

Access Report (DA)

Proposed Residential Flat Building Development
4 Brookvale Avenue
Brookvale NSW 2100

Client: Lotus Projects

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Project File Name:		Lotus Projects – Proposed Residential Flat Building Development – 4 Brookvale Avenue Brookvale – Access Report (DA)		
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1. INTRODUCTION

Ergon Consulting has been engaged by the client Lotus Projects to undertake an assessment and provide professional opinion in regards to access for people with disabilities to and within the proposed residential flat building development located at 4 Brookvale Avenue Brookvale NSW.

This report has been prepared to accompany the development application and has relied on the following design documentation prepared by Barry Rush & Associates Pty Ltd (*attached to this report in Appendix 1*).

Document Number	Rev	Title	Date
A03	A	Ground Floor Plan	27.02.18
A04	A	First Floor Plan	27.02.18
A05	A	Second Floor Plan	27.02.18
A06	A	Third Floor Plan	27.02.18
A07	A	Fourth Floor Plan	27.02.18
A08	A	Fifth Floor Plan	27.02.18
A09	A	Sixth Floor Plan	27.02.18
A10	A	Roof Plan	27.02.18

a. Purpose of report

The purpose of this report is to identify the extent to which the design documentation complies with the applicable accessibility provisions found within:

- Building Code of Australia (BCA) 2016, Part D3 (*Access for people with a disability*), Clause E3.6 (*Lift Installations*) and Clause F2.4 (*Accessible Sanitary Facilities*);
- Disability (*Access to Premises – Building*) Standards (DAPS) 2010;
- SEPP 65: Apartment Design Guide – Part 4Q Universal Design;
- AS1428.1-2009 Part 1 – General requirements for access - New building work;
- AS1428.4.1-2009 Part 4.1 – Means to assist the orientation of people with vision impairment – Tactile ground surface indicators;
- AS1735.12-1999 Part 12 – Facilities for persons with disabilities;
- Livable Housing Australia (LHA) – Livable Housing Design Guidelines (*Fourth Edition*);
- Northern Beaches Council – Warringah Development Control Plan (DCP) 2011 –Section D18 Accessibility; and
- General best practice access requirements.

The comments within this report do not cover detailed issues pertaining to construction documentation such as finishing schedules, evaluation of slip resistant floor materials, lift specification, door and window schedules, tactile ground surface indicators, gradients and levels, lighting, signage and the like, which will be confirmed at construction certificate design stage.

b. Report Exclusions

This report should not be misinterpreted that it provides an assessment for compliance with the following:

- Occupational Health & Safety Act and Regulations;
- Work Health and Safety requirements;
- Requirements of any standards that are not identified within this report;
- Any parts or specifications of the BCA not directly referenced within this report; and
- Disability Discrimination Act (*DDA*) 1992.

It is also conveyed that this report does not form part of the design documentation prepared for this project.

2. DEVELOPMENT DETAILS

a. Project Description

The proposed residential flat building development will generally include the following:

- Ground floor level with car parking including 8 residential car parking spaces, unisex accessible toilet, plant room, recycle and bulky goods garbage rooms;
- Level 1 floor level with car parking including 9 residential car parking spaces and 1 residential unit;
- Level 2 to level 6 including 10 residential units of which 2 are livable (Units 2 &3) and storage rooms;
- Common open space on level 6; and
- Non-trafficable roof.

b. Building Details

The building that is referred to within this report can be described as follows:

Property Address: 4 Brookvale Avenue Brookvale NSW 2100

Legal Description: Lot 45 DP6040

Total Site Land Area: 1310m²

Proposed Building Classification:

Class 2 – Residential Sole Occupancy Units

Class 7a – Car Parking

Note: Assumed the storage room, recycle garbage room and plant room constitute less than 10% of the total floor areas on each floor. Building classifications determined in accordance with Part A3 of the BCA. To be confirmed at CC design stage.

3. BCA ASSESSMENT

a. General

The table below assesses the compliance status of the design documentation in terms of the prescriptive accessibility provisions found within the Building Code of Australia 2016 (BCA).

The references within this table are only access related parts or clauses found within the BCA and those applicable to this project.

To parts or clauses of the BCA that do not comply or design detail is not provided, a comment or recommendation is provided to achieve compliance.

The compliance assessment outcomes are classified into the following categories:

Key	
Noted	The subject clause is for guidance or for information only.
Complies	The design complies with the subject clause.
Capable of complying at CC stage	The design has shown general compliance with the subject clause. Further details are required during the construction certificate stage to achieve full compliance.
Design information required at CC stage	The design does not show sufficient details to achieve compliance with the subject clause. Further details are required during the construction certificate stage to achieve full compliance.
Does not comply	The design has not achieved compliance with the subject clause.
Not applicable	The subject clause is not applicable to the proposed design.

b. Part D3 – Access for people with disabilities

BCA Clause		Status	Comment/Recommendation
D3.0	<p>Deemed-to-satisfy provisions</p> <p>(a) Where a D-t-S solution is proposed, the Performance Requirement DP1, DP6, DP8 and DP9 are satisfied by complying with –</p> <p>(i). D1.1 to D1.16, D2.1 to D2.25 and D3.1 to D3.12; and</p> <p>(ii). In a building containing an atrium, Part G3; and</p> <p>(iii). In a building in an alpine area, Part G4; and</p> <p>(iv). For additional requirements for Class 9b buildings, Part H1; and</p> <p>(v). For public transport buildings, Part H2.</p>	Noted	<p>The new building work will generally follow a D-t-S path for achieving compliance.</p> <p>Where D-t-S compliance is not achievable a performance based alternative solution must be provided at CC design stage.</p>

BCA Clause		Status	Comment/Recommendation
	<p>(b) Where a performance solution is proposed, the relevant performance requirements must be determined in accordance with A0.7.</p> <p>(c) Performance requirement DP7 must be complied with if lifts are to be used to assist occupants to evacuate a building.</p>		
<p>D3.1</p>	<p>General building access requirements</p> <p>Buildings and parts of buildings must be accessible as required by Table D3.1, unless exempted by Clause D3.4.</p> <p>Class 2 – Residential Sole Occupancy Units</p> <ul style="list-style-type: none"> • <i>From a pedestrian entrance required to be accessible to at least 1 floor containing sole-occupancy units and to the entrance doorway of each sole occupancy unit on that level.</i> • <i>To and within not less than 1 of each type of room or space for use in common by the residents, including a cooking facility, sauna, gymnasium, swimming pool, common laundry, games room, individual shop, eating area, or the like.</i> • <i>Where a ramp complying with AS1428.1 or a passenger lift is installed – to the entrance doorway of each sole occupancy unit and to and within rooms or spaces for use in common by the residents, located on the levels served by the lift or ramp.</i> <p>Class 7a – Car Parking</p> <p><i>To and within any level containing accessible car parking spaces.</i></p>	<p>Capable of complying at CC stage</p>	<p>Livable Housing Requirements</p> <p>SEPP 65 Apartment Design Guide Part 4Q states residential developments with 3 or more storeys and more than 4 dwellings must have a minimum 20% of dwellings designed and constructed in accordance with the requirements of the Livable Housing Design Guideline.</p> <p>2 livable dwellings (Units 2 & 3) must be provided within the development achieving a ‘Silver’ level classification as per the requirements of the Livable Housing Design Guideline.</p> <p>Refer to Section 5 of this report for ‘Silver’ level schedule of livable housing features required within the livable dwellings.</p> <p>Class 2 – Residential Sole Occupancy Units</p> <p>Access is required to the entrance doorway of each dwelling and to any common areas accessed via a compliant ramp or passenger lift.</p> <p>The main entrance door to each dwelling within the development must have a minimum 850mm wide x 1980mm high clear door opening (920mm x 2040mm door) complying with AS1428.1-2009.</p> <p>Class 7a – Car parking</p> <p>There are no accessible car parking spaces therefore access is not required to the car parking levels.</p> <p>Building access requirements to be confirmed at CC design stage.</p>

BCA Clause		Status	Comment/Recommendation
D3.2	<p>Access to buildings</p> <p>(a) An accessway must be provided to a building required to be accessible:</p> <ul style="list-style-type: none"> (i). From the main points of a pedestrian entry at the allotment boundary; and (ii). From another accessible building connected by a pedestrian link; and (iii). From any required accessible car parking on the allotment. <p>(b) In a building required to be accessible, an accessway must be provided through the principal pedestrian entrance and:</p> <ul style="list-style-type: none"> (i). Through not less than 50% of all pedestrian entrances, including the principal pedestrian entrance; and (ii). In a building with a total floor area more than 500m², a pedestrian entrance which is not accessible must not be located more than 50m from an accessible pedestrian entrance, <p>Except for pedestrian entrances serving only areas exempted by Clause D3.4.</p> <p>(c) Where a pedestrian required to be accessible has multiple doorways:</p> <ul style="list-style-type: none"> (i). If the pedestrian entrance consists of not more than 3 doorways – not less than 1 of those doorways must be accessible; and (ii). If a pedestrian entrance consists of more than 3 doorways – not less than 50% of those doorways must be accessible. <p>(d) For the purpose of (c):</p> <ul style="list-style-type: none"> (i). An accessible pedestrian entrance with multiple doorways is considered to be one pedestrian entrance where: 	Capable of complying at CC stage	<p>Access to the Building</p> <p><i>Accessways (i.e. continuous accessible path of travel without steps or steep grades) must be provided to the principal pedestrian entrance from the main pedestrian entry point at the allotment boundary.</i></p> <p>Accessways are generally provided to the development, however must be confirmed in detail at CC design stage.</p> <p>Principal Pedestrian Entrance to Building</p> <p>The principal pedestrian entrance providing access to development must have a minimum 850mm wide x 1980mm high clear door opening (<i>920mm x 2040mm door</i>), D-lever type door controls, level threshold and clear door circulation space on both sides of the door complying with AS1428.1-2009.</p> <p>The CC design documents will provide details showing clear opening of doorways, level thresholds, door hardware and door circulation space requirements in accordance with AS1428.1-2009.</p>

BCA Clause		Status	Comment/Recommendation
	<p>a. All doorways serve the same part or parts of the building; and</p> <p>b. The distance between each doorway is not more than the width of the widest doorway at that pedestrian entrance.</p> <p>(ii). A doorway is considered to be the clear, unobstructed opening created by the opening of one or more door leaves.</p> <p>(e) Where a doorway on an accessway has multiple leaves (except an automated opening door) one of the leaves must have a clear opening width of not less than 850mm in accordance with AS1428.1.</p>		
D3.3	<p>Parts of buildings to be accessible</p> <p>In a building required to be accessible:</p> <p>(a) Every ramp and stairway, except for ramps and stairways in areas exempted by Clause D3.4, must comply with:</p> <p>(i). For a ramp, except a fire isolated ramp, clause 10 of AS1428.1; and</p> <p>(ii). For a stairway, except a fire isolated stairway, clause 11 of AS1428.1; and</p> <p>(iii). For a fire isolated stairway, clause 11 (f) and (g) of AS1428.1; and</p> <p>(b) Every passenger lift must comply with Clause E3.6;</p> <p>(c) Accessways must have:</p> <p>(i). Passing spaces complying with AS1428.1 at maximum 20m intervals on those parts of an accessway where a direct line of site is not available; and</p> <p>(ii). Turning spaces complying with AS1428.1:</p> <p>a. Within 2m of the end of</p>	Capable of complying at CC stage	<p>Accessways within Buildings</p> <p>Accessways within the development must comply with AS1428.1-2009 and must incorporate the following:</p> <ul style="list-style-type: none"> • 1000mm minimum clear width, except where a turning space or door circulation space is required within an accessway; • 1500mm x 1500mm minimum clear circulation space to perform a 90-degree turn within an accessway; and • 1540mm x 2070mm minimum clear circulation space to perform a 180-degree turn within 2 metres of a terminated accessway. <p>Accessways are generally provided with appropriate widths and turning spaces within the development, however must be confirmed in detail at CC design stage.</p> <p>Doors</p> <p>Doors required to be accessible must have a minimum 850mm wide x 1980mm high clear door opening (920mm x 2040mm door), D-lever</p>

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	<p>accessways where it is not possible to continue travelling along the accessway; and</p> <p>b. At maximum 20m intervals along the accessway; and</p> <p>(d) An intersection of accessways satisfies the spatial requirements for a passing and turning space;</p> <p>(e) A passing space may serve as a turning space; and</p> <p>(f) A ramp complying with AS1428.1 or a passenger lift need not be provided to a serve a storey or level other than a entrance storey in a Class 5, 6, 7b and 8 building:</p> <p>(i). Containing not more than 3 storeys; and</p> <p>(ii). With a floor area for each storey, excluding the entrance storey, of not more than 200m².</p> <p>(g) Clause 7.4.1(a) of AS1428.1 does not apply and is replaced with 'the pile height or pile thickness shall not exceed 11mm and the carpet backing thickness shall not exceed 4mm'.</p> <p>(h) The carpet pile height or pile thickness dimension, carpet backing thickness dimension and their combined dimension shown in Figure 8 of AS1428.1 do not apply and are replaced with 11mm, 4mm and 15mm respectively.</p>		<p>type door controls, level threshold and clear door circulation space on both sides of the door complying with AS1428.1-2009.</p> <p>Stairs</p> <p>Stairs, except for fire-isolated stairs must comply with AS1428.1-2009.</p> <p>Stairs must have a minimum 1000mm clear width, handrails on both sides with extensions (<i>300mm top extension and 550mm bottom extension</i>) and terminations to the wall or ground, non-slip nosings with a 30% luminance contrast and enclosed risers.</p> <p>Tactile ground surface indicators must be provided at top and bottom landings (<i>excluding mid-landings</i>) complying with AS1428.4.1-2009.</p> <p>Handrails must not intrude within the clear circulation space of an accessway or doorway.</p> <p>Walkways</p> <p>Walkways (<i>i.e. 1 in 20 to 1 in 33 graded walkways</i>) must comply with AS1428.1-2009.</p> <p>Walkways must have a minimum 1000mm clear width, firm level surface on abutting sides for 600mm, or 450mm low wall, or handrail with a kerb rail and landings every 15m (<i>1200mm long mid-landings, 1500mm long top and bottom landings</i>).</p> <p>Fire-Isolated Stairs</p> <p>Fire-isolated stairs must have a minimum 1000mm clear width, non-slip nosings with a 30% luminance contrast and a compliant handrail complying with AS1428.1-2009.</p> <p>The first riser at each mid-landing must be setback one tread width to achieve handrail height compliance.</p> <p>Fire Exit Doors</p> <p>Fire exit doors preferably must have a minimum 850mm wide x 1980mm high clear door opening (<i>920mm x 2040mm door</i>) and D-lever type or panic bar door controls allowing a</p>

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			<p>person with a disability to escape or seek refuge during an emergency.</p> <p>Passenger Lift</p> <p>The passenger lift must comply with Clause E3.6 of the BCA and AS1735.12-1999.</p> <p>Soft Floor Coverings</p> <p>Carpet provided in common areas must comply with the BCA. The carpet pile height or thickness shall not exceed 11mm and the carpet backing thickness shall not exceed 4mm (<i>total 15mm thickness</i>).</p> <p>Slip Resistant Surfaces</p> <p>Flooring (<i>i.e. tiles, pavers, timber or concrete</i>) provided in common areas must have a slip resistant rated surface complying with the BCA and AS4586-2013 (<i>e.g. minimum R10 or P3 rating for dry areas and R11 or P4 rating for wet areas</i>).</p> <p>Recycle & Bulky Goods Garbage Rooms</p> <p>The recycle & bulky goods garbage rooms must have a minimum 850mm wide x 1980mm high clear door opening (<i>920mm x 2040mm door</i>) with clear door circulation space on both sides of the door or a 1000mm clear opening if a door is not provided and clear internal circulation space (<i>1540mm x 2070mm</i>) complying with AS1428.1-2009.</p> <p>Communal Areas</p> <p>The communal open space must be accessible via an accessway complying with AS1428.1-2009.</p> <p>Access requirements within the development to be confirmed at CC design stage.</p>
D3.4	<p>Exemptions</p> <p>The following areas are not required to be accessible:</p> <p>(a) An area where access would be inappropriate because of the particular purpose for which the</p>	Noted	<p>Non-Accessible Areas</p> <p>The storage rooms and plant room may be exempt from being accessible as access could be considered inappropriate and may</p>

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	<p>area is used; and</p> <p>(b) Any area that would pose a health and safety risk for people with a disability; and</p> <p>(c) Any path of travel providing access only to an area exempted by (a) and (b).</p>		<p>pose a health and safety risk for a person with a disability.</p> <p>The client must provide information detailing use of each non-accessible area, role of personnel to be admitted to each area, security arrangements for independent movement of non-authorised personnel, activities of the people using the area and any OH&S restraints.</p> <p>Non-accessible areas within the development to be confirmed at CC design stage.</p>
<p>D3.5</p>	<p>Accessible car parking</p> <p>Accessible car parking spaces:</p> <p>(a) Subject to (b), must be provided in accordance with Table D3.5 in:</p> <p>(i). A Class 7a building required to be accessible; and</p> <p>(ii). A car parking area on the same allotment as a building required to be accessible.</p> <p>(b) Need not be provided in a Class 7a building or car parking area where a parking service is provided and direct access to any of the car parking spaces is not available to the public.</p> <p>(c) Subject to (d), must comply with AS2890.6.</p> <p>(d) Need not be designated where there is a total of not more than 5 car parking spaces, so as to restrict the use of the car parking space only for people with a disability.</p> <p>Class 2 – Residential Sole Occupancy Units</p> <p><i>Table D3.5 has no requirements for accessible car parking within a Class 2 building.</i></p> <p>Class 7a – Car Parking</p> <p><i>Table D3.5 states 1 accessible car parking space for every 100 car parking spaces or part thereof.</i></p>	<p>Not applicable</p>	<p>There is no accessible car parking provided within the development.</p> <p>Accessible car parking spaces are not required.</p>

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D3.6	<p>Signage</p> <p>In a building required to be accessible –</p> <p>(a) Braille and tactile signage complying with Specification D3.6 must:</p> <p>(i). Incorporate the international symbol of access or deafness, as appropriate, in accordance with AS1428.1 and identify each:</p> <p>a. Sanitary facility, except a sanitary facility within a sole occupancy unit in a Class 1b or Class 3 building; and</p> <p>b. Space with a hearing augmentation system.</p> <p>(ii). Identify each door required by Clause E4.5 to be provided with an exit sign and state:</p> <p>a. “Exit”; and</p> <p>b. “Level” followed by either the floor level number, the floor level descriptor or a combination of both.</p> <p>(b) Signage including the international symbol for deafness in accordance with AS1428.1 must be provided within a room containing a hearing augmentation system identifying:</p> <p>(i). The type of hearing augmentation;</p> <p>(ii). The area covered within the room; and</p> <p>(iii). If receivers are being used and where the receivers can be obtained.</p> <p>(c) Signage in accordance with AS1428.1 must be provided for accessible unisex sanitary facilities to identify if the facility is suitable for left or right-handed use.</p> <p>(d) Signage to identify an ambulant accessible sanitary facility in accordance with AS1428.1 must</p>	Capable of complying at CC stage	<p>Accessible Signage</p> <p>All signage within the development relating to access must comply with Specification D3.6 of the BCA and AS1428.1-2009.</p> <p>Signs must be positioned 1200mm-1600mm from the ground, easy to read (<i>large print if possible</i>), non reflective, illuminated and include legible braille and tactile.</p> <p>Fire Exit Doors</p> <p>Signage must be provided to all fire exit doors stating “Exit” and “Level” followed by the floor number, name or both.</p> <p>Directional signage must be provided directing a person with a disability to the fire exit door on each floor.</p> <p>Unisex Accessible Toilet</p> <p>Signage must be provided to the unisex accessible toilet identifying if the facility is for left or right hand use.</p> <p>Recycle & Bulky Goods Garbage Rooms</p> <p>Signage stating “Recycle Garbage” or “Bulk Goods Garbage” must be provided identifying the garbage room type.</p> <p>Non-Accessible Rooms</p> <p>Non-accessible rooms must have signage stating the use of the room i.e. “Plant”, “Storage”.</p> <p>Signage details to be confirmed during CC design stage.</p>

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	<p>be located on the door of the facility.</p> <p>(e) Where a pedestrian entrance is not accessible, directional signage incorporating the international symbol of access, in accordance with AS1428.1 must be provided to direct a person to the location of the nearest accessible pedestrian entrance.</p> <p>(f) Where a bank of sanitary facilities is not provided with an accessible unisex sanitary facility, direction signage incorporating the international symbol of access in accordance with AS1428.1 must be placed at the location of the sanitary facilities that are not accessible, to direct a person to the location of the nearest accessible unisex sanitary facility.</p>		
D3.7	<p>Hearing Augmentation</p> <p>(a) A hearing augmentation system must be provided where an inbuilt amplification system, other than the one used for emergency warning is installed:</p> <p>(i). In a room within a Class 9b building; and</p> <p>(ii). In an auditorium, conference room, meeting room, or room for judicatory purposes; and</p> <p>(iii). At any ticket office, tellers booth, reception area, or the like, where the public is screened from the service provider.</p> <p>(b) If a hearing augmentation system is required by (a) is:</p> <p>(i). An induction loop, it must be provided to no less than 80% of the floor area of the room or space served by the inbuilt amplification system; and</p> <p>(ii). A system requiring the use of receivers or the like, it must be available to not less than 95% of the floor area of the room or space served by the inbuilt amplification system, and the</p>	Not applicable	<p>An inbuilt amplification system other than the emergency warning system will not be provided within the development.</p> <p>A hearing augmentation system is not required.</p>

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	<p>number of receivers provided must not be less than:</p> <ul style="list-style-type: none"> a. If the room or space accommodates up to 500 persons, 1 receiver per 25 persons or part thereof, or 2 receivers, whichever is greater; and b. If the room or space accommodates more than 500 patrons but not more than 1000, 20 receivers plus 1 receiver for every 33 person or part thereof in excess of 500 persons; and c. If the room or space accommodates more than 1000 persons but not more than 2000 persons, 35 receivers plus 1 receiver for every 50 persons or part thereof in excess of 1000 persons; and d. If the room or space accommodates more than 2000 persons, 55 receivers plus 1 receiver for every 100 persons or part thereof in excess of 2000 persons. <p>(c) The number of persons accommodated in the room or space served by an inbuilt amplification system must be calculated according to Clause D1.13.</p> <p>(d) Any screen or scoreboard associated with a Class 9b building and capable of displaying public announcements must be capable of supplementing any public address system, other than a public address system used for emergency warning purposes only.</p>		
D3.8	<p>Tactile Indicators</p> <ul style="list-style-type: none"> (a) For a building required to be accessible, tactile ground surface indicators must be provided to warn people who are blind or have a vision impairment that they are 	Capable of complying at CC stage	<p>Tactile Ground Surface Indicators</p> <p>Tactile ground surface indicators provided within the development must comply with AS1428.4.1-2009.</p>

BCA Clause		Status	Comment/Recommendation
	<p>approaching:</p> <ul style="list-style-type: none"> (i). A stairway, other than a fire-isolated stairway; and (ii). An escalator; and (iii). A passenger conveyor or moving walk; and (iv). A ramp, other than a fire-isolated ramp, step ramp, kerb ramp or swimming pool ramp; and (v). In the absence of a suitable barrier: <ul style="list-style-type: none"> a. An overhead obstruction less than 2m above floor level, other than a doorway; and b. An accessway meeting a vehicle way adjacent to any pedestrian entrance to a building, excluding a pedestrian entrance serving an area referred to in Clause D3.4, if there is no kerb or kerb ramp at that point. <p>Except of areas exempted by Clause D3.4.</p> <ul style="list-style-type: none"> (b) Tactile ground surface indicators required by (a) must comply with Section 1 and 2 of AS/NZS 1428.4.1. (c) A hostel for the aged, nursing home for the aged, a residential aged care building Class 3 accommodation for the aged, Class 9a health-care building or a Class 9c building need not comply with (a)(i) and (iv) if handrails incorporating a raised dome button in accordance with the requirements for stairway handrails in AS1428.1 are provided to warn people who are blind or have a vision impairment that they are approaching a stairway or ramp. 		<p>Tactile ground surface indicators (<i>warning type</i>) must be provided to the top and bottom landings of stairs (<i>except for fire-isolated stairs</i>).</p> <p>Tactiles ground surface indicators provided at stairs must be a minimum 600-800mm wide where the total distance of the landing is more than 3000mm from the nearest nosing and if less than 3000mm must be 300-400mm wide.</p> <p>The tactile ground surface indicators must be provided for the full width of an opening and setback 300mm from the hazard.</p> <p>Tactile ground surface indicators must not be provided to mid-landings where a continuous handrail is provided.</p> <p>Integrated tactile ground surface indicators must have a 30% luminance contrast, discrete tactile ground surface indicators must have a 45% luminance contrast and 2 tone tactile ground surface indicators must have a 60% luminance contrast to surrounding surfaces.</p> <p>Tactile ground surface indicator locations within the development to be confirmed at CC design stage.</p>
D3.9	<p>Wheelchair seating spaces in Class 9b assembly buildings</p> <p>Where fixed seating is provided in a</p>	Not	There is no fixed seating or parts of

BCA Clause		Status	Comment/Recommendation
	<p>Class 9b assembly building, wheelchair seating spaces complying with AS1428.1 must be provided with the following:</p> <ul style="list-style-type: none"> (a) The number and grouping of wheelchair seating spaces must be in accordance with Table D3.9; (b) In a cinema: <ul style="list-style-type: none"> (i). With not more than 300 seats, wheelchair seating spaces must not be located in the front row seats; and (ii). With more than 300 seats – not less than 75% of required wheelchair seating spaces must be located in rows other than the front row of seats; and (iii). The location of wheelchair seating is to be representative of the range of seating provided. 	applicable	<p>the development that are classified as Class 9b.</p> <p>Wheelchair seating spaces are not required.</p>
D3.10	<p>Swimming pools</p> <ul style="list-style-type: none"> (a) Not less than 1 means of accessible water entry/exit in accordance with Specification D3.10 must be provided for each swimming pool required by Table D3.1 to be accessible. (b) An accessible entry/exit must be by means of: <ul style="list-style-type: none"> (i). A fixed or moveable ramp and an aquatic chair; or (ii). A zero depth entry at a maximum gradient of 1:14 and an aquatic chair; or (iii). A platform swimming pool lift and an aquatic wheelchair; or (iv). A sling style swimming pools lift. (c) Where a swimming pool has a perimeter of more than 70m in length, at least one accessible water entry/exit must be provided by a means specified in (b)(i), (ii) or (iii). (d) Latching devices on gates and doors forming part of a swimming 	Not applicable	<p>There are no swimming pools proposed within the development.</p>

BCA Clause		Status	Comment/Recommendation
	pool safety barrier need not comply with AS1428.1.		
D3.11	<p>Ramps</p> <p>On an accessway:</p> <p>(a) A series of connected ramps must not have a combined vertical rise of more than 3.6m; and</p> <p>(b) A landing for a step ramp must not overlap a landing for another step ramp or ramp.</p>	Noted	There are no ramps with a total rise of 3.6m and no overlapping step ramp landings within the development.
D3.12	<p>Glazing on an accessway</p> <p>On an accessway, where there is no chair rail, handrail or transom, all frameless or fully glazed doors, sidelights and any glazing capable of being mistaken for a doorway or opening, must be clearly marked in accordance with AS1428.1.</p>	Capable of complying at CC stage	<p>All frameless glazed doors and windows (<i>without mid-rails</i>) that can be mistaken as an opening within common areas of the development must have a luminance contrast strip in accordance with AS1428.1-2009.</p> <p>Contrasting strips must have a solid, non-transparent contrasting line with a minimum 30% luminance contrast, not less than 75mm wide with the lower edge located at a height between 900-1000mm from the ground.</p> <p>Luminance contrast requirements for glazing within the development to be confirmed at CC design stage.</p>

c. Part E3 – Lift Installations

BCA Clause		Status	Comment/Recommendation
E3.6	<p>Passenger Lifts</p> <p>In an accessible building, every passenger lift must:</p> <p>(a) Be one of the types identified in Table E3.6a, subject to the limitations on use specified in the Table; and</p> <p>(b) Have accessible features in accordance with Table E3.6b;</p> <p>(c) Not rely on a constant pressure device for its operation if the lift</p>	Capable of complying at CC stage	<p>Passenger Lift</p> <p>The passenger lift must comply with Clause E3.6 of the BCA and AS1735.12-1999.</p> <p>The following accessible features are required:</p> <ul style="list-style-type: none"> Lift door opening to be a minimum 900mm wide; Lift car dimensions not less than 1400mm wide x 1600mm deep

BCA Clause		Status	Comment/Recommendation
	<p>car is fully enclosed.</p> <p>Electric Passenger Lift</p> <p><i>Table E3.6a states there are no limitations on the use of this type of lift.</i></p> <p><i>Table E3.6b states the following accessible features are required:</i></p> <ul style="list-style-type: none"> • Handrails complying with the provisions for a mandatory handrail in AS1735.12; • Lift floor dimension of not less than 1400mm wide x 1600mm deep; • Minimum clear door opening complying with AS1735.12; • Passenger protection system complying with AS1735.12; • Lift landing doors at the upper landings; • Lift car and landing control buttons complying with AS1735.12; • Lighting in accordance with AS1735.12; <ul style="list-style-type: none"> ○ Automatic audible information within the lift car to identify the level each time the car stops; ○ Audible and visual indication at each lift landing to indicate the arrival of the lift car; ○ Audible information and audible indication must be provided in a range of between 20-80 dB (A) at a maximum frequency of 1 500 Hz; • Emergency hands-free communication, including a button that alerts a call centre of a problem and a light to signal that the call has been received. 		<p><i>(unless a stretcher lift is required);</i></p> <ul style="list-style-type: none"> • Handrails complying with AS1735.12-1999; • Passenger protection system complying with AS1735.12-1999; • Lift landings with clear circulation space for a 90-degree turn (1500mm x 1500mm); • Lift car and landing controls buttons must comply with AS1735.12-1999. Control buttons must have provision for tactile and braille; • Lighting in accordance with AS1735.12-1999; • Audible and visual indication systems as prescribed in AS1735.12-1999; and • Emergency hands-free communication device including a button that alerts a call centre of a problem and a light to signal that the call has been received. <p>Lift details to be provided at CC design stage for review.</p>

d. Part F2 – Sanitary and other facilities

BCA Clause		Status	Comment/Recommendation

BCA Clause		Status	Comment/Recommendation
<p>F2.4</p>	<p>Accessible Sanitary Facilities</p> <p>In a building required to be accessible:</p> <p>(a) Accessible unisex sanitary compartments must be provided in accessible parts of the building in accordance with Table F2.4 (a); and</p> <p>(b) Accessible unisex showers must be provided in accordance with Table F2.4 (b);</p> <p>(c) At each bank of toilets where there is one or more toilets in addition to an accessible unisex sanitary compartment at that bank of toilets, a sanitary compartment suitable for a person with an ambulant disability in accordance with AS1428.1 must be provided for use by males and females; and</p> <p>(d) An accessible unisex sanitary compartment must contain a closet pan, washbasin, shelf or bench top and adequate means of disposal of sanitary towels;</p> <p>(e) The circulation spaces, fixtures and fittings of all accessible sanitary facilities provided in accordance with Table F2.4 (a) and Table F2.4 (b) must comply with the requirements of AS1428.1; and</p> <p>(f) An accessible unisex sanitary facility must be located so that it can be entered without crossing an area reserved for one sex only; and</p> <p>(g) Where two or more of each type of accessible unisex sanitary facility are provided, the number of left and right handed mirror image facilities must be provided as evenly as possible; and</p> <p>(h) Where male sanitary facilities are provided at a separate location to female sanitary facilities, accessible unisex sanitary facilities are only required at one of those locations; and</p> <p>(i) An accessible unisex sanitary compartment or an accessible</p>	<p>Capable of complying at CC stage</p>	<p>Unisex Accessible Toilet</p> <p>The unisex accessible toilet (<i>minimum clear internal dimensions 1900mm wide x 2700mm long or 2300mm x 2300mm</i>) must have fixtures, fittings and circulation space complying with AS1428.1-2009.</p> <p>The WC, washbasin, grabrails, toilet paper dispenser, soap dispenser, tapware, clothes hanging device, door locking hardware and other associated fixtures or fittings must comply with AS1428.1-2009.</p> <p>Class 2 – Residential Sole Occupancy Units</p> <p>1 unisex accessible toilet for common use by residents must be provided within the development.</p> <p>Class 7a – Car Parking</p> <p>There are no communal sanitary facilities provided within the car park.</p>

BCA Clause		Status	Comment/Recommendation
	<p>unisex shower need not be provided on a storey or level that is not required by D3.3 (f) to be provided with a passenger lift or ramp complying with AS1428.1.</p> <p>Class 2 – Residential Sole Occupancy Units</p> <p><i>Table F2.4 (a) states where sanitary compartments are provided in common areas, not less than 1 accessible toilet.</i></p> <p><i>Table F2.4 (b) states where showers are provided in common areas, not less than 1 accessible shower is required.</i></p> <p>Class 7a – Car Parking</p> <p><i>Table F2.4 (a) states where Clause F2.3 requires a closet pan, 1 accessible toilet on every storey containing sanitary compartments and where a storey has more than one bank of sanitary compartments containing male and female sanitary compartments, at not less than 50% of those banks.</i></p> <p><i>Table F2.4 (b) states where Clause F2.3 requires 1 or more showers, not less than 1 accessible shower for every 10 showers or part thereof.</i></p>		

4. ACCESS AND MOBILITY ASSESSMENT

a. General

The following general assessment summarises the compliance status of the design documentation with reference to AS1428.1-2009.

To parts that do not comply or design detail is not provided, a comment or recommendation is provided to achieve compliance.

The compliance assessment outcomes are classified into the following categories:

Key	
Noted	The subject clause is for guidance or for information only.
Complies	The design complies with the subject clause.
Capable of complying at CC stage	The design has shown general compliance with the subject clause. Further details are required during the construction certificate stage to achieve full compliance.
Design information required at CC stage	The design does not show sufficient details to achieve compliance with the subject clause. Further details are required during the construction certificate stage to achieve full compliance.
Does not comply	The design has not achieved compliance with the subject clause.
Not applicable	The subject clause is not applicable to the proposed design.

b. AS1428.1 – Part 1 General requirements of access – New building work

Item		Status	Comment/Recommendation
1	Continuous accessible path of travel	Capable of complying at CC stage	<p>A continuous accessible path of travel must be a minimum 1000mm wide x 2000mm high (<i>except where door circulation space, a turning or passing space is required</i>).</p> <p>Permanent fixtures must not impose within the continuous accessible path of travel (accessway) or any turning spaces e.g. fire hose reel, signs, bins, cabinets.</p> <p>Gradients and cross falls along a continuous accessible path of travel must be in accordance with AS1428.1-2009. The continuous accessible path of travel must be free of any steps and traversable by a mobility aid user.</p>
2	Floor surfaces on continuous accessible path of travel and circulation spaces	Capable of complying at CC stage	<p>All floor surfaces e.g. tiling, pavers timber and polished concrete flooring must be slip resistant and must have a slip resisting rating in accordance with the BCA and AS4586-2013 (<i>e.g. R10 or P3 rating for dry areas and R11 or P4 rating</i>).</p>

Item		Status	Comment/Recommendation
			<p><i>for wet areas).</i></p> <p>A smooth transition must be provided between abutting surfaces e.g. tiling, timber flooring and carpet. A construction tolerance of up to 3mm if vertical or 5mm is acceptable using a rounded or beveled edge.</p> <p>Raked joint pavers must be installed so that they do not create trip hazards.</p> <p>Recessed mats must be provided in accordance with AS1428.1-2009. Recessed mats must be traversable a mobility aid user and must not create trip hazards.</p> <p>Carpets pile heights and thickness must comply with the BCA (<i>15mm total thickness including the carpet pile height and backing</i>).</p> <p>Exposed edges of floor coverings must be fastened to the floor and must have a trim the entire length on any exposed surface.</p> <p>Leading edges, carpet trims and any soft flexible materials must not have a vertical face of not more than 3mm or a beveled edge no higher than 5mm or a gradient of 1 in 8 to a maximum of 10mm.</p>
3	Doorways	Capable of complying at CC stage	<p>All doors including fire doors and gates required to be accessible must have a minimum 850mm clear width and 1980mm clear height (<i>920mm x 2040mm door</i>).</p> <p>Internal and external door circulation space must be provided in accordance with AS1428.1-2009, except for where an automatic door system is provided (<i>hinge and latch side clearances are not required</i>).</p> <p>Outward opening doors must have provision for a door closing mechanism, horizontal bar or pull bar on the closing face side of the door (900-1200mm from the ground surface).</p> <p>Doors and gates must have D-lever type handles with sufficient grasping clearances. Door handles must be provided at 900-1100mm from the ground surface. Door handles and door hardware (<i>e.g. locks, snibs</i>) must be operable with one hand.</p> <p>Automatic door opening systems must have provision for a motion sensor, presence sensor and manual door</p>

Item		Status	Comment/Recommendation
			<p>controls. Manual automatic door controls must be fitted on both sides of the door. The controls must be located no closer than 500mm from the internal wall corner and between 1000-2000mm from the hinged door leaf when open or closed. Push button controls must have a 25mm diameter button and be proud of the surrounding surface.</p> <p>Doors and gates must not exceed 20 newtons of operating force.</p> <p>Doors and door frames (<i>combined</i>) must have a 30% luminance contrast to surrounding surfaces. The minimum width of the areas of a luminance contrast must be 50mm.</p> <p>Garbage chute doors and garbage chute access doors must have provision for a D-type handle 900-1100mm from the ground.</p> <p>Bi-folding doors with tracks must be recessed within the ground or have 1 in 8 threshold strips on each side of the tracks.</p>
4	Switches and controls	Capable of complying at CC stage	<p>All new light switches, intercoms and controls (<i>other than power outlets</i>) must be provided 900-1100mm from the ground and 500mm from internal wall corners (<i>measured from the centre of the switch or control</i>).</p> <p>Power points must be located 300-500mm from the ground surface and 500mm from internal wall corners (<i>measured from the centre of the power point</i>).</p>
5	Walkways	Capable of complying at CC stage	<p>Walkways must have a minimum 1000mm clear width and the abutting sides of a walkway must provide a firm and level surface of a different material to that of the walkway, follow the grade of the walkway and extend horizontally for a minimum of 600mm unless a kerb, kerb rail or low wall is provided.</p> <p>Landings along a walkway are required every 25m intervals for gradients of 1 in 20 to 1 in 33 and every 15m for gradients 1 in 14 to 1 in 20. Where a walkway has a gradient shallower than 1 in 33, landings are not required.</p>
6	1 in 14 Ramps	Not applicable	<p>1 in 14 graded ramps must have a maximum gradient of 1 in 14, landings every 9m, 1000mm clear width between</p>

Item		Status	Comment/Recommendation
			handrails or 1500mm clear width on a curved ramp, handrails on both sides, setback of 900mm from a boundary, 400mm setback at intersections, handrails extending 300mm at the top and bottom (<i>except where the handrail is continuous</i>) and kerb or kerb rails on both sides of the ramp edge.
7	Threshold Ramps	Not applicable	Threshold ramps must have a maximum rise of 35mm, maximum length of 280mm and a maximum gradient of 1 in 8. Threshold ramps must not be located more than 20mm from a door opening and the edges must be either tapered or splayed at 45 degrees (<i>where not abutting a wall</i>).
8	Step Ramps	Not applicable	Step ramps must have maximum rise of 190mm, maximum length of 1900mm and a maximum gradient of 1 in 10. The sides of the step ramp (<i>those not abutting a wall</i>) must have either a low wall 450mm high, balustrade with a kerb or kerb rail and if provided at a pedestrian crossing 45 degree splayed sides.
9	Landings	Capable of complying at CC stage	Landings must be level unless they require a 1 in 40 grade for shedding of water. Landings for a ramp or walkway must be 1200mm long where a change of direction is not required. A 1500mm x 1500mm minimum clear landing is required where a 90-degree turn is required or 1540mm x 2070mm clear landing where a 180-degree turn is required.
10	Stairs	Capable of complying at CC stage	Stairs must have a 1000mm clear width, setback 900mm from the allotment boundary, opaque risers, nosings with a rounded or chamfered profile. The first riser after every mid-landing must be setback one tread width or a 1200mm wide mid-landing must be provided to ensure handrail compliance can be achieved. Stair nosings must have a non-slip nosing with a 30% luminance contrast complying with AS1428.1-2009.
11	Stairway Handrails	Capable of	Stairway handrails must be continuous

Item		Status	Comment/Recommendation
		complying at CC stage	throughout the stair flight, provided on both sides (<i>except for fire stairs only one handrail is required</i>), must not have obstructions above and below for a height of 600mm, top extension of 300mm and bottom extension one tread width plus 300mm (<i>where not continuous</i>) and at a consistent height throughout the stair flight.
12	Handrails	Capable of complying at CC stage	Handrails must not encroach within circulation space requirements, the cross section of the handrail must be clear for not less than 270 degrees for the upper most section of the handrail so as to not obstruct the passage of hand along the entire rail, 30-50mm outside diameter, 50mm clearance to a wall or fixed object, exposed edges must be rounded, positioned at a consistent height of 865mm-1000mm from the nosing to the top of the handrail, securely fixed and ends returned 180 degrees or 90 degrees to the wall/ground.
13	Unisex Accessible Toilet and Shower	Capable of complying at CC stage	<p>Circulation space for the accessible WC, washbasin and shower must comply with AS1428.1-2009.</p> <p>The WC pan must have appropriate clearances to a wall, seat height and width as per the setout requirements in AS1428.1-2009.</p> <p>The WC seat must have a 30% luminance contrast to surrounding surfaces, load rated for 150kgs and securely fixed to prevent accidents.</p> <p>The WC backrest must be capable of withstanding forces of 1100 newtons, the lower edge of the backrest positioned 120mm-150mm from the top of the WC and at an angle of 95 to 100 degrees.</p> <p>WC flushing controls must be hand operated or automatic. The controls must be positioned within the allowable zones outlined in AS1428.1-2009.</p> <p>Toilet paper dispenser must be located within the allowable zone outlined in AS1428.1-2009 and must not encroach into the grabrail clearance zones.</p> <p>Grabrails must have a 30-40mm outside diameter, 50mm wall clearance, be securely fastened to a wall and must be able to withstand a force of 1100 newtons, exposed edges must be rounded, must</p>

Item		Status	Comment/Recommendation
			<p>not have obstructions above and below for a height of 600mm and the cross section of the grabrail must be clear for not less than 270 degrees for the upper most section of the grabrail so as to not obstruct the passage of hand along the entire rail.</p> <p>Where baby change tables are provided they must not encroach into the required circulation spaces when in a folded position and must have a maximum height of 820mm with a clearance underneath of 720mm when open.</p> <p>WC doors must be hinged or sliding, if outward opening must have a mechanism that holds the door in a closed position without the use of a latch, include an in-use indicator and a bolt or snib catch, latch mechanism that is operable from the outside during an emergency, D-lever handles and must not require more than 20 newtons of operating force.</p> <p>The washbasin must have lever type taps, insulated exposed hot water pipes and setout as per the requirements of AS1428.1-2009.</p> <p>A shelf 300-400mm wide must be positioned 900-1000mm from the ground surface next to the washbasin or a vanity with integrated shelf space.</p> <p>Soap, towel dispensers and other fittings (e.g. <i>hand dryers</i>) must be operable with one hand and must be positioned 500mm from internal corners, and 900-1000mm from the ground surface.</p> <p>Clothes hanging devices must be positioned 1200-1350mm from the ground surface and 500mm from internal wall corners.</p> <p>A portable sanitary disposal unit must be provided within the toilet and located near the WC.</p> <p>The shower must have grabrails, shower hose fittings, lever type taps, soap holder and folding seat as per the requirements of AS1428.1-2009.</p>
14	Ambulant Toilets	Not applicable	<p>Circulation space for the ambulant toilet must comply with AS1428.1-2009.</p> <p>Grabrails must have a 30-40mm outside diameter, 50mm wall clearance, be securely fastened to a wall and must be able to withstand a force of 1100 newtons,</p>

Item		Status	Comment/Recommendation
			<p>exposed edges must be rounded, must not have obstructions above and below for a height of 600mm and the cross section of the grabrail must be clear for not less than 270 degrees for the upper most section of the grabrail so as to not obstruct the passage of hand along the entire rail.</p> <p>Ambulant toilet doors must be a minimum 700mm wide, include an in-use indicator and a bolt or snib catch and a latch mechanism that is openable from the outside during an emergency.</p> <p>A coat hook must be provided at a height of 1350-1500mm from the ground surface.</p>

5. LIVABLE HOUSING ASSESSMENT

a. General

The following assessment summarises the compliance status of the design documentation with reference to the LHA Livable Housing Design Guidelines (*Fourth Edition*) Silver Level Schedule of Livable Housing Features.

To parts that do not comply or design detail is not provided, a comment or recommendation is provided to achieve compliance.

The compliance assessment outcomes are classified into the following categories:

Key	
Noted	The subject clause is for guidance or for information only.
Complies	The design complies with the subject clause.
Capable of complying at CC stage	The design has shown general compliance with the subject clause. Further details are required during the construction certificate stage to achieve full compliance.
Design information required at CC stage	The design does not show sufficient details to achieve compliance with the subject clause. Further details are required during the construction certificate stage to achieve full compliance.
Does not comply	The design has not achieved compliance with the subject clause.
Not applicable	The subject clause is not applicable to the proposed design.

b. Schedule of Livable Housing Features

Item		Status	Comment/Recommendation
1	Dwelling Access		
	<p>(a) Provide a safe, continuous step-free pathway from the front boundary of the property to an entry door to the dwelling. This provision does not apply where the average slope of the ground where the path would feature is steeper than 1:14.</p> <p>(b) The path of travel referred to in (a) should have a minimum clear width of 1000mm and have –</p> <ul style="list-style-type: none"> i. No steps; ii. An even, firm, slip resistant surface; iii. A crossfall of not more than 1:40; and 	Capable of complying at CC stage	The livable dwelling (Units 2 & 3) must be accessible via a 1000mm wide continuous accessible path of travel (<i>without steps or steep grades</i>) from the main pedestrian entry point at the allotment boundary.

Item		Status	Comment/Recommendation
	<p>iv. A maximum pathway slope of 1:14. Where ramps are required they should have landings provided at no greater than 9m for a 1:14 ramp and no greater than 15m for ramps steeper than 1:20. Landings should be no less than 1200mm in length.</p> <p>(c) The path of travel referred to in (a) may be provided via an associated car parking space for the dwelling. Where a car parking space is relied upon as the safe and continuous pathway to the dwelling entrance, the space should incorporate:</p> <ul style="list-style-type: none"> i. Minimum dimensions of at least 3200mm (width) x 5400mm (length); ii. An even, firm and slip resistant surface; and iii. A level surface (1:40 maximum gradient, 1:33 maximum gradient for bitumen). <p>(d) A step ramp may be incorporated at an entrance doorway where there is a change in height of 190mm or less. The step ramp should provide:</p> <ul style="list-style-type: none"> i. A maximum gradient of 1:10; ii. A minimum clear width of 1000mm (width should reflect pathway width); and iii. A maximum length of 1900mm. <p>(e) Where a ramp is part of the pathway, level landings no less than 1200mm in length, exclusive of the swing of the door or gate than opens onto them, must be provided at the head and foot of the ramp.</p>		

Item		Status	Comment/Recommendation
2	Dwelling Entrance		
	<p>(a) The dwelling should provide an entrance door with:</p> <ul style="list-style-type: none"> i. A minimum clear opening width of 850mm; ii. A level (step free) transition and threshold (maximum vertical tolerance of 5mm between abutting surfaces is allowable provided the lip is rounded or beveled); and iii. Reasonable shelter from the weather. <p>(b) A level landing area of 1200mm x 1200mm should be provided at the level (step free) entrance door. A level landing area at the entrance door should be provided on the arrival side of the door (i.e. the external side of the door) to allow a person to safely stand and then open the door.</p> <p>(c) Where the threshold at the entrance exceeds 5mm and is less than 56mm, a ramped threshold may be provided.</p> <p>(d) The level (step free) entrance should be connected to a safe and continuous pathway.</p>	Capable of complying at CC stage	The entrance door must have provision for a step free level threshold, 850mm wide x 1980mm high clear door opening (920mm x 2040mm door), 1200mm x 1200mm door external landing, sheltered from the weather and connected to the continuous accessible path of travel from the allotment boundary.
3	Internal Doors and Corridors		
	<p>(a) Doorways to rooms on the entry level used for living, dining, bedroom, bathroom, kitchen, laundry and sanitary compartment purposes should provide:</p> <ul style="list-style-type: none"> i. A minimum clear opening width of 850mm; and ii. A level transition and threshold (maximum vertical tolerance of 5mm between abutting surfaces is allowable provided the lip is rounded or beveled). <p>(b) Internal corridors/passageways</p>	Capable of complying at CC stage	<p>All internal doors must have provision for a step free level threshold and 850mm wide x 1980mm high clear door opening (920mm x 2040mm door).</p> <p>Internal corridors must have a 1000mm clear width.</p>

Item		Status	Comment/Recommendation
	to the doorways referred to in (a) should provide a minimum clear width of 1000mm.		
4	Toilets		
	<p>(a) Dwellings should have a toilet on the ground (or entry) level that provides:</p> <ul style="list-style-type: none"> i. A minimum clear width of 900mm between the walls of the bathroom if located in a separate room; ii. A minimum 1200mm clear circulation space forward of the toilet pan exclusive of the swing of the door; and iii. The toilet pan should be located in the corner of the room to enable installation of grabrails at a future date. 	Capable of complying at CC stage	<p>The bathroom must have provision for a 1200mm long clear circulation space in front of the toilet pan (<i>exclusive of the door swing</i>).</p> <p>The toilet pan must be located in the corner of the bathroom.</p>
5	Shower		
	<p>(a) One bathroom should feature a slip resistant, hobless shower recess. Shower screens are permitted provided they can be easily removed at a later date.</p> <p>(b) The shower recess should be located in the corner of the room to enable the installation of grabrails at a future date.</p>	Capable of complying at CC stage	<p>The bathroom must have provision for a hobless shower and shower screen that can be removed if required.</p> <p>The shower must be located in the corner of the bathroom (<i>opposite to the toilet</i>).</p>
6	Reinforcement of Bathroom & Toilet Walls		
	<p>(a) Except for wall constructed of solid masonry or concrete, the walls around the shower, bath (if provided) and toilet should be reinforced to provide a fixing surface for the safe installation of grabrails.</p> <p>(b) The walls around the toilet are to be reinforced by installing:</p> <ul style="list-style-type: none"> i. Noggings with a thickness of at least 25mm; or ii. Sheeting with a thickness of at least 12mm. 	Design information required at CC stage	<p>The toilet and shower walls must be strengthened to withstand 1100N of force in any direction.</p> <p>The walls must be strengthened with 25mm thick noggings and 12mm structural plywood to a height of 1850mm if stud frame walls used.</p>

Item		Status	Comment/Recommendation
	<p>(c) The walls around the bath are to be reinforced by installing:</p> <ul style="list-style-type: none"> i. Noggings with a thickness of at least 25mm; or ii. Sheeting with a thickness of at least 12mm. <p>(d) The walls around the hobless shower recess are to be reinforced by installing:</p> <ul style="list-style-type: none"> i. Noggings with a thickness of at least 25mm; or ii. Sheeting with a thickness of at least 12. 		
7	Internal Stairways		
	<p>(a) Stairways in dwellings must feature:</p> <ul style="list-style-type: none"> i. A continuous handrail on one side of the stairway where there is a rise of more than 1m. 	Not applicable	There are no internal stairways within the livable dwellings.

6. STATEMENT OF DESIGN COMPLIANCE (DA DESIGN)

Ergon Consulting has completed a review of the design documentation relative to the detail provided, with reference to the minimum applicable access requirements of Part D3, Clause E3.6 and Clause F2.4 of the Building Code of Australia 2016, Disability (*Access to Premises – Building*) Standards 2010, relevant Australian Standards as applicable to this project (*i.e. AS1428.1-2009, AS1428.4.1-2009, AS1735.12-1999*), SEPP65 Apartment Design Guide Part 4Q, Livable Housing Design Guidelines and Northern Beaches Council Warringah DCP 2011 Section D18.

This statement confirms accessibility can be appropriately achieved within this development with the provided comments and recommendations. This report confirms the client's commitment to providing an equitable and accessible environment for all.

As such we believe the development approval may be issued without any concern that the development cannot achieve a reasonable level of access and meet statutory requirements, subject to further assessment of the construction design documentation.

We trust this statement of compliance is satisfactory. Should you have any questions, please do not hesitate to contact the undersigned.

Yours faithfully,



Costa Miroforidis

Principal/Access Consultant

Certificate IV in Access Consulting – IATA

B. Construction Management and Property (*Building*) – UNSW

Graduate Diploma in Building Surveying – UWS

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Registered LHA Design Guideline Assessor – LHA

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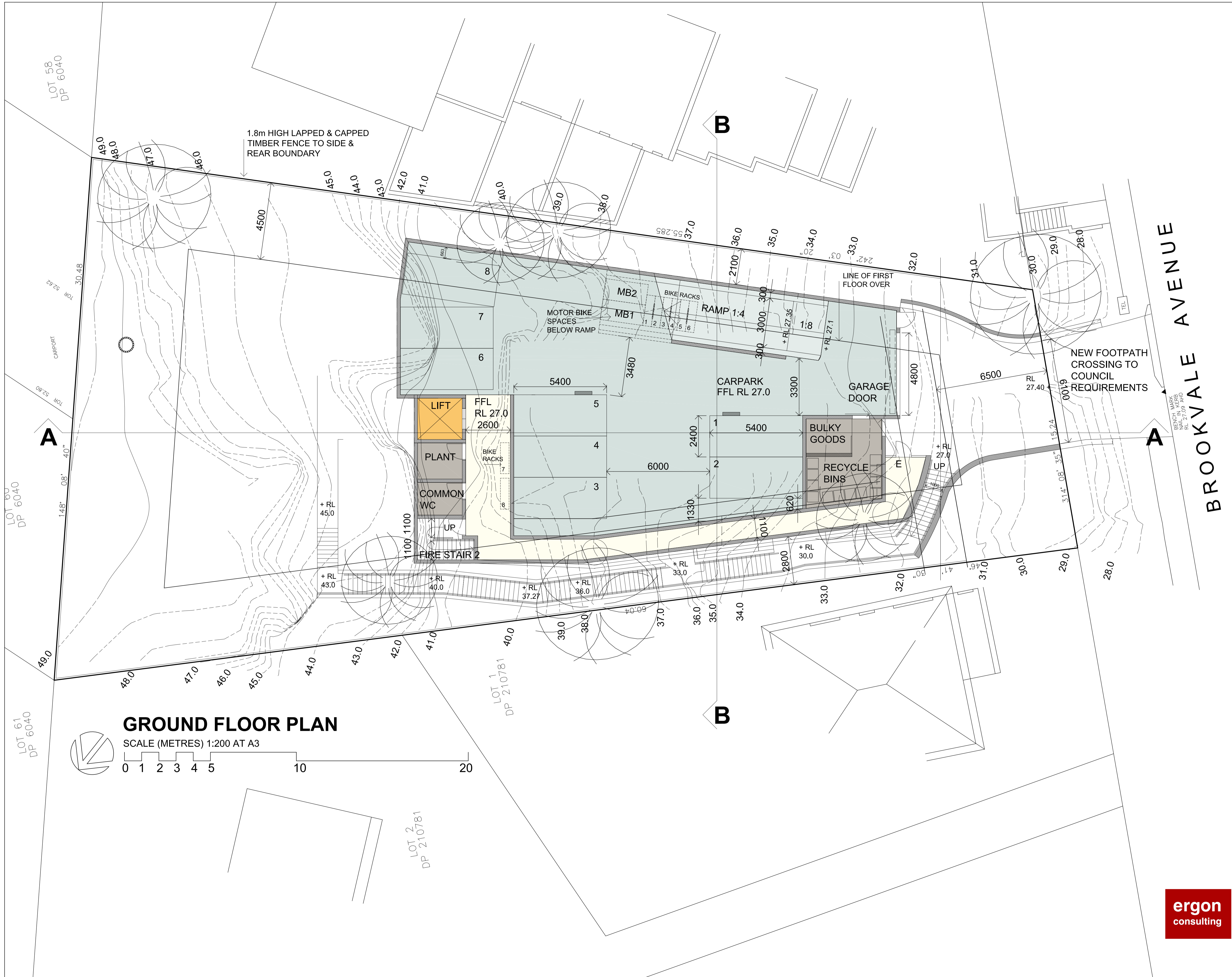
sydney@ergonconsulting.com.au

www.ergonconsulting.com.au

ABN: 41 694 776 796

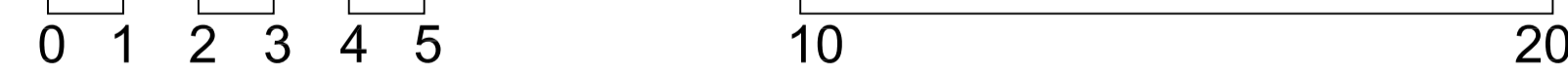
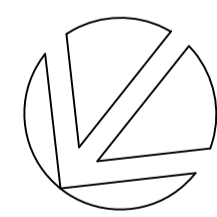
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APPENDIX 1



GROUND FLOOR PLAN

SCALE (METRES) 1:200 AT A3



ISSUE	DATE	AMENDMENTS



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 Email: info@barryrush.com.au
 www.barryrush.com.au

Client
LOTUS PROJECTS

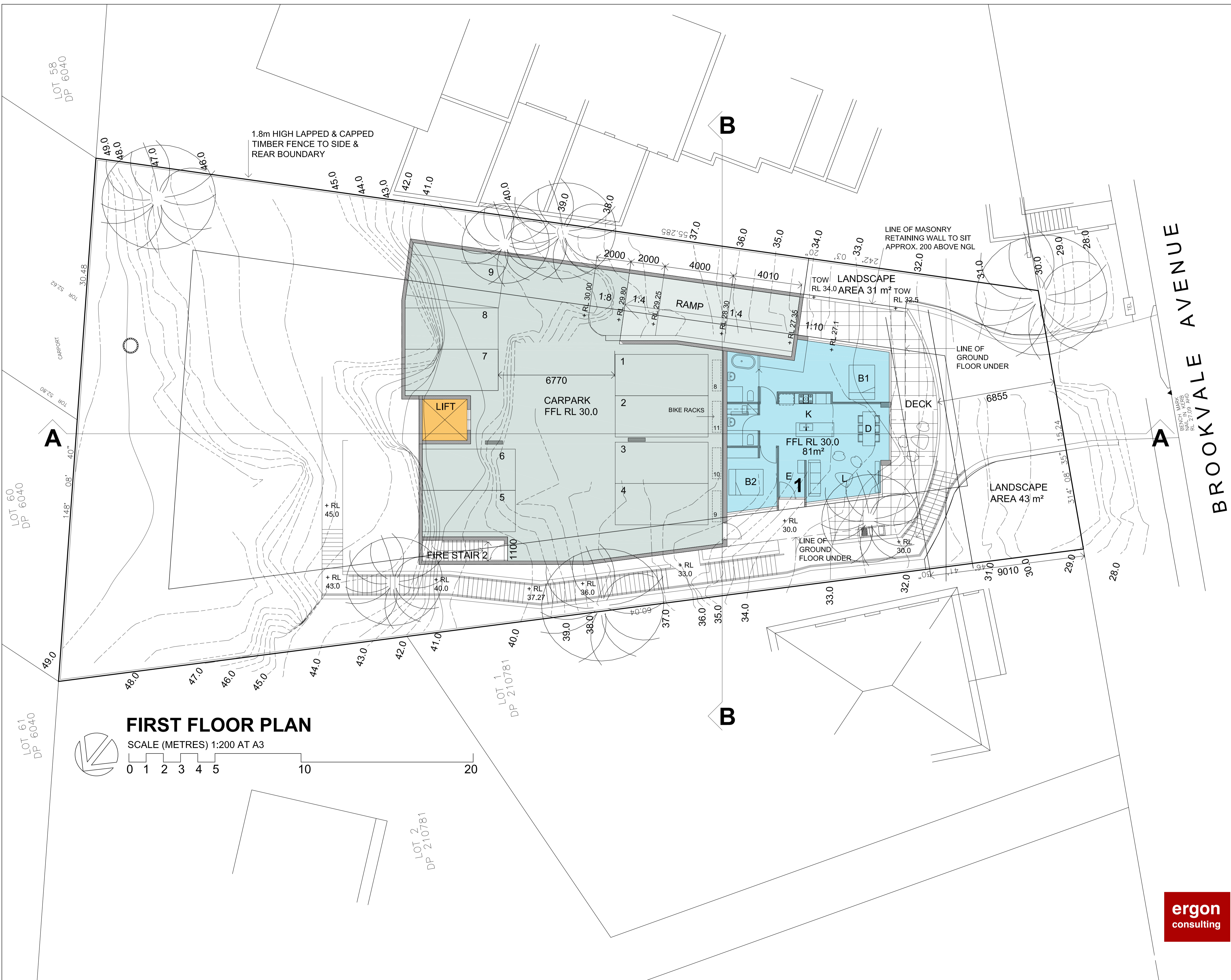
Project
**4 BROOKVALE AVE
 BROOKVALE**

LOT 45 IN DP 6040
 Drawing
GROUND FLOOR PLAN



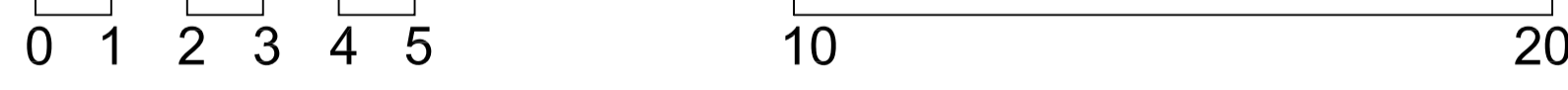
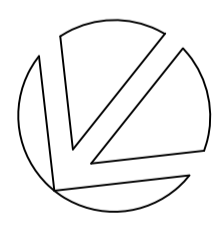
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Job No	1706		
Version	DA	Drawing No:	A03

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FIRST FLOOR PLAN

SCALE (METRES) 1:200 AT A3



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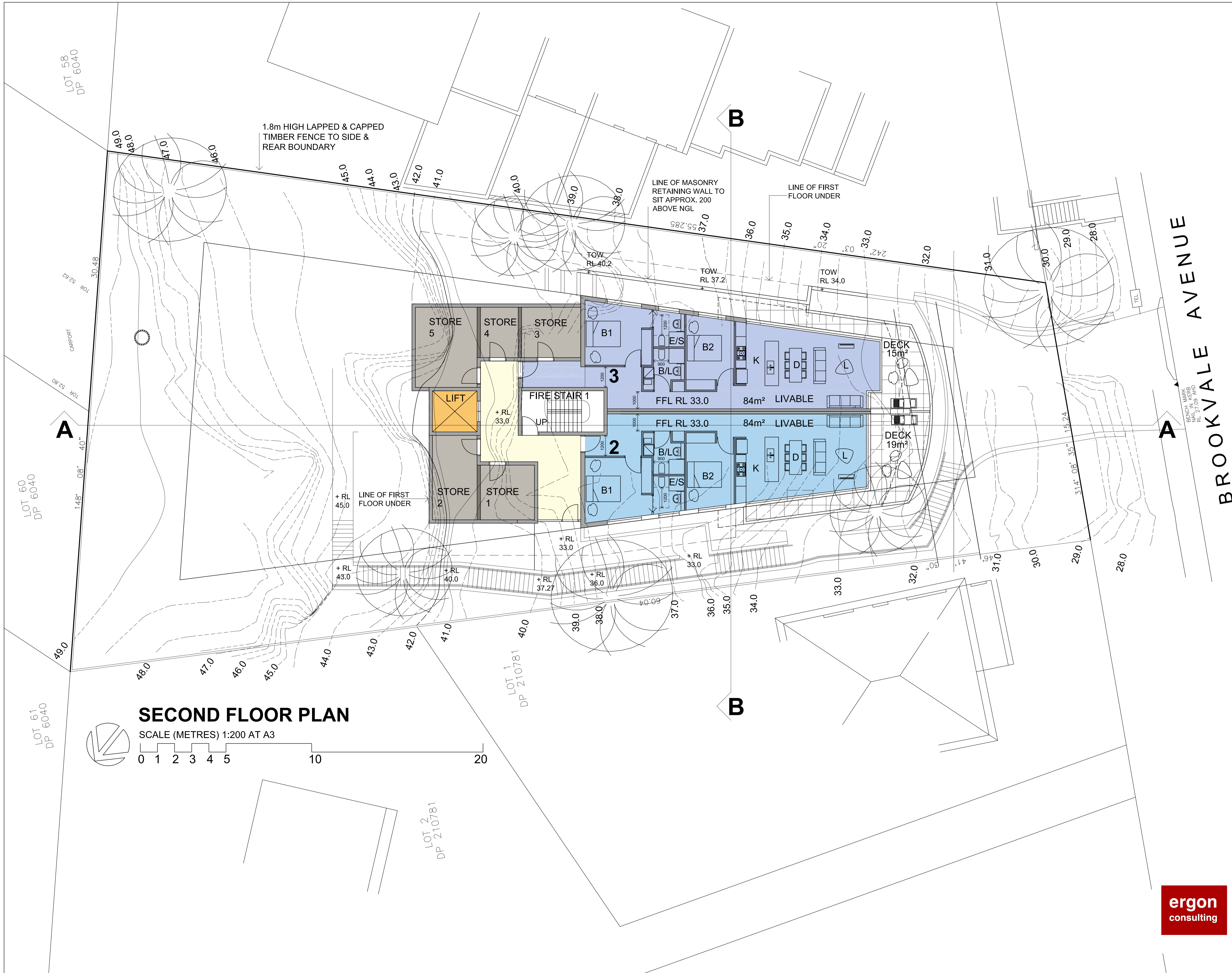
Client
LOTUS PROJECTS

Project
4 BROOKVALE AVE BROOKVALE

LOT 45 IN DP 6040
 Drawing
FIRST FLOOR PLAN

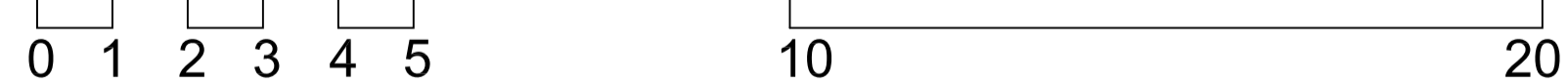
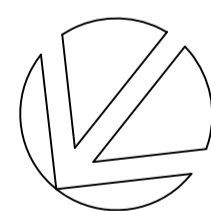
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Job No	1706		
Version	DA	Drawing No:	A04

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SECOND FLOOR PLAN

SCALE (METRES) 1:200 AT A3



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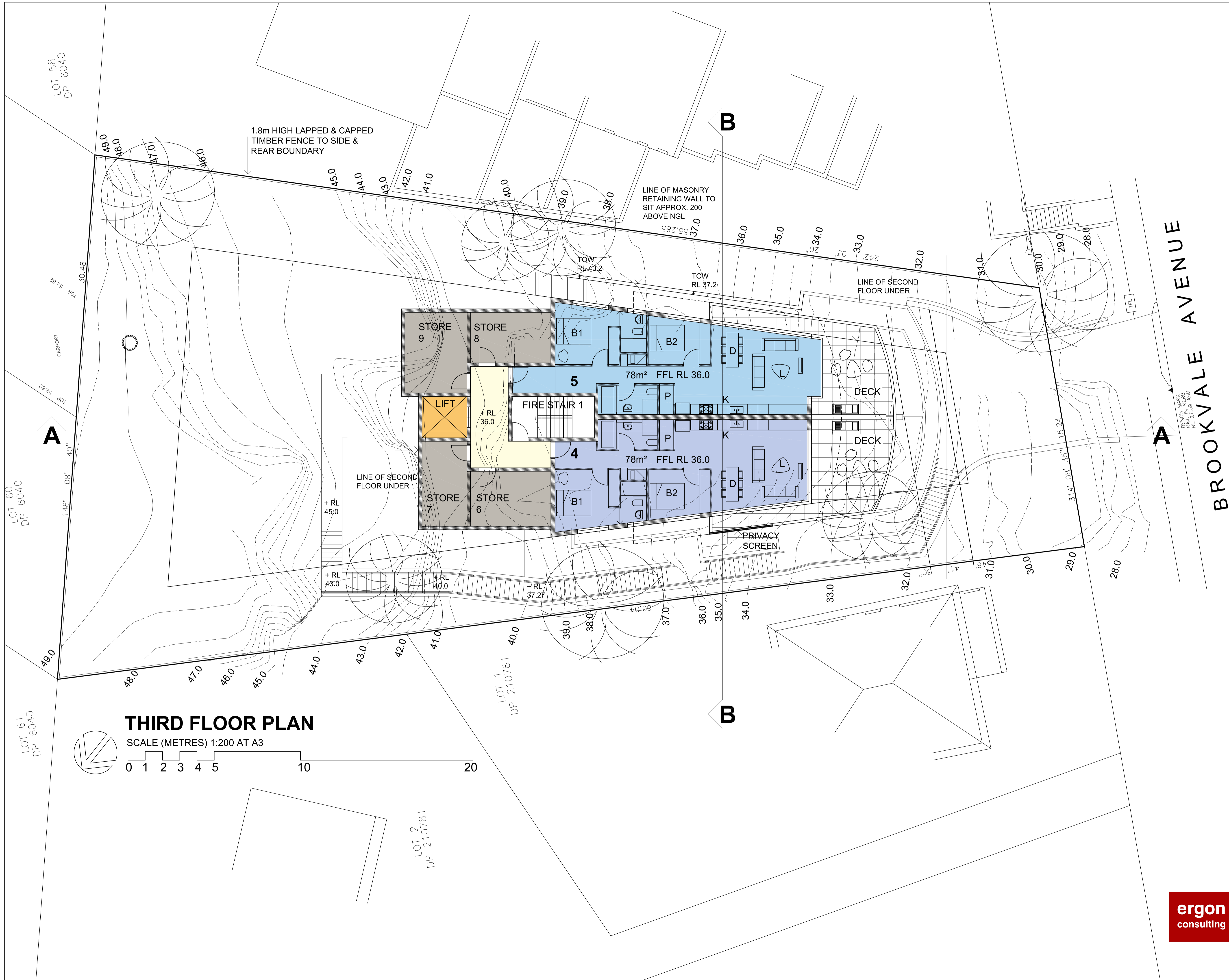
Client
LOTUS PROJECTS

Project
**4 BROOKVALE AVE
 BROOKVALE**

LOT 45 IN DP 6040
 Drawing
SECOND FLOOR PLAN

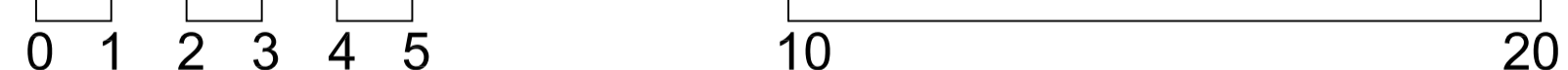
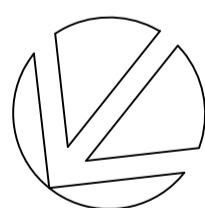
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Job No	1706		
Version	DA	Drawing No:	A05

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THIRD FLOOR PLAN

SCALE (METRES) 1:200 AT A3



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Client
LOTUS PROJECTS

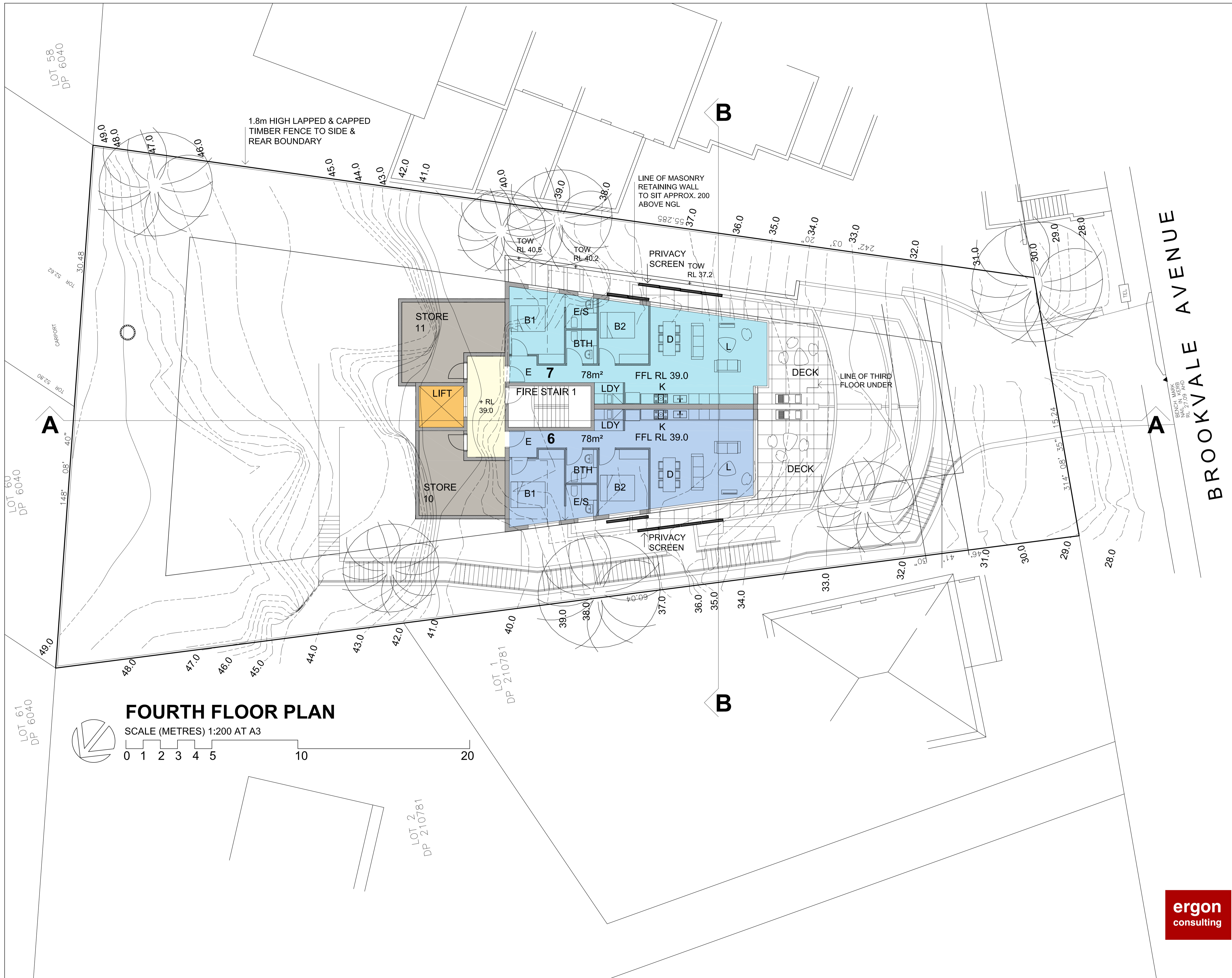
Project
**4 BROOKVALE AVE
 BROOKVALE**

LOT 45 IN DP 6040
 Drawing
THIRD FLOOR PLAN



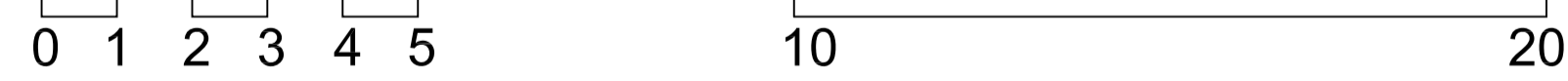
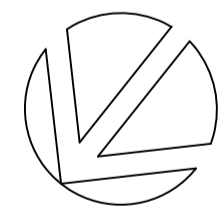
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Plotted	27/02/2018 9:01 AM		
Job No	1706		
Version	DA	Drawing No:	A06

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FOURTH FLOOR PLAN

SCALE (METRES) 1:200 AT A3



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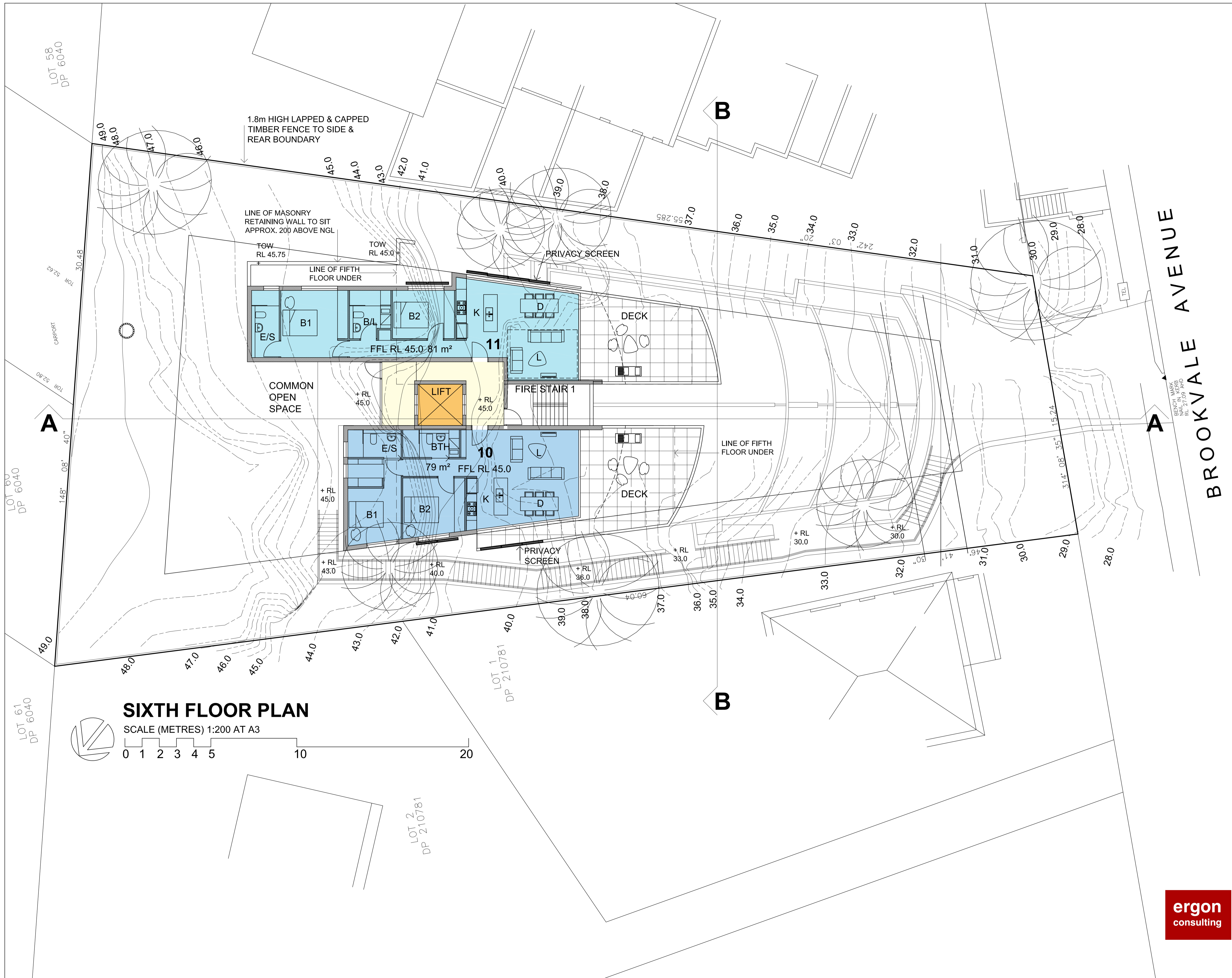
Client
LOTUS PROJECTS

Project
**4 BROOKVALE AVE
 BROOKVALE**

LOT 45 IN DP 6040
 Drawing
FOURTH FLOOR PLAN

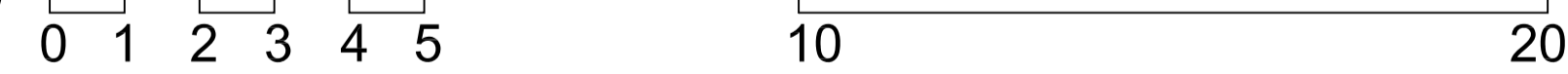
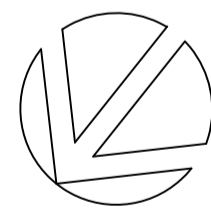
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Job No	1706		
Version	DA	Drawing No:	A07

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SIXTH FLOOR PLAN

SCALE (METRES) 1:200 AT A3



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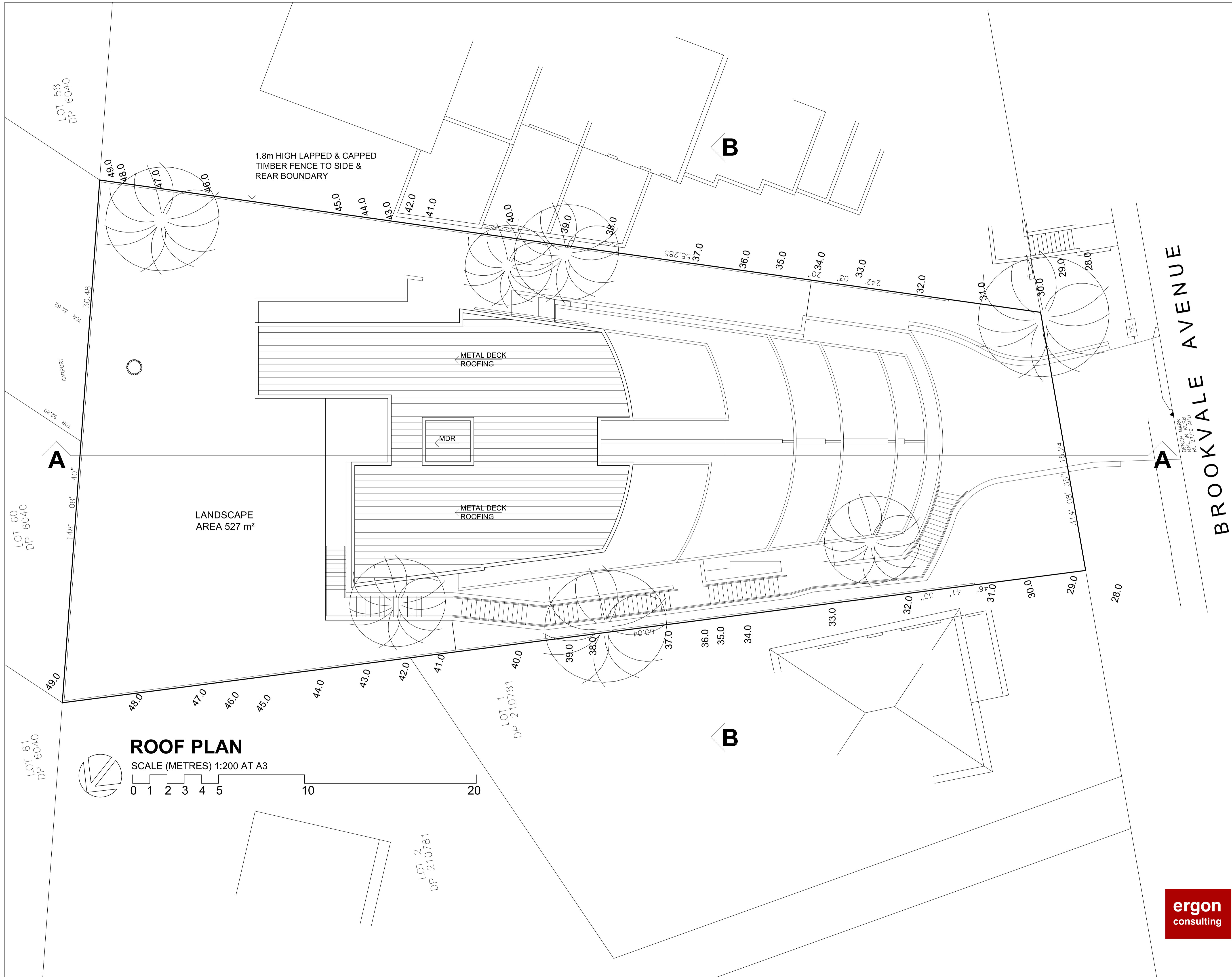
Client
LOTUS PROJECTS

Project
4 BROOKVALE AVE BROOKVALE

LOT 45 IN DP 6040
 Drawing
SIXTH FLOOR PLAN

Scale	1:100	Drawn	BR
File	DA 4 BROOKVALE AVE BROOKVALE		
Plotted	27/02/2018 9:01 AM		
Job No	1706		
Version	DA	Drawing No:	A09

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Client
LOTUS PROJECTS

Project
**4 BROOKVALE AVE
 BROOKVALE**

LOT 45 IN DP 6040
 Drawing
ROOF PLAN



Scale	1:100	Drawn	BR
File	DA 4 BROOKVALE AVE BROOKVALE		
Plotted	27/02/2018 9:01 AM		
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Version	DA	Drawing No:	A10

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