NATIONAL ARCHITECTURAL ACCREDITING BOARD, INC.
1735 New York Ave NW | Washington, DC 20006
info@naab.org | 202.783.2007 | www.naab.org

April 19, 2019

Sarah Whiting, Ph.D.
Dean, School of Architecture
Rice University
Loop Road
Houston, TX 77005

Greetings,

After reviewing the 2-year Interim Progress Program Report (IPR) submitted by Rice University School of Architecture, the National Architectural Accrediting Board (NAAB) has concluded that the program has demonstrated progress toward addressing deficiencies identified in the most recent Visiting Team Report.

In addition to the mandatory information required by the 5-year IPR in 2021, the report must also demonstrate progress toward meeting the SPC B.2 Site Design deficiency in both the B.Arch. and M.Arch. programs. Please note that Statistical Reports are still due annually.

If you have any questions regarding this matter, please contact the NAAB office.

Very truly yours,

Kevin Flynn, FAIA
President

Interim Progress Report

Rice University School of Architecture
B.Arch and M. Arch
Year of the previous visit: 2016

Chief administrator for the academic unit in which the program is located: Sarah Whiting, Dean

Provost: Marie Lynn Miranda

President of the institution: David Leebron

Individual submitting the Interim Progress Report: Sarah Whiting

Name of individual(s) to whom questions should be directed: John Casbarian, Director of External Programs

Current term of accreditation: 2016

1. Progress in Addressing Not-Met Conditions and Student Performance Criteria

B.2 Site Design (M.Arch only)

***2016 Visiting Team Assessment*:** Evidence of student achievement at the prescribed level in the B.Arch program was found in student work prepared for ARCH 301: Intermediate Problems in Architecture I and ARCH 602: Architectural Problems. In the graduate curriculum, the team did not find sufficient evidence of student achievement in understanding topography and watershed as represented by topographic manipulation or site-planning responses to climate considerations.

Rice University, 2018 Response: In response to this deficiency, as well as the serious concerns of flooding in Houston, particularly after the devastation of Hurricane Harvey, watershed issues and other relevant topographic concerns have been foregrounded in addressing the site planning phases of the required graduate core studios, ARCH 504, which is a housing/urban studio sited in Houston. This studio is required of all M.Arch students regardless of program option. In addition, the graduate option studios, Arch 602, have been mandated to address this issue more consistently.

B.9 Building Service Systems (B.Arch and M.Arch)

2016 Visiting Team Assessment: The team found evidence of an understanding in student work products associated with mechanical, electrical, and fire protections systems in ARCH 316/516: Technology IV – The Environment and ARCH 601: Totalization Studio. However, in the material presented, the team could not find evidence of an understanding of vertical transportation, plumbing, communication, or security systems. These items were often mention in course syllabi, but no evidence was available for review, or the information provided was not consistent among projects. In student work products associated with course material, the team did find extensive evidence of mechanical system considerations, including system components, load calculations, testing of alternatives, moisture protection, and fire safety design.

Rice University, 2018 Response: The Totalization studio (Arch 601) syllabi, as noted by the VTR, include requirements for addressing issues of vertical transportation, plumbing and other MEP considerations, communication, and security and egress issues. Experts in these fields are brought in to lecture on these topics and help students address them in their individual projects, resulting in specific diagrams conveying their design intentions. These diagrams are now included in the required Totalization drawing template, so that they are more clearly evident as part of the comprehensive design proposal.

2. Changes or Planned Changes in the Program

Please report such changes as the following: faculty retirement/succession planning; administration changes (dean, department chair, provost); changes in enrollment (increases, decreases, new external pressures); new opportunities for collaboration; changes in financial resources (increases, decreases, external pressures); significant changes in educational approach or philosophy; changes in physical resources (e.g., deferred maintenance, new building planned, cancellation of plans for new building).

Rice University, 2018 Response: Since 2016, we have increased the faculty by 11%. We added three new assistant professors: one female in studio design, one male in history/theory, and one male in building technology and structures. We also replaced two Wortham Fellows, (who have a 2-year term) who teach design studios, and a postdoctoral fellow, who teaches electives and history/theory. We will have two retirements in 2019 and another in 2020 (all male). Our student enrollment has remained consistent. Our overall budget has also remained relatively static - we

received some large gifts in 2016 that increased our revenue significantly, enabling us to afford large expenditures, including a new website, but operating and endowment revenues has been consistent. Since the visit, we have made two important upgrades to the physical space: we replaced the freshmen studio entry with a glass storefront wall to better integrate them into the school and we replaced the flooring in the main areas on the first and second floor. We have upgraded shop equipment including a third laser cutter, replaced the bandsaw and belt sander, replaced several 3D printers, and we are in the process of purchasing a larger scale CNC mill. In 2017, the executive director of the Rice Design Alliance retired after 29 years in the position, and we hired Maria Nicanor to replace her. Maria joins us from Spain, where she worked for the Norman Foster Foundation. Previously she was a curator at the Guggenheim. We also hired a new building and administrative coordinator whose primary focus is on upkeep of the school's facilities. Lastly, this year we have piloted a new, part time position that focuses on career development for students and alumni engagement. In 2019, we intend to hire a dedicated marketing and communications manager to help share what we do with the broader architecture community and manage the visual identity of the school and Rice Design Alliance. We have made several updates to the school's curriculum: History and theory: The faculty in this area performed a thorough self-study, which resulted in minor adjustments to the time periods and focus of each of our four required courses; we added a new elective lecture course on contemporary practices. Technology: As with History/Theory, the Technology faculty performed a self-study, which resulted in flipping the required sequence so that the first two courses are now focused on materials and the second two are focused on systems. We have also integrated more site visits and fabrication assignments into the Tech sequence to better enable our students to grasp the relevance of this area of the curriculum to their design work. Thesis: Previously, the M.Arch students took ARCH 702: Prethesis in their penultimate semester, where they looked at contemporary issues alongside their own thesis preparation. We have now separated 702 into separate courses: ARCH 655: Contemporary Practices and ARCH 701: Thesis Proposal in an effort to clarify the independence of the thesis endeavor and to enable our B.Arch students to take advantage of the contemporary issues course offering. Those two courses will be offered this spring for the first time; the syllabi are not yet available. Lastly, we invested heavily in web and branding updates in 2017. Working with Original Champions of Design (OCD), we undertook a major overhaul on the visual identity of the school and website. Looking forward, the university is planning to launch a capital campaign, and a new building addition for the School of Architecture is on the list. When funding is secured, we look forward to adding an additional 20,000 square feet of space in the school. This will house a new interdisciplinary urban culture program, organized in partnership with the Schools of Engineering, Humanities, and Social Science, as well as additional exhibition and research space for our faculty and students.

3. Summary of Activities in Response to Changes in the 2014 NAAB Conditions

Rice University, 2018 update: Conditions have not changed since the last team visit.

4. Appendix (include revised curricula, syllabi, and one-page CVs or bios of new administrators and faculty members; syllabi should reference which NAAB SPC a course addresses)

Rice University, 2018 update: Attached are the resumes of new faculty and sample syllabi for courses that had unmet conditions.

Juan José Castellón González

Courses Taught:

ARCH 602, ARCH 650

Educational Credentials:

Swiss Federal Institute of Technology Zurich, D.Arch., 2017
Architectural Association School of Architecture, M.Arch., 2011
Escola Tecnica Superior D'Arquitectura de Barcelona, Diploma in Architecture, 2003

Teaching Experience:

Assistant Professor, Rice University, 2018-
Lecturer and Researcher, ETH, 2011-17
Adjunct Professor, Barcelona Institute of Architecture, 2010-12

Professional Experience:

Founding Partner, xmade GmbH, 2016-
Project Architect, Herzog & de Meuron, 2008-09
Project Architect, SHoP Architects, 2007-08
Project Director, Abalos & Herreros, 2003-07
Project Architect, Foreign Office Architects, 2003

Licenses/Registration:

None

Selected Publications and Recent Research:

Hybrid Textiles in Architecture, Project Leader, ETH
Cuts, Invited Speaker, Venice Biennale
Jai Tech, Curator, Canadian Center for Architecture
Foldkite, Project Leader, ETH
Research Residency, Canadian Center for Architecture
Thermodynamic Materialsim, Project Leader, ETH

Professional Memberships:

None

Ajay Manthripragada

Courses Taught:

ARCH 402, ARCH 403, ARCH 504, ARCH 201

Educational Credentials:

Princeton University, Master of Architecture, 2009
Southern California Institute of Architecture, Certificate in Media Studies, 2004
UCLA Berkeley, Bachelor of Arts in Architecture, 2002

Teaching Experience:

Lecturer, UCLA Berkeley, 2010-2017
Academic Lead for In-Arch Program, UCLA Berkeley, 2014-16
Lecturer, California College of the Arts, 2011
Architect-in-Residence at PS1, Museum of Modern Art, 2009-2010

Professional Experience:

Studio Manthripragada, Principal, 2014-
Jermyn Manthripragada Architecture, Principal, 2012-14
Atelier West Architecture, Associate, 2011-12
Melendez and Kao Studio, Designer, 2010-11
Aranda/Lasch, Designer, 2004-05
Regan Bice Architects, 2003-04
Oualalou + Choi, Designer, 2002-03

Licenses/Registration:

None

Selected Publications and Recent Research:

Averaging Mies, *Room 1000*, UC Berkeley Architecture Journal, 2013
Working Waterline, Museum of Modern Art, 2010

Professional Memberships:

None

Piergianna Mazzocca

Courses Taught:

ARCH 402, ARCH 403, ARCH 201

Educational Credentials:

Delft University of Technology, Master of Science in Architecture, 2016
University of the Andes, Bachelors in Architecture, 2012

Teaching Experience:

Wortham Fellow, Rice University, 2017-

Professional Experience:

Research and Editorial Coordinator at Andrewa Caputo Milan, 2016
Architect, DROM, 2016
Director and Project Coordinator, Taller de Arquitectura, 2011-15

Licenses/Registration:

None

Selected Publications and Recent Research:

Space Embodied, Het Nieuwe Instituut, 2016
Scenes from the Good life, Delft University of Technology, 2015
Unfinished Projects, Maracaibo's Fine Arts Center, 2012

Professional Memberships:

None

Sebastian Schmidt

Courses Taught:

ARCH 345/645, ARCH 412

Educational Credentials:

Rice University Jones Graduate School of Business, Executive Education Graduate Leadership Certificate, 2018-
MIT, PhD in the History, Theory & Criticism of Architecture and Art, 2010-17
University of Edinburgh, Master of Science, 2008-09
Heinrich Heine University, Bachelor of Arts in Media and Cultural Studies, 2004-08

Teaching Experience:

Junior Fellow, Rice University, Academy of Fellows, 2018-
Postdoctoral Fellow, Rice University, 2017-18
Teaching Assistant, MIT, 2012-17
Instructor, Heinrich Heine University, 2009

Professional Experience:

None

Licenses/Registration:

None

Selected Publications and Recent Research:

Nuclear Anxiety and Urban Planning in Postwar Japan's City of the Future, *Cold War Cities: Spatial Planning, Social and Political Processes, and Cultural Practices in the Age of Atomic Urbanism,* 1945-1965, 2019
Recording Trauma, Overcoming Trauma: Paintings of Hiroshima, *War and Portrayal*, 2019
The Archival Workspace: An Accidental Ethnography, *Thresholds*, 2016

Professional Memberships:

Global Architectural History Teaching Collaborative
Global Urban History Project
American Historical Association
Urban History Association
Society for American City and Regional Planning History
International Planning History Society
Society of Architectural Historians

Naomi Hanakata

Courses Taught:

ARCH 504

Educational Credentials:

ETH Zurich, Doctor of Science, 2011-16
ETH Zurich, Master of Science in Architecture, 2008-2010
ETH Zurich, Bachelor of Science in Architecture, 2004-07
University of Tuebingen, Bachelor of Arts in Japanese Studies, 2001-04

Teaching Experience:

Visiting Studio Professor, Rice Univeristy, 2017
Instructor, Urban Redevelopment Authority Singapore, 2017-

Professional Experience:

Postdoctoral Researcher, Future Cities Laboratory, Singapore, 2015-16
Planning Consultant, Colin Okashimo and Associates, 2014
Architect and Planner, Klein Dytham, 2009-2011
Architect, Shigeru Ban Architects, 2007

Licenses/Registration:

None

Selected Publications and Recent Research:

Professional Memberships:

American Association of Geographers
International Sociological Association
International Society of City and Regional Planners
International Network for Urban Research and Action

50+ STRATEGIES FOR SUSTAINABLE HOUSING DEVELOPMENT

ARCH 504: Architecture & Urbanism Dr. Naomi Hanakata, Visiting Critic

1. Sudio Rationale and Agenda

The future is urban. This is a fact beyond statistical am-bivalence. Society today is defined by the logics of urban regions that vary in their intensity and range from concen-trated to extended forms, generating multiple urban reali-ties which are all linked together as part of an interdepen-dent urban condition. This interdependency is, in effect, not restricted by territorial borders nor limited to certain realms, may they be economic, political, cultural or social. In planning practice these interdependencies have yet to be fully explored: they are increasingly crucial not only to be recognize as such but further more to be leveraged on in order to develop sustainable urban planning strategies.

Especially during crises, these interdependencies become evident when, for example, an economic crisis challenges our everyday lives and fundamental values and forces us to rethink our consumer behavior, or natural catastrophes suddenly make our built environment look fragile and established practices redundant. At the same time, it is at these very moments of rupture that cities have the oppor-tunity to reassess their status quo and develop proposals for new and alternative development scenarios.

In this studio, students will develop a transdisciplinary dialogue and strategies that build upon a comprehensive understanding of urban challenges ahead of us, including but not limited to ecological and social challenges. Stu-dents will be working with different disciplinary perspec-tives and will bring them together in the practice of archi-tecture and planning and the development of concrete housing proposals on a larger scale for Houston in 2050. In doing so, students will be presented with contemporary and pressing aspects that are decisive for the future urban condition of Houston and this will allow them to explore the complexity of urban planning and adequate strategies for sustainable development scenarios.

The programmatic focus of this studio is housing in a mixed-use setting. A formal objective of this studio is a high-density condition as a response to environmental challenges and in support of a high degree of program-matic mixing. As a point of reference international mas-ter planning projects that include mixed-use housing schemes ranging in their intensity and scale of mixing will be analyzed.

The site for this studio is in the area of Meyerland and Bellaire in the Southwest of Houston. The site itself is 1100 acres / 460 hectares large and is framed by a mead-ow belt and the 610 Loop. The recent devastations of hurricane Harvey serve as a starting point to develop strategies for a planning scheme that aims to address the condition and needs for the area in 2050 and beyond.

2. Course Structure

The course is structured in four blocks, which focus on different questions and objectives and are guided by varying input. Each block is opened with a **Reading** and **Input Lecture** and further consists of a thematic **Workshop**, an **Assignment** and con-tinuously develops a design scheme (**Studio**) and builds upon the development of a set of case study references (**Case Study Workshop**). The objectives for each block are as follows:

Block 1

- Introduction of basic urban planning principles
- Introduction of Housing as the focus topic
- Output: Housing Biography, Site Analysis, Opportuni-ties & Challenges
    - Narrative
    - Drawings
    - Photographs

Block 2

- Introduction of key urban planning principles
- Introduction of Urban Ecology
- Output: Case Study Analysis, Density Studies, Proposal of Thesis and Strategy
    - Thesis (text)
    - Drawings
    - Photographs
    - Model 1: 5000 (collective model; base model finished)

Block 3

- Introduction and Elaboration of key social challenges
- Output: Case Study Analysis, Housing Typologies, Mobility Schemes, Program and Phasing Studies, Thesis and Strategy
    - Thesis (text)
    - Drawings
    - Photographs
    - Model 1: 5000 (collective model) for discussion
    - Model (individual scale) for discussion

Block 4

- Elaboration of housing schemes and relevant mecha-nisms
- Elaboration of key urban planning strategies
- Output: Preliminary material for Final Review

Final Review

- Phases /Focus
- Outcome: Urban development strategy for Meyerland, Houston, with mixed-use housing proposals;
    - Format (drawings / models)
    - Quantity (drawings / models)
    - Quality (drawings / models)
    - Documentation of the thought and work process (essay/pictures)
    - Quantitative representation of elements / stats /eg. Land coverage / units / diversity etc.

3. Design Practice

- Sketches and drawings

Sketching is an important form of observation, thought de-velopment and communication in design practice. Students are expected to produce hand sketches, diagrams, maps, and drawings throughout the term and use adequate software
(CAD, AI, PSD etc.) for translation and/or representation.

- Models

Working with a physical model is key in the design process as well as it is forming a key element in the representation and discussion of ideas. Working with models represents itself a certain approach to design which is crucial in this studio. They furthermore offer an opportunity for collaboration.
Students are expected to build a site model collaboratively as well as work individually with analytical and/or conceptual mod-els and produce models to present their projects.

The Site

1000 ft

Source: Google Earth, 2017.

4. Research and Methods

- Doing Research

Systematic and thorough research is a key element of this stu-dio. Various and serious sources are expected to be used and mastered. An introduction to a select number of resources and methods will be provided during the course.

- Case Study References

Case studies provide a crucial element in planning practice. Hence, the research and use of case studies as references form an important part of this studio. Case studies as well as crite-ria for analysis will be partly provided but are expected to be expanded upon.

- 5 international case studies provided: (1) HafenCity, Hamburg, Germany, (2) Roppongi Hills, Tokyo, Japan, (3) Jurong Lake District, Sin-gapore, (4) Zuidas, Amsterdam, Netherlands, (5) New Songdo City, Seoul, Korea, (6);
- 5 local examples to be added by the students in teams of two;

- Readings

Reading sessions form an important part of this studio to a) practice critical thinking, b) discussion culture, and d) famil-iarize students with key literature in the relevant fields. Key readings are provided but are expected to be complemented with further readings based on the students own initiative and research.

- Documentation

Systematic and complete documentation of all work is key from the very beginning of the studio. This is to allow for all gath-ered data to remain verifiable and accessible during the course as well as after.

- Presentation

Regular presentations are considered an important part of the studio and learning experience; they will be scheduled regu-larly for the work prepared over the week. For all presentations please always be present as your colleagues are also your teachers. Please always prepare yourself and make sure you stick to the allocated time. For printed presentation material, please make sure you print everything out before lunch time of the presentation day;

For all reviews templates will be provides and requirements specified. Please stick to the provided templates and request-ed formats. All reviewed material has to be submitted digitally in PDF as well as the package of the original data files (CAD, AI, PSD etc.) on the day of presentation.

5. Studio Structure and Practice

The studio space is there for you to work in and you are ex-pected to be present in order to allow for collaboration and discussions to take place. The design studio is a creative envi-ronment for reflection and production. Architecture is collabo-rative in nature. Learning to operate in such a collective envi-ronment is an important step toward professional architectural practice.

The studio is conducted on Monday, Wednesday and Friday from 1:00 pm to 6:00 pm. Attendance during studio for its entirety is mandatory, as are all reviews, pin-ups and related events. Attending studio means working on studio work during class time within the studio space. Absences due to health reasons must be coordinated with the instructor. Absences for social engagements such as holidays will not be accepted.

Every Monday is a pin up; this pin up is meant to show and dis-cuss within the group the design progress, the last assignment, as well as the research on the case study references.

7. Communication

During studio working sessions time will be allocated for in-dividual discussions. Please always take (legible) notes during group meetings and after individual meetings as a documenta-tion of the process and to serve as a reference moving forward.

Office hours are by appointment. I am also available by e-mail and will reply to questions within 24 hours. Never hesitate to ask your colleagues or me; you will always receive a response that will take you to the next level.

Any student with a documented disability requiring accommo-dations or academic adjustments in this course is encouraged to contact the instructor during the first two weeks of class. All such discussions will remain as confidential as possible. Additionally, students also need to contact Disability Support Services in the Allen Center (http://dss.rice.edu/).

7. Evaluation

Final grades will be determined by the degree of effort, experi-mentation, and production that each student (individually and in the team) demonstrates throughout the semester. The following criteria will form the basis for the evaluation of the work:

a) Originality and project coherence
b) Intellectual ambition and clarity
c) Technique and craft
d) Completion
e) Attendance and participation

These criteria will be applied in the assessment of the following parts of the studio:
Overall design project (40%)
Assignments (15%)
Reading and discussions (15%)
Case study work (15%)
Workshops (15%)

Case Studies

HAFENCITY HAMBURG, GERMANY, Source: http://hafencity.com/

JURONG LAKE DISTRICT, Source: http://www.kcap.eu

NEW SONGDO CITY, Source: https://www.kpf.com

ROPPONGI HILLS, TOKYO, JAPAN Source: https://www.mori.co.jp

ZUIDAS, AMSTERDAM, NETHERLANDS, Source: http://en.cie.nl/projects/54

Key Readings

Christiaanse, Kees. 'The Open City and Its Enemies'. In Open City: Designing Coexistence, edited by Tim Rieniets, Jennifer Sigler, and Kees Christiaanse, 25–36. Amsterdam: SUN, 2009

Fainstein, Susan S. 'New Directions in Planning Theory'. Urban Affairs Review 35, no. 4 (2000): 451–478.

———. 'The Just City'. International Journal of Urban Sciences 18, no. 1 (2 January 2014): 1–18. https://doi.org/10.1080/12265934.2013.834643.

Fonseca, Jimeno A., Thuy-An Nguyen, Arno Schlueter, and Francois Marechal. 'City Energy Analyst (CEA): Integrated Framework for Analysis and Optimization of Building Energy Systems in Neighborhoods and City Districts'. Energy and Buildings 113 (February 2016): 202–26. https://doi.org/10.1016/j.enbuild.2015.11.055.

Gehl, Jan, Lotte Johansen Kaefer, and Solvejg Reigstad. 'Close Encounters with Buildings'. URBAN DESIGN International 11, no. 1 (April 2006): 29–47. https://doi.org/10.1057/palgrave.udi.9000162.

Gehl, Jan, and Birgitte Svarre. How to Study Public Life. Washington: Island Press, 2013.

Grêt-Regamey, Adrienne, Enrico Celio, Thomas M. Klein, and Ulrike Wissen Hayek. 'Understanding Ecosystem Services Trade-Offs with Interactive Procedural Modeling for Sustainable Urban Planning'. Landscape and Urban Planning 109, no. 1 (January 2013): 107–16. https://doi.org/10.1016/j.landurbplan.2012.10.011.

Keil, Roger, ed. Suburban Constellations: Governance, Land And Infrastructure In The 21st Century Author: Roger Keil, Publisher: Jovis Ber, 2013. http://95.211.178.239/download/3868592318.pdf.

———. 'Suburbanization and Global Cities'. International Handbook of Globalization and World Cities, 2012, 408.

Keil, Roger, and Klaus Ronneberger. 'The Globalization of Frankfurt Am Main: Core, Periphery and Social Conflict'. In Globalizing Cities, edited by Peterrcuse and Ronald van Kempen, 228–48. Blackwell Publishing Ltd, 2000. http://onlinelibrary.wiley.com.libproxy1.nus.edu.sg/doi/10.1002/9780470712887.ch11/summary.

Khanna, Parag. Connectography: Mapping the Future of Global Civilization. Random House, 2016. https://books.google.com.sg/books?hl=en&lr=&id=wh2eCgAAQBAJ&oi=fnd&pg=PA3&dq=parag+khanna+connectivity&ots=6sCz5Nc_d-&sig=qsFqYoXDg6jvXxkaInWNdLfg5AQ.

Massey, Douglas S., and Nancy A. Denton. 'Suburbanization and Segregation in U.S. Metropolitan Areas'. American Journal of Sociology 94, no. 3 (1 November 1988): 592–626. https://doi.org/10.1086/229031.

Meadows, Dennis L., Edward I. Goldsmith, and Paul Meadow. Limits to Growth. Vol. 381. CBC, 1972.

McHarg, Ian L. 'Nature in the Metropolis'. In Design with Nature, 25th anniversary ed., 55–77. New York: Wiley, 1992.

Morton, Timothy. Hyperobjects: Philosophy and Ecology after the End of the World. Posthumanities 27. Minneapolis: University of Minnesota Press, 2013.

Moulaert, Frank, Arantxa Rodriguez, and Erik Swyngedouw. The Globalized City: Economic Restructuring and Social Polarization in European Cities. OUP Oxford, 2003.

Pinson, Gilles. 'Political Government and Governance: Strategic Planning and the Reshaping of Political Capacity in Turin'. International Journal of Urban and Regional Research 26, no. 3 (1 September 2002): 477–93. https://doi.org/10.1111/1468-2427.00394.

Phelps, Nicholas A., and Fulong Wu. International Perspectives on Suburbanization. London: Palgrave Macmillan, 2011. http://link.springer.com/content/pdf/10.1057/9780230308626.pdf.

Rosenzweig, Cynthia, and William Solecki. 'Hurricane Sandy and Adaptation Pathways in New York: Lessons from a First-Responder City'. Global Environmental Change 28 (September 2014): 395–408. https://doi.org/10.1016/j.gloenvcha.2014.05.003.

Shatkin, Gavin. 'Planning Privatopolis: Representation and Contestation in the Development of Urban Integrated Mega-Projects'. Worlding Cities: Asian Experiments and the Art of Being Global 41 (2011): 77.

Swyngedouw, Erik, Frank Moulaert, and Arantxa Rodriguez. 'Neoliberal Urbanization in Europe: Large–scale Urban Development Projects and the New Urban Policy'. Antipode 34, no. 3 (2002): 542–577.

Wackernagel, Mathis, and William E. Rees. 'What Is an Ecological Footprint?' In Our Ecological Footprint: Reducing Human Impact on the Earth. New Catalyst Bioregional Series, no. 9. Gabriola Island, BC ; Philadelphia, PA: New Society Publishers, 1996.

Whyte, William Hollingsworth. The Social Life of Small Urban Spaces. 7. print. New York, NY: Project for Public Spaces, 1980.

FRIENDS INCLUDED

"Comfort Included... Convenience Included... Friends Included"
- Ollie's Carmel Place Website

ARCH 601 : Totalization
Fall Semester 2018

Rice Architecture

Instructor:
Troy Schaum [tschaum@rice.edu]

Schedule:
M,W,F 1:00pm-6:00pm

Location:
Anderson Hall, Studio 238

OBJECTIVE

This studio aims to teach an integrated and collaborative approach to building design through studio based design methods. A range of topics related to advanced architectural design, including structural, environmental, programmatic and conceptual themes, will be approached through a methodical and comprehensive process.

SUMMARY

Changes in zoning code, growth of adult single households and co-living arrangements, and the proliferation of life-management apps have led to an explosion of interest in this housing type. Over the past two years, one can point to projects currently underway or recently completed in over different ten cities across the United States.

Micro-housing is housing with units smaller than 300sf and sometimes with what are typically considered necessities for a housing unit like kitchens and bathrooms left shared among several otherwise separate units. This typology upends traditional housing organizations and blurs boundaries between product design, architecture, social media and the sharing economy. These developments trade the usual promise of leased square footage for a carefully curated lifestyle that includes field trips, housekeeping, furniture and even friends. The speed and scale of this development is producing fundamental changes to what remains a basic building block of the city – the housing unit.

Historically, the City of New York relied on two acts of zoning, the original 1916 Zoning Resolution and the subsequent reforms established in the 1961 Zoning Resolution. Both became important models for zoning in other cities and provided the framework for much of the citymaking of the 20th century. In 2016, Mayor William De Blasio championed and the New York City Council passed a new series of reforms that among other things increases the allowable housing density in residential building. It allows for rental units of 260sf which had been illegal since Single Room Occupancy (SRO) housing was written out of the zoning code in the late 1950s. Most major cities at the time made super small scale housing illegal because the assumption was that it attracted blight and crime by creating housing for primarily single adult men at a time when 72% of adults over 18 were married.

FRIENDS INCLUDED

SUMMARY CONTINUED

Now that cities, New York included, are flooded with many more single households types (51% of adults over age 18 are single), the struggle to find affordable alternatives for housing in many cities is putting pressure on zoning laws to allow for more extreme density and configurations that include shared kitchens, bathrooms and other amenities like those that were found in traditional SRO housing. In 2012, the New York City Housing Authority (NYCHA) conducted an RFP called adAPT NYC, a pilot program to explore the potential of this renewed interest in "micro-housing". The response, over 1,200 entries, from architects and developers was larger than anything the city had seen previously or expected and it ignited a broad conversation on the nature of housing in the densifying American city. That competition resulted in the recently completed Carmel Place managed by Ollie, an emerging brand in the micro-housing market.

Second generation micro-housing developments are currently in design and construction in every major American city. The Ivy in East Houston has been planned to be the largest, at 425 units, but developments exist at every scale down to 12 units in some of Brooklyn's co-housing developments like Common Living. The developers building these housing units are opportunistically focusing on a new generation of city dwellers who are willing to trade space for a certain notion of curated lifestyle and convenience. The units are light on space and heavy on apps that promise social engineering on a new scale. Some of these apps promise to provide the perfect roommate, a full fridge, endless social engagement and 24-hour butler service. As one of the micro housing developers Ollie advertises, housing now comes with comfort, convenience and friends.

This opportunity to add-value to what has been a mundane market has not been lost on global corporations. For instance, businesses such as WeWork and its sister company WeLive are partnering with the construction and real-estate industries to develop new models of leasing and marketing these units. These strategies typically involve cutting housing into smaller and smaller slivers of time. They ultimately offer the trade-off between lease terms with and a promised increase of services against the shrinking unit footprints.

The studio will explore and critique this housing type, which is being updated and renewed with attention from several sectors. We will interrogate the kinds of innovations in habitation that micro-housing hopes to establish, and we will unpack the relationships this new program seeks to engender amongst its occupants.

In this context, housing is defined by strict relationship between "units". Units of program have a proportional relationship to units of material, construction, systems and envelope. As the fundamental size of the programmatic unit shrinks and morphs, it opens a potential to explore new synchronicities between specific programmatic units of housing and the enclosures that define them. This semester, students will study the unit and how its boundaries and methods of enclosure are being redefined by the emergence of this transformation of housing typologies.

FRIENDS INCLUDED

THREE ISSUES

1 PART TO WHOLE vs. "ONE THING AFTER ANOTHER"

The studio starts by considering the form and massing of a small-scale, prototypical housing unit. The relationship of the individual unit to the building will be defined by how these small units are scaled-up. This transformation will start with simple techniques like scaling, multiplication, aggregation, nesting, etc., to explore the potential that lies in the tension between an irreducible whole and a non-hierarchical grouping of parts. The studio will investigate the singularity of iconic legibility and its ability to shape context through perception and orientation and how that changes when the singles become sets of self-similar multiples.

In her discussion of Robert Morris' "L Beam" sculpture, Rosalind Krauss has noted that the power of the L's resides in their lack of transcendental meaning; instead, their meaning derives from an interaction with the subject, their relation to the room and other shapes within the work. She notes: Their difference belongs to the exterior—to the point at which they surface into the public world of our experience. The 'difference' is their sculptural meaning; and this meaning is dependent upon how these shapes connect to the larger space of experience. It is the power of iconic form to condition and be conditioned by context that makes it a seductive conceptual device for proposing objects and possibilities of collectivity in the city.

Required:
Donald Judd, "Specific Objects" Arts Yearbook 8, 1965
Carpo, Mario. 2017. The Second Digital Turn: Design Beyond Intelligence, selected sections

Recommended:
Rosalind Krauss, "Death of the Hermeneutic Phantom: Materialization of the Sign in the Work of Peter Eisenman." House of Cards. New York: Oxford University Press, 1987, p.180.
Robert Morris, "Notes on Sculpture" Artforum, February 1966 and October 1966.

2 ENVELOPE vs. FACADE

The architecture of the building envelope is dominated by two paradigms. The first is the representational façade where exterior surfaces of a building address context by literally facing it; orientation and massing are the main modes by which relationships are established between building and existing context. Under this paradigm, each building face operates frontally and commands a separate external domain. The second paradigm is the responsive, high-performance building envelope that has been deployed over a large area, but accommodates a wide range of localized criteria by means of an underlying, adaptable, perhaps smart system. The properties of this type of envelope tend to derive from a mediation between the artificial environments contained within and the external conditions of the site.

Each of these models on its own—the singular, "top-down" representational facade and the aggregated, "bottom-up" performance-driven envelope—is insufficient to accommodate and direct complex social and infrastructural networks as well as meet architecture's potential to reorganize collective social life. The object of this studio will be to identify and appropriate the organizational and urban potentials of these two building-envelope paradigms and project an unforeseen architectural proposition for Friends Included.

Required:
Halpern Orit, Robert Mitchell, and Bernard Dionysius Geoghegan. 2017. "The Smartness Mandate: Notes toward a Critique" Grey Room: 106-129
Michael, Meredith. "After after geometry". Architectural Design. 83 (2): 2013. pp. 96-103.

Recommended:
Beeby, Thomas H. "The Grammar of Ornamen t/Ornament as Grammar," Via, ed. Stephen Kieran; Philadelphia: University of Pennsylvania, Graduate School of Fine Art. Vol.3 1977. p.10-29.

3 CONTEXT and URBAN FORM

Located on a corner site off across from the Brooklyn Academy of Music in the Fort Greene neighborhood of Brooklyn, the project is situated in the center of new residential and commercial development within a rapidly changing neighborhood. The studio will explore how the intervention of this new housing type will negotiate that specific situation and site, while imagining an alternate future for both the neighborhood and the many informal small scale institutions caught up in this recent development.

Required:
Slee, Tom. 2015. What's Yours is Mine: Against the Sharing Economy. New York: OR Books, selected sections
Sloterdijk, Peter. "Foam City." Log 9 (Winter/Spring 2007) pp. 63-76.

FRIENDS INCLUDED

Totalization/Semester Structure/Studio Seminars:
Besides being a stand-alone studio, this studio is also one of several coordinated Totalization Studios. Through the course of the semester all the Totalization studios will participate in joint seminars, travel and overlapping research discussions. Each Totalization Studio is focused on a different aspect of overall building design, so that by paying attention to neighboring studios investigations, students can gain a more total understanding of the issues engaged in speculative contemporary practice.

This studio requires individually motivated speculation that demands clear conceptual thinking and communication with associated graphic presentation through diagramming and rhetorical images. The early semester exercises build to prepare students to get the most out of the class trip to New York and support development their individual housing research. The final project will be developed through models and drawings with guidance and critique offered by the instructor in individual studio meetings. The project will ultimately be tested and explored through a series of models and drawings that are coordinated into a final review presentation.

The semester is structured around three project stages as described in the attached schedule. Each project is intended to expand the student's ability to formulate an architectural position in relation to the studio's thematic. The early formal explorations and site research is designed so the students are capable of addressing the complex architectural and urban questions demanded by the final project.

Deadlines:
Deadlines for pin-ups are both on the studio schedule and will be clearly established at the beginning of each assignment. These deadlines are inflexible and all required materials must be completed by the specified deadlines. Deliverables required for each deadline will be made clear well in advance.

**Pencils Down is Monday, Nov. 26 @ 5:00pm. All final presentation materials must be completed by this precise time. No work may be done in between this deadline and the final jury presentations.

Attendance:
Studio begins promptly at 1:00pm and ends at 6:00pm. Students are expected to be fully present for every studio. Absences ahead of holidays, for extracurricular activities or social engagements are not acceptable. Absences due to illness or health reasons must be coordinated with the instructors. Any absence beyond the first for illness must be accompanied by a doctor's note.

Grading:
Feedback will be given on projects throughout the semester. Students' final grades will be based on their ability to produce innovative, skillfully executed and thoughtfully articulated propositions based on the challenges provided in the studio brief. This requires an intense level of investigation and independent thinking with the support and advice of the instructor. Simply spending time in studio is not enough to produce high-quality work.

A final grade will be given based on your work over the course of the semester. Each project will receive a weight based on its duration in the schedule (Assignment 01.1 = 10%, Assignment 01.2 = 10%, Assignment 01.3 = 80%). Students' energetic participation in every studio session is required and will also be considered.

**A final upload of your work to Box within the Template Format provided is required for final grading and should be submitted on time.

Studio Environment:
The architecture studio should be the primary site of production for this class. Collaboration with your studio mates, the sharing of knowledge and critique, and maintaining the overall energy of investigation is essential to success as students and architects. Students should work in studio in a respectful way by keeping it clean, quiet and above all active. For more information on studio policies, see the Student Handbook posted in studio or online in Canvas.

Any student with a documented disability seeking academic adjustments or accommodations is requested to speak with the instructors during the first two weeks of class. All such discussions will remain as confidential as possible. Students with disabilities will need also to contact Alan Russell, Director, Disability Support Services at ext. 5841, Allen Center.

Studio Schedule

Week 1
M - Aug. 20
Option Presentations
Studio Kick-off - Film
The Lobster - Yorgos Lanthimos

W - Aug. 22
Desk Critique

F - Aug. 24
Studio Seminar: Topic 1

Week 2
M - Aug. 27
Desk Critique

W - Aug. 29
Desk Critique

F - Aug. 31
Joint Seminar 1:
Sustainability - Doug Oliver

Guest Lecture - Gökçe Günel

Week 3
M - Sep. 3
LABOR DAY - No Studio

W - Sep. 5
Project 01.1 Due

F - Sep. 7
Studio Seminar: Topic 2

Week 4
M - Sep. 10
Joint Seminar 2:
Accessibility - Troy Schaum

W - Sep. 12
Studio Seminar: Topic 3

F - Sep. 14
ALL STUDIOS TRAVEL NYC

Week 5
M - Sep. 17
NYC Visits

T - Sep. 18
ALL STUDIOS RETURN HOUSTON

W - Sep. 19
Desk Critique

F - Sep. 21
Project 01.02 Due
Joint Seminar 3:
Cost Analysis - William Cannady

Week 6
M - Sep. 24
Desk Critique

W - Sep. 26
Desk Critique

F - Sep. 28
Joint Seminar 4:
Elevators - Will Bowden

Week 7
M/T - Oct. 1/2
STRUCTURAL WORKSHOP 1
Nat Oppenheimer (RSA)

W - Oct. 3
Pin-up 1

F - Oct. 5
Joint Seminar 5:
Technical Drawing - Michelle Chang

Week 8
M/T - Oct. 8-9
Mid-term Recess - No Studio

W - Oct. 10
Desk Critique

F - Oct. 12
Joint Seminar 6:
Materials - Andrew Colopy

Week 9
M - Oct. 15
Joint Seminar 7:
Development Finance - Steve Radom

W - Oct. 17
Documentation Review 1

Th/F - Oct. 18/19
MECHANICAL WORKSHOP 1
Mark Malekshahi (Zubatkin)

Week 10
M/T - Oct. 22/23
FACADE WORKSHOP
Robert Heintges (Heintges Associates)

W - Oct 24
Desk Critique

F - Oct. 26
Midterm Review

Week 11
M - Oct. 29

W - Oct. 31
Desk Critique

Th/F - Nov. 1/2
STRUCTURAL WORKSHOP 2
Pat Arnett (RSA)
Nat Oppenheimer (RSA)

Week 12
M - Nov. 5
Desk Critique

W - Nov. 7
Pin-up 2

TH/F - Nov. 8/9
ENVELOPE WORKSHOP 2
Justin Holdahl (Heintges Associates)

Week 13
M - Nov. 12
Documentation Review 2

W - Nov. 14
Desk Critique

F - Nov. 16
Desk Critique

Week 14
M - Nov. 19
Desk Critique

W - Nov. 21
Desk Critique

F - Nov. 23
THANKSGIVING RECESS

Week 15
M - Nov. 26
PENCILS DOWN

Th - Nov. 29
Final Documentation Review

F - Nov. 30
Jury Week - Final Review

** Denotes Project Deadline

FRIENDS INCLUDED 01.1

Micro-housing Research: 2 Weeks [09.05.18]

The studio will begin by studying specific projects related to the studio's programmatic provocations that provide a range of typological examples. The studio discussions and individual investigation should consider these precedents as a starting point only.

Students will each select one project listed below to research, analyze and describe in a series of presentations for the studio. The analysis will proceed through a series of in-studio pin-ups of drawings and diagrams following the attached studio schedule. Students are expected to produce responses in their project that follow from the issues raised in their own research or from issues that emerge from the studio's collective work.

Each student should choose one of the following micro examples. You will work individually.

Ivy, Houston, TX
Cubix, Seattle, WA
Caesura, Brooklyn, NY
Songpa, Seoul
We Live, Manhattan, NY
We Live, Crystal City, VA
Passenger Flats, Chattanooga, TN
28 W. Grand River Avenue, Detroit, MI
Yobi, Seattle, IL
Common Living, Brooklyn, NY
Carmel Place, New York, NY
Footprint 1806, Seattle, WA
Patterson Mansion, Washington, DC

Format:
The results of your research (drawings, diagrams, images and text) should be formatted as a book (11" x 17", landscape) and submitted as hard copy and PDF files for compilation into one studio research manual. A volunteer is needed to collect and bind the pages ahead of the due date, 09.05.18.

Evaluation Criteria:
10% of Final Grade - Evaluation will be based on thorough and insightful review and critique of selected case study. Clarity of analysis and completeness of analysis is paramount.

FRIENDS INCLUDED 01.2

Modular Unit Development: 2 Weeks

Three Premises [09.07.18]

Step 1: IDENTIFY three boundary or envelope premises as outlined in the course description.

Step 2: RESEARCH and document core constraints of these premises.

Step 3: DRAW three prototypical units, each are to be 3,000 ft^3 in volume.

Three Models [09.12.18]

Step 4: MODEL three prototypical units at approximately 10"X10"X10"- *These units will be evaluated collectively by the studio. The units, when aggregated, should explore the relationships between the scale of the programmatic unit and that of the construction unit or component. In class discussion and supporting readings will help students define and explore this premise.*

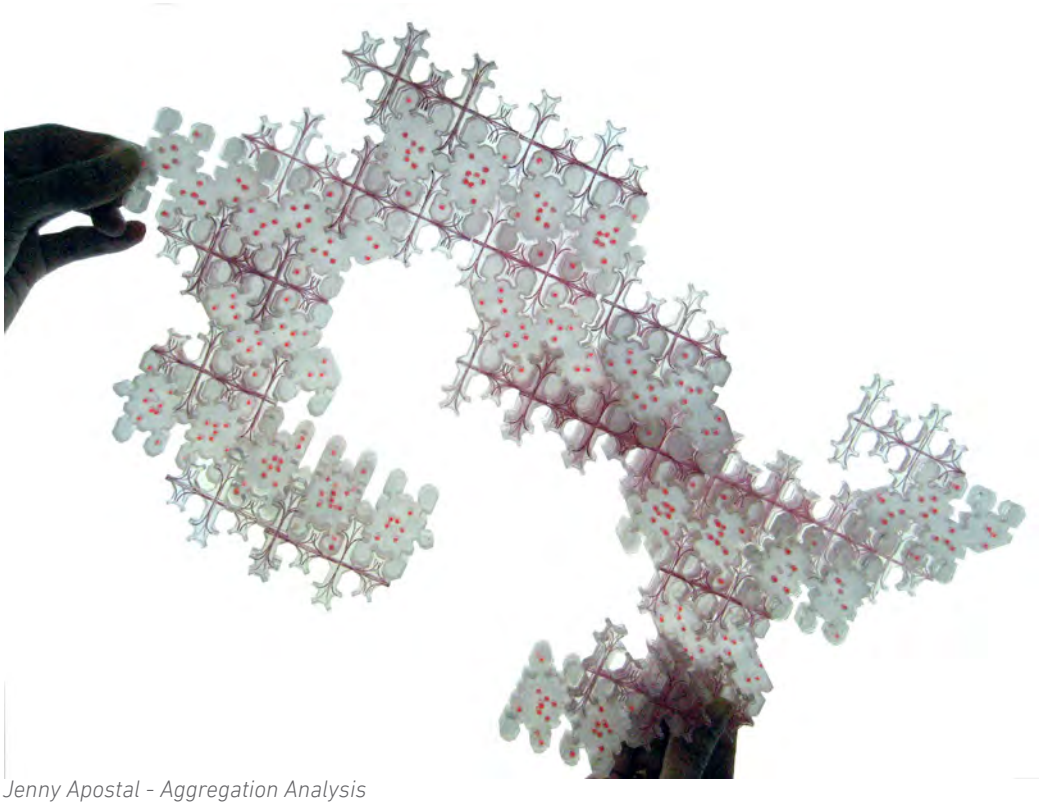
Three Units [09.21.18]

Step 5: DRAW the three units again; this time, identify the critical aspect of each premise and exacerbate or alter it through the drawing.

Step 6: MODEL three new units at approximately 12"X12"X12"

Evaluation Criteria:

10% of Final Grade - Evaluation will be based on complete, thorough and inventive exploration of initial premise and each step outlined above.



Jenny Apostal - Aggregation Analysis

FRIENDS INCLUDED 01.3

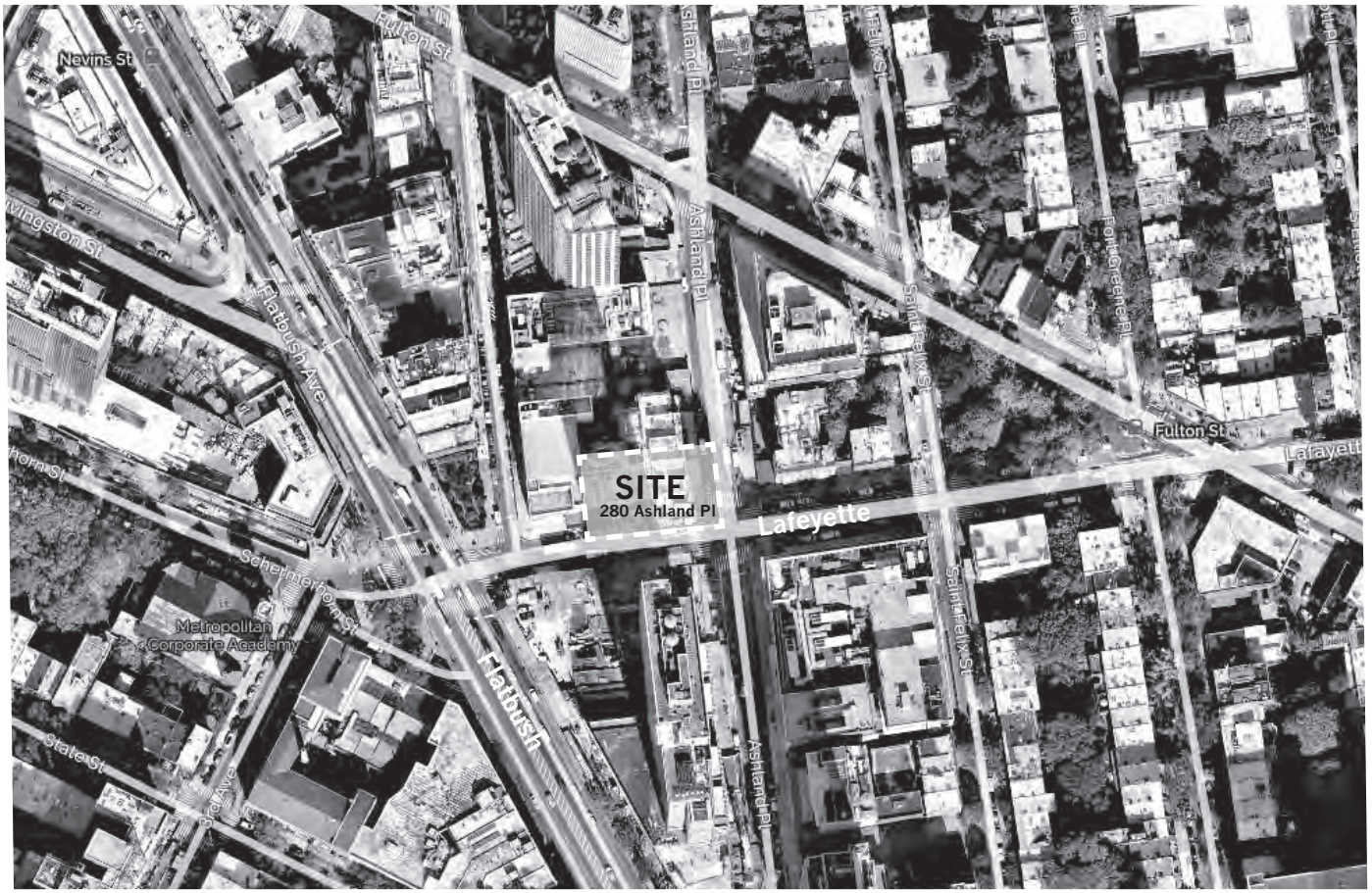
Ft Greene Mix-Use Micro Housing [11.26.18] Pencils Down
Where: Ft. Greene, Brooklyn

Who: Client/Occupant based on 01.1 Micro-Housing Research outcome

What: 123 Units of micro-housing with 300sf average size and supporting amenities Building will also accommodate the 20,000sf home of the Center for Fiction and a 10,000sf community use space.

How: Modular construction synchronized with program unit as determined by 01.2 Modular Unit Development and advice from consultants. The module may be a component that synchronized with housing unit or not but will encompass aspects of structure, enclosure, environmental systems and construction techniques. It is also important to address issues of life-safety, accessibility and affordability in final design.

Evaluation Criteria: 80% of Final Grade - Evaluation will be based on complete, thorough and inventive exploration of the student's stated architectural concept. Specific drawing requirements are outlined in the Totalization Template that is provided digitally to every student.



A.8. Ordering Systems
Diagram – of alternative ordering systems considered, analyzed and the reasoning behind selected system

ALTERNATE ORDERING (No Scale)

B.5a. Life Safety
Drawing and/or Diagram – that shows on each level floor plan circulation routes to required exits and/of required number of fire stairs that meet distances separation per building code

LIFE SAFTEY DIAGRAM

B.5b. Vertical Transportation
Drawing and/or Diagram – that shows on each level floor plan vertical transportations systems with code requirements

VERTICAL TRANSPORTATION DIAGRAM

B.5c. Communication & Security
Drawing and/or Diagram – that shows on each level floor plan communication and security systems with code requirements

COMMUNICATION & SECURITY DIAGRAM

PLAN 3 (indicate Scale)

STUDENT NAME

PROJECT TITLE

Sheet E

(STUDIO INSTRUCTOR LAST NAME + YEAR)