Government of **Western Australia**
Development Assessment Panels

Metro West Joint Development Assessment Panel
Agenda

Meeting Date and Time: 25 March 2020, 9:00 AM
Meeting Number: MWJDAP/263
Meeting Venue: Department of Planning, Lands and Heritage
140 William Street
Perth

This meeting is available for members of the public to attend via teleconference.

To connect to the meeting dial the following phone number -+61 8 7150 1149
Insert Meeting ID followed by the hash (#) key when prompted – 669 780 532

The Department of Planning, Lands and Heritage is monitoring the COVID-19 situation closely and following Government advice to ensure the safety of our DAP members, local governments, applicants, officers, presenters and members of the public as we continue our operations and legislative requirements.

This situation is evolving rapidly – meetings will continue to be held at the relevant local governments where possible, however, where meetings are required to be convened by the Department, meeting practices will be adjusted to accommodate social distancing measures and ensure the protection of our staff, members and guests.

Alternative attendance arrangements via virtual meetings are currently being explored to ensure continuity of our business practices. DAP meetings will remain open to the public for meetings hosted by Department via teleconference.

Attendance

DAP Members

Ms Francesca Lefante (Presiding Member)
Mr Jarrod Ross (Deputy Presiding Member)
Mr Jason Hick (Specialist Member)
Mayor Cilla de Lacy (Local Government Member, City of Nedlands)
Cr Kerry Smyth (Local Government Member, City of Nedlands)

Officers in attendance

Mr Roy Winslow (City of Nedlands)
Mr Ross Jutras-Minett (City of Nedlands)

Minute Secretary

Ms Ashlee Kelly (DAP Secretariat)

Applicants and Submitters

Mr Simon Anderson (Simon Anderson Architect)
Mr Stuart Pullyblank (Pullyblank Pty Ltd)
Mr Richard Charlesworth
Mr Andrew Jackson
Mr Paul Sharman

Members of the Public / Media

Nil

1. Declaration of Opening

The Presiding Member declares the meeting open and acknowledges the traditional owners and pay respects to Elders past and present of the land on which the meeting is being held.

In response to the COVID-19 situation, this meeting is being convened via teleconference. Members are reminded to announce their name and title prior to speaking.

2. Apologies

Nil

3. Members on Leave of Absence

Nil

4. Noting of Minutes

Signed minutes of previous meetings are available on the DAP website.

5. Declarations of Due Consideration

Any member who is not familiar with the substance of any report or other information provided for consideration at the DAP meeting must declare that fact before the meeting considers the matter.

6. Disclosure of Interests

Nil

7. Deputations and Presentations

7.1 Mr Andrew Jackson presenting against the application at Item 8.1. The presentation will address the application and assessment does not warrant approval of the proposal, which does not amount to a good planning outcome.

7.2 Mr Paul Sharman presenting against the application at Item 8.1. The presentation will address reasons why the proposal is inappropriate and should not be supported.

7.3 Mr Simon Anderson (Simon Anderson Architect) presenting in support of the application at Item 8.1. The presentation will address why 24 Carrington Street is responsible development for Nedlands.

7.4 Mr Stuart Pullyblank (Pullyblank Pty Ltd) presenting in support of the application at Item 8.1. The presentation will address the ecological responsibility of the landscape design at 24 Carrington Street.

7.5 Mr Richard Charlesworth presenting in support of the application at Item 8.1. The presentation will address the rationale behind the development aging in place and environmental sustainability

The City of Nedlands may be provided with the opportunity to respond to questions of the panel, as invited by the Presiding Member.

8. Form 1 – Responsible Authority Reports – DAP Applications

8.1

Property Location:	Lot 239 (24) Carrington Street, Nedlands
Development Description:	Ten (10) Multiple Dwellings
Applicant:	Richard Ian Charlesworth
Owner:	Richard Ian Charlesworth
Responsible Authority:	City of Nedlands
DAP File No:	DAP/19/01706

9. Form 2 – Responsible Authority Reports – Amending or cancelling DAP development approval

Nil

10. Appeals to the State Administrative Tribunal

Current SAT Applications		
LG Name	**Property Location**	**Application Description**
Town of Claremont	Lots 18 (164) and 19 (162) Alfred Road, Swanbourne	Proposed Childcare Centre

11. General Business / Meeting Closure

In accordance with Section 7.3 of the DAP Standing Orders 2017 only the Presiding Member may publicly comment on the operations or determinations of a DAP and other DAP members should not be approached to make comment.

Government of **Western Australia**
Development Assessment Panels

Form 1 – Responsible Authority Report

(Regulation 12)

Property Location:	Lot 239 (24) Carrington Street, Nedlands
Development Description:	Ten (10) Multiple Dwellings
DAP Name:	Metro West Joint Development Assessment Panel
Applicant:	RI Charlesworth
Owner:	RI Charlesworth
Value of Development:	$3.5 million
LG Reference:	DA19-42267
Responsible Authority:	City of Nedlands
Authorising Officer:	Peter Mickleson
DAP File No:	DAP/19/01706
Report Due Date:	6 March 2020
Application Received Date:	21 November 2019
Application Process Days:	90 Days
Attachment(s):	1. Amended development plans (dated 28 February 2020) 2. Applicant's statement dated 21 November 2019 against the Design Principles outlined in SPP 7.0 *Design of the Built Environment* and the Elements of SPP 7.3 *Residential Design Codes (Vol. 2* 3. Traffic Impact Statement dated 21 November 2019 4. Revised Waste Management Plan dated 3 March 2020 5. Acoustic Report dated 21 November 2019 6. Landscaping Report dated 21 November 2019 7. Development plans dated 21 November 2019 (plans as advertised) 8. Aerial and Locality Plan 9. Zoning Plan 10. Schedule of Submissions 11. R-Codes Assessment

Officer Recommendation:

That the Metro West Joint Development Panel resolves to:

1. **Approve** DAP Application reference DAP/19/01706 and accompanying plans (Plans SK0, SK0.5 and SK01-SK36 inclusive dated 28 February 2020) in accordance with Clause 68 of Schedule 2 (Deemed Provisions) of the Planning and Development (Local Planning Schemes) Regulations 2015, and the provisions of the City of Nedlands Local Planning Scheme No.3, subject to the following conditions:

Conditions

1. This decision constitutes planning approval only and is valid for a period of two (2) years from the date of approval. If the subject development is not substantially commenced within the two (2) year period, the approval shall lapse and be of no further effect.

2. The development shall at all times comply with the application and the approved plans, subject to any modifications required as a consequence of any condition(s) of this approval.

3. Prior to occupation of the development the finish of the parapet / retaining walls is to be finished externally to the same standard as the rest of the development or in:
   - face brick;
   - painted render;
   - painted brickwork; or
   - other clean material as specified on the approved plans and maintained thereafter to the satisfaction of the City of Nedlands.

4. All stormwater generated on site is to be retained on site. An onsite storage/infiltration system is to be provided within the site for at least 1 in 20-year storms event. No stormwater will be permitted to enter the City of Nedlands's stormwater drainage system unless otherwise approved.

5. Prior to the issue of a building permit, the applicant shall submit a schedule of materials, colours, finishes and textures for the development to the satisfaction of the City of Nedlands.

6. Prior to occupation of the development, each dwelling unit shall be provided with mechanical clothes driers or alternatively shall have an adequate area provided for drying clothes. Any drying area shall be screened from view from any adjacent public place, to the satisfaction of the City of Nedlands.

7. The development, hereby approved, shall at Building Permit stage demonstrate a minimum NATHERS rating of 6.5 stars, or one significant energy efficiency initiative described in State Planning Policy 7.3 – Residential Design Codes Volume 2 - Apartments to the satisfaction of the City of Nedlands.

8. Prior to occupation of the development, all external fixtures including, but not limited to TV and radio antennae, satellite dishes, plumbing vents and pipes, solar panels, air conditioners, hot water systems and utilities shall be integrated into the design of the building and not be visible from the primary street, secondary street to the satisfaction of the City of Nedlands.

9. Prior to occupation of the development, all air-conditioning plant, satellite dishes, antennae and any other plant and equipment to the roof of the building shall be located or screened so as not to be highly visible from beyond the boundaries of the development site to the satisfaction of the City of Nedlands.

10. At Building Permit Stage, a minimum of two (2) dwellings, shown on the hereby approved development plans shall meet 'Silver Level' requirements as defined in the Liveable Housing Design Guidelines.

11. Prior to the issue of a Building Permit, a detailed landscaping plan of every floor of the development shall be submitted to and approved by the City of Nedlands and such landscaping is to be installed and maintained in accordance with that plan, or any modifications approved thereto, for the lifetime of the development thereafter, to the satisfaction of the City of Nedlands.

12. A Landscaping Management Plan (Boston Ivy) is to be prepared and implemented at all times to the satisfaction of the City of Nedlands as part of the landscaping plan required at Condition 11. This Plan is to provide for the successful growth and management of the Boston Ivy 'green wall' to the Carrington Street and Dalkeith Road facades and will include, but not be limited to, contingencies for replacement of dead and diseased areas of ivy.

13. Prior to the issue of a Building Permit, an arborist report and tree retention plan shall be submitted to the City of Nedlands, demonstrating that the construction and built development will not adversely affect the health of the trees to be retained on site, to the Satisfaction of the City of Nedlands.

14. Prior to the commencement of physical works, a tree protection zone (TPZ) in accordance with AS 4970-2009, is to be established and maintained around each existing tree shown for retention, outlined in red on the approved plans for the duration of the development to the satisfaction of the City of Nedlands. The following restrictions and conditions apply to the TPZ:
    - install protective fencing to prevent any damage to the trees in general accordance with Section 4.3 of AS4970-2009;
    - provide signage identifying the 'Tree Protection Zone' on exclusion fencing;
    - no materials are to be stored within the TPZ;
    - no vehicles or machines are to be driven or parking within the TPZ;
    - ensure trees are protected from harm during works on site; and
    - no tree roots within the TPZ are to be cut or damaged.

    A qualified arborist must approve any modification to a TPZ.

15. A Demolition and Construction Management Plan addressing the control of; vibration, dust, noise, waste, sand, sediment, temporary fencing, hoardings, gantries, site access / egress, site deliveries, heavy construction machinery and traffic control shall be provided to the City of Nedlands with or before the demolition permit and building permit approval applications are submitted.

16. Prior to the issuing of a building permit the landowner is to demonstrate compliance with the recommendations within the acoustic report completed by Herring Storer dated 21 November 2019 to the City's satisfaction. Where detailed acoustic assessment is recommended to achieve compliance with the requirements of the Environmental Protection (Noise) Regulations 1997 this is to be undertaken.

17. Prior to the issue of a building permit, a noise management plan is to be submitted detailing measures that will be undertaken to ensure noise levels are kept within levels prescribed in the Environmental Protection (Noise) Regulations 1997. The plan is to be prepared by a suitably qualified consultant and is to include:

- sound proofing measures used in the design and construction of the development;
- predictions of noise levels;
- control measures to be undertaken (including monitoring procedures); and
- a complaint response procedure.

All sound attenuation measures, identified by the plan or as additionally required by the City, are to be implemented prior to occupancy of the development or as otherwise required by the City and the requirements of the plan are to be observed at all times.

18. The waste management plan dated 3 March 2020 forms part of this development approval and shall be complied with at all times to the satisfaction of the City of Nedlands.

19. The responsible entity (strata/corporate body) shall be liable for all bin replacement costs and/or repair costs relating to damage caused as a result of the bin compaction process.

20. The applicant shall arrange a suitably qualified consultant to prepare a lighting plan which demonstrates that the proposed development will not cause adverse amenity impacts on the surrounding locality and comply with the relevant Australian Standard:

    a) a full site plan indicating the proposed siting of lighting columns including details of their proposed height;
    b) times of operation;
    c) a Management Plan to detail the methods that will be employed to mitigate the impacts of light penetration and glare to the occupiers of adjacent property, including the use of an automatic timing device;
    d) details of orientation and hooding and/or other measures to minimise their impact in the interests of pedestrian and/or vehicular safety and amenity; and
    e) details where the proposed floodlighting is sited in close proximity to residential property, the spread of lighting from the lighting installation must be restricted in accordance with the relevant Australian Standard.

21. Walls / fences parallel to the vehicle access driveway are to be reduced in height to a maximum of 0.75m above driveway level within 1.5m of the street boundary to ensure appropriate sight lines for exiting vehicles, to the satisfaction of the City of Nedlands.

22. The visitor parking bays are to be clearly marked, directional signposted and made available to visitors at all times through use of an intercom system or similar, to the satisfaction of the City of Nedlands.

23. Prior to issue of a Building Permit, the external windows to Units A3 Bed 1, A6 Bed 3 and A9 Bed 3 to be modified to provide a minimum of 10% of the room's floor area in glazing, to the satisfaction of the City of Nedlands.

24. Prior to issues of a Building Permit, the storerooms are to be redesigned to ensure compliance with Element 4.6 of the Residential Design Codes Volume 2 – Apartments, to the satisfaction of the City of Nedlands.

Advice Notes

1. In relation to Condition 10, the development is to satisfy A4.9.1(a) of Element 4.9 – Universal Design.
2. In relation to Condition 15, the applicant is advised that the Construction Management Plan is to address but is not limited to the following matters:
   a) hours of construction;
   b) traffic management;
   c) parking management;
   d) access management;
   e) management of loading and unloading of vehicles;
   f) heavy vehicle access;
   g) dust management;
   h) waste management (where applicable);
   i) protection of infrastructure and street trees within the road reserve;
   j) the need for a dilapidation report of adjoining properties;
   k) if required, details of and reasons for construction work on the construction site that is likely to be carried out other than between 7.00 am and 7.00 pm on any day which is not a Sunday or public holiday;
   l) if required, details of and duration of activities on the construction site likely to result in noise emissions that fail to comply with the standard prescribed under regulation 7 of the Environmental Protection (Noise) Regulations 1997;
   m) predictions of noise emission on the construction site;
   n) use of City car parking bays for construction related activities;
   o) protection of infrastructure and street trees within the road reserve;
   p) security fencing around construction sites;
   q) gantries;
   r) dewatering management plan;
   s) contact details;
   t) site offices;
   u) details of measures to be implemented to control noise (including vibration) emissions;
   v) complaint response procedure to be adopted;
   w) details of how dust will be suppressed (e.g. by use of water tanker, independently powered water pumps, high volume hoses) or whether an approval from the water corporation for hydrant standpipe has been granted;
   x) details of how dust and sand drift will be controlled in the event that the landscape remains bare for any period of time after demolition (consideration of more permanent dust suppression or sand drift measures such as hydromulching); and
   y) any other relevant matters.

3. The applicant is advised to consult with the City's Building Services before lodging the Building Permit.

4. The applicant is advised that regarding Condition 19, the responsible entity (landowner) is responsible for the maintenance of the common property (including roads) within the development.

5. In relation to Condition 20 the applicant is advised that:
   a) a Suitably qualified lighting consultant – is to be a Member of the illuminating Engineering Society of Australia and New Zealand;
   b) the Relevant Australian Standard is Australian Standard AS.4282 – Control of the Obtrusive Effects of Outdoor Lighting; and
   c) certification by a suitably qualified lighting consultant shall demonstrate that the development is in compliance with the relevant Australian Standard. On completion of the installation, the consultant is to confirm that the lighting conforms to the relevant Australian Standard and if not, remedial measures are to be undertaken to rectify the situation and bring about compliance with the relevant Australian Standard. The requirement for confirmation certification on completion of the installation is to be included as a condition on all planning approvals granted by the City.

6. Prior to the commencement of any demolition works, any Asbestos Containing Material (ACM) in the structure to be demolished, shall be identified, safely removed and conveyed to an appropriate landfill which accepts ACM.

7. Removal and disposal of ACM shall be in accordance with Health (Asbestos) Regulations 1992, Regulations 5.43 - 5.53 of the Occupational Safety and Health Regulations 1996, Code of Practice for the Safe Removal of Asbestos 2nd Edition, Code of Practice for the Management and Control of Asbestos in a Workplace, and any Department of Commerce Worksafe requirements.

8. Where there is over 10m2 of ACM or any amount of friable ACM to be removed, it shall be removed by a Worksafe licensed and trained individual or business.

9. The applicant is advised that the maximum number of 240L bins allowed on the verge for collection is 8 in total (which includes 3x240L City of Nedlands weekly waste bins and 5x City of Nedlands fortnightly recycling bins).

10. Any internal bins used by each unit shall be purchased and maintained by the developer by private arrangement.

11. All downpipes from guttering shall be connected so as to discharge into drains, which shall empty into a soak-well; and each soak-well shall be located at least 1.8m from any building, and at least 1.8m from the boundary of the block. Soak-wells of adequate capacity to contain runoff from a 20-year recurrent storm event. Soak-wells shall be a minimum capacity of 1.0m3 for every 80m2 of calculated surface area of the development.

12. A sewage treatment and effluent disposal system or greywater reuse or treatment system shall not be installed unless an Approval to Construct or Install an Apparatus for the Treatment of Sewage has been issued by the City beforehand.

13. All internal water closets and ensuites without fixed or permanent window access to outside air or which open onto a hall, passage, hobby or staircase, shall be serviced by a mechanical ventilation exhaust system which is ducted to outside air, with a minimum rate of air change equal to or greater than 25 litres / second.

14. The applicant is advised that laundry facilities are to be provided in accordance with the Building Code of Australia, and adequately ventilated to reduce

condensation, in accordance with AS1668.2 The use of mechanical ventilation and Air-conditioning in buildings.

15. The applicant is advised that developers are responsible for providing telecommunications infrastructure in their developments. To provide this infrastructure, they need to contract a carrier to install telecommunications infrastructure in their new development. If you choose National Broadband Network (NBN) to service your development, you will need to enter into a developer agreement with NBN. The first step is to register the development via http://www.NBNco.com.au/develop-orplanwiththeNBN/newdevelopments.html, once registered NBN will be in contact to discuss the specific requirements for the development. NBN requires you to apply at least six months before the required service date. All telecommunications infrastructure should be built to NBN guidelines found at http://www.NBNco.com.au/develop-or-plan-withtheNBN/newdevelopments/builders-designers.html.

16. The applicant is advised to consult the City's Acoustic Advisory Information in relation to locating any mechanical equipment (e.g. air-conditioner, swimming pool or spa) such that noise, vibration impacts on neighbours are mitigated. The City does not recommend installing any equipment near a property boundary where it is likely that noise will intrude upon neighbours. Prior to selecting a location for an air-conditioner, the applicant the applicant is advised to consult the online fairair noise calculator at www.fairair.com.au and use this as a guide to prevent noise affecting neighbouring properties.

17. As the proposal consists of more than 3 dwellings the applicant is advised that the City's Health Local Laws 2017 require an enclosure for the storage and cleaning of waste receptacles to be provided on the premises, per the following requirements:

    a) sufficient in size to accommodate all receptacles used on the premises;
    b) constructed of brick, concrete, corrugated compressed fibre cement sheet or other material of suitable thickness approved by the City;
    c) walls not less than 1.8m in height and access of not less than 1.0 metre in width fitted with a self-closing gate;
    d) smooth and impervious floor not less than 75mm thick and evenly graded to an approved liquid refuse disposal system;
    e) easily accessible to allow for the removal of the receptacles;
    f) provided with a ramp into the enclosure having a gradient of no steeper than 1:8 unless otherwise approved by the City;
    g) provided with a tap connected to an adequate supply of water;
    h) adequately ventilated, such that they do not create a nuisance to residences (odour); and
    i) the location of all exhaust systems, ductwork and any other mechanical service is not to be such that it will cause a nuisance for residents.

18. The applicant is advised that all works within the adjacent thoroughfare, i.e. road, kerbs, footpath, verge, crossover or right of way, also require a separate approval from the City of Nedlands prior to construction commencing.

19. The applicant is advised that a new crossover or modification to an existing crossover will require a separate approval from the City of Nedlands prior to construction commencing.

20. The applicant is advised that the contractor/developer shall protect the City's street trees from any damage that may be caused by the scope of works covered by this contract for the duration of the contract. All work carried out under this contract is to comply with the City's policies, guidelines and Australian Standards relating to the protection of trees on or adjacent to development sites (AS 4870-2009).

21. The applicant is advised that all street tree assets in the nature-strip (verge) shall not be removed. Any approved street tree removals shall be undertaken by the City of Nedlands and paid for by the owner of the property where the development is proposed, unless otherwise approved by the City of Nedlands.

Details: outline of development application

Zoning	MRS:	Urban
	LPS3:	Residential R60
Use Class:		Residential P (Multiple Dwelling)
Strategy Policy:		City of Nedlands Local Planning Strategy
Development Scheme:		City of Nedlands Local Planning Scheme No.3
Lot Size:		1,012m^2
Existing Land Use:		Residential (Single House)

The application proposes the construction of a three storey (plus basement) apartment building on Lot 239 (24) Carrington Street, Nedlands (the site). The site is currently development with a two-storey single house, which will be demolished as part of the development.

The new building will comprise of the following elements:

- 10 multiple dwelling apartments over three levels, comprising:
    - 4 x 1 bed 1 bath apartments of 60-61m2 plot ratio area.
    - 4 x 2 bed 2 bath apartments of 87-90m2 plot ratio area; and
    - 2 x 3 bed 2 bath apartments of 146m2 plot ratio area.

  There will be 2 x 1 bed and 2 x 2 bed apartments on Level 1 (ground floor). On Levels 2 and 3, there will be 1 x 1 bed, 1 x 2 bed and 1 x 3 bed apartments;
- A basement located partly below natural ground level with vehicular access from Dalkeith Road;
- A total of 21 car parking bays, allocated as follows:
    - 1 bay per 1 bed apartment (4 in total);
    - 2 bays per 2 bed apartment (8 in total);
    - 3 bays per 3 bed apartment (6 in total); and
    - 3 visitor bays;
- Retention of existing large trees on the site in integration into the development design;

- Planting of a 'green wall' utilising Boston Ivy on a steel mesh framework on the frontages to Carrington Street and Dalkeith Road; and
- Waste management based upon compaction of rubbish in standard 'wheelie bins' and on-street collection (maximum of 8 bins).

The applicant submitted revised plans on 28 February 2020 that differed from the plans as advertised in the following manner:

- Deletion of window facing neighbour in Bed 1 in Units A4, 5, 10 to address community feedback relating to overlooking the adjoining property;
- Relocation of window facing neighbour in Bed 1 in Unit A3 and Bed 3 in Units A6&9 to address community feedback relating to overlooking the adjoining property;
- Relocation of window facing neighbour in Bed 2 in Unit A3 and Bed 2 in Units A6&9 to address community feedback relating to overlooking the adjoining property. This change is also in response to the architectural peer review that raised concerns relating to the flatness of the east elevation and recommended projecting the bedrooms into the setback and facing the windows away from the neighbour;
- Deletion of hardstand on verge adjoining new crossover to address community feedback;
- Addition on north facing window in Bed 1 of Unit A2 to address architectural peer review concerns about the lack of a northern aspect in this unit; and
- Addition of dedicated, enclosed, drained, roofed Bin Area and Bulk Waste store to address community concerns and ensure waste management was consistent with the City's requirements.

The following information submitted by the Applicant is attached to this report:

- Amended development plans (dated 28 February 2020) – **Attachment 1**;
- Applicant's statement dated 21 November 2019 against the Design Principles outlined in SPP 7.0 Design of the Built Environment and the Elements of SPP 7.3 Residential Design Codes (Vol. 2) – **Attachment 2**;
- Traffic Impact Statement dated 21 November 2019 – **Attachment 3**;
- Revised Waste Management Plan dated 3 March 2020 – **Attachment 4**;
- Acoustic Report dated 21 November 2019 – **Attachment 5**;
- Landscaping Report dated 21 November 2019 – **Attachment 6**; and
- Development plans dated 21 November 2019 (plans as advertised) – **Attachment 7**.

Background:

The site is located on the south eastern corner of the intersection of Carrington Street and Dalkeith Road, Nedlands. See **Attachment 8** for an aerial and locality plan. The site is 1,012m² in area and currently developed with a two-storey single house fronting Carrington Street. Improvements include a swimming pool and lawned tennis court.

The topography of the site has been modified over time to provide a relatively flat site, particularly for the tennis court. However, the original slope of the site was an approximately 1.2m rise from the north western corner to the south eastern corner.

The site is not included on the City's Municipal Heritage Inventory or Heritage List.

The property is currently zoned *Residential* by City of Nedlands Local Planning Scheme No.3 (the Scheme). The applicable residential density code for the property is R60, having increased from R10 with gazettal of the Scheme in April 2019. Abutting properties to the south and east are similarly coded R60. Dwellings on the north and sides of Carrington Street are coded R10 or R20. Properties on the western side of Dalkeith Road are coded R10. The diagonally-opposite (north western) corner of the Carrington Street / Dalkeith Road intersection is occupied by Karrakatta Cemetery (reserved Public Purpose – Cemetery). A zoning plan is included at **Attachment 8**.

There are no previous applications that relate to the site.

Legislation and Policy:

Legislation

- *Planning and Development Act 2005 (P&D Act);*
- *Planning and Development (Local Planning Schemes) Regulations 2015 (LPS Regulations);*
- *Planning and Development (Development Assessment Panel) Regulations 2011*
- Metropolitan Region Scheme
- *City of Nedlands Local Planning Scheme No. 3* – clauses 9, 16, 25, 32

State Government Policies

- *State Planning Policy 7.0 – Design of the Built Environment*
- *State Planning Policy 7.3 – Residential Design Codes Volume 2 – Apartments (R-Codes Volume 2)*

Local Policies

- *Local Planning Policy – Consultation of Planning Proposals*

Strategy

- *City of Nedlands Local Planning Strategy*

Consultation:

Public Consultation

The City's Local Planning Policy *Consultation of Planning Proposals* states that the development proposal for ten multiple dwellings is classified as a Complex Application. In accordance with the Complex Application requirements of the Policy, the proposal was advertised for a period of 21 days commencing on 17 January 2020 and concluding on 7 February 2020. The public advertising period included the following forms of notification:

- A total of 102 letters were sent to all City of Nedlands landowners and occupiers within a 200m radius of the site informing of the application and inviting comment;
- A sign informing of the proposal was displayed on the Carrington Street frontage of the site for the entire advertising period;
- An advertisement was uploaded to the City's website with all documents relevant to the application made available for viewing during the advertising period;
- A notice was placed in the *Post* newspaper of 18 January 2020;
- Social media post was placed on the City's Social Media platforms;
- A notice was affixed to the City's Noticeboard at the City's Administration Offices; and
- A community information session was held by City officers attended by approximately 50 residents and elected members. This was held on 28 January 2020 at the Adam Armstrong Pavilion, Dalkeith.

At the conclusion of advertising, the City received a total of 77 individual submissions, comprising 1 submission in support, 2 providing comments and 74 objections. Due to the number of concerns raised during public consultation, a separate summary of the issues raised in the submissions is contained as **Attachment 10**. Of the submissions received, a total of 14 were received from 11 individual properties located within a 200m radius of the site. It is noted that use of a pro-forma submission was evident, with 34 objections either fully or in part based on the same pro-forma.

The main issues raised in the submissions are summarised below.

Non-compliance with Acceptable Outcomes

Submissions raised a number of concerns with non-compliance with various Acceptable Outcomes contained in the R-Codes. Areas of 'non-compliance' identified included plot ratio, apartment size, ground floor-to-street level height and extent of basement protrusion. These matters have been addressed in the R-Codes Assessment.

Bulk / Form / Aesthetics

A range of submissions raised concerns with the bulk, height or aesthetics of the development. There was a strong level of concern that the building is inconsistent with the character of the locality. This matter has been addressed as part of the R-Codes assessment and consideration of SPP 7.0.

Green Wall

There was a range of concerns raised with the proposal to utilise vertical landscaping. Many submissions raised doubts or concerns with the use of Boston Ivy, including whether it would grow and how it would be managed. This matter has been addressed as part of the R-Codes assessment.

Overlooking

Submissions raised concerns with overlooking of adjoining properties from the development. A number of windows in the eastern elevation have been deleted as a result of these concerns (see amended plans dated 28 February 2020).

Parking

A number of submissions raised concerns with parking provision in the development, including the number of bays and use of a hard stand on the verge. This matter has been addressed as part of the R-Codes assessment.

Traffic

Submissions raised traffic impacts associated with the development. These impacts included increase in volumes in the surrounding road network and safety concerns with the additional traffic entering Dalkeith Road near the Carrington Street intersection. Some submissions raised the issue of cumulative impact as other developments occur in the locality. The City is currently undertaking a traffic modelling exercise to obtain better information on likely future traffic volumes on its road network. In the meantime, each development of this type is required to provide a Traffic Impact Statement. The Statement prepared for this development has identified that there is sufficient capacity in the network to cater for the development.

Waste Management

There were concerns raised regarding the proposed waste management for the development. These concerns included non-compliance with the City's draft Waste Management Policy and Guidelines. This has been addressed by the proponent, with a revised Waste Management Plan dated 3 March 2020 supported by the City.

Consultation with other Agencies or Consultants

No consultation with external agencies was required.

Planning Assessment:

State Planning Policy 7.0 – Design of the Built Environment (**SPP 7.0**)
This policy is to be applied to all development applications in Western Australia. The purpose of the policy is to inform and guide landowners, proponents, designers reviewers and decision-makers to achieve good design outcomes in the built environment. The City lacks an appointed Design Review Panel, which would otherwise offer critical design advice to the review of planning proposals. In this case, an architectural and landscaping peer review was undertaken. The comments received during the peer review are summarised in **Table 1** below.

Table 1: SPP7.0 – Design of the Built Environment		
Design Principle	**Peer Review Comment**	**Element Objectives Achieved**
1. Context and Character *Good design responds to and enhances the distinctive characteristics of a local area, contributing to a sense of place.*	The building is an excellent expression of a new typology and building form in an established residential area. There is little or no attempt to either reference nor draw on the established architectural context. While the outcome and the intention to develop a new sense of space is supported by peer review, there needs to be some expression in the submission that the applicant understands its context and has made a deliberate expression to move away from an established context. The building addresses the street and creates an active and engaging façade which includes formal and informal connections with the street. Some improvements could be made if the level change (from street to ground floor/level1) was reduced. The success of the screen wall façade is not developed on the other elevations and should be reviewed. The functional use of these sides (exclusively sleeping) lead to a flatter and less engaging built form. Consider ways to add depth. Do not add applique. As discussed elsewhere, the communal use spaces could be more successfully used to create articulation on both the East and West façade or reduced to produce a lower connection between the two.	- 3.2 - 3.3 - 3.4 - 3.6 - 3.9 - 4.10 - 4.11 - 4.12
2. Landscape Quality *Good design recognises that together landscape and buildings operate as an integrated and sustainable system, within a broader ecological context.*	The landscaping concept for the development is based upon the retention of large trees with integration of these into the design. This is supported by the employment of the green wall on both street frontages (steel mesh screen with Boston Ivy climbing plants). Cantilevered planter boxes have been employed on balconies to provide both	-3.2 -3.3 -3.4 -3.6 -4.12 -4.16

	additional planting area, as well as visual interest.	
3. Built form and scale *Good design ensures that the massing and height of development is appropriate to its setting and successfully negotiates between existing built form and the intended future character of the local area.*	The massing and scale is consistent with emerging community expectations for mass and scale. The prominence of this site would permit even taller buildings which would be consistent with the future urban planning or the area. The building adheres in the most part to acceptable outcome provisions for setbacks and siting. While facilitating a smoother ride through an approval process, it is not indicative of a building responding specifically to the site conditions and orientation. Build form projections into setback areas, offset by the existing setback would create less flat elevations (most needed on the East) and allow more flexibility on thinner longer apartments to the North. (Undertaken in amended plans). The ground level is elevated from the street to an extent that the connection with the street does not fully benefit from this activation. Married with the above, the undercroft parking is more visible to the street than a lower better engaged ground level would be.	-3.2 -3.3 -4.10 -4.11
4. Functionality and build quality *Good design meets the needs of users efficiently and effectively, balancing functional requirements to perform well and deliver optimum benefit over the full life cycle.*	The presumed build quality and functional planning is generally good with good separation of units, opportunities for cross-ventilation, private and public spaces to interact, changing architectural skins and forms and a building that bends and shapes to respond to existing and future landscaping. The control of noise for internal amenity will be critical to the successful occupation of the building. Screening devices will assist and will need to be paired with appropriately treated acoustic glass and building insulation. The common and shared spaces meet the acceptable outcomes of SPP 7.3 but given the location small scale of the development seem to unnecessarily	-4.3 -4.4 -4.6 -4.7 -4.12 -4.15 -4.17 -4.18

	burden a small strata with both initial and ongoing costs that are perhaps not commensurate with its scale. While the proposal is supported, a more modest response would also be appropriate and create opportunities for building articulation and reduced cost.	
5. Sustainability *Good design optimises the sustainability of the built environment, delivering positive environmental, social and economic outcomes.*	Access to light and cross ventilation is generally excellent. Access to northern light is limited to many apartments, but has been increased in the amended plans by inclusion of the room projections in the eastern elevation to accommodate north facing windows. The Northern and Western elevations have an identical screening and opening pattern. Buildings that are more responsive to the environment would typically have very different architectural expressions on these very different conditions.	- 3.2 - 3.3 - 3.9 - 4.1 - 4.2 - 4.3 - 4.11 - 4.12 - 4.15 - 4.16 - 4.17
6. Amenity *Good design provides successful places that offer a variety of uses and activities while optimising internal and external amenity for occupants, visitors and neighbours, providing environments that are comfortable, productive and healthy.*	With the exception of the following comments, the planning and layouts are generally acceptable. The apartments are generally large, but living and bedroom spaces seem cramped, the circulation and movement diagram leads to significant area being lost to corridors. Typically, the further a living space from the entry, the less successful the planning. The location of the Gym and terrace (over) while providing opportunity for building articulation would most likely be better positioned adjacent the larger external community garden on the corner. This apartment (A2) is the weakest of the apartments and could be moved to the gym location (possibly two of them stacked or a two storey 2 bedroom) allowing the corner to be used for community activation. This would resolve the issue of the amenity of the ground floor (A2) apartment on the corner, which is poor, given the traffic.	- 3.2 - 3.3 - 3.4 - 3.5 - 4.1 - 4.2 - 4.3 - 4.4 - 4.5 - 4.7 - 4.9 - 4.11 - 4.12 - 4.15 - 4.16 - 4.17 - 4.18

	Entry foyer is probably a little too tight. Robes on the external wall (adjacent external windows) further exacerbate the cramped feeling of the rooms.	
7. Legibility *Good design results in buildings and places that are legible, with clear connections and easily identifiable elements to help people find their way around.*	The entries and movement are appropriately positioned, expressed & connected.	- 3.1 - 3.4 - 3.6 - 3.7 - 3.8 - 3.9 - 4.5
8. Safety *Good design optimises safety and security, minimising the risk of personal harm and supporting safe behaviour and use.*	The proposal create opportunity for excellent ongoing and overlapping passive surveillance and community engagement. It is an excellent outcome for the community.	- 3.1 - 3.4 - 3.6 - 3.7 - 3.8 - 3.9 - 4.5
9. Community *Good design responds to local community needs as well as the wider social context, providing environments that support a diverse range of people and facilitate social interaction.*	The ground level connection and activation are excellent and will foster successful connections with the local community. The architectural form is strong simple and lovely. It will be divisive in the community but lead to a strong discussion on architectural expression, an excellent trait of well-considered architecture. A number of silver level accessible apartments have been proposed, in excess of statutory requirements for access. This is supported. The small development is lifted creating a greater opportunity for access.	- 3.4 - 3.5 - 3.6 - 3.7 - 3.8 - 3.9 - 4.5 - 4.9 - 4.18

10. Aesthetics *Good design is the product of a skilled, judicious design process that results in attractive and inviting buildings and places that engage the senses.*	The building form relies on a single design expression of a contiguous landscaped screen. The idea is located appropriately and resolves sun-screening, privacy as well as producing a strong and legible elevational treatment. The singular reliance on the screen form exposes the building to 'live or die' by the successful resolution of this screen and the planting proposed. Consideration should be given in any approval to condition the appropriate design and delivery of this screen. The emphasis on the Western and North screening has left the neighbour facing elevations with significantly poorer and less resolved elevational development. The elevations seem neither purely functional, nor exquisitely designed. They are generally poor. (Addressed for eastern elevation in amended plans). The communal spaces offer an opportunity for the main form to be better articulated in material, height or depth. The stacking of these elements and their different functional programme delivers an opportunity for the mass and bulk of the elevation to closer meet community expectations on building massing. The building includes an appropriate mix of dwelling types with a range of sizes and accommodation provided	- 3.1 - 3.4 - 4.8

The proponent has taken the opportunity to amend the development plans to address some of the peer review comments. These changes include articulation of the eastern elevation in a manner recommended by the peer review. Whilst the peer review was generally supportive of the design, it noted that the application has failed to express in the submission that the applicant understands its context and has made a deliberate expression to move away from an established context. It is noted that this has not been undertaken in the submission currently being considered. The required information would not affect the design or development. Rather, it would provide context when considering the application. The lack of this context is not considered sufficient to warrant refusal of the application.

State Planning Policy 7.3 – Residential Design Codes Volume 2 – Apartments (R-Codes Volume 2)

R-Codes Volume 2 applies to all multiple dwellings (apartments) in areas coded R40 and above, within mixed used development and activity centres. The purpose of the document is to provide comprehensive basis for control of residential development. When assessing applications for development the City must have regard to the following policy objectives:

- to provide residential development of an appropriate design for the intended residential purpose, land tenure, density, place context and scheme objectives;
- to encourage design consideration of the social, environmental and economic opportunities possible from new housing, and an appropriate response to local context;
- to encourage design that considers and respects local heritage and culture; and
- to facilitate residential development that offers future residents the opportunities for better living choices and affordability when seeking a home, as well as reduced operational costs and security of investment in the long term.

The development is considered to be consistent with all the objectives cited above. The development is of an appropriate design for the R60 density code, balances the existing streetscape character with the planned character of a medium-rise transitional area and satisfies all scheme objectives. The development proposal is considered to cater for a wide range of demographics, maintains an adequate level of vegetation and responds to the local context in its use of materials and form. There are no heritage listed properties in close proximity, and there is no identified cultural heritage within this immediate locality. The recommendation of this report includes conditions that seek to address the need for reduced operational costs and general amenity in the long term.

Local Planning Scheme

Item	Requirement	Proposal	Satisfies
9 – Aims of Scheme	a) Protect and enhance local character and amenity	As noted previously, the surrounding area is characterised by brick and tile dwellings, with pitched roofs. The City acknowledges that the proposed built form, which responds to the Residential R60 code is a departure from the existing built form. However, the use of the green wall will be the primary design element that attempts to blend the development into the local character of amenity.	Yes
	b) Respect the community vision for the development of the district;	The development is not considered to adversely affect the community vision for the development of the district.	Yes
	c) Achieve quality residential built form	The built form of the development has been assessed and is	Yes

	outcomes for the growing population;	considered to achieve or can be made to achieve all relevant element objectives and is consistent with the expectations of the Residential R60 code.	
	d) To develop and support a hierarchy of activity centres	The medium-rise development is consistent with the intent of the R60 density code identified by Local Planning Scheme No.3. If approved, the development will form the outer edge of the R60 area with the remaining single houses to the west and north.	Yes
	e) To integrate land use and transport systems	The development is located on a regular bus route.	Yes
	f) Facilitate improved multi-modal access into and around the district	The development includes bicycle racks for residents and visitors as well as storerooms for residents. The site is well located to walking and cycle networks.	Yes
	g) Maintain and enhance the network of open space	The development does not impact the City's network of open space.	Yes
	h) Facilitate good public health outcomes	The development is not considered to adversely affect the desired public health outcomes.	Yes
	i) Facilitate a high-quality provision of community services and facilities	The development is not considered to adversely affect the community services or facilities and will contribute to ensuring their viability.	Yes
	j) Encourage local economic development and employment opportunities	The development is considered to positively contribute to the support of local businesses.	Yes
	k) To maintain and enhance natural resources	The proposal includes a series of energy efficiency initiatives, including the a photovoltaic array to power communal spaces and facilities.	Yes

	l) Respond to the physical and climatic conditions	The development maintains solar access to adjoining properties by having appropriate setbacks.	Yes
	m) Facilitate efficient supply and use of essential infrastructure	The development does not negatively impact this objective.	Yes
16.2 – Land Use	Residential Zone Objectives		
	To provide for a range of housing and a choice of residential densities to meet the needs of the community.	The proposal is considered to provide a type of housing that will contribute to the City's housing diversity.	Yes
	To facilitate and encourage high quality design, built form and streetscapes throughout residential areas.	Administration is of the view that the changes made to the development will achieve a higher quality design, with an appropriate built form and streetscape presentation.	Yes
	To provide for a range of non-residential uses, which are compatible with and complementary to residential development.	This objective is not applicable to the subject application.	N/A
	To ensure development maintains compatibility with the desired streetscape in terms of bulk, scale, height, street alignment and setbacks.	The development is considered to strike the balance between the existing streetscape character and the future character of this transitional area.	Yes
32.1(2-6) - Parking	Cash-in-lieu of parking	None	N/A – the City does not have a Car Parking Strategy to guide cash-in-lieu. Therefore, these scheme provisions cannot be applied.

Planning and Development (Local Planning Schemes) Regulations 2015

The City has assessed the application in accordance with the LPS Regulations, the assessment of which is provided in the table below against the relevant provisions:

Provision	Assessment
(a) the aims and provisions of this Scheme and any other local planning scheme operating within the Scheme area;	Refer to assessment of clause 9 of LPS 3 – Aims of Scheme.
(b) the requirements of orderly and proper planning including any proposed local planning scheme or amendment to this Scheme that has been advertised under the Planning and Development (Local Planning Schemes) Regulations 2015 or any other proposed planning instrument that the local government is seriously considering adopting or approving;	The development proposal has achieved all relevant element objectives of the R-Codes and is consistent with the expected development within Residential R60.
(m) the compatibility of the development with its setting including the relationship of the development to development on adjoining land or on other land in the locality including, but not limited to, the likely effect of the height, bulk, scale, orientation and appearance of the development;	The Zoning Table in LPS 3 classifies all residential development as a 'P' use in the Residential Zone. The suitability of the land use is not therefore, in question. The development itself is either generally consistent with or exceeds the default building height, street, side and rear setbacks of the R-Codes. Whilst the development is a departure from the existing built form, it is consistent with the expected built form of the medium density code (R60) to which it relates.
(n) the amenity of the locality including the following — *(i) environmental impacts of the development;* *(ii) the character of the locality;* *(iii) social impacts of the development;*	(i) With recommended conditions of approval, the development is considered to achieve the element objectives for all water and energy efficiency element objectives. (ii) With recommended conditions of approval, the green wall can be implemented and maintained to ensure the building is more in-keeping with the character of the area. (iii) Given the scale of the residential development, the City is of the view that there are no identifiable social impacts that further residents would pose.

(p) whether adequate provision has been made for the landscaping of the land to which the application relates and whether any trees or other vegetation should be preserved.	The applicant has provided a landscaping plan which outlines the species to be retained and removed. A number of large trees on the property will be retained and integrated into the development. Further, vertical landscaping of the street facades is to be implemented utilising Boston Ivy as a climbing species.
(s) the adequacy of — *(i) the proposed means of access to and egress from the site; and* *(ii) arrangements for the loading, unloading, manoeuvring and parking of vehicles.*	The applicant has provided a Transport Impact Statement (TIS). The City's Technical Services reviewed the TIS and supports the proposed access and egress, manoeuvring and parking of vehicles.
(t) the amount of traffic likely to be generated by the development, particularly in relation to the capacity of the road system in the locality and the probable effect on traffic flow and safety;	The applicant has provided a Transport Impact Statement (TIS) which concluded that the trip generation from a development of this type and size is unlikely to materially impact the local road network.
(y) any submissions received on the applications	All submissions have been given due regard in accordance with this provision. A summary of the submissions was provided to the applicant and where possible have been addressed (See **Attachment 10**)
(zc) any advice of the Design Review Panel (Supplemental provision)	The City is currently for the introduction of a Design Review Panel. However, it is not operational as yet. In the meantime, a process of peer review of the proposal has been undertaken using qualified architectural and landscape architectural consultants. The peer reviews have assessed the development against the principles of design incorporated into SPP 7.0.

Local Planning Strategy

Under the Local Planning Strategy, the site is located in an area identified as 'Existing Residential Areas', the intent of which was to maintained a low density residential area. However, the extent of the R60 transitional zones was extended to include the site upon gazettal of Local Planning Scheme No.3. As the more contemporaneous Scheme takes precedence over a local planning strategy, compliance with the Strategy is not considered necessary in this case.

Officer Comments

The proposal has been assessed against all relevant Design Elements of the Residential Design Codes Volume 2 – Apartments (R-Codes). A copy of the full assessment is included at **Attachment 11**.

The proposal meets most Element Objectives and related Acceptable Outcomes. Where there is an area of non-compliance, it is considered appropriate to apply conditions on approval rather than seek amendment of the design. The areas of non-compliance are not considered strong enough to warrant a recommendation for refusal.

The areas of non-compliance with Element Objectives are outlined below.

Element 4.1 Solar and Daylight Access, Objective O4.1.2 *Windows and designed and positioned to optimise daylight access for habitable rooms*.

Some bedrooms in Units A3, A6 and A9 have not met Acceptable Outcome A4.1.2 relating to achieving a glazed area of windows of at least 10% of the floor area of the room. Whilst it is not mandatory to meet the Acceptable Outcome provision, it is difficult to identify how these bedrooms can achieve Objective O4.1.2 in any other way, given the configuration of the floor plans. A condition is recommended to be placed on any approval requiring modifications to these bedrooms to achieve a minimum of 10% of glazed area.

Element 4.6 Storage, Objective O4.6.1 *Well-designed, functional and conveniently located storage is provided for each dwelling*.

It is considered that the design and functionality of the proposed storerooms does not meet the Objective fully. Some stores may not meet the minimum dimension of 1.5m which is provided as a default Acceptable Outcome in A4.6.1. There is also a concern over the functionality of some storerooms given narrow access corridors. It is recommended that a condition be placed on any approval requiring the design and functionality of the storerooms to be considered against Element 4.6.

Acceptable Outcomes Departures

There are a small number of departures from Acceptable Outcomes proposed for this development. In each of these, it has been identified that compliance with the relevant Element Objective has been met.

In considering departures from Acceptable Outcomes, the following statement from the R-Codes has been considered:

Acceptable Outcomes are likely to assist in satisfying the objectives but are not a comprehensive 'deemed-to-comply' list. In order to achieve the Element Objectives, proposals may require additional and/or alternative design solutions in response to the site conditions, streetscape and design approach.

Element 2.4 Side and Rear Setbacks

The objectives of this Element have been appropriately addressed by this proposal. However, it is noted that Acceptable Outcome A2.4.1 has not been fully met in that the default minimum setbacks contained in Table 2.1 are departed from.

The default minimum setback is 3m. This is achieved for the majority of the building. However, it is noted that the basement and bin store will be located with a nil setback to the east and south boundaries. The finished floor level will be approximately 1.6m – 2.1m lower than the natural ground level on the boundaries. This effectively reduces

the boundary wall height to less than the adjoining fence height. Therefore, there is no amenity impact on neighbouring properties by the introduction of a reduced setback.

The other departure from the default setback is the 2.3m setback to the building projection on the eastern elevation. This projection has been introduced by the amended plans dated 28 February 2020. The intent of the projection, which occupies 11% of the total elevation, is to provide articulation and a north facing window to the adjoining bedrooms. The windows in the projection face northwards and are treated to ensure against overlooking into the adjacent property.

Both departures from the Acceptable Outcomes are considered to meet the Element Objectives. Therefore, the departures are supported.

Element 2.5 Plot Ratio

The objectives of this Element have been appropriately addressed by this proposal. However, it is noted that Acceptable Outcome A2.5.1 has not been fully met in that the default plot ratio of 0.8 contained in Table 2.1 is departed from. The calculated plot ratio based on the amended plans dated 28 February 2020 is 0.91.

The additional plot ratio is accommodated within the overall “envelope” of the building without the need for default height increases or significant impact on default setbacks. The one area of setback reduction has been undertaken to achieve eastern façade articulation and reduce overlooking rather than being required to accommodate additional plot ratio.

It is noted that the plot ratio proposed will cater for the provision of a range of apartment sizes and configurations. All other relevant Element Objectives relating to overlooking, overshadowing, dwelling size, universal access, design and function have been met. It is considered that the development meets the Objective notwithstanding the Acceptable Outcome plot ratio default is lower than what is proposed.

Element 3.6 Public Domain Interface

The objectives of this Element have been appropriately addressed by this proposal. However, it is noted that Acceptable Outcome 3.6.5 has been departed from in that the change in level between the ground floor and the street is greater than the 1.2m maximum and 1.0m average default provided.

The ground floor will be 1.67m – 2.11m above the Carrington Street road level. The height difference for Dalkeith Road will be approximately 2.20m – 2.36m above road level.

The interface between the street and the building includes private and communal garden spaces. These are 2.5m wide on Dalkeith Road and 2.8m – 6.0m wide on Carrington Street. These spaces are raised approximately 0.5m – 0.65m above the Dalkeith Road level and 0.25-0.7m above Carrington Street. These will act as a transition zone between the street and the ground floor of the building.

The proposed development meets all other Acceptable Outcomes, in that:

- All ground floor apartments have direct access to the street by balcony and private garden (A3.6.1).
- Car parking is not located in the street setback and is located partly below ground level and integrated into the landscaping and building façade (A3.6.2).

- Upper level balconies overlook the street (A3.6.3).
- Balustrading includes a mix of opaque and visually permeable materials (A3.6.4).
- Front fencing is visually permeable and is less than 1.2m high (A3.6.6).
- Fencing, landscaping and other elements on the frontage are designed to eliminate opportunities for concealment (A3.6.7).
- Bins are not located within the primary street setback or in locations visible from the street (amended plans show bins located within a screened enclosure) (A3.6.8).
- Services and utilities are integrated into the design (A3.6.9).

It is considered that the proposed levels can be considered to meet the Element Objectives given the level of activation that has been provided for. All apartments with ground level street frontage will have direct access to the street and garden areas. The additional height of the ground floor is not considered to be detrimental to achieving the Objective. In addition, the overall height and bulk of the development is not adversely impacted upon by the increased ground level height.

Element 3.9 Car and Bicycle Parking

The objectives of this Element have been appropriately addressed by this proposal. However, it is noted that Acceptable Outcome 3.9.10 has been departed from in that the basement protrudes greater than the default maximum of 1.0m above ground level. The average protrusion is 1.6m for this development.

The protruding area is designed and/or screened to prevent negative visual impact on the streetscape. The basement is integrated into the building design, with the portion of the basement above ground level screened by the green wall proposed for the Dalkeith Road and Carrington Street frontages.

The impact of the greater basement protrusion is linked to the increased ground floor height above street level in Element 3.6. The additional height of the ground floor in relation to the street level has been considered as achieving Element Objectives O3.6.1 and O3.6.2.

The additional level of protrusion of the basement does not impact on the ability for the building to meet Acceptable Outcomes for building height.

Elements 4.10 Façade Design, 4.12 Landscape Design

The objectives of these Elements have been appropriately addressed by this proposal. However, the importance of the vertical landscaping ‘green wall’ on the overall design requires appropriate attention to ensure the outcome is realised. It is recommended that a condition be included on any approval that requires a Boston Ivy Management Plan to be prepared and implemented. The management plan will include details on how the green wall is to be planted and maintained. Management actions including ongoing maintenance and replacement of dead or diseased plantings will also be included.

Conclusion:

The proposed 10 multiple unit development seeks to utilise the R60 density afforded the site in a manner that attempts to reduce the impact upon surrounding single dwellings. It seeks to achieve this through ensuring compliance with the majority of the

Acceptable Outcomes of the R-Codes. Integral to the design is the vertical landscaping of the ‘green wall’ on both street frontages. Use of soft landscaping as part of the façade has been supported by peer review. However, it will require management measures to be put in place to avoid a stark aesthetic in the event the Boston Ivy fails to grow or is removed.

It is noted that there is a strong level of objection in the community to both this development and medium-high density development more widely. Notwithstanding this level of objection, the development has been assessed as meeting the relevant Element Objectives of the R-Codes, as well as the requirements of Local Planning Scheme No.3. Consequently, the proposal is recommended for conditional approval.

STATUS:
AMENDED DEVELOPMENT APPLICATION

CLIENT:
CHARLESWORTH

ARCHITECT / DESIGNED BY:
SIMON ANDERSON

24 CARRINGTON STREET, NEDLANDS

APARTMENT BUILDING DEVELOPMENT APPLICATION

AMENDED DRAWINGS AS PER PEER REVIEW & COMMUNITY CONSULTATION

SITE:
24 CARRINGTON STREET, NEDLANDS

TITLE:
COVER

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
	28/02/2020 1:14:53 PM	JR	SA
PROJECT NO: -		DRAWING NO: SK0	REVISION:

CONTACT:

SHEET LIST

Sheet Name	Sheet Number	Drawn By	Checked By
COVER	SK0	JR	SA
SHEET LIST	SK0.5	JR	SA
WIDER CONTEXT PLAN	SK01	JR	SA
LOCAL CONTEXT PLAN	SK02	JR	SA
EXISTING FEATURE SURVEY	SK03	JR	SA
REGULATIONS	SK04	JR	SA
MASSING 1	SK05	JR	SA
MASSING 2	SK06	JR	SA
MASSING 3	SK07	JR	SA
MASSING 4	SK08	JR	SA
MASSING 5	SK09	JR	SA
MASSING 6	SK10	JR	SA
STREETSCAPE ELEVATIONS	SK11	JR	SA
SITEPLAN	SK12	JR	SA
LANDSCAPE PLAN	SK13	JR	SA
LANDSCAPE SELECTIONS	SK14	JR	SA
BASEMENT PLAN	SK15	JR	SA
WASTE MANAGEMENT	SK16	JR	SA
LEVEL 1 PLAN	SK17	JR	SA
LEVEL 2 PLAN	SK18	JR	SA
LEVEL 3 PLAN	SK19	JR	SA
ROOF PLAN	SK20	JR	SA
1 BEDROOM PLANS	SK21	JR	SA
2 BEDROOM PLANS	SK22	JR	SA
3 BEDROOM PLANS	SK23	JR	SA
NORTH & SOUTH ELEVATIONS	SK24	JR	SA
EAST & WEST ELEVATIONS	SK25	JR	SA
MATERIALS	SK26	JR	SA
SECTIONS	SK27	JR	SA
SECTIONS 2	SK28	JR	SA
FACADE DETAIL SECTION	SK29	JR	SA
MASSING	SK30	JR	SA
OVERSHADOWING	SK31	JR	SA
PERFORMANCE SUMMARY	SK32	JR	SA
WEST FACADE ELEVATION	SK33	JR	SA
EAST FACADE ELEVATION	SK34	JR	SA
NORTH & SOUTH FACADE ELEVATIONS	SK35	JR	SA
3D STREET VIEWS	SK36	JR	SA

VIEW FROM BASEMENT COURTYARD PLANTING

STATUS:
AMENDED DEVELOPMENT APPLICATION

CLIENT:
CHARLESWORTH

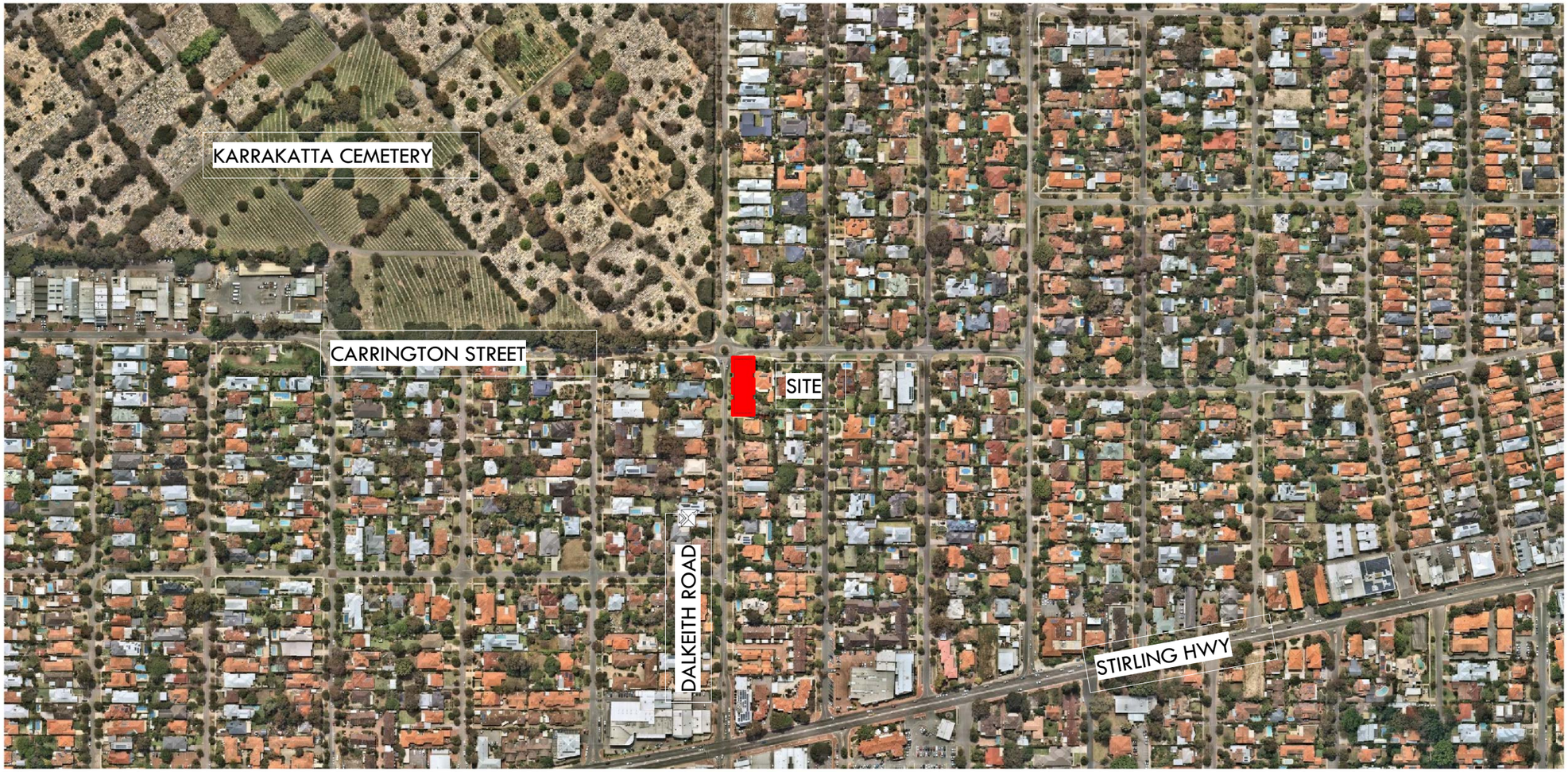
ARCHITECT / DESIGNED BY:
SIMON ANDERSON

SITE:
24 CARRINGTON STREET, NEDLANDS

TITLE:
SHEET LIST

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
	28/02/2020 1:15:05 PM	JR	SA
PROJECT NO: -		DRAWING NO: SK0.5	REVISION:

CONTACT:



DALKEITH ROAD

DALKEITH ROAD (LOOKING @ 24 CARRINGTON ST)

CARRINGTON STREET (FROM ROUNDABOUT)

WIDER CONTEXT PLAN

SCALE @ A3: 1 : 5000

N

STATUS: AMENDED DEVELOPMENT APPLICATION

CLIENT: CHARLESWORTH

ARCHITECT / DESIGNED BY: SIMON ANDERSON

SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: WIDER CONTEXT PLAN

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
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PROJECT NO: -		DRAWING NO: SK01	REVISION:

CONTACT:

LOCALITY PLAN

SCALE @ A3: 1 : 500

N

STATUS: AMENDED DEVELOPMENT APPLICATION

CLIENT: CHARLESWORTH

ARCHITECT / DESIGNED BY: SIMON ANDERSON

SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: LOCAL CONTEXT PLAN

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
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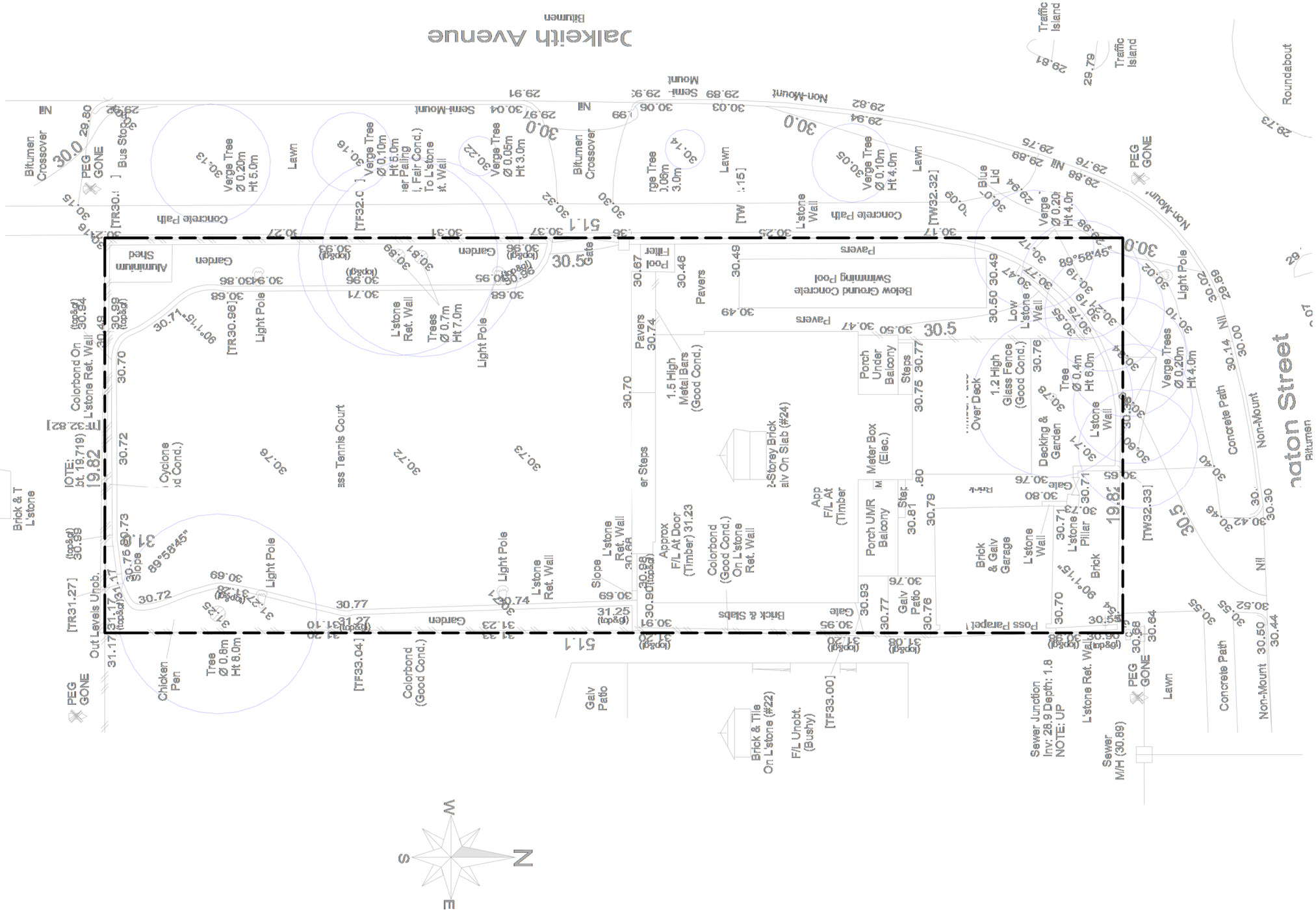
PROJECT NO: -		DRAWING NO: SK02	REVISION:

CONTACT:



FEATURE SURVEY

SCALE @ A3: 1 : 200

STATUS: AMENDED DEVELOPMENT APPLICATION

CLIENT: CHARLESWORTH

ARCHITECT / DESIGNED BY: SIMON ANDERSON

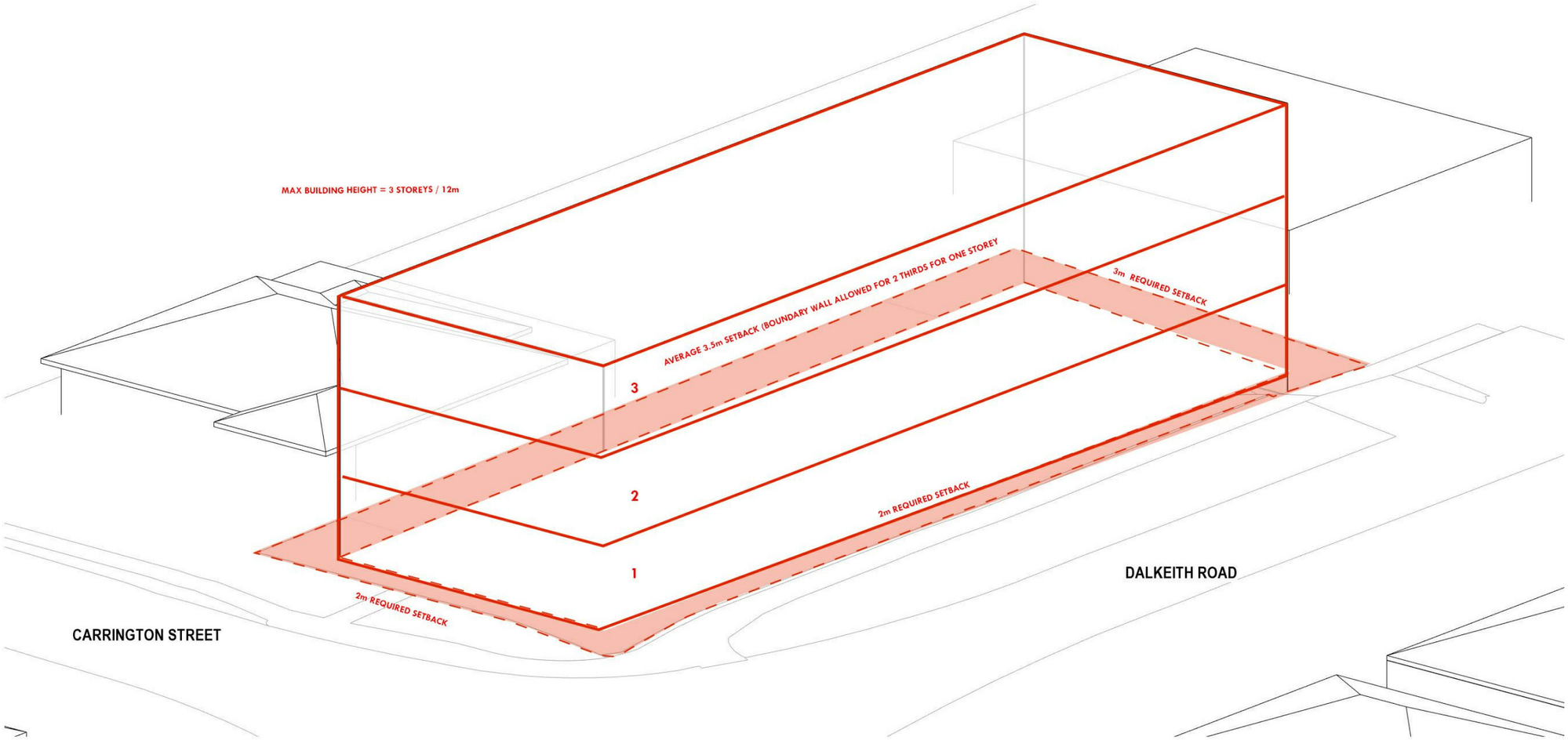
SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: EXISTING FEATURE SURVEY

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1 : 200	28/02/2020 1:15:21 PM	JR	SA
PROJECT NO: -		DRAWING NO: SK03	REVISION:

CONTACT:

BUILDING HEIGHT & SETBACKS



CONCEPT MASSING

STATUS: AMENDED DEVELOPMENT APPLICATION

CLIENT: CHARLESWORTH

ARCHITECT / DESIGNED BY: SIMON ANDERSON

SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: REGULATIONS

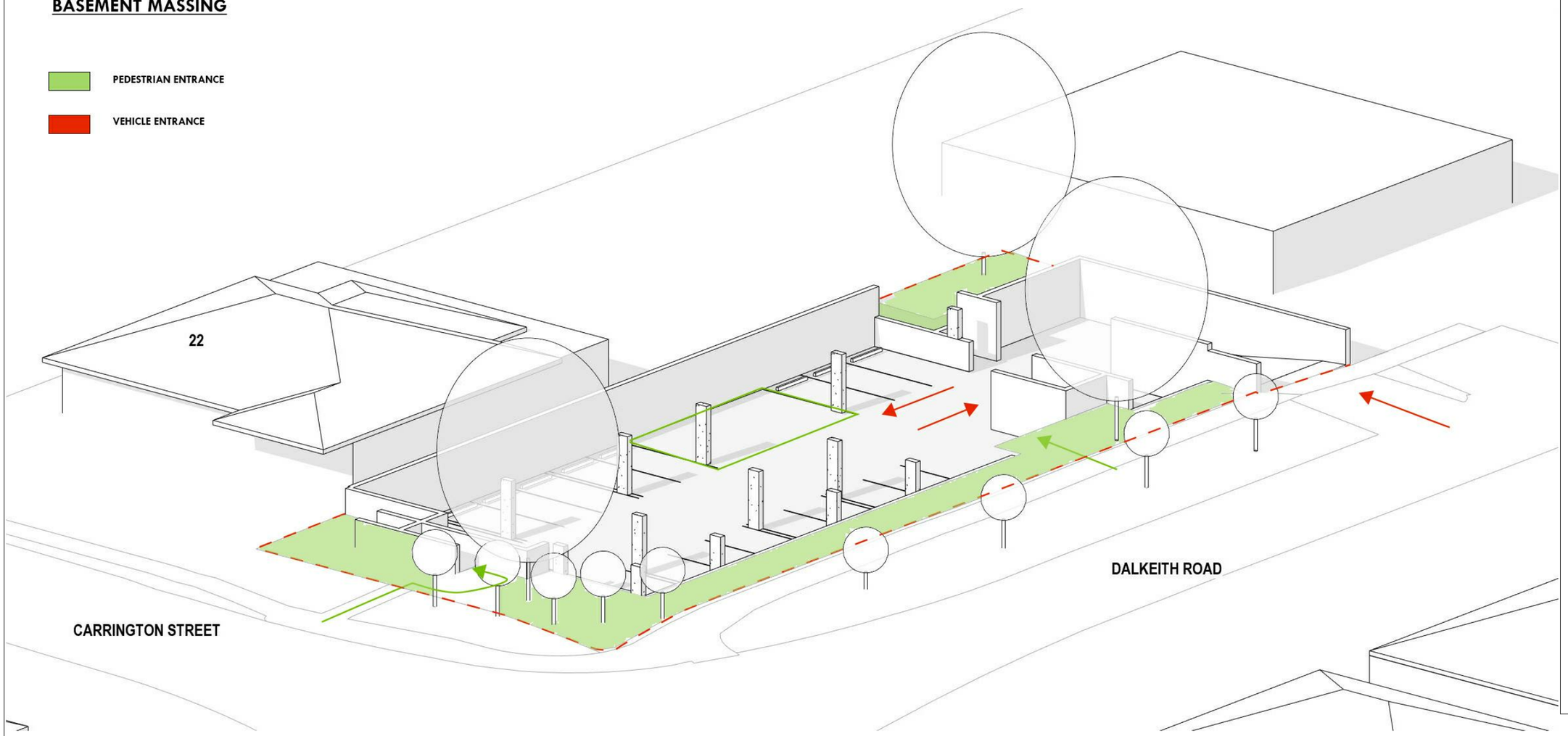
SCALE AT A3:	DATE: 28/02/2020 1:15:23 PM	DRAWN: JR	CHECKED: SA
PROJECT NO: -		DRAWING NO: SK04	REVISION:

CONTACT:

BASEMENT MASSING

PEDESTRIAN ENTRANCE

VEHICLE ENTRANCE



CONCEPT MASSING

STATUS: AMENDED DEVELOPMENT APPLICATION

CLIENT: CHARLESWORTH

ARCHITECT / DESIGNED BY: SIMON ANDERSON

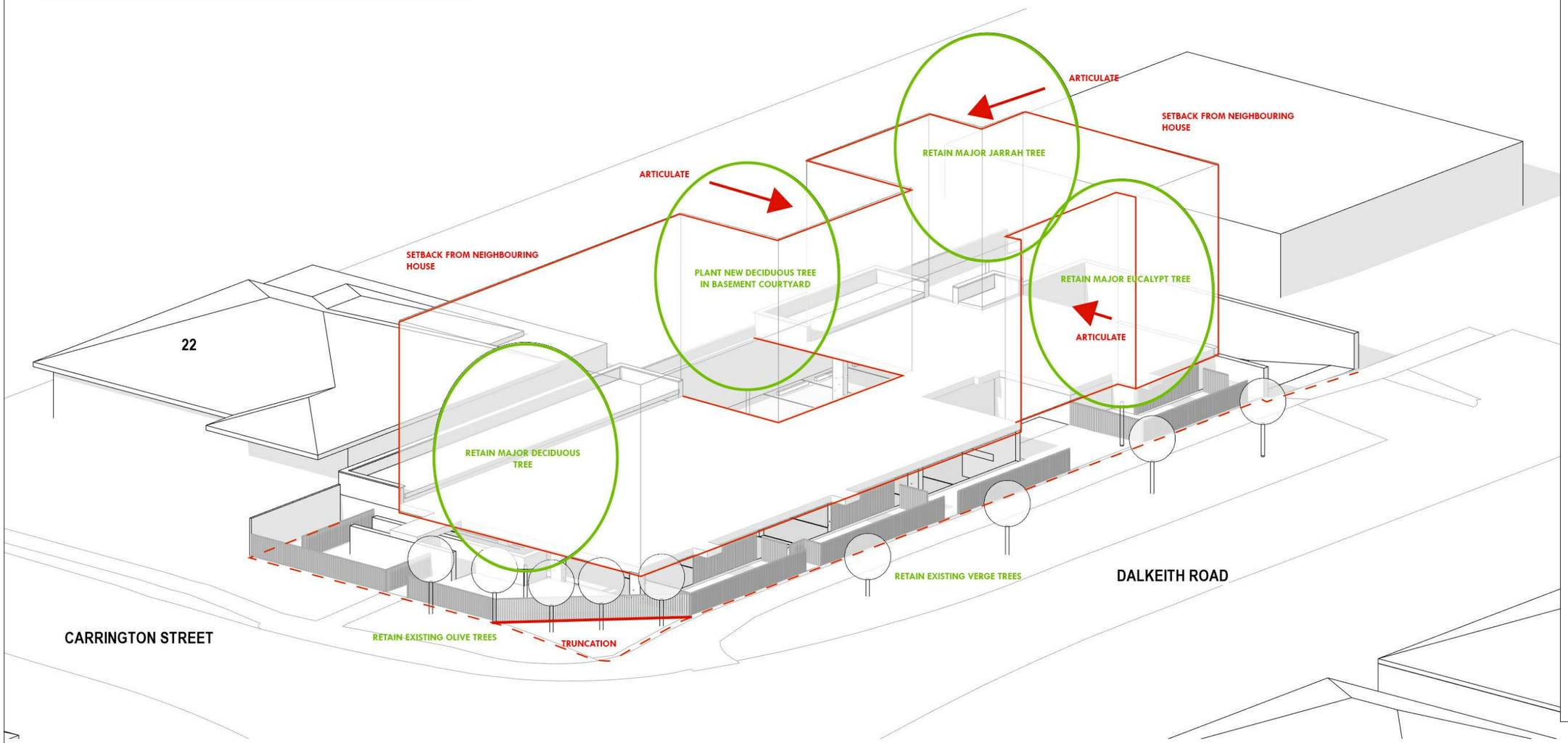
SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: MASSING 1

SCALE AT A3:	DATE: 28/02/2020 1:15:27 PM	DRAWN: JR	CHECKED: SA
PROJECT NO: -		DRAWING NO: SK05	REVISION:

CONTACT:

ARTICULATION & RETAINMENT OF EXISTING VEGETATION



CONCEPT MASSING

STATUS: AMENDED DEVELOPMENT APPLICATION

CLIENT: CHARLESWORTH

ARCHITECT / DESIGNED BY: SIMON ANDERSON

SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: MASSING 2

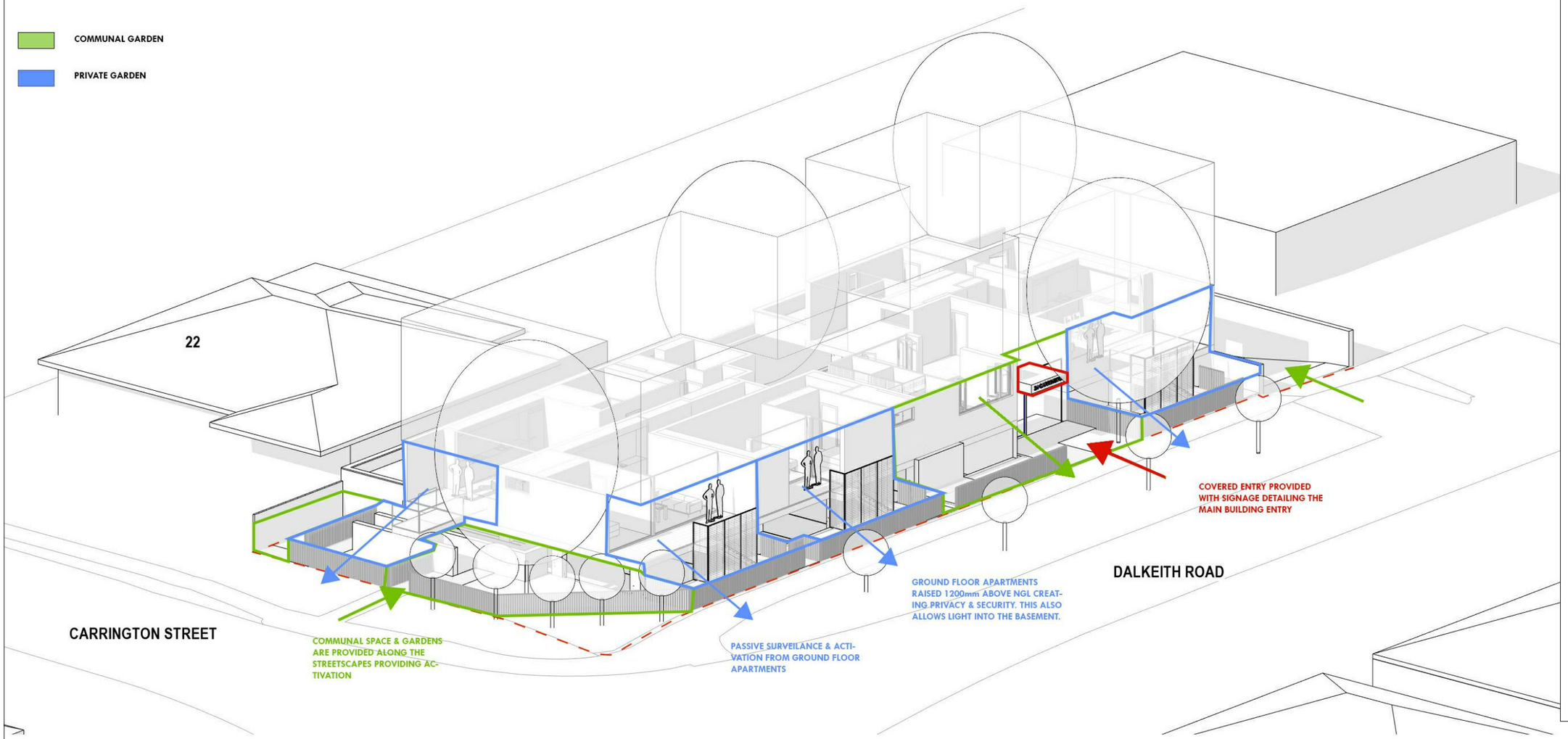
SCALE AT A3:	DATE: 28/02/2020 1:15:30 PM	DRAWN: JR	CHECKED: SA
PROJECT NO: -		DRAWING NO: SK06	REVISION:

CONTACT:

GROUND FLOOR (LEVEL 1) - ACTIVATION

COMMUNAL GARDEN

PRIVATE GARDEN



STATUS: AMENDED DEVELOPMENT APPLICATION

CLIENT: CHARLESWORTH

ARCHITECT / DESIGNED BY: SIMON ANDERSON

SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: MASSING 3

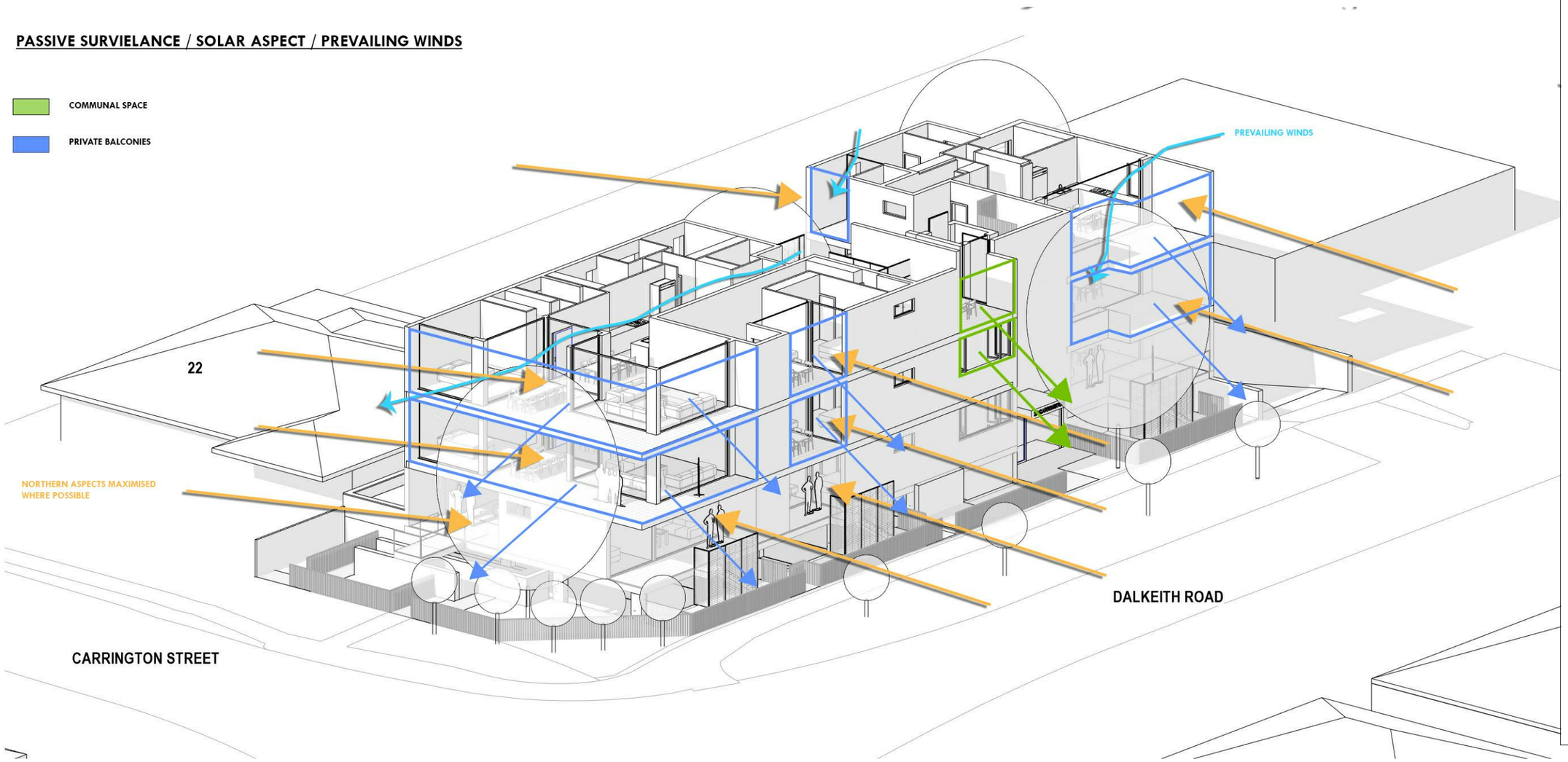
SCALE AT A3:	DATE: 28/02/2020 1:15:33 PM	DRAWN: JR	CHECKED: SA
PROJECT NO: -		DRAWING NO: SK07	REVISION:

CONTACT:

PASSIVE SURVIELANCE / SOLAR ASPECT / PREVAILING WINDS

COMMUNAL SPACE

PRIVATE BALCONIES



CONCEPT MASSING

STATUS: AMENDED DEVELOPMENT APPLICATION

CLIENT: CHARLESWORTH

ARCHITECT / DESIGNED BY: SIMON ANDERSON

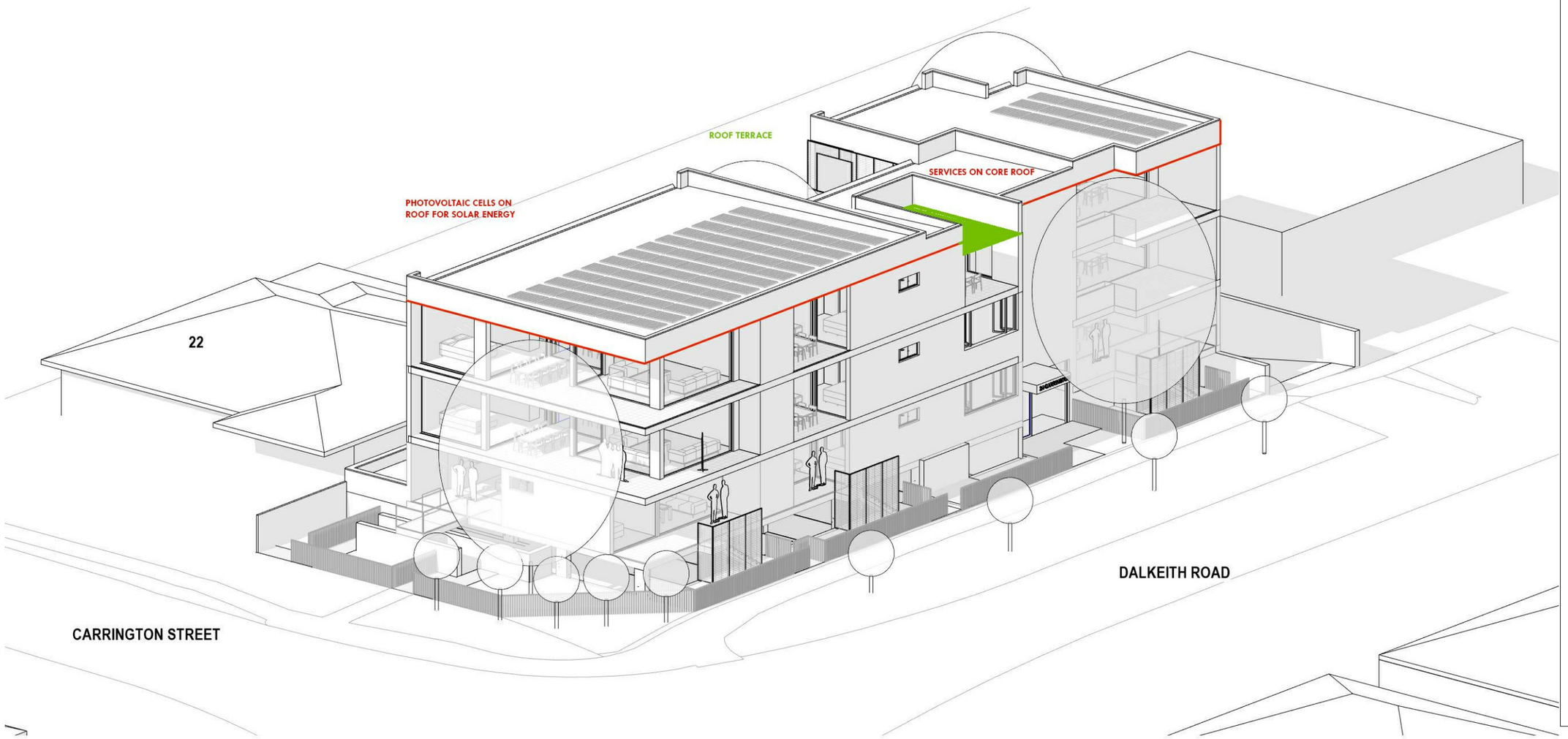
SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: MASSING 4

SCALE AT A3:	DATE: 28/02/2020 1:15:36 PM	DRAWN: JR	CHECKED: SA
PROJECT NO: -		DRAWING NO: SK08	REVISION:

CONTACT:

ROOF FORM & ENERGY GENERATION



CONCEPT MASSING

STATUS: AMENDED DEVELOPMENT APPLICATION

CLIENT: CHARLESWORTH

ARCHITECT / DESIGNED BY: SIMON ANDERSON

SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: MASSING 5

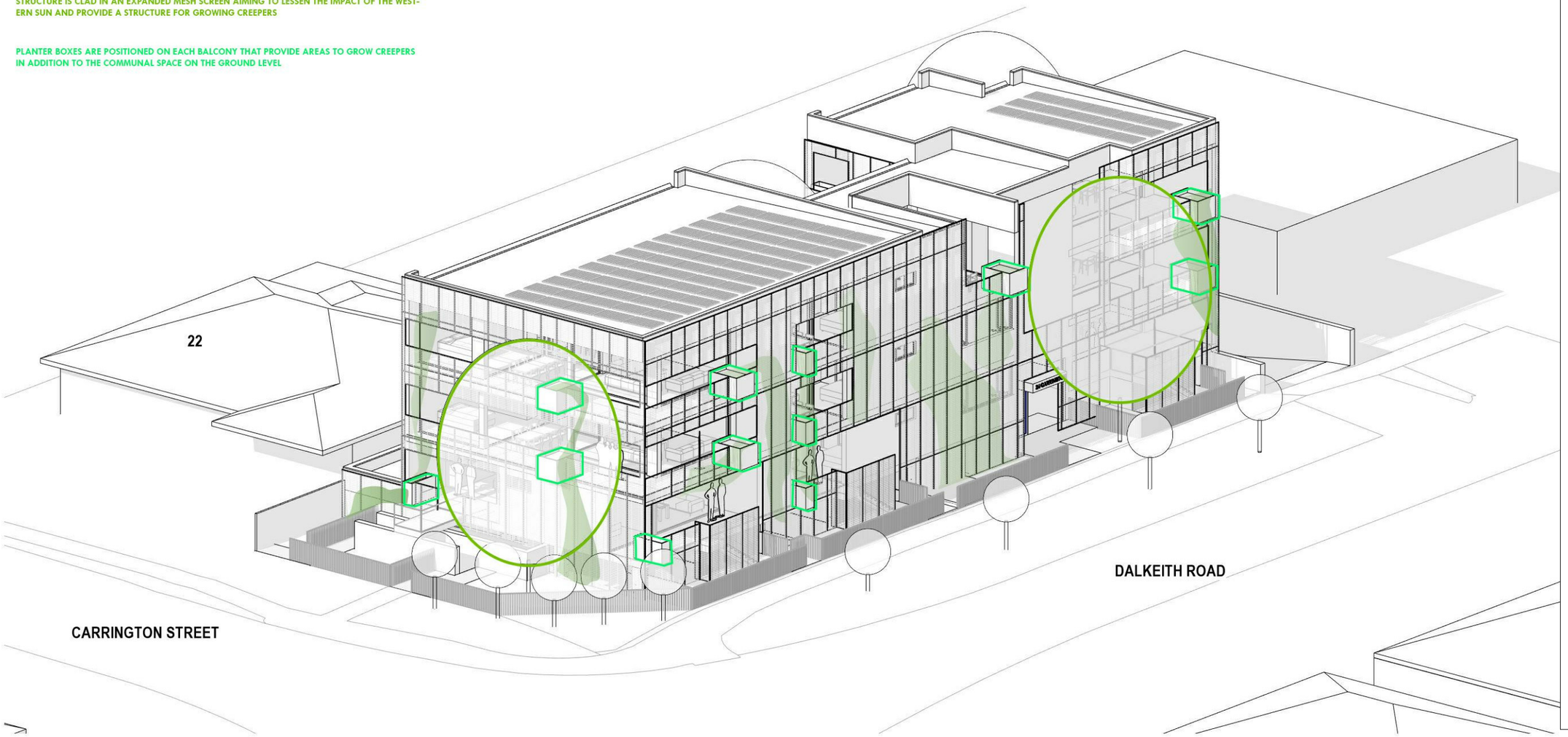
SCALE AT A3:	DATE: 28/02/2020 1:15:39 PM	DRAWN: JR	CHECKED: SA
PROJECT NO: -		DRAWING NO: SK09	REVISION:

CONTACT:

FACADE DESIGN

STRUCTURE IS CLAD IN AN EXPANDED MESH SCREEN AIMING TO LESSEN THE IMPACT OF THE WESTERN SUN AND PROVIDE A STRUCTURE FOR GROWING CREEPERS

PLANTER BOXES ARE POSITIONED ON EACH BALCONY THAT PROVIDE AREAS TO GROW CREEPERS IN ADDITION TO THE COMMUNAL SPACE ON THE GROUND LEVEL



CONCEPT MASSING

STATUS: AMENDED DEVELOPMENT APPLICATION

CLIENT: CHARLESWORTH

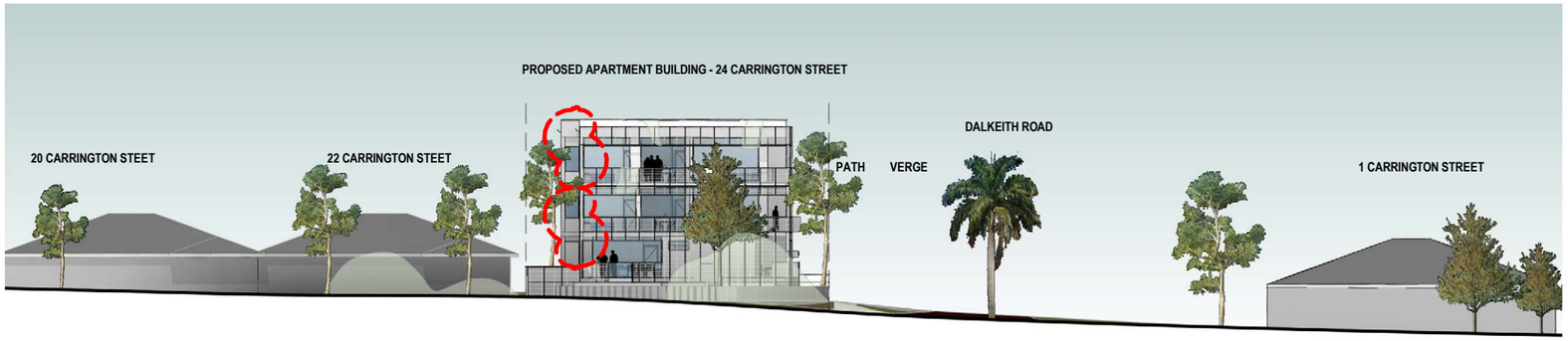
ARCHITECT / DESIGNED BY: SIMON ANDERSON

SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: MASSING 6

SCALE AT A3:	DATE: 28/02/2020 1:15:41 PM	DRAWN: JR	CHECKED: SA
PROJECT NO: -		DRAWING NO: SK10	REVISION:

CONTACT:



CARRINGTON STREET STREETSCAPE ELEVATION

SCALE @ A3:1 : 400

DALKEITH ROAD STREETSCAPE ELEVATION

SCALE @ A3:1:400

CONCEPT MASSING

STATUS: AMENDED DEVELOPMENT APPLICATION

CLIENT: CHARLESWORTH

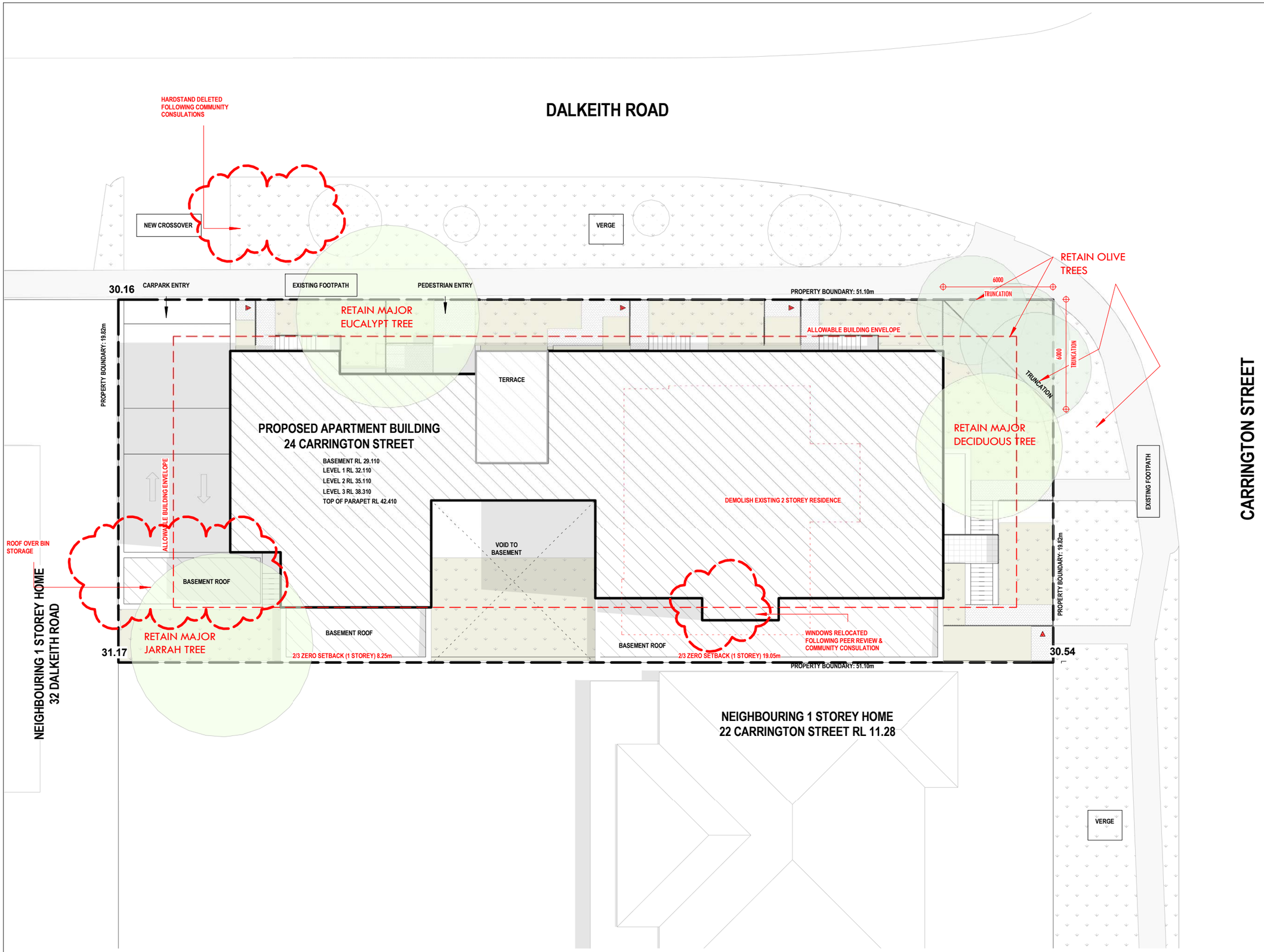
ARCHITECT / DESIGNED BY: SIMON ANDERSON

SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: STREETSCAPE ELEVATIONS

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1:400	28/02/2020 1:16:00 PM	JR	SA
PROJECT NO: -		DRAWING NO: SK11	REVISION:

CONTACT:



PLOT RATIO

ZONED: R60

PLOT RATIO ALLOWED: 0.8

SITE AREA: 1011.7m²

ALLOWED PLOT RATIO FLOOR AREA:

CURRENT PLOT RATIO AREA: 884m²

CURRENT PLOT RATIO: 0.873

COMMUNAL SPACE

REQUIREMENT: INFORMAL SEATING

MINIMUM OPEN SPACE DIMENSION: N/A

DEEP SOIL ZONE

REQUIREMENT: 7% OF SITE AREA WITH EXISTING TREE(S) RETAINED

PROPOSED: 3 MATURE TREES RETAINED & 3 MATURE OLIVE TREES AT TRUNCATION

TOTAL AREA: 246 m² SHOWN WITH GREEN HATCH

SITEPLAN

SCALE @ A3: 1 : 200

STATUS: AMENDED DEVELOPMENT APPLICATION

CLIENT: CHARLESWORTH

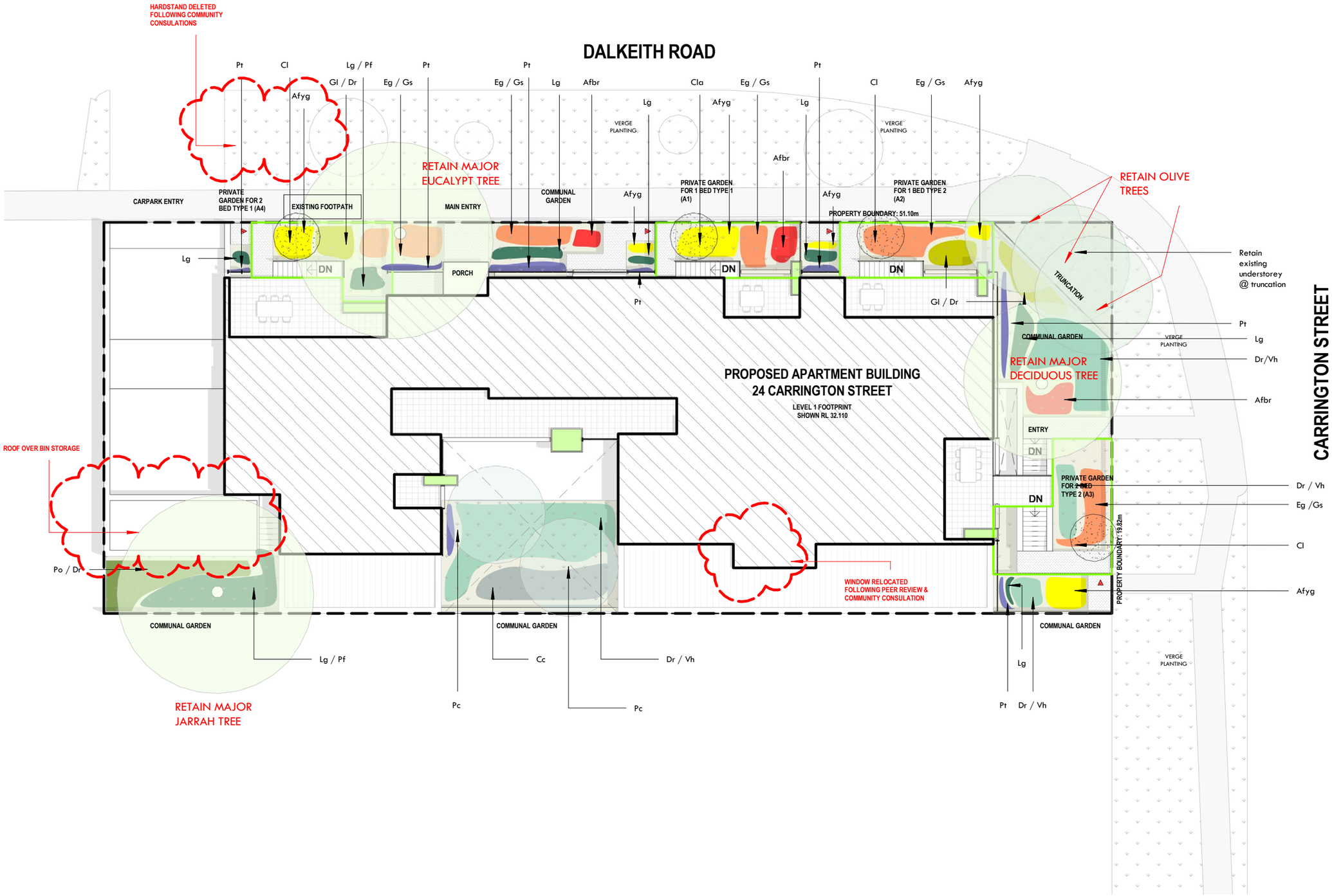
ARCHITECT / DESIGNED BY: SIMON ANDERSON

SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: SITEPLAN

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1 : 200	28/02/2020 1:16:29 PM	JR	SA
PROJECT NO: -		DRAWING NO: SK12	REVISION:

CONTACT:



CODE	BOTANIC NAME	COMMON NAME E = EXOTIC N = NATIVE
TREES		
Cl	Citrus Limoni	Lemon E
Cla	Citrus Latifolia	Lime E
Pc	Pyrus Calleryana	Oranmental Pear E
SHRUBS		
Afbr	Anigozanthos Red	Kangaroo Paw N
Afyg	Anigozanthos	Kangaroo Paw N
Eg	Eremphila Glabra	Tar Bush N
Gs	Grevillea Preissii	Spider Flower N
Lg	Lepidosperma gladiatum	Coastal Sedge N
Gl	Guichenotia Ledifolia	N
FERNS		
Cc	Cyathea Cooperi	Slender Tree Fern N
GROUND COVER		
Dr	Dichondra repens	Kidney Plant N
Po	Patersonia Occidentalis	Purple Flag Lily N
Vh	Viola Hederacea	Native Voilet N
CLIMBER		
Pt	Parthenocissus Tricuspidata	Boston Ivy E
BALCONY PLANTS		
not coded	Citrus Latifola	Lime
	Citrus Limoni	Lemon
	Feijoa Sellowiana	Feijoa
	Punica Granatum	Pomegranite
	Cymbopogon citratus	Lemon Grass
	Geranium	Geranium
	Lavanula Dentata	Lavender
	Mentha Species	Mint Species
	Rosmarinus officinalis	Rosemary

PULLYBLANK Pty Ltd
42 Solomon Street Fremantle 6160 Mob 0413 056 836
stuart.pullyblank@pullyblank.net | www.pullyblank.net

LANDSCAPE PLAN

SCALE @ A3: 1 : 200

STATUS: AMENDED DEVELOPMENT APPLICATION

CLIENT: CHARLESWORTH

ARCHITECT / DESIGNED BY: SIMON ANDERSON

SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: LANDSCAPE PLAN

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1 : 200	28/02/2020 1:16:36 PM	JR	SA
PROJECT NO: -		DRAWING NO: SK13	REVISION:

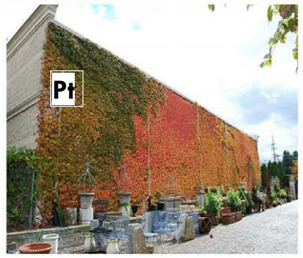
CONTACT:

TREES

SHRUBS (1m HEIGHT @ MATURITY)

GROUND COVER

CLIMBER



BALCONY PLANTS

FERNS

CODE	BOTANIC NAME	COMMON NAME E = EXOTIC N = NATIVE
TREES		
Cl	Citrus Limoni	Lemon E
Cla	Citrus Latifolia	Lime E
Pc	Pyrus Calleryana	Oranmental Pear E
SHRUBS		
Afbr	Anigozanthos Red	Kangaroo Paw N
Afyg	Anigozanthos	Kangaroo Paw N
Eg	Eremphila Glabra	Tar Bush N
Gs	Grevillea Preissii	Spider Flower N
Lg	Lepidosperma gladiatum	Coastal Sedge N
Gl	Guichenotia Ledifolia	N
FERNS		
Cc	Cyathea Cooperi	Slender Tree Fern N
GROUND COVER		
Dr	Dichondra repens	Kidney Plant N
Po	Patersonia Occidentalis	Purple Flag Lily N
Vh	Viola Hederacea	Native Voilet N
CLIMBER		
Pt	Parthenocissus Tricuspidata	Boston Ivy E
BALCONY PLANTS		
not coded	Citrus Latifola	Lime
	Citrus Limoni	Lemon
	Feijoa Sellowiana	Feijoa
	Punica Granatum	Pomegranite
	Cymbopogon citratus	Lemon Grass
	Geranium	Geranium
	Lavanula Dentata	Lavender
	Mentha Species	Mint Species
	Rosmarinus officinalis	Rosemary

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stuart.pullyblank@pullyblank.net | www.pullyblank.net

STATUS: AMENDED DEVELOPMENT APPLICATION

CLIENT: CHARLESWORTH

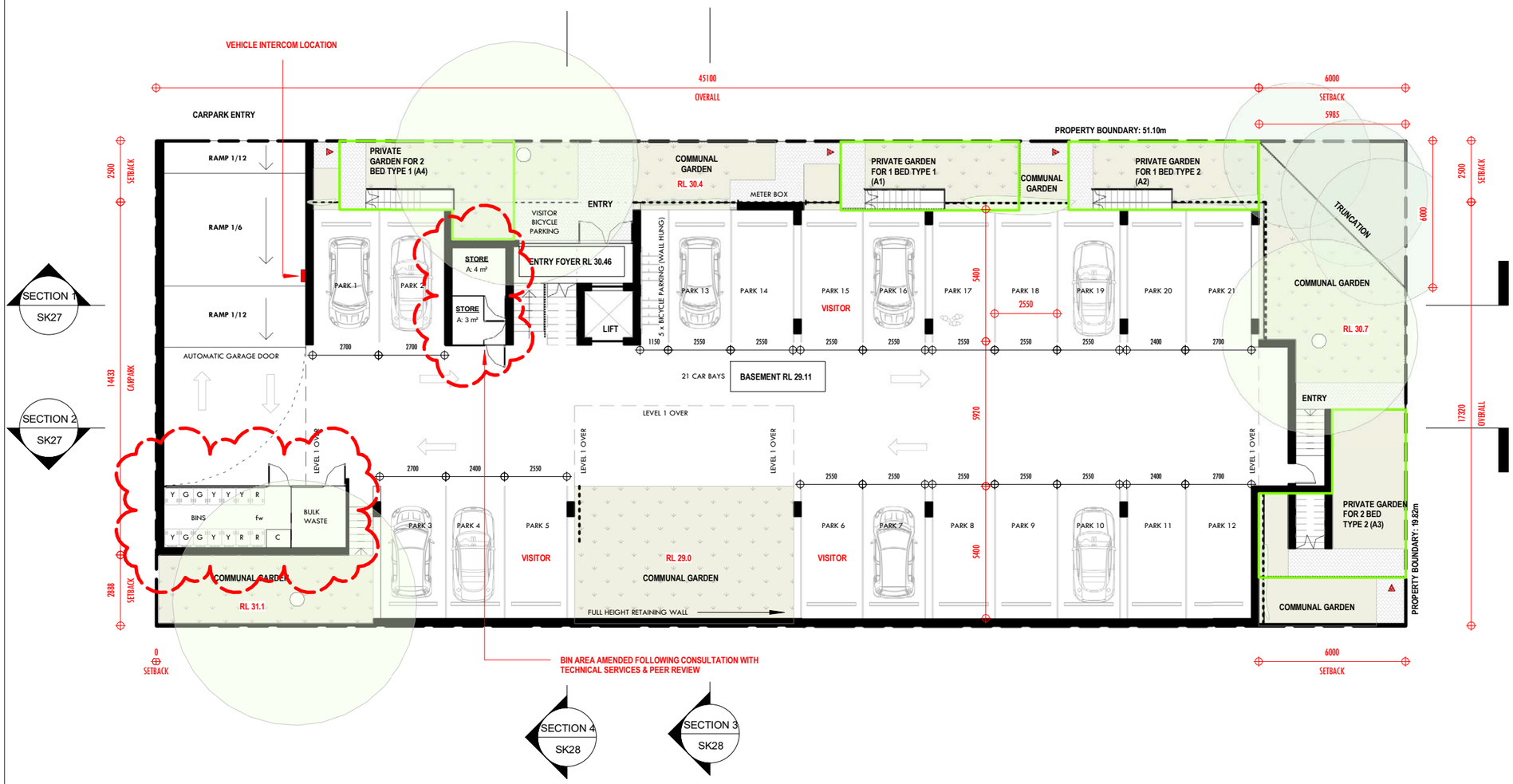
ARCHITECT / DESIGNED BY: SIMON ANDERSON

SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: LANDSCAPE SELECTIONS

SCALE AT A3:	DATE: 28/02/2020 1:16:43 PM	DRAWN: JR	CHECKED: SA
PROJECT NO: -		DRAWING NO: SK14	REVISION:

CONTACT:



BASEMENT PLAN

SCALE @ A3: 1 : 200

CAR & BICYCLE PARKING

CAR PARKING REQUIRED

1 BEDROOM: 1 BAY PER DWELLING

2+ BEDROOM: 1.25 BAYS PER DWELLING

CAR PARKING PROPOSED

1 BEDROOM: 1 BAY PER DWELLING

2 BEDROOM: 2 BAYS PER DWELLING

3 BEDROOM: 3 BAYS PER DWELLING

VISITOR: 3 BAYS

BICYCLE PARKING

RESIDENT: 0.5 SPACES PER DWELLING = 5 SPACES

VISITOR: 1 SPACE PER 10 DWELLINGS = 1 SPACE

EXPANDED MESH FACADE

STATUS: AMENDED DEVELOPMENT APPLICATION

CLIENT: CHARLESWORTH

ARCHITECT / DESIGNED BY: SIMON ANDERSON

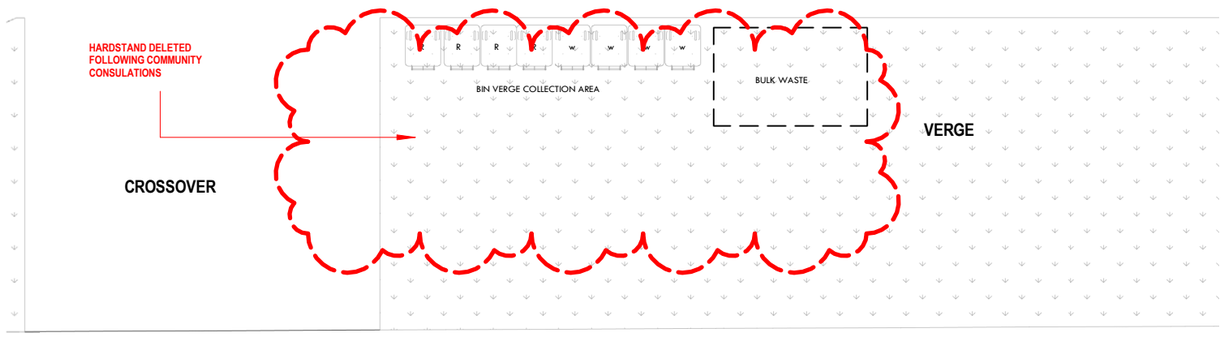
SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: BASEMENT PLAN

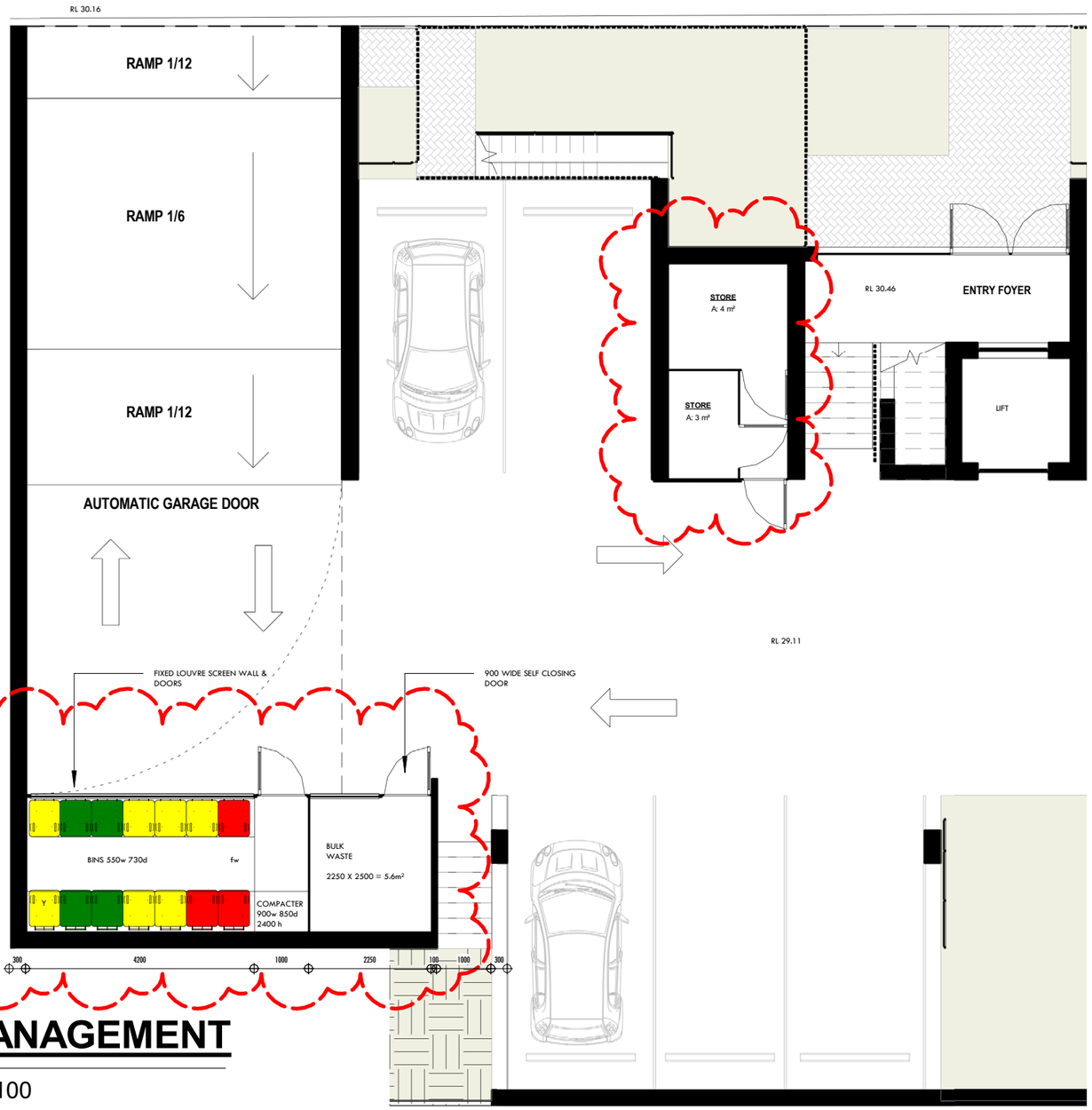
SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1 : 200	28/02/2020 1:16:48 PM	JR	SA
PROJECT NO: -		DRAWING NO: SK15	REVISION:

CONTACT:

DALKEITH ROAD



CARPARK ENTRY



WASTE MANAGEMENT

SCALE @ A3: 1 : 100

STATUS: AMENDED DEVELOPMENT APPLICATION

CLIENT: CHARLESWORTH

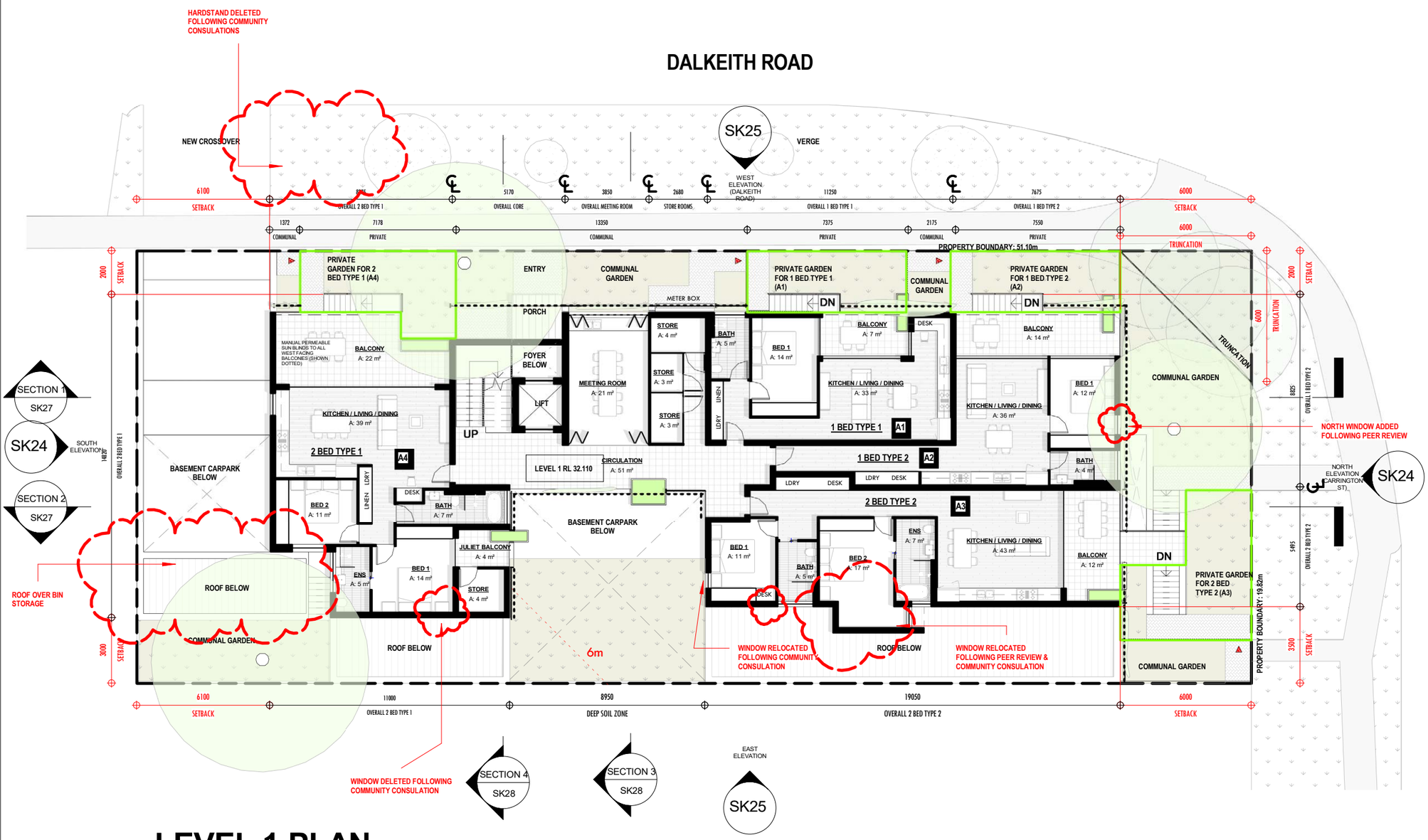
ARCHITECT / DESIGNED BY: SIMON ANDERSON

SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: WASTE MANAGEMENT

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1 : 100	28/02/2020 1:16:59 PM	JR	SA
PROJECT NO: -		DRAWING NO: SK16	REVISION:

CONTACT:



LEVEL 1 PLAN

SCALE @ A3: 1 : 200

APARTMENT AREA SCHEDULE

APARTMENT TYPE	PLOT RATIO AREA	BALCONY AREA	LEVEL
1 BED TYPE 1	60m2	8m2	LEVEL 1 PLAN
1 BED TYPE 2	61m2	15m2	LEVEL 1 PLAN
2 BED TYPE 1	87m2	22m2	LEVEL 1 PLAN
2 BED TYPE 2	90m2	13m2	LEVEL 1 PLAN
1 BED TYPE 1	60m2	8m2	LEVEL 2 PLAN
2 BED TYPE 1	87m2	22m2	LEVEL 2 PLAN
3 BED	146m2	40m2	LEVEL 2 PLAN
1 BED TYPE 1	60m2	8m2	LEVEL 3 PLAN
2 BED TYPE 1	87m2	22m2	LEVEL 3 PLAN
3 BED	146m2	40m2	LEVEL 3 PLAN

Grand total: 10

STATUS: AMENDED DEVELOPMENT APPLICATION

CLIENT: CHARLESWORTH

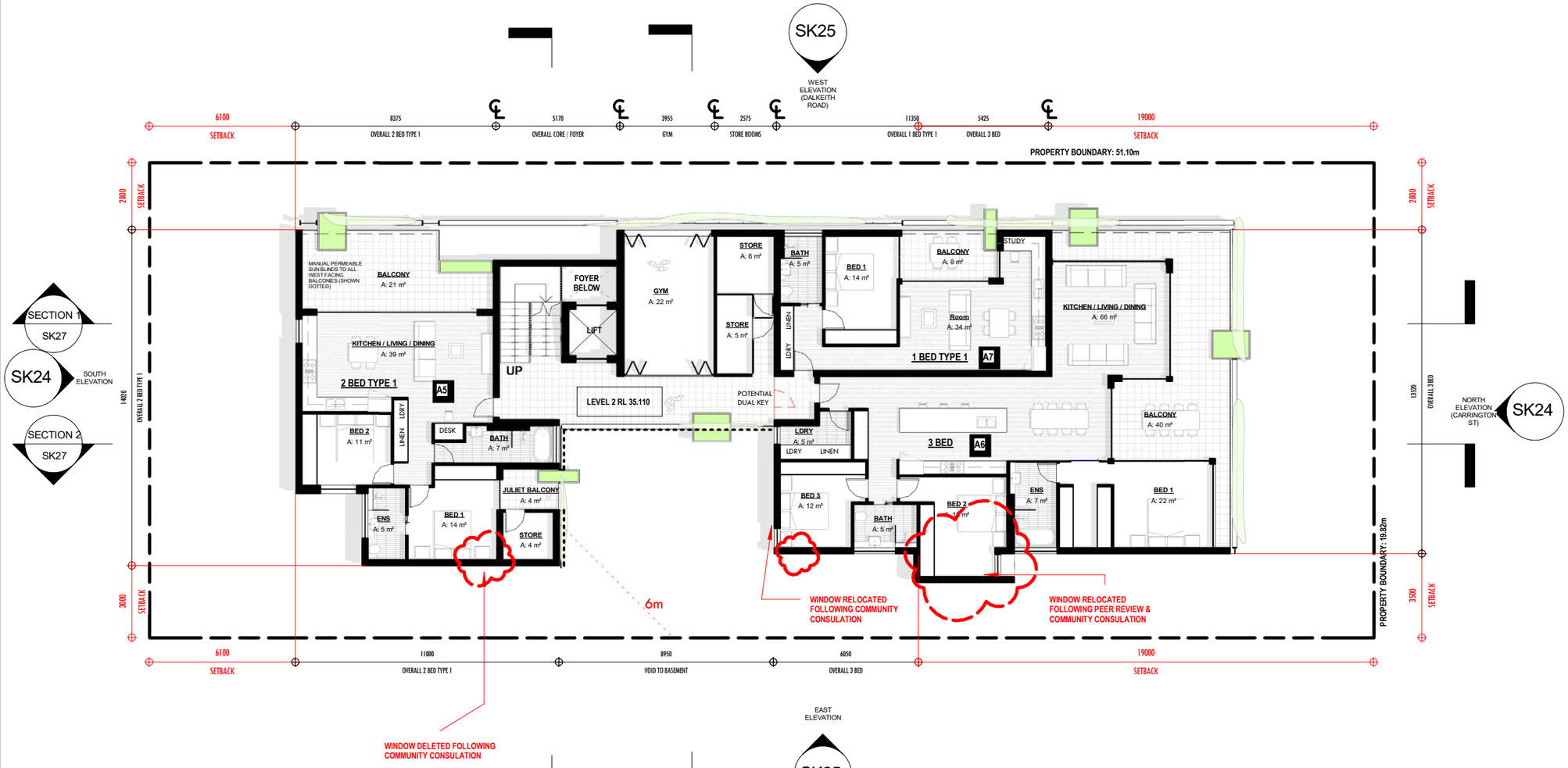
ARCHITECT / DESIGNED BY: SIMON ANDERSON

SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: LEVEL 1 PLAN

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1 : 200	28/02/2020 1:17:12 PM	JR	SA
PROJECT NO: -		DRAWING NO: SK17	REVISION:

CONTACT:



LEVEL 2 PLAN

SCALE @ A3: 1 : 200

APARTMENT AREA SCHEDULE

APARTMENT TYPE	PLOT RATIO AREA	BALCONY AREA	LEVEL
1 BED TYPE 1	60m2	8m2	LEVEL 1 PLAN
1 BED TYPE 2	61m2	15m2	LEVEL 1 PLAN
2 BED TYPE 1	87m2	22m2	LEVEL 1 PLAN
2 BED TYPE 2	90m2	13m2	LEVEL 1 PLAN
1 BED TYPE 1	60m2	8m2	LEVEL 2 PLAN
2 BED TYPE 1	87m2	22m2	LEVEL 2 PLAN
3 BED	146m2	40m2	LEVEL 2 PLAN
1 BED TYPE 1	60m2	8m2	LEVEL 3 PLAN
2 BED TYPE 1	87m2	22m2	LEVEL 3 PLAN
3 BED	146m2	40m2	LEVEL 3 PLAN

Grand total: 10

STATUS: AMENDED DEVELOPMENT APPLICATION

CLIENT: CHARLESWORTH

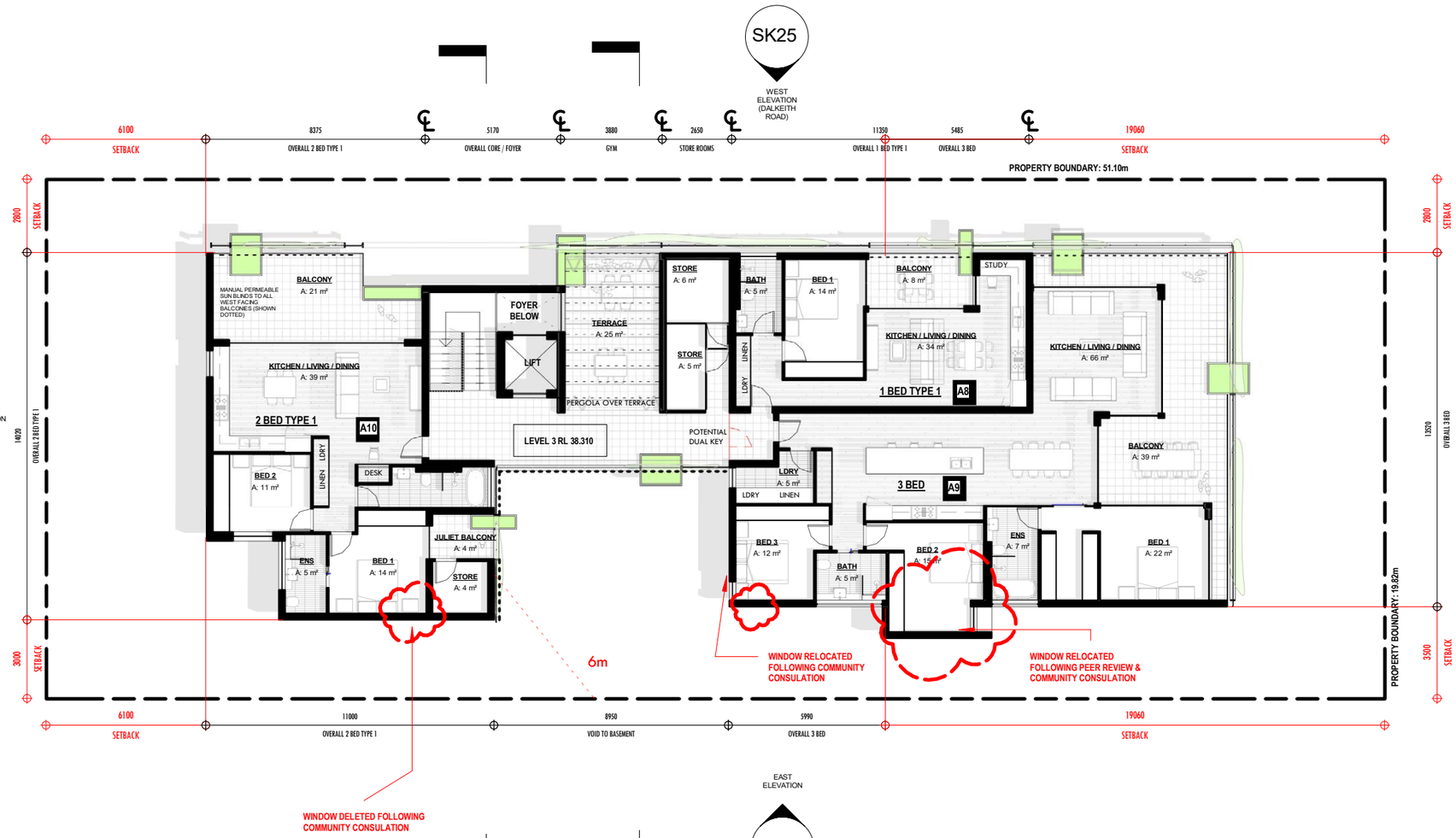
ARCHITECT / DESIGNED BY: SIMON ANDERSON

SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: LEVEL 2 PLAN

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1 : 200	28/02/2020 1:17:19 PM	JR	SA
PROJECT NO: -		DRAWING NO: SK18	REVISION:

CONTACT:



LEVEL 3 PLAN

SCALE @ A3: 1 : 200

APARTMENT AREA SCHEDULE

APARTMENT TYPE	PLOT RATIO AREA	BALCONY AREA	LEVEL
1 BED TYPE 1	60m2	8m2	LEVEL 1 PLAN
1 BED TYPE 2	61m2	15m2	LEVEL 1 PLAN
2 BED TYPE 1	87m2	22m2	LEVEL 1 PLAN
2 BED TYPE 2	90m2	13m2	LEVEL 1 PLAN
1 BED TYPE 1	60m2	8m2	LEVEL 2 PLAN
2 BED TYPE 1	87m2	22m2	LEVEL 2 PLAN
3 BED	146m2	40m2	LEVEL 2 PLAN
1 BED TYPE 1	60m2	8m2	LEVEL 3 PLAN
2 BED TYPE 1	87m2	22m2	LEVEL 3 PLAN
3 BED	146m2	40m2	LEVEL 3 PLAN

Grand total: 10

STATUS: AMENDED DEVELOPMENT APPLICATION

CLIENT: CHARLESWORTH

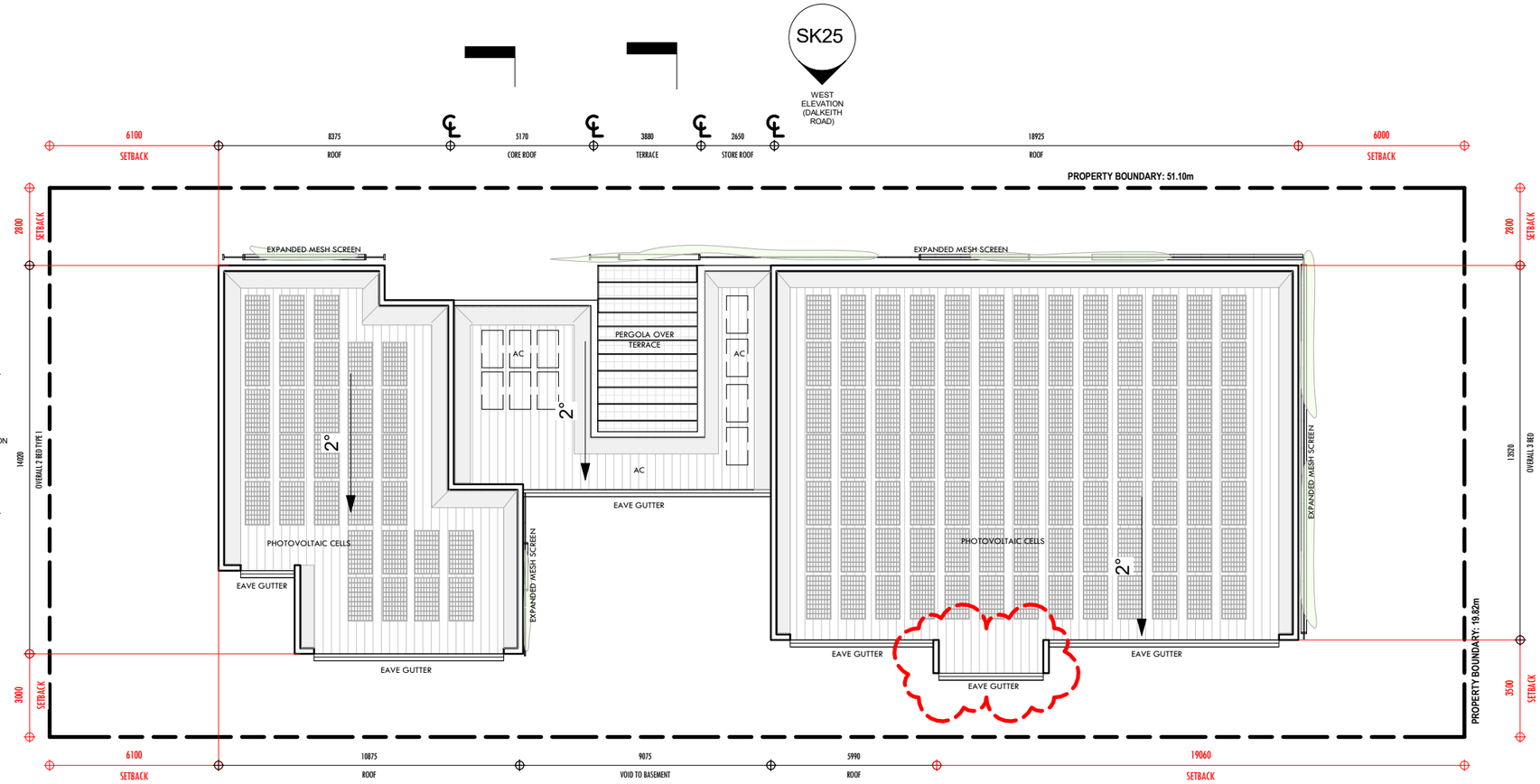
ARCHITECT / DESIGNED BY: SIMON ANDERSON

SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: LEVEL 3 PLAN

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1 : 200	28/02/2020 1:17:26 PM	JR	SA
PROJECT NO: -		DRAWING NO: SK19	REVISION:

CONTACT:



ROOF PLAN

SCALE @ A3: 1 : 200

STATUS: AMENDED DEVELOPMENT APPLICATION

CLIENT: CHARLESWORTH

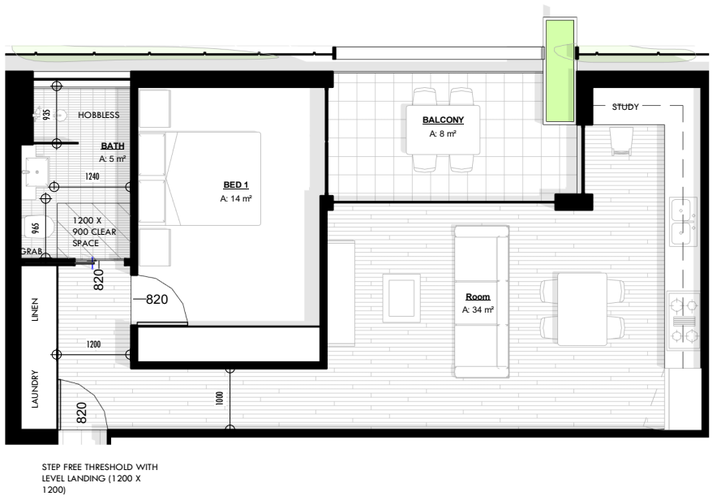
ARCHITECT / DESIGNED BY: SIMON ANDERSON

SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: ROOF PLAN

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1 : 200	28/02/2020 1:17:35 PM	JR	SA
PROJECT NO: -		DRAWING NO: SK20	REVISION:

CONTACT:



STEP FREE THRESHOLD WITH LEVEL LANDING (1200 X 1200)

1 BED TYPE 1

SCALE @ A3: 1 : 100

1 X

1 X

TOTAL INTERNAL (PLOT RATIO) AREA: 60m²

TOTAL BALCONY AREA: 8m²

TOTAL GARDEN AREA (LEVEL 1 ONLY): 26m²

*ALL 1 BED TYPE 1s ARE SILVER LEVEL IN THE LIVEABLE HOUSING AUSTRALIA GUIDELINES

1 BED TYPE 2

SCALE @ A3: 1 : 100

1 X

1 X

TOTAL INTERNAL (PLOT RATIO) AREA: 61m²

TOTAL BALCONY AREA: 14m²

TOTAL GARDEN AREA (LEVEL 1 ONLY): 22m²

N

STATUS: AMENDED DEVELOPMENT APPLICATION

CLIENT: CHARLESWORTH

ARCHITECT / DESIGNED BY: SIMON ANDERSON

SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: 1 BEDROOM PLANS

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1 : 100	28/02/2020 1:17:44 PM	JR	SA
PROJECT NO: -		DRAWING NO: SK21	REVISION:

CONTACT:

2 BED TYPE 1

SCALE @ A3: 1 : 100

2 X

2 X

TOTAL INTERNAL (PLOT RATIO) AREA: 87m²

TOTAL BALCONY AREA: 25m²

TOTAL GARDEN AREA (LEVEL 1 ONLY): 26m²

2 BED TYPE 2

SCALE @ A3: 1 : 100

2 X

2 X

TOTAL INTERNAL (PLOT RATIO) AREA: 90m²

TOTAL BALCONY AREA: 13m²

TOTAL GARDEN AREA (LEVEL 1 ONLY): 50m²

*ALL 2 BED TYPE 2s ARE SILVER LEVEL IN THE LIVEABLE HOUSING AUSTRALIA GUIDELINES

N

STATUS: AMENDED DEVELOPMENT APPLICATION

CLIENT: CHARLESWORTH

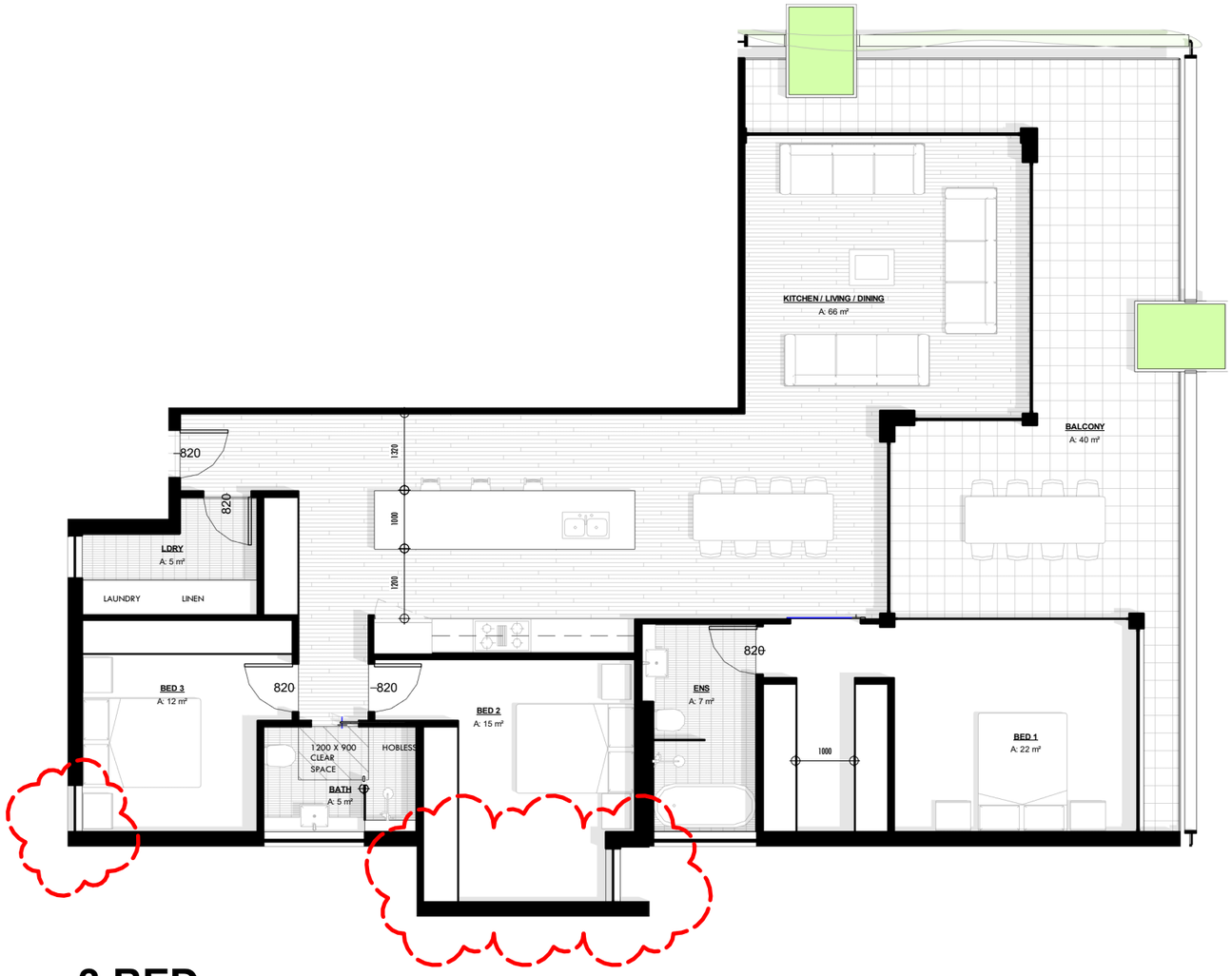
ARCHITECT / DESIGNED BY: SIMON ANDERSON

SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: 2 BEDROOM PLANS

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1 : 100	28/02/2020 1:17:50 PM	JR	SA
PROJECT NO: -		DRAWING NO: SK22	REVISION:

CONTACT:



3 BED

SCALE @ A3: 1 : 100

3 X

2 X

TOTAL INTERNAL (PLOT RATIO) AREA: 146m²

TOTAL BALCONY AREA: 40m²

*ALL 3 BEDS ARE SILVER LEVEL IN THE
LIVEABLE HOUSING AUSTRALIA GUIDELINES

N

STATUS: AMENDED DEVELOPMENT APPLICATION

CLIENT: CHARLESWORTH

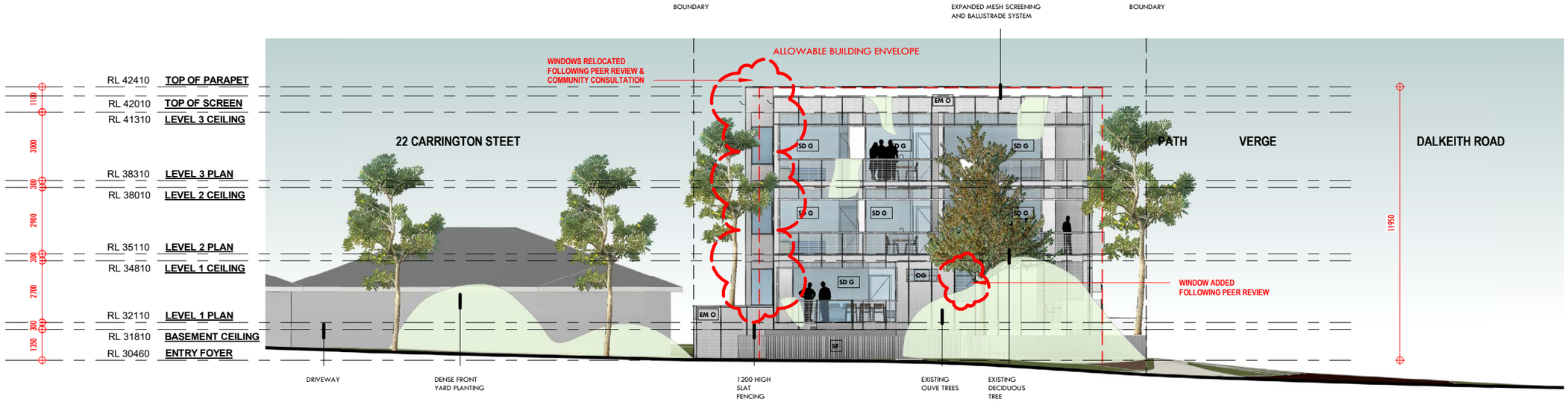
ARCHITECT / DESIGNED BY: SIMON ANDERSON

SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: 3 BEDROOM PLANS

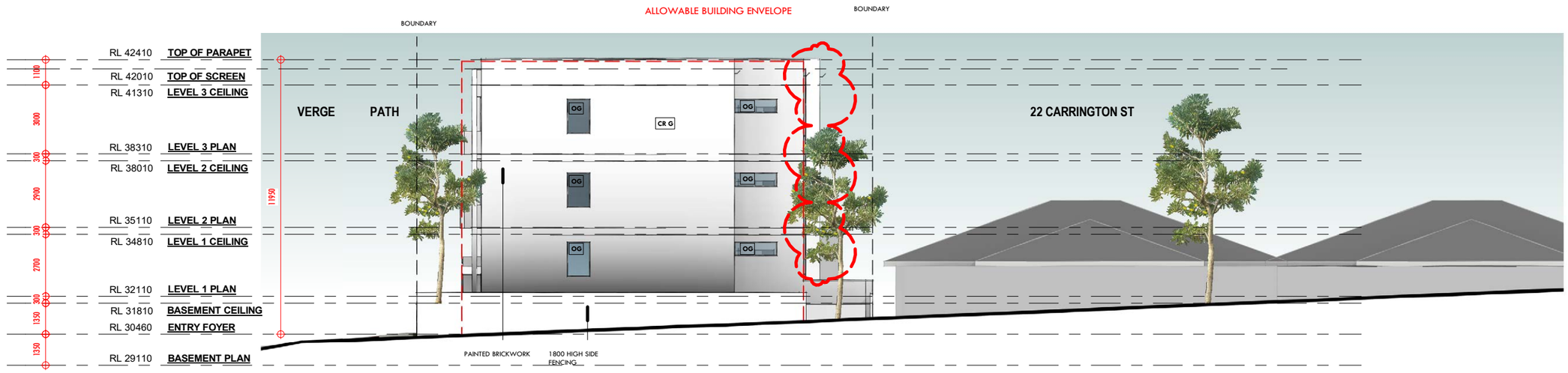
SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1 : 100	28/02/2020 1:17:56 PM	JR	SA
PROJECT NO: -		DRAWING NO: SK23	REVISION:

CONTACT:



NORTH ELEVATION (CARRINGTON ST)

SCALE @ A3: 1 : 200



SOUTH ELEVATION

SCALE @ A3: 1 : 200

CODE	MATERIAL	FINISH
CR G	Cement Render	Grey
EM O	Expanded Mesh Open	Galvanised Steel
EM C	Expanded Mesh Closed	Galvanised Steel
SD G	Slide Door Glazed	Anodised Aluminium
OG	Operable Glazing	Anodised Aluminium
SF	Slat Fencing	Galvanised Steel
PB	Planter Box	Galvanised Steel

STATUS: AMENDED DEVELOPMENT APPLICATION

CLIENT: CHARLESWORTH

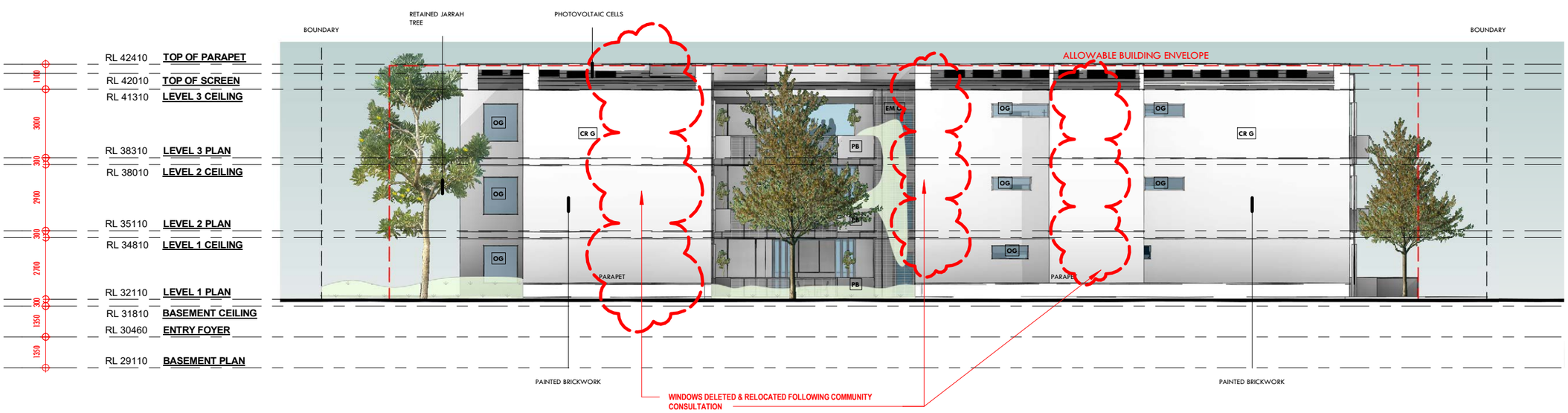
ARCHITECT / DESIGNED BY: SIMON ANDERSON

SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: NORTH & SOUTH ELEVATIONS

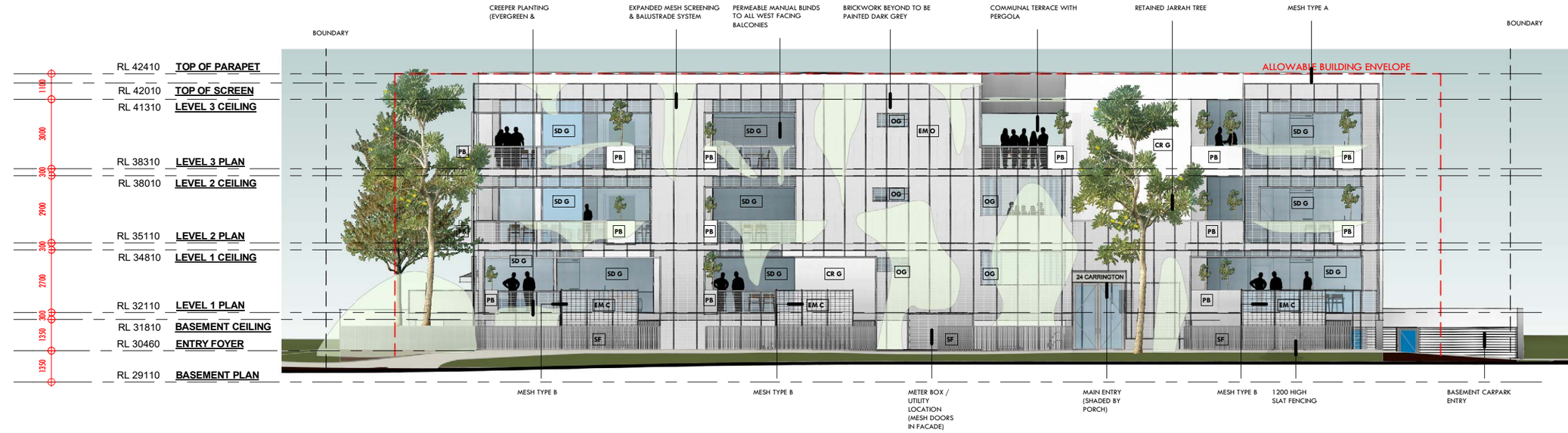
SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1 : 200	28/02/2020 1:18:14 PM	JR	SA
PROJECT NO: -		DRAWING NO: SK24	REVISION:

CONTACT:



EAST ELEVATION

SCALE @ A3: 1 : 200



WEST ELEVATION (DALKEITH ROAD)

SCALE @ A3: 1 : 200

BANA - KANDALMA HOTEL

EXPANDED MESH FACADE EXAMPLE — OASIA - SINGAPORE

CODE	MATERIAL	FINISH
CR G	Cement Render	Grey
EM O	Expanded Mesh Open	Galvanised Steel
EM C	Expanded Mesh Closed	Galvanised Steel
SD G	Slide Door Glazed	Anodised Aluminium
OG	Operable Glazing	Anodised Aluminium
SF	Slat Fencing	Galvanised Steel
PB	Planter Box	Galvanised Steel

STATUS: AMENDED DEVELOPMENT APPLICATION

CLIENT: CHARLESWORTH

ARCHITECT / DESIGNED BY: SIMON ANDERSON

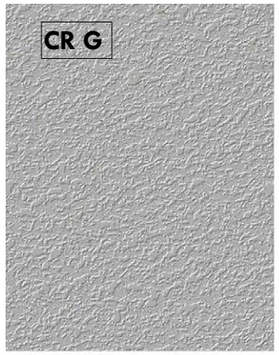
SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: EAST & WEST ELEVATIONS

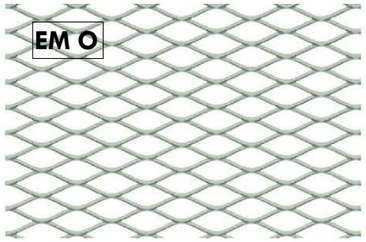
SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1 : 200	28/02/2020 1:18:38 PM	JR	SA
PROJECT NO: -		DRAWING NO: SK25	REVISION:

CONTACT:

WALLS



EXPANDED MESH FACADE



EM C

JOINERY (WINDOWS)

PLANTER BOXES & FENCING

PAVING

CODE	MATERIAL	FINISH
CR G	Cement Render	Grey
EM O	Expanded Mesh Open	Galvanised Steel
EM C	Expanded Mesh Closed	Galvanised Steel
SD G	Slide Door Glazed	Anodised Aluminium
OG	Operable Glazing	Anodised Aluminium
SF	Slat Fencing	Galvanised Steel
PB	Planter Box	Galvanised Steel

STATUS: AMENDED DEVELOPMENT APPLICATION

CLIENT:
CHARLESWORTH

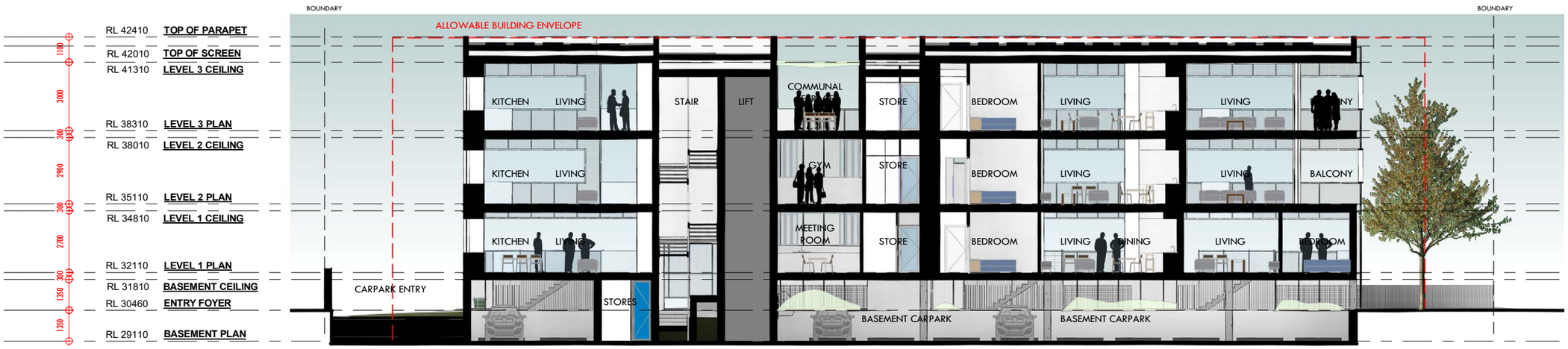
ARCHITECT / DESIGNED BY:
SIMON ANDERSON

SITE:
24 CARRINGTON STREET, NEDLANDS

TITLE:
MATERIALS

SCALE AT A3:	DATE: 28/02/2020 1:18:44 PM	DRAWN: JR	CHECKED: SA
PROJECT NO: -		DRAWING NO: SK26	REVISION:

CONTACT:



SECTION 1 SK15

SCALE @ A3: 1 : 200

SECTION 2 SK15

SCALE @ A3: 1 : 200

STATUS: AMENDED DEVELOPMENT APPLICATION

CLIENT: CHARLESWORTH

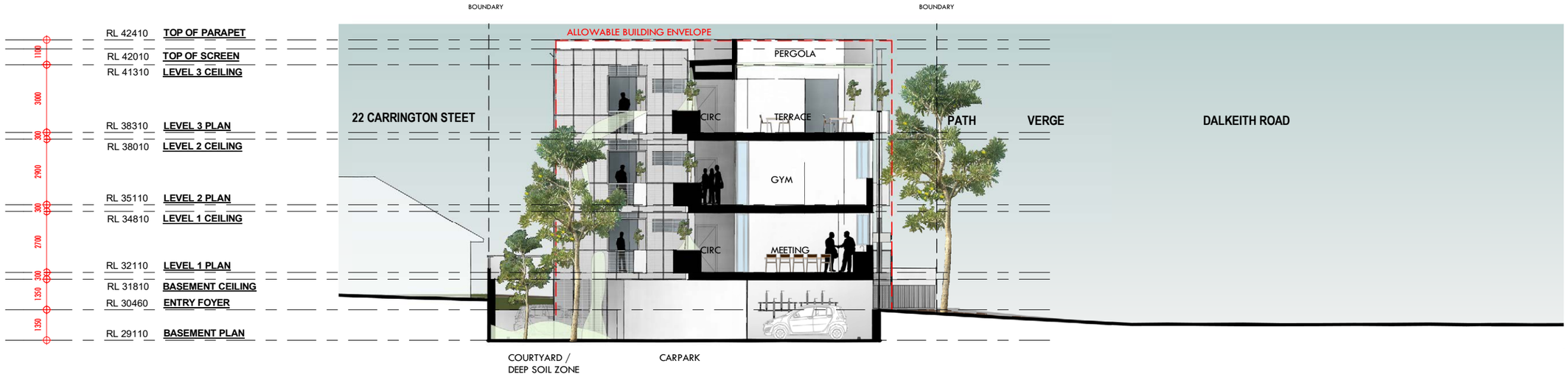
ARCHITECT / DESIGNED BY: SIMON ANDERSON

SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: SECTIONS

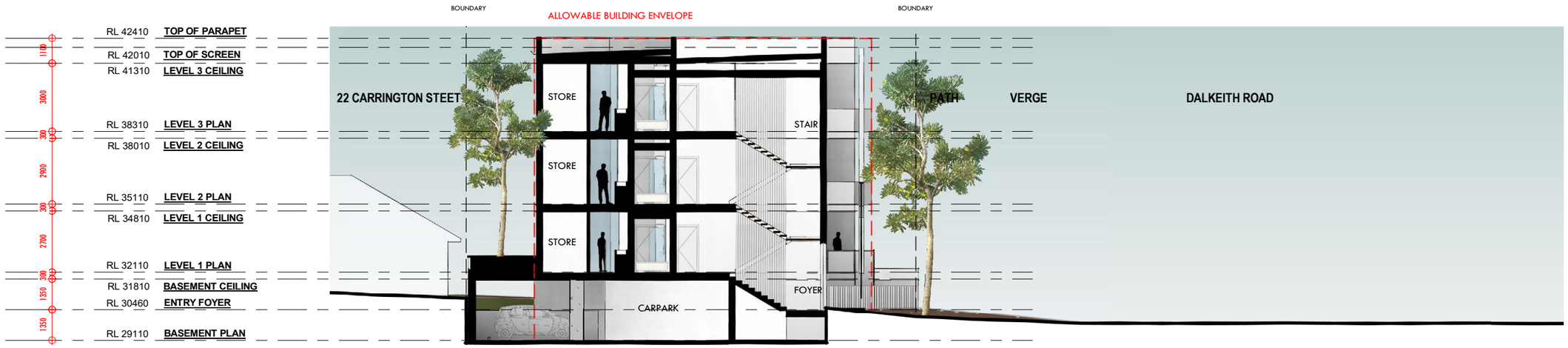
SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1 : 200	28/02/2020 1:18:54 PM	JR	SA
PROJECT NO: -		DRAWING NO: SK27	REVISION:

CONTACT:



SECTION 3 SK15

SCALE @ A3: 1 : 200



SECTION 4 SK15

SCALE @ A3: 1 : 200

STATUS: AMENDED DEVELOPMENT APPLICATION

CLIENT: CHARLESWORTH

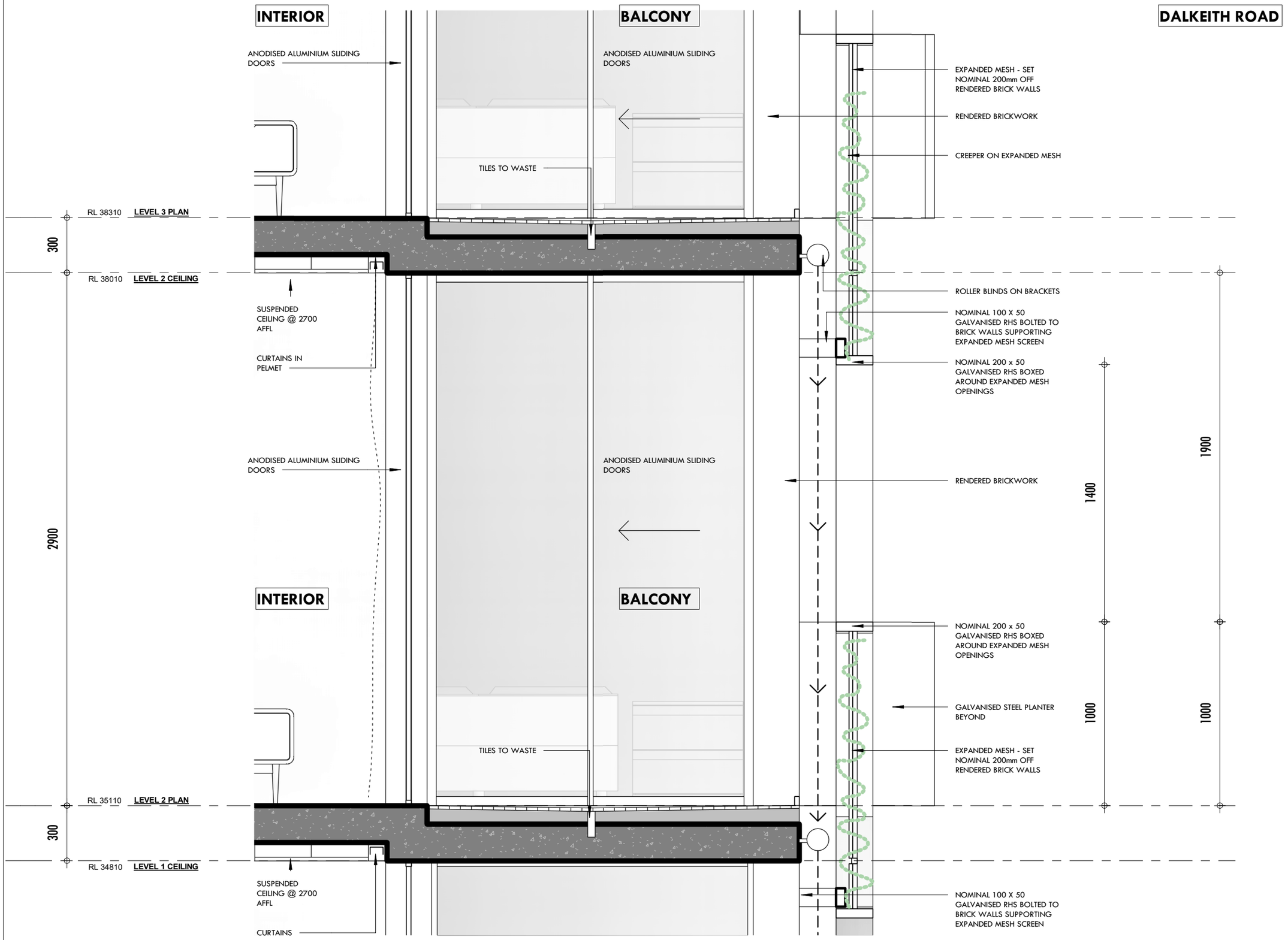
ARCHITECT / DESIGNED BY: SIMON ANDERSON

SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: SECTIONS 2

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1 : 200	28/02/2020 1:19:05 PM	JR	SA
PROJECT NO: -		DRAWING NO: SK28	REVISION:

CONTACT:



FACADE DETAIL SECTION

SCALE @ A3: 1 : 20

STATUS: AMENDED DEVELOPMENT APPLICATION

CLIENT: CHARLESWORTH

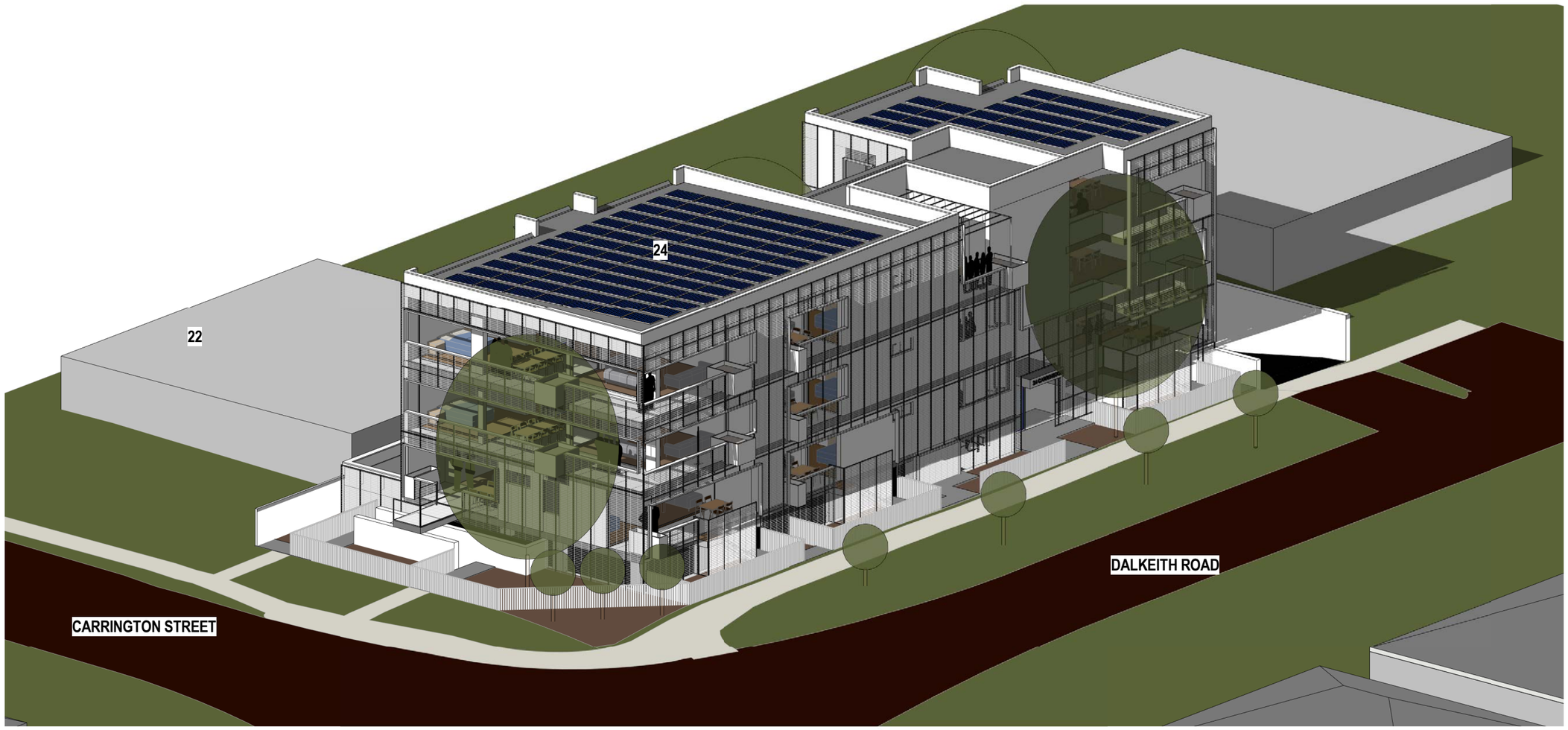
ARCHITECT / DESIGNED BY: SIMON ANDERSON

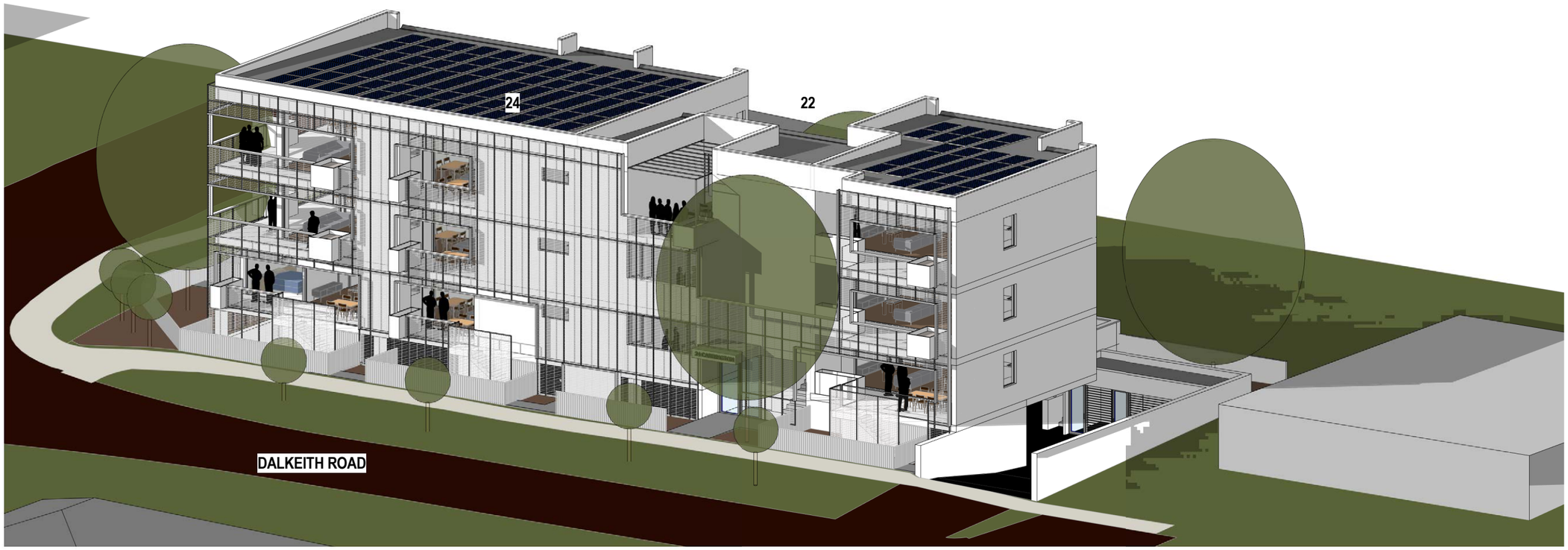
SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: FACADE DETAIL SECTION

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1 : 20	28/02/2020 1:19:10 PM	JR	SA
PROJECT NO: -		DRAWING NO: SK29	REVISION:

CONTACT:





STATUS: AMENDED DEVELOPMENT APPLICATION

CLIENT:
CHARLESWORTH

ARCHITECT / DESIGNED BY:
SIMON ANDERSON

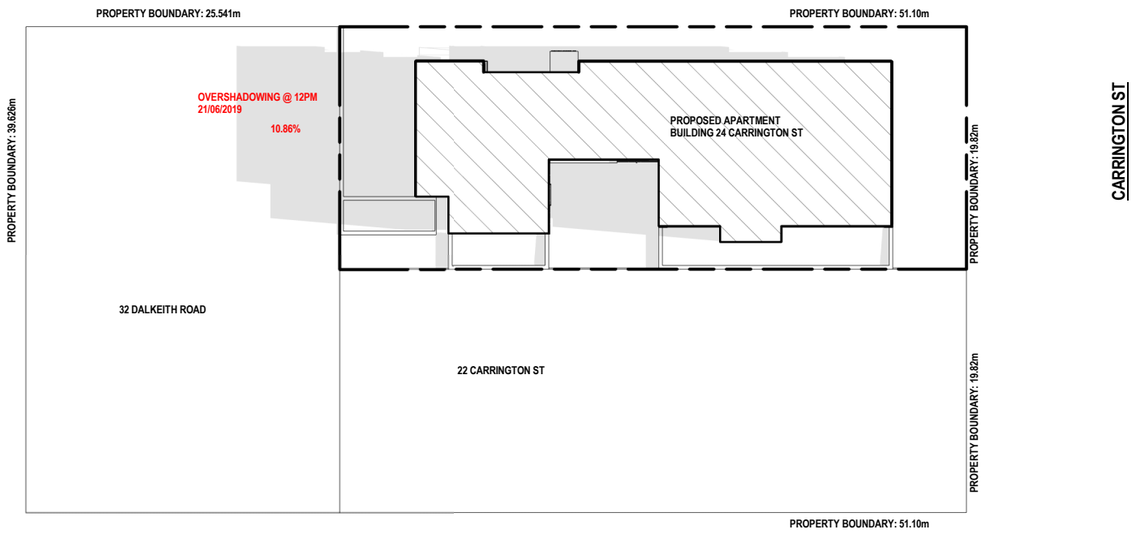
SITE:
24 CARRINGTON STREET, NEDLANDS

TITLE:
MASSING

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
	28/02/2020 1:19:38 PM	JR	SA
PROJECT NO: -		DRAWING NO: SK30	REVISION:

CONTACT:

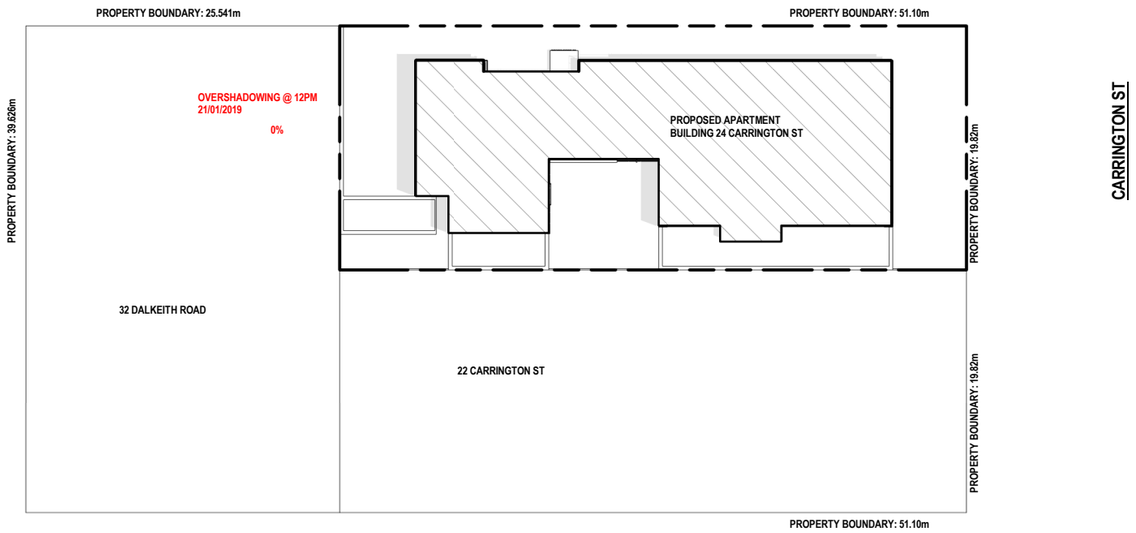
DALKEITH ROAD



OVERSHADOWING (WINTER) SK24

SCALE @ A3: 1 : 500

DALKEITH ROAD



OVERSHADOWING (SUMMER) SK24

SCALE @ A3: 1 : 500

STATUS: AMENDED DEVELOPMENT APPLICATION

CLIENT: CHARLESWORTH

ARCHITECT / DESIGNED BY: SIMON ANDERSON

SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: OVERSHADOWING

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1 : 500	28/02/2020 1:19:48 PM	JR	SA
PROJECT NO: -		DRAWING NO: SK31	REVISION:

CONTACT:

	APARTMENT NUMBER		9AM	10AM	11AM	12PM	1PM	2PM	3PM	COMPLIANCE	DUAL ASPECT CROSS VENTILATION
LEVEL 1	A1	1 BED TYPE 1	🔵	🔵	🔵	🟠	🟠	🟢	🟢	Y	Y
	A2	1 BED TYPE 2	🟠	🟠	🟢	🟢	🟢	🟠	🔵	Y	Y
	A3	2 BED TYPE 2	🔵	🔵	🔵	🟠	🟠	🟢	🟢	Y	Y
	A4	2 BED TYPE 1	🔵	🟠	🟢	🟢	🟢	🟠	🔵	Y	Y
LEVEL 2	A5	1 BED TYPE 1	🔵	🔵	🔵	🟠	🟠	🟢	🟢	Y	Y
	A6	3 BED	🟠	🟢	🟢	🟢	🟢	🟢	🟢	Y	Y
	A7	2 BED TYPE 1	🔵	🟠	🟢	🟢	🟢	🟢	🟢	Y	Y
LEVEL 3	A8	1 BED TYPE 1	🔵	🔵	🔵	🟠	🟠	🟢	🟢	Y	Y
	A9	3 BED	🟠	🟢	🟢	🟢	🟢	🟢	🟢	Y	Y
	A10	2 BED TYPE 1	🔵	🟠	🟢	🟢	🟢	🟢	🟢	Y	Y

🟢 2HRS OR MORE DIRECT SUNLIGHT TO LIVING ROOM AND/OR PRIVATE OPEN SPACE

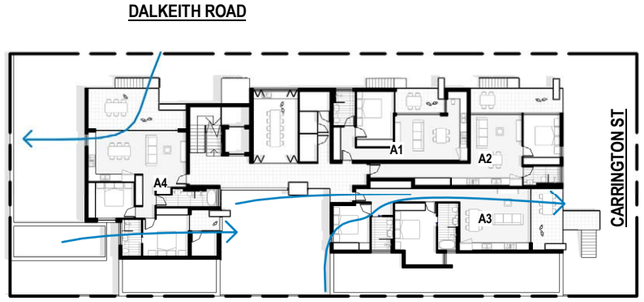
🟠 SOME DIRECT SUNLIGHT TO LIVING ROOM AND/OR PRIVATE AND PRIVATE OPEN SPACE

🔵 NO DIRECT SUNLIGHT TO LIVING ROOM AND/OR AND PRIVATE OPEN SPACE

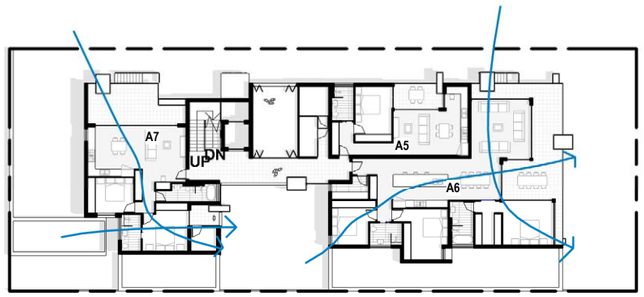
COMPLIANCE: Y / YES ; N / NO

REQUIREMENT: DWELLINGS WITH NORTHERN ASPECT ARE MAXMISIED. A MINIMUM OF 70 PER CENT OF DWELLINGS REQUIRE LIVING ROOMS AND PRIVATE OPEN SPACE THAT OBTAIN AT LEAST 2 HOURS OF DIRECT SUNLIGHT BETWEEN 9AM AND 3PM ON 21 JUNE.

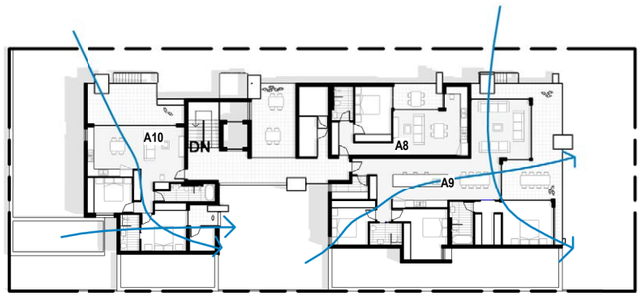
DALKEITH ROAD



CROSS VENTILATION: LEVEL 1



CROSS VENTILATION: LEVEL 2



CROSS VENTILATION: LEVEL 3

N

STATUS: AMENDED DEVELOPMENT APPLICATION

CLIENT: CHARLESWORTH

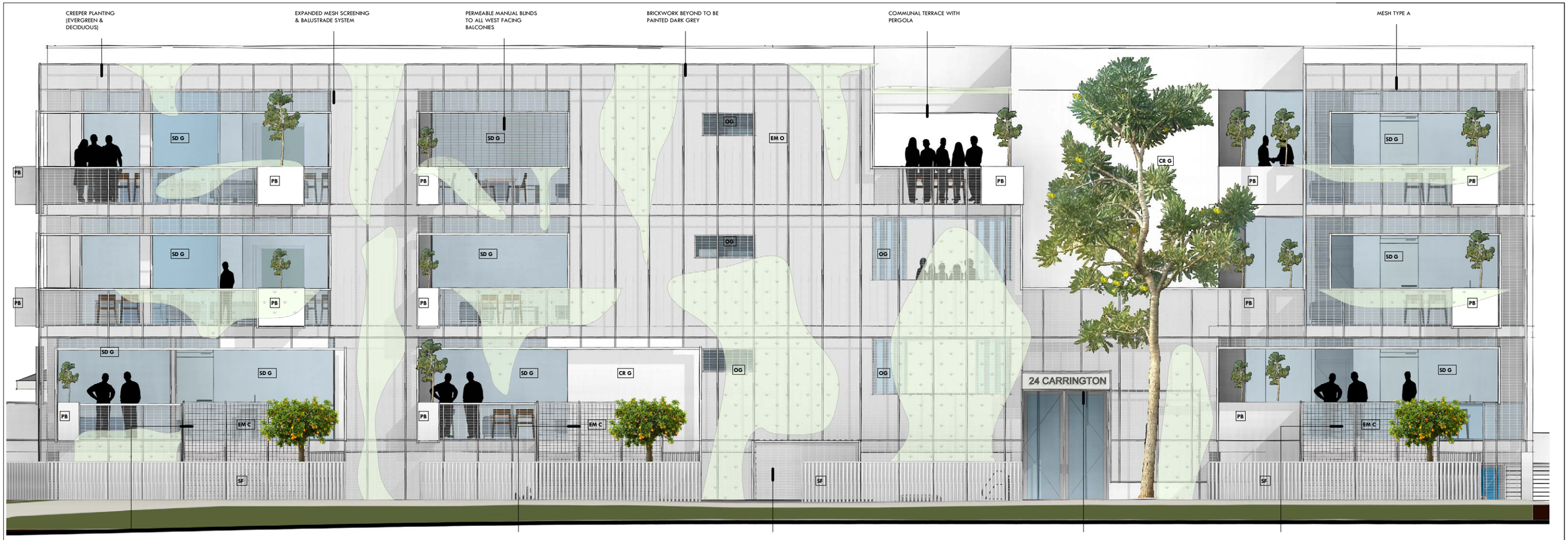
ARCHITECT / DESIGNED BY: SIMON ANDERSON

SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: PERFORMANCE SUMMARY

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
As indicated	28/02/2020 1:19:54 PM	JR	SA
PROJECT NO: -		DRAWING NO: SK32	REVISION:

CONTACT:



WEST FACADE ELEVATION (DALKEITH ROAD)

SCALE @ A3: 1 : 100

CODE	MATERIAL	FINISH
CR G	Cement Render	Grey
EM O	Expanded Mesh Open	Galvanised Steel
EM C	Expanded Mesh Closed	Galvanised Steel
SD G	Slide Door Glazed	Anodised Aluminium
OG	Operable Glazing	Anodised Aluminium
SF	Slat Fencing	Galvanised Steel
PB	Planter Box	Galvanised Steel

STATUS: AMENDED DEVELOPMENT APPLICATION

CLIENT: CHARLESWORTH

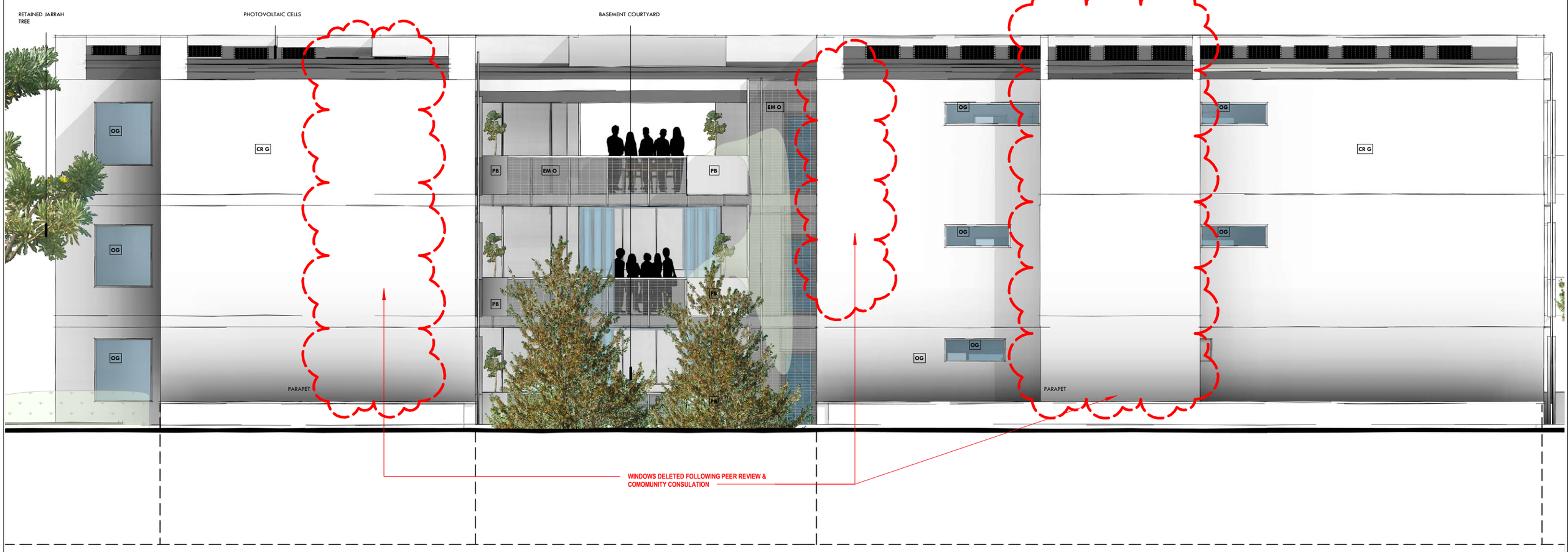
ARCHITECT / DESIGNED BY: SIMON ANDERSON

SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: WEST FACADE ELEVATION

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1 : 100	28/02/2020 1:20:15 PM	JR	SA
PROJECT NO: -		DRAWING NO: SK33	REVISION:

CONTACT:



EAST FACADE ELEVATION

SCALE @ A3: 1 : 100

CODE	MATERIAL	FINISH
CR G	Cement Render	Grey
EM O	Expanded Mesh Open	Galvanised Steel
EM C	Expanded Mesh Closed	Galvanised Steel
SD G	Slide Door Glazed	Anodised Aluminium
OG	Operable Glazing	Anodised Aluminium
SF	Slat Fencing	Galvanised Steel
PB	Planter Box	Galvanised Steel

STATUS: AMENDED DEVELOPMENT APPLICATION

CLIENT: CHARLESWORTH

ARCHITECT / DESIGNED BY: SIMON ANDERSON

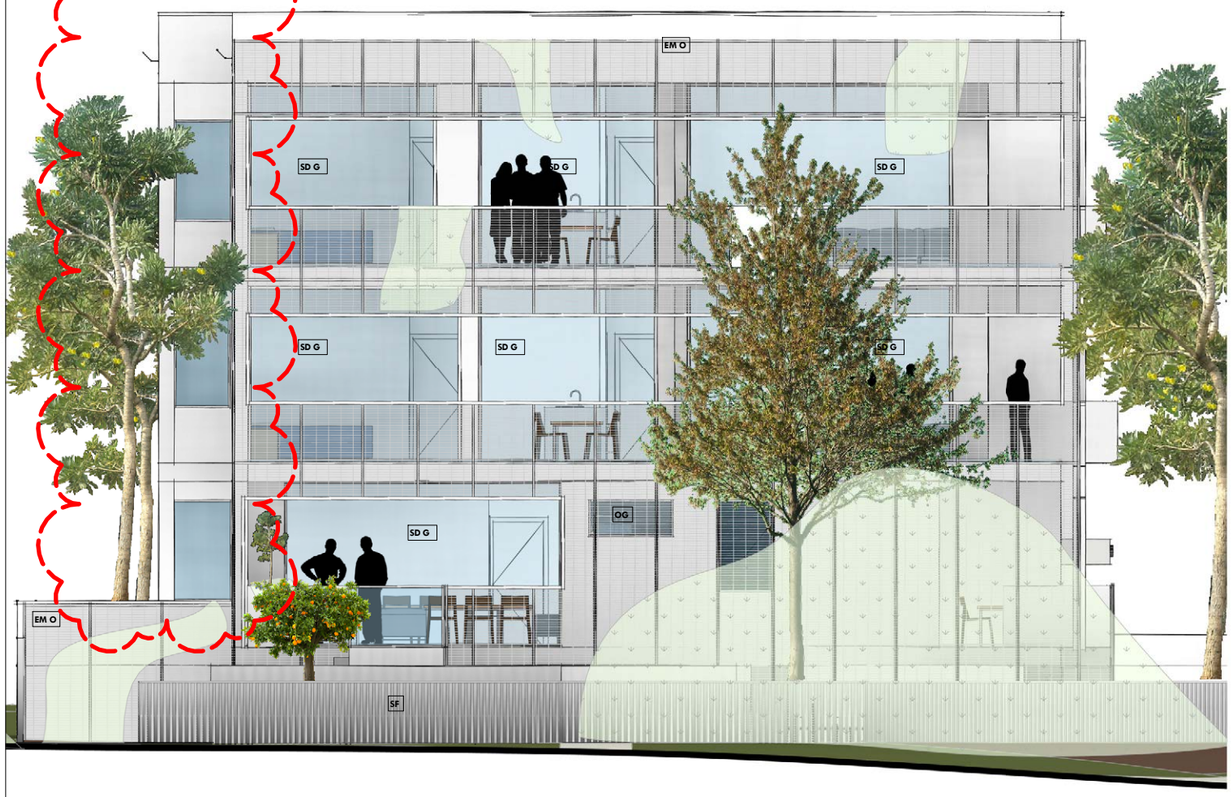
SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: EAST FACADE ELEVATION

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1 : 100	28/02/2020 1:20:44 PM	JR	SA
PROJECT NO: -		DRAWING NO: SK34	REVISION:

CONTACT:

WINDOWS RELOCATED FOLLOWING PEER REVIEW & COMMUNITY CONSULTATION

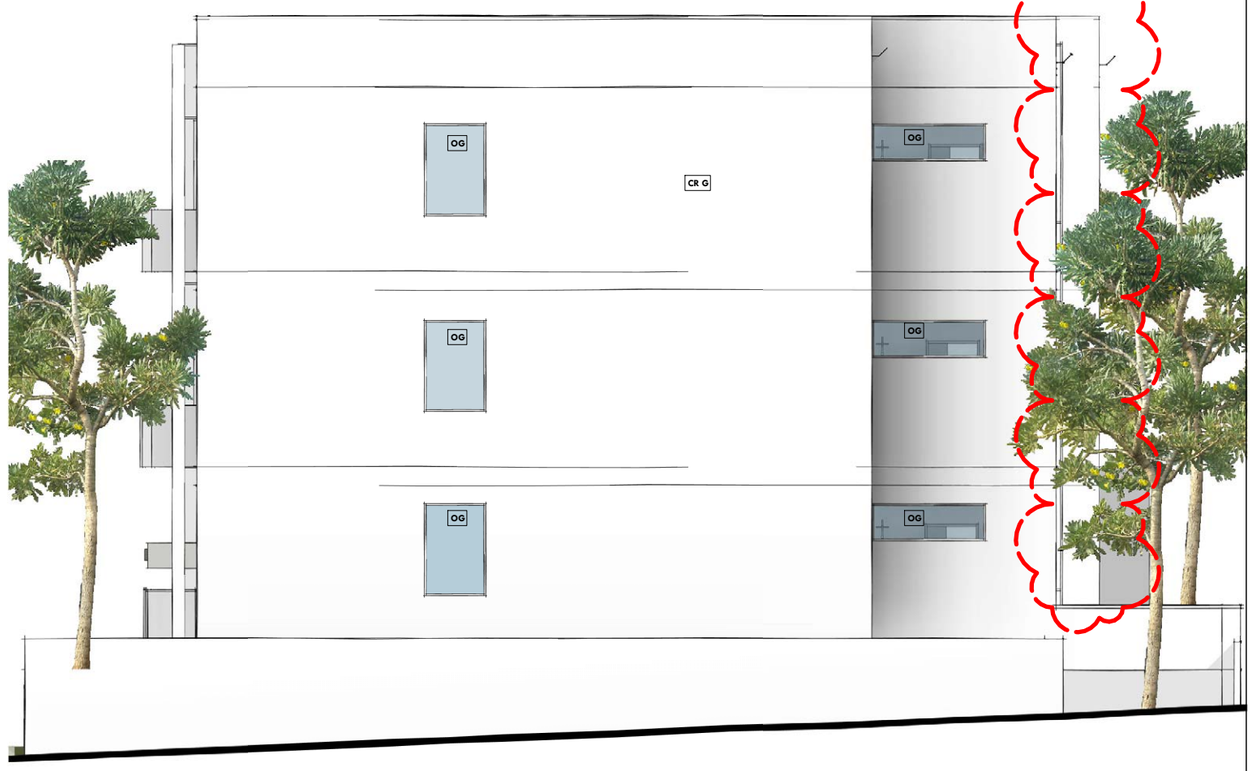


NORTH FACADE ELEVATION

SCALE @ A3: 1 : 100

CODE	MATERIAL	FINISH
CR G	Cement Render	Grey
EM O	Expanded Mesh Open	Galvanised Steel
EM C	Expanded Mesh Closed	Galvanised Steel
SD G	Slide Door Glazed	Anodised Aluminium
OG	Operable Glazing	Anodised Aluminium
SF	Slat Fencing	Galvanised Steel
PB	Planter Box	Galvanised Steel

WINDOWS RELOCATED FOLLOWING PEER REVIEW & COMMUNITY CONSULTATION



SOUTH FACADE ELEVATION

SCALE @ A3: 1 : 100

CODE	MATERIAL	FINISH
CR G	Cement Render	Grey
EM O	Expanded Mesh Open	Galvanised Steel
EM C	Expanded Mesh Closed	Galvanised Steel
SD G	Slide Door Glazed	Anodised Aluminium
OG	Operable Glazing	Anodised Aluminium
SF	Slat Fencing	Galvanised Steel
PB	Planter Box	Galvanised Steel

STATUS: AMENDED DEVELOPMENT APPLICATION

CLIENT: CHARLESWORTH

ARCHITECT / DESIGNED BY: SIMON ANDERSON

SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: NORTH & SOUTH FACADE ELEVATIONS

1 : 100 | 28/02/2020 1:21:03 PM | DRAWN: JR | CHECKED: SA

PROJECT NO: - | DRAWING NO: SK35 | REVISION:

CONTACT:

VIEW FROM INTERSECTION OF DALKIETH ROAD & CARRINGTON ST

STATUS: AMENDED DEVELOPMENT APPLICATION

CLIENT: CHARLESWORTH

ARCHITECT / DESIGNED BY: SIMON ANDERSON

SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: 3D STREET VIEWS

SCALE AT A3:	DATE: 28/02/2020 1:21:09 PM	DRAWN: JR	CHECKED: SA
PROJECT NO: -		DRAWING NO: SK36	REVISION:

CONTACT:

Design Principles

24 Carrington Street, Nedlands

An explanation of how the design relates to the Design Principles in State Planning Policy 7.0 Design of the Built Environment.

1. Context and character

Good design responds to and enhances the distinctive characteristics of a local area, contributing to a sense of place.

Residential Nedlands has traditionally been a garden suburb of generous brick bungalows set well back from the street within large sites with 40% site coverage facilitating large tree planting that in turn lowers urban heat island effects and supports varied bird life. A few 2-3 storey apartment buildings were scattered along Stirling Highway and even fewer grouped dwellings provided on lots adjoining lots on the Highway.

The recent rezoning of Nedlands to R60 promotes 3 storey apartment buildings to be constructed on full blocks north and south of the Highway and elsewhere where blocks adjoin transport corridors.

This proposal for 24 Carrington Street attempts to develop an apartment building that embraces the fundamental characteristics of Nedlands noted above.

It is an apartment building for the Nedlands family who currently live on the site to live in with extended family members and friends. It will allow aging in place for this group. It will provide independent living for the university age children. It can accommodate a live-in carer in the future. Pairs of apartments can be occupied to provide flexible arrangements for 3-4 generations.

The building directly faces the two street frontages with extensive balconies, private gardens with open fences, public entrances and common areas. The apartments are relatively wide and shallow in depth providing good access to daylight, ventilation and solar access.

The masonry façade is covered with a steel mesh screen to support vertical vegetation that grows from the ground and from the planters on each terrace. The extent of the vertical green surface is larger than the existing tennis court on the site meaning the site will be just as planted and vegetated as the existing house and garden.

2. Landscape quality

Good design recognises that together landscape and buildings operate as an integrated and sustainable system, within a broader ecological context.

The design intent of the architecture is precisely to integrate the landscape into the built form and to have the landscape animate the major internal and external spaces of the apartments as well as to improve the sustainability of the development.

The landscape design is based on retaining all existing significant trees on the site, planting major deciduous trees in the central deep soil zone, constructing a green screen facade covered with deciduous and evergreen creepers, creating private gardens for street facing ground floor apartments and installing large planters on the wide and generous private terraces.

3. Built form and scale

Good design ensures that the massing and height of development is appropriate to its setting and successfully negotiates between existing built form and the intended future character of the local area.

The future character of the street will be high quality small apartment buildings at R60. The three storey height limit is articulated by including a two storey plus open roof terrace section in the building facing Dalkeith Road that reduces the perceived overall height of the development.

The roof articulates to create an open communal BBQ area on the top floor and to separate the overall mass into a front block on the corner of Carrington Street and Dalkeith Road that contains 7 apartments and a smaller block facing Dalkeith Road that contains 3 apartments.

This development comprises one building as the site is relatively small. It is setback from side boundaries to provide space between it and neighbouring buildings. The building comprises a larger mass to the north of the site facing Carrington Street and a smaller mass to the south facing Dalkeith Road. These two masses are articulated by a deep soil zone planted with a major tree so that the two masses will appear separated. The southern mass is set back and modelled in recognition that there are low intensity residential uses to the east and the south of this development.

4. Functionality and build quality

Good design meets the needs of users efficiently and effectively, balancing functional requirements to perform well and deliver optimum benefit over the full life-cycle.

All apartments are accessed from open air access walkways. All apartments are universally accessible. All wet areas are naturally lit and ventilated.

Large terraces are provided to each apartment complete with deep planters to allow significant plantings. Ground floor apartments have street access via private gardens.

The structure of the building is constructed from concrete and masonry with recessed balconies. The façade is then covered with a steel mesh to conceal windows to bathrooms and to support vertical vegetation that grows from the ground and from the large planters on each terrace. Tilt and turn windows to bathrooms promote ventilation and allow internal window cleaning.

5. Sustainability

Good design optimises the sustainability of the built environment, delivering positive environmental, social and economic outcomes.

All but three apartments have multiple external walls supporting high quality ventilation and privacy. All but these three apartments have northern exposure. The 3 bedroom apartments have external walls facing north, south, east and west. There are no single sided apartment facing south so all apartments get direct sunlight.

In addition the front doors of each apartment will be fitted with an iron security mesh front screen doors to allow for natural cross ventilation at all times when needed.

New planting is deciduous where needed to assist in the thermal performance of the building and the amenity of residents. All landscape will be efficiently irrigated. A grey water re-use system is proposed to be installed to irrigate the vines of the green façade. All large trees on the site are retained.

West facing balconies are all fitted with manual permeable roll down sun control blinds. The façade planted with deciduous vines will control shade and glare to windows behind the screen.

Aging in place is possible in all apartments.

A large number of energy efficiency initiatives are proposed.

6. Amenity

Good design provides successful places that offer a variety of uses and activities while optimising internal and external amenity for occupants, visitors and neighbours, providing environments that are comfortable, productive and healthy.

All apartments and all habitable rooms are sized well in excess of the minimum areas. They are also sized in excess of apartments currently available around Claremont Oval and in Broadway Nedlands. The proposed sizes are generous and therefore flexible for furniture and personal goods. They are appropriate for the expected households in this location in Nedlands. This means less but larger apartments.

All apartments have access to very generous balconies appropriate to the generous apartment and room sizes and appropriate to a building in Nedlands in this location. Ground floor street facing apartments have access to ground floor private gardens as well as a generous balcony.

The meeting room, gym and open roof terrace provide the amenity possible in a Nedlands bungalow.

As the site is on a busy traffic intersection there is no adjacent street parking, so on-site parking is generous and again allows for amenity typical of Nedlands such as camper trailers and dinghies.

The car parking is contained within a semi-basement that has half of its volume underground. The semi-basement design allows the parking to be naturally ventilated and of high amenity as views to ground level planting is provided internally and views to planted screens externally. It is overlooked by access walkways and circulation spaces giving good passive surveillance.

Circulation space is generous to match the rest of the development. All apartments and common areas are universally accessible. The articulation of the building and positioning of the vertical circulation means horizontal travel distances are short.

7. Legibility

Good design results in buildings and places that are legible, with clear connections and easily identifiable elements to help people find their way around.

This development has a single universally accessible pedestrian access leading directly from the footpath. The entry pathway is overlooked by an apartment and a communal meeting room.

The entry is integrated into the façade of the building and leads to a generous glazed lobby overlooking the street with stair and lift vertical circulation.

All communal spaces are adjacent to the vertical circulation.

8. Safety

Good design optimises safety and security, minimising the risk of personal harm and supporting safe behaviour and use.

The pedestrian, vehicular and service entrances are clear and direct and do not allow for concealment. Semi-basement parking is screened by a landscape screen that allows natural ventilation to the cars and bins are located behind the street setback.

The single vehicle access point is via a ramp as narrow as possible to provide safe two-way access. It is overlooked by a terrace and a private garden of a ground floor apartment.

9. Community

Good design responds to local community needs as well as the wider social context, providing buildings and spaces that support a diverse range of people and facilitate social interaction.

All of the ground floor contains active uses: four apartments with private terraces, gardens and direct entrances overlook the street; the communal meeting room overlooks the street. The landscape design retains all significant trees between the building and the street and adds more as well as a vertical green wall on the façade of the building.

All communal spaces overlook the street and the major planted courtyard. Communal spaces are positioned between groups of apartments and adjacent to vertical circulation. A communal space exists on each of the three habitable floors of the building and they are accessed directly from the horizontal circulation spaces.

The development contains 1,2 and 3 bedroom apartments. All are universally accessible. Pairs of apartments are designed to be occupied by extended families or to cater for live-in carers. The apartments cater for all household types of the local community including families, couples, students, aging in place, extended families, multi-generational families.

10. Aesthetics

Good design is the product of a skilled, judicious design process that results in attractive and inviting buildings and places that engage the senses.

Oasia Hotel Singapore (WOHA)

24 Carrington Street Nedlands

Kandalama Hotel Sri Lanka (Geoffrey Bawa)

CHARLESWORTH

PROPOSED RESIDENTIAL DEVELOPMENT

24 CARRINGTON STREET, NEDLANDS

TRAFFIC STATEMENT

November 2019

Riley Consulting (WA) Pty Ltd
PO BOX Z5578
Perth WA 6831
0413 607 779 Mobile

Issued on	12 November 2019	Amendments	Date
Version	V1		
Reference	1041		

CONTENTS

1. EXECUTIVE SUMMARY

1.1. Riley Consulting has been commissioned by Charlesworth to consider the traffic and transport impacts of developing 10 residential units at 24 Carrington Street, Nedlands. The key findings of the traffic review are:

1.2. The site is currently occupied by a large house.

1.3. The proposed redevelopment of the site to provide 10 residential units is shown to generate 48 movements per day. The impact to the local road network will be an increase of 40 vehicle movements per day. During the peak periods less than 5 vehicle movements would be expected.

1.4. The level of generated traffic is considered to have no material traffic impact under the WAPC *Transport Assessment Guidelines for Developments*. Indeed the proposed development is borderline in regard to any formal traffic assessment being required.

1.5. Access to the subject site is provided to Dalkeith Road and can be achieved in a safe and appropriate manner.

1.6. The development is deemed to comply with current parking requirements. Parking is in accordance with the requirements of AS2890.1.

2. CHECKLIST

Item	Comments/Proposals
Proposed development	
proposed land uses	10 residential units
existing land uses	Large dwelling
context with surrounds	Within existing residential area with large dwellings
Vehicular access and parking	
access arrangements	Access to Dalkeith Road
public, private, disabled parking set down / pick up	As per the R-codes
Service vehicles	
access arrangements	On street
rubbish collection and emergency vehicle access	On street
Hours of operation (non-residential only)	N/A
Traffic volumes	
daily or peak traffic volumes	Peak attraction 5 movements – 48 trips per day
type of vehicles (eg cars, trucks)	Predominantly cars
Traffic management on frontage streets	Existing residential suburb
Public transport access	
nearest bus stops/train stations	Within 100m
pedestrian/cycle links to bus stops/train station	Good
Pedestrian access/facilities	
existing pedestrian facilities within the development (if any)	Primary pedestrian access to Dalkeith Road, access provided to both frontage streets.
proposed pedestrian facilities within development	Acceptable
existing pedestrian facilities on surrounding roads	Acceptable
proposals to improve pedestrian access	N/A
Cycle access/facilities	
existing cycle facilities within the development (if any)	N/A
proposed cycle facilities within development	Cycle parking in basement
existing cycle facilities on surrounding roads	Acceptable
proposals to improve cycle access	N/A
Site specific issues	None identified
Safety issues	None identified

3. THE LOCAL ROAD NETWORK

3.1. The subject site is located at 24 Carrington Street, Nedlands. The Lot is located on the corner of Carrington Street and Dalkeith Road.

Carrington Street

3.2. Carrington Street is classified as a local distributor road in the Main Roads Functional Road Hierarchy. It is constructed with a single carriageway with a footpath to the south side.

3.3. Communication with the local government has indicated that no current traffic data is available in the vicinity of the subject land. A peak hour sample count has been undertaken and indicates an AM peak demand of 735 vehicles. The attraction eastbound is double the westbound flow. Based on the morning peak hour equating to 10% of the daily flow, Carrington Street is estimated to carry about 7,000 vehicles per day (vpd).

3.4. As a local distributor road, Carrington Street would be considered as a neighbourhood connector under the Liveable Neighbourhoods Planning Guidelines and a daily traffic demand up to 7,000vpd is considered acceptable. The street would however have capacity to carry in excess of 9,000vpd.

3.5. It can be seen that Carrington Street is operating at the upper end of its desirable residential amenity threshold.

3.6. The intersection of Carrington Street and Dalkeith Road is controlled by a roundabout.

Dalkeith Road

3.7. Dalkeith Road is classified as a local access road in the Main Roads Functional Road Hierarchy. It is constructed with a single carriageway with a footpath to its eastern side.

3.8. As indicated, no current traffic data is available and the morning peak hour sample count recorded 380 two way movements. This suggests Dalkeith Road is carrying about 3,800vpd.

3.9. As a local access road, Dalkeith Road would be considered as an access street type A under the Liveable Neighbourhoods Planning Guidelines and a daily traffic demand up to 3,000 vpd is considered acceptable. The street would however have capacity to carry in excess of 9,000vpd. It can be seen that Dalkeith Road is operating over the desirable residential amenity threshold.

3.10. Figure 1 shows the location of the subject site and Figure 2 shows an aerial image of the site.

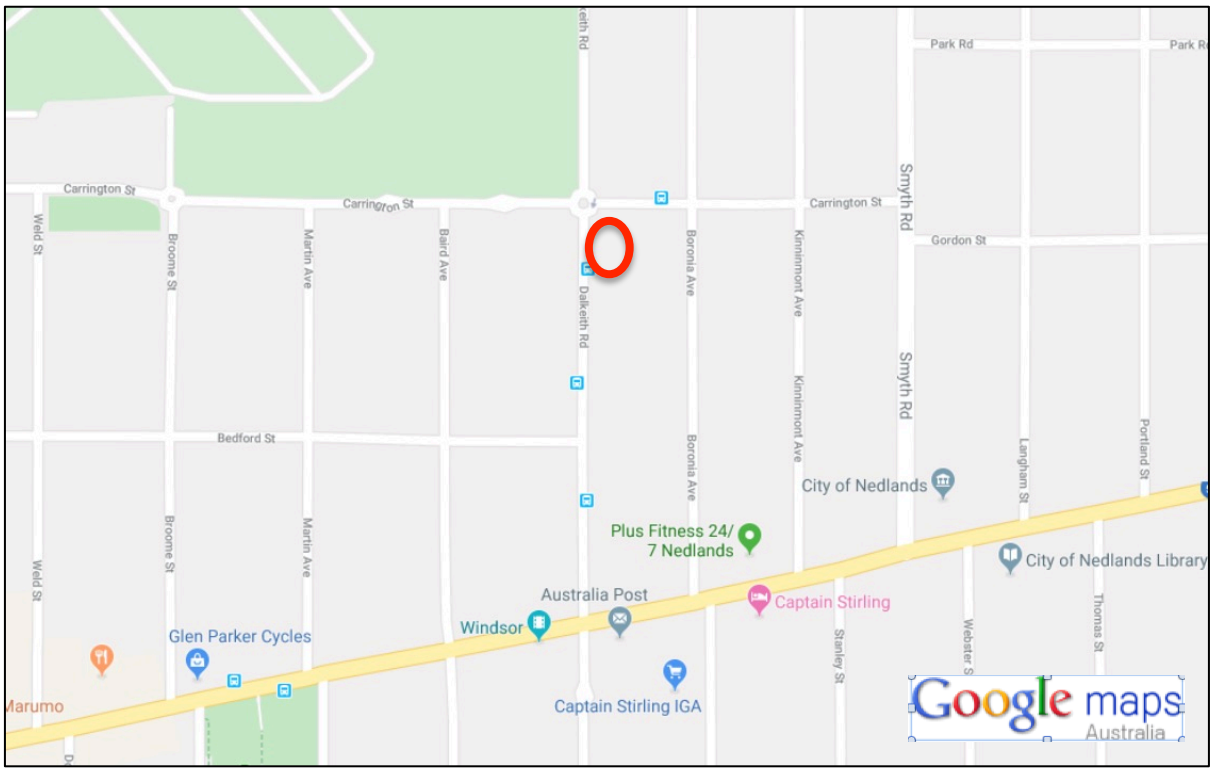


Figure 1 Subject Site Location

Figure 2 Aerial Imagery (Site area indicative)

4. PROPOSED DEVELOPMENT

4.1. The proposed development of 24 Carrington Street will comprise of 10 residential units, comprising of 4 x 1 bed units, 4 x 2 bed units and 2 x 3 bed units.

4.2. The site is currently occupied by a large dwelling.

5. DAILY TRAFFIC VOLUMES AND VEHICLE TYPES

5.1. Reference to the RTA *Guide to Traffic Generating Developments* suggests that a large house can be expected to generate between 8 and 10 trips per day. For the purpose of this report the lower value of 8 trips per day is assumed.

5.2. Reference to the RTA *Trip Generation* document indicates a trip rate of 4 trips per one bed dwelling, 5 trips per two-bed dwelling and 6 trips per 3-bedroom dwelling. Therefore the proposed residential units can be expected to generate (4 x 4) + (4 x 5) + (2 x 6) 48 vehicle movements per day. 10% of the daily traffic generation is expected in the morning and evening peak periods, or 5 trips.

5.3. Table 1 shows the anticipated changes to traffic based on the proposed redevelopment of the subject site. It can be seen that based on recognised trip generation rates the proposed redevelopment of the site would make no significant change to local traffic flows.

Table 1 Forecast Traffic Movements

Use	**AM**	**PM**	**Daily**
Existing Site	0.8	0.8	8
Apartments	5	5	48
Traffic Increase	**+4.2 trip**	**+4.2 trips**	**+40 trips**

5.4. Reference to the WAPC *Transport Assessment Guidelines for Developments* states that:

> *As a general guide, an increase in traffic of less than 10% of capacity would not normally be likely to have a material impact on any particular section of road, but increases over 10% may. All sections of road with an increase greater than 10% of capacity should therefore be included in the analysis.*
>
> *For ease of assessment, an increase of 100 vehicles per hour for any lane can be considered as equating to 10% of capacity.*

5.5. The peak attraction of less than 5 vehicle movements associated with the proposed development is very low and will have no significant traffic impact.

5.6. On this basis, the WAPC *Transport Assessment Guidelines for Developments* indicates that the proposed development would be deemed to have no material impact.

5.7. Further assessment of the surrounding road network is therefore not warranted under the WAPC Transport Assessment Guidelines for Developments.

6. VEHICLE ACCESS

6.1. Access to the basement car park is taken from Dalkeith Road approximately 40 metres south of the existing roundabout at Carrington Street.

6.2. Visibility in accordance with AS2890.1 is provided for the car park access.

6.3. Dalkeith Road is shown to carry 380 peak hour movements and reference to Appendix A (Austroads) indicates that the access will operate with uninterrupted flow conditions.

6.4. It is noted that there is an existing bus stop in close proximity to the proposed cross over. The relocation of the bus stop to the north would be appropriate. The re-location of the bus stop combined with bus frequency would not raise any road safety issues.

7. TRAFFIC MANAGEMENT OF FRONTAGE STREETS

7.1. The surrounding streets are residential in nature and no traffic management is required as a result of the proposed development.

8. PARKING

8.1. The development plan indicates that 21 bays will be provided in the basement car park.

8.2. The development is located in Location B under the R-Codes and parking at a rate of 1 bay per 1 bed dwelling and 2 bays per 2+ bed dwelling will apply. Therefore 16 resident's car parking bays are required under the code.

8.3. Visitor parking at a rate of 1 bay per 4 dwellings is also to be provided when more than four dwellings are provided. Thus 2 visitors bays would be required to cater for the proposed 10 dwellings.

8.4. The provision of 21 bays exceeds the requirement to provide 18 bays and thus the number of car parking bays provided meets the R-Codes parking requirements.

8.5. All parking bays are shown to accord with the requirements of AS2890.1.

9. PARKING MANAGEMENT

9.1. As a residential development all parking bays will be allocated to individual units. Visitors parking will be clearly marked.

10. PROVISION FOR SERVICE VEHICLES

10.1. All servicing of the site will occur from Dalkeith Road.

10.2. A bin store is located in the basement and bins will be placed on the road verge for collection.

11. HOURS OF OPERATION

11.1. As a residential development there are no formal hours of operation.

12. PUBLIC TRANSPORT ACCESS

12.1. There are two bus stops in very close proximity to the subject site. Both stops are within 100 metres.

12.2. Bus route 25 passes on Carrington Street and Dalkeith Road and provides an hourly service during the day. Additional buses are provided during peak periods.

12.3. The bus service operates between Claremont station and Elizabeth Quay in Perth CBD.

13. PEDESTRIAN ACCESS

13.1. All surrounding streets have footpaths in accordance with local government standards.

13.2. Primary pedestrian access is provided to Dalkeith Road. Secondary access is also indicated to Carrington Street.

14. CYCLE ACCESS

14.1. There are no dedicated cycle lanes provided on adjacent streets.

14.2. The local street network is residential in nature with some commercial land uses located to the west on Carrington Street. The local road network is covered by the residential 50kph speed limit and a safer cycle environment would be anticipated.

14.3. The site inspection noted a higher level of cycling activity in the area.

15. SITE SPECIFIC ISSUES

15.1. The subject site is well located at the intersection of Carrington Street and Dalkeith Road, which is controlled by a roundabout. Traffic speeds adjacent to the subject site would be expected to be lower than the posted speed limit.

16. SAFETY ISSUES

16.1. The traffic assessment has not identified any road safety issues as a result of the proposed development.

APPENDIX A AUSTROADS TABLE 4.3

Table 4.1 — Intersection Capacity - Uninterrupted Flow Conditions

Major Road Type[1]	Major Road Flow (vph)[2]	Minor Road Flow (vph)[3]
Two-lane	400	250
	500	200
	650	100
Four-lane	1000	100
	1500	50
	2000	25

Notes:

1. Major road is through road (i.e. has priority).
2. Major road design volumes include through and turning movements.
3. Minor road design volumes include through and turning volumes.

Dalkeith Road <400 vehicles in the hour – uninterupted flow conditions exist with up to 250 side road vehicles.

Waste Management Plan

24 Carrington Street, Nedlands

AMENDED 3 March 2020

The Waste Management Plan (WMP) has been amended following community consultation, peer review and Internal Referral Form comments from the Nedlands Council Waste Co-ordinator Chaminda Mendis. This WMP dated 3 March 2020 supersedes the previously submitted WMP.

1.1 Land Use Type

(a) Development type (multi-residential, mixed use or commercial);

Multi-residential

(b) Number of storeys;

3 plus basement

(c) Number of dwellings or units (studio, one, two or three bedrooms, etc);

2 three bedders, 4 two bedders, 4 one bedders

(d) Size of each commercial tenancy;

Not applicable

(e) Commercial usage type (café, restaurant, office, retail, etc.).

Not applicable

20.1.2 Waste and Recycling Generation

How much waste will be generated; by general waste, recycling, green waste and bulk waste.

	General waste (litres/week)	**Recyling (litres/fortnight)**	**Green Waste (litres/fortnight)**	**Bulk waste (sqm)**
4 One bedders	4x80	4x240		
4 Two bedders	4x120	4x240		
2 Three bedders	2x120	2x240		
Method of estimating waste generation	By applying Table 1 Appendix 1 of Draft LPP Waste Management Guidelines	By applying Table 1 Appendix 1 of Draft LPP Waste Management Guidelines	By assuming the extensive proposed landscaping will generate significantly more than the existing house on the site	As the Nedlands Draft Waste Management Guidelines require 5sqm minimum for 1-55 apartments, an estimate of 3sqm is proposed
Total waste generated	1040	2400	960	3

20.1.3 Bin Size and Colour

How many bins will be used at the site, what size and colour will be used.

3 Waste bins, 240L, dark green body with red lid

5 Recycling bins, 240L, dark green body with yellow lid

4 Green Waste bins, 240L, dark green body with lime green lid

Space for an additional 2 Recycling bins is provided in the Bin Area.

20.1.4 Collection Frequency

What frequency will waste be collected, by the City or an independent supplier.

The Preliminary Assessment stated that the City will not permit more than 8 bins being presented on the verge at any given time. By using a compactor it is possible to meet this requirement as follows:

- Weekly 3 Waste 240L bins and 5/4 Recycling/Green Waste 240L bins (alternating fortnightly) collected by the City.

20.1.5 Internal Service Collection

How will the development address internal service collection if required.

Internal service collection is not proposed due to the size of the development permitting the use of a compactor and a limited but permitted number of 240L bins being presented on the street.

20.1.6 Waste Truck Accessibility and Manoeuvring

If required for internal service, has manoeuvring been considered and accessibility for waste collection.

Not applicable.

20.1.7 Bin Storage Area

Details about the bin storage area including, size, waste stream separation, method of storage and access for waste collection.

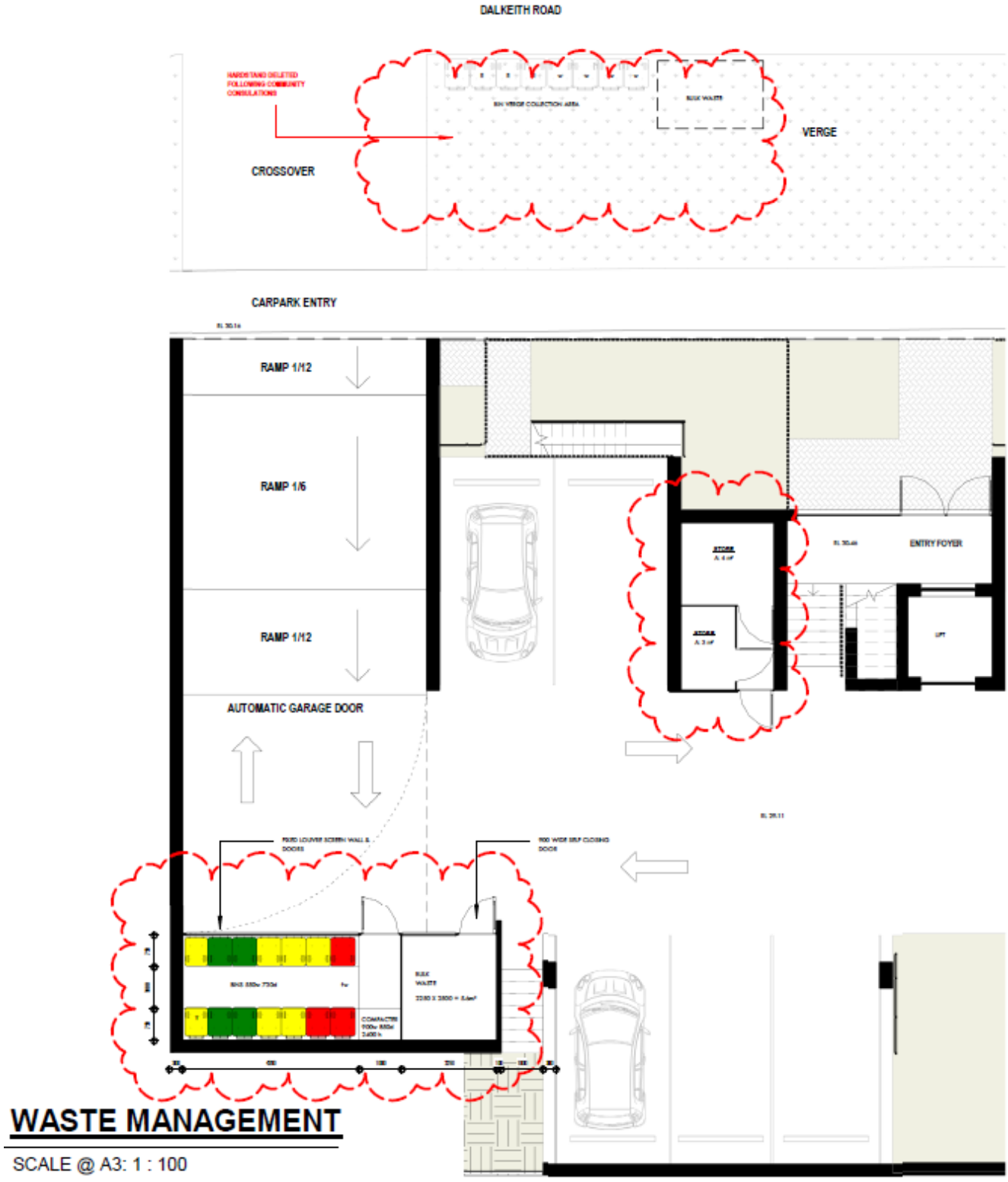
A dedicated, fully enclosed, ventilated, drained, roofed Bin Area and Bulk Waste Store that contains all of the 240l bins and the required bulk waste is proposed for the basement. The bin storage and waste area will be ventilated through lourvred walls and self-closing doors on one side facing the parking with other walls solid to prevent odours reaching units above. The Bin Area area will house a compactor, 3 240L General waste bins, 7 240L Recycling bins and 4 240l Green Waste bins. Bulk waste is stored in the adjoining bulk waste enclosure. The floor both areas will be impervious and graded to a floor waste. A water supply will be provided to allow hosing out of bins. As the floor is below sewer invert level, the floor waste will be pumped to sewer by a Grundfos Sololift2 C-3 Industrial Grey Water Lifting Station Pump or equivalent.

An analysis of sight lines shows that the Bin and Bulk Waste areas are screened from view by the automatic gate despite being at a lower level than the street.

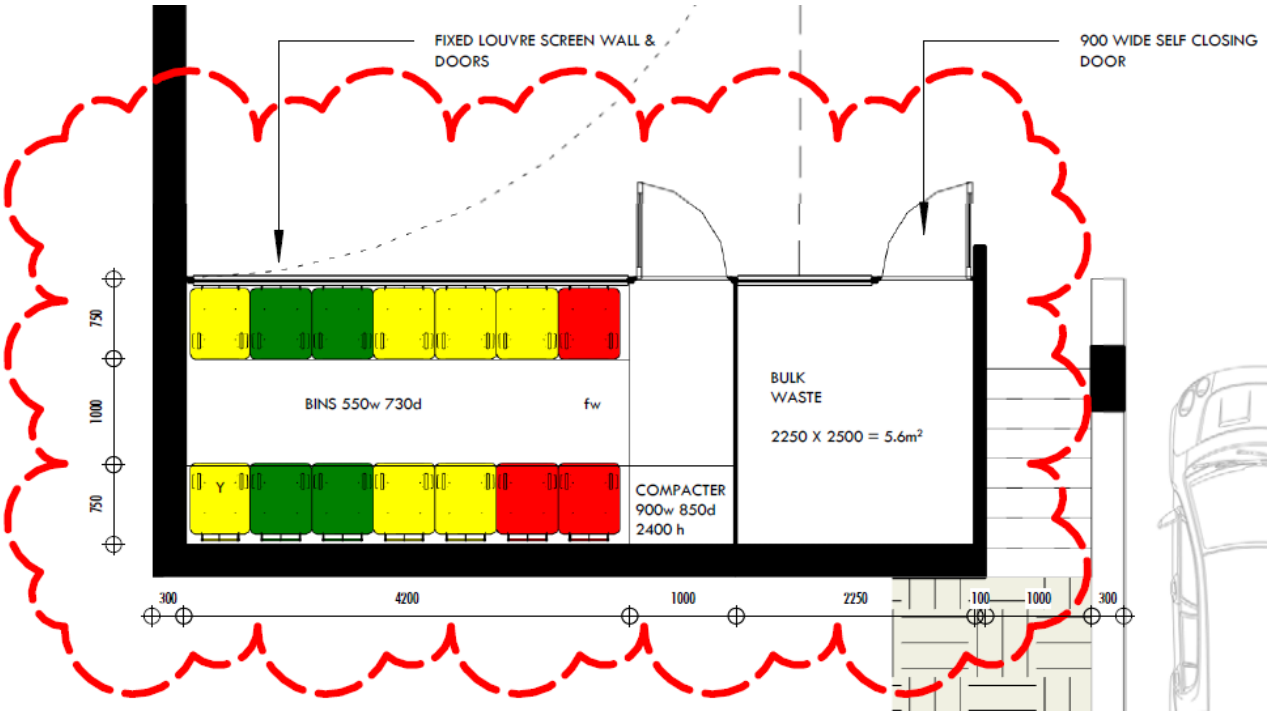
Waste Management Plan

24 Carrington Street, Nedlands

AMENDED 3 March 2020



Bin and Bulk Waste Area Plan and waste collection locations – see next page for detail plan



Bin and Bulk Waste Area Plan – extracted from DA drawing SK16

20.1.8 Collection of Bins

How bins will be presented for collection and where.

Being a small development of 10 units it is planned that the Strata Company through a council of owners will manage the building. A Strata Manager may be appointed later if the Strata Company finds the management too onerous. It is anticipated that the Strata Company will employ a gardener and a cleaner to maintain the landscape and the common areas of the development, and that the working rosters of these workers are aligned to allow them to take the bins from the Bin Area to the collection point and return them after waste collection.

Bins will be presented on the street verge adjacent to the vehicle access ramp. Three Waste bins and five/four Recycling/Green Waste bins respectively will be presented each week. Bulk waste will be presented on the same verge.

20.1.9 Waste Systems for Multi-Unit Dwellings

Detailed description of the waste systems required for multi-unit dwelling is applicable.

Being such a small development it is proposed that each resident will transport their waste directly to the Bin Area in the basement where it will be deposited in the appropriate bin. Signage on the wall will explain how to separate waste into the three streams. The compactor will only be used by the cleaner/gardener with the compactor power supply controlled by key access. Compactor use will be limited to day light hours.

20.1.10 Waste Chute

Being such a small development waste chutes are not proposed.

20.1.11 Waste Compactors

Where applicable specifications in relation to compactor design and function.

General waste generation is predicted to be 1040 litres per week with 720 litres per week provided by the three 240 litre bins. Compaction at a ratio of 1.44:1 is required.

Recycling waste generation is predicted to be 2400 litres per fortnight with 1200 litres provided by five 240l litre bins. Compaction at a ratio of 2:1 is required.

It is proposed to install in the bin area a 240 volt waste compactor compatible with the 240 litre wheelie bins that meets the above requirements. Three suitable compactors have been identified:

- WastePac 240L Bin Press (Australian)
- Elephants Foot Single Bin Compactor (Australian)
- Orwak Flex4240 (European)

The preferred compactor is the Orwak Flex4240. It is 240v, has a 29 second operation and has a 2:1 compaction ratio. See page 6 for compactor specifications.

Bins shall not be overfilled ensuring that the weight of each bin shall not exceed 70kg.

The responsible entity (strata company/corporate body) shall be liable for all bin replacement costs and/or repairs relating to damage caused as a result of the bin compaction process.

The Bin Area has capacity to store 2 additional recycling bins which the strata company may apply for. However only 5 recycling bins shall be placed on the verge for collection on any collection day.

The compactor will only be used by the cleaner/gardener with the compactor power supply controlled by key access. Compactor noise is minimised through use of full brick construction of the Bin Area with access door facing away from neighbours. Compactor use will be limited to day light hours only.

Compactor service, maintenance and breakdowns will be contracted to the manufacturer's recommended repairer in WA, Multilec Engineering Pty Ltd. See page 7 for details. Multilec have confirmed same day (24 hour) service for breakdowns.

20.1.12 Signage

What signage will be used within the bin storage area.

Signs on the walls will display the waste stream separation, compactor operation by gardener/cleaner only, and collection times. Contact numbers will be provided for the Chair of the Strata Company in case of any waste issues arising.

20.1.13 Bulk Waste

How will bulk waste be dealt with, residential properties only.

As the Nedlands Draft Waste Management Guidelines require 5sqm minimum for 1-55 apartments, it is proposed to:

- Provide a 5sqm bulk waste enclosure adjoining the Bin Area. See page 4 for the plan.

Being a small development a charity bin is not viable.

The collection of bulk waste will be co-ordinated by the Chair of the Strata Company.

ORWAK FLEX 4240

Smart in-bin compaction solution

ORWAK FLEX 4240 IS OPTIMIZED FOR:

SEMI-DRY WASTE
+ General waste

Best suited for dry or semi-dry waste destined for landfill or incineration

ORWAK FLEX 4240 is an in-bin waste compactor for standard two-wheeled 240 L bins.

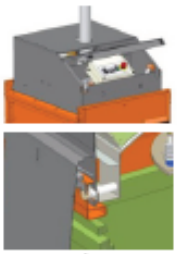
IDEAL FOR GENERAL WASTE
The 4240 is perfect for the hotel and restaurant sector, where general waste needs to be disposed of in waste bins. The in-bin compactor provides impressive volume reduction, contributing to valuable space-saving and a more profitable waste management.

Designed to fit the standard 240 Liter bins in the market.

SMART DESIGN - EASILY EXTENDABLE
The 4240 is a robust and stable machine that, thanks to its compact design, occupies little floor space. A good finish and easy access make cleaning quick and simple.

The compactor is easily extended with additional chambers. The front door on the single-chamber unit is then replaced by an apron for effortless movement of the press head from one chamber to the next.

SAFE AND USER-FRIENDLY
Model 4240 is user-friendly! The multi-chamber version is a convenient top-loading installation, while the single-chamber version has an easy wheel-in, wheel-out operation. Safety and quality are our hallmarks and the compactor provides maximum personal safety both for the operator and those in the immediate vicinity. A bin indicator assures that the machine can only start, when the bin is in the right position.



Full protection and no access to moving parts: safety switches on the hatch and the front door/apron

The single-chamber unit with swing door

The multiple-chamber unit equipped with an apron with two handles

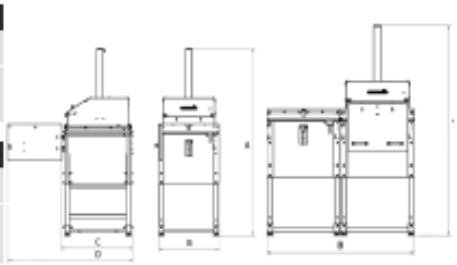
DIMENSIONS & SPECIFICATIONS

DIMENSIONS ORWAK FLEX 4240

A	B	C	D	TRANSPORT HEIGHT
Single: 2275 mm Double: 2275 mm	Single: 750 mm Double: 1475 mm	Single: 920 mm Double: 990 mm	Single: 1515 mm	Single: 2100 mm Double: 2100 mm

MACHINE WEIGHT

TOTAL WEIGHT	PRESS UNIT	SINGLE STAND
Single: 220 kg Double: 320 kg	Single: 120 kg Double: 120 kg	Single: 100 kg Double: 100 kg



TECHNICAL SPECIFICATIONS

BIN SIZE	CYCLE TIME	PRESS FORCE	NOISE LEVEL	PROTECTION CLASS	OPERATING POWER
240 L	29 secs	1.5 ton, 15 kN	62.3 db (A)	IP 55	1 x 230 V, 50 Hz, 10 A or 3 x 200 V, 50/60 Hz, 10 A

We reserve the right to make changes to specifications without prior notice. Bale/bag/bin weights are dependent upon material type.

Orwak AB
Box 58
S-576 22 Sävsjö
SWEDEN
Tel: +46-(0)382-157 00
info@orwak.com, www.orwak.com

ORWAK

From: Tayla Hunnam
To: Simon Anderson
Subject: 4240 Information - Orwak Compactors
Date: Tuesday, 25 February 2020 11:02:13 AM

Good Afternoon Simon,

Thank you for your call earlier and giving me the time to explain the benefits of the 2 chamber machine as opposed to the single.

4240-1 Chamber - $8,250+GST
4240-2 Chamber - $10,900+GST

We currently have 1 x 2 chamber machine in stock, the single chamber wouldn't arrive until approximately 14 weeks after an order is placed.

As discussed, below are the details for our recommended repairer in WA.

Luke Johns
Operations Manager
Multilec Engineering Pty Ltd
EC007251
3/93 President Street
Welshpool WA 6106
Mobile: +61 437 008 770
Office: +61 8 6146 1126
www.multilec.com.au

If you have any further questions, please don't hesitate to contact me.

Best Regard
Tayla Hunnam

Business Development Manager
Orwak Compactors
250 Hammond Road,
Dandenong, Victoria 3175
Ph: +61 3 87929777
Mob: 0451 467 463
E: Tayla@orwakcompactors.com.au

HERRING STORER ACOUSTICS

SIMON ANDERSON

24 CARRINGTON STREET, NEDLANDS
DEVELOPMENT APPLICATION
ACOUSTIC REPORT

NOVEMBER 2019

OUR REFERENCE: 25072-2-19310

Rochdale Holdings Pty Ltd A.B.N. 85 009 049 067 trading as:
HERRING STORER ACOUSTICS
P.O. Box 219, Como, W.A. 6952
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DOCUMENT CONTROL PAGE

DA ACOUSTIC REPORT

24 CARRINGTON STREET, NEDLANDS

Job No: 19310

Document Reference : 25072-2-19310

FOR

SIMON ANDERSON

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CONTENTS

1.0 INTRODUCTION

Herring Storer Acoustics was commissioned to conduct a preliminary review of the proposed development at 24 Carrington Street, Nedlands, to accompany the Development Application.

This report has been based on the Development Application drawings provided.

2.0 PROPOSED DEVELOPMENT

The proposed development site is located at 24 Carrington Street, Nedlands.

The development consists of a 3 floor apartment building with "semi-basement" parking (open screens above half wall height).

Three-four apartments are proposed on each floor for a total of ten apartments within the development. A meeting room is proposed to be located on the ground floor, with a gym on the first floor.

3.0 CRITERIA

3.1 BCA PROVISIONS

For Class 2 or 3 buildings, Part F5 of the National Construction Code (NCC), outlines the minimum acoustic isolation of sole occupancy units, and is applicable to the apartments. The following summarises the acoustic criteria:

3.1.1 Walls

Wet to wet	$R_W + C_{tr}$ not less than 50 dB.
Living to living	$R_W + C_{tr}$ not less than 50 dB.
Wet to living	$R_W + C_{tr}$ not less than 50 dB plus discontinuous construction.
Kitchens to living	$R_W + C_{tr}$ not less than 50 dB plus discontinuous construction.

Note: Where kitchens are part of an open living area, we consider the kitchen to be part of the living area and in these cases a discontinuous construction is required. This also includes cases where kitchens are back-to-back, however, discontinuous construction is only required on one side.

3.1.2 Floors

Floors	$R_W + C_{tr}$ not less than 50 dB.
Impact Isolation	$L_{n,w}$ not more than 55 dB is recommended.

Note: The impact isolation criteria under the BCA is an $L_{n,w}$ of not more than 62 dB. However, as a member firm of the Association of Australasian Acoustic Consultants, (AAAC) we recommend a criteria of an $L_{n,w}$ of not more than 55 dB be adopted for a development of this type.

3.1.3 Service Risers

to Habitable Rooms $R_W + C_{tr}$ not less than 40 dB.

to Non-Habitable Rooms $R_W + C_{tr}$ not less than 25 dB.

3.1.4 Hydraulics

The above requirements also apply to storm water down pipes.

3.1.5 Doors

Door (Connecting) R_W not less than 30 dB.

The development will be designed to comply with the requirements of Part F5 of the BCA.

3.2 ENVIRONMENTAL PROTECTION (NOISE) REGULATIONS 1997

The *Environmental Protection (Noise) Regulations 1997* stipulate the allowable noise levels at any noise sensitive premises from other premises. The allowable or assigned noise levels for noise sensitive premises are determined by the calculation of an influencing factor, which is added to the baseline criteria set out in Table 1 of the Regulations. The baseline assigned noise levels are listed in Table 3.1. The influencing factor is calculated for the usage of land within two circles, having radii of 100m and 450m from the premises of concern.

For commercial premises, the allowable or assigned noise levels are the same for all hours of the day. Table 3.1 also lists the assigned noise levels for commercial and industrial premises.

TABLE 3.1 – ASSIGNED NOISE LEVELS

Premises Receiving Noise	Time of Day	Assigned Level (dB)		
		$L_{A\ 10}$	$L_{A\ 1}$	$L_{A\ max}$
Noise sensitive premises within 15 metres of a dwelling	0700 - 1900 hours Monday to Saturday	45 + IF	55 + IF	65 + IF
	0900 - 1900 hours Sunday and Public Holidays	40 + IF	50 + IF	65 + IF
	1900 - 2200 hours all days	40 + IF	50 + IF	55 + IF
	2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours Sunday and Public Holidays	35 + IF	45 + IF	55 + IF
Commercial Premises	All Hours	60	75	80
Industrial Premises	All hours	65	80	90

Note: The L_{A10} noise level is the noise that is exceeded for 10% of the time.
The L_{A1} noise level is the noise that is exceeded for 1% of the time.
The L_{Amax} noise level is the maximum noise level recorded.

It is a requirement that noise from the site be free of annoying characteristics (tonality, modulation and impulsiveness) at other premises, defined below as per Regulation 9.

"impulsiveness" means a variation in the emission of a noise where the difference between L_{Apeak} and $L_{Amax\ Slow}$ is more than 15dB when determined for a single representative event;

"modulation" means a variation in the emission of noise that –

(a) is more than 3dB $L_{A\ Fast}$ or is more than 3dB $L_{A\ Fast}$ in any one-third octave band;
(b) is present for more at least 10% of the representative assessment period; and
(c) is regular, cyclic and audible;

"tonality" means the presence in the noise emission of tonal characteristics where the difference between –

(a) the A-weighted sound pressure level in any one-third octave band; and
(b) the arithmetic average of the A-weighted sound pressure levels in the 2 adjacent one-third octave bands,

is greater than 3 dB when the sound pressure levels are determined as $L_{Aeq,T}$ levels where the time period T is greater than 10% of the representative assessment period, or greater than 8 dB at any time when the sound pressure levels are determined as $L_{A\ Slow}$ levels.

Where the above characteristics are present and cannot be practicably removed, the following adjustments are made to the measured or predicted level at other premises.

TABLE 3.2 – ADJUSTMENTS FOR ANNOYING CHARACTERISTICS

Where tonality is present	Where modulation is present	Where impulsiveness is present
+ 5 dB	+ 5 dB	+ 10 dB

From a review of the development, the influencing factor for this development would be 2 dB, based on the following :

Major Road within the outer circle;
Stirling Highway + 2 dB

Total IF **+ 2 dB**

Hence the influencing factor would be + 2 dB and the assigned noise levels would be as listed in Table 3.3.

TABLE 3.3 - ASSIGNED OUTDOOR NOISE LEVEL

Premises Receiving Noise	Time of Day	Assigned Level (dB)		
		L_{A10}	L_{A1}	L_{Amax}
Noise sensitive premises within 15 metres of a dwelling	0700 - 1900 hours Monday to Saturday	47	57	67
	0900 - 1900 hours Sunday and Public Holidays	42	52	67
	1900 - 2200 hours all days	42	52	57
	2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours Sunday and Public Holidays	37	47	57

Note: L_{A10} is the noise level exceeded for 10% of the time.
L_{A1} is the noise level exceeded for 1% of the time.
L_{Amax} is the maximum noise level.

We note that noise emissions from the premises need to comply with the requirements of the *Environmental Protection (Noise) Regulations 1997*. In this instance the noise sources where the regulations are applicable are considered to be limited to mechanical services (ie air conditioning and ventilation systems)

3.3 NOISE INGRESS

Noise ingress into the development is not considered likely to be govern by any specific state or local council policy, however, it is recommended that the development be designed such an appropriate internal noise level environment is attained.

Based on other noise ingress policies, and our experience, it is recommended that a design level listed below is implemented.

INTERNAL

$L_{Aeq(Day)}$ of 40 dB(A) in living and work areas; and
$L_{Aeq(Night)}$ of 35 dB(A) in bedrooms.

Given the location of the proposed development, the above internal noise criteria is not considered onerous to achieve, and it is considered likely that standard glazing would be sufficient.

4.0 BCA REQUIRMENTS

The proposed development will be constructed to comply with the requirements of Part F5 of the NCC. During the design process to comply with the BCA requirements, the criteria would be exceeded, to ensure that the conditions are met.

5.0 NOISE FROM DEVELOPMENT

The main source of noise from the proposed development will be from mechanical services consisting of a car-park ventilation fans (if required) and air-conditioning condenser units. Noise received at neighbouring premises from these items need to comply with the assigned noise levels as determined under the *Environmental Protection (Noise) Regulations 1997*.

5.1 MECHANICAL SERVICES

The main source of noise from the proposed development will be from mechanical services consisting of condenser units. Noise received at noise sensitive premises (premises in the vicinity and apartments that form part of the development) from these items need to comply with the assigned noise levels as determined under the *Environmental Protection (Noise) Regulations 1997*.

As the mechanical services could operate during the night, noise emissions from the development needs to comply with the assigned L_{A10} night period noise level of 37 dB(A) at noise sensitive premises. Potentially, noise emissions from mechanical services could be tonal, in which case an +5 dB(A) penalty for a tonal component could be applied to the resultant noise levels. Therefore, the design level at the neighbouring residential premises would be 32 L_{A10} dB.

5.1.1 Air Conditioning

The air conditioning systems are not known (and not designed) at this stage, however, it is understood that the units are proposed to be located on the roof over the lift, stairs and walkway of level three.

Once the design of the system is finalised, an acoustic assessment will be carried out of noise emissions from the mechanical plant and any noise amelioration required will be incorporated into the design to ensure compliance with the *Environmental Protection (Noise) Regulations 1997*. However, we believe that compliance would be easily achieved and any noise mitigation would be minimal, with the proposed design.

6.0 STATE PLANNING POLICY 7.3 RESIDENTIAL DESIGN CODES VOLUME 2 - APARTMENTS

Commentary has been requested on the development proposal in regards to the element objectives, and acceptable outcomes, recommended by the State Planning Policy 7.3 Residential Design Codes Volume 2 – Apartments.

Communal Open Space

Objective O 3.4.3 lists *"communal open space is design and orientated to minimise impacts on the habitable rooms and private opens space within the site and of neighbouring premises"*.

This objective has been met by separating apartment areas away from both the gym and the meeting room area such that neither are directly adjacent these communal facilities.

Further, strata management, and appropriate controls to the gym will be implemented to minimise any transfer of structural noise impact within the building.

Managing the impact of noise

Objective O 4.7.1 lists *"the siting and layout of development minimises the impact of external noise sources and provides appropriate acoustic privacy to dwellings and on-site open space"*.

Further, Objective O 4.7.2 lists *"Acoustic treatments are used to reduce sound transfer within and between dwellings and to reduce noise transmission from external noise sources"*.

The above objectives have been addressed in the design through the separation of communal spaces from sole occupancy units, as discussed above, and additionally ensuring the location of mechanical service are also separated from sole occupancy areas – locating condenser units on the roof above non occupiable areas. Additionally, the automatic garage door system is not located below apartments, reducing the potential for the transfer of noise impact to occupiable spaces.

It is noted that the structural isolation of the automatic garage door will be undertaken to ensure that any structural transmission is further minimised.

The acceptable outcome listed for O 4.7.1 lists "Dwellings exceed the minimum requirements of the NCC, such as a rating under the AAC Guideline for Apartment and Townhouse Acoustic Rating (or equivalent).

This acceptable outcome is proposed to be achieved by exceed the requirements stipulated by Part F5 of the NCC/BCA requirements (sound isolation of sole occupancy units). The recommended design for impact isolation between apartments (for footfall noise) will be with the aim of achieving a performance far exceeding the NCC minimum requirements.

PULLYBLANK PTY LTD
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24 Carrington Street Apartments – Landscape Report

The landscape proposed for the apartment complex is a simple one, predominantly native plant material supplemented with some special exotic specimens. All the plants have proven to thrive in Nedlands gardens, and are easily maintained and pest resistant.

Existing Trees
A key feature of the new landscape is the preservation of the existing established large trees. There are 6no large established trees all of which will remain in their present locations and be protected during and after construction.

Celtis australis – Hackberry
One specimen tree is located on the Carrington and Dalkeith Road corner within the present fence line. The tree is relatively young but a substantial size and the intention is to retain it in its present location.

Eucalyptus marginata – Jarrah
This tree is located in south west corner of the site, the building has been sited to ensure the tree survives and thrives. Previously walls were constructed around the tree and these walls will define the extent of earthworks around the tree, protecting it for the future.

Eucalyptus todtiana – Prickly Butt
This specimen is located on the western boundary and similarly is surrounded by walls installed during earlier construction. Ironically the walls assist with the preservation of the tree as they have contained the root system. The construction work will remain outside the existing walls footprint.

Olea europaea – Olives
The 3no Olives located on the corner of Carrington Street and Dalkeith Road which will be retained in their present location. The associated understory landscape will also be protected and preserved.

Existing Small Trees
Whilst all of the smaller trees will be retained some remain in their present locations and a number will be relocated.

Citrus limon – Lemons
There are a number of well-established Lemons on the project site all will be retained but they will need to be relocated to allow construction to occur. It is fortunate that Lemons are relatively easy to move. They will all be prepared with root trimming and allowed to settle before being relocated on site.

New Trees
There are 2no large trees planned for the open basement:

Pyrus callereyana – Bradford Pear
Two specimens are proposed for the basement planting.

This ornamental pear will grow to fill the basement space and rise 6 to 8m. In the period of the year it will provide shade to the basement and in the cool months. The seasonal colour of changing seasons will be spectacular.

Façade Landscape
The façade structure of the building is a feature of the project and the green leafy cover of Parthenocissus tricuspidata – Boston Ivy will be striking element of the Nedlands streetscape. A green wall in the true sense of the word.

Two different expanded mesh sizes will provide support for the Boston Ivy. On the upper levels a more open mesh has been designed whilst a tighter mesh has been designed for the ground level. This will provide extra privacy.

Boston Ivy has been a feature of the Nedlands landscape covering many walls and providing a green curtain in the hotter months and once the spectacular scarlet autumn foliage has dropped, leaving a tracery or web of plant fabric. It is easy to grow and needs little if any maintenance, it is pest and disease free in most situations. Occasional outbreaks of Scale Insects are rare and can be controlled by the use of nontoxic emulsified vegetable oil to suffocate the pest.

The fact the façade planting is deciduous will ensure vermin will not nest or inhabit the foliage as they will be exposed in the cooler months of the year.

The Boston Ivy for the façade will planted in the Public Areas only to ensure the plants can be maintained easily and not rely on attendance by the residents.

Ground Level Landscape
It is worth noting that all of the ground level and basement landscape is into deep soil and none is located over structure. This will ensure the plants have the best chance of survival and thriving. All gardens will be mulched and provided with irrigation.

All of the ground level planting is native and most are endemic including:

Dichondra repens
Eremophila glabra
Grevillea preissii
Guichenotia ledifolia
Lepidosperma gladiatum
Patersonia occidentalis – Flag Iris

The remainder are native:

Anigozanthos flavidus x pulcherrimus – Big Red
Anigozanthos flavidus x pulcherrimus – Yellow Gem
Cyathea cooperi – Slender Tree Fern

Viola hederacea – Native Violet

The landscape will be easily maintained as the plants have been proven to thrive in Nedlands in most cases with very little care or special attention.

Balcony Landscapes
The containers for the balcony planters have been carefully considered with total dimension of 1m with 800mm depth of growing medium excluding drainage and set down. The planters will be insulated to minimise the risk of heating the root system. The depth of soil will provide appropriate volume of growing medium to retain water and nutriment for healthy plant growth.

The planters will have a small tree such as:
Citrus latifolia -Lime
Citrus limon - Lemon
Feijoa sellowiana - Feijoa
Punica granatum – Pomegranate

The under-storey planting will be composed of culinary plants such as:
Cymbopogon citratus – Lemon Grass
Geranium species – Scented Geranium
Lavandula dentata - Lavender
Mentha species - Mint
Rosmarinus officinalis – Rosemary

This landscape will become the responsibility of the residents and will allow them some individual input into the local environment. The green façade will however be the dominant landscape.

Landscape Maintenance
The establishment and maintenance of the landscape has been carefully considered. Plants that have proven to grow well in Nedlands have been selected and where possible they have all been endemic to the local landscape. All other plants thrive locally and build on the Nedlands green character.

All gardens will have 50mm of mulch.

The landscape is irrigated with three types of water supply:

Bore water - The bore water will be used for the private gardens or ground level gardens.
Grey water - This will be collected from the site and used for the Public Areas.
Scheme water - The balcony planters will be supplied by a system controlled by the occupants.

There are no lawns in the scheme: this will result in less water being used on the landscape.

Conclusion
The landscape is a simple and will be easy to establish and maintain. It will add to the green character of Nedlands.

REV	DESCRIPTION	BY	DATE

STATUS: DEVELOPMENT APPLICATION

CLIENT: CHARLESWORTH

ARCHITECT / DESIGNED BY: SIMON ANDERSON

24 CARRINGTON STREET, NEDLANDS

APARTMENT BUILDING DEVELOPMENT APPLICATION

SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: COVER

SCALE AT A3:	DATE: 21/11/2019 5:21:40 PM	DRAWN: JR	CHECKED: SA
PROJECT NO: -		DRAWING NO: SK0	REVISION:

CONTACT:

SHEET LIST

Sheet Name	Sheet Number	Drawn By	Checked By
COVER	SK0	JR	SA
SHEET LIST	SK0.5	JR	SA
WIDER CONTEXT PLAN	SK01	JR	SA
LOCAL CONTEXT PLAN	SK02	JR	SA
EXISTING FEATURE SURVEY	SK03	JR	SA
REGULATIONS	SK04	JR	SA
MASSING 1	SK05	JR	SA
MASSING 2	SK06	JR	SA
MASSING 3	SK07	JR	SA
MASSING 4	SK08	JR	SA
MASSING 5	SK09	JR	SA
MASSING 6	SK10	JR	SA
STREETSCAPE ELEVATIONS	SK11	JR	SA
SITEPLAN	SK12	JR	SA
LANDSCAPE PLAN	SK13	JR	SA
LANDSCAPE SELECTIONS	SK14	JR	SA
BASEMENT PLAN	SK15	JR	SA
WASTE MANAGEMENT	SK16	JR	SA
LEVEL 1 PLAN	SK17	JR	SA
LEVEL 2 PLAN	SK18	JR	SA
LEVEL 3 PLAN	SK19	JR	SA
ROOF PLAN	SK20	JR	SA
1 BEDROOM PLANS	SK21	JR	SA
2 BEDROOM PLANS	SK22	JR	SA
3 BEDROOM PLANS	SK23	JR	SA
NORTH & SOUTH ELEVATIONS	SK24	JR	SA
EAST & WEST ELEVATIONS	SK25	JR	SA
MATERIALS	SK26	JR	SA
SECTIONS	SK27	JR	SA
SECTIONS 2	SK28	JR	SA
FACADE DETAIL SECTION	SK29	JR	SA
MASSING	SK30	JR	SA
OVERSHADOWING	SK31	JR	SA
PERFORMANCE SUMMARY	SK32	JR	SA
WEST FACADE ELEVATION	SK33	JR	SA
EAST FACADE ELEVATION	SK34	JR	SA
NORTH & SOUTH FACADE ELEVATIONS	SK35	JR	SA
3D STREET VIEWS	SK36	JR	SA

VIEW FROM BASEMENT COURTYARD PLANTING

REV	DESCRIPTION	BY	DATE
STATUS:	DEVELOPMENT APPLICATION		

CLIENT:
CHARLESWORTH

ARCHITECT / DESIGNED BY:
SIMON ANDERSON

SITE:
24 CARRINGTON STREET, NEDLANDS

TITLE:
SHEET LIST

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
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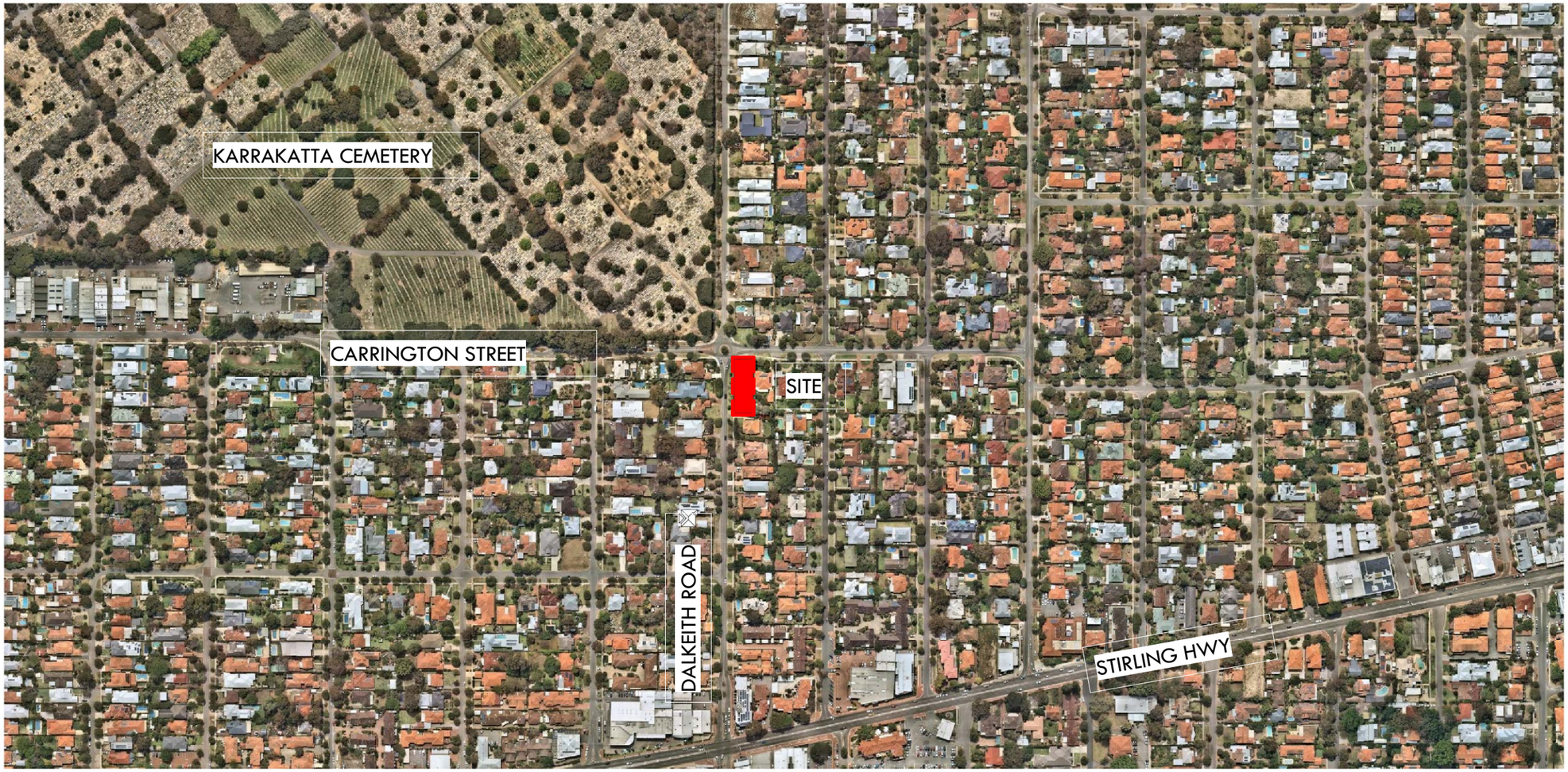
PROJECT NO: -		DRAWING NO: SK0.5	REVISION:

CONTACT:



DALKEITH ROAD

DALKEITH ROAD (LOOKING @ 24 CARRINGTON ST)

CARRINGTON STREET (FROM ROUNDABOUT)

WIDER CONTEXT PLAN

SCALE @ A3: 1 : 5000

N

REV	DESCRIPTION	BY	DATE
STATUS:	DEVELOPMENT APPLICATION		

CLIENT:
CHARLESWORTH

ARCHITECT / DESIGNED BY:
SIMON ANDERSON

SITE:
24 CARRINGTON STREET, NEDLANDS

TITLE:
WIDER CONTEXT PLAN

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1 : 5000	21/11/2019 5:21:53 PM	JR	SA
PROJECT NO: -		DRAWING NO: SK01	REVISION:

CONTACT:

LOCALITY PLAN

SCALE @ A3: 1 : 500

N

REV	DESCRIPTION	BY	DATE

STATUS: DEVELOPMENT APPLICATION

CLIENT: CHARLESWORTH

ARCHITECT / DESIGNED BY: SIMON ANDERSON

SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: LOCAL CONTEXT PLAN

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
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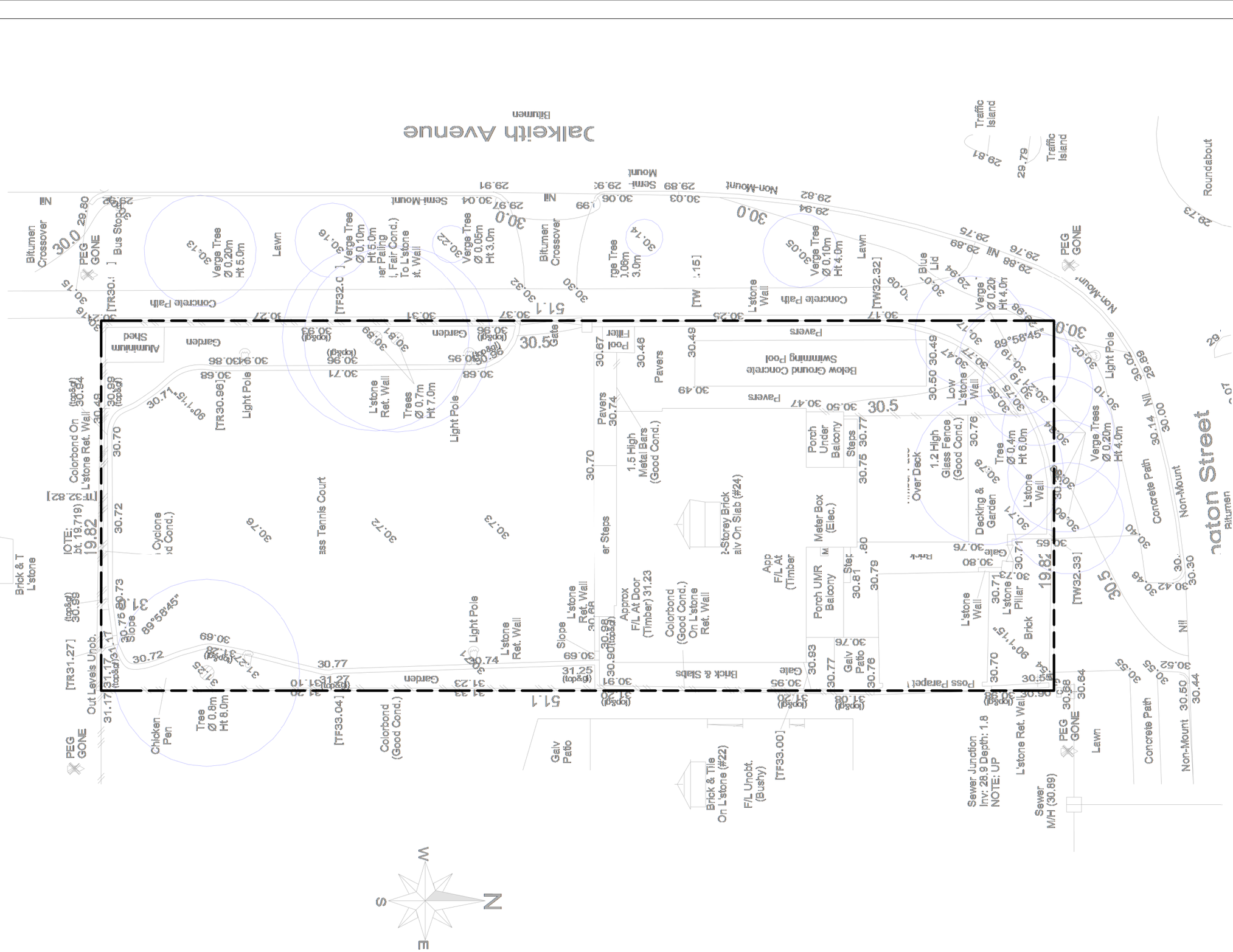
PROJECT NO: -		DRAWING NO: SK02	REVISION:

CONTACT:



FEATURE SURVEY

SCALE @ A3: 1 : 200

REV	DESCRIPTION	BY	DATE
STATUS:	DEVELOPMENT APPLICATION		

CLIENT:
CHARLESWORTH

ARCHITECT / DESIGNED BY:
SIMON ANDERSON

SITE:
24 CARRINGTON STREET, NEDLANDS

TITLE:
EXISTING FEATURE SURVEY

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
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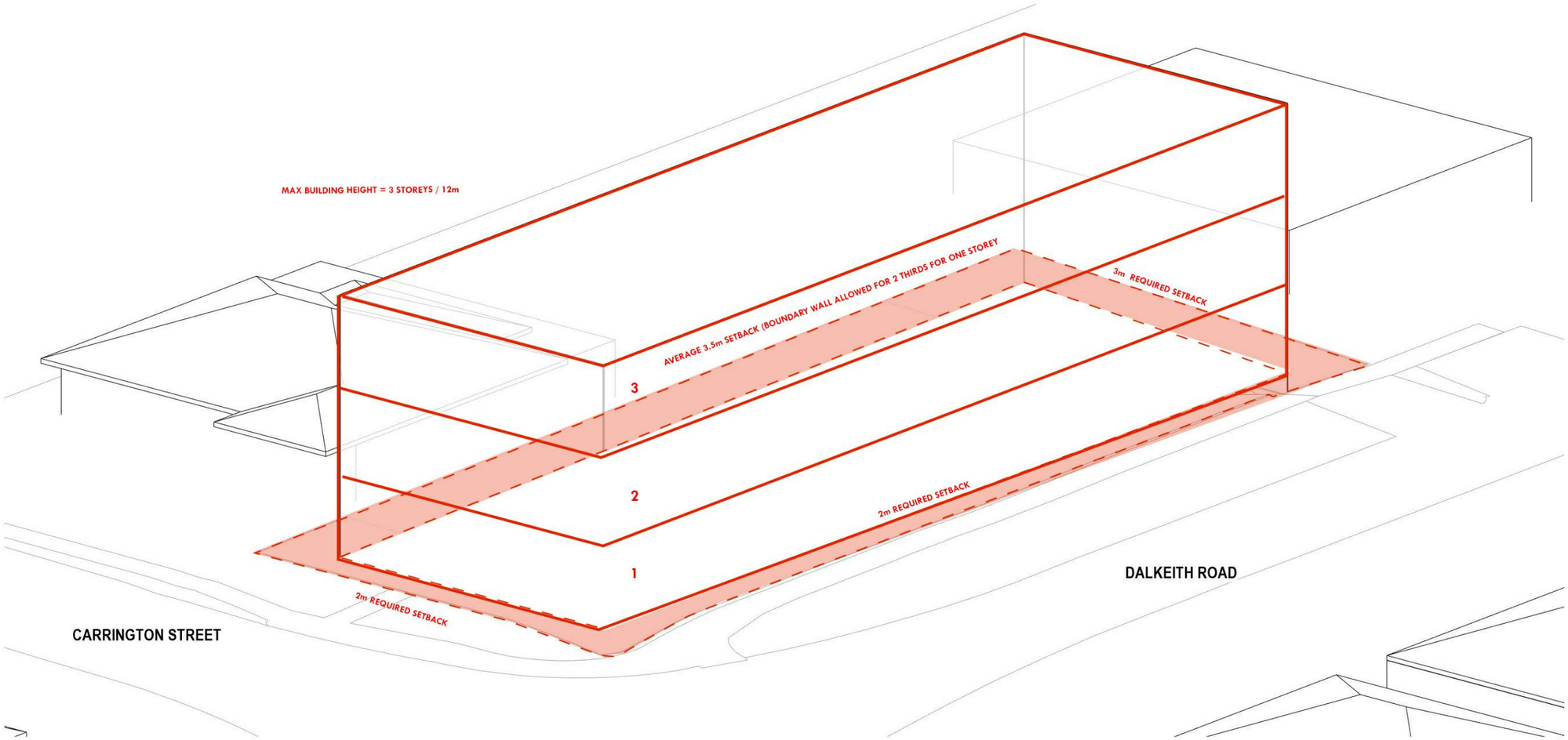
PROJECT NO: -		DRAWING NO: SK03	REVISION:

CONTACT:

BUILDING HEIGHT & SETBACKS



CONCEPT MASSING

REV	DESCRIPTION	BY	DATE
STATUS:	DEVELOPMENT APPLICATION		

CLIENT:
CHARLESWORTH

ARCHITECT / DESIGNED BY:
SIMON ANDERSON

SITE:
24 CARRINGTON STREET, NEDLANDS

TITLE:
REGULATIONS

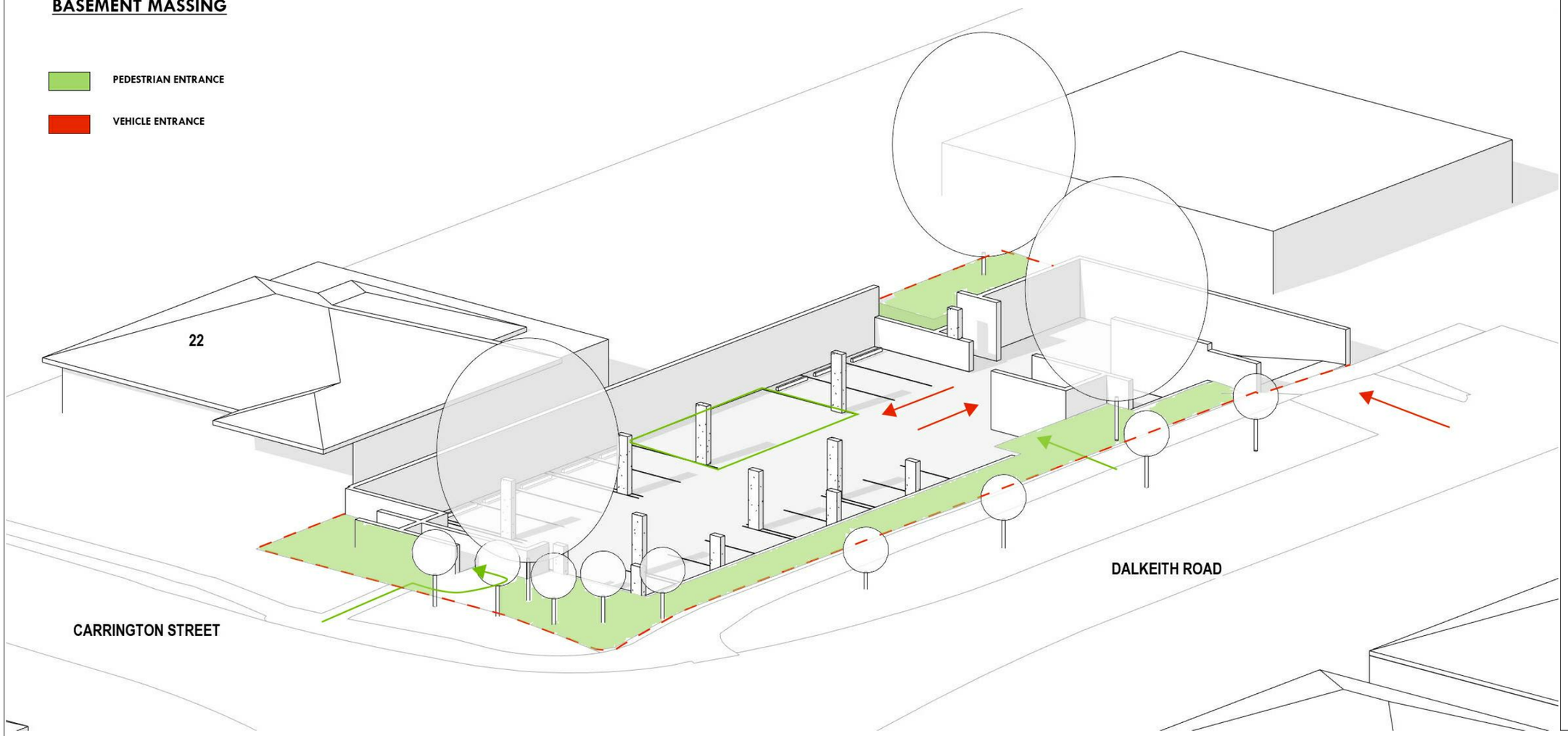
SCALE AT A3:	DATE:	DRAWN:	CHECKED:
	21/11/2019 5:22:14 PM	JR	SA
PROJECT NO:		DRAWING NO:	REVISION:
-		SK04	

CONTACT:

BASEMENT MASSING

PEDESTRIAN ENTRANCE

VEHICLE ENTRANCE



CONCEPT MASSING

REV	DESCRIPTION	BY	DATE

STATUS: DEVELOPMENT APPLICATION

CLIENT: CHARLESWORTH

ARCHITECT / DESIGNED BY: SIMON ANDERSON

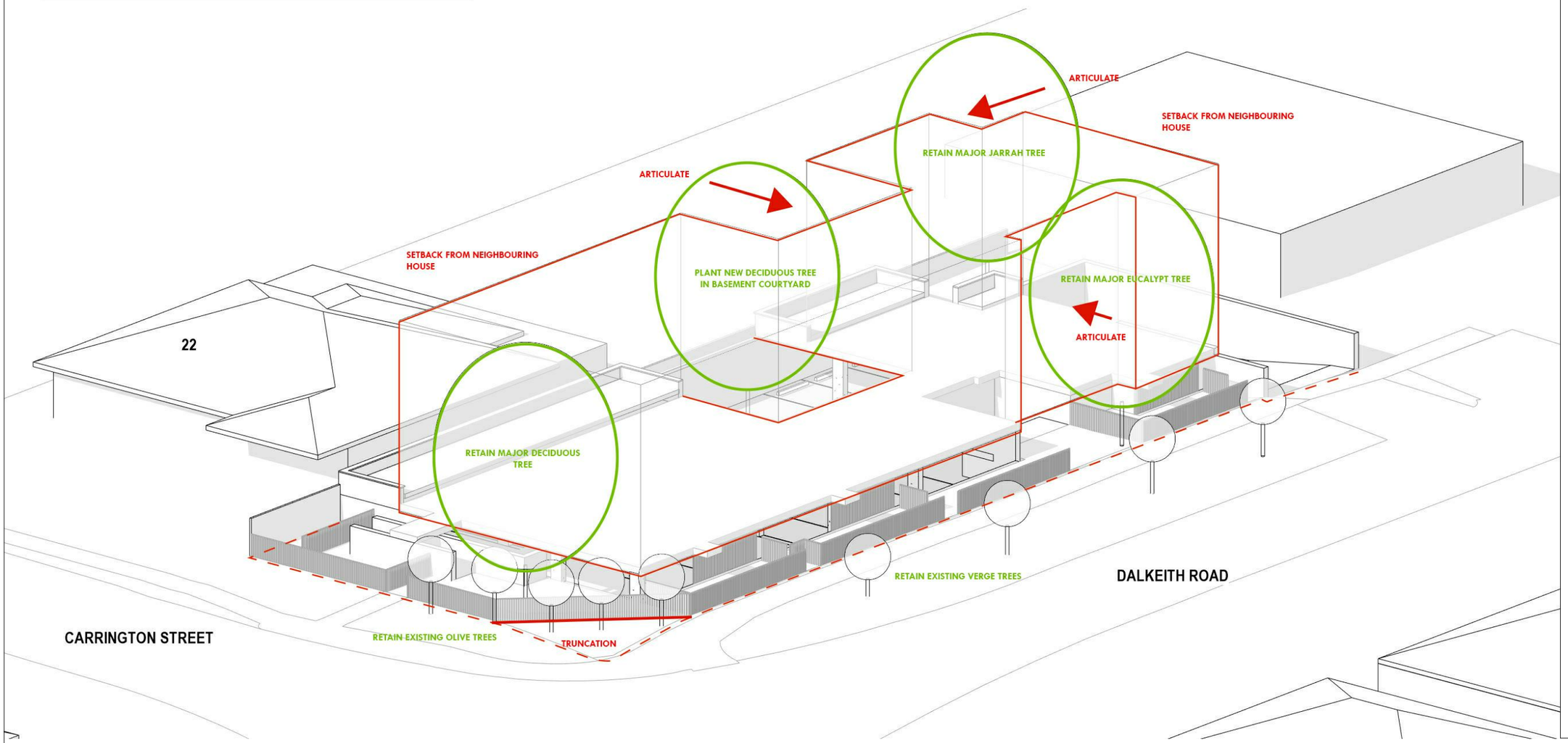
SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: MASSING 1

SCALE AT A3:	DATE: 21/11/2019 5:22:18 PM	DRAWN: JR	CHECKED: SA
PROJECT NO: -		DRAWING NO: SK05	REVISION:

CONTACT:

ARTICULATION & RETAINMENT OF EXISTING VEGETATION



CONCEPT MASSING

REV	DESCRIPTION	BY	DATE

STATUS: DEVELOPMENT APPLICATION

CLIENT: CHARLESWORTH

ARCHITECT / DESIGNED BY: SIMON ANDERSON

SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: MASSING 2

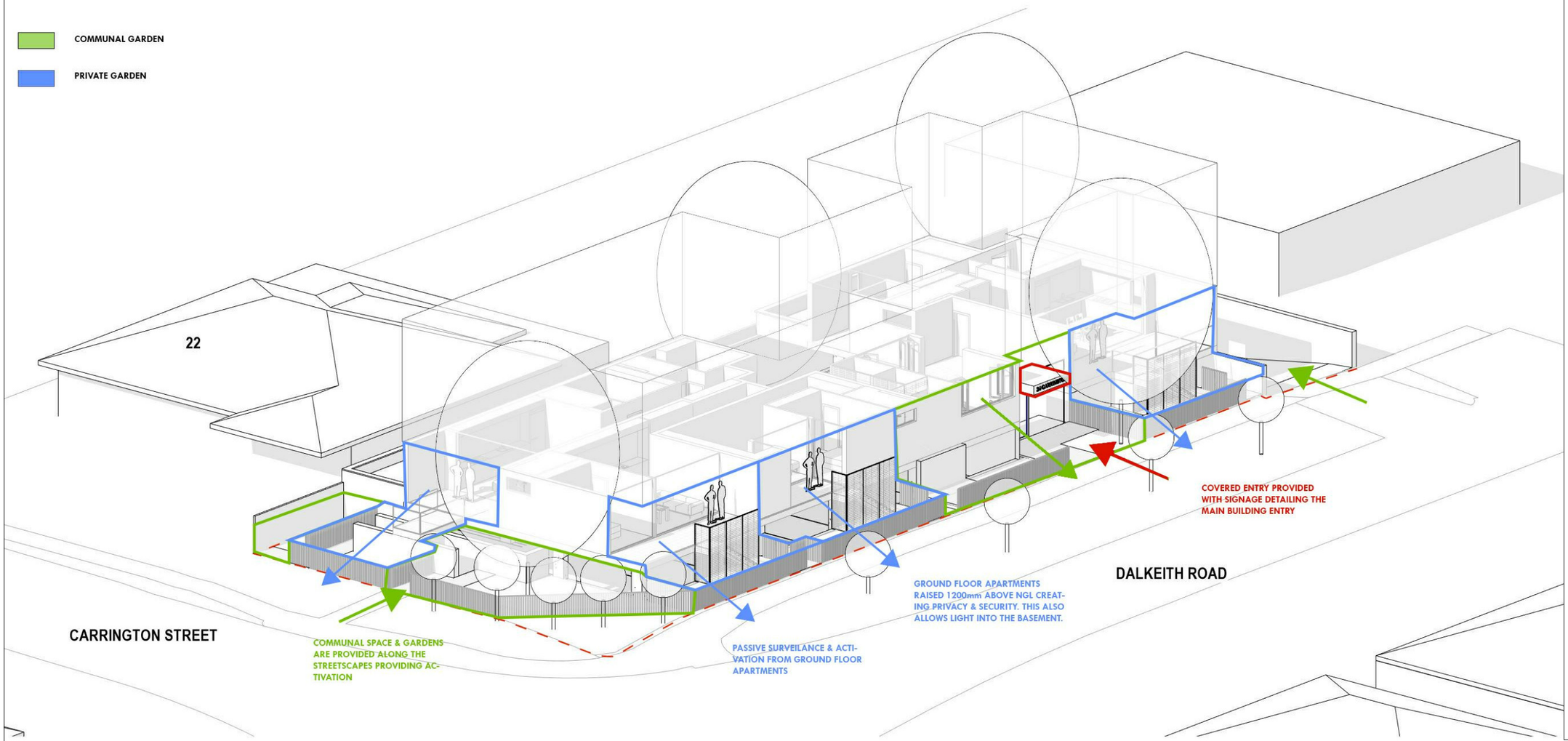
SCALE AT A3:	DATE: 21/11/2019 5:22:21 PM	DRAWN: JR	CHECKED: SA
PROJECT NO: -		DRAWING NO: SK06	REVISION:

CONTACT:

GROUND FLOOR (LEVEL 1) - ACTIVATION

COMMUNAL GARDEN

PRIVATE GARDEN



REV	DESCRIPTION	BY	DATE

STATUS: DEVELOPMENT APPLICATION

CLIENT: CHARLESWORTH

ARCHITECT / DESIGNED BY: SIMON ANDERSON

SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: MASSING 3

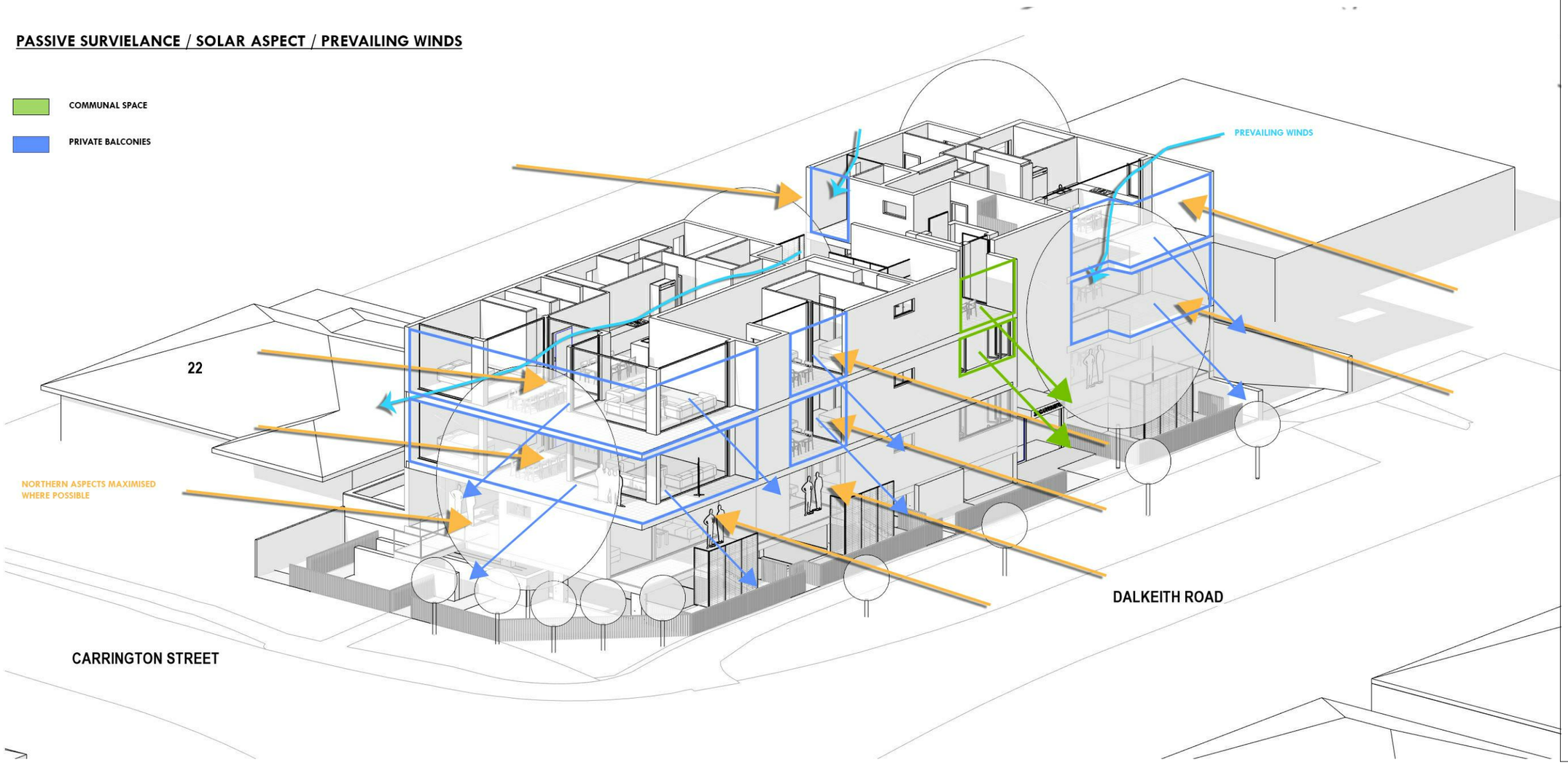
SCALE AT A3:	DATE: 21/11/2019 5:22:26 PM	DRAWN: JR	CHECKED: SA
PROJECT NO: -		DRAWING NO: SK07	REVISION:

CONTACT:

PASSIVE SURVIELANCE / SOLAR ASPECT / PREVAILING WINDS

COMMUNAL SPACE

PRIVATE BALCONIES



CONCEPT MASSING

REV	DESCRIPTION	BY	DATE

STATUS: DEVELOPMENT APPLICATION

CLIENT: CHARLESWORTH

ARCHITECT / DESIGNED BY: SIMON ANDERSON

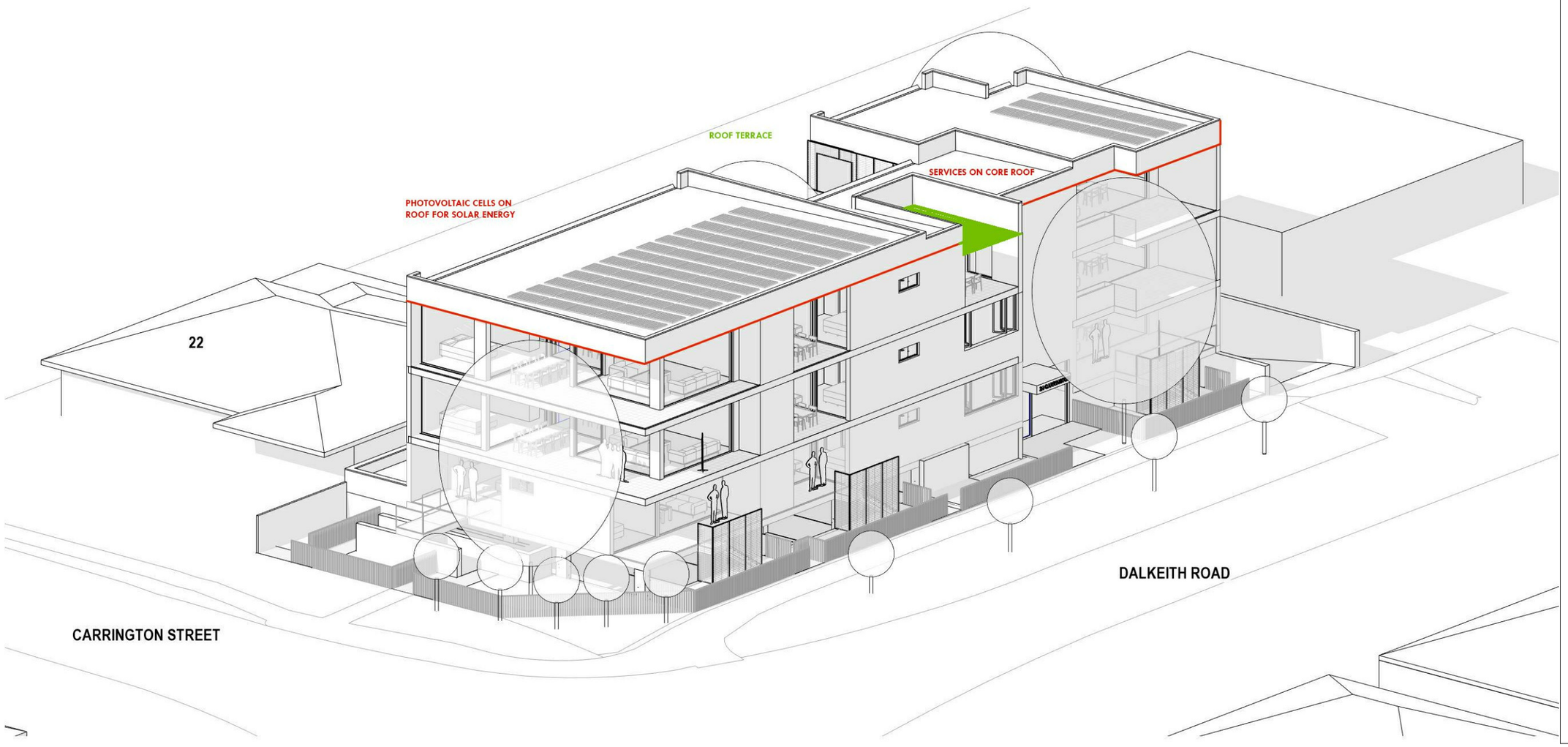
SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: MASSING 4

SCALE AT A3:	DATE: 21/11/2019 5:22:30 PM	DRAWN: JR	CHECKED: SA
PROJECT NO: -		DRAWING NO: SK08	REVISION:

CONTACT:

ROOF FORM & ENERGY GENERATION



CONCEPT MASSING

REV	DESCRIPTION	BY	DATE
STATUS:	DEVELOPMENT APPLICATION		

CLIENT:
CHARLESWORTH

ARCHITECT / DESIGNED BY:
SIMON ANDERSON

SITE:
24 CARRINGTON STREET, NEDLANDS

TITLE:
MASSING 5

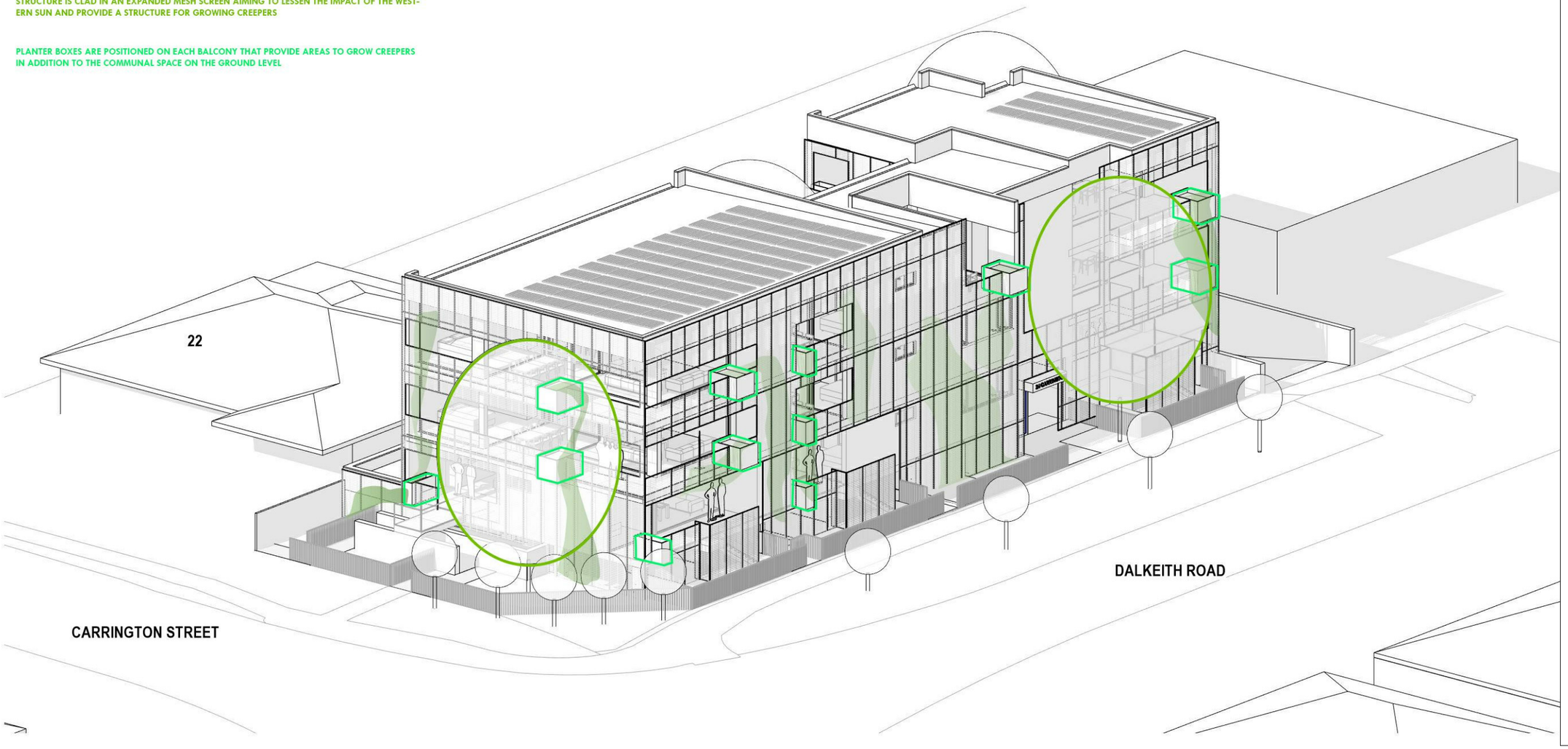
SCALE AT A3:	DATE: 21/11/2019 5:22:38 PM	DRAWN: JR	CHECKED: SA
PROJECT NO: -		DRAWING NO: SK09	REVISION:

CONTACT:

FACADE DESIGN

STRUCTURE IS CLAD IN AN EXPANDED MESH SCREEN AIMING TO LESSEN THE IMPACT OF THE WESTERN SUN AND PROVIDE A STRUCTURE FOR GROWING CREEPERS

PLANTER BOXES ARE POSITIONED ON EACH BALCONY THAT PROVIDE AREAS TO GROW CREEPERS IN ADDITION TO THE COMMUNAL SPACE ON THE GROUND LEVEL



CONCEPT MASSING

REV	DESCRIPTION	BY	DATE

STATUS: DEVELOPMENT APPLICATION

CLIENT: CHARLESWORTH

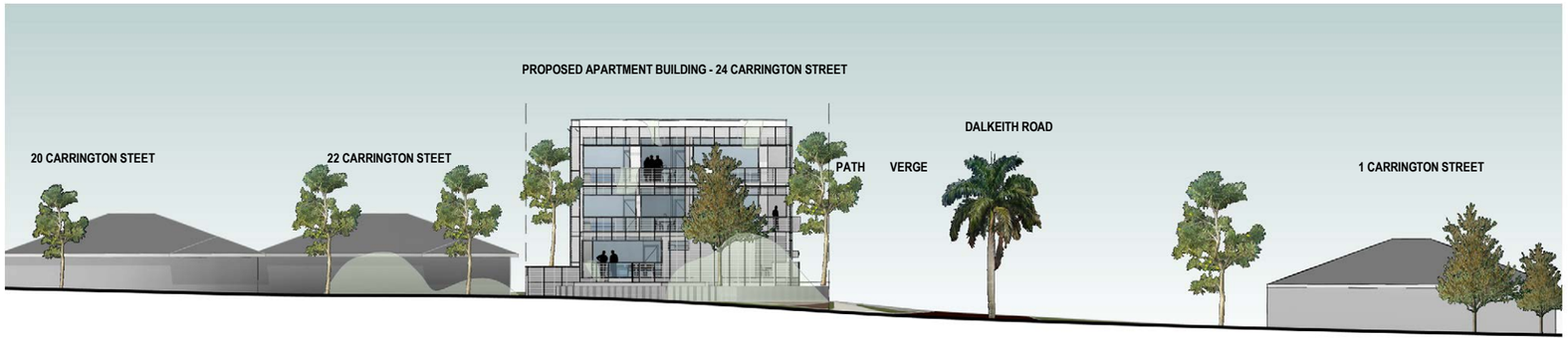
ARCHITECT / DESIGNED BY: SIMON ANDERSON

SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: MASSING 6

SCALE AT A3:	DATE: 21/11/2019 5:22:46 PM	DRAWN: JR	CHECKED: SA
PROJECT NO: -		DRAWING NO: SK10	REVISION:

CONTACT:



CARRINGTON STREET STREETSCAPE ELEVATION

SCALE @ A3:1 : 400

DALKEITH ROAD STREETSCAPE ELEVATION

SCALE @ A3:1:400

CONCEPT MASSING

REV	DESCRIPTION	BY	DATE

STATUS: DEVELOPMENT APPLICATION

CLIENT: CHARLESWORTH

ARCHITECT / DESIGNED BY: SIMON ANDERSON

SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: STREETSCAPE ELEVATIONS

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
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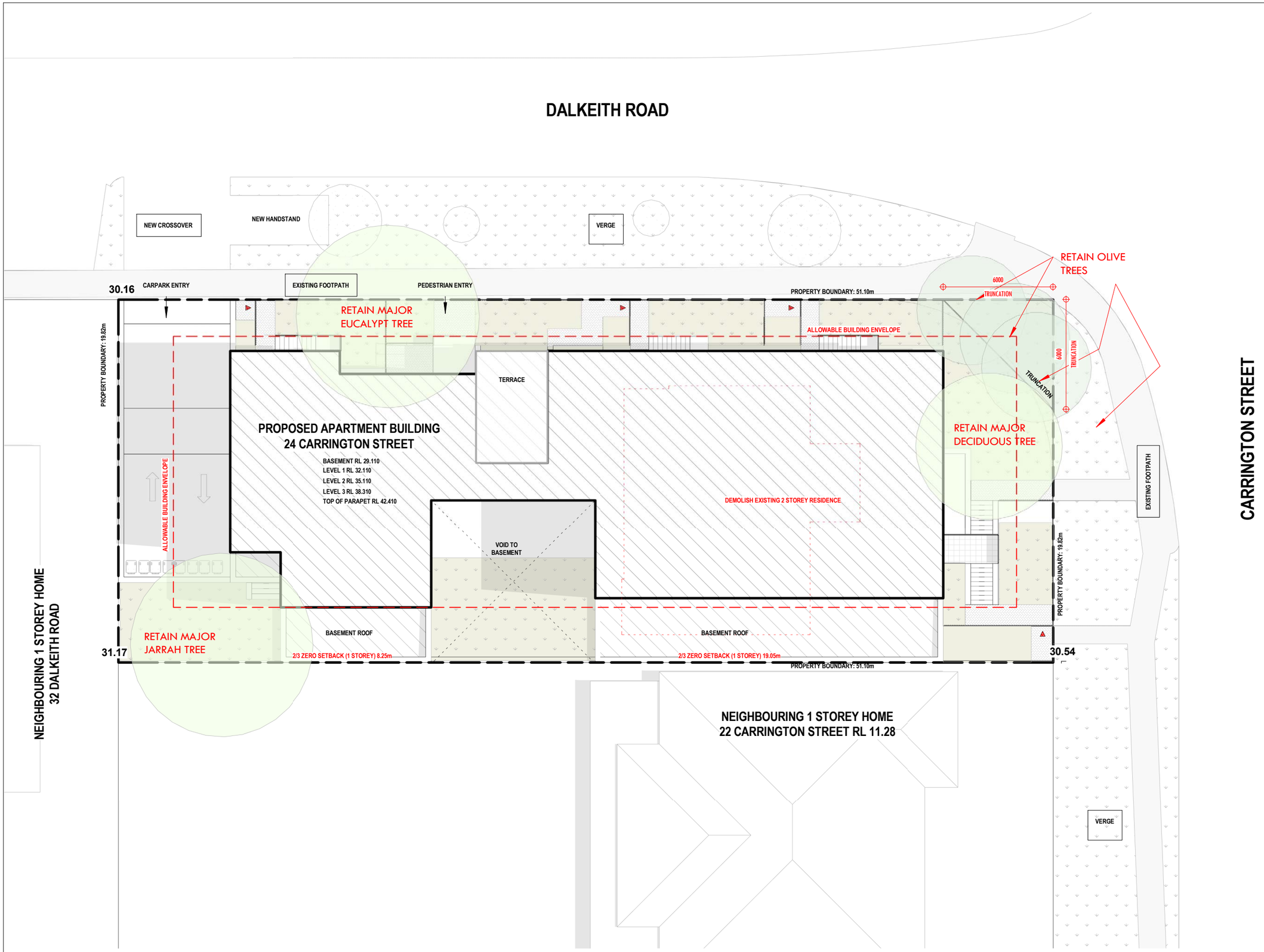
PROJECT NO: -		DRAWING NO: SK11	REVISION:

CONTACT:



SITEPLAN

SCALE @ A3: 1 : 200

PLOT RATIO

ZONED: R60

PLOT RATIO ALLOWED: 0.8

SITE AREA: 1011.7m²

ALLOWED PLOT RATIO FLOOR AREA:

CURRENT PLOT RATIO AREA: 884m²

CURRENT PLOT RATIO: 0.873

COMMUNAL SPACE

REQUIREMENT: INFORMAL SEATING

MINIMUM OPEN SPACE DIMENSION: N/A

DEEP SOIL ZONE

REQUIREMENT: 7% OF SITE AREA WITH EXISTING TREE(S) RETAINED

PROPOSED: 3 MATURE TREES RETAINED & 3 MATURE OLIVE TREES AT TRUNCATION

TOTAL AREA: 246 m² SHOWN WITH GREEN HATCH

REV	DESCRIPTION	BY	DATE
STATUS:	DEVELOPMENT APPLICATION		

CLIENT: CHARLESWORTH

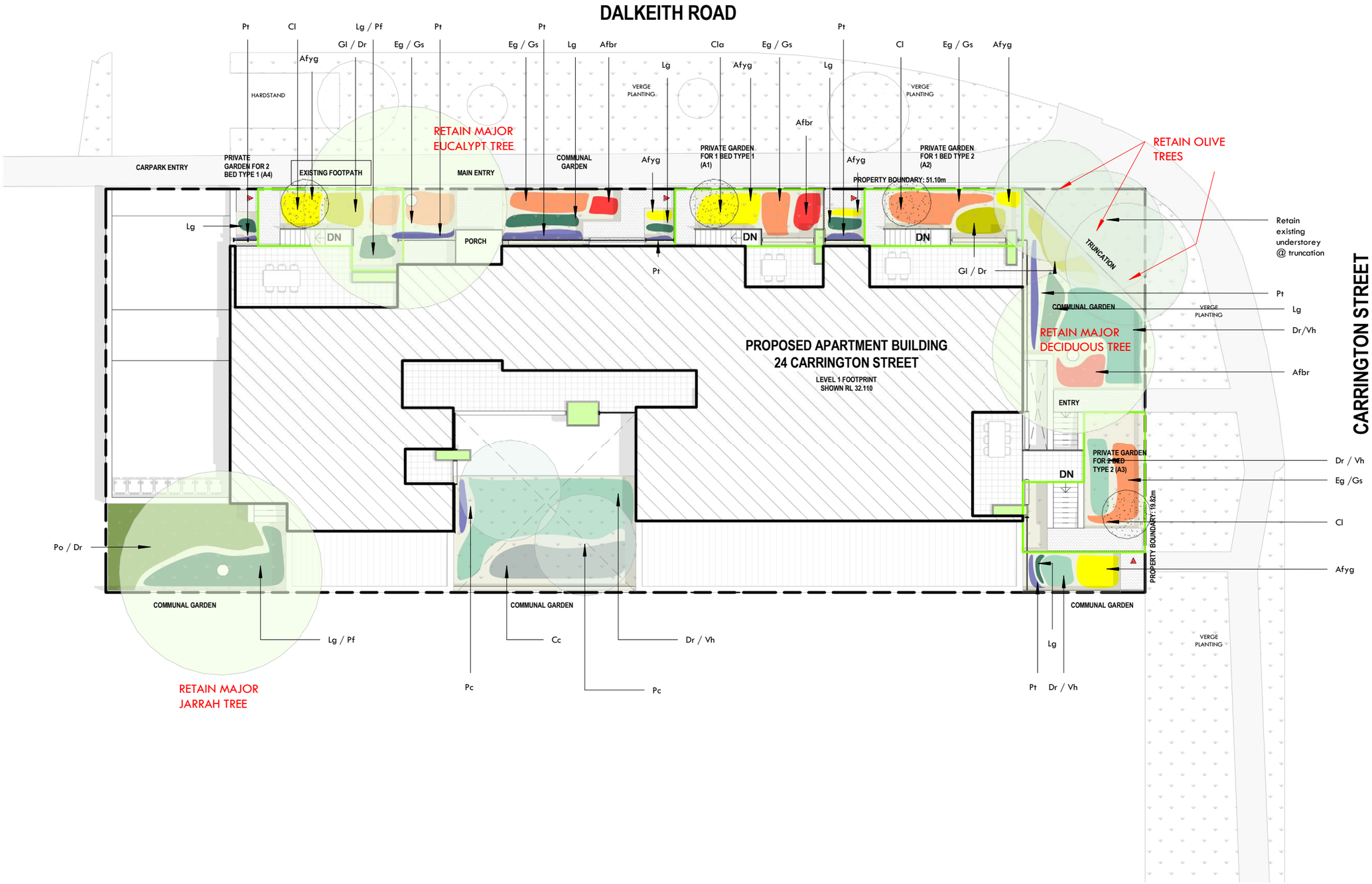
ARCHITECT / DESIGNED BY: SIMON ANDERSON

SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: SITEPLAN

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1 : 200	21/11/2019 5:23:35 PM	JR	SA
PROJECT NO: -		DRAWING NO: SK12	REVISION:

CONTACT:



LANDSCAPE PLAN

SCALE @ A3: 1 : 200

CODE	BOTANIC NAME	COMMON NAME E = EXOTIC N = NATIVE
TREES		
Cl	Citrus Limoni	Lemon E
Cla	Citrus Latifolia	Lime E
Pc	Pyrus Calleryana	Oranmental Pear E
SHRUBS		
Afbr	Anigozanthos Red	Kangaroo Paw N
Afyg	Anigozanthos	Kangaroo Paw N
Eg	Eremphila Glabra	Tar Bush N
Gs	Grevillea Preissii	Spider Flower N
Lg	Lepidosperma gladiatum	Coastal Sedge N
Gl	Guichenotia Ledifolia	N
FERNS		
Cc	Cyathea Cooperi	Slender Tree Fern N
GROUND COVER		
Dr	Dichondra repens	Kidney Plant N
Po	Patersonia Occidentalis	Purple Flag Lily N
Vh	Viola Hederacea	Native Voilet N
CLIMBER		
Pt	Parthenocissus Tricuspidata	Boston Ivy E
BALCONY PLANTS		
not coded	Citrus Latifola	Lime
	Citrus Limoni	Lemon
	Feijoa Sellowiana	Feijoa
	Punica Granatum	Pomegranite
	Cymbopogon citratus	Lemon Grass
	Geranium	Geranium
	Lavanula Dentata	Lavender
	Mentha Species	Mint Species
	Rosmarinus officinalis	Rosemary

PULLYBLANK Pty Ltd
42 Solomon Street Fremantle 6160 Mob 0413 056 836
stuart.pullyblank@pullyblank.net | www.pullyblank.net

REV	DESCRIPTION	BY	DATE
STATUS:	DEVELOPMENT APPLICATION		

CLIENT: CHARLESWORTH

ARCHITECT / DESIGNED BY: SIMON ANDERSON

SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: LANDSCAPE PLAN

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1 : 200	21/11/2019 5:23:50 PM	JR	SA
PROJECT NO: -		DRAWING NO: SK13	REVISION:

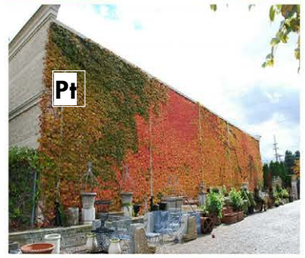
CONTACT:

TREES

SHRUBS (1m HEIGHT @ MATURITY)

GROUND COVER

CLIMBER



BALCONY PLANTS

FERNS

CODE	BOTANIC NAME	COMMON NAME E = EXOTIC N = NATIVE
TREES		
Cl	Citrus Limoni	Lemon E
Cla	Citrus Latifolia	Lime E
Pc	Pyrus Calleryana	Ornamental Pear E
SHRUBS		
Afbr	Anigozanthos Red	Kangaroo Paw N
Afyg	Anigozanthos	Kangaroo Paw N
Eg	Eremphila Glabra	Tar Bush N
Gs	Grevillea Preissii	Spider Flower N
Lg	Lepidosperma gladiatum	Coastal Sedge N
Gl	Guichenotia Ledifolia	N
FERNS		
Cc	Cyathea Cooperi	Slender Tree Fern N
GROUND COVER		
Dr	Dichondra repens	Kidney Plant N
Po	Patersonia Occidentalis	Purple Flag Lily N
Vh	Viola Hederacea	Native Voilet N
CLIMBER		
Pt	Parthenocissus Tricuspidata	Boston Ivy E
BALCONY PLANTS		
not coded	Citrus Latifola	Lime
	Citrus Limoni	Lemon
	Feijoa Sellowiana	Feijoa
	Punica Granatum	Pomegranite
	Cymbopogon citratus	Lemon Grass
	Geranium	Geranium
	Lavanula Dentata	Lavender
	Mentha Species	Mint Species
	Rosmarinus officinalis	Rosemary

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REV	DESCRIPTION	BY	DATE
STATUS:	DEVELOPMENT APPLICATION		

CLIENT:
CHARLESWORTH

ARCHITECT / DESIGNED BY:
SIMON ANDERSON

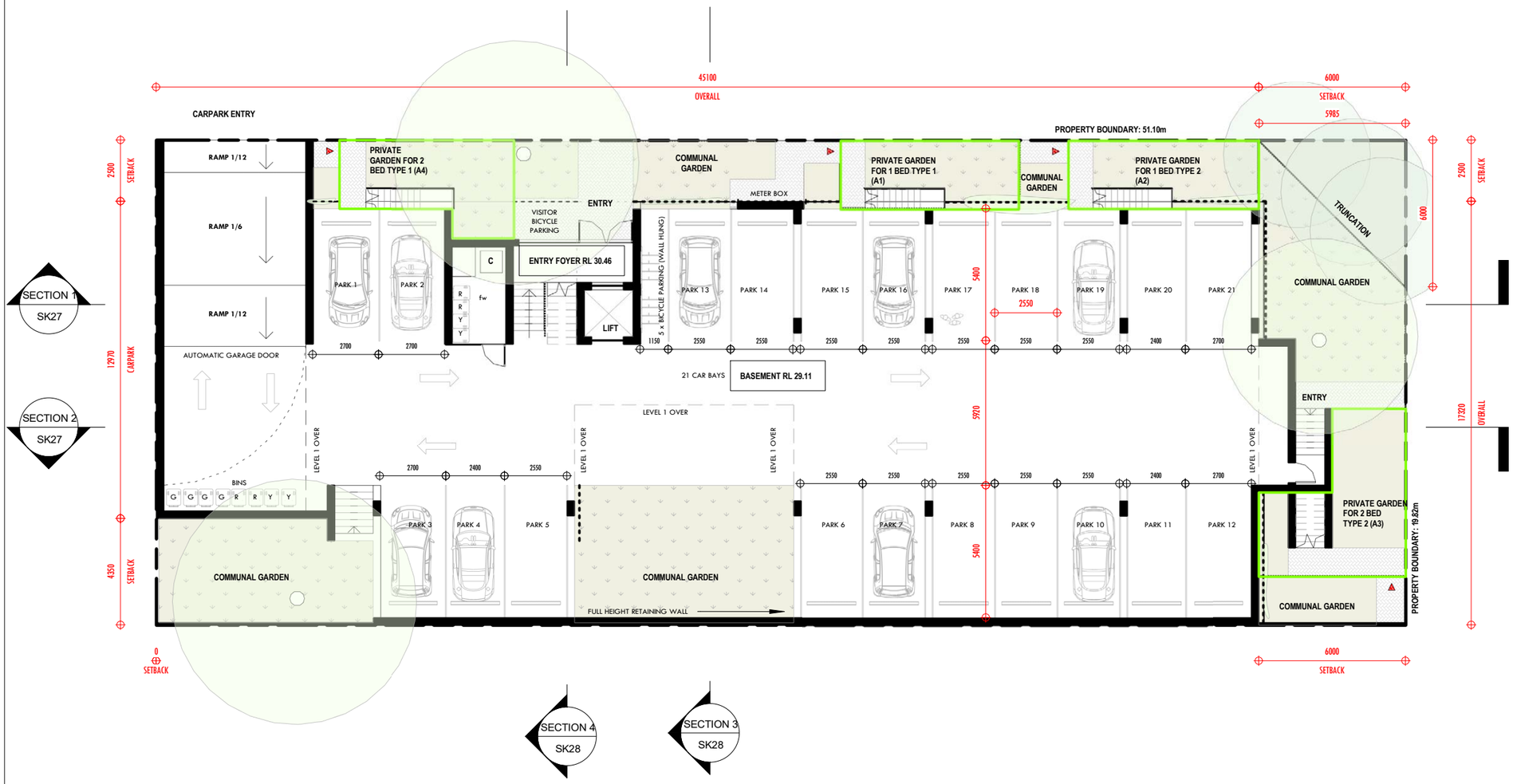
SITE:
24 CARRINGTON STREET, NEDLANDS

TITLE:
LANDSCAPE SELECTIONS

SCALE AT A3:	DATE: 21/11/2019 5:23:58 PM	DRAWN: JR	CHECKED: SA
PROJECT NO: -		DRAWING NO: SK14	REVISION:

CONTACT:

DALKEITH ROAD



BASEMENT PLAN

SCALE @ A3: 1 : 200

CAR & BICYCLE PARKING

CAR PARKING REQUIRED

1 BEDROOM: 1 BAY PER DWELLING

2+ BEDROOM: 1.25 BAYS PER DWELLING

CAR PARKING PROPOSED

1 BEDROOM: 1 BAY PER DWELLING

2 BEDROOM: 2 BAYS PER DWELLING

3 BEDROOM: 3 BAYS PER DWELLING

VISITOR: 3 BAYS

BICYCLE PARKING

RESIDENT: 0.5 SPACES PER DWELLING = 5 SPACES

VISITOR: 1 SPACE PER 10 DWELLINGS = 1 SPACE

EXPANDED MESH FACADE

CARRINGTON STREET

REV	DESCRIPTION	BY	DATE
STATUS:	DEVELOPMENT APPLICATION		

CLIENT: CHARLESWORTH

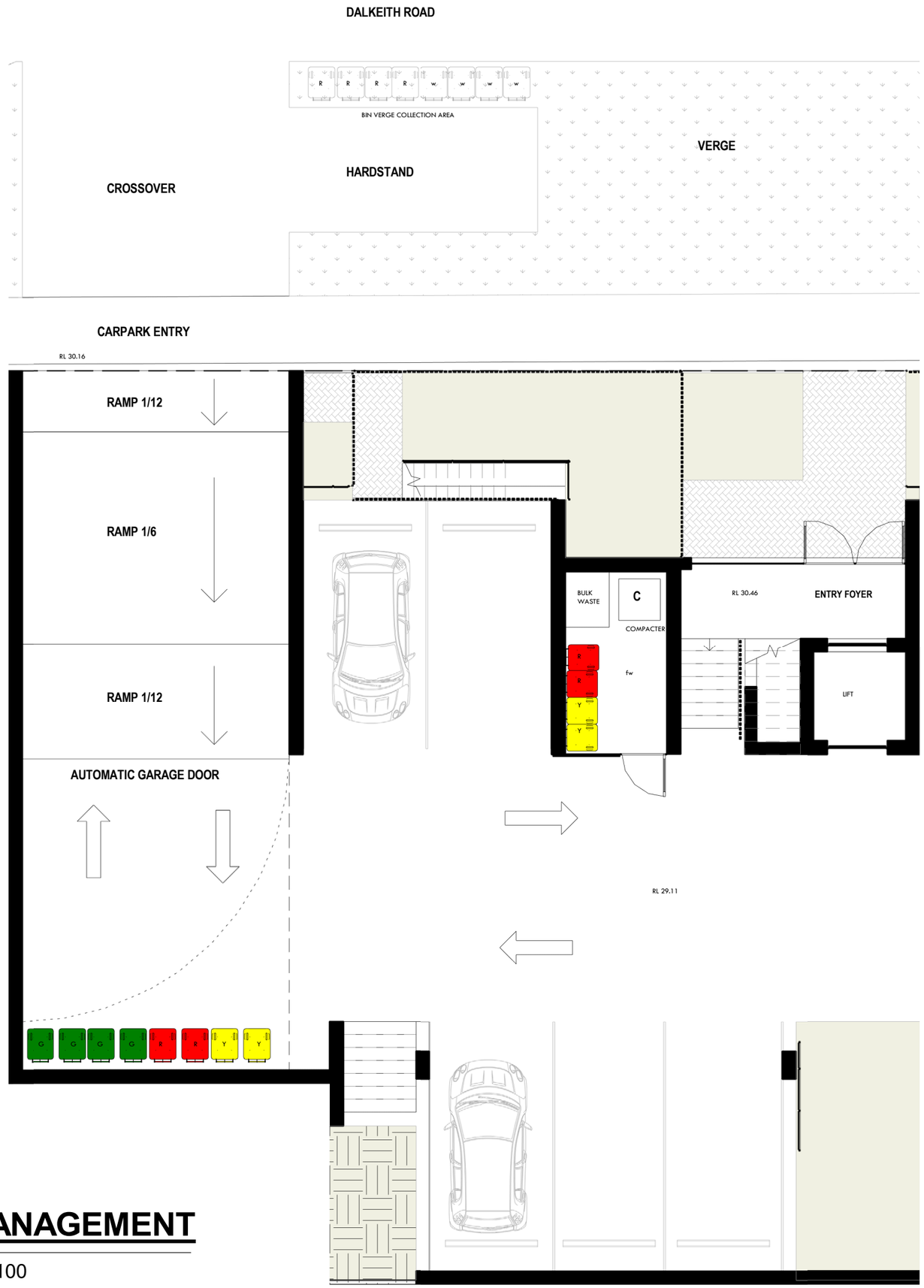
ARCHITECT / DESIGNED BY: SIMON ANDERSON

SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: BASEMENT PLAN

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1 : 200	21/11/2019 5:24:04 PM	JR	SA
PROJECT NO: -		DRAWING NO: SK15	REVISION:

CONTACT:



WASTE MANAGEMENT

SCALE @ A3: 1 : 100

REV	DESCRIPTION	BY	DATE

STATUS: DEVELOPMENT APPLICATION

CLIENT: CHARLESWORTH

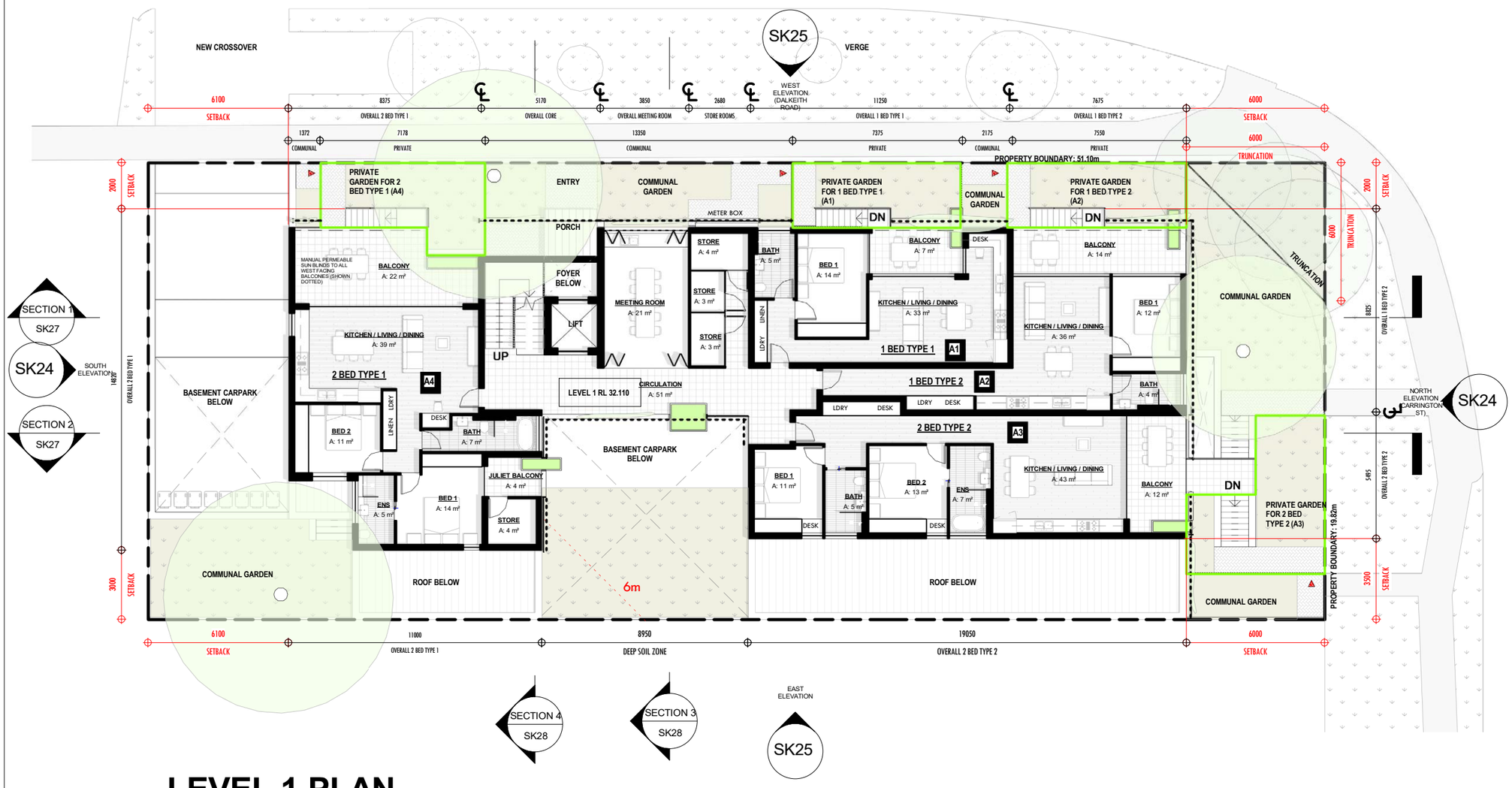
ARCHITECT / DESIGNED BY: SIMON ANDERSON

SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: WASTE MANAGEMENT

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1 : 100	21/11/2019 5:24:14 PM	JR	SA
PROJECT NO: -		DRAWING NO: SK16	REVISION:

CONTACT:



LEVEL 1 PLAN

SCALE @ A3: 1 : 200

APARTMENT AREA SCHEDULE

APARTMENT TYPE	PLOT RATIO AREA	BALCONY AREA	LEVEL
1 BED TYPE 1	60m2	8m2	LEVEL 1 PLAN
1 BED TYPE 2	61m2	15m2	LEVEL 1 PLAN
2 BED TYPE 1	87m2	22m2	LEVEL 1 PLAN
2 BED TYPE 2	90m2	13m2	LEVEL 1 PLAN
1 BED TYPE 1	60m2	8m2	LEVEL 2 PLAN
2 BED TYPE 1	87m2	22m2	LEVEL 2 PLAN
3 BED	146m2	40m2	LEVEL 2 PLAN
1 BED TYPE 1	60m2	8m2	LEVEL 3 PLAN
2 BED TYPE 1	87m2	22m2	LEVEL 3 PLAN
3 BED	146m2	40m2	LEVEL 3 PLAN

Grand total: 10

REV	DESCRIPTION	BY	DATE

STATUS: DEVELOPMENT APPLICATION

CLIENT: CHARLESWORTH

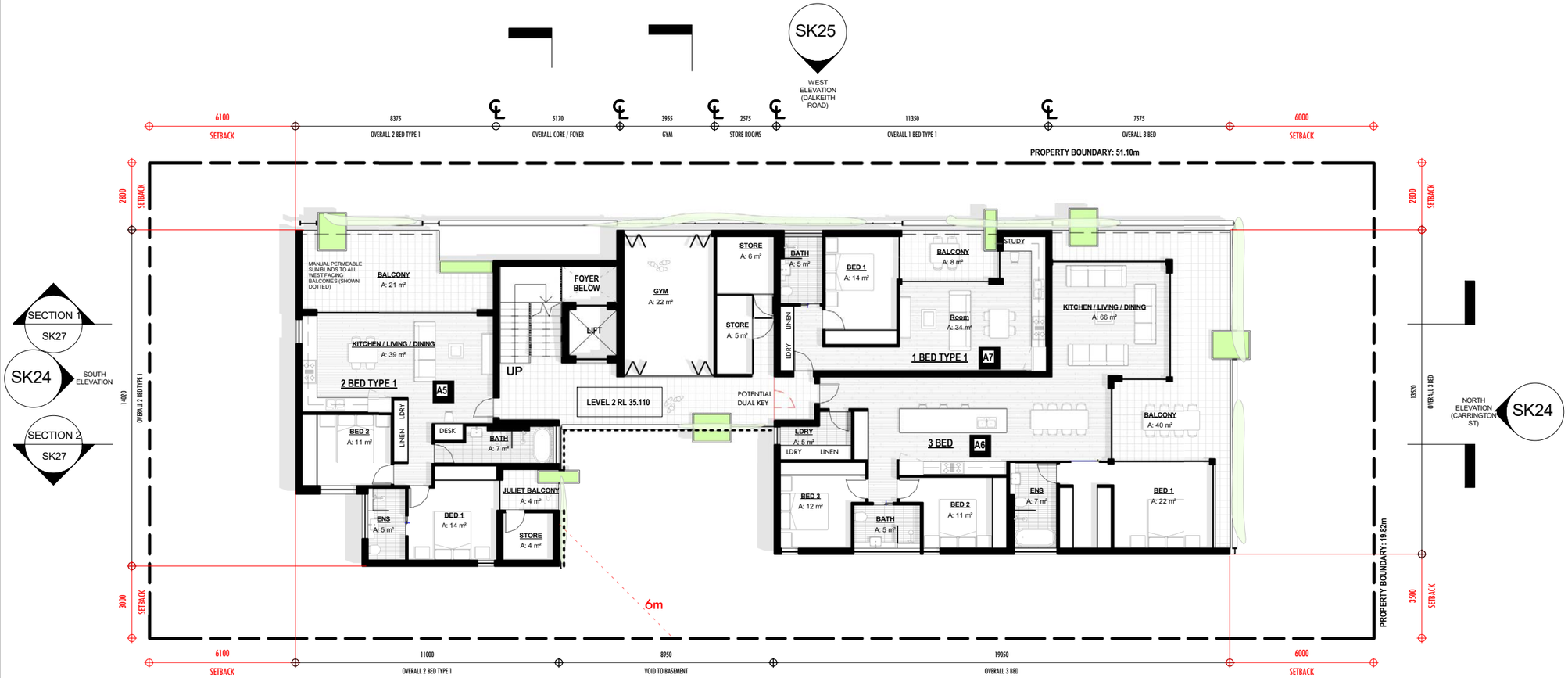
ARCHITECT / DESIGNED BY: SIMON ANDERSON

SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: LEVEL 1 PLAN

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1 : 200	21/11/2019 5:24:23 PM	JR	SA
PROJECT NO: -		DRAWING NO: SK17	REVISION:

CONTACT:



LEVEL 2 PLAN

SCALE @ A3: 1 : 200

APARTMENT AREA SCHEDULE

APARTMENT TYPE	PLOT RATIO AREA	BALCONY AREA	LEVEL
1 BED TYPE 1	60m2	8m2	LEVEL 1 PLAN
1 BED TYPE 2	61m2	15m2	LEVEL 1 PLAN
2 BED TYPE 1	87m2	22m2	LEVEL 1 PLAN
2 BED TYPE 2	90m2	13m2	LEVEL 1 PLAN
1 BED TYPE 1	60m2	8m2	LEVEL 2 PLAN
2 BED TYPE 1	87m2	22m2	LEVEL 2 PLAN
3 BED	146m2	40m2	LEVEL 2 PLAN
1 BED TYPE 1	60m2	8m2	LEVEL 3 PLAN
2 BED TYPE 1	87m2	22m2	LEVEL 3 PLAN
3 BED	146m2	40m2	LEVEL 3 PLAN

Grand total: 10

REV	DESCRIPTION	BY	DATE

STATUS: DEVELOPMENT APPLICATION

CLIENT: CHARLESWORTH

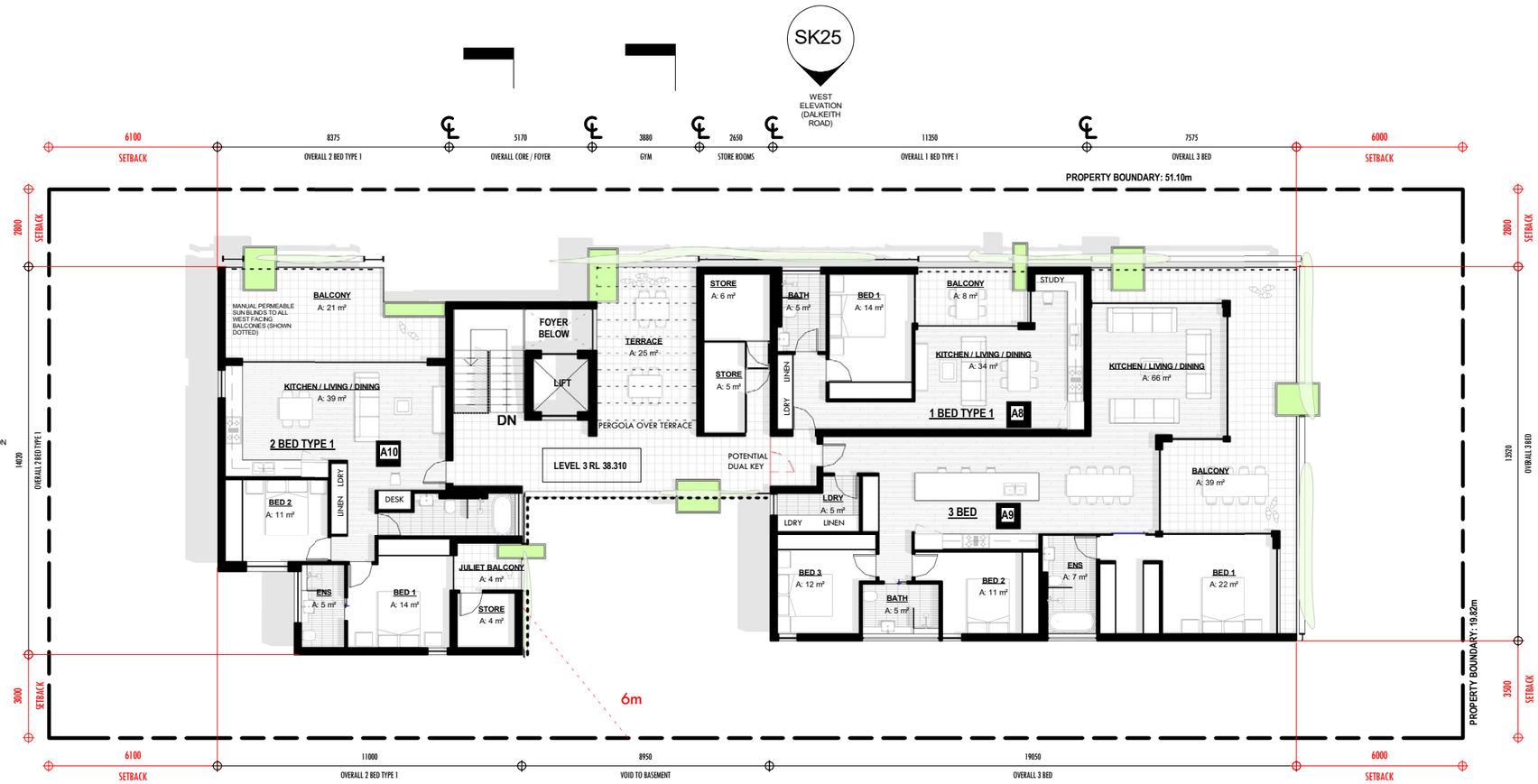
ARCHITECT / DESIGNED BY: SIMON ANDERSON

SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: LEVEL 2 PLAN

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1 : 200	21/11/2019 5:24:27 PM	JR	SA
PROJECT NO: -		DRAWING NO: SK18	REVISION:

CONTACT:



LEVEL 3 PLAN

SCALE @ A3: 1 : 200

APARTMENT AREA SCHEDULE

APARTMENT TYPE	PLOT RATIO AREA	BALCONY AREA	LEVEL
1 BED TYPE 1	60m2	8m2	LEVEL 1 PLAN
1 BED TYPE 2	61m2	15m2	LEVEL 1 PLAN
2 BED TYPE 1	87m2	22m2	LEVEL 1 PLAN
2 BED TYPE 2	90m2	13m2	LEVEL 1 PLAN
1 BED TYPE 1	60m2	8m2	LEVEL 2 PLAN
2 BED TYPE 1	87m2	22m2	LEVEL 2 PLAN
3 BED	146m2	40m2	LEVEL 2 PLAN
1 BED TYPE 1	60m2	8m2	LEVEL 3 PLAN
2 BED TYPE 1	87m2	22m2	LEVEL 3 PLAN
3 BED	146m2	40m2	LEVEL 3 PLAN

Grand total: 10

REV	DESCRIPTION	BY	DATE
STATUS:	DEVELOPMENT APPLICATION		

CLIENT: CHARLESWORTH

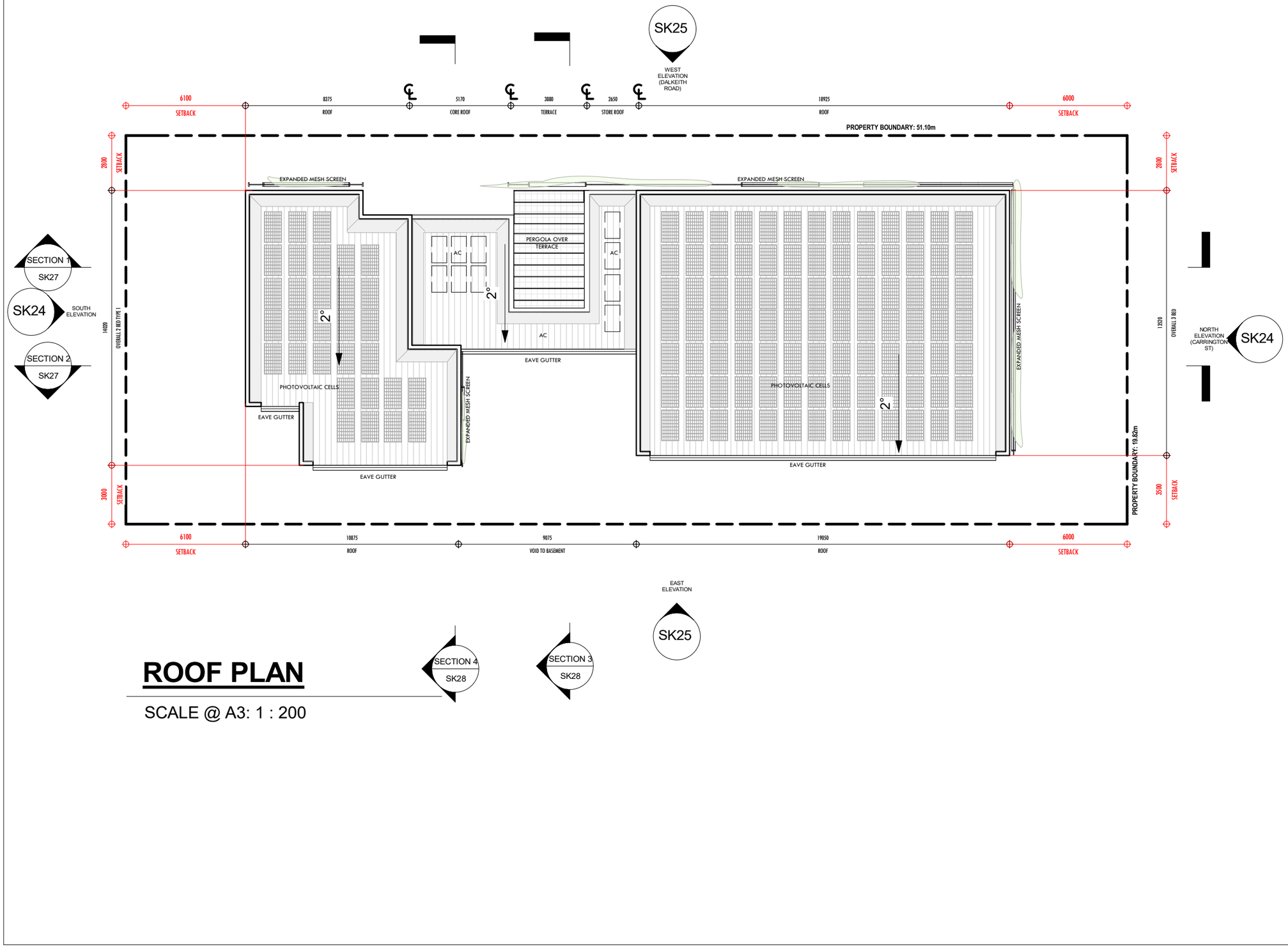
ARCHITECT / DESIGNED BY: SIMON ANDERSON

SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: LEVEL 3 PLAN

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1 : 200	21/11/2019 5:24:33 PM	JR	SA
PROJECT NO: -		DRAWING NO: SK19	REVISION:

CONTACT:



ROOF PLAN

SCALE @ A3: 1 : 200

REV	DESCRIPTION	BY	DATE
STATUS:	DEVELOPMENT APPLICATION		

CLIENT:
CHARLESWORTH

ARCHITECT / DESIGNED BY:
SIMON ANDERSON

SITE:
24 CARRINGTON STREET, NEDLANDS

TITLE:
ROOF PLAN

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1 : 200	21/11/2019 5:24:44 PM	JR	SA
PROJECT NO: -		DRAWING NO: SK20	REVISION:

CONTACT:

STEP FREE THRESHOLD WITH LEVEL LANDING (1200 X 1200)

1 BED TYPE 1

SCALE @ A3: 1 : 100

1 X

1 X

TOTAL INTERNAL (PLOT RATIO) AREA: 60m²

TOTAL BALCONY AREA: 8m²

TOTAL GARDEN AREA (LEVEL 1 ONLY): 26m²

*ALL 1 BED TYPE 1s ARE SILVER LEVEL IN THE LIVEABLE HOUSING AUSTRALIA GUIDELINES

1 BED TYPE 2

SCALE @ A3: 1 : 100

1 X

1 X

TOTAL INTERNAL (PLOT RATIO) AREA: 61m²

TOTAL BALCONY AREA: 14m²

TOTAL GARDEN AREA (LEVEL 1 ONLY): 22m²

N

REV	DESCRIPTION	BY	DATE
STATUS:	DEVELOPMENT APPLICATION		

CLIENT:
CHARLESWORTH

ARCHITECT / DESIGNED BY:
SIMON ANDERSON

SITE:
24 CARRINGTON STREET, NEDLANDS

TITLE:
1 BEDROOM PLANS

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1 : 100	21/11/2019 5:24:52 PM	JR	SA
PROJECT NO: -		DRAWING NO: SK21	REVISION:

CONTACT:

2 BED TYPE 1

SCALE @ A3: 1 : 100

2 X

2 X

TOTAL INTERNAL (PLOT RATIO) AREA: 87m²

TOTAL BALCONY AREA: 25m²

TOTAL GARDEN AREA (LEVEL 1 ONLY): 26m²

2 BED TYPE 2

SCALE @ A3: 1 : 100

2 X

2 X

TOTAL INTERNAL (PLOT RATIO) AREA: 90m²

TOTAL BALCONY AREA: 13m²

TOTAL GARDEN AREA (LEVEL 1 ONLY): 50m²

*ALL 2 BED TYPE 2s ARE SILVER LEVEL IN THE LIVEABLE HOUSING AUSTRALIA GUIDELINES

N

REV	DESCRIPTION	BY	DATE
STATUS:	DEVELOPMENT APPLICATION		

CLIENT: CHARLESWORTH

ARCHITECT / DESIGNED BY: SIMON ANDERSON

SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: 2 BEDROOM PLANS

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1 : 100	21/11/2019 5:24:59 PM	JR	SA
PROJECT NO: -		DRAWING NO: SK22	REVISION:

CONTACT:

3 BED

SCALE @ A3: 1 : 100

3 X

2 X

TOTAL INTERNAL (PLOT RATIO) AREA: 146m²

TOTAL BALCONY AREA: 40m²

*ALL 3 BEDS ARE SILVER LEVEL IN THE
LIVEABLE HOUSING AUSTRALIA GUIDELINES

N

REV	DESCRIPTION	BY	DATE
STATUS:	DEVELOPMENT APPLICATION		

CLIENT:
CHARLESWORTH

ARCHITECT / DESIGNED BY:
SIMON ANDERSON

SITE:
24 CARRINGTON STREET, NEDLANDS

TITLE:
3 BEDROOM PLANS

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
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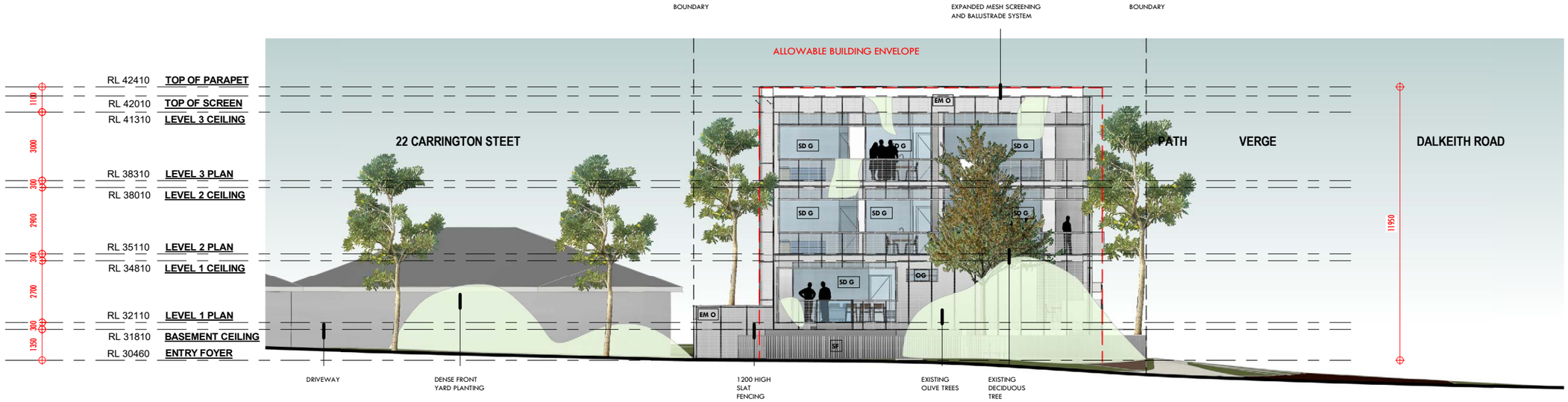
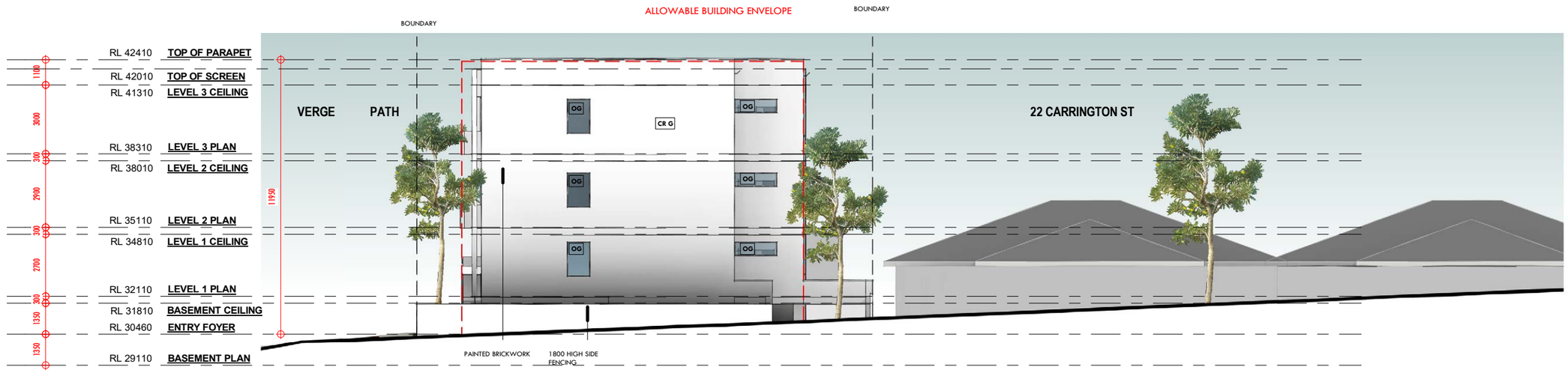
PROJECT NO: -		DRAWING NO: SK23	REVISION:

CONTACT:



NORTH ELEVATION (CARRINGTON ST)

SCALE @ A3: 1 : 200



SOUTH ELEVATION

SCALE @ A3: 1 : 200

CODE	MATERIAL	FINISH
CR G	Cement Render	Grey
EM O	Expanded Mesh Open	Galvanised Steel
EM C	Expanded Mesh Closed	Galvanised Steel
SD G	Slide Door Glazed	Anodised Aluminium
OG	Operable Glazing	Anodised Aluminium
SF	Slat Fencing	Galvanised Steel
PB	Planter Box	Galvanised Steel

REV	DESCRIPTION	BY	DATE

STATUS: DEVELOPMENT APPLICATION

CLIENT: CHARLESWORTH

ARCHITECT / DESIGNED BY: SIMON ANDERSON

SITE: 24 CARRINGTON STREET, NEDLANDS

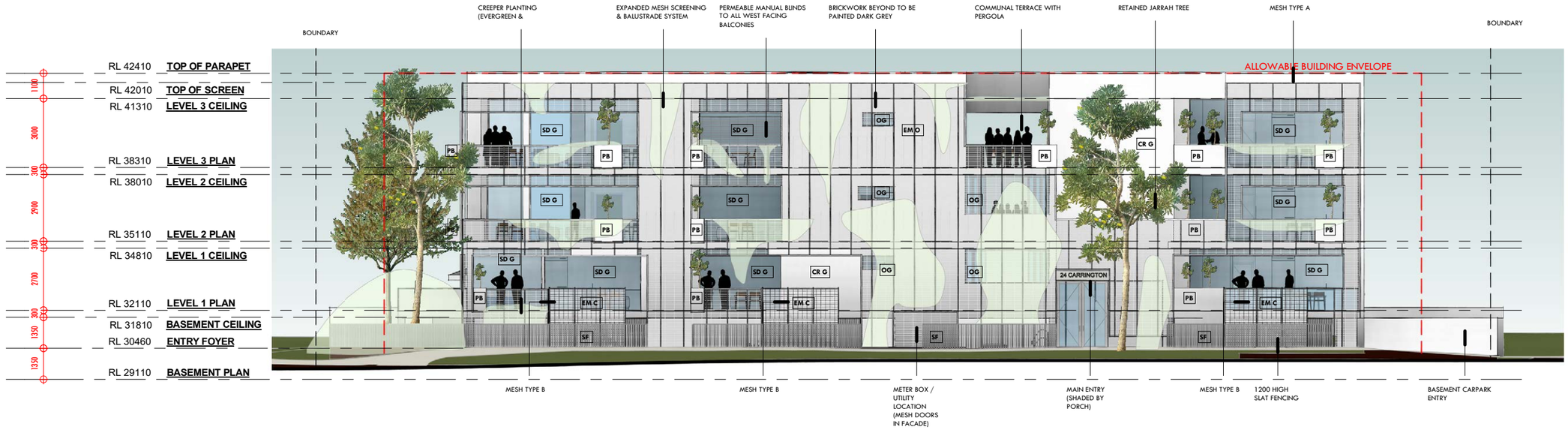
TITLE: NORTH & SOUTH ELEVATIONS

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1 : 200	21/11/2019 5:25:31 PM	JR	SA
PROJECT NO: -		DRAWING NO: SK24	REVISION:

CONTACT:

EAST ELEVATION

SCALE @ A3: 1 : 200



WEST ELEVATION (DALKEITH ROAD)

SCALE @ A3: 1 : 200

BANA - KANDALMA HOTEL

EXPANDED MESH FACADE EXAMPLE

OASIA - SINGAPORE

CODE	MATERIAL	FINISH
CR G	Cement Render	Grey
EM O	Expanded Mesh Open	Galvanised Steel
EM C	Expanded Mesh Closed	Galvanised Steel
SD G	Slide Door Glazed	Anodised Aluminium
OG	Operable Glazing	Anodised Aluminium
SF	Slat Fencing	Galvanised Steel
PB	Planter Box	Galvanised Steel

REV	DESCRIPTION	BY	DATE
STATUS:	DEVELOPMENT APPLICATION		

CLIENT:
CHARLESWORTH

ARCHITECT / DESIGNED BY:
SIMON ANDERSON

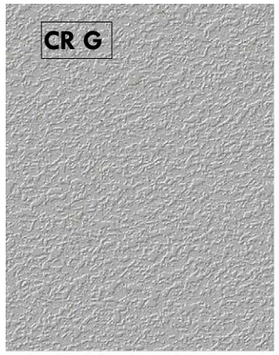
SITE:
24 CARRINGTON STREET, NEDLANDS

TITLE:
EAST & WEST ELEVATIONS

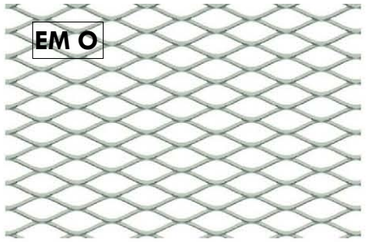
SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1 : 200	21/11/2019 5:25:56 PM	JR	SA
PROJECT NO: -		DRAWING NO: SK25	REVISION:

CONTACT:

WALLS



EXPANDED MESH FACADE



EM C

JOINERY (WINDOWS)

PLANTER BOXES & FENCING

PAVING

CODE	MATERIAL	FINISH
CR G	Cement Render	Grey
EM O	Expanded Mesh Open	Galvanised Steel
EM C	Expanded Mesh Closed	Galvanised Steel
SD G	Slide Door Glazed	Anodised Aluminium
OG	Operable Glazing	Anodised Aluminium
SF	Slat Fencing	Galvanised Steel
PB	Planter Box	Galvanised Steel

REV	DESCRIPTION	BY	DATE

STATUS: DEVELOPMENT APPLICATION

CLIENT:
CHARLESWORTH

ARCHITECT / DESIGNED BY:
SIMON ANDERSON

SITE:
24 CARRINGTON STREET, NEDLANDS

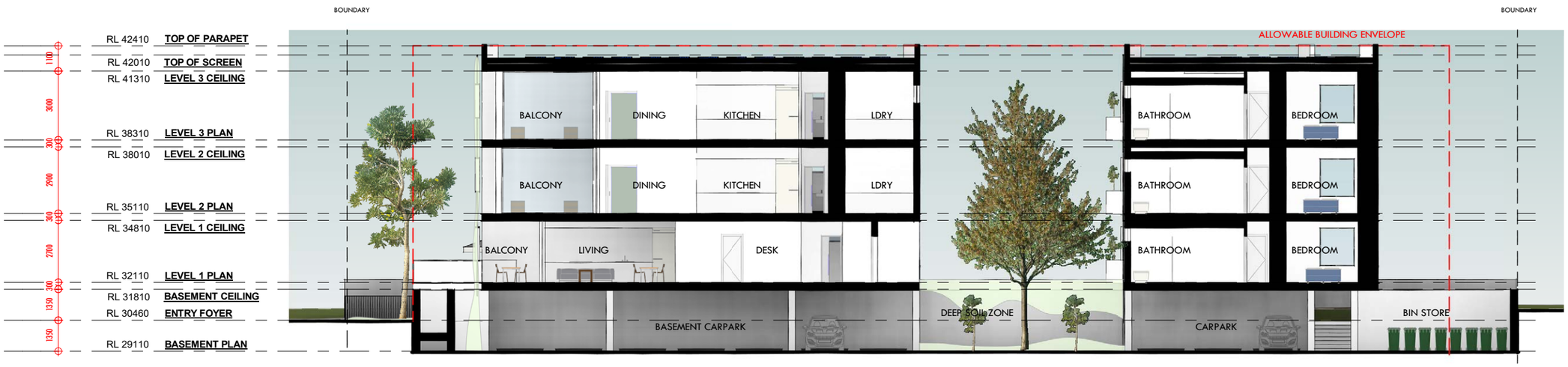
TITLE:
MATERIALS

SCALE AT A3:	DATE: 21/11/2019 5:26:03 PM	DRAWN: JR	CHECKED: SA
PROJECT NO: -		DRAWING NO: SK26	REVISION:

CONTACT:

SECTION 1 SK15

SCALE @ A3: 1 : 200



SECTION 2 SK15

SCALE @ A3: 1 : 200

REV	DESCRIPTION	BY	DATE
STATUS:	DEVELOPMENT APPLICATION		

CLIENT:
CHARLESWORTH

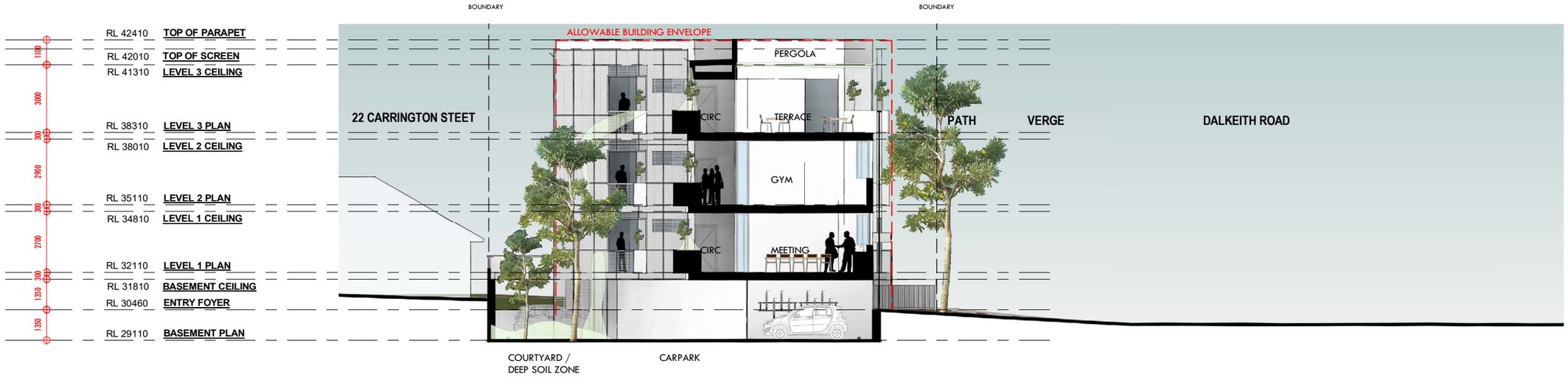
ARCHITECT / DESIGNED BY:
SIMON ANDERSON

SITE:
24 CARRINGTON STREET, NEDLANDS

TITLE:
SECTIONS

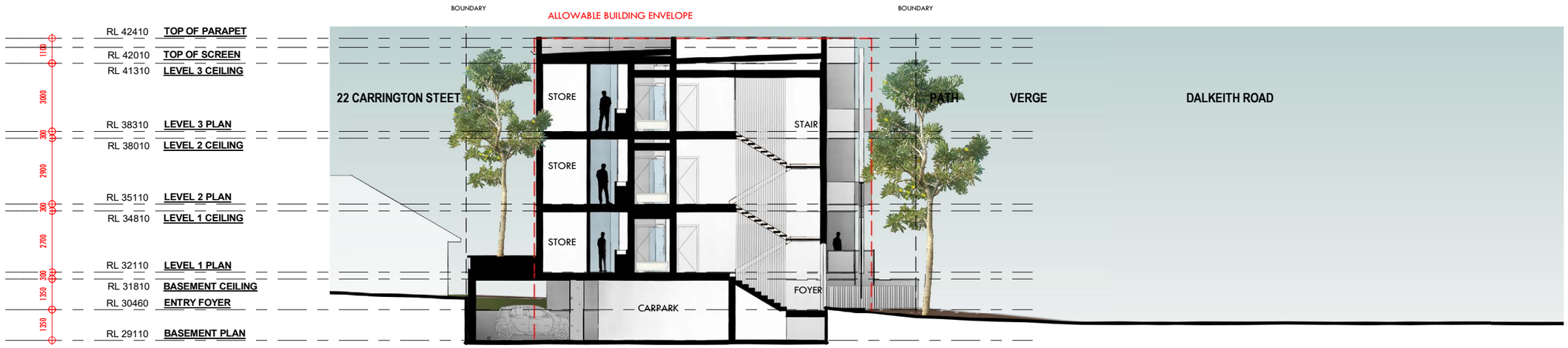
SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1 : 200	21/11/2019 5:26:20 PM	JR	SA
PROJECT NO: -		DRAWING NO: SK27	REVISION:

CONTACT:



SECTION 3 SK15

SCALE @ A3: 1 : 200



SECTION 4 SK15

SCALE @ A3: 1 : 200

REV	DESCRIPTION	BY	DATE
STATUS:	DEVELOPMENT APPLICATION		

CLIENT:
CHARLESWORTH

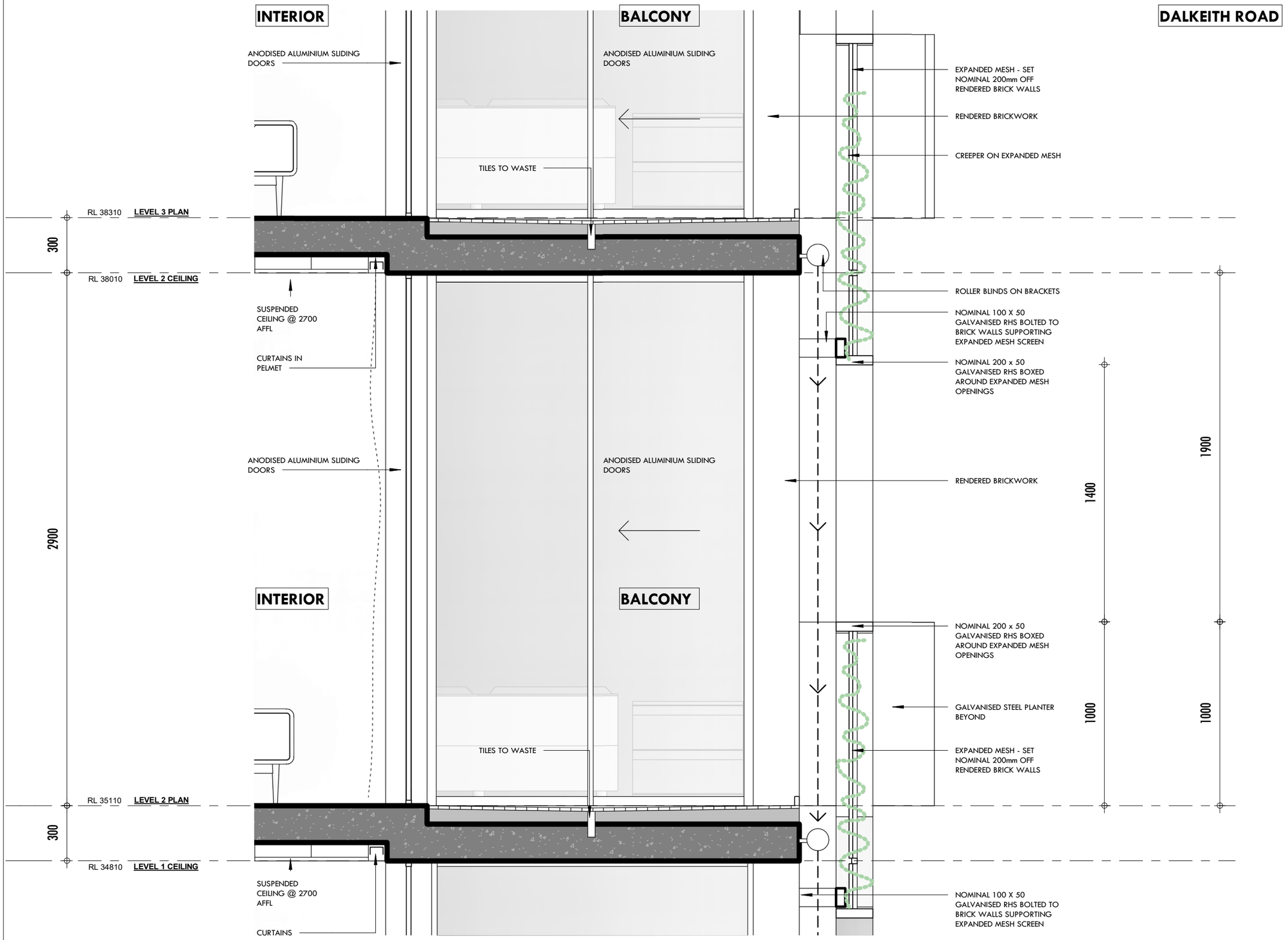
ARCHITECT / DESIGNED BY:
SIMON ANDERSON

SITE:
24 CARRINGTON STREET, NEDLANDS

TITLE:
SECTIONS 2

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1 : 200	21/11/2019 5:26:36 PM	JR	SA
PROJECT NO: -		DRAWING NO: SK28	REVISION:

CONTACT:



FACADE DETAIL SECTION

SCALE @ A3: 1 : 20

REV	DESCRIPTION	BY	DATE
STATUS:	DEVELOPMENT APPLICATION		

CLIENT:
CHARLESWORTH

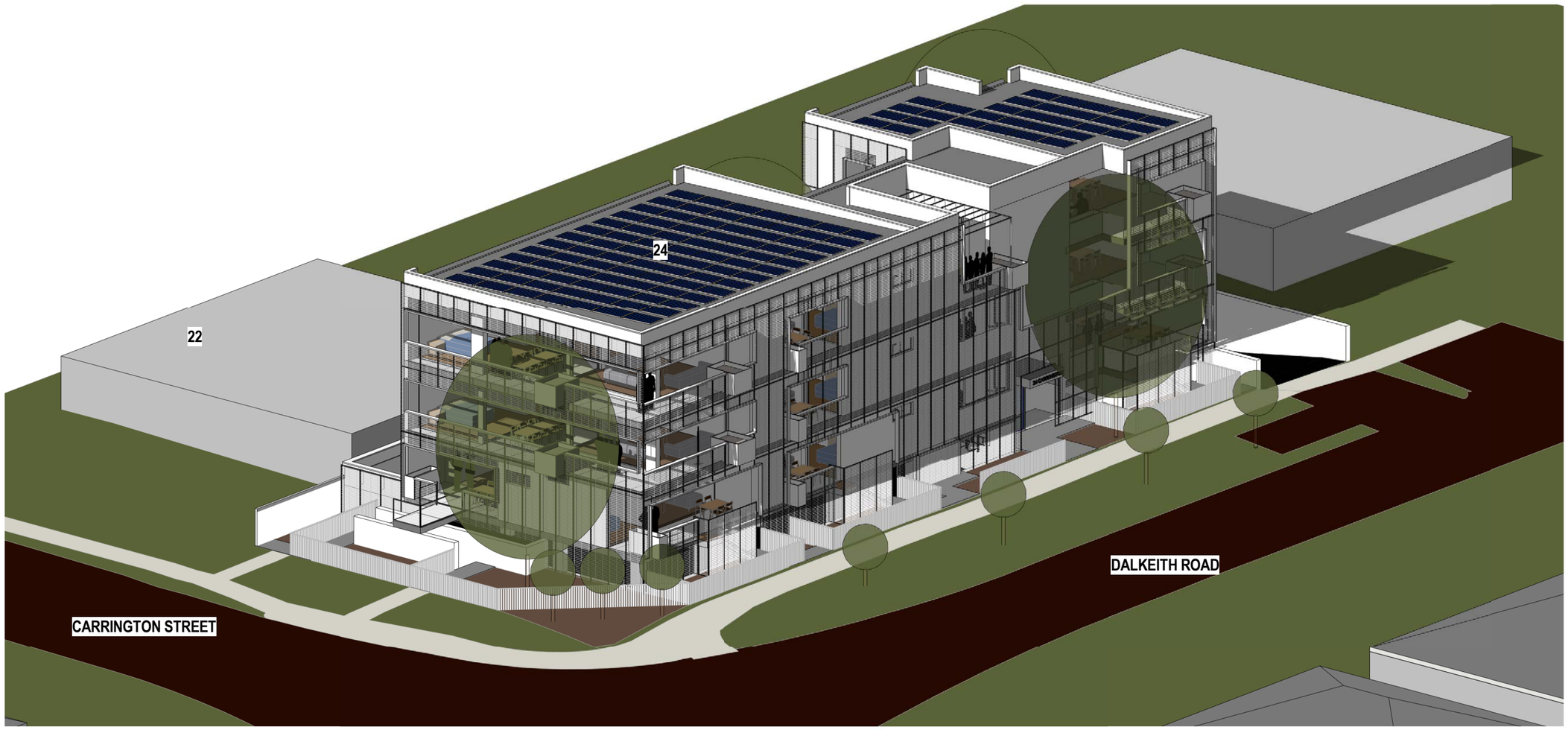
ARCHITECT / DESIGNED BY:
SIMON ANDERSON

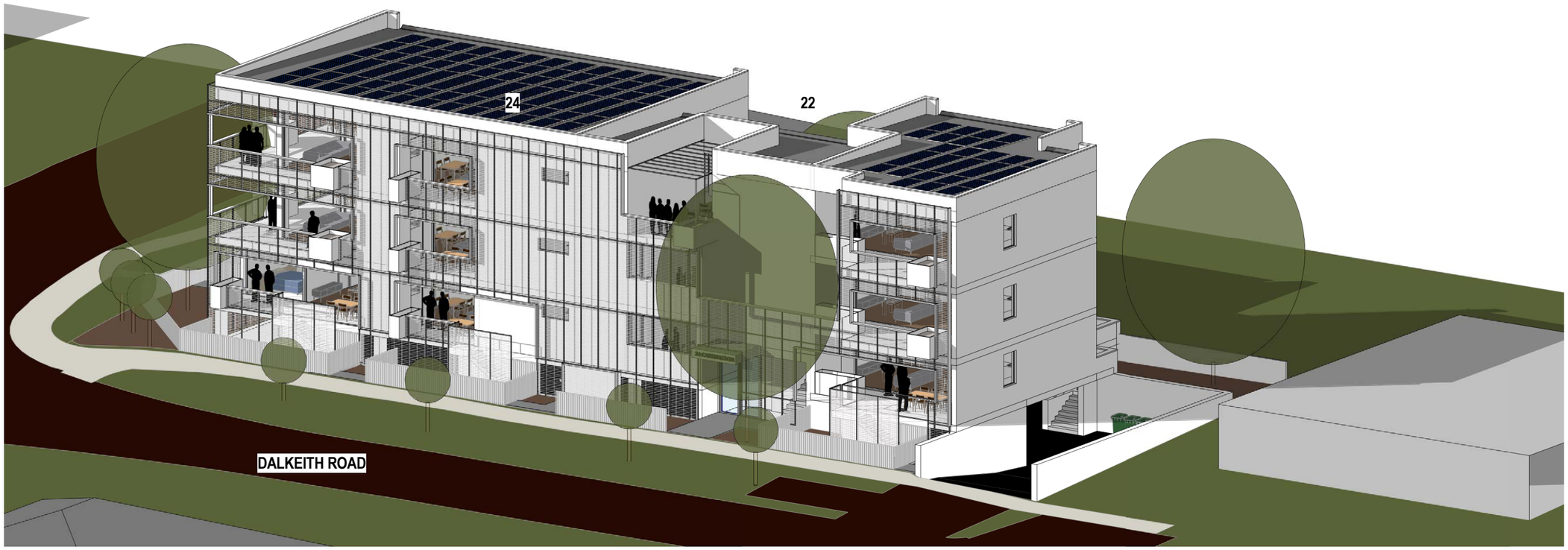
SITE:
24 CARRINGTON STREET, NEDLANDS

TITLE:
FACADE DETAIL SECTION

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1 : 20	21/11/2019 5:26:45 PM	JR	SA
PROJECT NO: -		DRAWING NO: SK29	REVISION:

CONTACT:





REV	DESCRIPTION	BY	DATE

STATUS: DEVELOPMENT APPLICATION

CLIENT: CHARLESWORTH

ARCHITECT / DESIGNED BY: SIMON ANDERSON

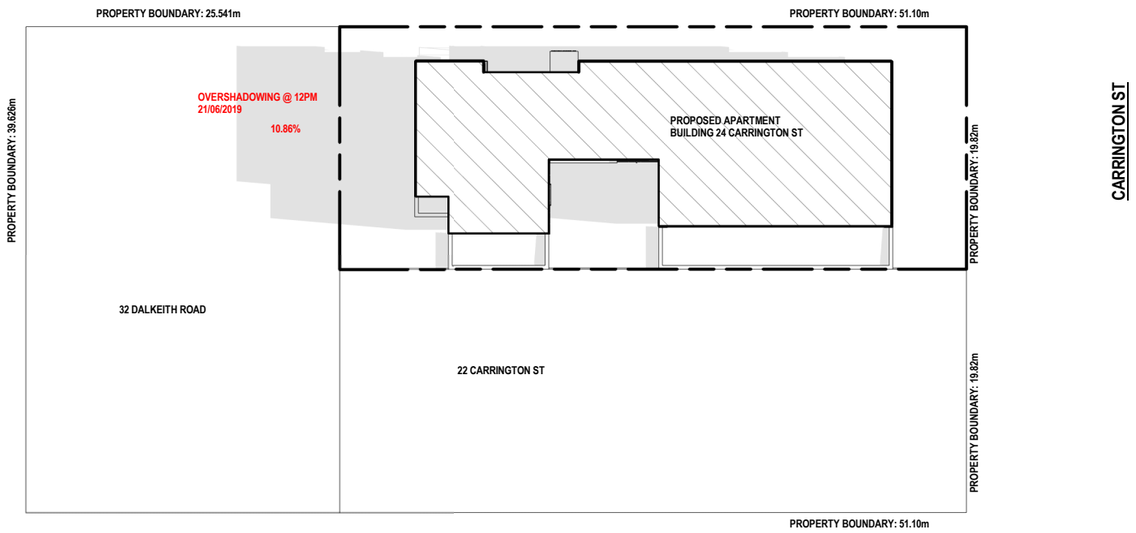
SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: MASSING

SCALE AT A3:	DATE: 21/11/2019 5:27:13 PM	DRAWN: JR	CHECKED: SA
PROJECT NO: -		DRAWING NO: SK30	REVISION:

CONTACT:

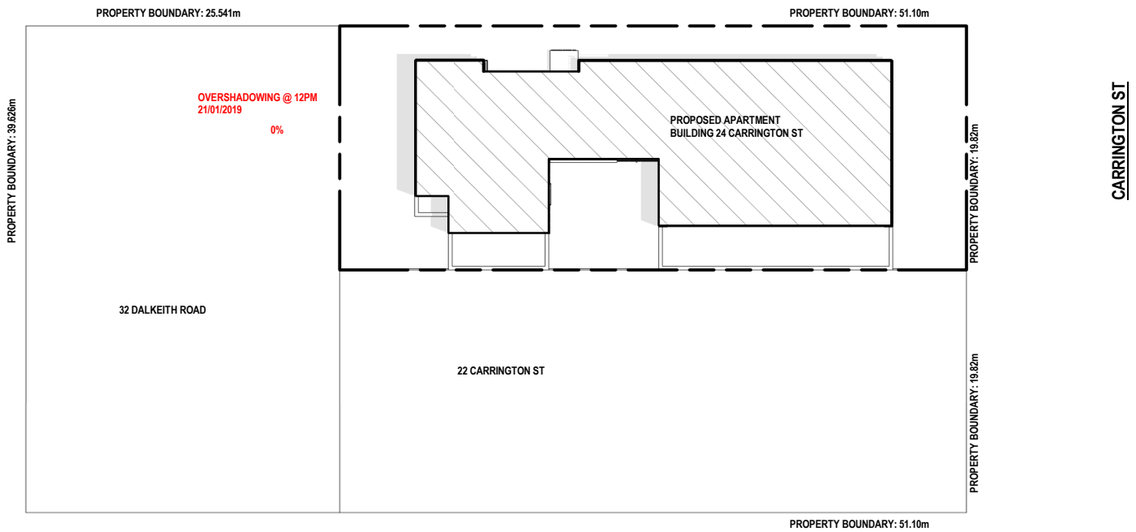
DALKEITH ROAD



OVERSHADOWING (WINTER) SK24

SCALE @ A3: 1 : 500

DALKEITH ROAD



OVERSHADOWING (SUMMER) SK24

SCALE @ A3: 1 : 500

REV	DESCRIPTION	BY	DATE

STATUS: DEVELOPMENT APPLICATION

CLIENT: CHARLESWORTH

ARCHITECT / DESIGNED BY: SIMON ANDERSON

SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: OVERSHADOWING

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1 : 500	21/11/2019 5:27:26 PM	JR	SA
PROJECT NO: -		DRAWING NO: SK31	REVISION:

CONTACT:

	APARTMENT NUMBER		9AM	10AM	11AM	12PM	1PM	2PM	3PM	COMPLIANCE	DUAL ASPECT CROSS VENTILATION
LEVEL 1	A1	1 BED TYPE 1	●	●	●	●	●	●	●	Y	Y
	A2	1 BED TYPE 2	●	●	●	●	●	●	●	Y	Y
	A3	2 BED TYPE 2	●	●	●	●	●	●	●	Y	Y
	A4	2 BED TYPE 1	●	●	●	●	●	●	●	Y	Y
LEVEL 2	A5	1 BED TYPE 1	●	●	●	●	●	●	●	Y	Y
	A6	3 BED	●	●	●	●	●	●	●	Y	Y
	A7	2 BED TYPE 1	●	●	●	●	●	●	●	Y	Y
LEVEL 3	A8	1 BED TYPE 1	●	●	●	●	●	●	●	Y	Y
	A9	3 BED	●	●	●	●	●	●	●	Y	Y
	A10	2 BED TYPE 1	●	●	●	●	●	●	●	Y	Y

● 2HRS OR MORE DIRECT SUNLIGHT TO LIVING ROOM AND/OR PRIVATE OPEN SPACE

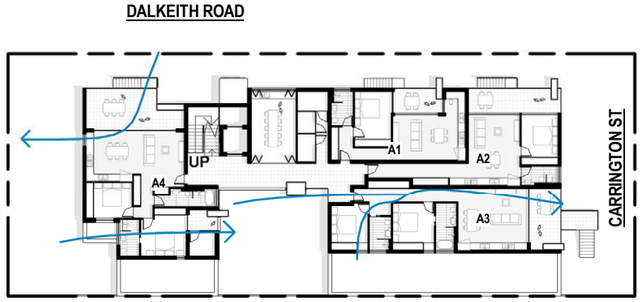
● SOME DIRECT SUNLIGHT TO LIVING ROOM AND/OR PRIVATE AND PRIVATE OPEN SPACE

● NO DIRECT SUNLIGHT TO LIVING ROOM AND/OR AND PRIVATE OPEN SPACE

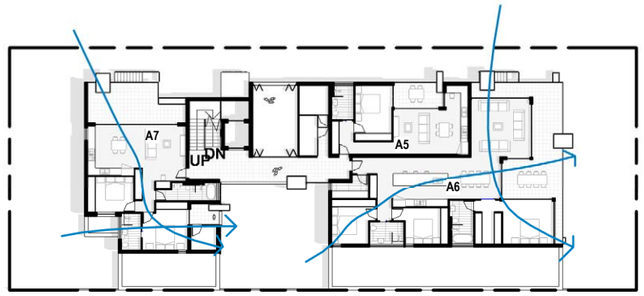
COMPLIANCE: Y / YES ; N / NO

REQUIREMENT: DWELLINGS WITH NORTHERN ASPECT ARE MAXMISIED. A MINIMUM OF 70 PER CENT OF DWELLINGS REQUIRE LIVING ROOMS AND PRIVATE OPEN SPACE THAT OBTAIN AT LEAST 2 HOURS OF DIRECT SUNLIGHT BETWEEN 9AM AND 3PM ON 21 JUNE.

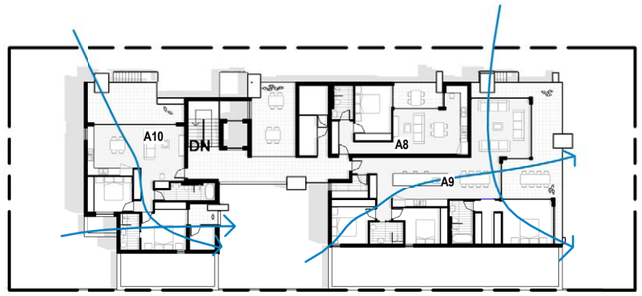
DALKEITH ROAD



CROSS VENTILATION: LEVEL 1



CROSS VENTILATION: LEVEL 2



CROSS VENTILATION: LEVEL 3

N

REV	DESCRIPTION	BY	DATE
STATUS:	DEVELOPMENT APPLICATION		

CLIENT:
CHARLESWORTH

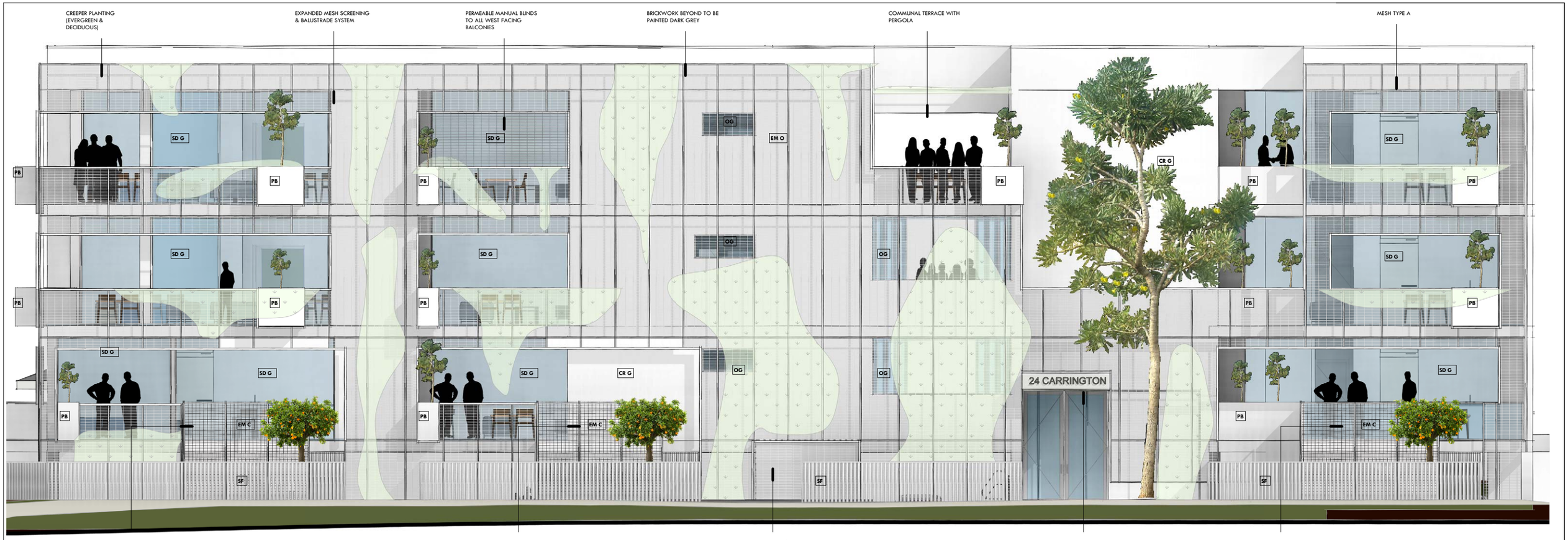
ARCHITECT / DESIGNED BY:
SIMON ANDERSON

SITE:
24 CARRINGTON STREET, NEDLANDS

TITLE:
PERFORMANCE SUMMARY

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
As indicated	21/11/2019 5:27:34 PM	JR	SA
PROJECT NO: -		DRAWING NO: SK32	REVISION:

CONTACT:



WEST FACADE ELEVATION (DALKEITH ROAD)

SCALE @ A3: 1 : 100

CODE	MATERIAL	FINISH
CR G	Cement Render	Grey
EM O	Expanded Mesh Open	Galvanised Steel
EM C	Expanded Mesh Closed	Galvanised Steel
SD G	Slide Door Glazed	Anodised Aluminium
OG	Operable Glazing	Anodised Aluminium
SF	Slat Fencing	Galvanised Steel
PB	Planter Box	Galvanised Steel

REV	DESCRIPTION	BY	DATE
STATUS:	DEVELOPMENT APPLICATION		

CLIENT: CHARLESWORTH

ARCHITECT / DESIGNED BY: SIMON ANDERSON

SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: WEST FACADE ELEVATION

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1 : 100	21/11/2019 5:27:59 PM	JR	SA
PROJECT NO: -		DRAWING NO: SK33	REVISION:

CONTACT:

EAST FACADE ELEVATION

SCALE @ A3: 1 : 100

CODE	MATERIAL	FINISH
CR G	Cement Render	Grey
EM O	Expanded Mesh Open	Galvanised Steel
EM C	Expanded Mesh Closed	Galvanised Steel
SD G	Slide Door Glazed	Anodised Aluminium
OG	Operable Glazing	Anodised Aluminium
SF	Slat Fencing	Galvanised Steel
PB	Planter Box	Galvanised Steel

REV	DESCRIPTION	BY	DATE
STATUS:	DEVELOPMENT APPLICATION		

CLIENT:
CHARLESWORTH

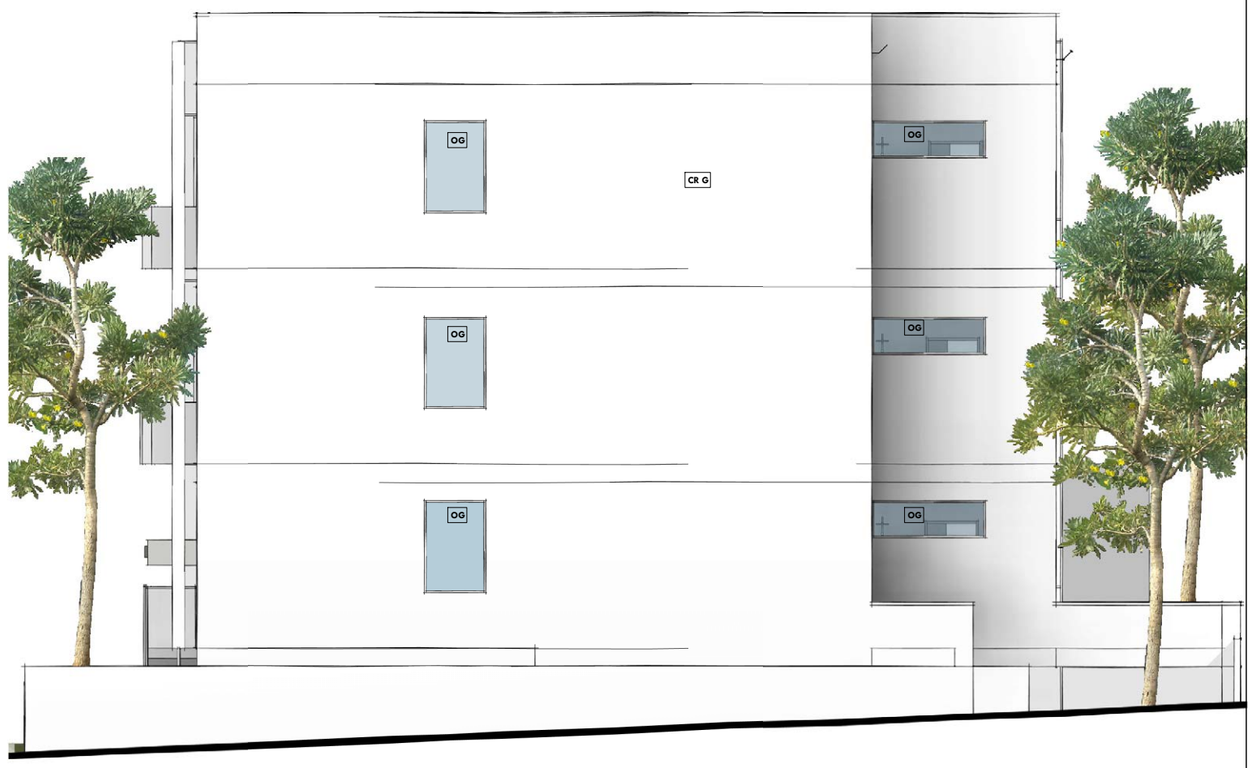
ARCHITECT / DESIGNED BY:
SIMON ANDERSON

SITE:
24 CARRINGTON STREET, NEDLANDS

TITLE:
EAST FACADE ELEVATION

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1 : 100	21/11/2019 5:28:24 PM	JR	SA
PROJECT NO: -		DRAWING NO: SK34	REVISION:

CONTACT:



NORTH FACADE ELEVATION

SCALE @ A3: 1 : 100

CODE	MATERIAL	FINISH
CR G	Cement Render	Grey
EM O	Expanded Mesh Open	Galvanised Steel
EM C	Expanded Mesh Closed	Galvanised Steel
SD G	Slide Door Glazed	Anodised Aluminium
OG	Operable Glazing	Anodised Aluminium
SF	Slat Fencing	Galvanised Steel
PB	Planter Box	Galvanised Steel

SOUTH FACADE ELEVATION

SCALE @ A3: 1 : 100

CODE	MATERIAL	FINISH
CR G	Cement Render	Grey
EM O	Expanded Mesh Open	Galvanised Steel
EM C	Expanded Mesh Closed	Galvanised Steel
SD G	Slide Door Glazed	Anodised Aluminium
OG	Operable Glazing	Anodised Aluminium
SF	Slat Fencing	Galvanised Steel
PB	Planter Box	Galvanised Steel

REV	DESCRIPTION	BY	DATE
STATUS:	DEVELOPMENT APPLICATION		

CLIENT:
CHARLESWORTH

ARCHITECT / DESIGNED BY:
SIMON ANDERSON

SITE:
24 CARRINGTON STREET, NEDLANDS

TITLE:
NORTH & SOUTH FACADE ELEVATIONS

1 : 100	21/11/2019 5:28:46 PM	DRAWN: JR	CHECKED: SA
PROJECT NO: -		DRAWING NO: SK35	REVISION:

CONTACT:

VIEW FROM INTERSECTION OF DALKIETH ROAD & CARRINGTON ST

REV	DESCRIPTION	BY	DATE

STATUS: DEVELOPMENT APPLICATION

CLIENT: CHARLESWORTH

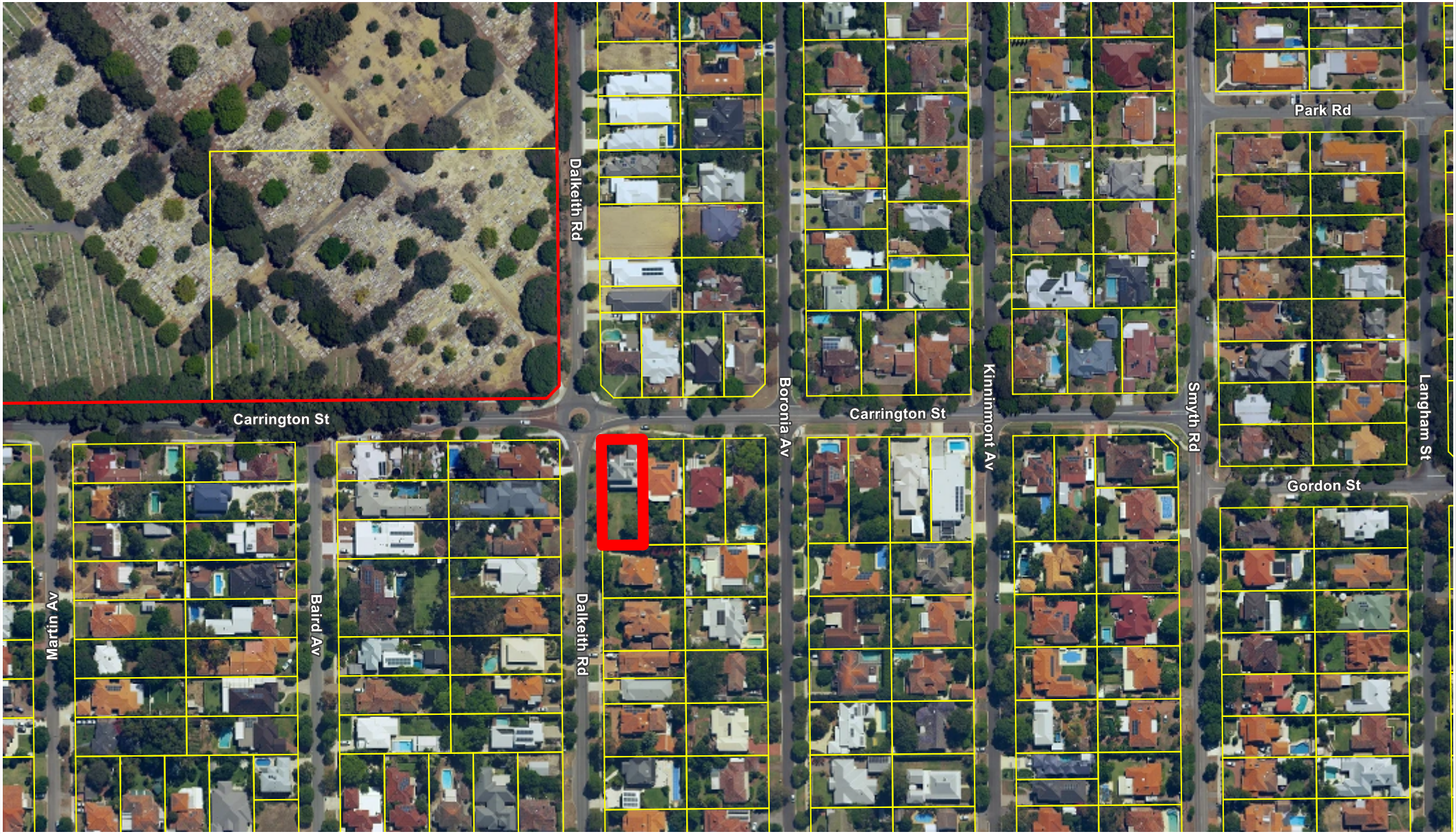
ARCHITECT / DESIGNED BY: SIMON ANDERSON

SITE: 24 CARRINGTON STREET, NEDLANDS

TITLE: 3D STREET VIEWS

SCALE AT A3:	DATE: 21/11/2019 5:28:52 PM	DRAWN: JR	CHECKED: SA
PROJECT NO: -		DRAWING NO: SK36	REVISION:

CONTACT:



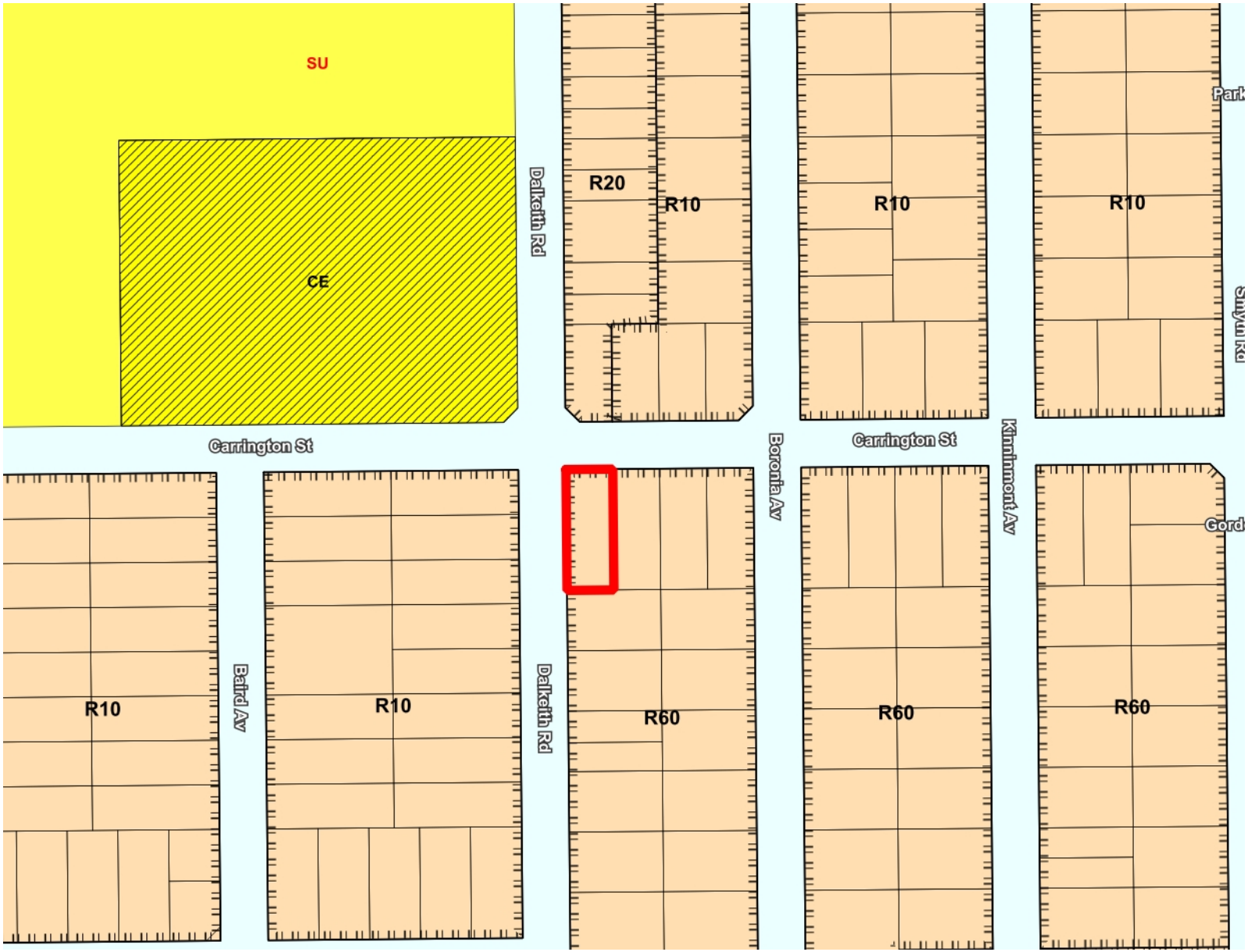
City of Nedlands

The City of Nedlands accepts no responsibility for the accuracy of this image or the results of any actions taken when using this image

24 Carrington Street, Nedlands Aerial and Locality Plan

16/03/2020

1:2500



Labels
- Road Names
- Swan River Label
- Indian Ocean Label

Local Roads

LPS3 RCodes

Property Boundaries
- Current Cadastre
- Lodged Cadastre
- Lodged Built Stratas
- Lodged Survey Stratas

LPS3 Zones
- Local Centre
- Neighbourhood Centre
- Commercial
- Environmental Conservation
- Light Industry
- Mixed Use
- Private Community Purpose
- Residential
- Service Commercial
- Special Use Zone
- Tourism
- Urban Development

LPS3 Reserves
- Car Park
- Cemetery
- Civic and Community
- Cultural Facilities
- District Distributor Road
- Drainage/Waterway
- Education
- Emergency Services
- Environmental Conservation
- Government Services

City of Nedlands

Zoning Plan - 24 Carrinton Street, Nedlands

28/02/2020

1:2500

Comment raised in Objection	Respondents who raised issue	Officer Response	Applicant Response
Plot Ratio exceeds 0.8 provided by the R-Codes	2, 5, 6, 11, 14, 17, 18, 20, 21, 23, 24, 25, 26, 27, 29, 30, 31, 37, 39, 40, 44, 47, 48, 49, 52, 54, 55, 57, 58, 60, 61, 62, 63, 66, 67, 68, 69, 70, 71, 75, 78, 79	Comment noted. The proposed plot has been calculated at 0.91. This has been assessed against Element Objective O 2.5.1 of the R-Codes (Vol. 2).	N/A
Apartment Size Single bedroom units are small at 47m², not 25% larger than the R-Codes requires, as stated by the application.	17, 18, 20, 23, 24, 25, 26, 27, 29, 31, 37, 39, 40, 44, 49, 54, 55, 57, 58, 63, 66, 67, 68, 69, 70, 71, 75	Comment not supported. The R-Codes (Vol. 2) provides as an Acceptable Outcome a minimum internal floor area of 47m² for a single bedroom dwelling. The application proposes single bedroom units with an internal floor area of 60-61m², which exceeds the R-Codes minimum.	The one bedders are in fact 60-61 sqm. See the DA submission. The minimum is 47 sqm is set in the R Codes. So the proposed one bedders are really 27% larger. The same applies to the other apartments. Far fewer apartments could be constructed if minimum sizes were adopted. The larger apartments are proposed to suit Nedlands living.
Apartment Numbers There should be no more than 6 units / Number of units should be decreased to meet plot ratio	2, 5, 6, 56, 62, 72, 76, 78, 79	Comment not supported. The density and development controls applied to the site allow for multiple dwelling developments proposing greater than 6 apartments.	N/A
Bulk and Form The bulk and form of this building is unacceptable. It has an ugly rectangular shape that presents as a solid block, and does not have enough variation in the building contour or provide adequate "articulation" as viewed from the street frontage, despite the architect's claims otherwise.	13, 14, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 29, 30, 31, 34, 35, 36, 37, 39, 40, 41, 42, 43, 44, 48, 49, 50, 52, 54, 55, 57, 58, 63, 64, 66, 67, 68, 69, 70, 71, 72, 74, 75, 80	Comment noted. The architectural peer review of the proposal has identified that the building will be a new addition to the character of the locality and will mark a new building character for the locality. It is noted that this building, if approved, will be the first of its type in the immediate locality.	It is not a 'solid block' as it has extensive recessed balconies on three faces. It is articulated: see DA document titled Response to Preliminary Assessment, Objective 2.2.3.
Height The development should be limited to 2 storeys / the building is too high.	2, 4, 5, 11, 13, 38, 56, 60, 61, 79	Comment not supported. The density and development controls applied to the site allow for multiple dwelling developments proposing greater than 2 storeys. The development will be assessed against Element 2.2 Building Height of the R-Codes (Vol. 2).	N/A

Comment raised in Objection	Respondents who raised issue	Officer Response	Applicant Response
Retaining wall heights / setbacks Walls to height and setbacks insufficient	46	Comment noted. The setbacks and the basement walls have been assessed against Element 2.4 of the R-Codes.	
Density The site is far from Stirling Highway and the density is not justified / The density is too high and should be reviewed. The property is on the outer edge of the R60 area with R10 properties on the other side of the road. There should be a less severe R-Code change.	4, 6, 7, 10, 76	Comment noted. The property is located at the northern extent of the R60 density area. However, it is located within the R60 area and can be considered for development at this density. The change in density is defined by the local road network rather than a 'hard' edge along property boundaries. This reduces the impact of the density change.	N/A
Consistency with Local Planning Strategy The development does not meet the objectives of the Local Planning Strategy. It does not conform to ensuring the height, scale and bulk of the development smoothly integrates back to the established residential character of the area. It places a form more suitable to the Stirling Highway end of the transition zone at the furthest possible point north.	30, 52	Comment noted. The Local Planning Strategy does not override the development controls contained in the Local Planning Scheme. Where there is an inconsistency between the two documents, the Scheme is to prevail as it is legally binding.	N/A
Character The development is not consistent with the Nedlands character / the streetscape.	2, 4, 5, 6, 7, 10, 11, 13, 19, 22, 30, 43, 52, 60, 61, 62, 65, 73, 74, 77, 81	Comment noted. The design has been peer reviewed by an architect and will be considered against the Design Guidance contained in Element 3.1 Site analysis and design response of the R-Codes (Vol. 2) and the ten principles of design contained in SPP 7.0.	N/A
Green Wall The steel mesh and Boston ivy façade:	9, 10, 11, 13, 14, 17, 18, 20, 21, 23, 24, 25, 26, 27, 29, 31, 34, 35, 37, 39,	Comment noted. As the ivy is an integral element of the design and amenity of	The landscape architect/horticulturist has confirmed that the Boston Ivy as placed and irrigated will grow

Comment raised in Objection	Respondents who raised issue	Officer Response	Applicant Response
- No guarantee that the ivy will be planted, grow successfully or maintained. - Health issues from fungal or microbial issues and vermin. - Loss of ivy areas will leave gaps and poor appearance from the street.	40, 42, 44, 45, 46, 49, 50, 54, 55, 57, 58, 59, 62, 63, 64, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 80	the proposal, it is considered appropriate to include conditions on any approval granted that will ensure planting and ongoing maintenance.	successfully. The area of the Boston Ivy is the same in area as a tennis court. See DA drawings. The Landscape Architect addresses weather and disease in their report. Repairs and maintenance are common to all buildings and cause only short term loss of appearance.
Overshadowing The building will overshadow neighbours.	2, 5, 10, 21, 34, 46, 50, 56, 73	Comment noted. The proposal has been assessed against Element 3.2 Orientation of the R-Codes (Vol. 2). Overshadowing has been calculated to fall within the Acceptable Outcomes limits (11% overshadowing of the property to the south).	N/A
Non-compliance with A3.6.5 of the R-Codes (Vol. 2) *Changes in level between private terraces, front gardens and the ground floor level of the building and the street level average less than 1m and do not exceed 1.2m*	14, 16, 17, 18, 20, 23, 24, 25, 26, 27, 29, 30, 31, 37, 39, 40, 44, 47, 49, 52, 54, 55, 57, 58, 62, 63, 66, 67, 68, 69, 70, 71, 72, 75	Comment not supported. The acceptable outcomes of the R-Codes (Vol. 2) are not intended as a comprehensive 'deemed-to-comply' list. In order to achieve the Element Objectives, proposals may require additional and/or alternative design solutions in response to site conditions. The basement and ground floor levels in relation to the street have been assessed against Element Objectives O3.6.1 and O3.6.2.	N/A
Non-compliance with A3.9.10 of the R-Codes (Vol. 2) *Basement parking does not protrude more than 1m above ground, and where it protrudes above ground is designed or screened to prevent negative*	14, 15, 17, 18, 20, 23, 24, 25, 26, 27, 29, 31, 35, 37, 39, 40, 44, 47, 49, 54, 55, 57, 58, 62, 63, 66, 67, 68, 69, 70, 71, 72, 75	Comment not supported. The acceptable outcomes of the R-Codes (Vol. 2) are not intended as a comprehensive 'deemed-to-comply' list. In order to achieve the Element Objectives, proposals may require additional and/or	N/A

Comment raised in Objection	Respondents who raised issue	Officer Response	Applicant Response
visual impact on the streetscape.		alternative design solutions in response to site conditions. The basement car parking will be assessed against Element Objectives O3.9.1 - O3.9.4.	
Overlooking from communal open space / dwellings into neighbouring properties. Privacy impacted / taken away.	2, 14, 15, 17, 18, 20, 23, 24, 25, 26, 27, 29, 31, 32, 34, 37, 39, 40, 44, 47, 48, 50, 54, 55, 57, 58, 63, 65, 66, 67, 68, 69, 70, 71, 72, 75, 81	Comment noted. Visual privacy has been assessed against Element 3.5 of the R-Codes (Vol. 2). It is noted that the ground level communal open space areas on the eastern boundary are lower than the neighbouring NGL. The amended plans dated 28 February 2020 have reduced the number of windows that were looking into the adjoining property.	The communal garden along this boundary DOES NOT overlook the neighbour as it is set approximately 1.2m BELOW the boundary at that point.
Communal areas are very small and are surrounded on 2-3 sides by 3 storey walls. Lack of sunshine into these areas with a vegetation able to be grown limited.	14, 15, 17, 18, 20, 23, 24, 25, 26, 27, 29, 31, 37, 39, 40, 44, 54, 55, 57, 58, 63, 66, 67, 68, 69, 70, 71, 75	Comment noted. Element 3.4 of the R-Codes (Vol. 2) does not provide a minimum area of communal open space for development of up to 10 dwellings. It is noted that this development seeks to provide a range of communal open space areas of varying size. The main 'active' communal open space will be provided on Level 3 of the building, which is not overshadowed.	There are 4 external communal areas, 3 on the ground and 1 on the top floor as a Terrace. The R Codes Acceptable Outcome Requirement for Communal Open Space is 72 sqm including 24 sqm of hard surface. This proposal has 130 sqm including 32 sqm hard surface. See the document titled Development Details. The Landscape report describes the planting in each area and confirms their viability.
Deep soil area Deep soil zone is stated as 246m2, this seems to be an overestimate.	14, 17, 18, 20, 23, 24, 26, 27, 29, 31, 37, 39, 40, 44, 54, 55, 57, 58, 63, 66, 67, 68, 69, 70, 71, 75	Comment noted. The tree canopy and deep soil areas have been assessed against Element 3.3 Tree Canopy and Deep Soil Areas of the R-Codes (Vol. 2). A3.3.4 recommends a minimum of 7% of a site be set aside as deep soil areas where trees are retained. For this site, this equates to 71m2 of deep soil area. A total of 208m² has been provided on the amended plans dated 28 February 2020.	Drawing SK03 shows the Deep Soil Zone at scale in green hatch. The areas of paving areas within the deep soil zones are within the 20% maximum permitted in the R Codes, see A3.3.6 of the Codes
Trees Trees to be retained are at survival risk and will require significant pruning.	6, 14, 17, 18, 19, 20, 22, 23, 24, 26, 27, 29, 31, 32, 37, 39, 40, 44, 54, 55,	Comment noted. An arborists report and tree retention plan is recommended as a condition on any approval.	The landscape architect is also a qualified horticulturist and assessed the existing trees as viable for retention with the proposed building setbacks.

Comment raised in Objection	Respondents who raised issue	Officer Response	Applicant Response
There is no guarantee that the trees will be retained.	57, 58, 63, 66, 67, 68, 69, 70, 71, 75		No pruning is required of the existing trees to ensure their viability. See the Landscape report.
Parking Insufficient car parking / visitors bays.	2, 5, 10, 36, 45, 48, 64, 72, 80	Comment not supported. Parking has been assessed against Element 3.9 of the R-Codes (Vol. 2). A3.9.2 recommends as a minimum 12 resident bays and 3 visitor bays (15 total). The proposal includes 21 bays.	N/A
Parking Developer claims to comply with 21 bays, but there are contradictory figures. Claims only 2 visitor parking bays required.	14, 17, 18, 20, 23, 24, 25, 26, 27, 29, 31, 35, 37, 39, 40, 44, 47, 54, 55, 57, 58, 63, 66, 67, 68, 69, 70, 71, 75	Comment noted. Parking has been assessed against Element 3.9 of the R-Codes (Vol. 2). A3.9.2 recommends as a minimum 12 resident bays and 3 visitor bays (15 total).	21 bays are proposed with 18 for residents and 3 for visitors. See the drawings. The absolute minimum is 12 resident bays and 3 visitor bays according to the R Codes Table 3.9 for location B and the combination of units proposed.
Parking The hard stand parking bay on the Dalkeith Road verge contravenes City of Nedlands Policy.	14, 17, 18, 20, 23, 24, 26, 27, 29, 31, 35, 37, 39, 40, 44, 47, 54, 55, 57, 58, 63, 66, 67, 68, 69, 70, 71, 72, 75	Comment noted. This hard stand area has been removed from the amended plans dated 28 February 2020.	We were advised by the Nedlands Planning staff that residents may hard pave up to 20% of their verges for hard standing use under existing Council Policy. If that advice is incorrect then we will amend our proposal accordingly.
Bicycle parking The bicycle rack is located too close to vehicles.	14, 17, 18, 20, 23, 24, 26, 27, 29, 31, 37, 39, 40, 44, 54, 55, 57, 58, 63, 66, 67, 68, 69, 70, 71, 75	Comment noted. The provision of the bicycle racks as shown on the plan will be a requirement of any approval granted. Should the location not be feasible, the proponent will be required to provide an alternative location in order to comply with Element 3.9 of the R-Codes (Vol. 2).	If the Council and/or JDAP find the access unacceptable we are happy to relocate the cycle parking
Traffic The Traffic Statement assessment states that Carrington Street is currently at its limit of residential capacity (7000/7000 vpd) and Dalkeith Road is over the limit of residential capacity (3800/3000 vpd) and this development is therefore being proposed on a local	14, 17, 18, 19, 20, 22, 23, 24, 25, 26, 27, 29, 31, 37, 39, 40, 44, 47, 48, 54, 55, 57, 58, 63, 64, 66, 67, 68, 69, 70, 71, 72, 75, 80	Comment noted. The traffic impact statement found that the level of traffic generated by the development (i.e. 40 additional vehicles per day) would have no material traffic impact under the WAPC Transport Assessment Guidelines for Developments. It is noted that the current volumes cited in the traffic impact statement are not based	The Traffic Report does not state that Carrington Street is operating 'over the desirable residential amenity threshold'. It does state that Carrington Street is operating 'at the upper end of its desirable residential amenity threshold (page 11)'. It also states on the same page that it has the capacity to carry 'in excess of 9,000vpd'. On Dalkeith Road the Traffic Report states that Dalkeith Road is operating over its desirable

Comment raised in Objection	Respondents who raised issue	Officer Response	Applicant Response
road network that is operating over the desirable residential amenity threshold (see Riley Consulting – Traffic Statement Point 3, page 5/11). This fact is not forthcoming from the report and the development should be refused on these grounds alone.		on count data, but are estimates based on sample counts.	amenity threshold but that it has capacity to carry in excess of 9,000vpd.
Traffic Development will lead to traffic congestion / high volumes, particularly at the Carrington St / Dalkeith Rd intersection.	2, 3, 5, 6, 7, 9, 11, 13, 21, 32, 33, 34, 36, 38, 41, 42, 43, 46, 51, 56, 59, 62, 65, 73, 78, 79, 80	Comment noted. A Traffic Impact Statement has been prepared for the development. The findings of this statement that there is appropriate capacity on the road network to accommodate the development is supported.	N/A
Traffic Cumulative impact of new development on traffic volumes and congestion.	14, 17, 18, 20, 23, 24, 26, 27, 29, 31, 37, 39, 40, 44, 54, 55, 57, 58, 63, 66, 67, 68, 69, 70, 71, 75	Comment noted. The City is currently developing a traffic model that will assist in taking into account future traffic forecasts. In the meantime, developments are assessed based upon their impacts on the current traffic situation.	N/A
Traffic Impact on bus stop – congestion and inappropriate relocation.	3, 30, 52	Comment noted. Impacts on the adjacent bus stop will need to be considered by the Public Transport Authority in consultation with the City.	N/A
Traffic Safety issues relating to vehicles existing the site.	45	Comment noted. The driveway will be required to meet Element 3.8 Vehicle Access, which requires safe access.	N/A
Waste Management Waste management does not comply with the draft Waste Management Policy	14, 16, 17, 18, 20, 23, 24, 25, 26, 27, 29, 31, 35, 37, 39, 40, 42, 44, 47, 48, 54, 55, 57, 58, 60, 61, 62, 63, 66, 67, 68, 69, 70, 71, 72, 75	Comment noted. An amended waste management plan (dated 3 March 2020) has been prepared and accepted by the City as compliant with the draft Waste Management Policy and Guidelines.	The Waste Management Plan was developed in consultation with the Council's Waste Co-ordinator and exactly follows the DNWMP requirements in terms of waste volumes, bin sizes and numbers and bin presentation on the street.
Waste Management	14, 16, 17, 18, 20, 23, 24, 26, 27, 29,	Comment noted.	N/A

Comment raised in Objection	Respondents who raised issue	Officer Response	Applicant Response
There is no onsite rubbish collection.	31, 37, 39, 40, 44, 45, 54, 55, 57, 58, 63, 66, 67, 68, 69, 70, 71, 72, 75	The draft Waste Management Policy and Guidelines allows for on street collection where the number of bins does not exceed 8. This development seeks to use compaction to ensure on street collection can still be undertaken.	
Waste Management There is less than 1 bin per apartment / Insufficient bin storage.	10, 14, 16, 17, 18, 20, 23, 24, 26, 27, 29, 31, 37, 39, 40, 44, 54, 55, 57, 58, 63, 66, 67, 68, 69, 70, 71, 72, 75	Comment not supported. Compaction will be used to allow for a greater volume of waste to be accommodated in a single bin. This is consistent with the draft Waste Management Policy and Guidelines.	The Waste Management Plan was developed in consultation with the Council's Waste Co-ordinator and exactly follows the DNWMP requirements in terms of waste volumes, bin sizes and numbers and bin presentation on the street.
Waste Management Rubbish compactor – what is the contingency in the event of failure? Who will manage/operate? Unsafe for residents?	14, 17, 18, 20, 23, 24, 26, 27, 29, 31, 37, 39, 40, 44, 46, 54, 55, 57, 58, 63, 66, 67, 68, 69, 70, 71, 75	Comment noted. This matter has been addressed in the Waste Management Plan dated 3 March 2020.	Compactors are commonly used in apartment buildings all around the country and the world. The Waste Management Plan states that maintenance and servicing will be used in the selection criteria of the compactor selected. Further see 20.1.11 of the Plan regarding compactor failure.
Waste Management The rubbish area is below the sewer level and will require a pump to clear waste water/washout water – serious public health issue.	14, 16, 17, 18, 20, 23, 24, 26, 27, 29, 31, 37, 39, 40, 44, 54, 55, 57, 58, 63, 66, 67, 68, 69, 70, 71, 75	Comment noted. Use of floor waste pumps is common in developments. It is not anticipated that a pump solution will not operate appropriately.	Sewer pumps to allow plumbing below sewer levels are common around the world and in Perth. The Bin Area proposed has a waste for cleaning of bins only. Any breakdown or power outage will be dealt with as all such breakdowns/outages by engaging qualified trades people.
Waste Management The Bulk Waste volume proposed does not comply at 3m2 (5m2 required), and the proposed solution of increasing the Storeroom capacity by several m2, will just mean that each apartment will have more storage space and not provide any bulk waste storage for the apartment block.	14, 16, 17, 18, 20, 23, 24, 26, 27, 29, 31, 37, 39, 40, 44, 54, 55, 57, 58, 63, 66, 67, 68, 69, 70, 71, 75	Comment noted. This has been addressed on the amended plans dated 28 February 2020, where a 5.6m² bulk waste area has been provided.	The proposed design outlined in the Waste Management Plan was suggested by the Nedlands Waste Co-ordinator.
Acoustics The Acoustic Report does not include the	14, 16, 17, 18, 20, 23, 24, 25, 26, 27, 29, 31, 37, 39, 40,	Comment noted.	The drawings show the AC condensers on the roof over common areas and as far away

Comment raised in Objection	Respondents who raised issue	Officer Response	Applicant Response
noise of air conditioning units, the rubbish compactor, nor whether it is appropriate to install such a device in a residential setting.	44, 54, 55, 57, 58, 63, 66, 67, 68, 69, 70, 71, 72, 75, 80	It is noted that the air conditioning units and other noise-emitting plant has been located within the development rather that on the outer edges. Air conditioners will be located on the roof of the building. Any plant and equipment is required by law to meet the applicable noise limits prescribed by the Environmental Protection (Noise) Regulations 1997. This requirement will stand, regardless of the granting of planning approval.	from neighbours as possible. The Acoustic Report notes this and also states: 'we believe that compliance would be easily achieved and any noise mitigation would be minimal with the proposed design'. Compactors are common in apartment buildings. Should Council wish, operating hours could be limited.

Comment raised in Conditional Support	Respondents who raised issue	Officer Response	Applicant Response
Retention of trees and incorporation of green wall supported.	28	Comment noted.	N/A
Concern with overlooking to property on other side of road.	28	Comment noted. It is noted that the development would overlook into the front of the neighbouring property.	N/A
Concern with noise, in particularly the garage door / gate.	28	Comment noted. All developments are to comply with the Environmental Protection (Noise) Regulations, both during design and operation.	N/A

SPP7.3 R-CODES VOLUME 2 - APARTMENTS

ASSESSMENT TEMPLATE

DESIGN WA For a Better Built Environment

Disclaimer: This assessment template is not intended to replace R-Codes Volume 2. Applicants and assessors should refer to the R-Codes Volume 2 for information on the relevant provisions that are applicable to a development.

ABOUT THIS TEMPLATE

State Planning Policy 7.3 Residential Design Codes Volume 2 – Apartments (R-Codes Vol. 2) has brought about changes to the way that multiple dwellings will be designed, assessed, constructed and – ultimately – lived in.

This assessment template is based on work conducted by the Inner City Councils Planning Working Group[1], and adapted by the Department of Planning, Lands and Heritage for broader distribution.

Responsible Authorities are encouraged to adapt this template to best suit their needs. This template is designed to be used in conjunction with, not as a replacement for, the R Codes Vol. 2.

This template comprises of 2 parts:

PART 1 Recommended information to be submitted by applicant as part of a development application.

PART 2 Template for assessment under the R-Codes Vol. 2 (including any local planning framework that amends or replaces the R-Codes Vol. 2). It is recommended that this template is completed by:

(a) the applicant and submitted as part of the development application; and

(b) the Responsible Authority for the purposes of assessment.

R-Codes Vol. 2 is a performance-based policy. While addressing the Acceptable Outcomes is likely to achieve the relevant Element Objectives, they are not a deemed-to-comply pathway and the proposal will be assessed in context of the entire design solution to ensure the Element Objectives are achieved.

Assessing officers are encouraged to firstly consider the proposal under the Element Objectives, delve into details provided by the applicant (whether these be the Acceptable Outcome or alternate performance solution approach using the relevant Design Guidance) before returning to the principles outlined in the Element Objectives.

The onus is on the Applicant to demonstrate that the Element Objectives have been achieved. Responsible Authorities may consider refusal of an application on the basis that insufficient information/materials have been provided to satisfy an Element Objective to the satisfaction of the Responsible Authority. The burden of proof is not on the Responsible Authority but the applicant to demonstrate – by way of example – adequate solar access is achieved if the applicant has not provided the relevant diagrams and calculations to address this subject matter.

Please be advised that this assessment template is not intended to replace R-Codes Vol. 2 in terms of being a point of reference for both designers and assessors. Amongst other things, the source document contains Design Guidance, diagrams and example images that are not featured within this template.

[1]*Inner City Councils Planning Working Group – Town of Victoria Park, City of Perth, City of South Perth, City of Subiaco, City of Vincent*

PART 1 - INFORMATION FOR THE APPLICANT

It is recommended that the following information is provided by the applicant when lodging a development application.

A5 – Development application guidance (1/2)

This guidance assists proponents in formulating the appropriate materials when submitting a development application. Check with the relevant local authority if there are any additional materials required.

Documentation	Required Information	Provided?	
Development details	A summary document that provides the key details of the development proposal. It contains information such as the: – plot ratio of the development – number, mix, size and accessibility of apartments – number of car parking spaces for use (residential, retail, accessible, visitor etc.) – percentage of apartments meeting cross ventilation and daylight requirements.		
Site analysis	[Prepared at earlier stage of design development in *A3 Site analysis and design response guidance*]		
Design statements	An explanation of how the design relates to the Design Principles in State Planning Policy 7.0 Design of the Built Environment. An explanation of how the proposed development achieves the relevant objectives of this policy in *A6 Objectives summary.* For adaptive reuse projects which affect heritage places, provide a Heritage Impact Statement prepared in accordance with the State Heritage Office's *Heritage Impact Statement Guide* available at www.stateheritage.wa.gov.au (for state registered places) or the relevant local government guidelines (for other places).		
Site plan	A scale drawing showing: – any proposed site amalgamation or subdivision – location of any proposed buildings or works in relation to setbacks, building envelope controls and building separation dimensions – proposed finished levels of land in relation to existing and proposed buildings and roads – pedestrian and vehicular site entries and access – interface of the ground floor plan with the public domain and open spaces within the site – areas of communal open space and private open space – indicative locations of planting and deep soil areas including retained or proposed significant trees. – overshadowing over neighbouring sites – location of adjacent solar collectors.		
Landscape plan	A scale drawing showing: – the building footprint of the proposal including pedestrian, vehicle and service access – trees to be removed shown dotted – trees to remain with their tree protection areas (relative to the proposed development) – deep soil areas and associated tree planting – areas of planting on structure and soil depth – proposed planting including species and size – details of public space, communal open space and private open space – external ramps, stairs and retaining wall levels – security features and access points – built landscape elements (fences, pergolas, walls, planters and water features) – ground surface treatment with indicative materials and finishes – site lighting – stormwater management and irrigation concept design.		
Other plans and reports	Acoustic Report (or equivalent) Waste Management Plan (or equivalent)		

A5 – Development application guidance (2/2)

Documentation	Required information	Provided?	
Floor plans	A scale drawing showing: – all levels of the building including roof plan – layout of entries, circulation areas, lifts and stairs, communal spaces, and service rooms with key dimensions and Real Level (RL) heights shown – apartment plans with apartment numbers and areas, all fenestration, typical furniture layouts for each apartment type, room dimensions and intended use and private open space dimensions – accessibility clearance templates for accessible units and common spaces – visual privacy separation shown and dimensions where necessary – vehicle and service access, circulation and parking – storage areas.		
Elevations	A scale drawing showing: – proposed building height and RL lines – building height control – setbacks or envelope outline – building length and articulation – the detail and features of the façade and roof design – any existing buildings on the site – building entries (pedestrian, vehicular and service) – profile of buildings on adjacent properties or for 50m in each direction, whichever is most appropriate. Samples or images of proposed external materials, finishes and colours of the proposal, keyed to elevations.		
Sections	A scale drawing showing: – proposed building height and RL lines – building height control – setbacks or envelope outline – adjacent buildings – building circulation – the relationship of the proposal to the ground plane, the street and open spaces particularly at thresholds – the location and treatment of car parking – the location of deep soil and soil depth allowance for planting on structure (where applicable) – building separation within the development and between neighbouring buildings – ceiling heights throughout the development – detailed sections of the proposed façades.		
Building performance diagrams	A solar diagram (where required) at the winter solstice (21 June) at a minimum of hourly intervals showing: – number of hours of solar access to the principal communal open space – number of hours of solar access to units within the proposal and tabulation of results – overshadowing of existing adjacent properties and overshadowing of future potential development where neighbouring sites are planned for higher density – elevation shadows if likely to fall on neighbouring windows, openings or solar panels. A ventilation diagram (where required) showing unobstructed path of air movements through dual aspect apartments and tabulation of results.		
Illustrative views	Photomontages or similar rendering or perspective drawings illustrating the proposal in the context of surrounding development. Note: Illustrative views need to be prepared using a perspective that relates to the human eye. Where a photomontage is prepared, it should use a photo taken by a full frame camera with a 50mm lens and 46 degree angle of view.		
Models	A three dimensional computer generated model showing views of the development from adjacent streets and buildings. A physical model for a large or contentious development (if required by the consent authority).		

PART 2 - TEMPLATE FOR ASSESSMENT UNDER THE R-CODES VOL. 2

It is recommended that the template is used as follows -

Applicants

- This document is intended to provide a structure to organise and arrange the supporting material and documentation for preparing and submitting a Development Application, with the onus being on the applicant to demonstrate that an Element Objective has been achieved.
- Applicants are encouraged to complete the 'applicant sections' of this document, outlining how the Element Objectives are satisfied. In many (if not most) instances it is expected that written response will be supported by associated drawings or documentation provided by the applicant '*e.g. – refer to Overshadowing Diagrams page 25 of submission package'.*
- The template can then be included in the application to the Responsible Authority.

Responsible Authority

- This document is intended to provide a structure to systematically and holistically undertake a planning assessment against the performance-based approach of R-Codes Vol. 2.
- The Responsible Authority will review the applicant's comments provided in this template and undertake an assessment of the materials provided against the relevant Element Objectives.

Section 1.2 of R-Codes Vol. 2 provides that certain sections of the policy may be amended or replaced by local planning frameworks. Where such local planning frameworks may have effect, this template provides an additional section where the applicable requirements may be stated.

ELEMENT 2.2	BUILDING HEIGHT	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT** *Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.*	**ASSESSOR COMMENT**
O2.2.1 – The height of development responds to the desired future scale and character of the street and local area, including existing buildings that are unlikely to change.	The future character of the street will be high quality small apartment buildings at R60. The three storey height limit is articulated by including a two storey plus open roof terrace section in the building facing Dalkeith Road that reduces the perceived overall height of the development. The development has a basement carpark that is designed to have 50% of its volume below natural ground level so not counted as a storey under the definitions: ***Basement*** *– a building floor level in which 50 per cent or more of its volume is below natural ground level.* ***Storey*** *- the portion of a building which is situated between the top of any floor and the top of the floor next above it and if there is no floor above it, that portion between the top of the floor and the ceiling above it but does not include:* *a basement* *a space that contains only a lift shaft, stairway or meter room* *a mezzanine* *a loft.*	**Objective met.** **Three and a half storeys, consistent with the default building height of 12m. The development features a three and a half storey interface at the rear, however the land to the south is also R60. Increased setback is considered to mitigate some of the bulk.**
O2.2.2 – The height of buildings within a development responds to changes in topography.	Not applicable - the site is essentially flat.	**Objective met.** **There is a slight natural slope rising from the north western corner to the south eastern corner of the site. This slope has been modified through the use of retaining to create a relatively flat site. The topography does not exacerbate the building height.**

O2.2.3 – Development incorporates articulated roof design and/or roof top communal open space where appropriate.	The roof articulates to create an open communal BBQ area on the top floor and to separate the overall mass into a front block on the corner of Carrington Street and Dalkeith Road that contains 7 apartments and a smaller block facing Dalkeith Road that contains 3 apartments. **Following Preliminary Assessment** Roof is now articulated into 3 distinct sections, one each over the apartments and a lower one over the stairs/lift/circulation. The roofs are each skillions to receive over the apartments the extensive solar PV arrays and to receive over the other mechanical equipment. Skillions provide for better solar efficiency at these roof orientations and make for safe maintenance of equipment. The roofs now fall to eaves gutters on the east giving lesser mass and more articulation to the adjoining existing residential property. The communal Terrace on the top floor now has a pergola while the façade has been cut back around the existing tree at the entry. Both add to roof articulation when viewed from the street.	**Objective met.** **A third-floor communal open space terrace has been provided with a pergola (open) roof. The terrace breaks the main roof into two main segments with a central spine linking the two.**
O2.2.4 – The height of development recognises the need for daylight and solar access to adjoining and nearby residential development, communal open space and in some cases, public spaces.	The largest mass of the building is on the corner of Carrington Street and Dalkeith Road while the rest is setback allowing greater daylight and solar access for the existing residential houses than would be the case in other configurations that satisfy Table 2.1. This overall massing also allows retention of a large jarrah tree in the south-east corner of the site.	**Objective met.** **The building is set back from the southern boundary 6.1m, which reduces overshadowing when compared to utilisation of the default minimum setback of 3m (Table 2.1 primary controls).** **The setback of the building on the eastern façade (facing a neighbouring property) varies from 2.3m – 8.5m to contribute to reduction in the bulk.**
ACCEPTABLE OUTCOMES *Acceptable Outcome pathway may not be applicable where a performance solution is provided*		
A2.2.1 – Development complies with the building height limit (storeys) set out in Table 2.1, except where modified by the local planning framework, in which case development complies with the building height limit set out in the applicable local planning instrument. *(Excerpt from table 2.1)*		

Streetscape contexts and character *refer A2*	Low-rise		Medium-rise		Higher density residential		Neighbourhood centre	Mid-rise urban centres	High density urban centres		Planned areas
Site R-Coding	R40	R50	R60	R80	R100	R160	R-AC4	R-AC3	R-AC2	R-AC1	R-AC0
Building height (storeys) *refer 2.2*	2	3	3	4	4	5	3	6	7	9	

The building is in effect 3.5 storeys tall. However, the maximum height is 11.9m above natural ground level on the north western corner of the building. This is consistent with the indicative overall height of 12m contained in Table 2.2.

LOCAL PLANNING FRAMEWORK	REQUIREMENT
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	**No.**

ELEMENT 2.3 STREET SETBACKS

ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	APPLICANT COMMENT *Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.*	ASSESSOR COMMENT
O2.3.1 – The setback of the development from the street reinforces and/or complements the existing or proposed landscape character of the street.	A large and far greater than compliant street setback is provided to Carrington Street to allow for the retention of open space in line with neighbouring properties, to allow for the retention of a large tree on the site, to provide acoustic separation from the busy Carrington Street (compared to Dalkeith Road) and to provide adequate safe ramping distance to the semi-basement parking. A smaller but greater than compliant setback is provided to Dalkeith Road to recognise the fact that this is the quieter of the two street frontages and to retain an existing mature tree. Both setbacks are generously landscaped and have low fences when needed for privacy.	**Objective met.** **Setback to Carrington Street: 6.0m (Default 2m Table 2.1)** **Whilst this is less than the existing primary street setback of 10-15m in the street block in which the site is located, it allows for the retention of green space to complement the streetscape. The implementation of landscaping, including tree retention and a vegetated façade is intended to ameliorate the impact of the development on the landscape character of the street.** **Setback to Dalkeith Road: 2.8m** **This will have a greater impact on the landscape character of the street. However, the design attempts to ameliorate this impact through use of a vegetated**

		façade and retention of a large tree in the setback area.
O2.3.2 – The street setback provides a clear transition between the public and private realm.	The setbacks are uniform and consistent on each of the street frontages and both are similarly landscaped making the distinction between public and private very clear. Transition is made through paved paths and driveway that lead directly to building entrances.	**Objective met.** **This is achieved through the use of landscaping, permeable fencing and clear demarcation of private areas (balconies).**
O2.3.3 – The street setback assists in achieving visual privacy to apartments from the street.	The setbacks are greater than compliant minimums with the greatest applied to the busiest street. Sill heights and recessed balconies will insure appropriate privacy for apartments from the streets.	**Objective met, by way of landscape screening setback, and raised ground floor FFL.**
O2.3.4 – The setback of the development enables passive surveillance and outlook to the street.	Generous balconies to all apartments and common areas face directly over the street providing excellent passive surveillance.	**Objective met.** **Each apartment has passive surveillance to the street from the main living room and a balcony area, which will ensure the busiest parts of each apartment overlook the street.**

ACCEPTABLE OUTCOMES
Acceptable Outcome pathway may not be applicable where a performance solution is provided

A3.2.1 – Development complies with the street setback set out in Table 2.1, except where modified by the local planning framework, in which case development complies with the street setback set out in the applicable local planning instrument

(Excerpt from table 2.1)

Streetscape contexts and character *refer A2*	Low-rise		Medium-rise		Higher density residential		Neighbourhood centre	Mid-rise urban centres	High density urban centres		Planned areas
Site R-Coding	R40	R50	R60	R80	R100	R160	R-AC4	R-AC3	R-AC2	R-AC1	R-AC0
Minimum primary and secondary street setbacks *refer 2.3*	4m [4]	2m	2m		2m		2m or Nil [5]	2m or Nil [5]	2m or Nil [5]		

(4) Minimum secondary street setback 1.5m
(5) Nil setback applicable if commercial use at ground floor

The default minimum street setback for R60 is 2m. In this case, the setbacks exceed the default (2.8m to Dalkeith Road and 6.0m to Carrington Street).	
LOCAL PLANNING FRAMEWORK	**REQUIREMENT**
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	**No.**

ELEMENT 2.4 SIDE AND REAR SETBACKS

ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT** *Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.*	**ASSESSOR COMMENT**
O2.4.1 – Building boundary setbacks provide for adequate separation between neighbouring properties.	The development follows Table 2.1 for the ground floor east and south setbacks that face adjoining properties. At the upper levels increased set backs are provided to the south end of the east setback and to the south setback recognising the fact that the adjoining properties are single houses. (Comment relates to the plans dated 21 November 2019).	**Objective met.** **Assessment of plans dated 29 February 2020:** **East (side) boundary:** **Acceptable Outcome: 3m min / 3.5m av (default)** **Basement (46.7m total wall length)** **0m (59% of total wall length)** **2.9m (19%)** **5.5m (3%)** **5.8m (19%)** **Average setback 1.8m** **It is noted that the basement FFL of 29.11 is approximately 1.6m – 2.1m lower than the NGL at the eastern boundary. The top of the basement wall is proposed at RL 32.110 (Level 1 FFL). This will require boundary walls of approximately 0.8m - 1.4m. This would be effectively screened by standard boundary fencing.** **The proposed basement setbacks can be supported on the grounds that the impact on the neighbouring property is mitigated by the presence of the existing**

		boundary fence. <u>A condition requiring the basement to be screened by the same or replacement fence is recommended.</u> **Levels 1-3 (39m total wall length)** **2.3m (11% of total wall length)** **3.0m (21%)** **3.5m (40%)** **6.0m (7%)** **8.7m (21%)** **Average setback 4.6m** **The projection inside of the default setback has been introduced by the amended plans dated 29 February 2020. The intent was to provide additional articulation on this façade, as well as relocate windows to remove direct overlooking into the neighbouring property. The projection inside the 3m setback area is offset by larger setbacks elsewhere on the façade. The average setback will be 4.6m (3.5m default).** **Average setback achieved (acceptable outcome). Relatively small length of wall projecting into the default setback continues to provide an adequate separation to the neighbouring property whilst not increasing overlooking (overlooking improved when compared to original plans).** **South (rear) setback** **Acceptable outcome 3m min. / 3.5m av. (default)** **Basement (19.9m total wall length)** **0m (14% of total wall length)** **6.1m (71%)** **8.8m (15%)** **Average setback 5.6m**

		It is noted that the basement FFL of 29.11 is approximately 1.6m lower than the NGL at the southern boundary adjacent to the proposed bin storage enclosure. The top of the basement wall is proposed at RL 32.110 (Level 1 FFL). This will require a boundary wall of approximately 1.4m to the bin enclosure. This would be effectively screened by standard boundary fencing. **Levels 1-3 (14m total wall length)** **6.1m (79%)** **8.9m (21%)** **Average setback 6.7m** **Rear setback achieved.**
O2.4.2 – Building boundary setbacks are consistent with the existing streetscape pattern or the desired streetscape character**.**	As the setbacks comply with Table 2.1 of A2.4.1 the boundary setbacks are consistent with the desired streetscape character. As they are larger towards the rear of the adjoining exiting lots they support the existing streetscape character. (Comment relates to the plans dated 21 November 2019).	**The development has sought to increase the setbacks to the east and south to ameliorate the impact of the building on the neighbouring single houses. The side separation between buildings when viewed from the street will be similar to that achieved by the existing development form. However, the height and bulk of the proposed building will be greater than provided by the current two storey house.**
O2.4.3 – The setback of development from side and rear boundaries enables retention of existing trees and provision of deep soil areas that reinforce the landscape character of the area, support tree canopy and assist with stormwater management.	The eastern setback has been significantly modelled and increased to allow for the retention of a large tree in a deep tree zone to maintain the landscape character of the area	**Objective met.** **Refer to Element 4.12.**
O2.4.4 –The setback of development from side and rear boundaries provides a transition between sites with different land uses or intensity of development.	Both neighbouring land uses are residential. However both are currently single houses and both are now zoned R60. The side and rear setbacks of the development have been modelled and increased in the southern section of the building as recognition of the need for transition between lots with different intensity of development.	**Objective met.** **Larger setbacks to the southern residence and larger average setback to the eastern residence has been proposed to reduce the impact of the development on the abutting single houses. It is noted that both neighbouring properties are coded R60 and have the potential to develop in a similar manner in the future.**

		Refer to Element 3.2 for discussion on the orientation of the development and impact on the southern neighbour.

ACCEPTABLE OUTCOMES

Acceptable Outcome pathway may not be applicable where a performance solution is provided

A2.4.1 - Development complies with the side and rear setbacks set out in Table 2.1, except where:

a) modified by the local planning framework, in which case development complies with the side and rear setbacks set out in the applicable local planning instrument **AND /OR**

b) a greater setback is required to address *3.5 Visual privacy*.

(Excerpt from table 2.1)

Streetscape contexts and character *refer A2*	Low-rise		Medium-rise		Higher density residential		Neighbourhood centre	Mid-rise urban centres	High density urban centres		Planned areas
Site R-Coding	**R40**	**R50**	**R60**	**R80**	**R100**	**R160**	**R-AC4**	**R-AC3**	**R-AC2**	**R-AC1**	**R-AC0**
Boundary wall height (storeys)[1,2] *refer 2.4*	1[3]		1[3]	2[3]	2[3]		2	3	4		
Minimum side setbacks[6] *refer 2.4*	2m	3m	3m		3m		Nil				
Minimum rear setback *refer 2.4*	3m		3m		6m		6m	Nil	Nil		
Average side setback where building length exceeds 16m *refer 2.4*	2.4m	3.5m	3.5m	3.5m	3.5m	4.0m	NA	NA	NA		

(1) Wall may be built up to a lot boundary, where it abuts an existing or simultaneously constructed wall of equal or greater proportions

(2) Where the subject site and an affected adjoining site are subject to different density codes, the length and height of any boundary wall on the boundary between them is determined by reference to the lower density code

(3) Boundary wall only permitted on one boundary, and shall not exceed 2/3 length.

(6) Boundary setbacks will also be determined by provisions for building separation and visual privacy within this SPP and building separation provisions of the NCC.

A2.4.2 – Development is setback from the boundary in order to achieve the Objectives outlined in *2.7 Building separation*, *3.3 Tree canopy and deep soil areas*, *3.5 Visual privacy* and *4.1 Solar and daylight access*.

LOCAL PLANNING FRAMEWORK	REQUIREMENT

Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	**No.**

ELEMENT 2.5	PLOT RATIO	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT** *Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.*	**ASSESSOR COMMENT**
O2.5.1 – The overall bulk and scale of development is appropriate for the existing or planned character of the area.	• The development fits comfortably within the building envelope. • The site is a corner site that can accommodate slightly increased plot ratio without loss of amenity. • The development provides for fewer but more generous apartments more suited to Nedlands than minimal or market apartments. The 1-3 bedroom apartments are 25-54% respectively more generous that the R Code minimums and 11-22% more generous than market apartments at Claremont Oval and Broadway Nedlands. • This development is for a Nedlands extended family and friends with no apartments being offered on the open market. A market solution of minimum 1-2 bedroom apartments would deliver 13-14 apartments and deliver increased street parking congestion. • The development provides sufficient car parking to accommodate all residents' cars and not need street parking that is not available on Carrington Street or Dalkeith Road. • The development provides extremely generous balconies, terraces, tree canopy and deep soil zones in an attempt to maintain the landscape feel of Nedlands. • The development provides apartments of all sizes that will accommodate a diversity of	**Objective met.** **Acceptable Outcome plot ratio = 0.8 (R60)** **Plot ratio of original plans dated 21 November 2019 was 0.87.** **Plot ratio of amended plans dated 29 February 2020 is 0.91** **The additional plot ratio is accommodated within the overall "envelope" of the building without the need for default height increases or significant impact on default setbacks. The one area of setback reduction has been undertaken to achieve eastern façade articulation and reduce overlooking rather than being required to accommodate additional plot ratio.** **It is noted that the plot ratio proposed will cater for the provision of a range of apartment sizes and configurations. All other relevant Element Objectives relating to overlooking, overshadowing, dwelling size, universal access, design and function have been met.** **It is considered that the development meets the Objective notwithstanding the Acceptable Outcome plot ratio default is lower than what is proposed.**

	residents from students to couples to families. • The apartments have dual key options to allow for extended families, live-in carers and blended families. • All apartments in the development are universally accessible providing increased aging in place dwellings in the Nedlands area. • The development retains all existing large trees on the site and provides excess to the Acceptable Outcomes tree canopy and deep soil zones. • All apartments including all wet areas are naturally lit and ventilated offering increased energy efficiency. • The façade is a fully planted green wall that fully compensates for the loss of tennis court on the site. • The proposed 9% plot ratio bonus is modest when compared to the generous apartment sizes proposed and the number and significance of the design features proposed to create an appropriate small apartment building for the unique area it occupies. **Following Preliminary Assessment** The plot ratio area has been reduced to 0.87. The additional area proposed has not been used to house an additional apartment but been used to make generous rather than minimum apartments. As we say in the Design Statement – Element Objectives, This development is for a Nedlands extended family and friends with no apartments being offered on the open market. A market solution of minimum 1-2 bedroom apartments would deliver 13-14 apartments and deliver increased street parking congestion. That	

	same market solution would also remove all trees, or worse the market solution chosen could be grouped dwellings of increased plot ratio area with no deep soil zones or tree retention at all. The plot ratio concession sought is the only one sought, is only a part contribution to the generous apartment sizes proposed and will partly offset the increased costs of significant tree retention and building multiple rather than grouped dwellings.	

ACCEPTABLE OUTCOMES
Acceptable Outcome pathway may not be applicable where a performance solution is provided

A2.5.1 – Development complies with the plot ratio requirements set out in Table 2.1, except where modified by the local planning framework, in which case development complies with the plot ratio set out in the applicable local planning instrument.

(Excerpt from table 2.1)

Streetscape contexts and character *refer A2*	Low-rise		Medium-rise		Higher density residential		Neighbourhood centre	Mid-rise urban centres	High density urban centres		Planned areas
Site R-Coding	R40	R50	R60	R80	R100	R160	R-AC4	R-AC3	R-AC2	R-AC1	R-AC0
Plot ratio [7] *refer 2.5*	0.6	0.7	0.8	1.0	1.3	2.0	1.2	2.0	2.5	3.0	

(6) Refer to Definitions for calculation of plot ratio

LOCAL PLANNING FRAMEWORK	REQUIREMENT
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	**No.**

ELEMENT 2.6	BUILDING DEPTH	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT**	**ASSESSOR COMMENT**
	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
O2.6.1 – Building depth supports apartment layouts that optimise daylight and solar access and natural ventilation.	Building depth is a maximum of 13.5m and apartment depth a maximum of 7.5m thus optimising daylight, solar access and natural ventilation.	**Objective met.** **The development meets Acceptable Outcome A2.6.1 in that the maximum building depth where there are apartments with a single aspect is 13.5m (i.e. less than 20m).**
O2.6.2 – Articulation of building form to allow adequate access to daylight and natural ventilation where greater building depths are proposed.	Greater building depths are not proposed. Building form is articulated to provide high quality access to daylight and natural ventilation amongst other design advantages.	**N/A as A2.6.1 is achieved.**
O2.6.3 – Room depths and/or ceiling heights optimise daylight and solar access and natural ventilation..	Room depths and ceiling heights meet the relevant Acceptable Outcomes.	**Objective met.** **Refer to Element 4.1 Solar and Daylight Access and 4.2 Natural Ventilation.**
ACCEPTABLE OUTCOMES *Acceptable Outcome pathway may not be applicable where a performance solution is provided*		
A2.6.1 – Developments that comprise single aspect apartments on each side of a central circulation corridor shall have a maximum building depth of 20m. All other proposals will be assessed on their merits with particular consideration to *4.1 Solar and daylight access* and *4.2 Natural ventilation*.		
LOCAL PLANNING FRAMEWORK	**REQUIREMENT**	
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	**No.**	

ELEMENT 2.7	BUILDING SEPARATION	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT** *Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.*	**ASSESSOR COMMENT**
O2.7.1 – New development supports the desired future streetscape character with spaces between buildings.	This development comprises one building as the site is relatively small. It is setback from side boundaries to provide space between it and neighbouring buildings. The building comprises a larger mass to the north of the site facing Carrington Street and a smaller mass to the south facing Dalkeith Road. These two masses are articulated by a deep soil zone planted with a major tree so that the two masses will appear separated. The southern mass is set back and modelled in recognition that there are low intensity residential uses to the east and the south of this development.	**Objective met.** **The site is a corner location abutting neighbouring properties on two sides. Habitable rooms and balconies have been oriented to the street boundaries to maximise separation.** **Acceptable outcome A2.7.1 provides for the default separation distance to adjoining property boundaries to be determined by Element 2.4 Side and rear setbacks and Element 3.5 Visual privacy.**
O2.7.2 – Building separation is in proportion to building height.	The deep tree zone articulating this development is approximately cubic in proportion meaning it will not be perceived as too deep and narrow and thus oppressive.	**Objective met.** **Acceptable outcome A2.7.1 provides for the default separation distance to adjoining property boundaries to be determined by Element 2.4 Side and rear setbacks and Element 3.5 Visual privacy.**
O2.7.3 – Buildings are separated sufficiently to provide for residential amenity including visual and acoustic privacy, natural ventilation, sunlight and daylight access and outlook.	The articulation of this development by way of a deep soil zone allows the surrounding built fabric good access to light, air, sun and privacy. The large deciduous tree in this zone will provide screening to the neighbouring properties, sun control and thermal cooling for the development.	**Objective met.** **Acceptable outcome A2.7.1 provides for the default separation distance to adjoining property boundaries to be determined by Element 2.4 Side and rear setbacks and Element 3.5 Visual privacy.**
O2.7.4 – Suitable areas are provided for communal and private open space, deep soil areas and landscaping between buildings	The deep soil zone contain large deciduous trees to improve the amenity of the parking area on grade and the amenity of the public areas and apartments around it. Private balconies, common areas and a common outdoor area face this zone as well as other aspects.	**Objective met.** **Acceptable outcome A2.7.1 provides for the default separation distance to adjoining property boundaries to be determined by Element 2.4 Side and rear setbacks and Element 3.5 Visual privacy.**

		Refer to Elements 3.3 and 4.12 for deep soil and landscaping.

ACCEPTABLE OUTCOMES
Acceptable Outcome pathway may not be applicable where a performance solution is provided

A2.7.1 – Development complies with the separation requirements set out in Table 2.7.

Table 2.7 Building separation

	Separation between:	Building height		
		≤ 4 storeys (up to 15m)	5-8 storeys (up to 28m)	≥ 9 storeys (over 28m)
Within site boundary	Habitable rooms/balconies	12m	18m	24m
	Habitable and non-habitable rooms	7.5m	12m	18m
	Non-habitable rooms	4.5m	6m	9m
To adjoining property boundaries	Habitable rooms/balconies and boundary	Refer *2.4 Side and rear setbacks* (Table 2.1) and *3.5 Visual privacy* (Table 3.5)	9m	12m
Distances apply from major openings of rooms, or the inside of balustrading of balconies. Average dimensions may be applied subject to major openings meeting other requirements for privacy, daylight and the like.				

LOCAL PLANNING FRAMEWORK	REQUIREMENT
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	**No.**

ELEMENT 3.2 ORIENTATION

ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	APPLICANT COMMENT	ASSESSOR COMMENT
	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
O3.2.1 – Building layouts respond to the streetscape, topography and site attributes while optimising solar and daylight access within the development.	The building directly faces the two street frontages with extensive balconies, private gardens with open fences, public entrances and common areas. The apartments are relatively wide and shallow in depth providing good access to daylight, ventilation and solar access.	**Objective met.** **Acceptable Outcomes:** **A3.2.1 is met as the building is oriented to the street frontages with all apartments having interaction with the streetscape through the use of balconies. Direct access to Dalkeith Road is provided.**

		A3.2.2 is met in that the building has been designed to maximise northern light.
O3.2.2 – Building form and orientation minimises overshadowing of the habitable rooms, open space and solar collectors of neighbouring properties during mid-winter.	The building does not overshadow the neighbour on Carrington Street at in the morning or at midday in winter. The building form has been articulated to minimise overshadowing in the afternoon, especially of the rear private garden. The building has been articulated to overshadow the neighbour on Dalkeith Road only for 11% at midday in mid-winter and then only the front garden and not the house or private rear garden.	**Objective met.** **A3.2.3 is met in that the maximum overshadowing of the property to the south (32 Dalkeith Road) is 11%. The R60 acceptable outcome default is 50%. However, this needs to be halved for the neighbouring property as it's northern boundary also abuts 22 Carrington Street (i.e. the overshadowing is shared). The overshadowing is limited to the from setback and front part of the dwelling. There is no impact to private open space and solar collectors.**

ACCEPTABLE OUTCOMES
Acceptable Outcome pathway may not be applicable where a performance solution is provided

A3.2.1 – Buildings on street or public realm frontages are oriented to face the public realm and incorporate direct access from the street.

A3.2.2 – Buildings that do not have frontages to streets or public realm are oriented to maximise northern solar access to living areas.

A3.2.3 – Development in climate zones 4, 5 and 6 shall be designed such that the shadow cast at midday on 21st June onto any adjoining property does not exceed:

- adjoining properties coded R25 and lower – 25% of the site area[1]
- adjoining properties coded R30 – R40 - 35% of the site area[1]
- adjoining properties coded R50 – R60 – 50% of the site area[1]
- adjoining properties coded R80 or higher – Nil requirements.

(1) Where a development site shares its southern boundary with a lot, and that lot is bound to the north by other lot(s), the limit of shading at A3.2.3 shall be reduced proportionally to the percentage of the affected properties northern boundary that abuts the development site. (Refer to Figure A7.2 in Appendix 7)

A3.2.4– Where adjoining sites are coded R40 or less, buildings are oriented to maintain 4 hours per day solar access on 21 June for existing solar collectors on neighbouring sites.

LOCAL PLANNING FRAMEWORK	REQUIREMENT
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	**No.**

ELEMENT 3.3	TREE CANOPY AND DEEP SOIL AREAS	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT**	**ASSESSOR COMMENT**
	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
O3.3.1 – Site planning maximises retention of existing healthy and appropriate and protects the viability of adjoining trees.	All existing significant trees meeting A3.3.1 are retained by siting of the building. Adjoining trees meeting A3.3.1 have their canopies entirely on adjoining properties and therefore remain fully viable. **Following Preliminary Assessment** Increased setbacks have been provided to the jarrah tree in the south east corner of the site and to the large eucalypt next to the new Entry. The landscape architect in the Landscape Report has confirmed that the setbacks are appropriate for the retention of the trees.	**Objective met.** **Trees are to be retained on the site. Adjoining trees will not be affected by this development. It is recommended that a condition be placed on any approval requiring a tree retention plan be prepared by a qualified arborist to identify the actions required to protect the trees during and after construction.**
O3.3.2 – Adequate measures are taken to improve tree canopy (long term) or to offset reduction of tree canopy from pre-development condition.	Tree canopy in the long term is improved as all existing significant trees are retained and major new trees are planted. Three large and 3 small trees are retained while 1 large, 2 medium trees and 2 small trees are added plus numerous small shrubs.	**Objective met.** **Additional trees are proposed to be planted as part of the landscaping plan. Implementation and ongoing maintenance of the planting proposed by the landscaping plan can be made a condition of approval.**
O3.3.3 – Development includes deep soil areas, or other infrastructure to support planting on structures, with sufficient area and volume to sustain healthy plant and tree growth.	A3.3.4 requires 7% or 71 sqm of deep soil area. This development provides 246sqm. In addition there are large planters on all street facing balconies and the street facing facade contains an extensive trellis structure to support vertical planting from the ground and from balcony planters. **Following Preliminary Assessment** A landscape plan (see drawings SK13-14) and a Landscape Report have been prepared. They show all plantings and finished of deep soil areas.	**Objective met.** **Deep soil area exceeds the default acceptable outcome of 7% of lot area or 71m2 (i.e. 208m2 of deep soil area provided, excluding the area of truncation).**

ACCEPTABLE OUTCOMES
Acceptable Outcome pathway may not be applicable where a performance solution is provided

A3.3.1 – Retention of existing trees on the site that meet the following criteria:

- healthy specimens with ongoing viability **AND**
- species is not included on a State or local area weed register **AND**
- height of at least 4m **AND/OR**
- trunk diameter of at least 160mm, measured 1m from the ground **AND/OR**
- average canopy diameter of at least 4m.

A3.3.2 – The removal of existing trees that meet any of the criteria at A3.3.1 is supported by an arboriculture report.

A3.3.3 – The development is sited and planned to have no detrimental impacts on, and to minimise canopy loss of adjoining trees.

A3.3.4 – Deep soil areas are provided in accordance with Table 3.3a. Deep soil areas are to be co-located with existing trees for retention and/or adjoining trees, or alternatively provided in a location that is conducive to tree growth and suitable for communal open space.

Table 3.3a Minimum deep soil area and tree provision requirements

Site Area	Minimum deep soil area	Minimum requirement for trees [1]
Less than 700m²	10% **OR** 7% if existing tree(s) retained on site (% site area)	1 medium tree and small trees to suit area
700 – 1,000m²		2 medium trees **OR** 1 large tree and small trees to suit area
› 1,000m²		1 large tree and 1 medium tree for each additional 400m² in excess of 1000m² **OR** 1 large tree for each additional 900m² in excess of 1000m² and small trees to suit area
[1] Minimum requirement for trees includes retained or new trees Refer Table 3.3b for tree sizes		

A3.3.5 – Landscaping includes existing and new trees with shade producing canopies in accordance with Tables 3.3a and 3.3b.

Table 3.3b Tree sizes

Tree size	Indicative canopy diameter at maturity	Nominal height at maturity	Required DSA per tree	Recommended minimum DSA width	Minimum DSA width where additional rootable soil zone (RSZ) width provided[1] (min 1m depth)	Indicative pot size at planting
Small	4-6m	4-8m	9m²	2m	1m (DSA) + 1m (RSZ)	100L
Medium	6-9m	8-12m	36m²	3m	2m (DSA) + 1m (RSZ)	200L
Large	›9m	›12m	64m²	6m	4.5m (DSA) + 1.5m (RSZ)	500L

[1] Rootable areas are for the purposes of determining minimum width only and do not have the effect of reducing the required DSA.

A3.3.6 – The extent of permeable paving or decking within a deep soil area does not exceed 20 per cent of its area and does not inhibit the planting and growth of trees.

A3.3.7 – Where the required deep soil areas cannot be provided due to site restrictions, planting on structure with an area equivalent to two times the shortfall in deep soil area provision is provided.

LOCAL PLANNING FRAMEWORK	REQUIREMENT
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	**No.**

ELEMENT 3.4 COMMUNAL OPEN SPACE

ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	APPLICANT COMMENT *Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.*	ASSESSOR COMMENT
O3.4.1 – Provision of quality communal open space that enhances resident amenity and provides opportunities for landscaping, tree retention and deep soil areas.	A3.4.1 requires 72 sqm of communal open space and 24 sqm of hard landscape communal open space. This development provides communal gardens and accessible deep soil areas far in excess of 72 sqm and a communal BBQ area of 32 sqm on the top floor of the building.	**Objective met.** **Acceptable outcome A3.4.1 provides a default communal open space provision of informal seating associated with deep soil or other landscaped areas. In this case, a number of deep soil areas have been set aside as communal open space. There is no default requirement for an area of communal open space as there are only 10 dwellings (Table 3.4).**
O3.4.2 – Communal open space is safe, universally accessible and provides a high level of amenity for residents.	All communal open space is overlooked by habitable rooms, access balconies and private terraces providing passive surveillance of communal open	**Objective met.** **The large ground level communal areas are accessible at grade either directly from the street /**

	space. All communal open space is universally accessible.	**entry lobby or the basement. The roof top terrace area is accessible by lift.** **There is a range of communal areas, including passive gardens and active terrace areas with BBQ.** **All communal areas are overlooked by balconies and/or habitable rooms.**
O3.4.3 – Communal open space is designed and oriented to minimise impacts on the habitable rooms and private open space within the site and of neighbouring properties.	The most active communal open space, the BBQ area, is located on the top floor away from neighbouring residential properties. It is located next to the lift and the stores and not apartments. The BBQ is located above another communal space, the gym, and not a private apartment. **Following Preliminary Assessment** Communal terrace, gym and meeting room are now no longer adjacent to living/dining rooms. An acoustic report has been prepared to address these impacts.	**Objective met.** **The roof terrace is located between storerooms and lift shafts and overlooks the street.**

ACCEPTABLE OUTCOMES
Acceptable Outcome pathway may not be applicable where a performance solution is provided

A3.4.1 – Developments include communal open space in accordance with Table 3.4

Table 3.4 Provision of communal open space

Development size	Overall communal open space requirement	Minimum accessible / hard landscape area (included in overall area requirement)	Minimum open space dimension
Up to 10 dwellings	Informal seating associated with deep soil or other landscaped areas	NA	NA
More than 10 dwellings	Total: 6m² per dwelling up to maximum 300m²	At least 2m² per dwelling up to 100m²	4m

A3.4.2 – Communal open space located on the ground floor or on floors serviced by lifts must be accessible from the primary street entry of the development.

A3.4.3 – There is 50 per cent direct sunlight to at least one communal open space area for a minimum of two hours between 9am and 3pm on 21 June.

A3.4.4– Communal open space is co-located with deep soil areas and/or planting on structure areas and/ or co-indoor communal spaces.

A3.4.5 – Communal open space is separated or screened from adverse amenity impacts such as bins, vents, condenser units, noise sources and vehicle circulation areas.

A3.4.6 – Communal open space is well-lit, minimises places for concealment and is open to passive surveillance from adjoining dwellings and/or the public realm.	
A3.4.7 – Communal open space is designed and oriented to minimise the impacts of noise, odour, light-spill and overlooking on the habitable rooms and private open spaces within the site and of neighbouring properties.	
LOCAL PLANNING FRAMEWORK	**REQUIREMENT**
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	**No.**

ELEMENT 3.5 VISUAL PRIVACY

ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	APPLICANT COMMENT *Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.*	ASSESSOR COMMENT
O3.5.1 – The orientation and design of buildings, windows and balconies minimises direct overlooking of habitable rooms and private outdoor living areas within the site and of neighbouring properties, while maintaining daylight and solar access, ventilation and the external outlook of habitable rooms.	There is no overlooking of habitable rooms or private outdoor living areas within the site. All balconies face either outwards over the streets or inwards to blank walls and no-habitable rooms and are separated by distances greater than those required under building separation Acceptable Outcomes. Visual privacy is protected by complying strictly with table 3.5 of A3.5.1. Acceptable Outcomes are complied with regarding daylight and solar access, and ventilation. There are no high sills other than in wet areas and there is no need for permanent screening of any windows or balconies.	**Objective met.** **The windows to habitable rooms on the eastern elevation have been setback in accordance with Acceptable Outcome A3.5.1. The north facing windows to Bed 2 in Units A3, A6 and A9 have been provided with a screening nib that extends the cone of vision to the eastern boundary to 4.5m (default 3m).** **Balconies are facing the street with the exception of the Juliet balconies for Units A4, A5 and A10. These balconies face north and have a cone of vision setback of 7.5m to the eastern boundary.** **A3.5.2 - A3.5.4 have been met.**

ACCEPTABLE OUTCOMES
Acceptable Outcome pathway may not be applicable where a performance solution is provided

A3.5.1 – Visual privacy setbacks to side and rear boundaries are provided in accordance with Table 3.5.

Table 3.5 Required privacy setback to adjoining sites

Cone of vision from unscreened:	First 4 storeys		5th storey and above
	Adjoining sites coded R50 or lower	Adjoining sites coded higher than R50	
Major opening to bedroom, study and open access walkways	4.5m	3m	Refer Table 2.7
Major openings to habitable rooms other than bedrooms and studies	6m	4.5m	
Unenclosed private outdoor spaces	7.5m	6m	

A3.5.2 – Balconies are unscreened for at least 25 per cent of their perimeter (including edges abutting a building).

A3.5.3 - Living rooms have an external outlook from at least one major opening that is not obscured by a screen.

A3.5.4 – Windows and balconies are sited, oriented, offset or articulated to restrict direct overlooking, without excessive reliance on high sill levels or permanent screening of windows and balconies.	
LOCAL PLANNING FRAMEWORK	**REQUIREMENT**
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	**No.**

ELEMENT 3.6	PUBLIC DOMAIN INTERFACE	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT** *Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.*	**ASSESSOR COMMENT**
O3.6.1 – The transition between the private and public domain enhances the privacy and safety of residents.	**This development does not comply with A3.6.5.** The corner of Carrington Street and Dalkeith Road is a very busy intersection for residential development. Busy intersections pose significant difficulties for residential development on the ground floor with noise and fumes severely and adversely diminishing privacy, amenity and safety of ground floor residents referred to in O3.6.1 when compared to less busy streets. This development meets 8 out of 9 of the Acceptable Outcomes of this Element Objective. There are three wide street facing apartments on the ground floor with wide terraces overlooking the street and private gardens with direct street access. There is a ground floor communal meeting room overlooking the street. The pedestrian and vehicular accesses are direct and prevent concealment. The development proposes an increased change in level between the ground floor and private terraces than that outlined in A3.6.5. The proposed change in level averages 1.9m and does not exceed 2m. This change in level **enhances** significantly the privacy and safety of residents (as required O3.6.1), especially in terms of noise and fume mitigation. The safety and amenity of the adjoining public domain is **retained and enhanced** as required by O3.6.2.	**Objective met.** **It is noted that Acceptable Outcome A3.6.5 has not been met as the changes in level between the ground floor level of the building and the street level average more than 1m and exceed 1.2m.** **The ground floor will be 1.67m – 2.11m above the Carrington Street road level. The height difference for Dalkeith Road will be approximately 2.20m – 2.36m above road level.** **The interface between the street and the building includes private and communal garden spaces. These are 2.5m wide on Dalkeith Road and 2.8m – 6.0m wide on Carrington Street. These spaces are raised approximately 0.5m – 0.65m above the Dalkeith Road level and 0.25-0.7m above Carrington Street. These will act as a transition zone between the street and the ground floor of the building.** **The proposed development meets all other Acceptable Outcomes, in that:** • **All ground floor apartments have direct access to the street by balcony and private garden (A3.6.1).** • **Car parking is not located in the street setback and is located partly below ground level and integrated into the landscaping and building façade (A3.6.2).** • **Upper level balconies overlook the street (A3.6.3).** • **Balustrading includes a mix of opaque and visually permeable materials (A3.6.4).**

	A good precedent exists at Steve's Apartments 35 Esplanade Nedlands cnr Broadway, a busy corner comparable to the corner of this development. Here ground floor apartments are approximately 2.5m above street level at the corner and along the Esplanade and lower on Broadway towards the Avenue. Noticeable the lower elevations are less successful with balconies not actively used and blinds drawn at all times.  Steve's Apartments 35 Esplanade Nedlands cnr Broadway	• **Front fencing is visually permeable and is less than 1.2m high (A3.6.6).** • **Fencing, landscaping and other elements on the frontage are designed to eliminate opportunities for concealment (A3.6.7).** • **Bins are not located within the primary street setback or in locations visible from the street (amended plans show bins located within a screened enclosure) (A3.6.8).** • **Services and utilities are integrated into the design (A3.6.9).** **It is considered that the proposed levels can be considered to meet the Objective given the level of activation that has been provided for. All apartments with ground level street frontage will have direct access to the street and garden areas. The additional height of the ground floor is not considered to be detrimental to achieving the Objective. In addition, the overall height and bulk of the development is not adversely impacted upon by the increased ground level height.**
O3.6.2 – Street facing development and landscape design retains and enhances the amenity and safety of the adjoining public domain, including the provision of shade.	All of the ground floor contains active uses: four apartments with private terraces, gardens and direct entrances overlook the street; the communal meeting room overlooks the street. The landscape design retains all significant trees between the building and the street and adds more as well as a vertical green wall on the façade of the building. **Following Preliminary Assessment**	**Objective met.** **This is achieved by ensuring a high level of activation between the apartments and the public realm. Shade will be provided in the street setback areas by the retaining of large trees.**

	A canopy has now been provided over the building entry. The balustrading is now mixed. Manual sun control blinds are included on all balconies. The façade has been modified to provide further screening to balconies. Services and utilities are now shown on the plans.	

ACCEPTABLE OUTCOMES *Acceptable Outcome pathway may not be applicable where a performance solution is provided*
A3.6.1 – The majority of ground floor dwellings fronting onto a street or public open space have direct access by way of a private terrace, balcony or courtyard.
A3.6.2 – Car-parking is not located within the primary street setback; and where car parking is located at ground level behind the street setback it is designed to integrate with landscaping and the building façade (where part of the building).
A3.6.3 – Upper level balconies and/or windows overlook the street and public domain areas.
A3.6.4 – Balustrading includes a mix of visually opaque and visually permeable materials to provide residents with privacy while maintaining casual surveillance of adjoining public domain areas.
A3.6.5 – Changes in level between private terraces, front gardens and the ground floor level of the building and the street level average less than 1m and do not exceed 1.2m.
A3.6.6 – Front fencing includes visually permeable materials above 1.2m and the average height of solid walls or fences to the street does not exceed 1.2m.
A3.6.7 – Fencing, landscaping and other elements on the frontage are designed to eliminate opportunities for concealment.
A3.6.8 – Bins are not located within the primary street setback or in locations visible from the primary street.
A3.6.9 – Services and utilities that are located in the primary street setback are integrated into the design of the development and do not detract from the amenity and visual appearance of the street frontage.[1] (1) Firefighting and access to services such as power and water meters require careful consideration in the design of the front façade. Consult early with relevant authorities to resolve functional requirements in an integrated design solution.

LOCAL PLANNING FRAMEWORK	**REQUIREMENT**
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	**No.**

ELEMENT 3.7	**PEDESTRIAN ACCESS AND ENTRIES**	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT**	**ASSESSOR COMMENT**
	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	

O3.7.1 – Entries and pathways are universally accessible, easy to identify and safe for residents and visitors.	This development has a single universally accessible pedestrian access leading directly from the footpath. The entry pathway is overlooked by an apartment and a communal meeting room. **Following Preliminary Assessment** All entries and pathways are universally accessible. Vehicle and pedestrian entries are separate. Bicycle storage moved to avoid impeding pedestrians.	**Objective met.** **All apartments are accessible via a universally accessible entry foyer and lift. This prevents stairs becoming the primary route of access into apartments.** **Objective met via Acceptable Outcomes A3.7.1, A3.7.4-A3.7.6.**
O3.7.2 – Entries to the development connect to and address the public domain with an attractive street presence.	The entry is integrated into the façade of the building and leads to a generous glazed lobby overlooking the street with stair and lift vertical circulation. **Following Preliminary Assessment** A canopy with signage has now been provided over the building entry. The foyer glazing is now protected from the west sun by the façade. Services and utilities are now shown on the plans.	**Objective met.** **The entry foyer is protected by a canopy, which is located 2.5m from the street boundary and readily identified.** **Objective met via Acceptable Outcomes A3.7.2 and A3.7.3.**

ACCEPTABLE OUTCOMES *Acceptable Outcome pathway may not be applicable where a performance solution is provided*
A3.7.1 – Pedestrian entries are connected via a legible, well-defined, continuous path of travel to building access areas such as lift lobbies, stairs, accessways and individual dwelling entries.
A3.7.2 – Pedestrian entries are protected from the weather.
A3.7.3 – Pedestrian entries are well-lit for safety and amenity, visible from the public domain without opportunity for concealment, and designed to enable casual surveillance of the entry from within the site.
A3.7.4 – Where pedestrian access is via a shared zone with vehicles, the pedestrian path is clearly delineated and/or measures are incorporated to prioritise the pedestrian and constrain vehicle speed.
A3.7.5 – Services and utilities that are located at the pedestrian entry are integrated into the design and do not detract from the amenity of the entry.
A3.7.6 – Bins are not located at the primary pedestrian entry.

LOCAL PLANNING FRAMEWORK	**REQUIREMENT**
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	**No.**

ELEMENT 3.8	VEHICLE ACCESS	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT** *Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.*	**ASSESSOR COMMENT**
O3.8.1 – Vehicle access points are designed and located to provide safe access and egress for vehicles and to avoid conflict with pedestrians, cyclists and other vehicles.	This development has a single vehicular access to a semi-basement parking garage. It is separated from the pedestrian access to the development. Walls and fences are reduced near intersections to provide safe viewing.	**Objective met.** **The single vehicle access point is located on the south western corner of the site, as far away from the Carrington Street / Dalkeith Road intersection as possible. The exact height at the street boundary of the retaining walls sited parallel to the driveway appears to be less than 0.75m. This will allow sufficient sight lines between exiting vehicles, pedestrians, cyclists and motorists. A condition is recommended to ensure appropriate sightlines at the street boundary (i.e. wall height <0.75m or 1.5m truncation).** **As the access is ramped upwards to the street, the impact of headlights on the opposite dwelling is reduced. However, it is likely that any headlight glare will be directed to the entry porch and carport.** **All Achievable Outcomes for this Element are met, namely:** • **There is one access point (A3.8.1)** • **Vehicle entry is identifiable from the street and integrated with the building (A3.8.2)** • **The entry is located as far a practicable from the nearby intersection (A3.8.3)** • **The basement being located partly below ground and ramped reduced headlight glare (A3.8.4)** • **Driveway width is kept to 6m wide to allow two-way access (A3.8.5)** • **Whilst not required for the number of dwellings, the driveway is designed for two way access and allows for vehicles to enter the street in forward gear (A3.8.6)**

		• **A condition is recommended to allow for walls to be no higher than 0.75m within 1.5m of the street boundary (A3.8.7).**
O3.8.2 – Vehicle access points are designed and located to reduce visual impact on the streetscape.	The single vehicle access point is via a ramp as narrow as possible to provide safe two-way access. It is also overlooked by a terrace and a private garden of a ground floor apartment.	**Objective met.** **All Acceptable Outcomes have been achieved.**

ACCEPTABLE OUTCOMES
Acceptable Outcome pathway may not be applicable where a performance solution is provided

A3.8.1 – Vehicle access is limited to one opening per 20m street frontage that is visible from the street.

A3.8.2 – Vehicle entries are identifiable from the street, while being integrated with the overall façade design and/ or located behind the primary building line.

A3.8.3 – Vehicle entries have adequate separation from street intersections.

A3.8.4 – Vehicle circulation areas avoid headlights shining into habitable rooms within the development and adjoining properties.

A3.8.5 – Driveway width is kept to a functional minimum, relative to the traffic volumes and entry/egress requirements.

A3.8.6 – Driveways designed for two way access to allow for vehicles to enter the street in forward gear where:

- the driveway serves more than 10 dwellings
- the distance from an on-site car parking to the street is 15m or more **OR**
- the public street to which it connects is designated as a primary distributor, district distributor or integrated arterial road.

A3.8.7 – Walls, fences and other structures truncated or reduced to no higher than 0.75m within 1.5m of where walls, fences, other structures adjoin vehicle access points where a driveway meets a public street and where two streets intersect (refer Figure 3.8a).

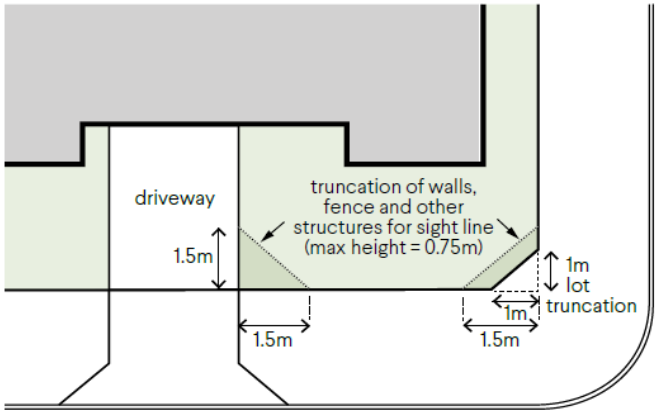


Figure 3.8a Truncation at street corner to provide sightlines (refer A3.8.7).

LOCAL PLANNING FRAMEWORK	REQUIREMENT
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	**No.**

ELEMENT 3.9	CAR AND BICYCLE PARKING	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT**	**ASSESSOR COMMENT**
	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
O3.9.1 – Parking and facilities are provided for cyclists and other modes of transport.	This development is within location B. Parking is provided for cars and bicycles in accordance with Table 3.9. **Following Preliminary Assessment** Bays 5, 6 and 15 will be designated visitor bays. Bay 5 is closest to the pedestrian entry.	**Objective met.** **Acceptable Outcome A3.9.1 provides for a default of 0.5 bicycle space per dwelling and 1 visitor bicycle space per 10 dwellings. The default provision for this development is 5 resident and 1 visitor bicycle spaces (total 6 spaces).** **Five wall-hung racks are shown adjacent to car bay 13. A visitor space is shown at the main entry to the building.**
O3.9.2 – Car parking provision is appropriate to the location, with reduced provision possible in areas that are highly walkable and/or have good public transport or cycle networks and/or are close to employment centres.	The parking provision is excess of the minimums outlined in Table 3.9 and does not exceed double the minimum required by A3.9.3. The parking provision is appropriate as there is no street parking available on Carrington Street or Dalkeith Road and to accommodate possible boats and trailers common in the area. **Following Preliminary Assessment** Five resident bicycle bays are now provided in the basement directly adjacent to the pedestrian entry and lift. A visitor bicycle bar is now provided directly outside the front building Entry.	**Objective met.** **Acceptable Outcome A3.9.2 provides for a default of 1 bay per dwelling for 1 bed units and 1.25 bays for 2+ bed units (Location B). Visitor parking is to be provided at 1 bay per 4 dwellings up to 12 dwellings. The default provision for this development is 12 resident's bays and 3 visitor's bays (15).** **A total of 21 bays are provided for this development, allocated as follows:** • **1 bay per 1 bed unit (4)** • **2 bays per 2 bed units (8)** • **3 bays per 3 bed units (6)** • **3 visitor's bays (3)** **Acceptable Outcome A3.9.3 is met as the provided parking is less than double the default provision at A3.9.2.** **It is noted that the visitor's parking will be located behind the security gate for the development. It is recommended that a condition be placed on any approval requiring arrangements being made to**

		provide secure access to the visitor's parking via intercom or similar.
O3.9.3 – Car parking is designed to be safe and accessible.	Parking and access are designed to AS2890.1. They are overlooked by access walkways and circulation spaces giving good passive surveillance. **Following Preliminary Assessment** Bicycle parking is now assessed via the vehicle ramp, wide steps and the lift.	**Objective met.** **Acceptable Outcome A3.9.4 is met as the parking and vehicle circulation areas meet AS2890.1 (as amended).**
O3.9.4 – The design and location of car parking minimises negative visual and environmental impacts on amenity and the streetscape.	The car parking is contained within a semi-basement that has half of its volume underground. The semi-basement design allows the parking to be naturally ventilated and of high amenity as view to ground level planting is provided internally and views to planted screens externally.	**Objective met.** **Acceptable Outcome A3.9.5 is met in that the parking is located outside of the street setback area and partly below ground level to reduce visual prominence on the street.** **Acceptable Outcome A3.9.6 is met in that the parking areas will not be visible from dwellings given the part basement nature of the parking and the use of vegetated screens between private outdoor spaces and the parking.** **Acceptable Outcome A3.9.7 will require the Visitor Parking to be clearly marked. A condition is recommended in the event of approval.** **Acceptable Outcomes A3.9.8 and A3.9.9 do not apply as shade structures or uncovered at-grade parking are not proposed.** **The default arrangements of Acceptable Outcome A3.9.10 are not achieved by this development on account of the basement parking protruding an average of 1.6m above ground in lieu of 1.0m. However, the protruding area is designed and/or screened to prevent negative visual impact on the streetscape. The basement is integrated into the building design, with the portion of the basement above ground level screened by the green wall**

		proposed for the Dalkeith Road and Carrington Street frontages. **The impact of the greater basement protrusion is linked to the increased ground floor height above street level in Element 3.6. The additional height of the ground floor in relation to the street level has been considered as achieving Element Objectives O3.6.1 and O3.6.2.** **The additional level of protrusion of the basement does not impact on the ability for the building to meet Acceptable Outcomes for height.**

ACCEPTABLE OUTCOMES
Acceptable Outcome pathway may not be applicable where a performance solution is provided

A3.9.1 – Secure, undercover bicycle parking is provided in accordance with Table 3.9 and accessed via a continuous path of travel from the vehicle or cycle entry point.

Table 3.9 Parking ratio

Parking types		Location A	Location B
Car parking[1]	1 bedroom dwellings	0.75 bay per dwelling	1 bay per dwelling
	2+ bedroom dwellings	1 bay per dwelling	1.25 bays per dwelling
	Visitor	1 bay per four dwellings up to 12 dwellings 1 bay per eight dwellings for the 13th dwelling and above	
Bicycle parking[1]	Resident	0.5 space per dwelling	
	Visitor	1 space per 10 dwellings	
Motorcycle/ Scooter parking[2]	Developments exceeding 20 dwellings provide 1 motorcycle/scooter space for every 10 car bays		

[1] Calculations of parking ratios shall be rounded up to the next whole number.
[2] For each five motorcycle/scooter parking bays provided in accordance with Table 3.9, car parking bays may be reduced by one bay.

Definitions:
Location A: within 800m walkable catchment of a train station and/or 250m of a transit stop (bus or light rail) of a high-frequency route and/or within the defined boundaries of an activity centre.
Location B: not within Location A.

A3.9.2 – Parking is provided for cars and motorcycles in accordance with Table 3.9.

A3.9.3 – Maximum parking provision does not exceed double the minimum number of bays specified in Table 3.9

A3.9.4 – Car parking and vehicle circulation areas are designed in accordance with AS2890.1 (as amended) or the requirements of applicable local planning instruments.

A3.9.5 – Car parking areas are not located within the street setback and are not visually prominent from the street.

A3.9.6 – Car parking is designed, landscaped or screened to mitigate visual impacts when viewed from dwellings and private outdoor spaces.

A3.9.7 – Visitor parking is clearly visible from the driveway, is signed ‘Visitor Parking’ and is accessible from the primary entry or entries.

A3.9.8 – Parking shade structures, where used, integrate with and complement the overall building design and site aesthetics and have a low reflectance to avoid glare into apartments.	
A3.9.9 – Uncovered at-grade parking is planted with trees at a minimum rate of one tree per four bays.	
A3.9.10 – Basement parking does not protrude more than 1m above ground, and where it protrudes above ground is designed or screened to prevent negative visual impact on the streetscape.	
LOCAL PLANNING FRAMEWORK	**REQUIREMENT**
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	**No.**

ELEMENT 4.1	SOLAR AND DAYLIGHT ACCESS	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT** *Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.*	**ASSESSOR COMMENT**
O4.1.1 – In climate zones 4, 5 and 6: the development is sited and designed to optimise the number of dwellings receiving winter sunlight to private open space and via windows to habitable rooms.	All apartments receive at least 2 hours direct sunlight between 9am and 3pm on 21 June.	**Objective met.** **Acceptable Outcome A4.1.1 recommends a default of 70% of dwellings having living rooms and private open space that contains at least 2 hours direct sunlight between 9am and 3pm on 21 June with a maximum of 15% of dwellings not achieving direct sunlight on the same day.** **The corner lot orientation of the site allows for this objective to be met. All apartments have living rooms directly abutting balconies with western or northern aspects (i.e. overlooking the street). Properties on the opposite side of the roads are coded R10 or R20, thereby reducing the potential for future overshadowing of the living areas of the proposed apartments. 100% of apartments will meet the two hour per day default for direct sunlight, as they are oriented north or west (Table 4.1b).**
O4.1.2 – Windows are designed and positioned to optimise daylight access for habitable rooms.	Every room including non-habitable rooms have at least one window providing daylight and meeting A4.1.2.	**Objective not met.** **Acceptable Outcome A4.1.2 is not fully met by this proposal.** **There is widespread use of floor to ceiling glazing in each of the apartments. This exceeds the default glazed area of 10% of the floor area of the respective room. An exception is made for the following rooms, where the glazed area is less than 10% of floor area:** • **Apartment A3 Bed 1 (unable to calculate)** • **Apartment A3 Bed 2 (8%)** • **Apartment A6 Bed 2 (9%)** • **Apartment A6 Bed 3 (Unable to calculate)** • **Apartment A9 Bed 2 (8%)**

		• **Apartment A9 Bed 3 (Unable to calculate)** **Some rooms were unable to be calculated as the height of the windows cannot be ascertained from the elevations. However, the narrow width (0.75m) suggests the glazed are will be less than 10% of the floor area.** **The windows for some rooms have been located to reduce the potential for overlooking into the eastern neighbour. This will reduce daylight access due to some windows now facing south.** **It is recommended that the windows to Unit A3 Bed 1, A6 Bed 3 and A9 Bed 3 be modified to provide a minimum of 10% of the room's floor area in glazing.** **Acceptable Outcome 4.1.3 is met in that no habitable room will rely on a lightwell or skylight as the primary source of daylight.**
O4.1.3 – The development incorporates shading and glare control to minimise heat gain and glare: - from mid-spring to autumn in climate zones 4, 5 and 6 **AND** - year-round in climate zones 1 and 3.	West facing balconies are all fitted with manual permeable roll down sun control blinds. The façade planted with deciduous vines will control shade and glare to windows behind the screen. **Following Preliminary Assessment** Manually operated permeable external sun blinds were provided to all west facing balconies in the Preliminary Assessment drawings. The same sun blinds are still proposed.	**Objective met.** **Objective and Acceptable Outcome A4.1.4 is met by the use of roll-down blinds and the green wall screening. The balcony depth will also reduce the amount of direct sunlight to habitable rooms as demonstrated by Figure 4.1a.**
ACCEPTABLE OUTCOMES *Acceptable Outcome pathway may not be applicable where a performance solution is provided*		
A4.1.1 – In climate zones 4, 5 and 6 only: **a)** Dwellings with a northern aspect are maximised, with a minimum of 70 per cent of dwellings having living rooms and private open space that obtain at least 2 hours direct sunlight between 9am and 3pm on 21 June **AND** **b)** A maximum of 15 per cent of dwellings in a building receiving no direct sunlight between 9am and 3pm on 21 June.		
A4.1.2 – Every habitable room has at least one window in an external wall, visible from all parts of the room, with a glazed area not less than 10 per cent of the floor area and comprising a minimum of 50 per cent of clear glazing.		

A4.1.3 – Lightwells and/or skylights do not form the primary source of daylight to any habitable room.
A4.1.4 – The building is oriented and incorporates external shading devices in order to: - minimise direct sunlight to habitable rooms: ▪ between late September and early March in climate zones 4, 5 and 6 only **AND** ▪ in all seasons in climate zones 1 and 3 - permit winter sun to habitable rooms in accordance with A 4.1.1 (a).

LOCAL PLANNING FRAMEWORK	REQUIREMENT
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	**No.**

ELEMENT 4.2 NATURAL VENTILATION

ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	APPLICANT COMMENT *Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.*	ASSESSOR COMMENT
O4.2.1 – Development maximises the number of apartments with natural ventilation.	The articulation of the building form ensures that all apartments are naturally cross ventilated. All apartments are accessed from open air access walkways. The 3 single aspect apartments satisfy A4.2.2(b). In addition the front doors of each apartment will be fitted with an iron security mesh front screen door to allow for natural cross ventilation at all times when needed.	**Objective met.** **Acceptable Outcome A4.2.1 is achieved for all habitable rooms.** **Acceptable Outcome 4.2.2 is met as 7 of the 10 apartments (70%) are capable of being naturally cross ventilated. The final three apartments A1, A7 and A8 are not considered to be naturally cross ventilated. However, it is noted that provision of a screen door on the front door would allow for natural cross ventilation to the open access walkways.**
O4.2.2 – Individual dwellings are designed to optimise natural ventilation of habitable rooms.	All apartments and all habitable are naturally ventilated. In addition, all non-habitable rooms are naturally ventilated.	**Objective met.** **Each dwelling has opening windows and doors onto outdoor living areas that provides for natural ventilation.**
O4.2.3 – Single aspect apartments are designed to maximise and benefit from natural ventilation.	The 3 single aspect apartments satisfy A4.2.2(b). All rooms are naturally ventilated including wet areas. In addition each is be fitted with an iron security	**Objective met.**

	mesh front screen door to allow for natural cross ventilation at all times when needed.	**Each habitable room within the three single-aspect units has an opening window or door to the outside. Cross ventilation will be assisted by installing screen doors on the entries for these units.**

ACCEPTABLE OUTCOMES *Acceptable Outcome pathway may not be applicable where a performance solution is provided*
A4.2.1 – Habitable rooms have openings on at least two walls with a straight line distance between the centre of the openings of at least 2.1m.
A4.2.2 – **(a)** A minimum 60 per cent of dwellings are, or are capable of, being naturally cross ventilated in the first nine storeys of the building **(b)** Single aspect apartments included within the 60 per cent minimum at (a) above must have: ▪ ventilation openings oriented between 45^{o} – 90^{o} of the prevailing cooling wind direction **AND** ▪ room depth no greater than 3 × ceiling height **(c)** For dwellings located at the 10th storey or above, balconies incorporate high and low level ventilation openings.
A4.2.3 – The depth of cross-over and cross-through apartments with openings at either end and no openings on side walls does not exceed 20m.
A4.2.4 – No habitable room relies on lightwells as the primary source of fresh-air.

LOCAL PLANNING FRAMEWORK	**REQUIREMENT**
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	**No.**

ELEMENT 4.3	SIZE AND LAYOUT OF DWELLINGS	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT**	**ASSESSOR COMMENT**
	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
O4.3.1 – The internal size and layout of dwellings is functional with the ability to flexibly accommodate furniture settings and personal goods, appropriate to the expected household size.	All apartments and all habitable rooms are well in excess of the minimum areas listed in Tables 4.3a and 4.3b. They are also in excess of apartments currently available around Claremont Oval and in Broadway Nedlands. The proposed sizes are generous and therefore flexible for furniture and personal goods. They are appropriate for the expected households in this location in Nedlands.	**Objective met.** **Acceptable Outcome A4.3.1 provides for default minimum internal floor areas for each apartment in the development, as follows:** • **1 Bed = 47m² (60-61m² provided)** • **2 Bed 2 Bath = 72m² (87-90m² provided)** • **3 bed 3 Bath = 95m² (146m² provided)**
O4.3.2 – Ceiling heights and room dimensions provide for well-proportioned spaces that facilitate good natural ventilation and daylight access.	Ceiling heights meet A4.3.3. All apartments and all rooms are naturally lit and ventilated.	**Objective met.** **Acceptable Outcome A4.3.2 provides for default minimum internal floor areas and dimensions for habitable rooms.** **All bedrooms exceed the default floor areas. The default minimum dimension of 3m is also met or exceeded by each bedroom.** **Acceptable Outcome A4.3.3 provides for a default ceiling height of 2.7m and 2.4m for habitable and non-habitable rooms respectively. This development proposes a 2.7m height on Level 1, 2.9m on Level 2 and 3.0m on Level 3.** **Acceptable Outcome A4.3.4 provides for a default length of 3 x ceiling height for single aspect open plan living areas. It is noted that single aspect living areas are provided for the Apartments A1, A2, A3, A7 and A8. In each of these cases, the length of the open plan area is less than 3x the ceiling height.**
ACCEPTABLE OUTCOMES *Acceptable Outcome pathway may not be applicable where a performance solution is provided*		

A4.3.1 – Dwellings have a minimum internal floor area in accordance with Table 4.3a.

Table 4.3a Minimum floor areas for dwelling types

Dwelling type	Minimum internal floor area
Studio	37m²
1 bed	47m²
2 bed × 1 bath[1]	67m²
3 bed × 1 bath[1]	90m²
[1]An additional 3m² shall be provided for designs that include a second or separate toilet, and 5m² for designs that include a second bathroom.	

A4.3.2 – Habitable rooms have minimum floor areas and dimensions in accordance with Table 4.3b.

Table 4.3b Minimum floor areas and dimensions for habitable rooms

Habitable room type	Minimum internal floor area	Minimum internal dimension
Master bedroom	10m²	[1]3m
Other bedrooms	9m²	[1]3m
Living room – studio and 1 bed apartments	N/A	3.6m
Living room – other dwelling types	N/A	4m
[1]Excluding robes		

A4.3.3 – Measured from the finished floor level to finished ceiling level, minimum ceiling heights are:

- Habitable rooms – 2.7m
- Non-habitable rooms – 2.4m
- All other ceilings meet or exceed the requirements of the NCC.

A4.3.4 – The length of a single aspect open plan living area is equal to or less than 3 x the ceiling height. An additional 1.8m length may be provided for a kitchen, where the kitchen is the furthest point from the window in an open plan living area provided that the maximum length does not exceed 9m.

LOCAL PLANNING FRAMEWORK	REQUIREMENT
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	**No.**

ELEMENT 4.4	PRIVATE OPEN SPACE AND BALCONIES	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT** *Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.*	**ASSESSOR COMMENT**
O4.4.1 – Dwellings have good access to appropriately sized private open space that enhances residential amenity.	All apartments have access to very generous balconies appropriate to the generous apartment and room sizes and appropriate to a building in Nedlands in this location. Ground floor street facing apartments have access to ground floor private gardens as well as a generous balcony. **Following Preliminary Assessment** All apartments now have functional balconies in excess of the minimum requirements.	**Objective met.** **Acceptable Outcome A4.4.1 provides a default minimum area and dimension of private open space directly accessible from a habitable room, as follows:** • **1 Bed = 8m² / 2m** • **2 Bed = 10m² / 2.4m** • **3 Bed = 12m² / 2.4m** **The main balcony of each apartment meets the default minimum area. Due to the wrap-around design, some parts of the 3 Bed balconies and 3 of the 2 bed apartments have a minimum dimension of less than 2.4m. However, in each case, the 'usable' area of the balcony (i.e. portions with a dimension greater than 2.4m) exceeds the default minimum area of 12m² (19m² and 30m² provided for Bed 2 and Bed 3 units respectively).** **The Juliet balconies provided to units A4, A5 and A10 have not been included in this assessment as they are secondary private open spaces only. The private garden areas provided for ground floor units have not been included due to the difference in ground and floor levels reducing the ability to directly access these spaces.**
O4.4.2 – Private open space is sited, oriented and designed to enhance liveability for residents.	Balconies are wide, face views and catch breezes. Street facing balconies have large planters.	**Objective met.** **Balconies are provided for all units on the street frontages to remove the need for privacy screening (A4.4.2).**
O4.4.3 – Private open space and balconies are integrated into the overall architectural form and detail of the building.	Private gardens are connected to private balconies via stairs integrated into the façade of the building. The balcony balustrades form part of the façade of	**Objective met.** **The balcony areas are integrated into the building design. Specifically, the green wall has been**

	the building. The façade itself is a planted screen wall that can support vines and creepers from the balcony planters.	**designed to wrap around the balcony areas while providing for solar access and ventilation (A4.4.3). Planter boxes on balconies are intended to supplement the ground level plantings of Boston Ivy, which will cover the green wall.** **Services and fixtures will not be located in the open space areas (A4.4.4).**

ACCEPTABLE OUTCOMES
Acceptable Outcome pathway may not be applicable where a performance solution is provided

A4.4.1 – Each dwelling has private open space accessed directly from a habitable room with dimensions in accordance with Table 4.4.

Table 4.4 Private open space requirements

Dwelling type	Minimum Area[1]	Minimum Dimension[1]
Studio apartment + 1 bedroom	8m²	2.0m
2 bedroom	10m²	2.4m
3 bedroom	12m²	2.4m
Ground floor / apartment with a terrace	15m²	3m

[1] Services and fixtures located within private open space, including but not limited to air-conditioner units and clothes drying, are not visible from the street and/or are integrated into the building design.

A4.4.2 – Where private open space requires screening to achieve visual privacy requirements, the entire open space is not screened and any screening is designed such that it does not obscure the outlook from adjacent living rooms.

A4.4.3 – Design detailing, materiality and landscaping of the private open space is integrated with or complements the overall building design.

A4.4.4 – Services and fixtures located within private open space, including but not limited to air-conditioner units and clothes drying, are not visible from the street and/or are integrated into the building design.

LOCAL PLANNING FRAMEWORK	REQUIREMENT
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	**No.**

ELEMENT 4.5	CIRCULATION AND COMMON SPACES	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT**	**ASSESSOR COMMENT**
	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
O4.5.1 – Circulation spaces have adequate size and capacity to provide safe and convenient access for all residents and visitors.	Circulation space is generous to match the rest of the development. All apartments and common areas are universally accessible. The articulation of the building and positioning of the vertical circulation means horizontal travel distances are short. All communal spaces are adjacent to the vertical circulation.	**Objective met.** **Minimum corridor width of 1.5m achieved (A4.5.1)** **All three habitable levels, plus the basement are universally accessible (A4.5.2)** **Circulation and common areas are open and designed for passive surveillance due to short travel distances and lighting. (A4.5.3)** **Circulation and common spaces can be illuminated at night without impact on adjacent dwellings (A4.5.4)** **There are no major openings onto circulation of common spaces (A4.5.5)**
O4.5.2 – Circulation and common spaces are attractive, have good amenity and support opportunities for social interaction between residents.	The horizontal circulation space overlooks a major planted courtyard. All communal spaces overlook the street and the major planted courtyard. Communal spaces are positioned between groups of apartments and adjacent to vertical circulation. A communal space exists on each of the three habitable floors of the building and are accessed directly from the horizontal circulation spaces.	**Objective met.** **In addition to passive communal open space, there is a meeting room, gymnasium and terrace, all of which are universally accessible and support social interaction.** **Acceptable Outcomes 4.5.1-4.5.5 have been met.**
ACCEPTABLE OUTCOMES *Acceptable Outcome pathway may not be applicable where a performance solution is provided*		
A4.5.1 – Circulation corridors are a minimum 1.5m in width.		
A4.5.2 – Circulation and common spaces are designed for universal access.		
A4.5.3 – Circulation and common spaces are capable of passive surveillance, include good sightlines and avoid opportunities for concealment.		

A4.5.4 – Circulation and common spaces can be illuminated at night without creating light spill into the habitable rooms of adjacent dwellings.	
LOCAL PLANNING FRAMEWORK	**REQUIREMENT**
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	**No.**

ELEMENT 4.6	STORAGE	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT** *Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.*	**ASSESSOR COMMENT**
O4.6.1 – Well-designed, functional and conveniently located storage is provided for each dwelling.	Stores for each apartment are located near apartments. Access to stores adjoins circulation spaces. The stores are fully integrated into the structure of the building and are constructed of masonry to match the building fabric.	**Objective not met.** **The stores will be provided on each level for the respective apartment. An additional 2 stores will be located in the basement.** **On level 1, three of the stores will be located in the central area and accessed by a 1m wide corridor. The store for Apartment A4 will be located within the dwelling and accessible from the Juliet balcony, which itself is accessed from Bedroom 1.** **On Levels 2 and 3, two of the stores will be located in the central area and accessed by a 1m wide corridor. The store for Apartments A5 and A10 will be located within the dwelling and accessible from the Juliet balcony, which itself is accessed from Bedroom 1.** **The design of some of the stores appears narrow (less than 1.5m). The location of doors may also affect functionality. Although each store is conveniently located in relation to its respective dwelling. The functionality of the stores is questionable given access is via a narrow corridor or through a bedroom and Juliet balcony.** **It is recommended that a condition be placed on any approval that requires the design and functionality of the stores to be addressed to meet Element 4.6.** **Redesign of the stores is unlikely to impact on the overall development envelope. Therefore, it is considered appropriate to utilise a condition of**

		approval rather than require amended plans prior to determination.

ACCEPTABLE OUTCOMES
Acceptable Outcome pathway may not be applicable where a performance solution is provided

A4.6.1 – Each dwelling has exclusive use of a separate, ventilated, weatherproof, bulky goods storage area. This can be located either internally or externally to the dwelling with dimensions in accordance with Table 4.6.

Table 4.6 Storage requirements

Dwelling type	Storage area[1]	Minimum dimension[1]	Minimum height[1]
Studio dwelling	3m²	1.5m	2.1m
1 bedroom dwelling	3m²		
2 bedroom dwellings	4m²		
3 bedroom dwellings	5m²		
[1] Dimensions exclusive of services and plant.			

A4.6.2 – Bulky good stores that are not directly accessible from the dwelling/private open space are located in areas that are convenient, safe, well-lit, secure and subject to passive surveillance.

A4.6.3 – Storage provided separately from dwellings or within or adjacent to private open space[1], is integrated into the design of the building or open space and is not readily visible from the public domain.

(1) Storage on/adjacent to private open space is additional to required open space area and dimensions.

LOCAL PLANNING FRAMEWORK	REQUIREMENT
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	**No.**

ELEMENT 4.7 MANAGING THE IMPACT OF NOISE

ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	APPLICANT COMMENT	ASSESSOR COMMENT

	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
O4.7.1 – The siting and layout of development minimises the impact of external noise sources and provides appropriate acoustic privacy to dwellings and on-site open space.	External openings to apartments are setback and elevated as far from the busy streets as possible. The major planted deep soil zone is protected from street noise by being located on the east of the site. The open communal BBQ area is located on the top floor of the building away from street noise. **Following Preliminary Assessment** An acoustic report has been done to address noise. Communal areas are now separate from habitable rooms. Habitable rooms are now away from garage door motors.	**Objective met.** **The site is located in a residential area with limited external noise emitting land uses. The design of the building has sought to separate habitable areas from noise-generating sources, such as communal spaces, lifts and air conditioning plant.**
O4.7.2 – Acoustic treatments are used to reduce sound transfer within and between dwellings and to reduce noise transmission from external noise sources.	The building will exceed the minimum requirements of the NCC. It will be constructed of insulated brickwork and concrete. Floors and ceilings will be designed to exceed NCC requirements. Double glazing will be used where necessary to exceed minimum acoustic and thermal requirements.	**Objective met.** **An acoustic report has been prepared that identifies that the development is likely to exceed Part F5 of the NCC/BCA (sound isolation of sole occupancy units) (Acceptable Outcome A4.7.1).** **Acceptable Outcome A4.7.2 provides for noise sources not to be located on the external wall of a habitable room or within 3m of a window to a bedroom. The development proposes to locate the air conditioner units on the roof, well away from apartments or neighbouring properties. The rubbish compactor and garage door are located away from apartments. However, they will be located in close proximity to a property boundary. It is recommended that advice note be placed on any approval advising of the requirement for this equipment to meet the relevant provisions of the *Environmental Protection (Noise) Regulations 1997*.**
ACCEPTABLE OUTCOMES *Acceptable Outcome pathway may not be applicable where a performance solution is provided*		

A4.7.1 – Dwellings exceed the minimum requirements of the NCC, such as a rating under the AAAC Guideline for Apartment and Townhouse Acoustic Rating (or equivalent).	
A4.7.2 – Potential noise sources such as garage doors, driveways, service areas, plant rooms, building services, mechanical equipment, active communal open space and refuse bins are not located adjacent to the external wall of habitable rooms or within 3m of a window to a bedroom.	
A4.7.3 – Major openings to habitable rooms are oriented away or shielded from external noise sources.	
LOCAL PLANNING FRAMEWORK	**REQUIREMENT**
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	**No.**

ELEMENT 4.8	DWELLING MIX	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT**	**ASSESSOR COMMENT**
	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
O4.8.1 – A range of dwelling types, sizes and configurations is provided that caters for diverse household types and changing community demographics.	The development contains 1,2 and 3 bedroom apartments. All are universally accessible. Pairs of apartments are designed to be occupied by extended families or to cater for live-in carers. The apartments cater for all household types of the local community including families, couples, students, aging in place, extended families, multi-generational families.	**Objective met** **40% 1 Bed 1 Bath** **40% 2 Bed 2 Bath** **20% 3 Bed 2 Bath (A4.8.1(b)).** **The mix of dwelling sizes is dispersed through the three levels of the building (A4.8.2).**
ACCEPTABLE OUTCOMES *Acceptable Outcome pathway may not be applicable where a performance solution is provided*		
A4.8.1 – **a)** Dwelling mix is provided in accordance with the objectives, proportions or targets specified in a local housing strategy or relevant local planning instrument **OR** **b)** Where there is no local housing strategy, developments of greater than 10 dwellings include at least 20 per cent of apartments of differing bedroom numbers.		
A4.8.2 – Different dwelling types are well distributed throughout the development, including a mix of dwelling types on each floor.		
LOCAL PLANNING FRAMEWORK	**REQUIREMENT**	
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	**No.**	

ELEMENT 4.9	UNIVERSAL DESIGN	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT**	**ASSESSOR COMMENT**
	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
O4.9.1 – Development includes dwellings with universal design features providing dwelling options for people living with disabilities or limited mobility and/or to facilitate ageing in place.	60% of the apartments meet Silver Level requirements as defined in the Liveable Housing Design Guidelines. All apartments facilitate aging in place. **Following Preliminary Assessment** More information is provided in drawings SK21-23. 60% now meet Silver Level requirements.	**Objective met.** **Acceptable Outcome 4.89.1(b) provides for 20% of dwellings to meet Silver Level requirements of the Liveable Housing Design Guidelines. The development provides for 6 apartments to meet the requirements (3 x 1 Bed, 1 x 2 Bed and 2 x 3 Bed) – 60% provided.**
ACCEPTABLE OUTCOMES *Acceptable Outcome pathway may not be applicable where a performance solution is provided*		
A4.9.1 – **a)** 20 per cent of all dwellings, across a range of dwelling sizes, meet Silver Level requirements as defined in the Liveable Housing Design Guidelines (Liveable Housing Australia) **OR** **b)** 5 per cent of dwellings are designed to Platinum Level as defined in the Liveable Housing Design Guidelines (Liveable Housing Australia).		
LOCAL PLANNING FRAMEWORK	**REQUIREMENT**	
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	**No.**	

ELEMENT 4.10	FAÇADE DESIGN	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT** *Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.*	**ASSESSOR COMMENT**
O4.10.1 – Building façades incorporate proportions, materials and design elements that respect and reference the character of the local area.	Residential Nedlands has traditionally been a garden suburb of generous brick bungalows set well back from the street within large sites with 40% site coverage facilitating large tree planting that in turn lowers urban heat island effects and supports varied bird life. A few 2-3 storey apartment buildings were scattered along Stirling Highway and even fewer grouped dwellings provided on lots adjoining lots on the Highway. This proposal for 24 Carrington Street attempts to develop an apartment building that embraces these fundamental characteristics of Nedlands. The structural façade of the building is constructed from masonry with recessed balconies. The façade is then covered with a steel mesh to conceal windows to bathrooms and to support vertical vegetation that grows from the ground and from the large planters on each terrace. The extent of the vertical green surface is larger than the existing tennis court on the site meaning the site will be just as planted and vegetated as the existing house and garden. The mesh screen is punctuated by large planters and follows the articulated structural façade behind it. A good precedent in Oasia Hotel Singapore by WOHA	**Objective met.** **The use of masonry construction reflects the predominant building material in the locality. The green wall seeks to reflect the 'leafy' nature of the locality through vertical landscaping on both street frontages (A4.10.1).** **As the green wall is a major component of the overall design of the building, it is necessary to ensure all reasonable measures are taken to plant and maintain in perpetuity the organic element. Unlike an architectural element, there is a level of dynamism with vertical landscaping that needs to be addressed in any approval.** **A condition is recommended in the event of approval that ensures the Boston Ivy is planted onto the steel mesh structure prior to occupation of the development. A condition is further recommended to ensure the landscaping is maintained at all times and any areas of planting that die or are damaged are immediately replaced with the same species.** **Acceptation Outcome A4.10.3 has not been met as the height of the building does not correspond with the datum lines of adjoining buildings. This has meant that design elements in the façade cannot relate to datum lines of adjacent buildings. It is noted that the overall Element Objective is still met.** **Building services fixtures are integrated into the design of the façade and are not visually intrusive (A4.10.4).**

	 Oasia Hotel Singapore **Following Preliminary Assessment** The Landscape Report now addresses the creeper and the health of residents (microbial issues). The façade is now described in a detail section and through the sample materials specified in the drawings. The Response to Preliminary Assessment addresses the maintenance of the façade.	
O4.10.2 – Building façades express internal functions and provide visual interest when viewed from the public realm.	The façade directly expresses the internal functions. The green screen filters light, hide bathroom windows, assists in thermal performance of the development and forms the balustrades of the wide terraces. Wide terraces contain large cantilevered planters that animate the façade and support large plantings.	**Objective met.** **The facades incorporate the private open space areas for each dwelling. This provides to openings in the green wall screen that articulate the façade.**
ACCEPTABLE OUTCOMES *Acceptable Outcome pathway may not be applicable where a performance solution is provided*		

A4.10.1 – Façade design includes:

- scaling, articulation, materiality and detailing at lower levels that reflect the scale, character and function of the public realm
- rhythm and visual interest achieved by a combination of building articulation, the composition of different elements and changes in texture, material and colour.

A4.10.2 – In buildings with height greater than four storeys, façades include a defined base, middle and top for the building.

A4.10.3 – The façade includes design elements that relate to key datum lines of adjacent buildings through upper level setbacks, parapets, cornices, awnings or colonnade heights.

A4.10.4 – Building services fixtures are integrated in the design of the façade and are not visually intrusive from the public realm.

A4.10.5 – Development with a primary setback of 1m or less to the street includes awnings that:

- define and provide weather protection to entries
- are integrated into the façade design
- are consistent with the streetscape character.

A4.10.6 – Where provided, signage is integrated into the façade design and is consistent with the desired streetscape character.

LOCAL PLANNING FRAMEWORK	REQUIREMENT
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	**No.**

ELEMENT 4.11	ROOF DESIGN	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT**	**ASSESSOR COMMENT**
	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
O4.11.1 – Roof forms are well integrated into the building design and respond positively to the street.	The roof form is a medium slope skillion sloping away from the street to eaves gutters on the east of the site. From the street the roof will not be visible as the building design is intended to highlight the large existing trees and the site, the large planted terraces and the vertical green façade. The skillion form assures good drainage and the eaves gutters mitigate unwanted water ingress in case of major rain events.	**Objective met.** **The roof design reduces the bulk and scale of the building when compared to a pitched design. The intent is to accentuate the façade rather than draw attention to the roof (A4.11.1).**
O4.11.2 – Where possible, roof spaces are utilised to add open space, amenity, solar energy generation or other benefits to the development.	Roof space will be utilised for solar arrays and for concealed air conditioning units. **Following Preliminary Assessment** Roof spaces are now utilized for extensive solar arrays over the apartments and for accommodating mechanical equipment out of sight over the non-residential spaces.	**Objective met.** **The roof design incorporates solar collectors and air conditioning units that are not visible from the street or surrounding properties. The air conditioning units will be located in the middle section of the roof, setback from adjoining properties (A4.11.2).** **A terrace area on Level 3 provides a 'roof top' communal open space area without impact on overlooking of private areas. The space is located facing Dalkeith Road and incorporates a pergola structure that is in line with the roof level (i.e. the FFL of the space is not on the roof level). (A4.11.3).**
ACCEPTABLE OUTCOMES *Acceptable Outcome pathway may not be applicable where a performance solution is provided*		
A4.11.1 – The roof form or top of building complements the façade design and desired streetscape character.		
A4.11.2 – Building services located on the roof are not visually obtrusive when viewed from the street.		
A4.11.3 – Useable roof space is safe for users and minimises overlooking and noise impacts on private open space and habitable rooms within the development and on adjoining sites.		
LOCAL PLANNING FRAMEWORK	**REQUIREMENT**	

Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	**No.**

ELEMENT 4.12	LANDSCAPE DESIGN	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT** *Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.*	**ASSESSOR COMMENT**
O4.12.1 – Landscape design enhances streetscape and pedestrian amenity; improves the visual appeal and comfort of open space areas; and provides an attractive outlook for habitable rooms.	The landscape design is based on retaining all existing significant trees on the site, planting two major deciduous trees in the central deep soil zone, constructing a green screen facade covered with evergreen and deciduous vines, creating private gardens for street facing ground floor apartments and installing large planters on the wide and generous private terraces.	**Objective met.** **A landscaping plan was prepared by a suitably qualified person and peer reviewed. (A4.12.1)** **Proposed landscaping concept supported by peer review. This includes the support of mature, shade-providing trees and to improve the amenity to habitable rooms and open space areas (A4.12.2).**
O4.12.2 – Plant selection is appropriate to the orientation, exposure and site conditions and is suitable for the adjoining uses.	All significant trees are retained. New planting is overwhelmingly deciduous to assist in thermal performance of the building and the amenity of residents.	**Objective met.** **Proposed plant selection supported by peer review. (A4.12.1)**
O4.12.3 – Landscape design includes water efficient irrigation systems and where appropriate incorporates water harvesting or water re-use technologies.	All landscape will be efficiently irrigated. A grey water re-use system is proposed to be installed to irrigate the vines of the green façade.	**Objective met.** **Water reuse is proposed.**
O4.12.4 – Landscape design is integrated with the design intent of the architecture including its built form, materiality, key functional areas and sustainability strategies.	The design intent of the architecture is precisely to integrate the landscape into the built form and to have the landscape animate the major internal and external spaces of the apartments as well as to improve the sustainability of the development. A good precedent is Kandalama Hotel Sri Lanka by Geoffrey Bawa.	**Objective met.** **The green wall is supported by peer review. (A4.12.3, A4.12.4).** **As the green wall is a major component of the overall design of the building, it is necessary to ensure all reasonable measures are taken to plant and maintain in perpetuity the organic element. Unlike an architectural element, there is a level of dynamism with vertical landscaping that needs to be addressed in any approval.** **A condition is recommended in the event of approval that ensures the Boston Ivy is planted onto the steel**

	 Kandalama Hotel Sri Lanka	**mesh structure prior to occupation of the development. A condition is further recommended to ensure the landscaping is maintained at all times and any areas of planting that die or are damaged are immediately replaced with the same species.**

ACCEPTABLE OUTCOMES
Acceptable Outcome pathway may not be applicable where a performance solution is provided

A4.12.1 – Submission of a landscape plan prepared by a competent landscape designer. This is to include a species list and irrigation plan demonstrating achievement of Waterwise design principles.

A4.12.2 – Landscaped areas are located and designed to support mature, shade-providing trees to open space and the public realm, and to improve the outlook and amenity to habitable rooms and open space areas.

A4.12.3 – Planting on building structures meets the requirements of Table 4.12.

Table 4.12 Planting on structure: minimum soil standards for plant types and sizes

Plant type	Definition	Soil volume	Soil depth	Soil area
Large tree	Over 12m high, crown spread at maturity	76.8m³	1,200mm	64m² with minimum dimension 7m
Medium tree	8-12m high, crown spread at maturity	36m³	1,000mm	36m² with minimum dimension 5m
Small tree	4-8m high, crown spread at maturity	7.2m³	800mm	3m × 3m
Small ornamentals	3-4m high, crown spread at maturity	3.2m³	800mm	2m × 2m
Shrubs	--	--	500-600mm	--
Ground cover	--	--	300-450mm	--
Turf	--	--	200mm	--

A4.12.4 – Building services fixtures are integrated in the design of the landscaping and are not visually intrusive.

LOCAL PLANNING FRAMEWORK	REQUIREMENT
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	**No.**

ELEMENT 4.13	ADAPTIVE REUSE	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT**	**ASSESSOR COMMENT**
	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
O4.13.1 – New additions to existing buildings are contemporary and complementary and do not detract from the character and scale of the existing building.		**Not applicable.**
O4.13.2 – Residential dwellings within an adapted building provide good amenity for residents, generally in accordance with the requirements of this policy.		**Not applicable.**
ACCEPTABLE OUTCOMES *Acceptable Outcome pathway may not be applicable where a performance solution is provided*		
A4.13.1 – New additions to buildings that have heritage value do not mimic the existing form and are clearly identifiable from the original building.		
A4.13.2 – New additions complement the existing building by referencing and interpreting the scale, rhythm and materiality of the building.		
LOCAL PLANNING FRAMEWORK	**REQUIREMENT**	
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:		

ELEMENT 4.14	MIXED USE	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT**	**ASSESSOR COMMENT**
	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
O4.14.1 – Mixed use development enhances the streetscape and activates the street.		**Not applicable.**
O4.14.2 – A safe and secure living environment for residents is maintained through the design and management of the impacts of non-residential uses such as noise, light, odour, traffic and waste.		**Not applicable.**
ACCEPTABLE OUTCOMES *Acceptable Outcome pathway may not be applicable where a performance solution is provided*		
A4.14.1 – Where development is located within a mixed use area designated within the local planning framework, ground floor units are designed for future adaption to non-residential uses.		
A4.14.2 – Ground floor uses including non-commercial uses, such as communal open space, habitable rooms, verandahs and courtyards associated with ground floor dwellings, address, enhance and activate the street.		
A4.14.3 – Non-residential space in mixed use development is accessed via the street frontage and/or primary entry as applicable.		
A4.14.4 – Non-residential floor areas provided in mixed use development has sufficient provision for parking, waste management, and amenities to accommodate a range of retail and commercial uses in accordance with the requirements		
A4.14.5 – Mixed use development is designed to mitigate the impacts of non-residential uses on residential dwellings, and to maintain a secure environment for residents.		
LOCAL PLANNING FRAMEWORK	**REQUIREMENT**	
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:		

ELEMENT 4.15	ENERGY EFFICIENCY	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT** *Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.*	**ASSESSOR COMMENT**
O4.15.1 – Reduce energy consumption and greenhouse gas emissions from the development.	The following energy efficiency initiatives are included in this development: • ceiling fans to all habitable rooms • hot water systems that are more energy efficient than electric storage units • use of a photovoltaic array for communal services • solar powered lighting of external open space, circulation areas and common spaces. • maximising dwellings with northerly orientation • natural ventilation for all non-habitable rooms • effective shading from summer sun • use of thermal mass for passive heating and cooling • improving the thermal performance and insulative properties of glazing, openings and the building fabric, particularly on west facing elevations • designing the roof, electrical distribution system and metering with capacity for future installation of systems such as a photovoltaic array or battery storage that can provide the equivalent of at least 1kW energy per dwelling • providing conduits and capacity in the electrical distribution system and metering for future provision of electric car charging within car parking areas.	**Objective met.** **A photovoltaic array on the roof top is proposed to power communal services as a 'significant energy efficiency initiative' (A4.15.1(a)). Other initiatives identified by Design Guidance DG4.15.1 that are proposed for the development include:** • **Ceiling fans to all habitable rooms.** • **Hot water systems that are more energy efficient than electric storage units.** • **Solar powered lighting of external open space, circulation areas and common spaces.**

	Following Preliminary Assessment The plans show the following: • maximising dwellings with northerly orientation • natural ventilation for all non-habitable rooms • effective shading from summer sun • use of thermal mass for passive heating and cooling Design Statement Element Objectives 4.15.1 commits the applicant to: • ceiling fans to all habitable rooms • hot water systems that are more energy efficient than electric storage units • use of a photovoltaic array for communal services • solar powered lighting of external open space, circulation areas and common spaces. • improving the thermal performance and insulative properties of glazing, openings and the building fabric, particularly on west facing elevations • designing the roof, electrical distribution system and metering with capacity for future installation of systems such as a photovoltaic array or battery storage that can provide the equivalent of at least 1kW energy per dwelling providing conduits and capacity in the electrical distribution system and metering for future provision of electric car charging within car parking areas.	

ACCEPTABLE OUTCOMES
Acceptable Outcome pathway may not be applicable where a performance solution is provided

A4.15.1 –

a) Incorporate at least one significant energy efficiency initiative within the development that exceeds minimum practice (refer Design Guidance) **OR**

b) All dwellings exceed the minimum NATHERS requirement for apartments by 0.5 stars.[1]

Compliance with the NCC requires that development shall achieve an average star-rating across all dwellings that meets or exceeds a nominated benchmark, and that each unit meets or exceeds a slightly lower benchmark. Compliance with this Acceptable Outcome requires that each unit exceeds that lower benchmark by at least half a star.

LOCAL PLANNING FRAMEWORK	REQUIREMENT
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	**No.**

ELEMENT 4.16	WATER MANAGEMENT AND CONSERVATION	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT**	**ASSESSOR COMMENT**
	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
O4.16.1 – Minimise potable water consumption throughout the development.	All apartments are individually metered. Water efficient taps, shower heads, fixtures and appliances are to be specified throughout the development.	**Objective met.** **Dwellings will be individually metered (A4.16.1).**
O4.16.2 – Stormwater runoff from small rainfall events is managed on-site, wherever practical.	All stormwater from normal rain events are managed with on-site soak wells and deep soil zones. Paving will be minimised to provide for maximum natural drainage.	**Objective met.** **This is a standard condition of development approval. (A4.16.2)**
O4.16.3 – Reduce the risk of flooding so that the likely impacts of major rainfall events will be minimal.	The ground floor is elevated and the site is almost at the highest point of the location. A major rainfall event will flow to local stormwater system. Some local flooding may occur in the semi-basement but this space is entirely non-habitable.	**Objective met.** **It is noted that flooding would be limited to the basement car park, which will be required to be drained as a standard condition of approval. (A4.16.3)**
ACCEPTABLE OUTCOMES *Acceptable Outcome pathway may not be applicable where a performance solution is provided*		
A4.16.1 – Dwellings are individually metered for water usage.		
A4.16.2 – Stormwater runoff generated from small rainfall events is managed on-site.		
A4.16.3 – Provision of an overland flow path for safe conveyance of runoff from major rainfall events to the local stormwater drainage system.		
LOCAL PLANNING FRAMEWORK	**REQUIREMENT**	
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	**No.**	

ELEMENT 4.17	WASTE MANAGEMENT	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT**	**ASSESSOR COMMENT**
	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
O4.17.1 – Waste storage facilities minimise negative impacts on the streetscape, building entries and the amenity of residents.	Waste storage is located in a dedicated communal bin area with compactor and in the open air and is directly accessible from the semi-basement and the street. Waste storage is fully screened from the street.	**Objective met.** **The waste management plan for the development meets the requirements of the City's draft Waste Management Local Planning Policy and Guidelines. This Policy is due to be considered for adoption in April 2020 and is considered to be 'seriously entertained'. (A4.17.1, A4.17.2)**
O4.17.2 – Waste to landfill is minimised by providing safe and convenient bins and information for the separation and recycling of waste.	Bins will be provided to cater for full separation and recycling of waste. Bins are located for ease of access from the apartments and ease of access to the street.	**Objective met.** **The waste management plan for the development meets the requirements of the City's Waste Management Local Planning Policy and Guidelines. This Policy is due to be considered for adoption in April 2020 and is considered to be 'seriously entertained'.** **A bin storage area has been provided in the amended plans dated 29 February 2020 that is considered satisfactory (A4.17.3)** **The bin storage area is screened from view (A4.17.4)**
ACCEPTABLE OUTCOMES *Acceptable Outcome pathway may not be applicable where a performance solution is provided*		
A4.17.1 – Waste storage facilities are provided in accordance with the Better Practice considerations of the *WALGA Multiple Dwelling Waste Management Plan Guidelines* (or local government requirements where applicable).		
A4.17.2 – A Level 1 Waste Management Plan (Design Phase) is provided in accordance with the *WALGA Multiple Dwelling Waste Management Plan Guidelines* - Appendix 4A (or equivalent local government requirements).		
A4.17.3 – Sufficient area is provided to accommodate the required number of bins for the separate storage of green waste, recycling and general waste in accordance with the *WALGA Multiple Dwelling Waste Management Plan Guidelines* - Level 1 Waste Management Plan (Design Phase) (or local government requirements where applicable).		
A4.17.4 – Communal waste storage is sited and designed to be screened from view from the street, open space and private dwellings.		

LOCAL PLANNING FRAMEWORK	REQUIREMENT
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	**Draft City of Nedlands Waste Management Local Planning Policy (seriously entertained).**

ELEMENT 4.18	UTILITIES	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT** *Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.*	**ASSESSOR COMMENT**
O4.18.1 –The site is serviced with power, water, gas (where available), wastewater, fire services and telecommunications/broadband services that are fit for purpose and meet current performance and access requirements of service providers.	**This development complies with A4.18.1-4.** **Following Preliminary Assessment** Utilities are now shown on the plans. The site is fully serviced. Meters are located on the ground floor façade adjacent to the Entry and on an external wall abutting Stores allowing vertical service reticulation. The meters will be concealed behind purpose-designed doors to match the façade screen (subject to approval from relevant authorities). PV arrays are roof mounted and concealed from view from the street. AC condenser units are located on the roof above non-habitable communal areas and are concealed from view from the street and from communal areas. The roof top utilities are accessible for maintenance from communal areas.	**Objective met.** **The site is capable of connection to all services. (A4.18.2)**
O4.18.2 – All utilities are located such that they are accessible for maintenance and do not restrict safe movement of vehicles or pedestrians.	**See above**	**Objective met.** **Meter boxes are located on the Dalkeith Road frontage.** **Air conditioning units will be located on the roof where they can bee accessed for maintenance whilst not visually obtrusive. Hot water systems will be located in each apartment. (A4.18.3).**
O4.18.3 – Utilities, such as distribution boxes, power and water meters are integrated into design of buildings and landscape so that they are not	**See above**	**Objective met.**

visually obtrusive from the street or open space within the development.		**Meter boxes located on the front (Dalkeith Road) façade are integrated into the building design. (A4.18.1)**
O4.18.4 – Utilities within individual dwellings are of a functional size and layout and located to minimise noise or air quality impacts on habitable rooms and balconies.	**See above**	**Objective met.** **Laundries will be located within each apartment. Larger laundries have been provided for the larger 3 Bed apartments. (A4.18.4)**
ACCEPTABLE OUTCOMES *Acceptable Outcome pathway may not be applicable where a performance solution is provided*		
A4.18.1 – Utilities that must be located within the front setback, adjacent to the building entry or on visible parts of the roof are integrated into the design of the building, landscape and/or fencing such that they are accessible for servicing requirements but not visually obtrusive.		
A4.18.2 – Developments are fibre-to-premises ready, including provision for installation of fibre throughout the site and to every dwelling.		
A4.18.3 – Hot water units, air-conditioning condenser units and clotheslines are located such that they can be safely maintained, are not visually obtrusive from the street and do not impact on functionality of outdoor living areas or internal storage.		
A4.18.4 – Laundries are designed and located to be convenient to use, secure, weather-protected and well-vented; and are of an overall size and dimension that is appropriate to the size of the dwelling.		
LOCAL PLANNING FRAMEWORK	**REQUIREMENT**	
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	**No.**	