SELECTED WORKS (2021-2025)

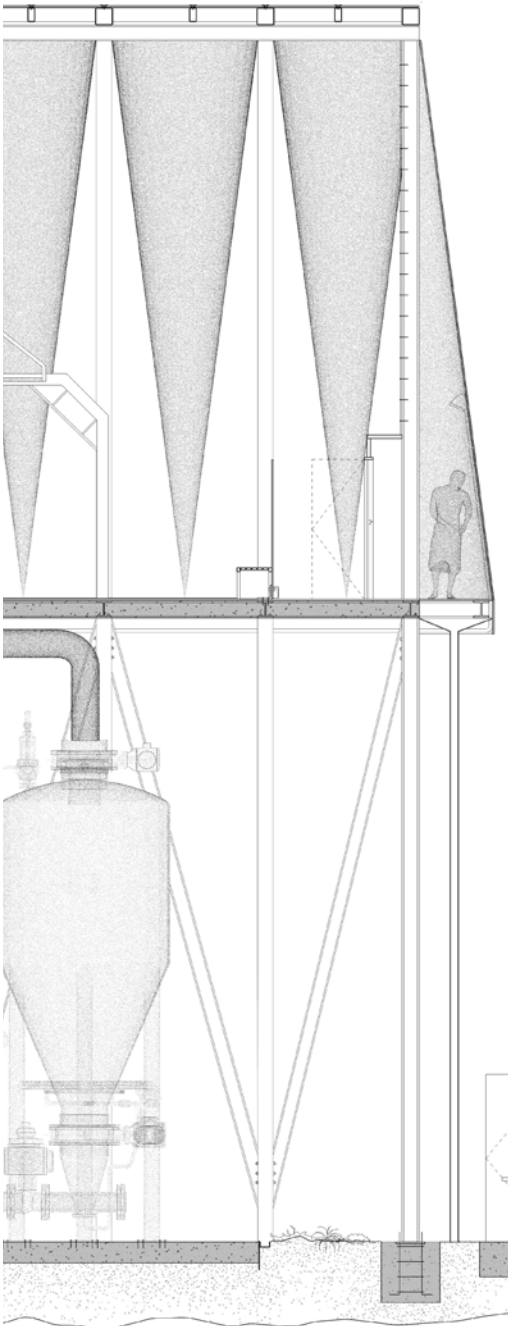


Fig.1. sectional detail of amber nexus

That's me !!!!

Fig.2. me

Education

RMIT UNIVERSITY
Melbourne
(2020-2024)

UNIVERSITY OF MELBOURNE
Melbourne
(2024-2025)

Practice

Internship @ DEEP ARCHITECT
Beijing
(2021-2022)

Student Of Architecture @ ELENBERG FRASER
Melbourne
(2022-2023)

Interior Designer @ E&S DESIGN GROUP
Melbourne
(2024-2025)

Founder & Owner of a physical model making studio
Co-Founder @ CraftMonster
Melbourne
(2022~)

PROJECTS

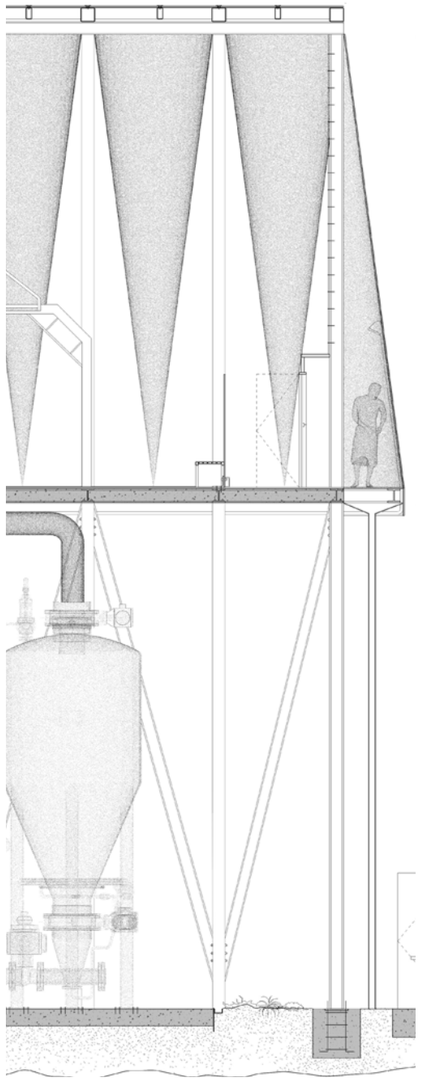


Fig.3. sectional detail of brewery tank and roof sport court

PROJECT BRIEF

Located in North Melbourne, this project is an innovative brewery complex that integrates production with public activities. Centred on sustainable brewing processes, recycled material applications, and diverse community engagement, it aims to seamlessly connect industrial facilities with urban life. Drawing on the ecological value of Moonee Pond Creek, the project emphasizes environmental protection and cultural heritage while establishing a new urban landmark that combines sightseeing, sports, and social functions. Through the organic integration of production spaces, sports fields, and leisure areas, the public can observe the brewing process, enjoy outdoor activities, and experience creative culinary offerings—presenting a new model of urban renewal and community development that leads the future of industry-culture integration.

Fig.4. a child plays in the open fermentation park, where reused tanks are scattered across the grassy landscape

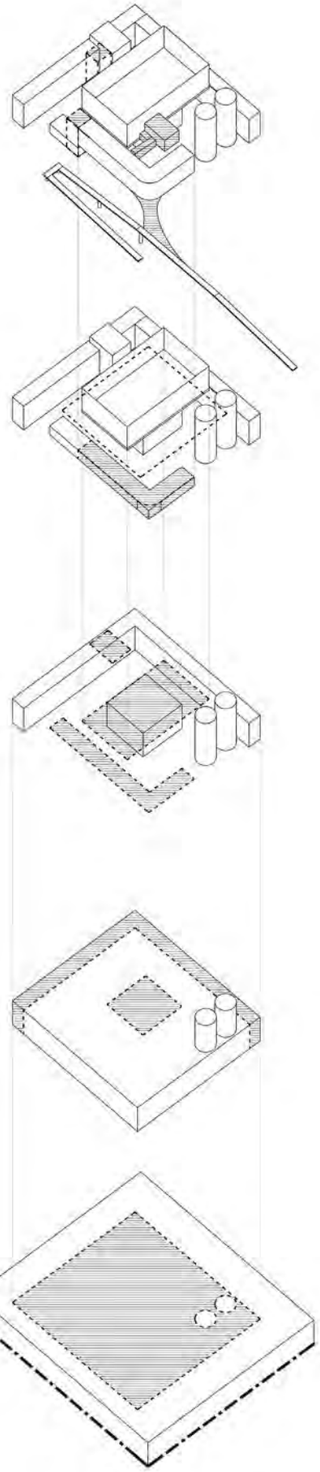
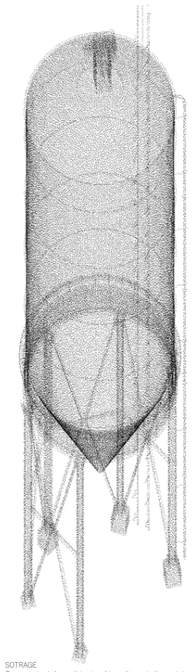


Fig.5. parti diagram

Malt Delivery
Malt is delivered to the brewery from the supplier and stored in a dry area to prevent moisture. It must be transported carefully to maintain its freshness for brewing.



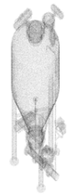
SOTRAGE
Once received, the malt is stored in a silo or similar container to keep it dry and free from contaminants. Proper storage ensures the malt remains in optimal condition until it's ready for milling.

MILLING
The malt is crushed into smaller particles using a malt mill, which helps release the starches. This process prepares the malt for the mashing stage, where the starches will be converted to sugars.

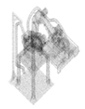
MASHING
Crushed malt is mixed with hot water in a large vessel to create a mash. During mashing, enzymes break down starches into fermentable sugars, preparing the wort for boiling.

BOILING
The mash is boiled, and hops are added to provide bitterness and aroma. Boiling also sterilizes the wort, ensuring the beer remains free from harmful bacteria.

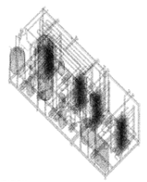
WORT CLARIFICATION
After boiling, the wort is filtered to remove solid particles like hop residues and malt husks. This ensures the liquid is clear before entering the fermentation process.



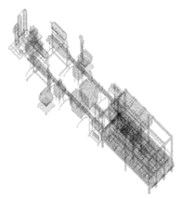
FERMENTATION
Yeast is added to the wort to begin fermentation, where sugars are converted into alcohol and carbon dioxide. The fermentation period lasts several days to weeks, depending on the desired beer characteristics.



BOTTLES TREATMENT
Bottles are collected, cleaned, and sorted for reuse. The bottles are carefully inspected, sanitized, and fitted with custom corks designed for their neck sizes before being refilled.



PASTEURIZATION
After fermentation, the beer undergoes pasteurization to eliminate any remaining yeast or bacteria. This step ensures the beer remains safe and stable for storage and consumption.



BOTTLING
The finished beer is transferred into sterilized bottles, sealed, and labeled. The bottles are stored and prepared for distribution to consumers.

Fig.6. equipment schedule with size comparison.

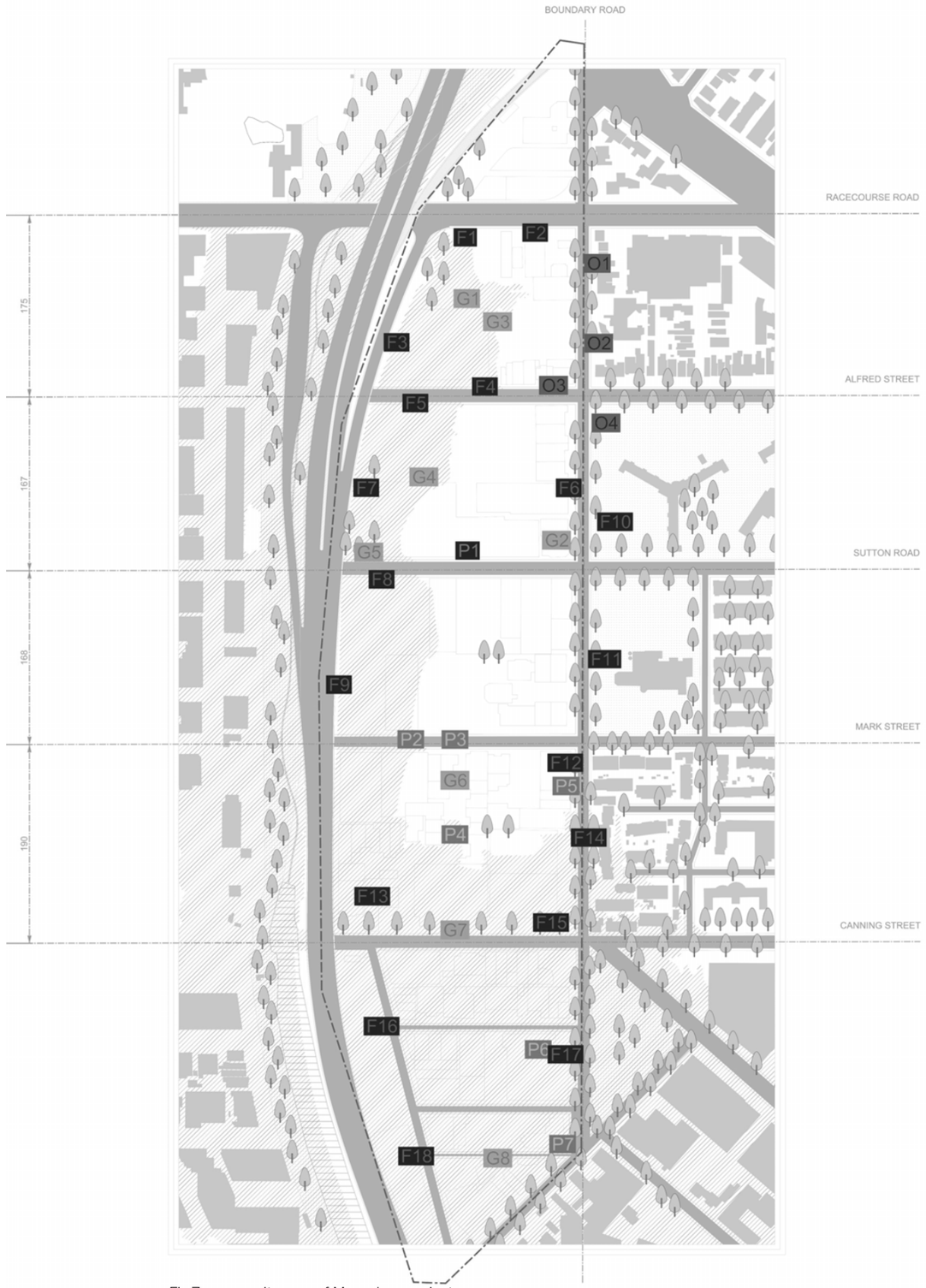


Fig.7. community map of Macaulay precinct

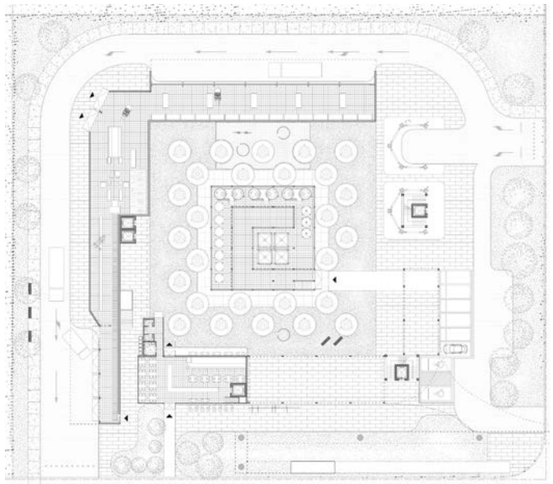


Fig.8. ground floor plan

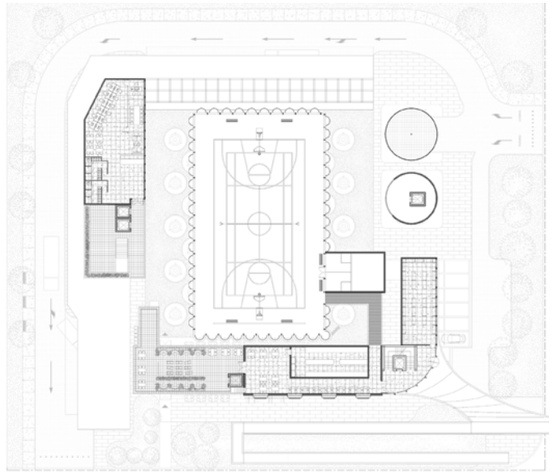


Fig.9. level one plan

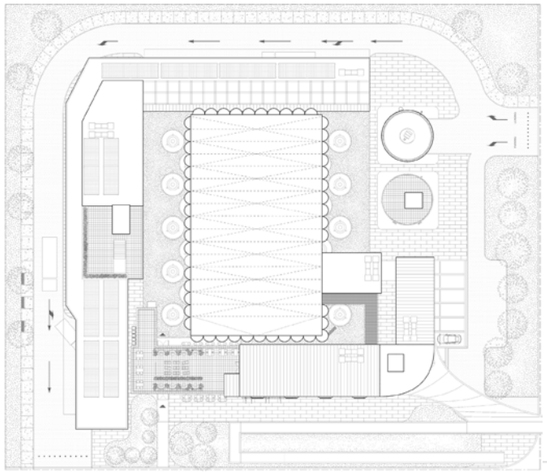


Fig.10. roof plan

DESIGN FEATURES

Organise Amber Nexus around a central production core with short, legible process runs, placing the brew house, fermentation and packaging at the heart of the plan for efficiency and spatial cohesion. A closed-loop bottle system runs from a dedicated unloading apron to cleaning and sterilisation, inspection and custom neck-sealing, then back to storage and the filling line, with people–freight separation at the dock edges. A setback forecourt forms the public threshold and relief space to the street, while silos are positioned as both capacity and façade elements for orientation and identity. The bar is elevated on the existing overhead bridge, operating as a viewing gallery to the hot side and stitching pedestrian desire lines to the community sports field (c. 850 m^2) and an indoor squash court. An outdoor and visible fermentation zone abuts the play space, supported by barriers, way finding and maintenance protocols defined in the risk strategy. The envelope uses polycarbonate glazing and light industrial cladding on a bolted steel frame to maximise daylight, future change and maintainability. Access and egress are resolved to NCC travel-distance limits with added exits at production, and universal access follows AS 1428.1 clearances, gradients and sanitary provisions.

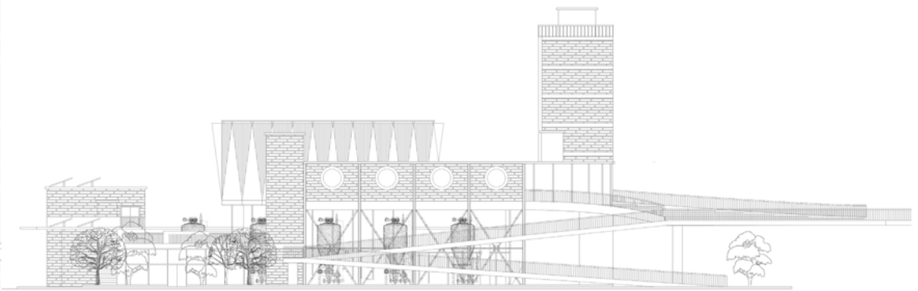


Fig.10. south elevation

Fig.11. bottles collection window

Fig.12. multi-purpose sport court

Fig.13. storage & pick up

Fig.14. “amber nexus”

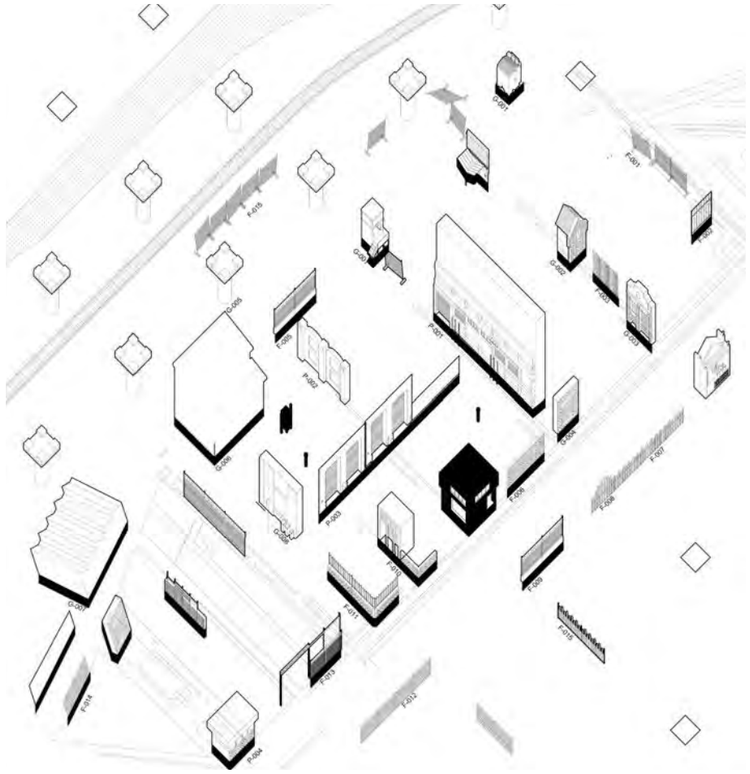


Fig.15. elements map

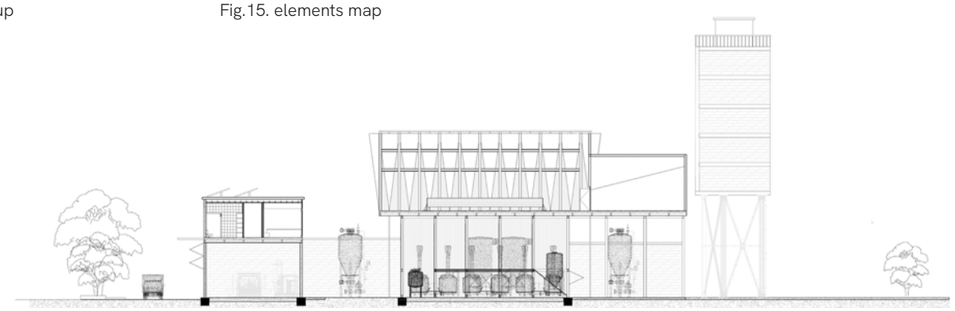


Fig.16. section drawing

PROJECT BRIEF

Brunswick Venthouse is designed as a climate-responsive community hall that provides a cool and inclusive civic space during Melbourne's increasingly intense summer heat waves. The project integrates passive ventilation, whole life carbon reduction, and design for disassembly as its three key environmental strategies. Instead of treating the building as a fixed object, the design frames it as a flexible and reversible system that can adapt over time while minimising operational energy use and embodied carbon. The passive ventilation system includes a north-facing solar chimney, cross and stack ventilation, and night purge strategies to support natural airflow. Ventilated buffer zones, shaded foyers, and covered walkways moderate temperature fluctuations. ETFE cushions modulate solar gain dynamically, while climbing plants provide seasonal shading and evaporative cooling.

Fig.17. physical model of brunswick venthouse

DESIGN FEATURE

The plan layout of Brunswick Venthouse is structured as a clear and flexible bar with the service core positioned along the west edge, consolidating stairs, lift, plant and toilets to free the remainder of the floor plate for a large, reconfigurable multi-purpose hall. A continuous buffer strip along the street frontage provides a shaded threshold that also functions as the low-level air intake for passive ventilation, with hot air exhausted through a solar chimney and high vents. This establishes a simple and efficient ventilation loop—cool air in from the south, warm air out at roof level—minimising the need for mechanical systems.

The multi-purpose zone is divided by operable partitions, allowing it to be configured as one large event space or several smaller rooms to accommodate workshops, community dining, classes or exhibitions. This flexibility extends to the rooftop, which features a walkable, Pod-and-Pave surface that supports gatherings and rainwater harvesting, reinforcing the building's environmental strategy. The dry-connected structure (bolted steel, modular curtain wall, screw piles) and exposed services simplify maintenance and enable future adaptation. Together, the west-side service core, buffer ventilation band, flexible hall, and reversible construction establish a building designed for passive performance, programmatic agility and long-term reuse.

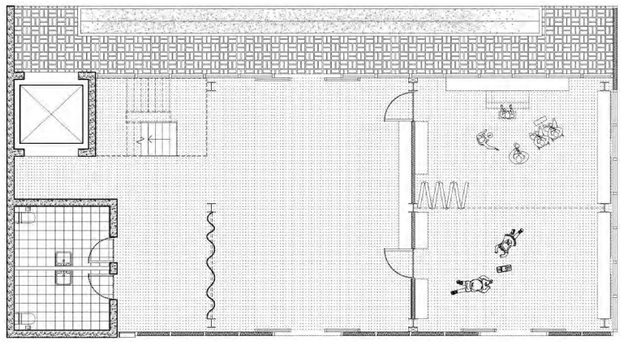


Fig.18. ground floor plan1(play group + piano class)

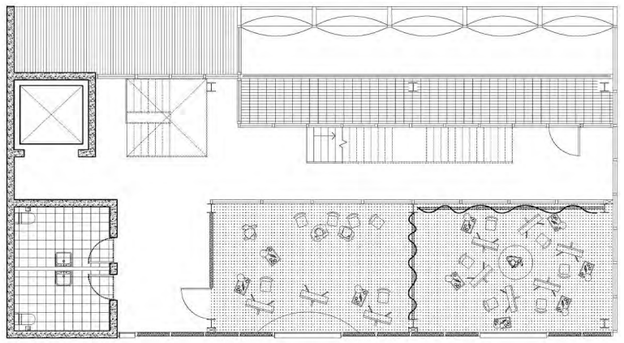


Fig.19. level1(drawing+ painting class)

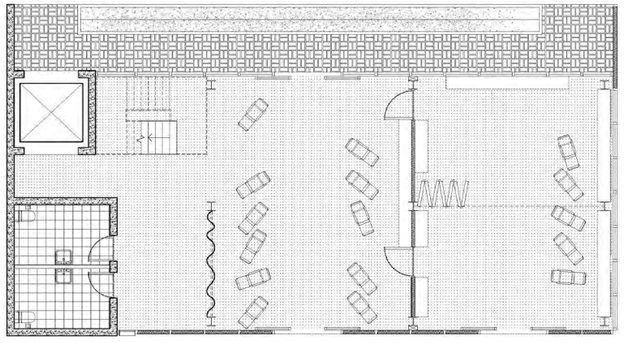


Fig.20. ground floor plan2(summer heat shelter)

BRUNSWICK VENTHOUSE

Fig.20. solar chimney and buffer zone

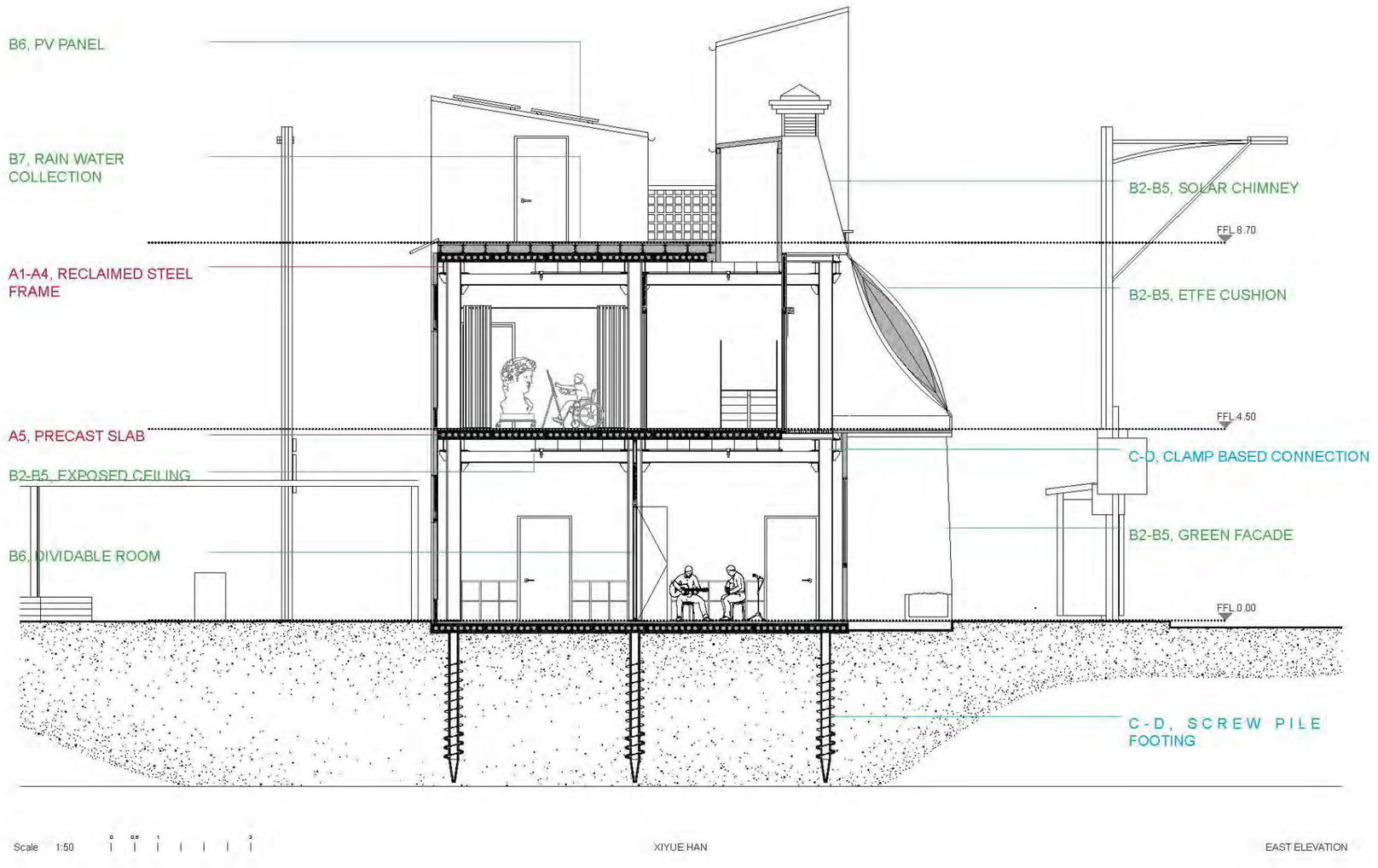


Fig.21. whole life carbon strategy application sectional diagram

WLC STRATEGIES

A reclaimed steel frame with clamp-based, dry connections carries precast slabs and an exposed ceiling, so structure and services remain accessible for maintenance and future change. The envelope layers a green façade as a shaded intake zone with operable openings, ETFE cushions that modulate solar gain and daylight, and a north-side solar chimney that drives stack ventilation. Cool air enters at low level through the vegetated buffer, is tempered in the dividable rooms, and rises to exhaust at roof level through the chimney, which also enables night purge. Photovoltaic panels sit on the sunniest roof plane and feed a simple electrical backbone, while the roof falls collect rainwater for non-potable uses. Interiors are planned as reconfigurable rooms separated by operable acoustic partitions, allowing one large hall or several small classrooms with targeted conditioning only where occupied. Screw-pile footings minimise excavation, protect tree roots and services, and allow future recovery of materials. The assembly reads as a breathable, reversible system that couples passive comfort, low whole-life carbon and community use.

INFINITY STATION

PROJECT BRIEF

Sited in the fast-growing Harpley lakeside neighbourhood near Werribee, this project answers the absence of planned public transport with a community micromobility hub that stitches new housing to everyday services and open space. The ground level combines a bike-hire and repair station (reception, workshop, storage and return bays) with a convenience store and generous bike parking, concentrating short-stay activity on a safe forecourt. A timber-framed open elevator lifts riders to an elevated launching platform and steel mesh catwalks, creating friction-free last-mile links while doubling as a lookout and social deck. The structure prioritises reclaimed timber posts and precast elements, clamp-able components and adjustable lifting columns for rapid assembly, maintenance and future reuse, while a roof garden provides shade and storm-water capture. At ground, a wildlife underpass corridor maintains habitat continuity across paths and drainage lines, coupling mobility with ecology. In sum, the hub is a light, reversible civic armature—part transport, part public room—built to evolve with the suburb's demographics and movement patterns.

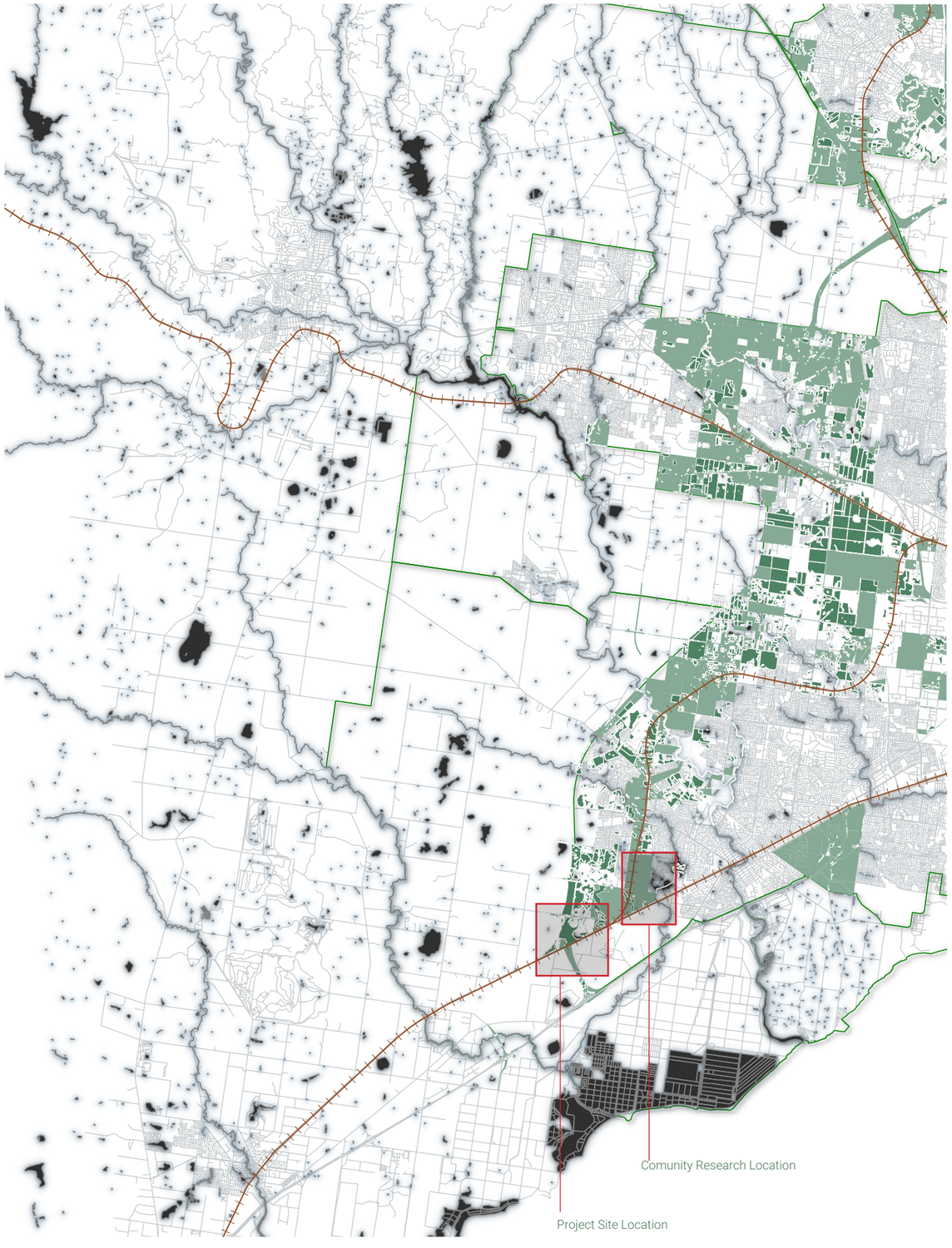


Fig.22. context mapping

Fig.23. fenced grassland

Fig.25. a lot of construction going on

Fig.27. cold burn arrangement

Fig.24. grassland at night with bandicoots and growling grass frogs

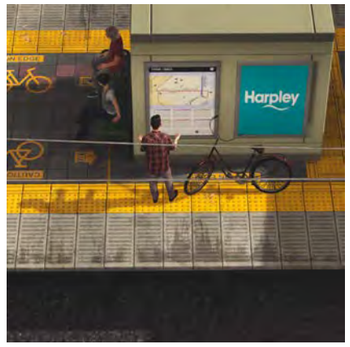


Fig.26. the neighbourhood -- “harpley”

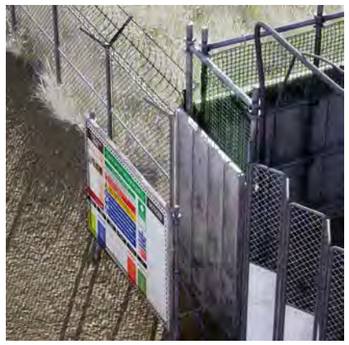


Fig.28. traditional constructions produce breaks

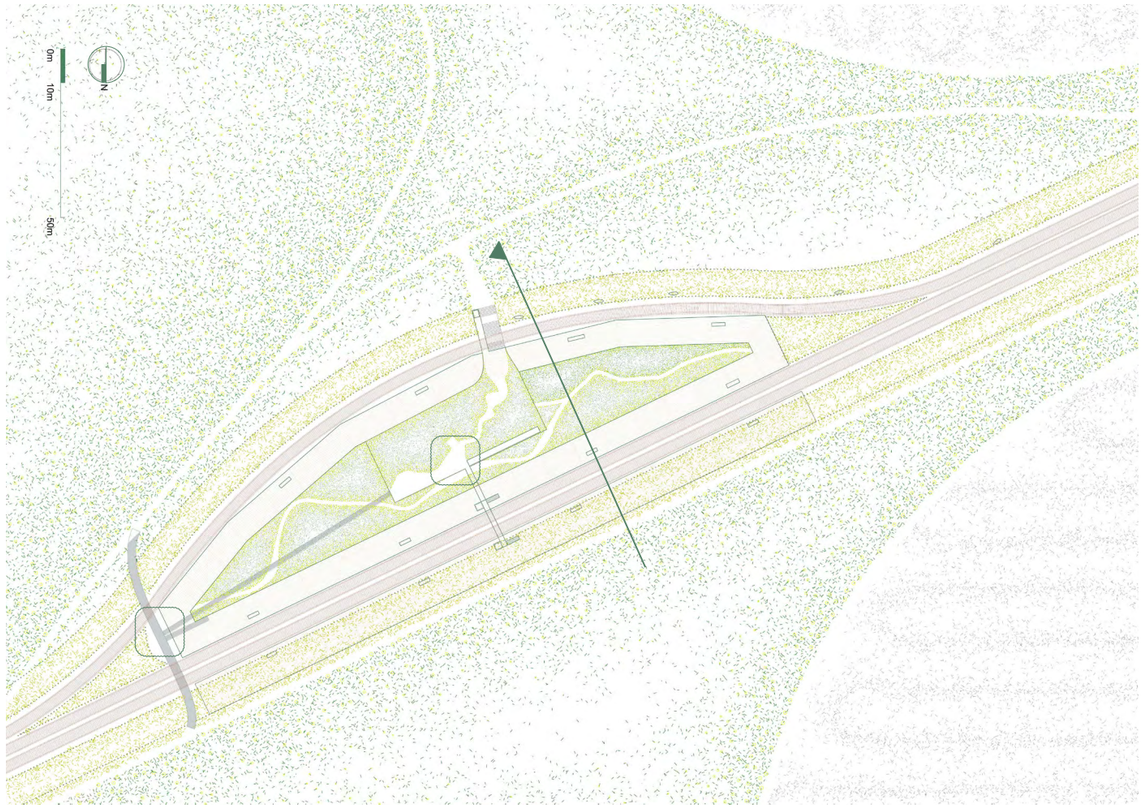
SITE SURVEY

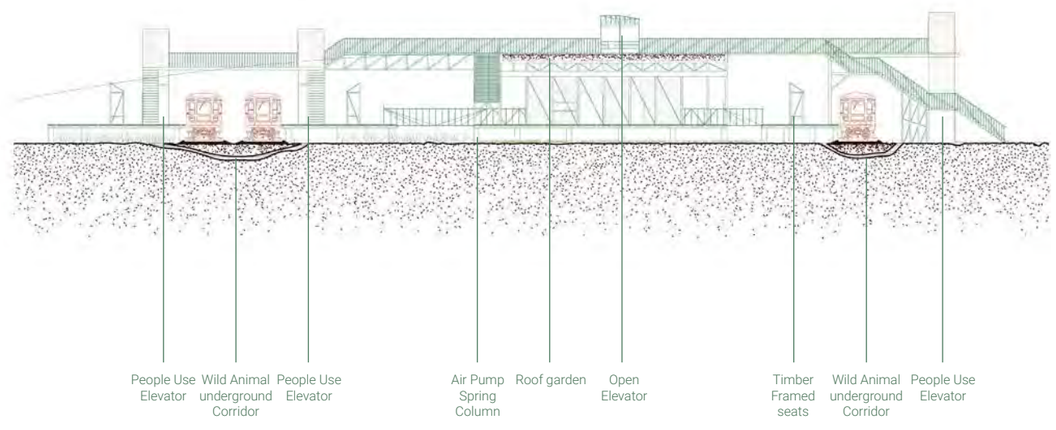
The site of the future train station sits within a remnant grassland zone, making environmental stewardship as critical as transport delivery. The design aims to bridge mobility gaps in the Harpley area by offering a public transport node that reduces car dependence and links surrounding community spaces, while minimising ecological disturbance to the sensitive grassland ecosystem. The main challenge is maintaining the ecological health of the site through regular land care — including controlled burning and weeding — while ensuring safe and reliable station operation. This requires clear, low-impact maintenance routes, fire-resistant or retractable station materials, and the option to temporarily close the platform during burn cycles.

The project rejects traditional, permanent concrete platforms in favour of a modular and potentially temporary construction system, which can be installed and dismantled with minimal ground disturbance. This allows the station to adapt to ecological cycles, enable regular habitat maintenance, and reduce its long-term footprint. Through these strategies, the train station becomes a prototype for sensitive infrastructure — balancing mobility, community access, and ecological protection, while embedding maintenance, flexibility, and resilience into its design from the outset.

Site Map 1:5000@A2

Fig.29. site plan of the train station and the linear bike park





Section 1:200@A2

Fig.30. plan and section drawings

INFINITY STATION

DESIGN STRATEGIES

The station occupies an elongated island between tracks, organised as a light platform spine that sits on screw piles above remnant grassland. A clear east–west circulation axis connects two access points by ramp and an open elevator, then branches into steel-mesh catwalks that hover over habitat. The platform roof carries a small garden and shelters waiting areas while allowing views across the reserve. Under the deck, wildlife corridors maintain movement across the site. Program clusters are simple: ticket and information, micromobility hire and repair, sheltered waiting, and lookout points. The modular platform can be added, removed, or relocated with minimal ground disturbanceregular habitat maintenance, and reduce its long-term footprint. Through these strategies, the train station becomes a prototype for sensitive infrastructure — balancing mobility, community access, and ecological protection, while embedding maintenance, flexibility, and resilience into its design from the outset.

Dry, clamp-based joints let reclaimed timber bearers and boards meet a steel frame without welding, so parts can be swapped or reused. Perforated mesh decking admits light and rain to the soil, reduces heat build-up, and provides anti-slip performance. Timber framed seats, wind screens, and polycarbonate notice boards create calm waiting pockets. Catwalk edges use a timber picket balustrade with wildlife-safe spacing. Fire-resistant screens and maintainable clear zones accommodate controlled burns. Roof falls collect rainwater for cleaning and planting. At grade, durable wayfinding, bike racks, pumps, and tread-safe thresholds support everyday use and low-impact maintenance.

Fig.31. telescope platform supports

Fig.32. bike hire station

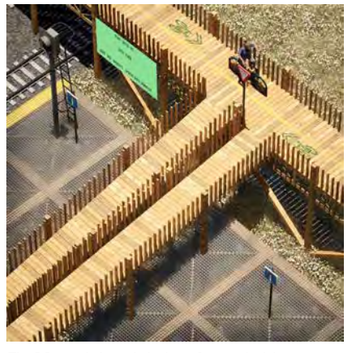


Fig.32. reclaimed timber frame bridge

Fig.33. roof top indigenous flowers garden

Fig.34. cold burn while lifting the platform

Fig.35. raw ground park

PROJECT BRIEF

Can a tower shaped by the boomerang's "go-and-return" logic become more than a sign—can it be a working environmental instrument? How do we keep the base–tower–crown legible while staying structurally honest with a tapered mid-section, outrigger/core action, mega-columns and WB beams over composite decks? If the west façade is both glare and view, can an algorithmic field of vertical panels trim heat without killing outlook—and shift into PV spandrels at hotel levels to generate power? Could the north face harvest prevailing winds with embedded turbines, while corner double façades drive a buoyant natural-vent loop through the plan? And across office plates, sky lobbies and hotel floors, can envelope, structure and services align so each level remains clear, safe and adaptable over time?

Fig.36. boomrange's hero shot render

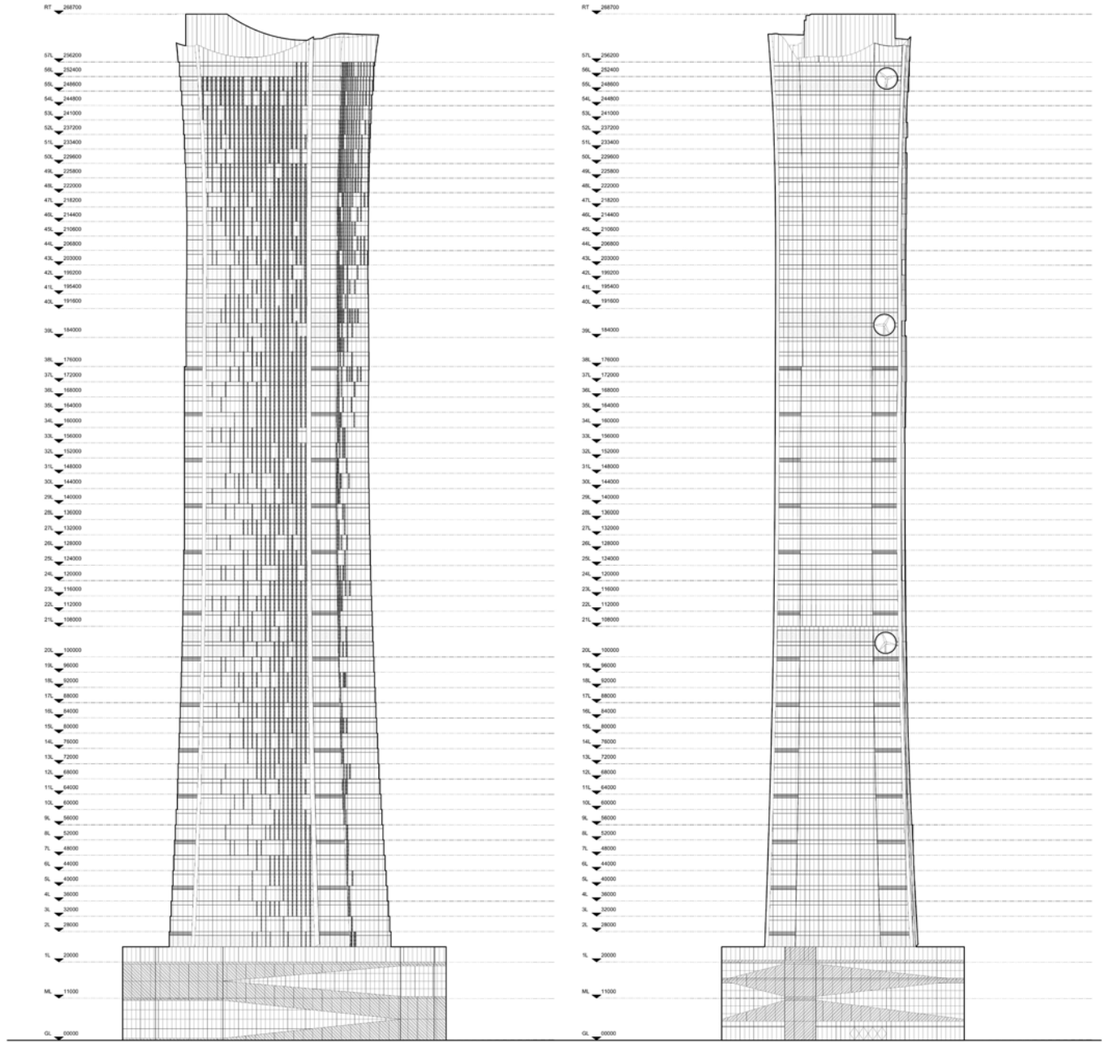


Fig.37. elevations of facade and shading fins

BOOMRANGE

DESIGN STRATEGIES

Boomerang is developed as a clear base / tower / crown composition whose “go and return” figure is translated into performance. A tapered middle zone expresses reduced wind load and channels forces to a central core working with outrigger levels, mega-columns, WB primary beams and composite metal decks, so the structure stays honest and adaptable. The west façade addresses the conflict between glare and prized city views through an algorithmically varied field of vertical panels that trim solar gain while preserving sight-lines; at hotel levels the spandrel zone incorporates photovoltaic modules to generate power without disturbing the view band. The north façade is conceived as an energy and climate surface, hosting small embedded turbines at pressure points and pairing corner double façades to drive a buoyant natural-vent loop across the floor plates. Office plates, sky lobbies and hotel floors remain legible, with services aligned to structural bays for clear egress, maintenance access and future fit-out changes. Materials and assemblies privilege dry, replaceable components and standardised modules so the tower can evolve. The overall aim is to make the “boomerang” more than a form: it becomes a technical alignment of envelope, structure and systems that reduces heat, harvests wind and light, and keeps programs flexible.

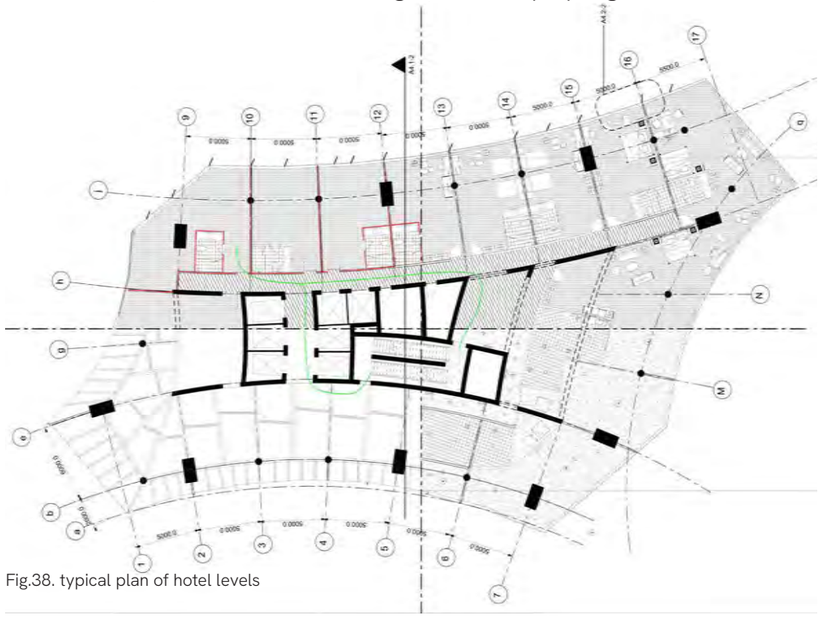


Fig.38. typical plan of hotel levels

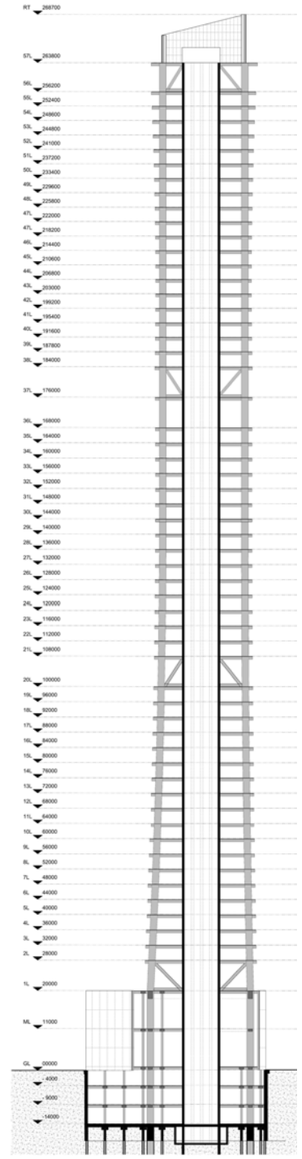


Fig.39. section of structure

1.Bracket:HCW-ED and HCW-EW Curtain Wall Bracket
2. Double Glaze
3. Aluminum Solar shading Pannel: fixed on Male Mullion.
4. Sill Transom
5. Stack Head
6.Cast-in insert: 300mm long with 3 anchors
7.Carpet Floor Finish
8.Anchor Bolts:M16 with nut and spring washer and locked with extruded aluminium serrated washer at interface with floor bracket.
9. Rebate in concrete slab:to conceal floor bracket backfilled with grout.
10. Fire Stop
11. Sill Cover
12. Aluminum Skirting
13. Mineral Wool Insulation
14. Blinds
15. Ceiling Plaster Panel
16. Aluminum Backpan
17. Ultra-clear Low-iron Glass
18. PV Panel

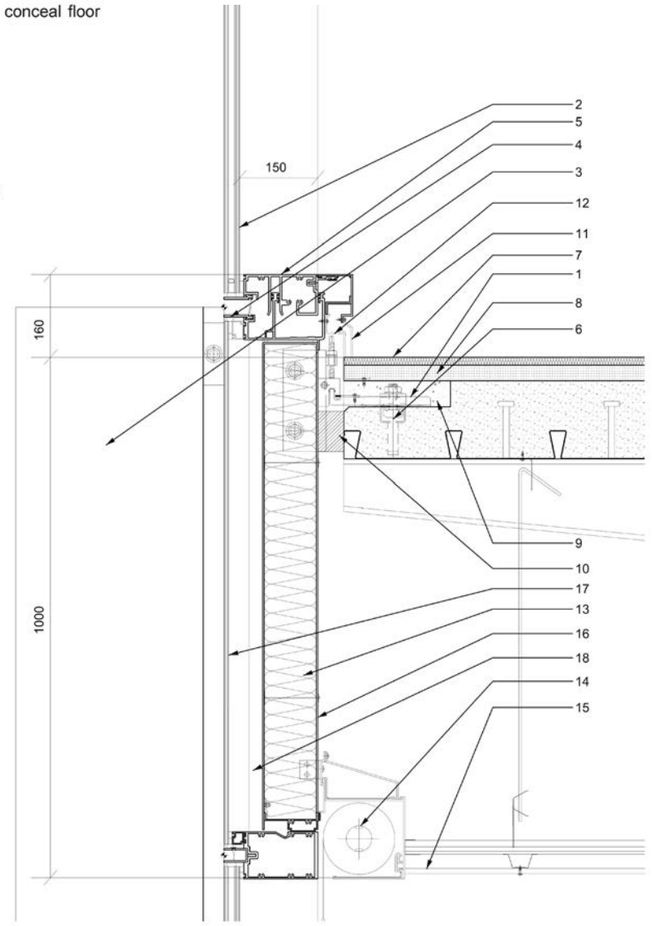


Fig.40. sectional curtain wall detail

1.Bracket:HCW-ED and HCW-EW Curtain Wall Bracket
2. Double Glaze
3. Aluminum Solar shading Pannel: fixed on Male Mullion.
4. Sill Transom
5. Stack Head
6.Cast-in insert: 300mm long with 3 anchors
7.Carpet Floor Finish
8.Anchor Bolts:M16 with nut and spring washer and locked with extruded aluminium serrated washer at interface with floor bracket.
9. Rebate in concrete slab:to conceal floor bracket backfilled with grout.
10. Fire Stop
11. Sill Cover
12. Aluminum Skirting
13. Mineral Wool Insulation
14. Blinds
15. Ceiling Plaster Panel
16. Aluminum Backpan
17. Ultra-clear Low-iron Glass
18. PV Panel

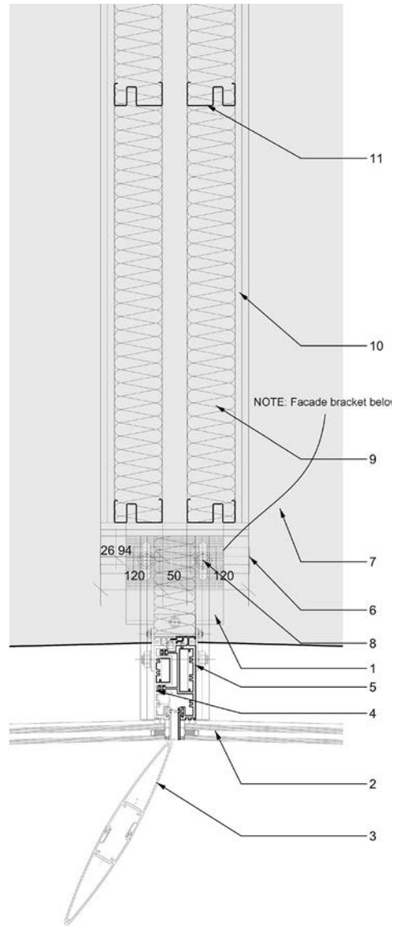


Fig.41. plan shading fin detail

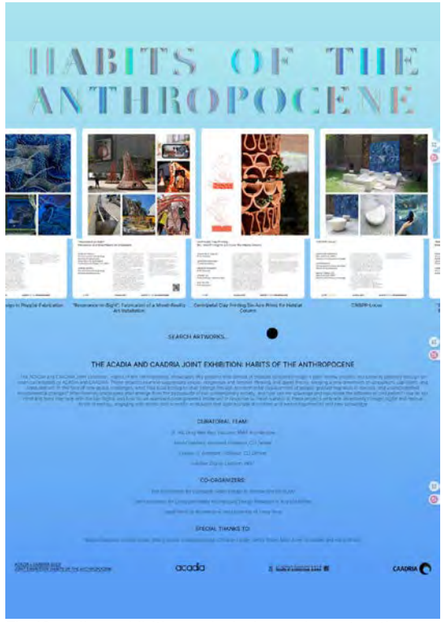


Fig.42. online exhibition web design and construction

Fig.43. mechanical installation design

Fig.44. mycelium and clay pavilion prototype 1

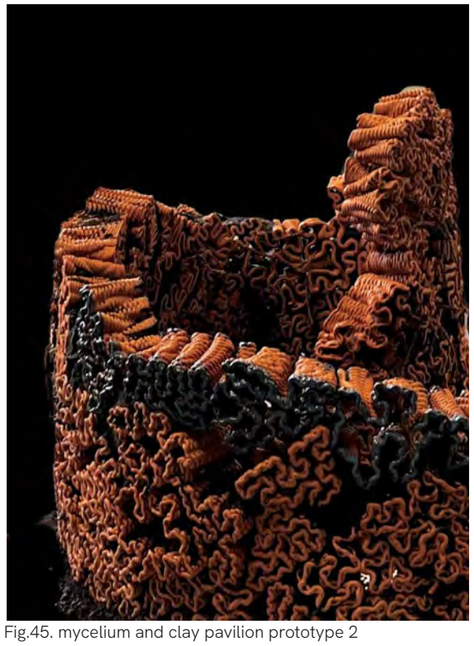


Fig.45. mycelium and clay pavilion prototype 2

Fig.46. cat cave stool

Fig.47. complex form narrative architecture

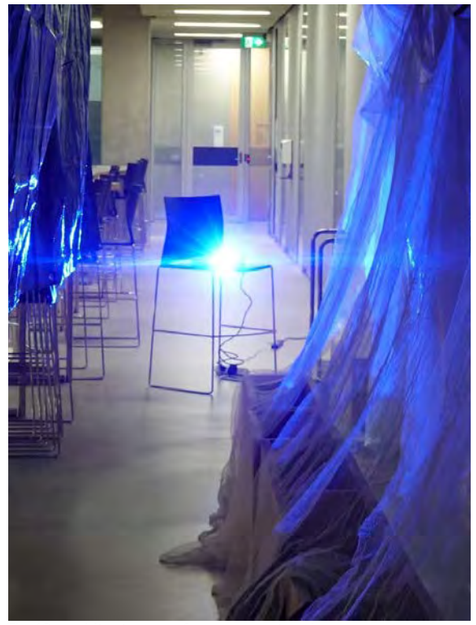


Fig.48. architecture performance setup 1

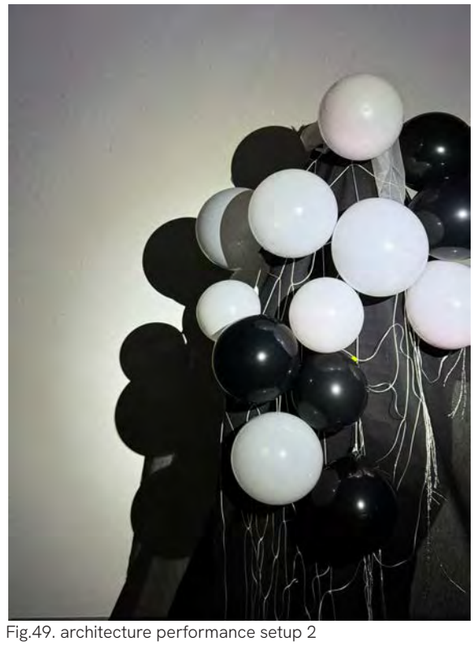


Fig.49. architecture performance setup 2

PRACTICAL WORK

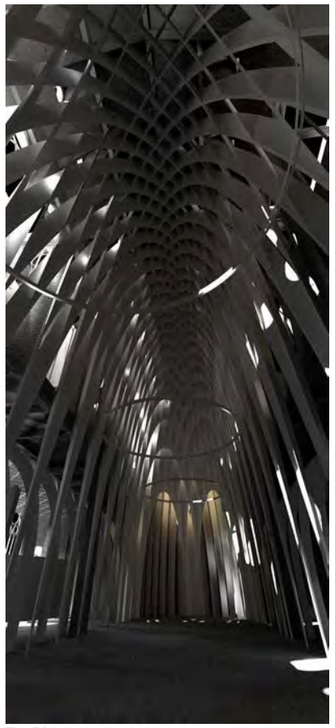


Fig.50. chapel adapt-reuse proposal

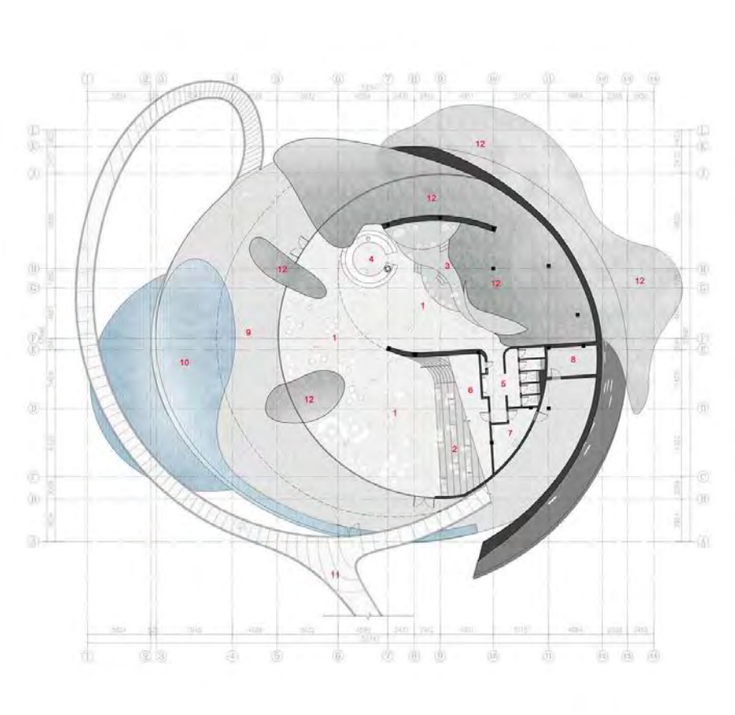


Fig.51. plan of water fall cafe @ Guangxi, China

From 2021 to early 2022, due to Australian customs and travel restrictions, I was unable to return to Australia and instead completed an internship at DEEP Architecture Office in Beijing. My primary responsibilities included supporting the early concept design phase, developing architectural proposals, and assisting with technical drawings and physical model making in the later stages of projects. During this period, I worked on several projects, including the renovation of a community church in Anhui Province and the design of a waterfall café near Detian Falls in Guangxi Province. These experiences allowed me to gain practical skills in both conceptual design and technical detailing, while also improving my ability to communicate ideas through drawings, models, and presentations.

Fig.52. section of water fall cafe @ Guangxi, China

PRACTICAL WORK

Fig.53. pin-up study of 60 albert road shading design

Fig.54. c6 podium design render proposal

From 2022 to 2023, I worked as a Student of Architecture at Elenberg Fraser (now rebranded as Fraser & Partners). My role focused on drafting, digital/physical model making, rendering, and post-production representation. I contributed to an adaptive-reuse scheme at 60 Albert Road, supporting concept options and documentation under team lead Kathleen Bainbridge. I also assisted another team on C6, then proposed as one of the world's tallest hybrid timber towers (timber structure with a concrete core), where I produced podium-level option models and renders to test massing, façade articulation, and public-realm interfaces. In addition, I handled internal project audits, building clean BIM/3D models for coordination and 3D-printing study maquettes to support design reviews. These responsibilities strengthened my ability to translate design intent into clear visuals and buildable information while delivering to tight deadlines in a fast-paced studio

Fig.55. pip’s deli seating area

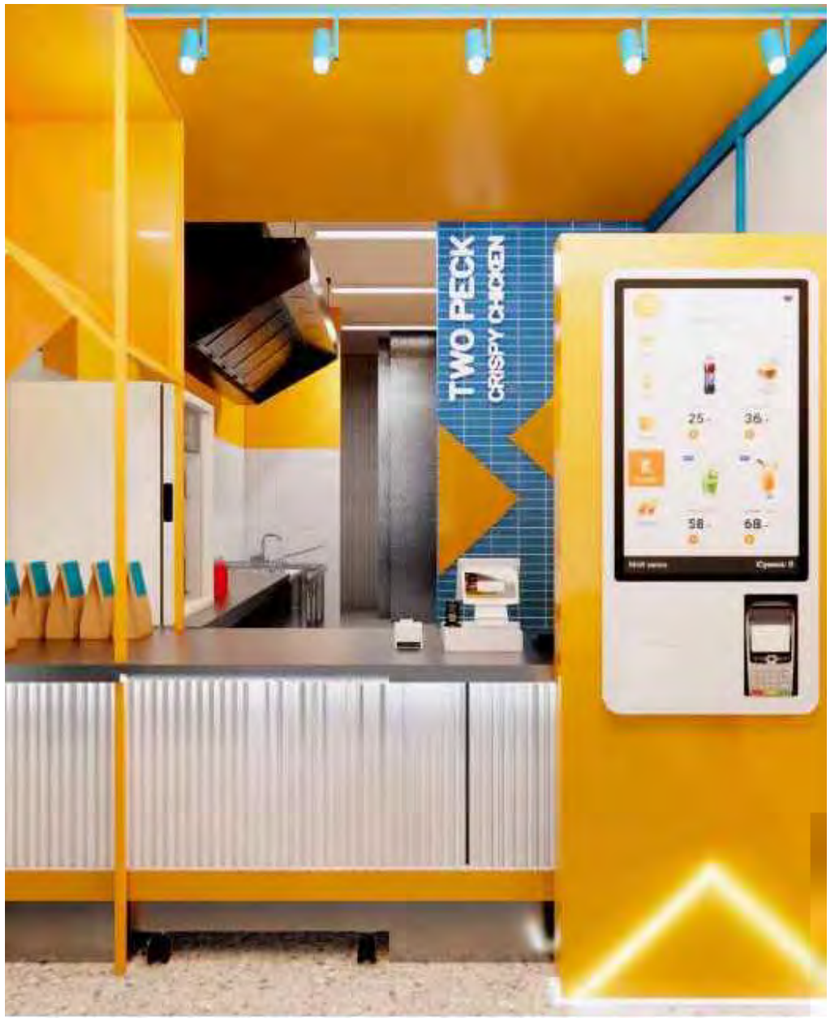


Fig.56. two peck chicken shop front

From late 2024 to 2025, I pivoted toward retail design and joined E&S Design Group in Melbourne as an Interior Designer. In this fast-moving studio I took concepts through detail design and delivery, coordinating documentation, finishes, and contractor liaison. I completed two built projects: Pip’s Deli, a sandwich shop drawing on American cues, where I developed a playful scheme using checkered brick, a “melting-cheese” figurative motif, and a carefully composed ceiling design; and 2 Peck, a Taiwanese fried-chicken brand outlet, where I applied the brand’s signature blue-and-yellow palette, introduced light, upbeat accents, and optimized circulation and service layouts for a very narrow site. These projects strengthened my skills in branding-led interiors, material/specification packages, and clear client/contractor communication, while demonstrating my ability to deliver designs that read strongly in compact footprints.

PRACTICAL WORK

I co-founded and run Craftmonster, a small architectural-model studio. I lead operations, design, and modeling, taking projects from CAD/CAM preparation through 3D printing, laser-cutting, assembly, and finishing. What began with a single desktop printer has grown to four 3D printers and two laser cutters, enabling fast turnaround on massing, presentation, and product mock-ups as well as city-scale site models. A representative commission was from NORD, for which I designed and produced a Melbourne CBD urban model covering key blocks and transport corridors. In addition to hands-on making, I coordinate workflows, set print/layer standards and material specs, and ensure quality and on-time delivery. This venture has sharpened my end-to-end design-for-fabrication capabilities and my ability to translate complex digital models into clear, buildable physical outcomes.

Fig.57. nord melbourne cbd model installation

Fig.58. nord melbourne cbd model WIP