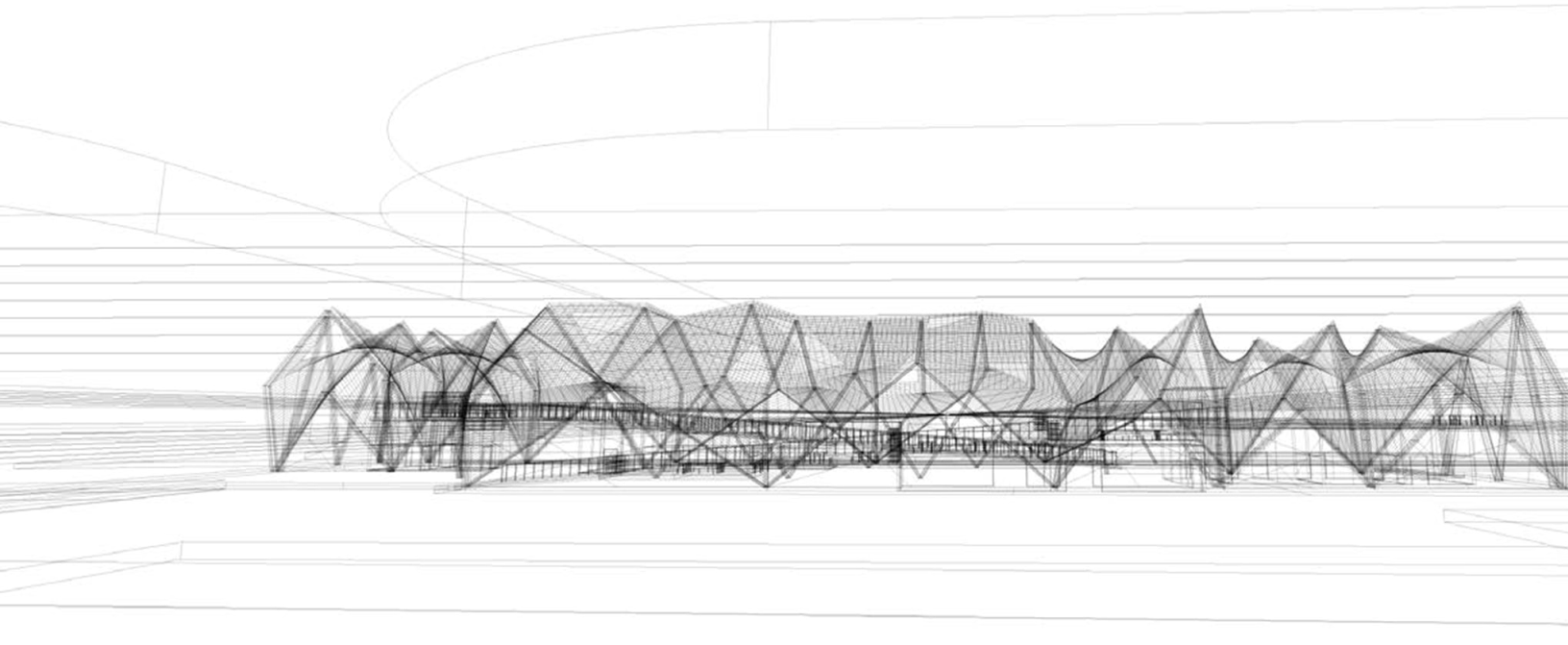
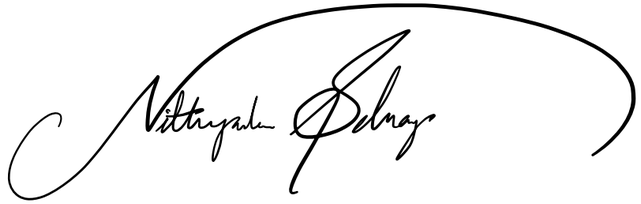
Portfolio.





NITHYA SELVARAJ

20 | 07 | 2002

Architectural graduate with experience across residential and commercial projects, including design development, drafting, documentation, visualization and client coordination. A proactive and approachable team player with a keen interest in thoughtful and sustainable design. I am passionate about contributing positively to the built environment through meaningful and well-resolved design outcomes and improve my technical and creative skills by gaining experience across all stages of design and development.

CONTACT

Homebush, NSW 2140

+61 405 028 908

nithyashreesp@gmail.com

ig: @n.sp.arch

L-in: Nithya Selvaraj

EXPERIENCE

Architecture Assistant Aug 2024 - Present

Mark Szczerbicki Design Studio | Five Dock, Sydney

- Working with the director and a collaborative team through various stages of design of residential and commercial projects
- Assisting with documentation, site measure-up and co-ordination for DA, CDC to CC and interior detailing.
- Physical and digital model making and visualisation for spatial understanding and clarity of design communication with the client.
- Assessing and understanding building codes and legislations in careful consideration of sustainable and ethical practices to achieve feasible design solutions.

Projects

Co-Living	
80 Docker street, Wagga Wagga	DA, CC
Multi Residence	
3 Wolseley st, Drummoyne	DA, SEE - Canada bay council
Single Residence	
14 The Parade, Drummoyne	S 44.55, CC, Joinery details
14 Seaman st, Greenwich	DA, SEE - Canada bay council
100 Henley Marine dr, Russel Lea	CDC - DA, CC, Joinery details
10 Princess Ave, Rodd Point	CDC
44 Cheltenham rd, Croydon	CC, Joinery details
27A The Point rd, Woolwich	Interior joinery details
8 Coranto st, Wareemba	Interior joinery details
Commercial	
110 Renwick st, Marrickville	CDC, Joinery details

Draftsperson/Admin Jan 2020 - Nov 2021

ESSEL Builders | Chennai, India

- Assisted in drafting through different stages of design for 6 residential and commercial projects.
- Worked in initial procurement of projects through coordination with clients and developers
- Attended client meetings to for design communication and coordination
- Site visits with the construction team for co-ordination and execution of concept design

EDUCATION

Master of Architecture (Distinction) 2024 - 2025

The University of Sydney

Thesis - Spacelessness - Shifting architecture from experiential space to existential nature
Adaptive reuse - Aboriginal student housing
Code to Production - Acoustic research
2025 Regenerating Sydney Design Catalogue
A Good Idea - Production and exhibition of objects for everyday living at Tin Sheds Gallery

Bachelor of Design in Architecture (Distinction) 2021 - 2023

The University of Sydney

Architecture studio - Individual residence | Social Housing in Jakarta | Theatre Design | Tech Central Hub
Architecture History/Theory
Architecture Technologies - Community shelter
Arch Design and processes (Ceramics and Casting)
Object Design - Designing with surfaces and light
AWARD : Noel Chettle Award for design excellence

SKILLS

BIM | CAD	Revit | ArchiCAD | AutoCAD | Microstation
3D Modelling	Sketchup | Rhino | Grasshopper
Rendering	Vray | D5 | Enscape | Lumion
Adobe suite	Illustrator | Photoshop | InDesign
Modelling	3d printing | CNC | Laser cutting
	Timber | Metal | Handmaking

ACTIVITIES

Student Leader	VSydney Student Connect Program
Volunteer	Our Big Kitchen, Sydney

REFERENCE

Mark Sczcerbicki	Architect, Director | MSDS
Catherine Lassen	Architect, Senior Lecturer | USYD

01

STUDENT HOUSING

Induction studio
MARC | Feb 2024

02

PROFESSIONAL WORKS

MSDS | Sydney

03

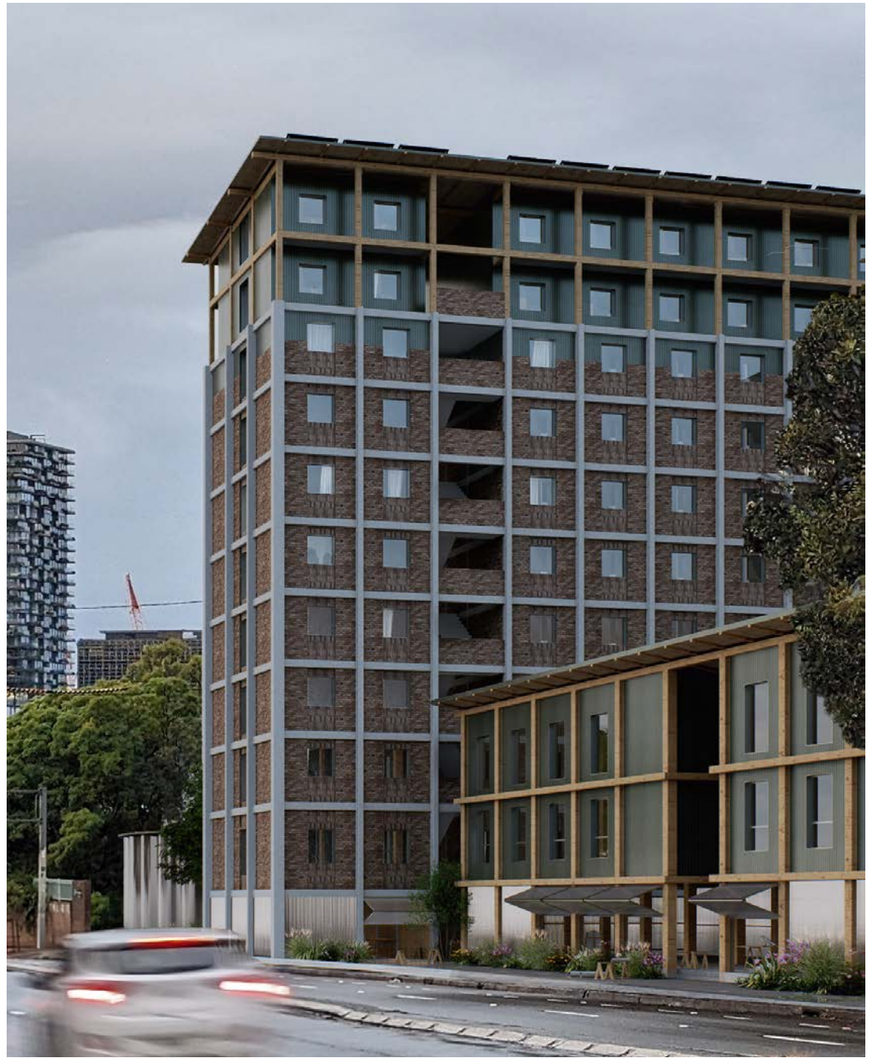
INTERCONNECT

Architecture studio 3A
BDES | Feb 2023

04

ACOUSTIC FACADE

Code to Production
BDES | Dec 2024



01

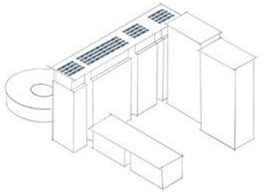
ABORIGINAL STUDENT HOUSING

USYD INTERNATIONAL HOUSE - ADAPTIVE REUSE

96 City road | Sydney

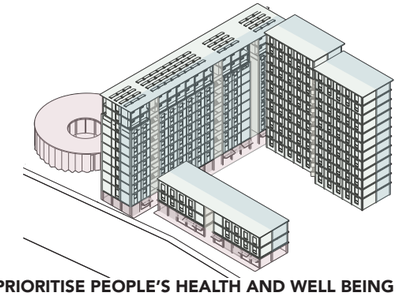
The transformation of 96 City Rd, Sydney, from its initial purpose as student accommodation in 1967 to its current adaptation for modern life showcases the enduring nature of programs within evolving structures. The existing concrete structureof the dormitory building is retained and refit with lightweight insulation in a contemporary approach. Lightweight timber frame construction for the proposed new additions further minimizes costs and allows for future reuse, maintaining flexibility for long-term adaptations. This adaptability forms the basis of a strategy that repurposes the existing framework to suit evolving requirements.

DESIGNING FOR COUNTRY



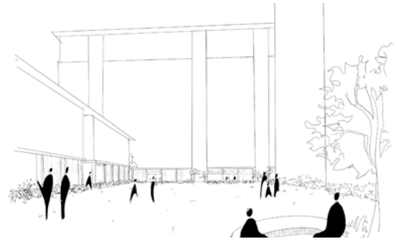
HEALING COUNTRY

Solar panels installed on the roof of dormitory building promotes sustainable energy sourcing for everyday use, reducing the overall carbon impact of the building. Moreover the use of timber and aluminum as sustainable and recyclable materials are extensively used for the new construction further reducing the impact of the built form on Land.



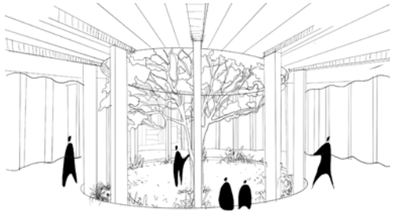
PRIORITISE PEOPLE'S HEALTH AND WELL BEING

Concepts of community is implemented throughout the proposal at various scales promoting well being of students and community. The organization of the dwellings on site allows for a sizable central courtyard, while the existing trees on site stay unaffected. This layout also means the rooms have good connection towards the exterior spaces, ensuring students have access to views of Victoria park. The vast central courtyard space provides opportunities of yarning and knowledgege sharing while the rotunda opens up this knowledge sharing to a more public scale.



HEALTHY COUNTRY AND ENGAGEMENT OF ART

Consultation with the local aboriginal community and the potential occupants of the student housing enabled incorporation of various perspectives and principles within the design. Celebrating the importance of yarning as a key practice of the Gadigal People of the Eora Nation, the ground plane promotes opportunites for the community to interact at different scales and ratios from private to public.
The workshop space at the ground floor of each building promotes the engagement of the student community in the practice of local aboriginal arts.

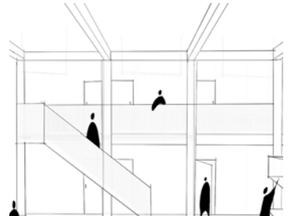


1:300 NATURE AND YARNING - TRADITIONAL PLANTS FOR HEALING

The existing rotunda, previously used as a communal hall is retained to share similar concepts with more openness towards country. It acts as an intimate gathering space for the residents and also provides opportunites of interaction with the public. The contrasting circular form becomes the unifying space where concepts of land, water and sky are heightened. The central void opens up to the sky, nourishing the land beneath while allowing the canopy to slope inward for rain to encase the space and irrigate the native plantings central to the rotunda.

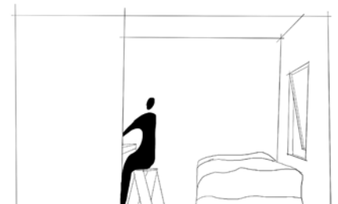
1:12/22 COMMUNITY

Each block connected thorugh a central circulation space creates visual continuities and intimate opportunities of interaction within students at a larger scale



1:6/11 BETTER PLACES

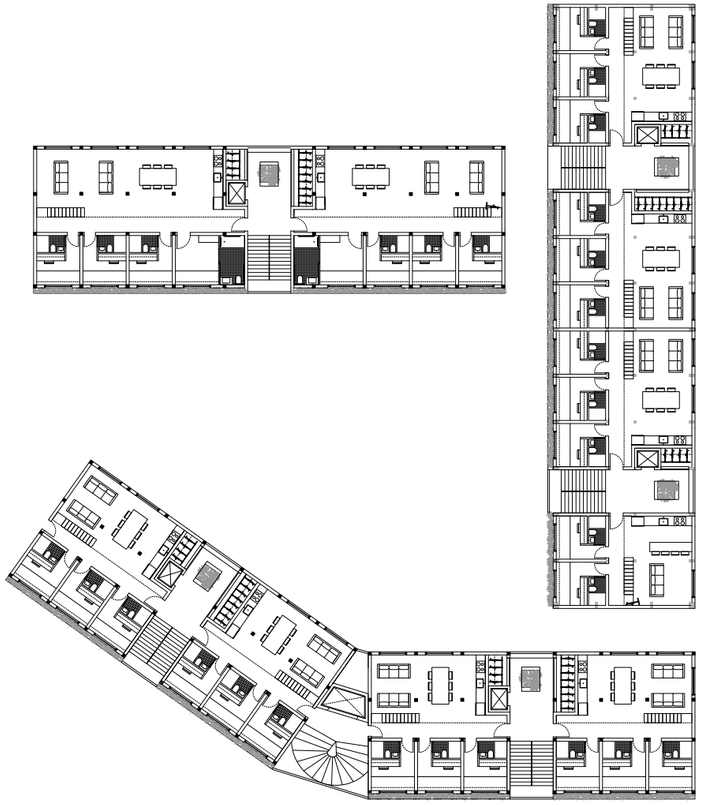
The living area is designed as a shared double height space offering a different spatial quality to promote inclusivity and well being of the residents.

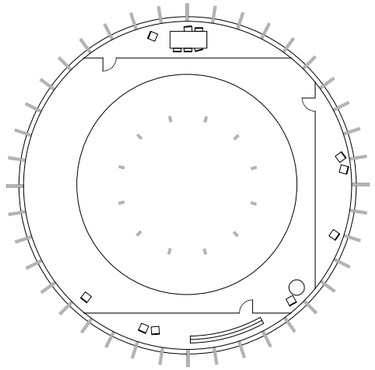


1:1 HEALTHY LIVING SPACE TO PROMOTE QUALITY EDUCATION

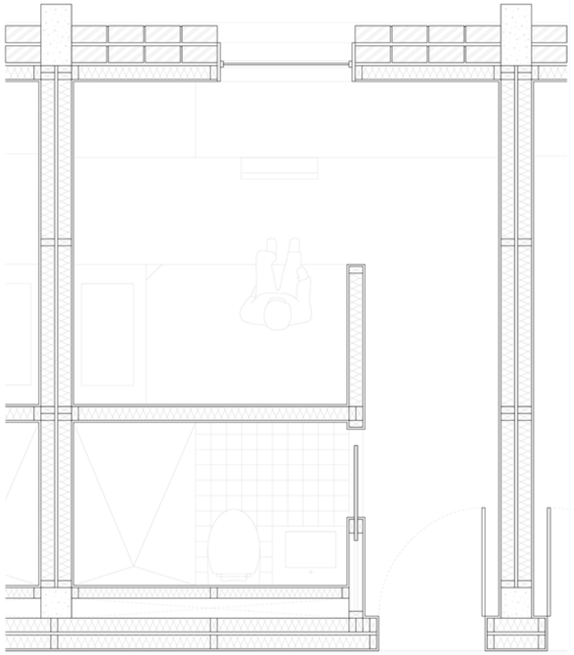
Consultation with potential residents (local aborigal students at USYD) lead to the knowledge of providing a private space for the students for healthy learning. The individual rooms at a 1:1 scale are designed to be private rooms with ensuite promoting quality of living for the young aboriginal community

The original social space, the rotunda, is also retained and shares concepts of community at the overall ratio of 1:300; this contrasting circular form becomes the unifying space where concepts of land, water and sky are heightened. The central void opens up to the sky, nourishing the land beneath while allowing the canopy to slope inward for rain to encase the space and irrigate the native plantings central to the rotunda.

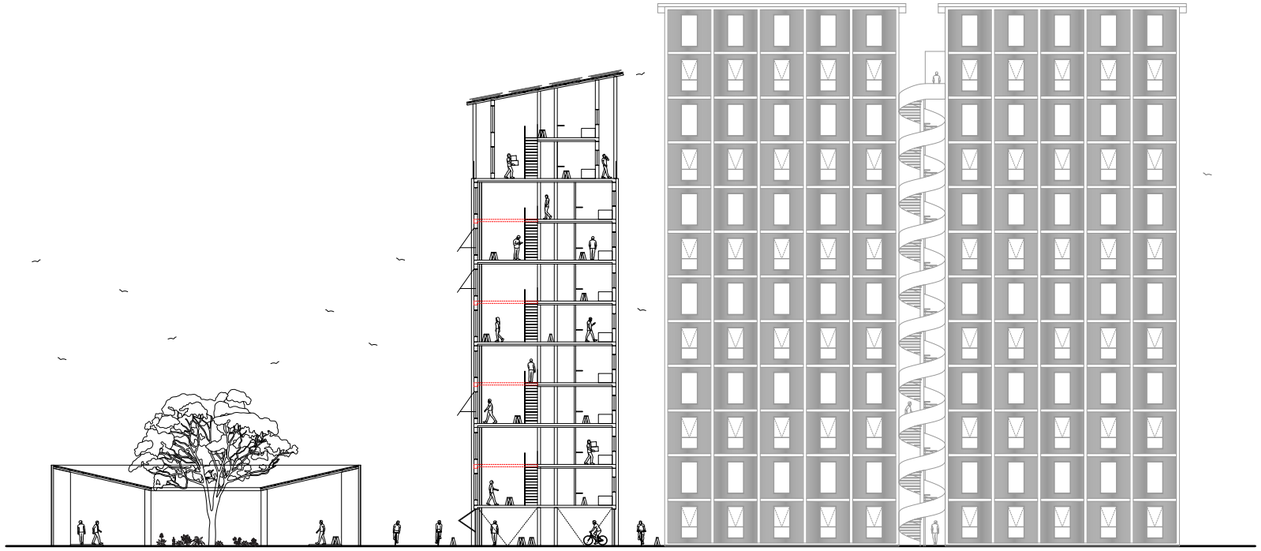




Being a student myself and upon consultation with other aboriginal students from the community, it was decided that privacy in one's own room is essential for student life. A bed, a desk and a private ensuite fitted within the existing concrete structure provides the basis for a modern student life.

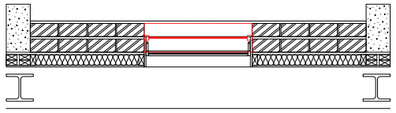


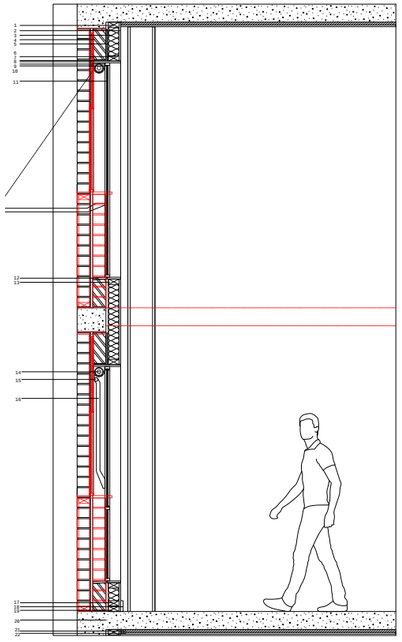
In order to encourage communal interaction and relationships between students, various ratios of sharing is introduced. Each resident/student will have a single unit, of which contains the minimums, a bed, a desk and an ensuite being 1:1. The kitchen, dining and living is shared at a ratio between 1:6/11. This strategy reduces cost of utilities and increases students autonomy and community. These social spaces are given generosity, becoming a double height space, increasing comfort to encourage meaningful connections with others on site. External circulation and logia spaces are shared at 1:12/22 further increasing the communal opportunities in the presence of the external elements such as the sky, water, and air increasing residence choice of social and natural connectivity.

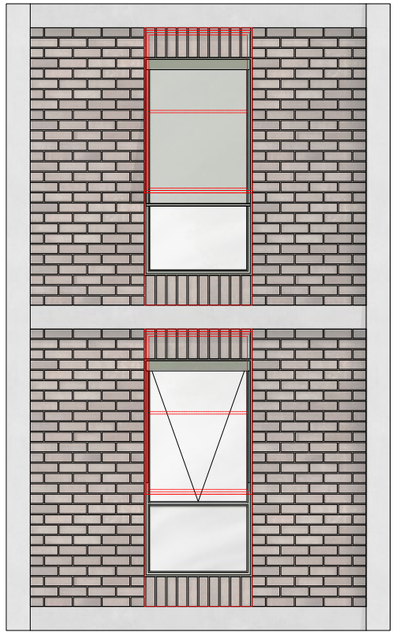


FACADE STRATEGIES

The facade strategy of the existing dormitory building relies on the retention of the existing brick infill.The addition of new double-glazed windows are placed within the existing central opening, reducing costs. The new windows are offset by 1 brick layer with additional automated shading device for the living area windows facing North. Upcycling of the brick onsite is used to infill under and over the new windows on all sides of the dormitory building (reducing material costs). These are placed in a vertical orientation, offering a distinct visual contrast to the conventional horizontal arrangement distinguishing the new from the old.

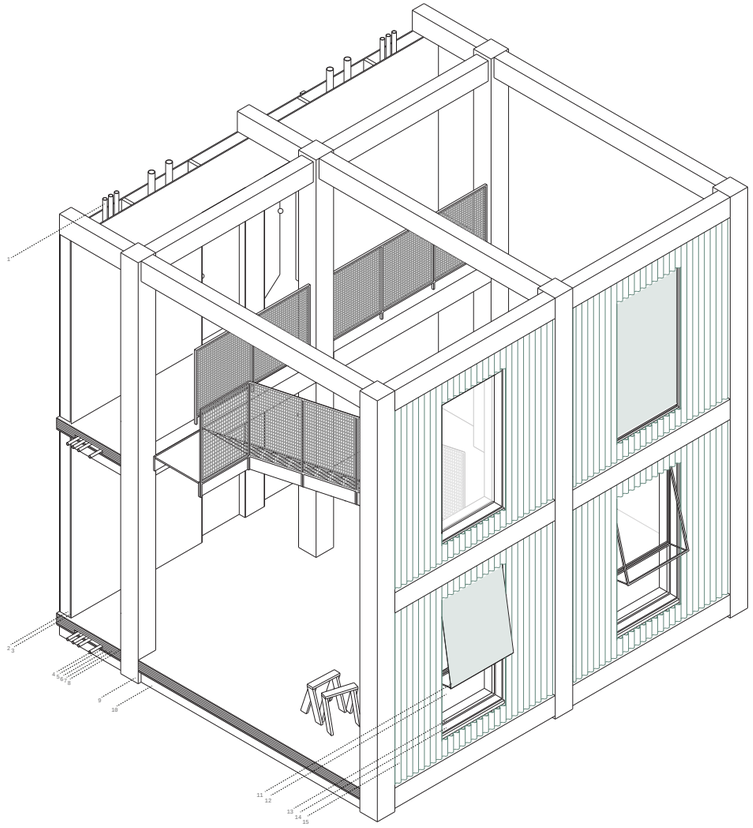






1. Top Plate
2. Plaster Board
3. Insulation
4. Exterior Face Brick
5. Vapour Barrier
6. Window Head/Lintel Beam
7. Galvanised Steel Angle Lintel
8. Aluminium Frame
9. Aluminium Window Frame
10. Aluminium Sash
11. Double Glazed Glass
12. Window Sill Lining
13. Window Sill Plate
14. Box And Fabric Shaft
15. Bottom Rail
16. Drop Arm
17. Skirting Block
18. Skirting
19. Bottom Plate
20. Concrete Floor Slab
21. Insulated Board
22. Plywood Ceiling

The facade strategy of the new buildings is proposed to be a lightweight aluminum frame construction in contrast to the existing heavy brick facade in the dormitory, following the principes of circular construction and economic efficiency.



1. Plumbing Services
2. Timber Stud Framing With Insulation
3. Plasterboard
4. Sprinkler+Services In Ceiling Trough
5. Plasterboard
6. Acoustic Insulation
7. 5 Layer CLT
8. Plywood Flooring
9. Glulam Column
10. Glulam Beam
11. Fabric Shading
12. Low E Double Glazed Window
13. Aluminum Window Frame
14. Aluminum Flashing
15. Corrugated Metal Sheet Cladding

02

MULTI RESIDENCE

Drummoyne | DA

Facing Drummoyne bay, the site has access to beautiful views of the harbour. Situated admist a heritage area the proposed apartment retains the existing character of the context whilst adding a contemporary touch to the locality. The steep slope of the site allowed for an extensive build with a modest appearance.

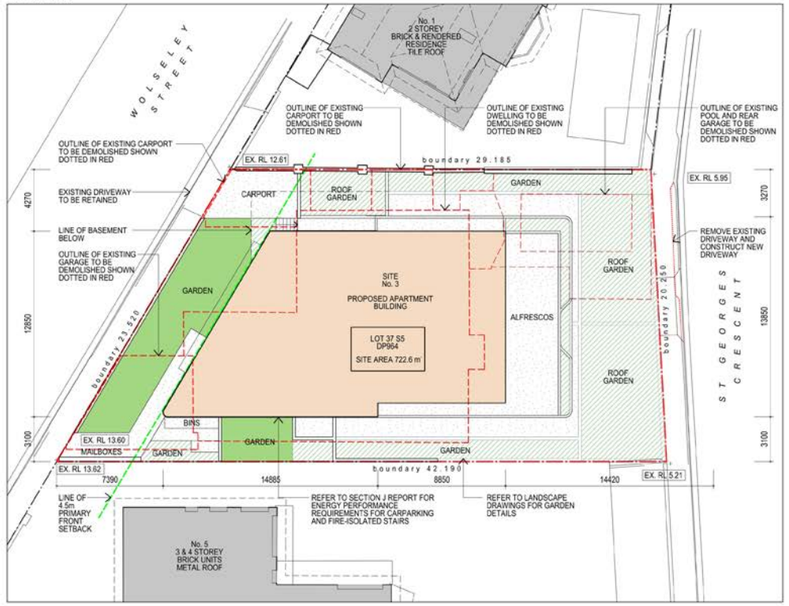
DRAWING LIST

LOCATION MAP (NTS)

CALCULATIONS (SEPP HOUSING)

	REQUIRED	PROPOSED
MAX. FSR (SEE A25)	1083.9sqm (1.5:1)	1083.8sqm (1.5:1)
MIN. DEEP SOIL	50.1- 72.2sqm (7-10%)	77.7sqm (10.7%)

SITE PLAN



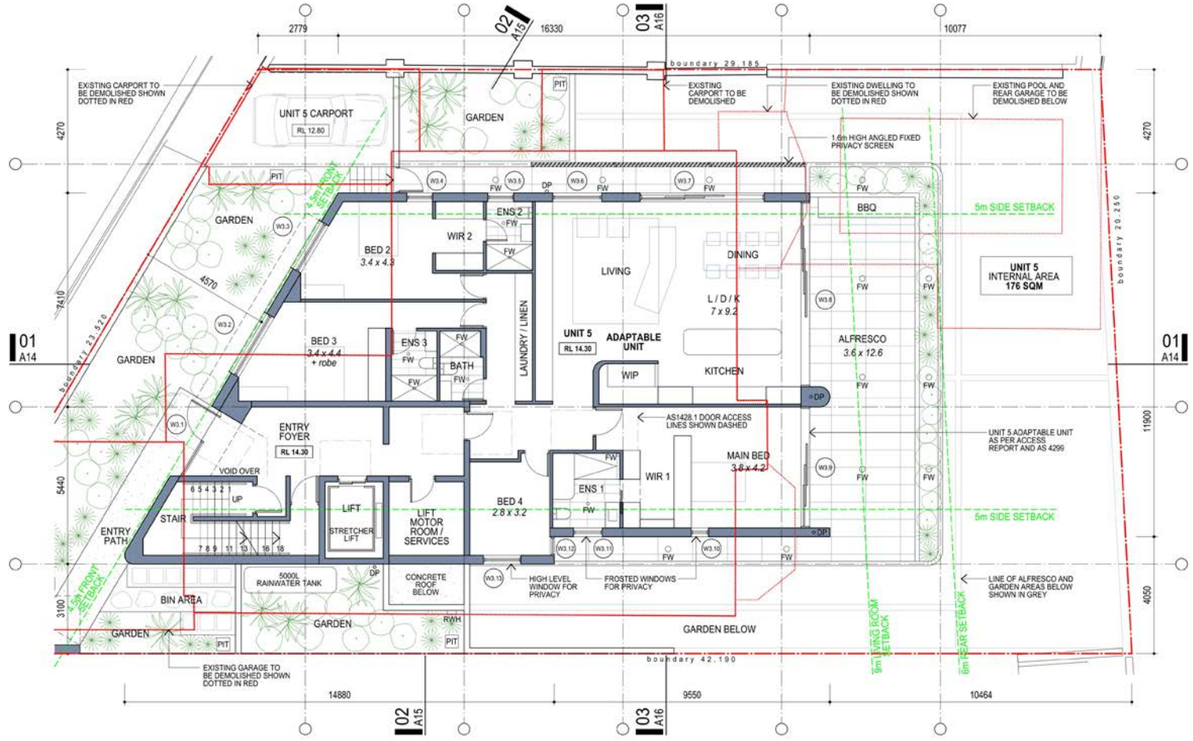
LEGEND

LANDSCAPE (DEEP SOIL 3x3m)

LANDSCAPE

PROPOSED BUILDING

EXISTING TO BE DEMOLISHED

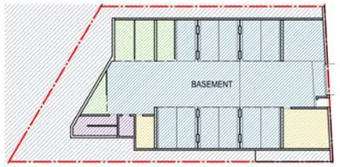


189.5sqm LEVEL 2

176.2sqm LEVEL 5

189.5sqm LEVEL 1

176.2sqm LEVEL 4



BASEMENT

176.2sqm LEVEL 3

176.2sqm LEVEL 6

CALCULATIONS

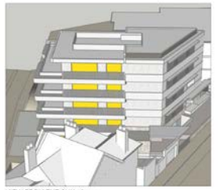
SITE AREA	722.6sqm
MAXIMUM FSR	1083.9sqm (1.5:1)
PROPOSED FSR	1083.8sqm (1.5:1)

LEGEND

- FLOOR AREA INCLUDED IN CALCULATION
- REQUIRED CARPARKING EXCLUDED
- BASEMENT STORAGE EXCLUDED
- SERVICE AREAS EXCLUDED
- CIRCULATION AREAS EXCLUDED

VIEW FROM THE SUN 9am

VIEW FROM THE SUN 9:30am



VIEW FROM THE SUN 10am

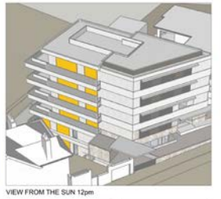
VIEW FROM THE SUN 10:30am

VIEW FROM THE SUN 11am

LEGEND

YELLOW SHADE INDICATES DIRECT SOLAR ACCESS INTO PRIMARY LIVING SPACE

VIEW FROM THE SUN 11:30am



VIEW FROM THE SUN 12pm

VIEW FROM THE SUN 12:30pm

VIEW FROM THE SUN 1pm

VIEW FROM THE SUN 1:30pm

LEGEND

YELLOW SHADE INDICATES DIRECT SOLAR ACCESS INTO PRIMARY LIVING SPACE

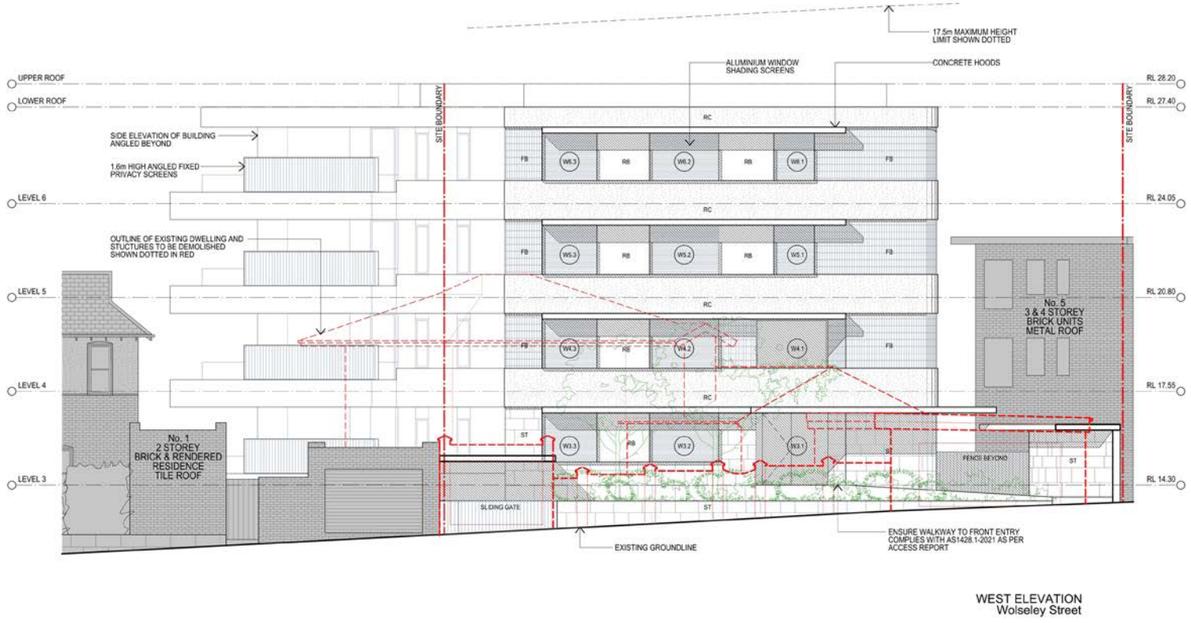
VIEW FROM THE SUN 2pm

VIEW FROM THE SUN 2:30pm

VIEW FROM THE SUN 3pm

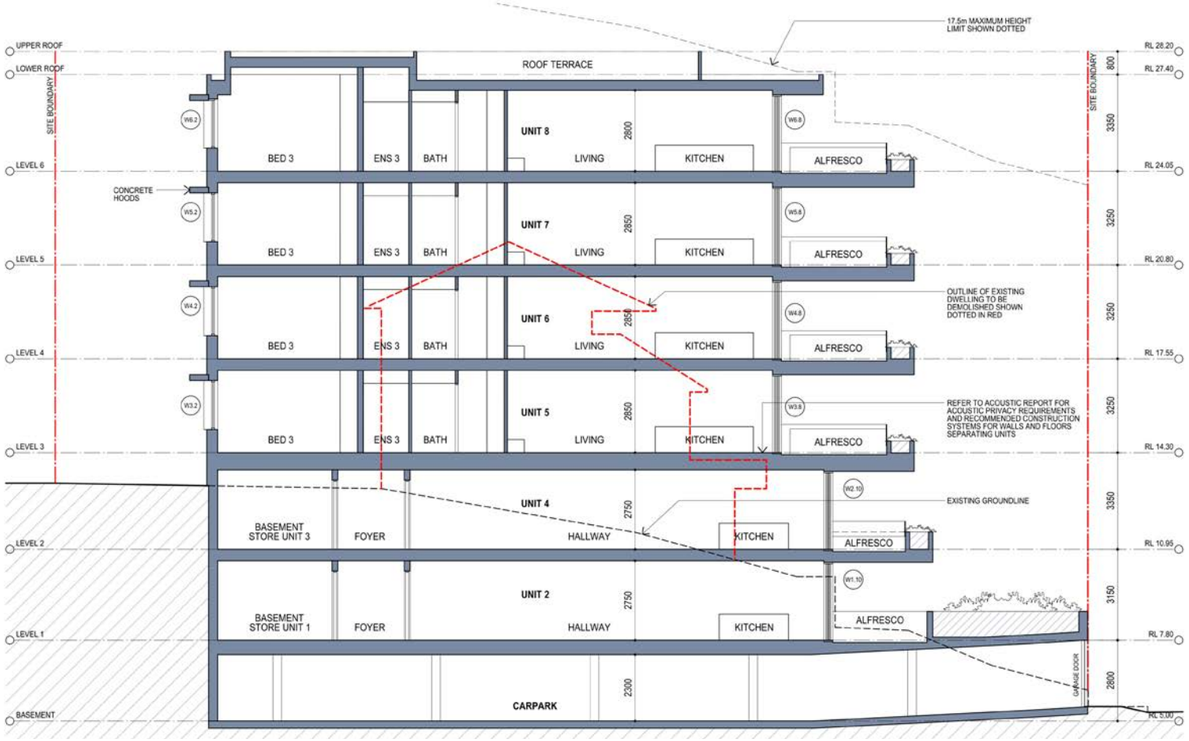
LEGEND

YELLOW SHADE INDICATES DIRECT SOLAR ACCESS INTO PRIMARY LIVING SPACE



WEST ELEVATION
Wolseley Street

EAST ELEVATION
St Georges Cres


17.5m MAXIMUM HEIGHT LIMIT SHOWN DOTTED
UPPER ROOF
LOWER ROOF
ROOF TERRACE
SITE BOUNDARY
LEVEL 6
LEVEL 5
LEVEL 4
LEVEL 3
LEVEL 2
LEVEL 1
BASEMENT
RL 28.20
RL 27.40
RL 24.05
RL 20.80
RL 17.55
RL 14.30
RL 10.95
RL 7.80
RL 4.60
UNIT 8
UNIT 7
UNIT 6
UNIT 5
UNIT 4
UNIT 2
BED 3
ENS 3
BATH
LIVING
KITCHEN
ALFRESCO
CONCRETE HOODS
OUTLINE OF EXISTING DWELLING TO BE DEMOLISHED SHOWN DOTTED IN RED
REFER TO ACOUSTIC REPORT FOR ACOUSTIC PRIVACY REQUIREMENTS AND RECOMMENDED CONSTRUCTION SYSTEMS FOR WALLS AND FLOORS SEPARATING UNITS
EXISTING GROUNDLINE
BASEMENT STORE UNIT 3
FOYER
HALLWAY
BASEMENT STORE UNIT 1
CARPARK
GARAGE DOOR
2850
2750
2300
800
3350
3250
3150
2600

SINGLE RESIDENCE

Drummoyne | S4.55, CC, Joinery documentation

Built for a lovely client to accommodate the growing needs of their family. The site is located next to a park with beautiful views of the bay. The main living room and bedrooms all face to the west maximing the views to the sunset. Original design was adapted from a pre-existing DA and modified with section 4.55 to suit the client's needs. Interiors and joinery are crafted with utmost care and consideration for the client's lifestyle.

DRAWING LIST

A01 SITE PLAN AND DRAWING LIST
A02 BASEMENT FLOOR PLAN
A03 GROUND FLOOR PLAN
A04 FIRST FLOOR PLAN
A05 ROOF PLAN
A06 ELEVATIONS 01
A07 ELEVATIONS 02
A08 ELEVATIONS 03
A09 ELEVATION 04
A10 SECTION 01
A11 SECTION 02

A20 WINDOW SCHEDULE 01
A21 WINDOW SCHEDULE 02

A30 BASIX COMMITMENTS

S01 SITE AND CONSTRUCTION MANAGEMENT PLAN

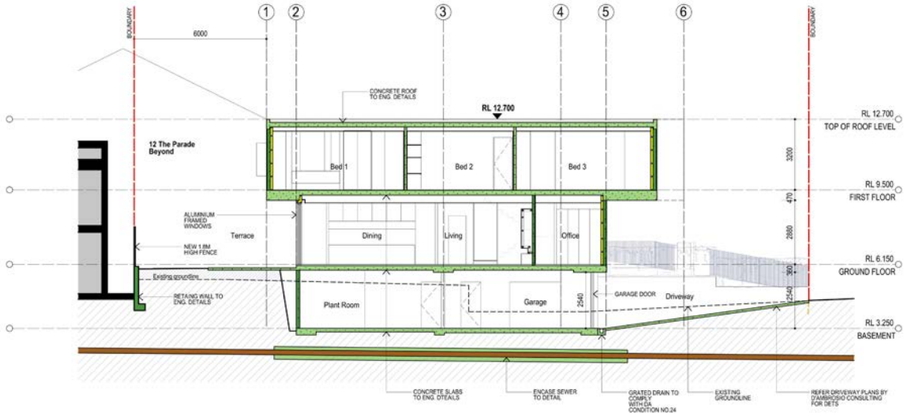
2241-1-A SITE SURVEY

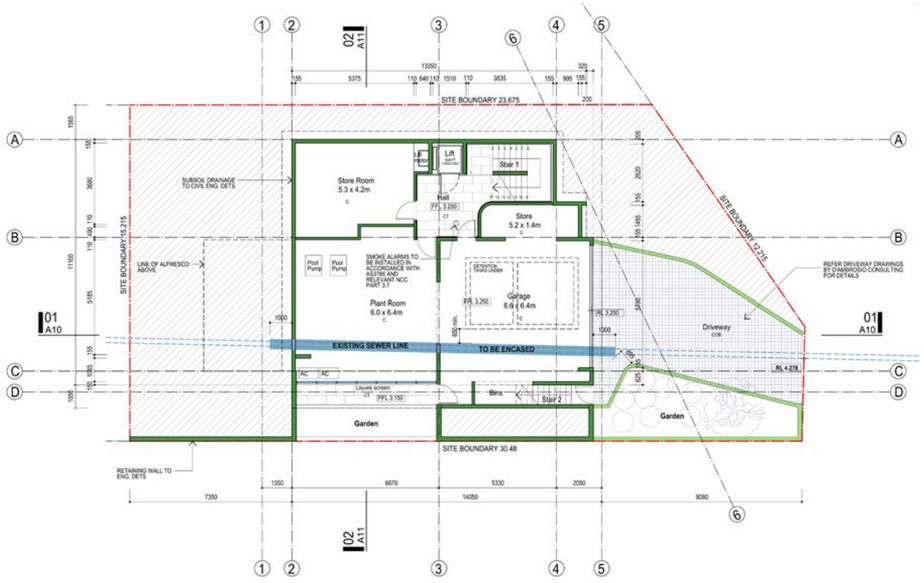
LOCATION MAP (NTS)

NOTE

REFER DRIVEWYA PLANS BY D'AMBROSIO CONSULTING FOR DETAILS OF NEW DRIVEWAY AND CROSSINGS

SITE PLAN 1:200



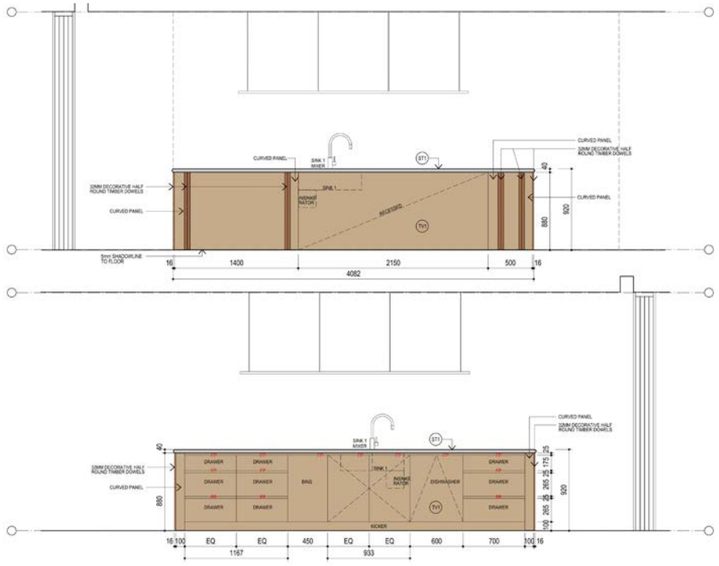


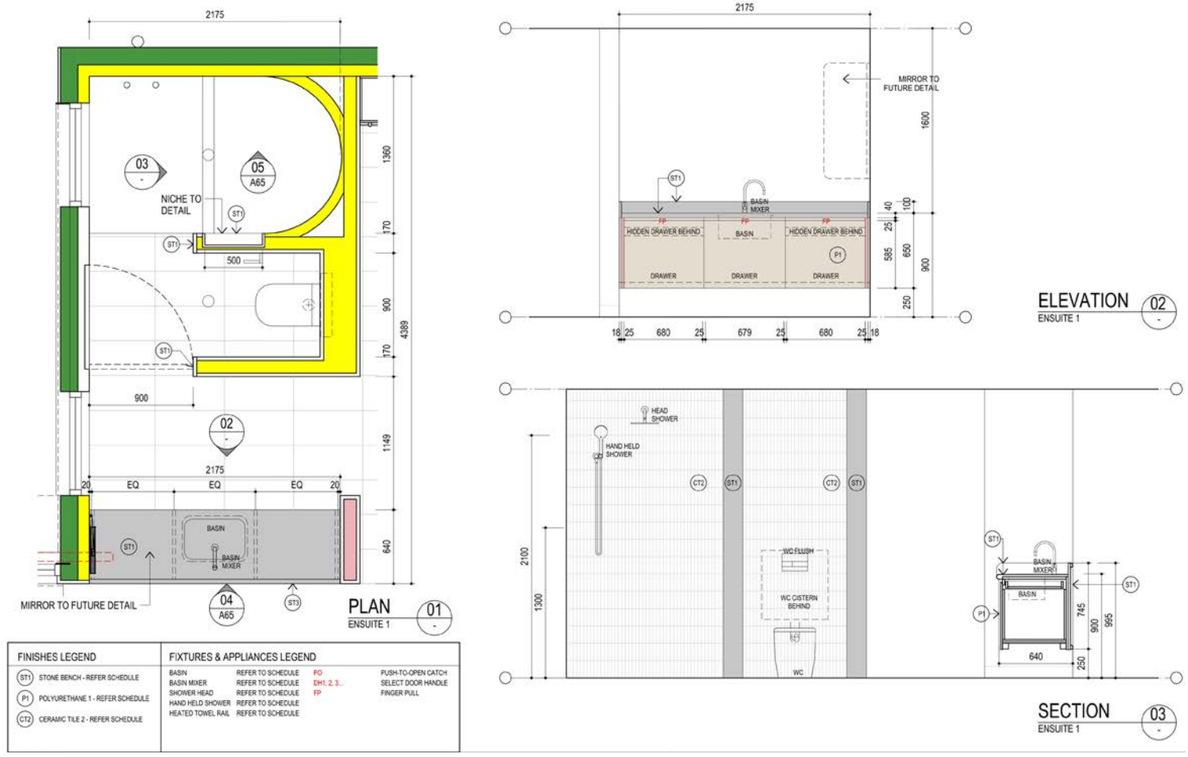
Water				
Fixtures		Specification		
Shower head rating		4 star (> 6 but <= 7.5 L/min)		
Toilet rating		2 star		
Kitchen taps rating		3 star		
Bathroom taps rating		3 star		
Alternative water details				
Rainwater tank size	Individual	3 000L		
Connected to:	Garden and lawn areas	Yes		
	All toilets	Yes		
	Laundry	No		

Thermal Comfort	Accreditation Number:	HERA 10056	NatHERS Number: 0009772377-01	
External walls		Requirements		
Brick veneer	First Floor	Medium colour R2.7	Bulk + Anti-glare foil	
Cavity brick	Ground floor	Medium colour R1.1	Bulk + Reflective both sides	
Cavity brick	Lower ground	Medium colour	No Insualtion	
Internal walls				
Cavity wall, direct fix plasterboard	First Floor	No insulation		
Single skin brick	Lower Ground and Ground Floor	No insulation		
Ceiling				
External ceiling - Concrete, plasterboard		R5.0 Bulk insulation		
Internal ceiling - Concrete, plasterboard	above garage only	R2.5 Bulk insulation		
Roof				
Waterproofing membrane		Light Colour (solar absorptance <0.475)		
Floors				
Concrete slab on ground		No insulation		
Suspended concrete slab	Exposed areas only	R2.5 Bulk insulation		
Windows				
Aluminium frame ALM-002-01	Louvre windows	Single Clear glazing with U-value 6.7 and SHGC 0.7 for Group B windows (double hung, fixed, louvres and sliding type windows/doors)		
Aluminium frame ALM-003-01		Performance glazing with U-value 4.8 and SHGC 0.51 for Group A windows (awning, bifold, casement and tilt 'n' turn type windows/doors)		
Aluminium frame ALM-004-01		Performance glazing with U-value 4.8 and SHGC 0.59 for Group B windows (double hung, fixed, louvres and sliding type windows/doors)		
Skylights				
		Double glazed		
Ceiling Penetrations				
Downlight Covers		Approved fireproof downlight covers must be installed to all downlights in ceilings where insulation is installed.		
Lighting specification		Dwelling is rated without downlight		
Ceiling fans		As mentioned in NatHERS Certificate		
Overshadowing details		Adjoining units calculated into model calculations		
Site				
Orientation of nominal north elevation		As shown on plans		

Energy		
Hot water	Specification	Rating
Individual system	Gas instantaneous	3 star
Ventilation		
Bathroom exhaust	Individual fan, ducted to façade or roof	
Control switch	Manual switch on/off	
Kitchen exhaust	Individual fan, ducted to façade or roof	
Control switch	Manual switch on/off	
Laundry	Individual fan, ducted to façade or roof	
Control switch	Manual switch on/off	
Cooling		
Individual systems - living areas	3-phase airconditioning	EER 3.0 - 3.5
Individual systems - bedroom areas	3-phase airconditioning	EER 3.0 - 3.5
Heating		
Individual systems - living areas	3-phase airconditioning	EER 3.0 - 3.5
Individual systems - bedroom areas	3-phase airconditioning	EER 3.0 - 3.5
Pool		
Volume	23kL	
Heating system	No heating	
Pool cover	Yes	
Pool shaded	No	
Timer	No	
Appliances		
Cooktop/oven	Electric cooktop & electric oven	
Ventilated fridge space	No	
Private outdoor clothes drying line	Yes	
Private Indoor or sheltered clothes drying line	No	
Zoned Air conditioning	Yes	
Alternative Energy		
Photovoltaic System	15kW	


FINISHES LEGEND
ST1 STONE BENCH - REFER SCHEDULE
ST2 STONE BENCH - REFER SCHEDULE
P1 POLYURETHANE 1 - REFER SCHEDULE
TY1 TIMBER VENEER - REFER SCHEDULE
CT1 CERAMIC TILE - REFER SCHEDULE
NOTE: TILE PATTERN INDICATIVE ONLY
FIXTURES & APPLIANCES LEGEND
SINK 1 REFER TO SCHEDULE
SINK 1 MIXER REFER TO SCHEDULE
SINK 2 REFER TO SCHEDULE
SINK 2 MIXER REFER TO SCHEDULE
OVEN 1,2 REFER TO SCHEDULE
RANGEHOOD REFER TO SCHEDULE
COOKTOP REFER TO SCHEDULE
FRIDGE/FREEZER REFER TO SCHEDULE
DOUBLE D/W REFER TO SCHEDULE
INSINKERATOR REFER TO SCHEDULE
PO PUSH-TO-OPEN CATCH
DH..1.3.. SELECT DOOR HANDLE
FP FINGER PULL
RFP REVERSE FINGER PULL
PANTRY
OVERHEAD CUPBOARD
SINK 1 UNDER
SINK 2 TOP MOUNT
BOOBY (FISH TANK)
MIELE FRIDGE
AC VENT
RUBBISH BOARD
STORAGE
CDATS
REMOVABLE DUMMY PANEL
POLY PANEL ON SMM SPLIT BATTEN TYPICAL
RANGEHOOD ABOVE
COOKTOP TOP MOUNT
OVEN
FRIDGE
LINE UP
DW UNDER
SINK 1 UNDERMOUNT
FACE OF TY1
PLAN KITCHENWIP 01


CURVED PANEL
SINK 1 MIXER
ST1
10MM DECORATIVE HALF ROUND TIMBER DOWELS
SINK 1
INSINKERATOR
TY1
10mm SHADOWLINE TO FLOOR
DRAWER
BINS
DISHWASHER
KICKER
ELEVATION KITCHEN ISLAND 01 A51
ELEVATION KITCHEN ISLAND 02 A51



FINISHES LEGEND	
ST1	STONE BENCH - REFER SCHEDULE
P1	POLYURETHANE 1 - REFER SCHEDULE
CT2	CERAMIC TILE 2 - REFER SCHEDULE

FIXTURES & APPLIANCES LEGEND			
BASIN	REFER TO SCHEDULE	PO	PUSH-TO-OPEN CATCH
BASIN MIXER	REFER TO SCHEDULE	DH1, 2, 3..	SELECT DOOR HANDLE
SHOWER HEAD	REFER TO SCHEDULE	FP	FINGER PULL
HAND HELD SHOWER	REFER TO SCHEDULE		
HEATED TOWEL RAIL	REFER TO SCHEDULE		

CO LIVING

Wagga Wagga | DA, CC

Located near the Wagga Base Hospital, this multi-residential co-living block is developed to accommodate the growing needs of the community. With main access from Docker street, the main view of the units face towards North to Belling Park. This allows abundant natural light within all units and offers a quiet and beautiful view of the park. With 44 units spread across 4 levels, the proposal is a seamless integration in the developing landscape of the Wagga town.

DRAWING LIST

A01 SITE PLAN AND DRAWING LIST
A02 BASEMENT PLAN
A03 GROUND FLOOR PLAN
A04 FIRST FLOOR PLAN
A05 SECOND FLOOR PLAN
A06 THIRD FLOOR PLAN
A07 ROOF PLAN
A08 ELEVATIONS 01
A09 ELEVATIONS 02
A10 SECTIONS
A11 PARK INTERFACE SECTIONS

A20 SHADOW DIAGRAM 21 JUNE 9am
A21 SHADOW DIAGRAM 21 JUNE 12pm
A22 SHADOW DIAGRAM 21 JUNE 3pm
A23 SHADOW DIAGRAM ELEVATIONS

21323 SITE SURVEY

LOCATION MAP (NTS)

CALCULATIONS

	REQUIRED	PROPOSED
SITE COVER (DCP)	MAX. 40% 438.345sqm	38% 424.42sqm
COMMUNAL LIVING (SEPP)	MIN. 110sqm	113sqm
COMMUNAL OPEN SPACE (SEPP)	MIN. 219sqm	290sqm

ARTIST IMPRESSION

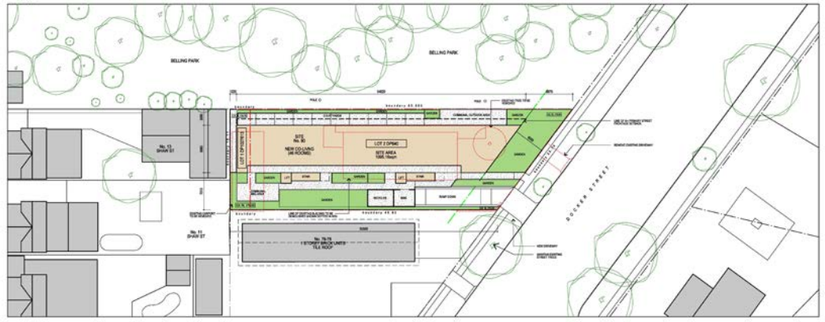
LEGEND

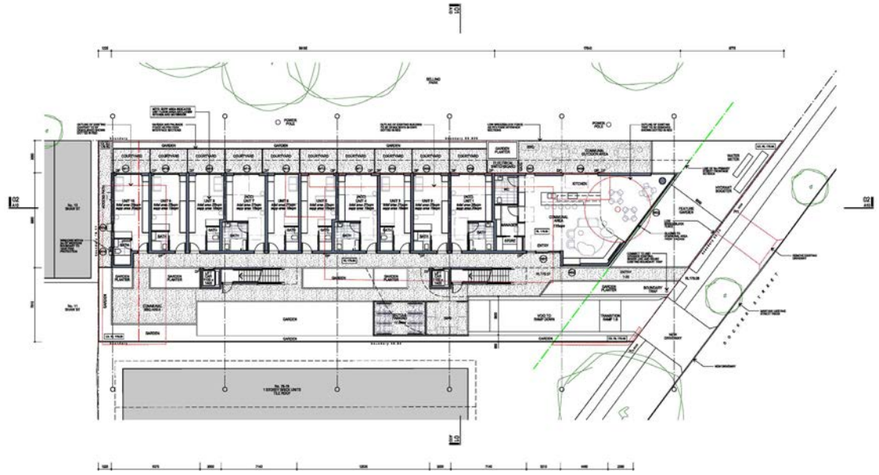
LANDSCAPED AREA

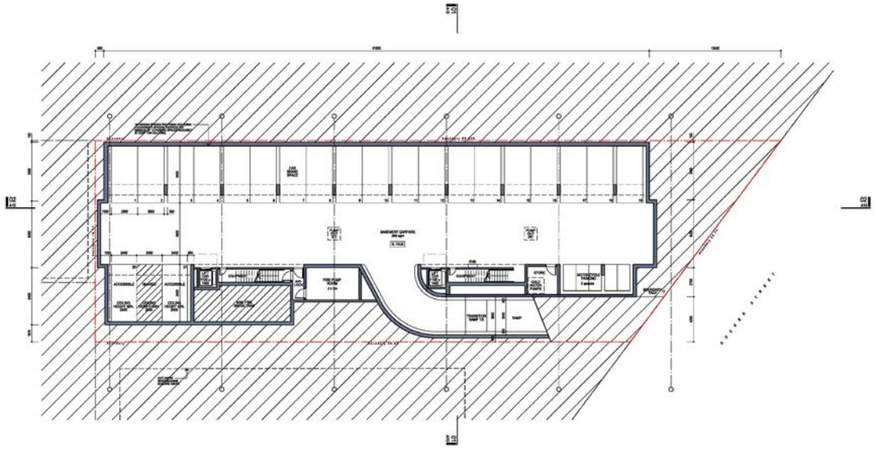
PROPOSED CO-LIVING UNITS

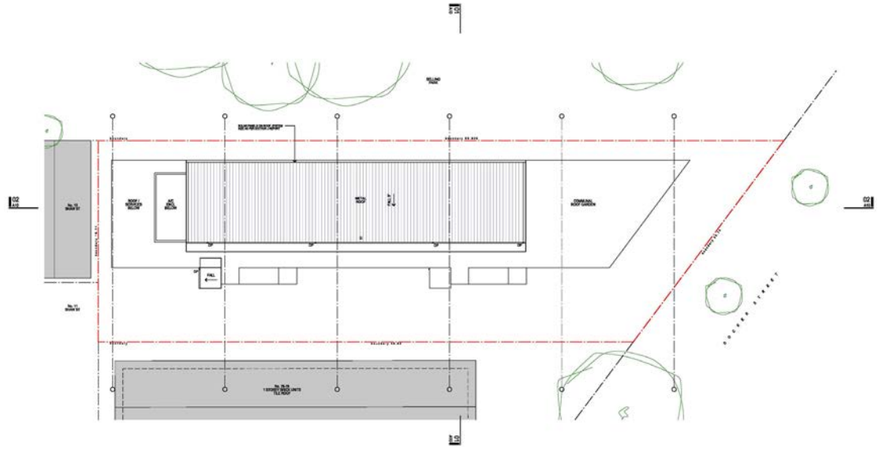
EXISTING TO BE DEMOLISHED

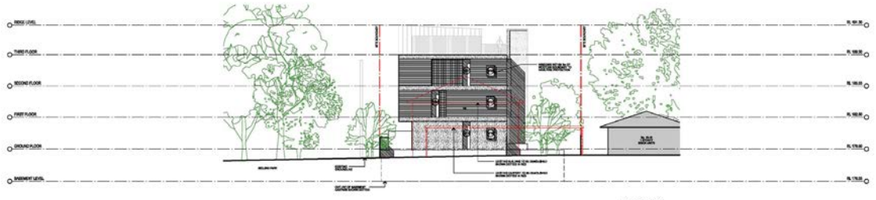
SITE PLAN





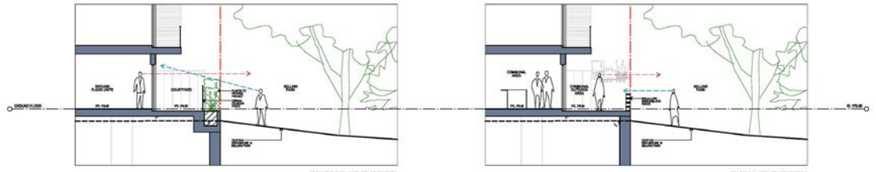






WEST ELEVATION

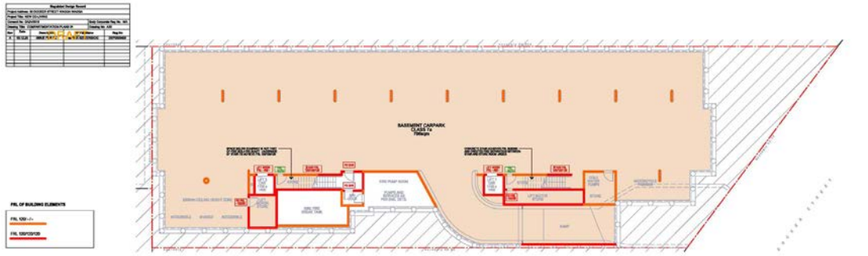
NORTH ELEVATION



GROUND FLOOR UNITS FENCE SECTION

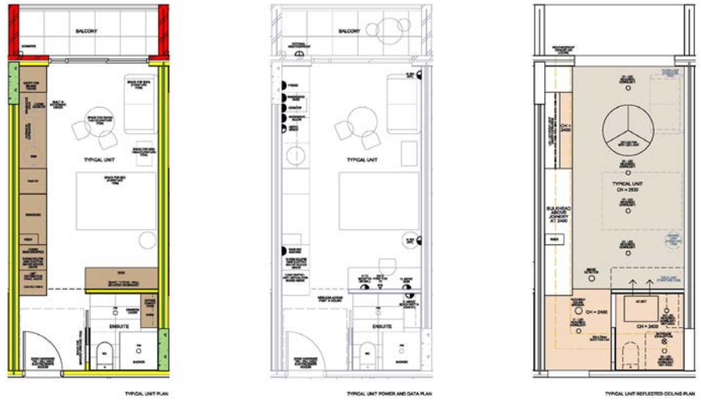
COMMUNAL AREA FENCE SECTION

DETAIL FENCE ELEVATION



BASEMENT

FIRST FLOOR

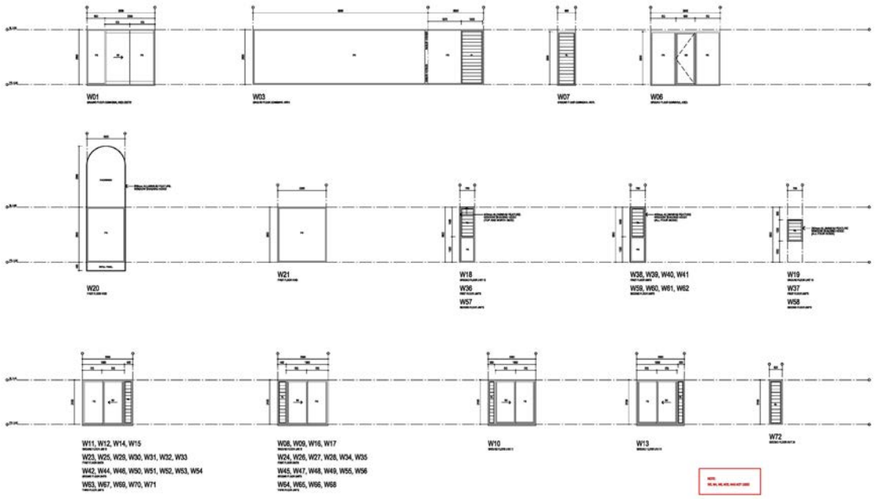


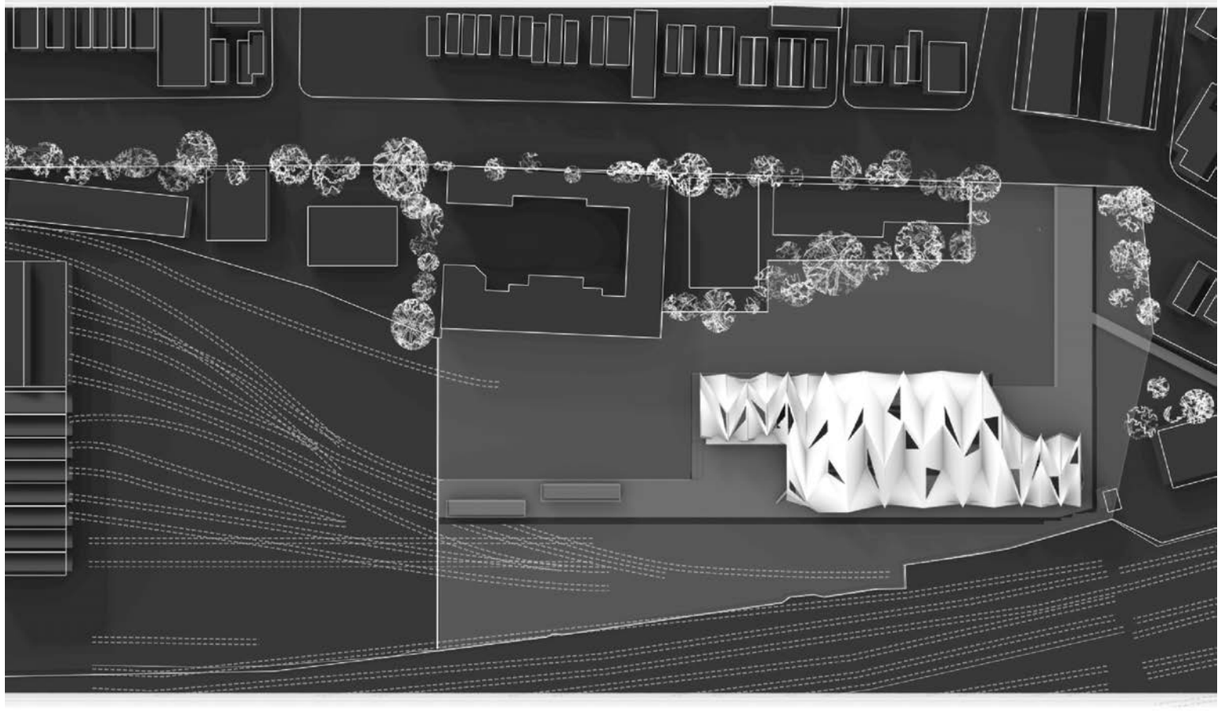
TYPICAL UNIT PLAN

TYPICAL UNIT POWER AND DATA PLAN

TYPICAL UNIT REFLECTED CEILING PLAN

NOTE: ALL SERVICES AND LIGHTING AS PER SERVICE CONSULTANTS DRAWINGS AND DETAILS



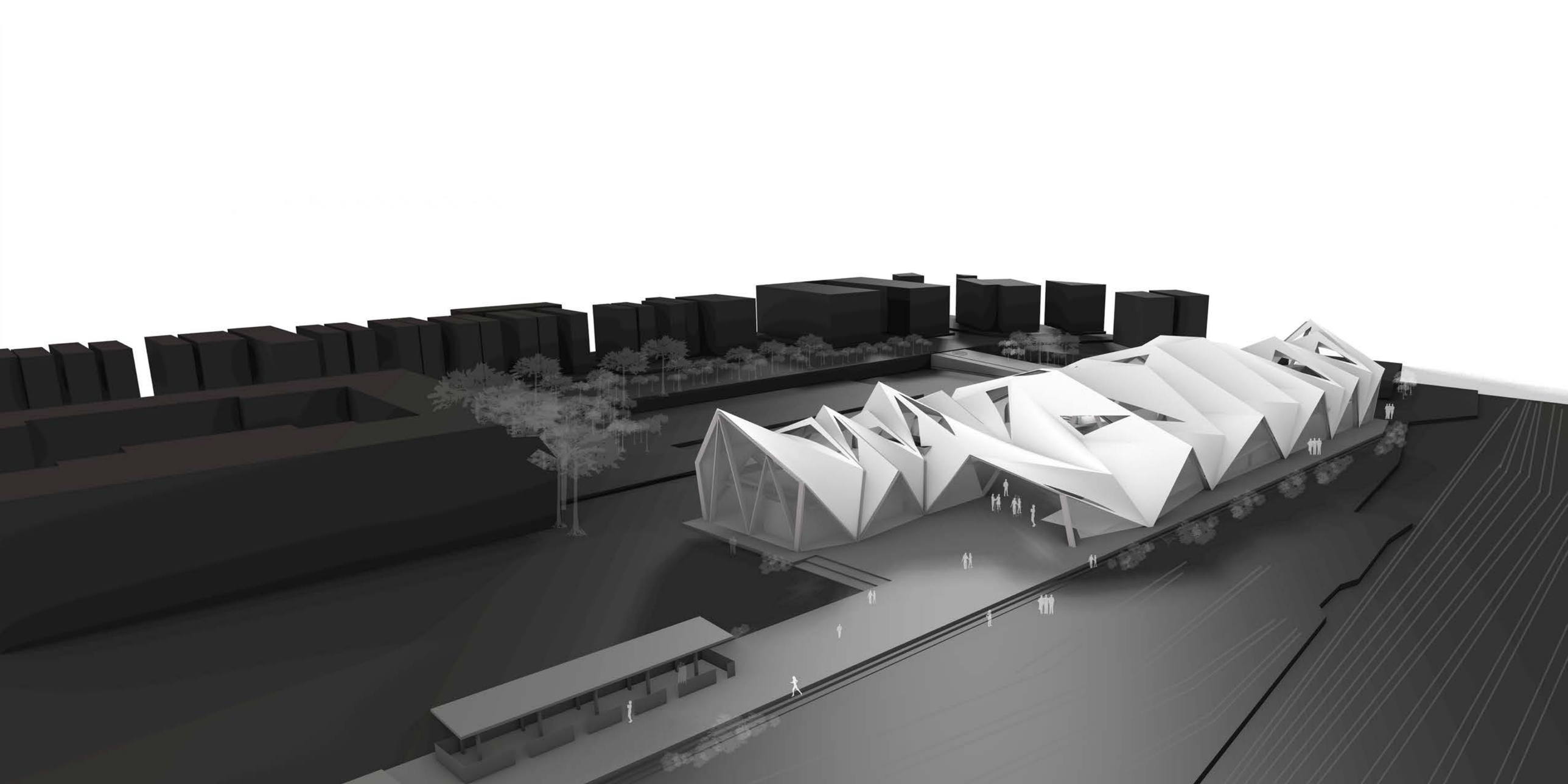


03

INTERCONNECT

Eveleigh | Sydney

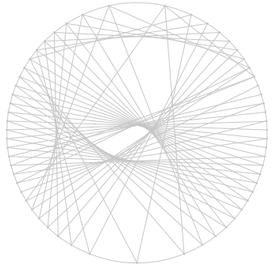
The Tech Central Gateway is a project that explores in creating a public domain in a historically rich context at North Eveleigh. The proposal creates an inviting space for the community to learn, grow and exist. It is intended as a tech hub that engages and educates the general public on the status quo of technology which also includes recreation for the residential neighbourhood. The design follows a strong influence of structure as a conceptual base point.



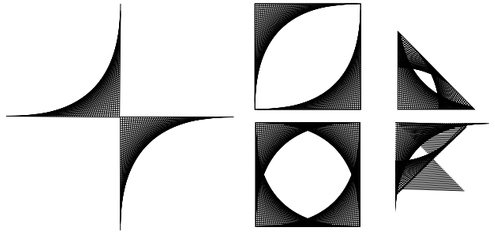
STRUCTURE

The initial synthesis of the concept began from inspirations of creating illusions of interconnectivity. This investigation was carried through 2D drawings of straight lines creating visual curves. Through further iterations and abstractions of hyperbolic curves, an intial proposal of form is presented.

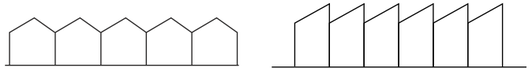
The hyperbolic curves were visualised to create movement within the space. It It is implemented in the roof form as folded plates. These folded plates were intended to be created as plywood sandwich panels with rafters running in between creating the curved surface.



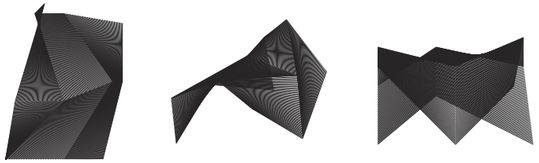
CURVED ILLUSIONS FROM STRAIGHT LINES



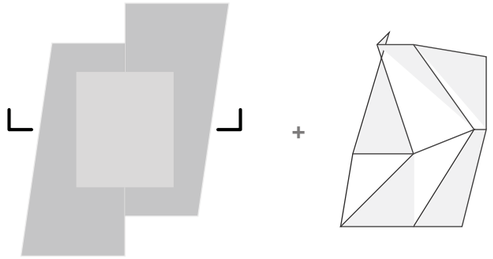
INSPIRATION OF ROOF FORMS FROM SURROUNDING BUILDINGS



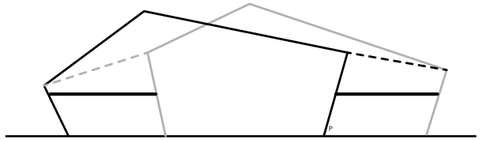
HYPERBOLIC FOLDED PLATES + ABSTRACTION OF THE PITCHED ROOF



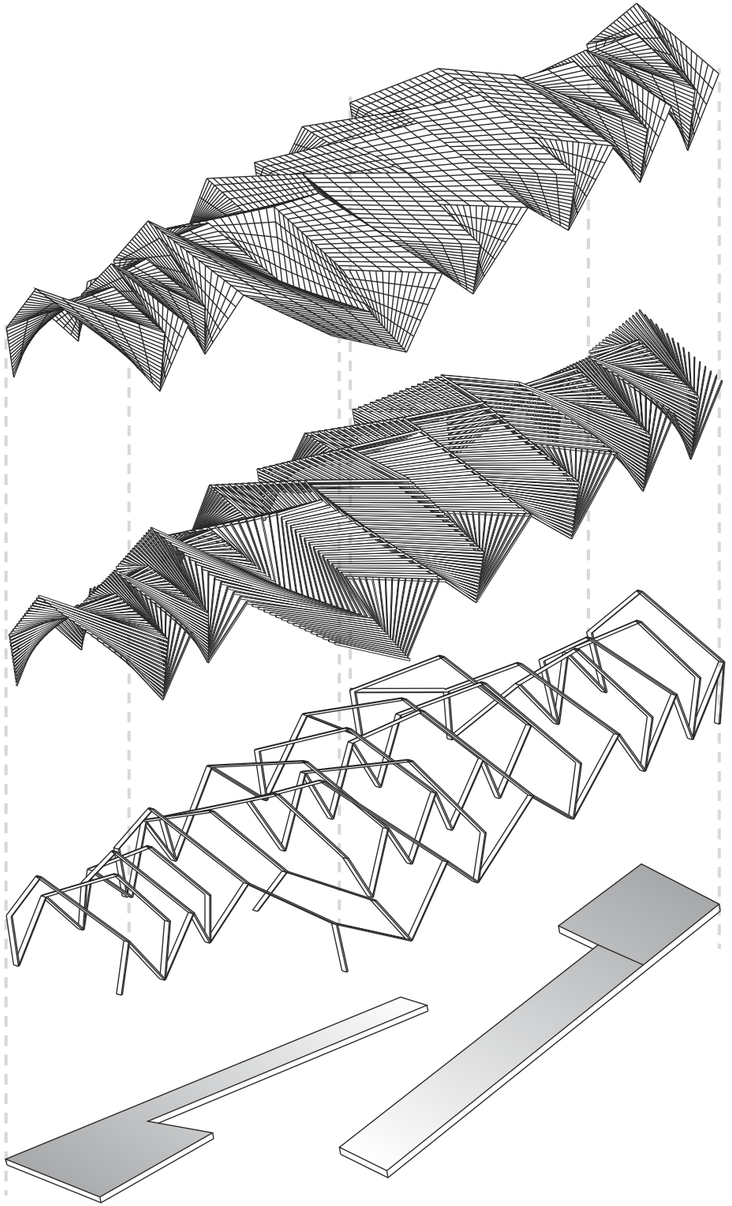
INTEGRATION OF STRUCTURE IN FORM



The two way sloping form is covered with the abstracted roof



The portal frames are abstracted throughout the length of the building. To reduce the span, the portal frames are offsetted alternating on either side and he rest is cantilevered to an outer v-column. The hyperbola created with straight lines are fitted as secondar structure between the frames as folded panels that experience overall bending.

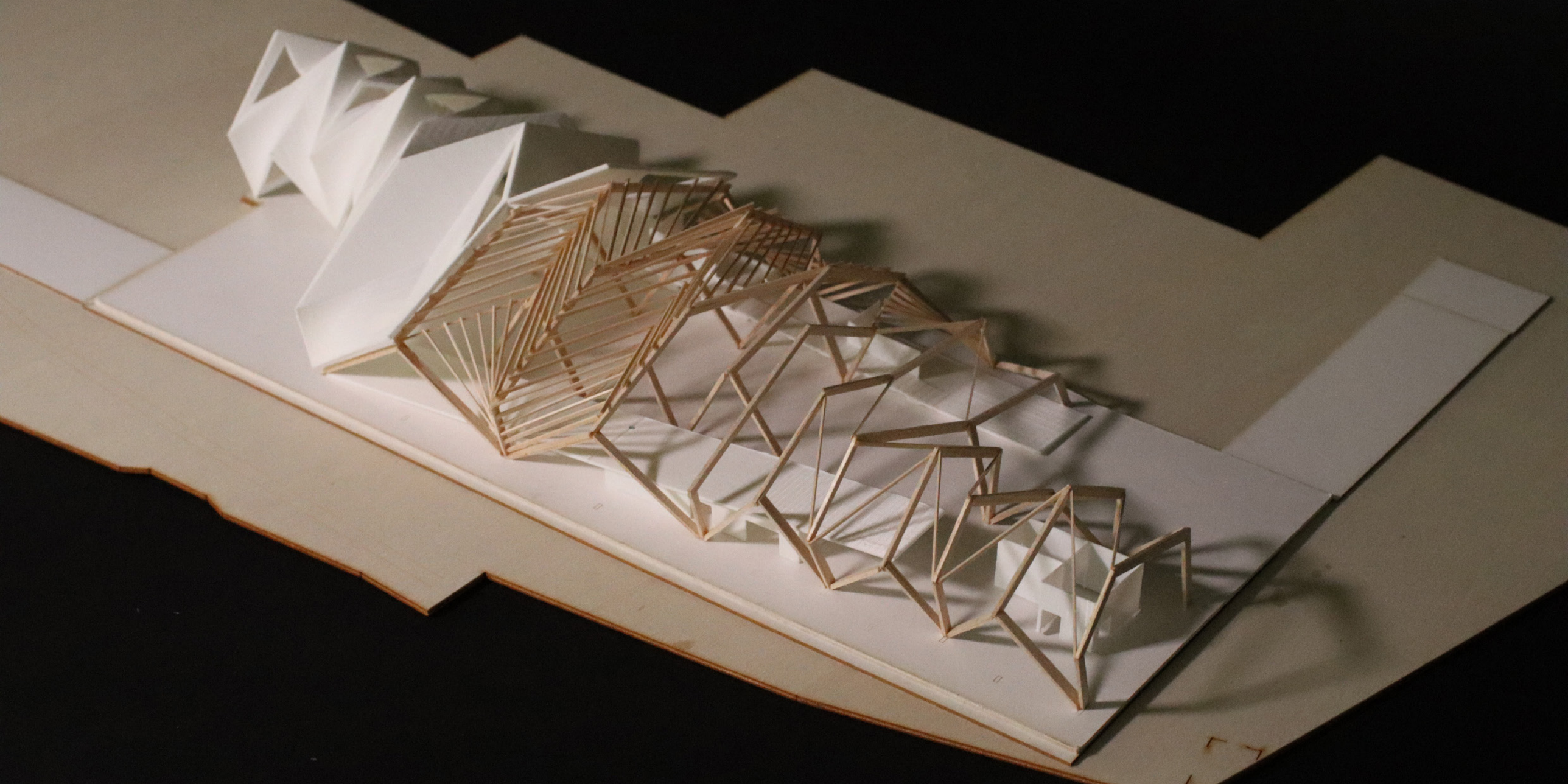


CLADDING
Folded metal sheet

SECONDARY STRUCTURE
Timber rafters

PRIMARY STRUCTURE
CLT Timber portal frames

SUSPENDED FLOORS
Concrete slab ramp with timber cladding. Supported with walls under the ramp



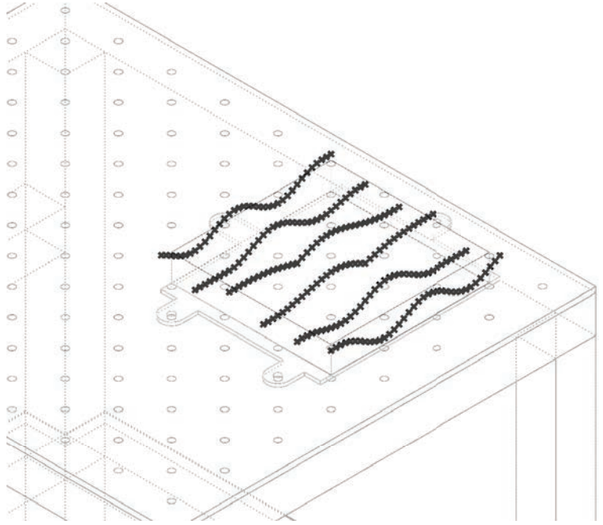
04

ACOUSTIC FACADES

Computational design for Acoustic Innovation in Architectural Facades

This project reimagines architectural facades, balancing organic aesthetics with acoustic functionality. Inspired by the repetitive yet dynamic nature of waves, it translates their properties computationally into fluid surface designs. The design is based on a simple wave-like geometry, subtly varied to introduce controlled randomness through the shape of the hot wire, imbuing the forms with a natural elegance. Intended for facade applications, the project integrates acoustic design principles, rigorously testing the surface's performance to optimize its functional and aesthetic impact.

ROBOTIC MANUFACTURING



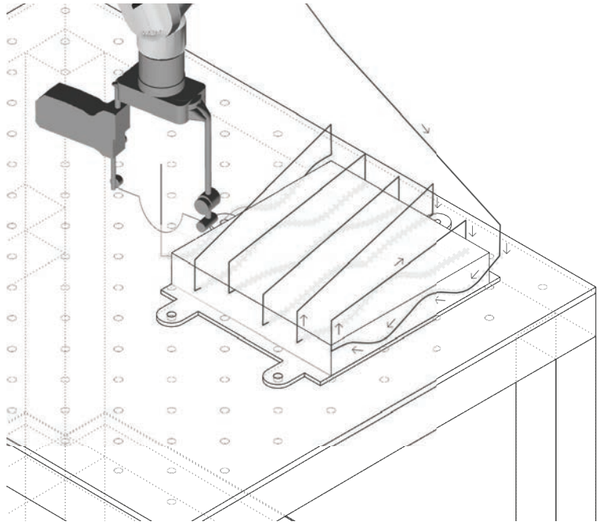
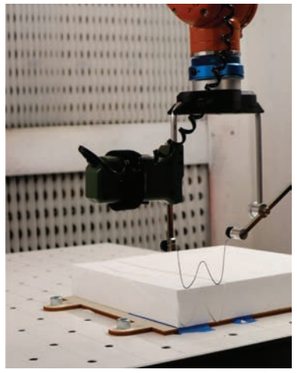


Fig 1 Isometric diagram of robotic setup with Grasshopper for first testing. Paths correspond to Fig 11.5 and is controlled by adjusting parameters such as depth and grid density to determine the number of passes.

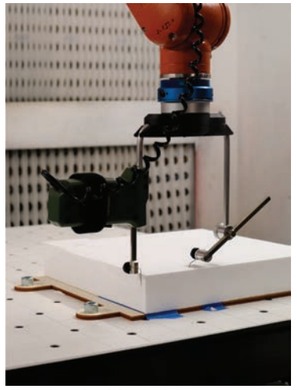
Fig 1.2 Lines represents robotic toolpath simulation over 300x300mm styroforam module.

Device: KUKA KR10 1100

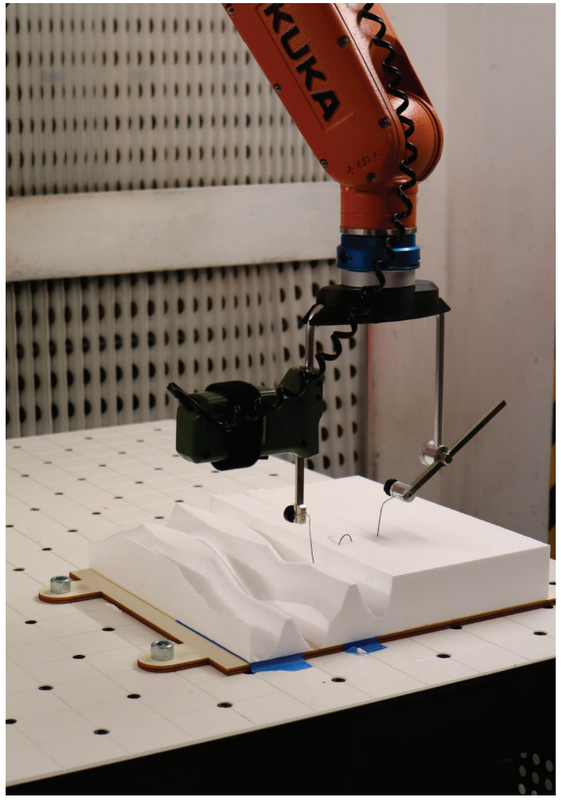
Hot wire profile



Robot arm at starting point in line with the material



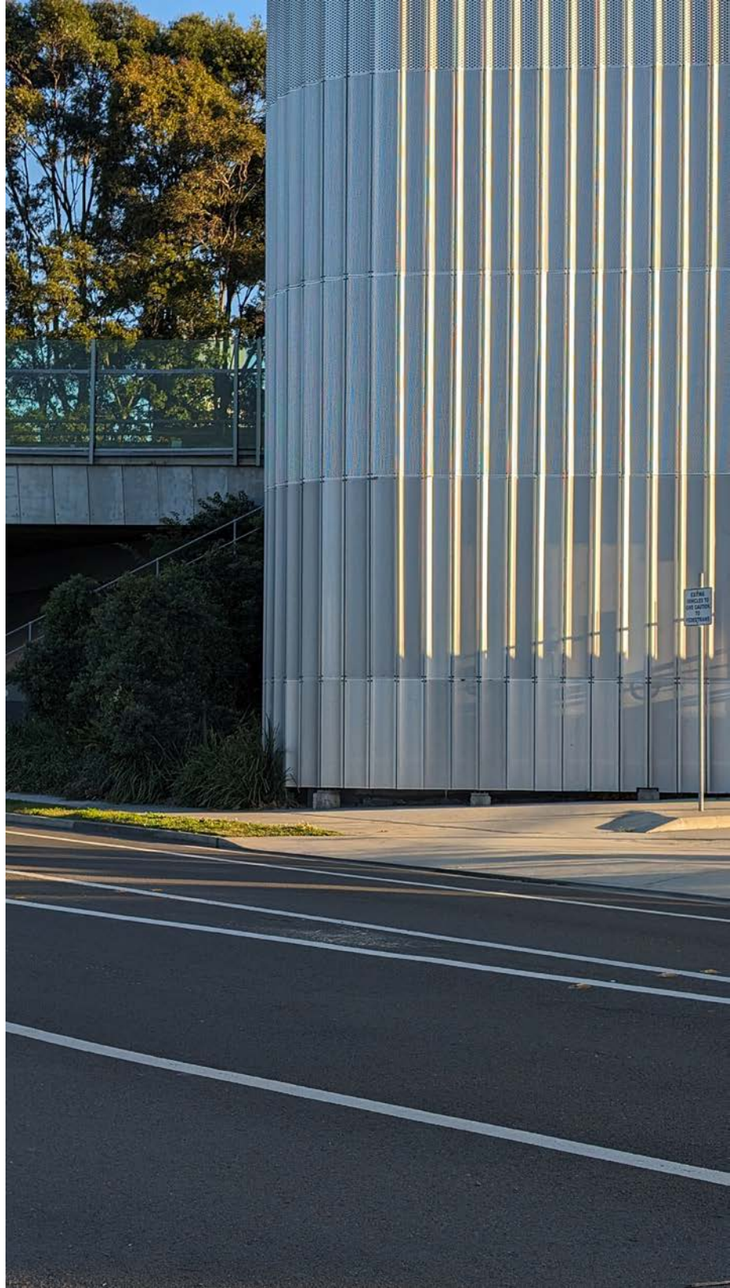
Cut line 1 - Maximising the depth of cut (45mm) to be closer to material (48mm)



Halfway through robot operation

PHOTOGRAPHY

Street photography | Sydney CBD



Street photography | Homebush, Sydney

thank you.