

# Architecture of Response Willie and Donald Tykeson Hall

OFFICE 52 Architecture

**TYPE** Institutional **CLIENT** University of Oregon **LOCATION** Eugene, Oregon  
2020 Daily Journal of Commerce Top Projects Award Recipient



PHOTOGRAPHY CHRISTIAN COLUMBES

Tykeson Hall's architecture is an expression of the College of Arts and Sciences' values and unique programming. A thoughtfully innovative design embraces the college's progressive mission with an ensemble of traditional campus materials infused with a modern aesthetic, regional palette, and building proportions that harmoniously work with the surrounding context.







The design team's creative programming process and CAS' openness to exploration of new ideas led to a fundamental mindset shift about work spaces and teaching environments. With a focus on flexibility of space utilization and cross-function work, connection with the outdoors, and equity of access, Tykeson Hall is poised to demonstrate that a change of culture is innovative and resilient.

by Michelle LaFoe, AIA

It's about communication, conversation, access, diverse perspectives, learning from each other, and the creation of spaces for people that support these values. The recently completed Tykeson Hall at the University of Oregon is an exemplar of this concept, a new model for an undergraduate academic center for the interdisciplinary College of Arts and Sciences (CAS).

The LEED Gold project embodies a unique educational philosophy and evokes beautiful aspects of the Oregon region that reinforce a sense of community with an environmentally conscious mission. The design spatially integrates academic curriculum with an array of indispensable student services for a first-of-its-kind building on campus to provide equitable support for student success and improve educational outcomes. Built upon a previously developed surface parking lot, the building serves as a campus destination and transforms the area with a cohesiveness that strengthens internal and external connectivity with adjacent structures, pedestrian circulation, outdoor public spaces and the broader community.

The 64,000 square-foot building is the new home for the College of Arts and Sciences and Dean's Office, the Office for Equity and Inclusion, the University Career Center, and Academic and Career Advising and mentoring. Program spaces include mathematics and writing tutoring areas, seminar and flexible state-of-the-art learning environments, faculty and administrative offices, and a variety of student-focused work spaces. Layouts for learning spaces and classrooms highlight flexibility and adaptability to accommodate a variety

of group sizes and spatial configurations as needed, a resilient aspect of the design incorporated prior to Covid-19. Key to the program are 19 small private meeting rooms distributed throughout the building for small group student work or focused individual study. Amenities include a café, a roof terrace, and a ground floor community space called the Commons, which extends into the landscape with direct access to a new plaza and the Ellipse, an outdoor (class)room and community space to be completed in 2021 and designed to flexibly satisfy current social distancing requirements and future (post-Covid) programmatic needs.

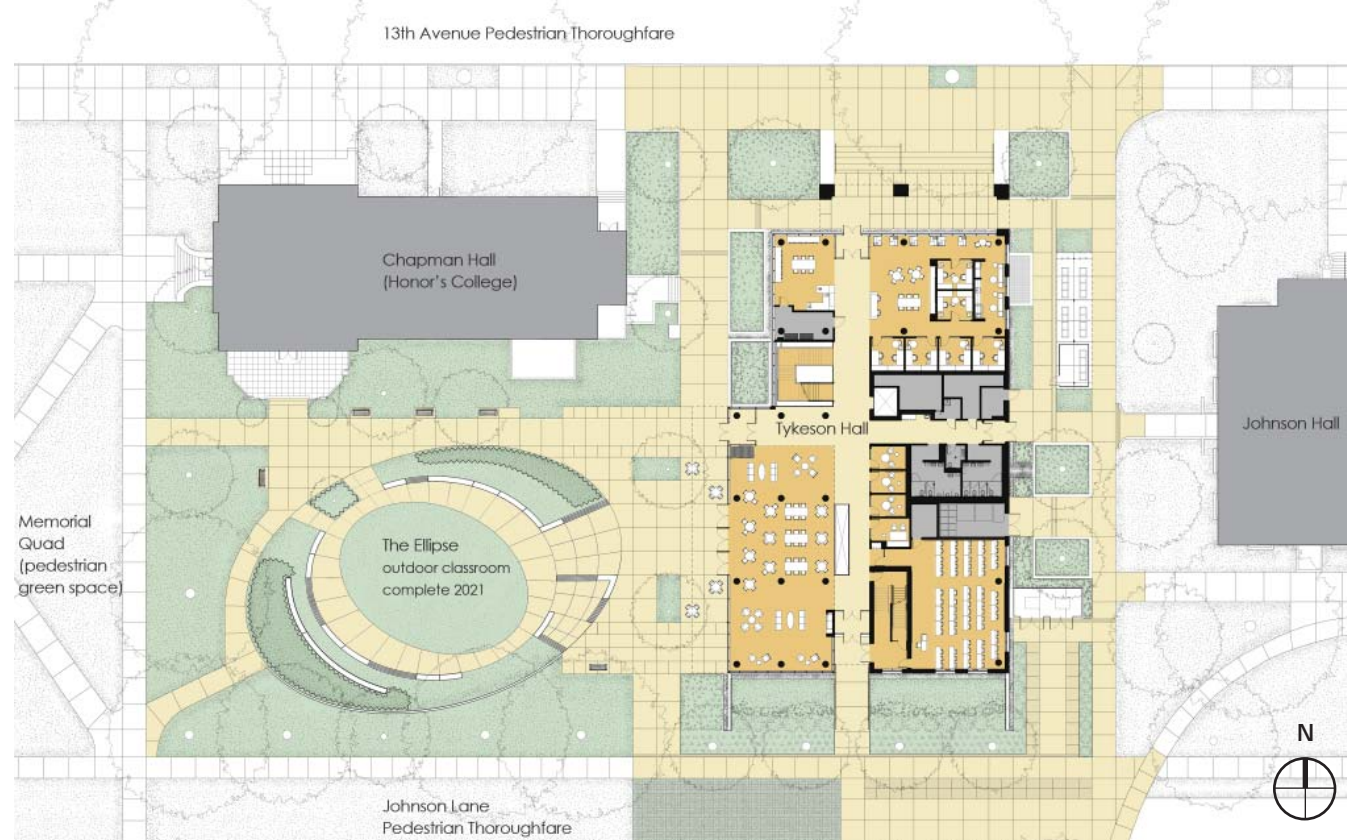
The spatial organization of the building in section and plan is based on Golden Section geometry, a concept that combines theoretical arts and applied sciences while providing interior spaces that are well-apportioned. Building massing is conceptually organized into three interlocking forms with an external material palette related to internal program and spatial character: brick for state-of-the-art classrooms, terra cotta wrapping innovative program features, and glazing for the Commons.

An economically compact footprint and harmonious scale with nearby historic structures reinforces the new building's contextuality, as does the use of traditional campus materials – namely terra cotta and brick – with a contemporary façade expression focused on craftsmanship and modern detail. At the beginning of the project we noted how light and shadow interact differently with the different finishes of the clay materials: brick surfaces tend to absorb the light whereas the terra cotta reflects it. Tykeson Hall is the first campus building to incorporate terra cotta in eighty

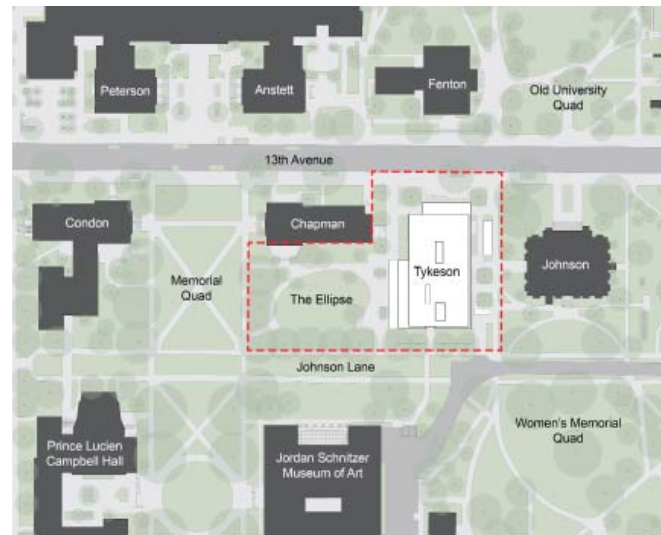
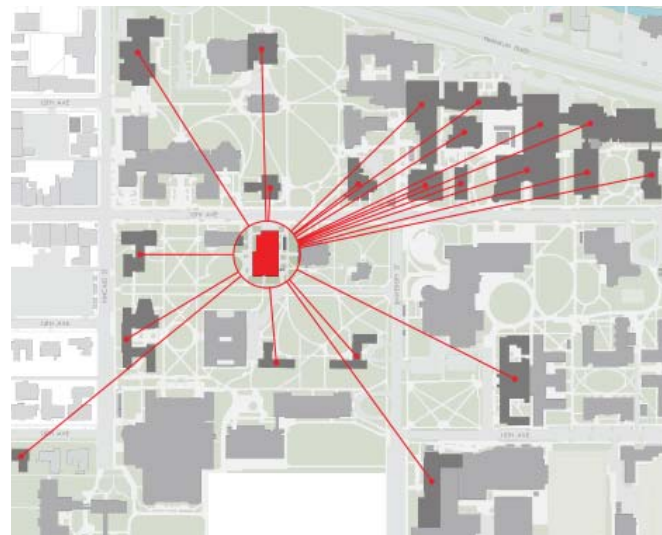


PHOTOGRAPHY CHRISTIAN COLUMBRES.





The College of Arts and Sciences (CAS) has 800 faculty, 11,000 students and 42 fields of study dispersed across 49 buildings, with no previous headquarters. Tykeson Hall is the new home for CAS, which provides a liberal arts foundation to the majority of undergraduates, with core academic programs in the humanities, social sciences and natural sciences.



PHOTOGRAPHY SINZIANA VELICESCU,  
DRAWINGS OFFICE 52 ARCHITECTURE.



years, melding engineered, prefabricated cladding technology with a geometric color field of regional landscape tones. The appearance of the façade alters depending on solar position, with glazes subtly reflecting seasonal light variations and lending the architecture a corresponding dynamic.

Clay brick is a timeless and sustainable material. For a campus composed predominantly of brick, we turned this into an opportunity to create something special with a brick enclosure integrated into the high-performance façade system. After researching campus brick patterns, we developed a custom Norman Cross Bond pattern with locally-sourced materials to enhance the regional connections. Attention to window articulation within façade datum lines weaves the brick and terra cotta systems together with a unified approach.

Accentuating each floor on the interior is a geographic color palette evoking a distinct Oregon region: coast (garden | basement level), Willamette Valley (first floor), douglas-fir forest (second floor), high desert (third floor), and mountain alpine peak (fourth floor). The interior highlights locally crafted elements, including woven

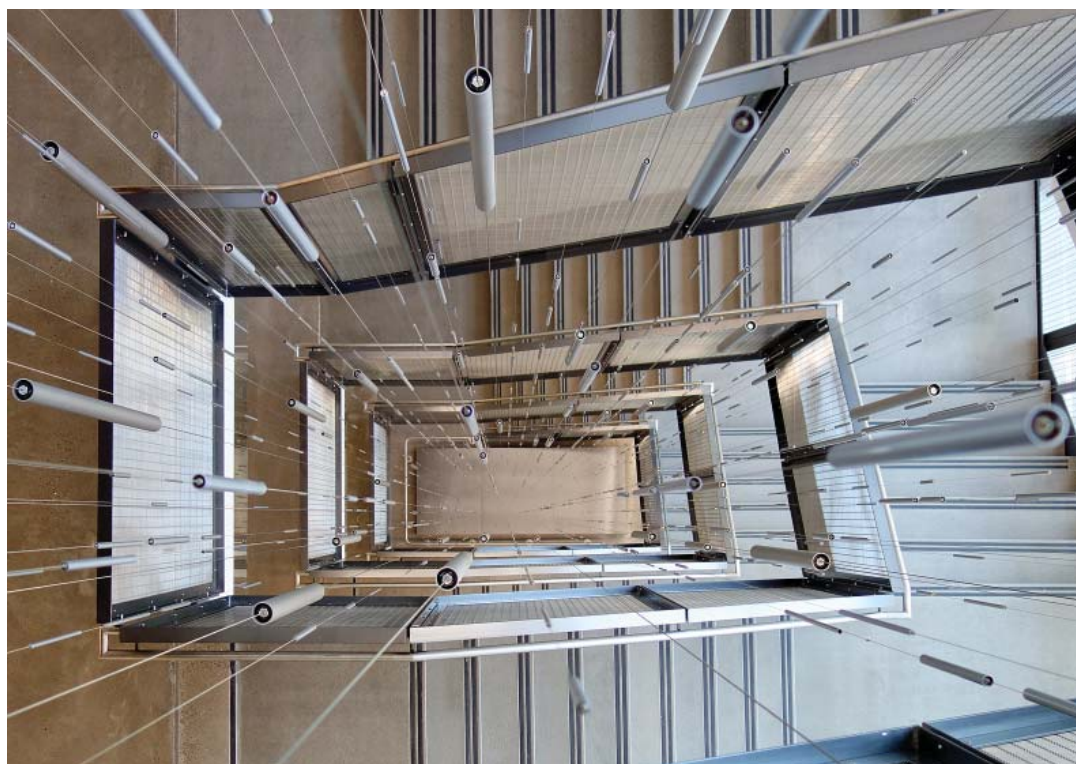
stainless-steel handrails and salvaged Pin Oak from construction site trees for acoustically enhanced ceilings in select public spaces. Custom red oak welcome walls greet people on each floor, and the design of each floor incorporates artwork sponsored by the Oregon Arts Commission.

The building design emphasizes simple solutions that maximize energy efficiency, occupant health and comfort, and connections to nature. Transparency and a sense of openness prevail, featuring views and daylight with visual site lines working in tandem with occupant circulation to amplify the spatial experience and create a welcoming environment. Two sectional elements that connect all five floors - a large light well and monumental stair - heighten this experience while creating people-watching opportunities. By designing in section and physical models, in conjunction with digital models, the interior and exterior are integrally related with a cohesive design, the process for which explored creative ways to feature natural light as a design element connecting all five floors. In addition, south and west-facing exterior light wells bring additional daylight into the basement | garden level and showcase the Eugene Formation, a distinctive





As an art form that stimulates the imagination, the spacious and centrally-located monumental stairway sculpturally unites the building's five levels and serves as a physical and metaphorical symbol of connection and community, amplifying the place-making role of the stair. The creative process for the sustainably-sourced terra cotta began by looking at light and color in Pacific Northwest landscapes and reinterpreting this perceptual experience for a façade application. We completed plein-air Oregon landscape paintings for the basis of a matte-glaze terra cotta color field, the nuance of which is amplified by seasonal light variations.



PHOTOGRAPHY SINZIANA VELICESCU (TOP), ISAAC CAMPBELL (BOTTOM)

Climate change is one of the biggest challenges of our lifetime. To embrace commitment to environmental conservation, sustainability is integral to the building design with both common-sense and high-tech solutions. Tykeson Hall achieved LEED Gold certification and fulfilled the energy goals of the Architecture 2030 Challenge, and as such it's design weaves architecture, art, science and technology.

geological formation with Paleogene period fossils that the project team discovered during construction. To embrace commitment to environmental conservation, sustainability is integral to the building design with both common-sense and high-tech solutions. Tykeson Hall achieved LEED Gold certification and fulfilled the energy goals of the Architecture 2030 Challenge.

#### Architecture embodies a philosophy

Serving a remarkable diversity of people should be the goal of public higher education today, and reaching thousands of students from all walks of life and giving each the individualized attention they deserve at a public institution represents the transformative vision underlying Tykeson Hall. The design process began with a poem and concept of uniting for the common good. The building is an example of what is possible when people collaboratively implement inclusive democratic ideals and embrace past and present knowledge to benefit the future success of students and our planet.

The conceptual journey for the building began with the former Dean of CAS, Dr. Andrew Marcus, who spearheaded the academic vision for the project, which was subsequently seen to fruition by Dean Bruce Blonigen. The intent is to provide each student with the means to chart a personal path through the liberal arts to enrich their intellectual lives towards a fulfilling career. A broad-based interdisciplinary liberal arts education with an emphasis on communication, analysis, problem-solving, and collaboration skills teaches students to explore and challenge by fostering rigorous investigation and imaginative creativity to make the world a better place.

Tykeson Hall is a physical and virtual manifestation of this vision, as a welcoming place with highly accessible

resources for students to connect them with faculty, alumni, visiting scholars, mentors, the broader community and partner organizations. The building serves a highly diverse student population with a place to achieve academic and career goals as one strives towards personal and professional success, empowering them with a culture of openness and transparency. The project team envisioned a building dedicated to student success with a public mission of serving students equitably - a task especially urgent in times of economic crisis. Prior to and during Covid-19, the building and its interdisciplinary constituents serve as a unifying symbol and a central communications hub with a support system for the academic and surrounding community.

The building design reinforces the college's core values with nontraditional programmatic adjacencies to create a first-of-its-kind integrated academic center to support CAS's inclusive culture. The project required the thoughtful integration of a variety of disparate programmatic elements, such as career counseling, academic advising, tutoring, academic coursework, flexible classrooms, public and semi-public work spaces, private offices and community spaces into a coherent architectural vision. The result is a flexible, transparent, daylit, healthy and equitably accessible environment where students feel empowered to explore, ask challenging questions and build foundational skills for leadership.

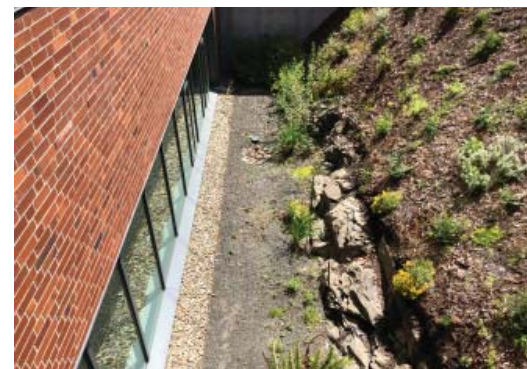
#### An Economy of Means

Tykeson Hall provides a new campus model for efficiently planned academic space with reduced program redundancy for an economy of means. The building is sized to give program entities a single location on campus and provide necessary infrastructure for substantial





Tykeson Hall's design has a strong connection to the landscape for a stimulating sense of place. The Commons is topped by an outdoor roof terrace, and the Commons itself opens onto a new outdoor classroom and bio-diverse green space called the Ellipse, complete in 2021. Water from the building's roof and site collects in rain gardens to return it to the aquifer. Light colored concrete reflects solar heat to reduce heat island effect. Sloped landscape increases daylight access. Site and building circulation efficiently tie into campus pedestrian and bicycle circulation. Preservation of mature tulip and oak trees form two edges of the site.



PHOTOGRAPHY CHRISTIAN COLUMBRES (TOP THIS PAGE, TOP LEFT NEXT PAGE), MICHELLE LAFOE (BOTTOM THIS PAGE), SINZIANA VELICESCU (TOP RIGHT NEXT PAGE), PHYSICAL MODEL OFFICE 52 ARCHITECTURE.



coordinated initiatives. Overlap of elements lowered cost and embodied energy. Small-group work spaces open onto highly-efficient circulation. Building spaces can be flexibly transformed with a variety of layouts and reprogrammed to accommodate the numerous interdisciplinary needs of CAS and the university.

Taking full advantage of the site, we oriented Tykeson Hall's compact footprint for enhanced connectivity with adjacent Chapman Hall, home to the Clark Honors College, for a new outdoor greenspace that spatially unites both buildings and maximizes 26% of the Tykeson site as open space. As such we designed the Tykeson building with an economy of means as a rectangular bar-shape on part of the site - instead of L-shaped occupying the whole site - to optimize the passive benefits of extensive daylight access, natural ventilation, perspectival views and shared indoor | outdoor spaces. Climate control and comfort were critical aspects of the design for an energy-efficient sustainable solution. The building orients to the prevailing winds, and operable windows for natural ventilation benefits the health, well-being and productivity of occupants with 30% more fresh air than required by ASHRAE standards. This



ensures proper ventilation with high levels of healthy indoor environmental air quality.

### Long Life, Loose Fit

Envisioned for a minimum useful life of 100 years, Tykeson Hall was designed with a high level of spatial flexibility and adaptability in both the short and long term to allow the program to develop over time and serve as a national model for future academic communities. OFFICE 52 Architecture worked in collaboration with RMA Studio, and Isaac Campbell, AIA, and Claire Halenbeck, IIDA, CID, successfully led the Tykeson Hall programming and interior planning process as they had previously done together for several award-winning buildings on Stanford's new Science and Engineering Quad and for the Knight Management Center for the Stanford Graduate School of Business. For Tykeson Hall, CAS and the design team wanted to push the limits of space planning. Rather than create large, undefined collaborative spaces, we used a highly effective community engagement process to analyze how people were using their spaces and envision a better model with interchangeability. This led to planning for a variety of small and larger



Tykeson Hall's spatial inter-connectedness and sense of openness is at the core of the architectural vision for a place that brings all CAS students together with a sense of community. Education, mentors, and a greater understanding of each other as diverse people fosters peace and stability. This is ultimately a building that's about the diverse community you serve, exposure to inspirational people and possibilities, and helping others voice and answer questions towards empowerment to succeed in life. It's where students learn to navigate their academic experience. Tykeson Hall is a model of efficiently planned academic space with reduced program redundancy for an economy of means. The building is sized to give program entities a single location on campus and provide necessary infrastructure for coordinated initiatives. Overlap of elements lowered cost and embodied energy. With a variety of private, semi-public and public spaces, the building can be flexibly transformed with a variety of layouts and programmed to accommodate current and future needs.



By designing in section and physical models, in conjunction with digital models, the interior and exterior are integrally related with a cohesive design, the process for which explored creative ways to feature natural light as a design element and views to the landscape.



PHOTOGRAPHY SINZIANA VELICESCU,  
PHYSICAL MODEL OFFICE 52 ARCHITECTURE.





alpine peak (4th floor)



high desert (3rd floor)



douglas-fir forest (2nd floor)



Willamette Valley (1st floor)



coast (garden level)



view upward, light well

PHOTOGRAPHY SINZIANA VELICESCU (RIGHT), MICHELLE LAFOE (BOTTOM LEFT AND LANDSCAPES), SECTIONAL DRAWING OFFICE 52 ARCHITECTURE

group functions with a combination of private and public spaces with flexible furniture groupings and built-in resiliency that can accommodate unforeseen situations as well as increased use of mobile technology combined with spaces for individual contemplation. Proportionally comfortable spaces are a result of Golden Section geometry, and structural economy provided maximum flexibility. Strategic placement of interior glazing in relation to acoustical walls creates visual connections and expands daylight capability while maintaining high performance acoustic environment separation. Interiors feature advanced acoustical treatment with ambitious sound transmission class targets for room partitions to control sound transmission. Major finishes provide durability, low maintenance and longevity. Resilient features include abundant daylight, natural ventilation via operable windows, predictive climate modelling, and a high-performance building envelope.

#### Climate Change and Energy Conservation

Climate change is one of the biggest challenges of our lifetime. Tykeson Hall's design incorporates a variety of passive and active strategies to simultaneously mitigate climate change for environmental stability while increasing occupant health, comfort and connection to nature for a stimulating sense of place. The team designed the building to be 34% more efficient than current Oregon Energy Codes. An integrative design

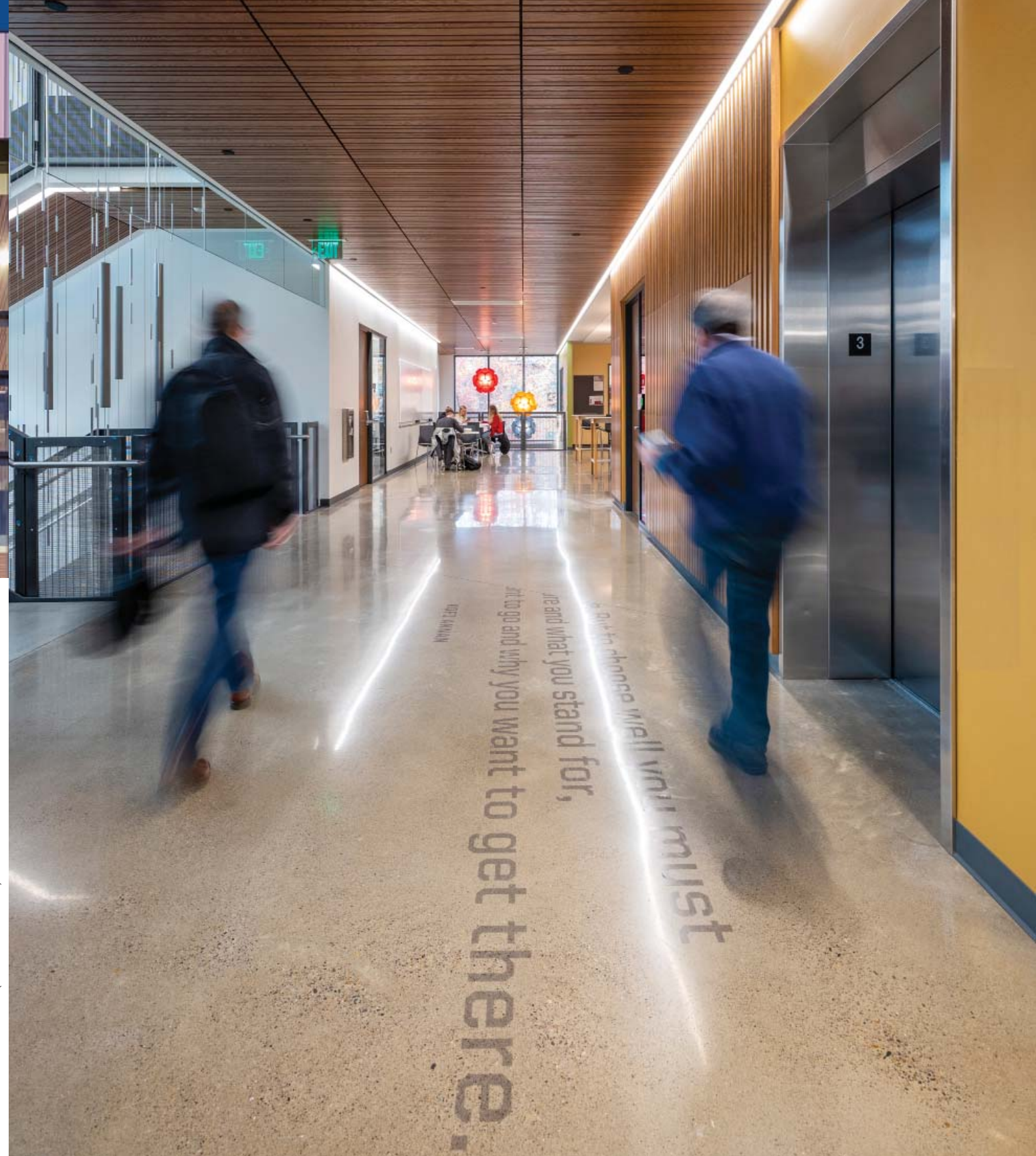
process with extensive energy modelling resulted in a compact configuration and efficient systems for a low-energy building with an EUI of 25 and energy performance modeled at 77% better than a similar-sized building, resulting in more than 222,000 kWh saved annually. This is one of the first buildings in the Pacific Northwest to integrate post-tensioned concrete slab construction with high efficiency hydronic heating and cooling, exposed thermal mass, and active chilled beams for radiant cooling and heat/energy recovery on HVAC systems.

Energy conservation measures include high-efficiency wall, roof and window assemblies; high-performance glazing; high-efficiency chilled water, combined heat, power, and steam plants (campus-wide); radiant slabs; reduced plug loads and daylight harvesting. The project minimizes emission of compounds that contribute to ozone depletion and global climate change. Practical design strategies include progressive target metrics for lighting-power density, high-efficiency LED lighting, occupancy sensors, task lights, ceiling fans, occupant thermostat control, reduced water consumption, reclaimed materials, and waste management. Extensive use of operable windows and ceiling fans further increase occupant comfort and control.

The project is rooted in the history of regional ecology. Accentuating each floor on the interior is a geographic color palette evoking a distinct Oregon region: coast (garden | basement level), Willamette Valley (first floor), douglas-fir forest (second floor), high desert (third floor), and mountain alpine peak (fourth floor). Cascading daylight traverses all five floors. During construction the team discovered the Eugene Formation, a distinctive geological feature with Paleogene period fossils, preserved on the garden level.







An excerpt from a Robert Frost poem introduced by former Dean Marcus, “But yield who will to their separation, my object in living is to unite, my avocation and my vocation, and my two eyes make one in sight,” informed the design team’s approach to the building. “Reflectance Field,” the chance-based sound sculpture by Narduli Studio - within the void of the monumental stairway - unites community through collaborative expression.



PHOTOGRAPHY SINZIANA VELICESCU (BOTTOM, LEFT THIS PAGE, RIGHT), MICHELLE LAFOE (BOTTOM RIGHT THIS PAGE), ISAAC CAMPBELL (TOP LEFT THIS PAGE).

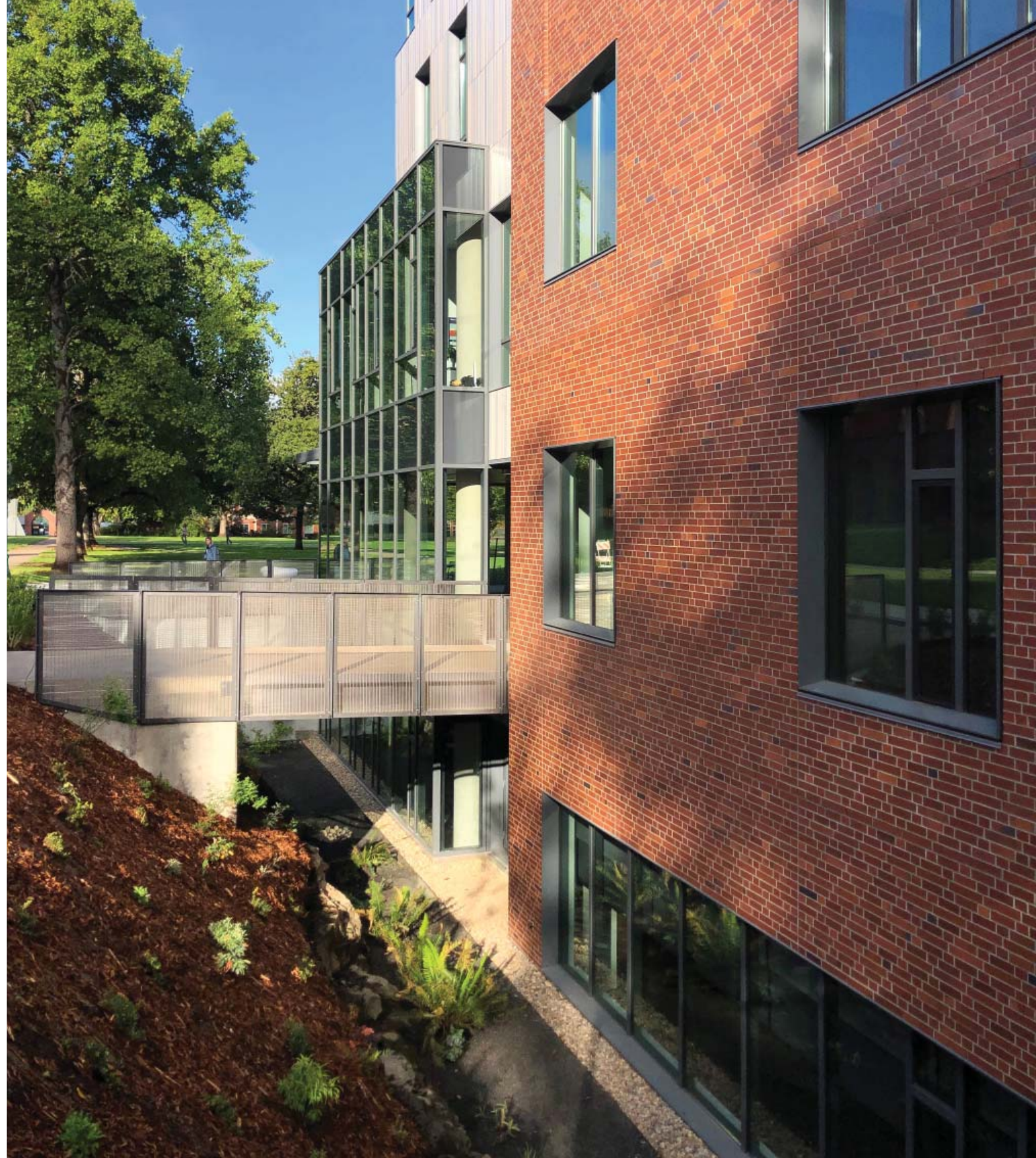




In plan and section we based the spatial organization of the building on Golden Section geometry, a combination of theoretical arts and applied sciences that provides well-apportioned interior spaces. Building massing is conceptually organized into three interlocking forms with external material palette related to internal program and spatial character. Client addition of a floor during design development provided opportunity to create a lower garden level with daylight-enabling features. This solution of building downward with carved-out space preserved harmonious building proportions with nearby historic structures.



PHOTOGRAPHY MICHELLE LAFOE (FAR LEFT BOTTOM), SINZIANA VELICESCU (TOP AND LEFT), ISAAC CAMPBELL (RIGHT).







The LEED Gold project embodies a unique educational philosophy and evokes beautiful aspects of the Oregon region that reinforce a sense of community with an environmentally conscious mission. The design spatially integrates academic curriculum with an array of indispensable student services for a first-of-its-kind building on campus to provide equitable support for student success. Built upon a previously developed surface parking lot, the building serves as a campus destination and transforms the area with a cohesiveness that strengthens internal and external connectivity with adjacent structures, pedestrian circulation, outdoor public spaces and the broader community.



PHOTOGRAPHY CHRISTIAN COLUMBRES (TOP),  
PHYSICAL MODEL OFFICE 52 ARCHITECTURE.

Outdoor learning - nature sustains and inspires - poetically bringing the classroom outside and nature inside: taking full advantage of the site, we oriented Tykeson Hall's compact footprint for enhanced connectivity with adjacent Chapman Hall, home to Clark Honors College, to create a new outdoor green space and (class)room called the Ellipse that spatially unites both buildings and maximizes 26% of the site as a biodiverse landscape.

#### Access and Connectivity

Key to project success was the integration of the new outdoor greenspace and the Tykeson building circulation into the campus framework of pedestrian walk-ways. This provided for a higher level of equity in use and accessibility within the university and broader community (80 walk score/100 bike score). Located within ½ mile of many basic services with pedestrian access and within ¼ mile of 3 public bus lines, the building is a model of community connectivity. Its central location and amenities reduce land use and transportation-related CO2 by redeveloping a former parking lot and providing bicycle parking. Approaches leading to and from the building feature landscape-integrated accessible walkways, wide entrances, and smooth thresholds to a fully accessible building on all floors.

#### Water

Located in a rainy climate in the Willamette Valley, the project manages 100% of stormwater on site and reduces overall water pollution from runoff by treating 90% of the average annual rainfall and removing 81% of the total suspended solids from the stormwater with flow-through planters, filter strips, and trees. At the perimeter of Tykeson Hall, bio-swale rain gardens are planted with native vegetation to manage all on-site stormwater and recharge the aquifer. By building on a previous surface parking lot and creating biodiverse habitat, the design team improved the quality of campus stormwater emitted into the region's waterways. Water efficiency decreases potable water use for irrigation by 58% with drought tolerant, adaptive plants and drip irrigation systems, saving more than 62,500 gallons of water annually. Low flow, high-efficiency fixtures were used throughout the project. These reduced

demand on local water supplies, resulting in 38% less water than code compliant fixtures and over 330,000 gallons of annual potable water savings. A highly efficient centralized campus-wide heating and chilled water distribution system adheres to a rigorous Climate Action Plan implemented by the university. Reflectance Field, the monumental stairway's rain-inspired, sound-based interactive art installation by NARDULI Studio metaphorically highlights water as a precious resource.

#### Materials and Construction

Building materials and construction systems were selected with special consideration for durability, resource-efficiency, and ecologically elegant applications for healthy, welcoming environments. Tykeson Hall is designed with a compact configuration that maximizes plan, material use, structure and skin efficiencies. Exterior cladding materials deploy unique applications of sustainably sourced clay: a custom brick pattern and terra cotta rain screen, customized for facility of installation and economy of budget while aesthetically reinforcing regional connections. An exposed concrete interior complements the warm character of salvaged wood for select public ceilings.

Excellent indoor environmental quality is ensured with low-VOC materials that include paints, adhesives, sealants, coatings, flooring, fabrics, furniture, composite wood products, vinyl and formaldehyde-free materials, and radiant heating to reduce allergens. For resource management, more than 11% of material cost comes from recycled content, and 23% of construction material cost was regionally extracted, harvested, and manufactured materials within 500 miles of the project to reduce embodied energy, including locally sourced high-performance glazing. The project has a CO2-eq





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PHOTOGRAPHY SINZIANA VELICESCU,  
MICHELLE LAFOE (BOTTOM LEFT).

emissions reduction of 13%, and the team diverted 89% of site and construction debris (360 tons) to recycling plants, avoiding landfills.

We wanted to ensure the trees removed from the construction site were salvaged and re-purposed for the new building. The design team successfully led the re-purposing effort with a strategy that was within the project budget and schedule. This exemplified the university's sustainable, progressive values and reinforced support for environmental consciousness. We designed the building so the salvaged Pin Oak was fabricated into slats for wall panels and ceilings of select interior public spaces. The result is an ecologically elegant application of the reclaimed wood.

#### PROJECT CREDITS

**Client** University of Oregon

**Design Architect**

OFFICE 52 architecture

**Interiors & Planning**

RMA Studio

**Architect of Record**

Rowell Brokaw Architects

**Structural** Hohback Lewin

**MEP** Systems West Engineers

**Civil** KPFF Engineers

**Landscape** PLACE Studio

(Tykeson Hall)

**Landscape** LandCurrent

(The Ellipse)

**General Contractor** Fortis

Construction

**Sustainability** Brightworks

**Environmental Graphics**

The Felt Hat

**"Reflectance Field"** Sound-

based Stairway Installation

NARDULI Studio

#### SELECTED SOURCES

**Wood ceiling** Urban Lumber  
and 9Wood

**Terra cotta rain screen**

Shildan Group

**Brick** Mutual Materials

**Curtain Wall** Kawneer

**Glass** Vitro

**Insulated glass units** Hartung

**Artwork** Provided by the  
Oregon Arts Commission

