"It is therefore necessary that we consider housing as a totality of events which cannot be looked at meaningfully in isolation from each other. We are dealing with mutually related forces arising from all sides of society and which, if all goes well, act in equilibrium. The action of these forces is the concept we call housing and the tangible results we call towns and dwellings."

– N.L. Habraken, Supports, p.7

STATEMENT OF INTENTIONS
Dwelling units constitute the predominant built form in our communities. Whether standing alone or accumulated into clusters, they reflect the needs and aspirations of individuals, families or other groupings, and communities. The design of dwelling units both reflects and determines the way in which we organize and use our living environments, interface with nature, consume limited resources, and choose to relate to our neighbors. Housing can be considered the framework that holds the city fabric together. When considered collectively, it is present everywhere becoming the physical connective tissue of the city as well as the background against which public, institutional and commercial buildings express their distinct roles.

At the completion of this studio, students should clearly understand housing as a set of building typologies locked in a social and historical continuum; as everyday, performative objects (and spaces) embedded in the city; and as an integrated system (and species) of building comprised of multiple and diverse elements, characteristics, and materials. In addition, this studio will equip students with an informed understanding of social, ethical and environmental problems and will develop their capacity to address these problems with sound architectural and urban design decisions.

STUDIO OBJECTIVES
This studio will emphasize methods and techniques for understanding the following:
> Dwelling unit plans and interior spaces
> Unit aggregations / arrangements / organizations
> Building plan, section and elevational development
> Influence of social formations on spatial activities and physical form
> Site organization and the programming of open space
> Context (housing as seed or connective tissue)
> Fundamental design issues and basic ordering principles:
  * Repetition
  * Scale
  * Pattern and texture
  * Density
  * Entry / circulation / privacy gradient > Identity formation
  * Design for accessibility and life safety

> The importance and need to integrate sustainable strategies of design into housing.
> Introductory methods of Type-V construction as the most common system of building in California.

**PROCESS**
The studio meets MWF from 2:00 to 6:00 p.m. Students are required to be in studio during these hours productively engaged in individual and group design activities. Each of the individual studio sections will follow the same program, schedule and grading system. There will be a regular program of lectures, typically held every Monday at 2:00 p.m. in Harris 101. Attendance at these lectures is mandatory and students are responsible for understanding and using the material presented.

This semester will consist of four projects:
> The design of an individual dwelling space and performative exterior skin.
> A precedent analysis and systems diagramming exercise.
> The design of a four-unit, low-rise housing project.
> A large-scale housing development (apartment housing; multilevel horizontal building access) with emphasis on mixing unit types, organization of circulation, building form, and social context.

**REQUIRED READING**
A course bibliography is attached as part of this document. Students are strongly encouraged to acquire one or several reference books on the subject of housing as part of a general architectural reference bookshelf and for reference use in the studio.

Pertinent readings will be distributed throughout the semester in class. Students are required to read, understand, and discuss these readings (which may include analysis of plans and sections) in studio groups. Students will be graded on discussion of and ongoing reference to the concepts laid out in these readings.

**GRADING**
> Final grade evaluations for this studio will be based on the following breakdown:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Class participation</td>
<td>5%</td>
</tr>
<tr>
<td>* In-Class Assignments</td>
<td>5%</td>
</tr>
<tr>
<td>* Design project 1 (Unit design)</td>
<td>15%</td>
</tr>
<tr>
<td>* Design project 2 (Precedent analysis)</td>
<td>10%</td>
</tr>
<tr>
<td>* Design project 3 (Low-rise housing)</td>
<td>20%</td>
</tr>
<tr>
<td>* Design project 4 (Medium density housing)</td>
<td>30%</td>
</tr>
<tr>
<td>* Incorporation of sustainability strategies</td>
<td>10%</td>
</tr>
<tr>
<td>* Portfolio quality</td>
<td>5%</td>
</tr>
</tbody>
</table>

> Attendance: Because essential course materials and concepts are discussed during studio hours, attendance at all studio meetings, class lectures, and reviews is essential and required. More than three absences during the course of the semester may result in failure of the course. All excused absences must be in writing and must be approved by a studio instructor. Failure to show up to class on time will jeopardize successful completion of the course and reflect negatively in the student’s final course grade.

**STUDIO PROTOCOL**
> Assignments: Requirements for projects will be handed out in writing. Full completion of all assignments is critical to success in this class. In order to understand architectural design the student must create work daily and present it using visual graphic means. Students must continuously question their design (the iterative process) in order to improve it and to learn the critical lessons of architecture.

> Reviews: Reviews of studio work are among the most important activities of architectural education. Full participation is required in all reviews. Students are expected to be attentive, engaged, and active in discussions. Students must be present for the duration of the review. Any work plotted or otherwise
produced after 2pm on scheduled review days may not be allowed to be presented at the discretion of the faculty involved in the review.

> Work Outside of Class: The student will need to spend a substantial amount of time on the assigned projects outside of class time. The normal ratio of outside time to class time is 2:1.

> Discussion: Classmates and impromptu studio discussions are a great resource. Productive discussion and exchange of ideas and techniques is strongly encouraged.

**ATTENDANCE POLICY**
The School of Architecture’s general attendance policy allows a student to miss the equivalent of one week of class sessions (i.e., three classes if the course meets three times/week) without directly affecting the student’s grade and ability to complete the course. If additional absences are required for a personal illness/family emergency, preapproved academic reason/religious observance, the situation will be discussed and evaluated with the faculty member and appropriate Chair on a case-by-case basis. For each absence over that allowed number, the student’s letter grade may be lowered up to one full letter grade.

The full Attendance Policy can be found here: http://arch.usc.edu/content/pages/cm/uploadedmedia/appf_attendance_guideline_approved_1_091296765089003.pdf

Any student not in class within the first ten minutes will be considered tardy, and any student absent (in any form including sleep, technological distraction, or by leaving mid-class for a long bathroom/water/food break) for more than 1/3 on the class period will be considered fully absent. All known or anticipated absences should be communicated to your instructor at the beginning of the course or as soon as possible.

**STATEMENT ON ACADEMIC INTEGRITY**
USC seeks to maintain an optimal learning environment. General principles of academic honesty include: respect for the intellectual property of others; the expectation that work will be submitted individually unless otherwise allowed by an instructor; and the obligations both to protect one’s own academic work from misuse by others as well as to avoid using another’s work as one’s own. All students are expected to understand and abide by these principles. Scampus, the Student Guidebook, contains the Student Conduct Code in Section 11.00; recommended sanctions are located in Appendix A: http://www.usc.edu/dept/publications/SCAMPUS/gov.

Students will be referred to the Office of Student Judicial Affairs and Community Standards for further review if there is any suspicion of academic dishonesty. See http://www.usc.edu/student-affairs/SJACS/.

**DISABILITY ACCOMMODATIONS**
The University of Southern California is committed to full compliance with the Rehabilitation Act (Section 504) and the Americans with Disabilities Act (ADA). As part of the implementation of this law, the University will continue to provide reasonable accommodation of academically qualified students with disabilities so those student can participate fully in the University’s educational programs and activities. Although USC is not required by law to change the “fundamental nature of essential curricular components of its programs in order to accommodate the needs of disabled students,” the University will provide reasonable academic accommodations. The specific responsibility of the University administration and all faculty serving in a teaching capacity is to ensure the University’s compliance with this policy.

The general definition of a student with a disability is any person who has “a physical or mental impairment which substantially limits one or more of such person’s major life activities,” and any person who has “a history of, or is regarded as having, such an impairment.” Reasonable academic and physical accommodations include but are not limited to: extended time on examinations; substitution of similar or related work for a non-fundamental program requirement; time extensions on papers and projects; special testing procedures; advance notice regarding book list for visually impaired and some learning disabled students; use of academic aides in the classroom such as note takers and sign language interpreters; early advisement and assistance with registration; accessibility for students who use wheelchairs and those with mobility impairments; and need for special classroom furniture or special equipment in the classroom.

**Obtaining Accommodations:**
Physical Accommodations: Students with physical disabilities should contact Disability Services and Programs (DSP) prior to or during the first week of class attendance or as early in the semester as possible. The office
will work with classroom scheduling, the course instructors and their departments, and the students to arrange for reasonable accommodations.

Academic Accommodations:
Students seeking academic accommodations due to a physical or learning disability should make the request to the course instructor prior to or during the first week of class attendance, as well as registering with DSP as early in the semester as possible. Course instructors should require that a student present verification of documentation when academic accommodations are being requested. For assistance in how to provide reasonable accommodations for a particular disability, course instructors are encouraged to consult with Disability Services and Programs (DSP). Students requesting academic accommodations who do not have DSP documentation should be referred to that office. The DSP office located in STU 301 and open from 8:30 - 5:00, M-F. You may also call: (213) 740-0776.

RELIGIOUS HOLIDAYS
“The University recognizes the diversity of our community and the potential for conflicts involving academic activities and personal religious observation. The university provides a guide to such observances for reference and suggests that any concerns about lack of attendance or inability to participate fully in the course activity be fully aired at the start of the term. As a general principle students should be excused from class for these events if properly documented and if provisions can be made to accommodate the absence and make up the lost work. Constraints on participation that conflict with adequate participation in the course and cannot be resolved to the satisfaction of the faculty and the student need to be identified prior to the drop/add date for registration. After the drop/add date the University and the School of Architecture shall be the sole arbiter of what constitutes appropriate attendance and participation in a given course.”

Any student concerned about missing class for a recognized religious holiday should bring this matter up with your instructor in the first week of classes. A list of recognized religious holidays may be found at: http://www.usc.edu/programs/religious_life/calendar/.

SUSTAINABILITY INITIATIVE
1. The School of Architecture has adopted the 2010 Initiative for Sustainability which includes the following language:

   “Solutions to design problems must engage the environment in a way that dramatically reduces or eliminates the need for fossil fuel.” This intention impacts our design process in a number of ways, including:
   > orientation of buildings and site development to minimize negative environmental force impacts and take advantage of positive ones
   > building modestly: providing the minimum space necessary to handle required programmatic needs
   > maximum practical use of daylighting; careful use of orientation and provision of control/shading mechanisms to handle associated heat loads.
   > maximum practical use of passive solar techniques for heating and cooling
   > maximum practical use of natural ventilation techniques; and selection of hybrid systems for ventilation, heating and cooling which permit this.

   These issues will be addressed in designated lectures but they need to be part of your thinking from the outset.

2. As such, this studio will try to synchronize some of the work to be produced in class in parallel with Architecture 215. It is highly recommended that you take this course concurrently.

3. No school can lay a claim to Sustainability sensitivity which does not institute and rigorously pursue a recycling program. In particular, a group with our profession’s voracious appetite for recyclable paper products and for oral gratification (viz soda cans, glass and plastic bottles) needs to be particularly diligent in its observances. This recycling program needs to be in force at all times; yes; even during charrettes! We pledge to provide adequate, well-marked recycling containers for each section and to provide a posted, printed recycling protocol so you know what goes where. You put it there! Raise objections if we don’t come across with this pledge; this will not be considered rude!
NAAB ACCREDITATION

The USC School of Architecture’s five year program is an accredited professional architectural degree program. All students can access and review NAAB Conditions of Accreditation (including Student Performance Criteria) on the NAAB website, http://www.naab.org/accreditation/2004_Conditions.aspx. Students will be asked to contribute both digital and physical work throughout the semester as part the accreditation process.

NAAB requires that students achieve a standard of ABILITY or of UNDERSTANDING for various Student Performance Criteria:

ABILITY - Proficiency in using specific information to accomplish a task, correctly selecting the appropriate information, and accurately applying it to the solution of a specific problem, while also distinguishing the effects of its implementation.

UNDERSTANDING – The capacity to classify, compare, summarize, explain and/or interpret information.

SPC in which passing 302a students must demonstrate ABILITY:

REALM A: Critical Thinking and Representation
> A. 6. Fundamental Design Skills: Ability to effectively use basic architectural and environmental principles in design.
> A. 7. Use of Precedents: Ability to examine and comprehend the fundamental principles present in relevant precedents and to make choices regarding the incorporation of such principles into architecture and urban design projects.

REALM B: Integrated Building Practices, Technical Skills and Knowledge
> B. 1. Pre-Design: Ability to prepare a comprehensive program for an architectural project, such as preparing an assessment of client and user needs, an inventory of space and equipment requirements, an analysis of site conditions (including existing buildings), a review of the relevant laws and standards and assessment of their implications for the project, and a definition of site selection and design assessment criteria.
> B. 2. Accessibility: Ability to design sites, facilities, and systems to provide independent and integrated use by individuals with physical (including mobility), sensory, and cognitive disabilities.
> B. 3. Sustainability: Ability to design projects that optimize, conserve, or reuse natural and built resources, provide healthful environments for occupants/users, and reduce the environmental impacts of building construction and operations on future generations through means such as carbon-neutral design, bioclimatic design, and energy efficiency.
> B. 4. Site Design: Ability to respond to site characteristics such as soil, topography, vegetation, and watershed in the development of a project design.
> B. 5. Life Safety: Ability to apply the basic principles of life-safety systems with an emphasis on egress.

SPC in which passing 302a students must demonstrate UNDERSTANDING:

REALM A: Critical Thinking and Representation
> A.5. Investigative Skills: Ability to gather, assess, record, apply, and comparatively evaluate relevant information within architectural coursework and design processes.
> A. 8. Ordering Systems Skills: Understanding of the fundamentals of both natural and formal ordering systems and the capacity of each to inform two- and three-dimensional design.

REALM B: Integrated Building Practices, Technical Skills and Knowledge
> B. 6. Comprehensive Design: Ability to produce a comprehensive architectural project that demonstrates each student’s capacity to make design decisions across scales while integrating the following SPC:

A.2. Design Thinking Skills
A.4. Technical Documentation
A.5. Investigative Skills
A.8. Ordering Systems
A.9. Historical Traditions and Global Culture
B.2. Accessibility
B.3. Sustainability
B.4. Site Design
B.5. Life Safety
B.8. Environmental Systems
B.9. Structural Systems

> B. 7. Financial Considerations: Understanding of the fundamentals of building costs, such as acquisition costs, project financing and funding, financial feasibility, operational costs, and construction estimating with an emphasis on life-cycle cost accounting.
> B. 8. Environmental Systems: Understanding the principles of environmental systems’ design such as embodied energy, active and passive heating and cooling, indoor air quality, solar orientation, day lighting and artificial illumination, and acoustics; including the use of appropriate performance assessment tools.
> B. 11. Building Service Systems: Understanding of the basic principles and appropriate application and performance of building service systems such as plumbing, electrical, vertical transportation, security, and fire protection systems.

REALM C: Leadership and Practice
> C. 3. Client Role in Architecture: Understanding of the responsibility of the architect to elicit, understand, and reconcile the needs of the client, owner, user groups, and the public and community domains.
> C. 6. Leadership: Understanding of the techniques and skills architects use to work collaboratively in the building design and construction process and on environmental, social, and aesthetic issues in their communities.
> C. 7. Legal Responsibilities: Understanding of the architect’s responsibility to the public and the client as determined by registration law, building codes and regulations, professional service contracts, zoning and subdivision ordinances, environmental regulation, and historic preservation and accessibility laws.
> C. 8. Ethics and Professional Judgment: Understanding of the ethical issues involved in the formation of professional judgment regarding social, political and cultural issues in architectural design and practice.
> C.9. Community and Social Responsibility: Understanding of the architect’s responsibility to work in the public interest, to respect historic resources, and to improve the quality of life for local and global neighbors.