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+associates

**BUILDING CODE OF AUSTRALIA + ACCESS REPORT
RESIDENTIAL, RETAIL & CARPARKING DEVELOPMENT
JORDAN SPRINGS BOULEVARD**

| | |
|---------------------------|-----------------|
| Report Number & Revision: | MSA0632AA-REV04 |
| Prepared For: | CID Group |
| Date of Issue: | 14.03.2014 |



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REVISION STATUS

| REV | DATE | STATUS | WRITTEN | CHECKED |
|-----|----------|--|--|--|
| 01 | 11.02.14 | Draft for Comment |  Paul O'Shannassy ASSOCIATE For MSA Accredited Certifier / Principal Certifying Authority (Building) Grade A1 (Unrestricted) BPB0825 GradDip (BuildSurv) BASc (EnvHlth&BuildSurv) |  Matt Shuter DIRECTOR For MSA Accredited Certifier / Principal Certifying Authority (Building) Grade A1 (Unrestricted) BPB0809 GradDip (BuildSurv) BASc (EnvHlth&BuildSurv) CertAttain (BuildSurv) |
| 02 | 24.02.14 | Revised draft | | |
| 03 | 11.03.14 | Revised to suit amended plans and town planners comments | | |
| 04 | 14.03.14 | Revised to reference Fire Engineering Comments & Final issue to Client | | |
| | | | | |



1.0 INTRODUCTION

This report has assessed the DA level design documentation for the proposed mixed use (residential & commercial) development with associated carparking at Jordan Springs Boulevard under the provisions of the Building Code of Australia (BCA), including relevant provision for "Access for People with Disabilities".

1.1 Basis of Report

The key basis of this report is to address compliance with the significant requirements of the Building Code of Australia (BCA) and relevant disabled access provisions relevant to the new building works.

The scope of services is limited to assessment against Sections C - **Fire Resistance**, Section D - **Access & Egress**, Section E - **Services & Equipment**, Section F - **Health and Amenity**, Section G - **Ancillary Provisions** and Section J - **Energy Efficiency** of the BCA, and relevant Access Provisions as detailed in Section 1.2 below.

1.2 Assessed Information

This report is based on the following:

- Desktop assessment of Architectural Plans prepared by ZTA – *Refer to Attachment A*
- The National Construction Code – Building Code of Australia (BCA), prepared by the Australian Building Codes Board.

Note: a Reference to the "BCA" in this report is a reference to the Building Code of Australia 2013

- The Guide to the BCA, prepared by the Australian Building Codes Board.
- Commonwealth Disability (Access to Premises) Standards 2010
- Relevant provisions of AS1428.1-2009 "Design for Access and Mobility – Part 1: General Requirements for Access New Building Works" published by Standards Australia

1.3 Purpose of Report

The purpose of this report is to assess the following:

- Assessment of the proposed works under the current BCA and relevant Disabled Access Provisions and detail any significant departures (or those which have the ability to affect the current design);
- Provide recommendations to best address any significant departures from the requirements of BCA and relevant Disabled Access Provisions



1.4 Limitations of Report

- The assessment is limited to a desktop assessment only, and has not included site assessment or physical assessment of the property in any way.
- Some requirements of the BCA are recognised as being interpretive in nature. Where these matters are encountered, interpretations are made in accordance with MSA policy. Specific relevant interpretations relevant to this assessment are included in Section 2.3 "BCA Interpretation Notes".
- Assessment beyond the compliance matters ascertainable on the current documentation is beyond the scope of this report. Further assessment of the detailed design is recommended upon approval of the DA.
- Detailed Section J Energy Efficiency Assessment is beyond the scope of this report.
- Reporting on hazardous materials, OH&S matters or site contamination
- Detailed assessment of any engineering matters – eg: structural, electrical, hydraulic, mechanical, fire
- Heritage significance
- Environmental or planning issues
- Requirements of statutory authorities
- Provision of any Construction Certification under Part 4A of the Environmental Planning & Assessment Act 1979



2.0 BUILDING CHARACTERISTICS

2.1 Building Description

The building primarily comprises:

Blocks A-D (Considered as one building for BCA compliance assessment purposes)

- 2 levels of basement carparking
- Retail & residential units at ground floor/podium level (labelled 'Level 1' on the plans)
- Levels 2 -6 – residential units (noting that Building C terminates at Level 5)

The proposed site plan is shown below:

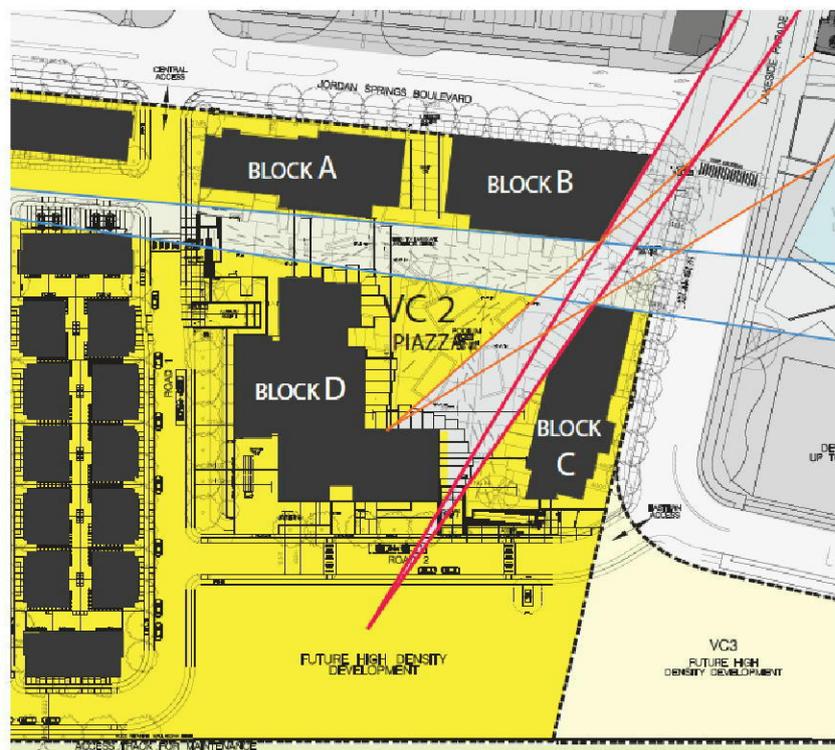


Figure 2.1 – Site Plan



2.2 BCA Assessment Data

The following BCA assessment date is relevant to the proposal under the current BCA.

Table 2.2 BCA Assessment Data

| | Blocks A-D |
|--|---|
| BCA Building Classification: | <p>2 – Residential Units</p> <p>6 – Retail (Ground Level)</p> <p>7a – Car parking (Basement Levels)</p> <p>5 –Office (Ground Level)</p> <p><i>*The floor areas of the Class 7b storage component in the basement levels is less than 10% of the total floor areas of each basement storey and therefore are permitted to be classified 7a under the provisions of Clause A3.3.</i></p> |
| Rise In Stories | 6 |
| Type of Construction | Type A |
| Floor Area Limitations for Type of Construction | <p>The Class 5/6 retail commercial parts are subject to the limitations of Table C2.2 for Type A Construction, being (for each fire compartment):</p> <ul style="list-style-type: none"> - A floor area no greater than 5,000m² and - a volume no greater than 30,000m² <p><i>The above limitations of have not been exceeded.</i></p> <p><i>The Class 7a carparking parts are assumed to be provided with a sprinkler system and therefore not subject to floor area and volume limitations.</i></p> |
| Effective Height | More than 12m but less than 25m |



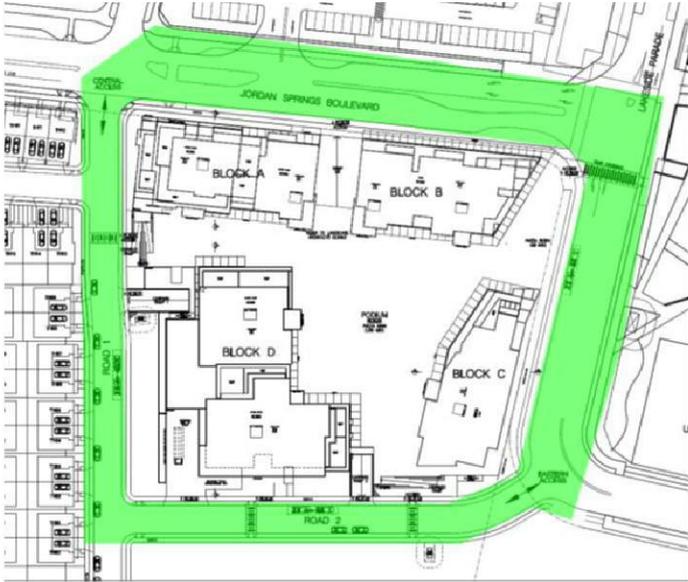
3.0 BCA / ACCESS ASSESSMENT + RECOMMENDATIONS

The following identifies the significant compliance issues applicable to the current design when assessed against the requirements of the BCA and relevant Disabled Access Provisions:

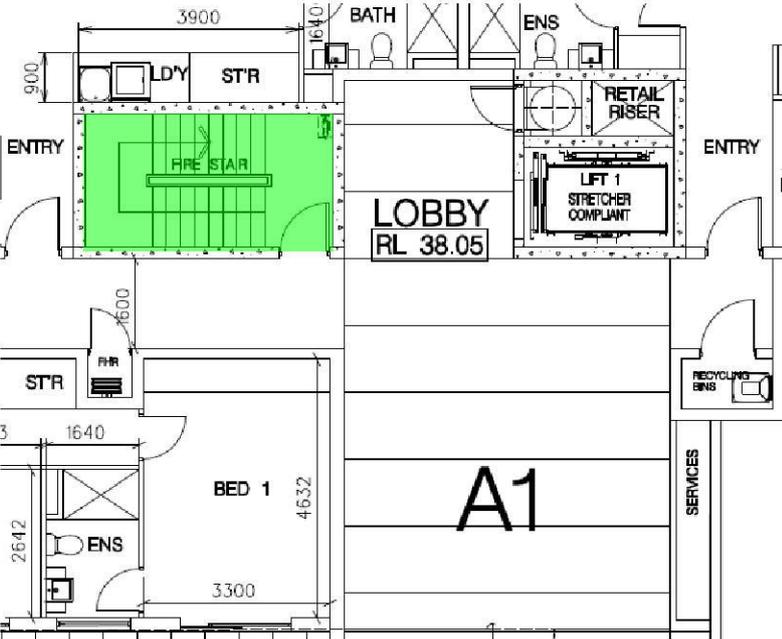
Table 3.0 – Recommendations

| # | MSA Compliance Comment | BCA Requirements / Assessment | Recommended Action |
|-----------------------------------|------------------------|---|--|
| SECTION B: STRUCTURE | | | |
| 1. | Can Readily Comply | <p>Structural Provisions - BCA Section B</p> <p>The buildings must be designed in accordance with the structural requirements of BCA Section B and relevant Australian Standards.</p> | An appropriately qualified Structural Engineer should design and certify compliance with the above at Construction Certificate (CC) stage. |
| SECTION C: FIRE RESISTANCE | | | |
| 2. | Can Readily Comply | <p>Fire Ratings of Building Elements - BCA Section C</p> <p>The buildings are required to comply with the requirements of Specification C1.1 for Type A Construction.</p> <p>The following general fire resistance level requirements apply to the subject building classifications:</p> <ul style="list-style-type: none"> • Class 7a: 120 minutes • Class 5: 120 minutes • Class 6: 180 minutes • Class 2: 90 minutes <p>Attention should be paid to the following areas:</p> <ul style="list-style-type: none"> • Walls separating classifications (e.g. a class 6 retail component from a class 2 component – should generally be constructed as a 'fire wall' – The FRL of the fire wall must be not less than that required for the higher of the classifications concerned – in this case 180 minutes. • The fire isolated stairs and lifts must be enclosed in a shaft which meets the requirements of Specification C1.1. • Walls between or bounding sole occupancy units in the Class 2 portion must have a FRL in accordance with Specification C1. 1 (typically 90 minutes for load-bearing walls or 60 minutes for non-loadbearing walls) and must extend to the underside of a fire rated floor above, to the underside of a fire rated ceiling, or to the underside of a non-combustible roof covering. • Walls bounding garbage shafts & other service risers are required to achieve a FRL in accordance with Specification C1.1 | Details of proposed fire resistance levels and construction materials should be submitted at CC Stage. |
| 3. | Can Readily Comply | <p>Vertical Separation - BCA Clause C2.6</p> <p>All openings in external walls are to be protected from openings in the below storey by either:</p> | Elevations/sections to be submitted demonstrating compliance. |

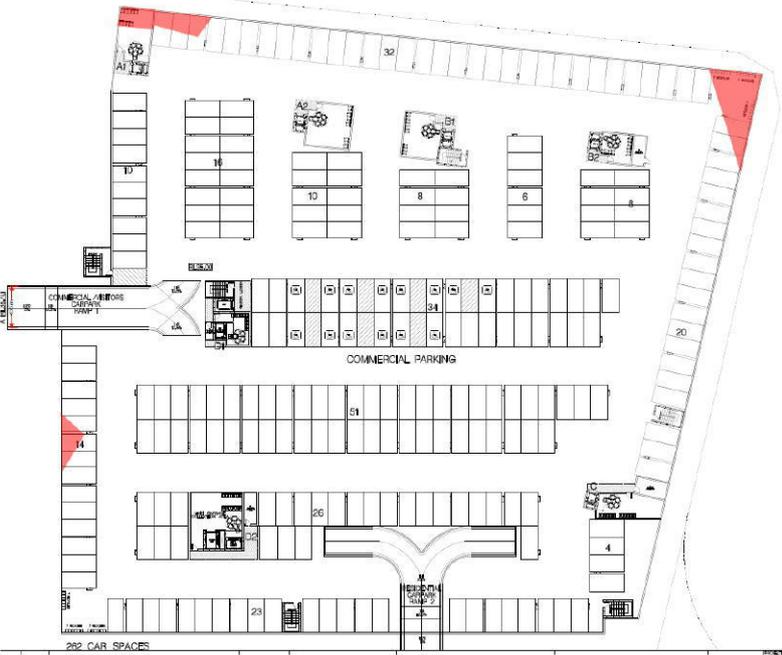


| # | MSA Compliance Comment | BCA Requirements / Assessment | Recommended Action |
|---|------------------------|---|--|
| | | <ul style="list-style-type: none"> - 900mm high 60/60/60 fire-rated spandrels that extend at least 600mm above the intervening floor or - a 60/60/60 slab or horizontal projection that extends at least 1100mm from the external wall and 450mm beyond openings. <p><i>Elevations/sections to be submitted demonstrating compliance.</i></p> <p><i>Particular attention should be paid to areas where balconies are providing horizontal fire separation – in these cases the balconies must extend not less than 450mm horizontally (from the openings).</i></p> | <p><i>Particular attention should be paid to areas where balconies are providing horizontal fire separation – in these cases the balconies must extend not less than 450mm horizontally (from the openings).</i></p> |
| 4. | Can Readily Comply. | <p>Protection of Openings - BCA Clause C3.2</p> <p>Openings in external walls of the buildings must be protected in accordance with Clause C3.4 where the openings are less than:</p> <ul style="list-style-type: none"> • 3m from a side or rear allotment boundary; or • 6m from the external wall of another building on the same allotment; • 6m from the far side of a road which adjoins the allotment <p>The building comprising blocks A-D are generally bounded by Roads (which are more than 6m wide) – therefore openings in the external walls are not required to be protected under Clause C3.2.</p>  | Compliance generally achieved (upon construction of the roads). |
| PART D1: PROVISION FOR ESCAPE + PART D2: CONSTRUCTION OF EXITS | | | |
| 5. | Complies | <p>Number of Exits – BCA Clause D1.2</p> <p>To comply with BCA D1.2, one nominated exit is to serve every above</p> | NA (Complies). |



| # | MSA Compliance Comment | BCA Requirements / Assessment | Recommended Action |
|----|------------------------|---|---|
| | | <p>ground storey, and not less than 2 alternative exits are required to serve the basement levels.</p> <p>Blocks A-D – Above ground storeys – At least one exit is provided from each above ground storey – generally complies – except the proposed location of egress doors on the retail components should be shown on the plans.</p> <p>Blocks A-D – Below Ground storeys – Not less than 2 are provided from the basement levels.</p> | |
| 6. | Does not comply. | <p>Fire isolated exits – BCA D1.3 & D1.7</p> <p>The exit stairs are typically proposed to be in fire isolated shafts as required by Clause D1.3.</p> <p>The egress systems from the basements in each building are required to be clarified in relation to their discharge at podium level (i.e. the path of travel from each fire isolated exit must not pass within 6m of an external wall of the building (unless that opening is protected internally in accordance with Clause C3.4)</p> <p>The fire isolated stairs serving each block (A- D) are required to discharge directly to 'open space'. The current design does not comply in this regard as the exits discharge into the entry lobby of each block. Refer to example in the plan extract below:</p>  <p>Furthermore, the path of travel between the exits and the street and the external walls of the building must be at least 6m –OR the external wall of the building must be protected internally in accordance with Clause D1.7 (c) & C3.4. It appears that the current design shows general compliance can be achieved without additional protection being provided to the walls/windows (however further detail is required to determine full compliance)</p> | <p>Alternative Solution proposed to address compliance with Performance Requirement DP5 (Refer to Fire Engineering Concept report from Innova Fire Services dated 13.03.2014)</p> |



| # | MSA Compliance Comment | BCA Requirements / Assessment | Recommended Action |
|----|------------------------|--|--|
| 7. | Does not comply. | <p>Travel Distances –BCA Clause D1.4.</p> <p>The following requirements apply:</p> <ul style="list-style-type: none"> Class 7a parts – there must be no points on the floor which are more than 20m from an exit – or from a point of choice to 2 alternative exits, in which case the distance to the nearest exit must not exceed 40m. Class 6 parts - there must be no points on the floor which are more than 20m from an exit – or from a point of choice to 2 alternative exits, in which case the distance to the nearest exit must not exceed 40. It is noted that in some circumstances (e.g. where only a single exit is required to serve a retail storey, the distance to the single exit can be increased to 30m) – Details showing the proposed location of the egress doors from the retail components should be provided on the plans). Class 2 parts (from common areas) - there must be no points on the floor which are more than 20m from an exit – or from a point of choice to 2 alternative exits. Class 2 Sole Occupancy Units – the distance between the entrance door of a sole occupancy unit to the nearest exit (or point of choice to two alternative exits) must be not more than 6m (or 20m if on the ground floor level). <p>The following non-compliances are noted:</p> <ul style="list-style-type: none"> Blocks A-D (basement levels). There are points on the floor which are more than 40m from an exit - see marked up plan for <i>general examples</i> of non-compliant areas (as shown in red).  <ul style="list-style-type: none"> Block A – Western portion –Levels 2-5- Unit entry doors more than 6m from single exit (up to 10m) Block C – Levels 2-5 – Units entry doors more than 6m to single exit (up to 16.5m) | <p><i>Alternative Solution proposed to address compliance with Performance Requirement DP4 (Refer to Fire Engineering Concept report from Innova Fire Services dated 13.03.2014)</i></p> |

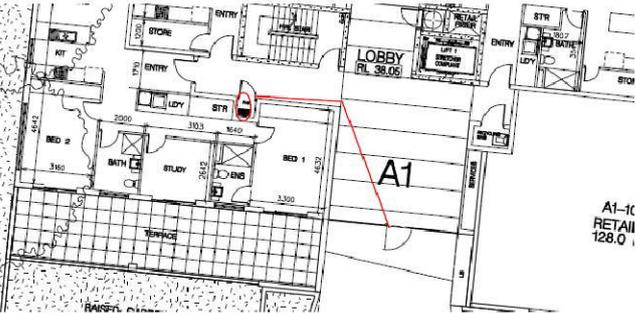


| # | MSA Compliance Comment | BCA Requirements / Assessment | Recommended Action |
|-----|----------------------------|---|---|
| | | <ul style="list-style-type: none"> Block D – Northern portion – Levels 2- 5 - Unit entry doors more than 6m from exit (up to 9.5m) Block D – Southern portion – Levels 2- 6 - Unit entry doors more than 6m from exit (up to 11m) | |
| 8. | <i>Does not comply.</i> | <p>Distance Between Exits <i>BCA Clause D1.5</i></p> <p>The following requirements apply:</p> <ul style="list-style-type: none"> Class 5, 6 & 7a parts – Alternative exits must be not less than 9m and not more than 60m apart Class 2 parts – Alternative exits must be not less than 9m and not more than 45m apart. <p>The following non-compliances were noted:</p> <p><i>Alternative exits in the basement levels of Blocks A-D are more than 60m apart (up to 66m).</i></p> | <i>Alternative Solution proposed to address compliance with Performance Requirement DP4 (Refer to Fire Engineering Concept report from Innova Fire Services dated 13.03.2014)</i> |
| 9. | <i>Can Readily Comply.</i> | <p>Exit Width – <i>BCA Clause D1.6</i></p> <p>All paths of travel and exits must be generally be at least 1m wide x 2m high. Additional exit width may be required in the retail components, depending on the number of occupants accommodated.</p> | <i>Compliance is generally achievable within the constraints of the current design.</i> <i>Details to be submitted at CC stage.</i> |
| 10. | <i>Can Readily Comply.</i> | <p>Exit Doors & Door Hardware –<i>BCA Clauses D2.20 & D2.21,</i></p> <p>All exit doors should swing in the direction of egress and be provided with lever type handle door hardware that does not require a key to operate.</p> <p><i>The final exit doors should be amended to swing in the direction of egress.</i></p> | <i>Details to be submitted at CC stage (note all 'exit' doors need to swing in the direction of egress).</i> |
| 11. | <i>Can Readily Comply.</i> | <p>Roof as open space <i>BCA Clause D2.12</i></p> <p>As the roof (podium) of the building is to be used as 'open space' for the purposes of occupant egress:</p> <ul style="list-style-type: none"> The slab must have a FRL of not less than 120/120/120; and There must be no roof lights or other openings within 3m of the path of travel of persons using the exit to reach the road. | <i>Details to be submitted at CC stage.</i> |
| 12. | <i>Can Readily Comply</i> | <p>Openable Windows - <i>BCA Clause D2.24</i></p> <p>The following restrictions are applicable to windows to minimise the risk of people (including children) falling:</p> <ol style="list-style-type: none"> <i>Bedroom Windows</i> - All windows to bedrooms where there is a fall of 2m or greater, and the window sill height is <1.7m - must have child safe limiters that stop them being opened | <i>Details to be submitted at CC stage.</i> |



| # | MSA Compliance Comment | BCA Requirements / Assessment | Recommended Action |
|---|---------------------------|--|---|
| | | <p>more than 125mm, or permanent structural screens to prevent children falling.</p> <p>b. <i>All Windows</i> - Openable windows for all rooms where there is a 4m or more fall must have a non-climbable sill of at least 865mm in height</p> | |
| ACCESS FOR PEOPLE WITH DISABILITIES (DDA COMPLIANCE) | | | |
| 13. | <i>Can Readily Comply</i> | <p>Access for People with Disabilities - BCA Part D3</p> <p>Accessible paths of travel are required to and within the following areas in accordance with BCA Part D3 and AS1428.1-2009.</p> <ul style="list-style-type: none"> • Class 5 & 6 parts – to and within all areas normally used by occupants • Class 7a parts – to and within any level containing accessible carparking • Class 2 parts – (common areas): <ul style="list-style-type: none"> ○ from a pedestrian entrance required to be accessible to at least one floor containing SOU's – and to the entrance door of all SOU's on that level ○ & where other levels are served by a lift/ramp, to the entrance doors of all units on than level ○ To and within all common areas <p>The plans do not currently contain sufficient detail to determine full compliance with the above requirements, however the following comments are made:</p> <ul style="list-style-type: none"> • Access is generally proposed to be provided to the podium from all pedestrian entrances (from the podium level it is assumed that on grade access is available into all residential lobbies and commercial/retail parts) – (noting that the entrances to the individual retail tenancies have not yet been fully detailed on the plans). • Access between the carpark levels and podium is generally provided by passenger lifts (refer to Part E3 below for further details). • Where the retail tenancies are proposed to be accessed directly from the street – the entrances must be accessible. | <i>Full details demonstrating compliance with AS14281-2009 to be submitted at CC stage.</i> |
| 14. | <i>Complies</i> | <p>Carparking - BCA Clause D3.5</p> <p>Accessible carparking is not required to be provided for the class 2 portions of the building</p> <p>In relation to the carparking for the class 6 (or 5) components the following is required:</p> <ul style="list-style-type: none"> • For up to 1000 carparking spaces – not less than 1 accessible space per 50 spaces must be provided <p>Accessible carspaces are required to be 5400mm deep x 2400mm wide with a 2400mm wide share zone to the side must be provided in accordance with AS2890.6-2009. In this regard:</p> | <i>Refer to Traffic Report.</i> |



| # | MSA Compliance Comment | BCA Requirements / Assessment | Recommended Action |
|--|------------------------|--|--|
| | | <p>Note: The total parking numbers and allocation is subject to determination by Council or other relevant Consent Authority.</p> | |
| SECTION E: SERVICES + EQUIPMENT | | | |
| 15. | Can Readily Comply | <p>Services and Equipment - BCA Section E</p> <p>The following services and equipment are required under the deemed-to-satisfy provisions of the BCA:</p> <ol style="list-style-type: none"> Fire Hydrants per BCA E1.3 and AS2419.1-2005 (location of pump room may need to be revised to achieve compliance – door must open to open space). The location of the booster/s will also need to be nominated, and are subject to siting and fire separation requirements from the building under Section 7 of AS2419.1-2005. Fire Hose Reels per BCA E1.4 and AS2441-2005 (note that fire hose reels must be located not more than 4m from an exit – in this regard some FHR may need to be relocated – see plan extract below)  <ol style="list-style-type: none"> The basement level carparks accommodate more than 40 vehicles and are therefore required to be provided with a sprinkler system in accordance with BCA Specification E1.5 and AS2118.1-1999 Portable Fire Extinguishers per BCA E1.6 and AS2444-2001 Smoke Detection and Alarm Systems and Building Occupant Warning per BCA E2.2 and AS3786-1993 (located per AS1670.1 in common areas) Basement mechanical ventilation per Clause 5.5 of AS1668.1-1998 & BCA Table E2.2a Passenger Lifts with Stretcher Facilities (2000mm deep x 1400mm high x 600mm wide) in accordance with BCA Part E3 and relevant features of AS1735.12 Exit & Directional Lighting per BCA E4.5, NSW E4.6, E4.7, E4.8 and AS2293.1-2005 Emergency Lighting per BCA E4.2, E4.4 and AS2293.1-2005 | <p>Details to be submitted at CC stage.</p> <p>Note comments about fire hose reel locations.</p> |



| # | MSA Compliance Comment | BCA Requirements / Assessment | Recommended Action |
|------------------------------------|------------------------|--|--------------------------------------|
| 16. | Can Readily Comply | <p>LIFTS – BCA Part E4</p> <ul style="list-style-type: none"> Lifts (serving storeys with an effective height of more than 12m must be provided with stretcher facilities in accordance with BCA Clause E3.2. Lifts must have floor dimensions not less than 1400mm wide x 1600mm deep (where travelling more than 12m) Fire service controls must be provided in accordance with BCA Clauses E3.7, E3.9 & E3.10 | Details to be submitted at CC stage. |
| SECTION F: HEALTH + AMENITY | | | |
| 17. | Complies. | <p>Room Heights – BCA Clause F3.1</p> <p>All new ceilings should maintain a minimum clear height of:</p> <ul style="list-style-type: none"> 2400mm. to habitable rooms 2100mm to non-habitable rooms 2000mm above stairs 1980mm at doorways to meet BCA Part F3. <p>The sectional plans indicate general compliance</p> | NA – Generally complies |
| 18. | Can Readily Comply | <p>Facilities - BCA Part F2</p> <p>Class 2 component</p> <p>Each SOU must be provided with:</p> <ul style="list-style-type: none"> A kitchen sink and facilities for the preparation of food A bath or shower A closet pan and washbasin Laundry facilities comprising washtub & space for washing machine & clothes drying facilities <p>Caretakers facilities (comprising washbasin & WC) must be provided at or near ground level.</p> <p>Class 5/6 component</p> <p>The number of required facilities depends on the number of staff & patrons & usage of the commercial/retail tenancies. (Refined calculations would usually be carried out at CC stage (or fitout of the individual tenancies)</p> <p>Based on the 'base building layout', the following calculations are deemed appropriate</p> <ul style="list-style-type: none"> It is assumed that the male to female split will be 50:50 The occupant numbers for office area has been based on 10m² per person as per Table D1.13 (i.e. 433/10 = 44 (22 males + 22 females) The occupant numbers (patrons) for the restaurant has been based on seat numbers (404) = 202 males & 202 females (the number of staff in the restaurant portion cannot be ascertained from the plans provided – suitable facilities should be provided | Details to be submitted at CC stage. |



| # | MSA Compliance Comment | BCA Requirements / Assessment | Recommended Action | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------------|------------------------|--|--------------------------------------|------------|-------------|---------|------------|----------------|----|---|---|---|------------------|----|---|---|---|--------------------|-----|---|---|---|----------------------|-----|---|---|---|---------------------|----|---|---|---|-----------------------|----|---|---|---|--|
| | | <p>for staff – details to be submitted at CC stage)</p> <ul style="list-style-type: none"> The occupant numbers for the retail area has been based on 3m² per person = 174. As facilities for patrons are not required <600, only facilities for staff are required. It has been assumed that 20% of the total occupants will be staff i.e.36 (18 males + 18 females) The number of accessible facilities required depends on the location of the facilities (not less than 1 accessible facility (washbasin and pan) must be provided). Where facilities are spread out over the storey (in 'banks' of toilets), then at least one accessible facility needs to be provided at not less than 50% of the total number of banks Where the facilities are spread out over a number of storeys – then not less than one accessible facility needs to be provided at each storey At least one male and female ambulant facility need to be provided at each bank of toilets (in addition to accessible facilities) <p>The required number & type of facilities has been summarised in the Table below.</p> <table border="1"> <thead> <tr> <th></th> <th>Number</th> <th>Closet pans</th> <th>Urinals</th> <th>Washbasins</th> </tr> </thead> <tbody> <tr> <td>Office (males)</td> <td>22</td> <td>2</td> <td>1</td> <td>1</td> </tr> <tr> <td>Office (females)</td> <td>22</td> <td>2</td> <td>-</td> <td>1</td> </tr> <tr> <td>Restaurant (males)</td> <td>202</td> <td>2</td> <td>5</td> <td>3</td> </tr> <tr> <td>Restaurant (females)</td> <td>202</td> <td>6</td> <td>-</td> <td>3</td> </tr> <tr> <td>Retail (male staff)</td> <td>18</td> <td>1</td> <td>1</td> <td>1</td> </tr> <tr> <td>Retail (female staff)</td> <td>18</td> <td>2</td> <td>-</td> <td>1</td> </tr> </tbody> </table> <p><i>The base building facilities proposed within Block D indicates that compliance is achievable</i></p> | | Number | Closet pans | Urinals | Washbasins | Office (males) | 22 | 2 | 1 | 1 | Office (females) | 22 | 2 | - | 1 | Restaurant (males) | 202 | 2 | 5 | 3 | Restaurant (females) | 202 | 6 | - | 3 | Retail (male staff) | 18 | 1 | 1 | 1 | Retail (female staff) | 18 | 2 | - | 1 | |
| | Number | Closet pans | Urinals | Washbasins | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Office (males) | 22 | 2 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Office (females) | 22 | 2 | - | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Restaurant (males) | 202 | 2 | 5 | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Restaurant (females) | 202 | 6 | - | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Retail (male staff) | 18 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Retail (female staff) | 18 | 2 | - | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19. | Can Readily Comply | <p>Light and Ventilation – BCA Part F4</p> <ol style="list-style-type: none"> <i>Natural Light (Class 2 Units Only)</i> must be provided to all habitable rooms as required by BCA Clause F4.2 –Windows must provide an aggregate light transmitting area of not less than 10% of the room or area which it serves) Artificial lighting must be provided in accordance with AS1680.0 to all non-habitable rooms <i>Natural Ventilation</i> in the form of openings in the external walls must be provided to amount to 5% of the floor area for all habitable rooms or mechanical ventilation is required in accordance with AS1668.2-1991. <p><i>The building shows general compliance however a full window schedule is required to determine full compliance.</i></p> | Details to be submitted at CC stage. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SECTION J: ENERGY EFFICIENCY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



| # | MSA Compliance Comment | BCA Requirements / Assessment | Recommended Action |
|-----|------------------------------|--|--------------------|
| 20. | Can Readily Comply | <p>Energy Efficiency – BCA Section J</p> <ol style="list-style-type: none"> 1. The Class 2 residential units must meet the requirements of BASIX under NSW Section J. 2. The Class 5, 6 and Class 7a parts must comply with the following Energy Efficiency Requirements of Section J as relevant. Notably, the BCA considers any class 6 building as a 'conditioned space': <ul style="list-style-type: none"> - Part J1 – Building Fabric - Part J2 – Glazing - Part J3 – Building Ceiling - Part J5 – Air-Conditioning & Ventilation Systems - Part J6 - Artificial Lighting & Power - Part J7 – Hot Water Supply - Part J8 - Access for Maintenance & Facilities for Monitoring | |



4.0 CONCLUSION

This report has assessed the DA level design documentation for the proposed mixed use (residential & commercial) development with associated carparking at Jordan Springs Boulevard under the provisions of the Building Code of Australia (BCA), including relevant provision for "Access for People with Disabilities".

It is understood that this report will be submitted to Council to support the Development Application for the subject building.

The Table in Section 3.0 of this report provides an assessment of the proposed design against the significant design requirements of the BCA.

Subject to the recommendations contained in Table 3.0 of this report, the design is able to readily comply with the significant 'deemed-to-satisfy' provisions and/or the relevant Performance Requirements of the BCA within the constraints of the proposed design.

It is noted that Alternative Solutions are proposed to support some identified non-compliances. The Fire Engineering Concept report prepared by Innova Services dated 13.03.2014 indicates that compliance with the relevant Performance Requirements can be achieved generally within the constraints of the current design.

Further assessment of the detailed design should also be undertaken upon determination of the Development Application, and prior to the Construction Certificate being issued.



ATTACHMENT A – REFERENCED PLANS

| Drawing No. | Issue | Title | Date |
|-------------|-------|---------------------------|------------|
| A 1000 | E | Site Plan | 23-02-2014 |
| A 1001 | E | Site Plan - Detail 1 of 2 | 23-02-2014 |
| A 1002 | E | Site Plan - Detail 2 of 2 | 23-02-2014 |
| A 2000 | E | Basement 2 (lower) | 23-02-2014 |
| A 2001 | E | Basement 2 (upper) | 23-02-2014 |
| A 2200 | E | Building A - Level 1 Plan | 23-02-2014 |
| A 2201 | E | Building A - Level 2 Plan | 23-02-2014 |
| A 2202 | E | Building A - Level 3 Plan | 23-02-2014 |
| A 2203 | E | Building A - Level 4 Plan | 23-02-2014 |
| A 2204 | E | Building A - Level 5 Plan | 23-02-2014 |
| A 2205 | E | Building A - Level 6 Plan | 23-02-2014 |
| A 2210 | E | Building B - Level 1 Plan | 23-02-2014 |
| A 2211 | E | Building B - Level 2 Plan | 23-02-2014 |
| A 2212 | E | Building B - Level 3 Plan | 23-02-2014 |
| A 2213 | E | Building B - Level 4 Plan | 23-02-2014 |
| A 2214 | E | Building B - Level 5 Plan | 23-02-2014 |
| A 2215 | E | Building B - Level 6 Plan | 23-02-2014 |
| A 2220 | E | Building C - Level 1 Plan | 23-02-2014 |
| A 2221 | E | Building C - Level 2 Plan | 23-02-2014 |
| A 2222 | E | Building C - Level 3 Plan | 23-02-2014 |
| A 2223 | E | Building C - Level 4 Plan | 23-02-2014 |
| A 2224 | E | Building C - Level 5 Plan | 23-02-2014 |
| A 2230 | E | Building D - Level 1 Plan | 23-02-2014 |
| A 2231 | E | Building D - Level 2 Plan | 23-02-2014 |
| A 2232 | E | Building D - Level 3 Plan | 23-02-2014 |
| A 2233 | E | Building D - Level 4 Plan | 23-02-2014 |
| A 2234 | E | Building D - Level 5 Plan | 23-02-2014 |
| A 2235 | E | Building D - Level 6 Plan | 23-02-2014 |

