ROB WILLIAMS

AIA, CPHC
ASSISTANT PROFESSOR, UMASS AMHERST

"Robert has been one of the best teachers that I have had in this department. He makes the classroom an awesome experience for students to be in and ask questions."

"Rob is always willing to help and advise students to become a better version of themselves. He is truly amazing. I appreciate his passion to helping students and promoting a comfortable environment for students."

"His teaching style is extremely effective, he's very good at engaging students, and he is very kind and understanding. Students want to do well in his classes because you can tell he cares about us, as well as our futures in architecture. He is passionate about what he does, and he is an incredible instructor."

"Rob was very engaging, and took time to have close interactions with students. I enjoyed the real life architecture examples he included and, finally, learning skills that have completely changed my approach to architecture."

"Throughout the semester, Rob was highly responsive to the needs and experience levels of his students. He [...] offered us useful advice during our worktime that allowed us all to be successful if we put in the effort to do so."

"Rob is a great instructor and person. He is passionate about teaching and helping within and beyond his specific course. He is straightforward and honest with the class, and [...] truly seems to respect the students he works with."

- Anonymous student comments in course evaluations; multiple courses, 2019-2022.

As an Assistant Professor in the Department of Architecture at the University of Massachusetts, my teaching centers on sustainability and the integration of building technology with design. Following nearly a decade of professional experience as a practicing architect with small, forward-thinking architecture and design-build firms, I possess expertise in high-performance, low-carbon residential architecture and a profound commitment to architecture's role in addressing global climate change. My teaching and research stem from this practical background, aligning academia with practice and ethics with action.

The discipline of architecture is undergoing radical transformations. Effective climate change mitigation requires that the building industry rapidly decarbonize on a path towards net-zero carbon emissions by 2050. Decarbonization represents one of the most profound technological and cultural shifts in the building industry since industrialization. Coupled with swiftly evolving technology, these pressures stand to transform all aspects of architectural practice, from materials to construction and fabrication techniques to the tools of architectural production itself.

Empowering students to be active participants in the decarbonization of the building industry requires a shift away from the traditional separation between building technology and design within both professional practice and academic discourse. Instead, I advocate for an integrated approach that views technology and design as mutually beneficial and opportunistically entwined. Critically, this shift invites us to see the transition to net-zero carbon not simply as a set of technical challenges to resolve, but rather as rich territory for architectural expression, meaning, and invention. Hence, one of my primary goals as an educator is to equip students with the flexible, critical thinking skills necessary for them to emerge as impactful and ethical leaders shaping a more sustainable future.

These principles guide my pedagogical approach across the spectrum of courses that I teach. This ranges from introducing foundational environmental performance analysis in beginning design studios to advanced instruction in high-performance building envelope design in upper-level courses. While at UMass I have served on multiple curriculum development committees and I have led four curricular initiatives that are changing how building technology is taught in the department.

First, I am a co-founder of UMass DesignBuild, a new interdisciplinary program that brings together students from the Department of Architecture and the Building and Construction Technology program to design and build low-energy, low-carbon houses for a local not-for-profit affordable housing provider. This is a truly interdisciplinary program that prioritizes peer-to-peer learning between students with complementary skill sets while directly addressing issues of building performance, sustainability, and the housing crisis.

Second, I have collaborated with a colleague to redesign the two-course Comprehensive Studio sequence to focus more explicitly on the expressive and performative potential of technical details. The goal is to reframe technical resolution as an essential and generative component of the design process, particularly with respect to sustainability and carbon impacts. Third, during the past year I undertook a comprehensive redesign of Tectonics I – the foundational course in the department's building technology sequence. This course offers a functional and conceptual introduction to building technology through the lens of design, environmental performance, and carbon impact.

Finally, as a practicing architect and the faculty advisor for the department's Integrated Path to Architectural Licensure (IPAL) program, I actively support students transitioning from their academic programs into professional practice. Notably, I am the co-recipient of a nearly $30,000 FlexLearning grant to develop a series of flexible, asynchronous courses to aid students that are preparing for ARE exams.

The following portfolio showcases student work from these initiatives and related courses.

UMASS DESIGNBUILD

COURSE: Arch 690STA: DesignBuild DESIGN
TYPE: Elective, undergraduate and graduate
DATE: 2020-2022*; 2023
*interupted by COVID
ROLE: Co-Founder & Instructor
(with Carl Fiocchi PhD & Kent Hicks)

COLLABORATORS & FUNDING SOURCES*
UMass Department of Architecture.
UMass College of Natural Sciences
UMass Building and Construction Technology
Five College Architectural Studies Program
OneHolyoke Community Development Corporation

STUDENT COMPENSATION:
2020: 8 students received 3 practicum credit hours
2022: 12 students received 3 practicum credit hours
2023: 11 students received 3 elective credit hours (spring) and 8 practium credit hours (summer portion)

Background:

The UMass DesignBuild program is a new, innovative, interdisciplinary program that brings together students from the Department of Architecture, Five College Architetectural Studies and the Building and Construction Technology program to design and build small, net-zero energy and low-carbon houses for a community based not-for-proft affordable housing provider in a local municipality.

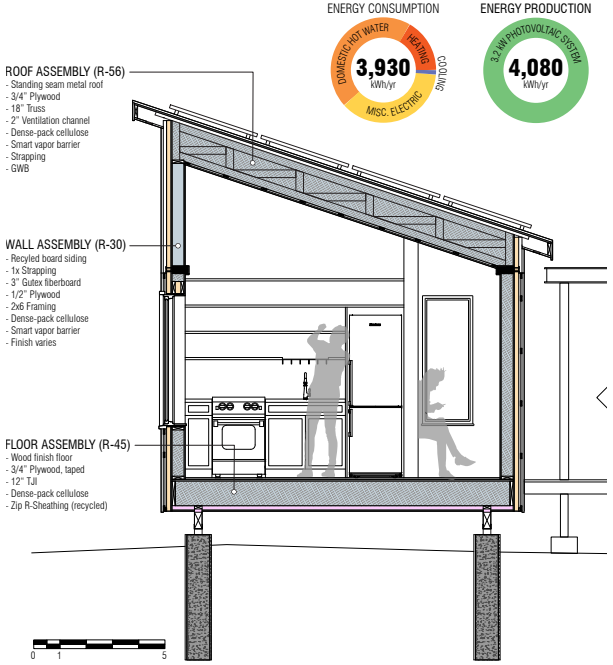
The program is motivated by two pedagogical imperatives:

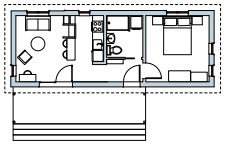
1. There is significant educational value in facilitating deep collaboration between the allied fields of architecture and construction.

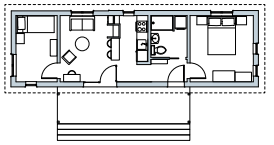
2. That housing is essential to the practice of architecture and is a productive nexus of critical contemporary issues: affordability, social and climate equity, and low-energy and low-carbon building.

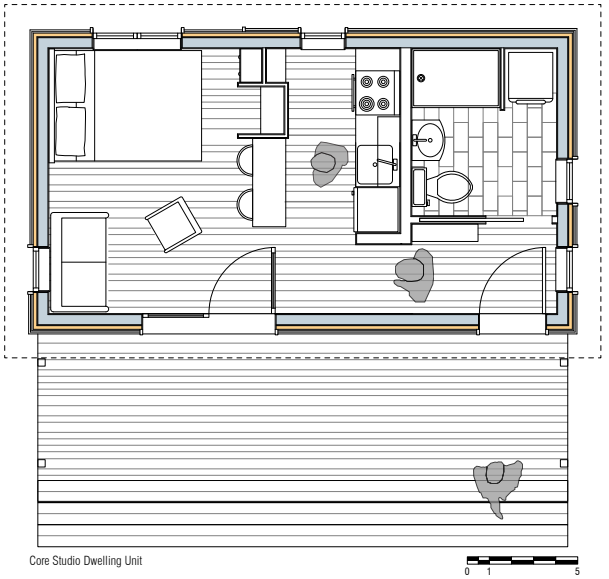
This is the first in-house design-build program at UMass Amherst, and is unique in bringing together architecture and construction management students to work across disciplinary boundaries. Students gain first hand experience with all aspects of design and construction from conceptual design to construction documents to framing and finish carpenty.

*A detailed list of all funding sources and donations can be found on the UMDB website: https://blogs.umass.edu/umassdesbuild/




One-Bedroom Expansion


Two-Bedroom Expansion



Core Studio Dwelling Unit

2020 UMass DesignBuild Design Course. Drawings and photographs by UMDB students and faculty.

2020/2022 UMass DesignBuild

For the pilot program (started in 2020 and delayed until 2022 because of COVID), the student teams designed and constructed a 350 square foot Accessory Dwelling Unit (ADU) for our community partner, One-Holyoke Community Development Corporation. The so-called "Hygge House" is designed for adaptability. It was built off-site, temporarily moved to serve as a stage at a local musical festival, and then moved again to a temporary site in Holyoke. The building is net-zero energy and includes innovative, low-carbon, biogenic, envelope assemblies.

"Having spent part of my childhood in insecure housing, it means a lot to be building a home for another. I feel extremely fortunate to have been a part of UMass's first design/build team. I am proud of what we built, and I look forward to following the Hygge House as it moves around the valley and eventually becoming someone's home."

"There are very few things in the world that I would trade for the experience of this practicum and certainly nothing so far within my architecture education compares."

- Anonymous student comments.

2022 UMass DesignBuild. Design Development, Construction Process, and Completed House at the Green River Music Festival. All photos by instructors.

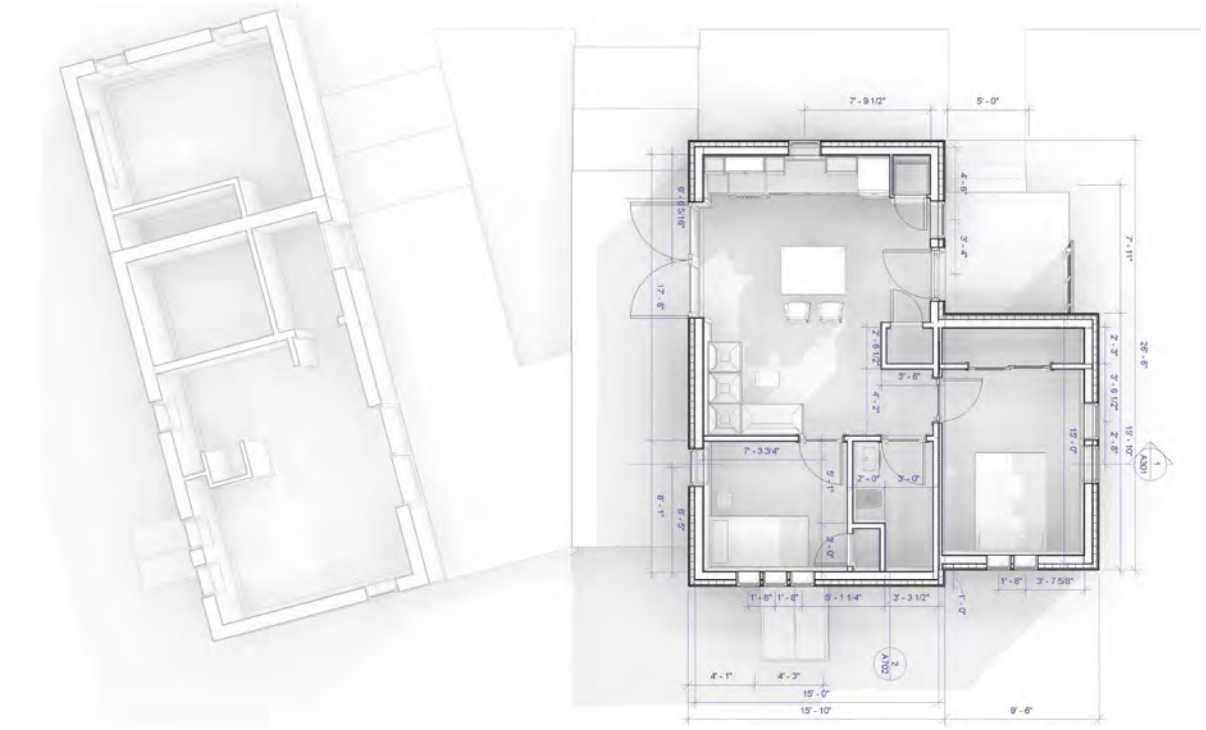
2023 UMass DesignBuild

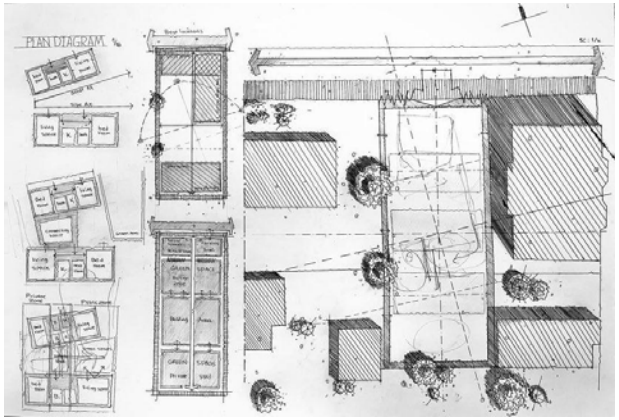
In 2023, UMDB is continuing to partner with OneHolyoke CDC to deliver innovative, small-scale, affordable housing. This year, students were challenged to design a small, complementary house to be co-located with the first house on a small, urban infill site in "the Flats" neighborhood in Holyoke.

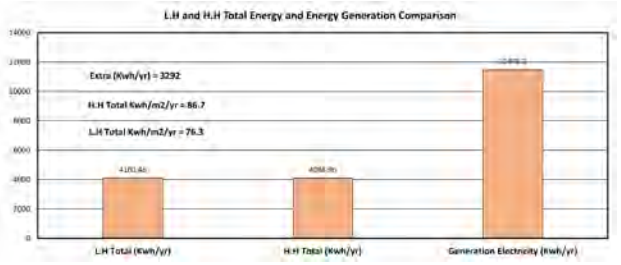
The students' proposal – named the "Paper House" in reference to Holyoke's heritage as the Paper City – is an approximately 500 square foot house that includes two small bedrooms to maximize the utility and flexibility of small-scale housing. Designed to be low-carbon and energy positive, the student design exceeds the MA stretch code performance standards and provides a compelling vision for contemporary affordable housing.

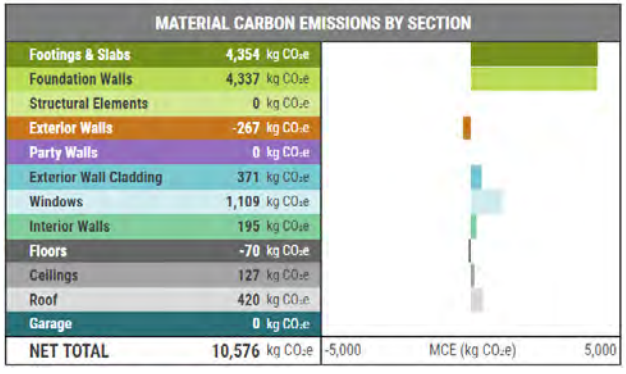
"It has changed the way I view myself and how I relate to the rest of the world."

-Anonymous Student Comment

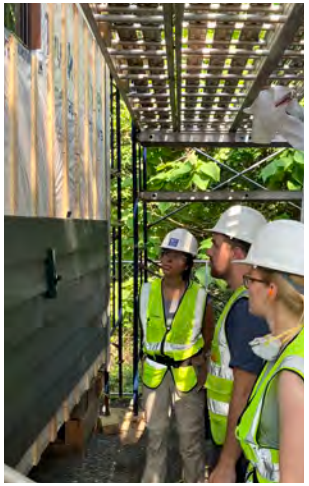








Design Process and Final Design Proposal. Images and photos by UMDB students and instructors.



2023 UMDB Construction. Images by UMDB students and instructors.

GRADUATE DESIGN IV

COURSE: Graduate Design IV
*First course in comprehensive studio sequence
Original Coursework
TYPE: Core Studio, M.Arch
DATE: Spring 2022
ROLE: Instructor

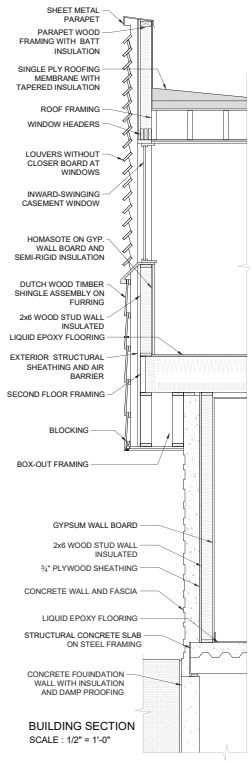
COLLABORATORS
US State Department Diplomacy Lab

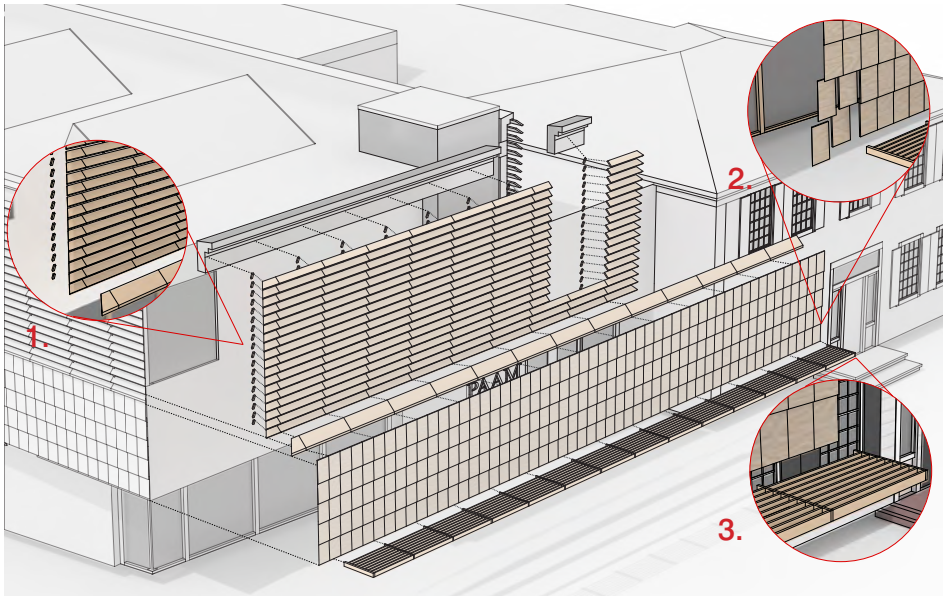
STUDENT COMPENSATION:
12 students received 6 credit hours each

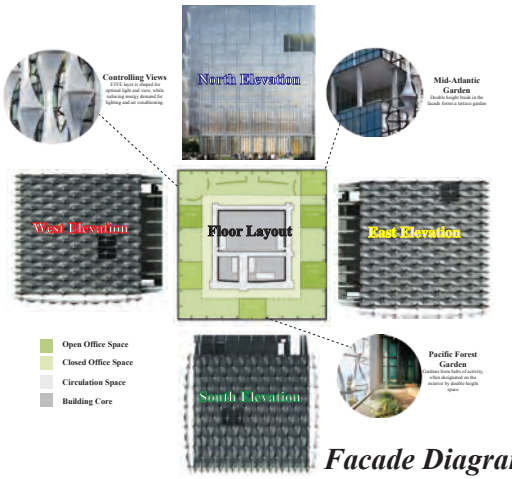
Graduate Design IV is the first course in a two-course sequence comprising the comprehensive studio experience at UMass. This studio engages students in the design of spatially and programmatically complex public buildings with a specific focus on the relationship between building technology, systems, and design. It also sets the stage for students to continue developing their projects in the subsequent Integration Studio.

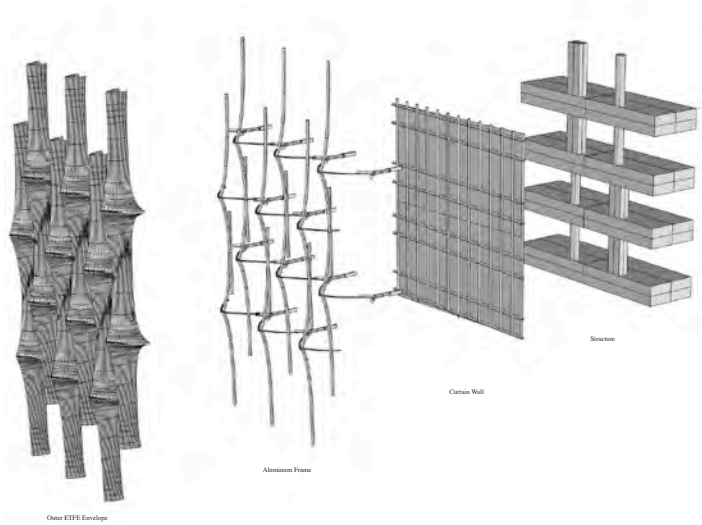
For this iteration of the course, we participated in the US Department of State's Diplomacy Lab where students were challenged to design innovative, net-zero proposals for the new United States Mission to the UN Building in Geneva. This complex program included an office building to house UN programs and associated NGOs as well as a conference center to host UN events and foreign dignities.

With this complex set of programmatic and technical requirements, the studio adopted a non-linear structure that oscillated between scales and degrees of resolution. To begin, students conducted in-depth precedent analysis of buildings with innovative facade and envelope systems. Next, students pivoted to site analysis and built a series of generative models that together with the initial grounding in a tectonic understanding of facade, guided the development of the achitectural character of their projects. The pedagogical goal was to introduce a process by which students could develop cohesive and tractable architectural proposals that operated at the intersection of site, program, culture, and technology.

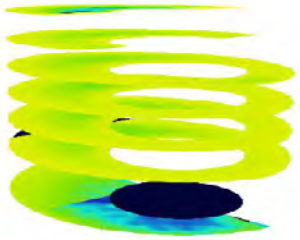


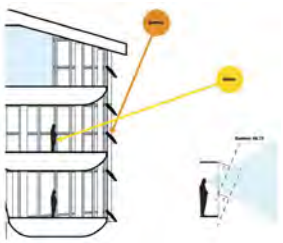






Facade Precedent Studies. By Russell Call & Jonathan Brousseau (top); Ruoxin Lin & Hannah Campbell (bottom)





BATHROOM
CAA
CAA +
COMMERCIAL KITCHEN
CONFERENCE
GALLERY
GALLERY STORAGE
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MECHANICAL
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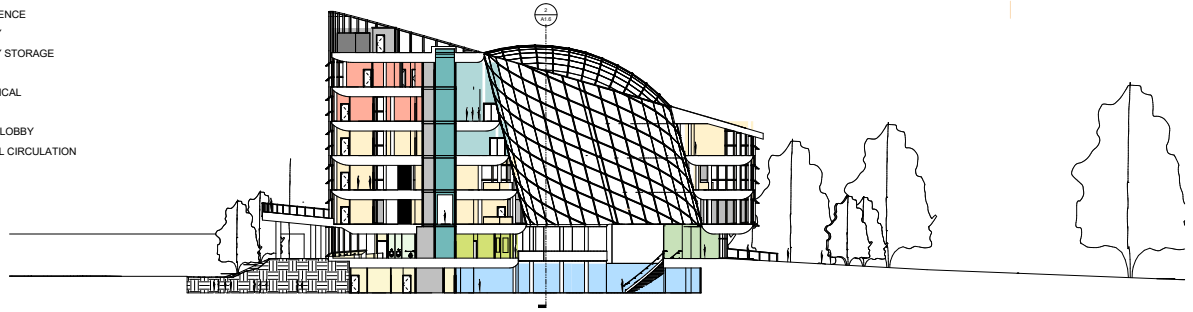
SECURE LOBBY
VERTICAL CIRCULATION



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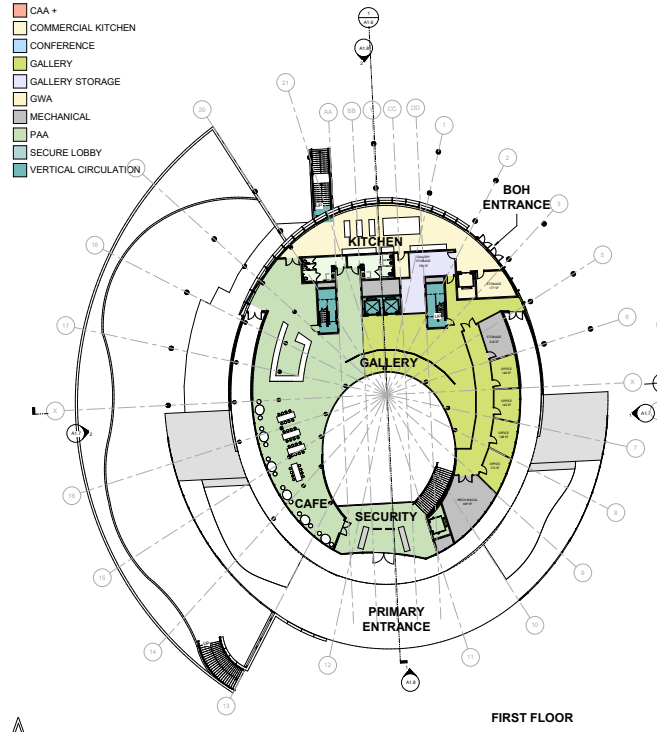

FIRST FLOOR

BASEMENT FLOOR

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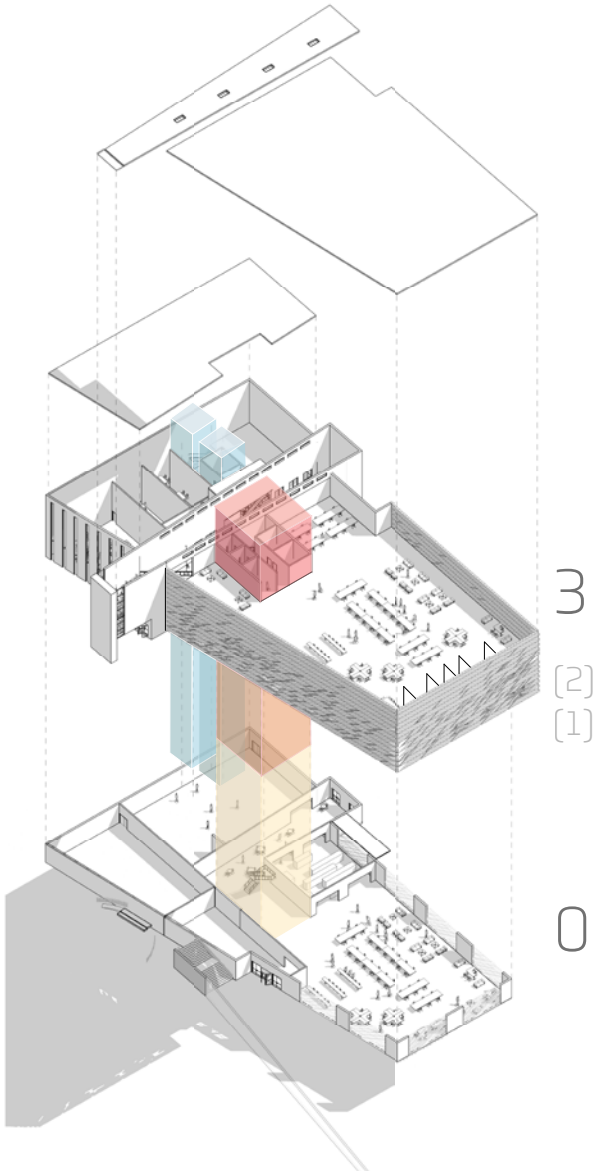
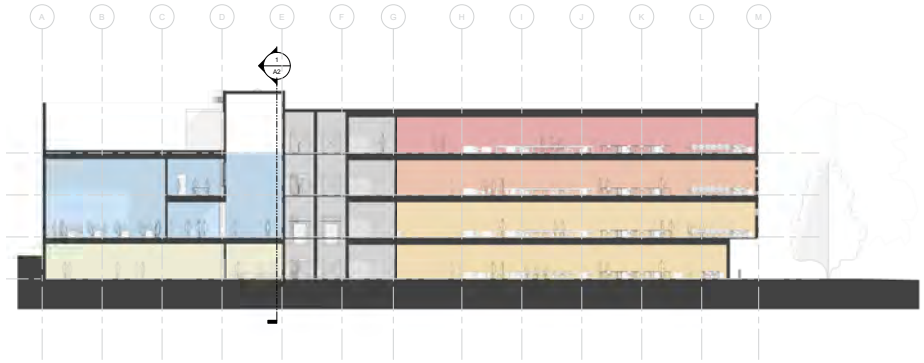
BASEMENT & FIRST FLOOR PLANS

Final Proposal: US Mission to the UN in Geneva. By Connor Tiches and Zach Lefever





Final Proposal: US Mission to the UN in Geneva. By Pranav Amin, Russell Call, and Richard Marcil.

INTEGRATION STUDIO

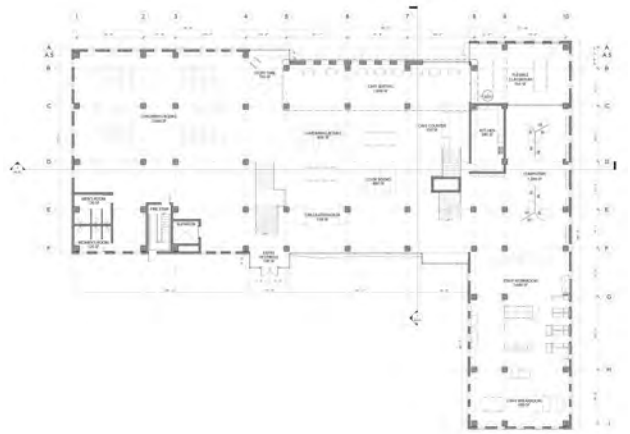
COURSE: Arch 700: Integration Studio
*Second course in comprehensive studio sequence
Original Coursework
TYPE: Core Course, M.Arch
DATE: Fall 2019
ROLE: Instructor

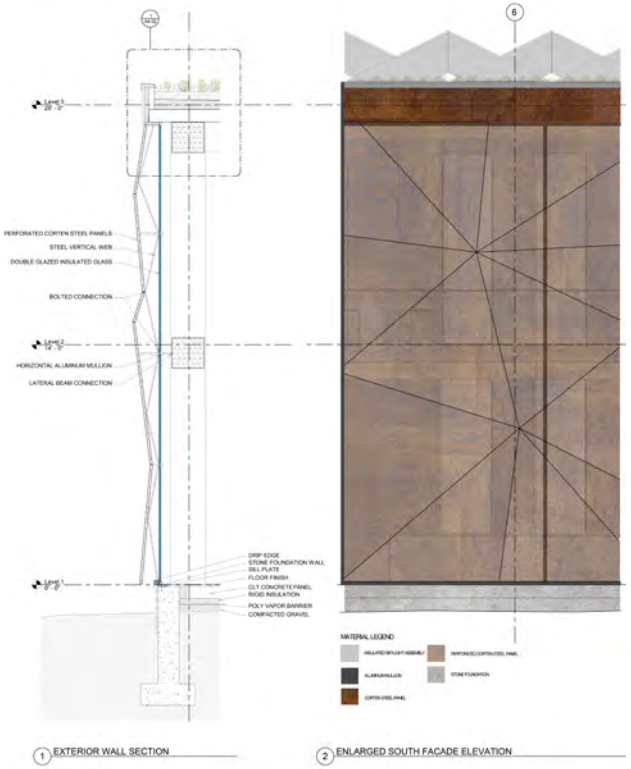
STUDENT COMPENSATION:
14 students received 3 credit hours each.

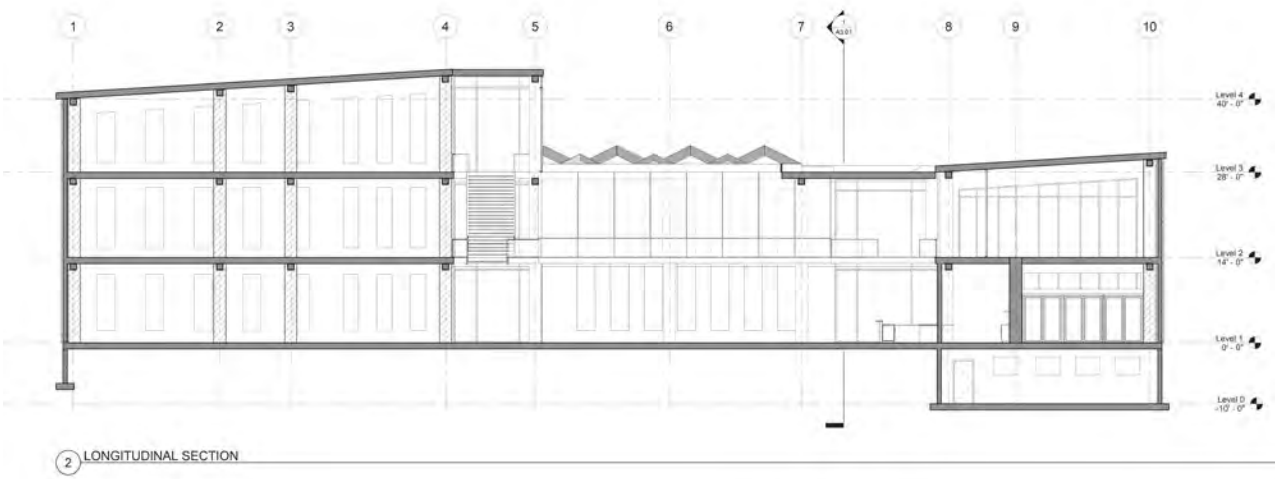
The Integration Studio is the second course in the Comprehensive Studio sequence where students continue to develop projects from the previous semester to a higher degree of detail and technical resolution. As part of the redesigning the comprehensive studio sequence curriculum, the course encourages students to understand design development and construction documents as more than merely technical exerices and instead as rich opportunities for architectural invention and expression. It aims to teach students how to "think through" details and to understand the relationship between technical resolution and broader architectural intentions.

This specific iteration of the Integration Studio investigated the potential of the section - both as a conceptual idea and a representational tool - to be a generative device in the design process. Early in the semester, students were challenged to draw full, detailed wall sections based on their schematic designs and then work back out to reconsider building design at a larger scale. To what extent could specific ideas addressed within the section - ideas about enclosure, material expression, relationships between interior and exterior, environmental controls - productively inform other aspects of architectural design. Students were also encouraged to work in a recursive manner moving between section, elevation, plans, and back through the sections to develop an understanding of how these drawings relate and support one another.

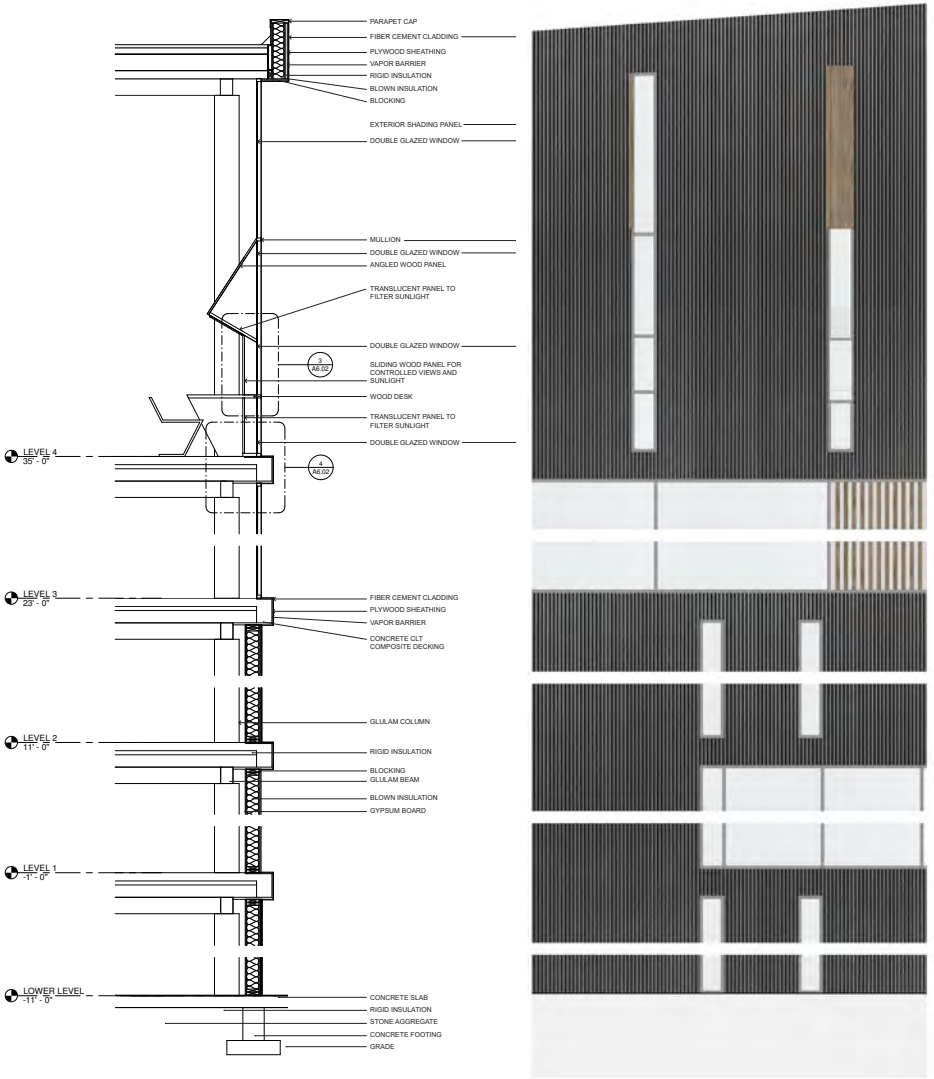
Students complete the semester with a coordinated set of partial design development drawings, including materially specific elevations, wall sections, details, reflected ceiling plans, and interior elevations.

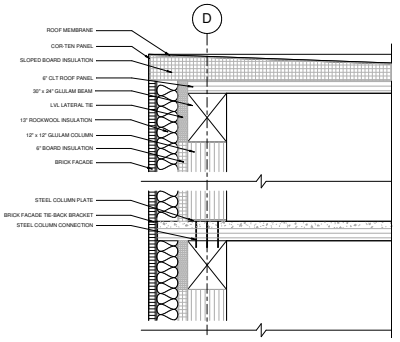


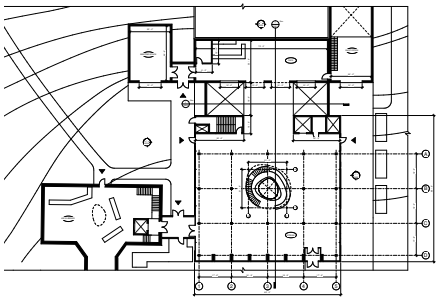


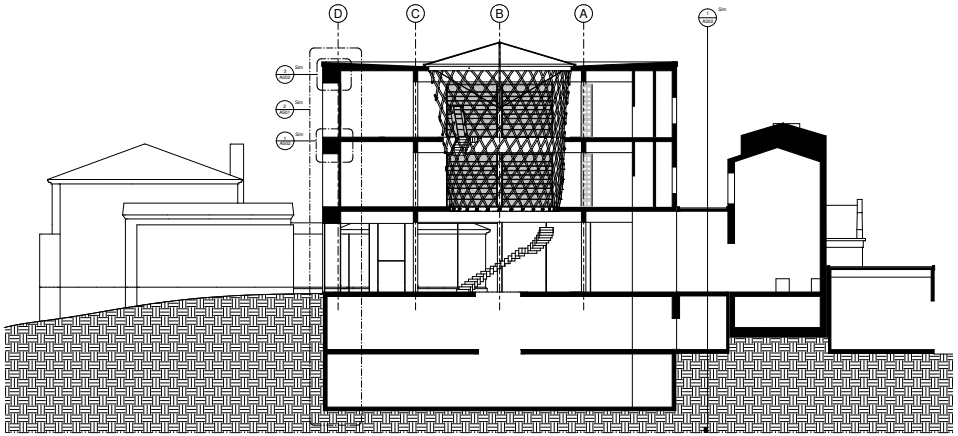


Greenfield Public Library. Rendering, plan, coordinated wall section & elevation, & building section. By Madeleine Szczypinski









Greenfield Public Library. Coordinated wall section & elevation. By Clayton Beaudoin

Greenfield Public Library. Details, plan, section & exterior renderin g. By Samuel Hill

TECTONICS I

COURSE: ARCH 550: Tectonics I
TYPE: Required technology course, undegraduate & graduate
DATE: Spring 2023
ROLE: Instructor
STUDENT COMPENSATION:
39 Students received 3 credit hours each.

This course was redesigned from the ground up in Spring 2023 to provide an introduction to building technology that would:

A. Serve as a foundation for future coursework in the building technology sequence.

B. Enable students to apply principles of building technology to their studio design coursework.

C. Center environmental performance and carbon as the critical lens for understanding and evaluating building technology.

The course is structured around five modules that each rely on modelling or drawing projects (or a combination) as the primary mode of inquiry and learning.

Module 1 - Structure
Project: Drawing: Body Structures and Building Analysis

Module 2 - Envelope
Project: Drawing: Full-scale wall sections of high-performance wall based on mock-ups.

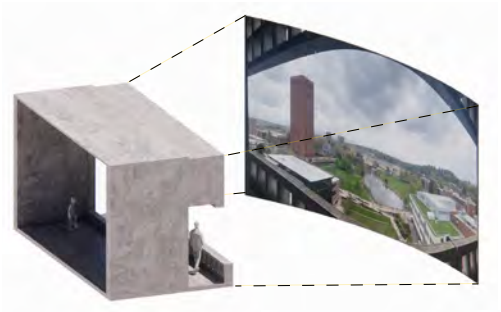
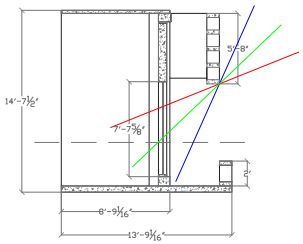
Module 3 - Wood
Project: Modelling: Design and fabricate a wooden bench to demonstate understanding of wood structure and tectonics

Module 4 - Concrete & Masonry
Project: Drawing and Modelling: Solar analysis of window openings in Brutalist buildings on campus.

Module 5 - Metals & Glazing
Final Project: Drawing & Modelling: Analysis of exterior envelope and structure of modern high-performance campus building, including wall sections, axonometrics, and solar analysis.




Wood Tectonics: Fabrication, final designs, and structural testing. Photos by nominee.

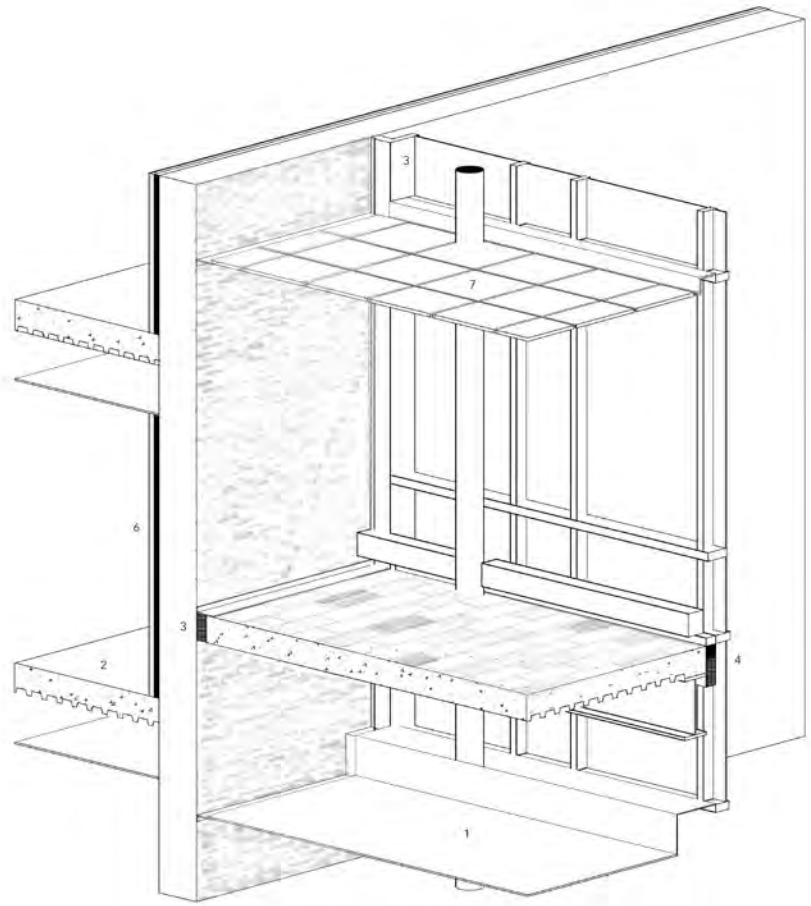




Summer Solstice

Equinox

Winter Equinox

Thick Section: Solar Studies of Windows in Campus Center. By Ryan Welsh, Lia Byrne, Jillian Mathews, & Natalie Terry.



3 Lounge Axon


Slate Wall (Ext)


Connection Elevation


Exterior Expansion Joint


Interior Expansion Joint (Addition)


Shade Detail

Construction Materials

1. Addition Floor Construction:
   - 1/2" Drywall
   - HVAC Main Unit
   - Spray Fire Retardant: Coat all Exposed Metal Surfaces
   - W18x85 Beam, Canitlever off Post
   - 1 1/2" - 2" Composite Floor Deck
   - 8" Concrete Slab (Including Composite Decking)
   - Linoleum Tiles, 9 3/4" W x 19 1/2" L: Running Bond Layout with 3 Colors: White, Blue Gray and Light Gray.
   - Vinyl Baseboard Trim, Medium Gray. Apply only where Drywall is present

2. Historical Building Floor Construction:
   - 2' x 2' Drop Ceiling Grid
   - 1 1/2- 2" Composite Floor Decking
   - 8" Concrete Slab (Including Composite Decking)
   - Vinyl Plank Flooring- Match Historical Wood Flooring Finish
   - Vinyl Baseboard Trim, Medium Gray, Match to Addition

3. Expansion Joint Construction:
   - Interior:
   - Leave 4" Gap between Existing Brick wall and Start of Addition Materials
   - Insert 4" Wide Mineral Wool Batt between Concrete Slab and Brick Wall for Fire Protection
   - Cover Gap at Floor, Walls, and Ceiling with 1 1/2" x 6" x 3/8" Aluminum Angle. Miter Corner Joints
   - Cover Interior Gap at Curtain Wall With Mineral Wool and Metal Plate- Match Curtain Wall Jamb Finish
   - Exterior:
   - Start Curtain Wall System 6" From F.O. Brick
   - Install Exterior Expansion Joint Interior Mount System In Gap, Ceiling To Ceiling Installation
   - Apply Weatherproof Sealant to Seams

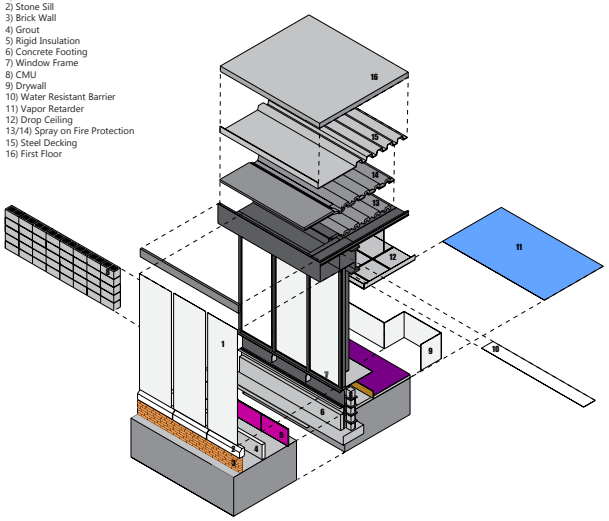
4. Curtain Wall Construction:
   - Dual Pane, Fixed Lites of varying Widths
   - Transom at 22 1/2" From F.F.
   - Metal Clip Install to F.O. Concrete Slab, Anchor Curtain System to Clip with Bolts
   - 48" Spandrel Lites in Medium Gray will Cover HVAC and Floor Systems.

5. Slate Wall Construction:
   - 13/16" Slate Siding
   - Water Barrier: Roof Felt (Asphalt Coated)
   - 5/8" Plywood
   - Thermal Barrier: 3" Poly Iso Insulation
   - Water and Vapor Barrier: Fiberglass Coating
   - 5/8" Drywall
   - Air and Vapor Barrier: Foil Faced Coating on Exterior Face of Exterior Drywall
   - (Within 6" Steel Studs) 3" TMA75 Insulation
   - (Within 6" Steel Studs) 3" Air Gap
   - 1/2" Drywall, Vapor Barrier: Exterior Face of Interior Panel, per SCG

6. Brick Wall Construction: per Building Science Corps.
   - Original Bricks, 1' Thick
   - Fluid Applied Water Barrier (Interior of Wall), Vapor Semi Permeable
   - Steel Studs: 1 5/8" x 2"
   - 2" Spray Applied Cellulose, (between studs)
   - 1/2" Drywall

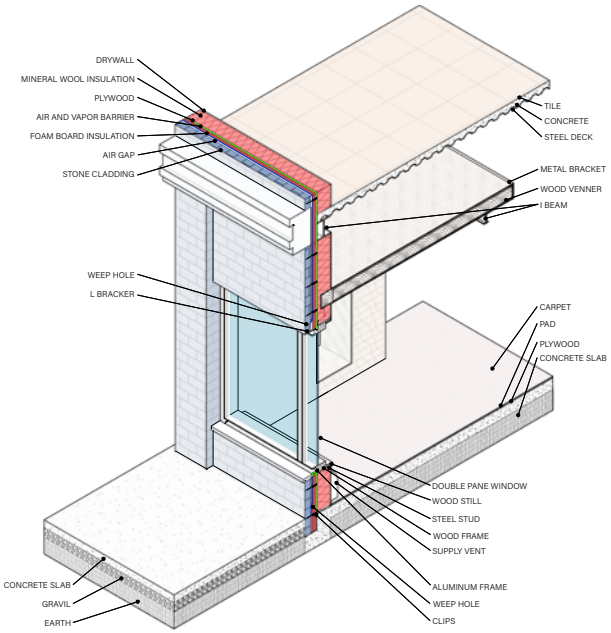
7. Ceiling Construction: New Building
   - 2' x 2' Ceiling Tiles grid, Suspend from Corrugated Metal
   - HVAC Ducts (Between Floors)
   - Spray Fire Retardant: Coat all Exposed Metal Surfaces
   - W18x85 Beam, Canitlever off Post
   - 1 1/2" - 2" Composite Floor Deck
   - 8" Concrete Slab (Including Composite Decking)

1) Glass Double Pain Window
2) Stone Sill
3) Brick Wall
4) Grout
5) Rigid Insulation
6) Concrete Footing
7) Window Frame
8) CMU
9) Drywall
10) Water Resistant Barrier
11) Vapor Retarder
12) Drop Ceiling
13/14) Spray on Fire Protection
15) Steel Decking
16) First Floor



Exploded Axon

Wall Section Axon



Excerpts from final project: Axonometric Wall Section Analysis. By Josey Wermuth (left); Meg Winn, Christain Garcia, Lezine Swan, and Daniel Solano (upper right); Jack Hilgren, Hoayi Gan, and Guanyu Feng (bottom right)

ANALYSIS & REPRESENTATION 1

COURSE: Arch 3340/540: Analysis & Representation I
Original Coursework
TYPE: Core Course, B.A and M.Arch
DATE: Fall 2020, Fall 2021, Fall 2022 & Fall 2023
ROLE: Instructor

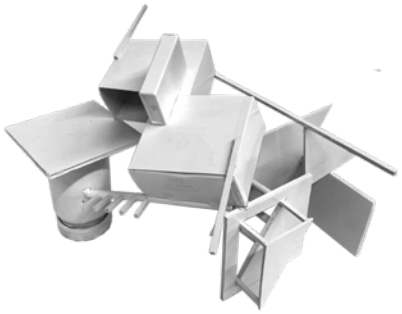
STUDENT COMPENSATION:
2020: 14 students received 3 credit hours each.
2021: 27 students received 3 credit hours each.
2022: 39 students received 3 credit hours each.

Analysis and Representation is a required course for all incoming undergraduate and graduate students that provides an introduction the theories, tools, and techniques of architectural representation. The course takes seriously the notion that architectural drawing, broadly construed, is an essential tool for both analysis and representation within architectural discouse and practice. It aims to prepare students to understand the myriad ways that architectural drawing is employed within the practice of architectural design.

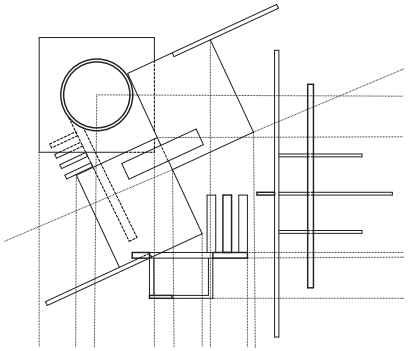
The course is organized into four modules that build on each other over the semester. Each module pairs a essential type of architectural drawing with a software. Projects guide students in developing their understanding of the software itself and the potential of the drawing type in question. Lectures contextualize these modes of representation within broader architectural history and theory while introducing students to a broad range of architectural drawning and representational styles. Skills workshops provide support in learning the nuances of particular software.

1. ANALYSIS:	Orthographic Drawing Rhino 2D, Illustrator
2. EXPLORATION:	Axonometric Drawing Rhino 3D, Illustrator
3. INHABITATION:	Perspective Drawing Rhino 3D, Photoshop
4. DOCUMENTATION:	Graphic Design Photoshop, Illustrator, InDesign

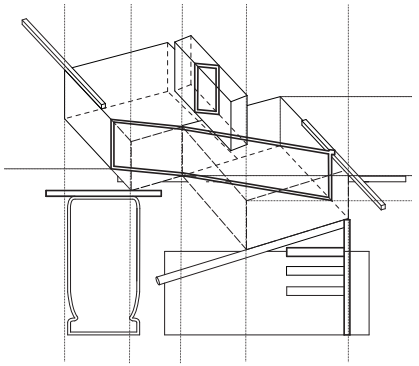
In 2020, I re-designed this course in collaboration with a co-instructor to be offered as a fully remote course. In 2021, we re-structured this course to be in-person with digital labs. Since 2022, I have been the sole instructor and the course employs a hybird modality of in-person meetings supported by flexible, asynchronous resources.

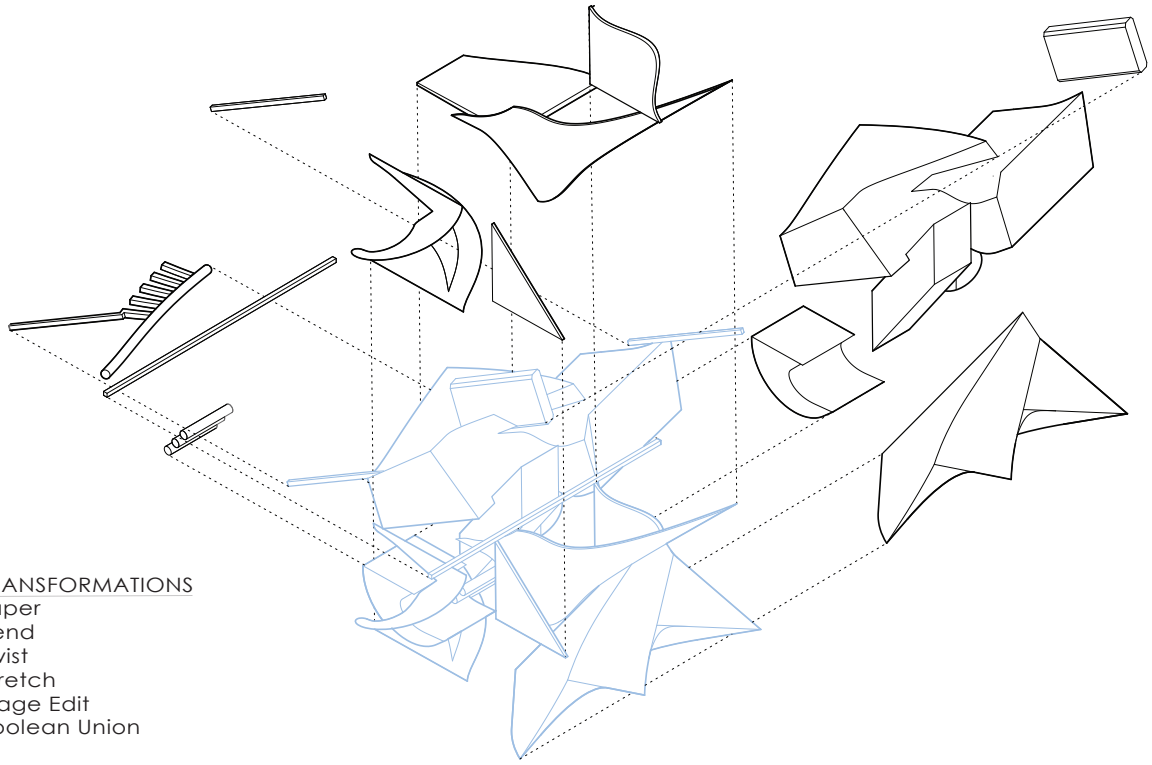


Plan View

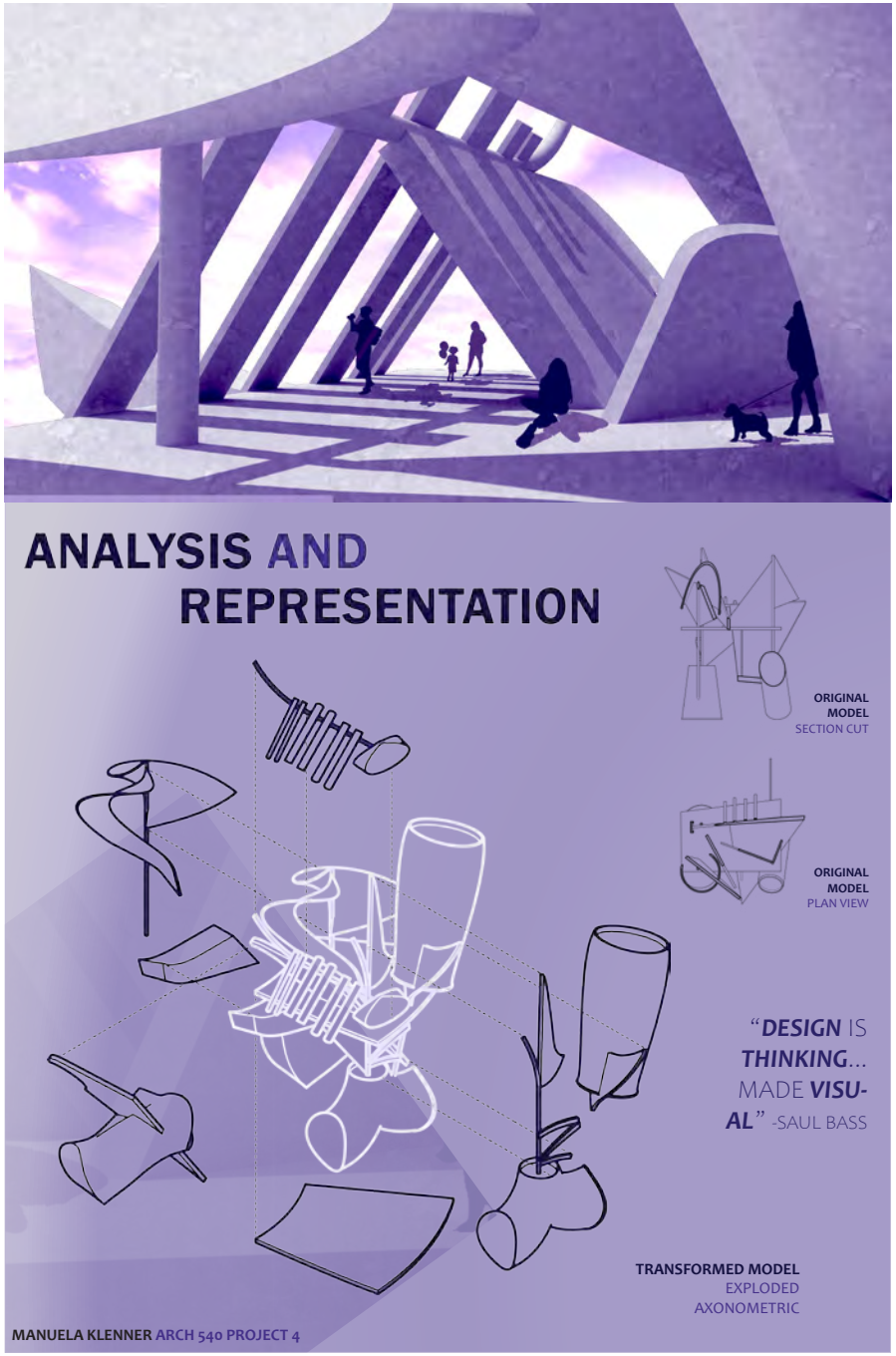


Vertical Section 1

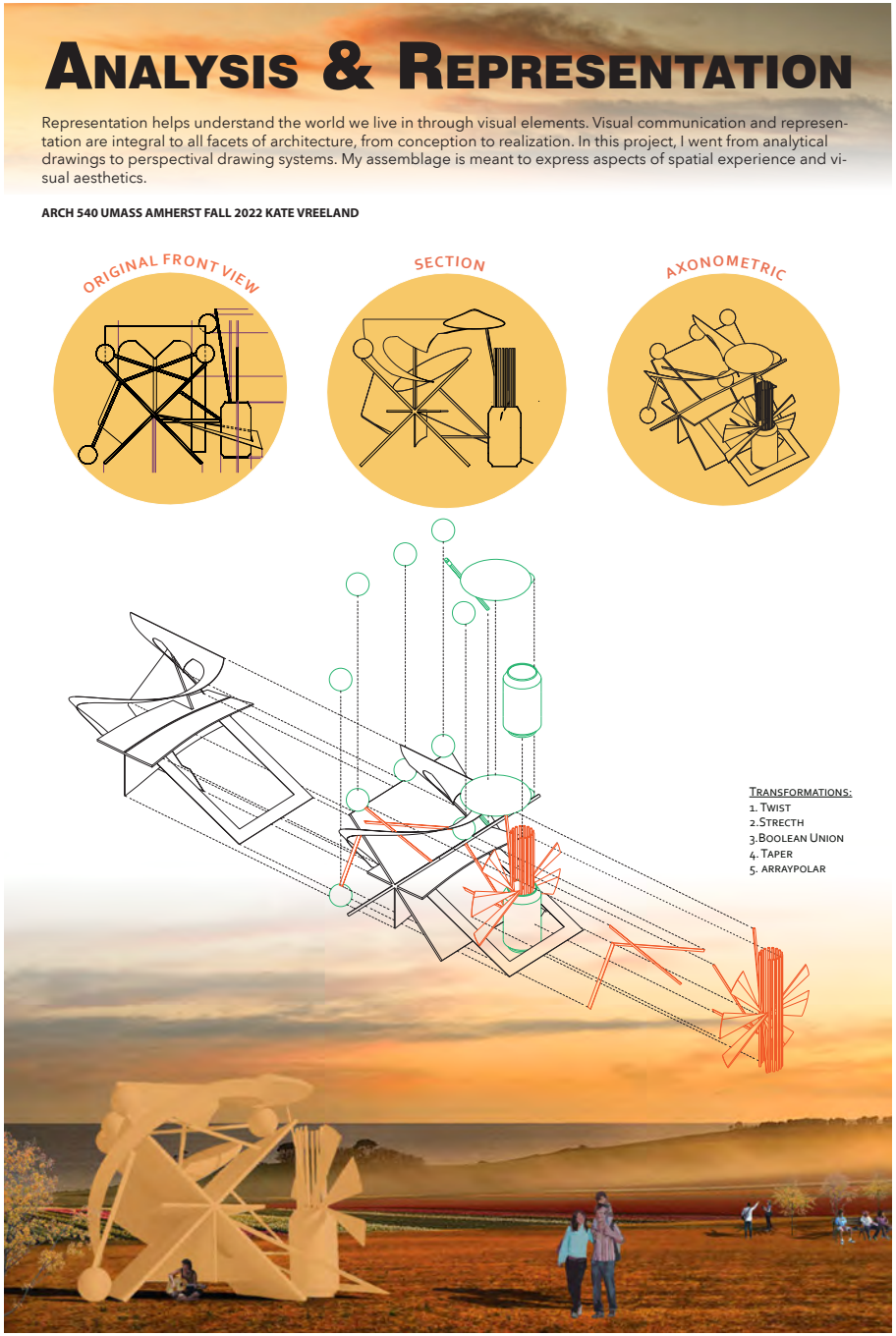




Physical model, orthographic drawings, & exploded axonometric w/ transformations. By Lily Rousseau



Final Composition. By Manuela Klenner



Final Composition. By Kate Vreeland

INDEPENDENT STUDY

COURSE: ARCH 596: Independent Study
TYPE: Elective, M.Arch student
DATE: Spring 2021
ROLE: Advisor
STUDENT COMPENSATION:
Student received 3 credit hours.

For this independent study, an advanced graduate student explored circular material economies and how building construction materials could be up-cycled into novel, high-performance assemblies. The final proposed wall section includes a gabion wall type rainscreen comprised of waste materials and a reliance on recycled, bio-based insulation materials.

CYCLE 1 - WASTE

CYCLE 2 - DEMOLITIONS

CYCLE 3 - ORGANIC MATTER

AFFORDABLE HOUSING IN THE CIRCULAR CITY

HARNESSING THE POWER OF RESOURCEFULNESS TO MITIGATE CLIMATE CHANGE

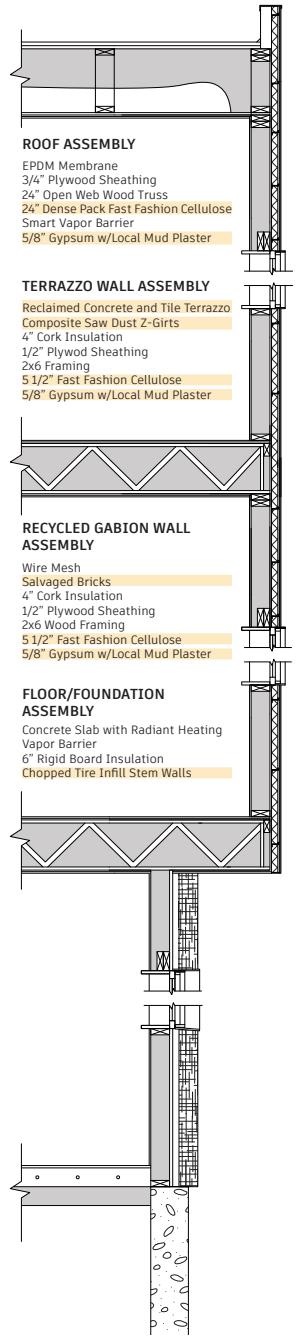
Assuming high-performance and on-site renewable energy generation as a baseline, the current scheme embraces circular design focusing on the materials used for construction. Rooted on a deep analysis of the already robust waste disposal system in the city of Toronto, the challenge of affordable housing is taken up by proposing buildings that are comfortable, integrated at the neighborhood scale, and that make a positive impact in the city they occupy. The proposed buildings have a radically low energy consumption index; however, their revolution lies in their assemblies. Each building assembly has been dissected and optimized to find hidden ways in which the material waste of the city can be dissipated. Therefore, the proposal generates energy micro grids through solar arrays and fits within a larger system of waste as it scavenges for opportunities unique to the city of Toronto. The design approach is one that mimics nature by which we make material cycles complete.

CYCLE 1
Clothes waste related to "fast fashion" are targeted as an insulation opportunity, applied as cellulose insulation. Tiles and tires are used as infill for stem walls, lowering their embedded energy, or on terrazzo rainscreen panels yielding beautiful finishes to the wall assembly.

CYCLE 2
Demolitions provide bricks and CMUs that are collected to make gabions that finish the first-floor wall assemblies. Here, the bricks do not need to be intact to be given a second life. Mud from construction site excavation is used as a plaster base for interior gypsum walls that are vapor permeable and rich in color and texture.

CYCLE 3
The timber industry and the generation of sawdust is identified as an opportunity for thermally broken members of rainscreen assemblies, both improving the energy performance of the building and connecting to an already existing local industry.

FORM
Focused on the Victorian past of the city, the proposal is one of urban infill, in keeping with the three-story high morphology and providing an integrated experience to affordable housing. Like in Victorian times, the units are repeatable, mutable, rotatable, mixable, and human in scale.



Images from final competition submission. By Cami Quinteros.

SHIPPING CONTAINER HOUSING DESIGN

COURSE: ARCH 597: Shipping Container Housing Design
Original Course & Coursework
TYPE: Elective, undegraduate & graduate
DATE: Spring 2022
ROLE: Instructor

STUDENT COMPENSATION:
11 Students received 3 credit hours.

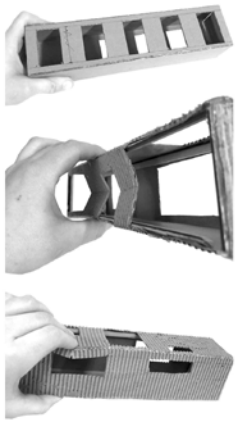
This course was the design phase of a design-build collaboration between UMass Architecture and the Yestermorrow Design/Build School (YM) in Vermont. During the spring semester, a cohort of students at UMass collaborated to design and document a dwelling unit based around a single up-cycled shipping container. During the summer, a second, different group of students completed the full build of the dwelling unit on the Yestermorrow campus.

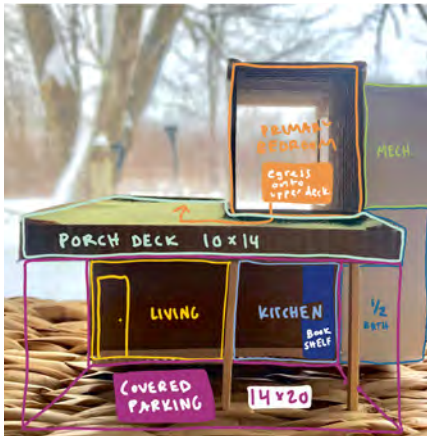
Designing with shipping containers is suprisingly difficult - the seeming simplicity of their durable, ready-made character is belied by the dimensional limitations and challenging hygrothermal conditions. These challenges make shipping containers potent teaching tools. Structured as a research-based studio, students in the design course probed the question of how best to utilize shipping containers for dwelling units.

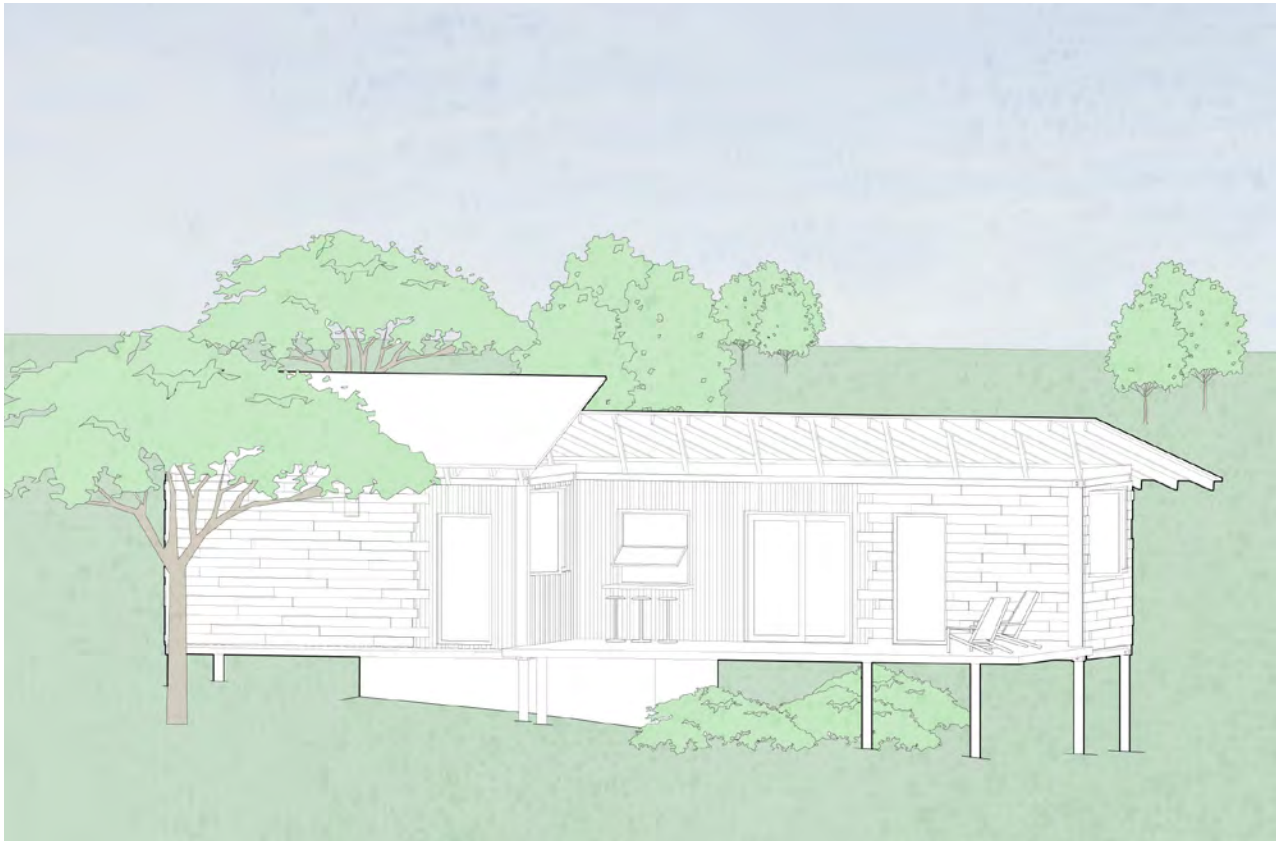
Students began with precedent analyses of a range of small dwelling units, some container based and some not. They then moved into a series of exercised designed to develop their structural intution about containers and generate ideas about how to manipulate the container envelope to allow passage, access, and light. Following this, the students divided into two groups to explore two different envelope strategies - one with insulation on the exterior and one with insulation on the interior.

Ultimately, the students elected to develop the proposal based on the interior insulation strategy and completed a set of detailed design drawings to communicate their intentions to the build team.

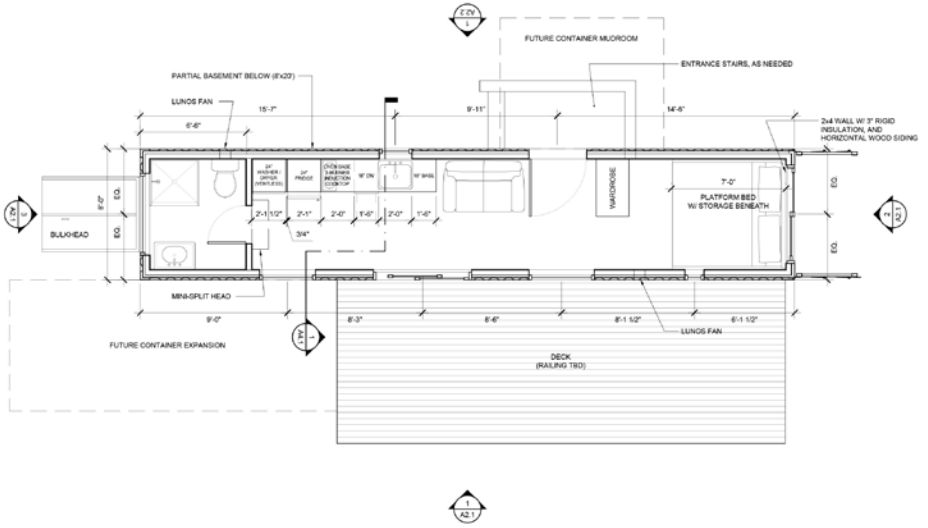
The build was completed by students at Yestermorrow in Summer 2022.

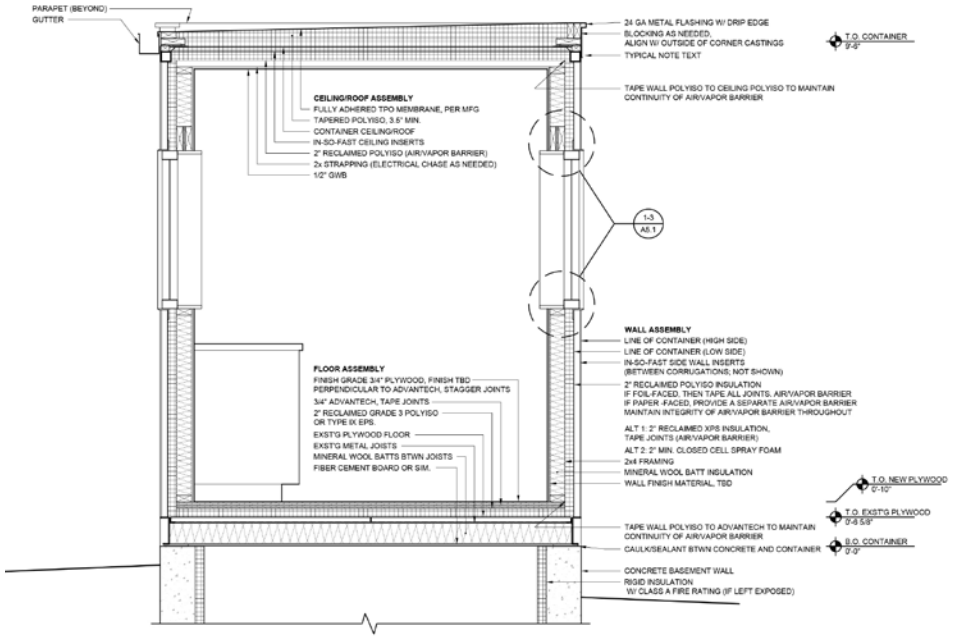


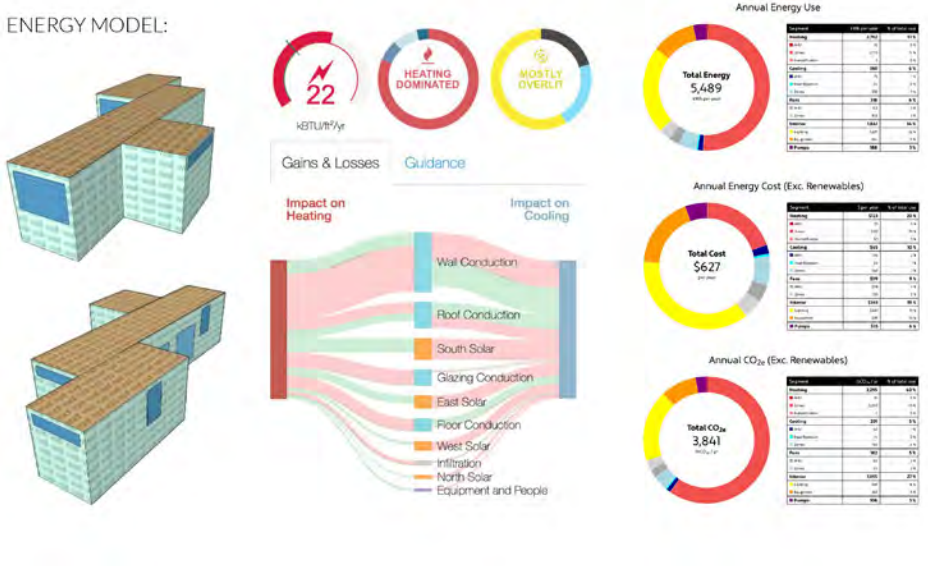




Structural sketch models, envelope sketches, hybrid drawings & schematic rendering. By UMass student design team.







Final plan, section & energy analysis. By UMass student team. Construction photos. By YM student team.

INTEGRATED PATH TO ARCHITECTURAL LICENSURE

COURSE: ARCH 596: Independent Study
Original Coursework
TYPE: Elective, M.Arch
DATE: 2019-Present
ROLE: Instructor, Advisor

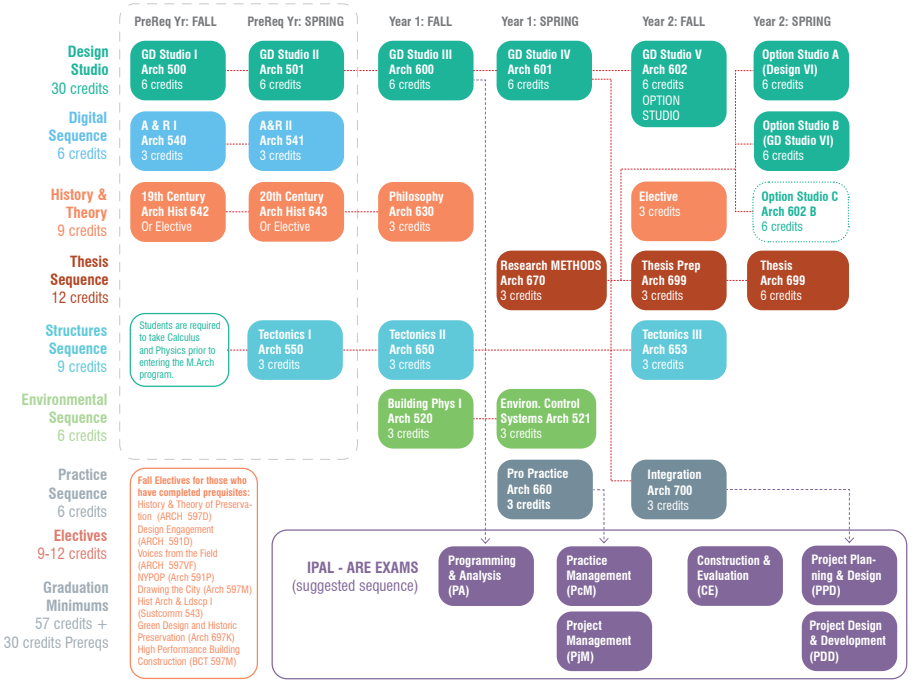
STUDENT COMPENSATION:
Credit hours vary per student

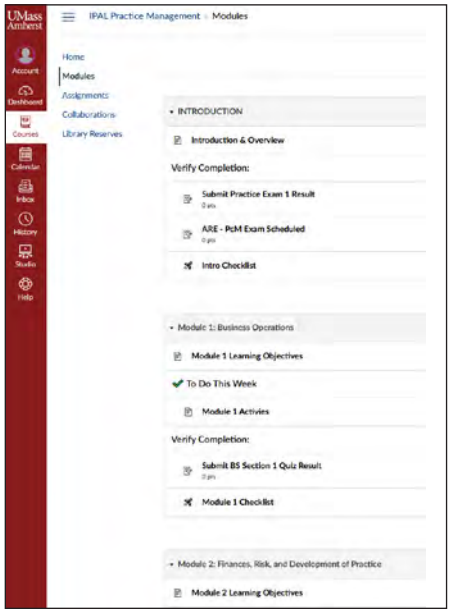
The Department of Architecture at UMass was one of the first schools to participate in NCARB's Integrated Path to Architectural License (IPAL) program. This program allows qualified students the opportunity to begin taking the Architectural Registration Exams while in school and ideally to complete the requirements for architectural licensure by graduation.

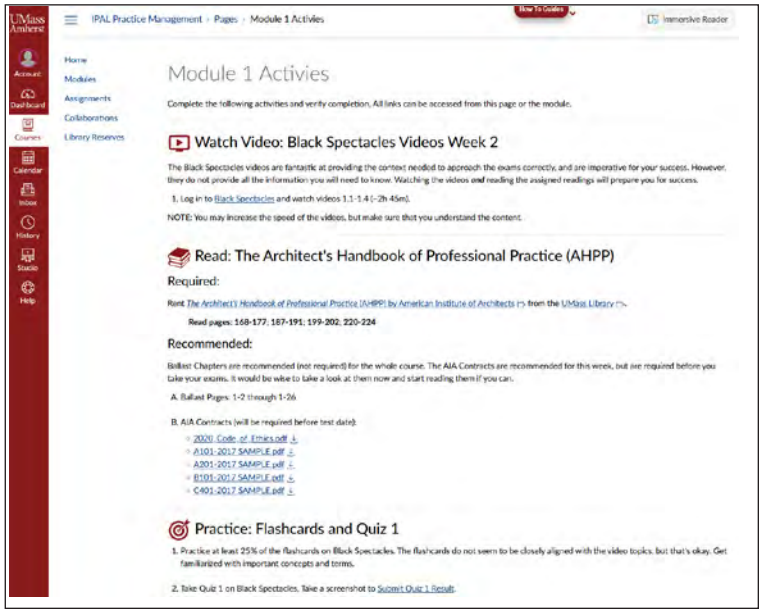
I have been the primary IPAL advisor since joining the facutly in 2019. In 2022, I was the co-recipient of a UMass FlexFellow Fellowship and grant (~$30,000) to develop and support flexible learning resources within the department. The key initiative for this fellowship is designing a flexible, fully asynchronous set of courses to support our IPAL students in preparing for the AREs.

These asynchronous courses aim to address to the two primary challenges facing the IPAL program. First, students come into the program with a wide range of educational and professional experiences such that a "one-size-fits-all" class is ill-suited for engaging them. Second, many students intend to prepare and take exams outside of the standard academic schedule, for instance during the winter, the summer, or other breaks during the year.

Currently in development, the asynchronous IPAL coures will provide a flexible framework with suggested schedule, activiites, and milestones that can be adapted to fit students' individual needs. They also collect and link to various study resources such that students have a organized and low-friction means to access the myriad available resources, and can easily customize the available resources to their needs.







IPAL Program: Curriculum Mapping (top); Asynchronous PcM course (bottom). By nominee.