

Project List

01	All Under One Roof	Study
02	Xu Residence (RUFproject)	Built
03	An Addition to A Family Home	D.D.
04	Laneway X (RUFproject)	Built
05	Junglist Brutalism	S.D.
06	Veiled Presentation Centre (RUFproject)	Unbuilt
07	4 Music Boxes & A Color Field	Built
08	4 Rooms With No Program	S.D.
09	An Art Gallery With No Art	Speculative
10	The Wall	Speculative
11	House of Hoops (RUFproject)	Built

The following is a collection of recent work by Ian Robert Sandilands (BFA, MArch).

Work is pulled from commercial and residential freelance work for private clients, past work while employed by RUFproject, as well as research driven projects.

Past commercial clients include Nike, Stüssy, Tilley and Converse.

Thank you.

Experience

Freelance Architectural Designer
Residential & Commercial Work
2019-2022

MASH Design (AUS)
Architectural Lead
2020-2022

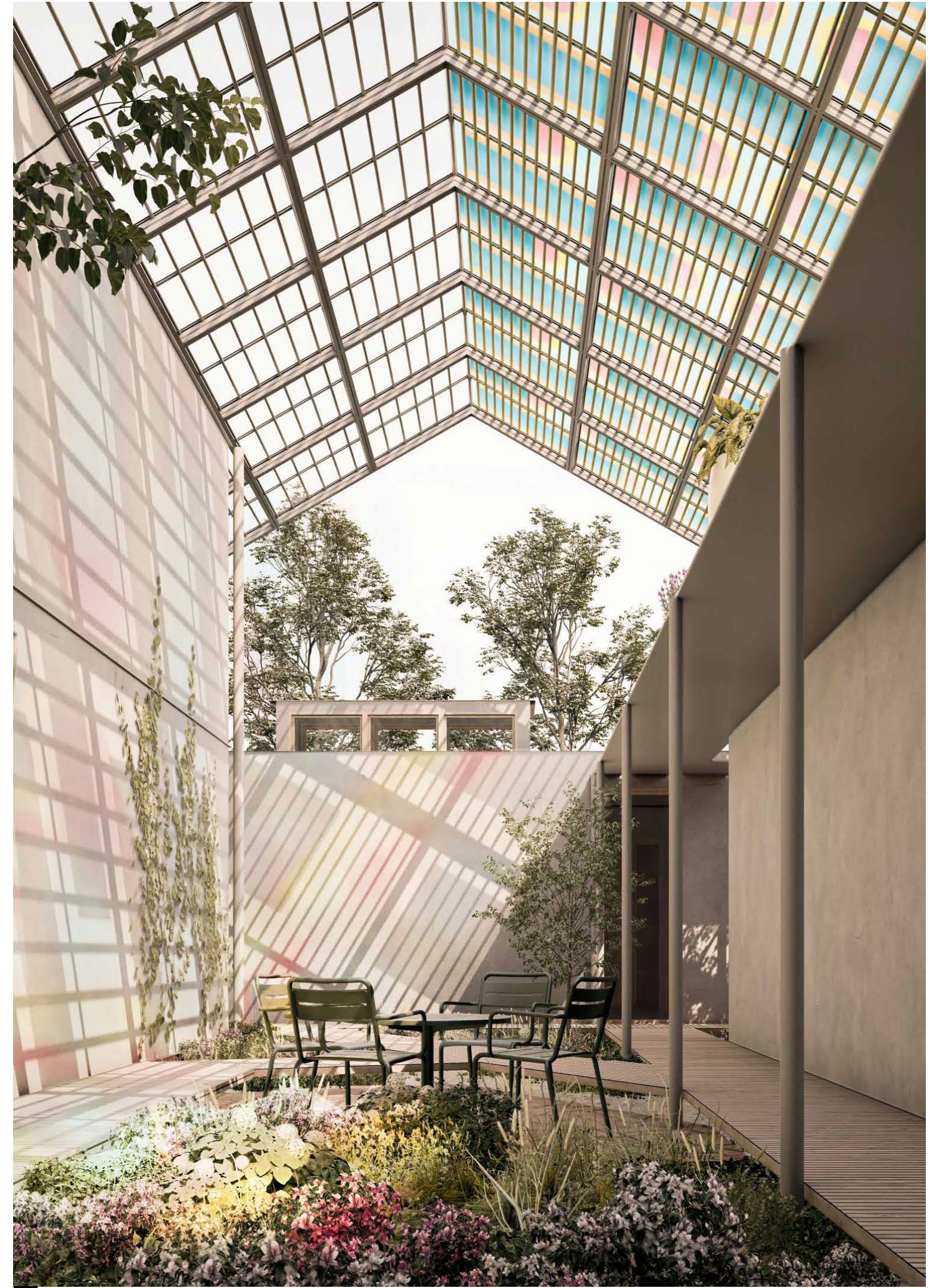
RUFproject
Architectural Designer
2017-2020

COHO Labs
Design, Research, Visualization
2016-2018

Master of Architecture
School of Architecture and Landscape Architecture
University of British Columbia
2015-2018

Bachelor's of Visual Arts/Curatorial Studies
Emily Carr University of Art and Design
2011-2015

A.01

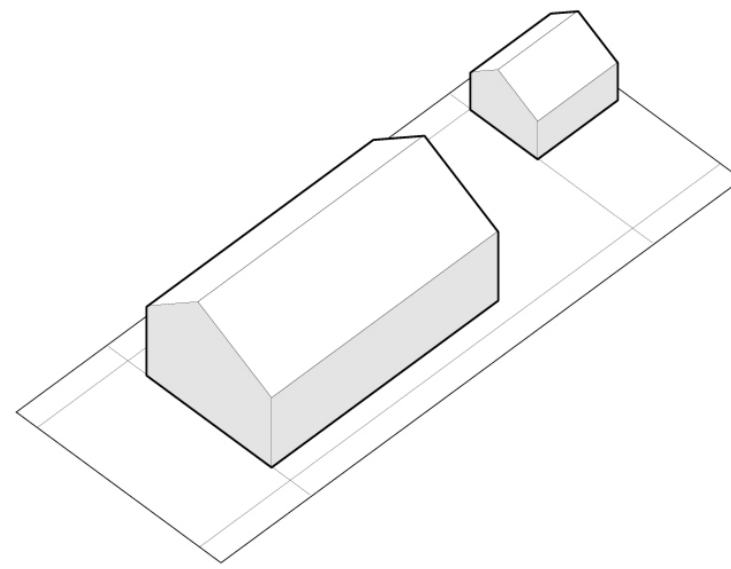


Title	All Under One Roof
Program	Multi-Family Residential
Zoning	RS-5
Status	Study
Location	Vancouver, B.C.
Size	4,340 sqf
FSR	0.7 x 6,250 sqf = 4,735 sqf permitted

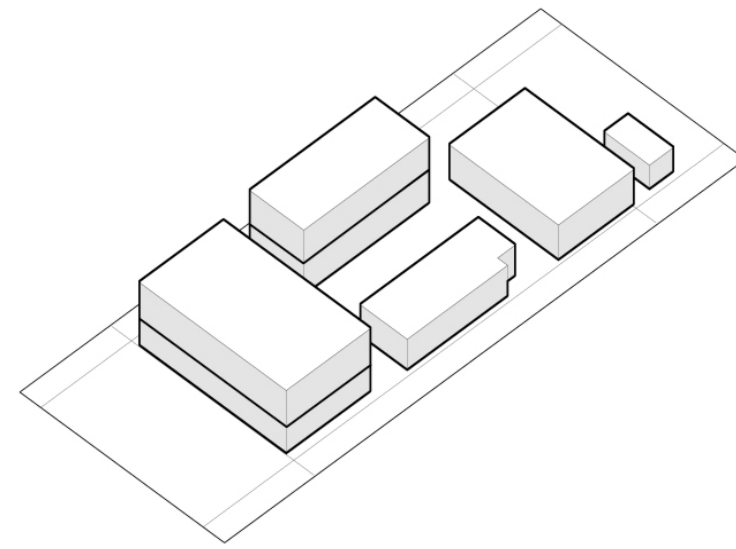
South Elevation

Digital Image

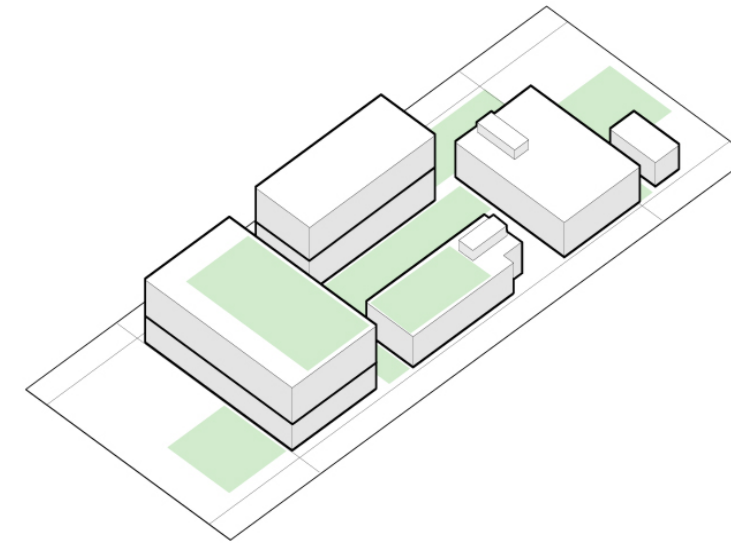
A.01



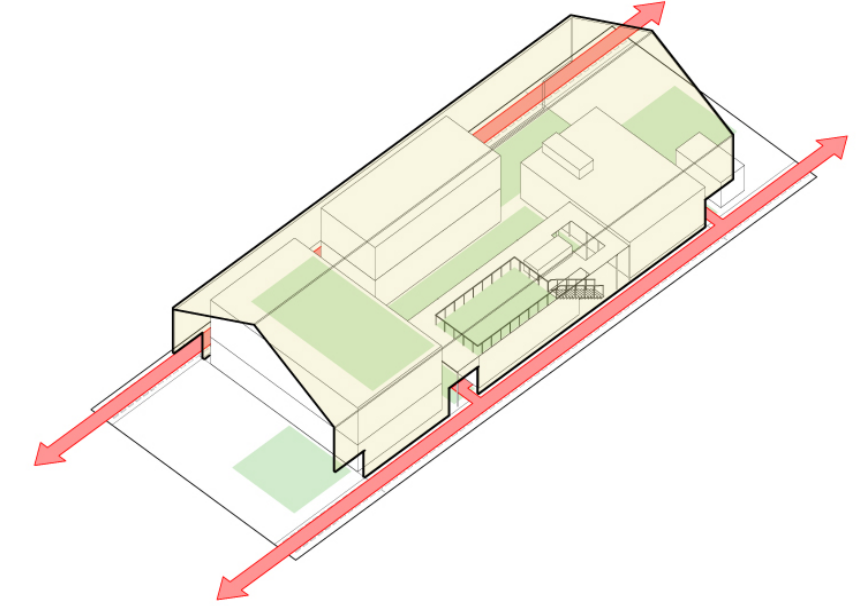
1 A typical single family Home on the site
0.7 FSR x 6900 sqf = 4500 sqf



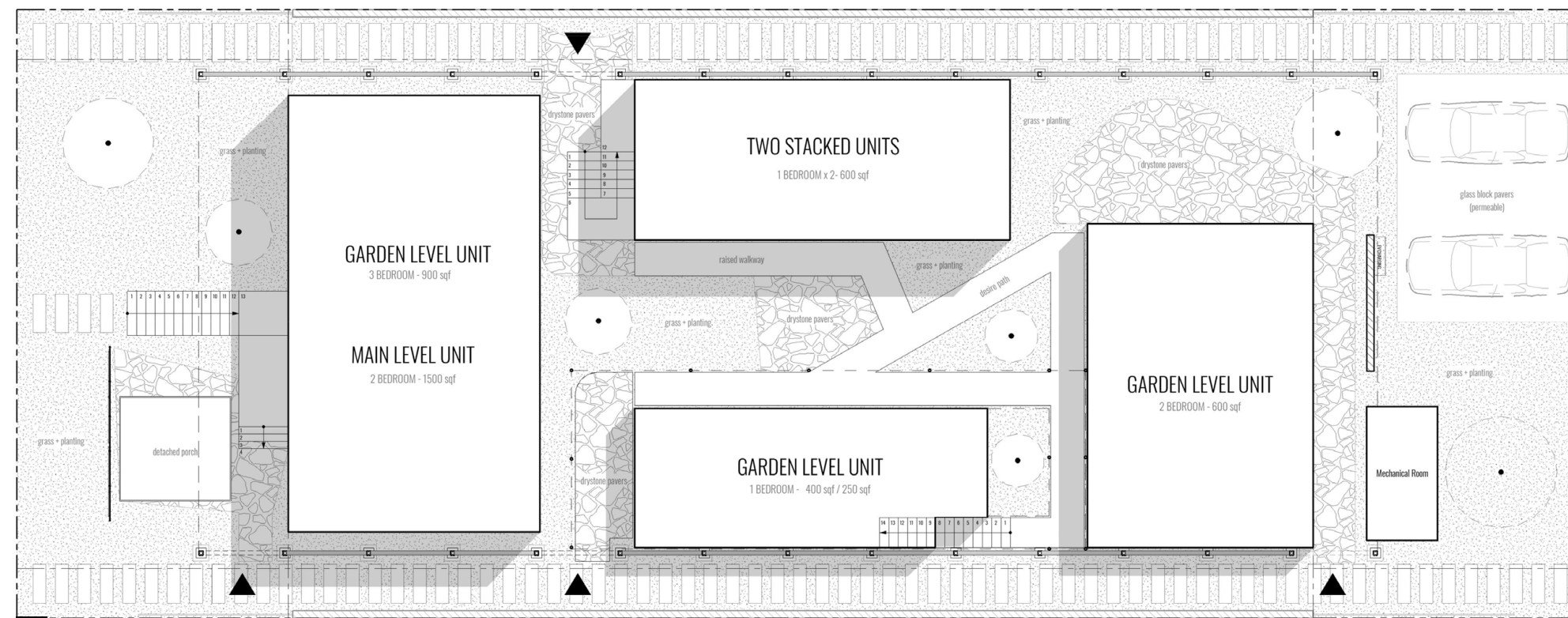
2 The same square footage arranged on site as 6 rental units.
0.7 FSR x 6900 sqf = 4500 sqf



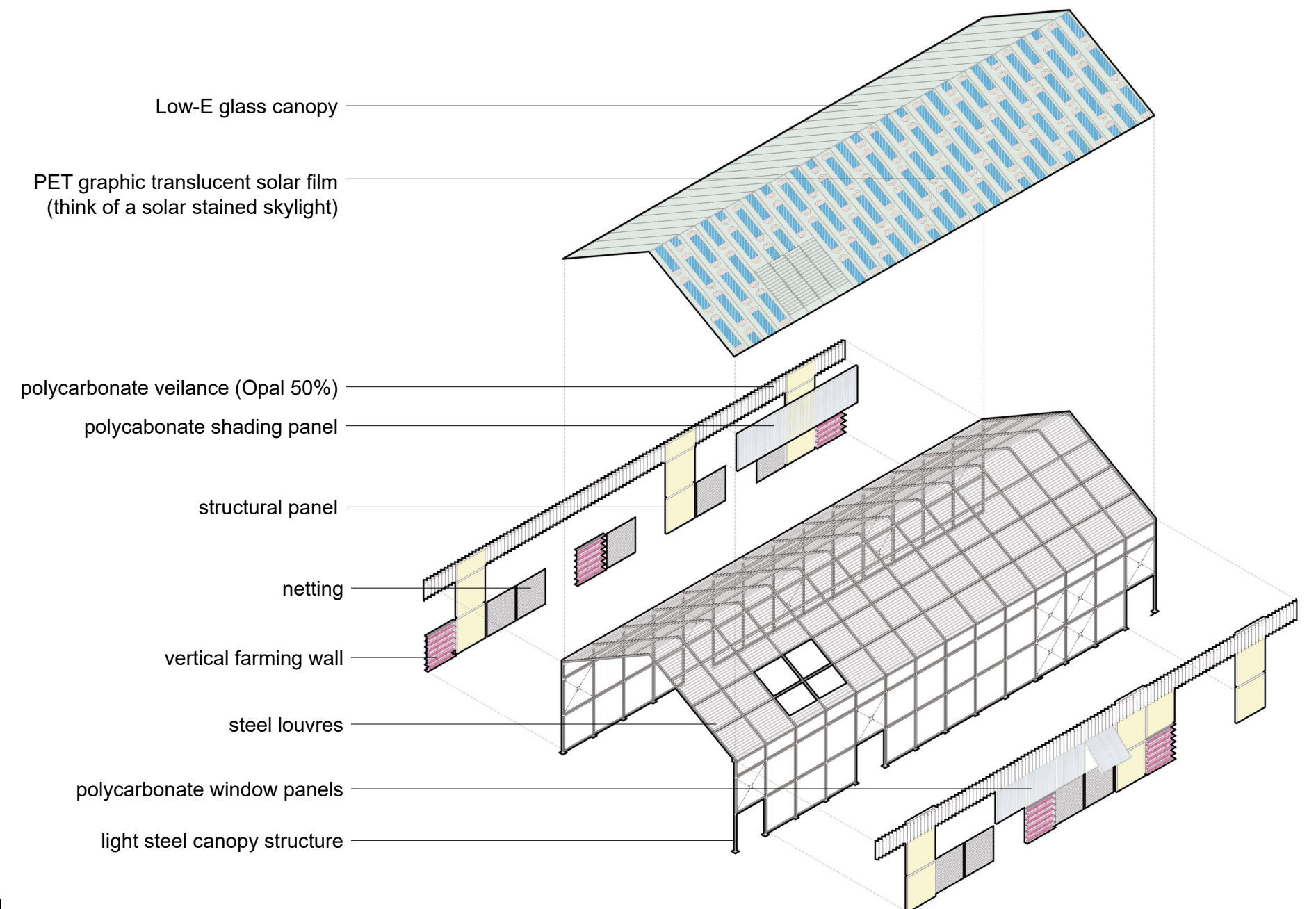
3 This arrangement creates a semi-enclosed outdoor space for each unit.
1800 sqf of garden space



4 Circulation through the site is contained in the site setbacks, allowing the interior gardens to remain private.



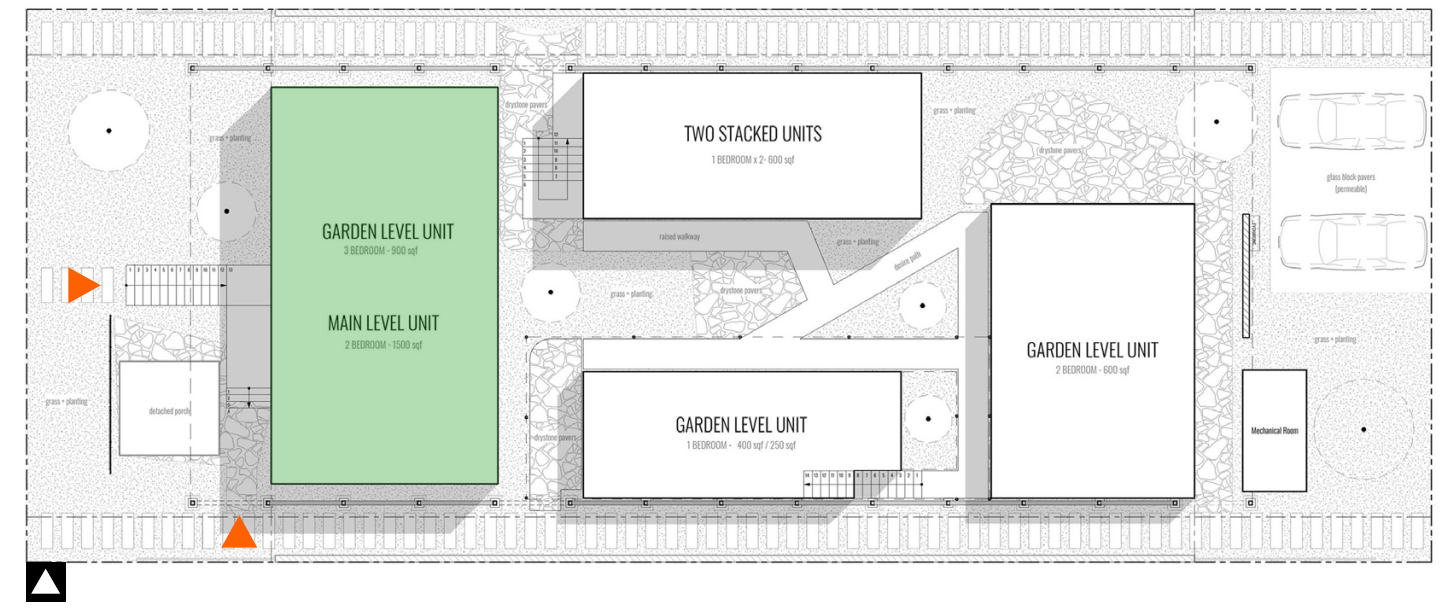
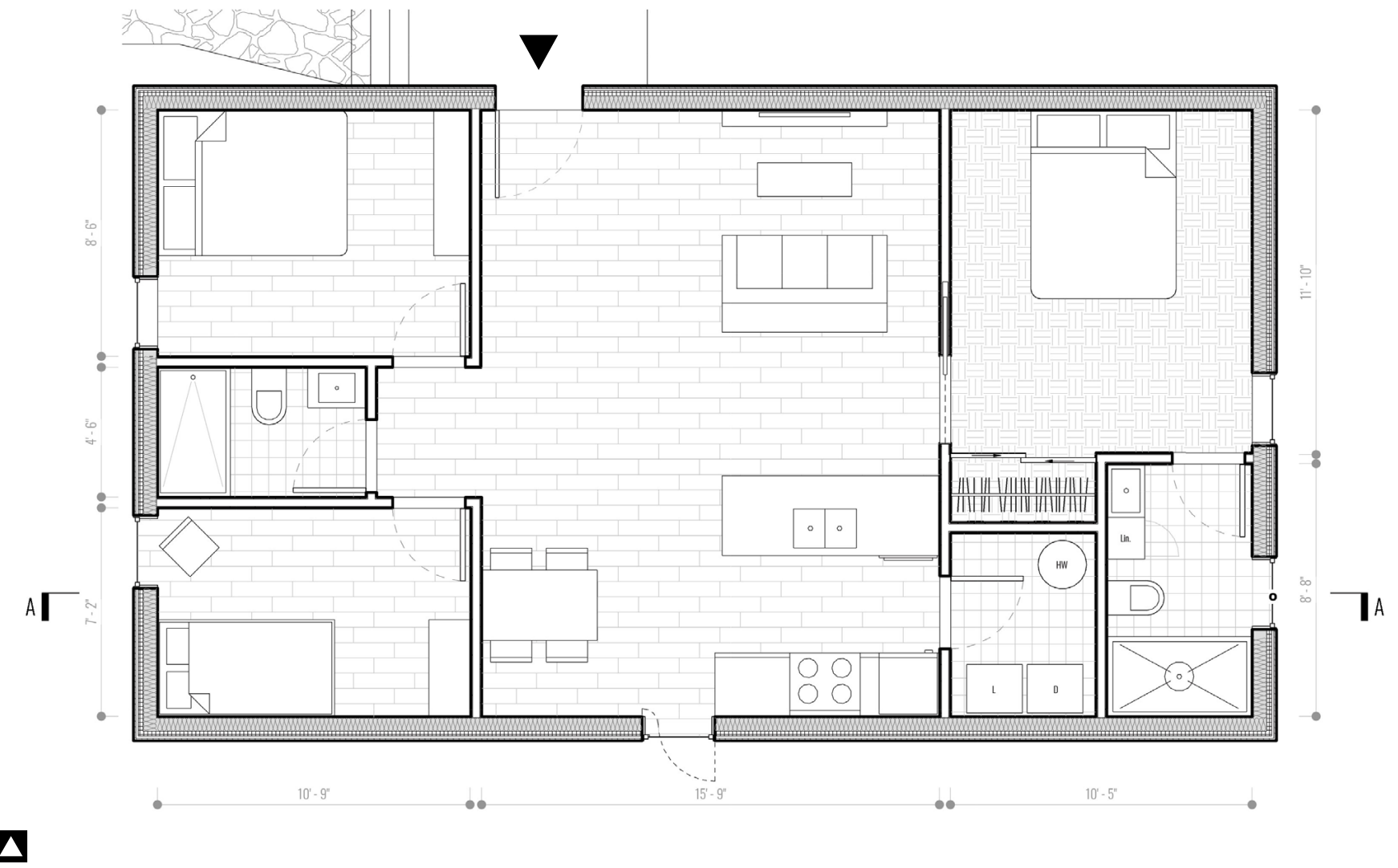
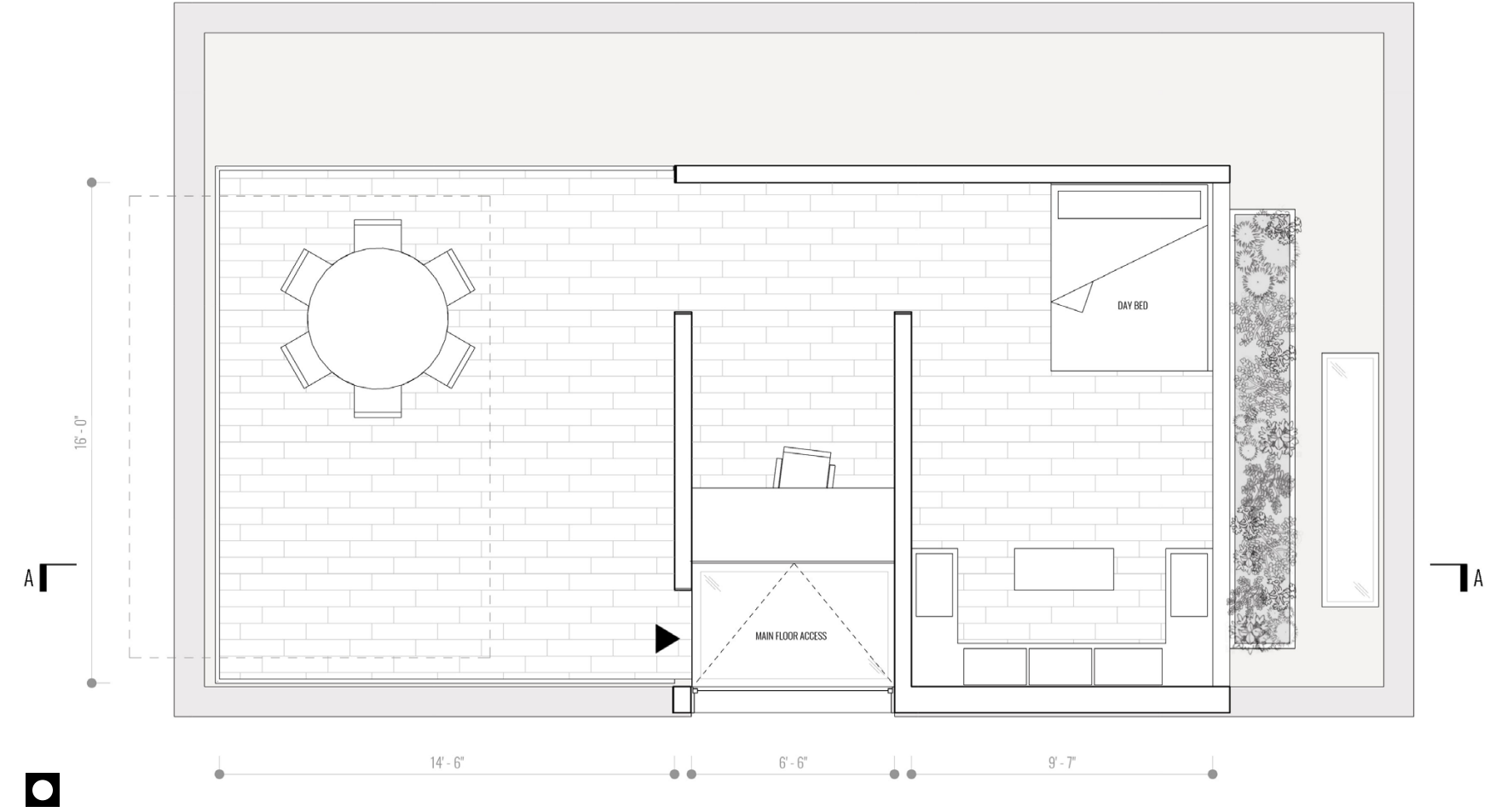
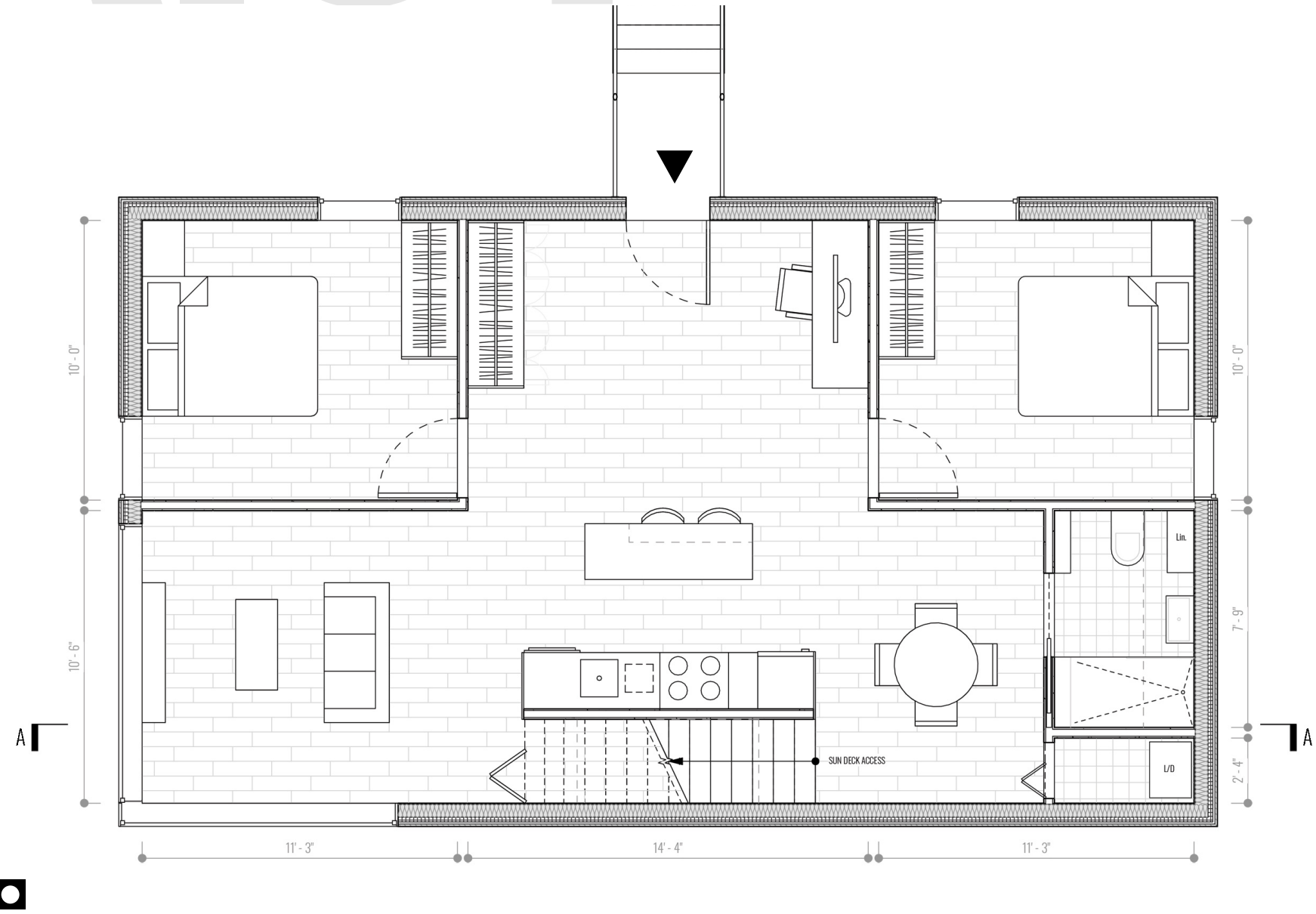
All Under One Roof is a response to the City of Vancouver's "Making Home" initiative to create housing options for middle income earners. This pilot program allows for six units on one site. In All Under One Roof, six units are arranged underneath a large climate canopy. All Under One Roof, is a reaction to the urgent need for densification as well as our increasingly volatile climate. The lightweight canopy structure supports solar louvres and PET Graphic Solar film. This solar system serves to mitigate heat, harvest energy and washes the site in colored filtered light. Under the canopy, a number of climate mediated outdoor spaces sit between the units. One for each unit. When entering the site, each inhabitant has a private entrance into the canopy which is accessed via walkways located within the site setbacks. This approach to circulation allows a high level of privacy for each of the climate mediated outdoor spaces. Raised walkways allow secondary movement across the interior of the site, which is landscaped with local trees and overgrown vegetation. *Under The Canopy life thrives.*







A.01



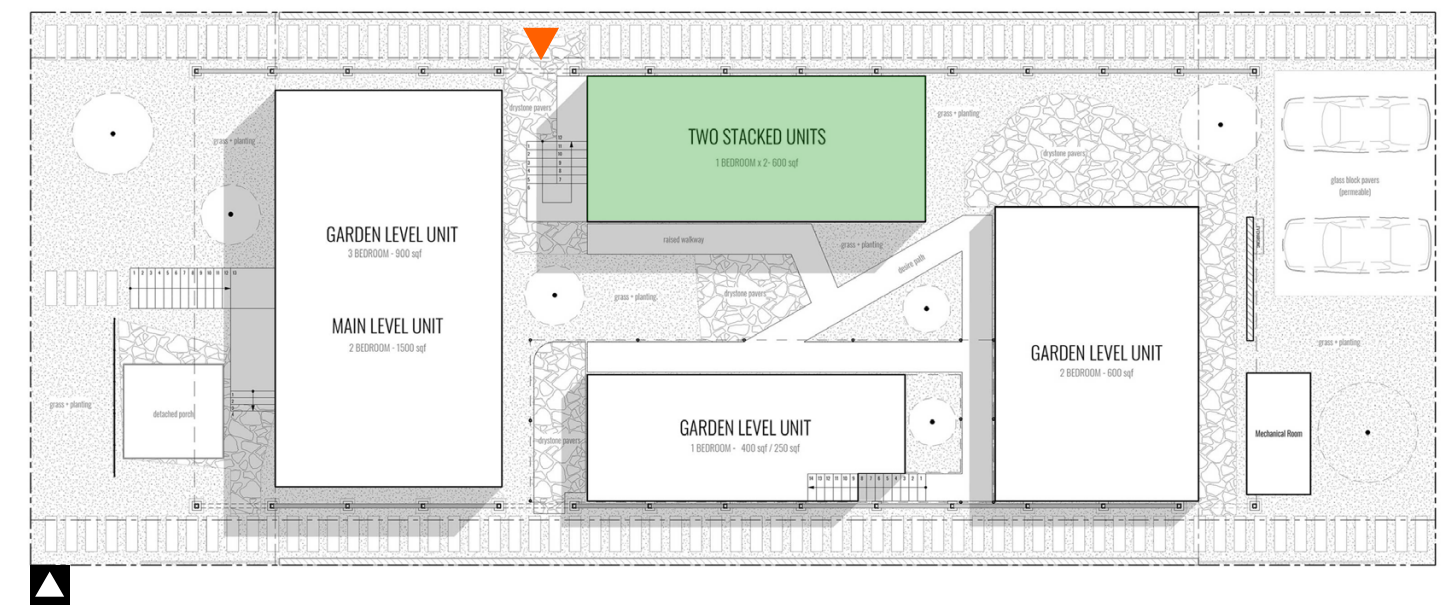
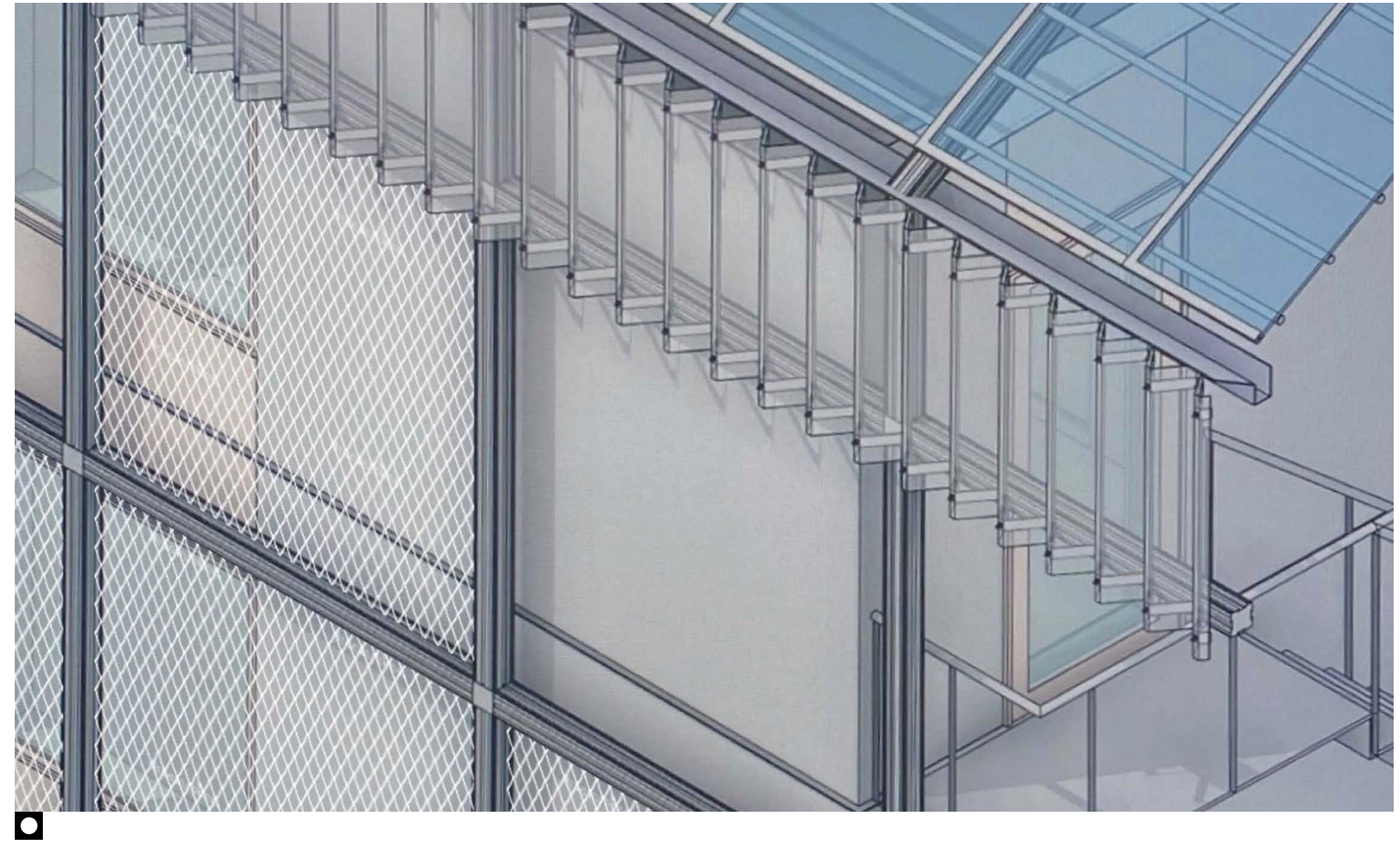
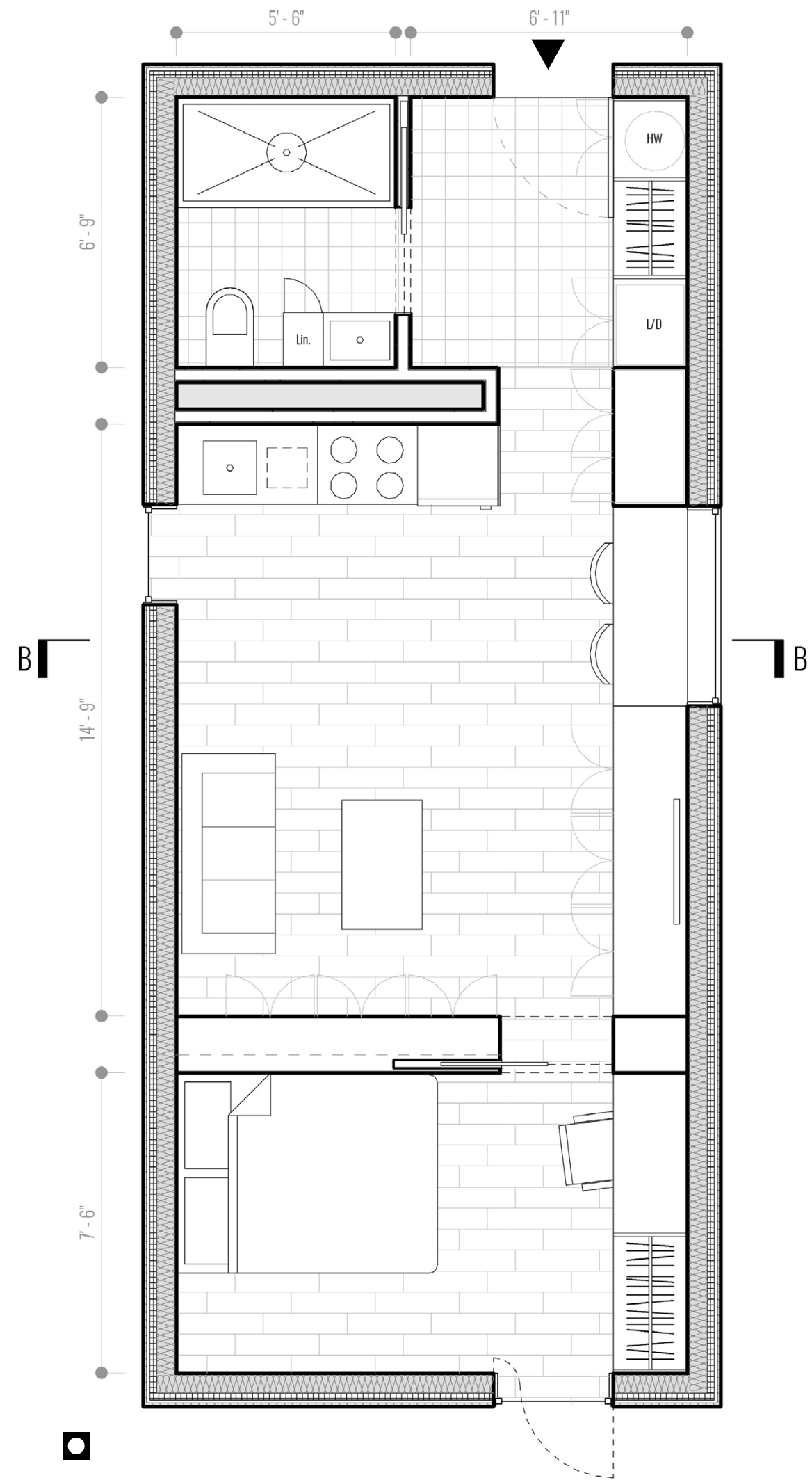
■ Main Level 2 Bedroom Plan

▲ Garden Level 3 Bedroom Plan

■ Roof Deck Plan

▲ Key Plan (unit entry into canopy)

A.01

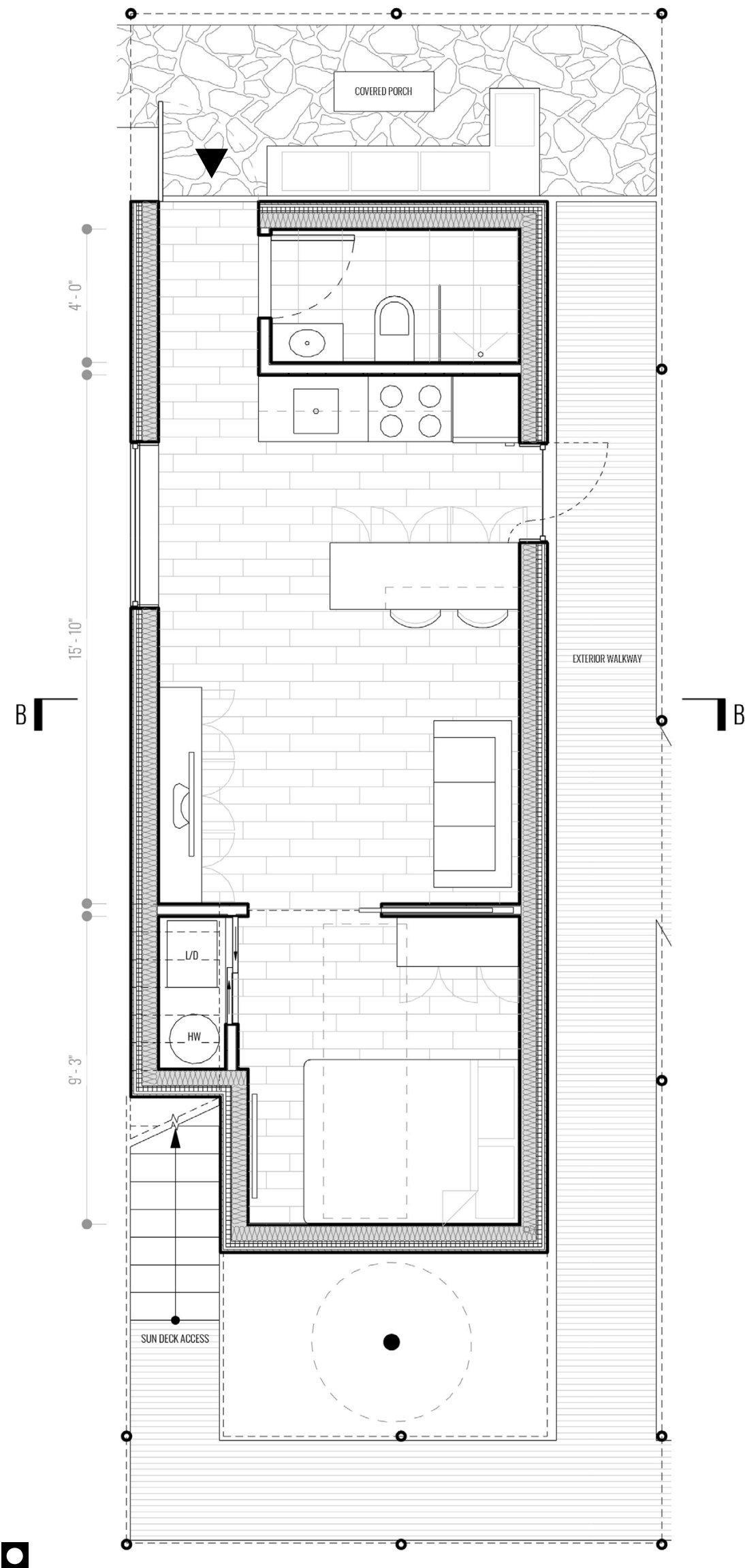


■ Stacked 1 Bedroom Plan

■ Digital Image

▲ Key Plan (unit entry into canopy)

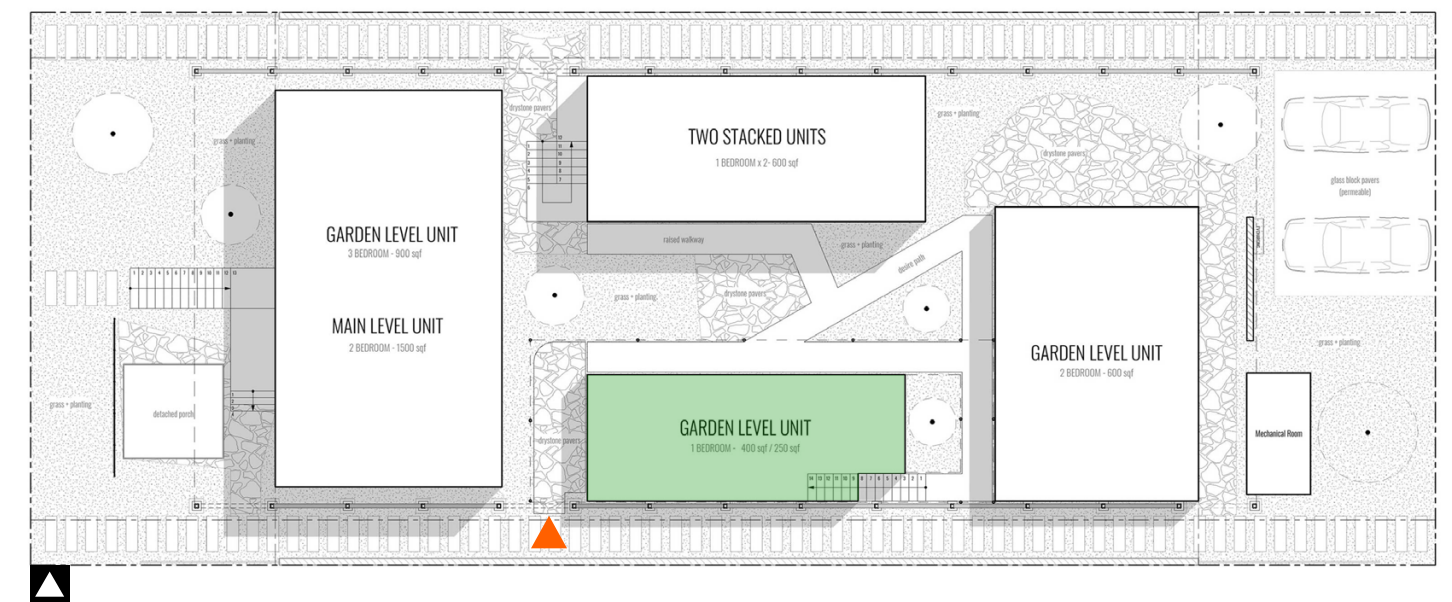
A.01



■ Studio w/ Sun Deck Plan

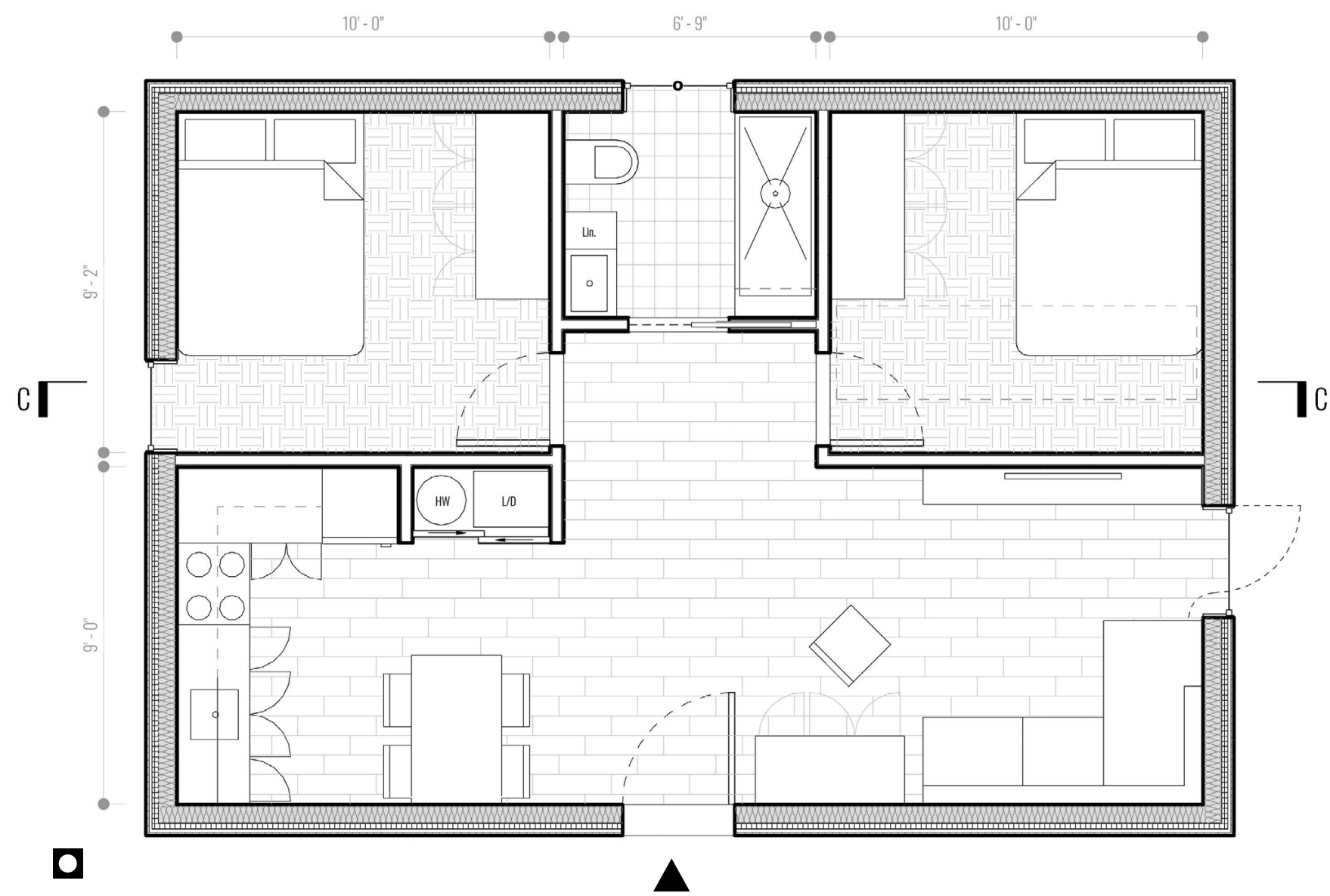


■ Roof Deck

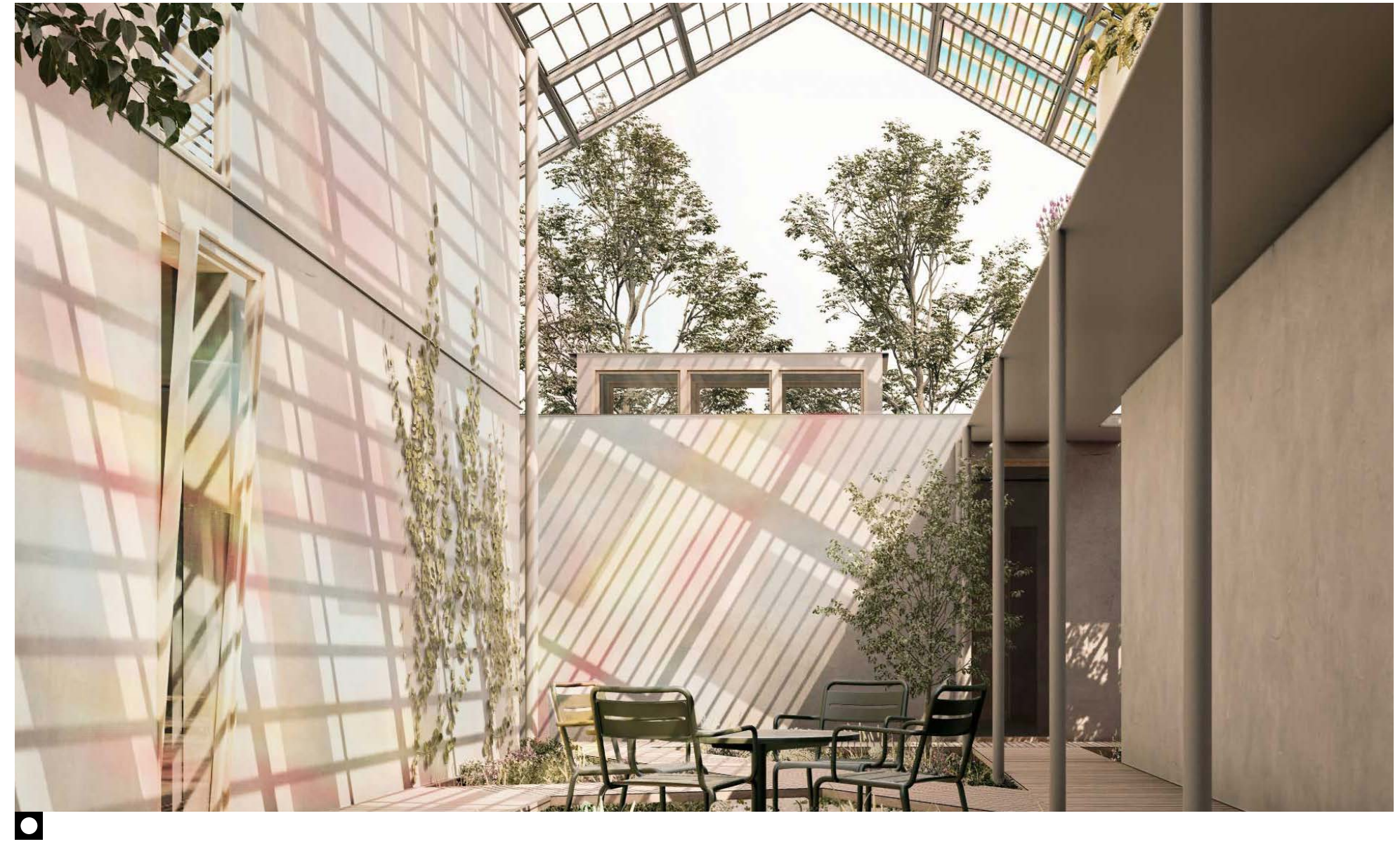


▲ Key Plan (unit entry into canopy)

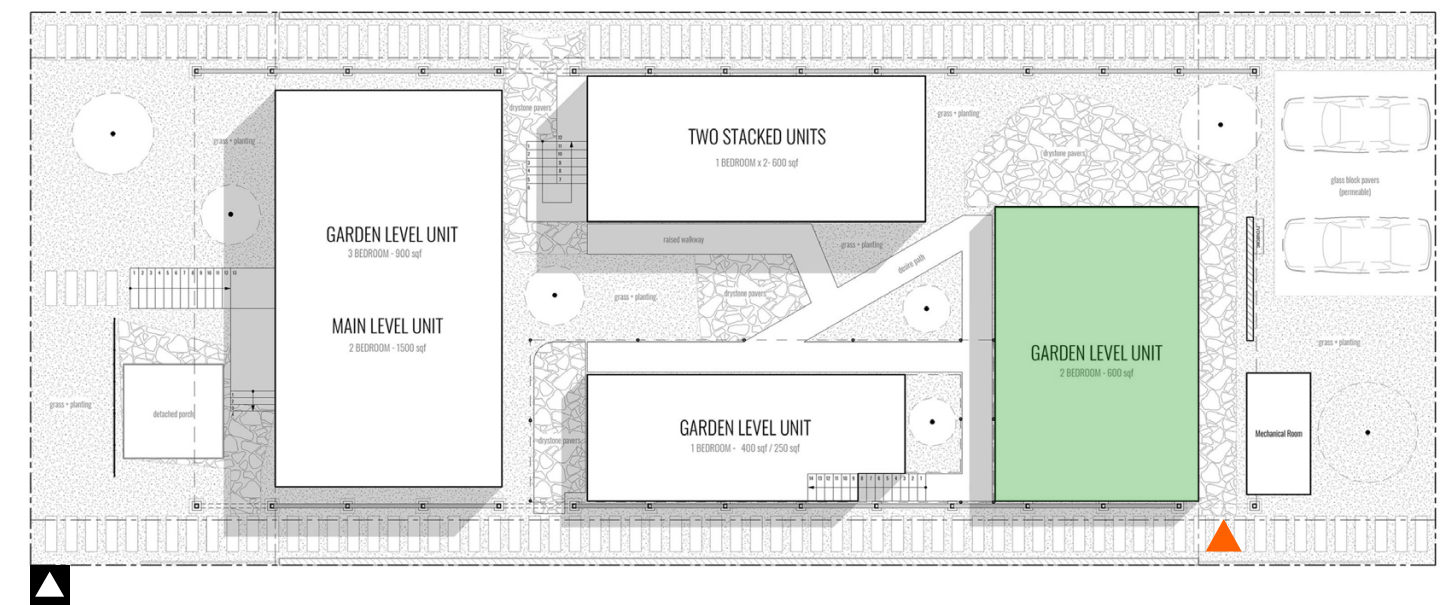
A.01



■ Garden Level 2 Bedroom Plan

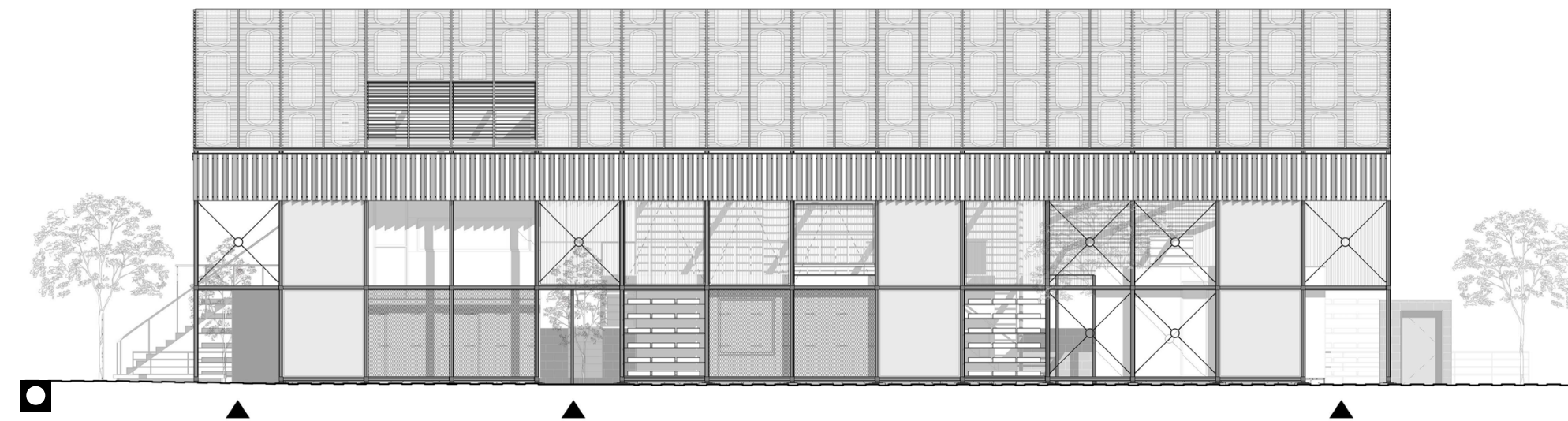
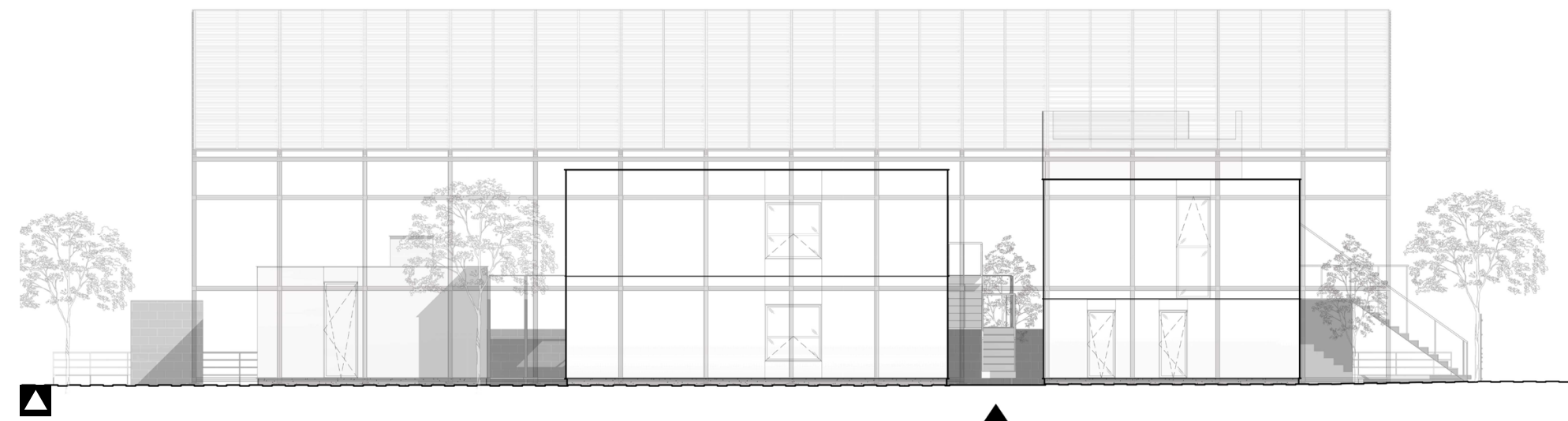
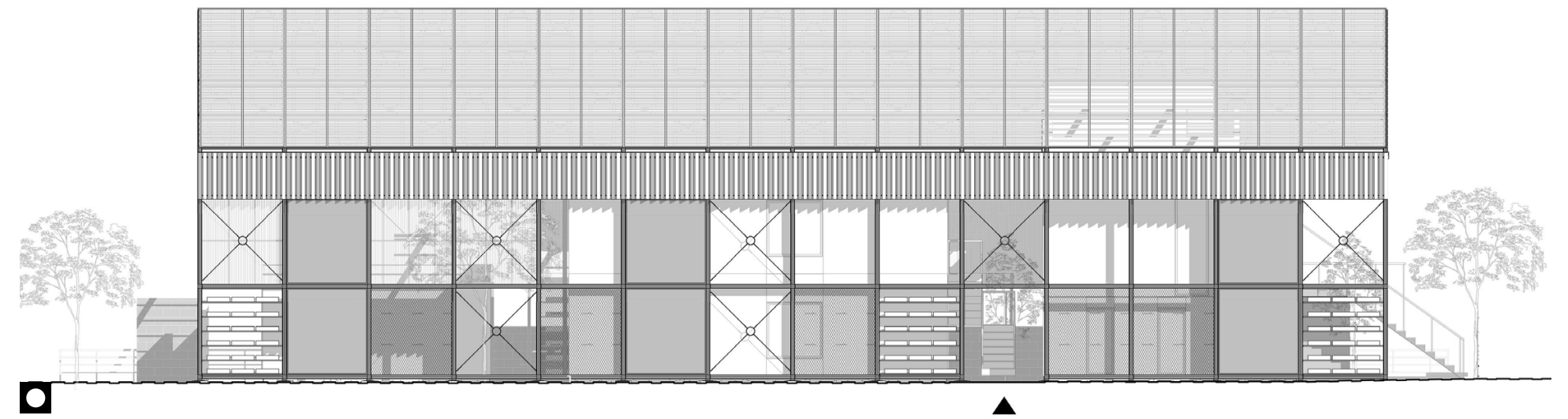
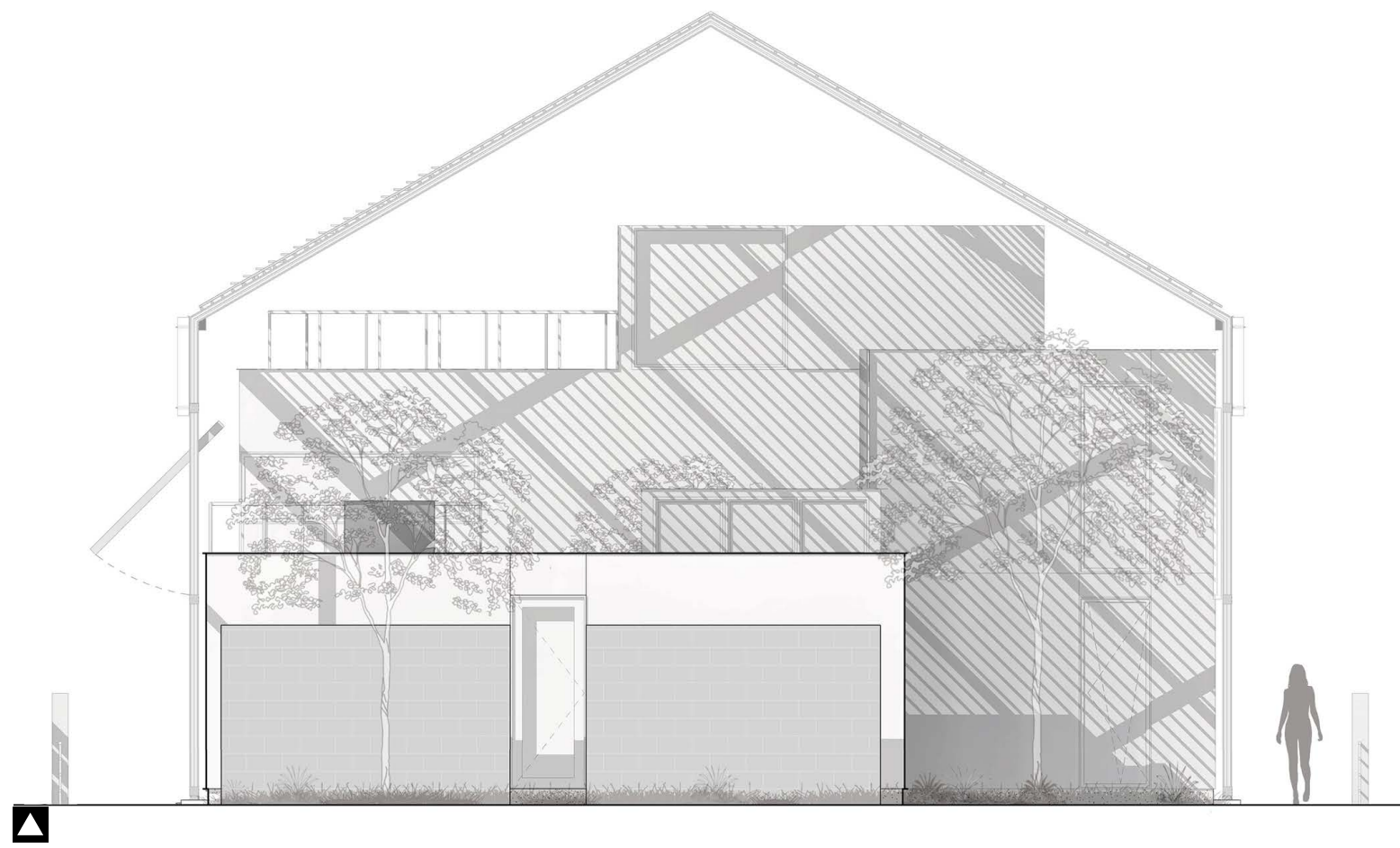


■ Digital Image



▲ Key Plan (unit entry into canopy)

A.01



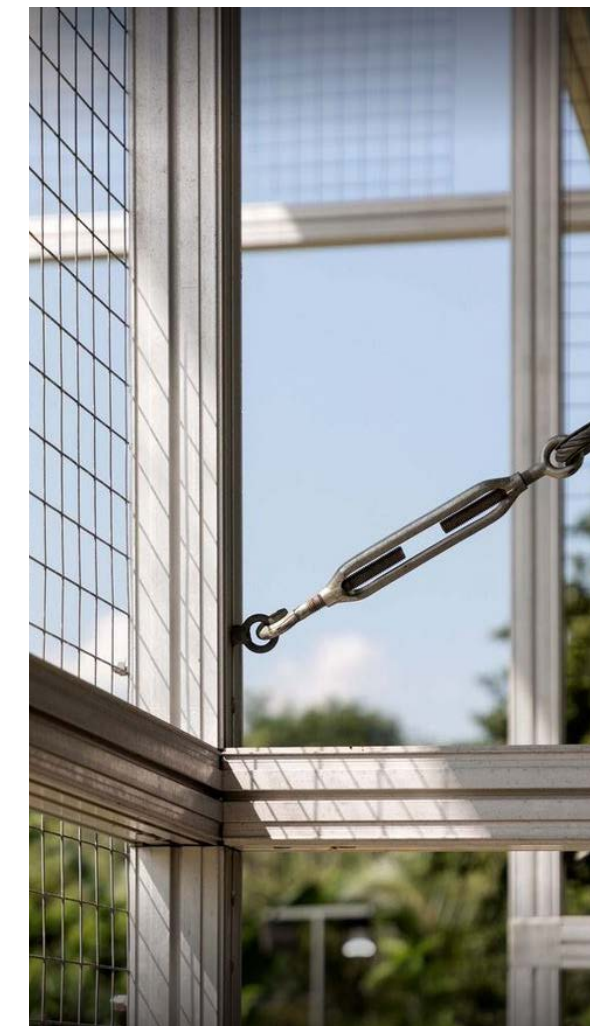
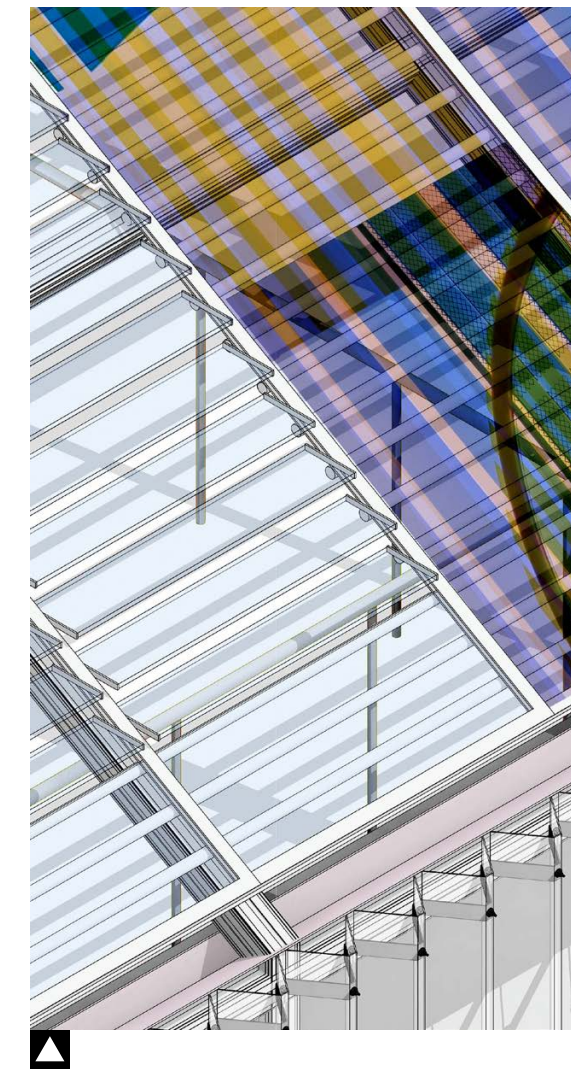
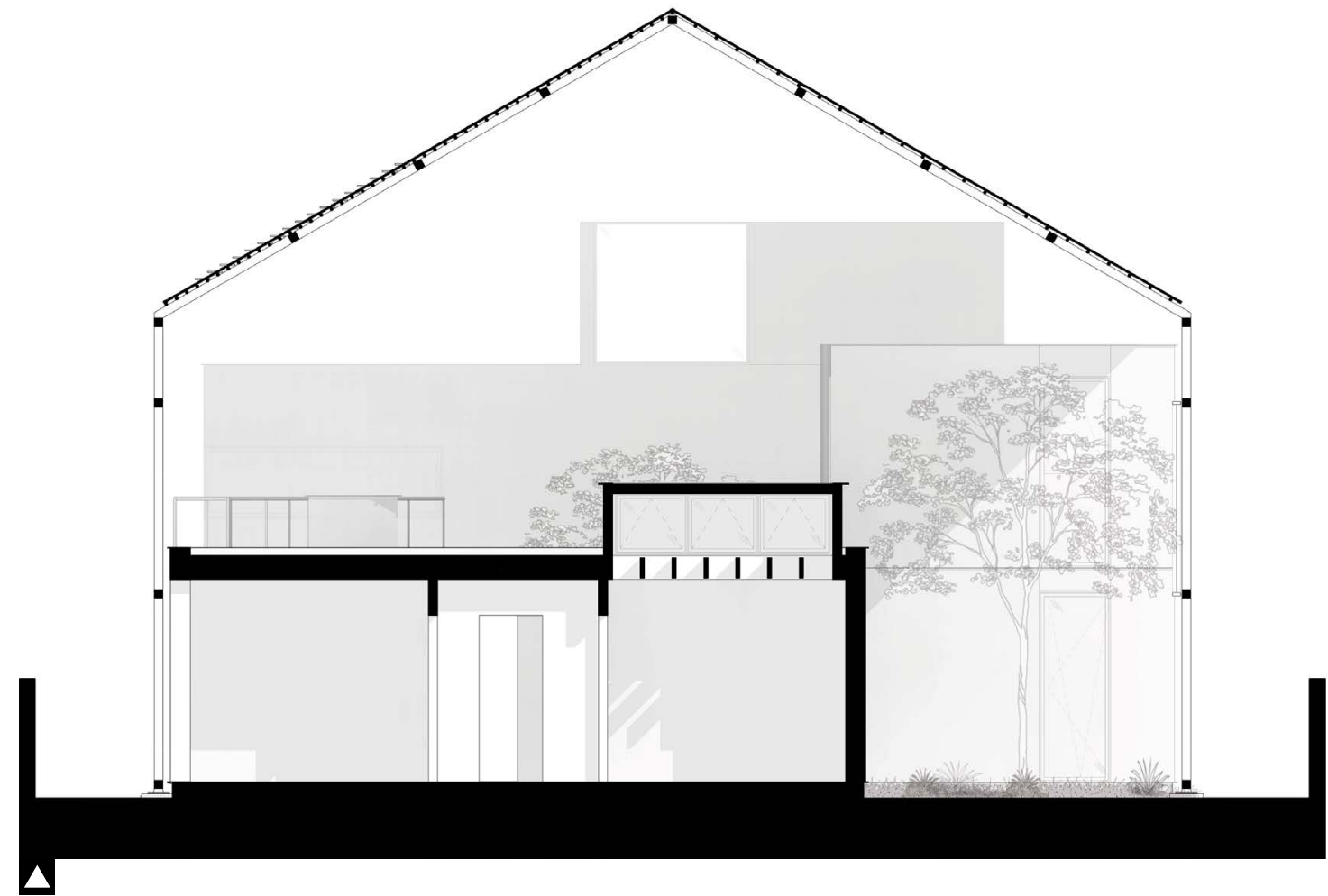
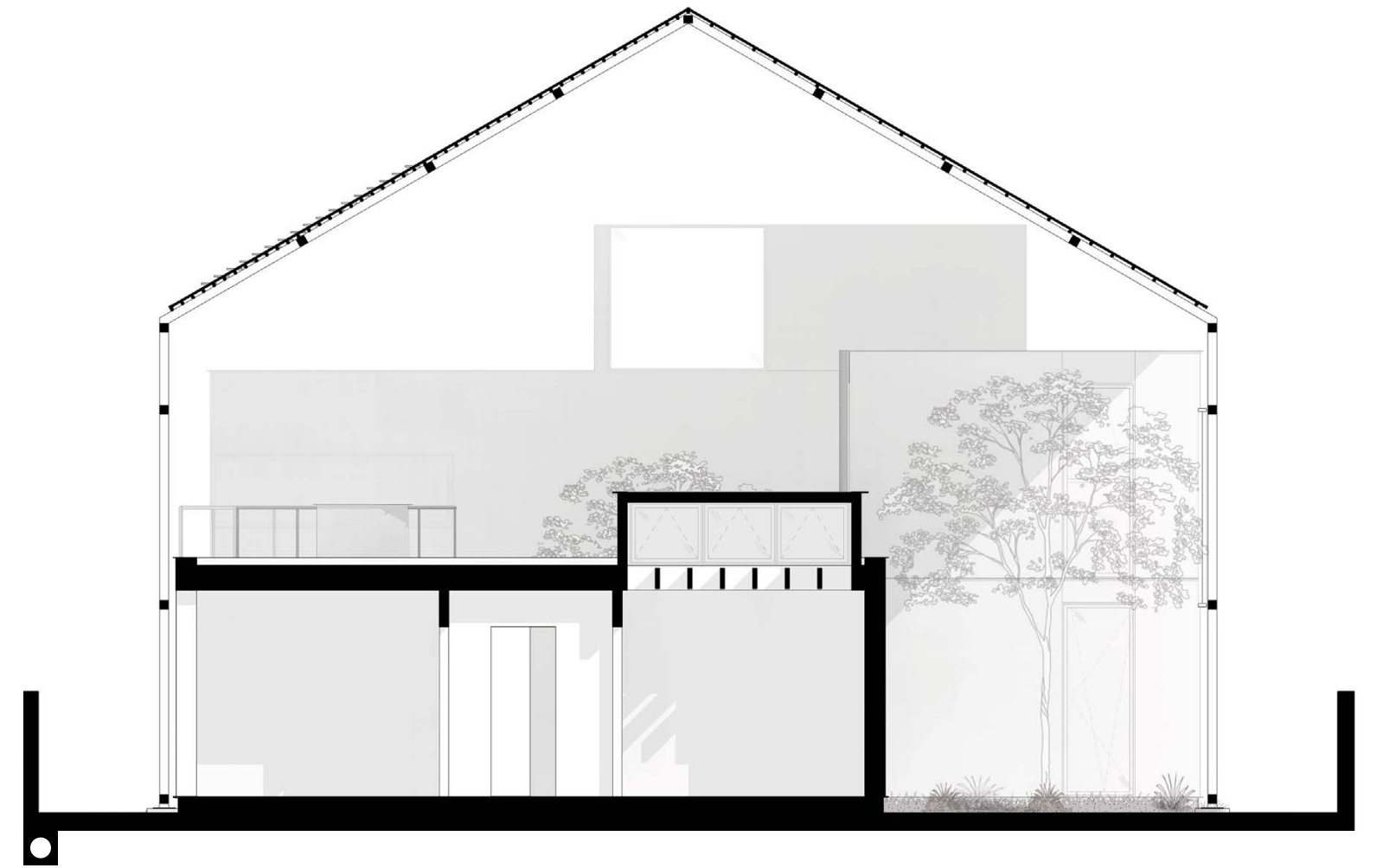
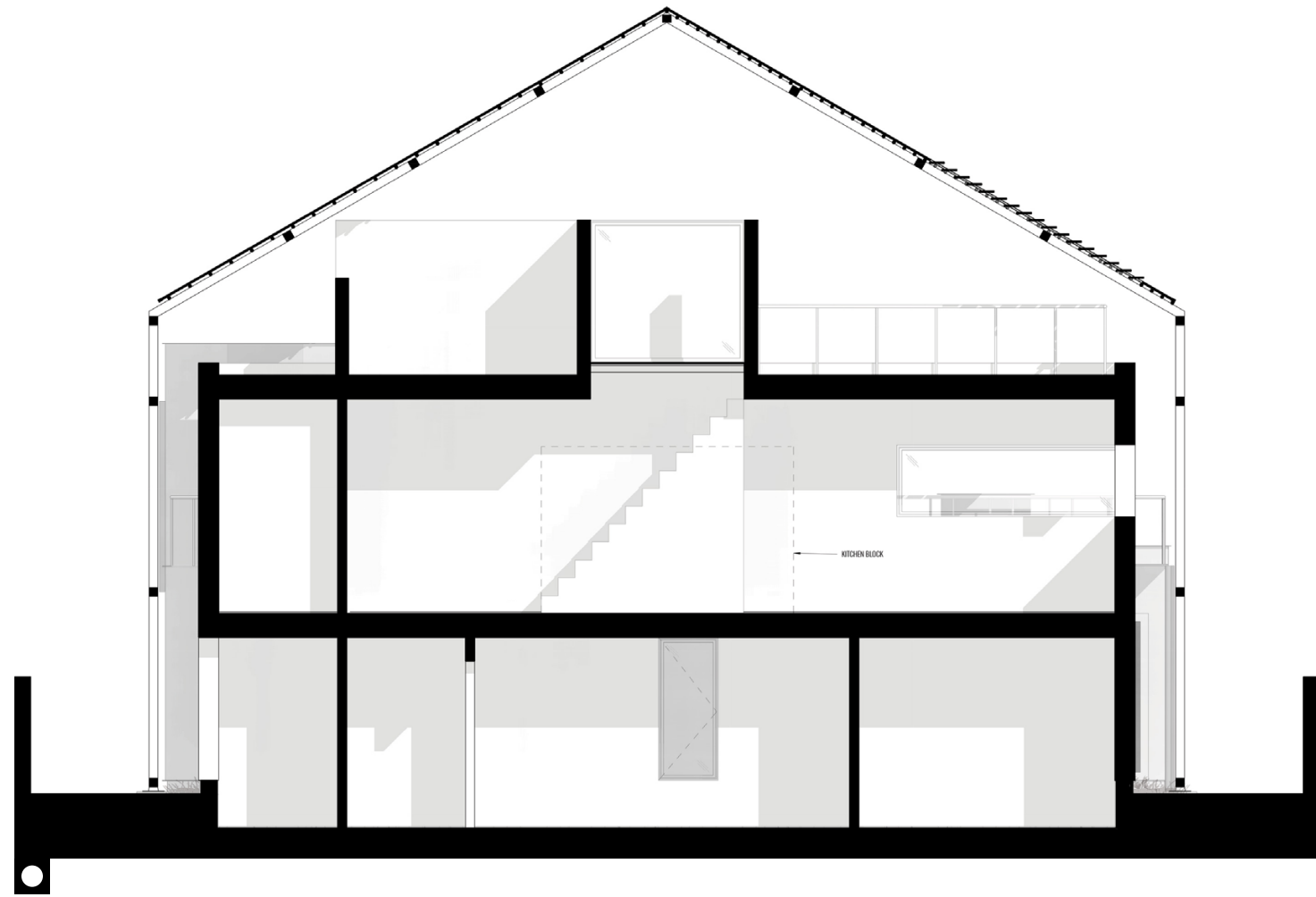
◻ North Elevation

◼ South Elevation

◻ Climate Canopy Elevations (east-west)

◼ Unit Elevations (east-west)

A.01



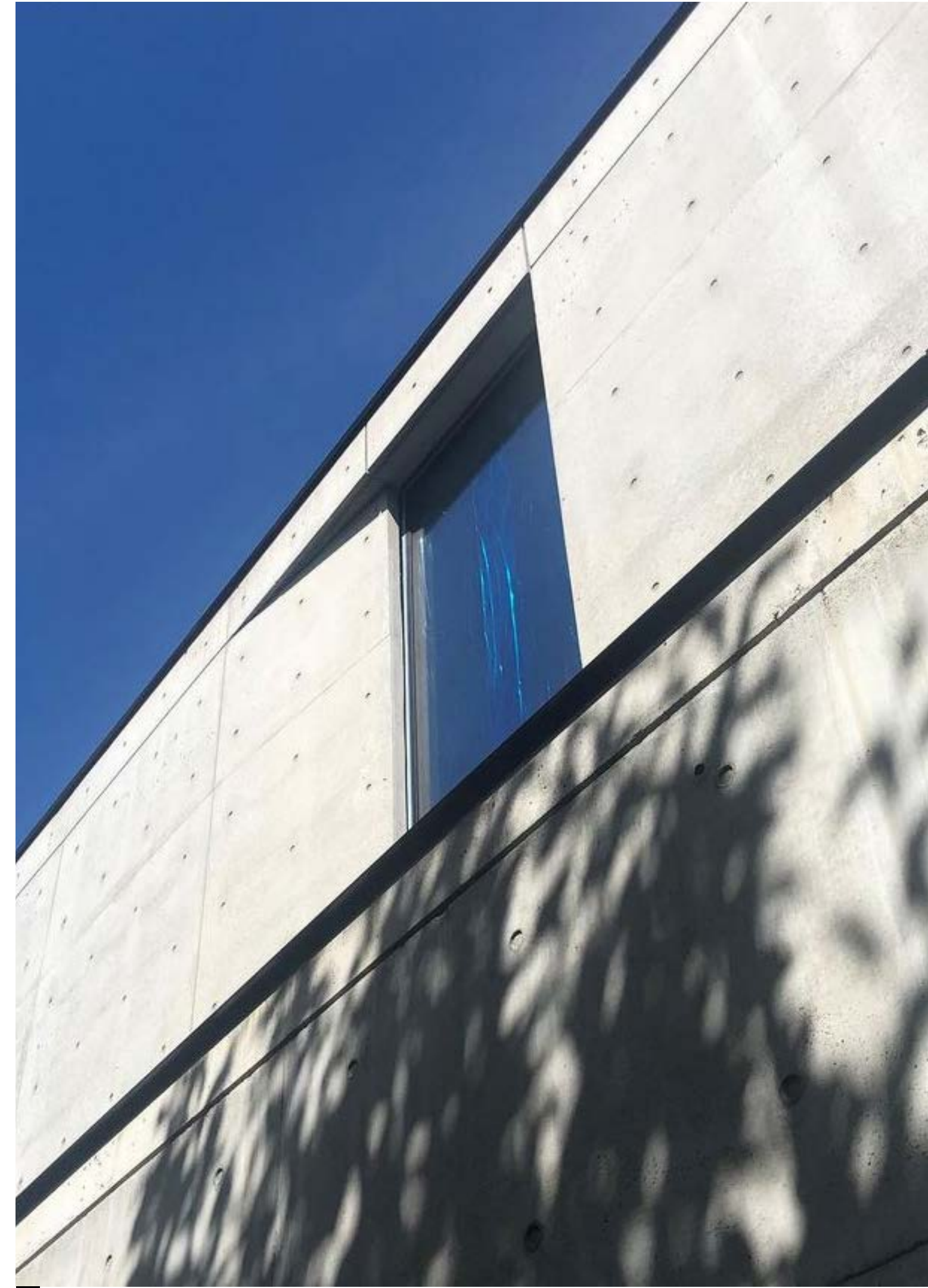
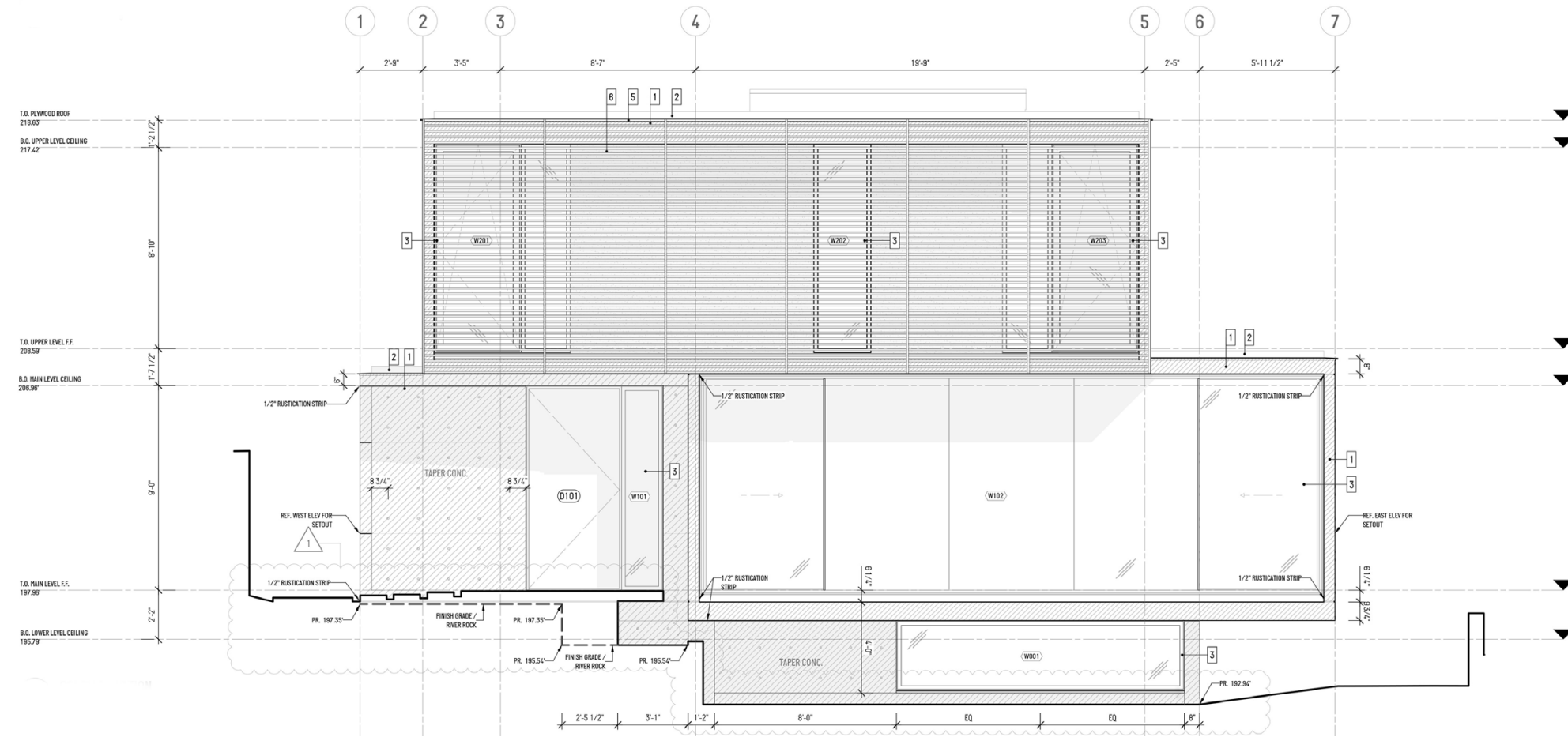
▣ Section A-A

▴ Section C-C

▣ Section B-B

▴ Digital Image of Graphic Solar Film (PET)



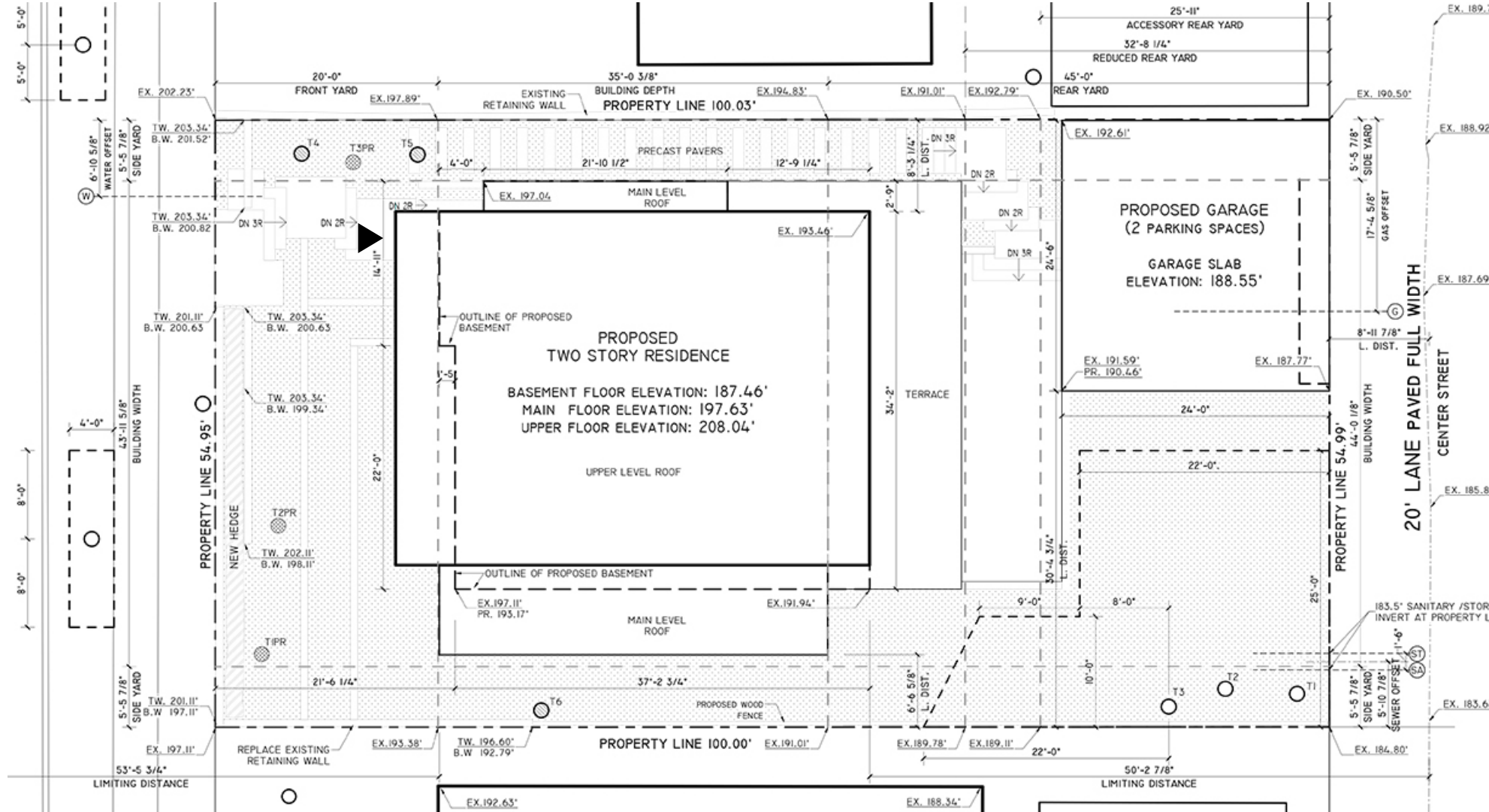


Title	Xu Residence
Program	Private Residence
Zoning	RS-1
Status	Built
Location	Vancouver, B.C.
Size	3,816 sqf
FSR	0.7 x 5,498 sqf = 3,848 sqf permitted

■ South Elevation

■ Site Photograph

A.02



▲ This private residence in Vancouver's RS-1 zone takes advantage of an aggressively sloped site to create a low impact street facing elevation. The massing consists of three volumes that are stacked along the slope of the site in (long) section. From the street, this project reads as single louvered volume floating just above the site. The rear elevation is made up of the three volumes as they open up to the views (3rd level), a large patio (2nd level), and the back yard (1st level). The top volume is capped at front and back by extruded solar shading elements. The front solar shading element creates an additional leisure space behind the street facing louvers on the top level, accessed from the primary bedroom.

The primary circulation route between the three volumes is a feature stair at the center of the plan. A skylight located above the stairs, along with the open risers, allows light to flood down the stairwell and across the plans, creating a light well through the centre of the project. The main floor contains a kitchen at the front of the plan looking out onto a cascading landscaping that creates a private pocket of nature shielding the kitchen from the street view. At the back of the main floor a large social space opens up onto a large patio with a hot tub. A large curtain and floor to ceiling sliders divide or unite these two indoor and outdoor leisure spaces. Minimalist concrete pavers create paths around the exterior of the house, continuing the concrete motif throughout the site.



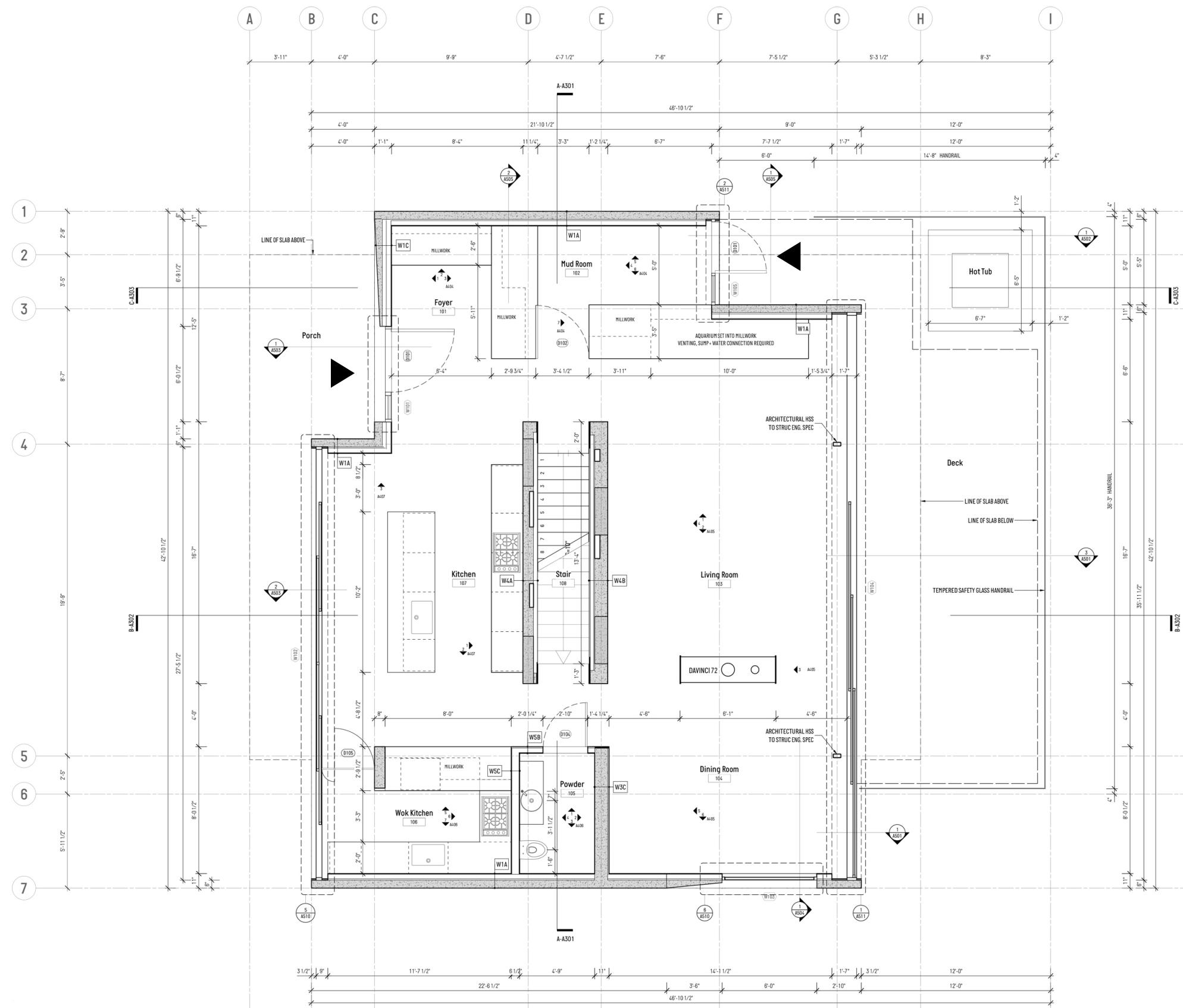
■ Site Plan

▲ Project Text

● Site Photograph

▲ Digital Image

A.02

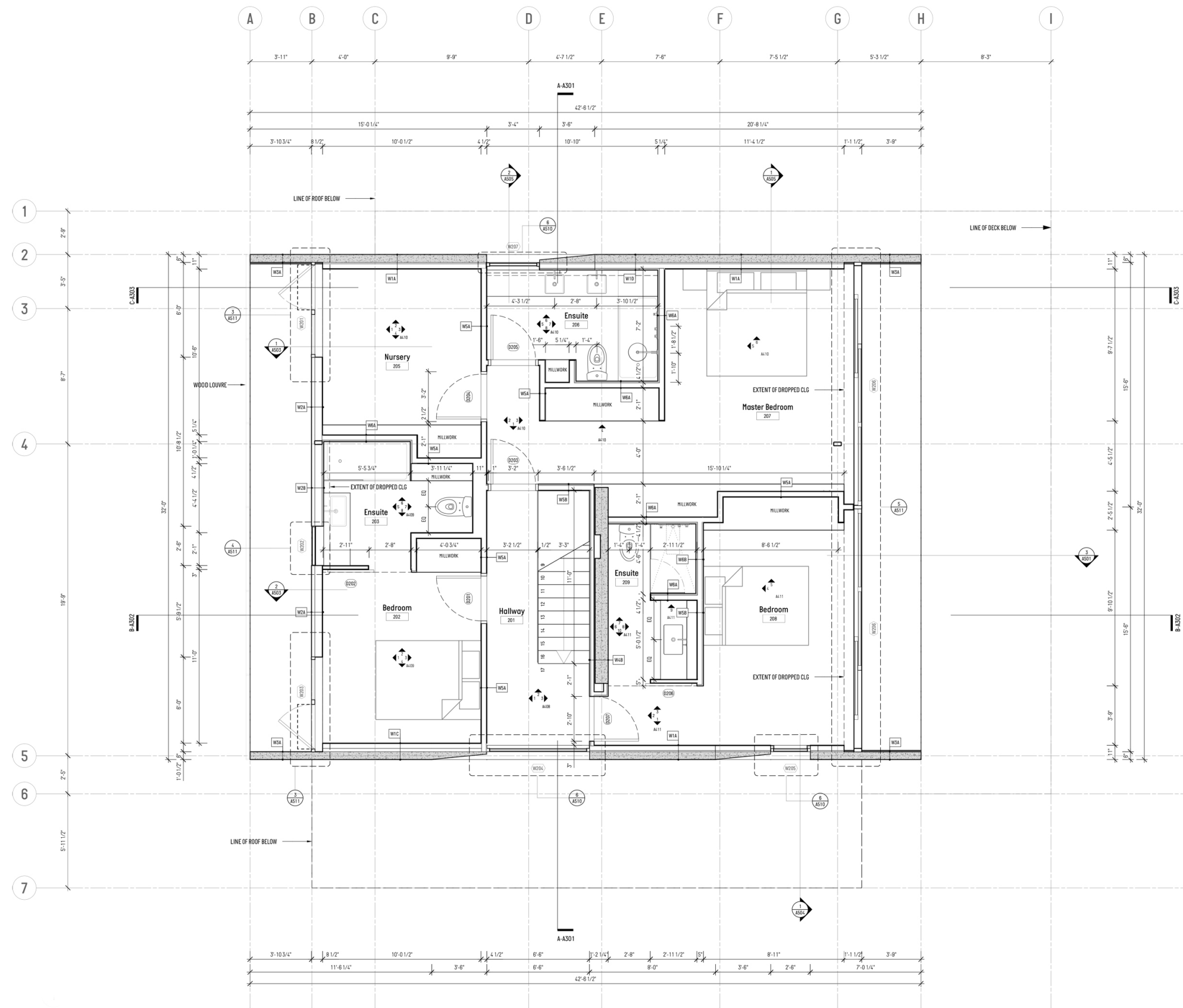


■ Main Level Plan



■ Site Photograph

A.02

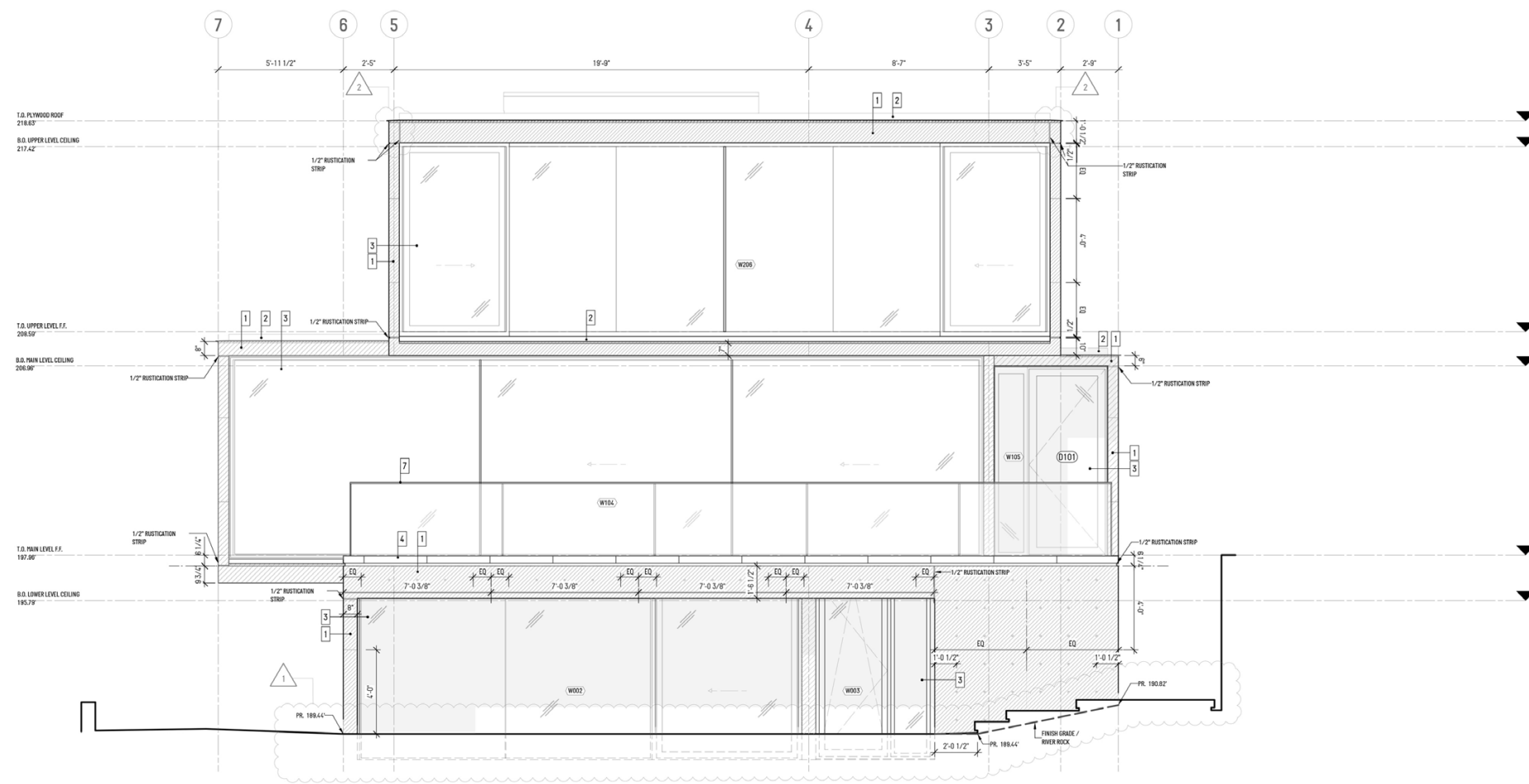
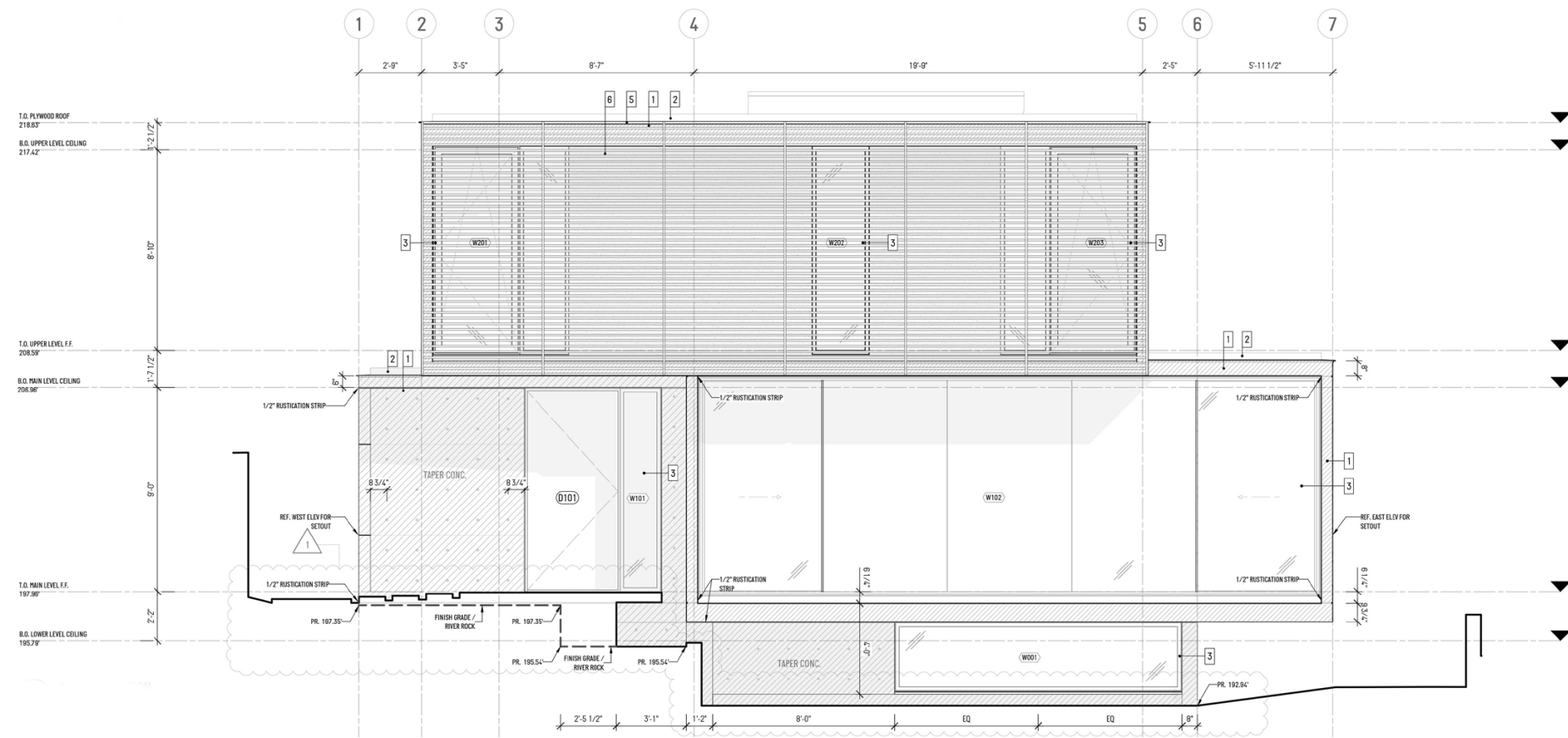


Upper Level Plan



Site Photograph

A.02



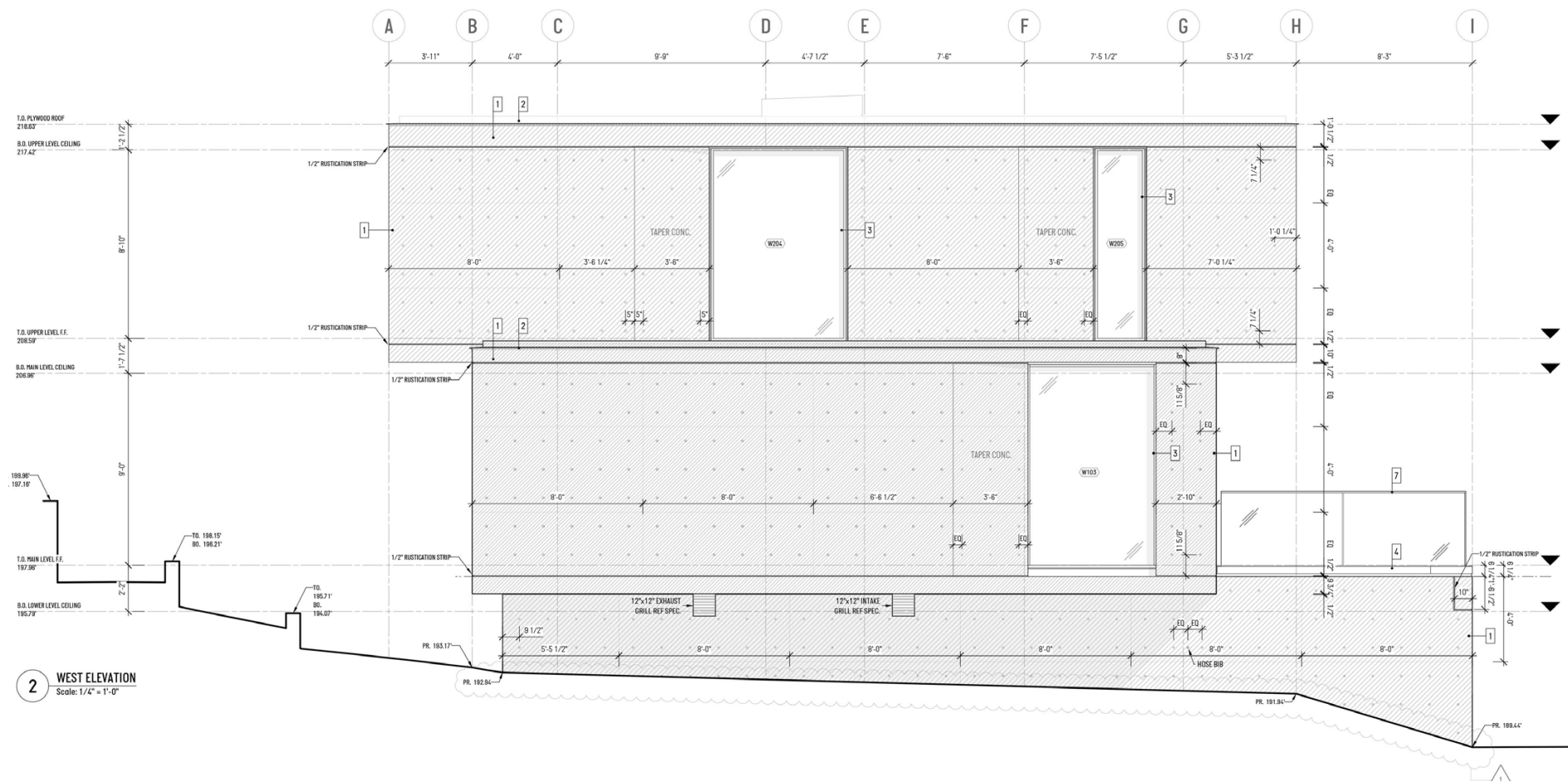
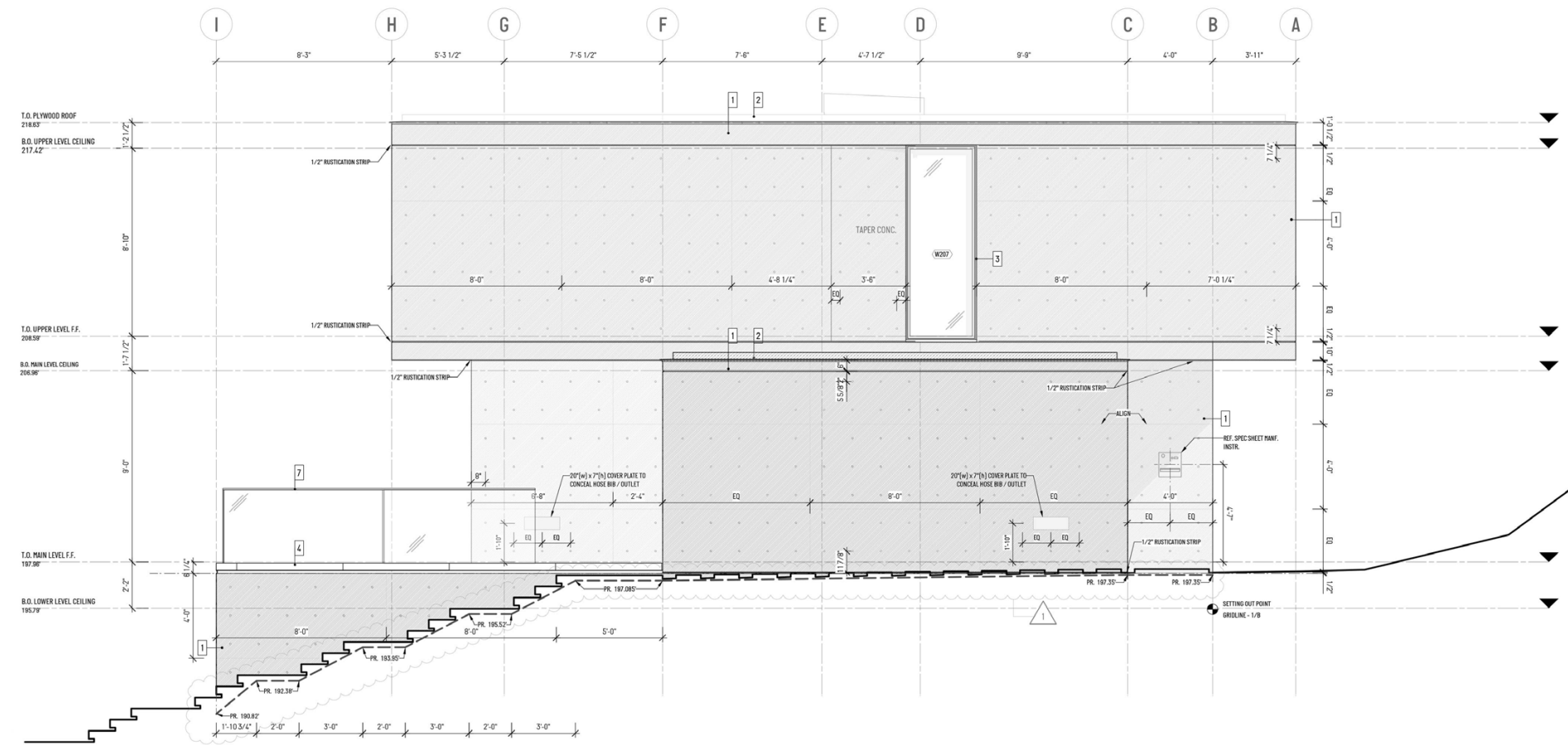
■ South Elevation

▲ North Elevation



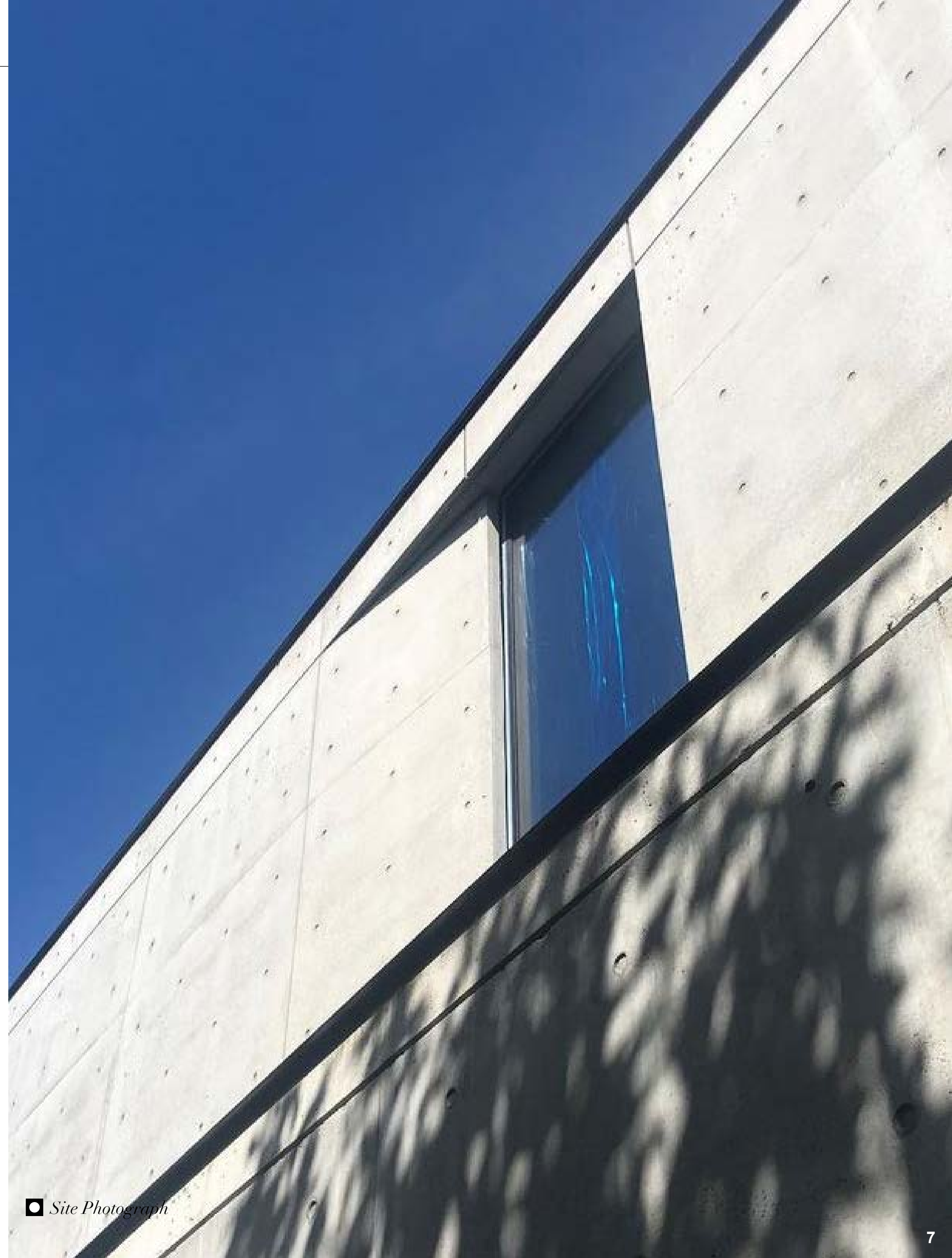
■ Site Photograph

A.02



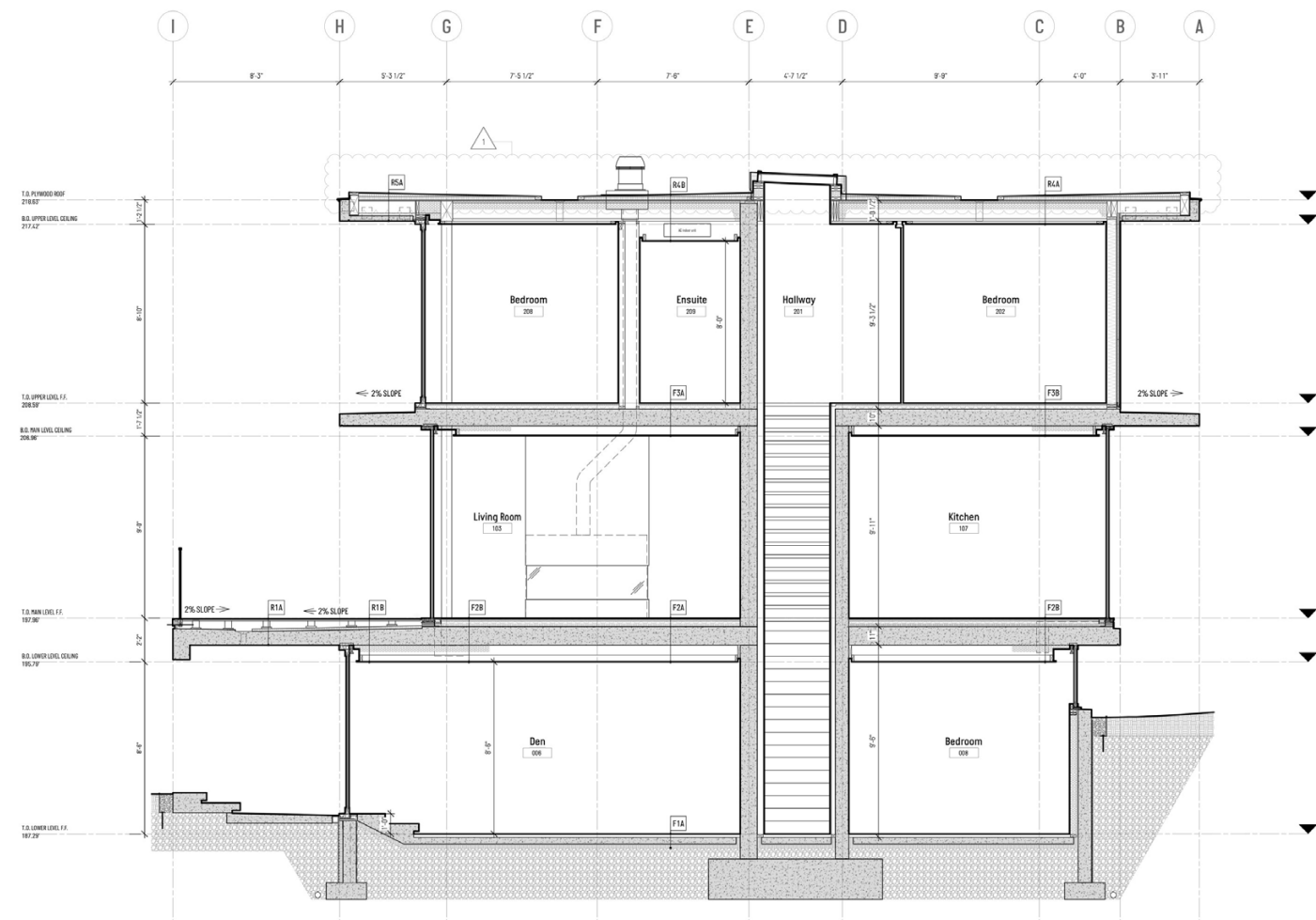
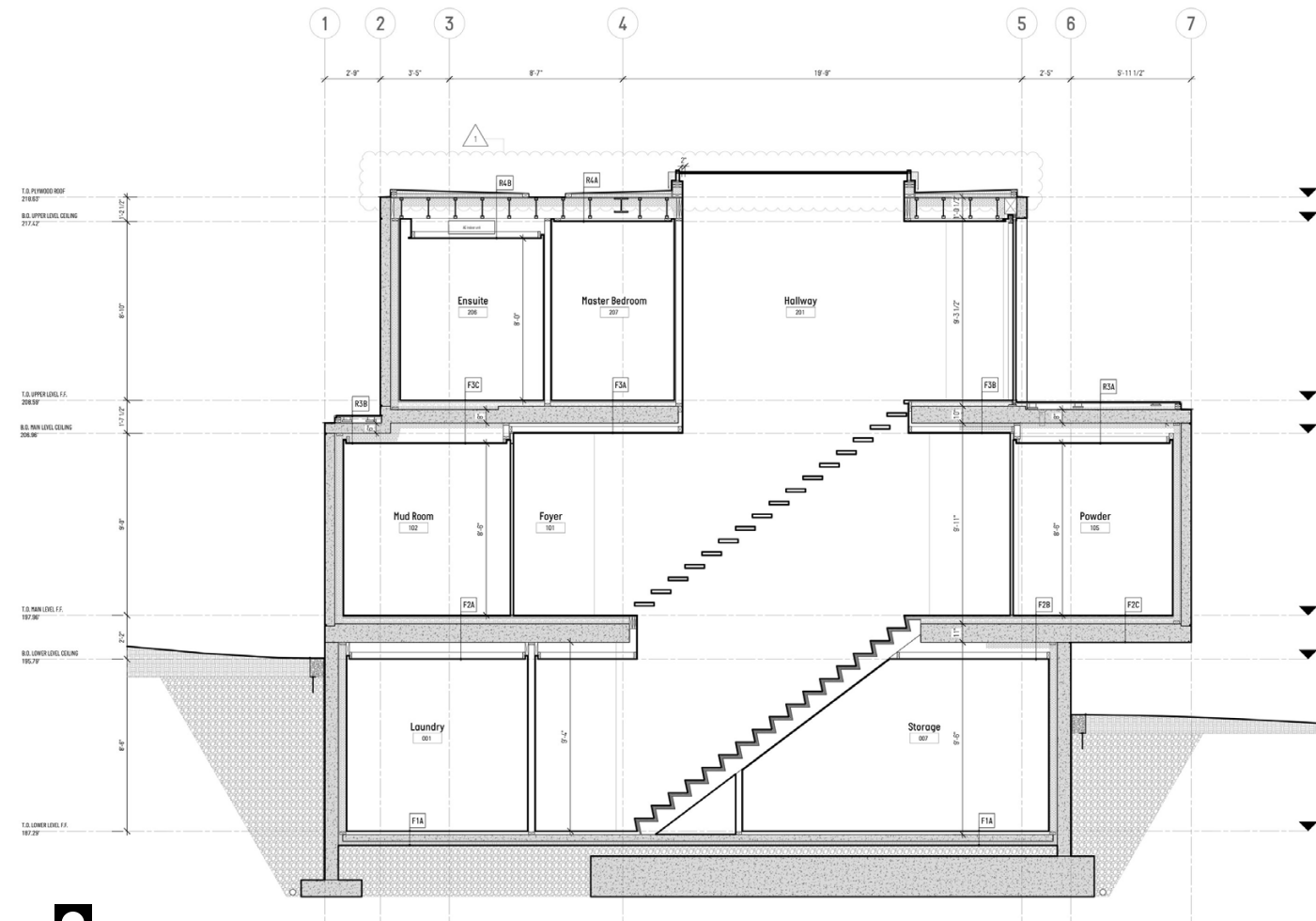
■ East Elevation

▲ West Elevation



■ Site Photograph

A.02



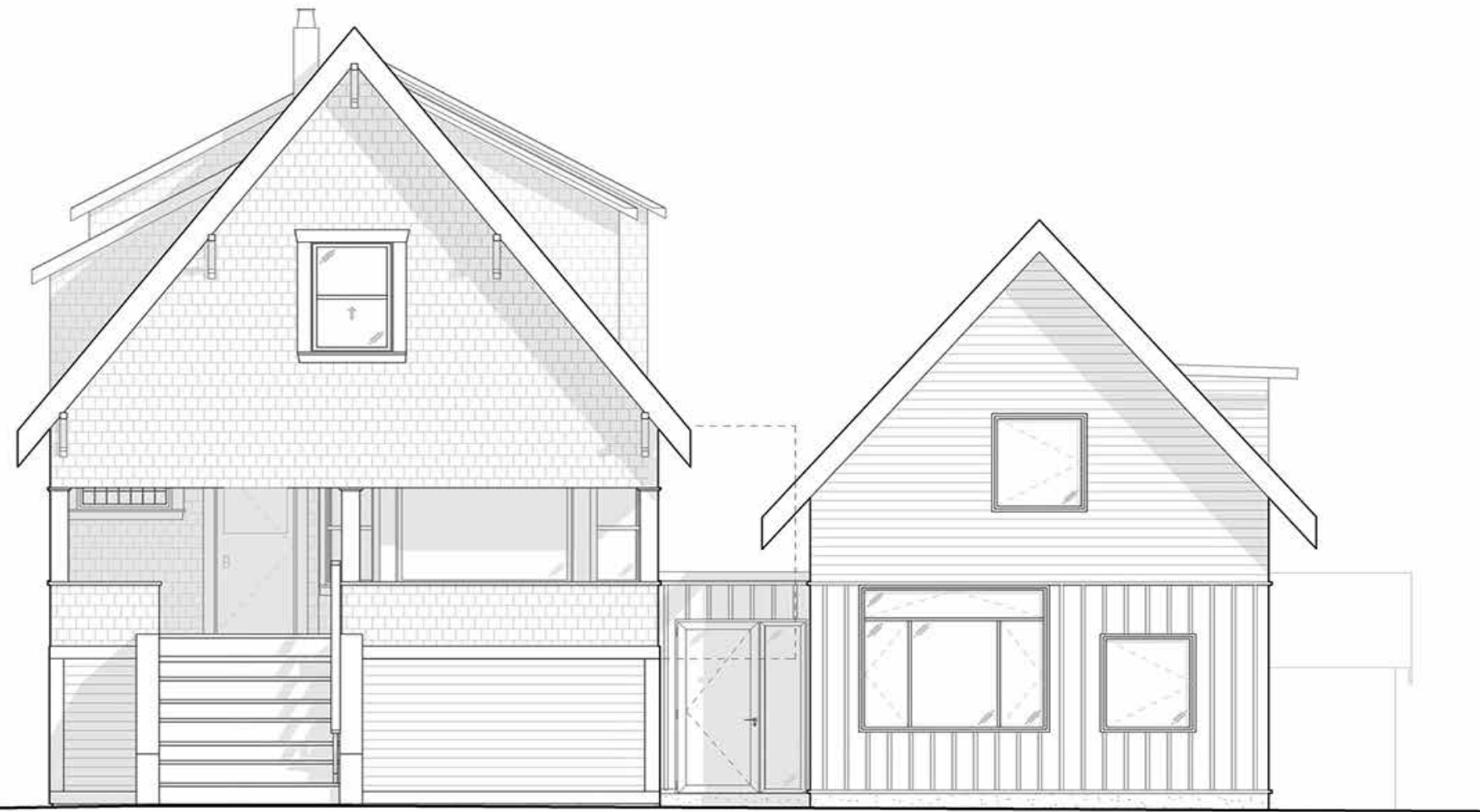
■ Section A

▲ Section B



■ Site Photograph

A.03

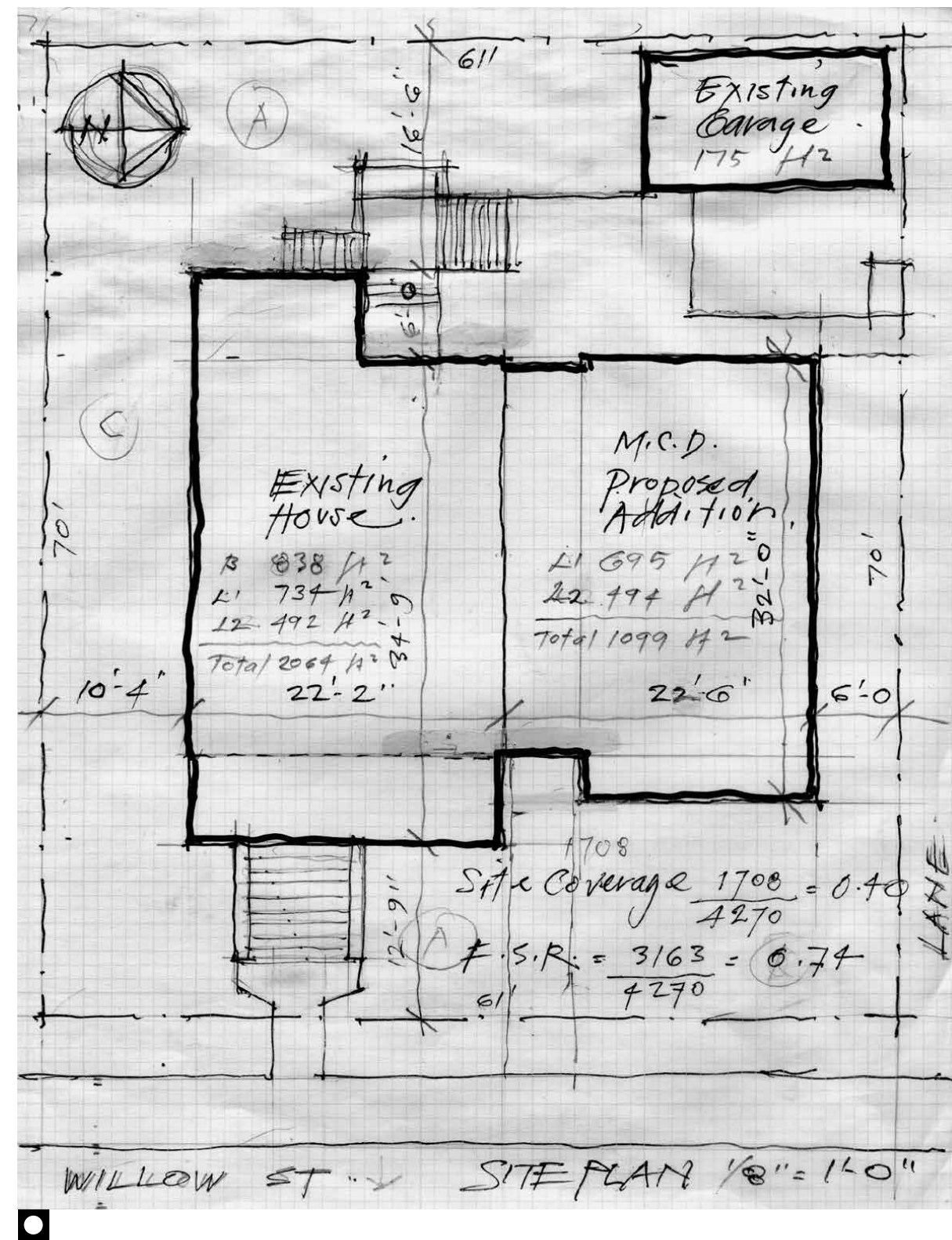


Title	An Addition to a Family Home
Program	Multiple Conversion Dwelling
Zoning	RS-5
Status	Study
Location	Vancouver, B.C.
Size	3,173 sqf
FSR	0.74 x 4,270 sqf = 3,173 sqf

■ *Front Elevation*

■ *Digital Image*

A.03



- ▲ *An Addition to a Family Home* aims to densify a non-standard lot in Vancouver's RS-5 zone. **Proposed use is Multiple Conversion Dwelling in conjunction with retention of a Character House.** This option permits additional density as well as various possible by-law relaxations which the re-development of this non-standard lot necessitates. This design adds a second volume in the side yard of the existing house. Connected to the original structure by a knuckle, this new addition contains a 3 bedroom unit. A garden level suite is added to the existing house, as the top two floors are retained as a self contained unit with select improvements to the main floor plan.

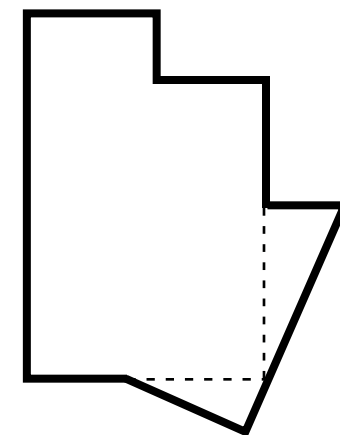
This project allows the current owners to remain on site and retain the character of their existing home, while adding housing to Vancouver's rental market. As this project is an MCD, it gives the owners the option to pursue stratification of the property and sell the addition, while retaining the existing house and the new garden level rental suite. The lot is currently occupied by a single family home from 1914 with minor renovations throughout it's lifetime.



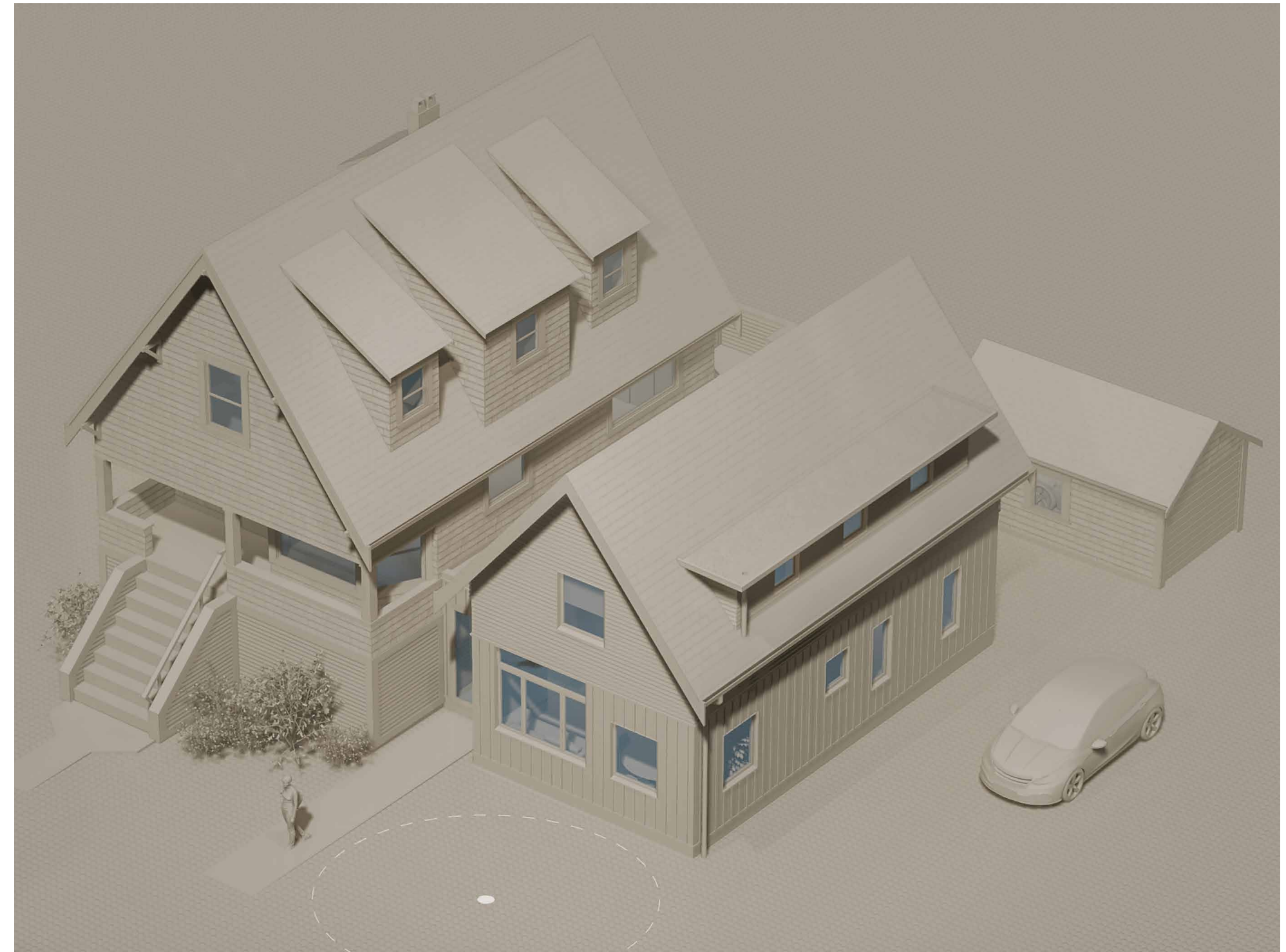
A.03



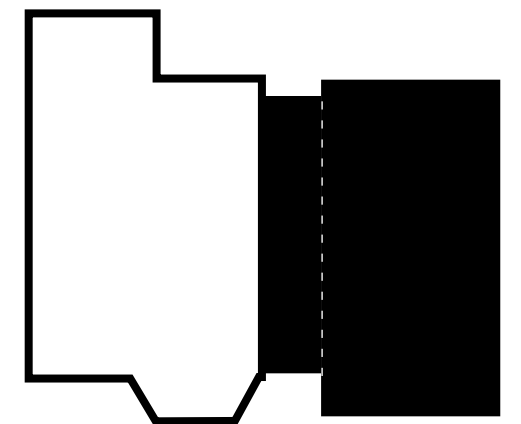
During its lifespan, two 'triangles' were added to the main floor plan to extend the living space. Sadly, this element is removed to accommodate the new addition. The porch 'triangle' is replaced by a large bay window. A magnolia tree is retained at the front of the site to partially screen the new addition from the street.



■ Existing Condition

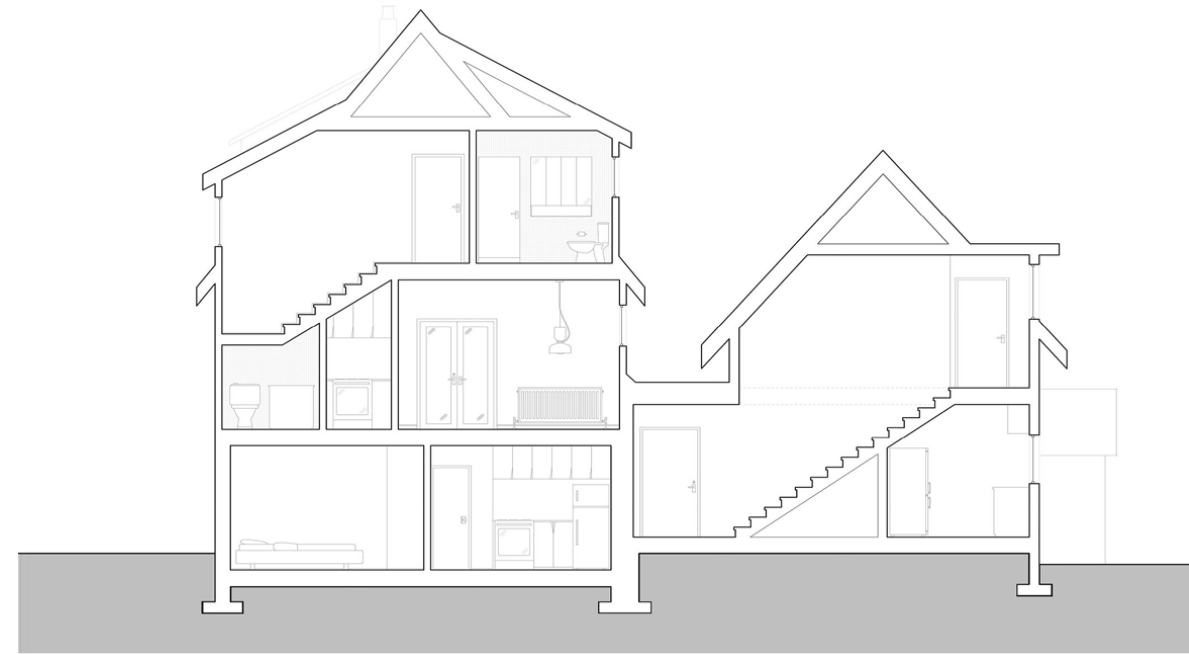


The facade of the addition references the existing home. A band of board and batten siding is derived from original interior wall panels of the existing house. The top portion of the massing is clad in horizontal siding borrowed from the lower band of the existing facade.

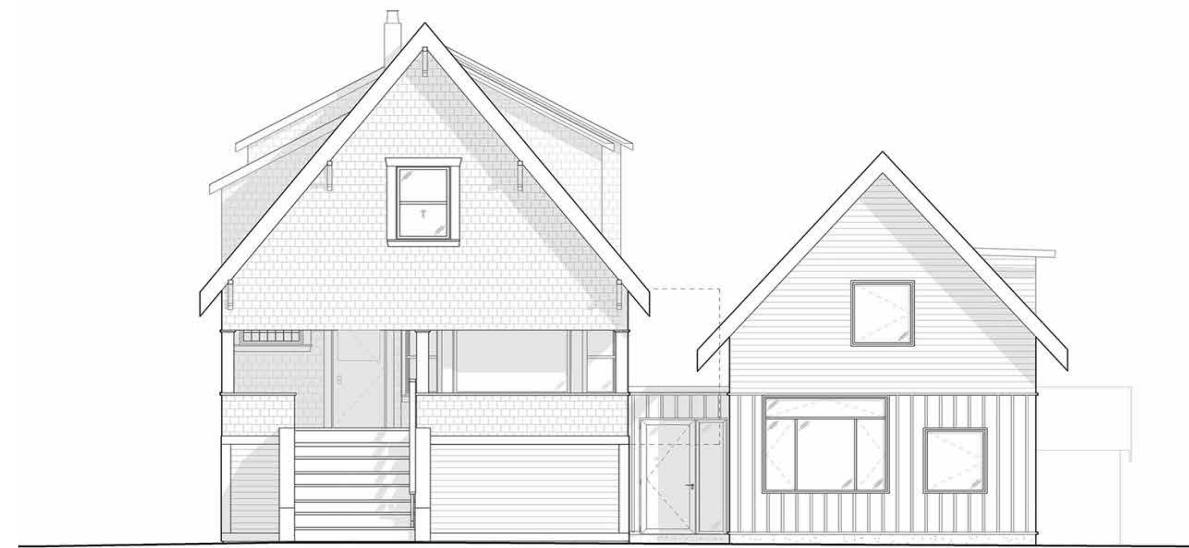


■ Proposed Condition (MCD)

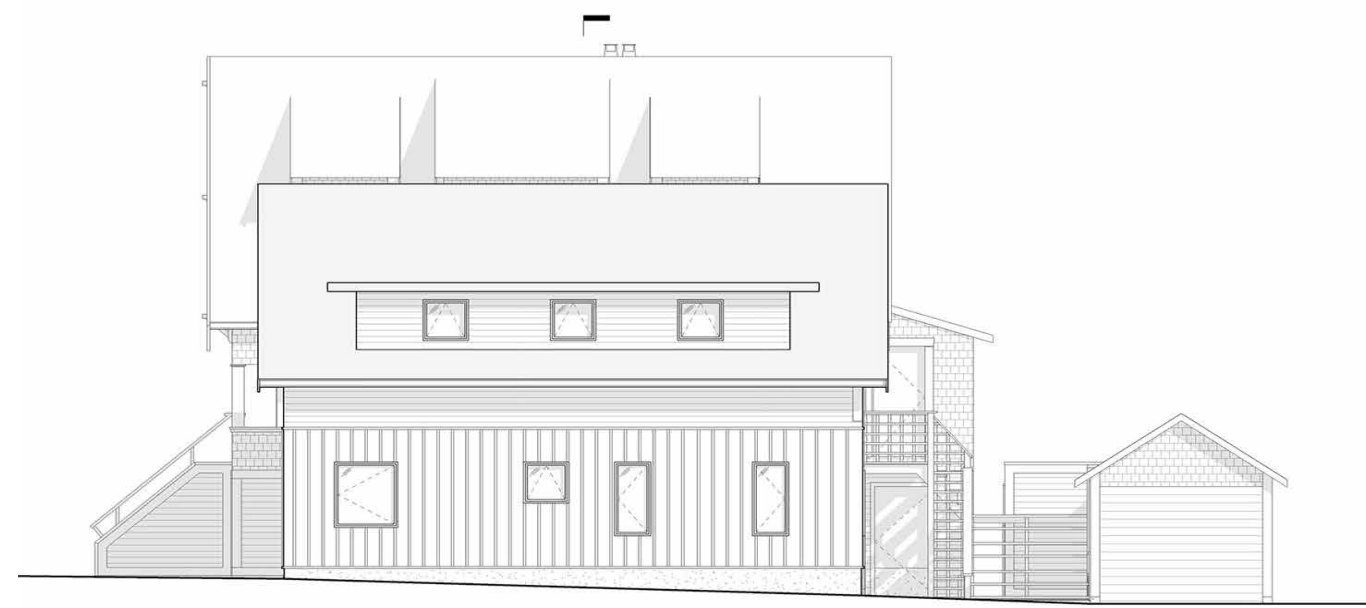
A.03



■



▲



▲

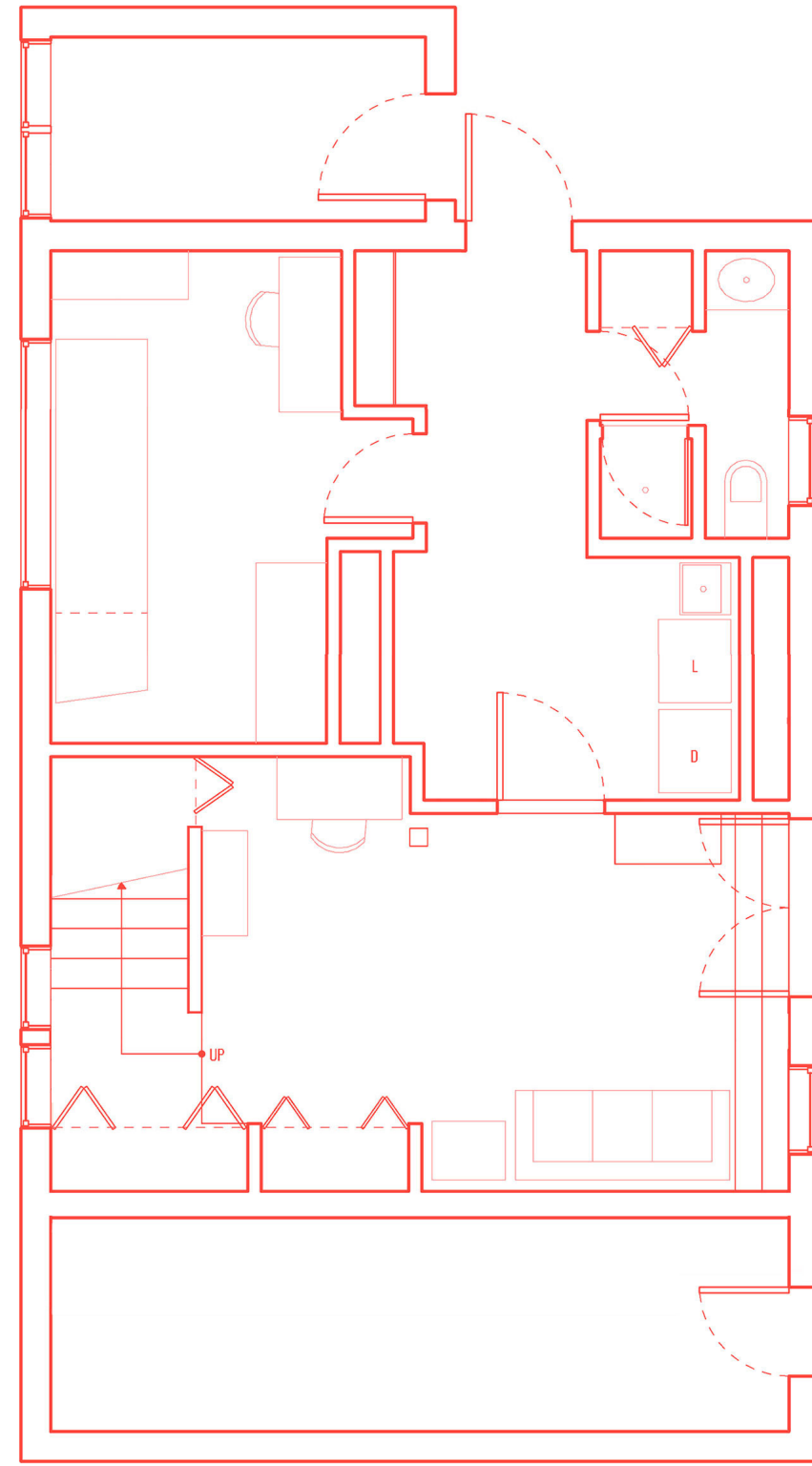
■ *Short Section*

▲ *Exterior Elevations*

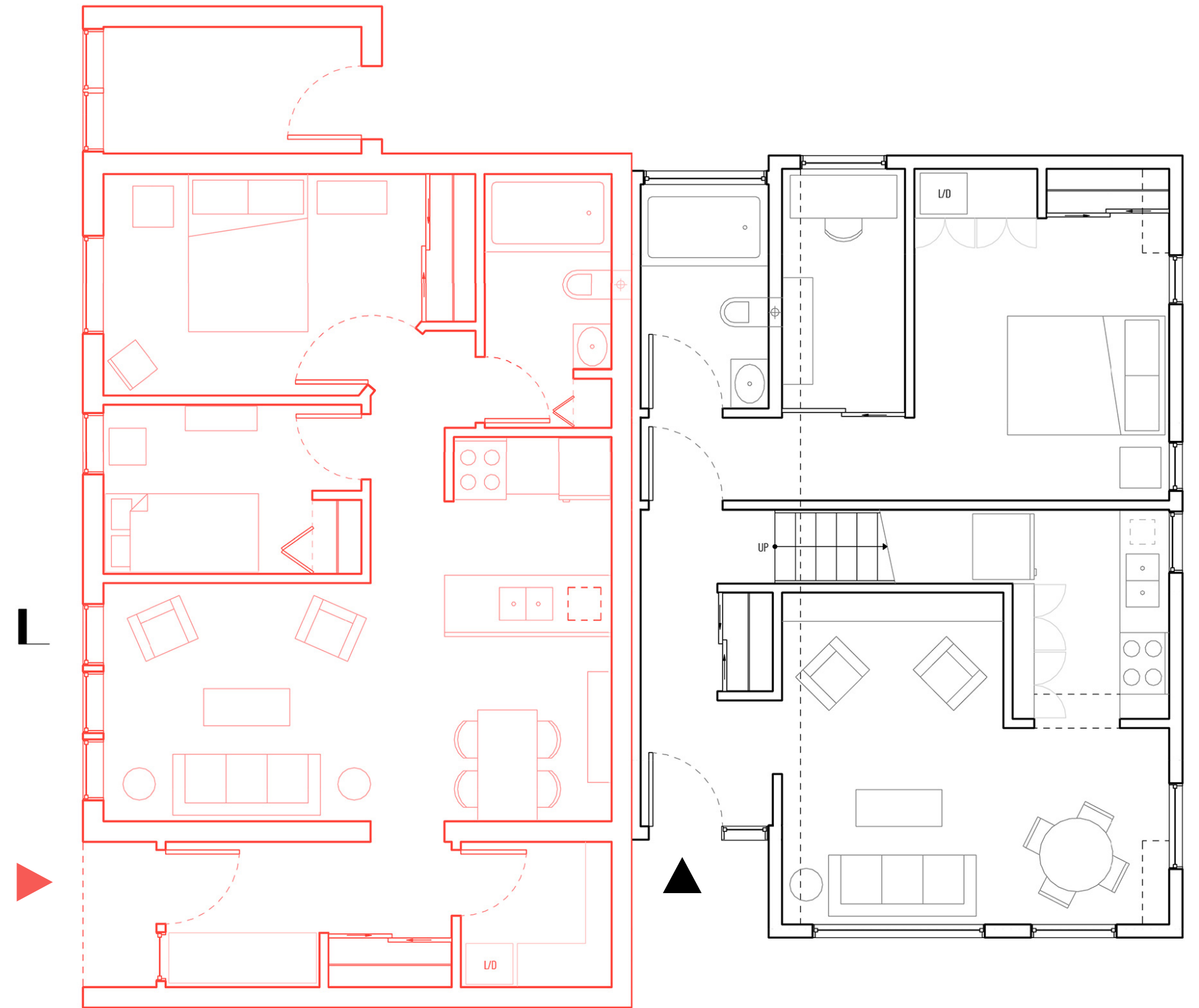


■ *Digital Image*

A.03



Existing Garden Floor Plan

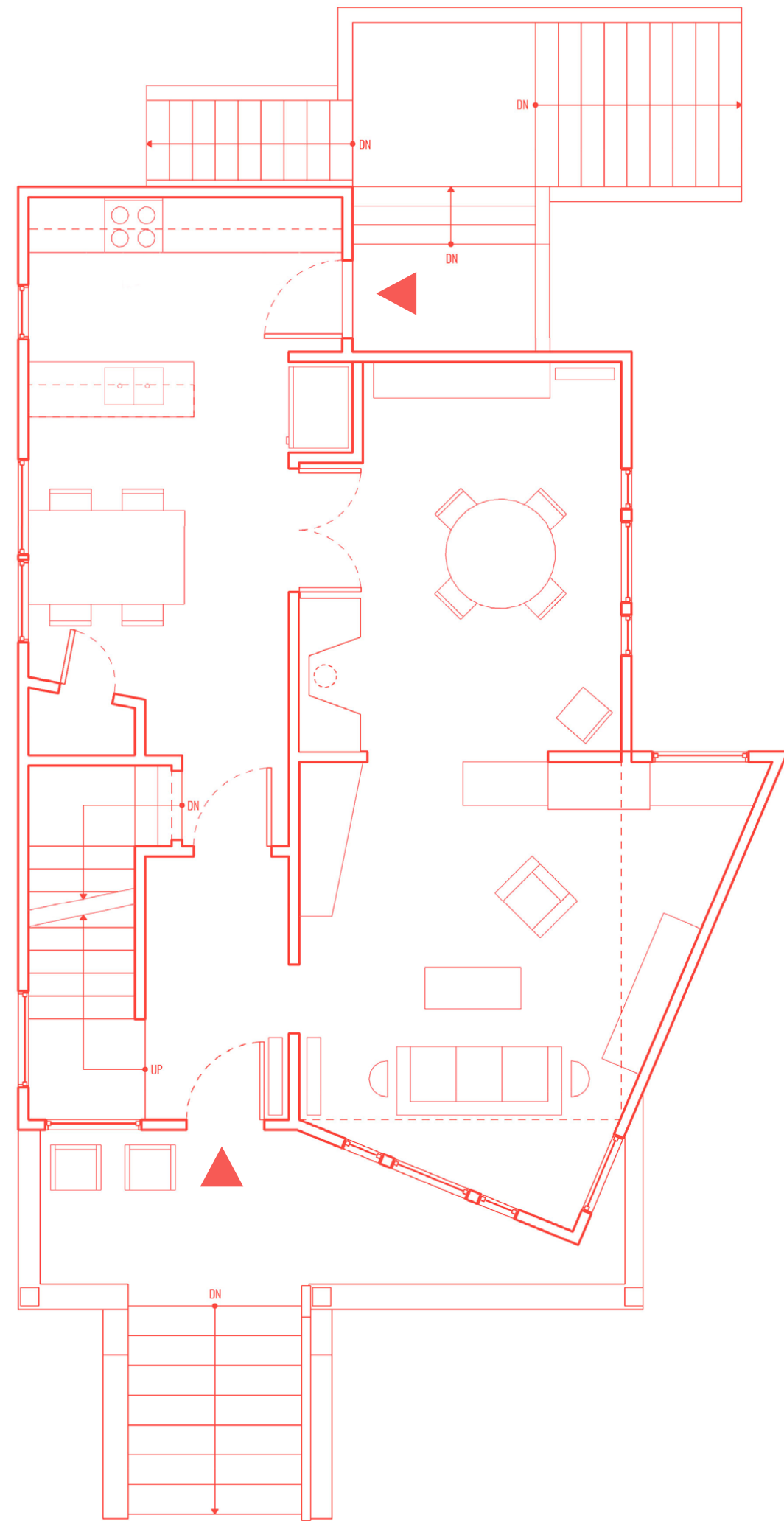


Proposed MCD Floor Plan (+98.5')

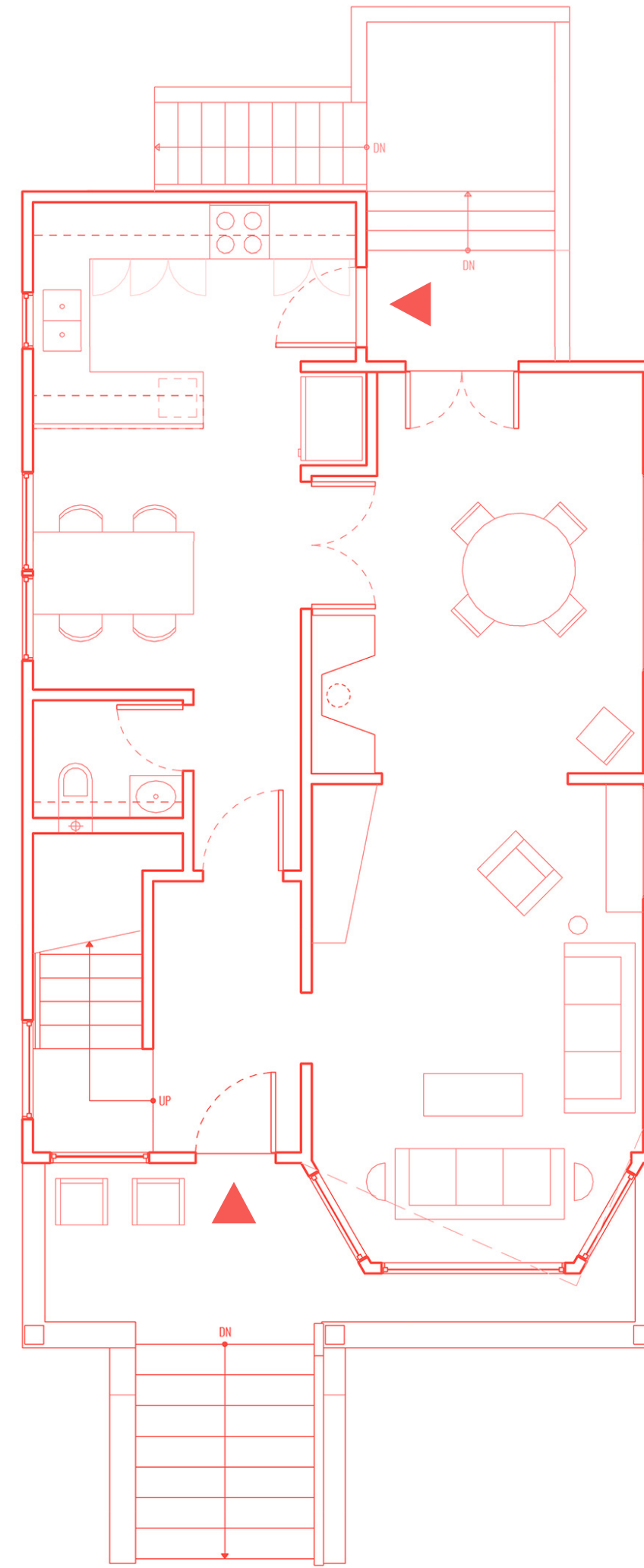
Addition Main Floor Plan (+101.75')

Proposed MCD Floor Plan

A.03

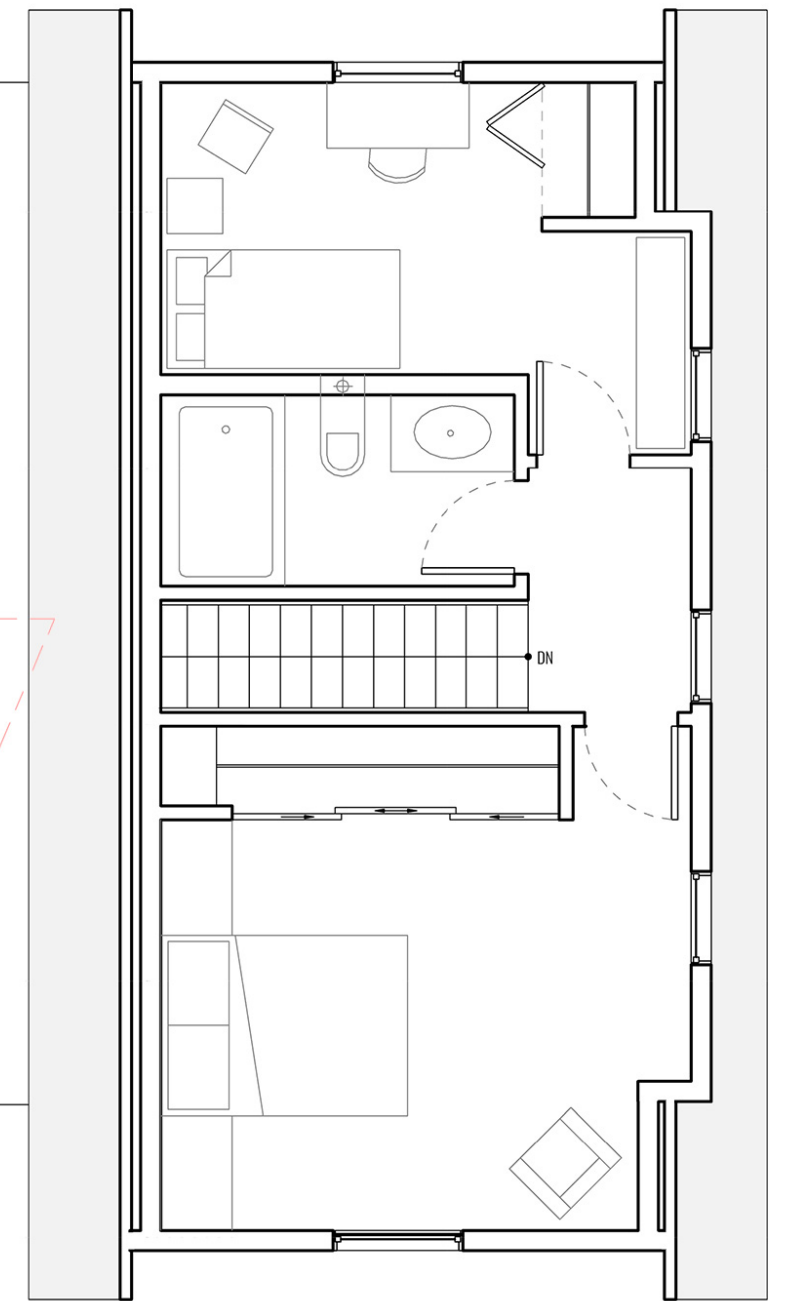


Existing Main Floor Plan



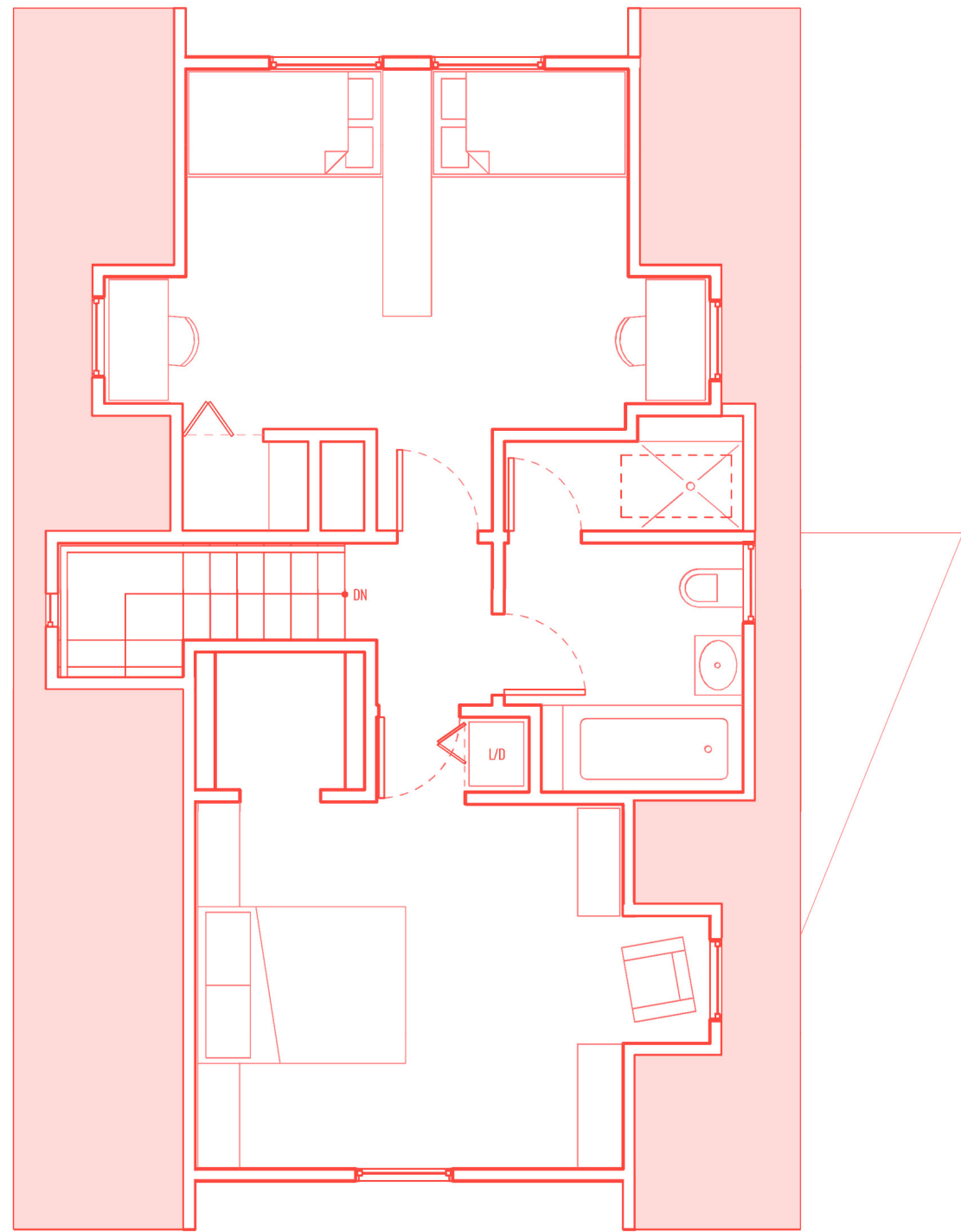
Proposed Main Floor Plan (+106.25')

Proposed MCD Floor Plan

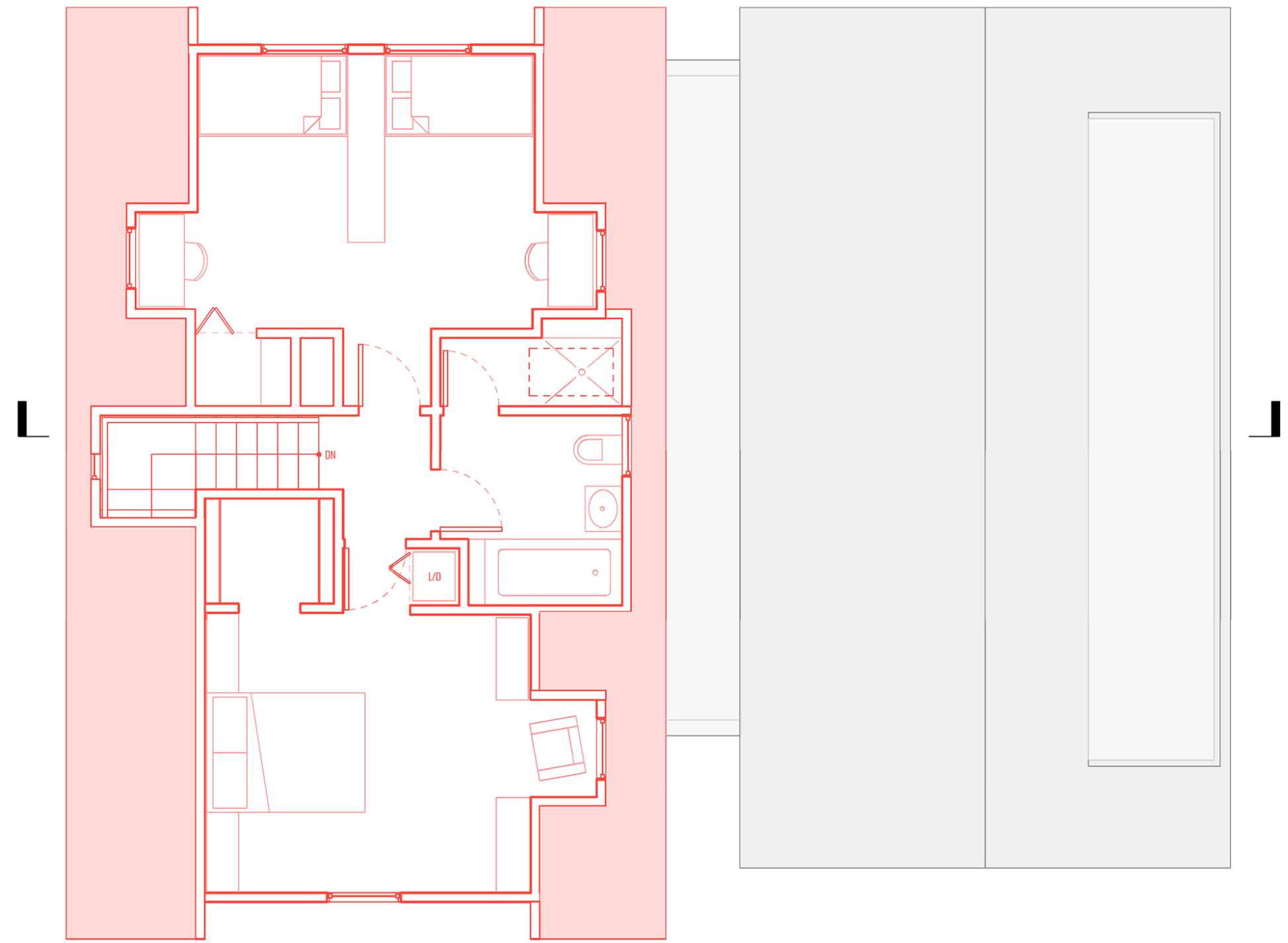


Addition Upper Floor Plan (+110.5')

A.03



Existing Upper Floor Plan



Proposed Upper Floor Plan (+116.25')

Proposed MCD Floor Plan

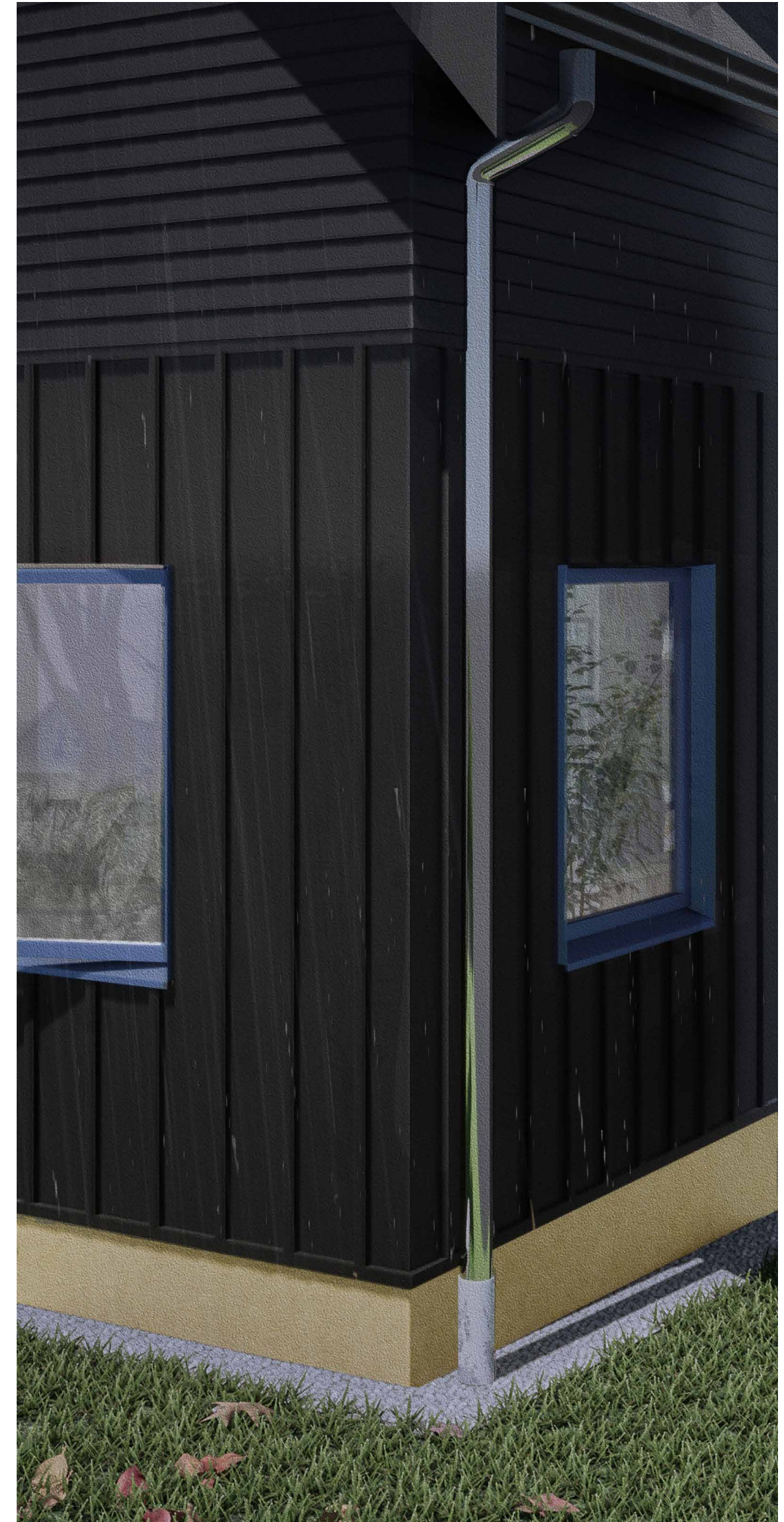
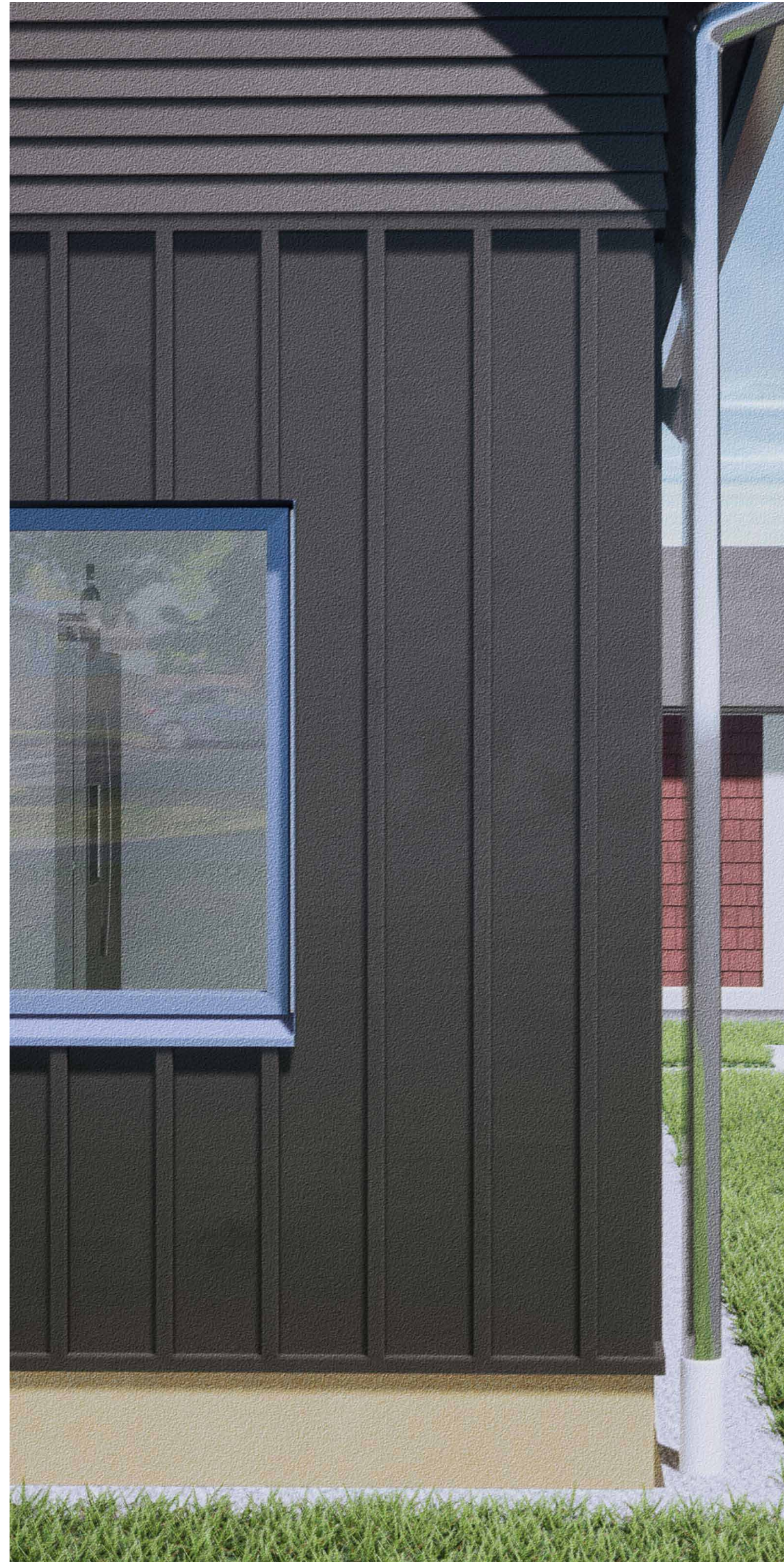
Addition Roof Plan (B.O. eave +112.5')

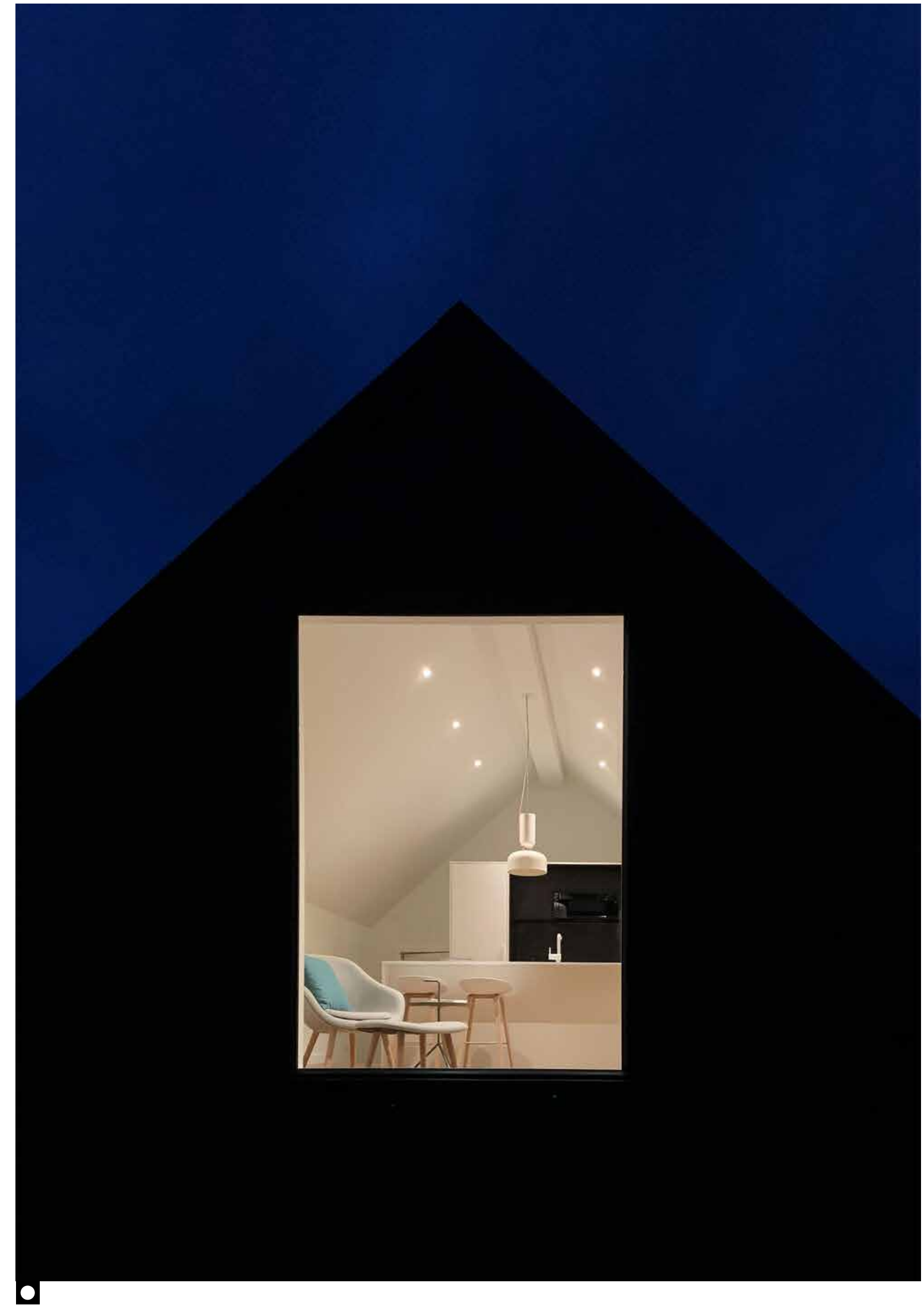
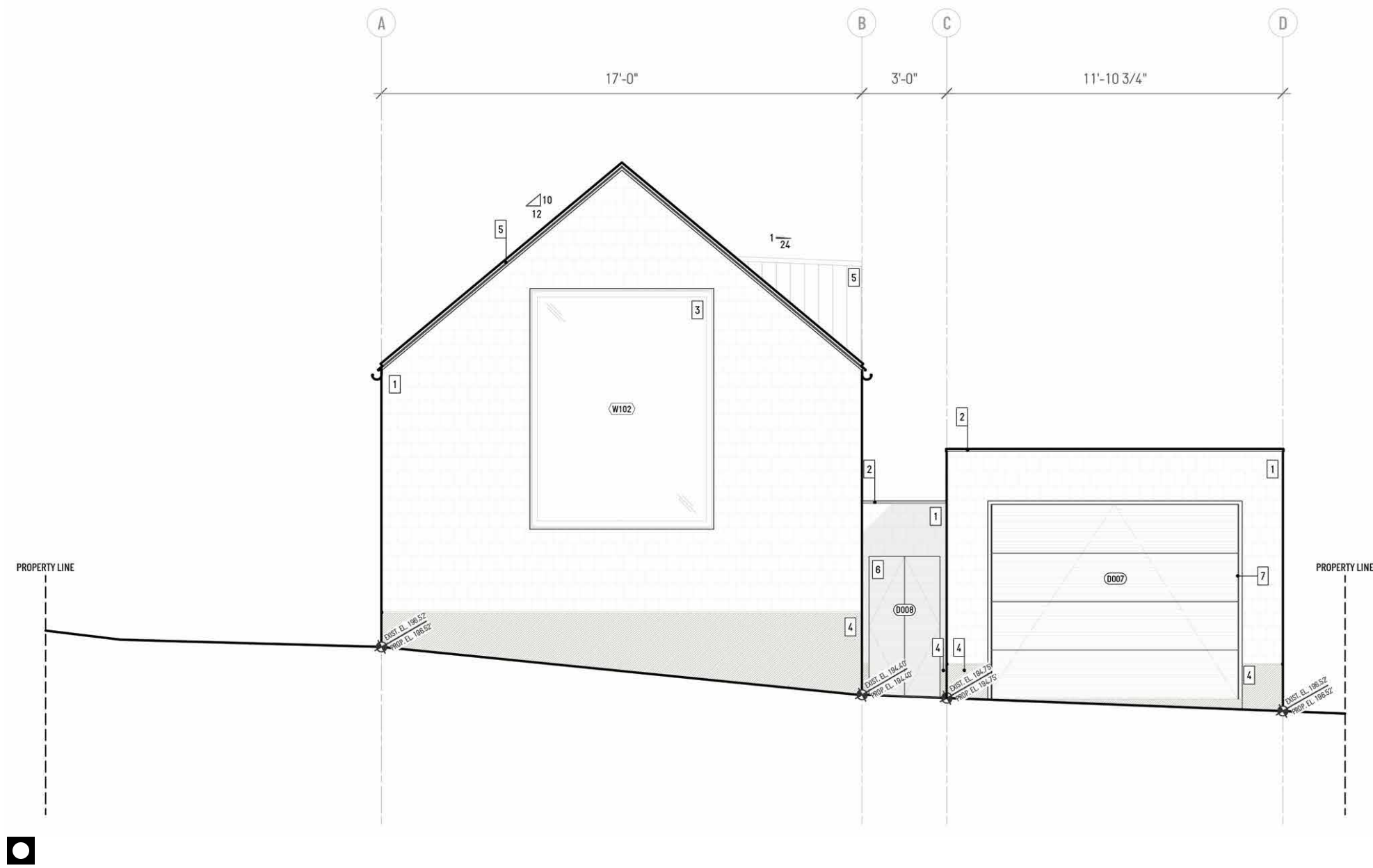
A.03

An Addition to a Family Home



A.03



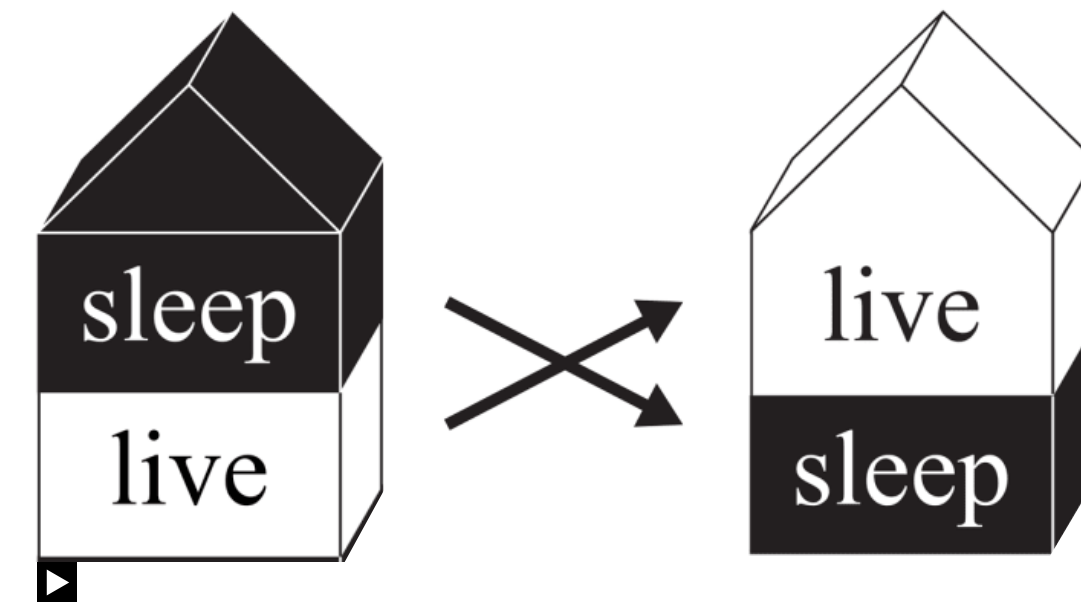
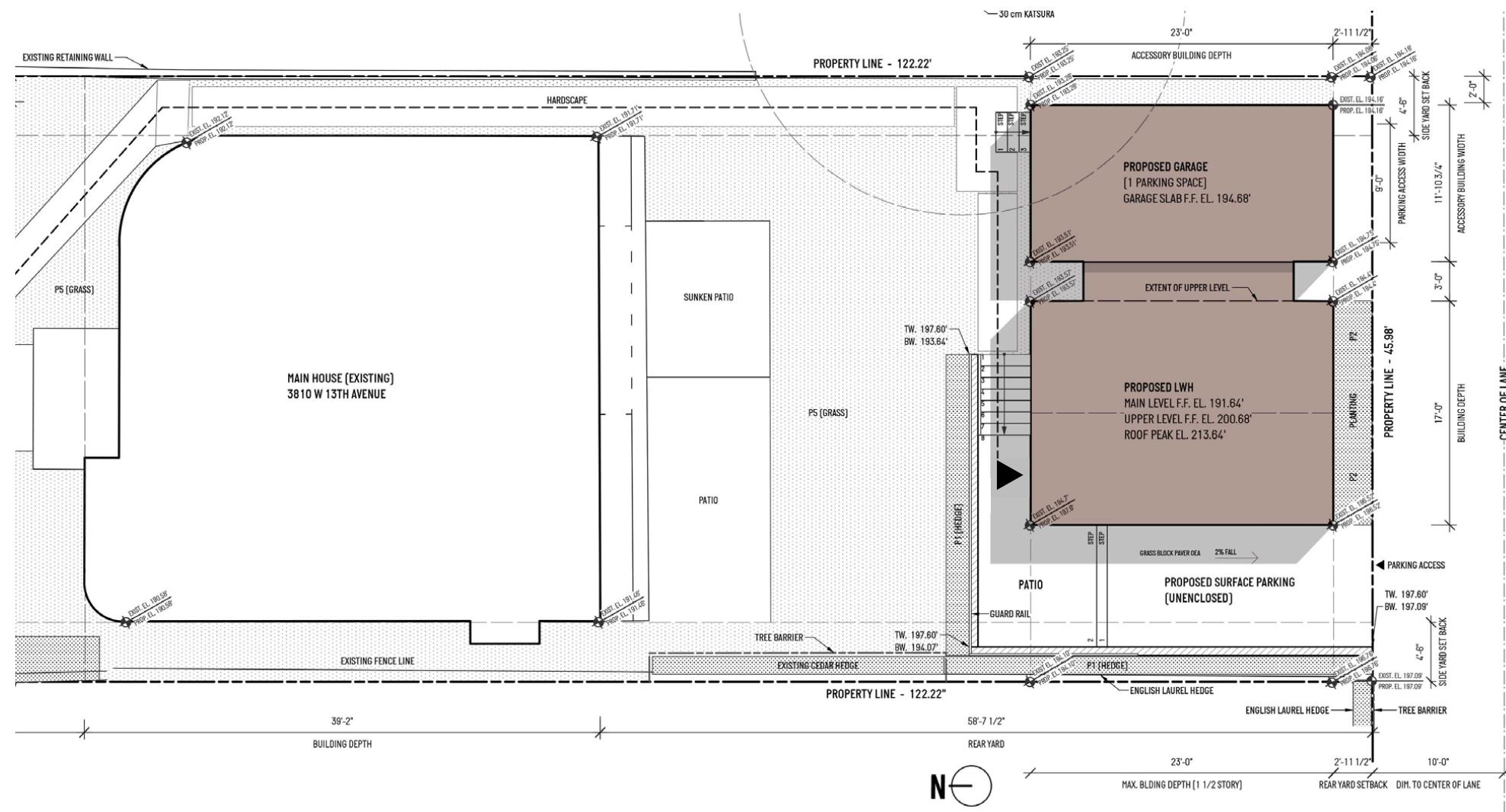


Title	Laneway X
Program	Private Residence
Zoning	RS-1
Status	Built
Location	Vancouver, B.C.
Size	899 sqf
FSR	0.16 x 5,619.68 sqf = 899.20 sqf permitted

■ South Elevation

■ Site Photograph

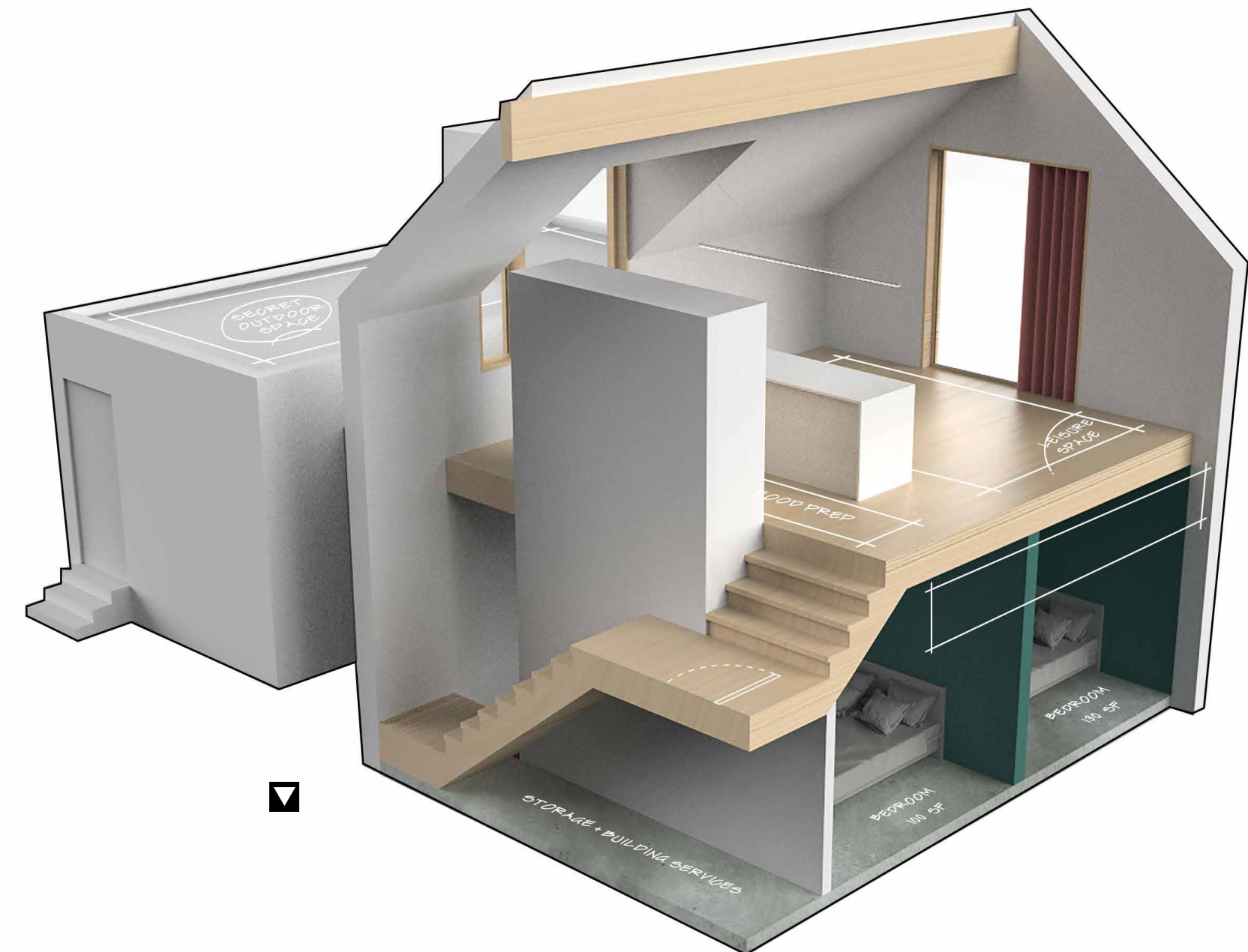
A.04



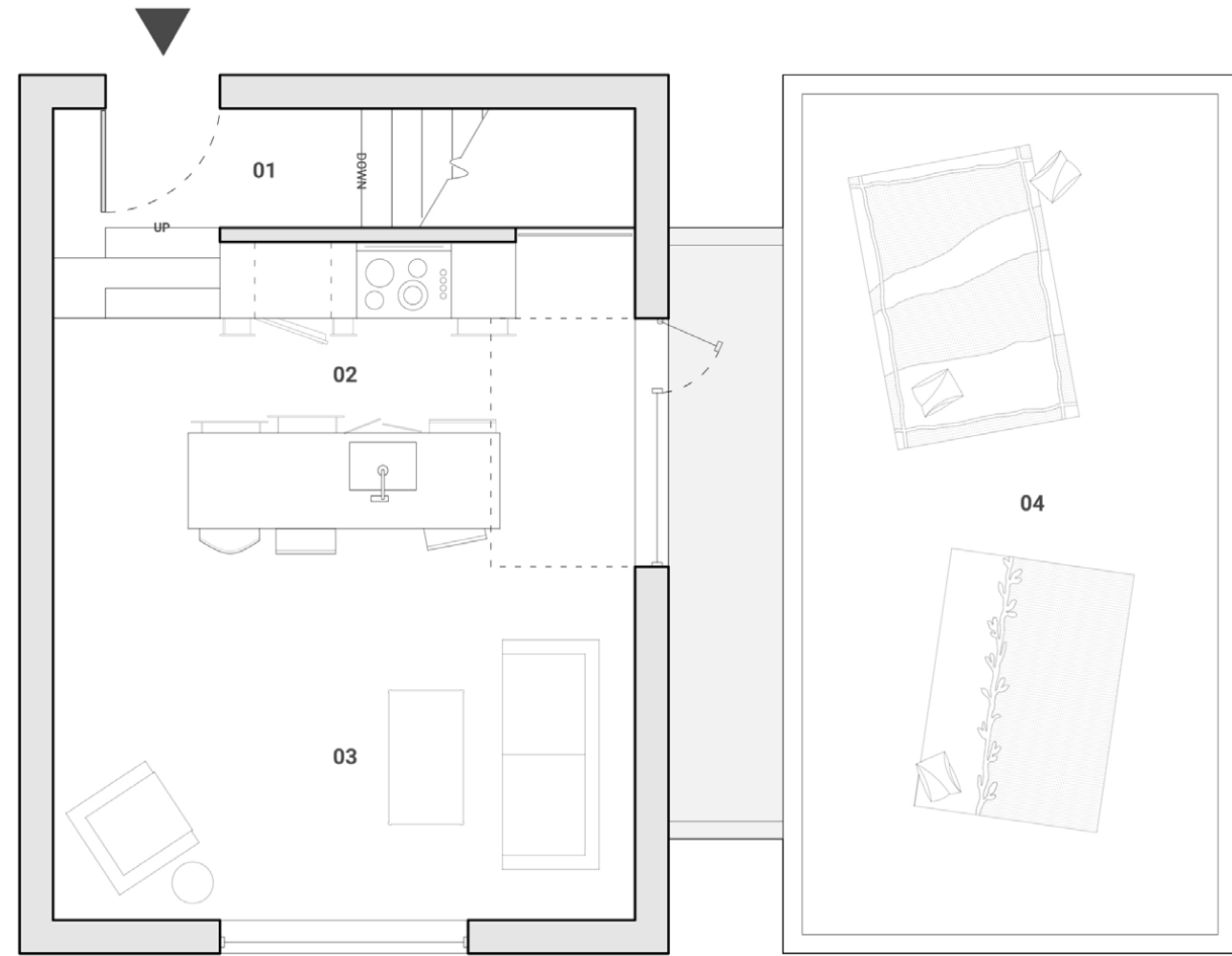
Designed as an alternative to the typical Vancouver Laneway house, the brief called for a residence that offered 'good design' at roughly half the average cost. While the average laneway house in Vancouver costs \$700,000, *Laneway X* cost was \$349,000. This was achieved through a number of strategic design moves. The entry opens onto the landing of the staircase which has been compressed to the front of the project. This compression of entry, foyer, and circulation allows for a very efficient use of the 824 sqf allowed.

The traditional residential section is flipped, creating an upper level with a 12' vaulted ceiling for kitchen and living. The stair also runs below this vaulted ceiling, meaning the second landing has a ceiling height of 17'. Light from the upper level and the window located in the stairwell flood the entry and circulation space with light. Kitchen elements are contained in a free standing kitchen block. A large dormer opens the kitchen up to eastern views and provides access to the garage roof, a secret outdoor space. The lower level contains sunken bedrooms with clerestory windows adjacent to a very skinny washroom.

Big on the inside, small from the outside, *Laneway X* reads as a single story volume on a concrete base, rather than a two storey residence. Minimal overhangs, custom eavestroughs and dark grey shingle siding give the structure an unobtrusive and discreet impact on its surrounding neighborhood.

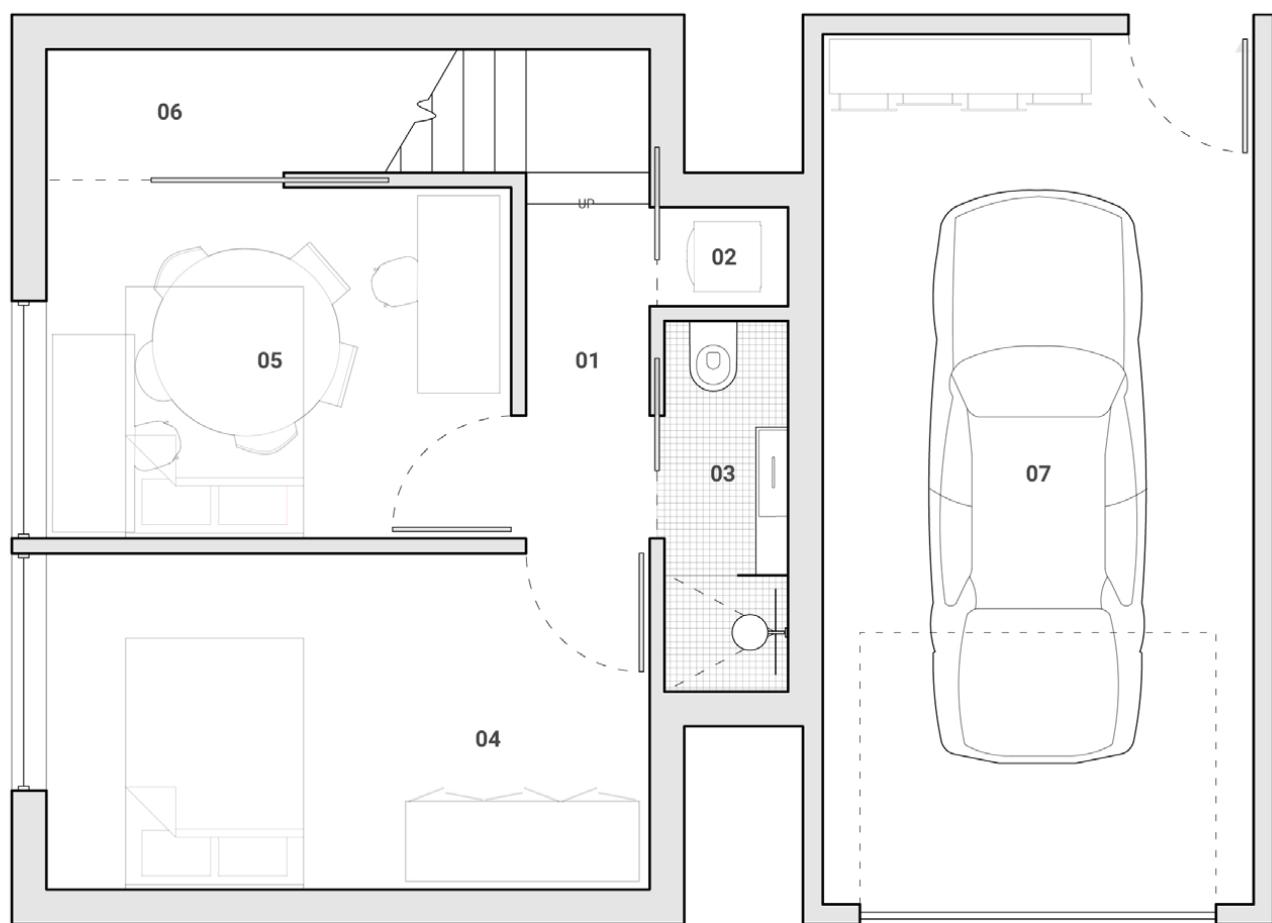
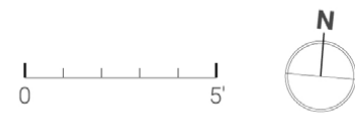


A.04



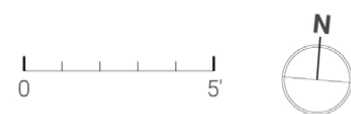
Upper Level

- 01 Foyer
- 02 Food prep
- 03 Leisure
- 04 Outdoor half space

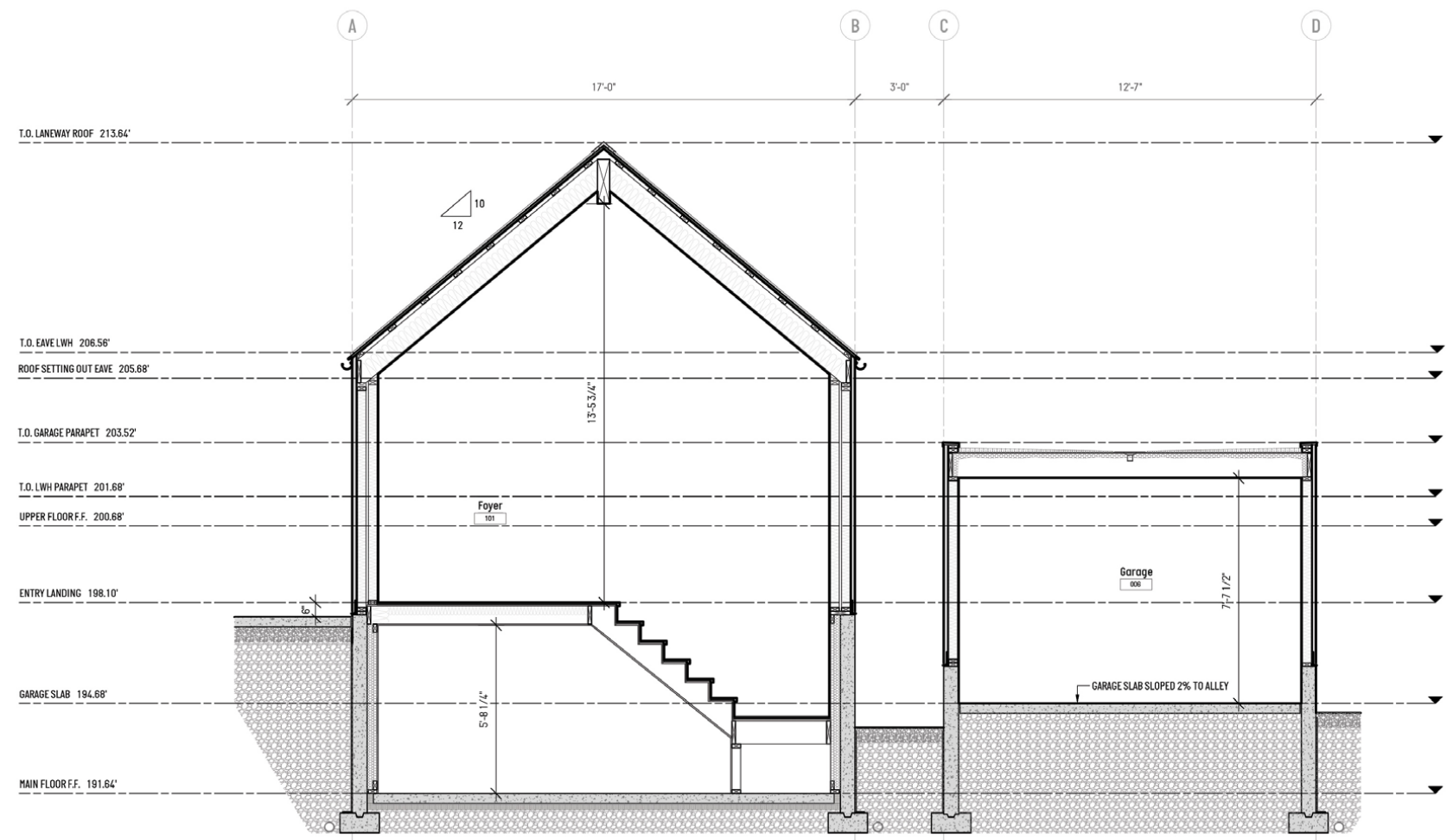
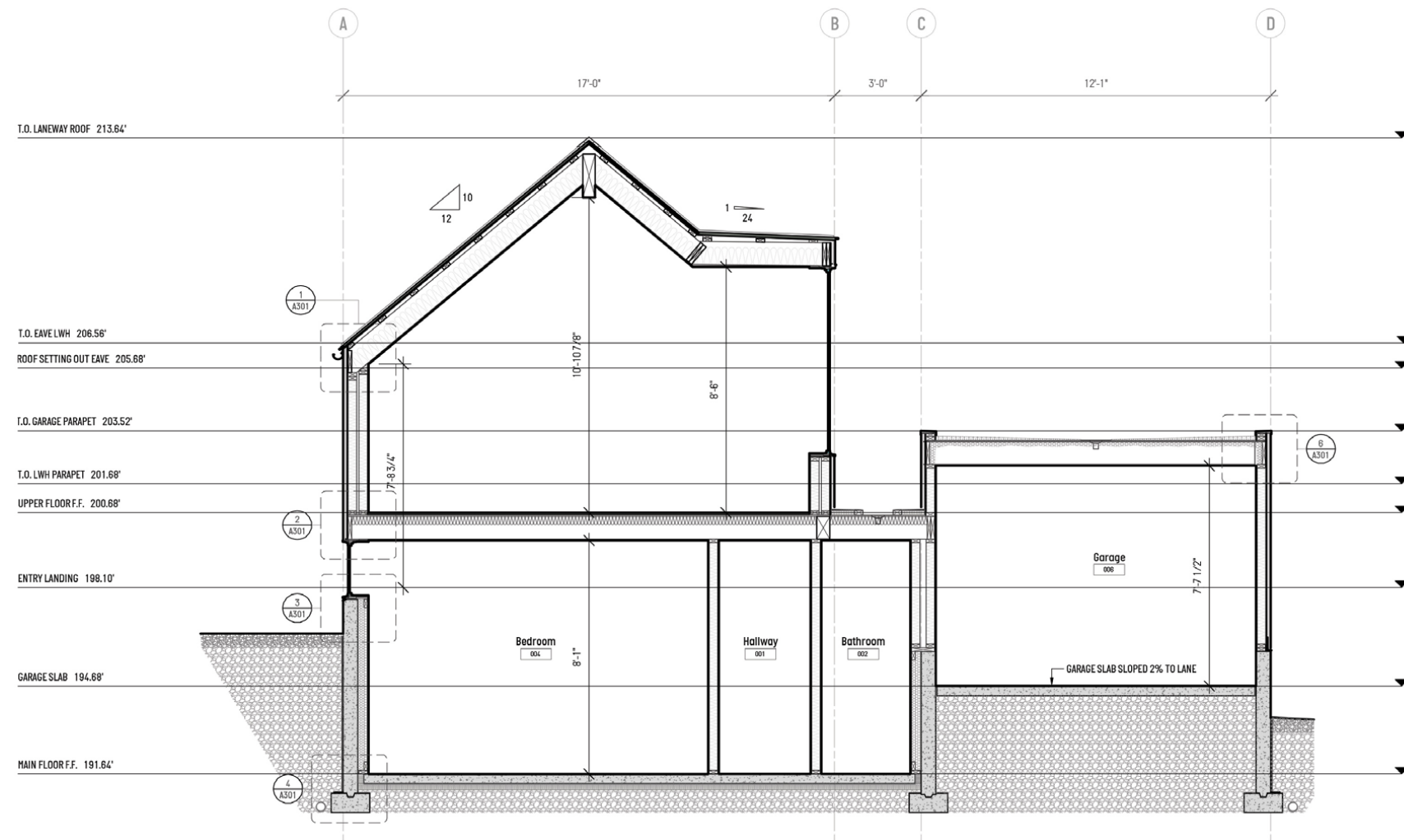


Lower Level

- 01 Hallway
- 02 Laundry
- 03 Washroom
- 04 Bedroom
- 05 Flex room
- 06 Storage
- 07 Garage



A.04



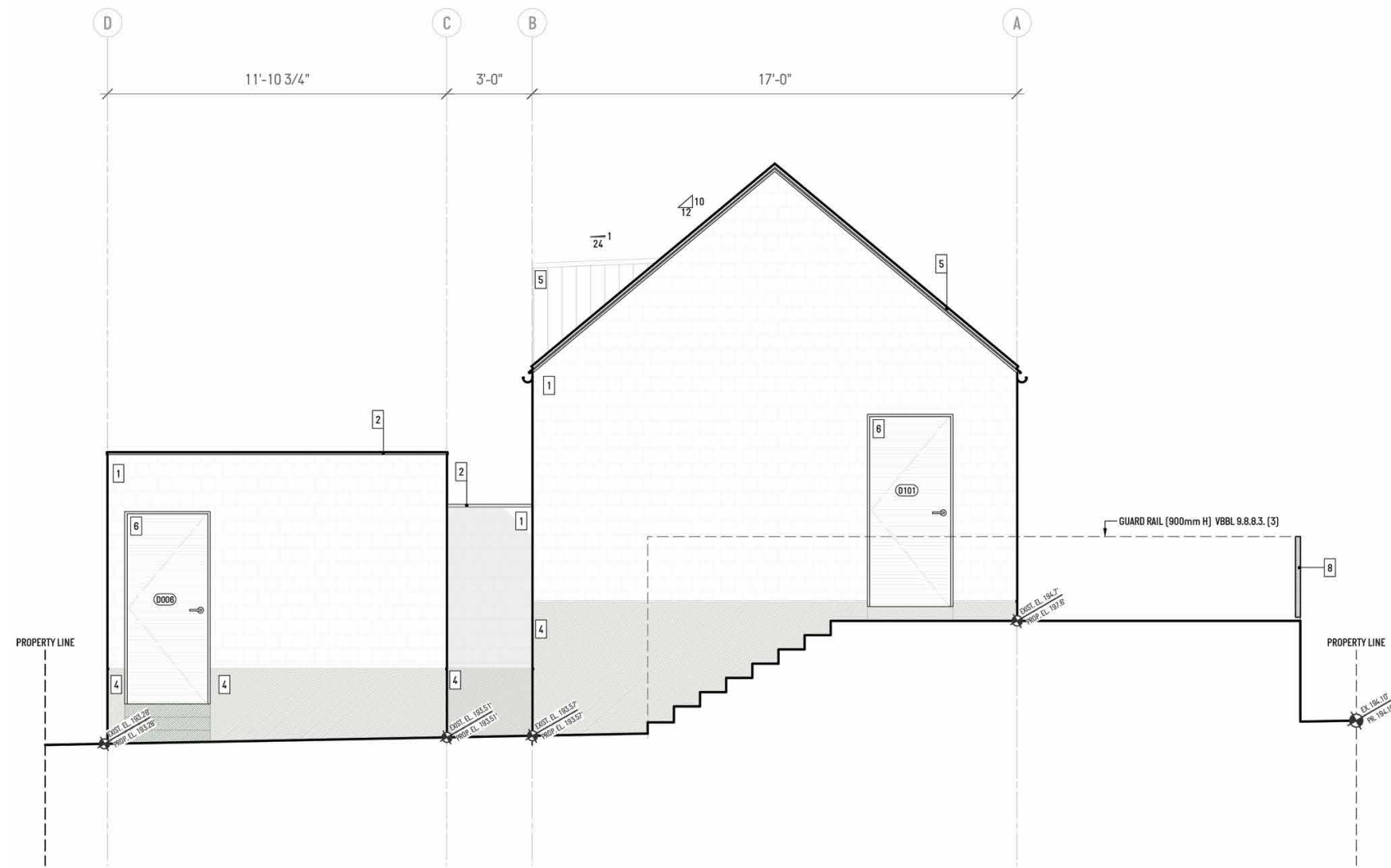
Section A-A

Sections B-B

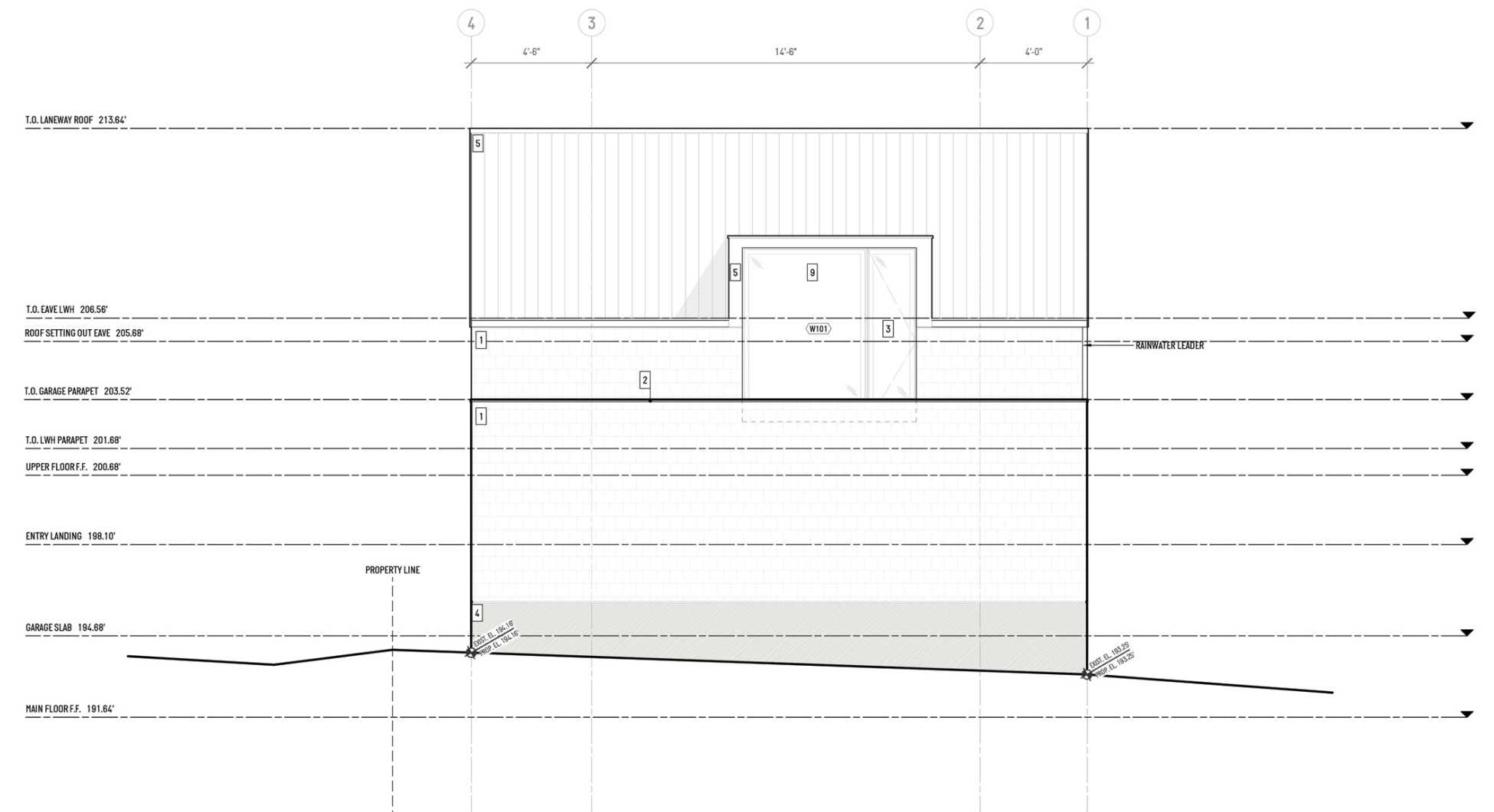
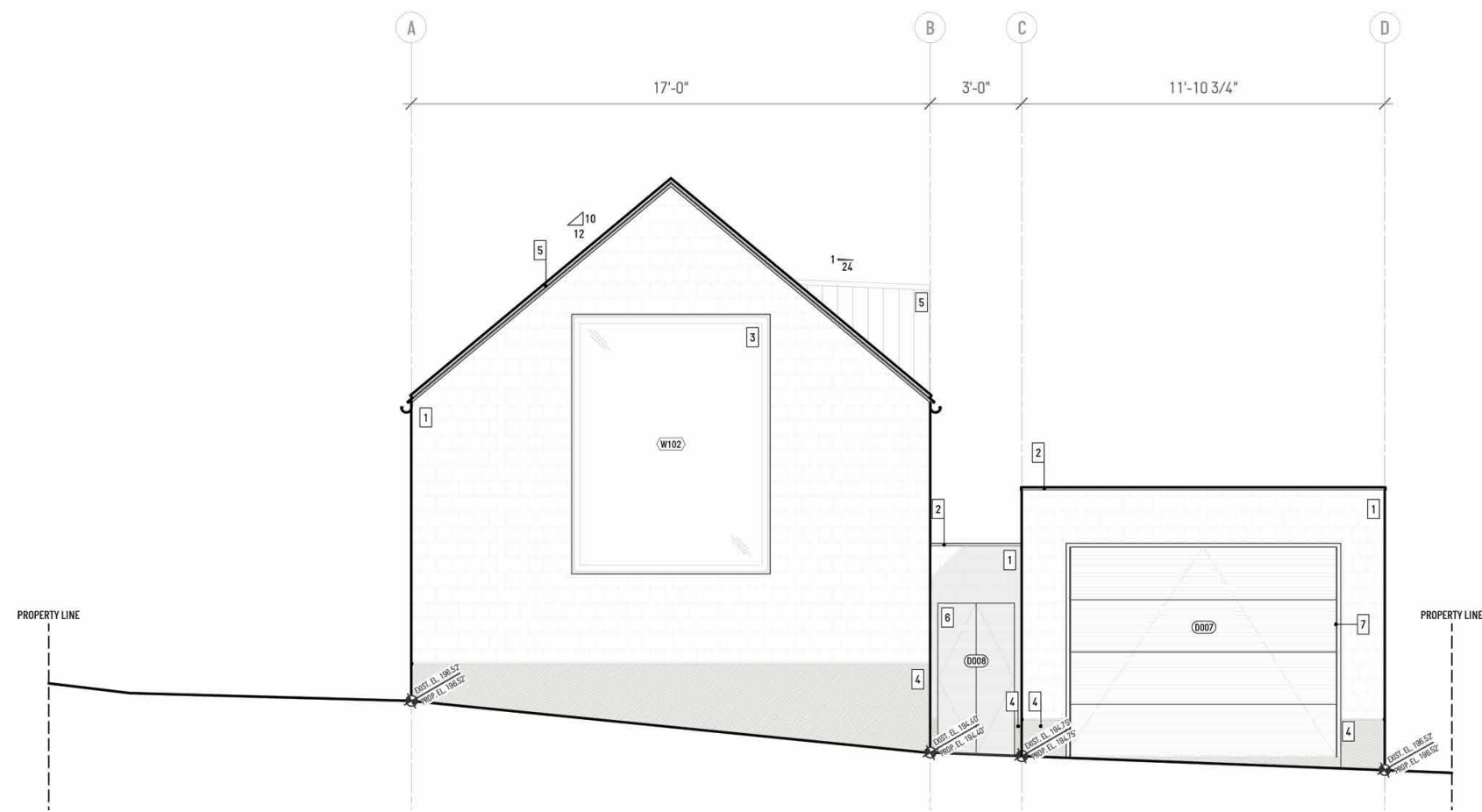
Site Photograph



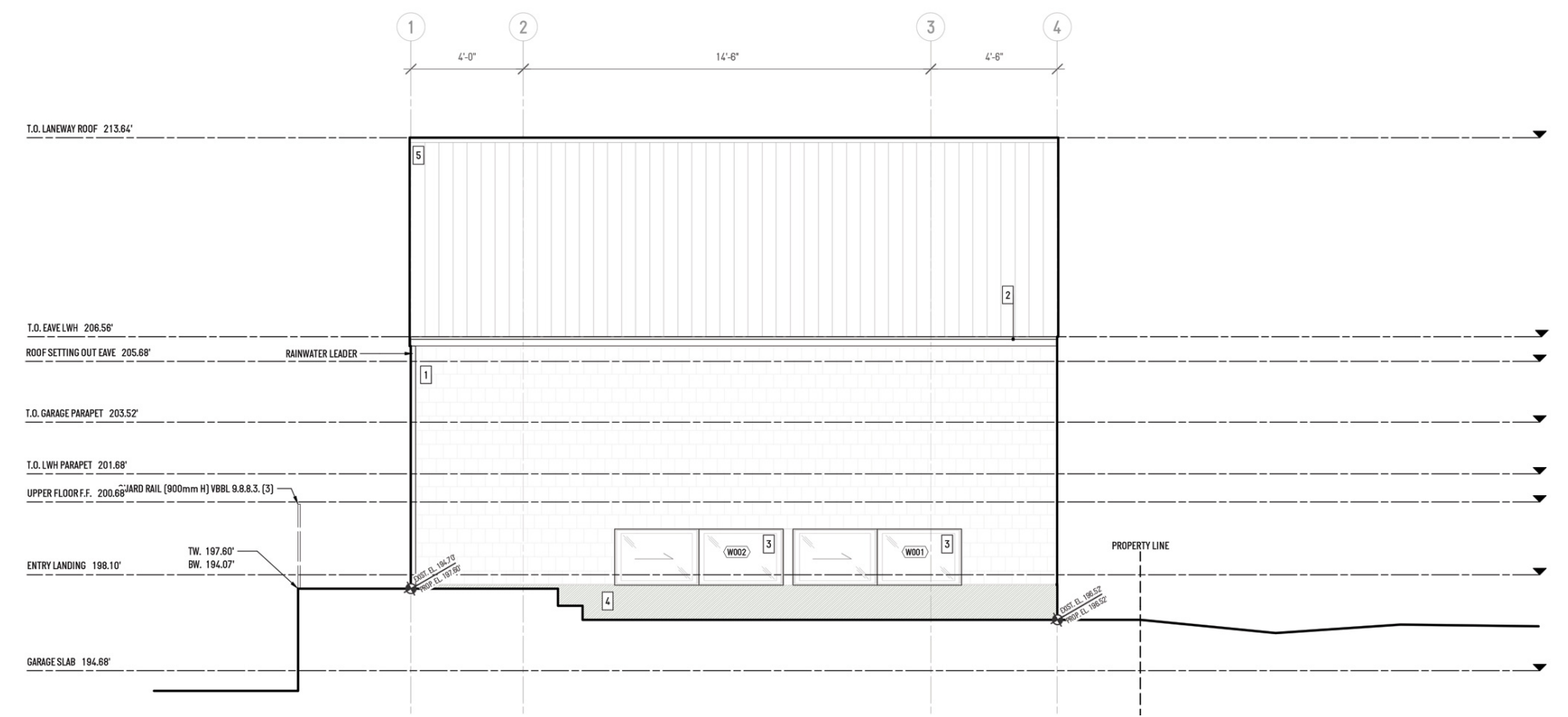
A.04



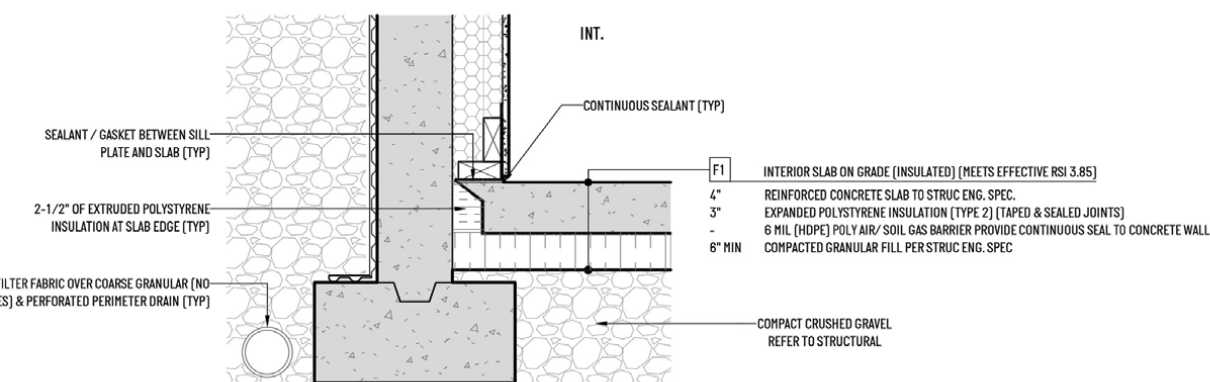
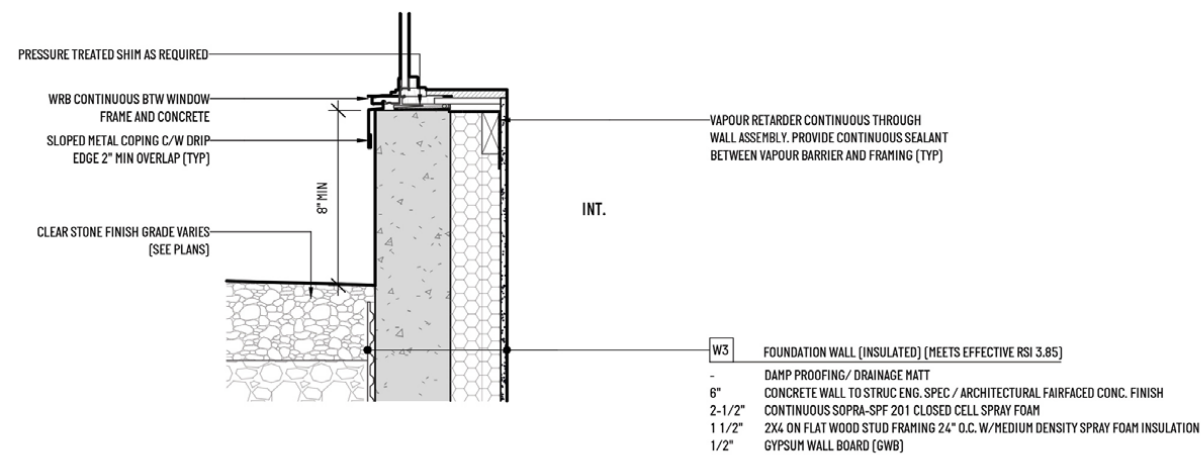
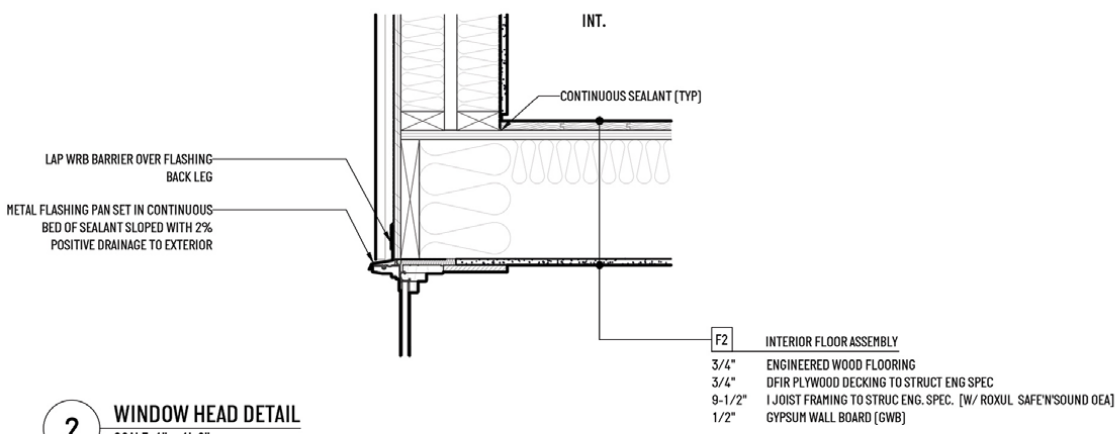
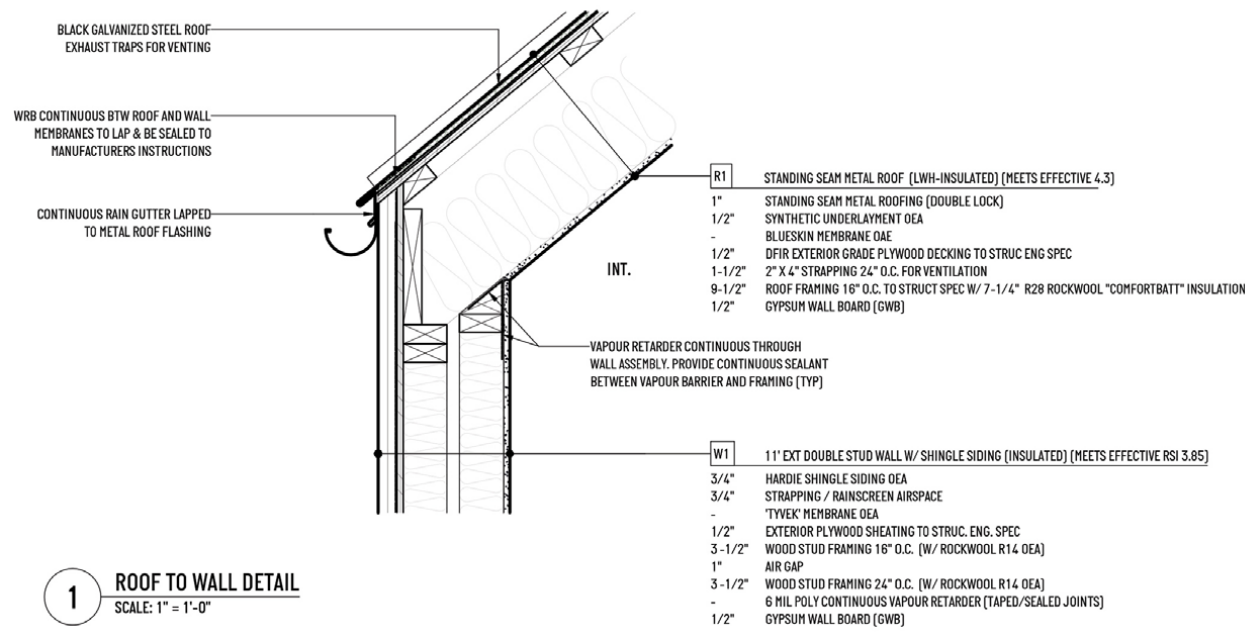
1 NORTH BUILDING ELEVATION
Scale: 1/4" = 1'-0"



1 EAST BUILDING ELEVATION
Scale: 1/4" = 1'-0"



A.04



A.04

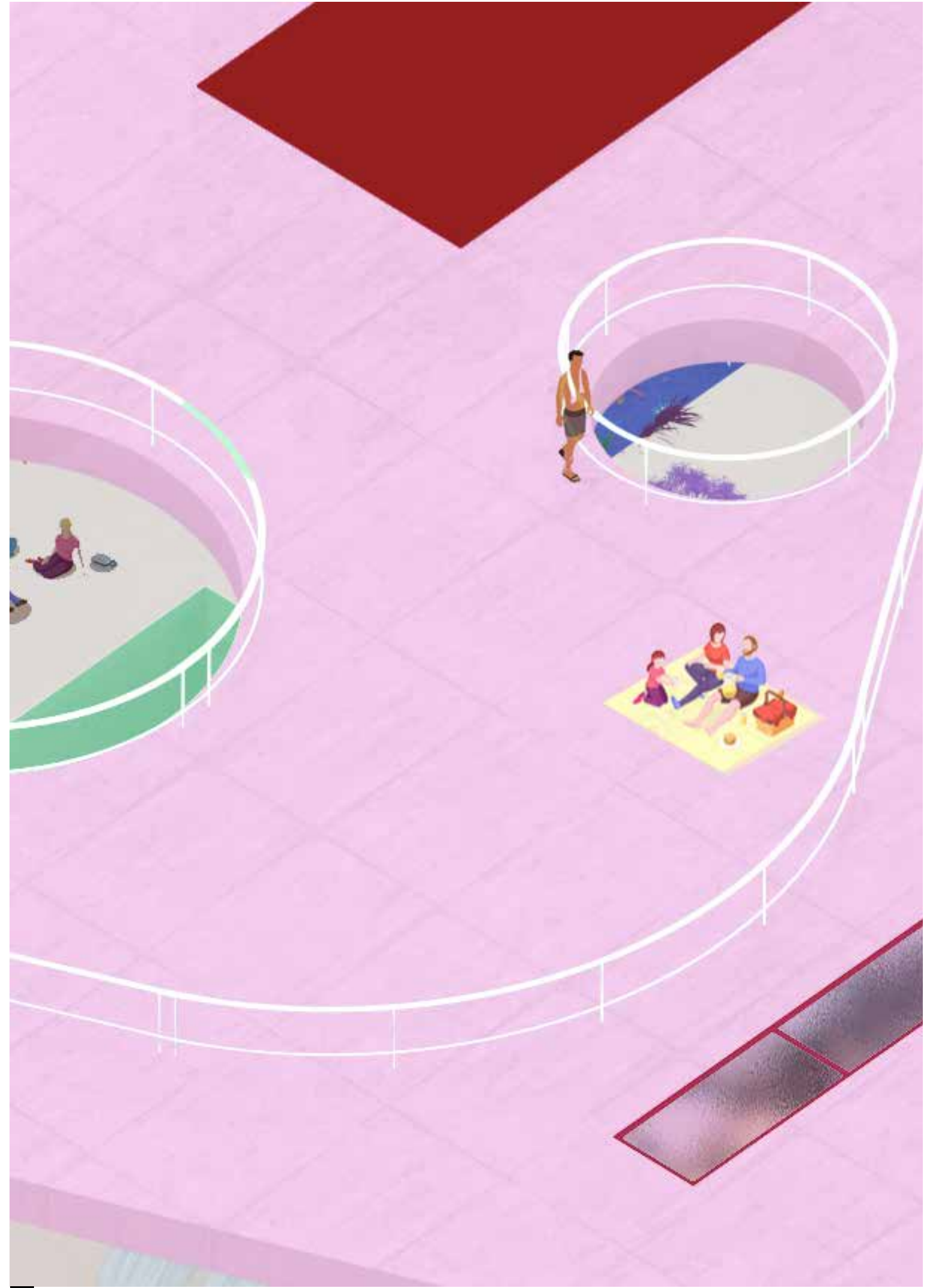


● Site Photograph

A.05



●



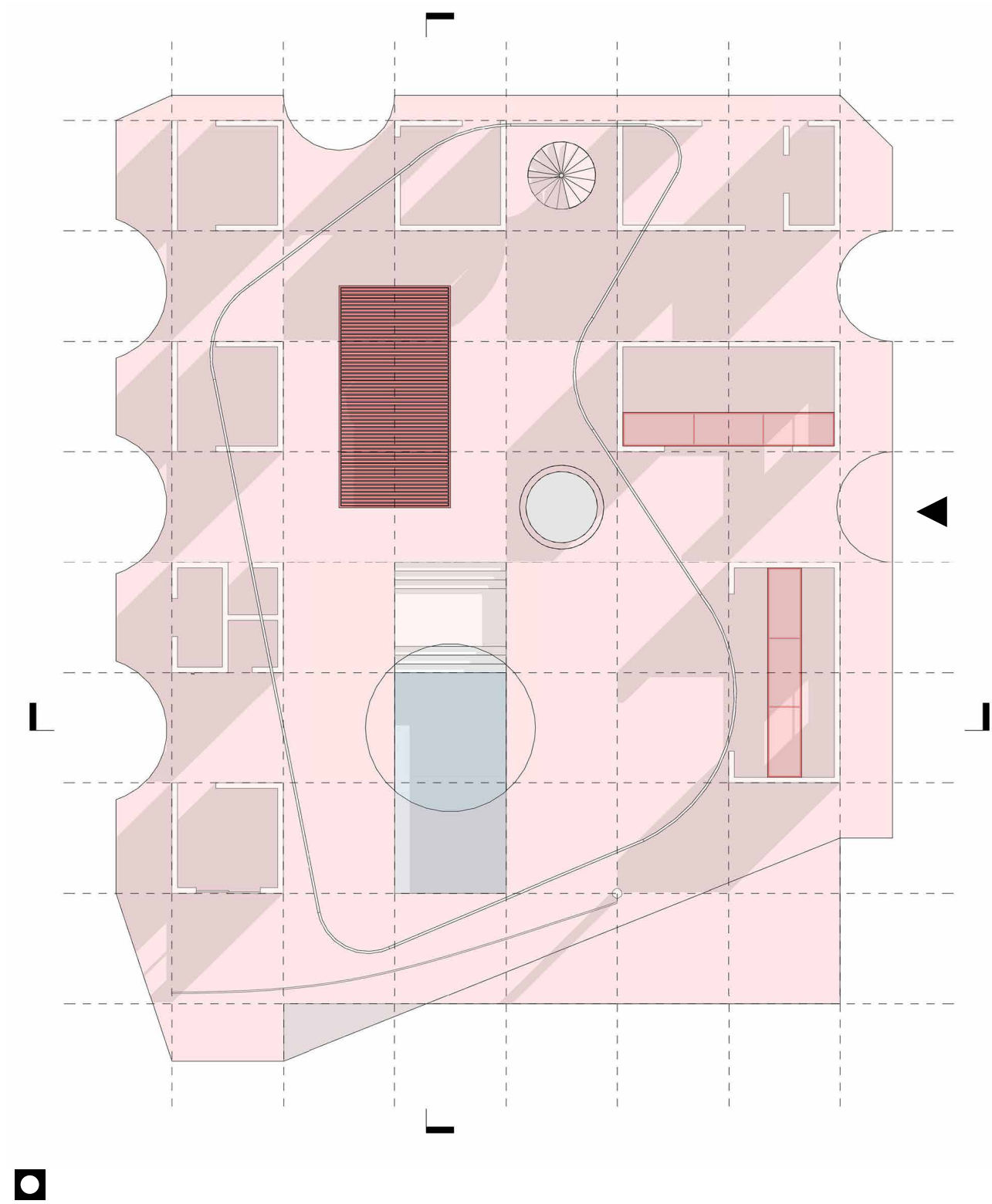
●

Title	Junglist Brutalism
Program	Residential
Status	Design Development
Location	Lombok, Indonesia
Size	12,700 sqf

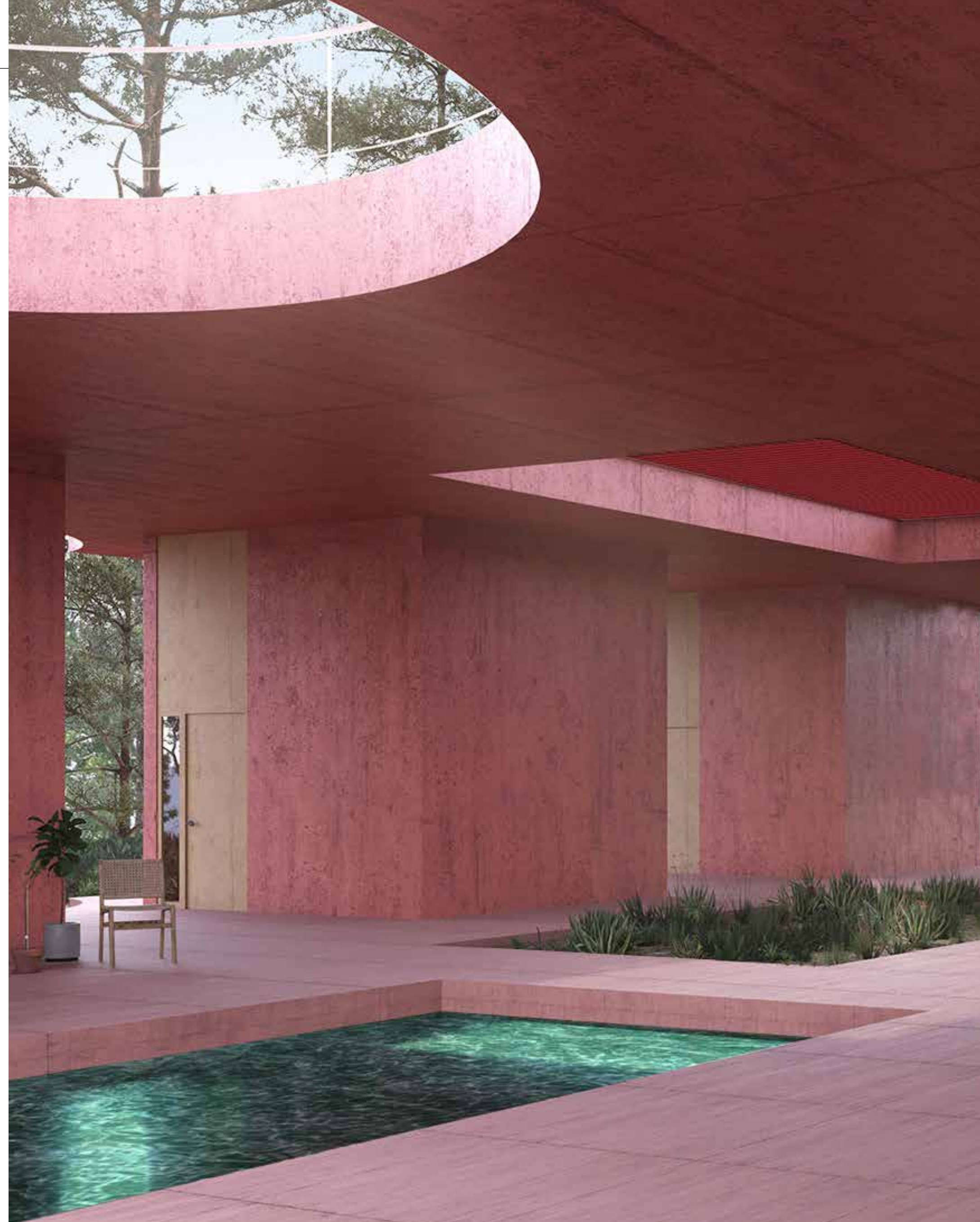
● Digital Image

● Site Photograph

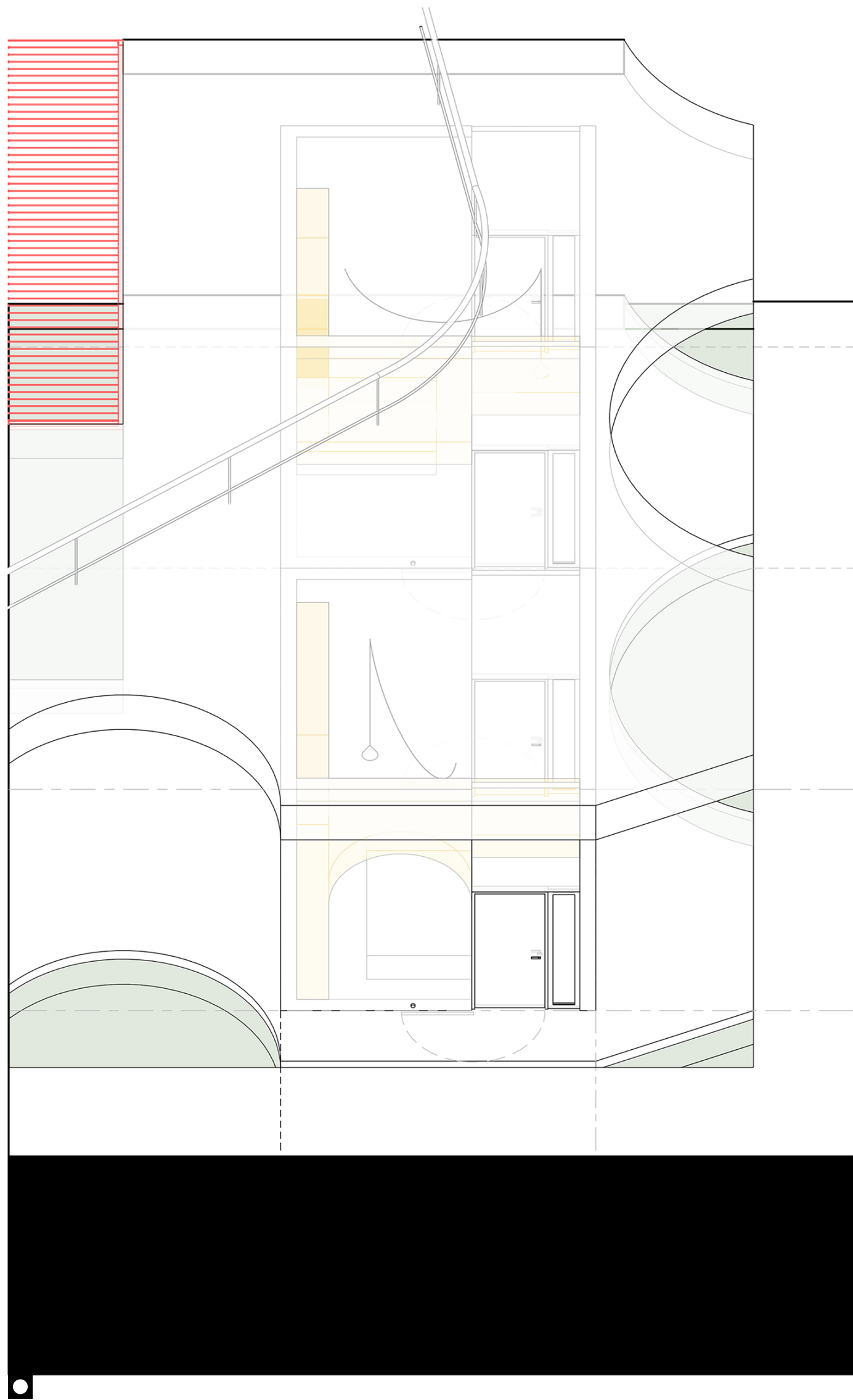
A.05



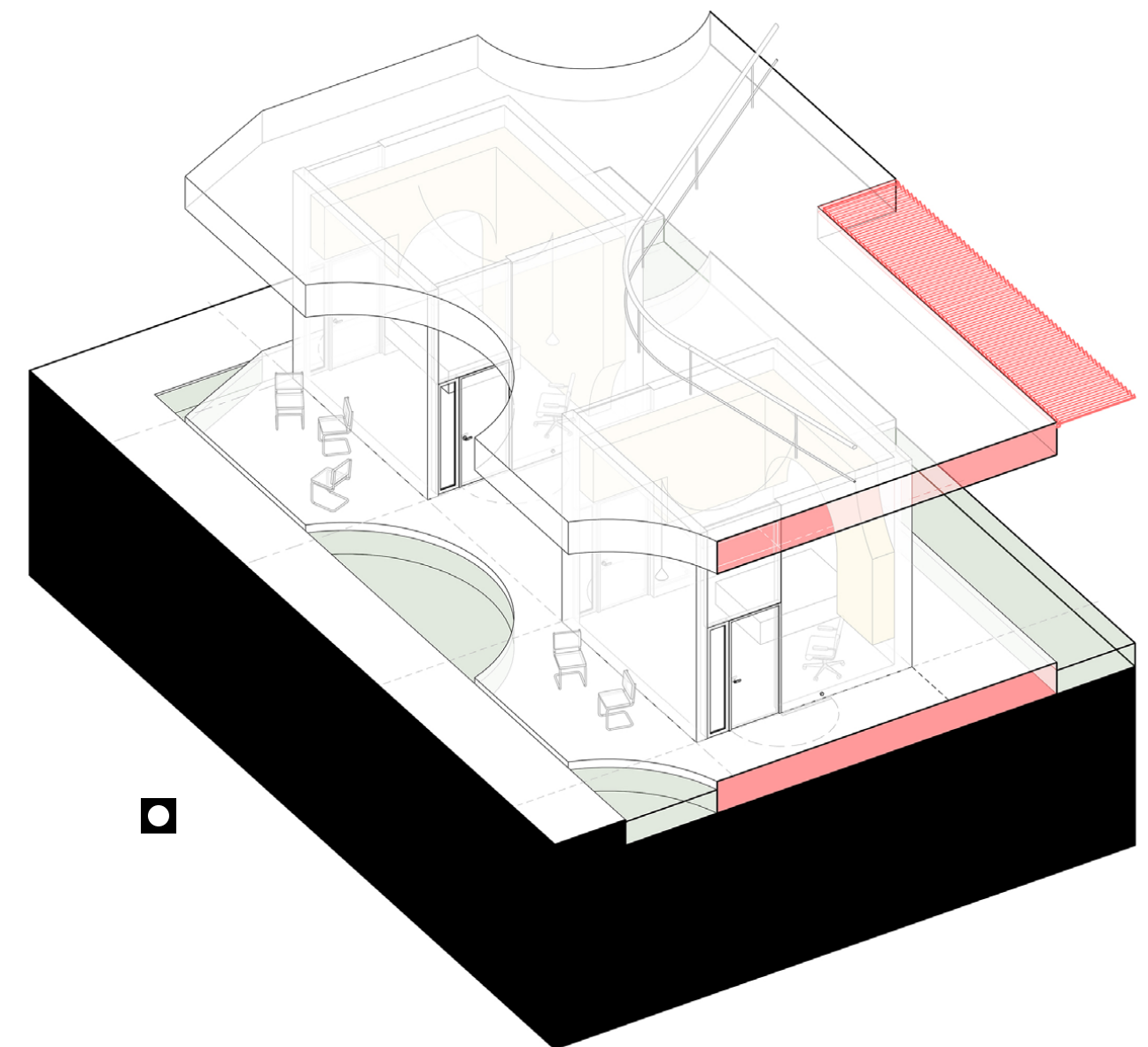
▲ *A brutalist ruin in the jungle.* A clash of a static, monolithic architecture and the flux of nature. Through scale and form the massing of this project separates itself from contemporary notions of residence. This aesthetic relationship of architecture and nature is applied to a plan that is organized on a 4m x 4m grid. This project compresses the private portions of the plan to 4m cubes at the edges of the plan. Shared space and circulation are combined to create large open expanses that blend back into nature at the edge of the grid. Portions of the edge of the grid are either capped by program volumes or planters that shield the semi-interior space from the surrounding forest. This project is intended to be retreat architecture, often accommodating social retreats, meant to be 'discovered'. The architecture serves as a monolithic platform to support and expand upon the inhabitants experience of the surrounding nature. As this is a remote site, the material palette is selected to limited trades required on site. As a result the majority of the architecture is a single pigmented tinted concrete. Door openings are filled in with light wood door and wall elements and the cubes that house private program elements are completed with singular wood millwork elements fabricated on site.



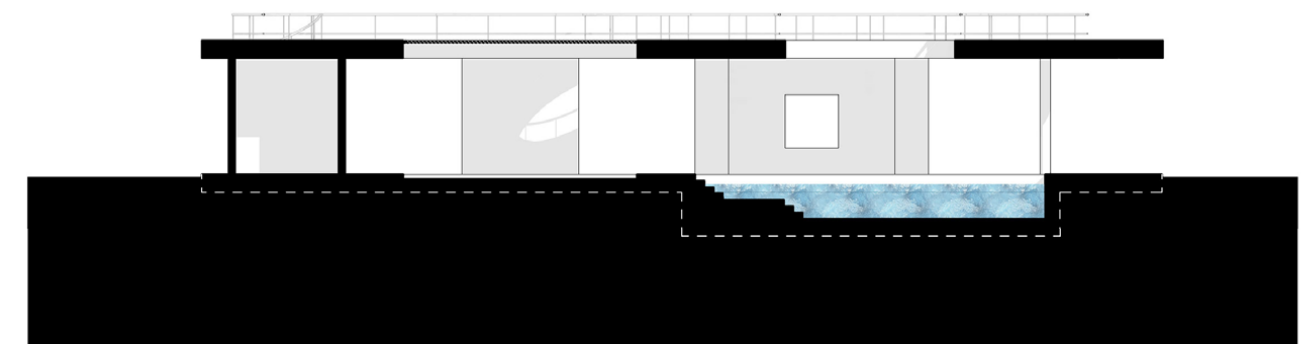
A.05



■ *Oblique Axo of 2 Bedrooms*

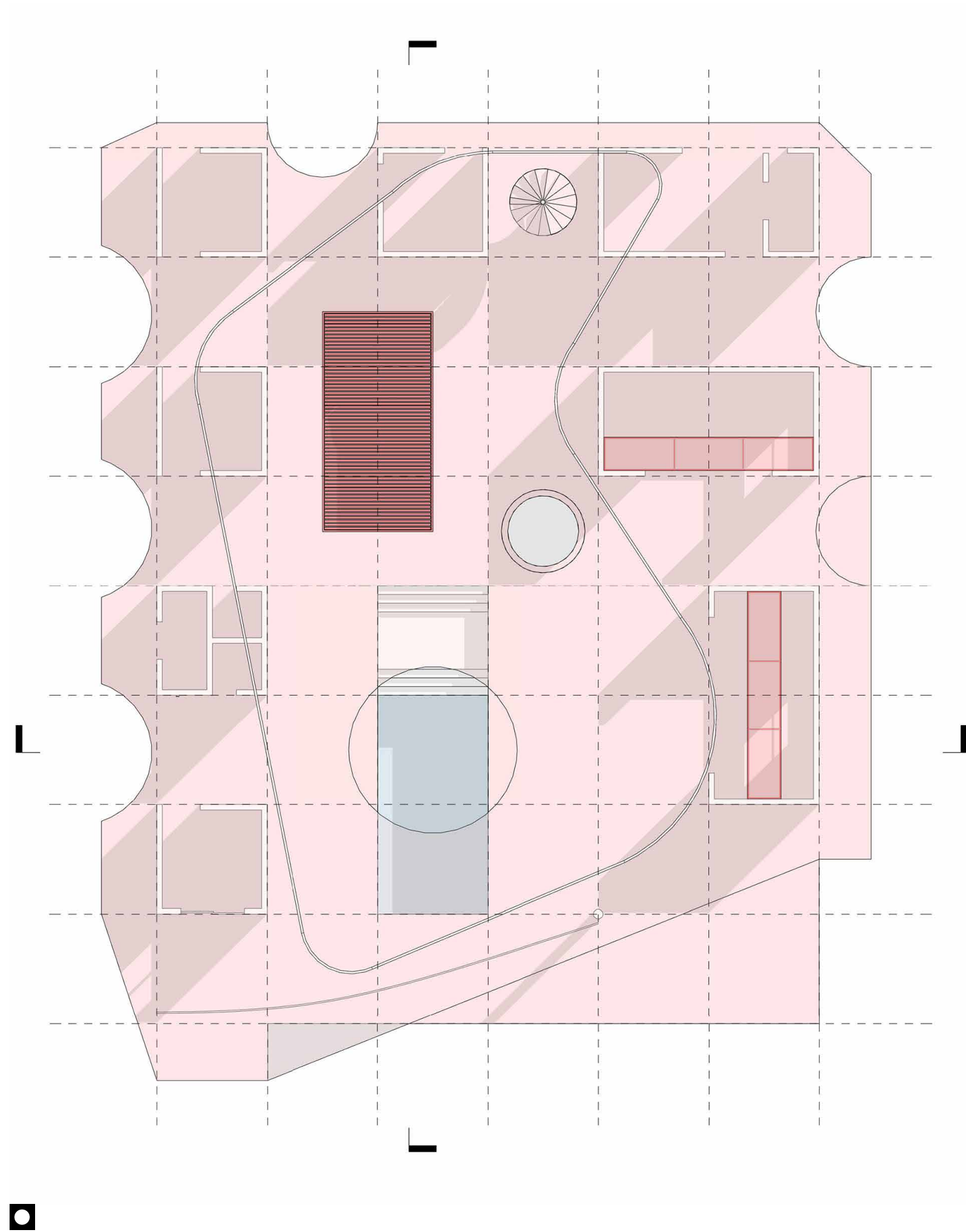


■ *Section Axo of 2 Bedrooms*



◀ *Long & Short Section*

A.05



■ Plan



▲ The top slab functions as an expansive roof space defined by a sculptural hand rail that cuts across the grid. Various punctures in the roof serve to enhance the program below. Along the edge of the slab circular sections are cut away to allow light into the grid.

■ Roof Axo

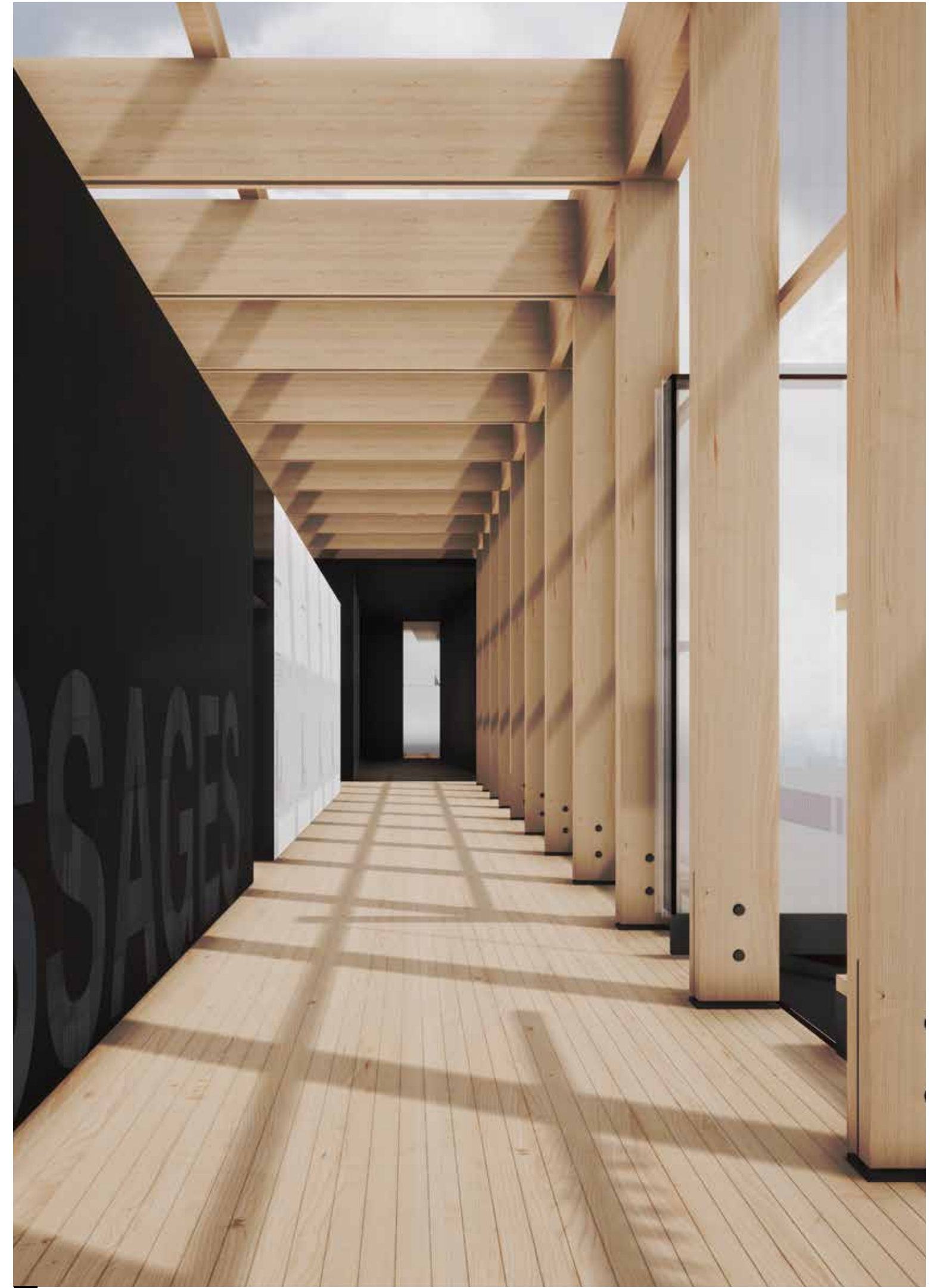
▲ Project Text





A-05

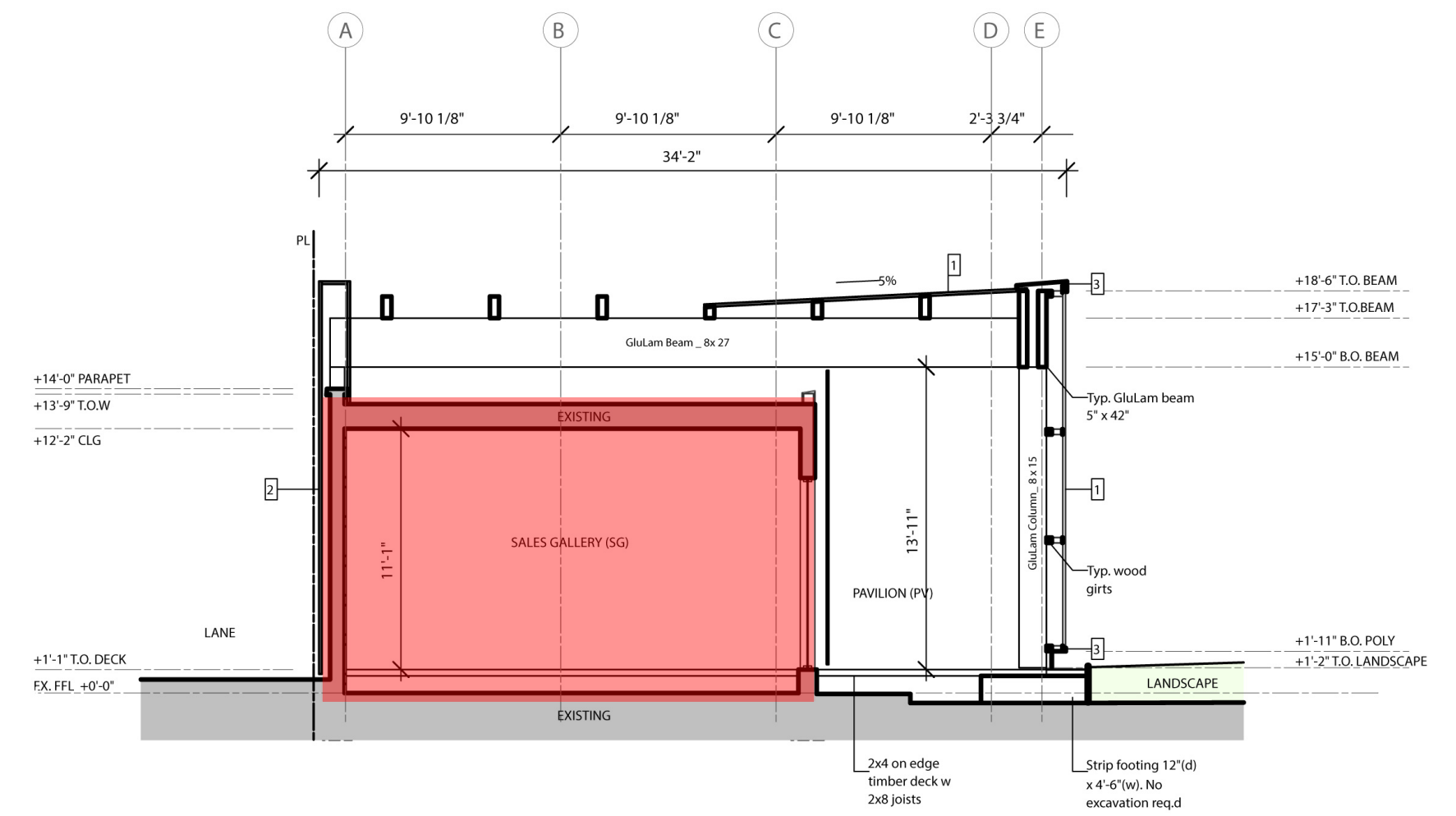
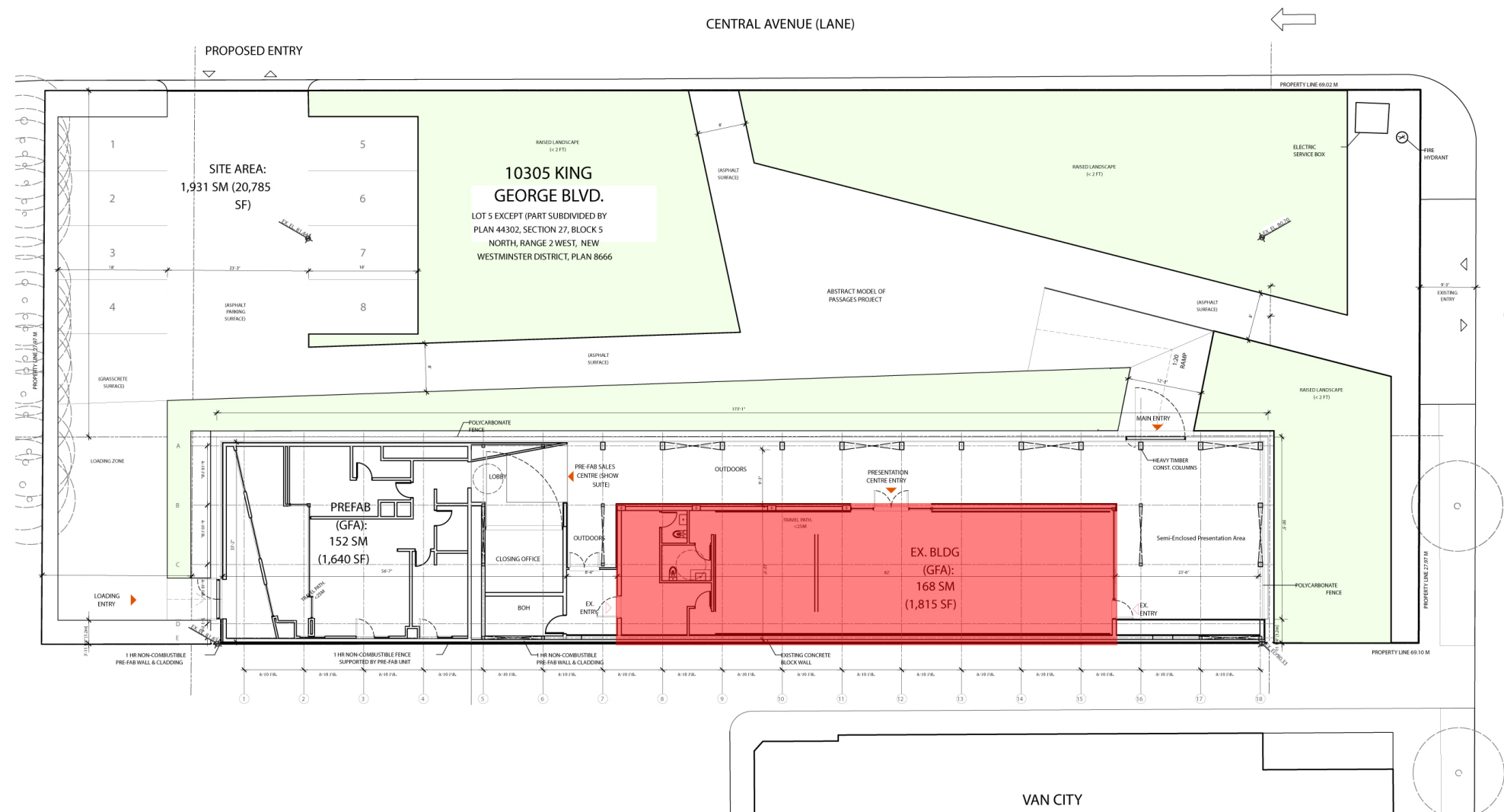




Title	Veiled Presentation Centre
Program	Mixed Use (Commercial/Cultural)
Status	Design Development
Location	Surrey, B.C.
Size	5800 sqf

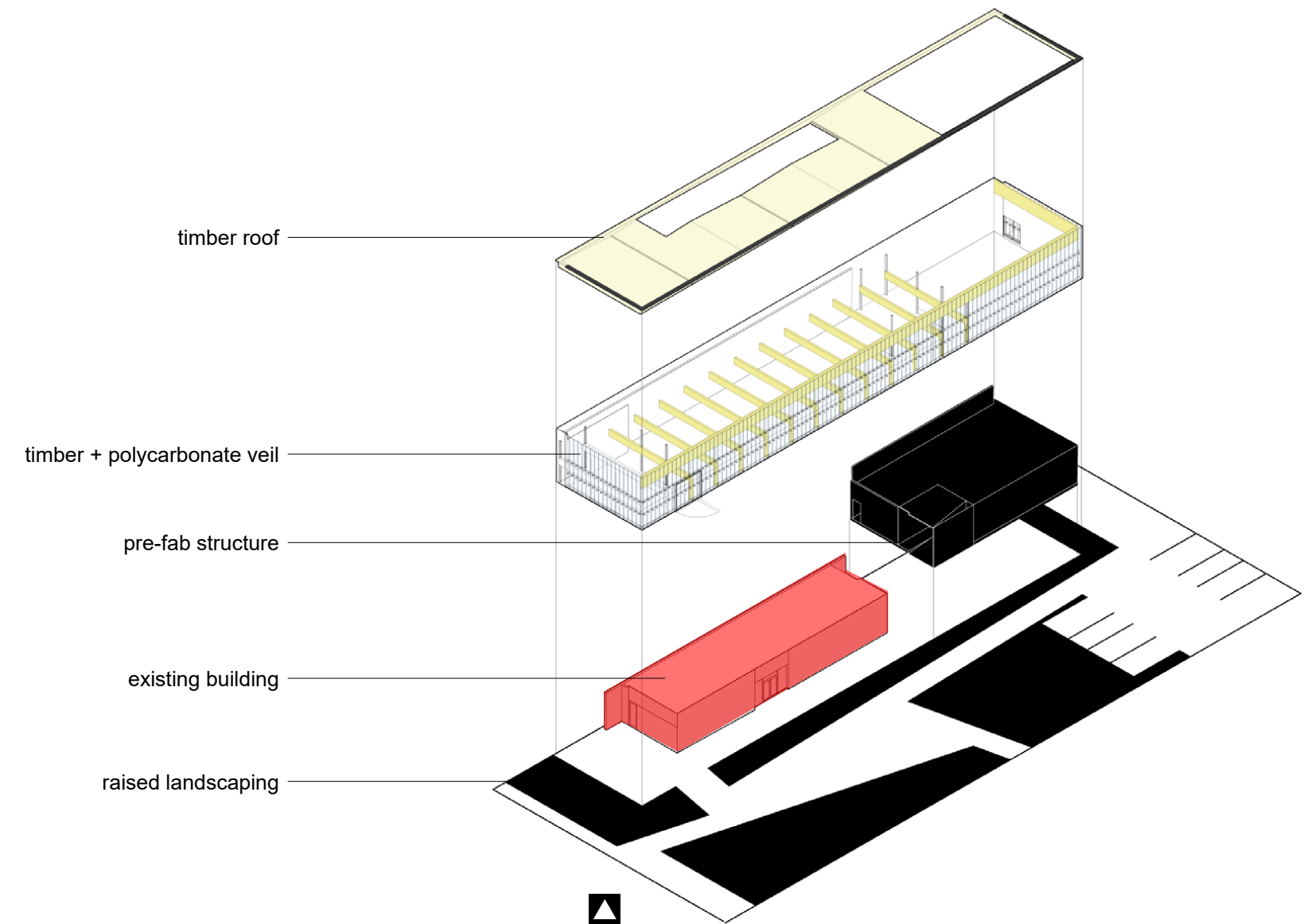
■ Digital Image

■ Site Photograph



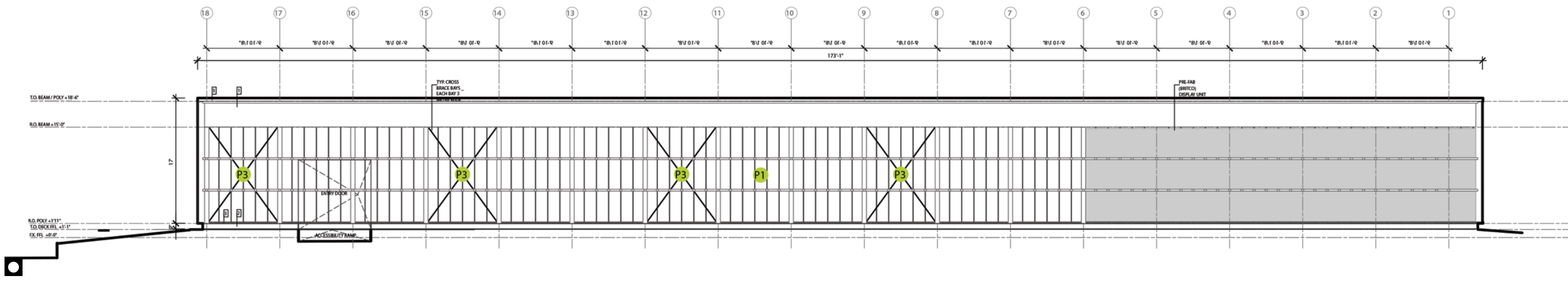
▲ The brief called for a solution that absorbs an existing single story structure on the site into a new project that is to be used as a presentation centre for multiple upcoming mixed-use developments in the area. Between sales presentations this project is to be used for community events. Rather than add multiple new structures across the site, a polycarbonate and heavy timber veil is set off from the existing building (formerly a car dealership) and contains a pre-fabricated structure. This creates a creating a translucent linear bar on the back of the site. This allows the rest of the site to remain as public space. Raised landscapes organizes the exterior space around a central courtyard in front of the presentation centre. The polycarbonate veil is set off from the existing structure on two sides. This move creates a third space between the existing architecture and the exterior space. This third space becomes essential to community events and larger presentations. Permanent sales presentations program elements are housed within the existing building and the pre-fabricated structure.

A large LED matrix screen is fixed to the long facade of the existing building. This screen can be used to display sales content, visual content for community events, as well as solid colors illuminated the polycarbonate veil and the surrounding public space, a sort of digital beacon which can be viewed from the nearby skytrain. The polycarbonate veil is supported by large wood members. Low permanence was a key driver of this design, and the materials used in the veil along with the pre-fabricated structure are all reusable or recyclable. A temporary veil to create a third space for community.



A.06

Whalley Presentation Centre

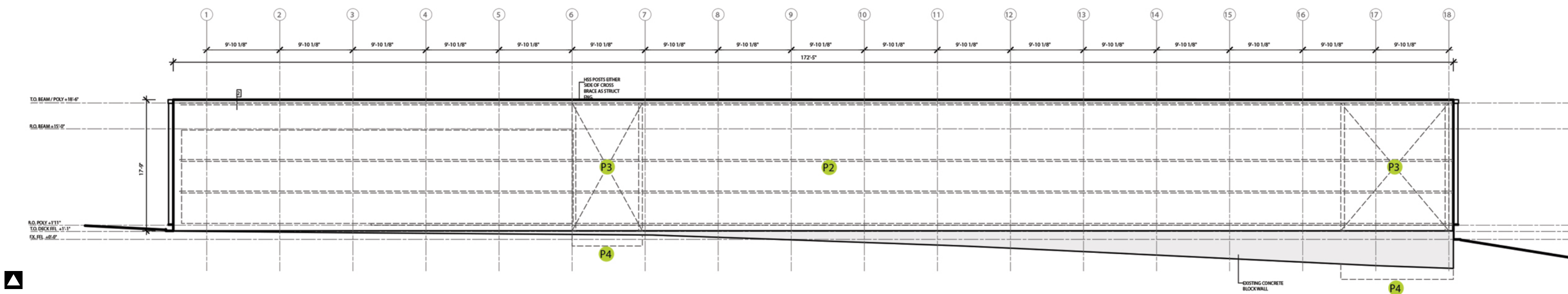


PAVILION

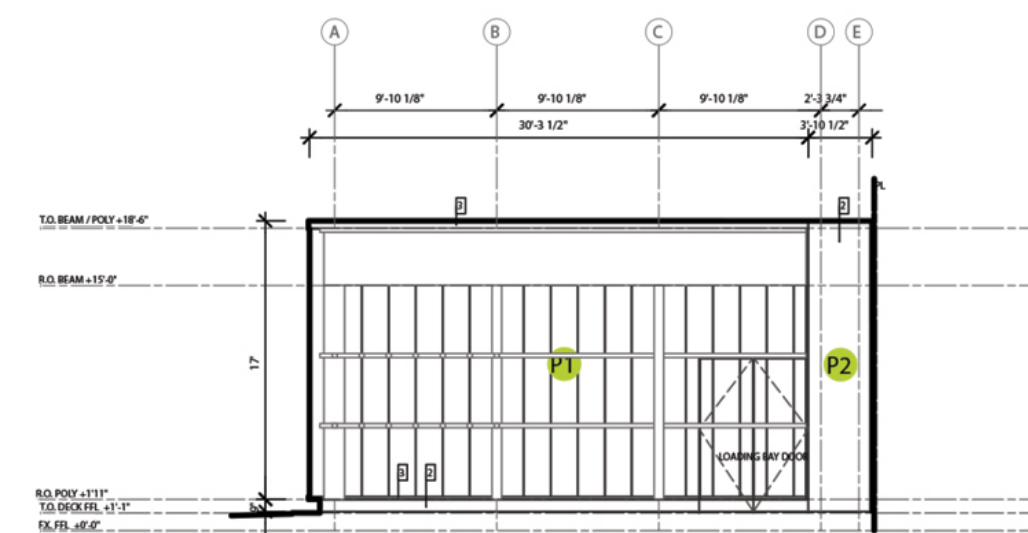
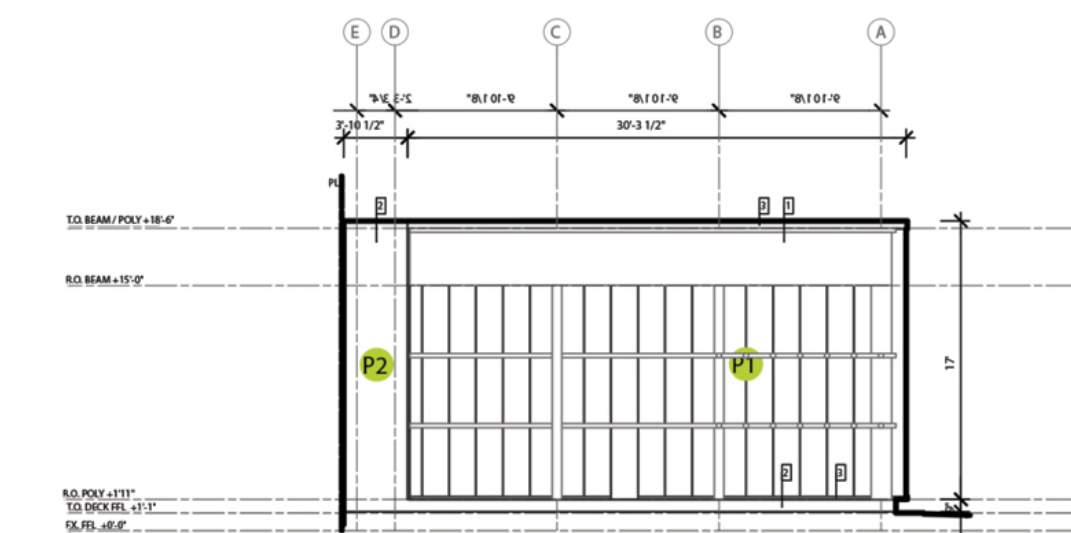
- P1** POLYCARBONATE PANELS TO METAL 'Z' CLIPS TO TIMBER GIRTS
- P2** CORRUGATED STEEL PANELS
- P3** CROSS BRACING WITH 3/4" DIA CABLES AS PER STRUCT. ENG.
- P4** NEW POURED STRIP FOOTING

SALES GALLERY

- S1** UPGRADE MECHANICAL SYSTEM AS PER MECH ENG. SPEC
- S2** RAISED TIMBER FLOOR TO MATCH EXTERIOR FOR ACCESSIBILITY; NEW ELECTRICAL UNDER RAISED FLOOR.
- S3** REMOVE DROPPED CEILING, ADD UNISTRUT CEILING GRID & SPRAY OUT BLACK
- S4** NEW LIGHTING (LED TUBE LIGHTS + SPOTS)
- S5** NEW UNIVERSAL ACCESS WASHROOM & STAFF WASHROOM



- MATERIAL KEY**
1. FROSTED POLYCARBONATE PANELS
 2. CORRUGATED STEEL PANEL
 3. PREFINISHED STEEL FLASHING

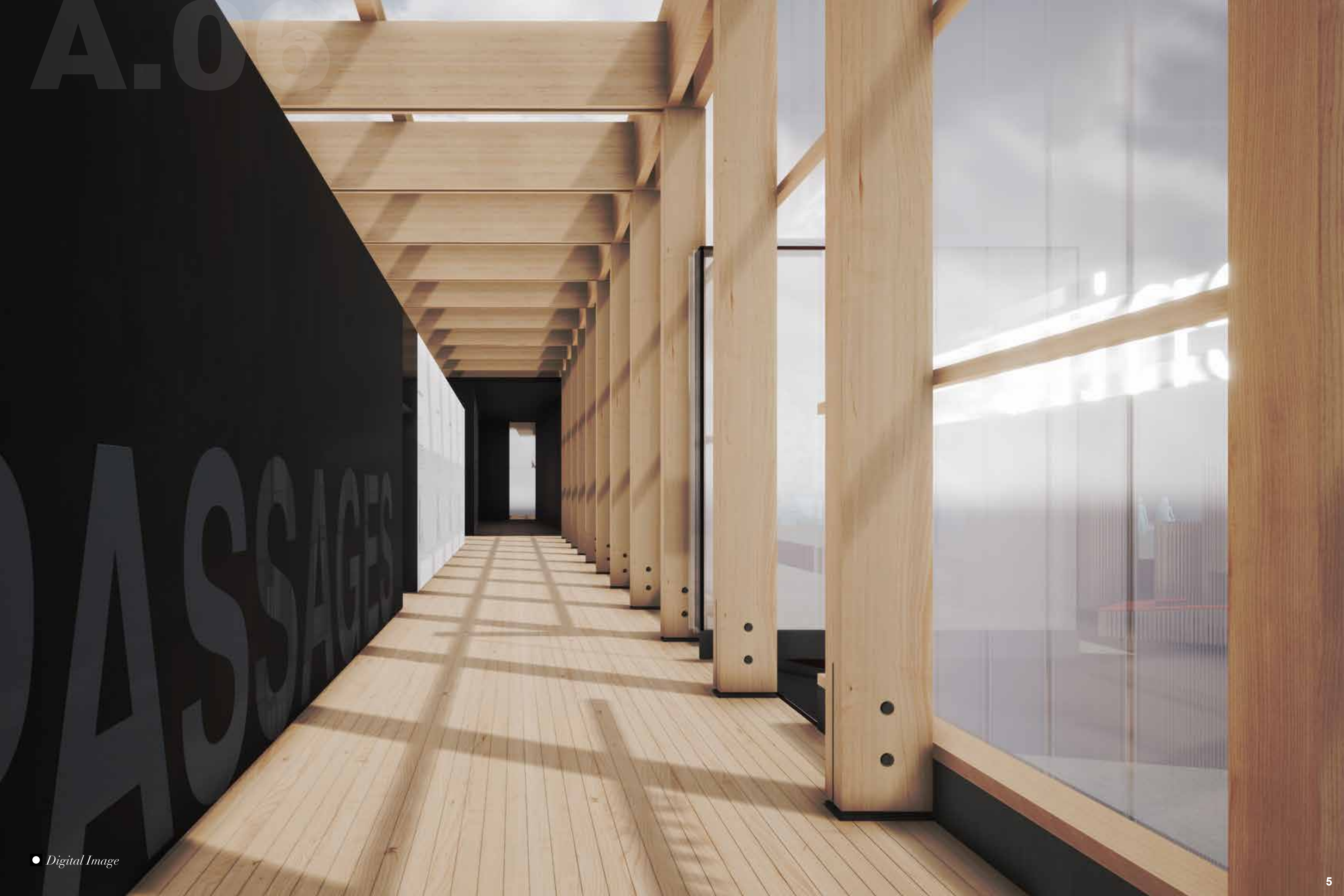


North Elevation

South Elevation

East Elevation

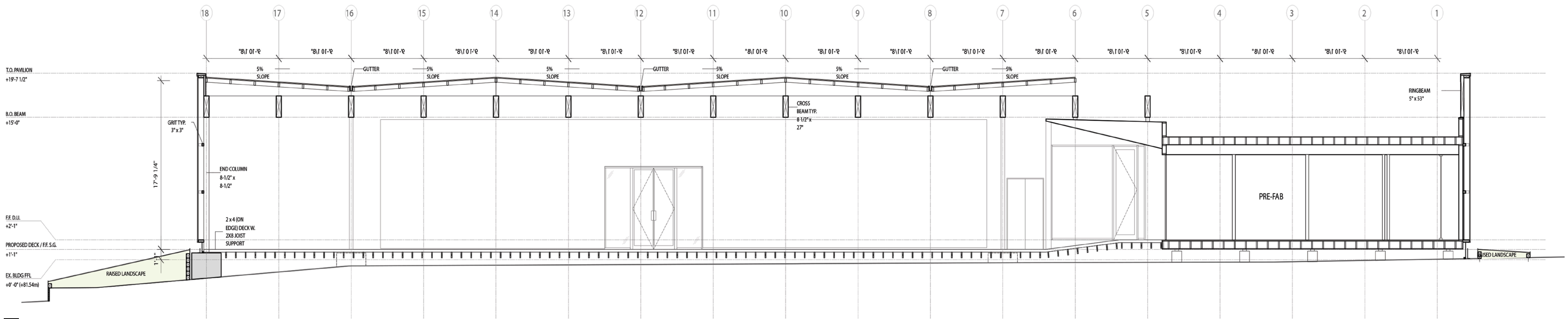
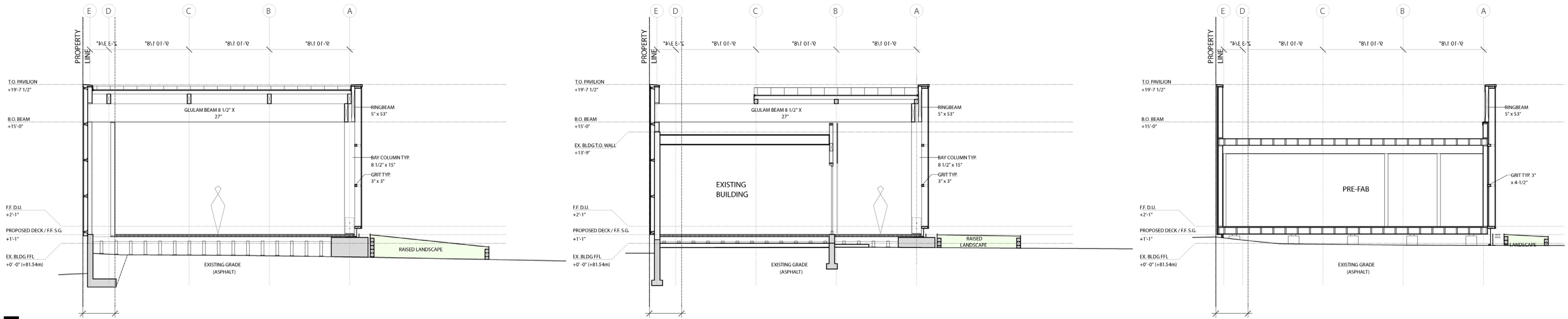
West Elevation



A.O

ASSAGES

A.06



Short Sections B,C,D

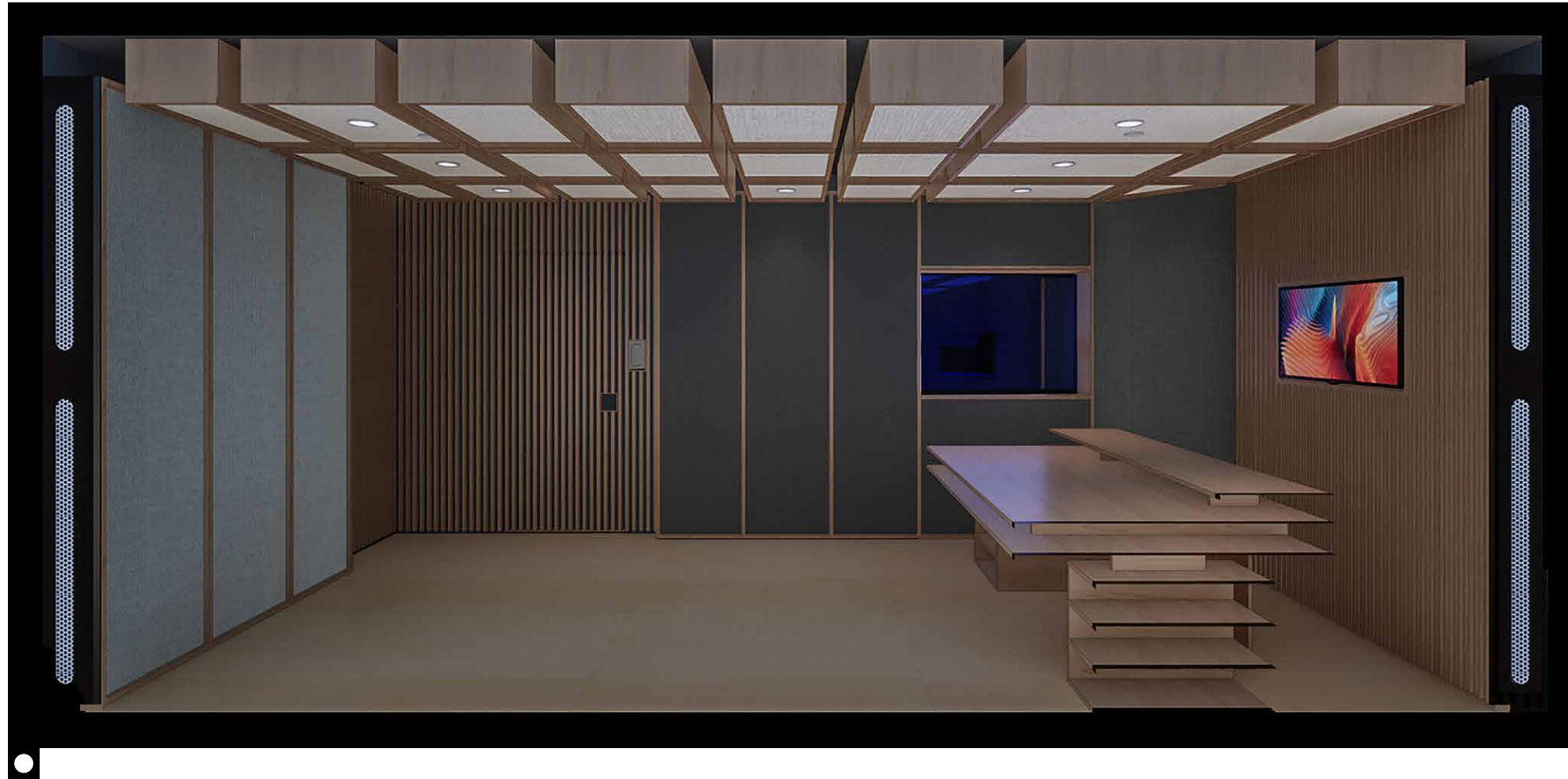
Long Section A

A.06



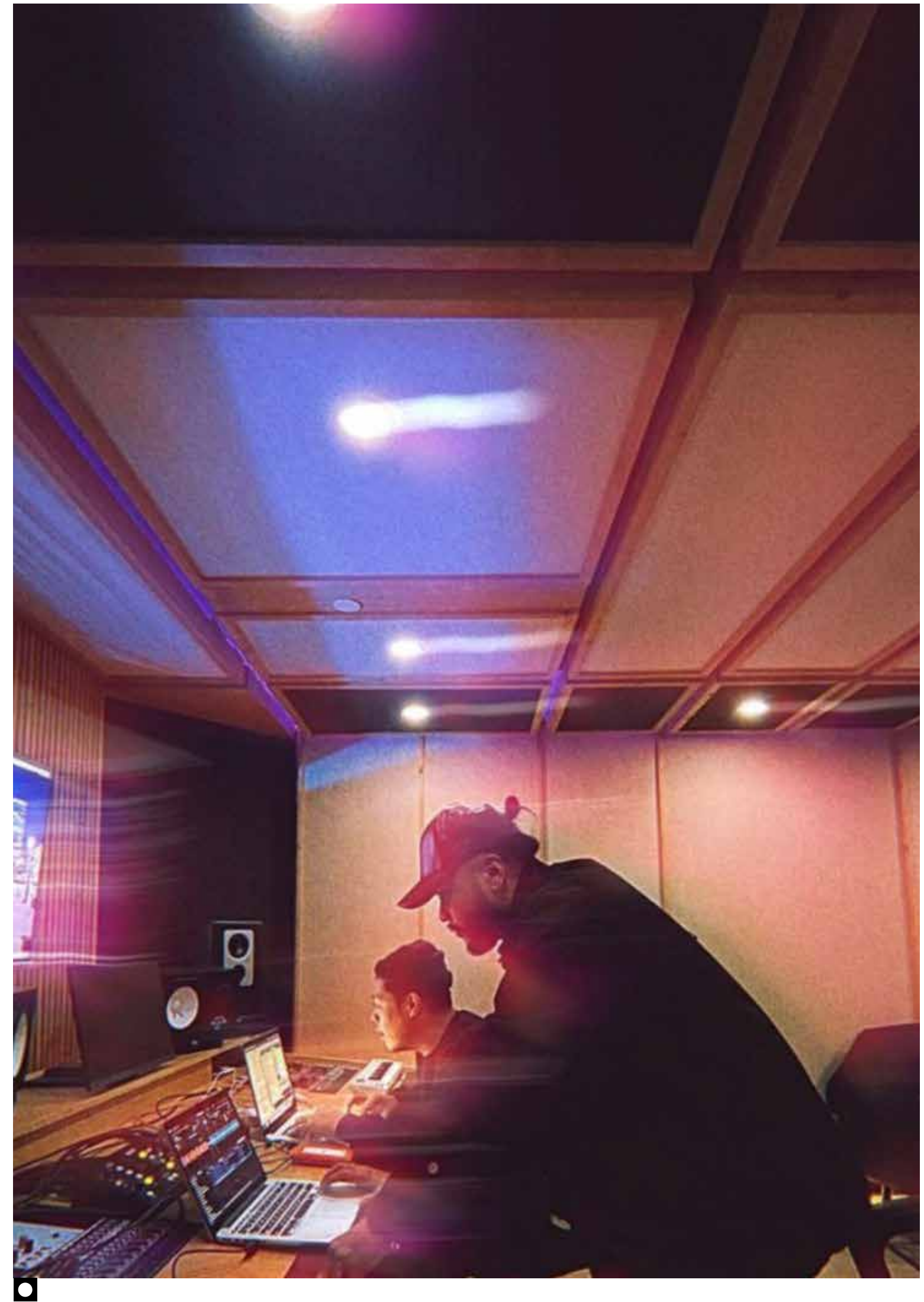
● Digital Image (LED Matrix Wall Displays Sporting Event)

A.07

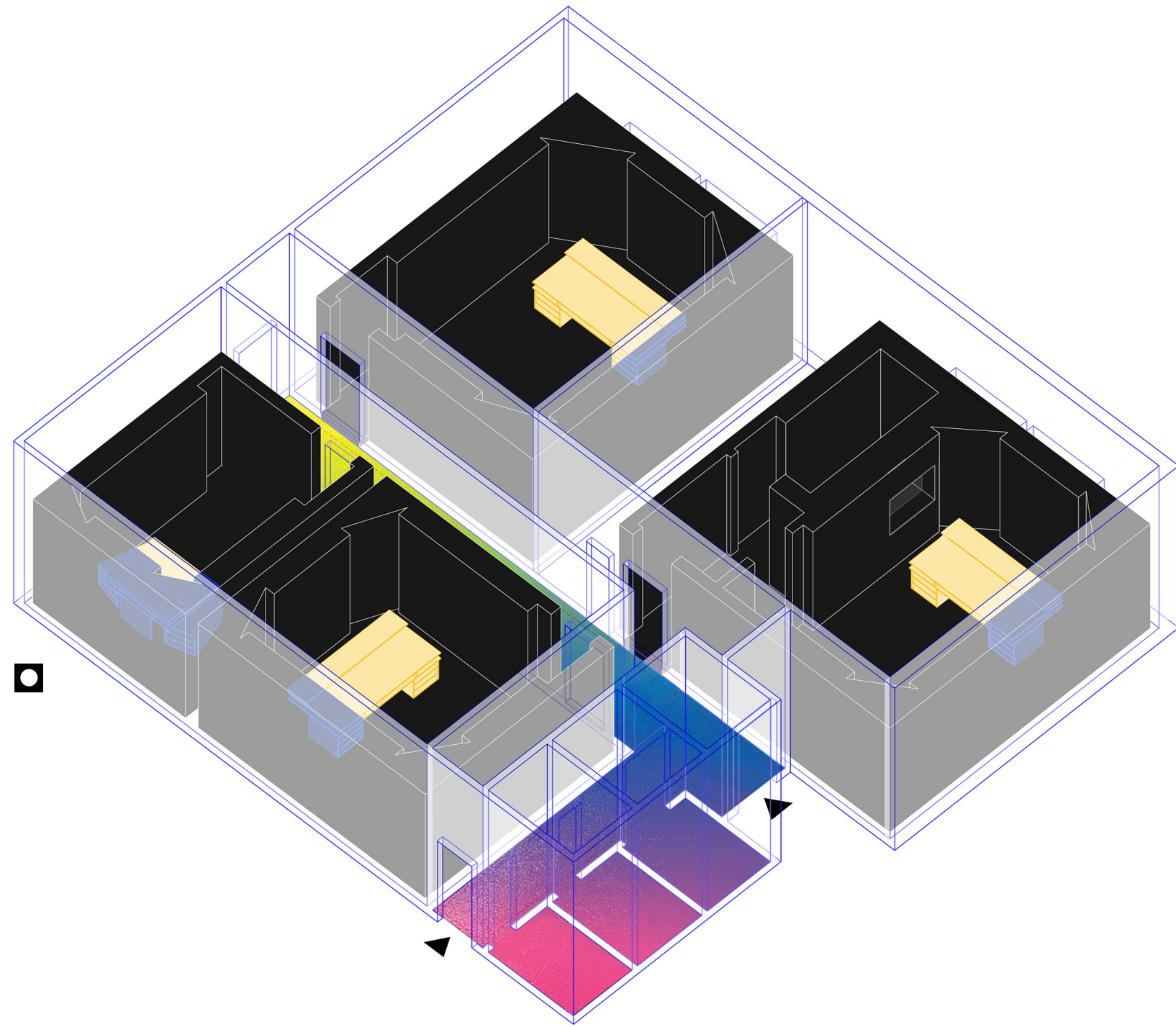


Title	Headspace Recording Studio
Program	Recording Studio
Zoning	M-2
Status	Built
Location	Vancouver, B.C.
Size	2,150 sqf
Year	2021

■ Section Render

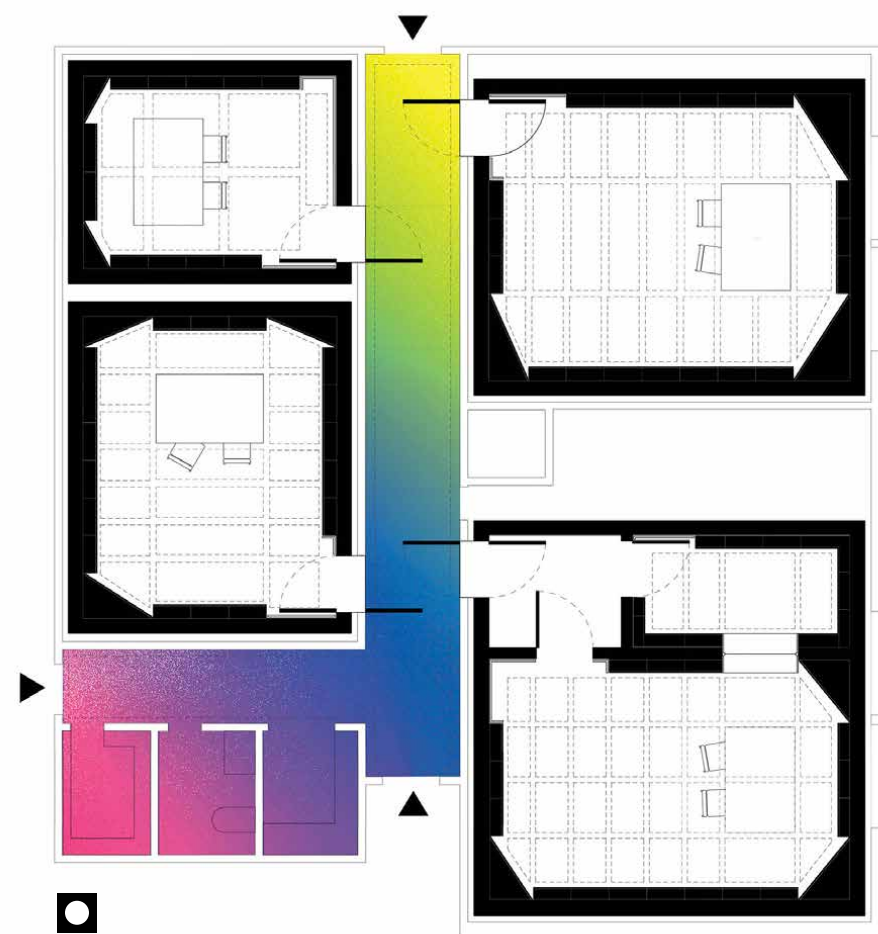


■ Site Photograph



Plan 3D/2D

▲ *Headspace Recording Studios* is a grassroots studio offering timeshared studio space to local artists at affordable rates. In collaboration, we designed the “Music Box”, intended to be easily replicated as they expand to multiple locations. These boxes are acoustically tuned, decoupled micro architectures that can be built in existing spaces. These music boxes are rooms within rooms that are decoupled from the surrounding structure. Our design uses insulated raised floors sitting on rubber u-boats. A double stud wall (2”x4” w/ insul.) sit on top of the raised floor. These walls support beams that are specific to each music box, this second ceiling is insulated. A music box is lined with modular acoustic panels that contain adjustable fins to tune the room, that are then surrounded by insulation. Zero bleed between rooms and a perfect sound every time.



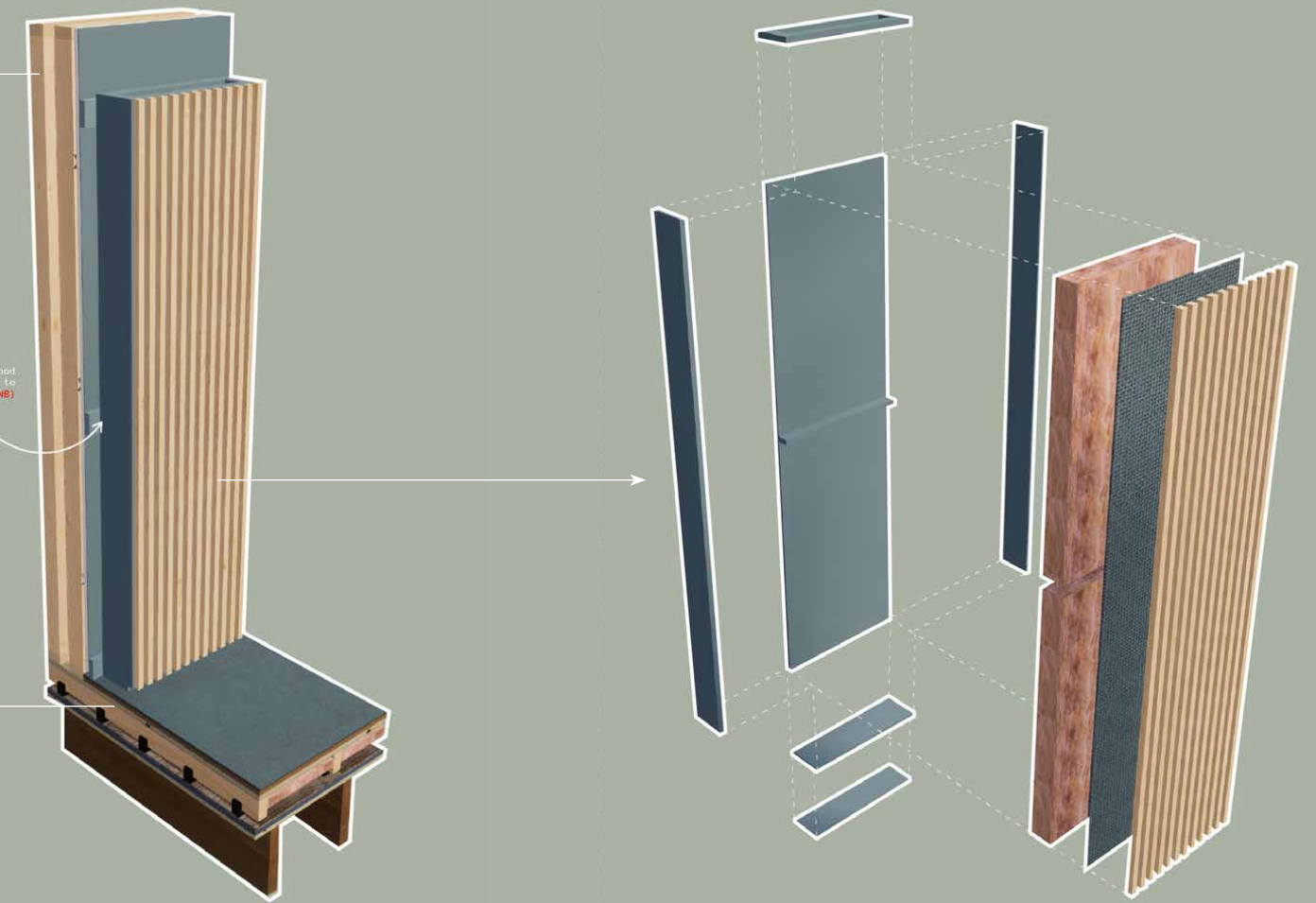
▲ Project Text

■ Plan 3D/2D

W1 Raised Flooring (insulated)

- Wood stud framing 16” O.C (insul.)
- 1” Air Gap
- Wood stud framing 16” O.C (insul.)
- Resilient Channel (RC8) 24” O.C.
- 3/4” gwb
- Green Glue
- 3/4” gwb (painted)
- Strapping glued to gwb

Components are fast to wood strapping, which is glued to the gwb (no screws in gwb)



F1 Raised Flooring (insulated)

- Engineered wood flooring w/ underlay
- 1/2” MDF board
- Acoustic sub-flooring underlay
- 3/4” plywood
- 2”x4” stud framed floor w/ insulation
- U-Boats on 16” O.C.

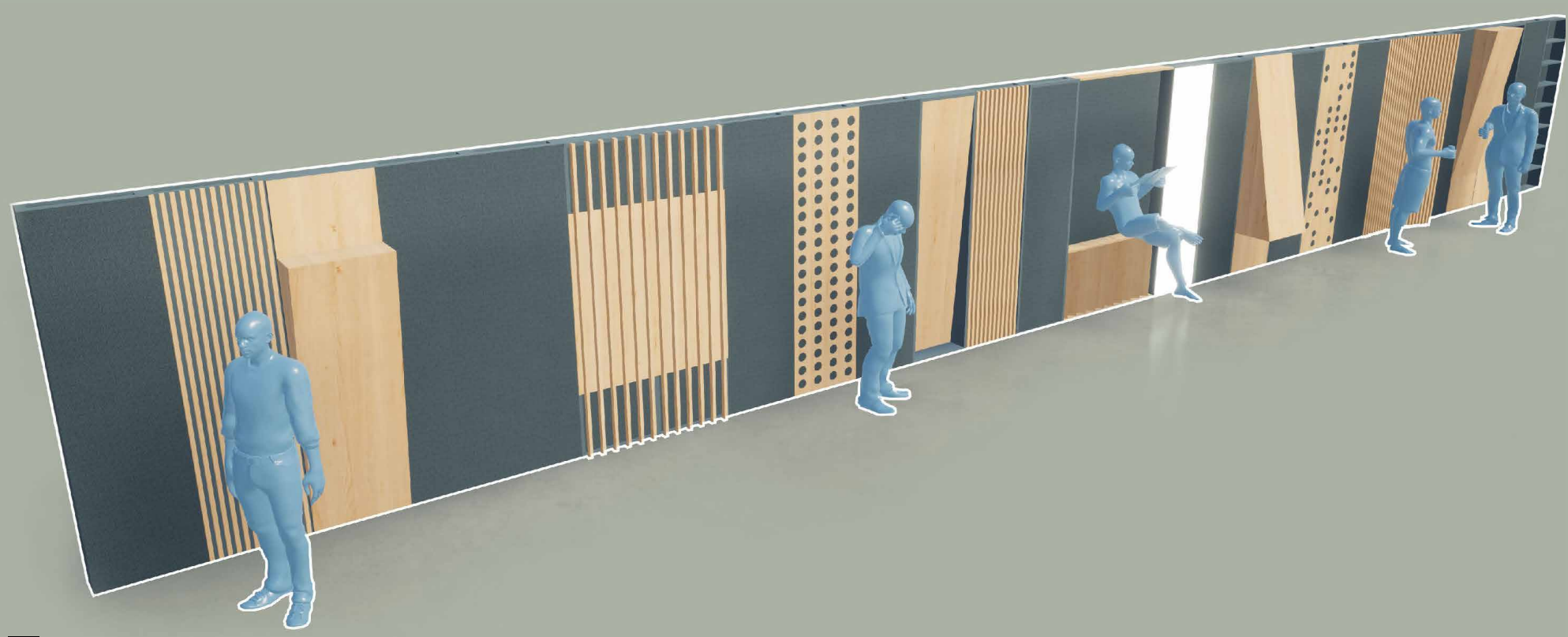
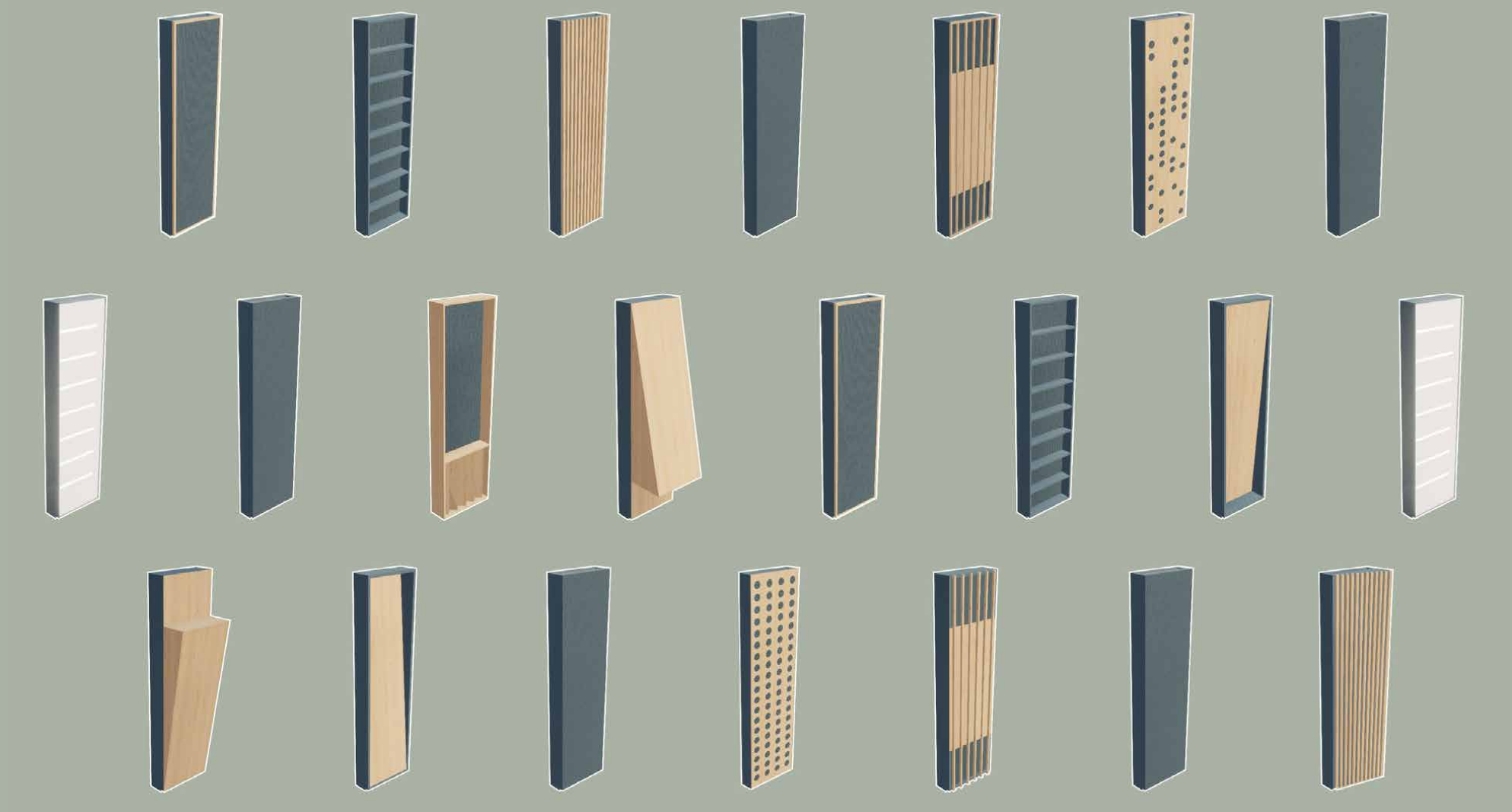
Existing flooring+structure

▶ Acoustic System Diagrams

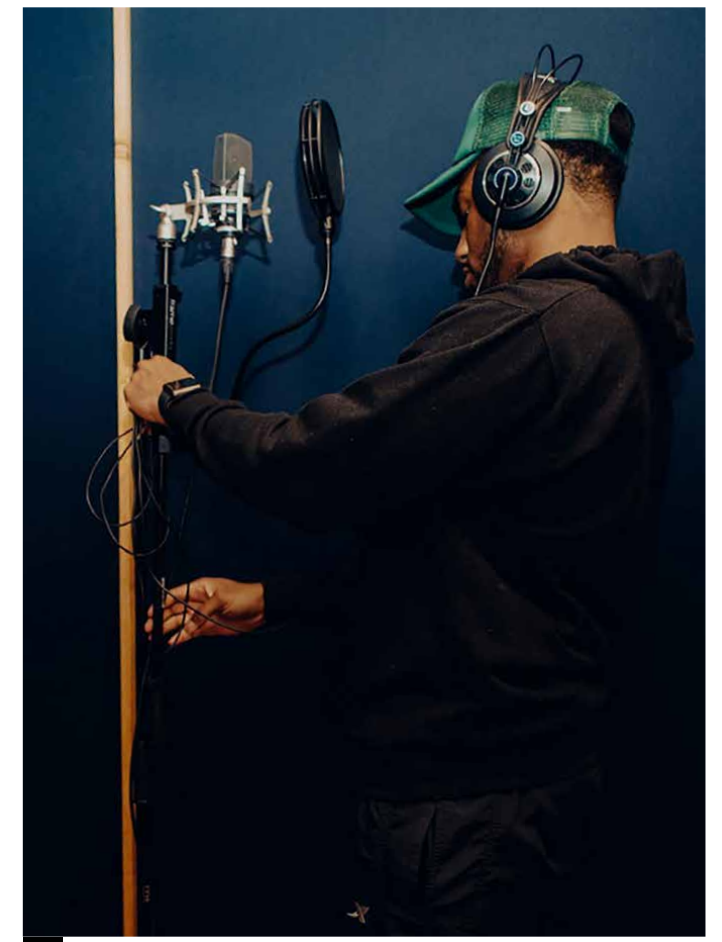
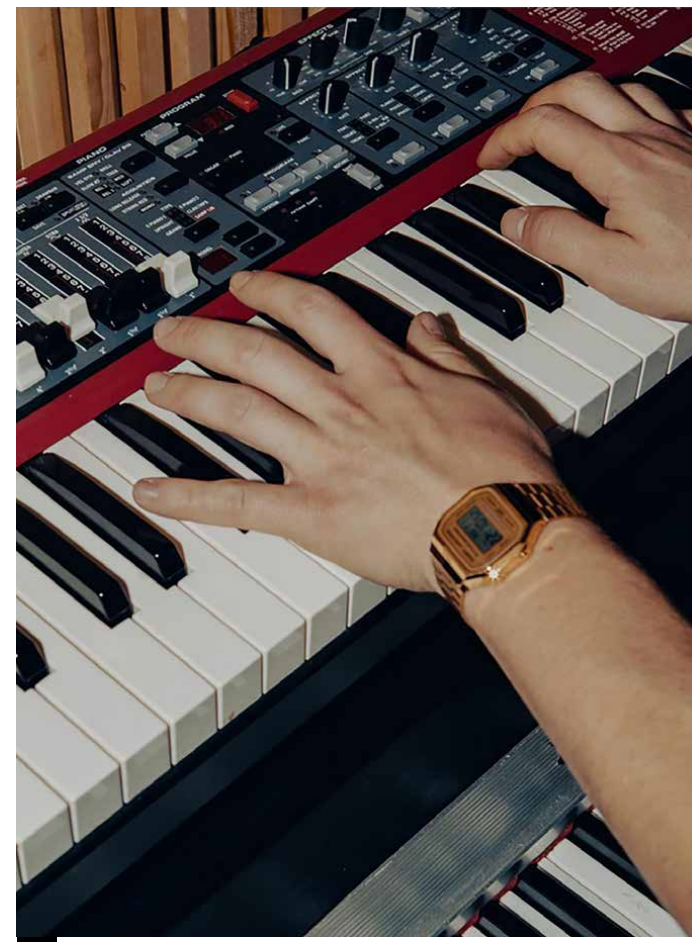


▼ Cutaway of a “Music Box”

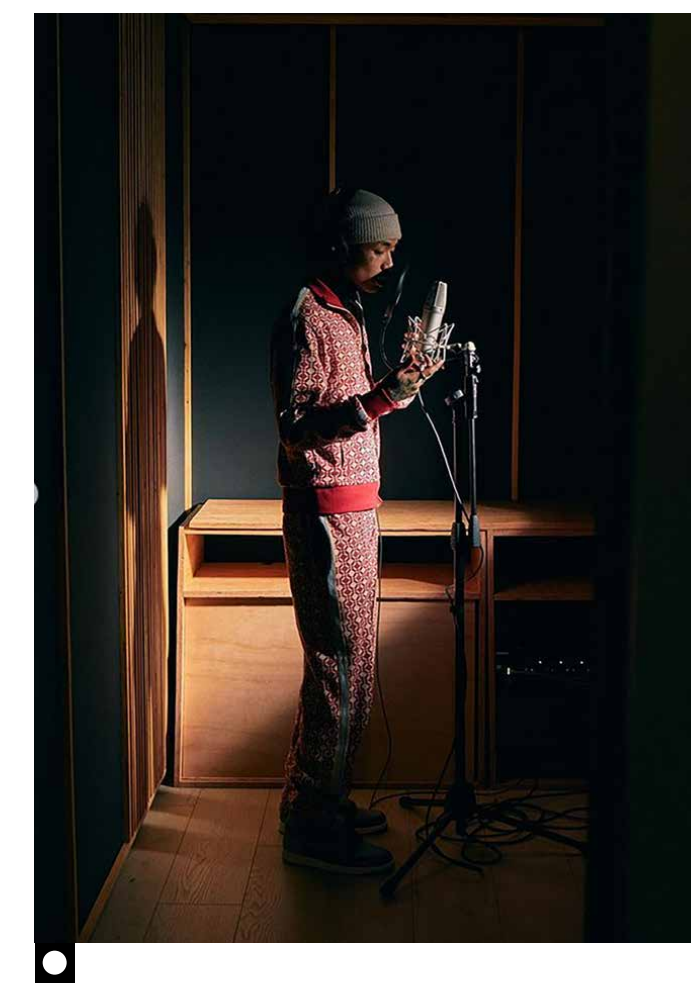
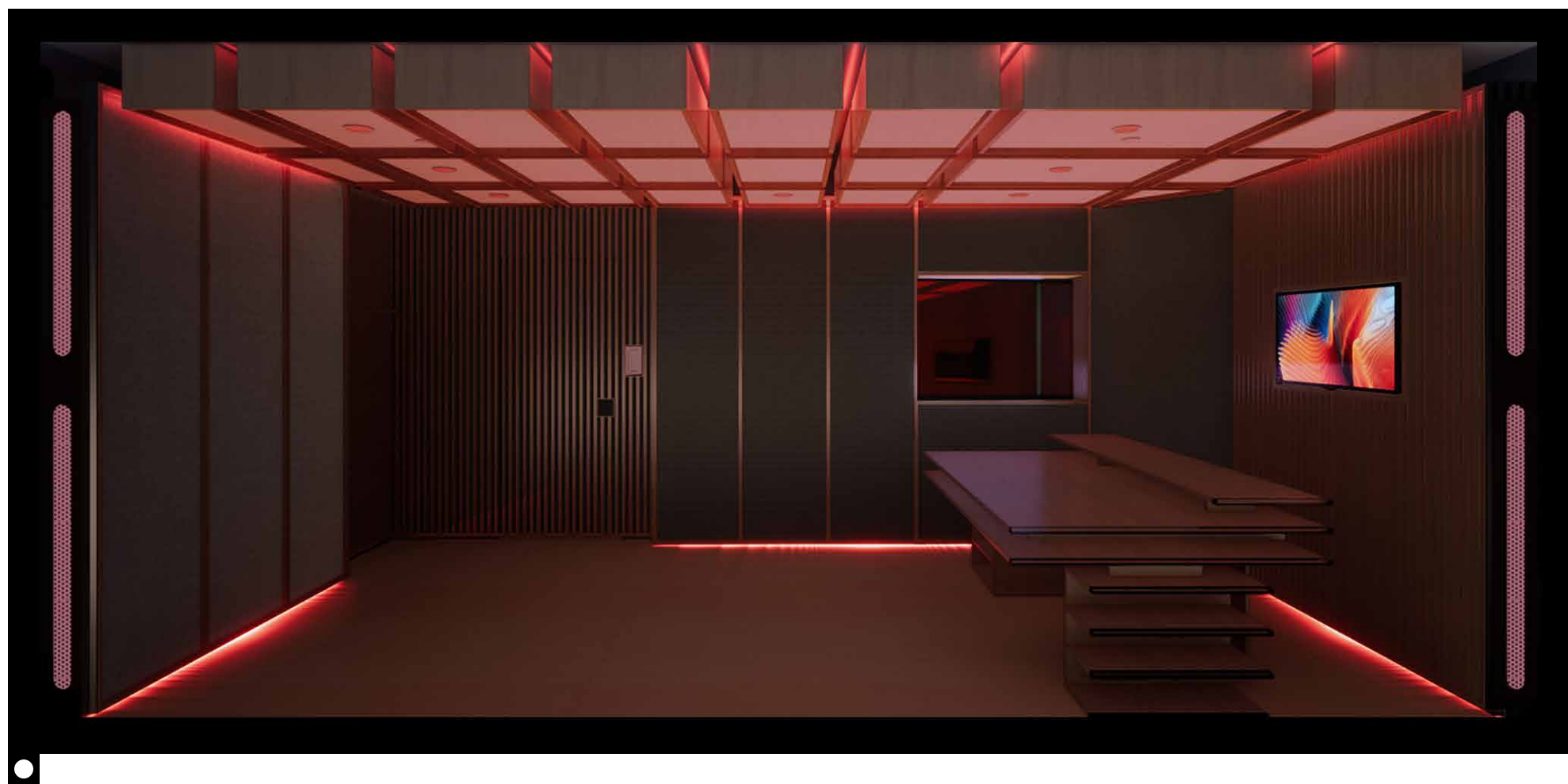
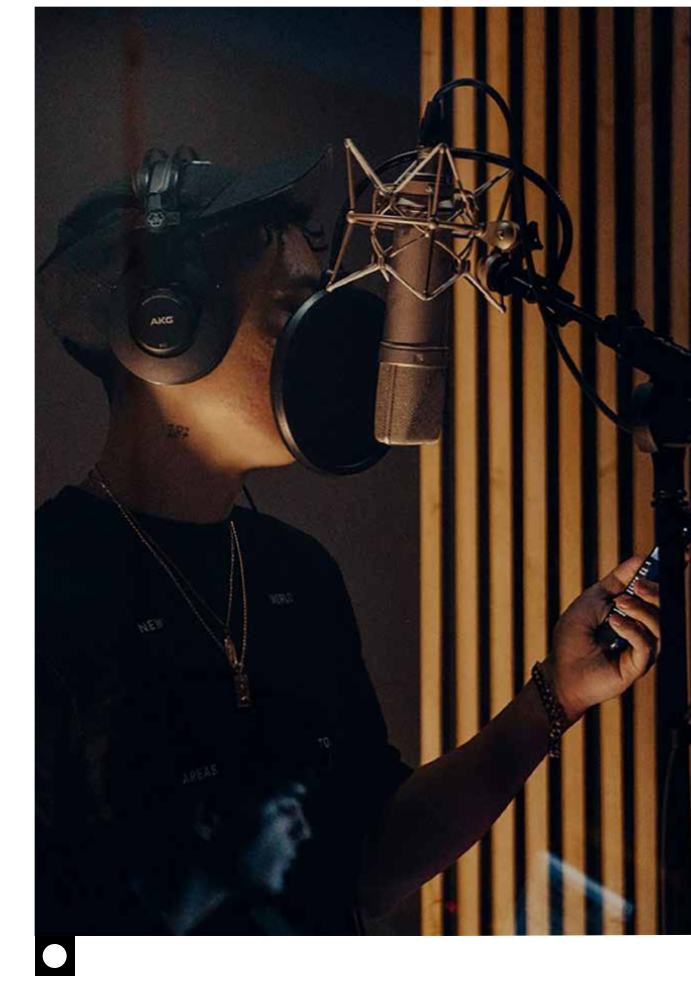
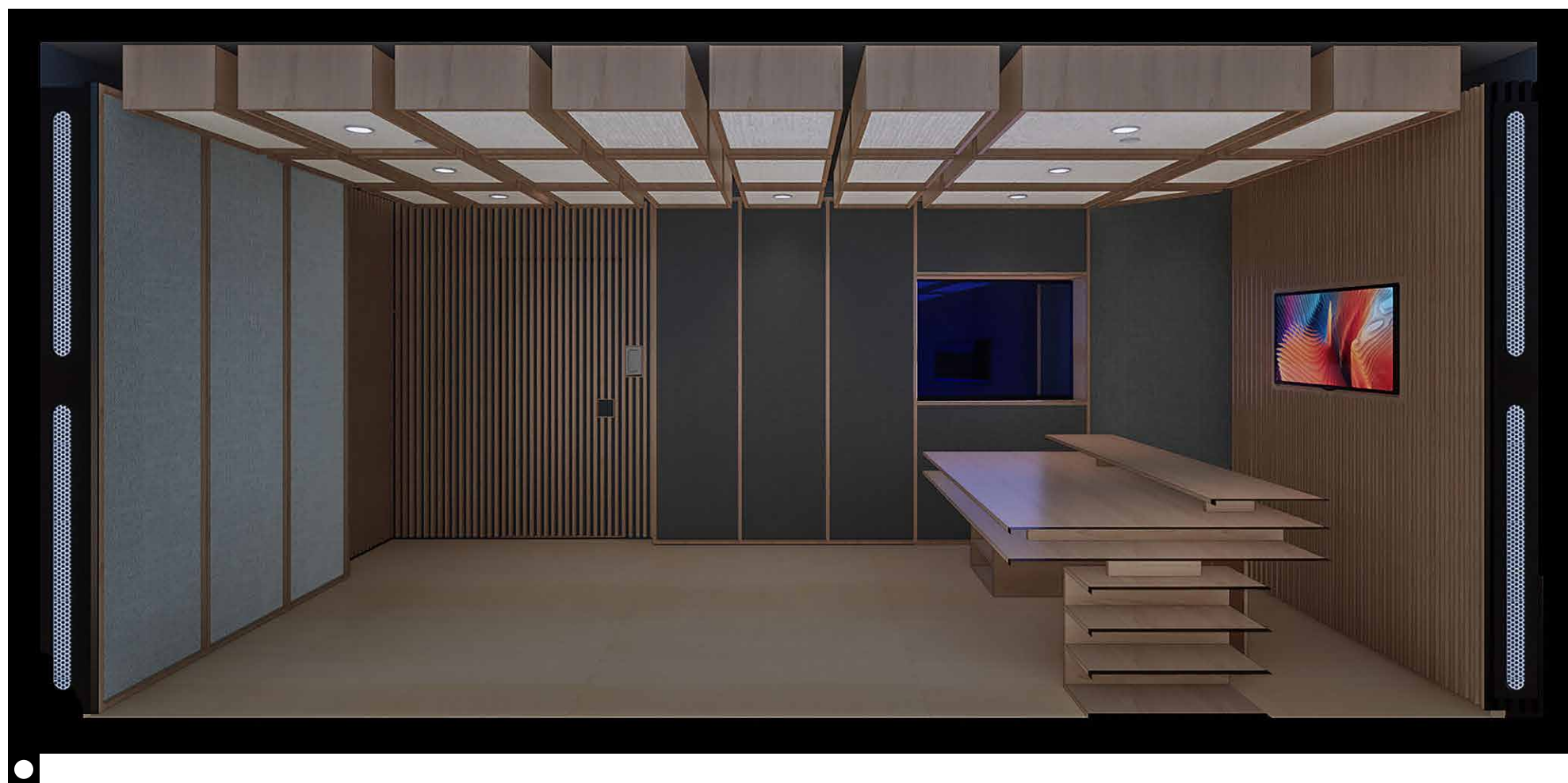
A.07



Modular Acoustic System Components



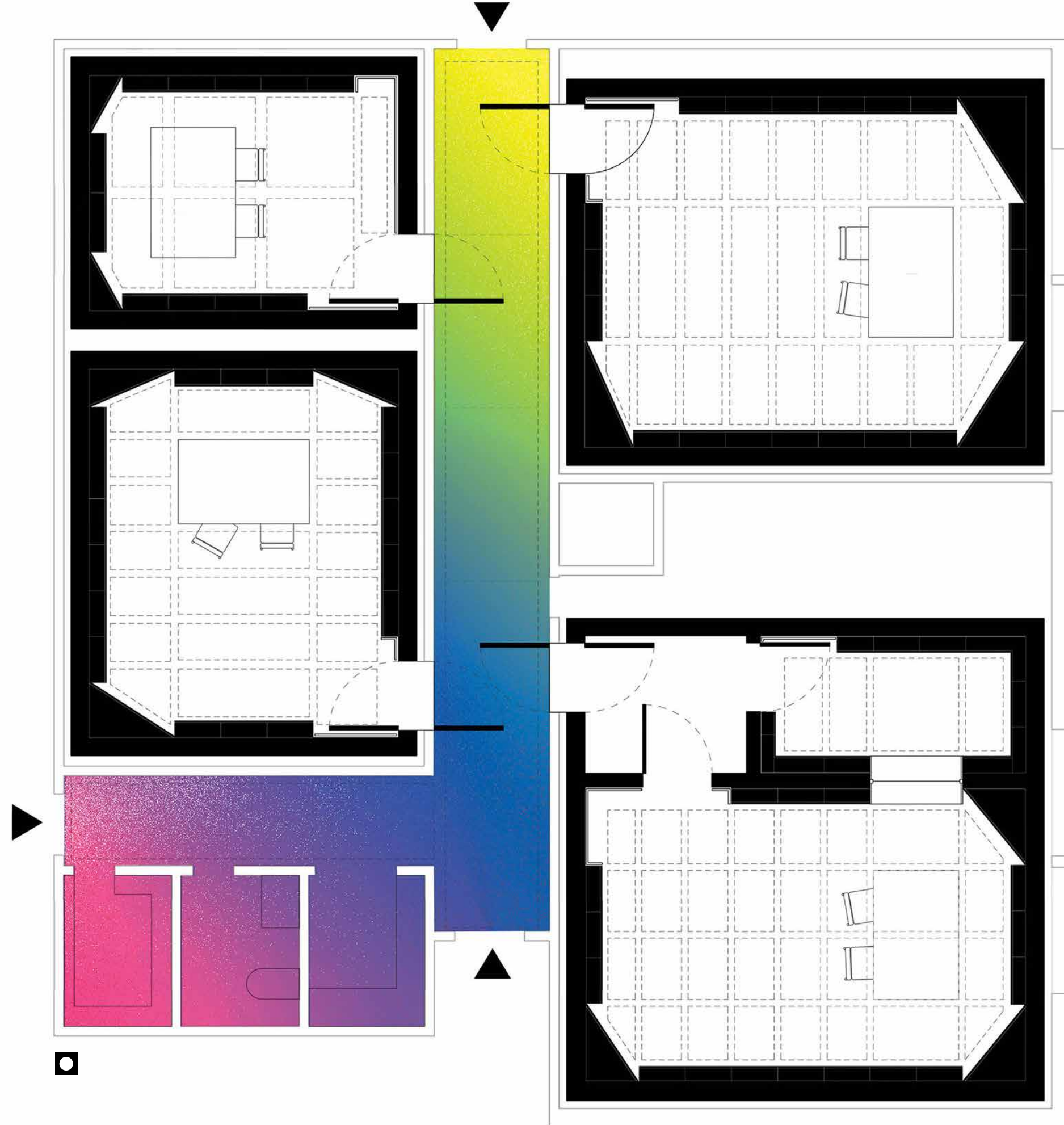
Site Photograph



■ Section Render (Lighting Options)

■ Site Photograph

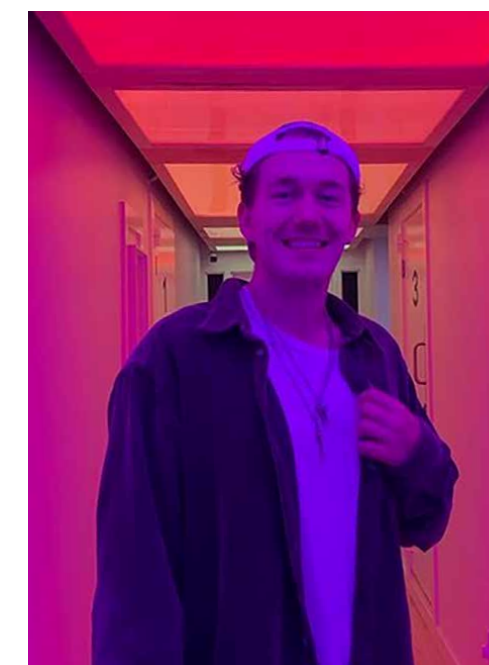
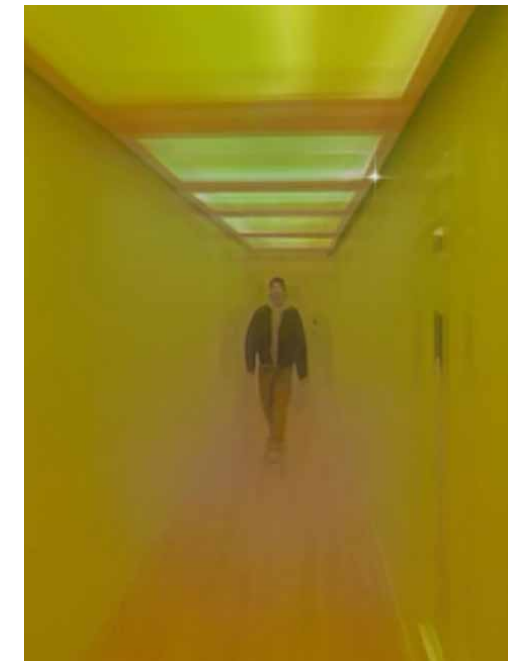
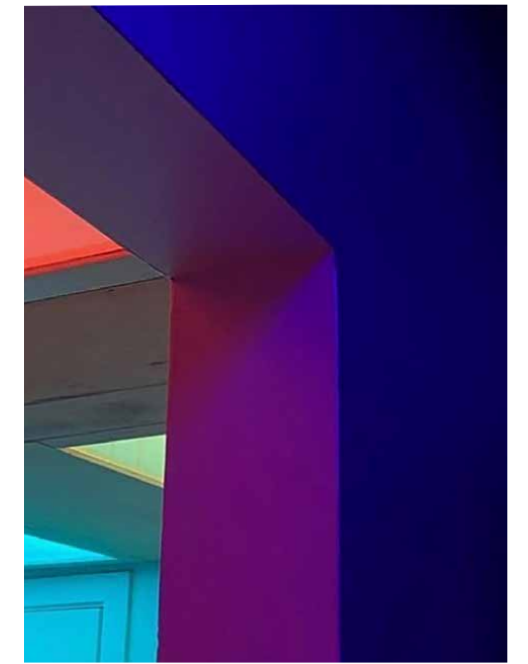
A.07



▲ *Headspace Studios* attracts an incredibly wide range of artists. Inspired by this spectrum we designed a light installation that washes the shared space with a constantly shifting, full spectrum light field. Headspace is a constant creative overlap which extends to the shared spaces as dynamic colour washes create a unique experience for each session.

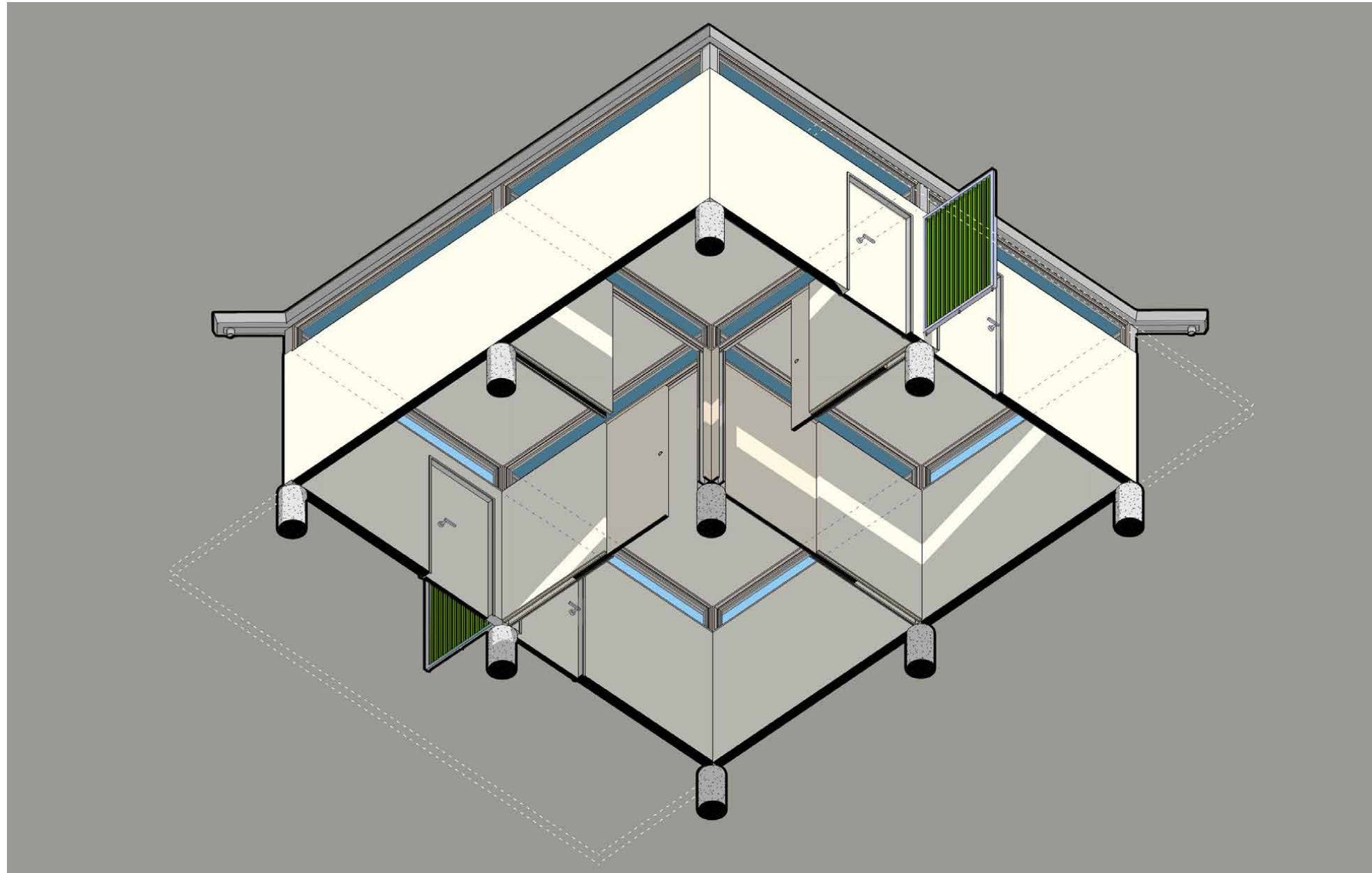
■ *Plan 2D*

▲ *Project Text*

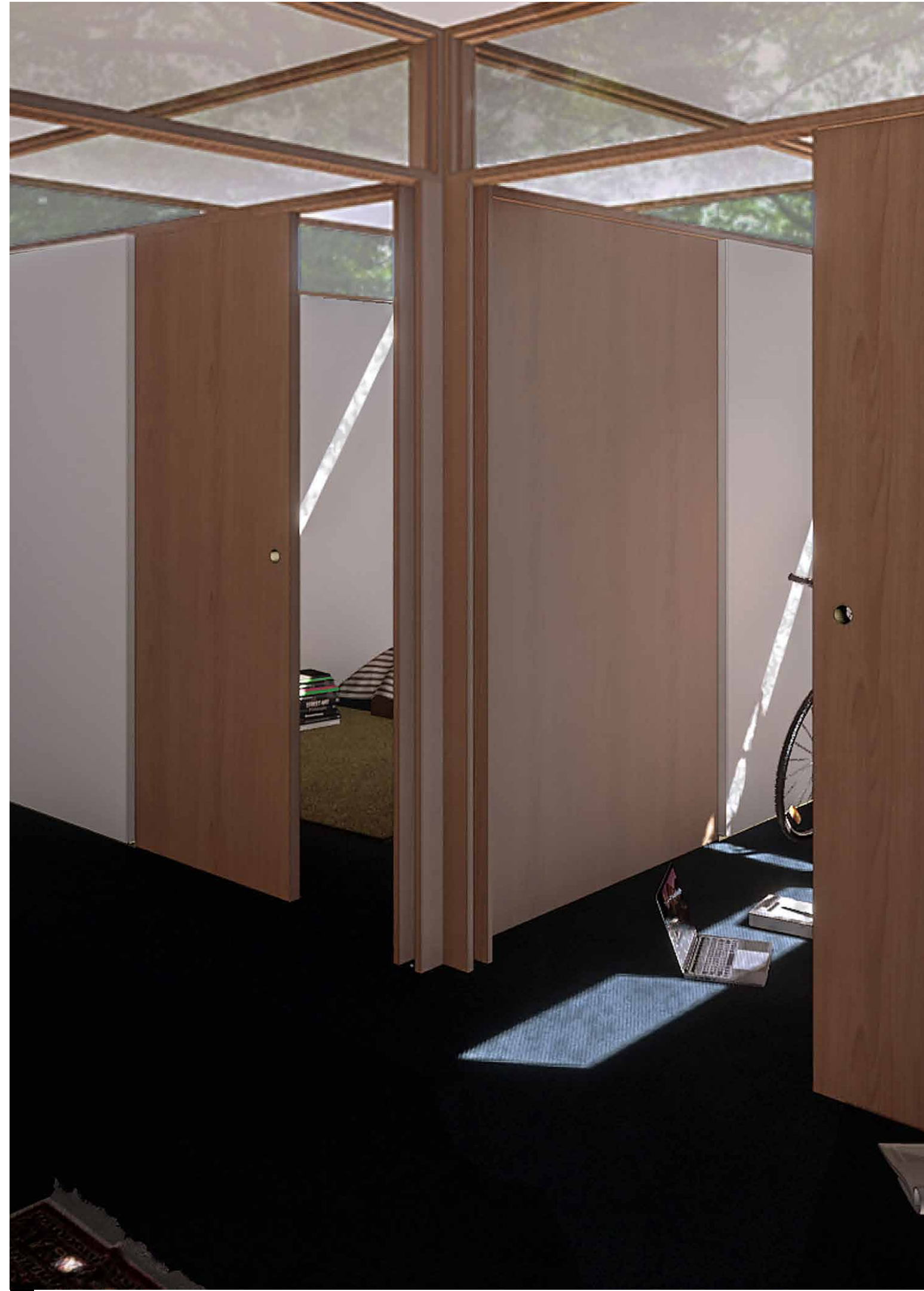


■ *Site Photograph*

A.08



◼



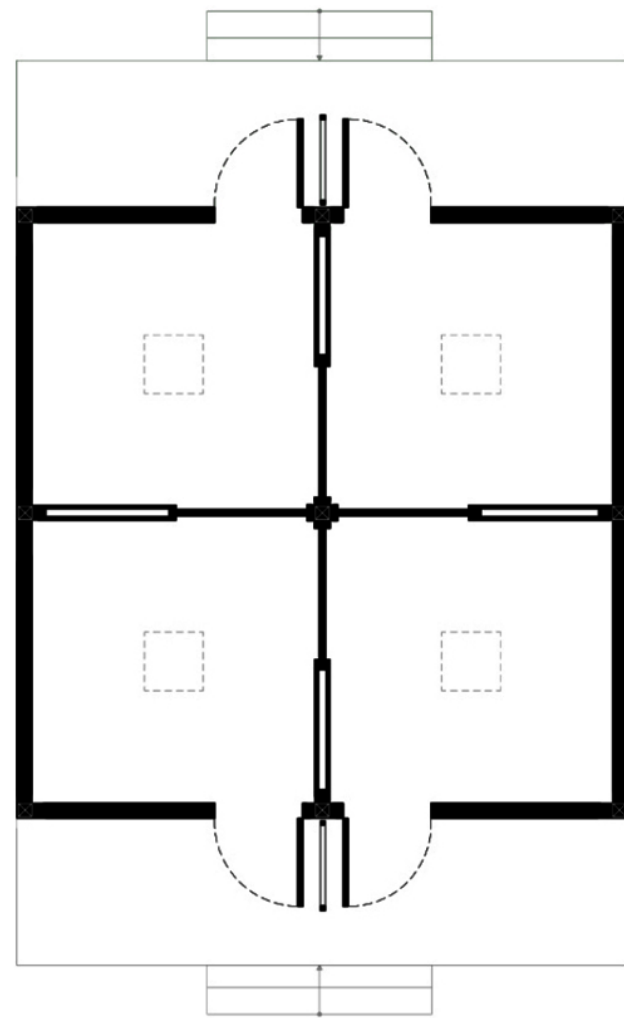
◼

Title	4 Rooms with No Program
Program	Secondary Flex Structure
Zoning	-
Status	Design Development
Location	Various
Size	400 sqf

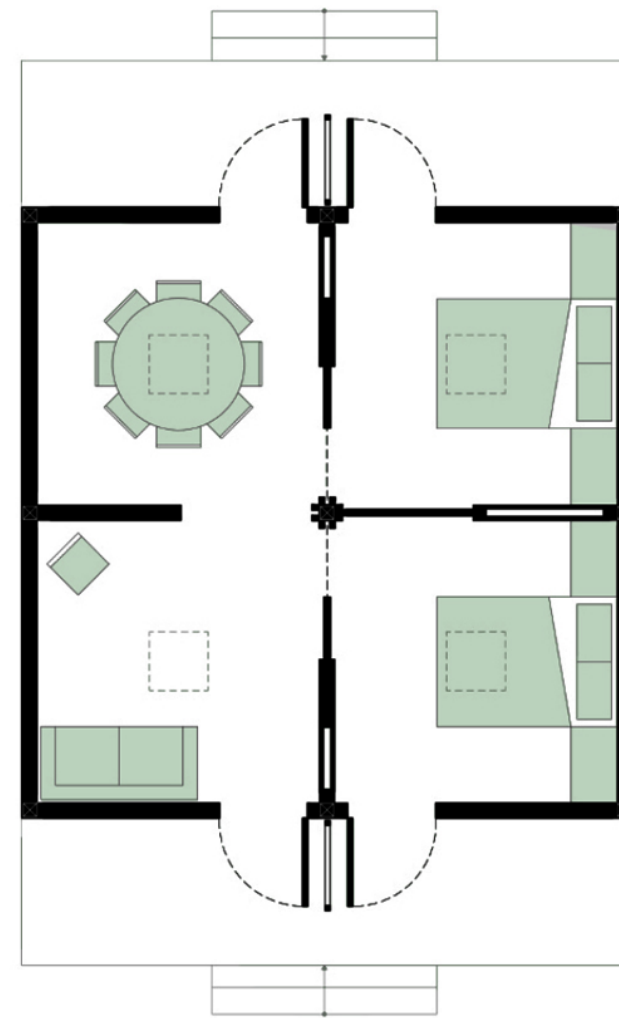
◼ *Worm's Eye View*

◼ *Digital Image*

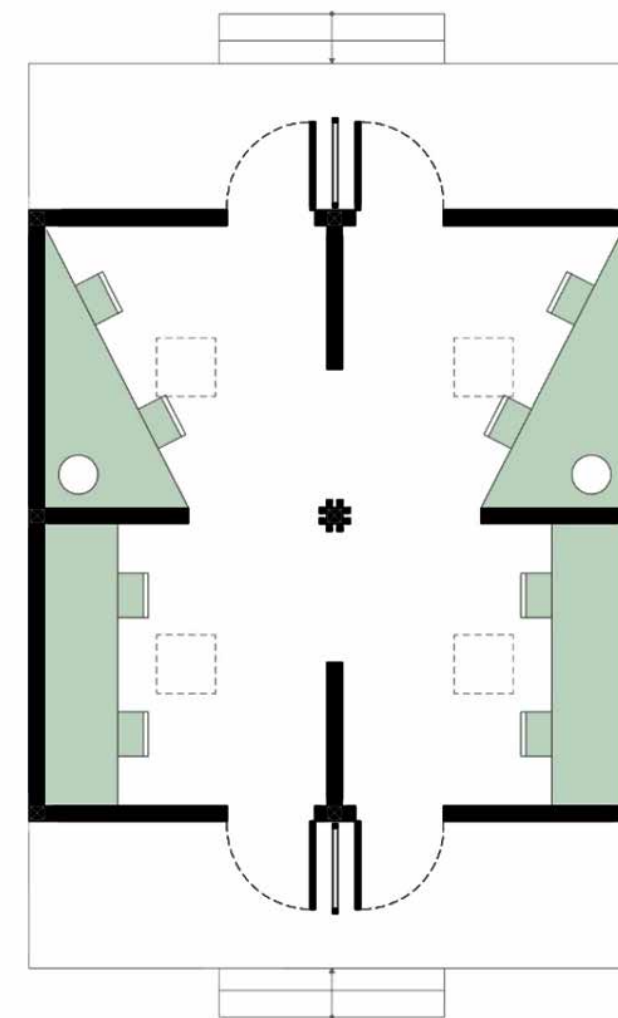
A.08



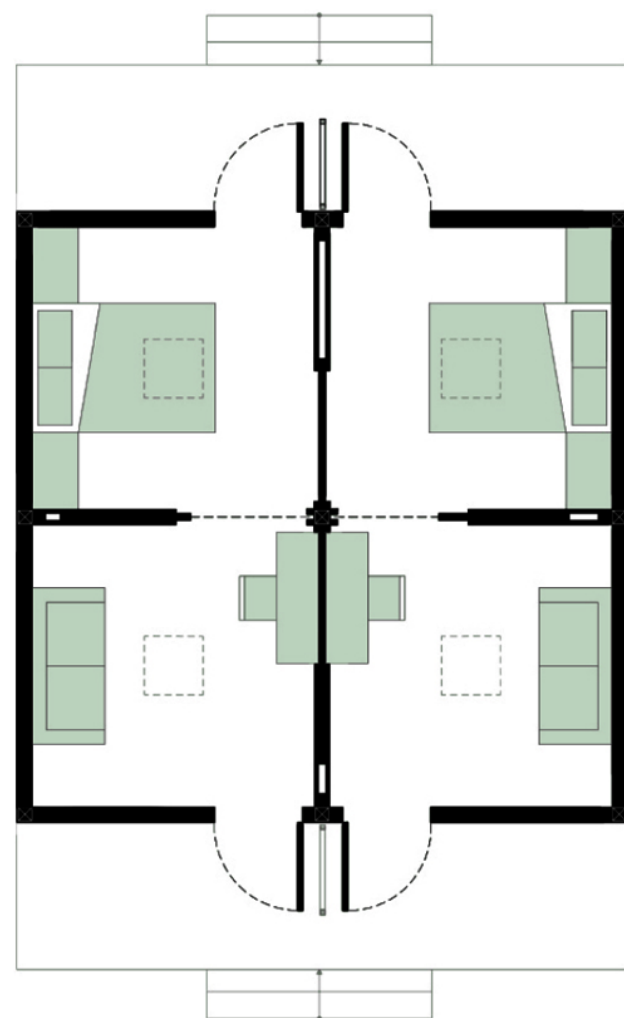
base plan



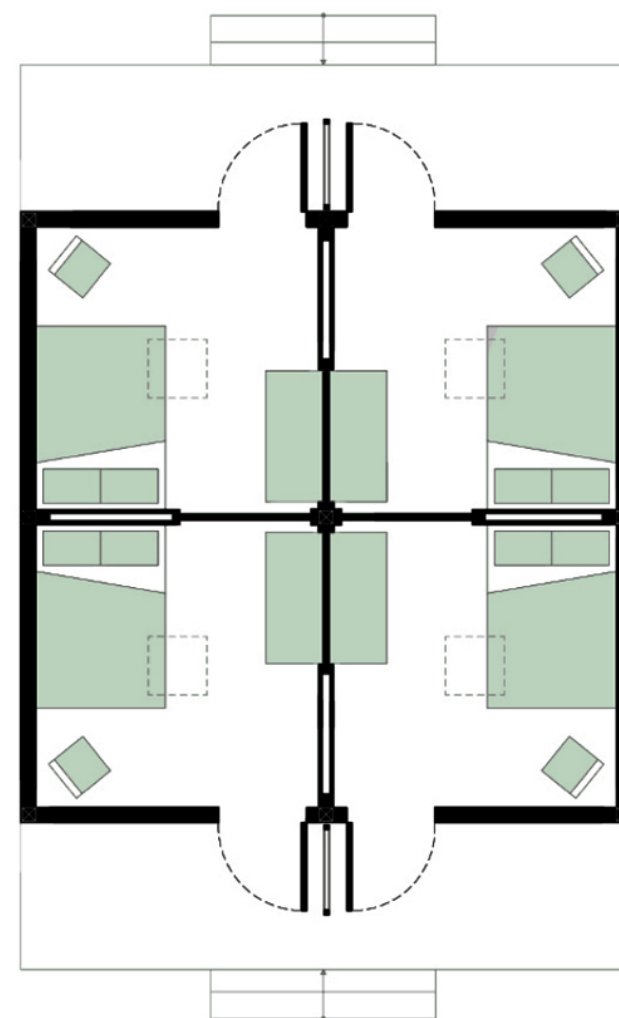
two bedroom



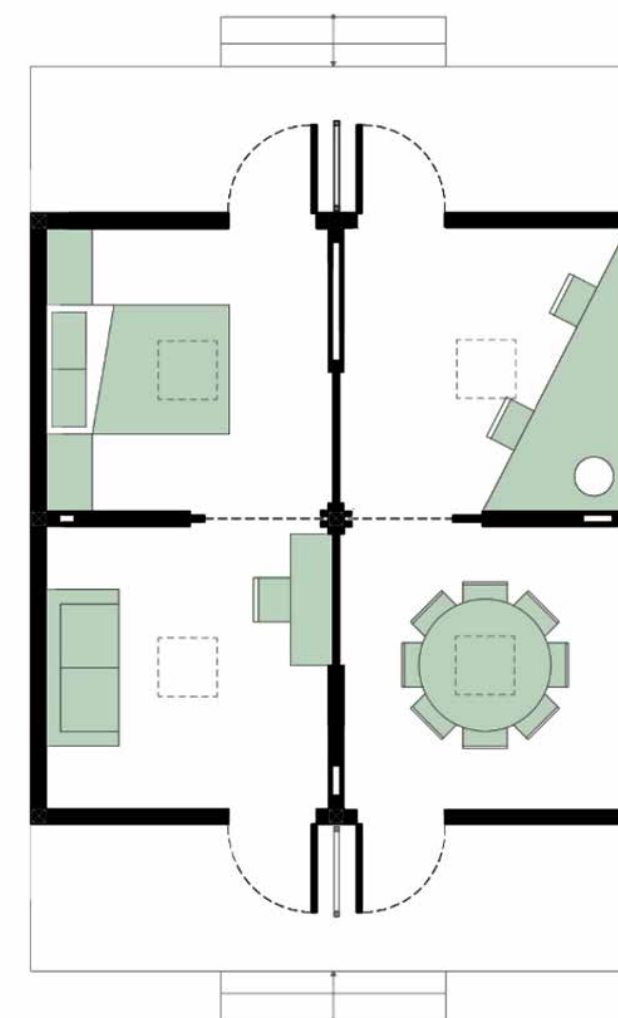
design office



2 one bedrooms



4 bedrooms



one bedroom 1m 3m

▲ A commission for an existing commune, *4 Rooms With No Program* is a design for a series of secondary structures on site that are to support a varied range of programs across their life span. Supported by existing washrooms, and communal kitchens on site, the plan is focused on the primary needs of the commune. Rather than design a specific architectural element for each program, *4 Rooms*, uses a non-deterministic plan to create a single architectural typology that can adapt to many different uses over its lifespan.

The 20' x 20' plan is divided into 4 rooms by operables walls that connect to a single custom milled column at the centre of the plan. These operable walls can be locked at the column to become long term walls. These walls divide and combine. Each room has a door that leads to shared patios on each end of the plan.

At the center of each room there is a ceiling hatch that gives access to long term attic storage.

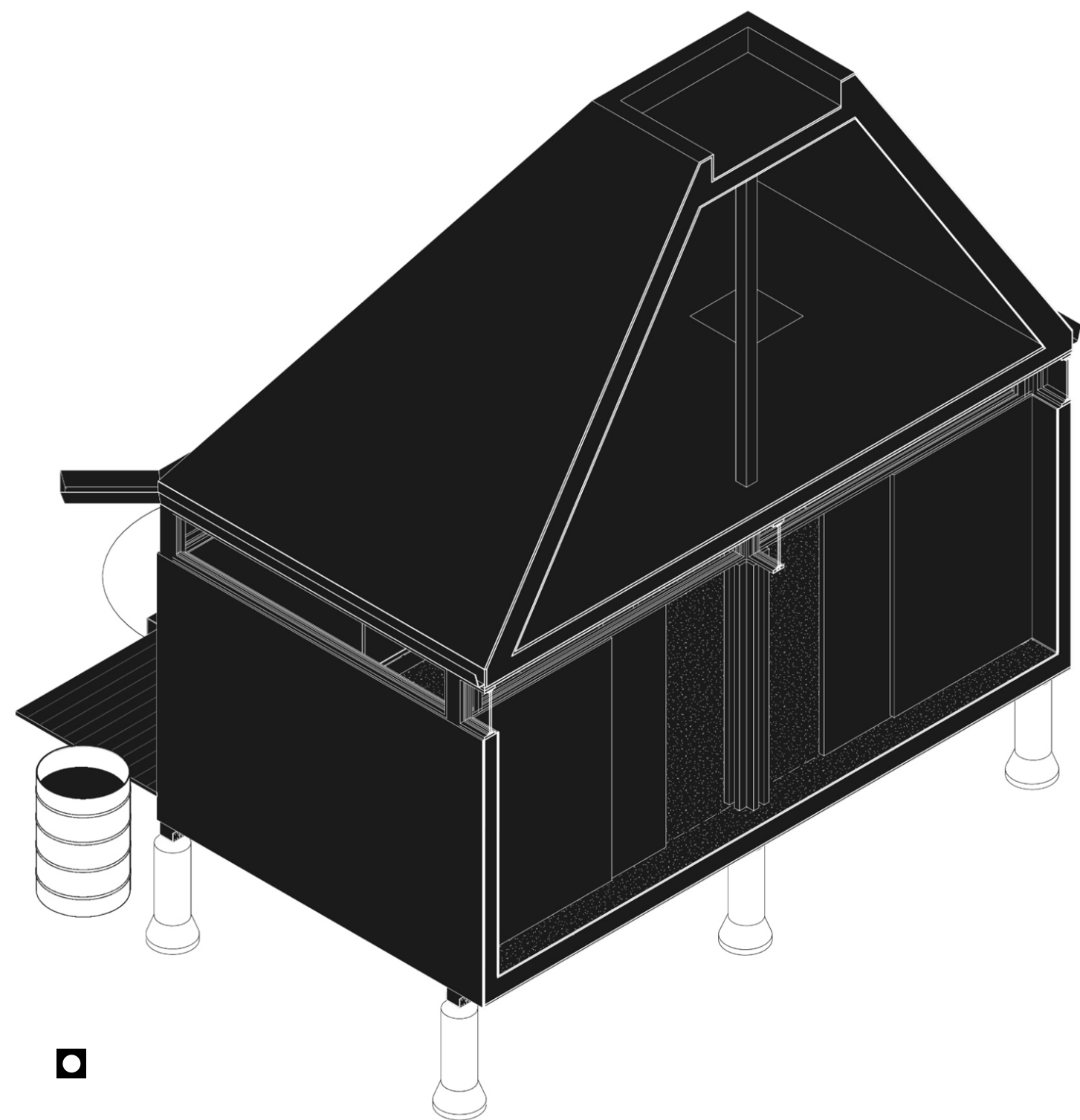
The adaptability of the floor plan allows for a single design to accommodate all the various needs the commune has of its secondary structure. This is advantageous as many of the construction team are semi-transient and relatively inexperienced. Standardized workshops specific to the design allow the experienced builders to guide the team through repeatable steps. A variation on this design would see plumbing for a kitchenette roughed in to certain units.

Custom gutters collect grey water, for the surrounding community gardens, and shared porch spaces give the inhabitants a place to sit and connect, when the plan is divided.

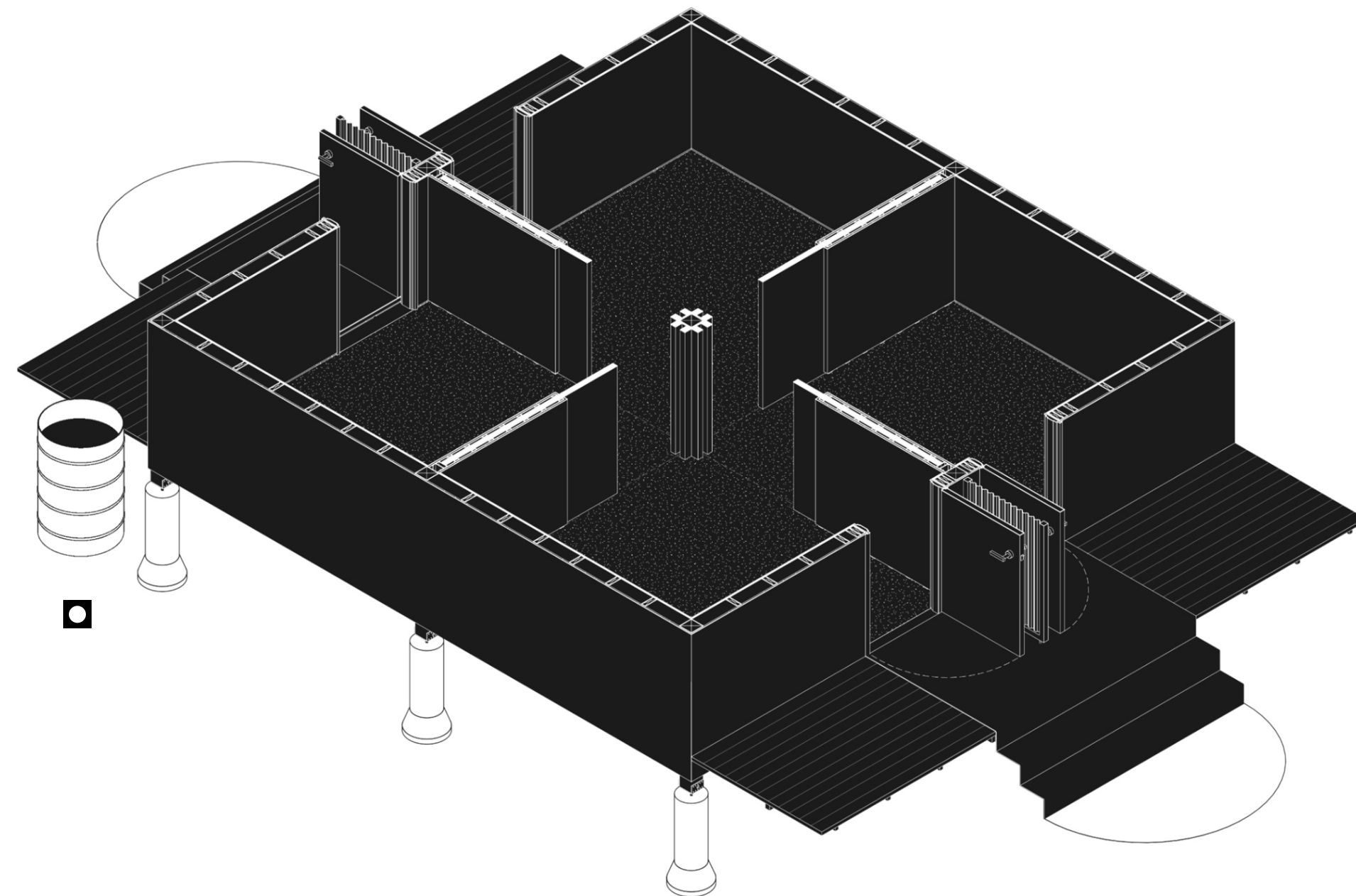
A singular element, the operable wall, is leveraged to create a simple plan that is non-deterministic but very encouraging.

As this element replicates across the commune's land the possible activities shared by the group expands.

A.08



■ Vertical Cut Away



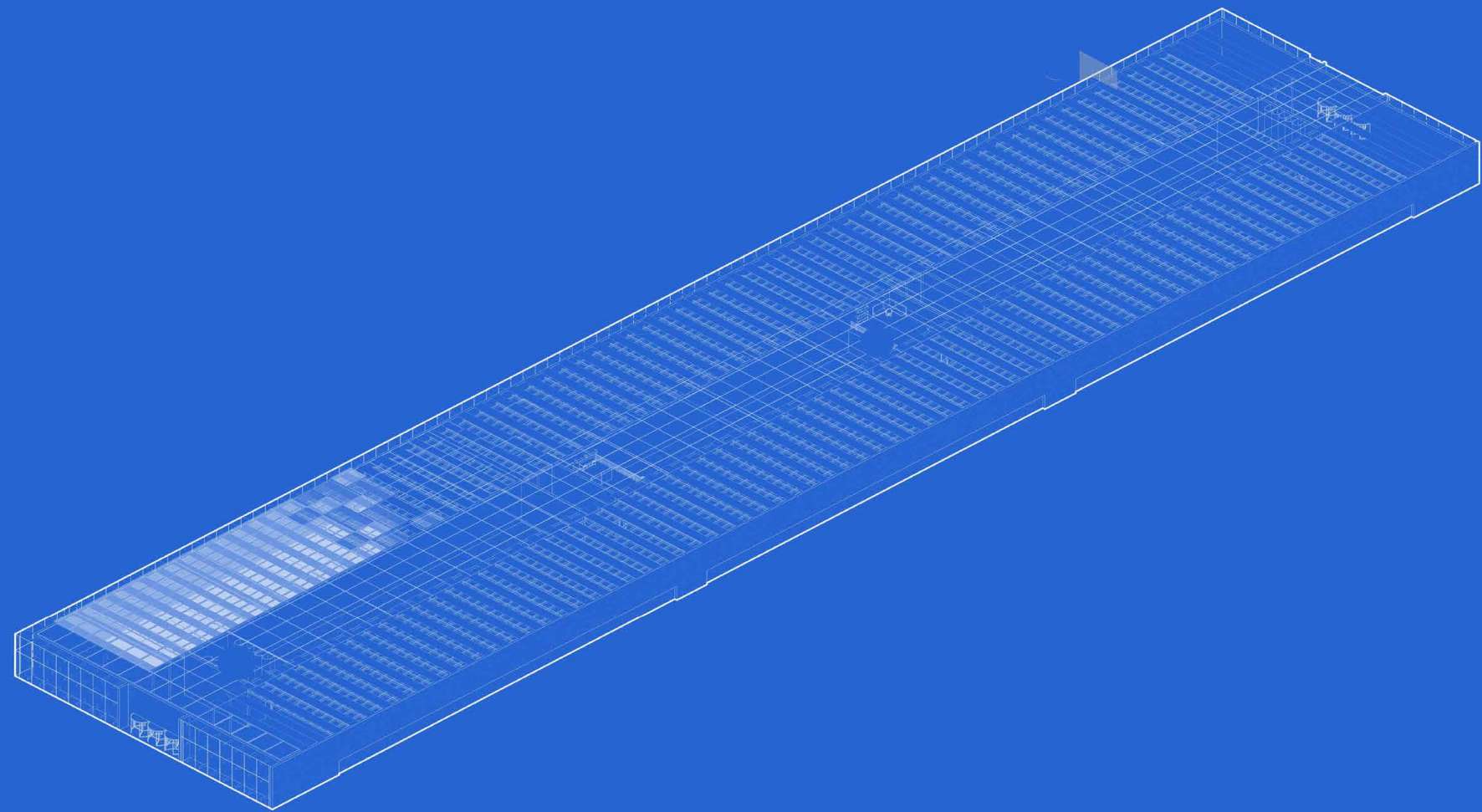
■ Horizontal Cut Away

A.08

4 Rooms with No Program



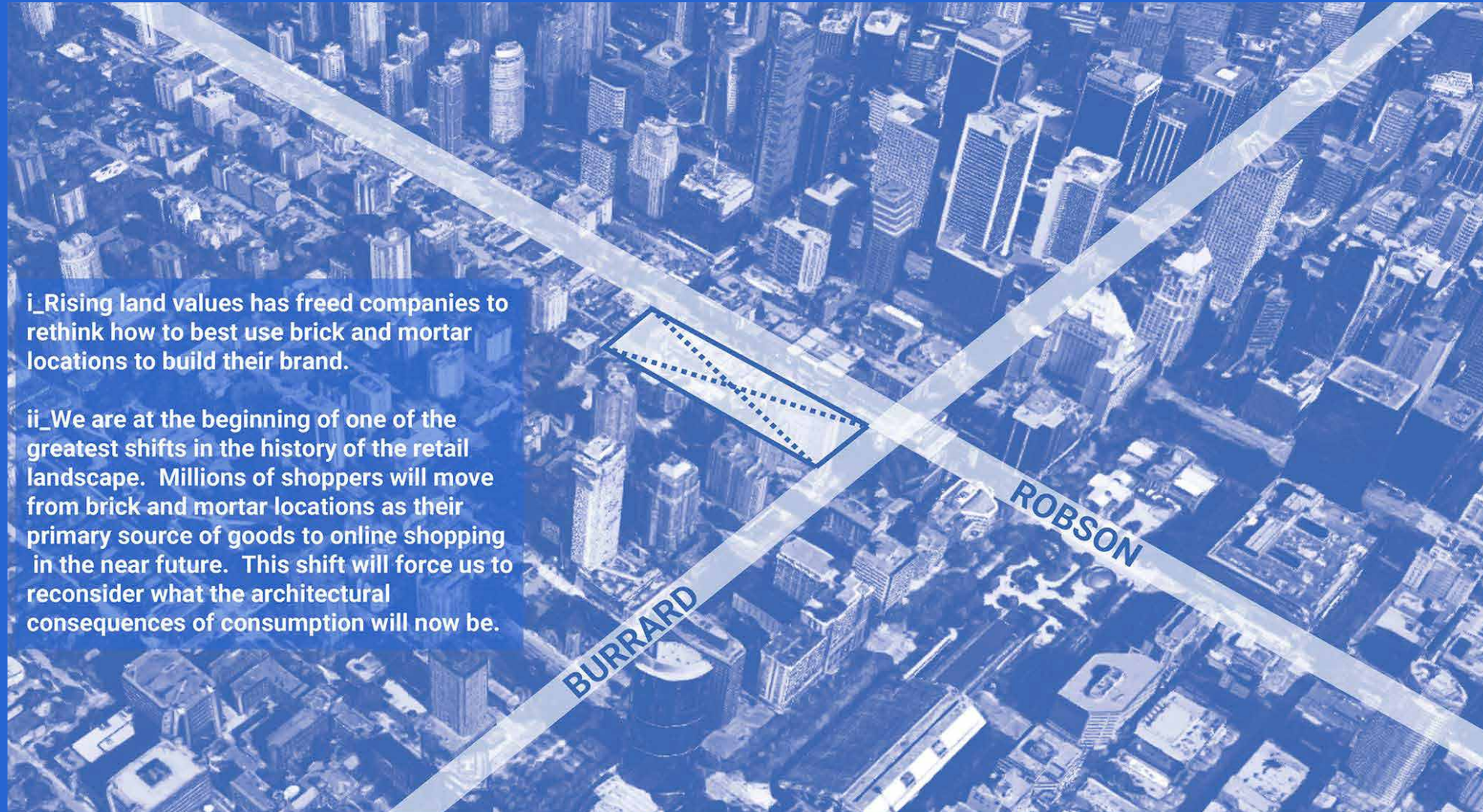
A.09



Title	An Art Gallery with No Art
Program	Commercial Use
Zoning	CD-1
Status	Concept
Location	Vancouver, B.C.
Size	45,200 sqf



A.09



i_Rising land values has freed companies to rethink how to best use brick and mortar locations to build their brand.

ii_We are at the beginning of one of the greatest shifts in the history of the retail landscape. Millions of shoppers will move from brick and mortar locations as their primary source of goods to online shopping in the near future. This shift will force us to reconsider what the architectural consequences of consumption will now be.



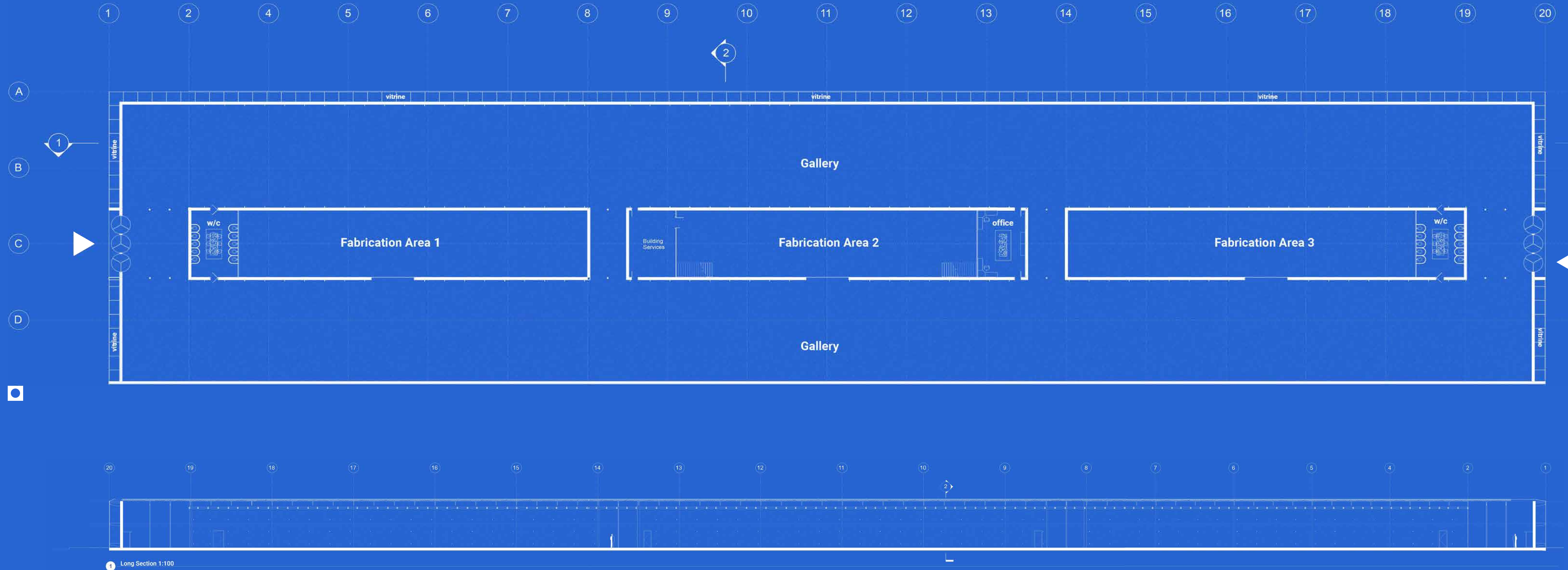
▲ i_Rising land values has freed companies to re-think how to best use brick and mortar locations to build their brand. ii_We are at the beginning of one of the greatest shifts in the history of the retail landscape. Millions of shoppers will move from brick and mortar locations as their primary source of goods to online shopping in the near future. This shift will force us to reconsider what **the architectural consequences of consumption** will now be. iii_During the renaissance it was common for the wealthiest members of society to sponsor an artist. They would cover the artist's living expenses, and in return the artist would produce artwork that the patron so desired. Today, brands are becoming what we can understand as contemporary Medici. Major brands are spending huge amounts of money to allow artist's to continue to produce work through the lens of the brand identity. What is the future of this symbiotic relationship?

iv_(Land value + online migration) How will these cultural shifts intersect and what is the result within the built environment?

This scheme looks at a retail space that has been relieved of its archaic purpose a point of sale locations. Individual stores have been amalgamated into a large open floor plan that is to house installations by artists that act as brand building activations. This space is to be treated as a gallery. Visitors come for an experiential quality that will inform their future online purchases. The brand profits from the artist's work and the artist is able to continue their artistic process.



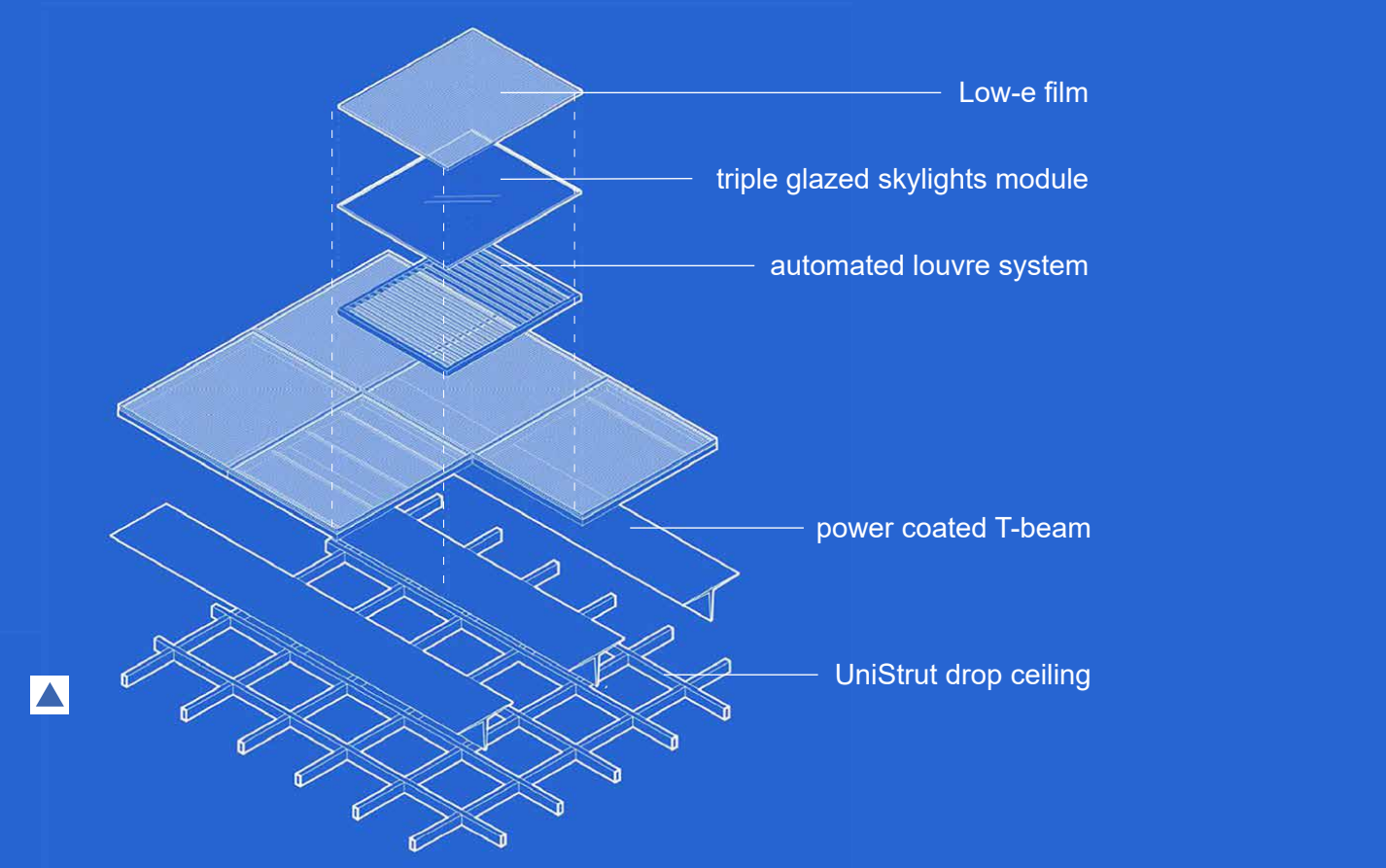
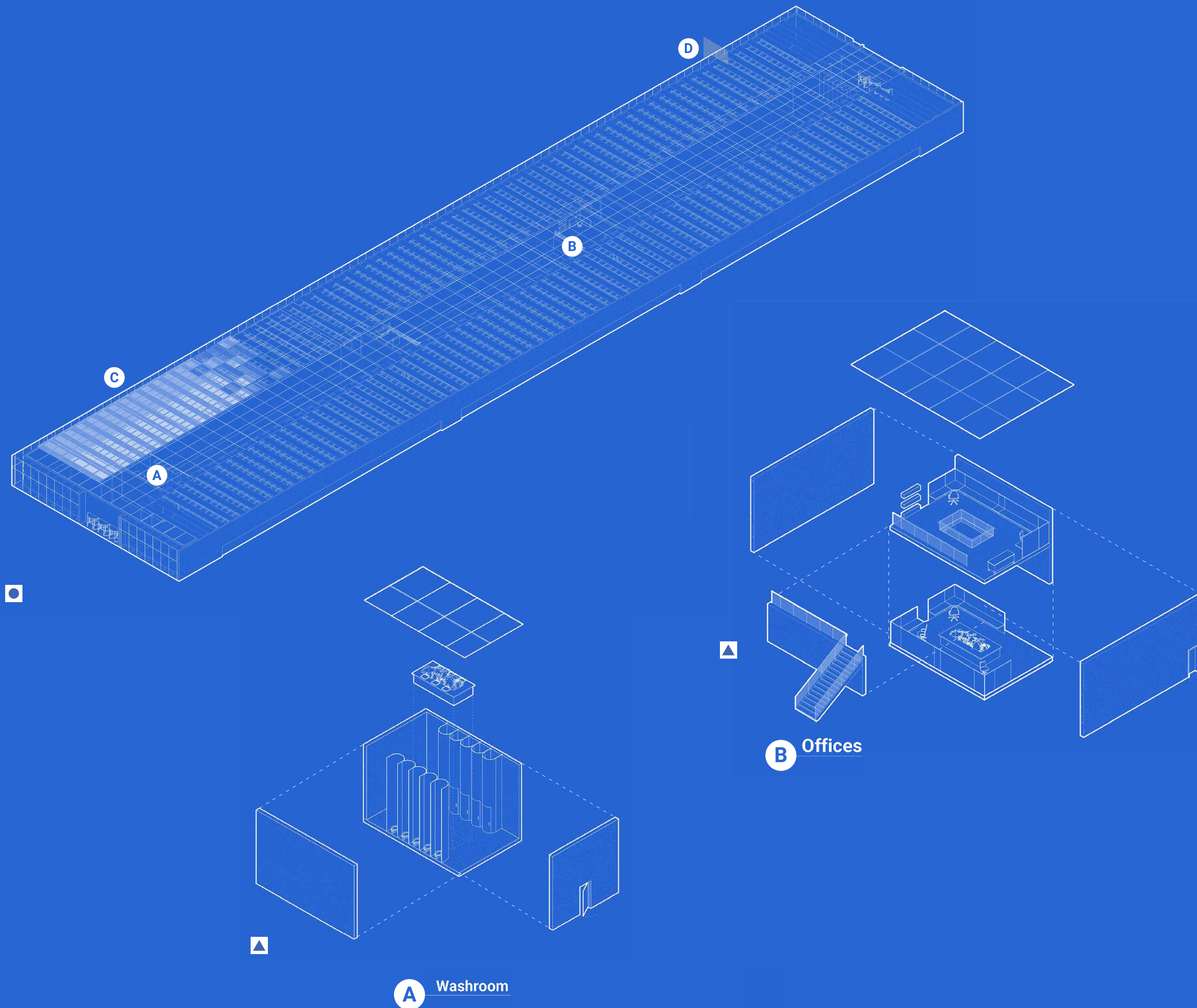
A.09



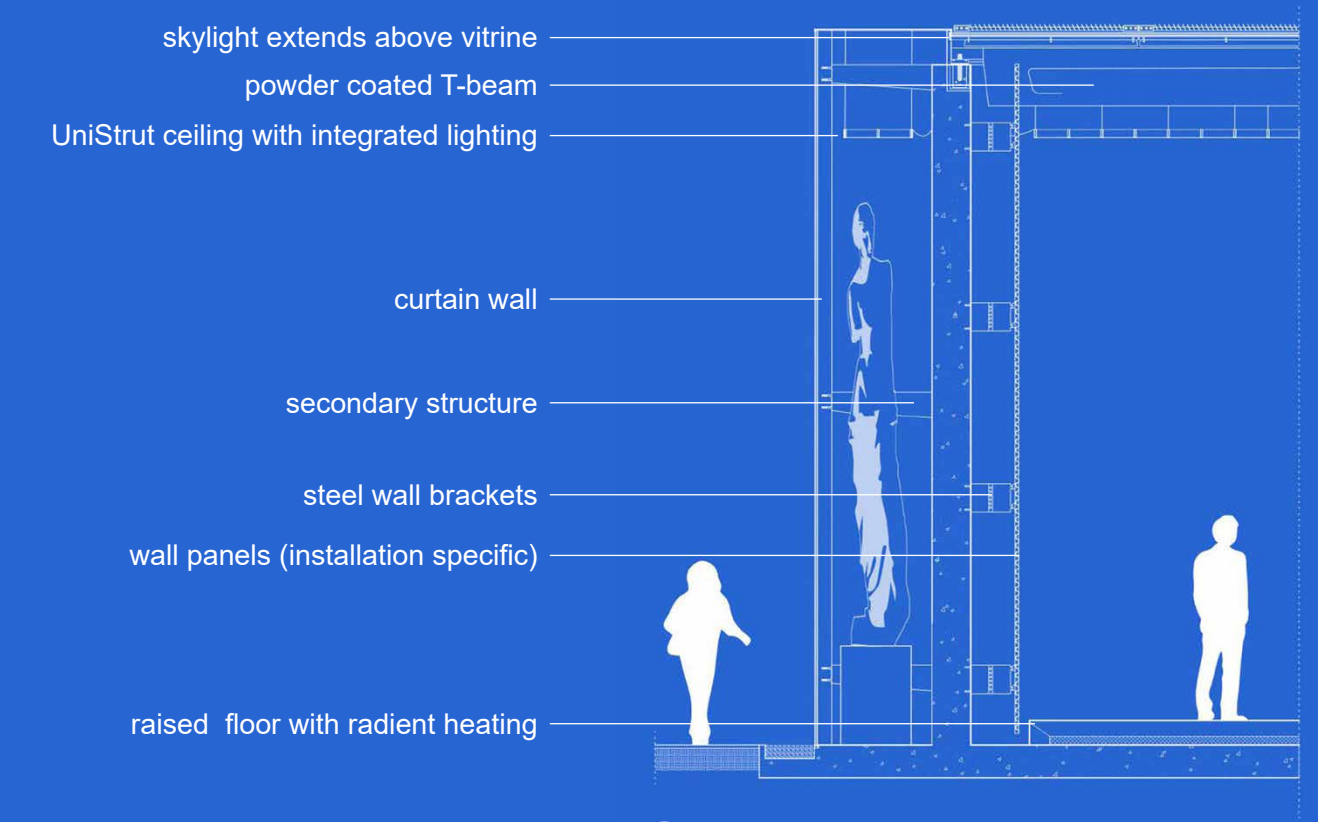
► This spatial concept manifests itself as a singular rugged loop of a triple height volume capable of hosting a wide range of installations. The loop orbits three long service bars. These bars house fabrication areas, offices, building services and washrooms. Large T-beams span the gallery space and support a louvered roof system that provides consistent diffused natural light at all times of the day. Surrounding the gallery on the Thurlow, Robson and Burrard Facade is a large vitrine that expands upon the traditional store front window typology to create an expansive public gallery along one of Vancouver's busiest street.



A.09



C Roof Assembly



D Typical Vitrine Section



Jon Gerrard for Screveface™



Jeff Koons for Hubba Bubba™



Food New York for Off-White™



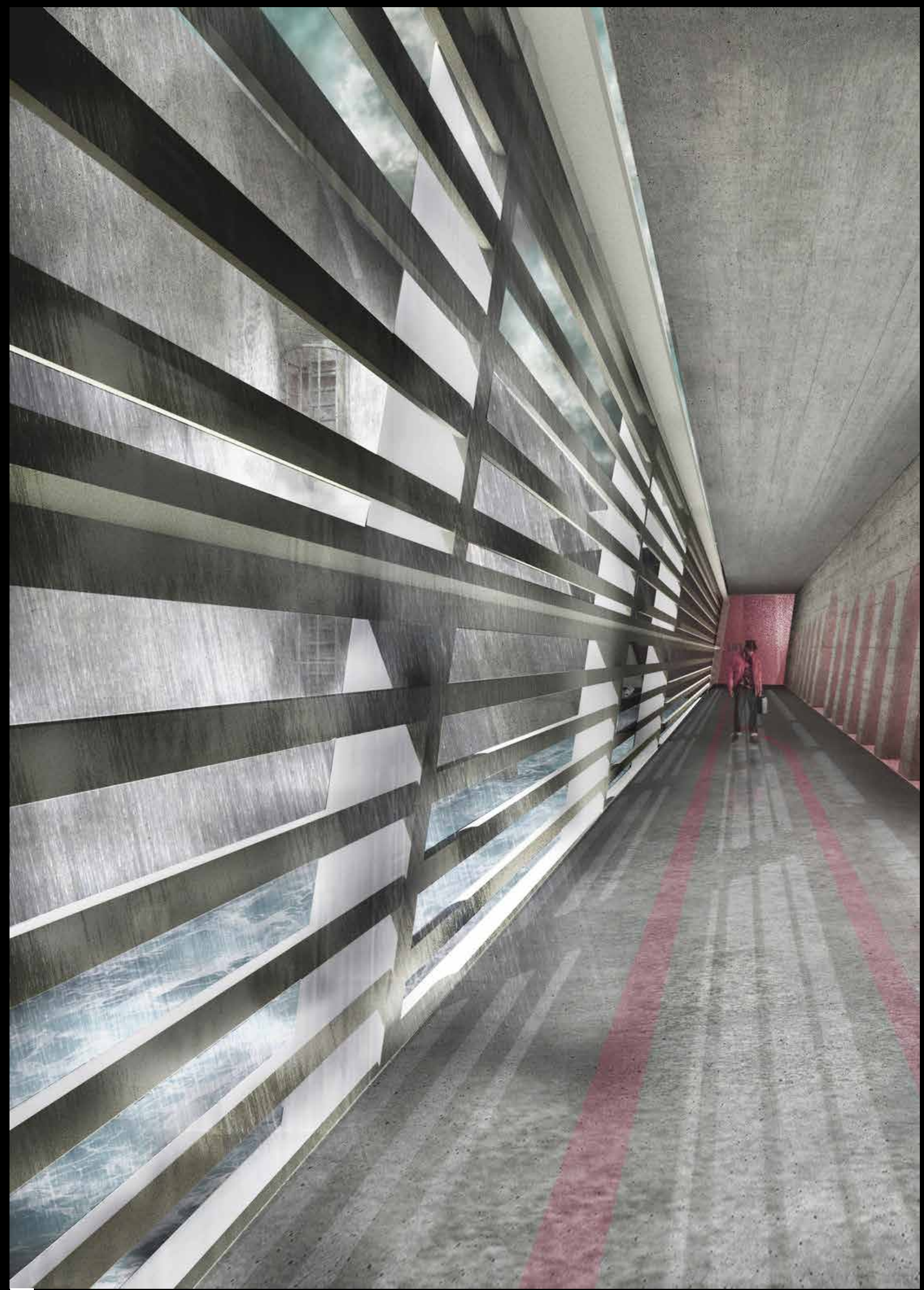
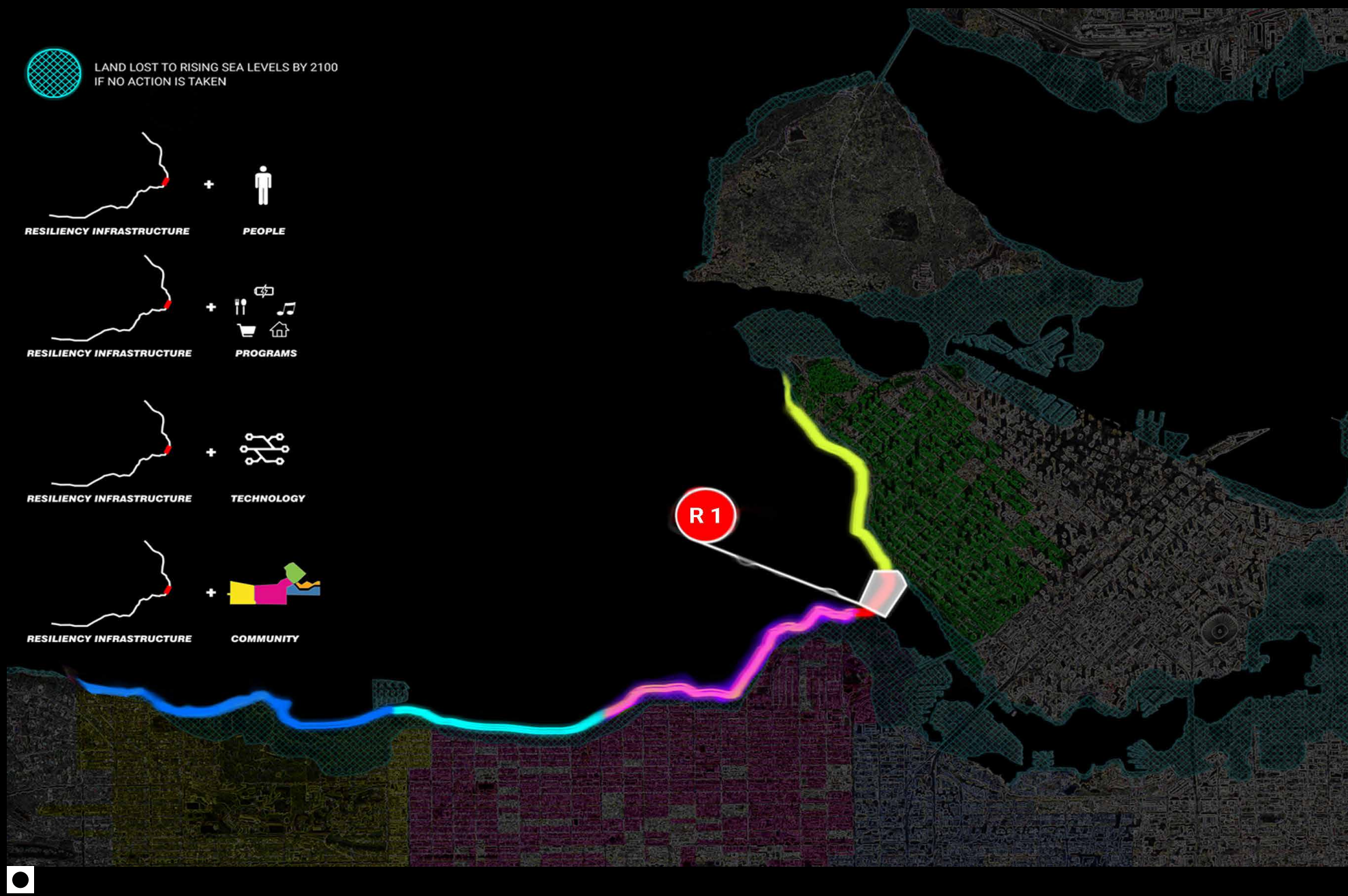
King Krule for Umbro™



Bjarke Ingels for Helmut Lang™



Matias Faldbakken for Balenciaga™

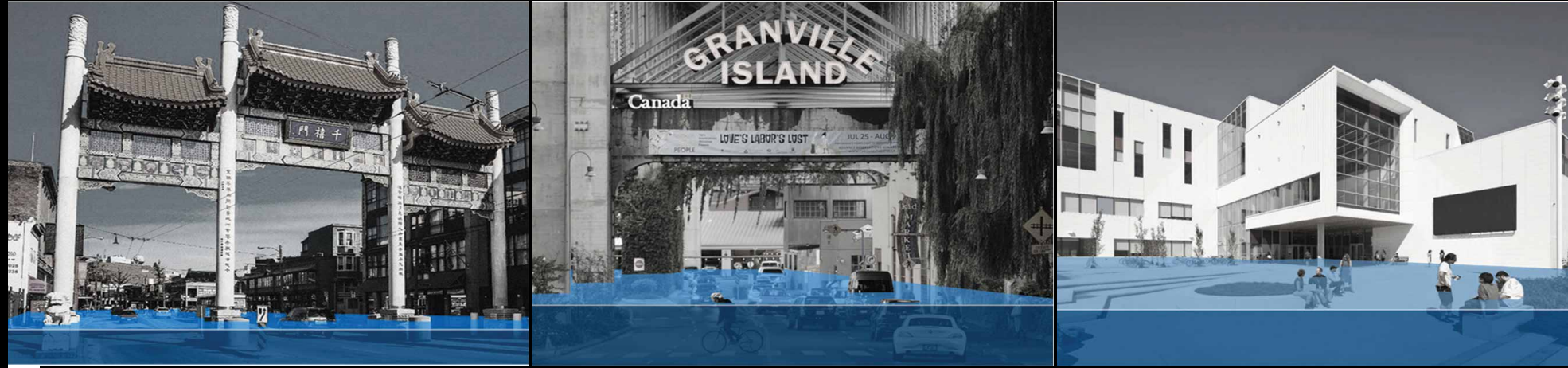


Title	An Inhabitable Wall (Thesis)
Program	Adaptive Residential & Climate Infrastructure
Zoning	Z-2
Status	Concept
Location	Vancouver, B.C.
Size	260,200 sqf
Year	2050

Canadian Architect Student Thesis of the Year Award (Runner-up)

Digital Image (Aerial View)

Digital Image (at the front of the Wall)



▲ *The big idea: The objective of this graduate project is to explore how the role of the architect and how the built environment will change and evolve over our upcoming careers. Interested in the way architecture is 'born' and how the conditions which shape that environment will affect how and what we design. Rather than being a reduction of information into a 'mono-focused' idea, this project attempts to synthesize and elaborate on complex conditions that we believe to be relevant over the coming 30 years.*

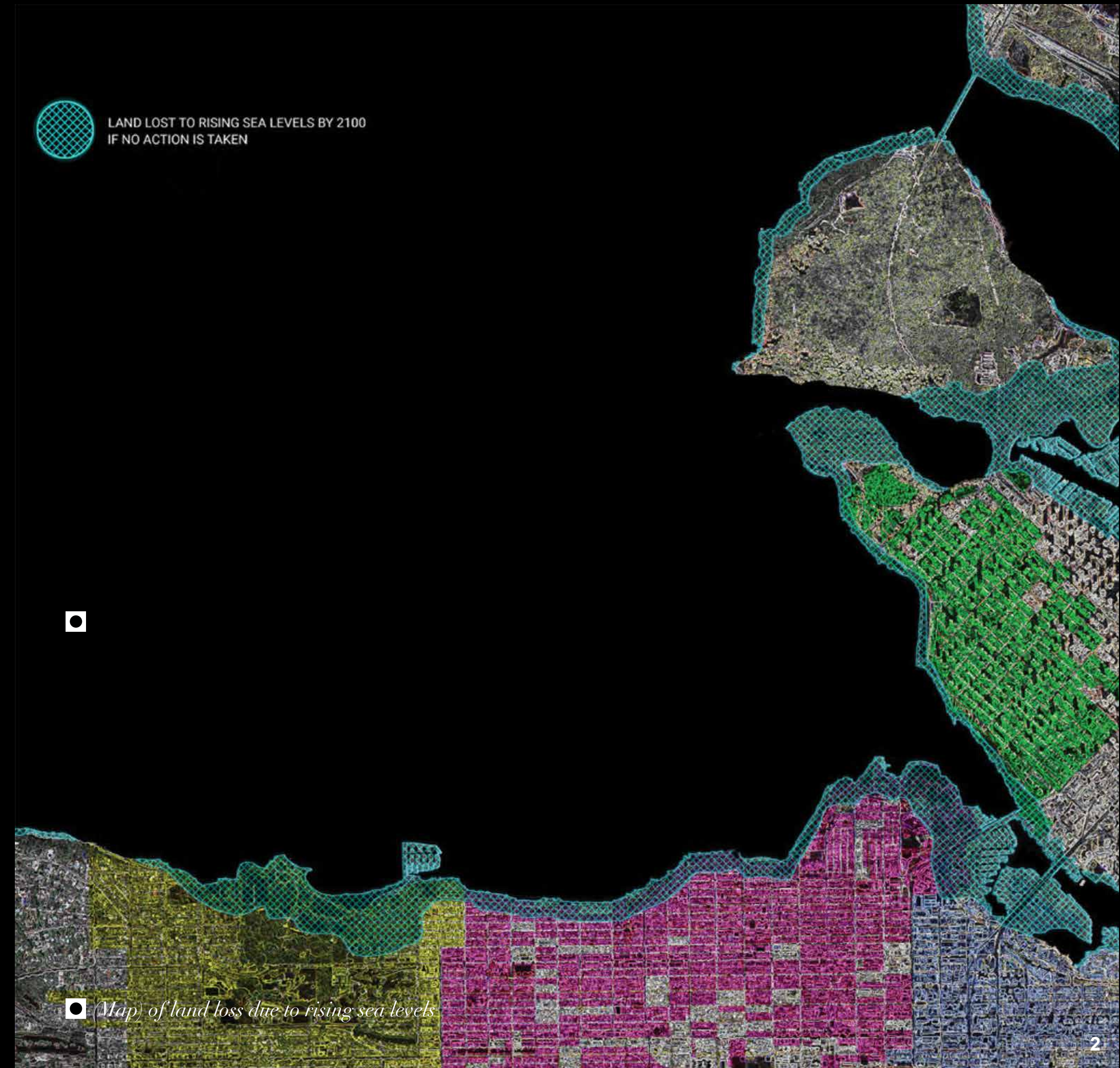
Since 2022 sea levels have risen to the point that we are losing areas of our city at an alarming rate. Lost Lagoon has reconnected to English Bay, Sunset Beach is almost permanently submerged and this is just the beginning. Data pulled from the City of Vancouver projects that by 2100 everything in the blue hatched area on the adjacent map will be under water. Even as we look inland, water will reach Emily Carr University as well as the adjacent St Paul's General Hospital.

This impending crisis has led to the design of *Vancouver's Resiliency Network*. The *VRN* is a defence infrastructure that runs from Spanish Banks to Vanier Park, it then extends across the mouth of False Creek and along the shore to the entrance of Stanley Park. Large Berms, such as the Kits Beach Berm use recreational programs such as soccer fields, skate parks, and leisure space to form a defence bar between the city and the ocean that simultaneously serves to improve the communities around it.

At the heart of the *VRN* there is a unique opportunity. The *Resiliency Network* forms a large wall across False Creek. Unlike other areas along the resiliency network that occupy land which had a prior program of park and recreational space to serve adjacent properties, this is *new land*.

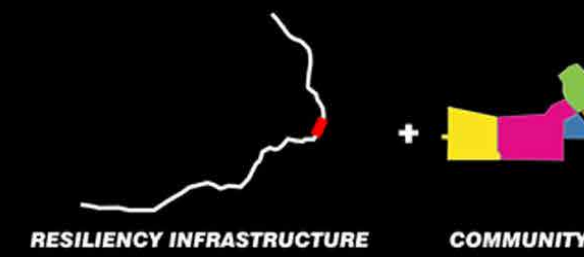
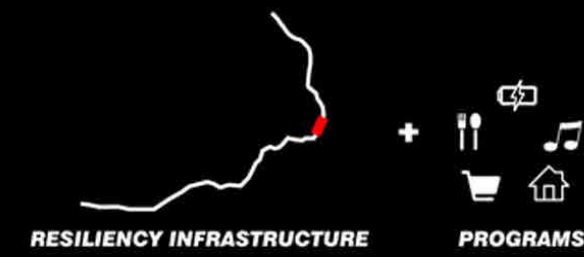
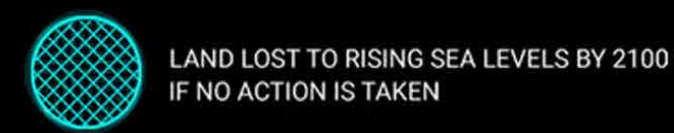
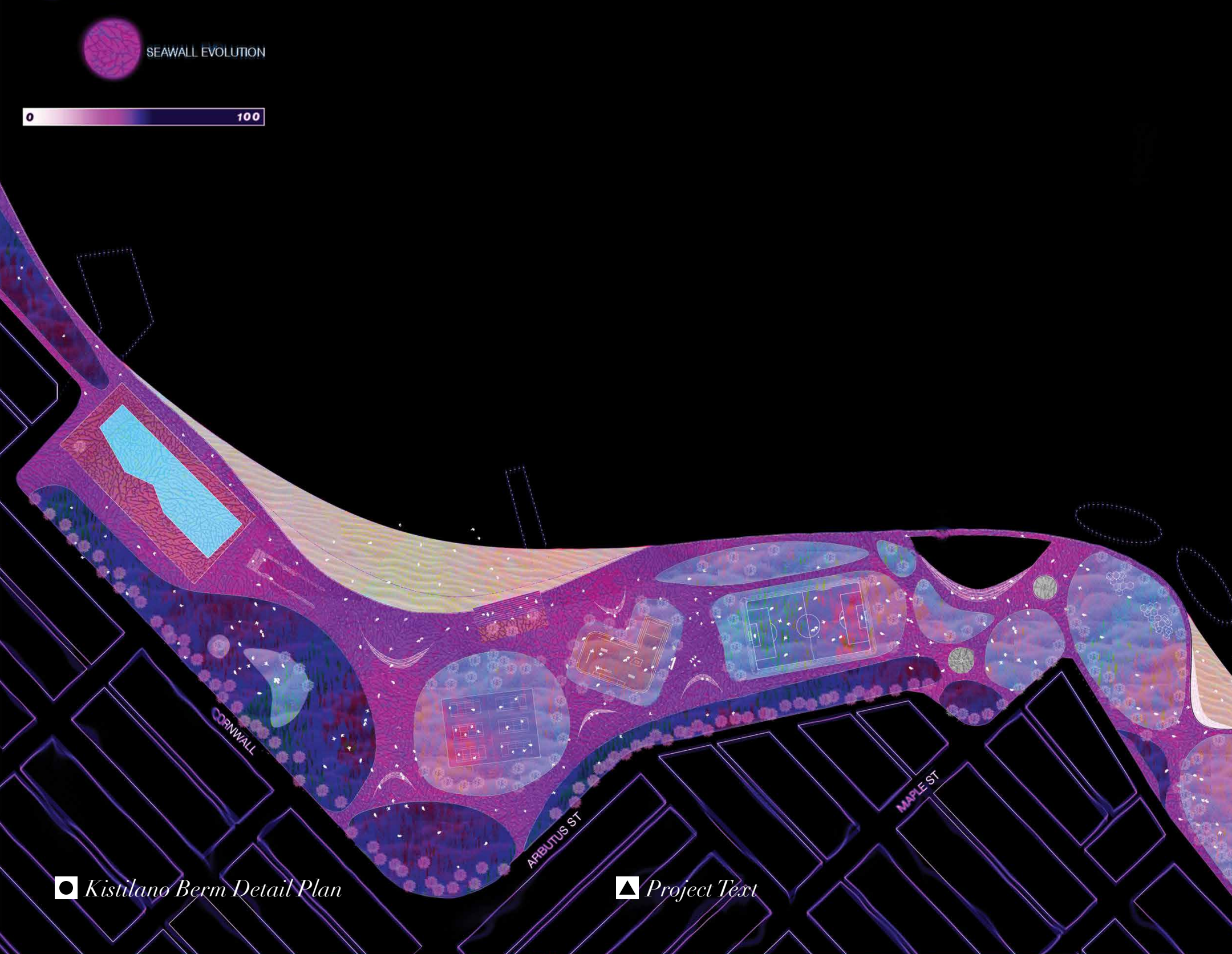
With this new land we have the opportunity to address other issues. With a continuing climate migration of people into the city and the growing severity of inequality, *The Wall* offers responses to Vancouver's second most pressing issue, affordable housing.

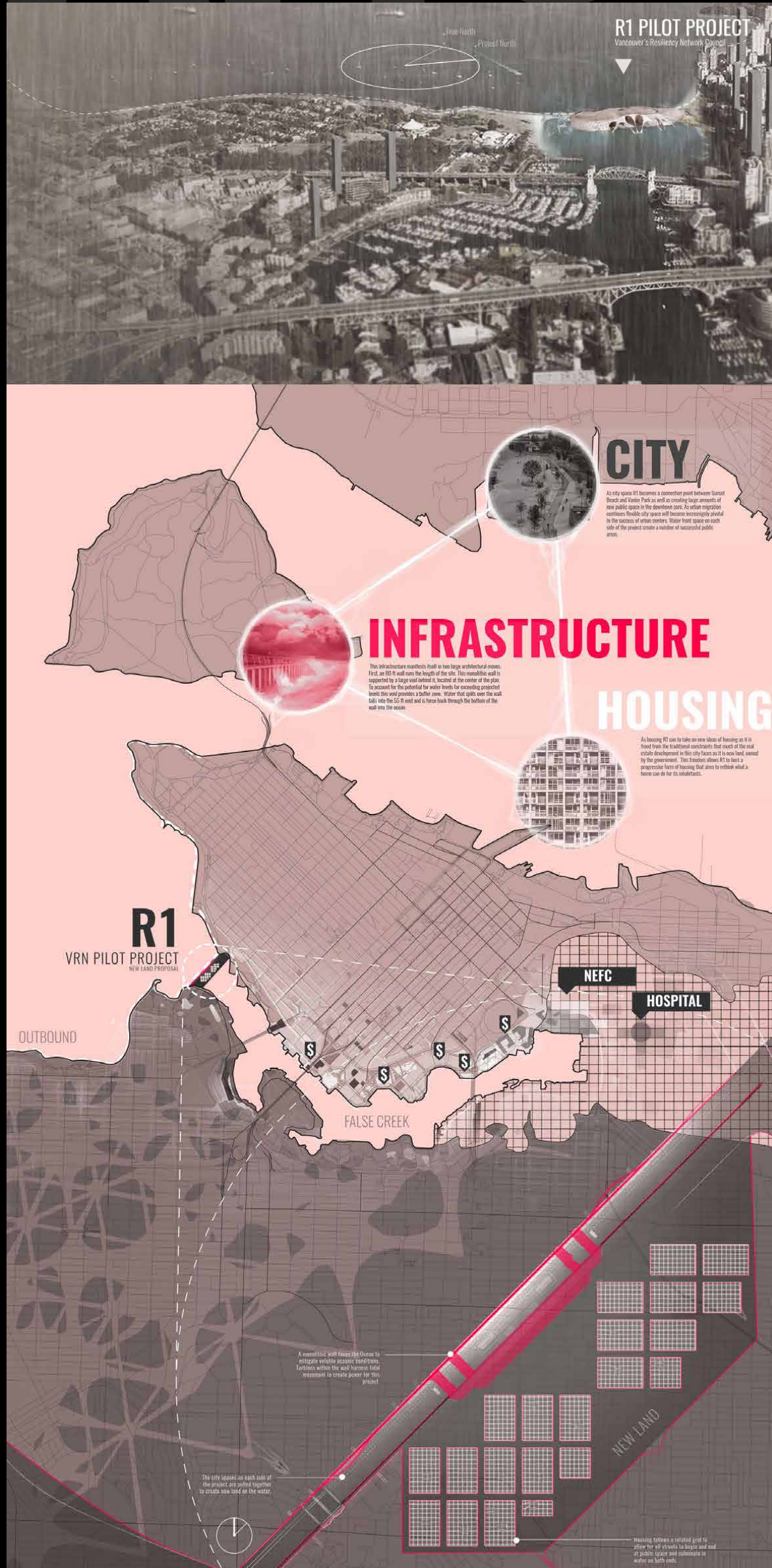
As a response to the realities of our time, *The Wall* places itself at the intersection of three systems: *infrastructure, housing, and the city*.



▲ These three systems act independently on the site, with the primary and most critical system the **defense infrastructure**. This system manifests itself on site as two large architectural moves. First, as we look at the site in plan we see a large monolithic bar that runs the length of the site. This wall is supported by a large void that is located at the center of the plan and extends out to the edge of the site as two long drainage lines. If water surges over the wall it rushes down into the void and into the projects water reservoir. In the event the water exceeds the intended capacity of the reservoir, large turbines located at the bottom of the wall force the water back out into the ocean. These turbines also serve to draw energy for the buildings micro grid system from tidal movement from the pacific ocean. Behind the void the second system is located. The *'Participatory Housing'* is organized on a grid east of the wall. Streets terrace down from the wall toward the False Creek Artificial Beach. Within these streets are micro grids of 3 story-stacked participatory units. These units are available on 5, 10 and 20 year leases. Each unit is comprised of a base unit of necessities and a private zone that is left intentionally blank.

▲ A structural frame allows for inhabitants to easily develop their unit as they need. Rather than traditional amenities such as pools or gyms, a rapid fabrication center behind the void allows these units to be quickly updated as necessary. A digital database allows users to pull modular wall assemblies and furnishings to print as needed, new inputs are always welcome. **While the front of the wall is a static brutalist wall impervious to change, routed in the past, behind the void is a shimmering, shifting housing typology that is never static.** Able to adapt to our ever shifting needs. Inhabitants are welcome to re-develop their space into commercial spaces. This commercial aspect of the housing is made possible by the third system: The City. *The Wall* draws the West End and Sunset Beach Park across the water to join with Vanier Park and Kitsilano. Two of Vancouver's most vibrant neighborhoods are connected over the water to create what is to be one of Vancouver's most amazing city spaces.

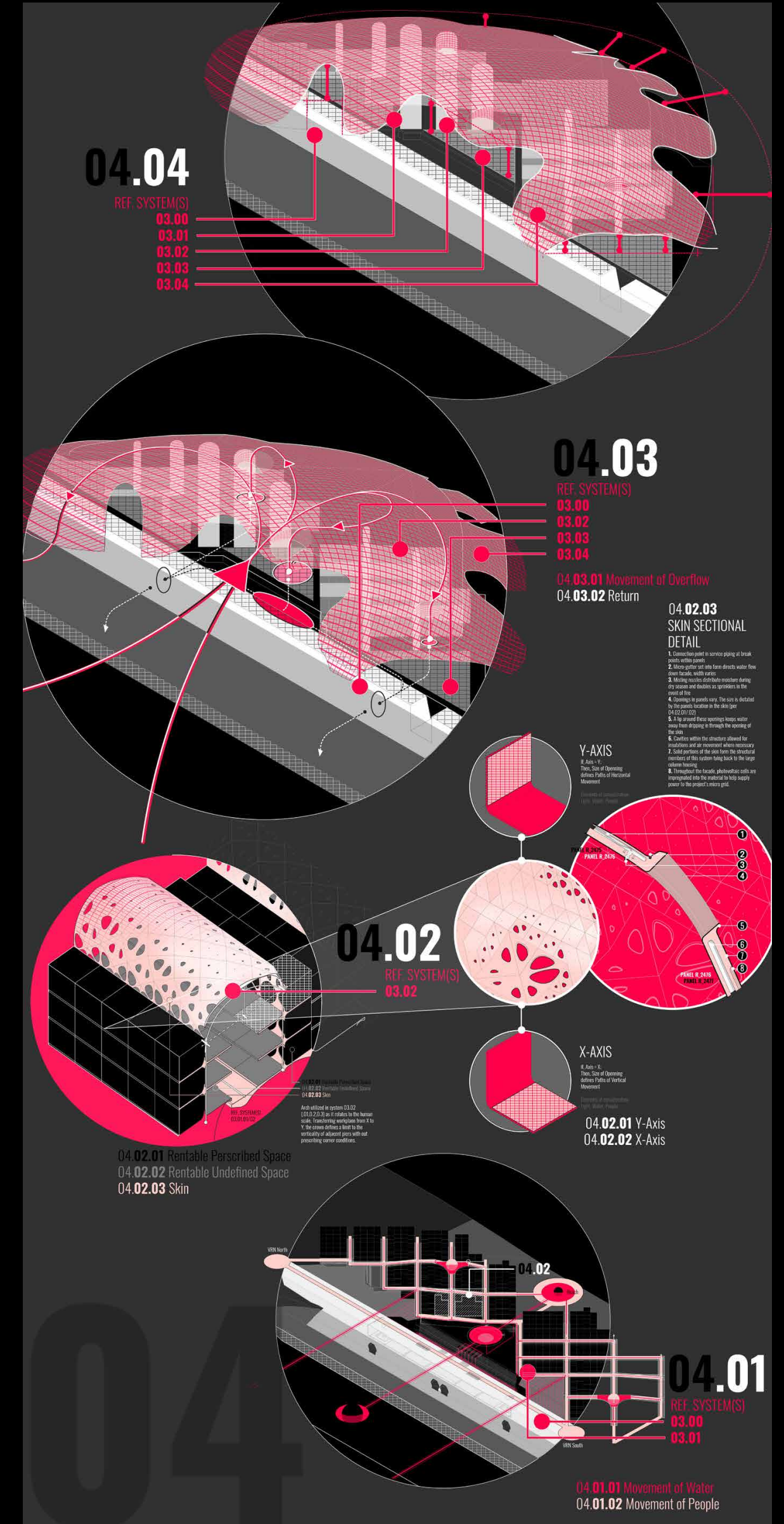




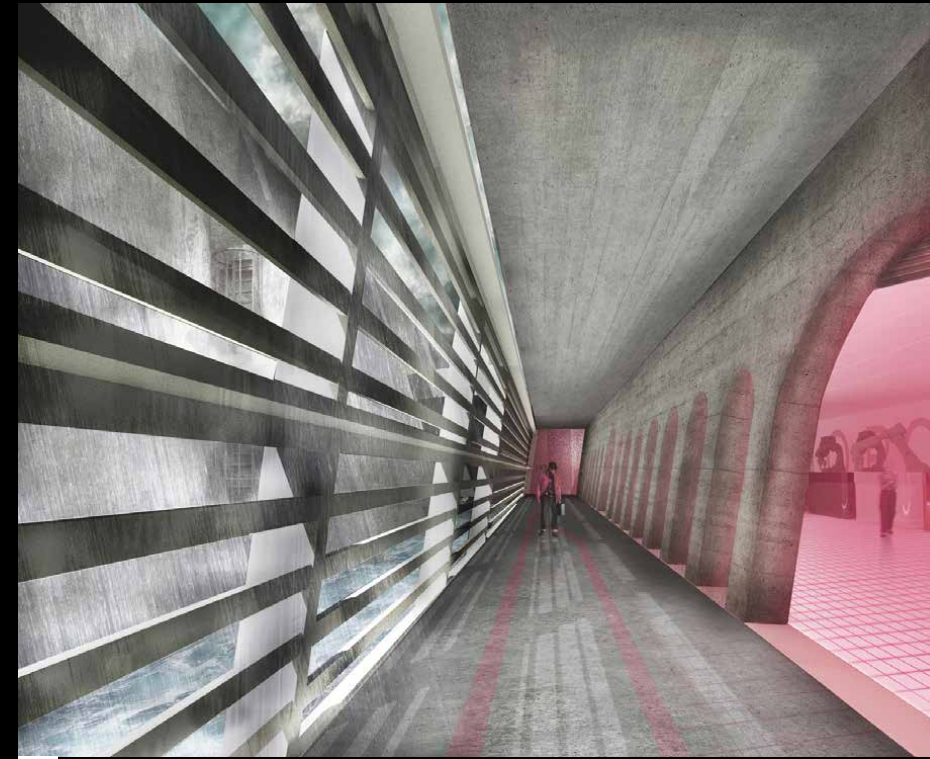
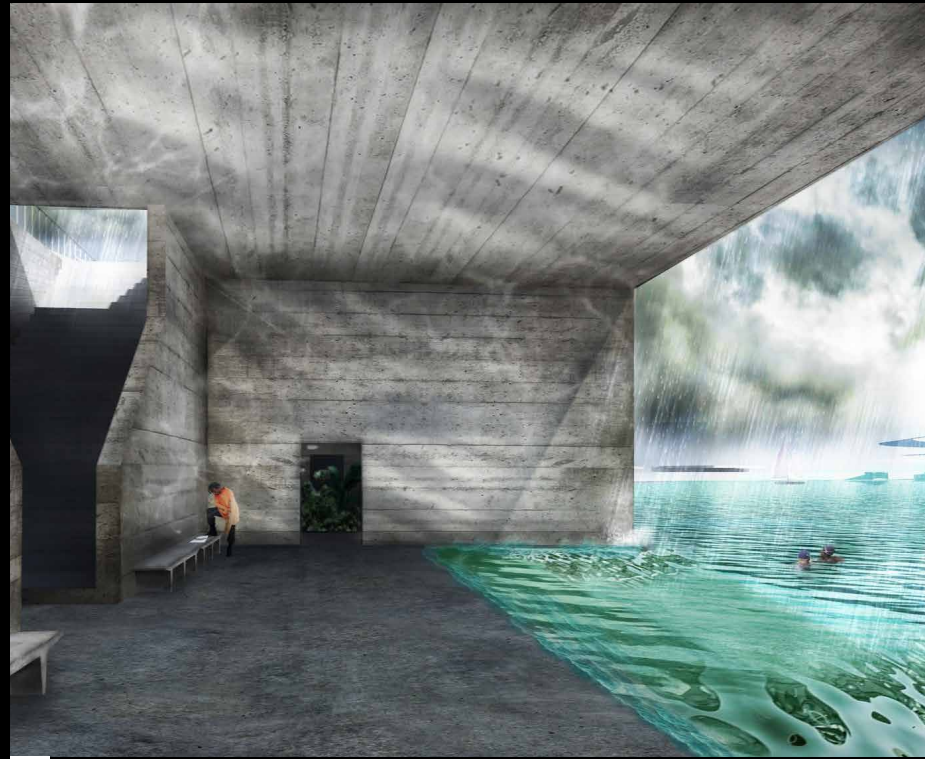
Key Plan



Plan



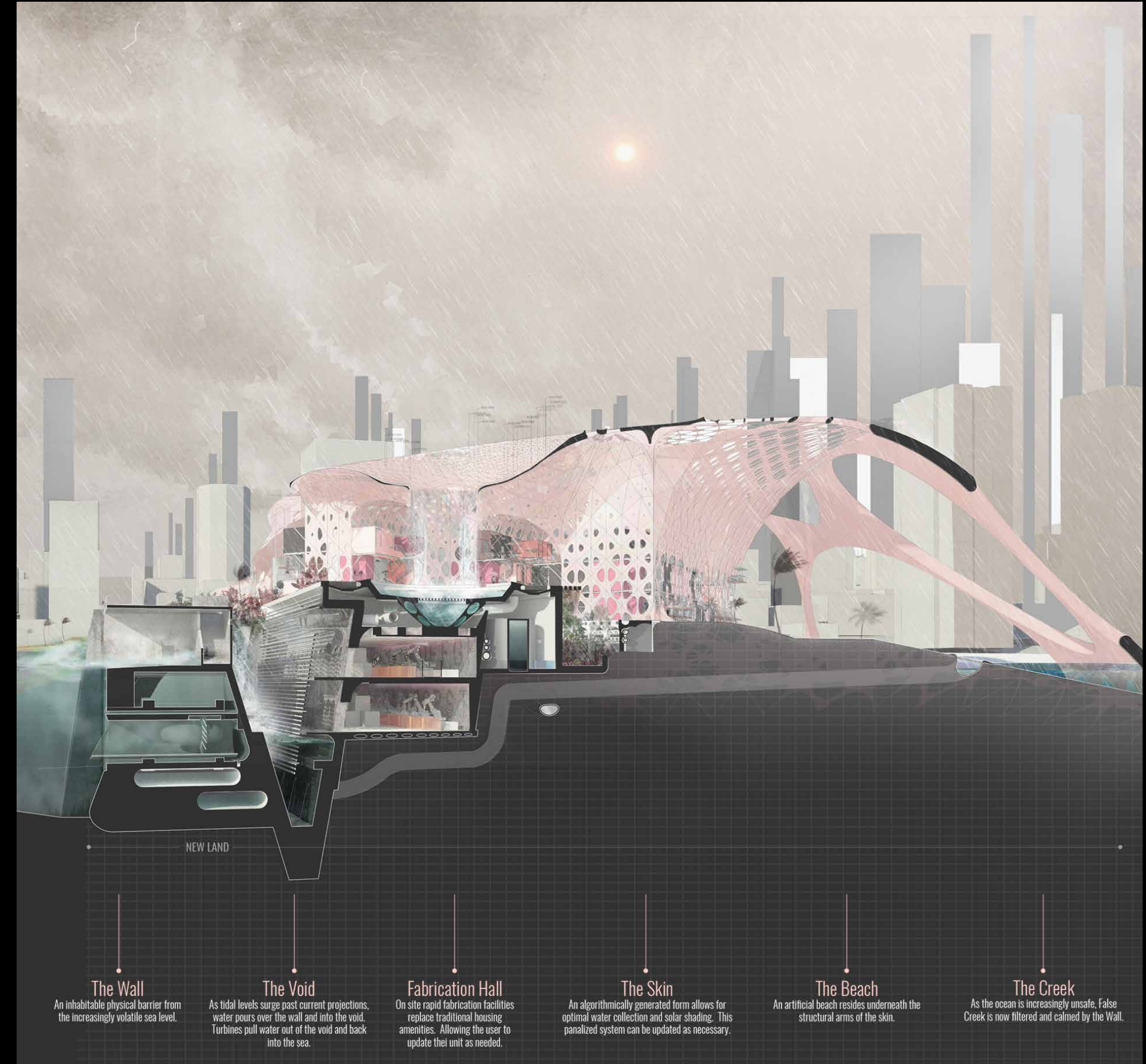
System Diagrams



▶ As the conditions of our environment become more volatile and more detrimental to our society, it is becoming imperative that Architects explore, create and design to effectively respond to these situations. It is about designing the space between these systems. It is not about attempting to resolve the conditions in isolation, but instead about how these conditions collide, and how potential systems can interact. **At the heart of this overlap is the dire need for resiliency.** A static system remains static throughout its life span. This stability means it is unable to fluctuate and react to large external forces. In the event that a static system is hit with a large external force it will break. A Resilient system on the other hand, has the potential to fluctuate greatly during its life span. Resilient systems are much better suited to absorb tremendous external and unpredictable forces. When hit with a large external force a resilient system will fluctuate greatly and potentially incur a great loss but will not break under this external pressure. A resilient system will acknowledge this loss and continue to exist and adapt whenever possible. Part of this resiliency is acknowledging that change may occur.

◻ *Inside the Brutalist Wall*

◼ *Inside the Adaptive Housing*



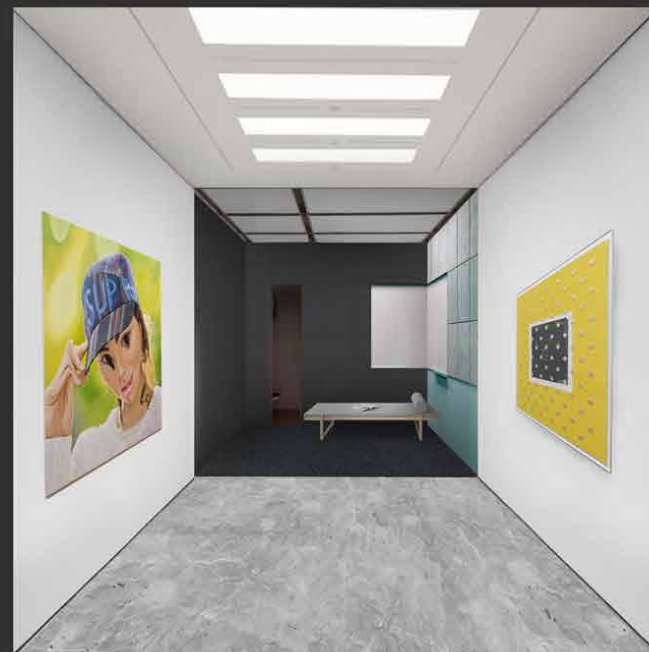
▶ Inside *The Wall*, spaces are used as a measurement for climate change. Built into its design is the acknowledgment of loss. This temporal space occupies above and below the top of the wall. Inside the brutalist wall there are a number of monumental spaces that give users beach like access to the Ocean. These spaces are designed in a manner that flooding into these spaces activates the space in a number of beautiful ways, such as tidal pools, other water features, and a stunning light condition. During storm surges these spaces will be temporarily flooded and lost to the effects of climate change. Water will rush through them and cascade down into the void.

◻ *Perspective Section*

▶ *Project Text*



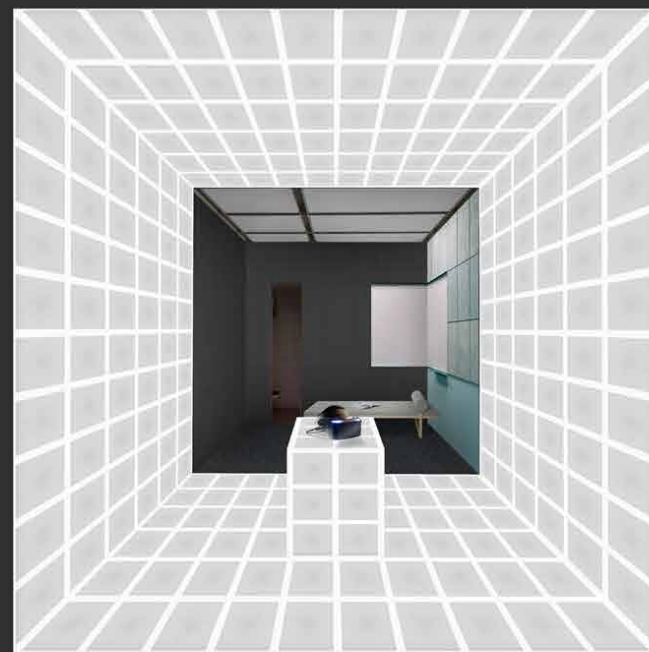
Base Unit



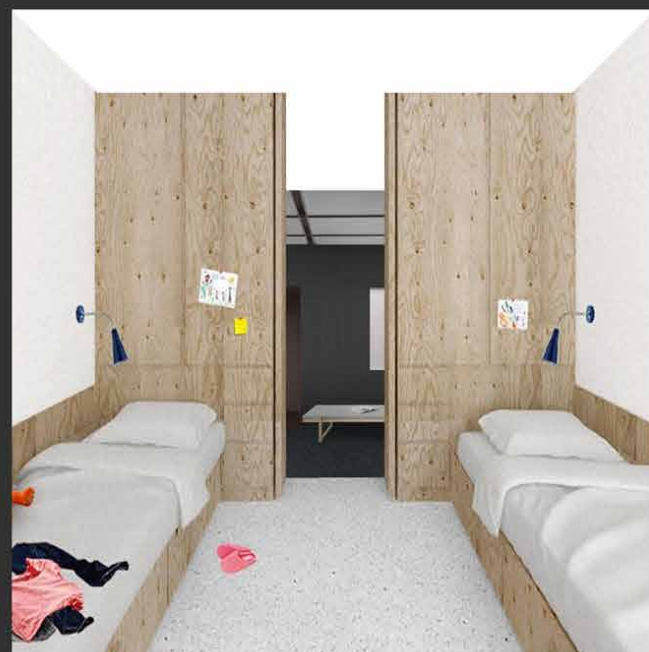
Base Unit + Art Gallery



Base Unit + Secret Garden



Base Unit + VR Room



Base Unit + Flop House



Base Unit + Mini Ramp



●

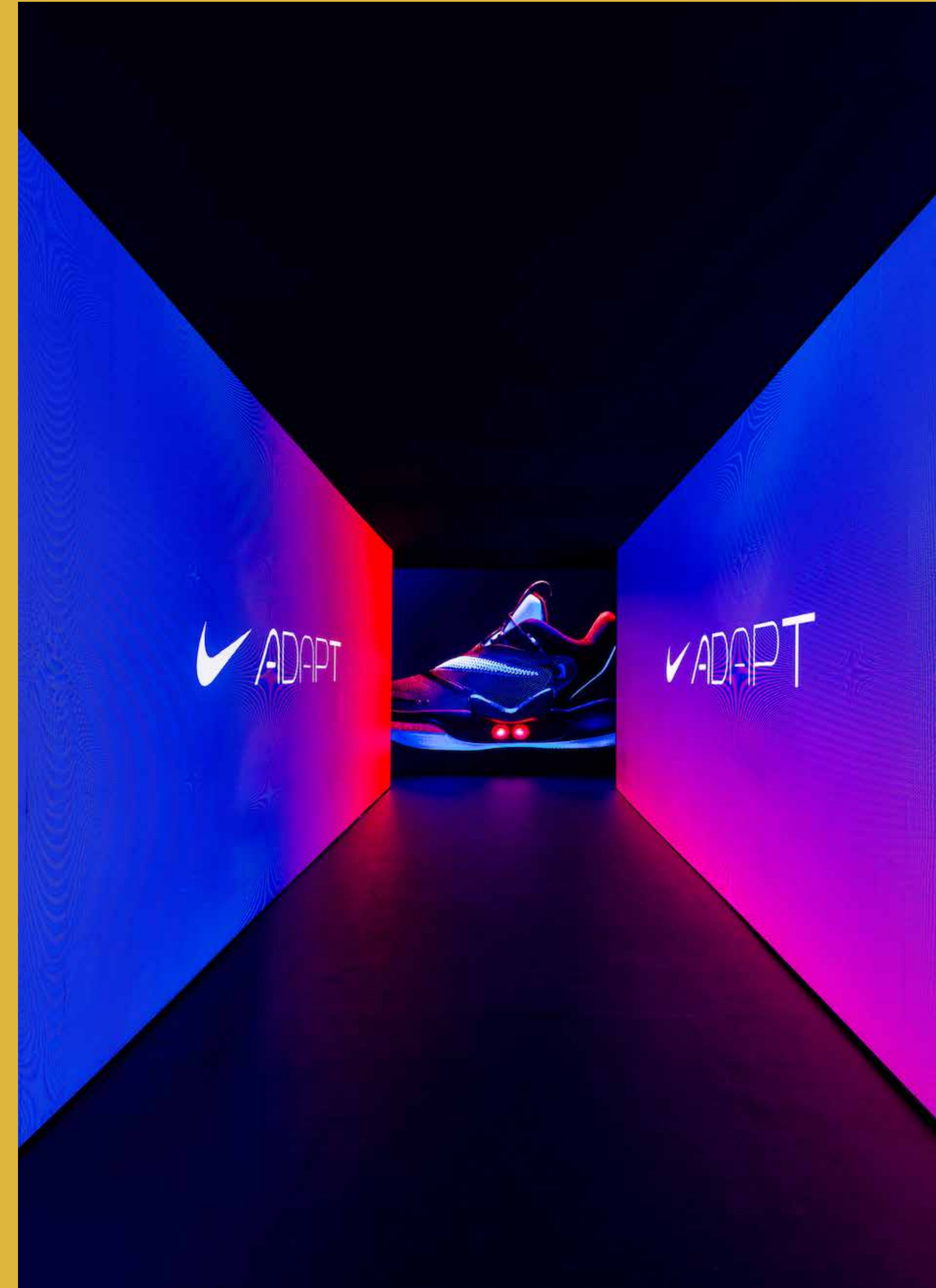
▲ Lastly the resilient system of people. Housing as a system of infrastructure to bring economy and growth of the participants to this parcel of new land promises local support and endurance amongst the challenges of our environment. Serving, simultaneously, as infrastructure, housing and city space *The Wall* generates only the initial condition of what can evolve and transform as unpredicted circumstances arise. It is the people, the people passing through, living within, or defended by this wall that keep the system alive. As designers of this pilot project we offer the city and its residents a **Resilient Architecture**.

An architecture that bends but doesn't break, takes moments of great anxiety and creates beautiful spaces and that most importantly allows for growth and mitigation of the increasingly precarious predicament of our time.

A.10



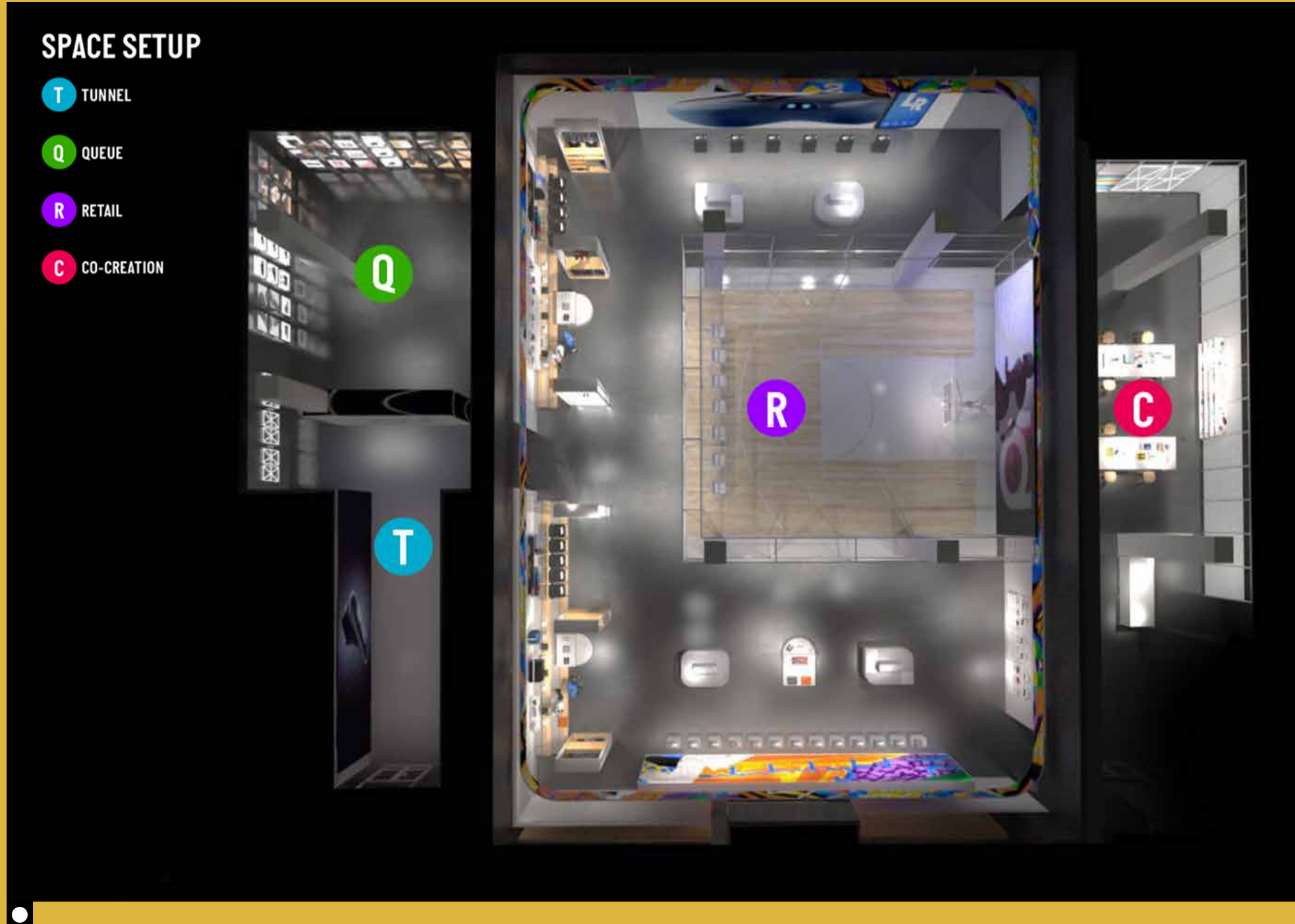




Title	House of Hoops (NBA All star Weekend)
Program	Premium Brand Activation
Client	Nike Basketball
Status	Completed
Location	26-28 S State St, Chicago, IL
Vendor	Satisfy&USA

● *Product Display in Queue Area*

● *Entry to Queue from Digital Tunnel*



▲ The Brief called for spatial design of a 4 day Premium Activation for Nike’s House of Hoops during the 2020 All star Weekend in Chicago. A primary aspect of the House Of Hoops brand is the term ‘Courtside’, this activation aimed to convey that sensibility to the customer. An abstracted version of ‘Game Time’ for an athlete. Visitors enter through ‘The Tunnel’. Inspired by the transition into an arena for an athlete, The Tunnel displays digital content related to the daily drops and athlete meet and greets. The Tunnel is flanked by a queue area for visitor’s during special releases. The Queue Area is defined by three feature walls displaying product and artist’s work in back lit display cases.

As visitors emerge from The Tunnel they see a digital court at the centre of the plan. The court is surrounded by brightly lit merchandising zones. These zones are divided by large floating retail volumes. Premium merchandising drops are showcased in display cases along two walls. The space is topped off with a graphic veilance that runs the perimeter of the central space. This valance displays the history of street ball in Chicago. The right side of the merchandising ring hosts the co-creation lab, a place for visitors to customize some of their favourite products.

● *Rendered Plan*

▲ *Project Text*



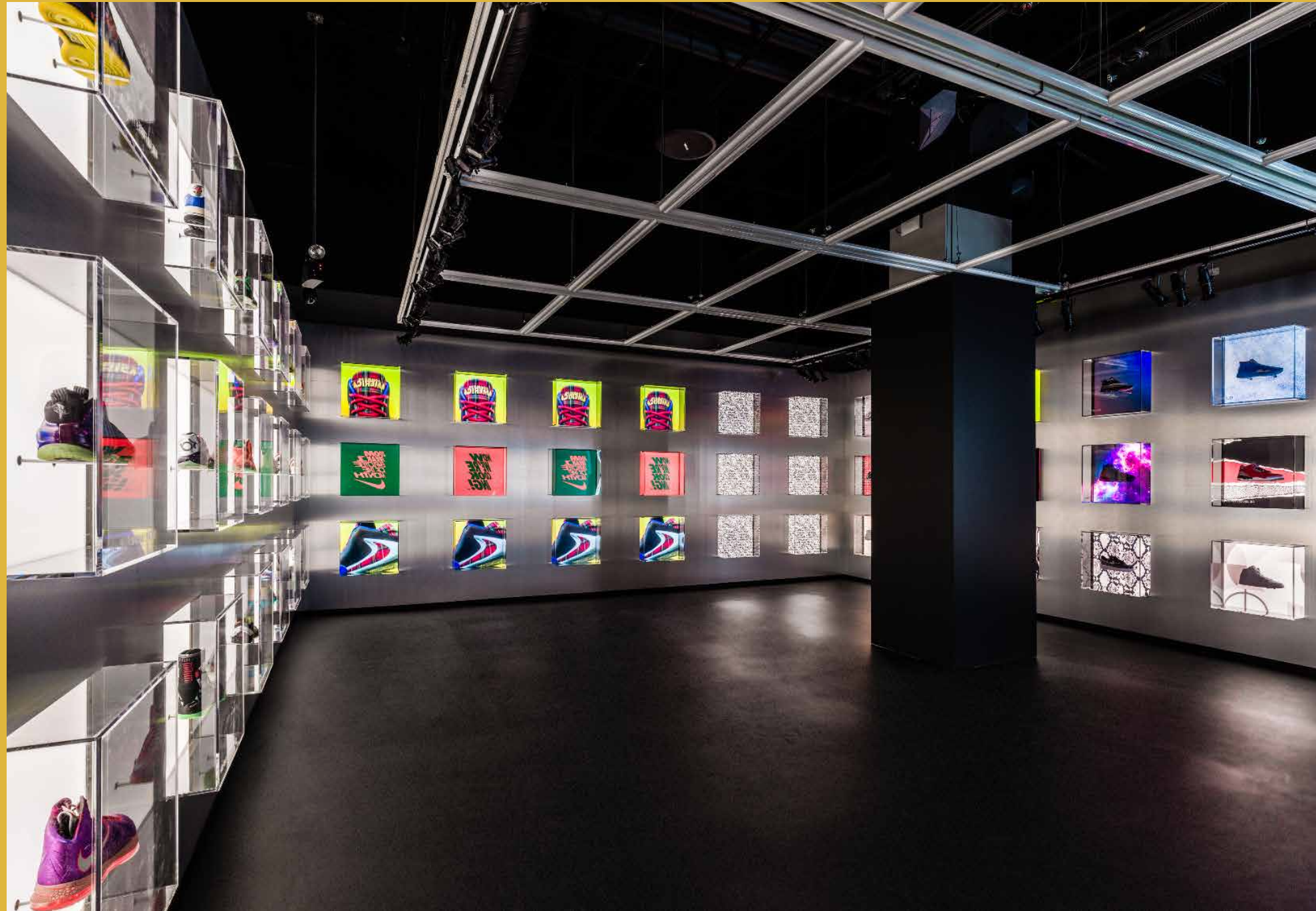
● *Site Photograph*



● Site Photograph



● Site Photograph



● Site Photograph



● Site Photograph



Site Photograph



Site Photograph



● Site Photograph



● Site Photograph



● Site Photograph

▲ Project Text



● Site Photograph

A.111



Project List

01	All Under One Roof	Study
02	Xu Residence (RUFproject)	Built
03	An Addition to A Family Home	D.D.
04	Laneway X (RUFproject)	Built
05	Junglist Brutalism	S.D.
06	Veiled Presentation Centre (RUFproject)	Unbuilt
07	4 Music Boxes & A Color Field	Built
08	4 Rooms With No Program	S.D.
09	An Art Gallery With No Art	Speculative
10	The Wall	Speculative
11	House of Hoops (RUFproject)	Built

The following is a collection of recent work by Ian Robert Sandilands (BFA, MArch).

Work is pulled from commercial and residential freelance work for private clients, past work while employed by RUFproject, as well as research driven projects.

Past commercial clients include Nike, Stüssy, Tilley and Converse.

Thank you.

Experience

Freelance Architectural Designer
Residential & Commercial Work
2019-2022

MASH Design (AUS)
Architectural Lead
2020-2022

RUFproject
Architectural Designer
2017-2020

COHO Labs
Design, Research, Visualization
2016-2018

Master of Architecture
School of Architecture and Landscape Architecture
University of British Columbia
2015-2018

Bachelor's of Visual Arts/Curatorial Studies
Emily Carr University of Art and Design
2011-2015