

SOO.RYU

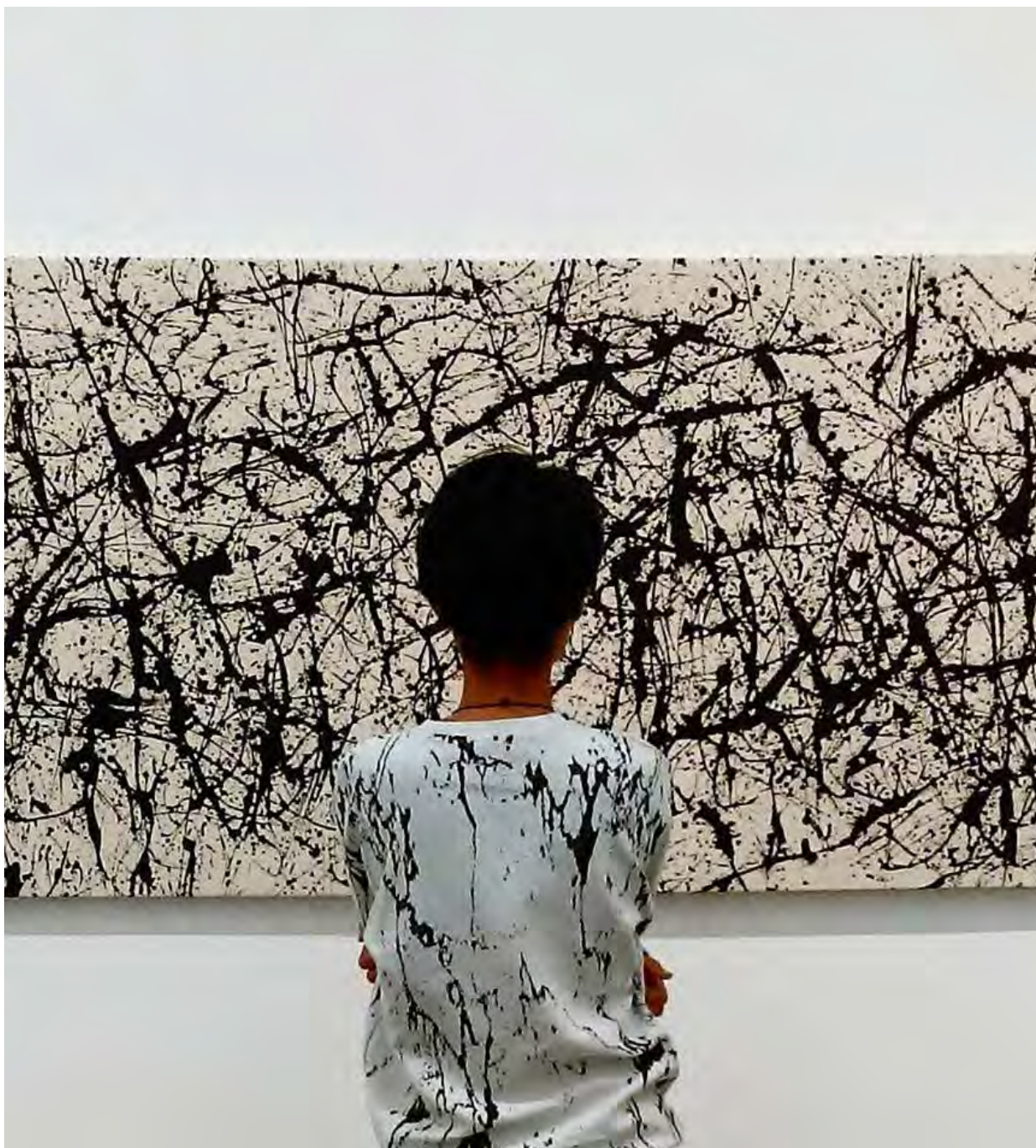
ARCHITECT/DESIGNER
/ RESEARCHER

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AUCKLAND / CHRISTCHURCH / LONDON

Please refer to my website for more
information on my portfolio of works.



PORTFOLIO OF WORKS

Competition For
New Zealand Institute
of Architects

CHRISTCHURCH TEMPORARY, RE- LOCATABLE, PAVILION

In 2010, I won the national competition to design a temporary, relocatable pavilion for the NZIA.

The competition brief was to design a temporary re locatable pavilion to exhibit the works of the NZIA (New Zealand Institute of Architects) based in Christchurch as a response to the February 2011 earthquake. Its purpose was to demonstrate to the public the role architects play in the rebuild and to restore "faith" in the profession to illustrate to the people of Christchurch that this

pavilion embraces sustainable principles, is beautiful, cost effective and innovative. All of this needed to met within a very humble budget. The intention of the pavilion would be that it will travel nationally exhibiting works of architects in respect to the rebuild process.

MY INVOLVEMENT

I designed the pavilion and executed all the presentation drawings on my own for the competition. I was involved in client meetings, liaising with consultants, seeking sponsorship and with the help of a Technical Architect, complete the construction set drawings for pricing. Unfortunately, due to funding reasons, this pavilion was not built.





EXHIBITION / DISPLAY



LOCAL ICON / SYMBOLISM



MARKET CULTURE /
STRUCTURE

‘FRAME
SCAPE’

Greenprint of
human connection



GARDEN CITY /
SUSTAINABILITY



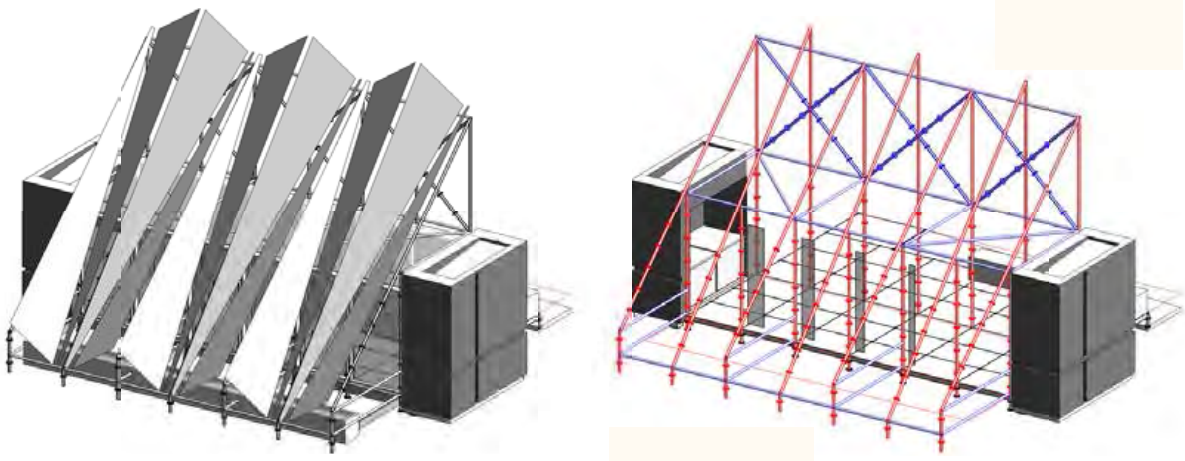
SELF SUFFICIENCY



SOCIAL INVOLVEMENT /
MEMORY





| BUDGET | START DATE | AREA | SITE | ROLE | STAGE |
|-----------------------------|------------|------|----------------|---------------------------|--|
| \$30,000 NZD £15,000 GBR | July 2013 | 30m² | All over NZ | Design + Documentation | Concept Design to Construction Drawings |

- 1. Origami polycarbonate roof
- 2. Outdoor furniture and pallet flooring
- 3. Garden Bed (for planting)
- 4. Structural scaffolding frame
- 5. Timber box housing storage / projectors
- 6. Transparent glazing




As part of the
Christchurch Rebuild

The design proposal seeks to relate to the lost identity of Christchurch as much as possible. Christchurch is known as a “Garden City” with a strong religious symbolism tied to the beloved Christchurch Cathedral in the city square. The concept design includes an undulating, origami-like translucent roof which acts as a greenhouse for the garden bed below created by the 44-degree angle roof which is the latitude of Christchurch - a perfect angle for the solar panels. The roof acts as a funnel to capture the rainwater which feeds the garden below. The garden bed below will house a vegetable garden to demonstrate how people can be more autonomous in the event of a natural disaster by growing their own food. The two timber box with a cross negative groove symbolises Christchurch’s severely damaged cathedral and it is painted in chalkboard material to encourage people to leave a mark of their experiences in the earthquake. The scaffolding structural frame allows the pavilion to be erected with speed, ease, cost effectively and dismantled easily. It took inspirations from market structures where it can be erected and dismantled easily.




[Sustainability]

- [Portable PV or/and bicycle electricity generation station with a tv screen showcasing energy use/production]
- [Grow food - leaves a green footprint]
- [Captures rainwater from roof to tank that irrigates to the garden]
- [Made from local materials]
- [Recycled/reuse materials]
- [Super efficient LED lighting]




[Budget \$30,000]

- [60 pallets @ \$5-10 each = \$600 max.]
- [Scaffolding approx. \$4000 (erect, dismantle and transport)]
- [plywood box \$4000 max per box = \$8,000]
- [roof membrane with clippers = \$3000]
- [polycarbonate panels option = \$5000]
- [plastic sheathing option = \$2400]
- [water tank, irrigation, planter box = \$1000]
- * Excl of electricity generation, electronic equipments and lighting]



[Architecture]

- [Iconic form emblematic of a cathedral - an icon of Chch but also a emergency tent/shelter shape]
- [Tessellated, origami roof form channels rainwater into the tank]
- [The facade encourages "urban graffiti," a memory wall which is finished in blackboard material]
- [Activates community engagement - 'Planting Day' can be incorporated to the current "Gap Filler" movement in Chch. www.gapfiller.org.nz]
- [Cross shape symbolic of First Aid]
- [Structure expressed using local scaffolding]
- [Pallet flooring acts like the Japanese tatami floor principle]



[Construction / Material]

- [Re used billboard material OR polycarbonate sheet with clear plastic fabric with loops for scaffolding insertion for roof - can be screenprinted]
- [Treated plywood box with blackboard covering - timber is an earthquake safe material]
- [Polycarbonate window panels for displaying work OR cheaper option of clear plastic fabric wrapped around the frame with velcro attaching]
- [Scaffolding slots into concrete rainwater tank /footing]











framescape[44]

frame: to enclose and support scape: a stalk of a flower growing from the root 44: latitude of christchurch

Christchurch, the 'Garden City', has a strong history of market gardening that generates a vibrant scene for locals and travelers alike. It induces community interaction and encourages local small enterprises. It does not require extensive investment and can be set up with haste anywhere, anytime, but disappear without a trace. It is activities like these, that are vital for a demoralised community left with few functioning services and amenities.

An architect leaps at the opportunity to change the world through the aesthetic design of human spaces. Yet in a time of crisis beauty takes on a different meaning. Beauty is found in the mere function of amenities once seen as commonplace. How then can an architect convince the public that they are more than designers of fashionable buildings? How do architects connect with the people of Christchurch in a time of crisis and regain faith in their profession?

A harmony of social function and beauty is the solution. Good architecture induces community interaction, providing vital services for these connections to occur.

Framescape[44] is a platform for social interaction making humble homage to the market garden. More than just a shelter from the elements, Framescape[44] is a system that helps us cultivate that which has brought joy to the city for generations. The experience of the market garden brings us great pleasure, so important to our health and wellbeing in these challenging times.

The pavilion's actual watertight footprint is 30m2, however the sloping roof creates two different outdoor spaces. One space is a small greenhouse where food and flowers are grown to be enjoyed or harvested for the community, the other is an open deck space freeing the inhibition of a 30m2 restriction.

The planting of a seedling symbolises renewal and hope of future bounty. The arrival of the pavilion to a community will bring people together for the simple pleasure of growing food and flowers bringing hope of a future perfect. Groups such as school children will gain an appreciation for propagating food and flowers, with the end result being redistributed to the community along with the wisdom imparted through the experience.

When ready, the pavilion folds away for transport to its next destination. But the experience leaves not only memories of community engagement, but a 'green-print', a mark of connection of the people to the land in the form of a flowerbed or vegetable garden. A worthwhile factor in the restoration of Christchurch's brand image as the beautiful 'Garden City'.

The pavilion's form is emblematic of cathedral-esque monumentality. Yet the shape is that of a simple shelter, rising from the ground towards the heavens at an angle of 44 degrees. Not only the degrees latitude of Christchurch, but also the most efficient angle for the solar PV panels to absorb the sun's energy.

The two boxes that make up the Framescape[44] pavilion bear a cross that signifies not only religious symbolism, but also that of survival, safety, vital services and most importantly hope. The pavilion is more than just a display box of architectural models and drawings. It houses first aid kits, and the semi-translucent envelope acts as a light box, a point of safety in the dark of night.

The pavilion exemplifies the future of integrated sustainable design, with rainwater capture, renewable energy generation, food growth for self sufficiency, as well as the use of local and cheap materials.

To encourage graffiti art, the voice of communities, the façade is finished with blackboard material. The façade thereby becomes a platform for people to express their feelings and thoughts of what has passed and what is hoped for the future. Framescape[44], is thus making a green-print for human connection.

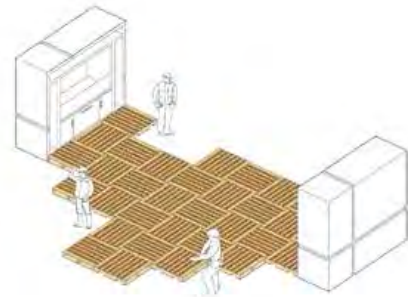




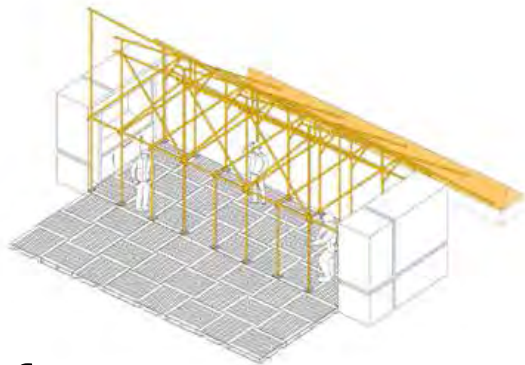
one. [call for delivery]



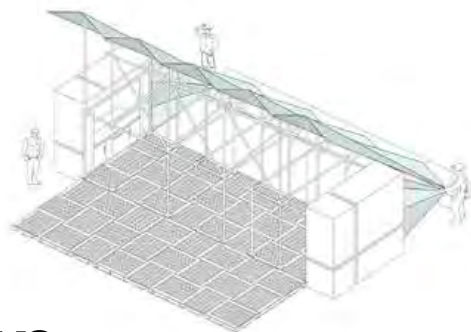
two. [disassemble the box]



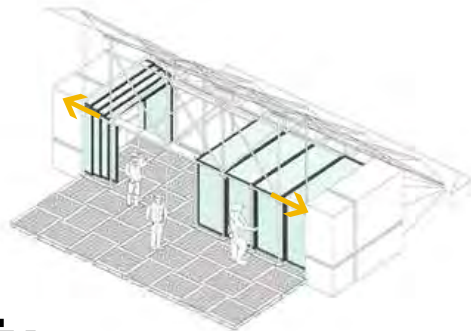
three. [layout the pallets]



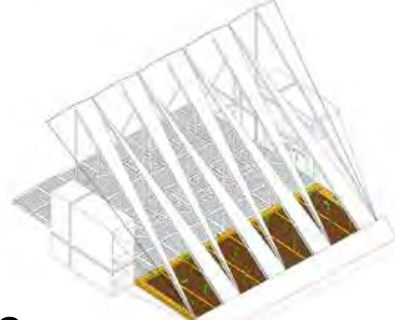
four. [set up the scaffolding]



five. [unfold the roof and clip it on frame]



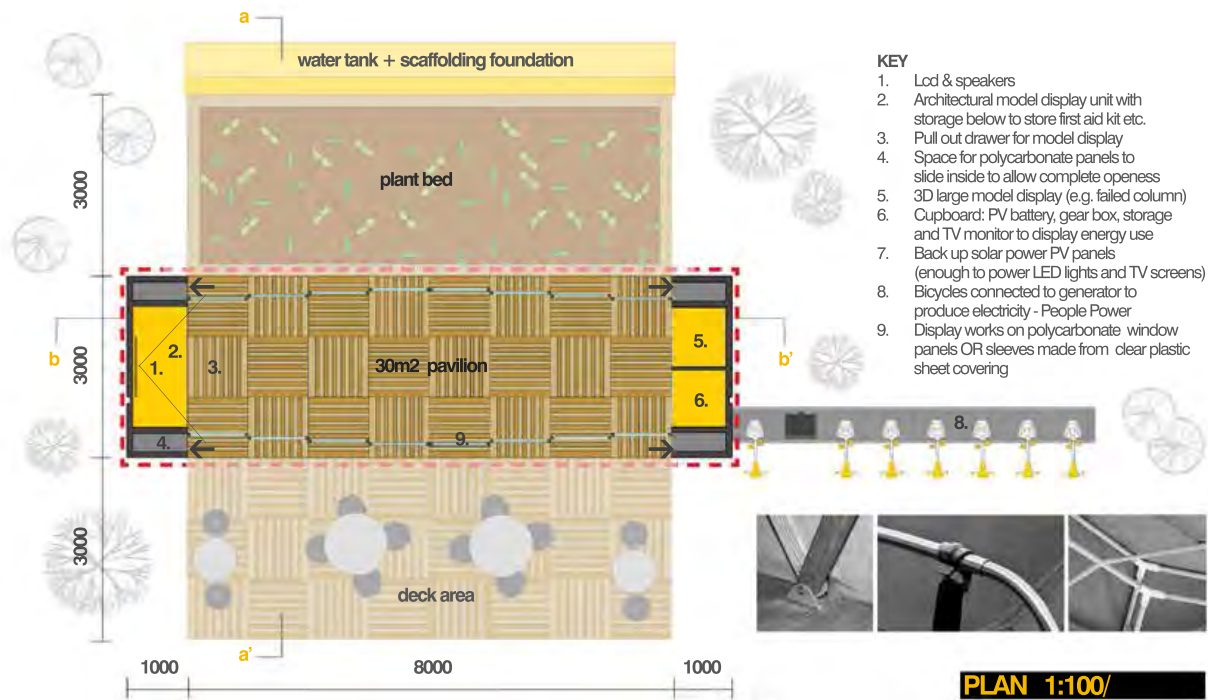
six. [polycarbonate panels OR clear plastic sheet covering]



seven. [plant bed]



eight. [Populate, connect, generate, educate, & display]



LONGITUDINAL SECTION 1:100



CROSS SECTION 1:100

Greenprint of human connection.

framescape [44]

CHRISTCHURCH HIGH END, EARTHQUAKE

A key innovation is the incorporation of world-leading seismic strengthening technology. In the event of future seismic activity, it will ensure better safety.

Often described as one of the most prominent sites in the city, the building stands in the corner like a boulder in

the river that runs along. The Avon river remains constant in an ever-changing city that will take many years to find its new self after the earthquake. This project has also become the catalyst for gaining momentum for the rebuild process. This project placed focus on developing a strategy for a building that is soundly rooted in its context by using the river as an inspiration. Designed as a coherent object, it stands apart as a real presence on both its street frontages holding but softening the corner at its apex.

MY INVOLVEMENT

I was involved in assisting the project Architect and working with the design team to help with the design renders and completion of presentation reports to the client and the Urban Design Panel.

OFFICE REBUILD

Deloitte's new
work space and
amenities



REBUILDING CHRIST- CHURCH

“As one of the first developments completed along the banks of Christchurch’s River Avon, an iconic commercial property at the centre of the city’s rebuild.”

| BUDGET | START DATE | AREA | SITE | ROLE | STAGE |
|-------------------------------------|--------------------------------|--------------------|--------------------|-------------------------|--------------------|
| \$28,000,000 NZD £14,000,000 GBR | October 2012 Completed 2015 | 7000m² 6 levels | Christchurch NZ | Design Documentation | Preliminary Design |

Refer to: www.jasmax.com/work/151-cambridge-terrace/

Central Business District
rejuvenation project

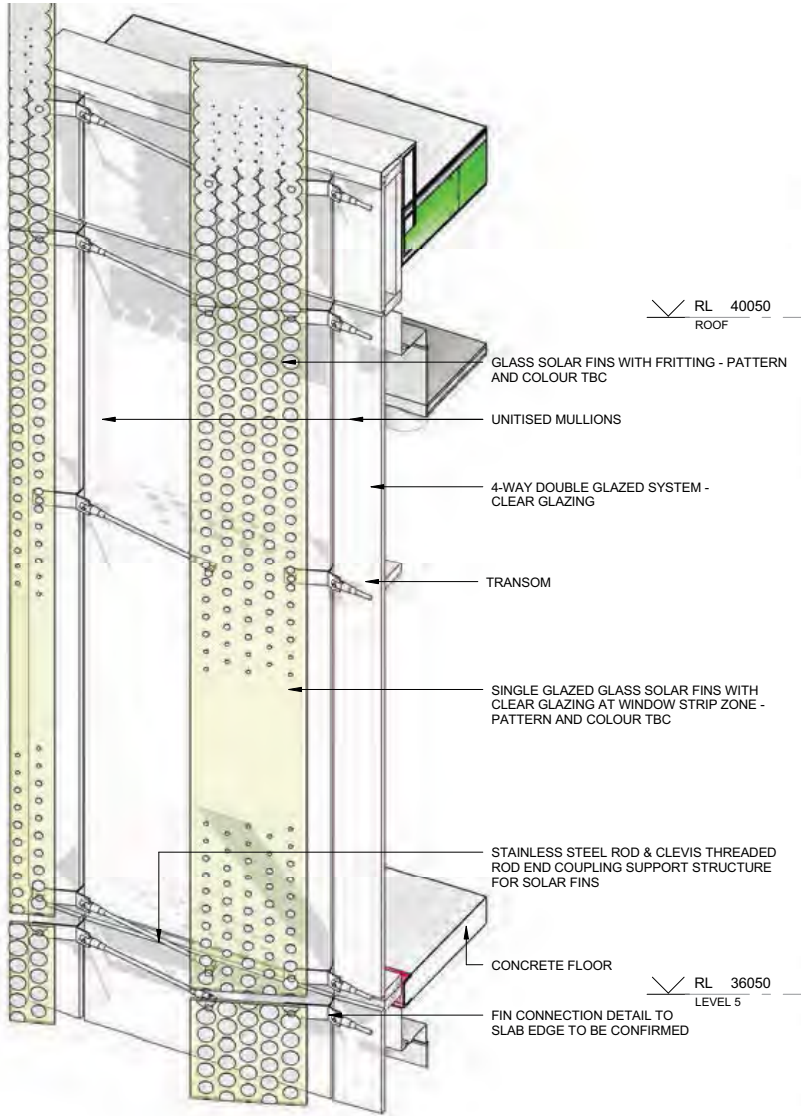


1.

- 1. Corner of the building
- 2. Facade glass panels with colour and patterning



2.



GREEN STAR NZ RATING

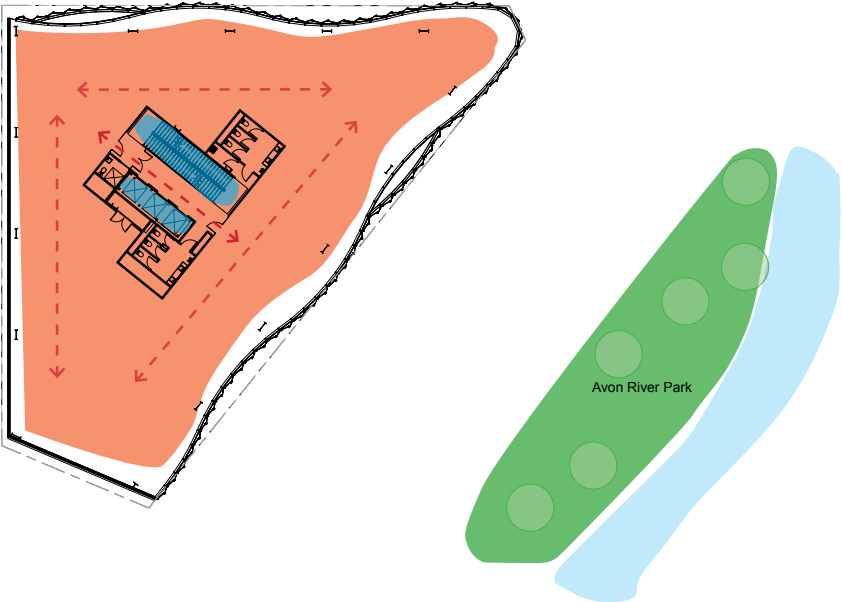
Sustainability Approach

The structure comprises of a concrete base-ment supporting a base-isolated, light-weight steel structure above. In order to keep the weight of the building down project team in-troduced the use of GRC panels to the build-ing's Western elevation as well as installing a light-weight fully insulated roof.

The building is equivalent to a 4.5 Green Star rating by the New Zealand Green Building Council. Green Star is a tool that rates and communicates the sustainability of New Zea-land's commercial buildings. A building can achieve a rating of:

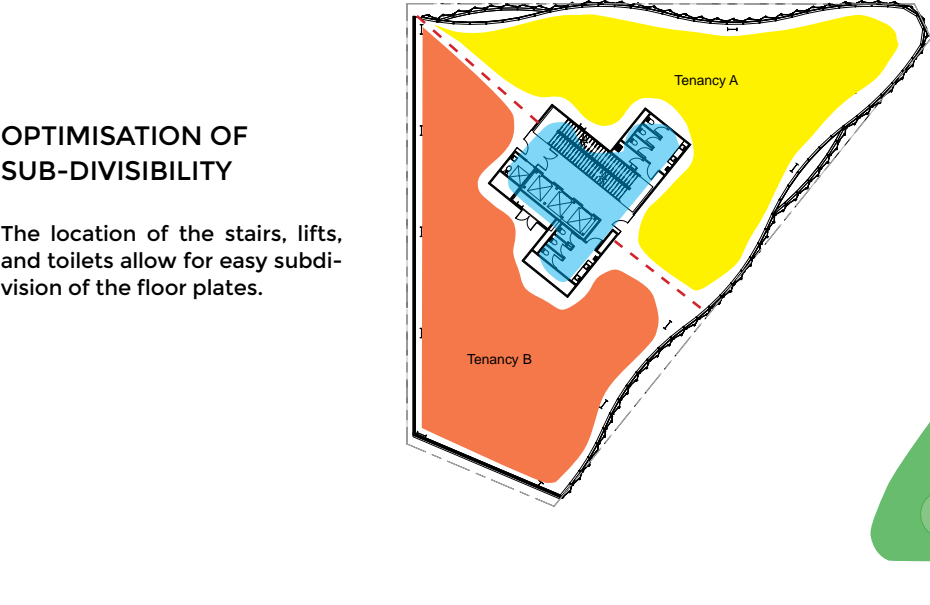
- 4 Green Star - Best Practice
- 5 Green Star - New Zealand Excellence
- 6 Green Star - World Leadership

This project however focussed during the de-sign stage to ensure that a whole-of-life ap-proach was taken when assessing the capital cost against opex budgets. This is evidenced by the angle placement of each of the façade glass fins to avoid excessive solar gain to each of the floor areas. Assessment of the building performance against the post occupancy rat-ing tool will be on-going during the commis-sion and maintenance period.



OPTIMISATION OF CIRCULATION

Efficient vertical circu-lation is achieved via a scissor stair and three lifts within a centralised core. Circulation around floor plates is able to oc-cur through the centre of the core, as well as around it.



OPTIMISATION OF SUB-DIVISIBILITY

The location of the stairs, lifts, and toilets allow for easy subdi- vision of the floor plates.



GROUND FLOOR ACTIVE SPACES

The ground floor has amenity spaces such as cafe and restau-rants to bring people into this area again and create vibrancy.



Planning

1st - 5th floors Plan

Scale: 1:200

- 01/ Typical office floor plate
- 02/ WCs
- 03/ Stair
- 04/ Lifts

SHOREDITCH, MIXED USE DEVELOPMENT

In the heart of
London's Central
Business District

Over 400,000 sq foot of living, office, retail and leisure space set within new and historic buildings themed by the discovery of the remains of Shakespeare's Curtain Theatre.

High-end luxury showcase living, office, retail and leisure space set within new and historic buildings themed by the discovery of the remains of Shakespeare's Curtain Theatre. 37 storey tower, 412 highly specified suites, 1, 2 & 3 bedroom apartments and 4 bedroom duplex penthouses, with interior design by Nicola Fontanella of Argent Design, complemented by an array of private lifestyle facilities and 32nd level sky bar and terrace.

MY INVOLVEMENT

Working with the apartment complex team to develop a set of comprehensive documentation drawing set to be ready for tender and construction using BIM - Revit. I was responsible for producing and managing over 150 drawings.



‘THE STAGE’

“An outstanding new mixed-use development with a Shakespearean twist.”

| BUDGET | START DATE | AREA | SITE | ROLE | STAGE |
|---------------------------------------|-----------------|---------------------------|--------------------------|------------------------------|--|
| \$1.5 billion NZD £750,000,000 GBR | 2011 Ongoing | 44,000m² (Residential) | Shoreditch, London UK | Assistant + Documentation | Developed design + technical drawings |

Refer to: www.thestageshoreditch.com
<http://perkinswill.com/work/the-stage-shoreditch.html>




Residential, Retail, Office, Public,
Roof garden, Hospitality, Pavilions,
Leisure, Exhibition space, Urban Park



- 1. Living Area
- 2. Public square housing Shakespeare's former Curtain Theatre in the basement
- 3. Aerial view of roof garden

GENERAL ARRANGEMENTS
2nd FLOOR PLAN



SCHEME
OVERVIEW

THE STAGE, SHOREDITCH
MARCH 2016

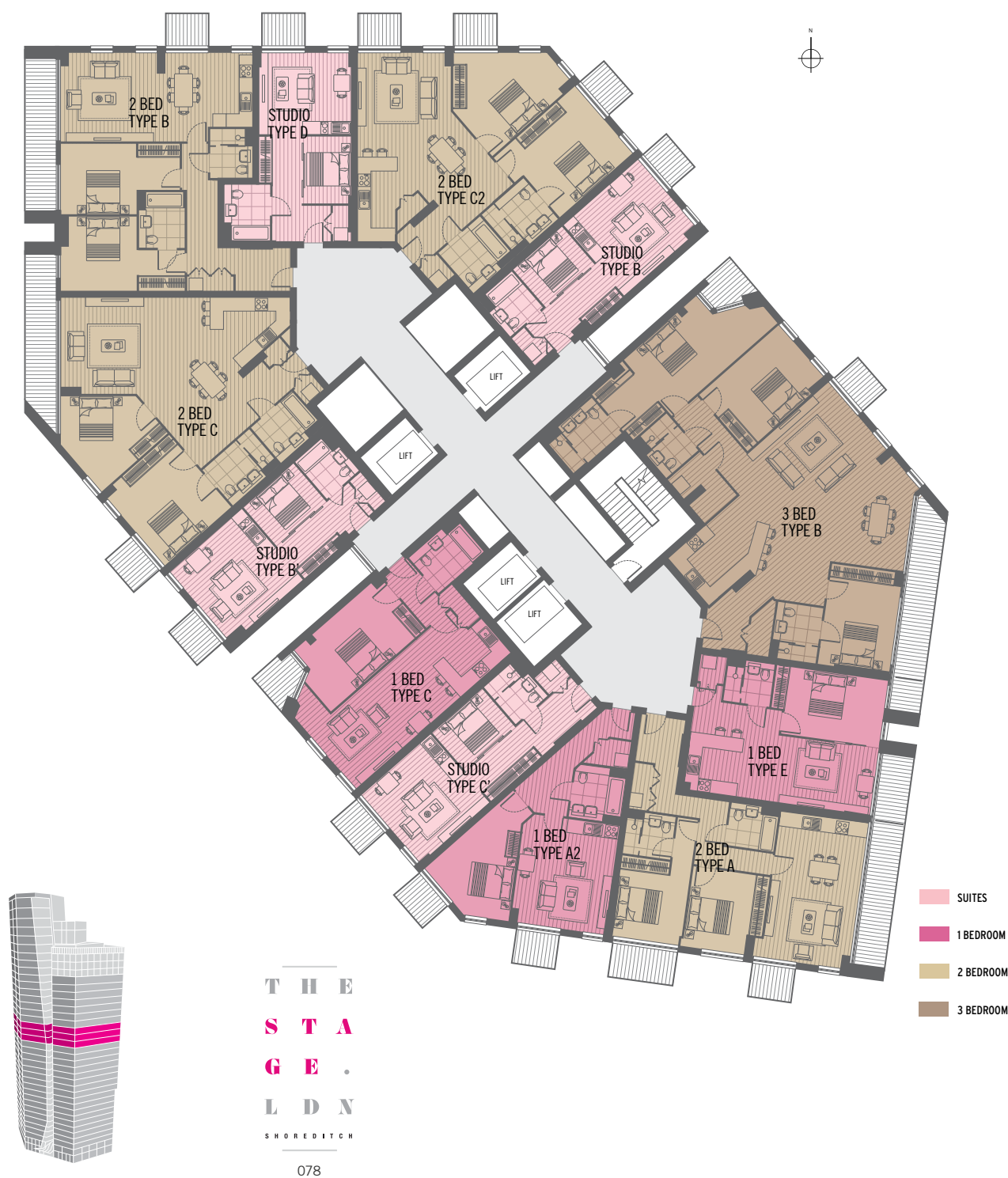
PERKINS+WILL



- RETAIL
- CONSENTED RECEIVED FOR A1-A4, B1 FLEXIBLE
- OFFICE LOBBIES
- RESIDENTIAL LOBBY
- RESIDENTIAL AMENITY
- APARTMENTS
- OFFICES
- CULTURAL / PERFORMANCE
- CORE CIRCULATION
- SERVICE
- PLANT (AUTONOMOUS)
- UKPN SUBSTATION
- TO BE RELEASE IN STAGE 3 PART II
- CONTROLLED ACCESS POINT

THE
STAGE
LONDON
SHOREDITCH
036

GENERAL ARRANGEMENT PLANS
LEVELS 19,20,21



I was involved in calculating the points required to apply for a BREEAM sustainability performance rating scheme in the UK.

Some of the initiatives taken by this project are: higher insulation and glazing, insertion of ample cycle parks, installation of PVs on the roof, the presence of green roof, efficient waste system / collection, effective surface water runoff, avoid the use of toxic materials, energy monitoring etc. A separate consultant was involved to ensure these ratings were achieved and energy modelling simulation was used to ensure an energy efficient cladding system. .

These are the following criterias eligible for credit:

- Management
- Health and Wellbeing
- Energy
- Transport
- Water
- Materials
- Waste
- Land Use and Ecology
- Pollution
- Innovation (additional)

BREEAM
RATING
SCHEME



AUCKLAND, REFURBISH -MENT SCHOOL OF ENGINEERING

To bring all the different
Engineering disciplines
in one flexible place

The 1960's brutalist building for the University of Auckland's engineering building required a major refurbishment.

The brief required an extensive upgrade of the structure, addition of extra five floors to meet the space requirements, clever decanting strategy which allowed classes to continue while construction was in progress and a new facade system

to replace the old inefficient single plane glass window. The existing classrooms were out-of-date and inefficient spaces, followed by dark corridors without any natural light. The brief focussed on interdisciplinary pedagogical approach where the emphasis was placed on spaces that could be utilised by other engineering faculties.

MY INVOLVEMENT

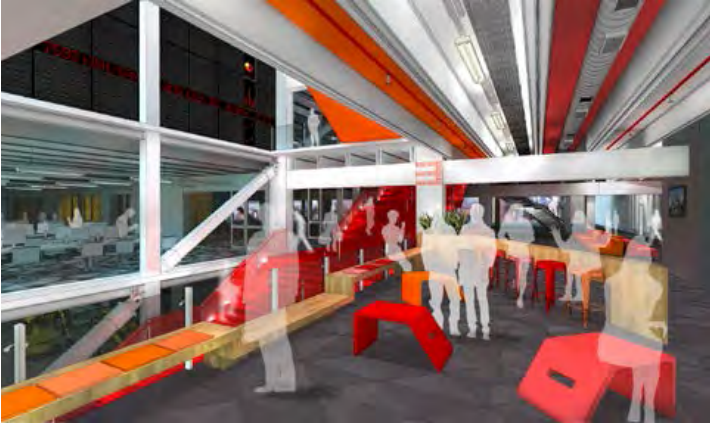
I was involved in the modelling team in Revit under a BIM manager, responsible for ensuring big equipment were catered to in the lab spaces through planning layout, attended many end user group meetings with academics and students, researched sustainable strategies for the building (i.e. passive ventilation), interior design of the furniture fixtures and material selection and produce presentation documents.



‘MULTI-DISCIPLINARY LEARNING SPACE’

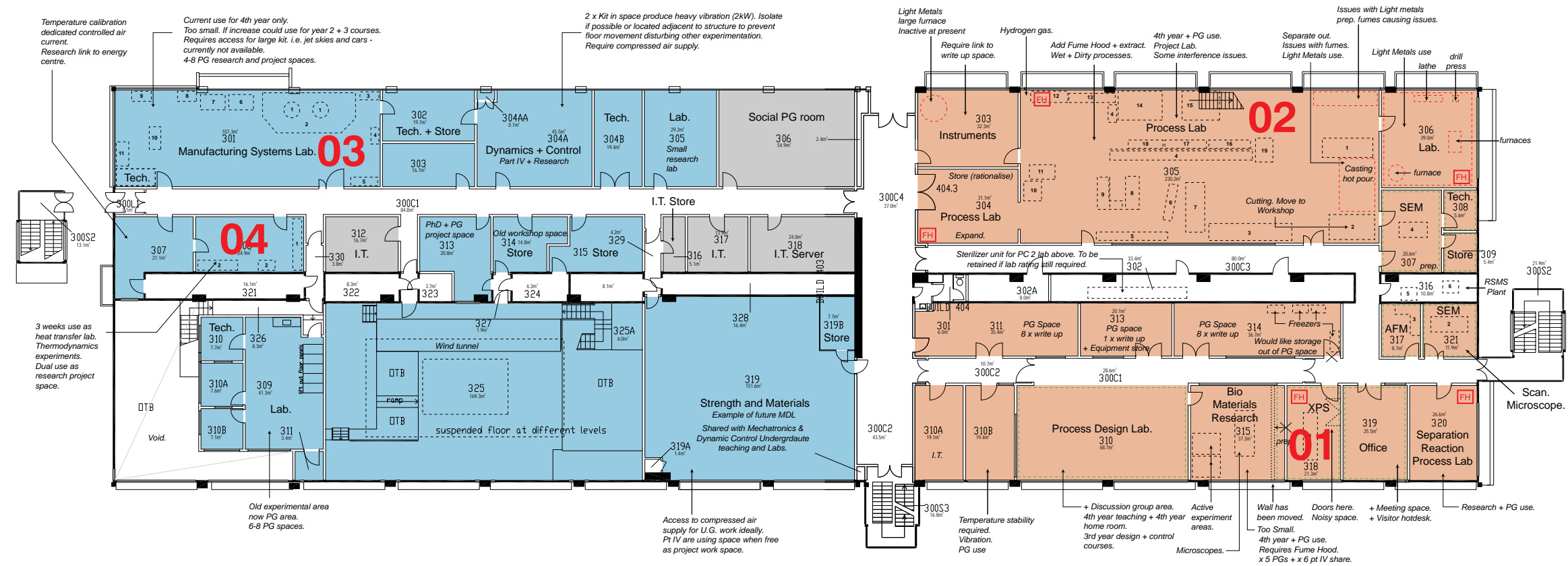
“Multi functional, high tech space to enable teaching at a whole new level.”

| BUDGET | START DATE | AREA | SITE | ROLE | STAGE |
|---------------------------------------|----------------------------------|----------|----------------|---------------------------|---------------------------------------|
| \$200 million NZD £100 million GBR | June 2011 *Under construction | 25,000m² | Auckland NZ | Design + Documentation | Concept Design to Developed Design |

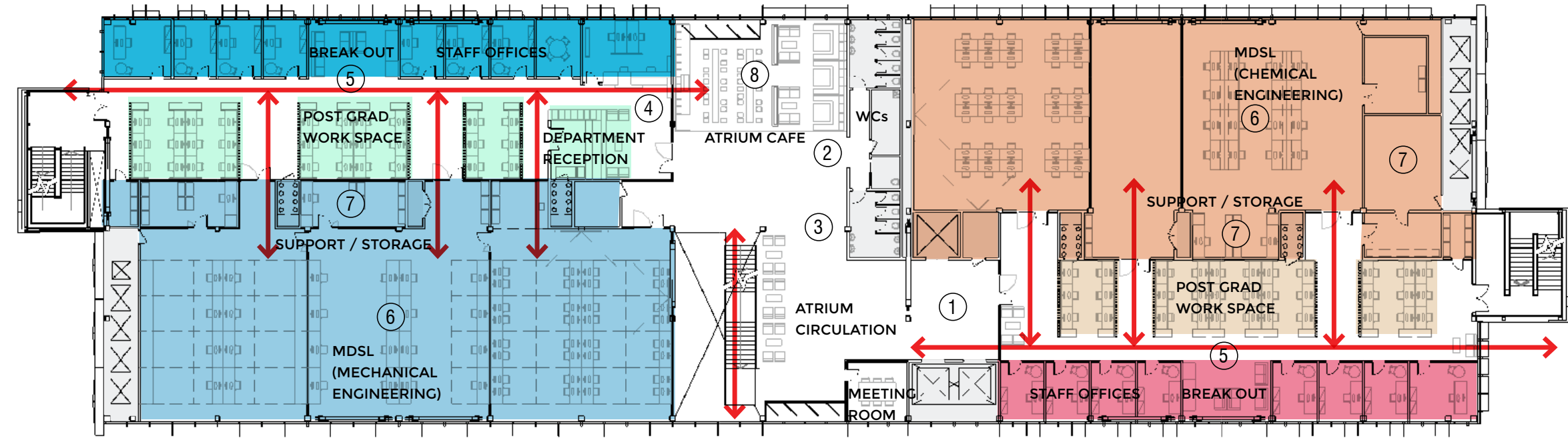


- 1. Cafe / kitchen area
- 2. Laboratory Spaces
- 3. Circulation
- 4. Break out space with visible lab behind
- 5. Casual study spaces in the corridors
- 6. Break out spaces

Flexible learning spaces, break out spaces, casual study spaces, visible lab spaces, display of building energy performance



Old floor plan of the lab spaces that are accessed through narrow and dark corridors



New floor plan of visible interdisciplinary labs that is bordered around support spaces and post graduate, open plan study spaces

Building Re-use

In a climate of diminishing resource, waste and increasing population, buildings have become one of the largest energy consumers in construction and operation. Re-use of existing building stock to meet the needs of changing demand and function is a fundamental and sensible way to reduce the consumption of resources.

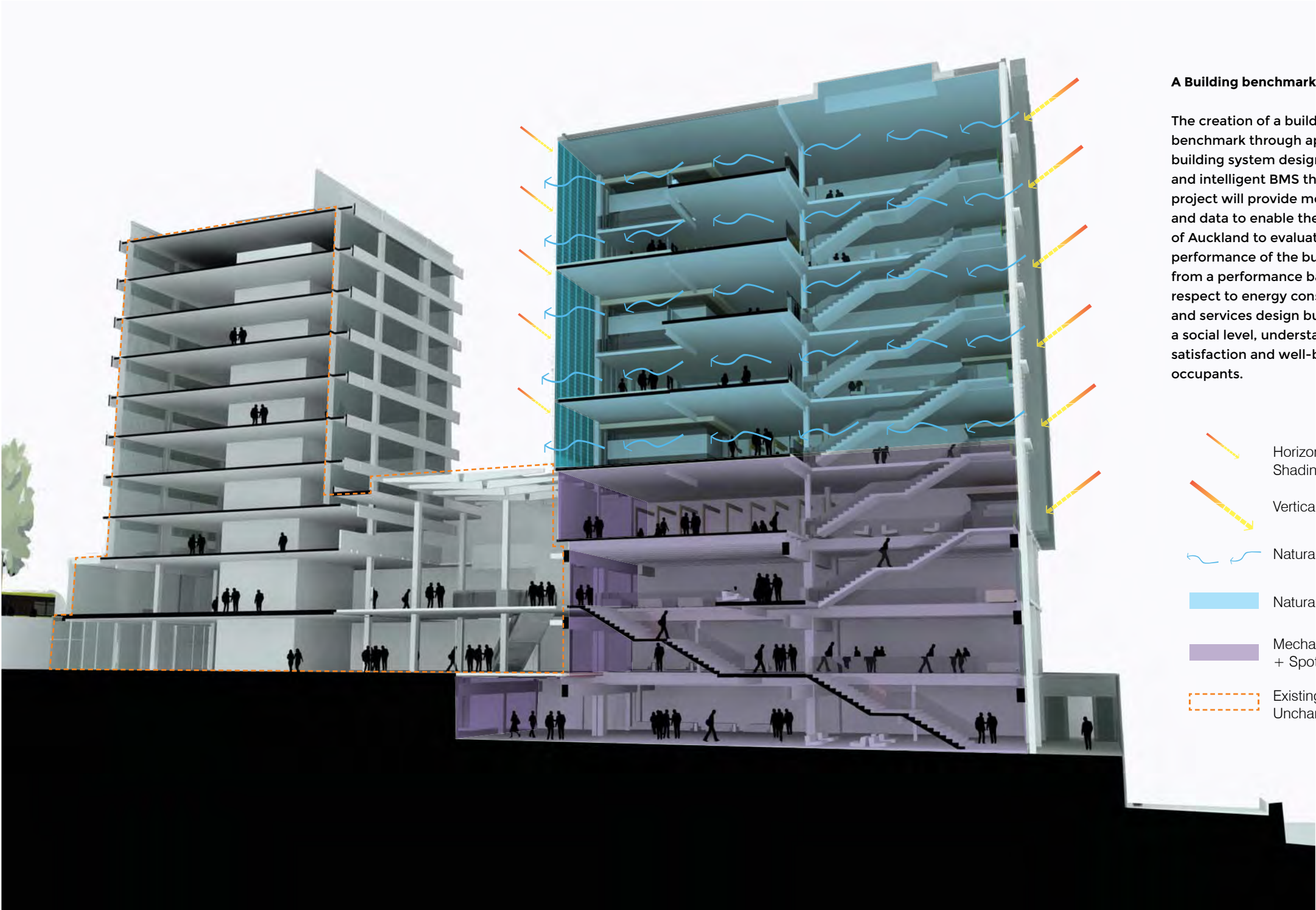
Proposed Sustainable Design principles

A number of key principles have been identified and developed:

- Building re-use
- Educate for sustainability
- Reduce waste - eliminate, reuse, recycle and manage
- Materials - use Durable, local, renewable and non-toxic
- Clear communications - design - build - operate - use
- Future flexibility and adaptability of space and services
- Maximise daylighting and solar shading to minimise energy use
- High performance envelope (double glazed IGUs, sun shading)
- Natural ventilation strategy to offices and central atrium
- Promote user control where appropriate
- Waste heat recovery on server areas

A Building benchmark

The creation of a building benchmark through appropriate building system design, controls and intelligent BMS this building project will provide monitoring and data to enable the University of Auckland to evaluate the performance of the building, both from a performance basis with respect to energy consumption and services design but also on a social level, understanding the satisfaction and well-being of its occupants.



Sectional perspective. The atrium employs a twin skin ventilated facade for natural ventilation of the upper atrium. The facade form and fabric is designed to respond to the site context, responding to climate conditions, acoustic, solar, wind to ensure the wellness and comfort of its occupants whilst minimising the energy required to do so.

SUSTAINABILITY

Part of final year
Bachelor research topic

AUCKLAND HABITAT FOR HUMANITY BACHELOR DESIGN RESEARCH

‘Designing like I give a damn.’ - A proposal for a new sustainable medium density social housing complex for Habitat for Humanity.

This project was an alternative approach to the current housing built by Habitat for Humanity New Zealand. It is a not-for-profit organisation that works in partnership with people of goodwill and families in housing need, to eliminate sub-standard housing. I wanted to address the importance of sustainable design

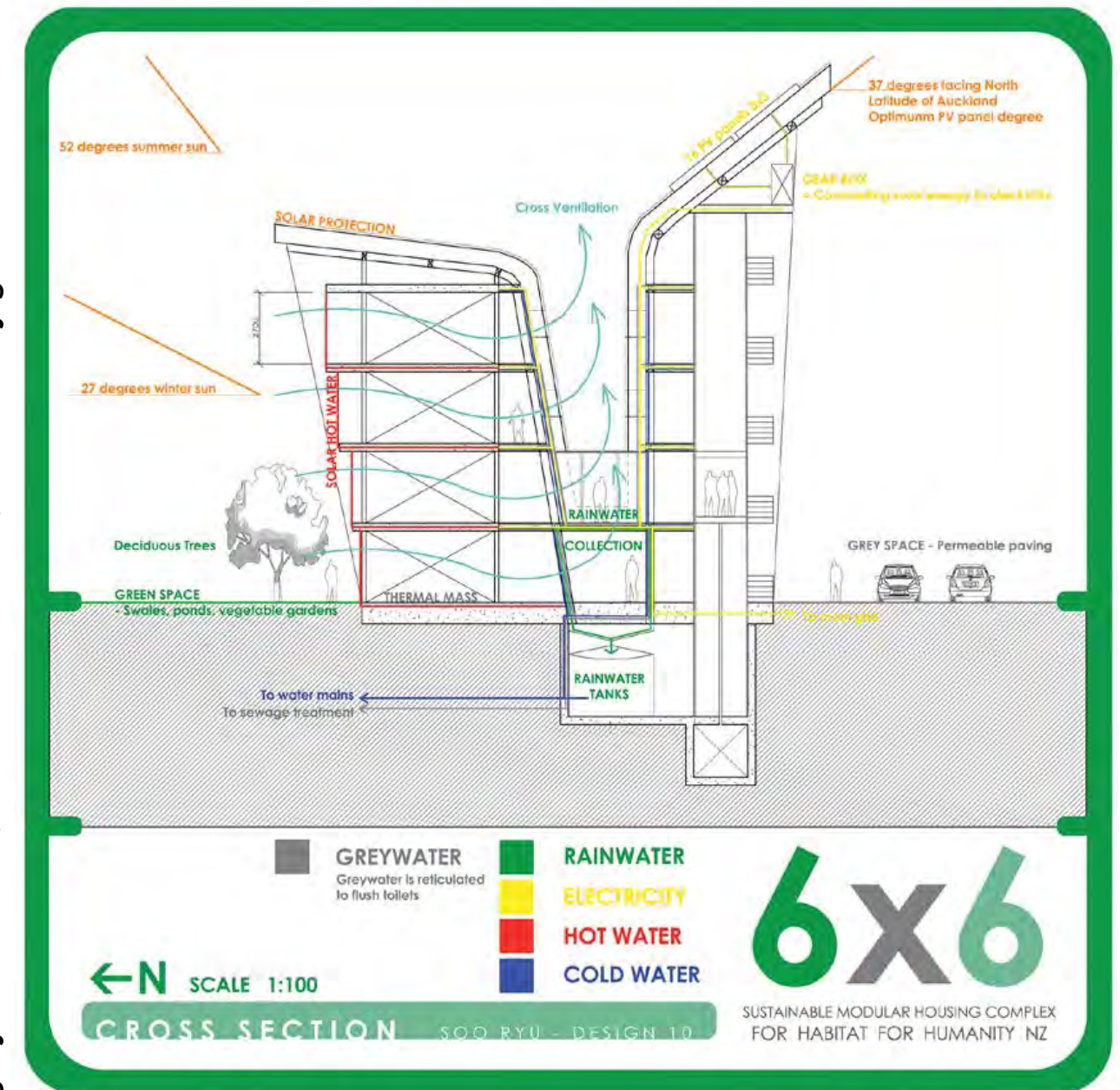
to decrease operational energy costs and through sharing of resources such as washing machines. Through efficient design, utilising renewable technologies, maximising the natural resource such as the rain and the sun, the medium housing complex not only reduces urban sprawl but becomes self-sufficient. The proposal is flexible to accommodate various sizes of modular prefab units that “plug-in” to the organic roof (which captures rainwater and is orientated to maximise the solar energy), which allows high quality output and minimises construction costs through repetition. The intention of this medium density complex is that it encourages community interaction (i.e. community gardens, shared office space, car share etc.), sustainable in its operation and can be built in various locations in NZ.

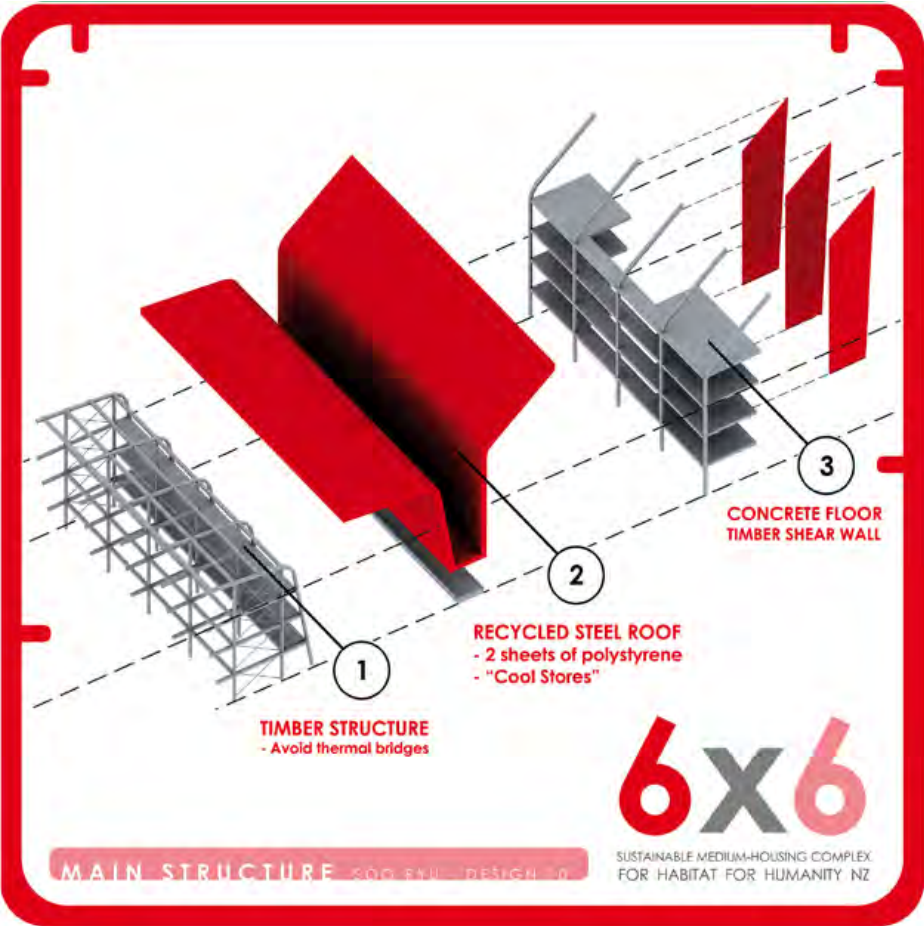
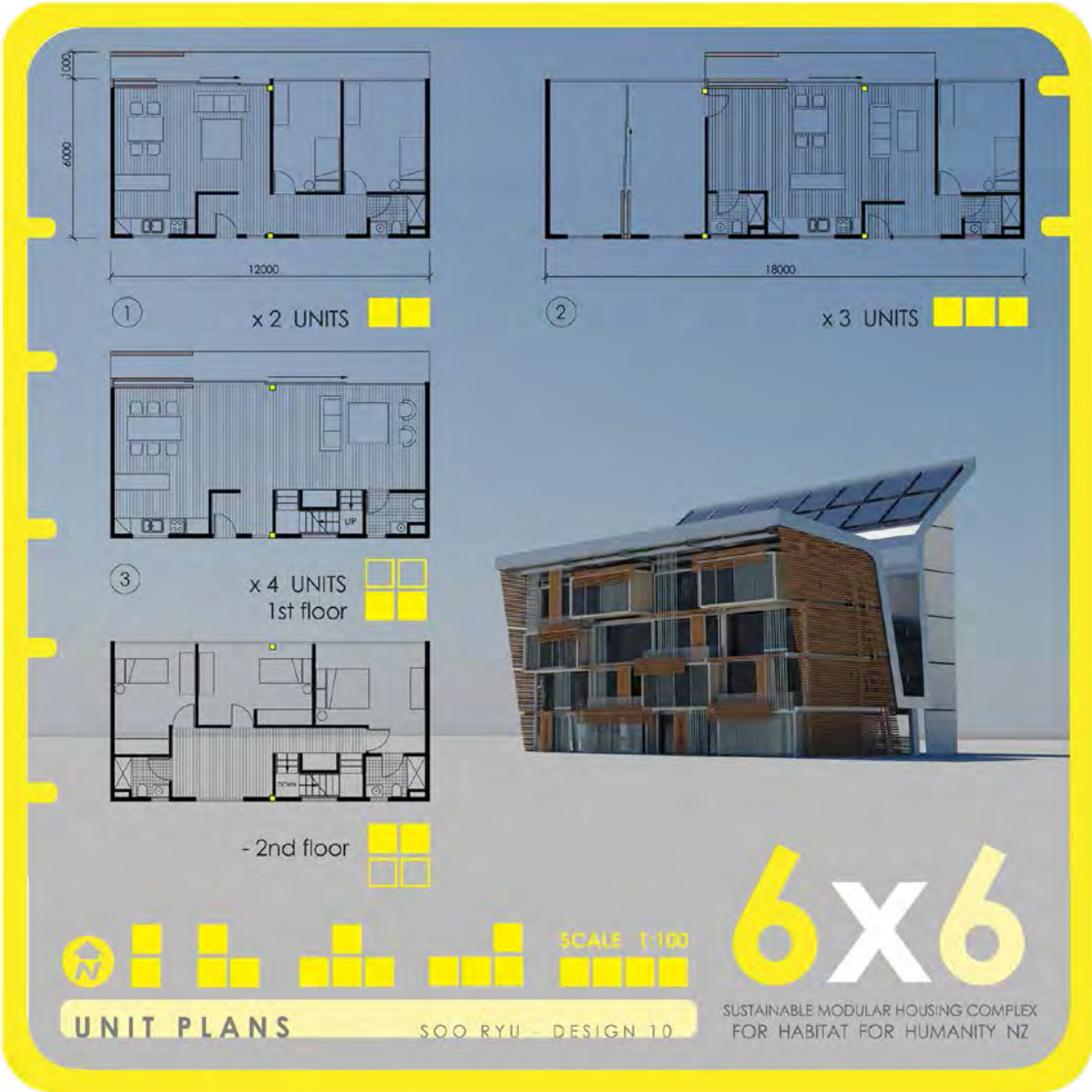


“Designing like I give a damn.”

| BUDGET | START DATE | FLOOR AREA | SITE | SCHOOL | Tutor |
|--------|-------------------------------|-------------------|-------------|---------------------------|--------------------|
| N/A | Final year (5th year) 2007 | 900m ² | All over NZ | University of Auckland | Dr. Paola Leardini |

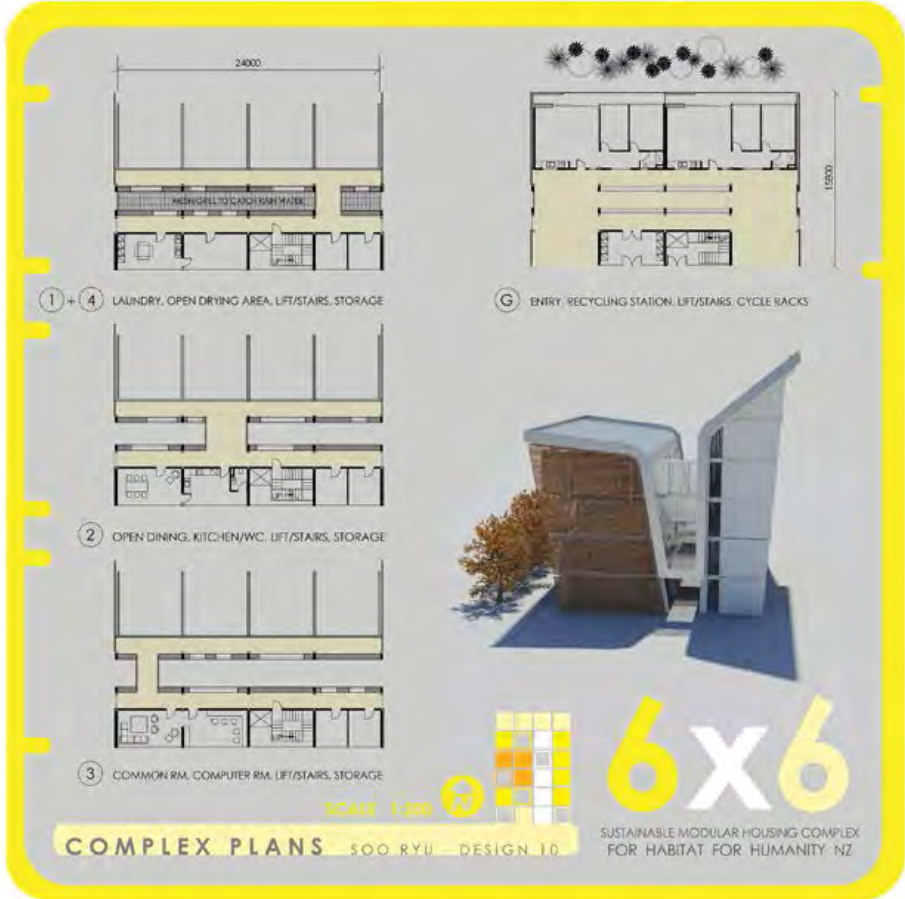
Co-housing principles, solar panel/hot water, rainwater collection, greywater reuse, natural ventilation, community garden





6m X 6m

Maximum daylight penetration for all the units



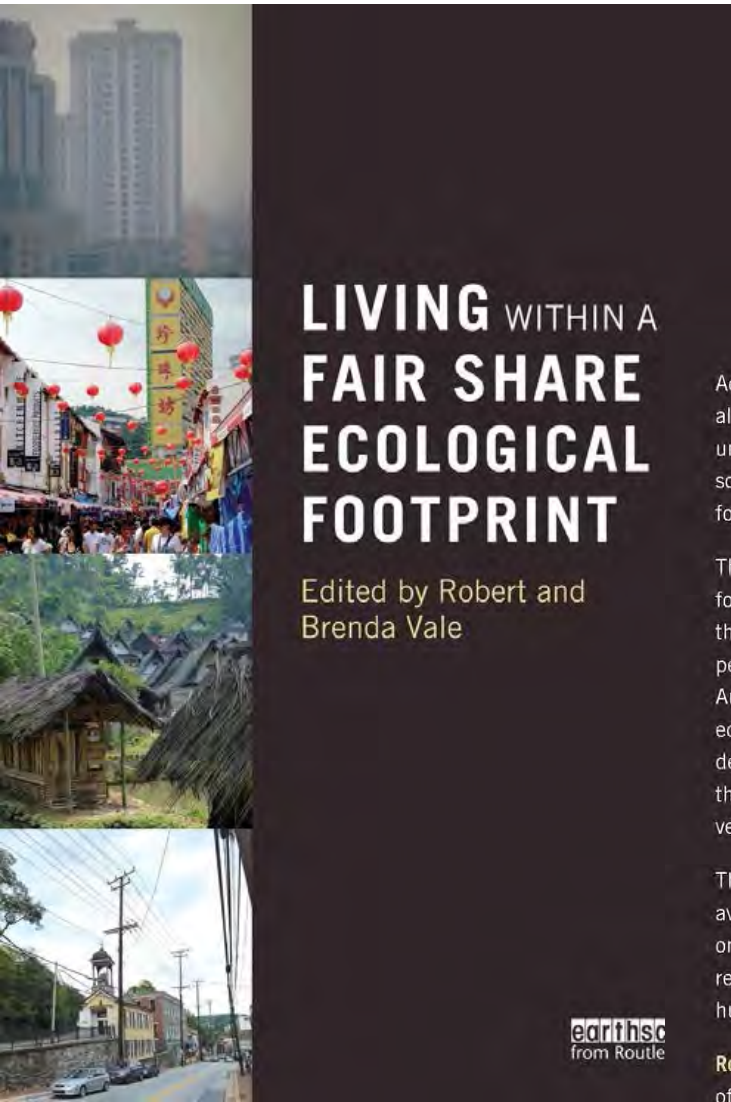
BOOK PUBLICATION MASTER RESEARCH

Book publication based on my master thesis.

Based on the success of my master's research titled: "Guidelines to make Victoria University School of Architecture and Design Carbon Neutral through minimising its reliance on Carbon Offsets." I was invited to contribute towards a book my supervisors (world-renowned researchers in the field of sustainability) were compiling on the theme of living within our ecological footprint. The research focussed on what Universities actually needed to do in order to cut their operational emissions (hence reduce their ecological footprint) using three reduction goals of 25%, 50% and 90% reduction

rather than resorting to purchasing carbon offsets. What the research address is that in order to achieve 25% reduction, it needs to minimise wasteful usage of energy (mainly behavioural changes required). 50% reduction requires minor investments on efficient technologies (such as LED lights) and effective scheduling of resources on top of 25% reduction strategies. 90% reduction requires investment in renewable electricity generation or drastic reduction in use, requiring the school to utilise online technology to conduct its teaching and business operation. Receiving positive reviews for this book, particularly my chapter on: 'Collective footprint - Services.' Read the review here: <http://makewealthhistory.org/2013/06/24/book-review-living-within-a-fair-share-ecological-footprint/>

Contribution of a chapter called "Services"



According to many authorities the impact of humanity on the earth is already overshooting the earth's capacity to supply our needs. This is an unsustainable position. This book focuses not on the problem but on the solution, by showing what it is like to live within a fair share ecological footprint.

The authors describe numerical methods used to calculate this footprint, concentrating on low- or no-cost behaviour change, rather than on potentially expensive technological innovation. They show what people need to do now in regions such as Europe, North America and Australasia where current lifestyles involve living beyond the available ecological means. The calculations focus on outcomes rather than on detailed analysis of the methods used. The main objective is to show that living with a reduced ecological footprint is both possible and not so very different from the way most people currently live in the West.

The book clearly demonstrates that change in behaviour now will avoid some very challenging problems in the future. The emphasis is on workable, practical and sustainable solutions based on quantified research, rather than on generalities about overall problems facing humanity.

Robert and Brenda Vale are Professorial Research Fellows in the School of Architecture, Victoria University of Wellington, New Zealand. They share common research interests in ecological footprinting and sustainable building design, and are both currently working on the new Foundation for Research, Science and Technology (FRST) project to deliver ecological footprinting and systems approaches to sustainable development of communities.

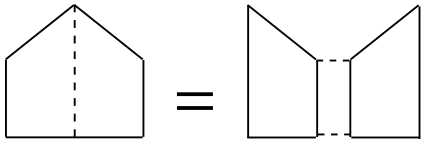
MOSS HOUSE

LOW COST, EARTHQUAKE SUSTAINABLE

Moss House - A house that grows.

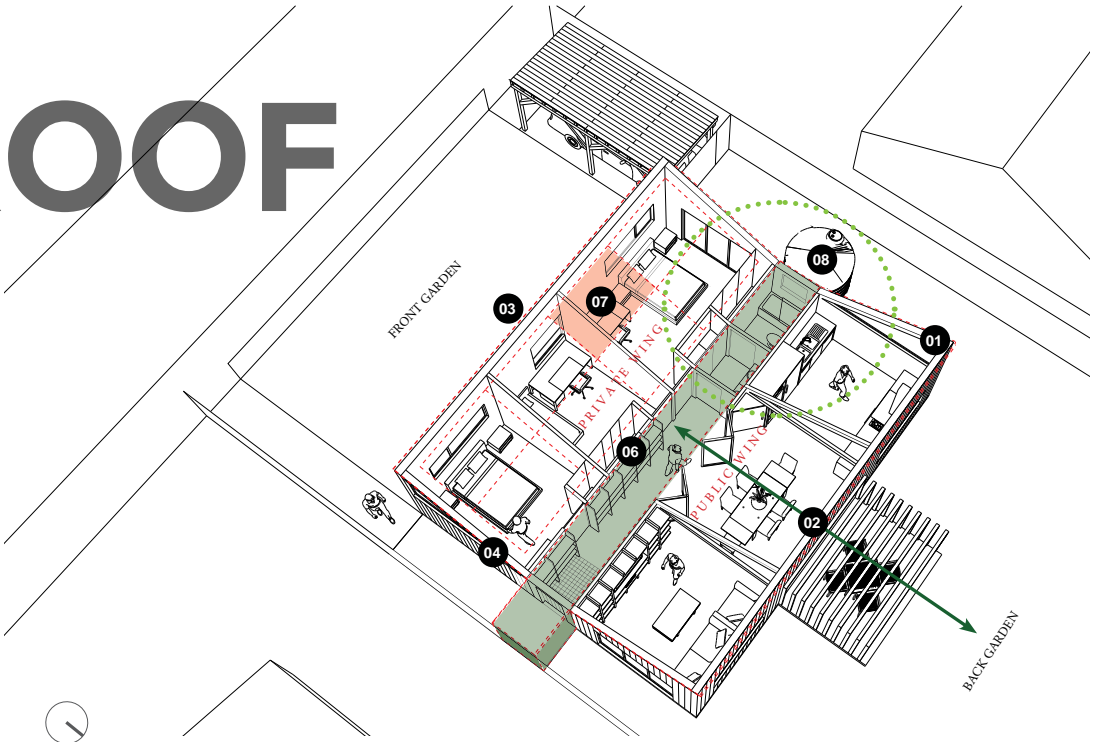
The city's finest spaces seem inconceivable without its natural fabric that envelops and shapes the city. It is therefore particularly disheartening to watch many great examples of modernist houses that are being demolished and left abandoned post-earthquake leaving behind a ruin with the greenery taking over as if to cover the tragic past. Is there a way that we can embrace this natural intervention? Could it be part of the design language? Could it adapt itself to be suitable to our current times? Could it be sustainable, self-sufficient, flexible and modern for the people of today? Could it be smarter so that it is better prepared for

the future? Could we make more use out of local materials? The Two zones are created with each wing catering to its different needs (i.e. One is public and the other is private). The windows are strategically sized and placed in accordance with the function of the room and sloping roof gives higher ceiling height to aid psychological well-being. It is future proofed by allowing PV panels to be installed in the future and is able to capture rainwater through the butterfly roof design which is also a Canterbury design language. The components of the facade are simple and repetitive making it modular to ensure cost effectiveness. Any cost retrieved could be used towards installing PV panels, rainwater tank or using better performing material such as double glazing and thicker insulation.



Submission for
Canterbury Housing
Competition

PROOF

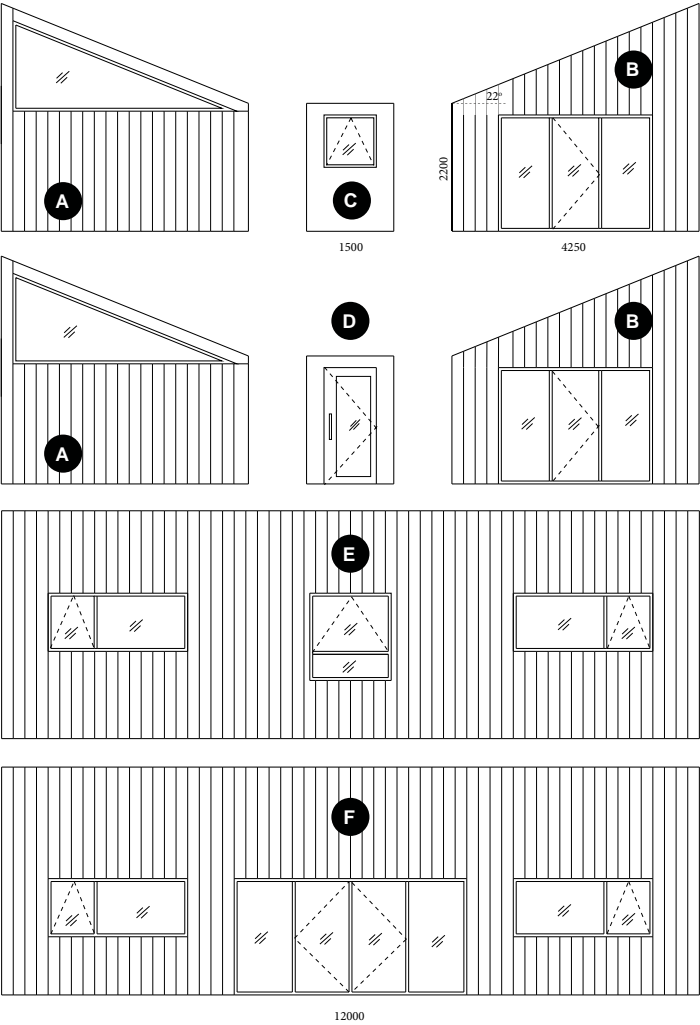


- 01 Passive Design - Natural Daylighting & Ventilation**
Concrete exposed slab (polished) on north living area (dining area) used as thermal mass to capture solar heat during winter. Natural Ventilation and daylight aided by clerestory windows and openable sliding doors from the deck.
- 02 Open Plan Living**
Kitchen, dining and living spaces are all open plan to maximise feeling of spaciousness - the glass doors open out to the corridor space and outdoor deck area to maximise space. Flexibility in bedroom sizes which can be converted into a study.
- 03 Street Front Facade**
Covered with Virginia Creepers (or Ficus Pumila) to allow the building to be naturally screened from the public eventually becoming a green screen that changes with seasons and grows/changes with time. This facade is left to be designed by nature.
- 04 Materials**
Concrete slab foundation, timber framed walls & trusses, timber/cladding with thicker external walls for increased insulation & aluminium external joinery (thermally broken), corrugated iron roof, C grade clear finish ply for interior joinery.
- 05 Private VS Public**
Private wing (south facing) is a bedroom space with windows at higher level to aid privacy from the street without compromising daylighting/passive ventilation. Public wing (north facing) is open space that leads to the private garden with bathroom & corridor library in between.
- 06 Minimise circulation space / Bookcase library corridor**
Circulation/corridor acts as a buffer between private and public space/zones. The walls are adorned with bookcase fixtures which can be used for storage and aids acoustic insulation. All doors and corridors sizes are disable friendly.
- 07 Roof: Future proofed for PV**
North facing roof (on private zone) can accommodate PV panels and Hot solar water to aid self sufficiency in the future - esp in the event of a natural disaster. Not costed as part of the brief of \$1700/m².
- 08 Rainwater collection + cluster of water fixtures**
Butterfly roof slopes down & with a fall so the water can be channelled into the rainwater tank. (Not costed as part of the \$1700/m²) Hot water cylinder, kitchen sink, bathroom fixtures are all in the same vicinity to allow efficiency and can be easily connected to the rainwater tank.

moss house

house that grows

Submission for Cantabrian Housing Competition



- Public Space**
1. Living Area: 4m x 4.25m = 17m²
 2. Dining Area: 4m x 4.25m = 17m²
 3. Kitchen: 4m x 4.25m = 17m²
 4. Deck Space: 4m x 3m = 12m²
- Sharing (Buffer) Space**
5. Corridor Library: 1.5m x 7.7m = 12m²
 6. Bathroom / Laundry: 1.5m x 4m = 6m²
 7. Entry (covered by roof carried down)
- Private Space**
8. Master Bedroom: 5m x 4.25m = 21m²
 9. Single Bedroom: 3.2m x 4.25m = 14m²
 10. Guest / Study: 3.8m x 4.25m = 16m²
- Utility**
11. Optional Water Tank zone
 12. Car port: 3m x 6m = 18m²
- TOTAL: 150m² (incl. walls)**

