

Building Community through Housing Design

ARCH 5002.06 Urban Housing Studio (Section 2)

TERM: Fall 2023

LEVEL: Graduate students
INSTRUCTOR: Prof. Christine Macy

CLASS TIMES: Monday and Thursday 2:00-5:30 pm, unless otherwise noted

LOCATION: Regular meetings including small pin-ups and crits in Room 2108 (formerly HB2)

CONSULTANTS: To be confirmed - Mary Fox (Community INC), Russ Sanche (Portal Youth Centre), Earle Mielke

(Inclusive Homes Consulting), Mark Macy (Macy Architecture), architects from Passive Design

Solutions

Calendar description

This studio explores the aesthetic, tectonic, social/cultural and economic challenges presented by contemporary high-density, mixed-use development. The relationships of architecture to urbanism, and building to city, will be explored through exemplary precedents and the design of housing and its associated commercial, institutional, and recreational components.

Additional course description

The lack of affordable and decent housing continues to be a central concern of developed societies under late capitalism. Housing is a core necessity for human health and well-being and also for societal health, since well-designed housing helps to shape interpersonal relationships and community identity. This studio investigates the challenge of affordable housing in the small towns of Nova Scotia. The Nova Scotia Affordable Housing Commission is currently advancing its housing initiatives by partnering with public-interest non-profit organizations, who would serve as developers and managers of these projects. One such group is Valley Roots Housing Association who are currently in the preliminary planning stages for the development of co-op housing in Kings, West Hants and Annapolis Counties. This coalition of social service non-profits is working with housing experts to develop the project, including a specialist in the financing and management of cooperative housing, and architects from Passive Design Solutions.

This studio will work with the goals already established by Valley Roots Housing Association for this project, to explore design solutions which satisfy their objectives. They, along with other consultants, will engage with the studio over the course of the term, to provide input and evaluative feedback.

Pilot project

The project is a mixed-income housing development in several sites in the small towns of West Hants, Kings and Annapolis Counties. The project size will vary depending on the available land, but they will have at least 25 units and the social amenities appropriate to collective living. Each site will comprise a mix of target groups: market value, affordable (<80% of average market rates), and deeply affordable (30% of income). The dwellings are expected to range from one to three bedrooms, but all units should be designed to be under 1000 sf.

The kev values and concerns in this housing studio are:

- · as a co-operative housing development, the project should address the collective dimension of living together
- the balance between individual and community spaces, and thresholds between these
- attention to the needs of all age groups and diverse community members
- · working with mid- and low-rise buildings in small town contexts
- use of local materials and construction practices

- understanding of economies of scale in planning, architectural, engineering, and landscape designs From this studio brief, several themes emerge:
 - The commons. Public space is more than circulation. What is shared in a residential community? At what scales does sharing happen? What kinds of activities and resources are necessary in a community?
 - · Cross-programming. Beyond individual dwellings, how and where might diverse user groups interact?
 - *Place-making*. What kinds of thresholds are needed to for residents to feel control over their dwelling and its interface with the larger complex? How does a designer create a feeling of belonging?

Learning objectives

- To learn about the intersecting factors that influence design decisions (from the client, experts, your own research)
- To use this evidence in making informed design decisions
- To fully engage in the architectural design process from concept to design development
- To demonstrate skill in architectural design at the scale of the site/town, the buildings, and the construction process
- To articulate the parameters for a successful project and evaluate how these are met through design
- To effectively communicate with the client and consultants and learn from these experiences

TERM SCHEDULE

1	M 11 Sep	Class-wide M2 Studio Introductions. First studio meeting. Intro to Assignment 1. Form subgroups for each site. Arrange travel for Saturday field trip.
		Assignment 1: Community Concept & Site Strategy
	W 13 Sep	Class-wide GIS Workshops with Jennifer Strang.
	Sat 16 Sep	• Site Visits. Meet with project development partners, to be confirmed.
2	M 18 Sep	Studio – Site mapping & analysis to inform project parameters.
	Th 21 Sep	• Studio – Study of case study siting strategies (1:500).
3	M 25 Sep	Studio – Site design strategy for each site. Group work.
	Th 28 Sep	• Studio – Revised site design strategy. First thoughts on unit types. Individual or pair work.
4	M 2 Oct	National Day for Truth and Reconciliation — No class
	Th 5 Oct	On-line review of assignment 1. With guest reviewer Mark Macy, Macy Architecture. Intro to Assignment 2.
5	M 9 Oct	Thanksgiving — No class
	Th 12 Oct	Assignment 2: Schematic Design for Community Housing
6	M 16 Oct	Mini-Pinup – Presentation of case study housing type.
	Th 19 Oct	Studio – Identify the dwelling type that best fits the site strategy.
7	M 23 Oct	Studio – Design the variation / innovation to meet your design goals.
	Th 26 Oct	In-person review of assignment 2. With guest reviewers from Passive Design Solutions.
8	M 10/30	Assignment 3: Design Development
	Th 11/2	Studio – Structural strategy, construction methods and materials.
9	M 11/6	• Studio – Environmental performance strategy (heating, cooling, ventilation, water recycling,)
	Th 11/9	In-person review of assignment 3. With entire M2 class, guest reviewers to be confirmed.
10	11/13-17	Reading Week

11	M 11/20	Assignment 4: Integrated Design
	Th 11/23	Studio - desk crits
12	M 11/27	Studio - desk crits
	Th 11/30	Project evaluation
13	M 12/4	Studio - desk crits
	Th 12/7	Studio - desk crits
14	12/13-14	Final Review
	Fr 12/15	Presentation to Valley Roots Housing Association

ASSIGNMENTS

The work of the housing studio is sequential, cumulative, and iterative, involving research and design at each phase of development. As a starting point, each student is asked to select a multi-unit housing project from a list of case studies of collective housing. This term-long study will be advanced with each assignment, to share with classmates and inform decision-making at each stage of the project's development.

The first assignment is development of a site strategy, as a small group exercise. The second assignment is schematic design of the buildings and dwelling units; this will be individual work or can also be done in teams of two students. The remaining assignments add additional requirements for design consideration and encourage iterative re-visiting and refinement of earlier decisions.

Each assignment is submitted in two packages: a presentation for review (as a pin-up or digital presentation), and a portfolio of the work on tabloid-landscape format including all deliverables and necessary commentary to the explain the design intentions. See table below for formats and due dates.

1. Community Concept & Site Strategy 4 weeks 25%	
Description & process:	 a. GIS Workshop b. Site visit c. Site mapping & analysis to inform project parameters. Each site sub-group develops maps with information relevant to their site, including: development constraints (zoning regulations, environmental conditions, access); social contexts (nearby programs, social infrastructure gaps), and cultural contexts (morphology of buildings and public spaces, local construction culture). Integrate information from the site visit, and skills from the GIS workshop. d. Study of case study siting strategies (1:500).
	e. Group work – Develop a site design strategy appropriate to site size, density, identified project parameters and studio theme. Critique local by-laws that restrict design optimization and identify alternative solutions. f. Individual (or pair) work - Revise site design strategy. First thoughts on unit types.
Deliverables:	 Summary and graphic visualization of the site design parameters from mapping exercise. Revised site design strategy showing building aggregation and semi-public spaces with shared use. Scale: 1:500 or as needed. Explanatory design commentary.
Formats:	 For the on-line review – max. 5 slides & 5 min. summary. Portfolio submission – 11x17 landscape orientation, with images and text.
Due:	Thursday, October 5, 2023 - On-line review with Mark Macy Macy Architecture Tuesday, October 10, 2023 - Upload portfolio version

2. Schematic Design for Community Housing 3 weeks 25%	
Description & process:	Within the context of the revised site design strategy, students work individually (or in pairs) to develop the architectural design of the dwellings, addressing the collective and individual needs of housing that builds community. There are two steps to this phase of the project development: a. Presentation of case study housing types (in plan and section 1:100). Mini-pinup. b. Identify the types that best relate to your site strategy. c. Adapt unit types to meet your goals. Aim for super-efficiency in the units and flexibility over time. d. Develop criteria to evaluate the success of your design project.
Deliverables:	 Schematic design showing site strategy, building aggregation, housing type, dwelling unit design, preliminary building section from community space to private space. Scale: 1:100 or as needed. Explanatory design commentary, including evaluative criteria.
Formats:	 For the review – printed or original work pinned-up to show required deliverables. Portfolio submission – 11x17 landscape orientation, with images and text.
Due dates:	Thursday, October 26, 2023 - In-person review with Passive Design Solutions. Monday, October 30, 2023 - Upload portfolio version.

3. Design Development 2 weeks 20%	
Description & process:	Now that you have a first pass at your site and dwelling design, this is a good opportunity to integrate the construction and environmental technology into your project. You are asked to consider two aspects of building systems integration: a. Structure, construction methods and materials. b. Environmental performance strategy (heating, cooling, ventilation, water recycling,).
Deliverables:	 Site schematic (as needed). Design development level of resolution in building design to show systems (scale appropriate to content depicted). Explanatory design commentary.
Formats:	 For the review – printed or original work pinned-up to show progress up to this point in the term, as well as deliverables for the DD phase. Portfolio submission – 11x17 landscape orientation, with images and text.
Due dates:	Thursday, November 9, 2023 - In-person review with M2 Class, reviewers to be confirmed. Monday, November 13, 2023 – Upload portfolio version.

4. Integrated Design 3 weeks 30%		
Description & process:	a. Integrating the intersecting constraints and parameters in a unified design strategy. b. Evaluate the project using the criteria developed in Assignment 2.	
Deliverables:	 Site design at 1:500 or as appropriate. Building plans, section, elevations at 1:50. Section of thresholds and details 1:20. Models and renderings as appropriate to communicate design decisions. Explanatory design commentary, including project evaluation. 	
Formats:	 For the review – printed or original work pinned-up showing most recent version as well as totality of the project. Portfolio submission – 11x17 landscape orientation, with images and text. 	
Due dates:	Wednesday & Thursday, December 13-14, 2023 – Final review Friday, December 15, 2023 – Presentation to Valley Roots Housing Association. Upload final cumulative portfolio.	

ASSESSMENT To do well in this course, you need to: keep up with the assignments, be an effective collaborator Attendance & with classmates when required, be available for desk crits during scheduled course times, and deadlines participate in pin-ups and reviews. It is also a good idea to do your design work in studio, so that you may learn from your classmates and allow them to learn from you. If you are ill, please do not come to studio! Instead, download a Student Declaration of Absence from Brightspace and email it to the instructor. Information regarding SDAs, illnesses and accommodations can be found below. All assignments are graded by the instructor. Assignments are evaluated in accordance with **Evaluation** Dalhousie's graduate grading system — this means that grades for individual assignments may procedures include marks below B-, however a final grade below B- will be recorded as an F. Descriptor Letter Grade Excellent 90-100 A+ 85-89 Α 80-84 A-Good 77-79 B+ 73-76 В 70-72 B-Satisfactory 65-69 C+ 60-64 С 55-59 C-Marginal 50-54 D Inadequate 0-49% INC=Incomplete; W=Withdrawal Students will receive written feedback on their design work within one week of each pin-up. This Format of will take the form of a numerical evaluation according to the rubric, and written comments as feedback to appropriate. These will be uploaded to Brightspace. students Because architectural design is a constantly iterative process — involving research, analysis, Due dates & late creation, evaluation, and revision — one can rarely say that a design project is "done". This often submissions means that designers work on and on to refine a project or its visual presentation. In the context of a 13-week school term, it is not possible to reach a high degree of refinement. Instead, we need to learn to communicate effectively using the least amount of effort. It's a good idea to develop your design project through sketching, so you can rely on these at pin-ups. If you cannot make a pin-up due to illness, I will arrange a later review. If you miss a pin-up for any other reason, you may hand-in the work for assessment, subject to a late penalty. Accessibility & Students requiring learning accommodations are asked to contact Dalhousie's Student accommodation Accessibility Services (access@dal.ca) at the beginning of the term. This office will work with the plans student to develop an accommodation plan; they will also inform the instructor regarding the relevant details (extended deadlines, etc.). The Student Declaration of Absence (SDA) is normally used when you cannot complete a class or Student coursework due to illness or an unexpected emergency, without having to obtain a doctor's note. declaration of Because assignments in this graduate studio are presented and reviewed in a group setting, absence SDAs are not accepted for the pin-ups. Late hand-ins will be subject to a 3% penalty per weekday, including reading week. Medical In the event of a health emergency, please submit a medical note as soon as possible to the Architecture office. This will allow you to complete the work without being subject to late penalties conditions & - the extension depends on how long you were unable to work, as indicated in the medical note. emergencies If more than one course is affected, please consult with the Graduate Coordinator to set a new schedule of due dates.

UNIVERSITY POLICIES AND RESOURCES	
Academic regulations	This course is governed by the academic rules and regulations set forth in the University Calendar and the Senate. See the School's "Academic Regulations" page for links to university policies and resources: • Academic integrity • Accessibility • Code of student conduct • Dalhousie University Library • Dalhousie Writing Centre http://writingcentre.dal.ca

	 Diversity and inclusion; culture of respect Fair dealing guidelines (copyright) Recognition of Mi'kmaq territory Student declaration of absence Work safety
Academic integrity	All work is expected to meet the <u>Dalhousie University standards of Academic Integrity</u> especially regarding citation and plagiarism. Plagiarism (using the original creative work of another without full and proper acknowledgement) constitutes grounds for failure of an assignment, and may result in disciplinary actions by the university. The work must be your own and cannot be subcontracted. If there is a third party involved other than colleagues, faculty, or a University workshop, similar penalties will be enforced.
Equity, diversity & inclusion	The Faculty of Architecture and Planning is committed to recognizing and addressing racism, sexism, xenophobia and other forms of oppression within academia and the professions of architecture and planning. We, the faculty, are working to address issues of historic normalization of oppressive politics, segregation, and community disempowerment, which continues within our disciplines today. For more information about how the Faculty is working to enhance equity, diversity and inclusion, see the https://www.dal.ca/faculty/architecture-planning/about/edicommittee.html

RESOURCES

Client (Valley Roots Housing Association):

Community INC | Mary Fox, Executive Director

Portal Youth Outreach | Russ Sanche, Executive Director

Valley Community Learning Association | Peter Gillis, Executive Director

Open Arms | Michelle Parker, Executive Director

Kids Action | Suann Boates, Executive Director, Kings County

Consultants (tbc):

Inclusive Homes Consulting | Earl Mielke

Macy Architecture | Mark Macy

Passive Design Solutions | Mike Anderson, Zane Murdoch, Naryn Davar-Timbre, Molly Merriman

Readings - On housing

Canales, Fernanda, Devesa, Ricardo. 2020. *Shared Structures, Private Spaces: Housing in Mexico*. translation by Polisemia. New York: Actar. (Look at chapter on neighborhoods.)

Davis, Sam. 1995. The Architecture of Affordable Housing. Berkeley: University of California Press.

Diamond, A. Jack. 1976. "Residential Density and Housing Form", *Journal of Architectural Education* 19 (3): 15-17. Frampton, Kenneth. 1975. "The Evolution of Housing Concepts 1870-1970", *Lotus* 10 (Nov): 24-33.

Heckmann, Oliver and Friedericke Schneider (eds). 2011. Floor Plan Manual Housing, 5th ed. Basel: Birkhäuser. https://issuu.com/birkhauser.ch/docs/floor plan manual housing 5th editi

Kendall, Stephen, ed. 1996. Support/Infill Housing and Open Building, vol. 2. https://drstephenkendall.com/wp-content/uploads/2017/01/OB-READER-VOL-2-copy.pdf

Parolek, Daniel G. 2020. *Missing Middle Housing: Thinking big and building small to respond to today's housing crisis.* Washington, DC: Island Press.

Ravetllat Mira, Pere Joan. 1992. Block Housing: A Contemporary Perspective. Barcelona: Gustavo Gili.

Schneider, Tatjana and Jeremy Till. 2007. Flexible Housing. London: Architectural Press.

Sherwood, Roger. 1978. *Modern Housing Prototypes*. Cambridge, MA: MIT Press, 1978. Introduction. https://archive.org/details/ModernHousingPrototypes/page/n5/mode/2up

Urban Land Institute:

- "ULI Americas Research and Publications." https://americas.uli.org/research/centers-initiatives/terwilliger-center-for-housing/research-publications/
- "Net Zero for All: A Just Transition for Real Estate." 25 May 2023. https://knowledge.uli.org/-/media/files/research-reports/2023/net-zero-for-all_a-just-transition-for-real-estate.pdf?rev=047bc2acb0eb43d3a47e07ef5e63f9a1&hash=1FCE3522B701DC8CD73F029930A82799
- "Reshaping the City: Zoning for a More Equitable, Resilient, and Sustainable Future." 21 December 2022.
 https://knowledge.uli.org/reports/research-reports/2023/reshaping-the-city-zoning-for-a-more-equitable-resilient-and-sustainable-future?_gl=1*73uv9s*_ga*MTI4Mzc4NzI5NS4xNjkyNzk5NzE3*_ga_68JJQP7N7N*MTY5Mjc5OTcxNi4xLjEuMTY5Mjc5OTg5OS4wLjAuMA

Wright, Gwendolyn. 2014. "Design and Affordable American Housing", *Cityscape* 16 (2), Form Follows Families: Evolution of U.S. Affordable Housing Design and Construction: 69-86.

On design / housing / community theory

Alexander, Christopher, Sara Ishikawa and Murray Silverstein. 1977. *A Pattern Language: Towns, Buildings, Construction*. Oxford University Press.

Habraken, Nicholas John. 1987. "The Control of Complexity", Places 4 (2): 3-15.

Habraken, Nicholas John. 1999. Supports: an Alternative to Mass Housing. ed. Jonathan Teicher. UK: Urban International Press (reprint of the 1972 English edition)

Jackson, John Brinckerhoff. 1984. "The Movable Dwelling and how it came to America." In *Discovering the Vernacular Landscape*. New Haven: Yale University Press, pp. 89-

Sennett, Richard. 2013. *Together: The Rituals, Pleasures and Politics of Cooperation*. New Haven: Yale University Press.

Molenvliet, Papendrecht - Rotterdam, 1974 | Frans van der Werf with KOKON Architects Communal Outdoor Spaces, Auckland Design Manual, 2023 Common Unity, Mexico D.F., 2016 | Rozana Montiel Estudio de Arquitectura









COLLECTIVE HOUSING CASE STUDIES

Beguinages, Lowlands, 17th c



Spangen Housing, Rotterdam, 1919-21 Developer: Municipal Housing Agency Architect: Michael Brinkman



North Glenora Patio Homes, Edmonton, 1952 Developer: Alldritt Construction Architect: Wallbridge & Imrie



St. Francis Square, San Francisco, 1964Developer: Int'l Longshoremen's Union & SF Redevelopment Agency Architect: Marquis & Stoller



Certosa di Ema, Florence



Horatio West Court, Santa Monica, CA 1919 Developer: Horatio D. West



Bishopsfield, Harlow, 1960 Developer: Harlow Development Corp Architect: Michael Neylan



Villa Victoria, Boston, 1969-82 Developer: Emergency Tenants' Council Architect: John Sharratt



Molenvliet, Papendrecht (Rotterdam), 1974

Developer: Housing Association of Papendrecht Architect: Frans van der Werf with KOKON Architects



Les Jardins du Y des Femmes de Montréal, 2006

Developer: Y des Femmes de Montréal Architect: Atelier Big City with NIP Paysage



SB-CAST, Santa Barbara, 2016

Developer: SB Center for Art, Science & Technology

Architect: Macy Architecture



Casa Arabella Affordable Family Housing, Oakland, 2020

Developer: The Unity Council & East Bay Asian Local Development Corp Architect: Michael Pyatok



Centre Village, Winnipeg, 2010

Developer: Centre Venture Architect: 5468796 & Cohlmeyer



Fillmore Park, San Francisco, 2013

Developer: Michael Simmons Property Development Inc. Architect: David Baker



HQ-1532 Harrison, San Francisco, 2020

Developer: Build Inc. Architect: Macy Architecture



Alta Madrone Affordable Family Apartments, Sonoma, CA, 2023

Developer: Satellite Affordable Housing Associates

Architect: Michael Pyatok

