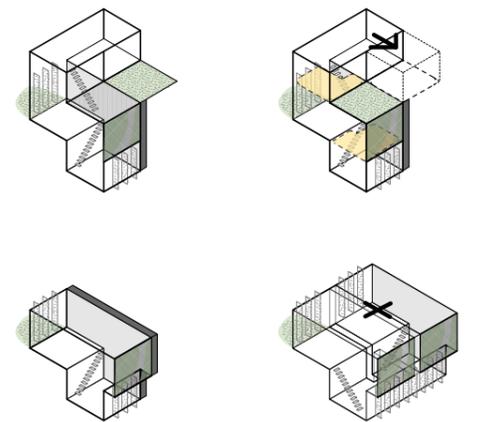


*A small apartment over a single level with low ceiling heights and no outlook is oppressive....*

*A small apartment split over two levels with double height volume, a view of the sky and connection with community, public and environment is **empowering**....*

STEP UP; AFFORDABLE HOUSING DESIGN COMPETITION 2016; STAGE 2 SUBMISSION



COVER PAGE

SMALL SPACE, LARGE AMENITY



PERSPECTIVES

SMALL SPACE, LARGE AMENITY

The Concept Design for the affordable housing proposal demonstrates how the prototype addresses the affordability evaluation criteria outlined below:

**The number of dwellings, unit sizes, area provided for communal spaces and amenities**

Three types of apartment units are provided within the scheme, all responding to the key issue of the achievement of quality within affordability. Holistic affordability has been considered: initial mortgage + ongoing costs + wellbeing (social / physiological). Social / physiological wellbeing is facilitated by: well-lit, well-ventilated, well-serviced, well-connected, welcoming spaces.

Access to natural space – i.e. the back garden/ the communal courtyard, allows for the provision of a healthy, secure and stimulating environment for residents, including young children. Co-located in the complex entry, the bike parking, laundry, mail area and expanded circulation space allows for resident activities such as; servicing a pushbike, achieving small projects such as building a table, and creates an incidental social interaction zone between residents. Facing onto the street, the space reinforces street activation, while the level 1 courtyard zone lifts the building occupant focused communal areas into the more private space off the street level – affording social interaction, gardening activity, recreation and access and connection to expansive ocean views, grounding them in the 'Shorelines' site.

**Breakdown of total cost including land component (Demonstrate capacity to deliver the project within the affordability brackets)**

Itemised profit and loss and breakdown of total costs, including factors such as land purchase price, rates, taxes and development costs have been identified under submission section 'Schedule of Costs'.

**Land use efficiency (m2 area per dwelling including outdoor areas, parking and communal amenities)**

A balance between efficiencies of land use, and the provision of balanced communal areas have been considered during the concept design proposal. A total of 15 units, 16 car bays, and bike parking have been provided across the site. Street setbacks from the site boundaries are proposed to be varied from current Planning requirements, on the premise that we are seeking to maximize yield in the provision of affordable apartments on the site. The scheme shifts on site communal amenity into the middle of the building, and are contextualizing the building not through a landscape buffer to the street, however through the employment of a dynamic and flexible façade.

On site visitor parking is proposed to be provided to the site by accessing on street embayments.

**Building maintenance and running costs**

The materials considered allow for efficiency in construction and allow the componentry of the built form to be highly flexible and adaptable to change, re-use, repair and ease of maintenance. They contribute to the sustainable objectives of the project and reinforce the project vision of good quality design through innovative building construction methods, materials and technologies. Materiality will be resilient to coastal conditions, and allowed to weather naturally (for instance, the Iron Ash timber cladding).

Service proposals such as the Geoexchange system for the combined heating, cooling and hot water system for the complex combines energy efficiency, water efficiency and waste initiative for the project. This will be an integral part of lowering of maintenance and ongoing running costs for the occupants. By adopting a geoexchange system, the following benefits are included:

- Increased Efficiency Means Cost Savings
- Increased Comfort
- Reduced CO2 Emissions
- Increased Design Flexibility (Geoexchange systems provide optimal design flexibility because the roof, balconies and landscape are free of chillers, air handlers and other outdoor equipment)
- Increased Reliability and Reduced Maintenance
- Reduced Base and Peak Load Demand
- Re-use of water and provision of water supply to hot water system (hot water recovery)

A key point for Concept; good passive design, and deep and flexible facade shading will encourage less reliance on mechanical systems - invariably reducing running costs.

**Overall value for money and economies of scale**

Through the provision of cost efficient and rational construction methods, this will allow for flexible, adaptable and spatially efficient layouts through new technologies, materials and construction methods that reduce construction costs. Including;

- Rational post and beam + infill construction allowing adaptation
- Proprietary construction system to achieve FRL and acoustic compliance through the employment of predominantly USG Boral "Multi-Frame" and Pryda construction
- Consolidated "services walls" making construction efficient and also providing future flexibility through ability to introduce new wet areas, shift them around
- Repetition of detail and material usage throughout allowing for minimisation of on site trades, lower construction costs, and construction efficiencies through repetition and familiarization of method

Through the rationalization and repetitious use of material usage and construction method, overall value for money and economies of scale become a viable byproduct of the project.

AFFORDABILITY



Photo of Model -- looking NE



Looking East



Looking NE (elevated)



Looking SE (elevated)



Communal Life -- looking West

The Concept Design for the affordable housing proposal demonstrates how the prototype will address the design evaluation criteria outlined below:

**Spatial Efficiency/Internal Planning/Site Planning**

Through innovative site planning the building and landscape design, the project ensures spatial efficiency and a high level of on-site amenity.

**Apartment Idea:**

Spatial efficiency is fundamentally proposed by accepting that cost is a function of floor area, and therefore looking for ways to make small apartments more dignified and delightful.

Our big idea is to introduce additional space in the form of "non-lettable" area -- that is: a double height void.

The void gives the perception of much more space than a small footprint would generally provide over a single level. The split level brings with it all the intrigue of layered space and opportunities for separation, which is often an issue in small dwellings.

The other benefit introduced by the void is its ability to be in-filled in future to provide additional floor space as needs change and planning regulations permit.

**Site Idea:**

The other factor in offering affordable apartments is yield. The developer wants to make a good return. Unless we look to alternative Baugruppen models, the developer is an integral part of the delivery of future dwellings, and needs to be kept on side.

Therefore, we looked at the number of apartments the site could support given current parking regulations and within the framework of our aspiration to create a dignified and delightful place to live.

Our thinking was that we could increase the number of dwellings on site if we provided high-quality, really engaging communal spaces.

We wanted all apartments to have dual orientation and access to the first floor courtyard / podium.

We felt it was important to allow all residents to enter their home from a unified location, nurturing the community that we feel could establish here.

By offering enriching social spaces within the complex in conjunction with generous, uplifting individual volumes, we felt that greater density would be OK, even really OK.

**Flexibility/Adaptability/Accessibility**

Please refer Page 08 for an outline of our response to this criterion.

**Climate Responsive Design**

Please refer Page 07 for an outline of our response to this criterion.

**Building Design Quality**

Amenity is promoted within the design in terms of basic humanitarian rights (while promoting a budget-conscious design solution). The design will provide;

- Northern aspect to all apartments.
- Access to high levels of cross ventilation.
- Access to dignified space: double height volumes within a small footprint allow for a dignified space through height/ volume/ light/ dynamics. Also allowing and maximizing air movement for effective passive cooling.

- Access to natural space allows for the provision of a healthy, secure and stimulating environment for residents, including young children.
- The provision of safety & security through social amenity spaces.
- Sense of pride: buyers gaining a sense of pride over owning and being a part of the development, related to the quality of the building, and amenity provided around the individual apartments.
- Universal accessibility is ensured through at-grade entry and internal vertical circulation of one (1) apartment.
- Communal pride and increased benefit of community through shared entry zones employing multiple roles as;
  - a communal foyer
  - an extension of street life
  - promotion of incidental meeting
  - usable social zones within the complex through laundry, mail, entry and bike parking facilities.

**Street Appeal**

Activation of the project is allowed for directly at low level on grade to all spaces including the street itself, apartment units, public 'foyer' / entry areas. The units have the ability to assist stay-at-home business owners achieve 'shop front' presence. Inversely, the building allows for its enclosure to the street to allow for privacy, and resilient and robust materials have been selected at low level to provide an appropriate material response to these conditions. By allowing the Iron Ash timber cladding to weather in situ naturally, the building will age and ground itself into the site.

Via the employment of similar considerations of dynamic shuttering to the upper levels, the complex will open and close randomly in accordance with its users' requirements. Through the use of translucent facade cladding materials, the condition with further vary at night emitting a soft glow when the apartment is active within. Consideration of colour (selected via a considered palette) behind the shuttering could assist in individualizing each apartment to the owners' personal choice, pride and ownership of their asset, while also contributing to a dynamic street appeal from beneath a simple calm facade fabric.



Private Life -- a typical apartment

## PERSPECTIVES

SMALL SPACE, LARGE AMENITY

The Concept Design for the affordable housing proposal demonstrates how the prototype will address the innovation evaluation criteria outlined below:

### **Innovative housing typology/prototype**

The chosen housing typology is walkup apartments. Apartments are designed as interlocking components consisting of three unit types, Type A (1 bed, 1 bath), Type B (2 bed, 1 bath), and Type C (2 bed, 2 bath). 80% of apartments will be within the \$300,000 to \$350,000 price bracket.

Innovation and prototype concepts include;

- Apartments over two levels with multiple orientations
- Apartments consist of modules of 'flexible space' in conjunction with a series of services spines.
- The result is inherent flexibility in current use and future adaptability / expansion.
- Spaces can be either bedrooms or living spaces with either bathrooms or kitchen occupying the adjacent services spine location.
- Lower ceilings and risers in the services spine zone allow easy routing of services enabling wet areas to relocate as needs change; reticulation of ducting and other services is simplified.
- Consolidated services spines also simplify the construction and maintenance process.
- Future flexibility is further inbuilt through the use of the PRYDA floor cassette system.
- Roof construction also uses the floor cassette as a structural base with simple timber build-up for inclined roof plane. In future, build-up is removed and another room can be added seamlessly.
- Or a roof terrace can be constructed by floating a deck over the inclined roof plane as time & funds allow.
- Construction system is otherwise a pre-certified, proprietary timber framing system for apartments.
- The location of internal stairs enables future repetition upwards.
- Apartments have façade shutters allowing privacy and environment to be regulated.
- These shutters use simple timber gate construction, friction stays and manual labour.
- They are clad in a variety of materials to suit need.

### **Optimised use of multi-unit codes**

The flexibility and adaptability of the units pre-empts the future potential changes in the R-Codes to allow larger apartments without the provision of additional on site parking. Boundary setbacks are proposed to vary from current Planning stipulations on the premise that we are seeking to maximize the yield of dignified affordable apartments on the site. The scheme shifts on-site communal amenity to the middle of the building. The building is contextualised not through a landscape buffer to the street, rather through the employment of a dynamic and flexible façade through operable shutters. Parking complies for the number of apartments, however, it is proposed that visitors park on street embayments.

### **Innovative construction method**

Construction materials have been selected for efficiency in construction and to deliver a building that is flexible, adaptable to change, easy to maintain and repair. The predominant use of timber construction (USB Boral 'Multi-frame' and PRYDA floor cassette system) represents a sustainable and flexible building choice. The PRYDA floor cassette will be consistent between floor and roof, to allow the seamless addition of future rooms over time.

### **New materials and technologies**

We are not proposing the use of unproven materials. Rather, our scheme proposes the re-appropriation or re-contextualisation of a number of existing materials and systems to yield fresh relevance and significant cost and user benefits. Clever is often better. Refer 'Preliminary Specification' Page 06.

In regards to new technology, the predominant combined energy efficiency, water efficiency and waste initiative for the project is the Geo-exchange system that combines heating, cooling and domestic hot water delivery. Benefits include:

- Increased Efficiency Means Cost Savings
- Reduced CO2 Emissions
- Quiet Operation
- Increased Design Flexibility (Geoexchange systems provide optimal design flexibility because the roof, balconies and landscape are free of chillers, air handlers and other outdoor equipment)
- Increased Floor Space
- Increased Reliability and Reduced Maintenance
- Reduced Base and Peak Load Demand
- Re-use of water for reticulation

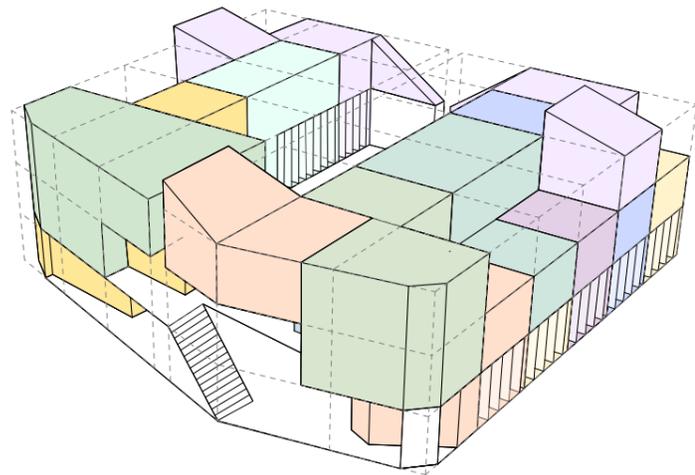
### **Sustainability initiatives: energy, water and waste efficiency**

The design allows for the collection and retention of rainwater in individual storage units at car park level, including overflow & first-flush management connected to the on-site storm water management system. Individual units can be interlinked and used for communal purposes or plumbed through services spines for individual use.

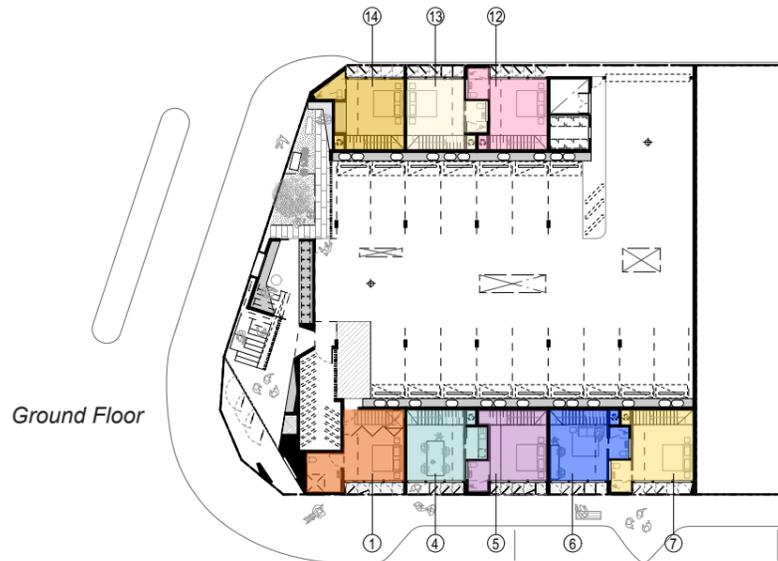
Planting has been selected to be resilient to West Australian coastal conditions. Proprietary communal compost bins will be provided to the level one courtyard space.

The roof allows the implementation of individual PV collection with battery-ready inverters located in the basement.

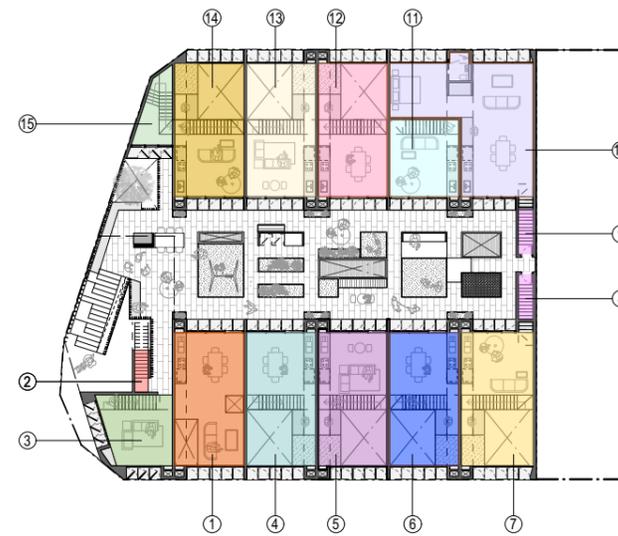
## SUSTAINABILITY + INNOVATIONS



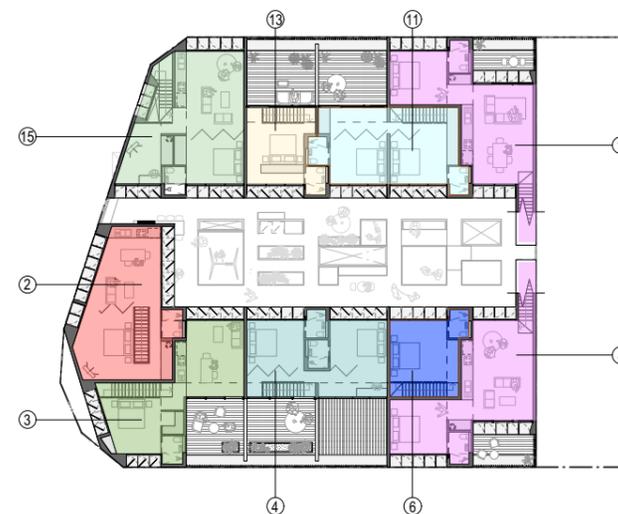
Axonometric -- Apartment Distribution



Ground Floor



First Floor



Second Floor

APARTMENT SCHEDULE:

UNIT TYPE	QTY	APTS	COST	SIZE (2017)	TRANSPORT
A1 (1 bed, 1 bath)	4	5,7,12,14	\$300,000.00	52sqm	1 bay, 1 bike
A2 (1 bed, 1 bath)	3	2,8,9	\$330,000.00	61sqm	1 bay, 1 bike
A3 (1 bed, 1 bath)	2	1(accessible),10	\$350,000.00	67sqm	1 bay, 1 bike
B1 (2 bed, 1 bath)	2	3,15	\$400,000.00	70sqm	1 bay, 1 bike
B2 (2 bed, 1 bath)	1	13	\$430,000.00	74sqm	1 bay, 2 bikes
C1 (2 bed, 2 bath)	2	6,11	\$450,000.00	80sqm	1 bay, 1 bikes
C2 (3 bed, 3 bath)	1	4	\$550,000.00	105sqm	2 bays, 2 bikes
<b>Total</b>	<b>15</b>				

INDICATIVE TIMELINE

TASK NAME	START	FINISH
Winning design announced	01.06.17	
Documentation completed	01.08.17	
DA/Building License	02.10.17	
Sales Campaign - Presales	02.08.17	05.12.17
Finance Approval	02.08.17	24.10.17
Commencement of Construction	24.10.17	
Construction Phase	25.10.17	14.12.18
Commencement of Settlements	17.12.18	19.04.19

APARTMENT SCHEDULE | NOT TO SCALE

Itemised Profit & Loss (Inclusive of GST) - Margin Scheme		Amounts are in \$'s	
<b>Income:</b>			
Development Sales			
Y 1A	1,200,000		
Y 2A	990,000		
Y 3A	700,000		
Y 1A (2 bed)	800,000		
Y 1B	430,000		
Y 1C	900,000		
Y 2C	550,000	5,570,000	
Rental Items	0		
Lending Interest	0		
Other Income Items	0		
Less: GST Collected in Income		-428,636	5,141,364
<b>Less Development Costs:</b>			
Land Purchase Price		855,000	
Stamp Duty on Transfer		37,947	
Stamp Duty on First Mortgage		0	
Finance Establishment Fee		0	
Conveyancing Fees (Purchase)		0	
Consultant Items			
Consultant Cost Item 1	168,000	168,000	
Construction Items			
Apart 1	200,000		
Apart 2	176,119		
Apart 3	202,650		
Apart 4	303,975		
Apart 5	150,540		
Apart 6	231,600		
Apart 7	150,540		
Apart 8	179,490		
Apart 9	179,490		
Apart 10	193,965		
Apart 11	220,020		
Apart 12	150,540		
Apart 13	222,915		
Apart 14	150,540		
Apart 15	202,650		
Common area Incl landscaping	425,000		
Geothermal system (Net of savings)	145,000	3,485,034	
Leasing Fees		0	
Rates and Taxes Items			
Council Rates	6,394		
Water & Sewer	2,780		
Land Tax	635		
MRI Tax	808	10,617	
Selling Fees		116,970	
Conveyancing Fees (Sale)		0	
Other Costs Items			
Headworks	150,000	150,000	
Contingency Amount		0	
Less: GST Input Tax Credits		-356,364	4,467,205
Margin Before Interest			674,159
Less Borrowing Interest			226,431
Profit Margin			447,728
Total Development Cost			4,693,636
Internal Rate of Return			12.90%
Margin on Development Cost			9.54%
GST collected in Income			428,636
GST Input Tax Credits			356,364
Peak Level of Debt :	4,343,316		(Occurs on Sep 2018)

SCHEDULE OF COSTS



A Street-side conversation



B Integrated bike repair brackets to screen



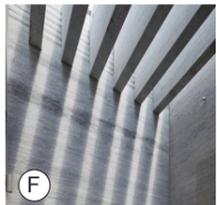
C Street interaction



D Laundry + coffee



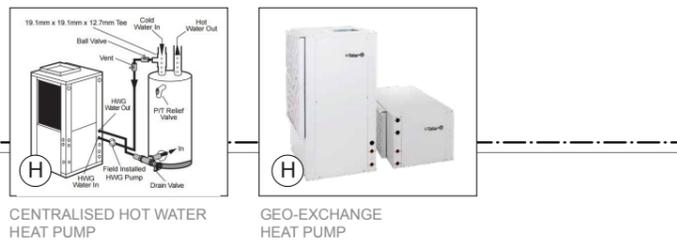
E Not just steps



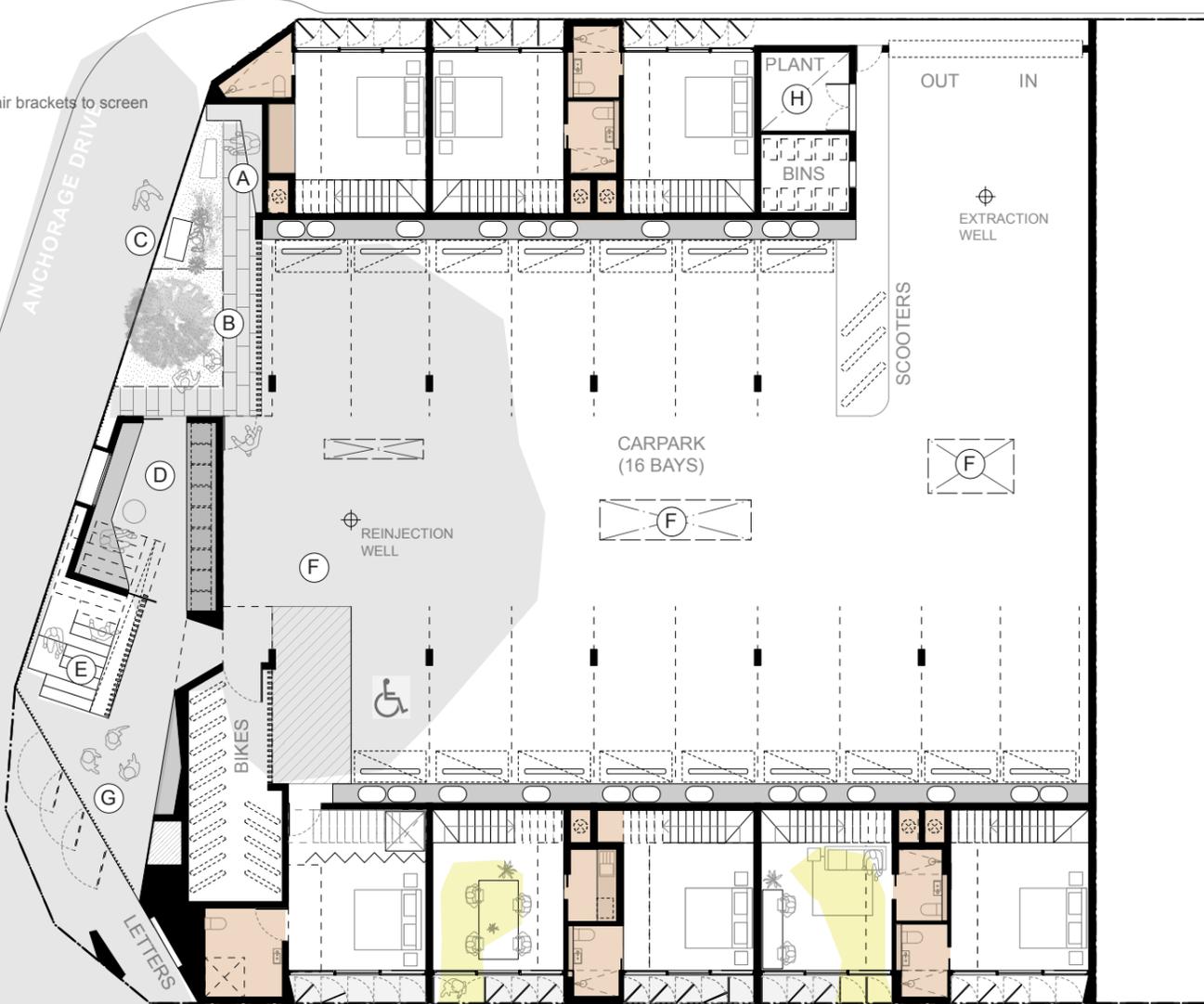
F Not just a carpark



G Incidental encounter



DURACK LANE



SURADA STREET



1. Blockwork ground level (enables proprietary timber construction to 4 levels in future)  
<http://www.boral.com.au/Blocks/blocks.asp>
2. PRYDA floor cassette system (large spans / speed of construction)  
<http://www.pryda.com.au/architects-builders-designers-engineers/product-information/floor-cassette-systems/>
3. USG Boral 'Multi-frame' (pre-certified timber construction system)  
[https://www.usgboral.com/en\\_au/solutions/plasterboard-systems/multiframe-construction-system.html](https://www.usgboral.com/en_au/solutions/plasterboard-systems/multiframe-construction-system.html)
4. 'IronAsh' cladding & battens (left to weather for no maintenance; modified & stable)  
<http://vicash.com.au/ironash/>
5. Corrugated fibreglass cladding (cost effective, light transmitting, robust)  
<http://www.ampelite.com.au/products/fibreglass-roofing-and-cladding/industrial-fibreglass/>
6. Zinalume roofing (cost effective, long-lasting)  
<https://www.bluescopesteel.com.au/product/zinalume-steel-for-roofing>
7. POLAR modular window system (proprietary, low-cost double-glazed system)  
<http://www2.polarwindows.com.au/>
8. OSB wall lining (cost effective alternative to plasterboard; robust, adaptable)  
<http://www.woodsolutions.com.au/Wood-Product-Categories/Oriented-Strand-Board>
9. Cork wall lining (various thicknesses; acoustic benefits; pin-up board; sustainable)  
<http://corkfloors.com.au/cork-underlay-cork-sheets-noticeboard.html>
10. Balustrade netting (cost effective; adaptable; spatially unobtrusive; versatile)  
<http://www.haverford.com.au/products/nets-netting>
11. 'Peg-board' wall lining (versatile hanging system; adaptable; cost effective; acoustic)
12. VERSIJACK adjustable supports for courtyard paving (flexibility; spatial economy)  
<http://www.elmich.com.au/products/versijack/>
13. VERSIJACK adjustable supports for terrace decking (future disassembly; spatial economy)
14. Roof hatches (economical access system to future 3rd level roof terraces)  
<http://www.gorterhatches.com.au/>
15. SPACECOMMANDER over bonnet storage (efficient; adjustable; cost-effective)  
<http://www.spacecommander.com.au/>
16. Slimline rainwater tanks (space efficient; cost-effective)  
<http://www.slimlinerainwatertanks.com.au/>
17. Timber-framed shutters (painted pine) on heavy-duty casement stays. Cladding: 4 or 5 above.  
[http://www.doric.com.au/product/commercial\\_adj\\_friction\\_stays1](http://www.doric.com.au/product/commercial_adj_friction_stays1)

PRELIMINARY SPECIFICATION



GROUND FLOOR PLAN | 1:200

SMALL SPACE, LARGE AMENITY



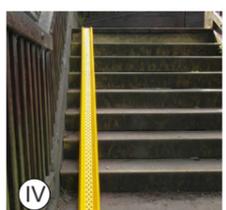
Communal Table



Conversation



Eating together



Bike ramp



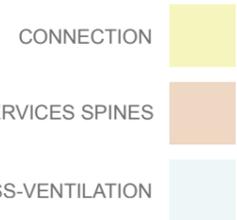
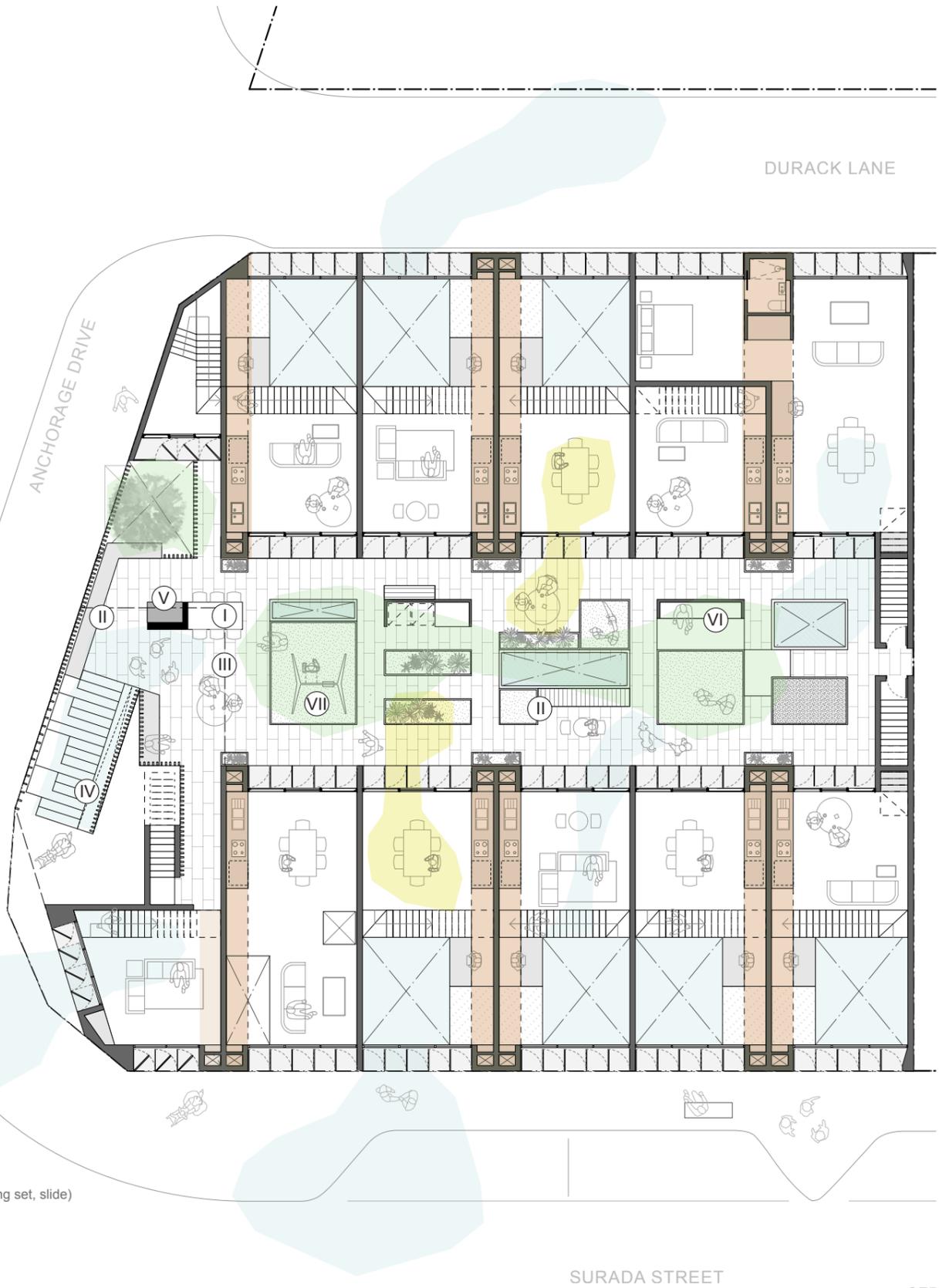
Outdoor fire



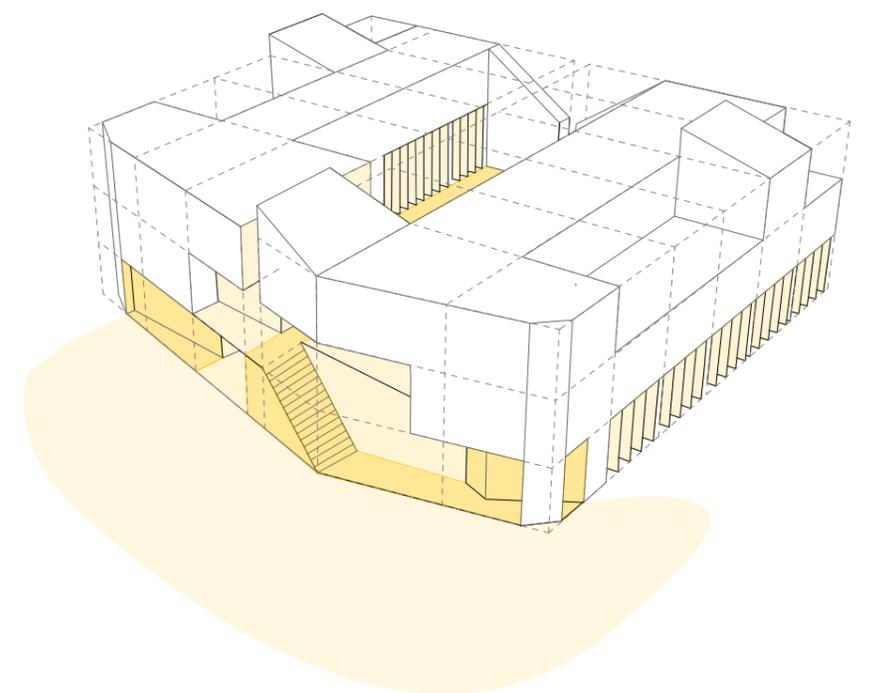
Lovers' bench



Grassed area (swing set, slide)



FIRST FLOOR (COMMUNAL PODIUM) PLAN | 1:200



The project incorporates a number of communal areas that offer residents high levels of amenity.

However, it is acknowledged that people don't want to socialise all the time.

All apartments are therefore fitted with simple operable facades, consisting of pivoting panels that can be adjusted to suit privacy and environmental needs. When closed completely they still allow through-ventilation either through or above (spaced off facade). Panels are either battened or clad in translucent material. Panels can be used to funnel breeze or shut out winter gales.

Communal areas are intensified around a wide access stair, to the western end of the building where in-built seating, an outdoor fireplace and tables are suited to gatherings and incidental encounters. This is the communal heart of the building and has purposefully been located around the main point of vertical communication (coming and going).

The courtyard seeks to offer a variety of spaces, from grassed plinths for picnics and swings to vegetable beds and gardening stations incorporating composting bins and potting benches. Voids to the carpark eliminate the costly need for mechanical extraction and provide opportunities for cross-ventilation. They are in-filled with trafficable netting and offer a fun place for kids (or a nap for a weary parent).

The lovers' bench is high-backed and provides a place where you might grab a bit of privacy.

The act of coming and going is celebrated in the design. All apartments are accessed via the first level podium courtyard, with secondary access at street level for certain apartments.

Access from the carpark to apartments is also through the courtyard via the common stair well.

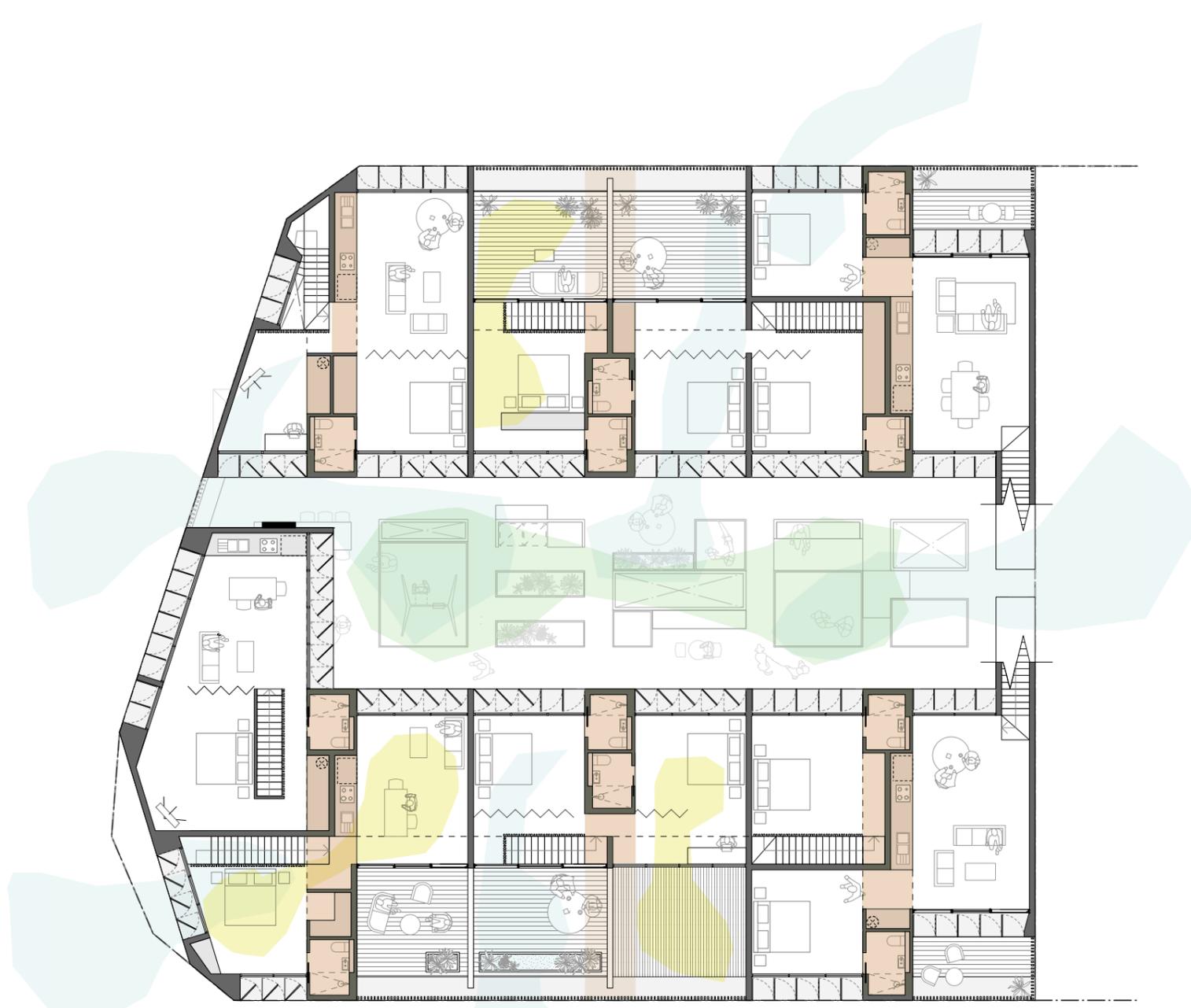
Communal laundry / coffee and bike storage facilities are located around the entrance at street level.

Street interface is valued and enhanced by a landscaped space at the NW corner. This offers a place to sit and gaze outwards, a place for bike repairs or lemonade stalls. A tree grows through a double-height volume and provides shade for rest.

The main entrance is screened and gates close after hours. It is an external yet fully covered space, admitting breeze and offering street surveillance.

Passage up and down the main stair, encounters in the communal laundry and passing chats between those coming and going will enliven this facade and provide a daily theatre to passers-by.

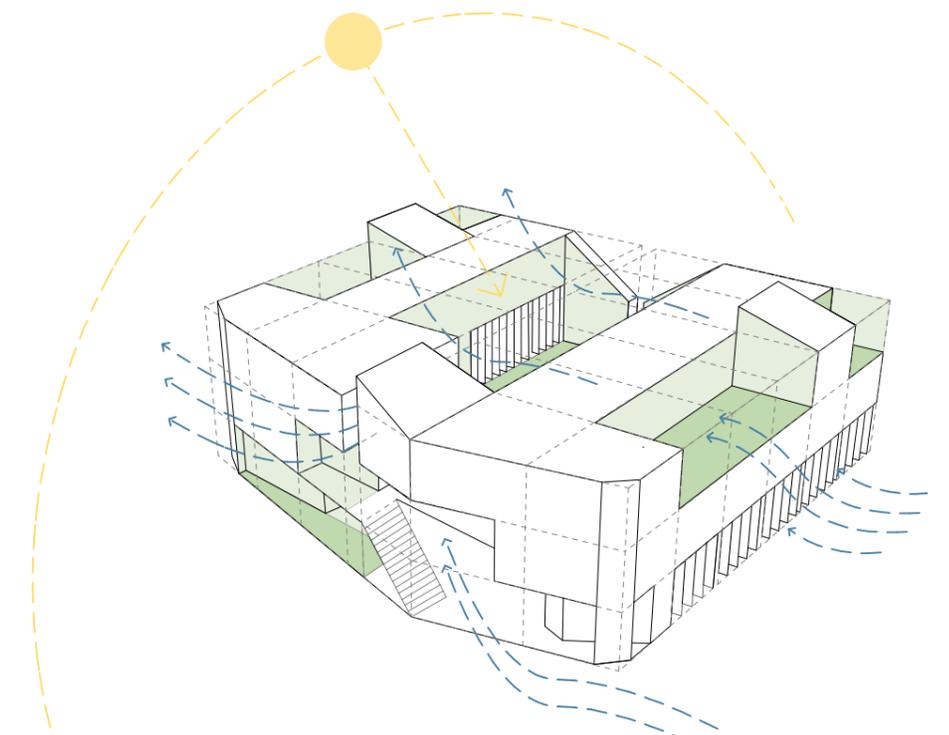
COMMUNAL SPACE



- CONNECTION
- SERVICES SPINES
- CROSS-VENTILATION

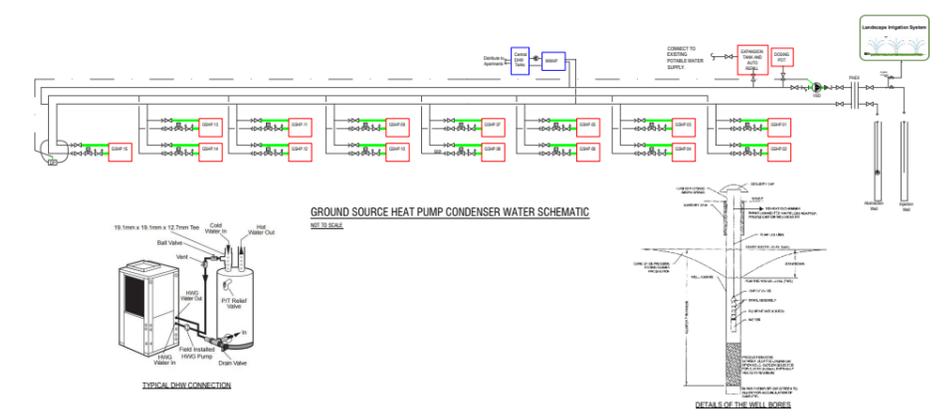
SECOND FLOOR PLAN | 1:200

SMALL SPACE, LARGE AMENITY

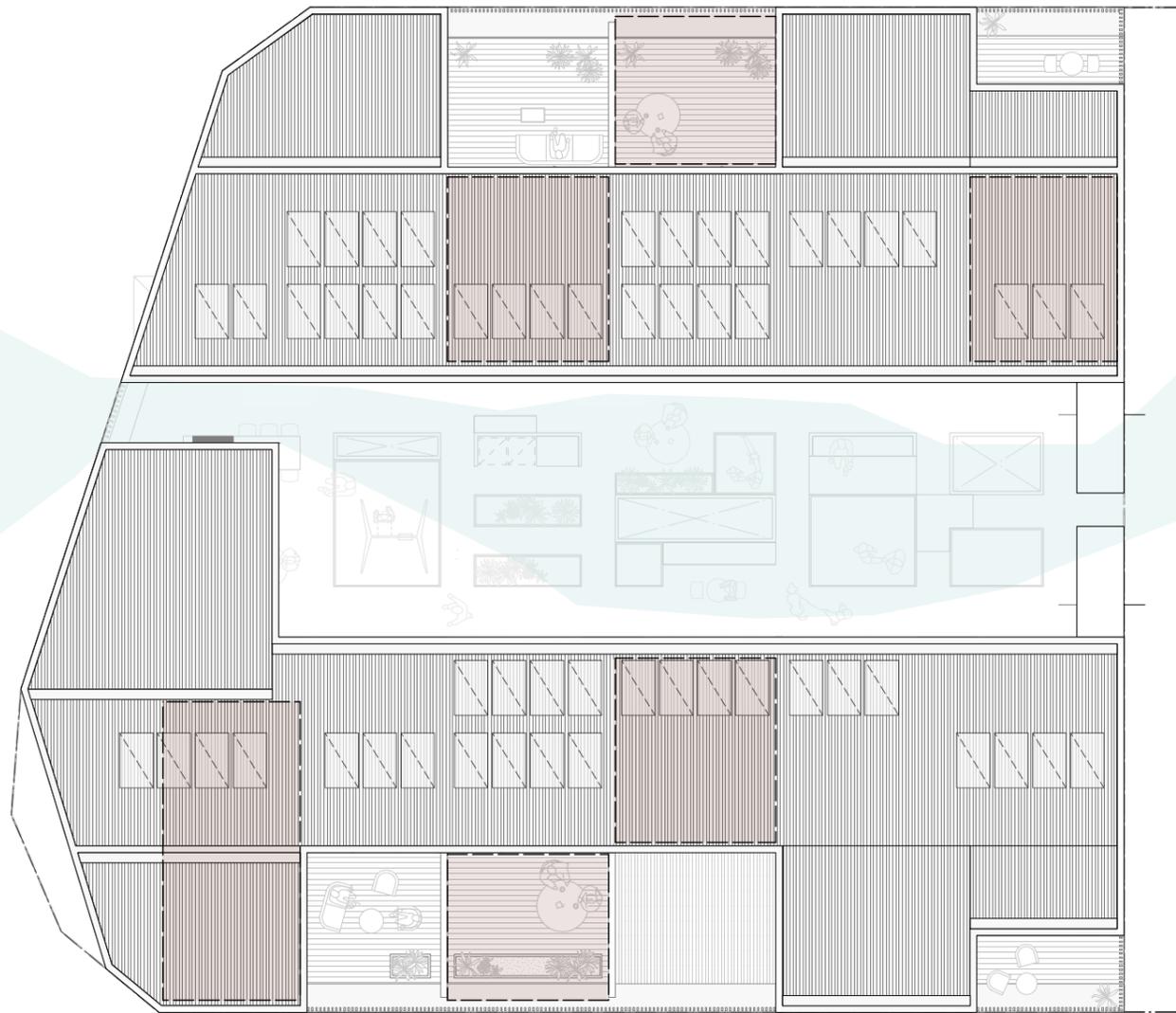


**PASSIVE DESIGN:**  
 Double-height entrance area acts as breezeway  
 Cross-ventilation through courtyard  
 Voids into carpark provide further breezeways  
 Green spaces  
 Operable shutters to all apartment facades (privacy and environment)  
 Roof form admits northern sun in winter and aids stack effect  
 Double-height apartment volumes aid air movement  
 All apartments have dual orientation  
 All apartments have access to north-light  
 Predominant timber construction (low heat retention; sustainable material)

**ACTIVE ESD SYSTEMS:**  
 All heating & cooling is provided via a centralised Geo-Exchange system  
 Schematic design has been provided by Geo-Exchange Australia  
 Uses constant 19 degree aquifer water as heat sink for "air-to-water" ducted AC systems  
 Each apartments is fitted with individual heat pump and ducting to rooms via services spines  
 Second heat pump in ground floor plant provides centralised hot water to apartments  
 Option to fit apartments with individual storage tanks to harvest residual heat from HVAC  
 Spent aquifer water is used for retic before re-injection  
 Communal composting station in courtyard  
 Rainwater harvesting in carpark



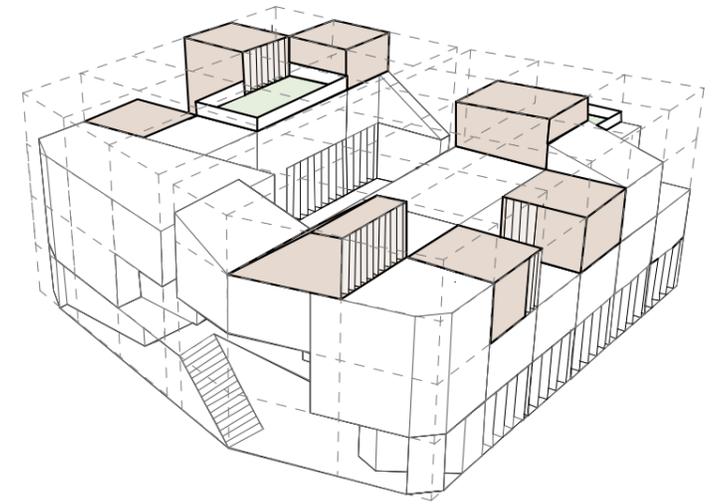
PASSIVE DESIGN + ACTIVE TECHNOLOGIES  
 ENVIRONMENTAL RESPONSE



THIRD FLOOR (ROOF) PLAN | 1:200

SMALL SPACE, LARGE AMENITY

MODULAR (IN-BUILT) EXPANSION OPPORTUNITIES



The project is fundamentally designed with flexibility in mind - both day-to-day flexibility and future adaptability and growth.

The construction system, apartment modules, grouping and (importantly) the operable facade system work together to enable logical future expansion and/or re-allocation as couples become families, singles shack up, kids leave home, friends become a buying syndicate.

Consolidated services spines support the above flexibility by enabling the wet areas to interchange over time, facilitated by generous bulkheads and panelised lining materials.

A proprietary / pre-certified timber construction system takes the guess-work out of modifications. Standard details prescribe what needs to happen to maintain acoustic and fire separation. The structure is designed to cater for future expansion to maximise with the 4-storey height limit.

The operable facade system ensures privacy is maintainable in the context of future additions.

An 'Expansion Guidelines' document will provide a framework for individual expansion. For instance, it will restrict expansion where this will negatively impact on north light for existing modules and communal areas.

The PRYDA floor cassette system is used to provide the structural platform also for roof construction. In future the propped timber roof purlins & sheeting are removed, exposing the pre-existing floor construction, ready for the new room module to be built.

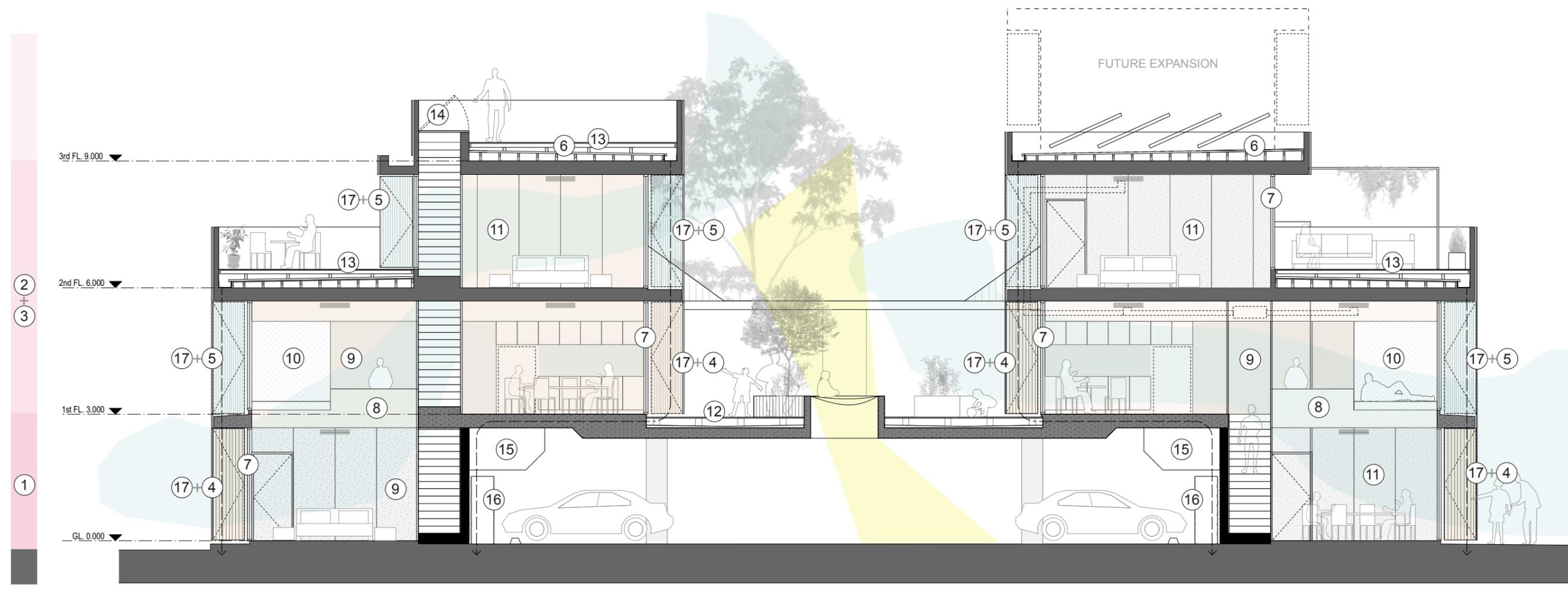
Roof terraces can be constructed as a floating structure over existing roof construction through the use of proprietary adjustable jacks that support the timber joist construction. Access to roof terraces is provided through proprietary glazed roof hatches that can also assist in cross-ventilation. Residents can opt to construct such a roof terrace as funds permit, and subject to 'Expansion Guidelines' and any necessary statutory approvals (largely pre-certified).

**FUTURE-PROOFING (In-built flexibility)**



- FUTURE EXPANSION**  
 As R-Codes amended to allow larger apartments with no further on-site parking. Facilitated by hybrid construction method below.
- USG BORAL MULTI-FRAME + PRYDA FLOOR CASSETTES**  
 Proprietary multi-residential timber construction system. Pre-rated for fire and acoustic separation.
- BLOCKWORK / CONCRETE STRUCTURE**  
 Future-proofs by enabling construction of 4th floor over time. Facilitates ease of fire separation to carpark.

NOTE:  
Refer preliminary specification on PAGE 05

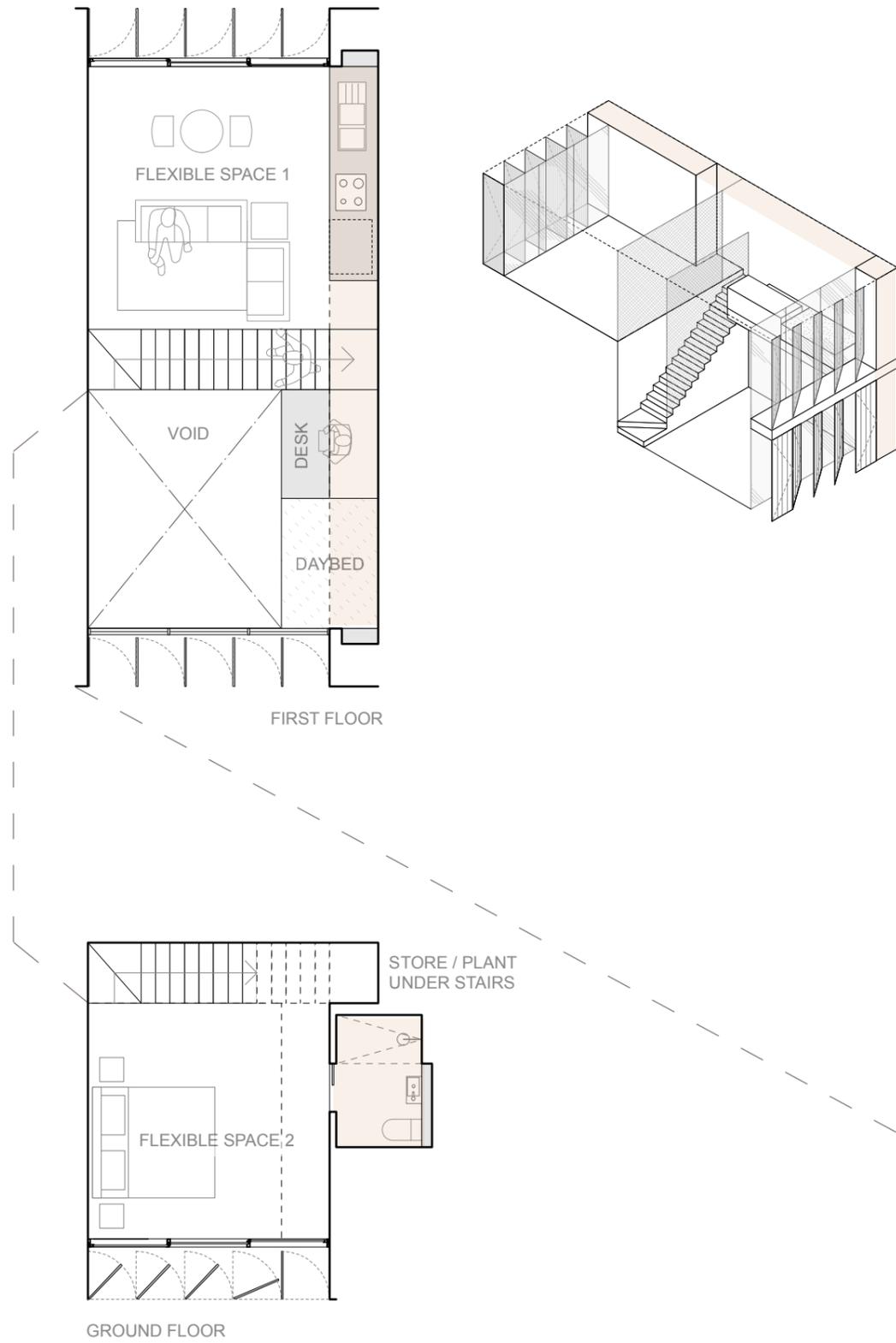


CROSS - SECTION | 1:100

SMALL SPACE, LARGE AMENITY

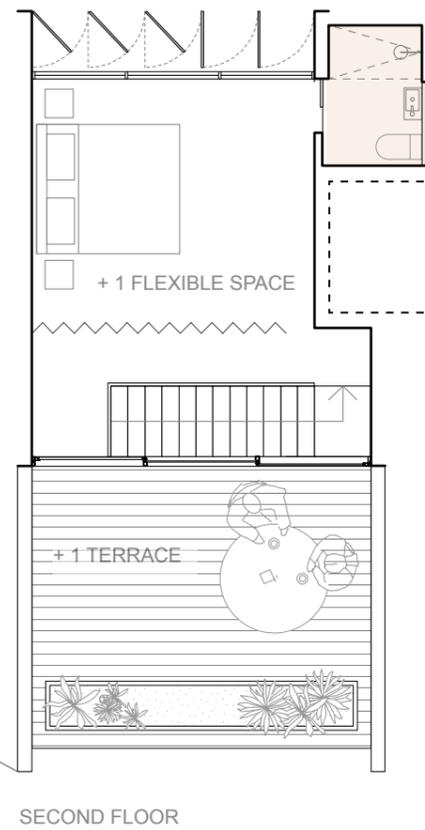
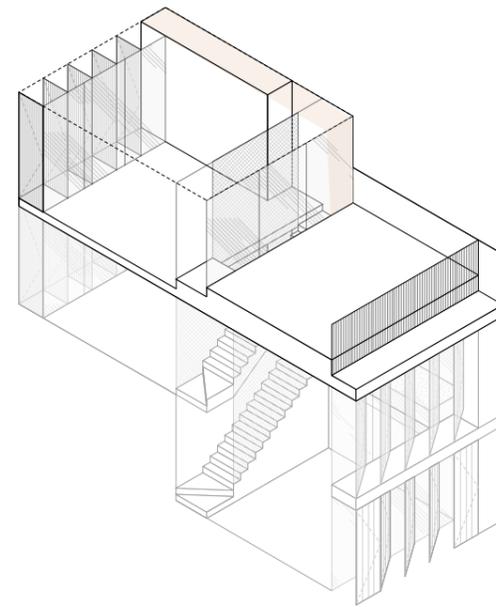
**APARTMENT TYPE A**  
1 X 1

BASE MODULE APARTMENT (1 x 1 over 2 levels)



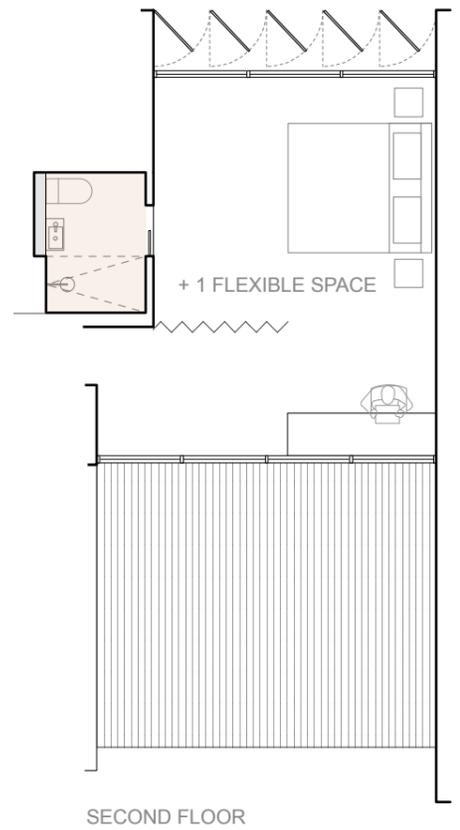
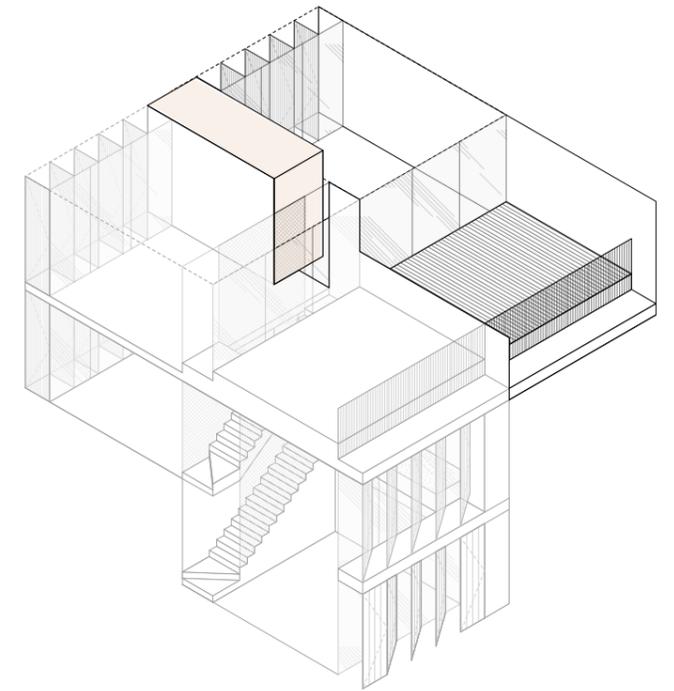
**APARTMENT TYPE B**  
2 X 1 + Terrace

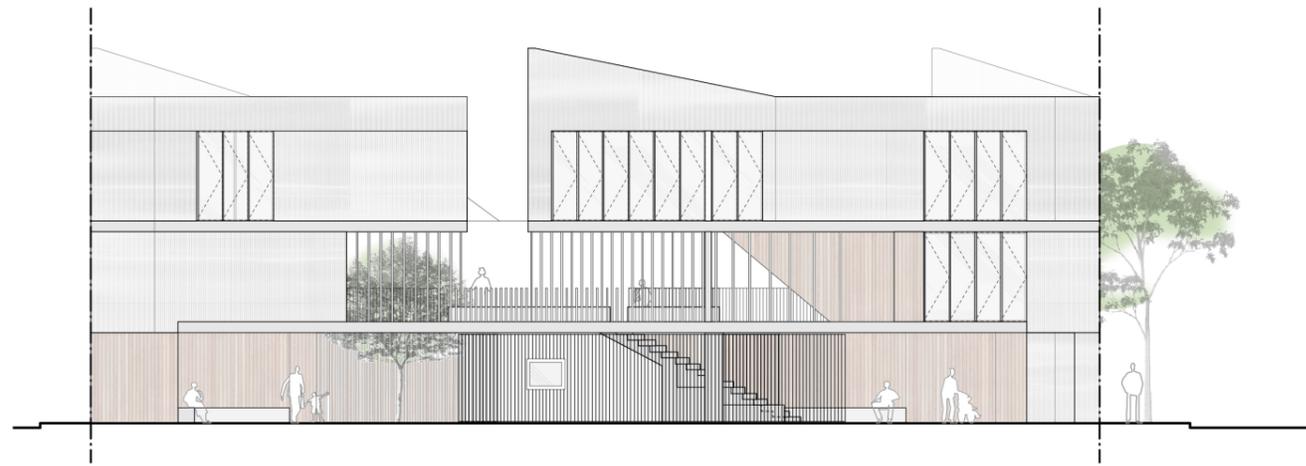
BASE MODULE + ADD'N ROOM + TERRACE



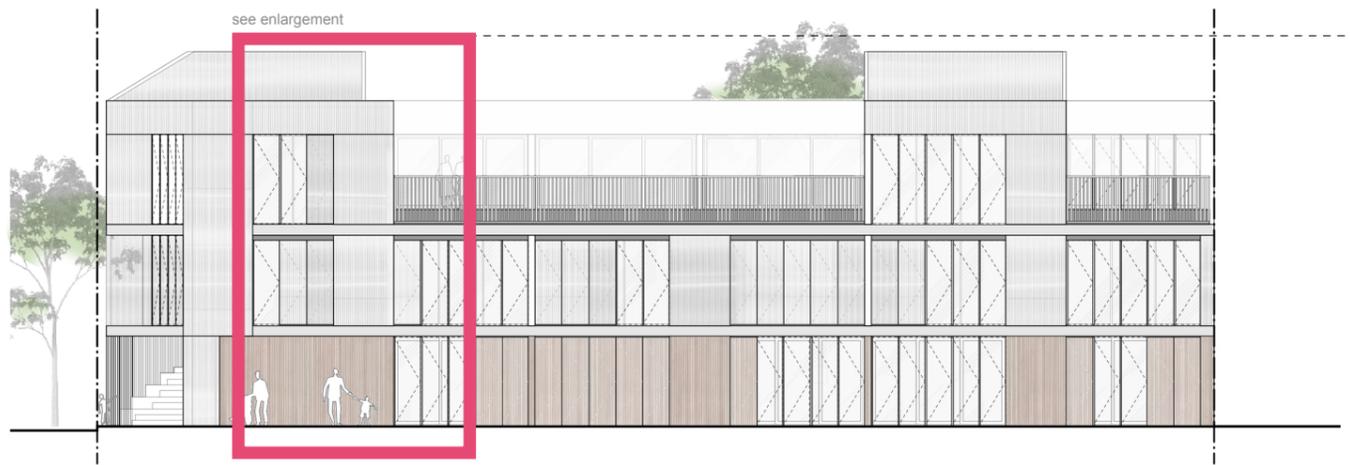
**APARTMENT TYPE C**  
2 X 2 + Terrace

BASE MODULE + ADD'N ROOM + TERRACE + ADD'N ROOM





WESTERN ELEVATION



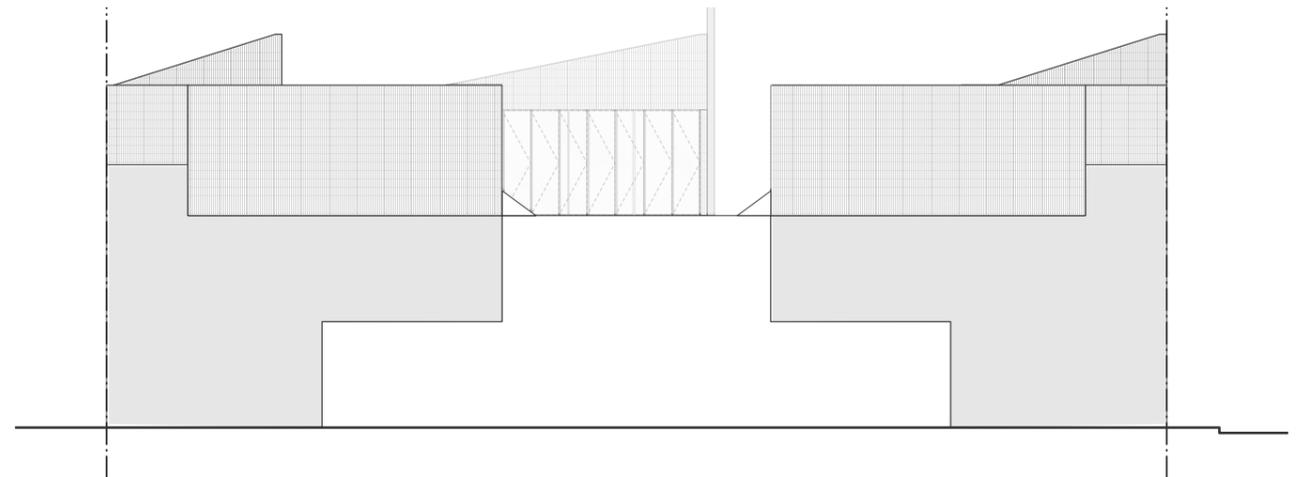
SOUTHERN ELEVATION



NORTHERN ELEVATION



ELEVATIONAL ENLARGEMENT



EASTERN ELEVATION

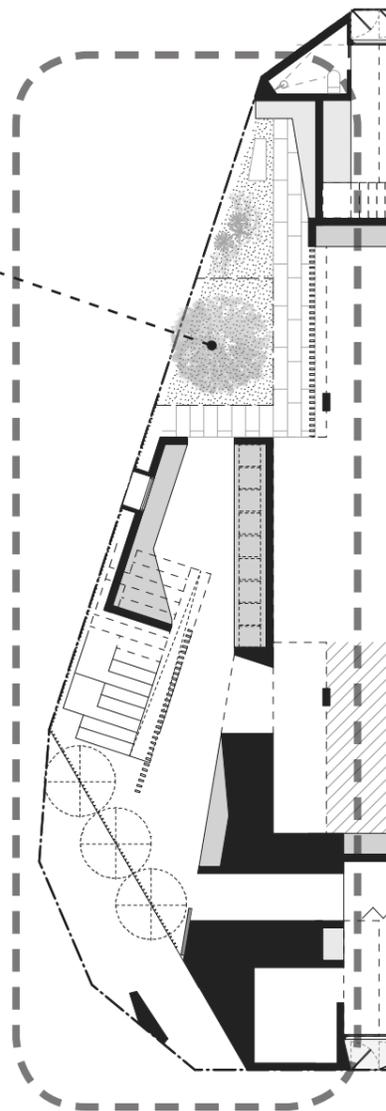


Olea SP: Coastal resistant Olive Tree

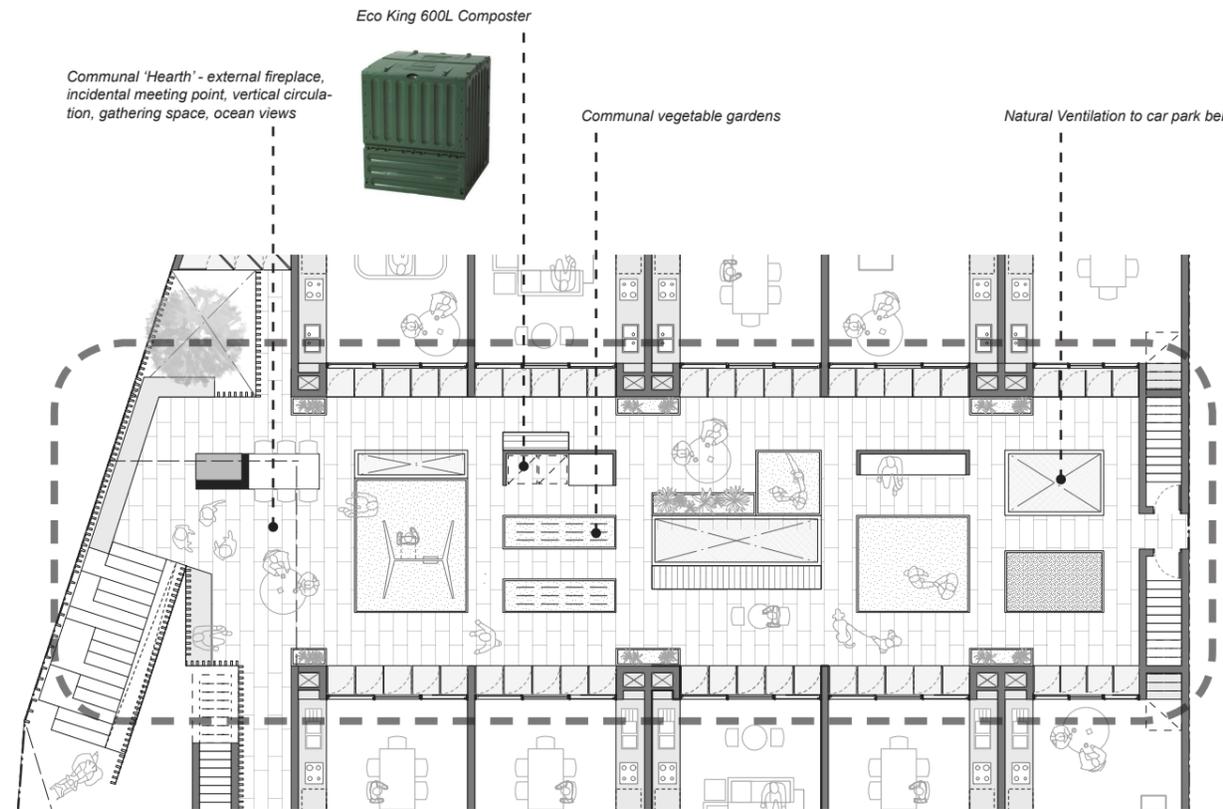
External planting and landscape materiality have been chosen in consideration of species employed, and material elements found in the Coogee Shorelines development.

Planting has been selected based upon coastal flora and plant species resilient to West Australian coastal conditions.

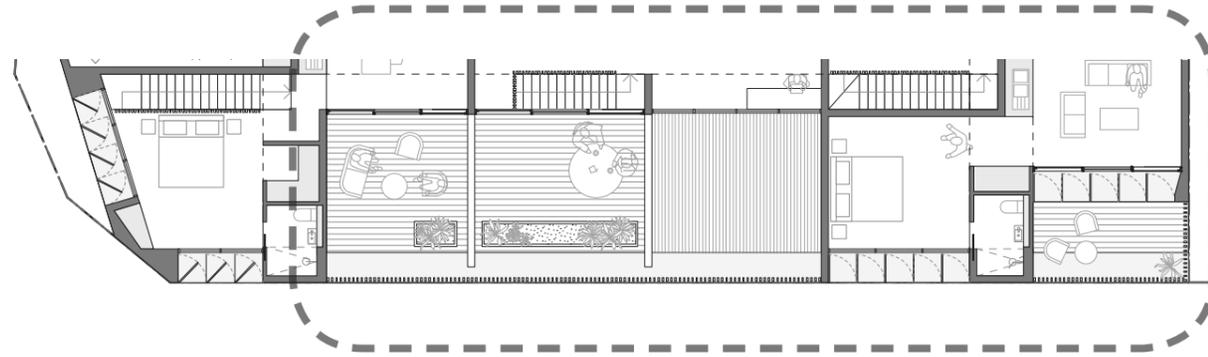
External Street level Planting Palette/ Shoreline Coastal Planting



GROUND LEVEL STREET INTERFACE (PUBLIC/ COMMUNAL) 1:200



LEVEL 1 COURTYARD LANDSCAPE AREA (COMMUNAL) 1:200



LEVEL 2 TERRACE LANDSCAPE AREAS (PRIVATE) 1:200

Landscape material palette - Surface Treatment



Landscape material palette - Wall / Edge Elements



Level 1 Courtyard/ Level 2 Private Terrace planting palette

