Comprehensive Building Design Studio
Arch 493 / Arch 473
May 2018

The Lodge at Oyunuma

Go to a Forest. Walk slowly. Breathe. Open all your senses. This is the healing way of Shinrin-yoku Forest Therapy, the medicine of simply being in the forest.
http://www.natureandforesttherapy.org/the-science.html

When architecture is at its best…you're coming up with something that is pure fiction
Bjarke Ingels

In four hours the Shinkansen bullet train goes from the centre of Tokyo to the northern Japanese island of Hokkaido. Volcanic rifting and accretion has created the island's unique geology, which includes caldera lakes, alpine forests and numerous geo-thermal springs. This landscape seems to offer a dramatic commentary on creation itself and has long been held sacred by the indigenous Ainu people. This landscape is not only a place of sublime beauty, it is also revered as a place of healing. Today Hokkaido faces a particularly 21st century problem. As city dwellers increasingly seek nature's refreshment, these remote and powerful landscapes, not yet spoiled by human occupation must reconcile their popularity with their fragile beauty.

As an architect, I feel its part of our profession to use space as a medium to express our thoughts.
SANAA Architects

Despite Japan's rich history of inns (Ryokans) and thermal baths (Onsens) the focus of the studio are the rich and complex ecological issues of stewardship faced by every nation. Whether you believe our future includes designing settlements on distant planets or you think we need first to get our house in order here on earth, this studio serves as a living laboratory for design issues confronting contemporary architectural practice. How do we authentically design with finite resources on a fragile planet? How can a building leverage its relationship to particular ecologies and natural systems to create comfort, meaning and inspiration? Fundamental to every project is the need to integrate your architectural narrative with an energy consumption and production strategy.

One of the principle ambitions of this studio is to dissolve the gap between "sustainability" and "architecture" from the very first creative thought through to the final design. This suggests that sustainability is not a set of "green" features that are applied to your building after it has been "designed." Sustainability needs to be an authentic source of both architectural ambition and technical inspiration. This requires that fundamental issues addressing human comfort, energy use, including orientation, massing, enclosure and building systems be tested and incorporated into your design parti.

THE LODGE

Our works of architecture are generally open in character. We make them open because we want to build relationships.
SANAA

I pictured a low timber house with a shingled roof, caulked against storms, with blazing log fires inside and the walls lined with all the best books, somewhere to live when the rest of the world blew up.
In Patagonia
Bruce Chatwin, 1977, Jonathan Cape

Our lodge is located near the Oyunuma River, a thermally fed river that serves as a popular communal foot bath. Also nearby is unique geology of Hell's Valley with numerous hiking trails nearby. The social life of the lodge is decidedly communal. Guests will bring and prepare their own locally sourced food and whether it is shared or not shared, the way architecture enhances or resolves the pleasures and challenges inherent in the rituals of communal life will constantly be in play. Once guests arrive, life is organized around the simple ritual of meals, relaxation and the ongoing need to prepare, maintain and test equipment necessary for ongoing activities. The basic pleasures of arriving back at the lodge after a hike, the chance of meeting new friends and cooking a meal together or hearing about discoveries and future travel are all aspects of the rich social life of the place. How the rituals of life are distributed around the public and private activities of the program will need to be folded into your architectural narrative. Because of the necessity for responsible stewardship, the lodge will operate at the highest levels of sustainability. We have defined this as a building that uses no more than 150 ekWh of energy per meter squared per year. Depending on your parti this may include provisions for the building to be partially closed down when a smaller number of visitors are expected. Composting toilets (please view http://clivusmultrum.com) will be used throughout the lodge along with a greywater system.

A NOTE ON THE ARTIST STUDIO

The moon
When I look at it, clouds
When I don't look, clear
Chora *(1729 – 1780)*

Whether it is a traditional craft resting on centuries of continuous practice or the work of contemporary artists using digital tools, all art arises from a common and reoccurring phenomena where practitioners have instinctively interpreted the meaning of, and given expression to, the terrestrial and celestial forces that shape society. In the spirit of this long-standing practice, a studio at the lodge is reserved for an "Artist in Residence program". The residency is awarded for a three months stay. The condition of the residency is that the artist perform, share, recite or show their work during their time at Oyunuma. The Artist Studio is self contained, can either be accessed from within the lodge and or its own exterior entry. It is anticipated that the showing of artist work will be a significant event to the local and visiting community.

A NOTE ON SPA FACILITIES

Sitting quietly, doing nothing, spring comes, and the grass grows, by itself.
Basho (1644-1694)

It's a good idea always to do something relaxing prior to making an important decision in your life.
Paulo Coelho

For many people the idea of a thermal pool or hot tub suggests luxury and exclusivity however the facilities we are proposing belong to a much older tradition where body centred activities were rituals practiced communally. These practices enjoyed wide spread support in societies and were considered practical and essential to physical and social health. Naturally folded into the fabric of daily life, these practices have persisted for hundreds of years because they deliver social and medicinal benefits to their users. They can be found in the sauna of Finland, the sweat lodge of Native Americans, the Hamman in Turkey, the Banya in Russia and the Onsen found in Japan. The intent is to offer a place where the mind and body can be aligned and brought into their natural cosmic rhythm.

OUR CLIENT

If your life's work can be accomplished in your lifetime,
you're not thinking big enough.
Wes Jackson

Pare down to the essence, but don't remove the poetry.
Wabi Sabi for Artists, Poets and Philosophers
Leonard Koren

Our client is deeply concerned about the health of the planet and the health of its people and wants a building that not only shelters, inspires and refreshes, connecting its occupants to nature's rhythms. The Lodge operates as a base for travelers who will be enjoying the untamed and often wild beauty of the Hokkaido landscape as well as the communal spirit of the facilities. The building needs to offer its occupants an environment that leverages the rich variations of daylight, climate and topography to create an architecture that is both sensuous and sustainable. Given that we "make sense" of the world through our eyes, smell, touch, taste and our ability to hear, our client wants users of the lodge to experience an authentic refreshment of their senses through the everyday use and physical engagement of the place. These experiences need to be considered in conjunction with materiality, thermal comfort and spatial experience in creating your architectural narrative. Our client is very concerned not only about energy use but where energy comes from and the wise use and treatment of water, materials and waste.

Precedents:

http://tierrahotels.com
http://www.fogoislandinn.ca
https://vimeo.com/205035544

A NOTE CONCERNING STUDIO INTENTIONS

Architecture has to be greater then just architecture. It has to address social values, as well as technical and aesthetic value.
Sam Mockbee

Arch 493 may be considered a somewhat non-traditional studio in that the assignments are highly prescriptive and there will be a serious inquiry into issues of architectural imagination, sustainability, comfort and material assembly. We are taking this approach because we believe these issues generate authenticity, character and quality in buildings and bring discipline to any architectural pursuit. We would also like to remind you that the "important" buildings that designers make an effort to visit, photograph, and even memorize, begin as great architectural ideas that survive the difficult and complex process of being built! Their ideas survive despite the inevitable constraints, scrutiny and challenges offered by budgets, clients, building codes and construction techniques. Our hope is to bring some of the richness, complexity and depth of this process into the studio.
The studio is organized around three exercises. The first exercise (P1) is a design project that generates the first schematic iteration of the studio. The second phase of the term calls for architectural detail based development driven by the integration of sustainability goals as outlined in Arch 473. This will include structural, mechanical and environmental systems as well as development of building details, annual energy use spreadsheet and an illustrated comfort narrative. The final phase of the term is P3 and allows for a selective synthesis of your work, allowing for the integration of all salient design and technical components of the project. These two streams, Arch 493 and Arch 473 are intended to be inter-dependent, enriching and informing one another. Our goal is to explore the iterative process that allows us to provide proof that these concerns are relevant to your architectural decision-making.

P1: Assignment: First Draft
30% of grade

"…thresholds, crossings…the almost imperceptible transition between inside and the outside, an incredible sense of place, an incredible feeling of concentration when we suddenly become aware of being enclosed, of something enveloping us…"
Atmospheres, 2006
Peter Zumthor

The studio posits that designers like film makers, poets, novelists and sculptors have something to say. This studio invites you to express your experiences through the lens of our site and program creating a clear proposal that declares your design ambitions. Please take into account; Orientation, Massing, Envelope and Systems throughout the preliminary phase of your work. Ideas about Structure, building envelope and energy use need to be considered inseparable to the forming of your architectural narrative. You may want to think of P1 in this way: "Will my presentation give the client enough information to understand and have confidence in my proposal." The key is to generate enough architectural content through drawings and models, to both sustain a convincing and compelling architectural narrative and sustainability strategy. At P1 we expect a first draft of your architectural thesis that declares the critical ideas, strategies and issues of your project.

In a fragment of a second you can understand: Things you know, things you don't know, things you don't know that you don't know, conscious, unconscious, things which in a fragrant of a second you can react to: we can all imagine why this capacity was given to us as human beings - I guess to survive. Architecture to me has the same kind of capacity. It takes longer to capture, but the essence to me is the same. I call this atmosphere. When you experience a building and it gets to you. It sticks in your memory and your feelings. I guess that's what I am trying to do."
Peter Zumthor

A NOTE ON THE PARTI

A great building must begin with the immeasurable, must go through the measurable means when it is being designed and in the end must be immeasurable.
Louis Kahn

Typically, an architectural parti expresses the organizational qualities, spatial ordering and the essential character of your building and helps guide its development. Usually missing from this approach is any conscious strategy about energy. Because we want to explore what happens when your architectural parti includes your energy strategy we need to ensure these two narratives are treated as creative equals. In fact, because form and energy use are ultimately inseparable, unlocking their potential friction or leveraging their interdependent relationship may become a source of design insight and inspiration. To demonstrate this undertaking, we require that your parti diagram (concise representation of a conceptual idea) deliberately articulates the marriage of both ambitions. Imagining the Lodge in this way will require you to have a clear sense of your expectations about "comfort" for each of the programed spaces. The way your architectural narrative imposes itself on your building's energy manifesto will be a key focus of this studio. To do this it will be necessary that as you develop your project you repeatedly test your architectural ambitions in the context of your building's energy performance using the AEES.

P1 Presentation: (Minimum Requirements)
30% of Arch 493 Grade
1:100 plans, 1:100 sections x 2, 1.100 elevations x 4, 2 perspectives (one interior, one exterior), 2 building details 1:10, Site Plan 1:500 and 1:200 massing model.
One panel showing key developmental sketches and precedents.
One panel showing the Annual Energy Estimator Spreadsheet (AEES) report based on your architectural schematic design. 200 word report outlining sustainability goals including energy strategy and sustainability goals. 200 ekWh/m2/yr AEES Required.
Massing and orientation diagrams indicating the relationship of your building relative to local climate. Clearly show the three dimensional implications of the building as an object in a specific location. This includes the need to clearly define potential passive strategies for heating and cooling your project. All work must be fully labeled and submitted on boards.

P1 Marking – 30% of total grade
40% Parti (ambition and clarity of the architectural parti / narrative and relationship to energy strategy and site)

30% Development (integration of orientation, massing, envelope and building systems) Resolution of architectural parti and energy strategy. 200 word report outlining specific strategies for improving on your buildings energy performance.
30% Craft, (communication, quality and completeness of presentation)

P2 Arch 473
TECHNICAL REPORT

Don't fight forces, use them.
Buckminster Fuller

ARCH 473 is a building science course embedded within, and running in concert with the ARCH 493 design studio. This course offers you the opportunity to integrate technical issues directly into your studio project. In addition to examining the intersection of comfort and architecture, a key objective of ARCH 473 is to provide you with the tools to measure the impact of your decisions on reducing energy usage and improving human comfort. The primary assignment of ARCH 473 is a Technical Report based on diagrams, architectural details and spreadsheets that demonstrate, explain and prove the sustainability ambitions and strategies of your design.

Climate and Architecture addresses the architectural challenge of designing buildings, and especially their facades or climate screens, in order to maximize the potential of local climatic conditions and their associated construction traditions, in order to save energy and give users the means to control their own interior environment. Such an approach provides the means to elevate climate to its primary position as one of the major influences on architectural expression whilst also enriching the experience of occupying buildings.
Climate and Architecture
Torbin Dahl, 2010 Routledge

The need to include sustainability as a fundamental basis of all design is now universally accepted, however the means of embodying these goals remains a matter of architectural debate and confusion. While sustainability typically implies minimizing the use of energy and materials - there is no agreement as to the best way to design a sustainable building or establish a universal metric for judging the “best” building in this respect. The contemporary sustainability discourse, which seeks to minimize energy use, may also obscure the ways architecture has traditionally been able to respond to the demands of climate and need for amenity. Often the ingenuous flexibility of vernacular buildings offers great insight into the dynamic and interdependent way in which design can be at the core of transforming energy use. For example, a well designed porch may extend interior space, provide valuable social space, and reduce cooling loads. We believe that it is important that you be able to develop architectural strategies both conceptual and pragmatic with respect to the critical issue of energy performance for your project. Ultimately the objective is to develop an understanding of how an architectural parti can also be the generator of strategies that work effectively to create a building that requires the least amount of clean and renewable energy, while offering the greatest amount of amenity and well being to its users.

A key tool used throughout the course is the Annual Energy Estimator Spreadsheet (AEES). The AEES will be provided, along with instruction to allow convenient access for testing building energy usage. This tool is seen as an important resource in architectural decision making and will be used throughout all phases of architectural design to measure building performance. The intent of this approach is that as the details, systems and sustainability strategies evolve the AEES will provide you with a way of understanding the impact of architectural strategies and narrative on energy usage.

Technical Report
100% of Arch 473 Grade
Due at P2 Submission
The P2 Technical Report must be submitted Thursday June 28th between 9.15AM and 9.30AM Location TBA

The intent of the report is that as the details, systems and strategies are clarified and tested they will demonstrate measurable, energy performance outcomes that support the iterative development of your P1 design and will become integral with your project at the P3 presentation. The format of the technical report is to be a series of self explanatory drawings, diagrams, spreadsheets and three dimensional illustrations. These need to explain the technical ambitions and sustainability strategies of your Arch 493 design. The use of drawings and diagrams is intentional and needs to be organized in order to effectively communicate all sustainability strategies and technical ambitions. Unless specified, text is not required except for the labeling of drawings and to communicate salient points in response to Technical Report requirements.
Submissions format: 11x 17.

Arch 473 REQUIRED OUTLINE TEMPLATE (Grading):

Part 1 Energy Manifesto (10%)
AEES spreadsheet @ 150 ekWh/m/yr (required) accompanied by a concise 400 word text (may use point form) explaining how you achieved your sustainability goals.
Part 2 Illustrated Comfort Narrative (20%)
Select three conditions in your project and show how active and passive energy strategies are holistically managed to create human comfort. Using any combination of plan, section and or vignette to show how your energy strategy translates into an experience that enhances human comfort.
Part 3 Building Envelope (30%)
Two wall assemblies at 1:20 that highlight different building façade functionality and performance. Example: a north and south wall assembly. A detail from those assemblies at 1:5
Part 4 Systems (20%)
Diagram of the environmental zones of the building. Use plan and section drawings that explain the basic heating, and ventilation systems of the building. Use illustrations or diagrams that explain the use and treatment of water and waste flows on your site.
Part 5 Structural Systems (20%)
- provide framing diagrams that demonstrate a path for gravity loads
from roof to foundations

- provide diagrams that demonstrate a lateral load resisting system and address stability issues
- provide details (key structural sections or axonometrics) that demonstrate an understanding of structural systems and connections.

Appendix (not graded – but required with P2 Submission)
Include either a P1 record of your project (includes orientation and massing diagram) or if you have made significant changes to your design, a more recent iteration of the project. If you are unsure of what to include please consult with teaching staff.

Evaluation Criteria:
Completeness - have you addressed the requirements outlined above
Coherence - have you selected systems that make good sense
Complexity (Ambition) - understanding that excellent projects can occupy any position on the continuum between the vernacular and experimental systems, have you demonstrated an appropriately detailed understanding of the selected system.

Please review:
Resources posted on Learn plus:
Thermal Delight in Architecture, Lisa Heschong, MIT (1979)
Climate and Architecture, Torbin Dahl, Routledge, (2009)
Rem Koolhaus: Sustainability: advancement vs. apocalypse
http://oma.eu/lectures/sustainability-advancement-vs-apocalypse
Norman Foster TED "Building on the Green Agenda"
http://www.ted.com/index.php/speakers/view/id/157
CMHC Building details:
http://www.cmhc-schl.gc.ca/en/inpr/bude/himu/coedar/coedar_001.cfm
John Hardy:
http://www.greenschool.org/2010/11/18/john-hardys-ted-lecture-now-live/

P3: DESIGN DEVELOPMENT

Craftsmanship means dwelling on a task for a long time and going deeply into it, because one wants to get it right.
Shop Craft as Soul Craft
Matthew B. Crawford, Penguin (2009)

Verbalizing design is an act of design.
Kenya Hara

The final phase of studio is intended to allow you to incorporate Arch 473 research and expertise in your projects development. During P3 you are asked to integrate these elements as you to refine, edit and rework your P1 design proposal. The goal for this phase of work is to uphold the essential architectural character of the project while managing to integrate the implications of the P2 assignment.
By the end of P3, having developed a comprehensive strategy; understood how the materials go together; explored the implications of your architectural ambitions and your projects use of resources and finally having made the corresponding adjustments - the project is ready to be assembled, fitted out and put together. The final presentation of the project is a re-adjusted, re-focused and refined iteration and is a

comprehensive statement of your architectural ambitions. This assignment does not call for an evenness of detailing so much as an awareness of what is most important to your proposal and making sure that this aspect is fully rendered. Specialized seminars during P3 will offer you the opportunity to take your project into greater depth and refinement as we use the last month of the term to continue to evolve and integrate the ambitions of your project.

REQUIREMENTS:
P 3 Marking - 70% of Arch 493 Grade
Marking
20% Parti (ambition and clarity of the idea and site resolution)
40% Development of design ambitions - Integration of Orientation, Massing, Building Envelope and Systems and Final Energy Use Spreadsheet. 150 ekWh /m /yr. required.
40% Craft and Communication (presentation quality and completeness)
A student failing the final project, will fail the course. A final course grade of 42% will be applied.

In consultation and review with teaching staff, you will be encouraged to generate drawings, images and models that best express and explore your buildings intentions. We expect each student's project will have a different approach to their presentation, depending on each person's response to site, program and P2. We believe annotated plan, section and elevation drawings continue to hold great value in communicating architectural decision-making. These drawings serve to link your work to all architectural projects and despite constant changes in building technology continue to serve as the template for built work. This presentation should include all material necessary to communicate your architectural intentions and support discussions in relation to the intentions of your project. The critical issues of the building need to be presented. Each student will be responsible for negotiating with staff, the precise drawings, images, and models that best support their project. More precise requirements will be announced and discussed at the start of P3. Additionally, a record of student work will be requested for uploading as part of a new archive initiative at the School of Architecture.

BIBLIOGRAPHY
Books are on reserve in the library. Additional articles and texts will be made available on line through Arch 493/473 LEARN.
http://www.tb-kumano.jp/en/onsen/how-to-take-a-japanese-bath/

TA's
Matthew Barker
Salim Falali
Joanne Yau
STAFF
Walter Bettio
Craig England
Jennifer Esposito
Jaliya Fonseka
Janna Levitt
Tim Scott
James Swain
Andrew Levitt (coordinator) alevit6071@rogers.com

Arch 473
Sustainability: Craig England, John Straube
Structural: Michael Robbins
Building Science: Craig England, Alex Tedesco, John Potter

ARCH 493/ARCH 473 Guidelines and Official Business
Studio is scheduled as follows:
9.30am – 12,30pm
1.30pm - 5.30 pm
One of the principles of Studio is that everyone is involved in a critical and speculative dialogue with regards to their own work and the work of others. Students are expected to be in studio on all studio days and to actively participate at all reviews and seminars. Chronic absence will be sufficient reason to request withdrawal.
Each studio project will be assessed on the following basis:
- Architectural ambition, narrative and appropriateness of the idea.
- Integrity of design development from conceptual stage through to presentation including meeting the energy use target.
- Resolution, craft, effectiveness of communication and completeness of documentation.

STUDIO OBJECTIVES

The studio encourages speculations, independent thinking, and the positioning of architecture and landscape design within a broader cultural context.

Students are expected to:
- understand the role of RESEARCH in generating ideas about landscape, site, program, and tectonics.
- develop and articulate a CRITICAL POSITION relative to site and program.
- demonstrate a general understanding (though the display of analytic and representational skills) of architecture and landscape design and systems.
- develop a clear spatial PARTI for a building and landscape.
- develop a project across a range of SCALES—from site strategy through to structural and tectonic considerations.
- develop a coherent idea about building and landscape STRUCTURES that supports the larger spatial intentions.
- exhibit dexterity and understanding of GEOMETRY, SCALE, CRAFT.
- work through a range of REPRESENTATION modes.
- demonstrate a degree of DESIGN LITERACY with regard to precedent and strategies in architecture and landscape architecture.
- To demonstrate the capacity to manage a complex set of design, cultural and technical considerations, in a timely manner. Students must demonstrate the ability to juggle the multiple tasks typically expected in a professional setting.
- Active participation and in person attendance at desk crits, pin-ups, reviews, and lectures is a critical component of the learning outcomes of this course.

PLEASE READ CAREFULLY: A NOTE ON DEADLINES
Project deadlines can only be extended in cases of illness or incapacity.
Requests for such extensions must be made before the project deadline to the studio coordinator, using the Request For Extension form available from the front office, and accompanied by a medical certificate when appropriate. Work submitted after the hand in date and time without a confirmed extension will be subject to a penalty of 5% reduction of the assessed grade and 5% per day thereafter, and after four business days a mark of zero will be recorded. For example if a project is due at Monday at 5PM and it is handed in at 5.45PM on Monday a 5% penalty will result. If it is handed in the following day - Tuesday at 9AM a 10% penalty will be assessed. If your work depends on computer-generated presentation please make paper back ups of your work and plan your printing accordingly. Last minute printing problems will not be accepted as an excuse for late submissions. We urge you to manage your time wisely throughout the studio, as this is an expertise as valuable as any other skill taught at the school.

Academic Integrity: In order to maintain a culture of academic integrity, members of the University of Waterloo community are expected to promote honesty, trust, fairness, respect and responsibility. [Check https://uwaterloo.ca/academic-integrity/ for more information.]
Grievance: Students, who believe that a decision affecting some aspect of their university life has been unfair or unreasonable, may have grounds for initiating a grievance. Students should read Policy #70, Student Petitions and Grievances, Section 4. When in doubt, students must contact the department's/school's administrative assistant who will provide further assistance.
Discipline: Students are expected to know what constitutes academic integrity, to avoid committing academic offenses, and to take responsibility for their actions. Students who are unsure whether an action constitutes an offense, or who need help in learning how to avoid offenses (e.g., plagiarism, cheating) or about 'rules' for group work/collaboration should seek guidance from the course instructor, academic advisor, or the Associate Dean of Science for Undergraduate Studies. For information on categories of offenses and types of penalties, students should refer to Policy #71, Student Discipline. For information on typical penalties, students should check Guidelines for the Assessment of Penalties.
Appeals: A decision or penalty imposed under Policy 33 (Ethical Behavior), Policy #70 (Student Petitions and Grievances) or Policy #71 (Student Discipline) may be appealed, if there is a ground. Students, who believe they have a ground for an appeal, should refer to Policy #72 (Student Appeals).
Note for Students with Disabilities: AccessAbility Services, located in Needles Hall, Room 1132, collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If students require academic accommodations to lessen the impact of their disability, they should register with AccessAbility Services at the beginning of each academic term.
Accommodation: Should students require accommodation due to illness, they must provide a Verification of Illness Form to support their requests. [Check https://uwaterloo.ca/registrar/current-students/accommodation-due-to-illness for more information.]
Exam Period Travel: Student travel plans are not considered acceptable grounds for granting an alternative examination time.

May 2018
Arch 493

The Lodge at Oyunuma

PROGRAM

1. Outer vestibule 8
2. Inner Vestibule 20
3. Reception / Shop 14
4. Office 1@ 14 enclosed
   1 WC staff
   Storage 6
5. Archive 28
6. Kitchen 24
   Pantry 10
   1 WC
7. Lounge 86 (gathering / dining / performance)
8. Lodge Manager - Full Time Residence 60
   (Self-contained with separate entrance)
9. Accommodation
   2x1 person room @ 8
   2x4 person room @ 14
   2x6 person room @ 16
   WC / 2 @ 28 with 2 shower
10. Bathing garden with thermal pool (size determined by use)
    2 x Changing Room with WC/shower @ 12
11. Green House (food production) 48
12. Artist Studio (Self contained live/work space with separate entrance) 56
13. Laundry 12
14. Electrical 8 - may vary according to system
15. Mechanical 10 - may vary by system
    (water supplied from well on site)
16. Waste Management / Recycling 14
17. Receiving / Maintainance / Storage 14

TOTAL 588 x 25% circulation (147) = 735M^2

ANCILLARY
Storage Shed (not heated) 28
Porch

PLEASE NOTE:
Building to be fully accessible.
Vehicle drop off and service road access is required.
1 Handicap space required.
1 service vehicle for lodge manager required. (Suzuki Carry Kei truck or equivalent)
No other parking permitted on site.
For every treed area removed an equivalent area must be replanted.

Arch 493 / 473
THE LODGE AT OYUNUMA
May 2018

SCHEDULE COMPREHENSIVE BUILDING DESIGN

P1 SCHEMATIC DESIGN

Week	**1**	Thurs. May 3	**STUDIO INTRO**
		Mon. May 7	**INTRO** / Seminars
	2	Thurs. May 10	**INTRO SUSTAINABILITY** / Seminars
		Mon. May 14	**INTRO STRUCTURE** / Desk Crit
	3	Thurs. May 17	**SUSTAINABILITY** / Desk Crit
		Mon. May 21	Victoria Day (no class)
		Tues. May 22	**STRUCTURE /** Desk Crit
	4	Thurs. May 24	**SUSTAINABILITY /** Desk Crit
		Mon. May 28	P1 Presentation

P2 TECHNICAL REPORT / DESIGN INTEGRATION:

5	Thurs. May 31	**DETAIL INTRO /** Desk Crit / P1 Grading
	Mon. June 4	**STRUCTURE** / Detail **/** Desk Crit
6	Thurs. June 7	**SUSTAINABILITY** / **DETAIL** / Desk Crit
	Mon. June 11	**STRUCTURE** / **DETAIL** / Desk Crit
7	Thurs. June 14	**SUSTAINABILITY / DETAIL** / Desk Crit
	Mon. June 18	**STRUCTURE** / **DETAIL** / Desk Crit
8	Thurs. June 21	**SUSTAINABILITY** / **DETAIL** / Desk Crit
	Mon June 25	**STRUCTURE** / **SUSTAINABILITY** / Desk
9	Thurs. June 28	**Arch 473 Hand In /** Marking
	Mon. July 2	University closed for Canada Day

P3 DESIGN DEVELOPMENT

10	Thurs. July 5	**D. DEV. INTRO / SUSTAINABILITY**/Desk
	Mon. July 9	**LANDSCAPE SEMINARS** / Desk Crit
11	Thurs. July 12	Desk Crit
	Mon. July 16	**STRUCTURE** / Desk Crit
12	Thurs. July 19	Desk Crit
	Mon. July 23	Desk Crit
13	Wed. July 25	P3 HAND IN
	Fri. July 27	**P3 FINAL PRESENTATION**
14	Marking	Projects Returned