



William Riley Siltler

Architecture Portfolio

2021-2024 compiled projects

university at buffalo school of architecture

tulane university school of architecture

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URBAN FRAMEWORK FOR TEMPORARY LIVING

Situated between two major streets (North Rampart and Basin) and on the border in between the central business district and the French quarter, the URBAN FRAMEWORK FOR TEMPORARY LIVING provides temporary accommodations for travelers above a public ground level featuring a bar, cafe, and multiple vendor stalls.

[professor(s)]

[project location]

[school and year]

[role]

Andrea Bardón de Tena + Irene Keil

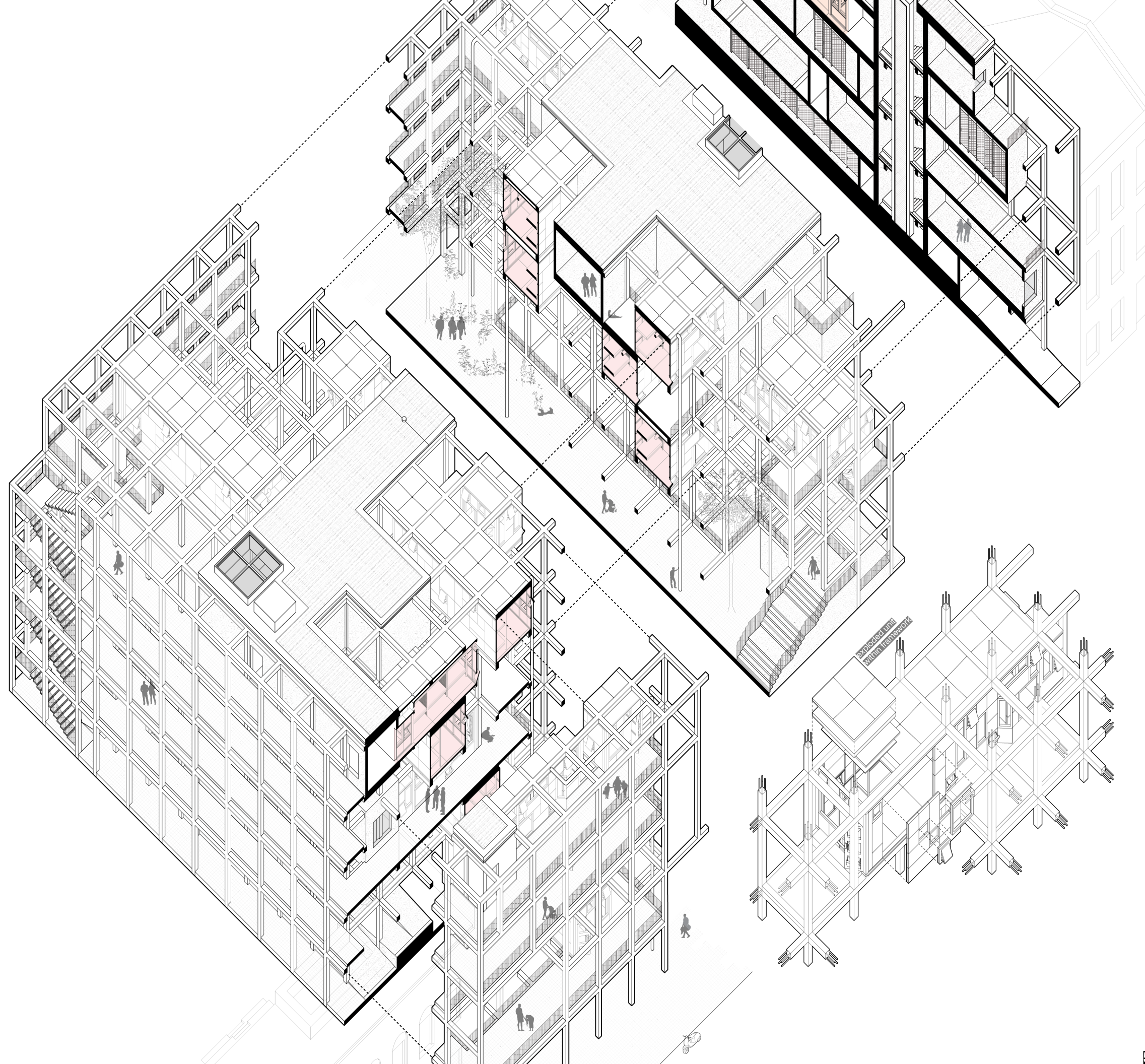
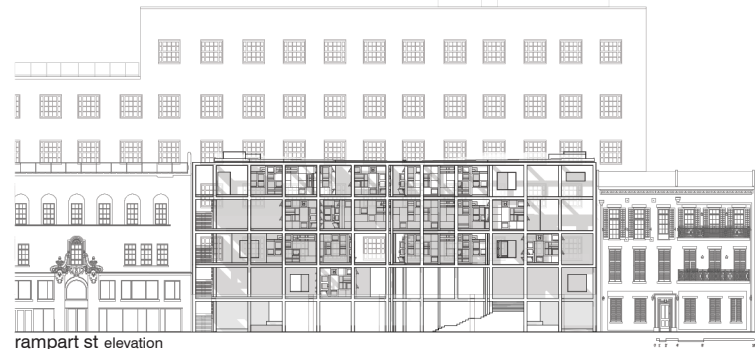
Downtown New Orleans, LA

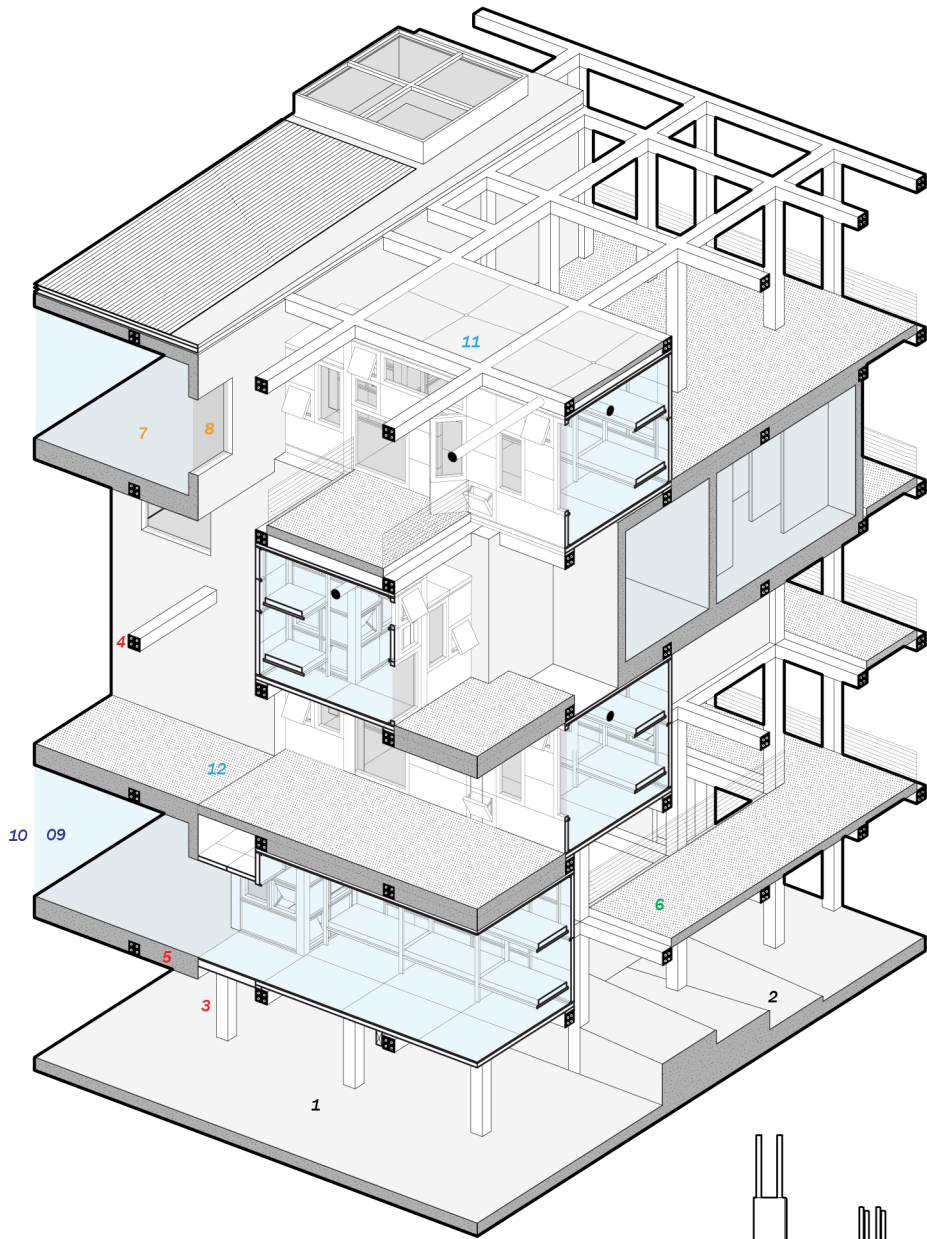
Tulane, graduate school, 2023

designer

Upon visiting the site (currently a parking lot & shown in red in the collages below), it was immediately clear pedestrians were using it as a thoroughfare between the two major streets on either side. The URBAN FRAMEWORK does not change this condition. Program on the ground floor is limited to vertical cores and public spaces leaving more than 60% of the site open to people passing through. A monumental stair on the Rampart side leads to a reception area on the next floor.

The two vertical cores have shared common spaces directly connected to them on each level. Attached to these shared spaces are a variable number of barrack-style bedrooms. The rooms overlap with each other and create a multitude of terrace spaces shared across different levels. The terraces connect the two cores together and lead to an emergency fire stair. On the top level, the cores are bridged by a communal dining area and kitchen. All of these different spaces exist within a pre-cast structural framework, allowing the building to take any form it requires.





access / ADA

- 01 - public plaza
- 02 - accessible building entry ramp

horizontal and vertical structure

- 03 - vertical pre-cast concrete columns
- 04 - horizontal pre-cast concrete beams
- 05 - cast in place structural concrete

life safety systems

- 06 - exterior walkway to exterior fire stair

passive and sustainable strategies

- 07 - cast in place concrete provides solar mass
- 08 - window orientation towards southern sun

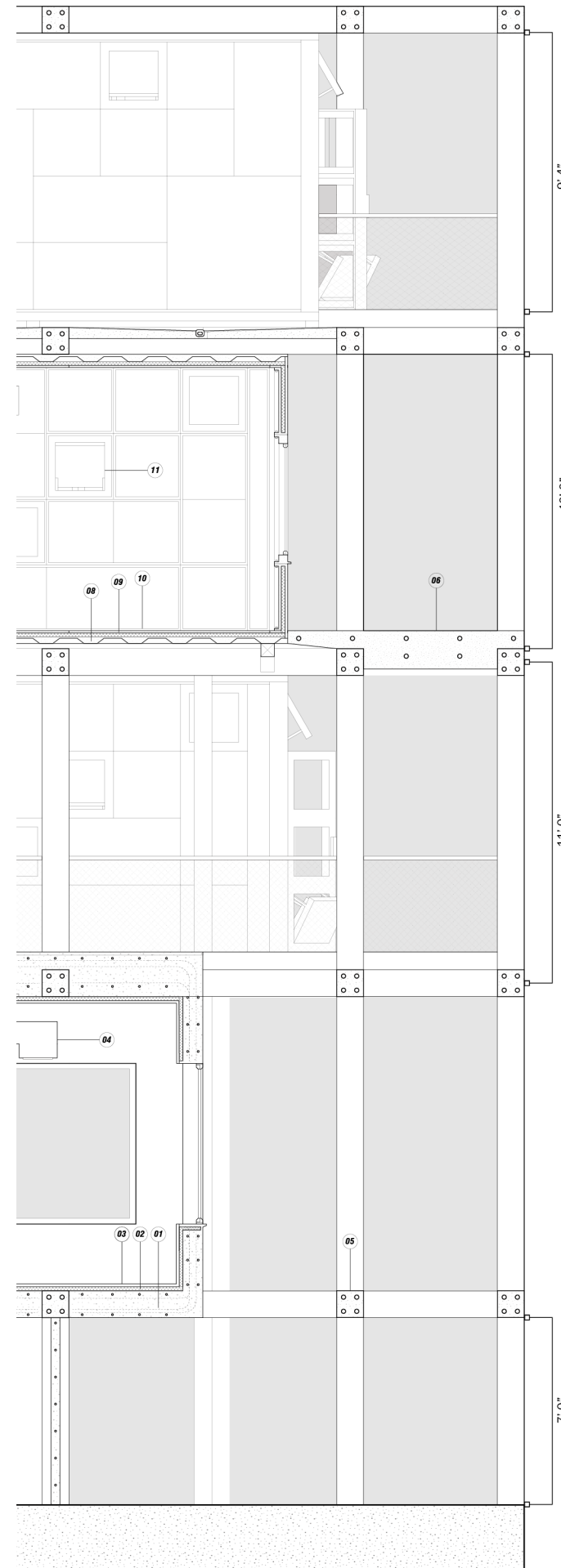
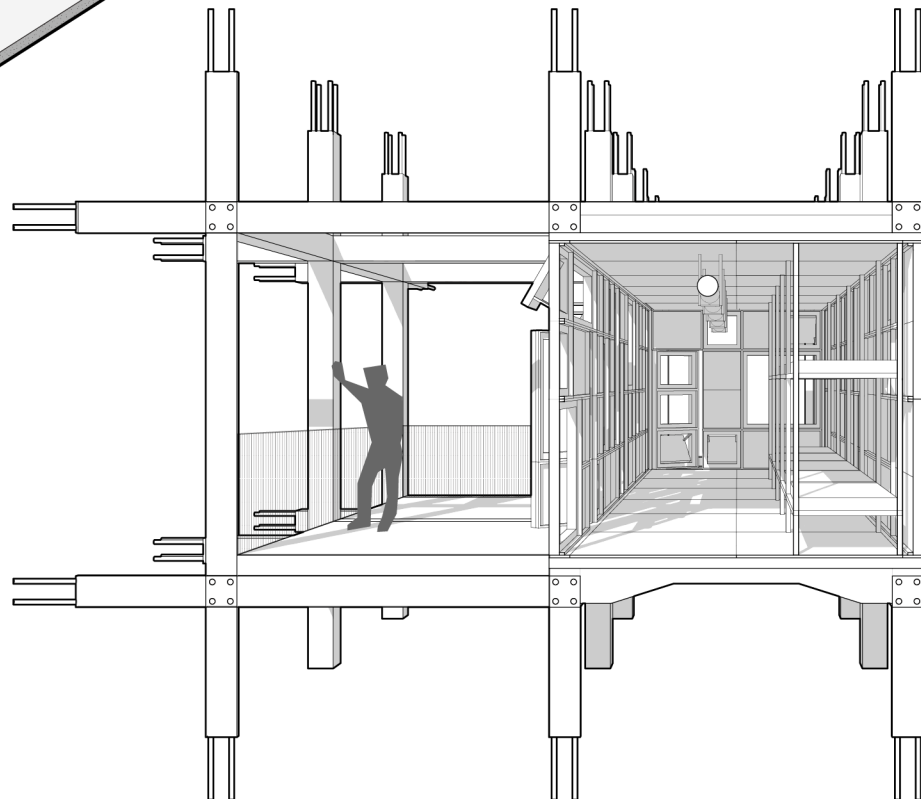
interior / exterior

- 09 - BLUE conditioned interior space
- 10 - WHITE exterior unconditioned space

rain / water management

- 11 - module rainwater drainage system
- 12 - semi-permeable pavement for water retention

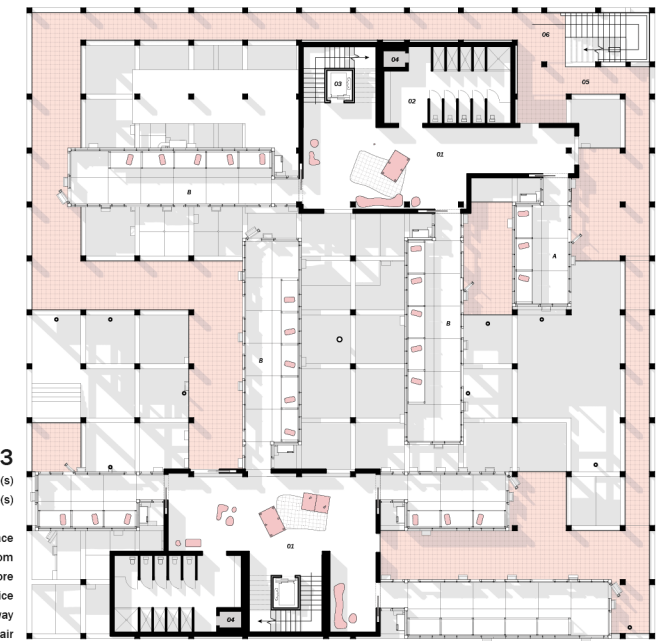
- cast in place structural concrete - 01
- continuous insulation - 02
- concrete panel with internal vapor barrier - 03
- ceiling mounted HVAC duct - 04
- precast concrete column and beam - 05
- cast in place balcony slab - 06
- precast module bearing concrete truss - 07
- concrete slab with corrugated sheet metal - 08
- continuous module insulation - 09
- precast concrete module floor panel - 10
- operable precast concrete ventilation panel - 11



LEVEL 03

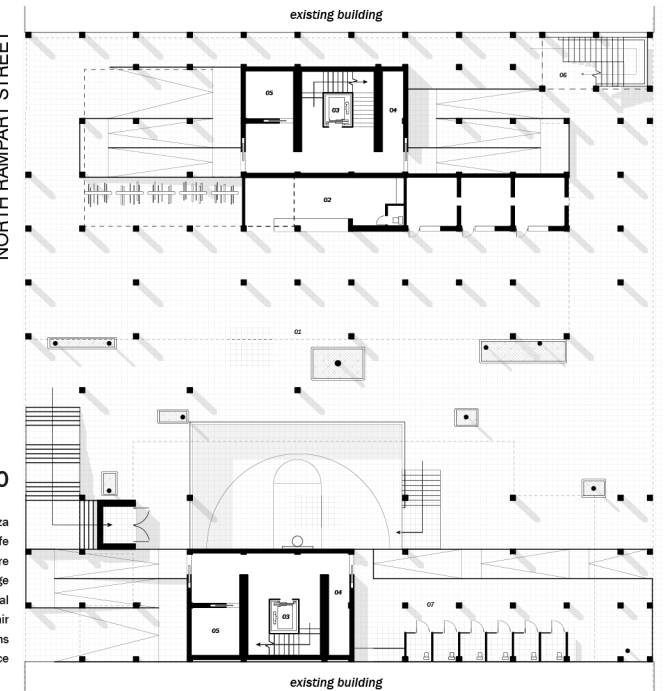
- A 3X module(s)
- B 3X module(s)

- 01 shared space
- 02 shared bathroom
- 03 vertical core
- 04 service
- 05 egress walkway
- 06 external fire stair



LEVEL 00

- 01 public plaza
- 02 covered bar / cafe
- 03 vertical core
- 04 service / storage
- 05 mech / electrical
- 06 external fire stair
- 07 public bathrooms
- 08 vendor space



00 URBAN FRAMEWORK FOR TEMPORARY LIVING

This page illustrates the details and design choices made throughout the URBAN FRAMEWORK. The two plans above show the open accessible ground level with its public program and raised cores up above the floodplain, and then level 3, which is typical of all upper levels.

On level 3, there are 10 and 6 person rooms, shared spaces, communal bathrooms, and external terraces which connect both towers and provide access to an external fire stair. The other drawings on the page examine the FRAMEWORK itself and how the rooms and conditioned spaces exist within it.

Each sleeping unit is supported by pre-cast trusses which rest on the FRAMEWORK. A modular and operable facade system works in combination with integrated mini-split HVAC systems, while the cores and other interior spaces run off of a standard split system.

Rainwater drainage is handled on an individual basis by each module. Their roofs slope inward to collect water, it is then piped externally down to the ground level for retention to minimize load on the city's infrastructure. Similarly each unit has its own electrical hookup which runs down to the ground.

01

HUTS

JUNIOR DESIGNER /

PROJECT COORDINATOR

[date]

Jul 2024 - Present

[location]

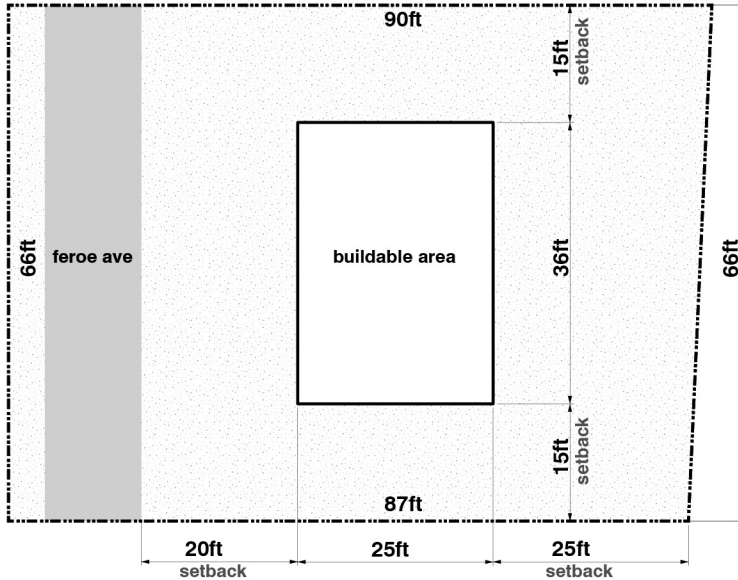
New York

Working as a junior designer / project coordinator at HUTS, an architectural design and real estate development company operating in the Catskills region of New York, I worked on multiple projects and helped to jump-start new studio initiatives. The Break House, shown to the right is an example of a typical project. It was recently completed and designed prior to my employment with HUTS.

As a member of HUTS I performed zoning research, aided with schematic design & participated in design charettes, traveled to document construction & monitor progress, and helped connect HUTS with new vendors and contractors. Simultaneously I also helped the studio with the development of an affordable starter home.

code & zoning analysis & review

When I first began working at HUTS, determining code and zoning requirements was an early step in the development of any new project. This process often took longer than expected, as many small towns in upstate New York make it challenging to track down all the necessary information. In an attempt to streamline this process, I compiled all relevant information from previous and current projects into a single spreadsheet. Using Airtable, a cloud-based project management tool, this database can easily be sorted and applied to new projects,



The towns currently in the database are:
Ancram NY, Asheville NC, Bethel NY, Bovina NY, Calicoon NY, Clinton NY, Cochecton NY, Delaware NY, Denver NY, El Dorado CA, Fremont NY, Germantown NY, Hillsdale NY, Lumberland NY, New Paltz, NY, Peru VT, Portlant NY, Rhinebeck NY, Rockland NY, Stockport NY, Tivoli NY



project

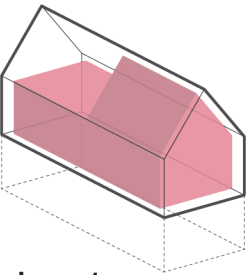
documentation

Using a drone and camera I traveled upstate to monitor progress on various projects in different stages of construction. In addition to providing clients with updates I also interacted with various contractors working on HUTS projects, allowing me to gauge both how the current project was going and their interest in future HUTS projects.

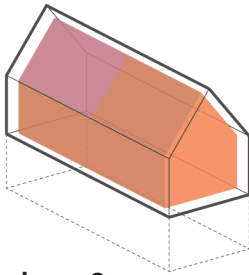


starter-home development

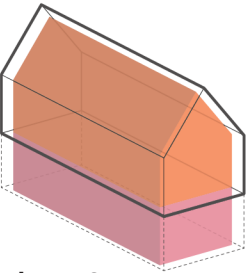
HUTS is built on reducing unnecessary cost and expediting the construction process while providing good design. Because of this we felt uniquely positioned to provide a take on the classic starter-home. People often buy their first homes knowing they'll outgrow them, a waste of time and money. A phased alternative, shown below, aims to avoid this and promote permanent ownership. Variations of the initial phase are shown to the right.



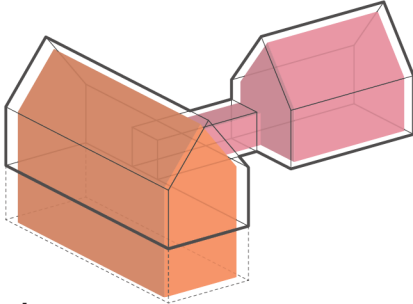
phase 1
2 people
750 SF
1.5 bedrooms, 1 bathroom
WFH space
Unfinished attic / basement



phase 2
3 people (2 adults + baby)
925 SF
2 bedrooms + 2 bathrooms (new one upstairs)
Attic space is finished
3 - 5 years after initial move in



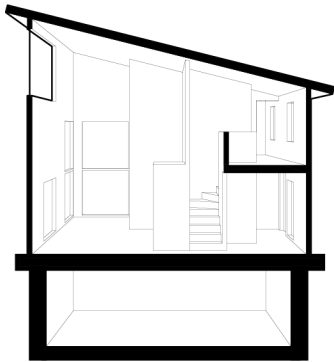
phase 3
4 people (2 adults + 2 kids)
1675 SF
2.5 bedrooms, 2 bathrooms
Basement is finished
New play space / den + dedicated office
750 new SF of basement space



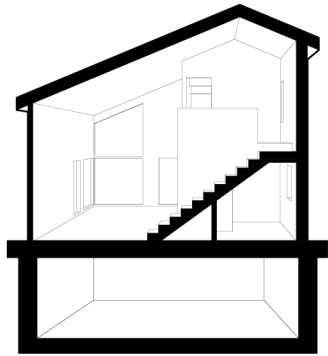
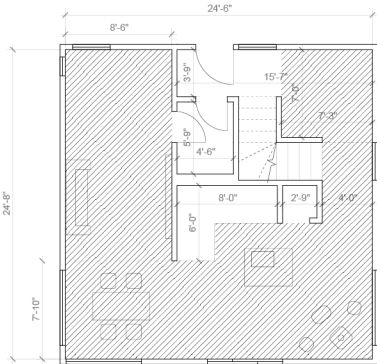
phase 4
4 person family + in-law suite (2 ppl)
2275 SF
3 bedroom, 3 bathroom
New addition
+/- 10 years from completion of Phase 3
(+/- 15 years after completion of Phase 1)

starter-home layouts & specs

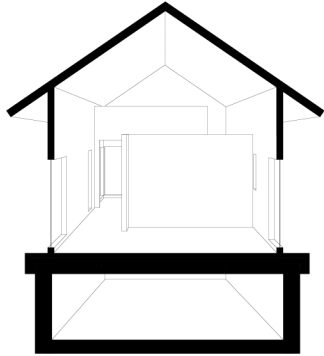
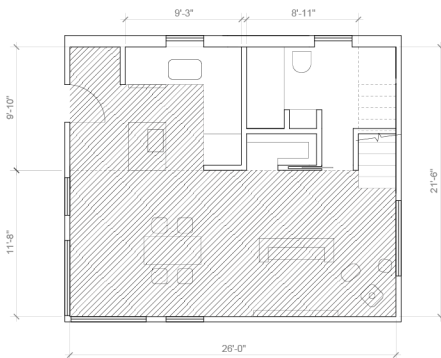
Each layout features 1 bedroom and at least 1 other multi-purpose loft space. Hatched areas represent public spaces which can easily be reconfigured or expanded upon by the removal of walls or through the construction of additional spaces. Each layout is intended to adapt to the changing needs of an expanding family. Shown below is the living / kitchen space in the double lofted scheme.



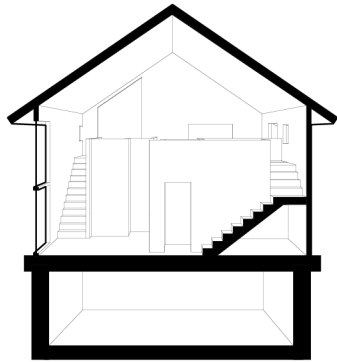
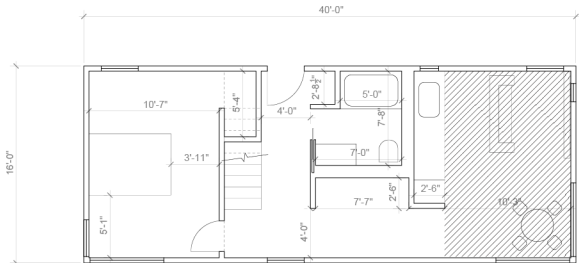
**central-core
starter scheme**
2 people
820 SF
1 bedroom
lofted WFH space
mech room
1 bathroom
unfinished basement



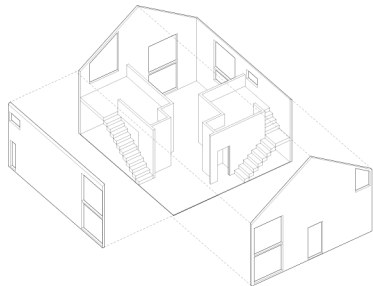
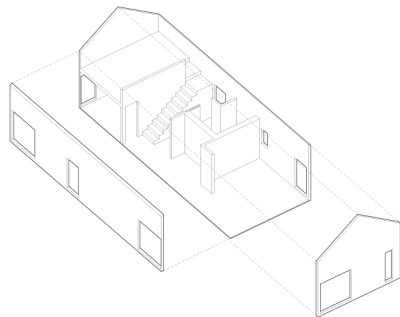
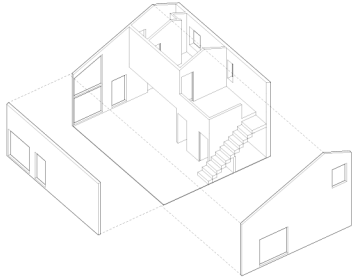
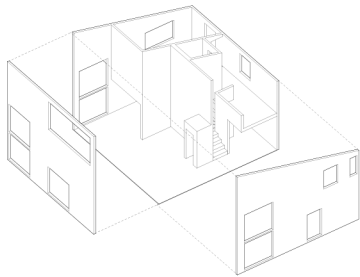
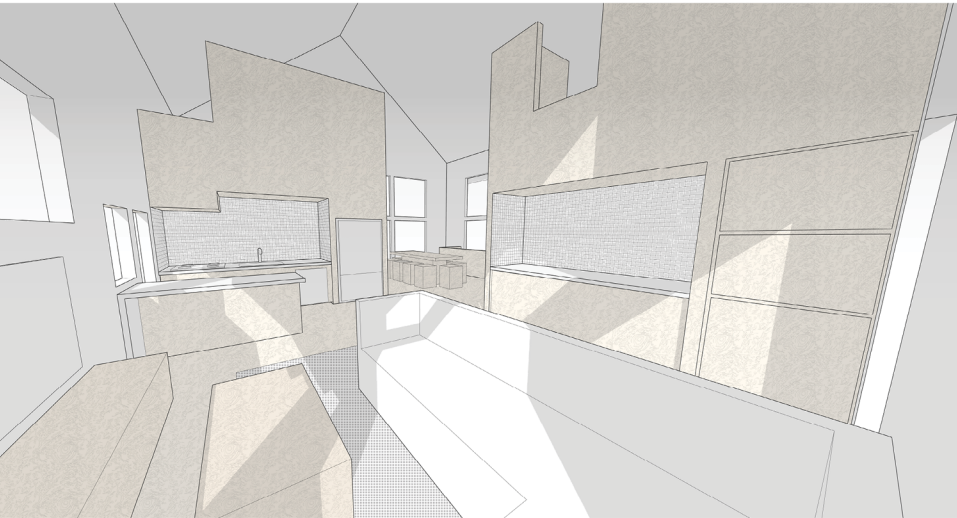
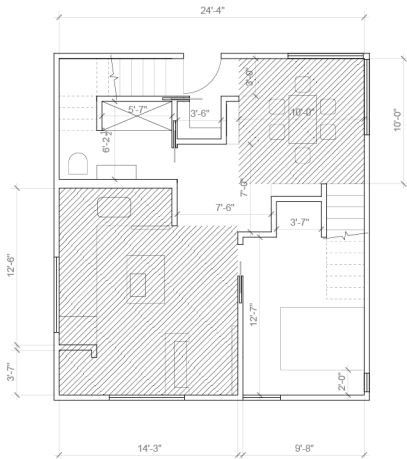
**side-loaded
starter scheme**
2 people
750 SF
1 bedroom
lofted WFH space
walk-in-closet
1 bathroom
unfinished basement



**hut standard
bar scheme**
2 people
750 SF
1 bedroom
lofted WFH space
walk-in-closet
1 bathroom
mech room
unfinished basement



**double-loft
starter scheme**
2 people
815 SF
1 bedroom
2 lofted WFH space
1 bathroom
unfinished basement



02

STEM LIBRARY LAB INTERIOR RENOVATION

As a member of Tulane's Small Center design/build team, I worked with STEM Library Lab and my classmates to redesign and build out the interior of their warehouse-style lending library for STEM equipment. The Small Center provides design services to those who may not have access to them otherwise. The reworked space creates a welcoming entry, organized lending, expanded programming potential, collaborative work spaces, and storage and kitchen facilities.

[professor(s)] Emile Taylor-Welty + Charles Jones
[project location] Metairie, LA
[school and year] Tulane, graduate school, 2022
[role] team member

The completed project provides a bright and engaging entryway and front desk for material rentals, expanded event and collaborative work space, and functional spaces including storage and kitchen facilities. Warm and creatively deployed materials create a welcoming environment for staff, teacher clients, and other visitors.

In order to maximize the project's impact, the design team divided the space into three zones — entry, lounge, and print center. Each zone is connected through careful material choices, patterning, and a rope installation that guides visitors through the space. Full-scale material testing and mock-ups were created to ensure the novel and experimental aspects of the interior installation would be achievable, sustainable, and meet proposed project goals. Found below are photos of the SLL prior to our design intervention.



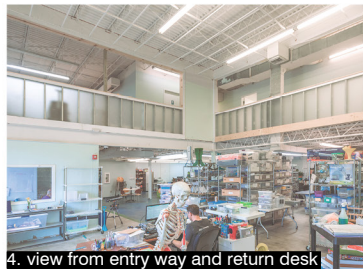
1. exterior view from the parking lot



3. multi-purpose teachers lounge area



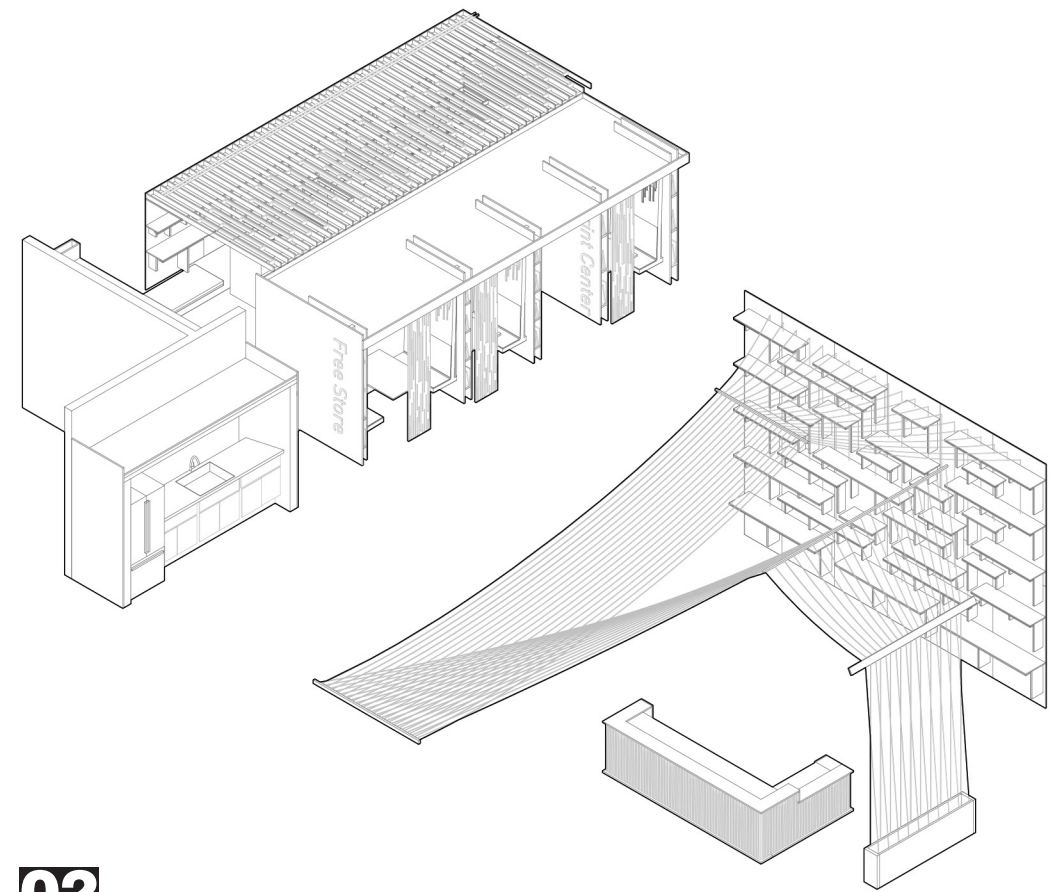
2. stacks with borrowable stem resources



4. view from entry way and return desk

All photos taken by Jose Cotto a faculty member at the Small Center

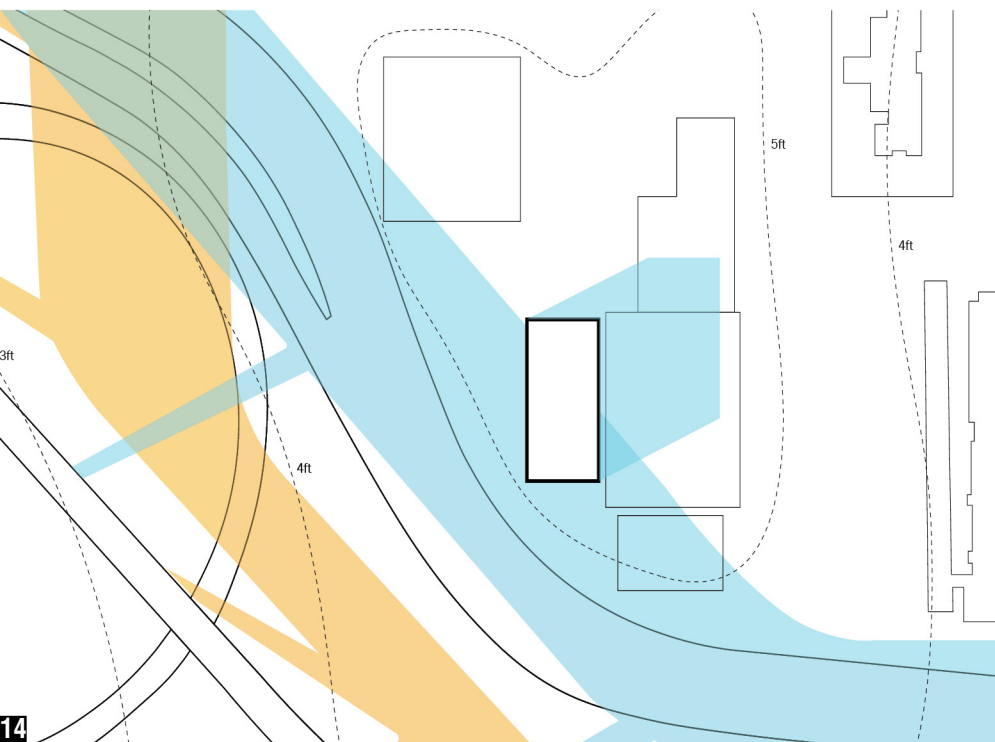




02 STEM LIBRARY LAB

The axonometric drawings above by Jose Varela depict the different parts of the complete project. The entry space is anchored by a large desk that acts as a workspace and circulation desk where teachers check out items. A double height storage wall emphasizes the tall ceilings and showcases various STEM items that can be found throughout the stacks. The lounge consists of a kitchen area with a movable island and a series of booths that provide individual and group meeting spaces with more privacy. The milled pattern found throughout evokes STEM based images such as sound waves and DNA.

Also shown on this page is a site plan with summer and winter shadows cast across the site. This is important because the library lab's primary facade faces south and the amount of natural sunlight entering the space varies greatly depending on the time of day and year. During the colder months, the nearby expressway on-ramp casts a large shadow across the site; we thought we could combat this by using a material such as high quality plywood, which emanates natural warmth. The photos below show the use of the material throughout the kitchen, booths, and print lab.



03

PASSIVE HOUSE

A TINY HOME FOR GOOD

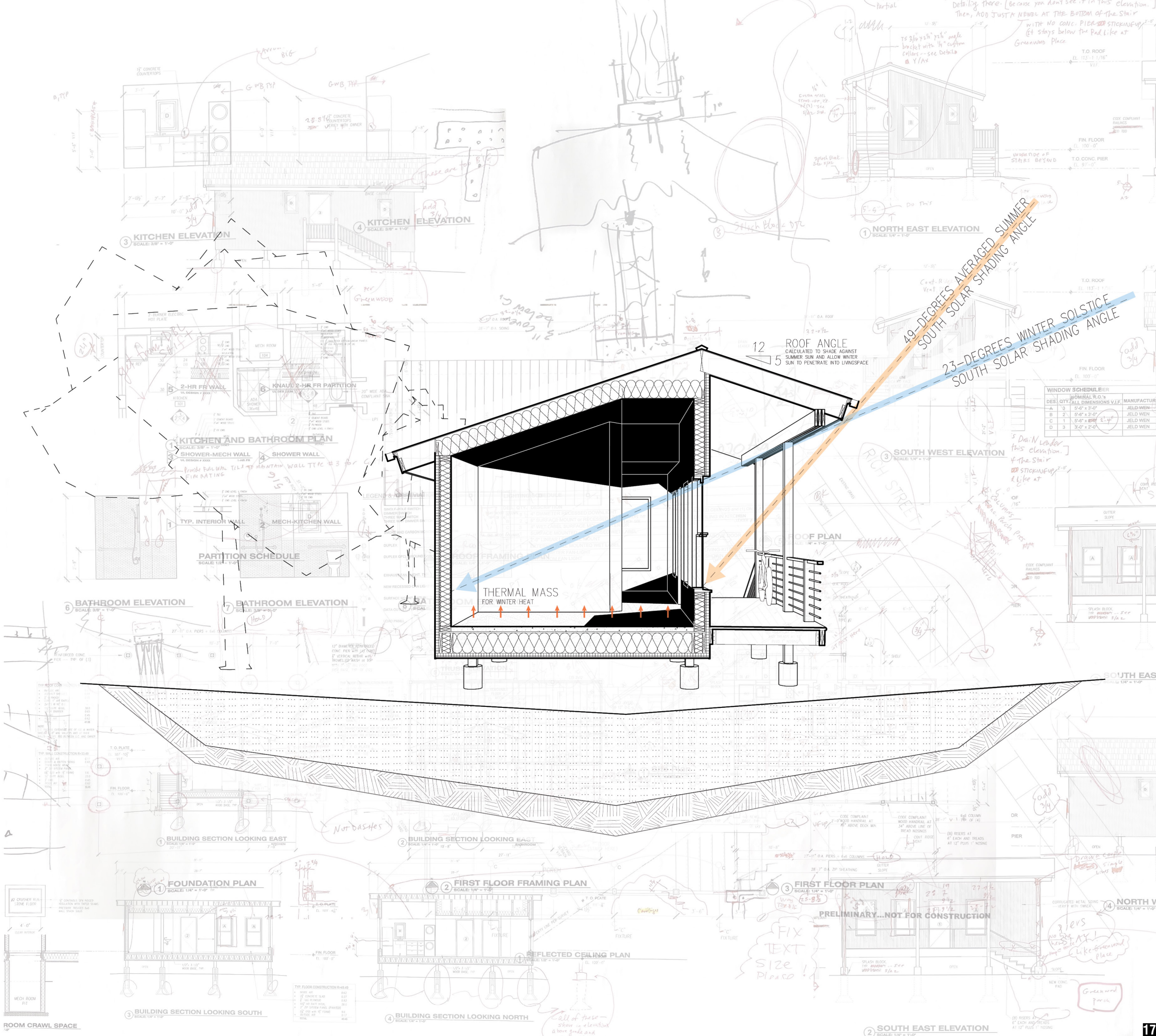
Working with architect / professor Bradley Wales and his small built works program, I competed to design a small 360sqft house which could be built for less than \$50,000 in Syracuse, New York. A non-profit, A Tiny Home For Good, had agreed to build the three most viable designs on a parcel of land gifted to them by the city. Their organization helps provide homes for homeless people and equips them with the skills and tools necessary to live independently. My design, the passive solar house, was selected to be built on the southern edge of the site. Its design would also inform that of the middle house, double shift, a mirrored aggregation of the passive house. The third house, located on the northern edge of the site, features a lofted sleeping area and was designed by other fellow classmates in the program. Following the design process we grouped up to better manage the work load associated with producing a set of construction documents.

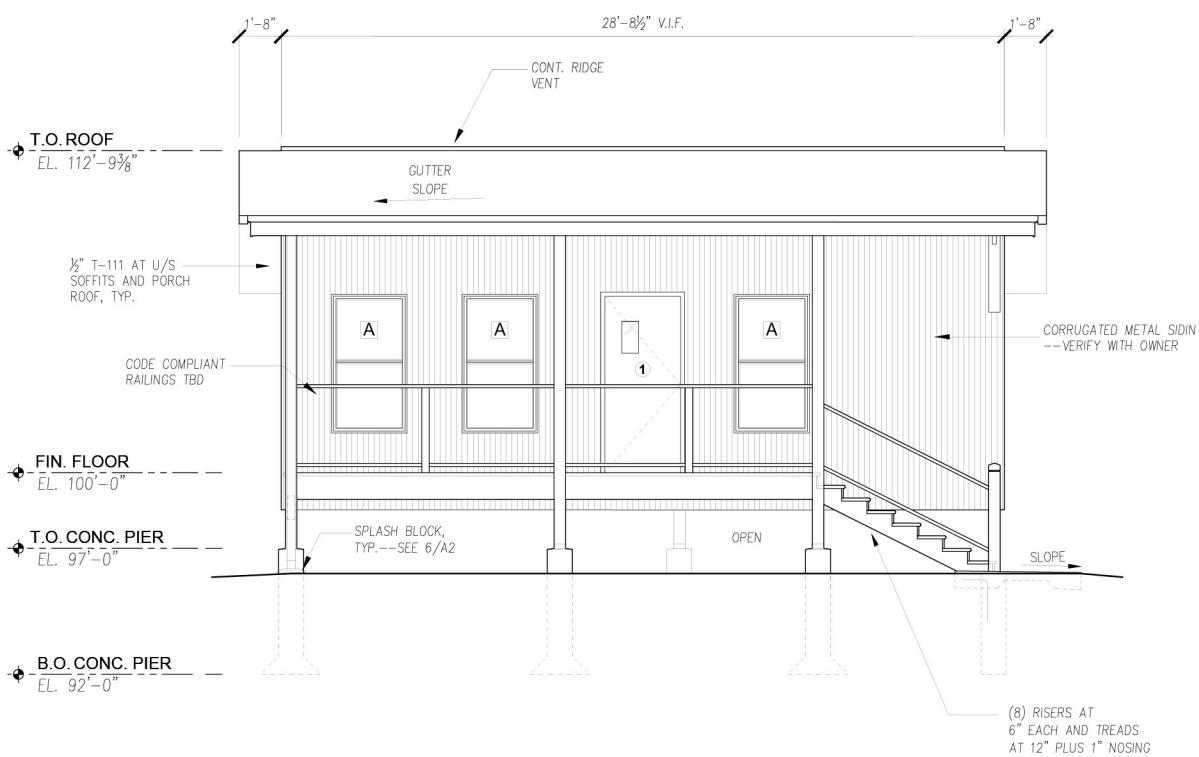
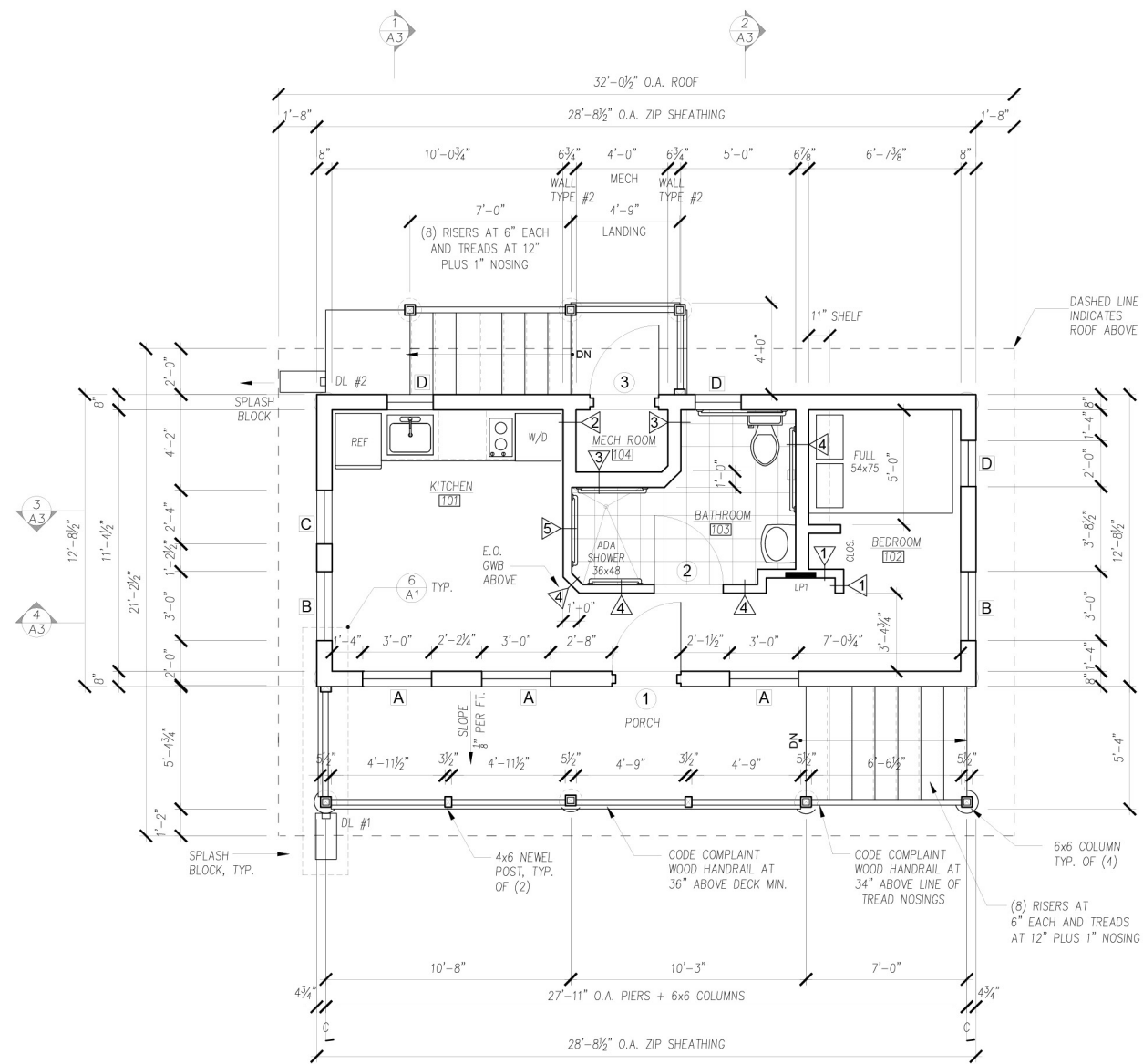
[professor(s)] Bradley Wales
[project location] Syracuse, NY
[school and year] Buffalo, senior, 2021
[partner (s)] Juan Romero Vazquez + Lauren Herran + James Herlihy + Mike Martinovic

The diagram to the right explains the concept of the building: the passive house faces south, with large windows along the porch underneath a roof pitched to allow winter sun through while blocking direct sunlight in warmer months. This choice minimizes the need for cooling in the summer, and heating in the winter. Thanks to a sponsorship with Nation Grid, photo-voltaic panels absorb energy on the roof and further reduce energy use. Three main spaces exist within the house, a bedroom, a bathroom, and a multipurpose living space which includes the kitchen. The layout of these spaces creates a dedicated entryway without using up square footage or forcing the resident to enter through an already programmed space. All three houses are shown below in a photo captured by Jack MCGowan.



Our set construction documents were red-lined (shown to the right) before being submitted for approval. During the construction process, slight changes were made to the passive house to cut cost. The initial facade, which was made of corrugated sheet metal and is shown in the construction drawings, was replaced with more typical vinyl siding. The following page contains additional photos and final drawings.





View of the porch showing its south-facing windows, roof overhang, and updated vinyl siding



Ribbon cutting ceremony with A Tiny Home For Good, students, and National Grid



Initial Rendering of the passive house, clad originally in corrugated sheet-metal which left the structural footings and crawl space under the house exposed



Aerial drone view of the entire Rich Street site showing the two neighboring houses. The new sidewalk, parking spaces, and solar panels can also be seen.

All photos taken by Jack McGowan and A Tiny Home For Good

04

230 STACK AFFORDABLE APARTMENTS

230 STACK is an affordable housing complex located within the gutted old Iroquois brewery at 230 Pratt street, and across the street at 270 hickory street. Modular stacked dwellings are dropped in by crane into the gutted building and form a freestanding structure on the adjacent site. The shape of the modules and their orientation create public “streets” within the building on each level. Adjacent to these streets are both private and public terraces which function as front yards for the residents of 230 STACK

[professor(s)] Orkin Ozay + Nicholas Bruscia
[project location] Buffalo's east side, NY
[school and year] Buffalo, senior, 2021
[partner] Juan Romero Vazquez

Before the design began, we were tasked with analyzing the old Iroquois Brewery located at 230 Pratt street with the intention of modifying the building into a community hub featuring both public program space and a high density of affordable apartment units. To benefit the community, former clerestory factory space becomes an open air farmers market. In addition to this, we also had to preserve the facade of the historic building for tax reasons. Over the course of the semester we performed an analysis of the existing structure, and used that research to inform our design choices. The following pages contain drawings and documentation of the existing building and a final set of drawings for 230 STACK.



IROQUOIS BREWERY

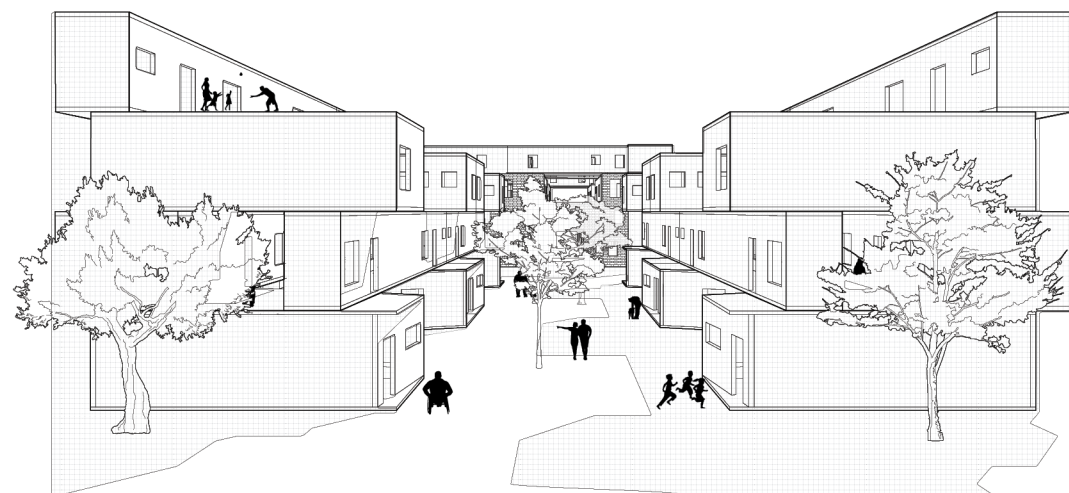
Constructed around 1892 by Jacob Roos, the brewery was one of the first in Buffalo and the first to brew a lager in the area. Our design preserves the building's facade, which is in good condition. In addition to photographs, we compiled a complete set of drawings which covered spatial qualities and structural systems. This process revealed multiple conflicting structures and methods, a result of numerous renovations and additions over the years.

All photos taken by Riley Sittler during a visit to the site





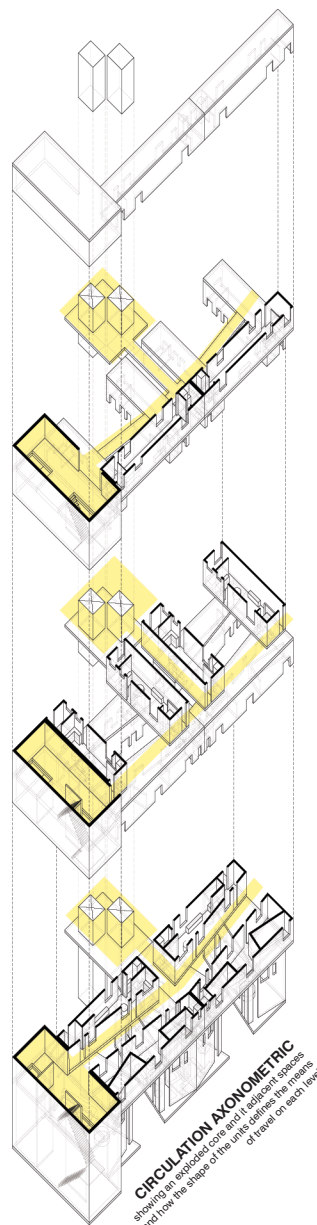
ASSEMBLY SECTION PERSPECTIVE
after being assembled on site, the C.L.T. units are craned into position around their respective site cast concrete cores. The walkways that span the gaps are installed last and define the buildings circulation



HICKORY STREET PERSPECTIVE
a cut through the site towards 230 Pratt street reveals the original building, a central courtyard, and the free standing modular apartments on hickory street



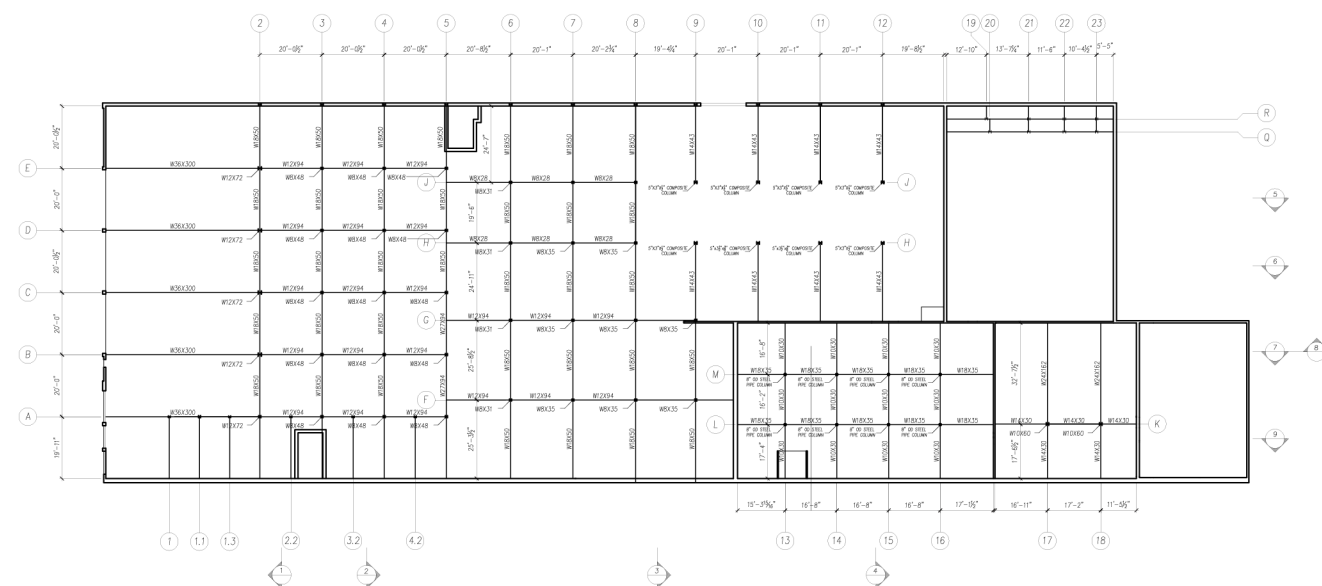
GROUND FLOOR PLAN
showing 15 studio units, 15 2-story 2-3 bedroom units, the public market space, and modules on adjacent hickory street site



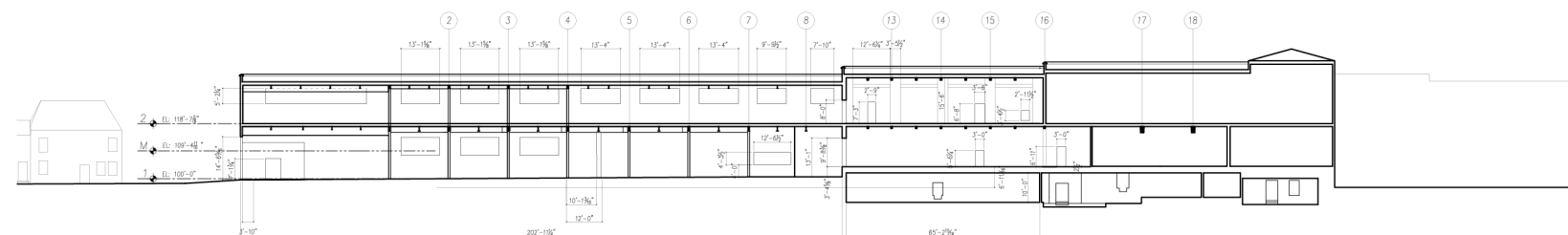
CIRCULATION AXONOMETRIC
showing an exploded core and a network of walkways, stairs, and ramps to define the shape of the building and the flow of travel on each level

04 230 STACK

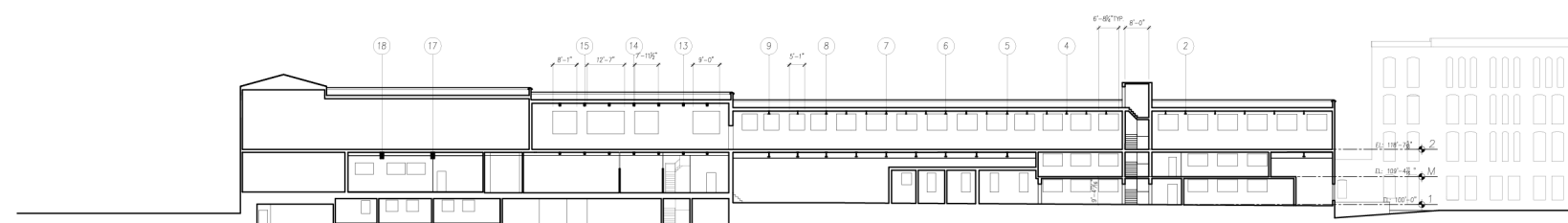
230 STACK'S spatial qualities and method of construction are illustrated on this page. Courtyards are formed through the stacking of masses (seen on the ground floor plan), which create additional circulation shown below in an exploded axonometric of a core and its adjacent spaces. On the nearby Hickory Street site circulation functions similarly, where the stacking of units creates unique hallway conditions. Because the modules on Hickory Street are free standing, the stacking methodology creates unique views. Shown on the next page to the right are a series of sections and a plan which detail the structure and composition of the existing brewery, completed by a group of my peers.



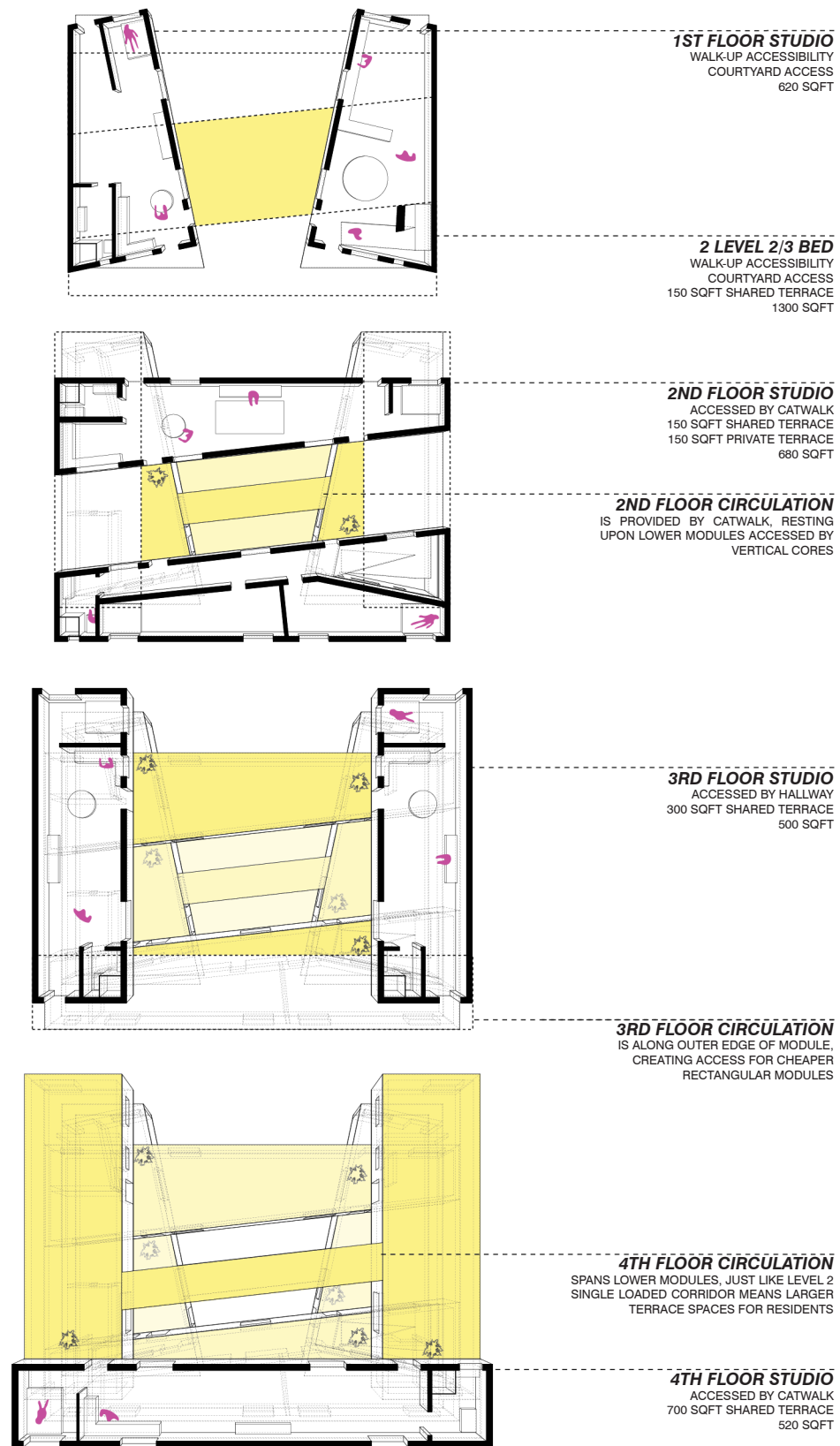
LONGITUDINAL SECTION 8 LOOKING WEST
SCALE: $\frac{1}{32}'' = 1'-0''$



LONGITUDINAL SECTION 9 LOOKING EAST
SCALE: $\frac{1}{32}'' = 1'-0''$



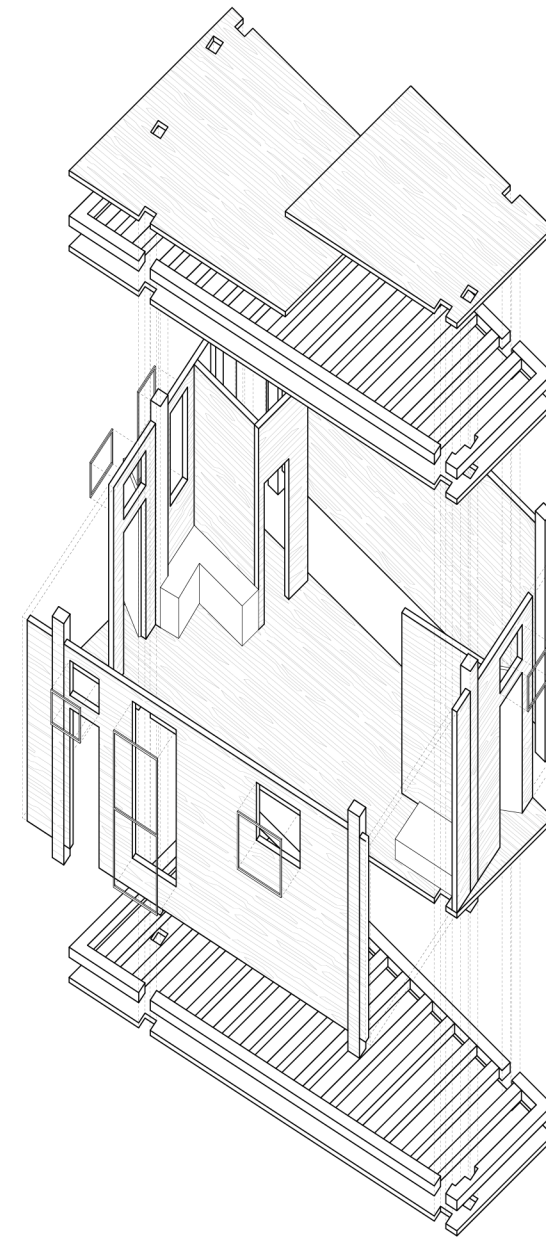
TRANSVERSE SECTION 1 LOOKING SOUTH
SCALE: $\frac{1}{32}'' = 1'-0''$



04

MODULAR SPACES

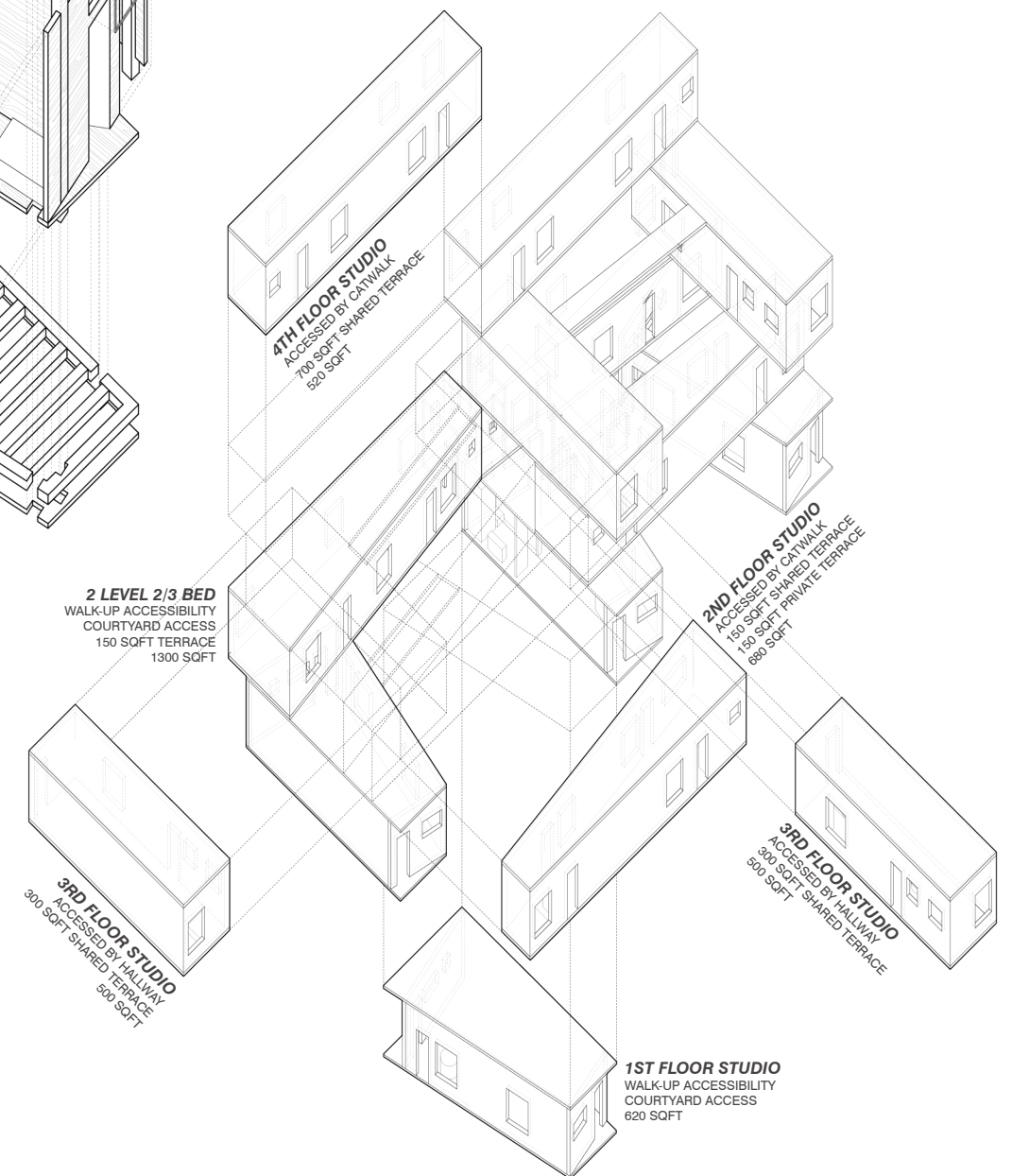
The one-hundred-and-twelve units that exist on the site are of four different types. The first two floors feature sheared quadrilateral shaped dwellings that help to widen public spaces and allow light in from above. On the second floor, this shape determines the hallway's geometry and creates a switchback catwalk path. Because of the overlap between the first and second floors, certain modules can be combined to form a large two-level unit. On the third and fourth floors, the units are shaped rectangularly to cut costs since they no longer affect the public spaces below. The shared spaces created by this stacking facilitates neighbor to neighbor interactions. The arrangement of units into blocks around a central courtyard also promotes this concept. These clusters help to make the dense arrangement of units read as less-so.



04

CONSTRUCTION AND ARRANGEMENT

These two drawings show how the apartments themselves can be easily built off-site and then dropped into place. The unit shown on the left is a first floor studio. If needed this module can connect to a second floor apartment for additional space. The axon below shows the 4 different kinds of module and the 5 different sizes of apartments they can create. The stacking methodology reveals spaces for circulation



05

URBAN BUILD 19 PREFAB MICRO-HOUSE

URBANbuild is Tulane's year long award-winning design-build program. I joined the team in the spring, after a design had already been chosen for construction. This design would change and adapt to the site in the lower ninth ward.

We partnered with Louvis Services, a nonprofit organization committed to decreasing homelessness by providing accessible housing and comprehensive care to support a comfortable life for individuals without a home. The modular nature of the house lends itself to rapid construction and adaptability to different sites, both useful for building in the lower ninth ward, a neighborhood in desperate need of new residential construction.

[professor(s)] Byron Mouton, Hugh Jackson
[project location] Lower Ninth Ward, New Orleans, LA
[school and year] Tulane, grad school, 2024
[team] Isabel Baum, Ben Brimer, Brendan Cook, Clair Fisher, Sarah Fisher, Sabrina LaFaye, Noah Lion, Ryan Russell, Elliot Slovis, Yi Wei, Kuangji Zhang

The house was first assembled at Tulane's Small Center (see 01) as we completed our set of construction documents and awaited building permits. This process allowed us to resolve details, change conditions, and improve designs in real time. Because we were building inside, permitting issues that might otherwise slow down a project were not an issue. It took 7 weeks to construct the house the first time, make a CD set, and receive permits. It took 6 additional weeks to transport it, prep the site and pour foundation, reassemble the house, and perform all of the finish work.



In plan, the house is relatively simple, featuring a living / kitchen space, a bedroom, bathroom, and screened in porch with exterior sliding shutters. A custom wall that divides the bedroom and the living space also houses ductwork and plumbing. The proximity of the screened porch to the living space allows it to function as an extension of the interior. For insurance reasons and flood protection, the house is raised up off the ground. A stair leads to a landing, which also functions as a public street facing porch. This is more in line with how people in New Orleans use their porches when compared to the private screened-in area. The following pages contain a drawing showing the details of the building and images from different stages in the construction process.





05 URBAN BUILD 19 details & assemblies

1 - cementitious fiber board exterior cladding

The pattern of external panels conforms to the placement of windows and doors. It also emphasizes the subtractive void of the screened porch. The dashed red lines mark where wood framed panels are and illustrate how the overlap of the fiber board helps to minimize shearing forces.

2 - prefabricated wood framed wall panel

Highlighted in red is a prefabricated wood framed panel. Its outer studs are screwed and nailed into the outer studs of adjacent panels. The bottom plate is screwed into the subfloor and a second top plate connects it with nearby panels. Electrical boxes, rigid insulation, and a zip system sheet are attached prior to final installation.

3 - zip system panel

The zip system replaces a wrappable vapor barrier such as Tyvek, lending itself to prefabricated construction. Full sheets are used when possible, the highlighted panel is too tall, so an additional piece of zip is cut and installed.

4 - ikea cabinetry

Provides attractive and economical storage in both the kitchen and bedroom. The tops of the cabinets support a wood butcher block counter top.

5 - interior plywood sheathing

Instead of drywall Lauan plywood sheathing is used. It allows for the house, with its interior finish, to be constructed and then disassembled and transported.

6 - pile and pile cap

40 foot wood piles are driven into the clay heavy soil. A rebar reinforced concrete pile cap is dug out and poured on top of the wooden piles. The pile cap bears the load of the house above.

7 - screened porch

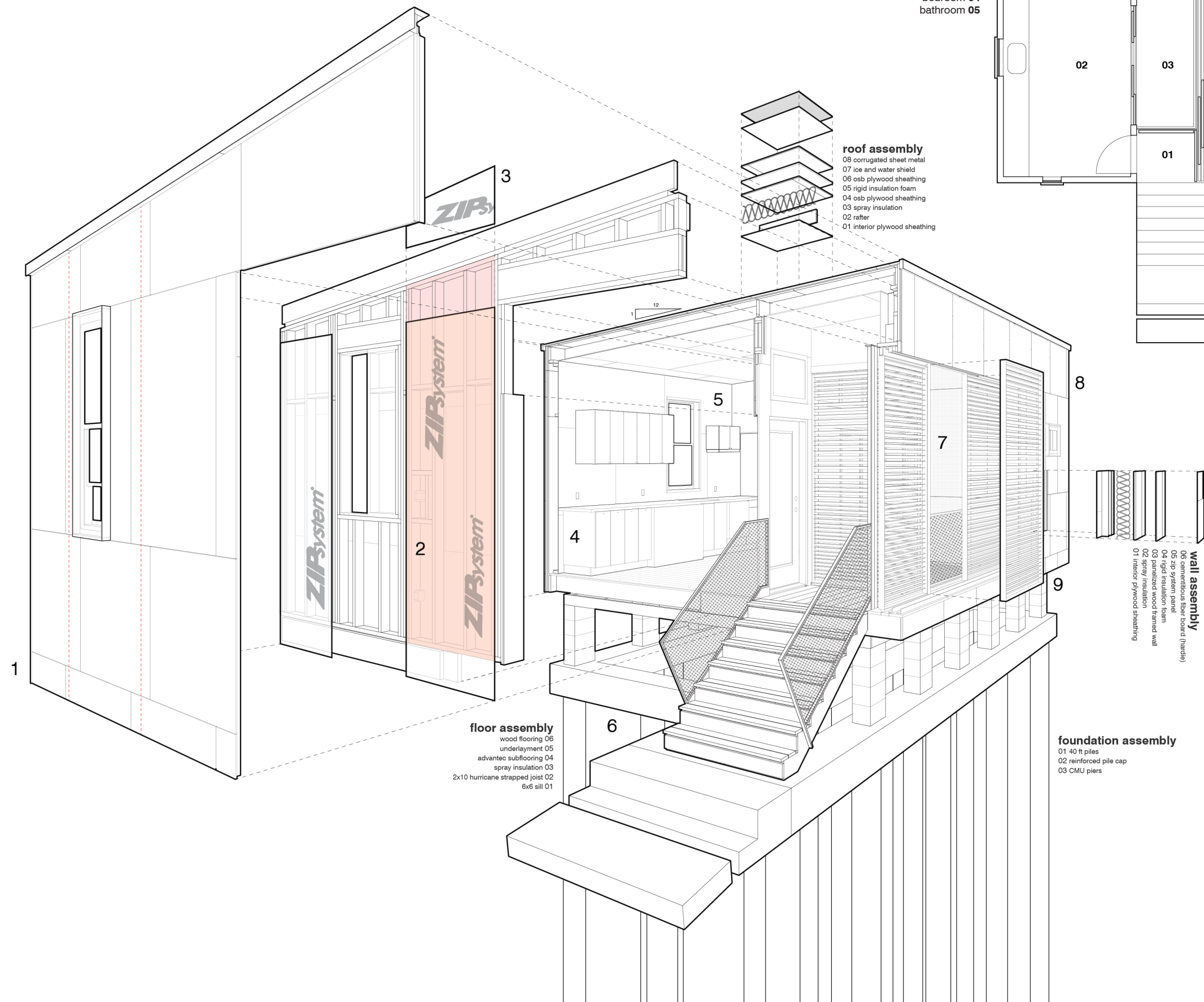
The screened-in porch opens directly into the living / kitchen space. With the door open the living space expands and makes the house feel larger than it is.

8 - operable metal shutter

Outside of the screened porch are two operable aluminum shutters. They offer protection during intense weather and can fully close to make the porch more private.

9 - CMU pier

4 runs of concrete filled CMU blocks are stacked on top of the pile cap. They offer protection from flooding and help to lower the cost of insurance.

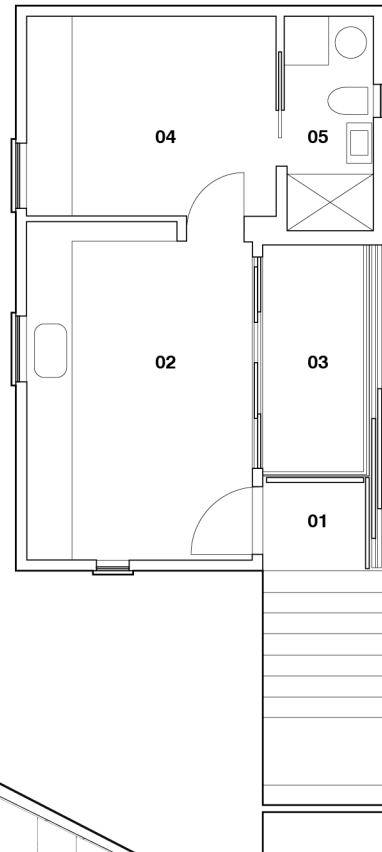


05

diagrammatic plan

This plan shows the different spaces and their relationships within the house

public porch / landing 01
living / kitchen space 02
private screened porch 03
bedroom 04
bathroom 05



roof assembly

08 corrugated sheet metal
07 ice and water shield
06 osb plywood sheathing
05 rigid insulation foam
04 osb plywood sheathing
03 spray insulation
02 rafter
01 interior plywood sheathing

wall assembly

06 cementitious fiber board (hardie)
05 zip system panel
04 rigid insulation foam
03 prefabricated wood framed wall
02 spray insulation
01 interior plywood sheathing

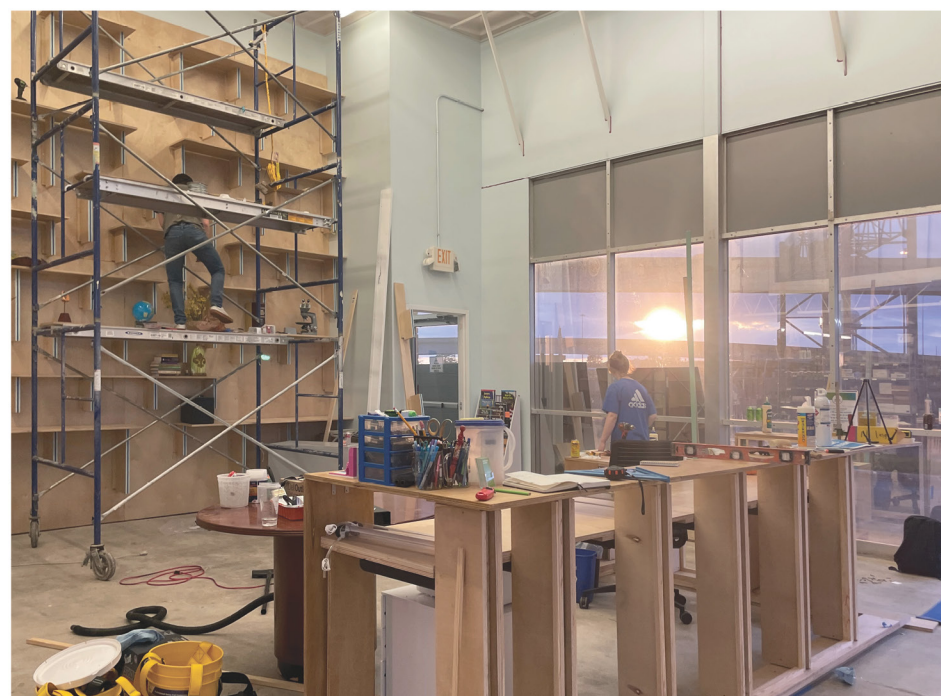
foundation assembly

01 40 ft piles
02 reinforced pile cap
03 CMU piers

06

construction / woodworking

1. roof deck in downtown manhattan
2. welding at the small center
3. booth building at the small center
4. custom storage loft
5. stem library lab construction
6. cob construction arch
7. welded rebar frame
8. firepit construction



07

projects / hobbies

1. sailing off of the maine coast
2. pulling a 1972 bmw engine
3. working on bikes in nyc
4. going for a ride in buffalo
5. mopeds in storage
6. setting the timing of an mg
7. more maine sailing
8. firepit construction
9. working on some yamahas
10. riding mopeds out in long island
11. hitting the track in a 75 bmw



