent the spread of any fault from non-emergency equipment switchgear to the emergency equipment switchgear.	The proposed building is capable of complying
C2.14	Public corridors in Class 2 & 3 buildings	In the student accommodation areas, public corridors, if more than 40 m in length, are required to be divided in intervals of not more than 40 m with smoke-proof walls and doors complying with Clause 2 of Specification C2.5	The proposed building is capable of complying

3.2.4 Protection of openings (Part C3)

BCA Clause	Title	Assessment and Comment	Status
NSW C3.2	Protection of openings in external walls	Proposed openings in external walls less than 3 m from the side boundaries are required to be protected in accordance with Clause C3.4. Protection of some openings will be performance justified.	Alternative solution
C3.3	Separation of external walls and associated openings in different fire compartments	Fire walls are to be identified through design development. Separation of external walls and associated openings in different fire compartments are to be designed in accordance with this clause.	The proposed building is capable of complying
C3.4	Acceptable method of protection	Protections of openings in external walls, required by Clause C3.2, are to be in accordance with this clause.	The proposed building is capable of complying
C3.5	Doorways in fire walls	Fire walls are to be identified through design development. Doorways in fir walls are to be designed in accordance with this clause.	Note
C3.6	Sliding fire doors	Sliding fire doors are not proposed.	Note
C3.7	Protection of doorways in horizontal exits.	Horizontal exits are not proposed.	N/A
C3.8	Openings in fire isolated exits	Proposed doorways in fire isolated exits are required to be protected by -/60/30 fire doors.	The proposed building is capable of complying
C3.9	Service penetrations in fire isolated exits	Only proposed services permitted by this clause are to penetrate through fire isolated exits.	The proposed building is capable of complying
C3.10	Fire isolated lift shafts	The entrance doorway to passenger lift shaft must be protected by –/60/– fire doors that— (i) comply with AS 1735.11; and (ii) are set to remain closed except when discharging or receiving passengers, goods or vehicles. The lift call panel, indicator panel or other panel in the wall of a fire-isolated lift shaft must be backed by construction having an FRL of not less than –/60/60 if it exceeds 35,000 mm^2 in area.	The proposed building is capable of complying
C3.11	Bounding construction	The following doors are required to be -/60/30 self closing fire doors: • Entry doors to student accommodation sole occupancy units onto public corridors. • A door from a room opening onto student accommodation public corridor. Other openings in internal walls required to have an FRL are required to be protected so that they do not reduce the fire resistance of the wall.	The proposed building is capable of complying

BCA Clause	Title	Assessment and Comment	Status
C3.12	Openings in floors and ceilings for services	Services passing through floors are to be fire stopped or located within complying fire rated shafts, in accordance with this clause.	The proposed building is capable of complying
C3.13	Openings in shafts	Access panels, doors and hoppers to required fire rated shafts are to have a fire rating as required by this clause.	The proposed building is capable of complying
C3.15	Openings for service installations	Service penetrations through fire resisting construction are required to be protected.	The proposed building is capable of complying
C3.16	Construction joints	Construction joints, spaces and the like in and between building elements required to be fire-resisting with respect to integrity and insulation must be protected in a manner identical with a prototype tested in accordance with AS 1530.4 to achieve the required FRL.	The proposed building is capable of complying
C3.17	Columns protected with lightweight construction to achieve an FRL	Any proposed steel columns required to be fire rated are to be protected by lightweight fire resisting construction in accordance with this clause.	The proposed building is capable of complying

3.3 Access & Egress (BCA Section D)

3.3.1 Provision for escape (Part D1)

BCA Clause	Title	Assessment and Comment	Status
D1.1	Application of part	The provisions of Part D1 apply subject to concessions within residential sole-occupancy units.	Note
NSW D1.2	Number of exits required	Two complying exits are required from each storey. Level 7 southern plant room has access to only one exit. This is to be performance justified.	 Alternative solution
D1.3	When fire isolated exits are required	The proposed stairs are required to be fire isolated. The existing building contains a central circulation stair connecting Levels 2 to 7 inclusive. This stair is the subject of an existing fire engineering study prepared by CSIRO, dated July 1992. The proposed works are to be designed to ensure that there is no adverse impact on the fire safety strategy provided in the report.	The proposed building is capable of complying Note

BCA Clause	Title	Assessment and Comment	Status
D1.4	Exit travel distances	The unit on grid X8/Y5 of the odd level plans is 8.5 m to a point of choice. Performance justification is required.	Alternative solution
D1.5	Distance between alternative exits	The distance between proposed alternative exits complies.	The proposed building is capable of complying
NSW D1.6	Dimensions of exits and paths of travel to exits	Occupant numbers have been determined in accordance with D1.13. The fit out design of the new UTS space on level 3 to 7 will need to give consideration to the available egress width. On Level 4, it is proposed to replace an existing exit stair near grid X6-Y1 with a narrower fire stair. A detailed analysis of the egress width requirements is required for Level 4 and this may result in the proposed stair being required to be increased in width. The three exit stairs can serve a population of 320 persons on Level 8. The floor contains accommodation for 24 students plus the ancillary building common area. The ancillary building common area therefore cannot exceed a population of 296 persons. The building operator is to provide a statement of the expected maximum occupant numbers of this space. Access from the Level 2 Bike store into the loading dock is a required path of travel and can be blocked by the truck bays. A 1m wide clear path of travel is required.	The proposed building is capable of complying Note Note Note Minor design change required
D1.7	Travel via Fire-isolated exits	Access from the Level 7 plant room and fire hydrant relay pump room opens direct into the fire stair and is to be performance justified. The discharge of the fire isolated exits complies. Where travel from a point of discharge, from a fire isolated exit, necessitates passing within 6 m of any part of the external wall of the same building, measured at right angles to the path of travel, that part of the wall must have – (i) An FRL of not less than 60/60/60; and (ii) any openings protected 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 lesser. The fire isolated stair at grid X8-Y7 is proposed to discharge to the outside on Level 2 and discharge relies on passing by a glazed wall of the lobby. The wall is required to be protected in accordance with this clause.	Alternative solution Complies The proposed building is capable of complying
D1.8	External Stairs or ramps in lieu of Fire-isolated exits	No external open stairs are proposed to replace fire isolated stairs.	N/A
D1.9	Travel via non-fire-isolated stairways or	The existing building contains a central circulation stair connecting Levels 2 to 7 inclusive. This stair is the subject of an existing fire engineering study prepared by CSIRO, dated July	Note

BCA Clause	Title	Assessment and Comment	Status
	ramps	1992. The proposed works are to be designed to ensure that there is no adverse impact on the fire safety strategy provided in the report.	
NSW D1.10	Discharge from exits	Exits are not blocked at the point of discharge. The discharge of the fire isolated stairs is connected to the road by a minimum 1 m wide path of travel. The discharge point of alternative exits is located as far apart as practical.	The building is capable of complying
D1.11	Horizontal exits	No horizontal exits are proposed.	N/A
D1.12	Non required stairs	Non-required stairs are not proposed.	N/A
D1.13	Number of persons accommodated	Populations have been assessed in accordance with this clause. The three exit stairs can serve a population of 320 persons on Level 8. The floor contains accommodation for 24 students plus the ancillary building common area. The ancillary building common area therefore cannot exceed a population of 296 persons. The building operator is to provide a statement of the expected maximum occupant numbers of this space.	Note
D1.16	Plant rooms and lift motor rooms: concessions	Ladders may be used in lieu of stairways in some circumstances from Plant rooms and lift motor rooms subject to compliance with AS1657 & 1735.2 as relevant.	The proposed building is capable of complying
D1.17	Access to Lift Pits	Access to lift pits is required to be designed in accordance with this clause. Details of lift pit depths and access thereto is to be provided with the CC documentation.	The proposed building is capable of complying

3.3.2 Construction of exits

BCA Clause	Title	Assessment and Comment	Status
D2.2	Fire-isolated stairways and ramps	The required fire isolated stairs are to be of non-combustible construction and be designed so that local failure will not result in structural damage to, or impair the fire resistance of the shaft.	The proposed building is capable of complying
D2.3	Non-fire isolated stairs and ramps	Non-required stairs are not proposed.	N/A
D2.4	Separation of rising and descending stair flights	The existing basement stair at grid X8-Y7 discharges into a fire isolated passageway also serving the tower stair on grid X8-Y6. Physical separation of the basement stair is to be provided in accordance with this clause.	The building is capable of complying
D2.5	Open access ramps and balconies	N/A	N/A
D2.6	Smoke lobbies	N/A	N/A

BCA Clause	Title	Assessment and Comment	Status
D2.7	Installation in exits and paths of travel	Access to service shafts is not permitted from within the fire isolated stair or passageway. Gas or other fuel services are not permitted to be installed in a required exit. Electrical & comms cupboards are to be smoke sealed. This generally requires lining internally with non-combustible material and smoke sealed, including smoke seals to doors. The fire isolated stairways are not to be penetrated by any service not permitted by this clause.	The proposed building is capable of complying
D2.8	Enclosure of space under stairs	No enclosures are permitted under the proposed fire isolated stairs. Any enclosures under non-fire isolated stairs are to be enclosed by 60/60/60 FRL construction.	The proposed building is capable of complying
D2.9	Width of stairways	The required width of stairs is to be measured clear of obstructions.	Note
D2.10	Pedestrian ramps	The proposed pedestrian ramps are to be not steeper than 1:8 or 1: 14 if required for people with disabilities. The floor surface of a ramp must have a non-slip finish.	The proposed building is capable of complying
D2.11	Fire isolated passageways	The enclosing construction of fire isolated passageways is required to have the required FRL in accordance with this clause.	The building is capable of complying
D2.12	Roof as Open Space	The building does not contain any roof as open space.	N/A
NSW D2.13	Goings & risers	Goings and risers to the stairways are required to be designed to comply with this clause.	The proposed building is capable of complying
D2.14	Landings	Stair landings are to be designed in accordance with this clause.	The proposed building is capable of complying
NSW D2.15	Thresholds	Thresholds are to be designed to comply.	The proposed building is capable of complying
NSW D2.16	Balustrades and other barriers	Balustrades are to be designed to comply with this clause.	The proposed building is capable of complying
D2.17	Handrails	Handrails are to be provided to stairs and ramps and designed to comply with this clause.	The proposed building is capable of complying

BCA Clause	Title	Assessment and Comment	Status
D2.18	Fixed platforms, walkways, stairways & ladders	Within plant rooms, any fixed platforms, walkways, stairways, ladders and any going and riser, landing, handrail, balustrade or other barrier attached thereto may comply with AS 1657.	The proposed building is capable of complying
NSW D2.19	Doorways and doors	Exit doors are proposed to be swinging doors.	The proposed building is capable of complying
D2.20	Swinging doors	The exit doors are required to swing in the direction of egress as required.	The proposed building is capable of complying
NSW D2.21	Operation of latch	Door hardware is required to comply with this clause. The security fence on Level 2 at grid X8-Y4 is required to comply with this clause.	The proposed building is capable of complying
D2.22	Re-entry from fire isolated exits	For fire stairs serving storeys more than 25 m in effective height, the whole of the fire stair is required to be provided with re-entry provisions in accordance with this provision.	The building is capable of complying
D2.23	Signs on doors	Signage is required to be provided to fire isolated exit doors in accordance with this clause.	The proposed building is capable of complying

3.3.3 Access for people with disabilities

BCA Clause	Title	Assessment and Comment	Status
D3.2	General building access requirements	Access for people with disabilities is required in accordance with this clause.	The proposed building is capable of complying
D3.3	Parts of building to be accessible	Where a building is required to be accessible, access must be provided to: (a) accessible sanitary compartments; and (b) areas normally used by occupants, excluding any plant room, commercial kitchen, cleaners store room, maintenance access way , rigging loft or the like. Access is required to comply with AS1428.1.	The proposed building is capable of complying
D3.4	Concessions	It is not necessary to provided access for people with disabilities to more than 30% of the public space in a cafe, bar or restaurant.	Note

BCA Clause	Title	Assessment and Comment	Status
D3.5	Car parking	For office, university & university accommodation uses, accessible carparking are required to be provided at the rate of 1 per 100 spaces or part thereof. Additional car spaces are not proposed to be provided.	Note
D3.6	Identification of accessible facilities, services, and features.	In every building required to be accessible , clear and legible Braille and tactile signage complying with Specification D3.6 and incorporating the international symbol of access, in accordance with AS 1428.1 must identify— (a) each— (i) sanitary facility; and (ii) accessible space with a hearing augmentation system; and (iii) Where an entrance is not accessible, identify each accessible entrance.	The proposed building is capable of complying
D3.7	Hearing augmentation	An inbuilt amplification system, other than one used for emergency warning purposes only, is not proposed.	N/A
D3.8	Tactile indicators	No public stairs or ramps are proposed therefore tactile ground surface indicators are not required. In the absence of a suitable barrier, tactile indicators are also required to identify an overhead obstruction less than 2 m above floor level, other than a doorway. Tactile ground surface indicators must be Type B indicators in accordance with AS1428.4.	The proposed building is capable of complying

3.4 Services & Equipment (BCA Section E)

3.4.1 Fire fighting equipment (Part E1)

BCA Clause	Title	Assessment and Comment	Status
E1.3	Fire hydrants	The proposed building is required to be served by a hydrant system complying with this clause. The hydrants in the proposed building are capable of complying.	The proposed building is capable of complying
		The existing hydrant pump room is located in level 1 and does not have direct access to the street or direct access into a fire isolated exit.	Note
		The location of the proposed hydrants pumps are to be identified. Any non-compliances with the location of the proposed pumps are to be performance justified	Alternative solution
		The fire safety schedule for the building indicates that the existing hydrant system complies with AS2419:1991, however a BCA or Ordinance 70 reference is not made.	Note
		The location of the hydrant booster connection is to be identified on the Construction Certificate plans. The hydraulic consultant is	Note

BCA Clause	Title	Assessment and Comment	Status
		to identify any non-compliances with AS2419.1-2005 in relation to location.	
E1.4	Fire hose reels	The proposed building is required to be served by a hose reel system complying with this clause. The fire safety schedule for the building indicates that the existing fire hose reel system complies with AS 2441:1988, however a BCA or Ordinance 70 reference is not made.	The proposed building is capable of complying Note
E1.5	Sprinklers	The building or building part determined to be the building over 25 m in effective height, by performance justification, is required to be served by a sprinkler system. The sprinkler valve room located on Level 1 does not have direct egress to a road or open space. This is to be assessed by performance justification against the relevant performance requirements of the BCA.	Alternative solution Alternative solution
E1.6	Portable fire extinguishers	The building is to be provided with portable fire extinguishers in accordance with this clause. The fire safety schedule for the building indicates that the existing portable fire extinguishers comply with AS 2444:1995, however a BCA or Ordinance 70 reference is not made.	The proposed building is capable of complying Note
E1.8	Fire control centres	A fire control room is required in accordance with Specification E1.8 as the building is over 50 m in effective height. The proposed fire control room identified on Level 2 does not comply as follows: (a) A fire control room must be accessed by two paths of travel – (iii) One from the front entrance of the building; and (iv) One direct from a public place or fire isolated passageway which leads to public place. The door does not open into the room; (b) Doors to the room must swing in.	Alternative solution
E1.9	Fire precautions during construction	In a building under construction, not less than one fire extinguisher to suit Class A, B and C fires and electrical fires must be provided at all times on each storey adjacent to each required exit or temporary stairway or exit.	The proposed building is capable of complying
E1.10	Provision for special hazards	There are no special hazards.	N/A

3.4.2 Smoke hazard management (Part E2)

BCA Clause	Title	Assessment and Comment	Status
E2.2	General Requirements	For a fire isolated exits providing egress from a storey over 25 m, the whole of the exit must be pressurised. This includes any existing fire isolated exit sharing the same fire isolated passageway leading to the street.	The building is capable of complying
		The class 3 portion requires a smoke detection system in accordance with Spec E2.2 Clause 4.	
		The building or building part determined to be the building over 25 m in effective height, by performance justification, zone smoke control is required to Class 5, 6 & 9b portions.	The proposed building is capable of complying
		The building portion deemed to be under 25 m in effective height by performance justification, is required to be provided with an automatic fire detection and alarm system in accordance with this clause.	Alternative solution
		The carpark and carpark mechanical system are existing.	
		Automatic shutdown of certain air handling systems is required in Class 9b buildings as specified in NSW Table E2.2b.	Note
		A fire compartment with a floor area of more than 2,000 m², in a class 9 building, must be provided with smoke exhaust in accordance with Spec E2.2b, except that this clause does not apply to school classrooms.	Note
		An air handing system which does not form part of a smoke hazard management system and which recycles air from one fire compartment to another fire compartment or operates in a manner that unduly contributes to the spread of smoke from one fire compartment to another fire compartment must be designed in accordance with E2.2(b).	The proposed building is capable of complying
		Miscellaneous air handling systems covered by sections 5 & 11 AS/NZS 1668.1 serving more than one fire compartment (other than a carpark ventilation system) and not forming part of a smoke hazard management system must comply with that Section of the Standard.	The proposed building is capable of complying
		A smoke detection system must be installed in accordance with Clause 5 of Spec E2.2a to operate AS/NZS 1668.1 systems that are provided for zone smoke control and automatic air pressurisation for fire isolated exits.	The proposed building is capable of complying
			The building is capable of

BCA Clause	Title	Assessment and Comment	Status
			complying
E2.3	Provision for special hazards	N/A	N/A

3.4.3 Lift installations (Part E3)

BCA Clause	Title	Assessment and Comment	Status
E3.2	Stretcher facility in lifts	At least one lift is to be of a size that can accommodate a stretcher.	The building is capable of complying
E3.3	Warning against use of lifts in fire	Warning signage for the passenger lifts is to be provided in accordance with this clause.	The building is capable of complying
E3.4	Emergency Lifts	Emergency lifts are required to be provided in accordance with this clause.	The building is capable of complying
E3.5	Landings	Access and egress from the lift well landing complies with this provision.	Complies
E3.6	Facilities for people with disabilities	The proposed lifts are required to be designed to comply with this provision.	The proposed building is capable of complying
E3.7	Fire service controls	All proposed lifts are to be provided with fire services controls in accordance with this provision.	The proposed building is capable of complying
E3.8	Aged Care buildings	N/A	N/A

3.4.4 Emergency lighting, exit signs and warning systems (Part E4)

BCA Clause	Title	Assessment and Comment	Status
E4.2	Emergency lighting requirements	Emergency lighting is to be provided to the proposed building in accordance with this clause.	The proposed building is capable of complying
E4.5	Exit signs	Exit signs are to be provided to the proposed building in accordance with this clause.	The proposed building is capable of complying
NSW E4.6	Directional exit signs	Directional exit signage system is to be provided to the proposed building in accordance with this clause.	The proposed building is capable of complying

BCA Clause	Title	Assessment and Comment	Status
E4.8	Design and operation of exit signs	Exit signs are to be designed in accordance with AS/NZS 2293.1.	The proposed building is capable of complying
E4.9	Sound systems and intercom systems for emergency purposes	The building or building part determined to be the building over 25 m in effective height, by performance justification, is required to be provided with Sound systems and intercom systems for emergency purposes is required in accordance with BCA E4.9.	Alternative solution

3.5 Health & Amenity (BCA Section F)

3.5.1 Damp and weather proofing (Part F1)

BCA Clause	Title	Assessment and Comment	Status
F1.0	Deem to satisfy provisions	A roof and external walls (including openings around windows and doors) must prevent the penetration of water that could cause- (a) unhealthy or dangerous conditions, or loss of amenity for occupants; and (b) undue dampness or deterioration of building elements.	The proposed building is capable of complying
F1.1	Stormwater drainage	Stormwater drainage is proposed to comply with AS/NZS 3500.3.	The proposed building is capable of complying
F1.5	Roof coverings	The proposed roof coverings are to provide weatherproofing in accordance with this provision and comply with the appropriate Australian Standard.	The proposed building is capable of complying
F1.6	Sarking	Any sarking is to comply with AS/NZS 4200 Parts 1 & 2.	The proposed building is capable of complying
F1.7	Waterproofing of wet areas in buildings	Proposed wet areas are to be constructed in accordance with this provision.	The proposed building is capable of complying
F1.9	Damp-proofing	Damp proofing is required in accordance with this provision.	The proposed building is capable of complying
F1.10	Damp-proofing of floor on ground	The proposed building work does not involve slab on ground.	N/A
F1.11	Provision of floor wastes	Floor wastes are required in bathrooms and laundry's as required by this clause.	The proposed building is

BCA Clause	Title	Assessment and Comment	Status
			capable of complying
F1.12	Sub floor ventilation	Subfloor space sis not proposed.	N/A
F1.13	Glazed Assemblies	Glazed assemblies are to be designed/selected to comply with this clause. The construction documentation is required to demonstrate compliance with this Clause.	The proposed building is capable of complying

3.5.2 Sanitary and other facilities (Part F2)

BCA Clause	Title	Assessment and Comment	Status
F2.1	Facilities in residential buildings	Sanitary, kitchen & laundry facilities are to be provided in order to comply with the requirements of this clause.	The proposed building is capable of complying
F2.3	Facilities in Class 3 to 9 buildings	Sanitary facilities for staff of the student accommodation use are required to be provided in accordance with this clause. The singe WC serving the Unilodge operational space on level 2 can only serve a population of 10 persons. The seating numbers indicates a potential for more than 10 employees in this area. Justification of the staff numbers is required or alternatively additional sanitary facilities are required. The retail tenancies will be provided with their own facilities within their tenancies. The new UTS space is to provide addition sanitary facilities on fitout of that space as required to comply with this clause.	The proposed building is capable of complying Note Note
F2.4	Facilities for people with disabilities	Access sanitary facilities are provided in accordance with this clause. The facilities are to be designed in accordance with AS1428.1.	The proposed building is capable of complying
F2.5	Construction of sanitary compartments	Sanitary compartments are to comply with this provision. Particular attention is required to bathrooms that have less than 1.2 m clearance from the pan to the door opening.	The proposed building is capable of complying
F2.8	Waste management	N/A	N/A

3.5.3 Room sizes (Part F3)

BCA Clause	Title	Assessment and Comment	Status
F3.1	Height of rooms and other spaces	The following minimum floor to ceiling heights apply: • Residential – 2.1m in kitchens and laundries, corridors and passageways; and 2.4 m in habitable rooms. • Offices and retail – 2.4 m generally and 2.1 in corridors and passageways. • Bathroom & store rooms – 2.1 m • Carpark 2.1 • School classroom – 2.4 m	The proposed building is capable of complying

3.5.4 Light & Ventilation (Part F4)

BCA Clause	Title	Assessment and Comment	Status
F4.1	Provision of natural light	Natural light is required to all bedrooms in the Class 3 student accommodation building.	The proposed building is capable of complying
F4.2	Method and extent of natural lighting	Natural lighting must be provided in accordance with this clause.	The proposed building is capable of complying
F4.3	Natural lighting borrowed from an adjoining room	Some bedrooms rely on natural light borrowed from an adjoining room for compliance.	The proposed building is capable of complying
F4.4	Artificial lighting	Artificial lighting is required to be provided in accordance with the requirements of this clause.	The proposed building is capable of complying
F4.5	Ventilation of rooms	A habitable room, office, workroom, sanitary compartment, bathroom, shower room, laundry and any other room occupied by a person for any purpose must have natural ventilation or mechanical ventilation complying with AS1668.2.	The proposed building is capable of complying
F4.6	Natural Ventilation	Where natural ventilation is proposed, it is to comply with this provision.	The proposed building is capable of complying
F4.7	Ventilation borrowed from an adjoining room	Not proposed.	N/A
F4.8	Restriction on the position of water closets and urinals	An airlock or screen is required to the entry to the Level 8 accessible WC's.	Minor design change

BCA Clause	Title	Assessment and Comment	Status
F4.9	Airlocks	Refer above	Refer above
F4.11	Car park	The carpark is existing.	Note
F4.12	Kitchen local exhaust	A commercial kitchen is not proposed.	N/A

3.5.5 Sound Transmission & Insulation (Part F5)

BCA Clause	Title	Assessment and Comment	Status
F5.1	Application of Part	The following provisions apply to the Class 3 buildings.	Note
F5.2	Determination of airborne sound insulation ratings	The determination of airborne sound insulation ratings is required to be in accordance with this clause.	Note
F5.3	Determination of impact sound insulation ratings	A floor in a building required to have an impact sound insulation rating must comply with this provision. A wall in a building required to have an impact sound insulation rating must be of discontinuous construction.	The proposed building is capable of complying
F5.4	Sound insulation rating of floors	A floor of the class 3 portions must have sound insulation & impact rating in accordance with this clause.	The proposed building is capable of complying
F5.5	Sound insulation rating of walls	Walls & doors in the Class 3 buildings are required to have sound insulation ratings and be constructed in accordance with this provision.	The proposed building is capable of complying
F5.6	Sound insulation rating of services	Services passing through SOU's are required to comply with this provision.	The proposed building is capable of complying
F5.7	Sound isolation of pumps	A flexible coupling must be used at the point of connection between the service pipes in a building and any circulating or other pump.	The proposed building is capable of complying

3.6 Ancillary Provisions (Section G)

3.6.1 Minor Structure and Components (Part G1)

BCA Clause	Title	Assessment and Comment	Status
G1.2	Refrigerated chambers, strongrooms & vaults	No refrigerated chambers, strong rooms or vaults have been identified on the plans.	Note
NSW G1.101	Provision for the cleaning of windows	The provision of cleaning of windows is to be provided in accordance with this clause.	The proposed building is capable of complying

3.6.2 Heating appliances, fire places, chimneys and flues (Part G2)

BCA Clause	Title	Assessment and Comment	Status
G2.2	Installation of appliances	The installation of the following equipment is required to comply with the relevant Australian Standard: 1. Domestic oil-fired appliances – AS 1691 2. Domestic Solid fuel burning appliances – AS/NZS 2918 3. Pressure equipment – AS/NZS 1200	The building is capable of complying
G2.3	Open Fire places	No open fire places are proposed.	N/A
G2.4	Incinerator rooms	No incinerator rooms are proposed.	N/A

3.7 Places of public entertainment (Section H101)

The proposed building work does not include a Place of public Entertainment.

3.8 Energy Efficiency – NSW Variation (Section J(B) – Class 3 and 5 to 9 buildings)

The building will be located within the Climate Zone 5.

3.8.1 Building Fabric (Part J1)

BCA Clause	Title	Assessment and Comment	Status
J1.1	Application of part	The Deemed-to-Satisfy Provisions of this Part apply to a building elements forming the envelope of a class 3 – 9 building other than- (a) a class 7, 8 & 9b building that does not have a conditioned space; or (b) an atrium or solarium that is not a conditioned space and is separated from the remainder of the building by an *envelope.*	Note
J1.2	Thermal Construction General	Insulation must comply with AS/NZS 4859.1 and the requirements of this condition. Roof, ceiling, wall and floor materials and associated surfaces are deemed to have the thermal properties as listed in Specification J1.2	The proposed building is capable of complying
J1.3	Roof and Ceiling Construction	The roof or ceiling forming part of the envelope must achieve a Total R-Value as specified in Tabled J1.3 for the direction of heat flow.	The proposed building is capable of complying
J1.4	Roof Lights	Roof lights are not proposed.	N/A
J1.5	Walls	The external wall which is part of the envelope is required to satisfy one of the options in Table J1.5a or J1.5b. The requirements of this provision do not apply to opaque non-glazed openings; glazing; or a storey complying with J1.5(b). J1.5 (e) – Thermal breaks in accordance with this clause are required to be provided to certain metal frame walls mentioned in this clause.	The proposed building is capable of complying
NSW J1.6	Floors	Suspended floors in Class 3 buildings are required to be designed in accordance with the NSW J1.6a. Suspended floors for Class 5 to 9 buildings forming part of an envelope with an enclosed perimeter are required to achieve a Total R-Value specified in Table J1.6. Where in-slab heating is installed additional details must be provided as outlined in this clause.	The proposed building is capable of complying

3.8.2 External Glazing (Part J2)

BCA Clause	Title	Assessment and Comment	Status
J2.1	Application of part	The Deemed-to-Satisfy Provisions of this Part apply to a building elements forming the *envelope* of a class 3 – 9 building other than- (a) a class 7, 8 & 9b building that does not have a conditioned space; or (b) an atrium or solarium that is not a conditioned space and is separated from the remainder of the building by an *envelope.*	Note
J2.2	Application of glazing provisions	Glazing must be design in accordance with: (a) J2.3 for a class 3, 9c aged care building or Class 4; and (b) J2.3 or J2.4 for a Class 6 portion of the building with a total floor area of not more than 500m²; and (c) J2.4 for the Class 6 portion of the buildings with a total floor area more than 500m², and any Class 5, 7, 8. 9a and 9b portion of the building.	The proposed building is capable of complying
J2.3	Glazing – Method 1	A detailed glazing calculator or other method as appropriate demonstrating compliance must be submitted by a suitably qualified person with the Construction Certificate Documentation.	The building is capable of complying
J2.4	Glazing – Method 2	A detailed glazing calculator or other methods as appropriate demonstrating compliance must be submitted by a suitably qualified person with the Construction Certificate Documentation.	The building is capable of complying
J2.5	Shading	Required shading is required to be designed in accordance with the requirements of this condition.	Note

3.8.3 Building Sealing (Part J3)

BCA Clause	Title	Assessment and Comment	Status
J3.1	Application of part	The Deemed-to-Satisfy Provisions of this Part apply to the Class 3, and 5 to 9 components of the development except a: (a) a building in climate zones 1, 2, 3 & 5 where the only means of air-conditioning is by using an evaporative cooler; or (b) permanent building ventilation opening, in a space where a gas appliance is located, that is necessary for the safe operation of the gas appliance; and (c) Class 6, 7, 8 and 9b building that does not have a conditioned space; or (d) a building or space where the mechanical ventilation system required by Part F4 provides sufficient pressurization to prevent infiltration; or (e) an atrium or solarium that is not a conditioning space and is separated from the remainder of the building by an envelope. (f) parts of the building that cannot be fully enclosed.	Note

BCA Clause	Title	Assessment and Comment	Status
J3.2	Chimneys and flues	Where provided, must be provided with a damper or flap to seal the chimney of flue.	The proposed building is capable of complying
J3.3	Roof Light	Roof lights are not proposed	N/A
J3.4	External Windows and doors	External windows and doors are required to be sealed to restrict air infiltration. The requirements of this provision do not apply where external windows and doors are designed in accordance with AS2047, to fire doors, louvered windows or doors.	The proposed building is capable of complying
J3.5	Exhaust Fans	A miscellaneous exhaust fan must be fitted with a sealing device such as a self-closing damper or the like when serving a; (a) conditioned space; or (b) a habitable room in climate zone 4, 6, 7 & 8.	The proposed building is capable of complying
J3.6	Construction of roofs, walls and floors	Roofs, external walls, external floors and any openings are required to be designed and constructed to minimise air leakage.	The proposed building is capable of complying
J3.7	Evaporative Coolers	Evaporative coolers are required to be fitted with a self-closing dampers or the like when serving heated space; or habitable room or other public area in climate zones 4, 6, 7 and 8.	The proposed building is capable of complying

3.8.4 Air Conditioning and Ventilation Systems (Part J5)

BCA Clause	Title	Assessment and Comment	Status
J5.2	Air Conditioning and Ventilating system	The mechanical design would be required to be designed in accordance with the requirements of this provision.	The proposed building is capable of complying
J5.3	Time Switch	The mechanical design would be required to be designed in accordance with the requirements of this provision. Details are to be provided with the construction documentation submitted with the construction certificate.	The proposed building is capable of complying
J5.4	Heating and chilling systems	The mechanical design would be required to be designed in accordance with the requirements of this provision.	The proposed building is capable of complying
J5.5	Miscellaneous exhaust system	The mechanical design would be required to be designed in accordance with the requirements of this provision.	The proposed building is capable of complying

3.8.5 Artificial Lighting and Power (Part J6)

BCA Clause	Title	Assessment and Comment	Status
J6.1	Application of part	The Deemed-to-Satisfy Provisions of this Part apply to the Class 3, and 5 to 9 components of the development.	Note
J6.2	Internal Artificial lighting	The requirements of this provision relate to the illumination load and power of artificial lighting. Artificial lighting is to be designed in accordance with this provision	The proposed building is capable of complying
J6.3	Interior artificial lighting power control	Artificial lighting switches are to be designed and provided in accordance with this provision. Artificial lighting must be controlled in accordance with this provision. Artificial lighting adjacent to windows in a storey greater than 250m² (Class 5, 6 or 8) are required to be switched separately from artificial lighting not adjacent to windows. Some concessions are available under subclause (f) & (g).	The proposed building is capable of complying
J6.4	Interior decorative and display lighting	Interior decorative and display lighting, such as for foyer mural or art display, must be controlled in accordance with this clause.	The proposed building is capable of complying
J6.5	Artificial lighting around the perimeter of a building	Artificial lighting around the perimeter of a building must be designed to comply with this clause.	The proposed building is capable of complying
J6.6	Boiling water and chilled water storage units	Power supply to a boiling water or chilled water storage unit is required to be controlled by a time switch in accordance with Spec J6.	The proposed building is capable of complying

3.8.6 Hot Water Supply (Part J7)

BCA Clause	Title	Assessment and Comment	Status
J7.2	Hot Water Supply	A hot water system for preparation of food and sanitary purposes (excluding solar systems in climate areas 1, 2 & 3) are required to be designed and installed in accordance with Section 8 of AS/NZS 3500.4.	The proposed building is capable of complying

3.8.7 Access for Maintenance (NSW Part J8.2)

BCA Clause	Title	Assessment and Comment	Status
NSW J8.2	Access for maintenance	Access for maintenance must be provided to— (a) all *services* and their components, including— (i) time switches and motion detectors; and (ii) room temperature thermostats; and (iii) plant thermostats such as on boilers or refrigeration units; and (iv) outside air dampers; and (v) reflectors, lenses and diffusers of light fittings; and (vi) heat transfer equipment; and (b) adjustable or motorised shading devices.	The proposed building is capable of complying

3.9 SUMMARY OF PROPOSED ALTERNATIVE SOLUTIONS

The following non-compliance's with the deemed-to-satisfy provisions of the BCA have been identified and are proposed to be dealt by Alternative Solution, i.e. justification against the performance requirements of the BCA in accordance with BCA Clause A0.5 (b).

This report has also identified areas where the existing building does not comply with fire safety requirements of the BCA. Upgrade of the existing building to current standards is at the discretion of council under Clause 94 of the Environment Planning & Assessment Regulation 2000.

BCA CLAUSE	Performance Requirements	ISSUE	JUSTIFICATION
Spec. C1.1, Clause 3.1	CP2	The glazed wall separating the study/tutorial rooms and the common study rooms from the common corridor in the accommodation tower, do not have the required FRL of -/60/60.	PR
Spec. C1.1, Clause 3.5	CP1 & CP2	The roof is not required to have an FRL if its covering is non-combustible and a sprinkler system is installed throughout the building. The roof over the roof terrace area is proposed to be metal clad and the existing portion of the building does not contain a sprinkler system throughout. This is to be performance justified	PR
C2.6	CP2	Vertical separation does not apply to buildings which have a sprinkler system installed throughout. The building does not	PR

BCA CLAUSE	Performance Requirements	ISSUE	JUSTIFICATION
		contain a sprinkler system throughout therefore any proposed vertical separation DTS non-compliances, within the sprinkler protected part are to be performance justified.	
C3.2	CP2	Protection of openings in external walls	PR
D1.2	DP4	Level 7 southern plant room 7 fire hydrant relay pump room has access to only one exit.	PR
D1.4	DP4	The unit on grid X8/Y5 of levels L9 – L20 is 8.5m to a point of choice. Performance justification is required.	PR
D1.7	DP5	Access from the Level 7 plant room and fire hydrant relay pump room opens direct into the fire stair	PR
E1.3	DP5	Location of hydrant pumps	PR
E1.5	EP1.4	The building or building part determined to be the building over 25 m in effective height, by performance justification, is required to be served by a sprinkler system. The sprinkler valve room located on Level 1 does not have direct egress to a road or open space. This is to be assessed by performance justification against the relevant performance requirements of the BCA.	PR & Clause 144
E1.8	EP1.6	A fire control room is required in accordance with Specification E1.8 as the building is over 50 m in effective height. The proposed fire control room identified on Level 2 does not comply as follows: A fire control room must be accessed by two paths of travel – (a) One from the front entrance of the building; and (b) One direct from a public place or fire isolated passageway which leads to public place. The door does not open into the room; (c) Doors to the room must swing in.	PR & Clause 144
E2.2	EP2.2	Zone smoke control is to be provided only to the Class 5, 6 & 9b building part deemed a building over 25 m in effective height, by performance justification.	PR & Clause 144
E4.9	EP4.3	Sound systems and intercom systems for emergency purposes are to be provided only to the building part deemed a building over	PR & Clause 144

BCA CLAUSE	Performance Requirements	ISSUE	JUSTIFICATION
		25 m in effective height, by performance justification.	

JUSTIFICATION LEGEND

PR PERFORMANCE REQUIREMENTS

An Alternative Building Solution Report prepared under Part A0.8 of the BCA demonstrating compliance with the 'performance requirements'. These reports are assessed by an Accredited Certifier during the Construction Certificate determination process.

Clause 188 NSW FIRE BRIGADE DISCRETION

Clause 188 of the Environment Planning & Assessment Regulation 2000 - NSW Fire Brigade may set aside BCA requirements in relation to Category 3 Fire Safety Provisions where compliance cannot be achieved.

Clause 144 CONCURRENCE 0F NSW FIRE BRIGADE

Clause 144 of the Environment Planning & Assessment Regulation 2000 - NSW Fire Brigades is to review any Alternative Building Solution Report prepared in relation to a Category 2 Fire Safety Provision and provide concurrence prior to the issue of a Construction Certificate.

4.0 CONCLUSION

The design as proposed is capable of complying with the Building Code of Australia, and will be subject to construction documentation that will provide appropriate details to demonstrate compliance. This report has identified areas of non-compliance with the deemed-to-satisfy provisions that are intended to be addressed by Alternative Solution. Whilst these performance based solutions are to be design developed, it is our view that the solutions will not significantly impact on the current design.

Chris Michaels
For and on behalf of City Plan Services Pty Ltd

APPENDIX 1 – Assessed plans prepared by Nettleton Tribe

Plan Title	Drawing No	Date
Level 1 - Podium Level	3531-DA003	23 February 2009
Level 2 – Podium Level	3531-DA004	23 February 2009
Level 3 – Podium Level	3531-DA005	23 February 2009
Level 4 – Podium Level	3531-DA006	23 February 2009
Level 5 – Podium Level	3531-DA007	23 February 2009
Level 6 – Podium Level	3531-DA008	23 February 2009
Level 7 – Podium Level	3531-DA009	23 February 2009
Level 8 – Podium Level	3531-DA010	23 February 2009
Level 1 Basement Part Plan	3531-DA011	23 February 2009
Level 2 Part Plan	3531-DA012	23 February 2009
Level 3 Part Plan	3531-DA013	23 February 2009
Level 4 Part Plan	3531-DA014	23 February 2009
Level 5 Part Plan	3531-DA015	23 February 2009
Level 6 Part Plan	3531-DA016	23 February 2009
Level 7 Part Plan	3531-DA017	23 February 2009
Level 8 Part Plan	3531-DA018	23 February 2009
Odd Level Plans	3531-DA019	23 February 2009
Even Level Plans	3531-DA020	23 February 2009
Roof Terrace Plan	3531-DA021	23 February 2009
Harris Street Elevation	3531-DA023	23 February 2009
East Elevation	3531-DA024	23 February 2009
West Elevation	3531-DA025	23 February 2009