October
2015

Statement of Qualifications

Pacific Hall Basement and First Floor Laboratories

University of Oregon

Eugene, OR, USA

October 21, 2015
University of Oregon
Fred Tepfer, Program Manager
Campus Planning, Design and Construction
1295 Franklin Boulevard, 1276 University of Oregon
Eugene, OR 97403-1276

RE: Request for Qualifications (RFQ) Pacific Hall Basement and First Floor Laboratories

Dear Fred,

As the Principal in Charge of our HDR team, I am excited to present our team's experience and qualifications and look forward to furthering our excellent working relationship begun on the LISB project. Our HDR team brings a unique ability and capacity to assist the University of Oregon in successfully renovating your Pacific Hall facility. Our proven team of in-house architects, planners and engineers who specialize in the programming and planning of collaborative academic research environments, as well as aging MEP systems, will help you meet your critical schedule and budget constraints.

We believe that HDR offers an impressive set of credentials, experience and insight to the design and renovation of Pacific Hall. HDR brings to the University of Oregon's Pacific Hall project a global perspective from clients who are world leaders in research, healthcare and technology. Bringing scientists from diverse disciplines together to foster innovation is the foundation of collaborative research and is at the heart of the facilities we design.

I will lead the HDR team as the Principal-in-Charge and will be supported by an eminently qualified team of capable, experienced planners and designers including Regina Filipowicz as the primary Lab Planner. We propose to emulate the programming and planning process used on the LISB project. This process will feature a high level of interaction with the User Group(s) with the aim of building consensus to arrive at solutions in which all feel a sense of pride and ownership.

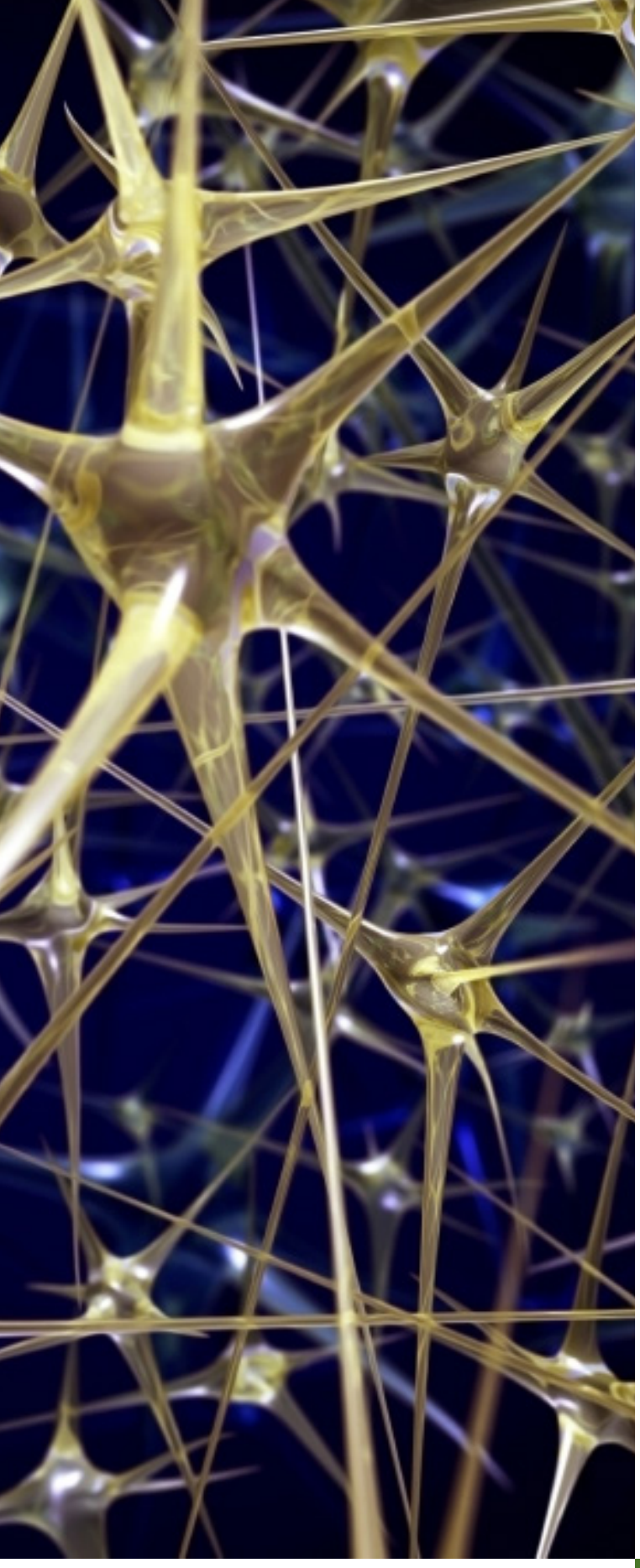
Our proposed process for MEP engineering is similar to the one used on LISB and is consistent with UO approaches on other projects. Bruce Johnson would be the lead engineer, managing the assessment phase and responsible for system approaches, concepts and design. We would then partner with UO to select a local Eugene or Portland MEP firm to execute the design and manage the project through construction.

Fred, we believe that we demonstrated our dedication and ability to help UO achieve excellence in collaborative research in the LISB project and we hope to continue this excellent relationship on this important renovation project. We sincerely hope for the opportunity to work with you, your staff and the scientists in the Pacific Hall renovation. Thank you for the opportunity to submit our qualifications.

Sincerely,

HDR Architecture, Inc.

Charles C. Cassell, AIA
Vice President, Principal in Charge
T 503.423.3892
E charles.cassell@hdrinc.com



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Before

After

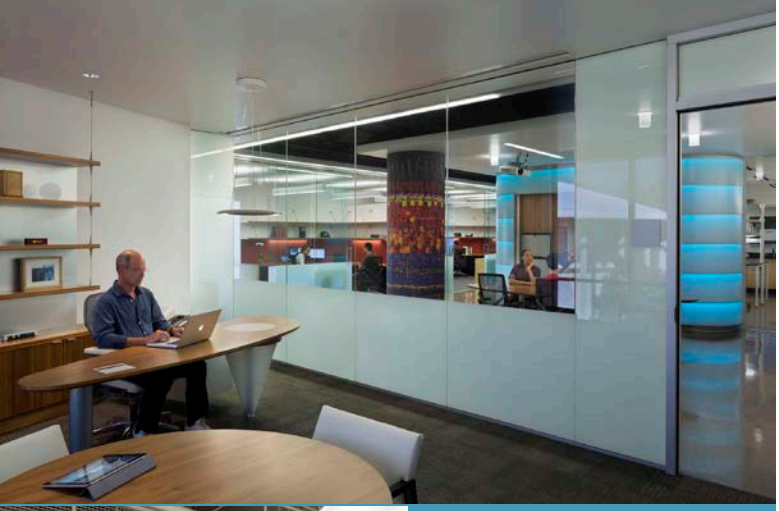
HDR

Overall Skills
Complex Renovation Projects

Recognized as the #1 Science + Technology firm by Building Design + Construction for the past three years and with eight 'Lab of the Year' Awards from R&D Magazine, HDR clearly has the ability to design and deliver research facilities. Yes, we have the expertise, but we don't come with a preconceived solution. Instead, we bring fresh insights and creative thinking derived from our experience working with private and public research institutions around the globe. Together, we will get it right to deliver a renewed Pacific Hall Laboratory that will enhance UO's innovative and influential research enterprise now and into the future.

At HDR, we understand the contemporary pressures institutions are facing to extend the life of existing facilities while maintaining a relevant environment. We work closely with clients to develop solutions that encourage collaboration, nurture creativity and fulfill each institution's mission. Our approach to each project leverages the opportunities of the building and site while being mindful of inherent limitations. Rapidly changing technology, reductions in funding, evolving pedagogy and changing research endeavors can render a building unsuitable for modern programmatic needs. Adaptive reuse is a sustainable option for institutions to extend the life of existing buildings and sites while maintaining their cultural, economic and often historical significance. Today's academic buildings foster discovery, facilitate teaching and inspire learning across an increasingly diverse multi-cultural and multi-generational faculty and student body. The rapidly evolving scientific landscape requires a robust yet flexible mix of highly technical spaces complemented by functional soft spaces that enhance opportunities for deliberate and serendipitous interaction among disciplines. HDR's design philosophy is to enhance and express the beauty inherent in scientific discovery. When reshaping or repurposing an existing building we feel that it is vital to embody the spirit of discovery in both our approach to design and in the solutions ultimately reached. Looking beyond the condition of the space as it exists, understanding the situation thoroughly, and getting to the "bones" of the building to understand its potential are the hallmarks of our renovation design process.

As example to HDR's overall design skill and ability to revitalize and re-energize old buildings we offer our long experience at Caltech in Pasadena, CA. Caltech's architecture is steeped in history and highly valued by the university. HDR has completed multiple sensitive and complex laboratory renovations for this client. All have been challenging from the perspective of creating new, exciting research spaces in very old, technically challenged buildings. Probably the most challenging and most venerated renovation was the Meister Laboratory Renovation which is featured in this section.



When reshaping or repurposing an existing building we feel that it is vital to embody the spirit of discovery in both our approach to design and in the solutions ultimately reached.

California Institute of Technology, Research Laboratory Renovations

Pasadena, California

Markus Meister Laboratory Renovation
Design /Build $3.46 million renovation to the Beckman Behavioral Building provided 6,000 SF of research space for Professor Meister including wet lab, support labs and collaborative amenities.

Lulu Qian Lab Renovation
Design/Build single phase renovation located on the first floor of Keck Building. The new $1.1 million lab suite provides approximately 3,400SF of research labs, offices (faculty, post docs & students) and support areas for Bioengineering Professor Lulu Qian.

Newman Laboratory Renovation
Design /Build $1.8 million renovation provided 4,000 SF of research space for Professor Dianne Newman. Project features included 2 interconnected Biology Labs, detailed gas supply and distribution to 4 anaerobic chambers and student interaction amenities to foster collaboration.

Hoelz Laboratory Renovation
Design /Build $1.5million renovation to Braun Laboratory Building provided approximately, 4,300 SF of research space for professor Hoelz.

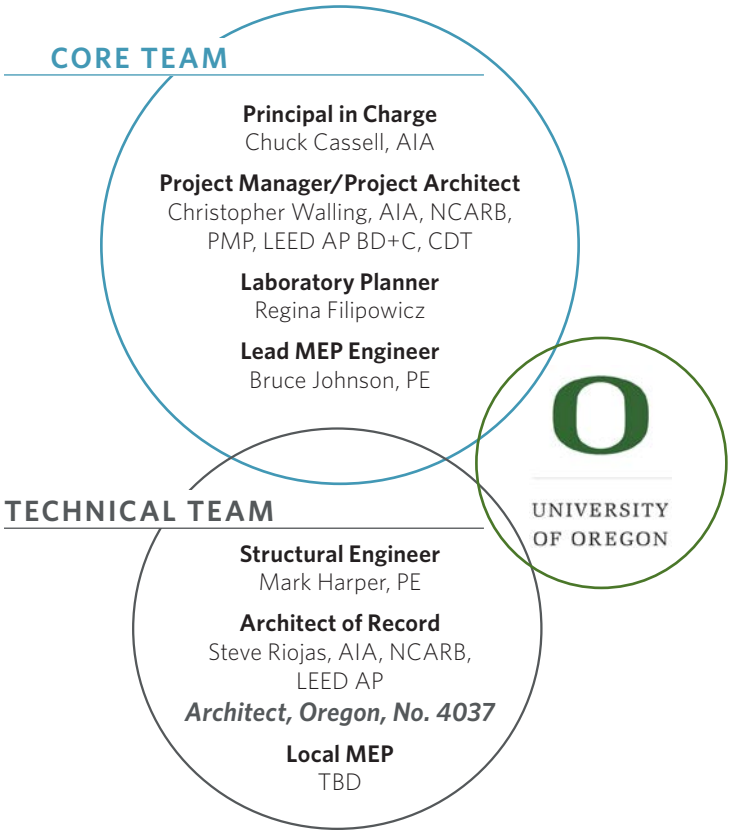
Alexei Aravin Laboratory Renovation
Design /Build $1.5million renovation provided 3,000 SF of research space for Professor Alexei Aravin. Project highlights included large open Biology Lab, lab support such as Tissue Culture and Radioactive Lab and, lastly, a future Biology Lab for projected research expansion.

Baer Laboratory Renovation
Design/Build, $1.2 million NIH funded renovation of the Braun Animal Facility Cagewash at approximately 1,300 SF for Dr. Baer to conform to NIH Guidelines and AAALAC Standards.

Robert Grubbs Laboratory Expansion
Design /Bid/Build $630,000 expansion by 1,500 SF to research space for Nobel Prize winning Professor Robert Grubbs' organometallic chemistry research for use in organic and polymer synthesis.

Michael Dickinson Laboratory Renovation
Design/Build $2.3 million renovation within the Beckman Behavioral Biology Building provided approximately 5,000 SF of research space for Professor Michael Dickinson to foster research in brain nerve cell circuits. Important project highlights include a series of individually light controlled Behavior Labs, central Machine Shop, multi-purpose Wet Lab and a dedicated Equipment Room for a custom wind tunnel. .

How will we work together?



HDR's Integrated Team

Renovating an existing facility with minimal disruption to the staff and students is a bit like doing open heart surgery – very painful but it extends and improves the quality of life after recovery. Just as much as you want to select the right doctor for complex surgery, you will want to hire the right team for the transformation of the Pacific Hall building. HDR has assembled the right multidisciplinary project team and leadership to effectively steer the design and planning to address the challenges and opportunities for this unique project. This team brings a track record of successful delivery on projects of similar or greater scope and complexity at University of Oregon and other university campuses combined with the dedication, discipline and passion for creative collaboration with you to deliver a transformative design.

Core Team

Chuck Cassell will provide project oversight, laboratory concept direction and collaborative research environment approach.

Christopher Walling brings 30 years of science & technology to his role as the Project Manager/Project Architect. Christopher will be responsible for project logistics, documentation and coordination.

Regina Filipowicz brings over 24 years of science and technology planning experience to the team, including the detailed planning of all the laboratories in the Lewis Integrative Science Building at UO.

Bruce Johnson offers insightful experience and concept development to the upgrades and modifications that will be required to the mechanical, electrical and plumbing systems.

Chuck Cassell, AIA

Principal in Charge

As a Principal Planner in the HDR Consulting Group, Chuck Cassell brings over 30 years of focused experience in the programming, planning and design of scientific research facilities. He is a widely recognized authority in the planning and design of biomedical and life sciences laboratories, particularly in the fields of basic and translational research, multi and trans-disciplinary research, cancer research, genomics and proteomics, comparative medicine and biomedical engineering. He has contributed to the design of numerous notable research facilities at some of the most prestigious academic and medical universities in the world. He has worked with four Nobel Laureates in medicine and chemistry in the design of their laboratories. His work has received numerous awards and he is a regular speaker at conferences across the globe. Chuck has been instrumental in the planning and design of over 150 research facilities.

Christopher Walling, AIA, NCARB, PMP, CDT, LEED AP BD+C

Project Manager/Project Architect

Christopher has almost 30 years of experience managing and leading design teams providing architectural and engineering design services for science and technology, mission critical, higher education and sustainable projects. His practice has included projects that implement sustainability concepts and technologies beyond the industry metrics. He has extensive experience with the building envelope and building systems design especially as how they apply to the principles of sustainability. His experience in sustainability includes design of projects that reduce energy consumption and environmental impact

Regina Filipowicz

Laboratory Planner

Ms. Filipowicz has more than 24 years of experience with various laboratory projects for academic and institutional research, biotechnology and pharmaceutical. She has served in all capacities of project execution including laboratory design, project coordinator, laboratory programmer, and senior laboratory programmer.

Ms. Filipowicz possesses strong project coordination and programming skills and her attention to detail is exceptional. She continuously demonstrates her dedication and commitment to her clients. She provides quick and thorough response to all needs and requests required on a project.

Bruce Johnson, PE, LEED AP

MEP Lead

Bruce has a wealth of experience designing mechanical and process support systems for state-of-the-art chemical and biological scientific research, and pharmaceutical facilities. He provides a wide range of expertise to HDRs clients. In addition to offering comprehensive knowledge of systems design alternatives and applications, he has developed concept and final designs for national laboratories, academic facilities, public and private sectors including HVAC, process support systems, hazardous materials, and exhaust treatment systems. His work includes project assessments for compliance with various energy conservation standards

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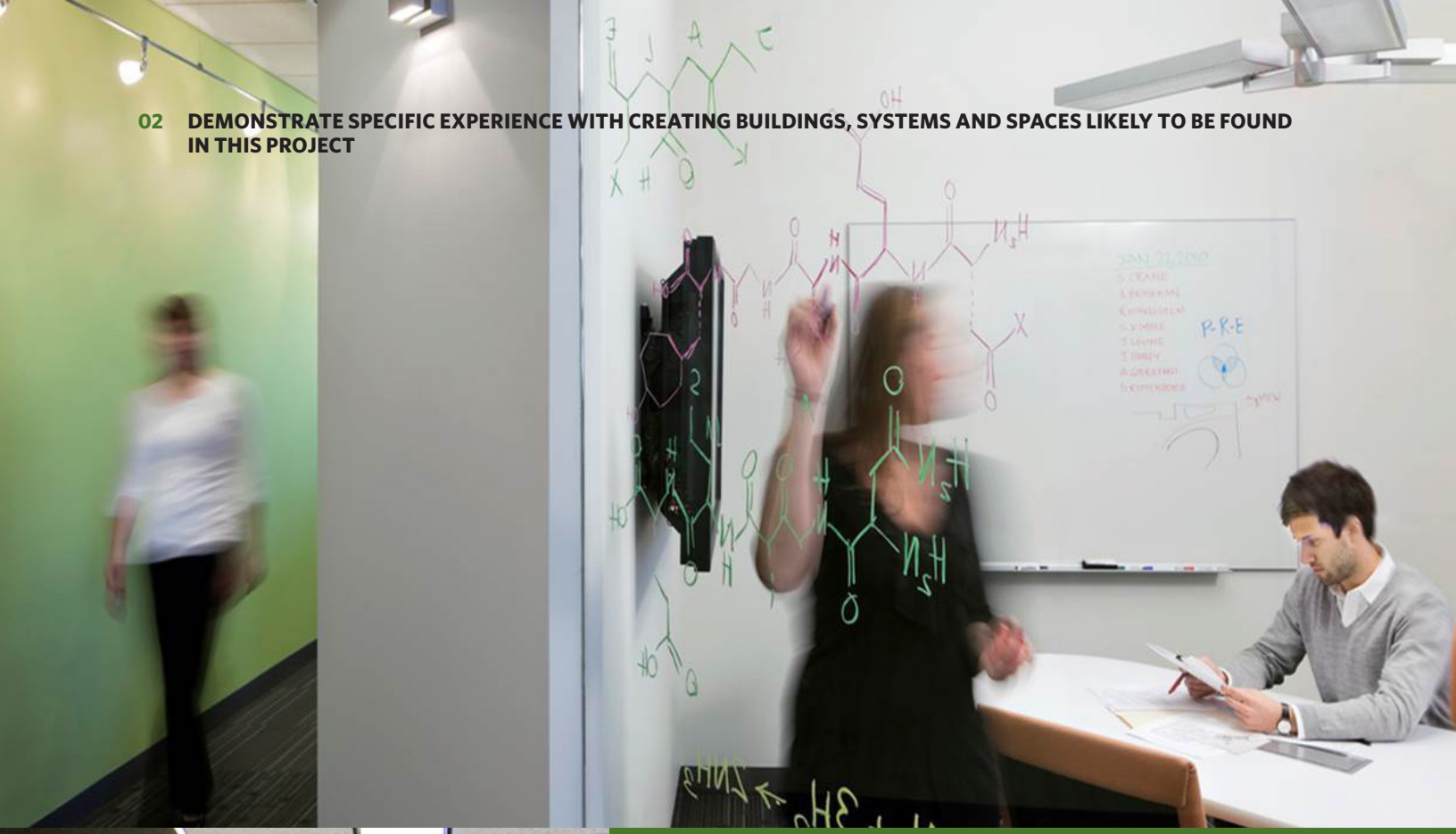

Designing 21st Century Laboratories

HDR's Team for the Pacific Hall Project has unparalleled experience in the planning and design of modern, cutting edge research laboratory space. Perhaps our most relevant example of this experience and skill are the laboratories in the Lewis Integrative Science building at your University. These labs were programmed, planned and designed by Chuck Cassell and Regina Filipowicz, the same planners as we propose for the Pacific Hall project. The menu of laboratories for the LISB had incredible range including Molecular Biology, Green Chemistry, Animal Biology and Behavioral Research, Low-Temperature Thin Film Research, Nanotechnology Research, Psychology Dry Laboratory Research and significant Core Laboratory Facilities including an FMRI Core. These laboratories embody many of the goals and aspirations stated for the new labs in Pacific Hall including high visibility/science on display, futuristic, flexible laboratory systems and a tremendous emphasis on creating collaborative research environments.

Collaborative Work Areas

At HDR we believe that the laboratory design should reflect how people work and interact and that it should encourage not impede positive scientific interaction. There are many work styles necessary in modern research from the private, contemplative style to the group or team dynamic. Understanding the dynamics and culture of our Users gives us insight to develop not only the proper laboratory modules but the proper office, teaming and collaborative spaces that will best support your unique culture and work styles. Our Workplace Strategies Group has developed a set of tools for evaluating work flow, styles and requirements that will help ensure that the entire research environment in your new facility is designed to encourage and inspire creative, dynamic and interactive science. These tools embody LEAN Design Six Sigma analytics and apply LEAN approaches to the design of the workplace.

Frugal Flexibility

During the planning of the LISB at UO, HDR coined the phrase, "Frugal Flexibility". Over the past decade laboratory furniture and systems technologies have advanced to the point that labs can be made almost completely movable and adaptable. However, this comes at a high cost premium and often the highly flexible systems provided never get used to their full potential. We therefore consider our responsibility to lead UO through an analysis of just exactly where furniture and systems flexibility is important and will provide maximum benefit. We then use these flexible furniture and utility systems in these locations and implement more traditional, less costly systems where flexibility is not warranted. In the LISB this approach resulted in an intelligent mix of flexible and fixed systems and helped the Users achieve their goals while staying well within responsible cost parameters and budgets.

While it is absolutely critical to accommodate the initial Users' needs, modern research facilities must also be planned to host multiple disciplines or programs over the life of the building. Research is a fluid, ever-changing process and the facilities that support this research must be able to adapt to this paradigm. The complex character of research often involves a variety of experts, equipment platforms and support facilities operating as a collaborative team to be successful.

This "team" dynamic depends on the ability of the research facility to accommodate a project-based approach to research. As research projects are successfully completed or terminated and new projects are begun the facility must easily change over to new staff, equipment and processes.

Prototype Laboratory Design

To design laboratories that are both responsive to initial Users' needs and be flexible and adaptable over the life of the facility, HDR recommends the Prototype Laboratory Design approach. A prototype laboratory is neither custom nor generic. We evaluate the entire range of needs of the initial Users as well as the predictable future needs and develop prototypes that encompass the range. There may be one lab prototype or many but the goal is to look for the HIGHEST common denominators among the various lab types and repeat them as affordable to ensure the long-term viability of the labs.

Core Facilities

In addition to highly adaptable laboratories, inclusion of the correct Core Facilities can greatly enhance the research enterprise. The program for these Core Facilities will depend on the specific types of research being conducted, existing Core Facilities already available, and the aspirations for future technologies in research. A carefully considered menu of Core Facilities can reduce duplication of costly instrumentation and processes and greatly improve scientific quality by housing these instruments in a managed Core run by Technicians specializing in the use of the equipment.

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Building Engineering (MEP systems) Delivery Approach

HDR's Engineering group participated in the Integrated Design Process employed in the design of the recently completed Lewis Integrative Science Building (LISB) at the University of Oregon. The approach placed the HDR Engineering Team in the role of developing the Concept and Schematic Design submittal documents for the Engineered Building Systems with input and involvement by all project stakeholders. HDR participated in all Project Goal Setting strategy sessions, as well as, all project sustainability workshops. HDR was teamed with a local Engineering Design partner who was responsible for the generation of the construction documents in their role as Engineers of Record. This approach permitted HDR to utilize its knowledge and experience in high performance Laboratory Buildings to establish the project direction and permitted implementation to be lead by a local partner familiar with University Standards and preferences who was located near the University permitting ease of field investigation. HDR was then responsible for providing a peer review of the subsequent Design Development and Construction Document phase submittals to ensure that the design intent was being maintained through the development of the construction documents. Given the nature of this proposed project, HDR believes that this same strategy can effectively be employed for this MEP system design. HDR proposes that the local MEP design partner firm be selected collaboratively by HDR and the University immediately following selection, should HDR be awarded this project.

Highly Sustainable Project Experience

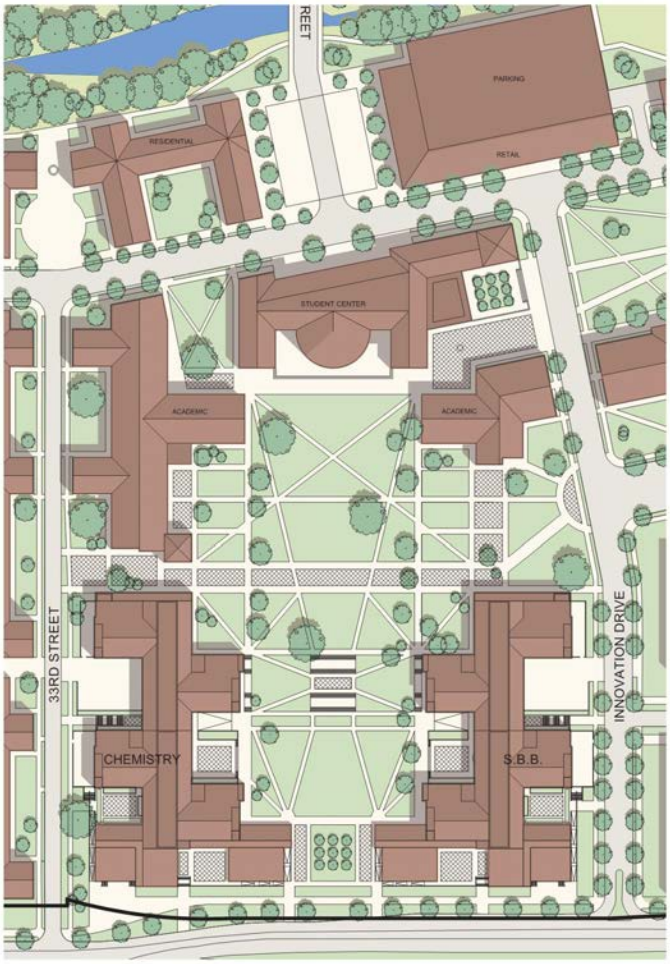
HDR strongly embraces the application of sustainable and energy reduction strategies in all of its design projects. However HDR ensures that proposed enhancements are cost effective; utilizing life cycle cost analysis considering capital costs and energy reduction costs, but also impacts to on-going operations and maintenance, such that the analysis is fully comprehensive and accurate.

A representative project that HDR believes exemplifies our commitment and success at energy reduction and sustainability was the Lewis Integrative Science Building (LISB) at the University of Oregon. The project achieved a LEED Platinum rating through the use of innovative strategies. In the LISB project HDR employed a series of water and energy conserving strategies inspired by Labs 21. Through a highly successful integrative design process, the project is leading the way on campus as the first project to successfully reach outside the project boundaries to seek ultimate sustainable solutions. Modeled to achieve energy cost savings 60% above ASHRAE 90.1, the largest single energy saving measure takes waste heat out of the existing below-grade campus utility tunnel. Reclamation of the RO system reject water from an adjacent building was considered for potential reuse as both an energy and water conservation opportunity. It was ultimately determined that it would be collected as grey water for use in the plumbing system supplying flush fixtures.

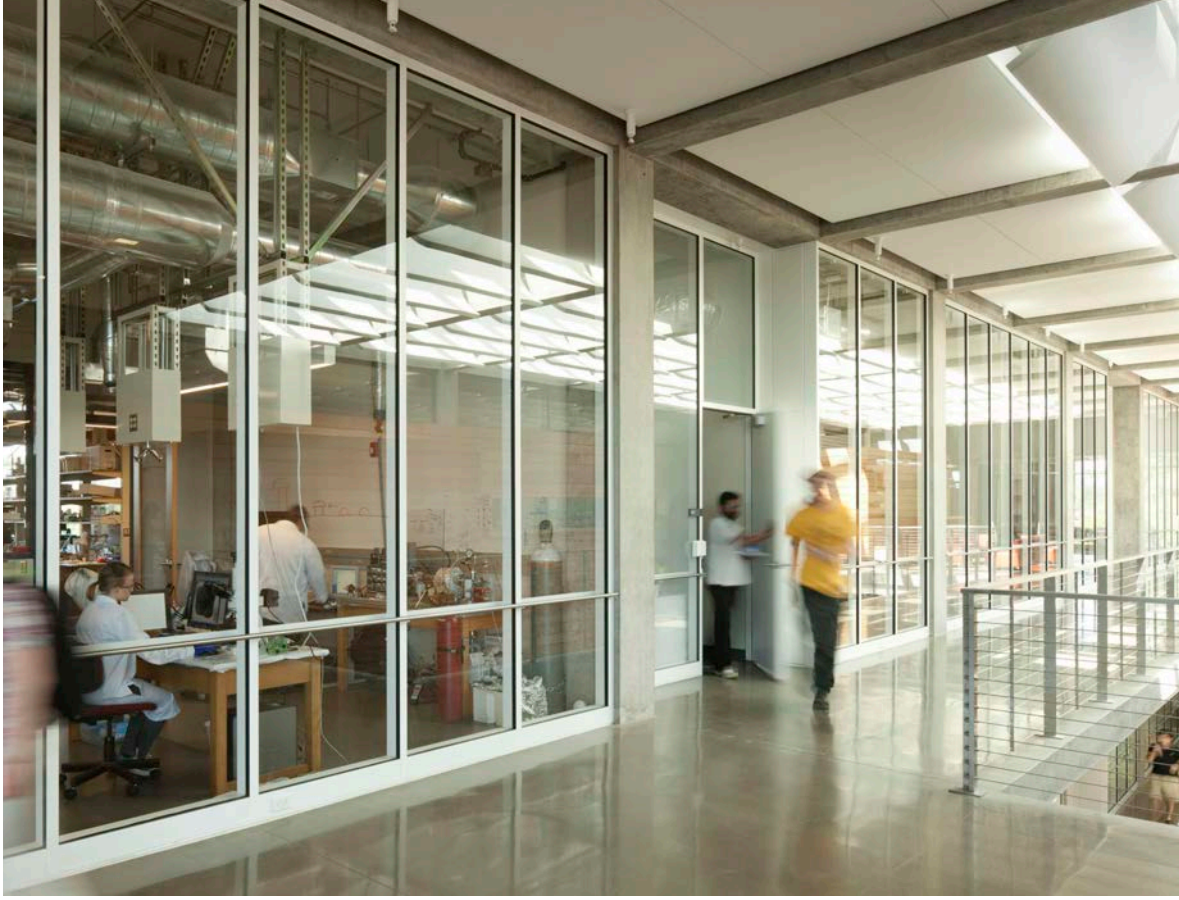
Design within University's Campus Plan

HDR is known for our Campus Planning and Master Planning work. We are thoroughly familiar with the Campus Plan for the University. We worked closely with our design partners at THA to develop the LISB in a manner that perfectly complemented and complied with the specific and implied goals of the Campus Plan. Chuck Cassell was the Lead Planner for HDR on this undertaking.

At the University of Colorado HDR executed the Master Plan for the new East Campus in conjunction with our design partners, Robert AM Stern & Associates. We helped the University develop new planning standards, architectural standards and campus planning goals for an entire new campus. We subsequently programmed, planned and designed the new Smoly Caruthers Systems Biotechnology Building, the first building on the new campus, as well as the new Sustainability Environment & Energy Complex, the second building on the new campus. Chuck Cassell has been the Lead Planner and Principal-in-Charge for all of HDR's efforts at the University of Colorado. We are consummately qualified and experienced to deal with all scales of site and campus planning issues that might arise in connection with the renovation of Pacific Hall.



Master Plan



PROJECT DETAILS

Construction Cost: $65 million

Size: 103,000 SF / 9,940 m²

Completion Date: 08/2012

Space Components: Amenity spaces, atrium, bioinformatics, biology laboratory, collaborative space, imaging, instrument laboratory, laser laboratory, nanoscale laboratory, physical science laboratory, vivarium

Client Reference:
Bruce Bowerman
Institute of Molecular Biology
University of Oregon
1370 Franklin Boulevard
Eugene, Oregon 97403
P: 541.346.0853
Email: bbowerman@molbio.uoregon.edu

Completed on schedule and on budget.

University of Oregon

Lewis Integrative Science Building (LISB)

Eugene, Oregon, USA

The Lewis Integrative Science Building is home to strategic research clusters centered around interdisciplinary and integrative research missions; its purpose is to create new synergies across diverse academic disciplines by literally uniting the sciences. The majority of the building is devoted to studying the brain and its functions—specifically cognitive neuroscience, systems neuroscience and genetics research. The building also houses space for solar technology and green chemistry research.

The design of the building is rooted in the idea of connectivity. The building connects to four neighboring science buildings, and the entire design concept supports the premise of science as an open, collaborative process rather than an isolated exercise conducted behind closed doors. A Human-scaled atrium forms the heart of the building and acts as a major catalyst in integrating researchers and promoting open thinking. Bamboo adorns nearly the entire south wall of the atrium, while transparent and white glass covers the north wall. The transparent glass allows passerby to peer into laboratory spaces, while white glass acts as a marker board, promoting spontaneous brainstorming.

This LEED Platinum-certified building uses 58 percent less energy than conventionally designed buildings of similar size and function. Energy savings features include natural ventilation in non-lab spaces, solar shading, daylight harvesting, night flush cooling, variable flow chemical fume hoods equipped with automatic sashes that close when not in use, and the extraction of heat from an adjacent utility tunnel. To reduce usage of potable water, LISB reclaims reverse osmosis treated water from a neighboring zebra fish research facility and uses this water to flush all urinals and toilets. All of the storm water on site is also collected and treated, and 28 solar hot water panels on the rooftop heat all domestic hot water.

Designed in collaboration with THA Architecture

PROJECT DETAILS

Construction Cost: $14M

Size: 289,000 GSF
40,000 NSF Lab space
115,000 NSF New/ Revised Office Space

Completion Date: Under Construction

Space Components: Chemistry, Geochemistry and Physical Science Labs, Dry Laboratories and Lab Support & Teaching Labs

Client Reference:
J. Chris Ewing, Interim Assistant Vice Chancellor, Office of Infrastructure and Safety, University of Colorado Boulder
303-492-7059
John.Ewing@Colorado.edu

Completed on schedule and on budget.

University of Colorado

Sustainability, Energy and Environment Complex (SEEC) Phase II
4001 Discovery Drive Renovation (MacAllister Building)

Boulder, Colorado, USA

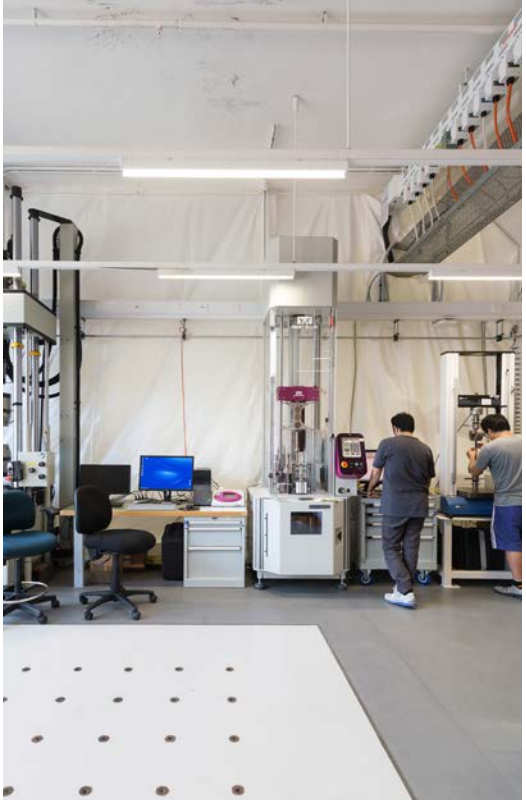
HDR was engaged to provide consulting and design services to the University of Colorado, Boulder for the Sustainability, Energy and Environment Complex (SEEC). SEEC consists of two phases. Phase I is of new construction and known as the Wet Lab Building. Phase II is the 4001 Discovery Drive Renovation known as the MacAllister Building and consists of dry labs.

The University's goal was to design modern, state-of-the art research and teaching labs based on HDR's experience and knowledge. In addition to programming and planning the Wet Lab Building, HDR focused on making what was formerly an office building into a viable Chemistry, Geochemistry and Physical Science Lab building. Therefore, the design needed to address the 35 year old office building infrastructure. Engineering systems required upgrading including a new liquid nitrogen tank and jacketed piping to the Stable Isotope Lab. Structural issues, primarily ceiling heights, were recognized and treated on a lab by lab basis in order to minimize cost impacts. It was crucial to meet these issues not only to create joint dry research space with the Phase 1 Wet Lab building, but to grow lab space for the Environmental Engineering program.

The MacAllister Building as a part of SEEC will bring together environmental researchers from all over campus and neighboring federal labs to support environmental science, environmental sustainability and renewable energy. Additionally, it will help the school to maintain its intensive research and teaching role as one of the nation's top-ranked engineering schools.

"HDR has done a fantastic job on several of our research building projects. ***We rely heavily on Chuck Cassell and team for their expertise in lab programming, design, and construction. On several large projects,*** HDR has proven invaluable in their ability to manage, address, and incorporate differing interests and needs from multiple user groups with often competing interests. They approach projects with an open mind, eager to hear what is important to the client, and enthusiastic to implement those needs into a design that can be built. In recent years, when construction market conditions have not been in our favor, HDR has been a valuable team member in helping identify solutions for designing and building less costly yet fully functioning lab facilities. It has always been a pleasure to work with HDR."

J. Chris Ewing, Interim Assistant Vice Chancellor, Office of Infrastructure and Safety, University of Colorado Boulder



PROJECT DETAILS

Construction Cost: $122 million
Size: 62,000 SF / 5759 m²
Completion Date: 05/2015
Space Components: Chemistry, Collaboration Space, Conference/ Meeting Rooms, Teaching Lab

Client Reference:
Tracie Barber, Associate Professor & Laboratory Director, School of Mechanical & Manufacturing Engineering, UNSW Sydney NSW 2052 Australia
T +61 (2) 9385 4081 | M 0410 505 940 t.barber@unsw.edu.au

Completed on schedule and on budget.

University of New South Wales

Mechanical and Manufacturing Engineering Research Building

Sydney, New South Wales, Australia

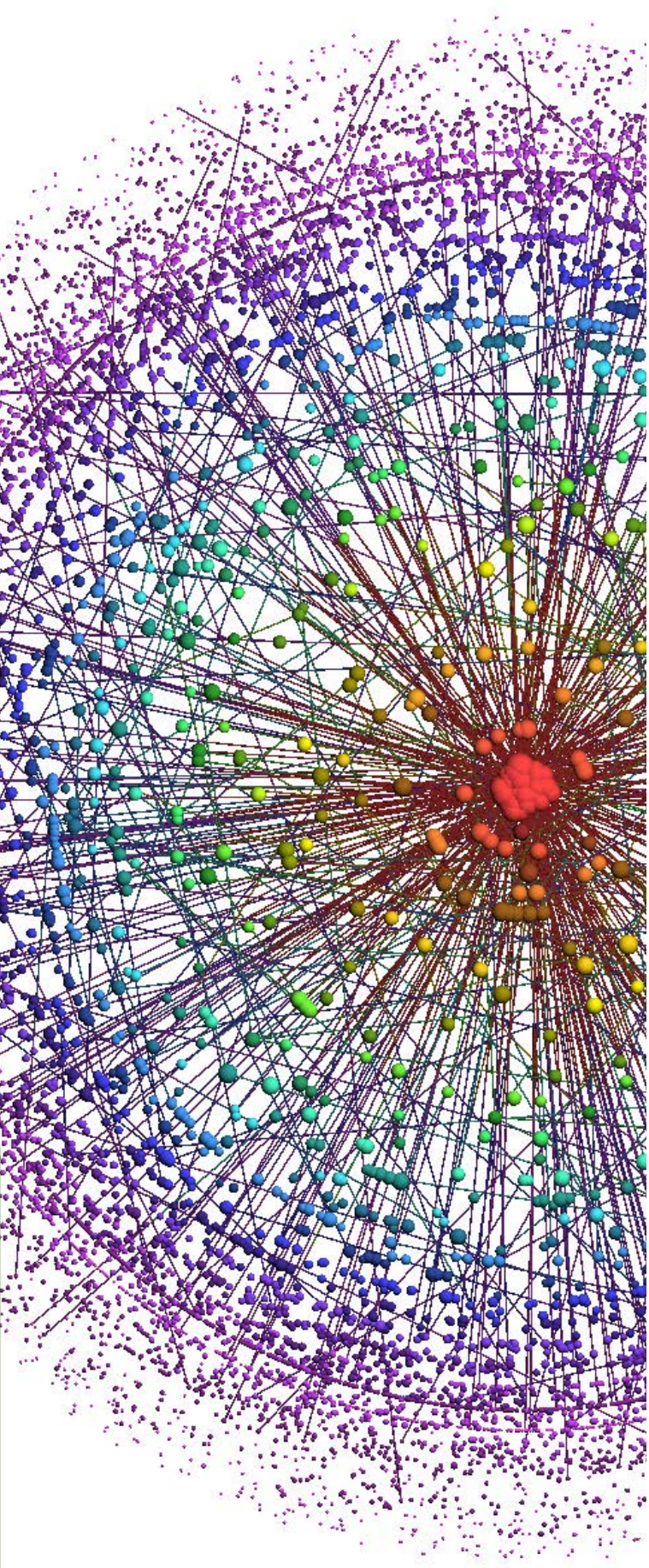
HDR was also engaged to provide consulting and design services to UNSW for the extensive renovation of the Mechanical and Manufacturing Engineering Building. The project consisted of two buildings, J17 and J18, and HDR's effort mainly focused on the research building J18 constructed in 1961, "The Willis Annex". The main goal was to design modern, state-of-the-art research and teaching labs based on UNSW's vision and goals in addition to HDR's international experience and benchmarking knowledge. The design needed to address a 50 year-old outdated lab building and identify similar research space to create joint research and reduce wasted space. It was crucial to meet these objectives for the school to maintain the continued intensive research and teaching role as part of Australia's leading and largest engineering faculty.

"I wanted to let you know how enjoyable it has been working with [HDR] on the MMEB refurbishment project. From the first meeting, you were quick to understand our School and the facilities, issues and personalities present. It can be a challenge to direct a large group of users, but I have been impressed by your sensitivity with our staff, while also firmly guiding them in the right design directions. I believe the design that HDR have presented is an excellent solution, both technically and aesthetically. It definitely conforms to our guiding principles of "flexible, contemporary and engaged". One of the aspects that worked particularly well was the interactive design sessions held with our user groups. Seeing the laboratory layout change and evolve in real-time, with our users drawing across the plans on the whiteboard, was a brilliant idea. Allowing our users to be so involved with the process was, I believe, a key element of the acceptance of the final layouts.

[HDR was] able to successfully work with our many users, who had different views, different equipment and varying degrees of receptiveness to any change, and show them new design ideas that made the best use of the facilities. I appreciate the level of detail and understanding you went to; to make sure every function of our laboratory was accounted for.

Thanks again for all the hard work and great design. We hope to see you at the eventual opening of the new MMEB. "

Tracie Barber, Associate Professor & Laboratory Director, MMEB , UNSW AUSTRALIA



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"On Lewis Integrative Science, Chuck proved his ability to work very well with our most challenging faculty users, to integrate himself very effectively into the design of the entire building and its systems, and to become an indispensable part of the "glue" that was essential to the multi-dimensional success of this building. I can't imagine what Lewis would be like without his contributions. He worked as a peer with the lead designers, charmed the users, and thrilled the support staff with his ability to quickly get us to effective solutions. In particular, ***Chuck has an outstanding ability to understand and enhance our very interactive, collaborative research culture through a building that provides a perfect medium to cultivate interaction and collaboration.***"

Fred Tepfer, University of Oregon

Creating Design Concepts With Users

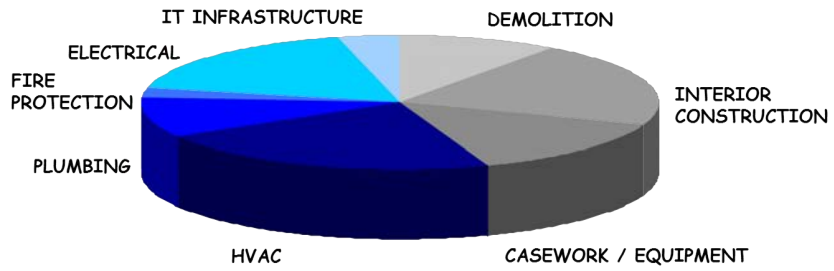
At the University of Oregon HDR provided the programming, planning and design leadership for the new Lewis Integrative Science Building. The U of Oregon gives a great deal of authority and autonomy to its faculty through its Integrative Design Process. HDR was able to assimilate into the institution's highly interactive process and mange the Faculty Groups through a process that assured that all views were heard and all concerns and goals incorporated. The result is the new flagship research building for this progressive, innovative academic research institution.

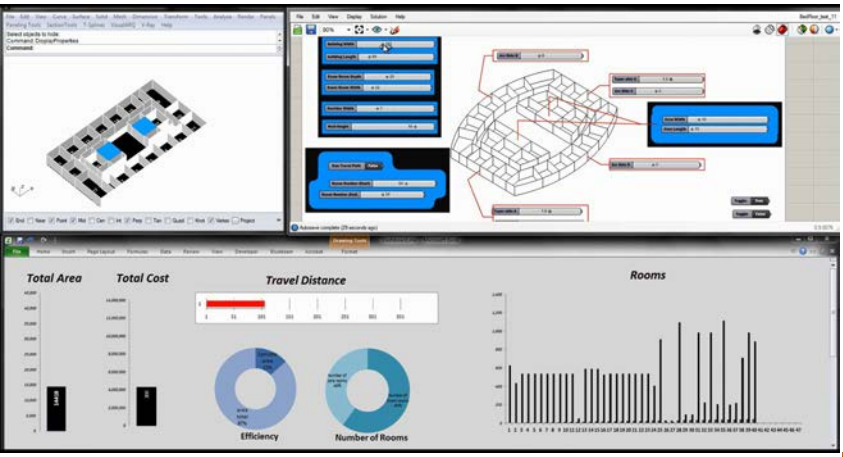
We Listen To User Needs And Communities

Our Planning Team, led by Chuck Cassell, is consummately skilled at understanding the culture of the particular User groups and implementing the most effective process and tools to work through the programming and planning phases of the project. We will utilize real-time drawing tools in an interactive charrette form of meetings that will engage and interest the users and result in a solution in which everyone feels ownership and partnership.

Designing Projects with Multiple Construction Phases and Occupied Spaces

Renovating an existing facility with minimal disruption to the staff and students is a bit like doing open heart surgery – very painful but it extends and improves the quality of life after recovery. Just as much as you want to select the right doctor for complex surgery, you will want to hire the right team for the renovation of the Pacific Hall Building. HDR has assembled the right multidisciplinary project team and leadership to effectively steer the design and planning to address the challenges and opportunities for this unique project. This team brings a track record of successful delivery on projects of similar or greater scope and complexity at many institutions around the country. Involvement of a CM/GC can greatly benefit the creation of a functional phasing plan. HDR will work with the University and the Contractor to minimize disruption and optimize efficiency during the construction phases of the project.





Working Collaboratively Using Integrated Design Principles

HDR has been an innovator and leader in the development of IPD (Integrated Project Delivery) methods. We have executed a number of projects actually delivered on the true IPD process. While the Pacific Hall project will not likely be a true IPD the principles of this process can lend valuable results to the process. UO has a very sophisticated integrated design process of its own. HDR learned a lot in the course of executing the LISB project and worked very closely and collaboratively with the University and Lease Crutcher Lewis, the CM/GC on the project. The LISB was by all accounts a very successful project and yielded a wealth of knowledge about the University's process. The partnership between UO and HDR was so successful that Chuck Cassell and Fred Tepfer co-presented the LISB project at a Labs 21 conference as an example of the University's highly integrated process.

Creative And Effective Management To Ensure Best Use Of Resources

HDR is an industry leader in the development of Real-Time Cost Modeling. Utilizing the most sophisticated Parametric Cost Modeling tools we will partner with the University and the Contractor to predict, estimate and track the project costs from the very outset of the project. In many instances the Contractors have actually used the HDR Cost Model for their initial tools in creating the budgets, estimates and GMP's for the project.

Similarly, HDR will practice Strong Project Management (SPM) principles to manage the schedule and information flow on the project. The schedule will be constantly reviewed against the decision matrix that will be developed to inform the University of the impact of decisions and changes to the design.

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The Art of Science Collaboration

Our team's diverse background creating social and cultural environments expressive of a group's ethos and personality in conjunction with depth our research planning experience creates a distinct advantage of weaving the functional components of the project with the aspirational components while integrating your specific identity and story into built form.

Creating architecture that encourages interaction which can lead to collaboration is not a one-size-fits-all proposition. What works in one instance may not work in another. It all comes down to your institution's culture. HDR gained much valuable insight into the culture of collaboration at UO during the planning of the LISB. We spent time on campus observing the patterns of movement and the interactions that occurred. We made a study of the kinds of places people tend to congregate and where they don't. We discussed at length the nature of collaboration at UO with the proposed Users in the LISB to understand their specific culture. We will also spend time with the Users in the Pacific Hall renovation to better understand their culture and how they do and want to interact.

Collaboration isn't a Space it's a Mindset

Creating good collaborative space is rarely about grand gestures, big atriums and commensurately big budgets. It is more often about making places for both planned and unplanned encounters of a few people and making sure their environment facilitates dynamic, create interaction. We have found that it is difficult to compel people to use a particular type of interactive space but much easier to attract them to a place that they feel comfortable using. Many things can contribute to this "attraction" approach. It may be as simple as a white board and Wi-Fi connection; it may be as complex as food or coffee. Location of such spaces needs to be very carefully evaluated. They need to be where people will naturally cross paths or they will be of little value. They need to be somewhat private, not public spaces so that people feel secure in their conversations and in their comfort. Planned or scheduled interactions need strategically located conference rooms and teaming spaces. Visibility but controllable daylighting are of paramount importance in these kinds of spaces. The main conference rooms at LISB are a perfect example of such planned interaction spaces.

The "Collaboratory" Approach

HDR has often found that some of the very best and most productive space for collaboration is that which is closely proximate to the research space itself rather than down the hall or up the stairs. We have coined the term "Collaboratory" to describe the laboratory typology which includes embedded or in situ space meant for small collaborative interactions among 2-3 people. The collaboration areas are perfect for the impromptu discussions among the people in the labs or workspaces without having to seek a spot outside the research environment to discourse.

It All Comes Down to Culture

Through our Post-Occupancy Evaluation process, both of HDR research designs as well as other architects' buildings HDR has developed a compelling body of evidence about what does and does not work in buildings aspiring to create more positive interactions with the goal of fostering better collaboration. What we have learned is that YOUR culture will be unique and that only by understanding your unique culture can we help guide you to design solutions that accomplish your goal of a more productive and collaborative research environment in Pacific Hall.

"I worked extensively with Chuck Cassell and the HDR team on the planning of the recently completed Lewis Integrative Science Building at UO. ***The Lewis Building is a beautiful, highly functional, environmentally sustainable facility that brings together scientists from many different fields, as well as incorporating the Lewis Center for Neuroimaging. Integrative science buildings are inherently challenging to design because of their multi-faceted nature, but this one functions brilliantly to facilitate productive collaborations within and across disciplines.*** In good measure the success of the building is due to the efforts of HDR. From the very start I found their team to be incredibly knowledgeable about the practical needs of science labs, innovative in approaching thorny design problems, highly responsive to the concerns and suggestions of building users, and meticulously attentive to detail. ***HDR is a pleasure to work with and I recommend them highly for any complex design project in the sciences.***"

Lou Moses, Co-Chair of the Coordinating User Group for the Lewis Integrative Science Building, Head of Psychology

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We practice increased use of sustainable materials and reduction of material use.