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2020 AIA Fellowship

Candidate Christopher Meek
Organization University of Washington
Location Seattle, Washington
Chapter AIA Washington Council; AIA Seattle

Category of Nomination

Object 2 > Education

Summary Statement

Building a bridge between research, education, and practice; Christopher Meek, AIA, elevates the design community by developing, evaluating, and disseminating tools and practices that advance healthy, high-performance, energy-efficient, and well daylit buildings.

Education

Master of Architecture, December 2002 (Faculty Medal)

- University of Washington, Department of Architecture, Seattle, WA

B.A. Architecture, June 1996

- University of New Mexico, School of Architecture and Planning

Licensed in: Registered Architect, State of Washington (#9109), May 2006

Employment

2015 – Present Associate Professor (with Tenure)

Department of Architecture

University of Washington, Seattle, WA

2015 – Present Director

Center for Integrated Design

Integrated Design Lab

University of Washington, Seattle, WA

2012 – 2014 Research Associate Professor

Department of Architecture

University of Washington, Seattle, WA

2006 – 2012 Research Assistant Professor

Department of Architecture

University of Washington, Seattle, WA

2003-2006 Project Designer

Associated Studios Design Collaborative, Seattle, WA

Residential and Commercial Architecture Design

2002-2006 Lecturer/Research Associate

Department of Architecture

University of Washington, Seattle, WA

1997-2000 Project Designer

H. Hershberg and Associates Architects, Inc.,

New Orleans, LA

Paul Mankins, FAIA, Chair, Jury of Fellows
The American Institute of Architects
1735 New York Avenue NW
Washington, DC 20006-5292

Re: Christopher Meek, AIA, Nomination for Fellowship

Dear Mr. Mankins and members of the Jury,

It is my honor and pleasure to nominate Professor Christopher Meek for elevation to Fellowship in the American Institute of Architects. The urgent climate issues before us require expert and articulate guides for the transformational change we must make as architects. Professor Meek is a true guide. He is an educator dedicated to equipping architects to design effectively for a post-carbon future; he is a researcher driven to transform industry best practices and regulations; and he is a design collaborator with both deep technical mastery of daylight and a passion for elegant design solutions.

Professor Meek shapes best practices for the profession. In his role as Director of the Integrated Design Lab (IDL) at the University of Washington's College of Built Environments and the Center for Integrated Design (CID), he leads consulting, nationally recognized research and education programs that equip his students with a uniquely sophisticated knowledge base. He sets critical research direction for low-carbon design, new integrative methodologies, and the linkage between science and human health. His collaboration and consulting on projects inevitably creates more knowledgeable designers as well as nationally significant award winning projects including 8 AIA COTE Top Ten winners.

Professor Meek is a master of daylighting design. His deep expertise and passion for daylighting infuse his work. A moment when we were both invited lecturers for the Architecture 2030-sponsored ZNC Forum at Tongji University in Shanghai illustrates well. His talk was comprehensive, speaking for daylight's role in the poetics of architecture, as well as clearly explaining the more technical and functional aspects of daylight design. His delivery clearly resonated with 200 Chinese architects and students on the other side of the globe. His love for daylighting has brought us multiple books and publications and a nationally recognized IESNA daylighting metric in addition to a generation of daylighting-literate architects.

Professor Meek is equipping current practitioners to meet the needs of the future. One of the most challenging aspects of this time is "drinking from the firehose" of new knowledge, accelerating the rate of lifelong learning necessary to practice architecture. Chris helps us absorb and implement new knowledge, developing curriculum for programs piloted by AIA Seattle and distributed nationally through AIAU. Programs such as Materials Matter, for which I was on the advisory committee, and AIA+2030, offered in 23 AIA components in North America, provide critical knowledge necessary for effective practice. The Rosetta Stone project he co-leads at the CID enables practitioners to underpin design decisions with science. My firm, NBBJ, is a partner in the Rosetta Stone research; we find it a relief to have trusted, thoroughly vetted and curated research distilled into a format useful to architects and their clients.

This time in our profession is like no other. To rise to the demands of the future, a technically masterful design response to climate change and emissions reduction is critical; elevating the human spirit and improving lives at the same time is the best possible outcome. Professor Meek is a much needed guide for this new challenge. His work educates, performs and uplifts designers, students and building occupants alike. His contribution is well worthy of elevation to Fellowship.

Sincerely,

Margaret Montgomery, FAIA, LEED AP BD+C, WELL AP, LFA Principal

Building a bridge between research, education, and practice; Christopher Meek, AIA, elevates the design community by developing, evaluating, and disseminating tools and practices that advance healthy, high-performance, energy-efficient, and well daylit buildings.

Interconnected Research, Technical Assistance, and Professional Education

As an academic, Prof. Meek seeks opportunities to collaborate with leading architects on real-world challenges of building performance, energy efficiency, and sustainability. He uses those relationships as a catalyst for nationally impactful research, unique student experiences, and to affect change in the practice of architecture.

UW Integrated Design Lab

Prof. Meek leads the University of Washington-based Integrated Design Lab (IDL), serving as its Director since 2014 and previously leading its daylighting practice since 2006. The outcomes of Prof. Meek's work are expressed in three primary areas: **(1) influential new construction and renovation projects that achieve exceptional energy performance targets and serve as a model for future buildings; (2) the development and advancement of tools and practices that accelerate energy efficient buildings through competitive grant awards; and (3) the delivery of educational programs and experiences that form the next generation of leaders in the building industry.**

These outcomes are underpinned by long-term strategic trust-relationships with individuals and organizations across the architecture, engineering, and construction (AEC) industry. Prof. Meek works extensively in the building performance research space, leading over \$7 million of competitive grant-funded research aimed at transforming the design, construction, and operations of commercial and institutional buildings. This has resulted in the development of nationally recognized policies and programs including the Seattle Building Tune-Up Accelerator Program (SBTU) where Prof. Meek led deep-energy retrofit activities combining a decade of research

and tool development to addresses existing-building carbon emissions.

Technical Advancement: Daylighting

Prof. Meek's creative and technical work in daylighting practice, energy-efficiency research, and standards development is nationally and internationally recognized. He has consulted on over 20 million square feet of award-winning new construction and major renovations with **eight (8) of those projects winning national AIA Committee on the Environment (COTE) Awards**, including the six-story net-zero energy Bullitt Center in Seattle, WA. He has co-authored two books on daylighting design and was part of the Illuminating Engineering Society (IES) committee that authored the influential **LM-82 Daylighting Metrics that have been adopted as standards of success** by the Leadership in Energy and Environmental Design (LEED) standard. He has lectured internationally on daylighting and integrated lighting design and has published extensively on the subject.

Education and AIA Program Development

A critical component of Prof. Meek's work has been to disseminate knowledge developed through the interplay of architectural practice and academic research. Prof. Meek **led the IDL's partnership with the American Institute of Architects (AIA) to develop the curricula and provide initial pilot delivery of AIA National education programs including AIA's *Materials Matter* and *Getting to Zero*.** These programs have served as a national model at the individual chapter level and more broadly through AIAU online course offerings. Furthermore, Prof. Meek has led a partnership with AIA Seattle to implement and provide technical guidance and review of a new ***Energy in Design Award***, a groundbreaking program that requires all AIA Seattle Honor Award submitters to provide energy performance data – and to share the progress of their most aspirational projects toward the 2030 Challenge.

Section 2: Accomplishments

2.1 Significant Work

Employment

2015 – Present **Associate Professor
(with Tenure)**
Department of Architecture
University of Washington, Seattle, WA

2015 – Present **Director**
Center for Integrated Design
Integrated Design Lab
University of Washington, Seattle, WA

2012 – 2014 **Research Associate Professor**
Department of Architecture
University of Washington, Seattle, WA

2006 – 2012 **Research Assistant Professor**
Department of Architecture
University of Washington, Seattle, WA

2003-2006 **Project Designer**
Associated Studios Design Collaborative, Seattle, WA
Residential and Commercial Architecture Design

2002-2006 **Lecturer/Research Associate**
Department of Architecture
University of Washington, Seattle, WA

1997-2000 **Project Designer**
H. Hershberg and Associates Architects, Inc.,
New Orleans, LA

Educational Background

**Master of Architecture, December 2002
(Faculty Medal)**

- University of Washington, Department of Architecture, Seattle, WA

B.A. Architecture, June 1996

- University of New Mexico, School of Architecture and Planning

Professional Registration

**Registered Architect, State of Washington (#9109),
May 2006**

**National Council of Architectural Registration Boards
(NCARB), May 2006**

Professional Associations

2006-Present American Institute of Architects (AIA)

2004-Present Society of Building Science Educators
(SBSE)

2011-Present Illuminating Engineering Society of
North America (IESNA)

2.1.1 Selected Daylighting Design and Technical Assistance Projects:



Georgia Tech Engineered Bio-Systems Building, Atlanta, Georgia

Architect: Lake Flato Architects/Cooper Carry

Role: Daylighting consultant/Integrated design support

Provided daylighting design guidance, detailed daylighting analysis, consultation, and simulation support for this 207,000 ft² lab building that has achieved 58% measured energy savings, and provides views to the exterior for 90% of the floor area.

AIA COTE Top-10 Green Building Award, 2018; AIA San Antonio COTE Award, 2016



Austin Central Library, Austin, Texas

Architect: Lake Flato Architects/Shepley Bulfinch

Role: Daylighting consultant

Provided large-scale physical and digital daylighting simulation, design guidance, and automated shading system selection for this 198,000 ft² public library. Project goals included building the best daylit library in the United States. **AIA/ALA Library Building Award, 2018;**

Time Magazine World's Greatest Places, 2018



Coastal Biology Building and Marine Sciences, University of California, Santa Cruz

Architect: EHDD Architecture

Role: Daylighting Consultant

Provided design guidance for glazing, shading, building layout, and visual comfort criteria for daylighting for this 40,000 ft² laboratory and teaching building.

Targeting LEED Platinum, Part of Coastal Sustainability Initiative



Bullitt Center / Seattle, WA

Architect: The Miller Hull Partnership

Role: Daylighting Consultant

Provided detailed daylighting and dynamic shading system analysis, consultation, and simulation support for this net-zero energy, 50,000 ft² office building. Provided extensive post-occupancy building-performance evaluation. **Certified Living Building; AIA Seattle, Energy in Design Award 2016; AIA COTE Top-10 Green Building Award, 2015**



Kenmore Library / Kenmore, WA

Architect: Weinstein A|U

Role: Daylighting Consultant

Provided physical model simulation and daylighting design support. The focus on the effective use of day lighting allows the general illumination lights to be turned off during 70% of the library's operating hours. **AIA Washington Civic Design Award, 2012**



Westside School / Seattle, WA

Architect: Sundberg Kennedy Li-Au Young Architects

Role: Daylighting Consultant

Provided detailed goal setting and daylighting design/simulation support for this ultra-low-energy adaptive reuse school project. Developed unique skylight design for efficiency and space quality. **ASHRAE Technology Award, 2018**

Section 2: Accomplishments



LOTT Clean Water Alliance / Olympia, WA

Architect: The Miller Hull Partnership

Role: Daylighting Consultant

Provided solar control and blinds selection guidance for an innovative combination of exterior and interior automated, fixed, and manual solar control systems for this 32,000 ft² office building. **AIA COTE Top-10 Green Building Award, 2011; AIA Seattle What Makes it Green Award 2012; AIA Seattle Honor Award, 2011**



Burke Museum of Natural History / Seattle, WA

Architect: Olson Kundig Architects

Role: Daylighting Consultant/Curatorial Light Analyst

Provided detailed daylighting analysis, balancing between meeting curatorial conservation standards with daylight and views from within and without this 113,000 ft² "inside-out" building. Nearly 60% of the museum is accessible or visible to visitors (compared to just over 30% in the former facility). **Targeting LEED Gold**



Northeast Branch Library / Seattle, WA

Architect: The Miller Hull Partnership

Role: Daylighting Consultant/Post-Occupancy Evaluation

Provided physical model analysis, consultation, and simulation support for this addition to renowned mid-century Pacific Northwest modernist, Paul Thiry-designed public library. Library is 100% daylit and naturally ventilated. **LEED Silver**



Pacific Northwest III / Seattle, WA

Architect: Rohleder Borges Architecture

Role: Daylighting Consultant

Provided detailed digital luminance and illuminance simulation for a state-of-the-art private aviation facility. Specialized illuminance targets ensure high-quality visual environment and low contrast between interior and exteriors, and a seamless visual experience between the hangar and adjacent support spaces.



Center for Urban Waters / Tacoma, WA

Architect: Perkins+Will

Role: Daylighting Consultant

Provided physical daylighting model simulation and exterior automated solar control and blinds selection guidance for this innovative lab building with a combination of exterior and interior automated, fixed, and manual solar control systems. **ASHRAE Technology Award, 2015; AIA Seattle 2012 Project of the Month Award,**



Marin Academy Science Innovation and Learning Center / San Rafael, CA

Architect: EHDD Architecture

Role: Daylighting Consultant

Provided daylighting criteria establishment, detailed digital daylighting analysis, consultation, and simulation support for this 20,000 ft² laboratory and K-12 classroom building and independent study lab.

Targeting LEED Platinum

Section 2: Accomplishments



UCSD Health Sciences Biomedical Research Facility 2, La Jolla, CA

Architect: ZGF Architects

Role: Daylighting Consultant

Provided detailed daylighting and automated dynamic shading system performance quantification, analysis, consultation, and simulation support for this ultra-efficient, 190,000 ft² wet-lab and office building that eliminates solar gain while optimizing daylight and views.

Illuminating Engineering Society Los Angeles Section Award of Merit, AIA San Diego COTE Honor Award, LEED Platinum



Bellevue Congregational Church / Bellevue, WA

Architect: Atelier Jones

Role: Daylighting Consultant

Provided digital daylighting analysis, consultation, and experiential simulation support for this 50,000 ft² cross-laminated timber church sanctuary with a focus on diffuse daylight play of light and transcendence with unique Northwest context. **IFRAA Faith and Form Award, 2017; NAIOP Finalist Renovation of the Year**

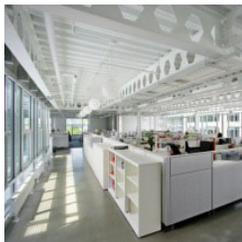


Sammamish Library / Sammamish, WA

Architect: Perkins+Will

Role: Daylighting Consultant

Provided physical daylighting model simulation and exterior automated solar control and blinds selection guidance for an innovative combination of exterior and interior automated, fixed, and manual solar control systems for this 20,000 ft² library. **Library Journal Landmark Library Top Ten Libraries, 2011; AIA Northwest and Pacific Region Honor Award, 2011**



Terry Thomas Building / Seattle, WA

Architect: Weber + Thompson

Role: Daylighting Consultant

Provided physical daylighting model simulation and exterior automated solar control and blinds selection guidance for an innovative combination of exterior and interior automated, fixed, and manual solar control systems for this 51,000 ft² office building. **ASHRAE Technology Award; AIA COTE Top-10 Green Building Award, 2009**



Shoreline Transfer Station / Shoreline, WA

Architect: KPG Architects and Engineers

Role: Daylighting Consultant/Post-Occupancy Evaluation

Provided diffuse daylight analysis and glazing product selection for this 76,000 square foot facility which was the first industrial building to ever receive a LEED-Platinum rating. **APWA Project of the Year, 2009, AIA Seattle COTE Honorable Mention, LEED Platinum**



Kenmore Library / Federal Way, WA

Architect: Weinstein A|U

Role: Daylighting Consultant

Provided physical model simulation and daylighting design support. The focus on the effective use of day lighting allows the general illumination to be distributed between program elements creating unique transparency in the Boys and Girls Club. **PCI Design Award for Best Public Building, 2008; AIA Seattle Honor Award, 2008**

Section 2: Accomplishments



Novelty Hill Winery / Woodinville, WA

Architect: Mithun

Role: Daylighting Consultant

Provided physical daylighting model simulation for this winemaker's studio and tasting room. Emphasis was on connections to the exterior and a dynamic and variable experience tailored to the range of interior spaces from industrial to hospitality. **AIA Seattle Honor Award 2009, AIA Institute Honor Award for Interior Architecture 2008**



Boeing Future Factory / Everett, WA

Architect: NBBJ

Role: Daylighting Consultant

Provided physical daylighting model simulation of direct sunlight and diffuse sky aimed at determining skylight areas, locations, and materiality for the 4,865,000 ft² aircraft assembly facility for Boeing's 787 Dreamliner. Daylight was a key tool for organizing the expansive complex of offices and assembly floors. **Society for Environmental Graphic Design Honor Award**



Benjamin Franklin Elementary School / Kirkland, WA

Architect: Mahlum

Role: Daylighting Consultant

Provided physical daylighting model simulation for direct sun control and diffuse daylight distribution for this light-filled elementary school. Spaces are oriented for both light and views throughout. **AIA COTE Top-10 Green Building Award, 2006; AIA Committee on Architecture for Education 2007 Educational Facility Design Award of Excellence, AIA Seattle Honor Award**



Ballard Library / Seattle, WA

Architect: Bohlin Cywinski Jackson Architects

Role: Daylighting Consultant

Provided physical daylighting model simulation for direct sun control and diffuse daylight distribution for this 33,000 ft² branch library. **AIA COTE Top-10 Green Building Award, 2006; AIA Seattle Commendation, 2006; AIA Honor Award for Civic Design, 2005**



Evergreen State College Seminar 2 Building, Olympia, WA

Architect: Mahlum

Role: Daylighting Consultant

Provided physical daylighting model simulation for direct sun control and diffuse daylight distribution for this light-filled campus building and art studios. **AIA COTE Top-10 Green Building Award, 2005; AIA Committee on Architecture for Education 2007 Award of Excellence, AIA Seattle Honor Award, 2005**



Pierce Co. Environmental Services Building / University Place, WA

Architect: The Miller Hull Partnership

Role: Daylighting Consultant

Provided physical daylighting model simulation for solar shading effects and diffuse daylight distribution for this east and west-facing view site between Puget Sound and Mt. Rainier. **AIA Top-10 Green Building Award, 2004**

2.1.2 Significant Research and Scholarship



University of Washington Integrated Design Lab (UW IDL) (2003-Present)

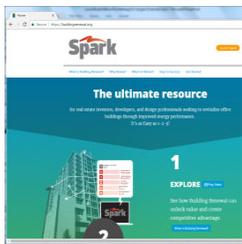
Role: Director (2014- Present), former co-Director (2009-2014),

Director of Daylighting Lab (2006-Present)

Prof. Meek currently serves as Director of the University of Washington's Integrated Design Lab (UW IDL).

Prof. Meek has led over \$7 million worth of competitive grant-funded research, completing over 500 technical assistance projects with architects nation-wide, and provided hands-on, paid, building science training experience for hundreds of Architecture students at UW.

The IDL's mission is to discover solutions that overcome the most difficult building performance barriers through interconnected research, technical assistance, professional education.



SPARK Building Renewal Web-Tool (www.buildingrenewal.org) (2013-Present)

Role: Tool development team member, pilot delivery, user outreach

Northwest Energy Efficiency Alliance (NEEA), a regional energy efficiency organization, in partnership with public universities and industry partners, developed a freely-available automated web-based parametric energy simulation and financial analysis tool known as "SPARK." This program auto-generates a technical and financial scope for deep-energy retrofits that target 30-50% energy savings in commercial office building typologies. Prof. Meek led research and development on commercial high-rise building types, executing multiple pilot projects to develop the tool and to evaluate specific technologies and practices implemented in the tool.



Bullitt Center Living Laboratory and Public Outreach Program (2013 – Present)

Funding: The Bullitt Foundation

Role: Grantee, Project Director, Co-led with Research Associate Professor Heather Burpee Living Laboratory and Post-Occupancy Evaluation

Prof. Meek secured funding for and led a program that has offered on-demand access to the Bullitt Center through academic teaching, private professional and public tours, exhibits, and events, hosting over 25,000 people from over 50 countries since 2013. This work advances awareness and public support for policies that favor high-performance buildings and renewable energy, and to spark innovation in building design and construction.

Furthermore, Prof. Meek has secured funding from the Northwest Energy Efficiency Alliance (NEEA) and the Bullitt Foundation that has enabled him to lead an ongoing research program that has provided and published detailed energy end-use data and building performance evaluation for visitors, occupants, academics, and the curious public.



Rosetta Stone: A Translational Tool for Research-Informed Practice (2016 – Present)

Funding: A consortium of Northwest architecture firms and the American Institute of Architects (AIA) National

Role: Grantee, Project Director, Co-led with Research Associate Professor Heather Burpee Prof. Meek is directing a program that implements a new academic-practitioner engagement model aimed at accelerating the industry's adoption of research-informed energy efficient design and construction practices. Leveraging a long-term investment by utilities and others in a university-based market transformation effort and existing relationships between leading practitioners and the UW IDL, this Partnership seeks to drive research-informed change in architectural practice to accelerate high performance building design that realizes energy savings and non-energy benefits.

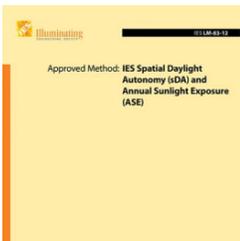


Seattle Building Tune-Up Accelerator (2016 - Present)

Funding: US Department of Energy (US DOE)

Role: Led *Building Renewal* (deep-energy retrofit) component of program.

As part of a team that was awarded a \$3.1 million, three-year grant from the US Department of Energy, Prof. Meek led implementation of a municipal-scale building-owner engagement and technical assistance process aimed at accelerating voluntary deep energy retrofits (20-50% carbon emissions reductions) in the existing medium-sized (approximately 20,000-100,000ft²) commercial building stock in Seattle, WA, as part of a new mandatory building tune-up requirement. Leveraging a municipal ordinance mandating building tune-ups at five-year intervals, the university-based research and deployment team seeks to develop a scalable pathway for creating custom technical and financial roadmaps for deep-energy retrofits that drive carbon-neutral operations.



IES-LM-82 (2013)

Role: IES Daylighting Metrics Committee Member (2011 – Present)

Participated in the development and research underlying the Illuminating Engineering Society's new climate-based daylighting metrics: Spatial Daylight Autonomy (SDA) and Annual Sunlight Exposure (ASE), which have been incorporated into the USGBC's LEED v4. They are based on an analysis of open offices, classrooms, meeting rooms, multi-purpose rooms, and service areas in libraries and lobbies, and so are most applicable to areas with similar visual tasks. These metrics are neither counter to, nor do they supersede, IES task lighting criteria for these space types. These metrics do not directly address energy consumption, as electric lighting management is highly variable. These metrics were derived from a study of daylight spaces in the continental United States, and thus are most applicable to similar latitudes and cultures.



Toward Zero Energy Buildings with Energy Harvesting Electrochromic Windows (2014)

Funding: National Science Foundation (NSF)

Role: Co-Principal Investigator, PI Professor Minoru Taya

Prof. Meek led the UW Architecture Department's component of this interdisciplinary \$2 million NSF Emerging Frontiers in Research and Innovation (EFRI) research project expands recent developments in material science that offer the potential for energy harvesting electrochromic (EH-ECW) windows. This technology offers a glazing system that will enable switching of visible light transmission (Tvis) and solar heat gain coefficient (SHGC) to admit heat and light relative to interior comfort requirements as well as allowing for the conversion of unwanted solar radiation through windows into electric current while in a darkened state.



Daylighting Pattern Guide (2012)

Funding: Arranged by New Buildings Institute (NBI)

Role: Project Lead (UW), co-developed with the University of Idaho

Prof. Meek secured grant funding and led the UW's participation in a partnership with New Buildings Institute and the University of Idaho to develop a freely available web-based design tool for the implementation of proven daylighting design strategies in commercial buildings. The "Daylighting Pattern Guide" (<http://patternguide.advancedbuildings.net/>) provides building designers, owners, and students a platform to explore the inter-relationship between sky, site, building aperture, and space planning. This interactive tool uses a combination of real-world built examples and advanced simulation to set the stage for substantial reductions in lighting power consumption and overall building energy use.

2.1.3 Significant Professional Education Programs Developed/Delivered



AIA Materials Matter (2017)

Funding: The American Institute of Architects (AIA) National

Role: Project Director, Co-led with Research Associate Professor Heather Burpee
The UW IDL, under Prof. Meek's direction, developed a multi-day program curriculum, managed subject-matter experts, and let pilot delivery for program in Seattle, WA. Delivered report to AIA with guidance, speaker resources, and program for future delivery by other AIA Chapters including AIA Portland, OR, AIA Dallas, TX, AIA Colorado, AIA Philadelphia, and the online AIA University (AIAU). Materials Matter is a five-session series delivering comprehensive, high-level knowledge and strategies for assessing and selecting healthy, sustainable materials. Sessions will delve into the impact of materials on the environment and human health, the tools and data available for assessing and prioritizing materials, and strategies for integrating informed decision-making into projects and practice.



Integrated Design: Tools and Methods (2018)

Funding: Seattle City Light (Public Utility)

Role: Project Director, Co-led with Research Associate Professor Heather Burpee
The UW IDL, under Prof. Meek's direction, developed a multi-day program curriculum and bi-annual delivery. The Integrated Design Lab and Solarc Energy Group provide an in-depth workshop focused on the tools and skills required to assess high performance design. Intended for participants who understand high performance concepts, the course provides technical training for practitioners to bring state-of-the-art quantitative analysis into design practice. The course complements the AIA Getting to Zero series, and provides commonly available design tools including EnergyPlus, Grasshopper, eQuest, DIVA for Rhino, and custom Excel spreadsheets for participants to learn and apply immediately in their projects.



AIA Getting to Zero (2015)

Funding: AIA Seattle via an AIA Innovation Grant

Role: Project Director, Co-led with Research Associate Professor Heather Burpee
The UW IDL, under Prof. Meek's direction, developed a multi-day program curriculum, managed subject-matter experts, and let pilot delivery for program in Seattle, WA. Development of a new four-session curriculum aimed at promoting cross-disciplinary approaches to achieving net-zero building performance. Getting to Zero includes four sessions that delve into the next targets of the 2030 challenge: 70% reduction and beyond.



AIA Seattle Honor Awards: *Energy in Design Award* (2019, 2018, 2017, 2016)

Funding: Northwest Energy Efficiency Alliance (NEEA)

Role: Development and technical implementation lead
The UW IDL, under Prof. Meek's direction, developed and delivered the inaugural Energy in Design Award as part of AIA Seattle's annual Honor Awards. Beginning in 2016, all submissions in the BUILT category are required to submit energy use data in consideration of the Energy in Design Award. Prof. Meek led customization of an easy-to-use tool, the Energy in Design Calculator, to capture standard information and compare results toward the Architecture 2030 targets. Under Prof. Meek's direction, the Integrated Design Lab provides a demonstration of the tool and answers submitter questions, then provides technical review of the submissions and provides a dossier for the panel of invited jurors.

Section 2: Accomplishments



Illuminating Savings: Daylighting and Integrated Lighting (2010 – 2014)

Role: Prof. Meek developed the initial session and personally led delivery for multiple AIA chapters

This half-day session was part of the AIA+2030 Series created by AIA Seattle and Architecture 2030 with support from the City of Seattle and the Northwest Energy Efficiency Alliance. It covered the basics of daylighting daylight for qualitative experience and energy savings. Subsequent to the program delivery in Seattle, Prof. Meek taught in the online AIA University (AIAU) version of the course.



Daylighting and Integrated Lighting Design (2006-2009)

Role: Professor Meek led the development of the initial session and provided delivery with Edward Bartholomew, IALD

Created to provide 50 strategies to 50% energy savings in buildings, the AIA 50 to 50 series was a precursor to the successful AIA+2030 series. This half-day seminar highlighted design strategies, and exemplary projects that incorporated daylight effectively into building operations and experience, with key lessons learned highlighted for practitioners.

2.1.4 Selected Professional Education and Invited Conference Presentations

AIA Conference on Architecture 2019; "Daylight Control Essentials; From Integrated Lighting to Dynamic Shading"; with Prof. Rick Mistrick (PSU) and Hayden McKay (Horton Lees Brogden); 8 June 2019, Las Vegas, NV, **Presenter**

AIA Conference on Architecture 2019, Discovering the Rosetta Stone: Translating Research for Design Decision-Making; Burpee, H., Heerwagen, J., Harrell, M., Schopf, A., Meek, C. - Session Organizer, 7 June 2019, Las Vegas, NV, **Session Organizer**

Architecture 2030 China: Zero Net Carbon Forum; Daylighting and Integrated Electric Lighting: Strategies for Design; Tongji University, Shanghai, China; 21 September 2017; **Invited Lecture and Panel Discussion**

U.S. Department of Energy Better Buildings Summit Advanced Strategies for Plug-Load Management and Tenant Engagement: Lessons from the Bullitt Center; Washington, DC; 16 May 2017; **Invited Lecture and Panel Discussion**

Materials Matter (AIA Pilot Educational Program); Just Do it! Strategies for Projects; Seattle, WA; 13 January 2017; **Moderator and Panel Discussion Chair**

Occupant-Behavior-Driven Energy Savings at the Bullitt Center New Buildings Institute (NBI) Getting to Zero National Forum. With Hanford, J., Stenkamp, J. Denver, CO; 13 October 2016; **Invited**

National Science Foundation IUCRC, Sustainable Integrated Buildings and Sites (SIBS); Designing for the Occupant Workshop; Washington, D.C.; 12-13 September 2016; **Invited Panelist and Participant**

"On Daylighting"; Illuminating Engineering Society of North America San Francisco Chapter; hosted by HOK San Francisco; San Francisco; 8 April 2015; **Invited**

Section 2: Accomplishments

US Green Building Council Hawaii Chapter; "Net-Zero Building Design: The Bullitt Center: Design and Performance"; Honolulu, HI; 24 June 2014; **Invited**

American Society of Heating Refrigeration, and Air Conditioning Engineers (ASHRAE) 2013 Winter Conference, "Deep Energy Retrofits: Existing Building Renewal Technical Packages"; Technical presentation: December 2013, Dallas; **Presenter**

Greenbuild 2013 National (US Green Building Council) Conference; "The Lichen and the Rock: Integrated Design and Daylighting" with Bill LaPatra, Partner, Mithun; Philadelphia, PA; 21 November 2013

Alaska Chapter American Institute of Architects; "Light and Dark"; Fairbanks Alaska; 3 February 2012; **Invited Lecture and Panel Discussion**

American Solar Energy Society (ASES) 2011 National Conference; "Automated and Manual Solar Shading and Glare Control: A Design Framework for Meeting Occupant Comfort and Realized Energy Performance"; with Martin Brennan, UW M. Arch Candidate; Raleigh, NC; 18 May 2011; **Refereed**

Building Enclosure Science and Technology (BEST3) Conference of the National Institute for Building Science.; "Simulation of Dynamic Daylighting and Glare Control Systems for a Six-Story Net-Zero Office Building in Seattle, WA"; Atlanta, GA; 3 April 2012, **Peer-Reviewed Paper Presentation and Panel Discussion**

Association of Collegiate Schools of Architecture (ACSA) Annual Conference; "Simulation of Visual Comfort and Energy Performance of Organic Energy Harvesting Electrochromic Windows (EH-ECWs) in Commercial Office Buildings"; Boston, MA; 2 March 2012; **Presenter**

Harvard Graduate School of Design; "A Daylighting Pattern Guide: Development of a Visual Vocabulary for Design"; Boston, MA; 10 March 2011; **Invited**

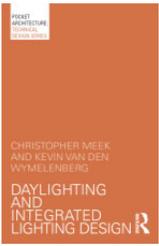
Cascadia GBC/Living Building Institute; "Cascadia Center for Sustainable Design of a Net-Zero Energy Office Building Design for the Bullitt Foundation"; with Rob Pena; Vancouver, BC Canada; 17 February, 2011; **Invited**

"Climate Responsive Design: Simulation and Schematic Design"; Tec de Monterrey and Universidad de Guadalajara (Joint Lecture) Departments of Architecture; Guadalajara, Mexico; 18 January 2011; **Invited**

American Solar Energy Society (ASES) 2010 National Conference; "Dynamic Solar Shading and Glare Control for Human Comfort and Energy Efficiency at UCSD: Integrated Design and Simulation Strategies"; with John Breshears, Principal, ZGF Architects; Phoenix, AZ; 19 May 2010; **Peer Reviewed**

High Performance Building Enclosures Sustainability Symposium (BESS); "Quantifying the Dynamic Envelope: Climate Responsive Façade Design for Thermal and Visual Comfort and Energy Performance"; with John Breshears, Principal, ZGF Architects; California Polytechnic State University, Pomona, CA; 1 May 2010; **Peer Reviewed**

2.2 Significant Publications –Books, Peer-Reviewed Papers and Popular Press Articles



Daylighting and Integrated Lighting Design (2015)

By Christopher Meek and Kevin Van Den Wymelenberg

Role: Co-Author

Full-length book publication (30,000 Words/110 Illustrations), Taylor & Francis (Routledge)

Part of the Pocket Architecture series, *Daylighting and Integrated Lighting Design* provides architects, building designers, and students clear direction for the successful inclusion of daylight and integrated electric light in buildings. It presents design teams with the performance analysis resources, energy saving estimates and user satisfaction results they need in order to make informed decisions regarding daylighting and lighting design.



Daylighting Design in the Pacific Northwest (2012)

By Christopher Meek and Kevin Van Den Wymelenberg

Role: Co-Author

Full-length book publication (192 Pages/232 color Illustrations), University of Washington Press, Seattle and London.

Chronicling a decade of utility-funded technical assistance projects in the Pacific Northwest, this practice-based book focuses on fourteen projects ranging from schools to community centers to office buildings to a garbage/recycling center. It discusses the particular challenges of each project and the solutions found by the design teams as they sought to take advantage of daylight to create pleasant, workable, energy-efficient spaces



Meek, C., Gustin, A., Ballinger, "Development and Dissemination of Deep-Energy Retrofit Strategies through a Mandatory Municipal Building Tune-Up Ordinance in Seattle, Washington, USA," Proceedings of the International Conference on Climate Resilient Cities, Energy, and Renewables in the Digital Era (CISBAT). Lausanne, Switzerland. September 4, 2019

Morgan Heater and Gladys Li-Au Young, "From Church to School", High Performance Buildings (The ASHRAE Journal), Winter 2017 Description of design process and attributes of Westside School in Seattle, WA including Prof. Meek's daylighting design contributions.



Jim Hanford, Marc Brune, Christopher Meek, and Michael Gilbride, "The Bullitt Center: Building Change", High Performance Buildings (The ASHRAE Journal), Winter 2016

Penny Jones, "Enriching our Lives by Bringing the Outside Inside," Lighting Magazine (Official Publication of the IES Australia/New Zealand. April/May 2018. Prof. Meek's work cited, extensively quoted in the 8-page feature article.

Fred Oberkircher, IES, Past President, "Book review of Daylighting Design in the Pacific Northwest," Lighting Design and Application, March 2013



Aaron Seward, "Light Meter," Eco-Structure, 2011 Discussion of tools for daylight and buildings, Prof. Meek extensively quoted, and his work described.

Meek, C., Curry, R., Norwood, W., "Energy Performance Evaluation of A Whole-Building Electrochromic Window Retrofit in a Commercial Office Building," Proceedings of the Conference on Advanced Building Skins. Bern, Switzerland. October 2018, *Peer-Reviewed*

Section 2: Accomplishments

Burpee, H., Meek, C., Douglas, K.; "Health in the Built Environment: Testing Health Impacts of Green Buildings," Proceedings of the Passive and Low Energy Architecture (PLEA) Conference, Los Angeles, CA, August, 2016, Peer-reviewed

Hashemloo, A., Inanici, M., Meek, C.; "GlareShade: A visual comfort based approach to adaptive shading," Journal of Building Performance Simulation; July 2015, *Peer-Reviewed*

Meek, C., Bruot, A.; Toward Net-Zero Energy Buildings with Energy-Harvesting Electro-Chromic Windows; International Building Performance Simulation Association (IBPSA) Biennial Building Simulation Conference 2013; Aix-le-Bain, France; 26 August 2013, *Peer-Reviewed*

Anderson, K.; *Design Energy Simulation for Architects: Guide to 3D Graphics*; Taylor & Francis (Routledge), London, UK, 2014; pp. 8, 41, 129-136, 209-215, 221-229; Presents methodologies and case studies of applied simulation methods led by Prof. Meek at the UW IDL for multiple projects, including the Austin Central Library (Lake Flato Architects), and the Bullitt Center (Miller Hull Partnership).

Meek, C., Bruot, A.; Combined Solar Power Production and Dynamic Shading with Energy Harvesting Electrochromic Windows (EH-ECWs); Proceedings of the American Solar Energy Society (ASES) 2013 National Conference, *Peer-Reviewed*

Invited Committees and Service

American Institute of Architects – Seattle Chapter; Honor Awards; Energy in Design Award, Development, Implementation, and Submission Review; (2016 – Present)

Scientific Review Committee; Passive and Low Energy Architecture (PLEA) Conference, Hong Kong, December 2018

AIA National Design and Health Research Consortium (Member UW Team) 2017-Present

Scientific Review Committee; Building Enclosure Science and Technology (BEST4); National Institute of Building Sciences Conference 2015; Kansas City, KA

AIA Seattle, Co-Chair, What Makes it Green? High Performance Building Awards and Educational Program, 2012

Ex-Officio, UW Campus Sustainability Fund, Student-Led Campus Grant-Making Program 2018-Present

Post-Professional M. Arch in High Performance Buildings Committee Development Committee Chair

Conference Advisory Committee, *Lightfair International* (Conference curriculum development, review of proposals, approved speakers), 2005, 2006, 2010

Section 2: Accomplishments

2.3 Significant Awards

AIA Seattle – Allied Organization Award. 2014
(as part of UW Integrated Design Lab)

2.3.1 Awards for Daylighting Projects Consulted (Selected)

Where the quality of daylight was noted in the award commendation

Georgia Tech Engineered Bio-Systems Building

Architect: Lake-Flato Architects/Cooper Carry
AIA National COTE Top Ten Green Building Award, 2018
AIA San Antonio - COTE Award, 2016
AIA Georgia –Merit Award, 2016

The Bullitt Center

Architect: The Miller Hull Partnership
AIA National - COTE Top Ten Green Building Award, 2016
AIA Seattle - Energy in Design, 2016
AIA Northwest & Pacific Region - Special Jury Recognition, 2013
ENR | National-Best Green Project of the Year, 2013
AIA Seattle – What Makes it green, 2012

Austin Central Library

Architect: Lake Flato Architects/Shepley Bulfinch
ALA/IDA Library Building Award, 2018
AIA Austin 2018 Library Interior Design Award, 2018
Design Award with Sustainability Commendation
Time Magazine- Named one of the World's Greatest Places, 2018
Urban Libraries Council Top Innovator Award, 2018

UCSD Health Sciences Biomedical Research Facility 2

Architect: ZGF Architects
Illuminating Engineering Society Los Angeles Section Lighting Design Award of Merit, 2016
AIA San Diego Committee on the Environment Honor Award, 2016
AIA San Diego- Merit Award, 2015
AIA Northwest and Pacific Region – Citation, 2016

Lott Clean Water Alliance, Olympia, WA

Architect: The Miller Hull Partnership
AIA National - COTE Top Ten Green Building Award 2011
AIA Seattle- What Makes It Green, 2012
AIA Seattle - Honor Award 2011
AIA National - COTE Top Ten Award 2011



Kenmore Library

Architect: Weinstein AU
AIA Seattle Honor Awards Jury, 2011
AIA Washington Civic Design Awards, Honor Award, 2012
AIA Northwest & Pacific Region Awards, Citation, 2012

Benjamin Franklin Elementary School

Architect: Mahlum
AIA National COTE Top Ten Green Building Award - 2005
AIA Committee on Architecture for Education (CAE) - Educational Facility Design, Award of Excellence, 2007
AIA Northwest & Pacific Region - Design Award, 2007
AIA Seattle - Honor Award, 2006

Shoreline Transfer Station, Shoreline WA

Architect: KPG Architects
APWA Project of the Year
LEED Platinum, 2009

Sammamish Library

Architect: Perkins+Will
Landmark Library Top Ten Libraries, 2011
AIA Northwest and Pacific Region, Award of Honor, 2011
AIA Washington Council Civic Design Awards, Citation Award, 2011

Terry Thomas Building

Architect: Weber+Thompson
ASHRAE 2010 New Commercial Buildings Category – ASHRAE Technology Award, First Place, 2010
ASHRAE Society Level Technology Award, Commercial Buildings, First Place, 2009
AIA Northwest & Pacific Region, Design Honor Award, 2009
AIA Seattle, What Makes it Green? Award Recipient 2009
AIA National, COTE Top Ten Green Projects Award, 2009

Section 2: Accomplishments

Terry Thomas Building (con't)

Green Building Council, LEED Gold Certified for Core and Shell
Washington State NAIO, Sustainable Development of the Year, 2008
AIA Seattle, Honor Award Commendation, 2008

Novelty Hill Winery

Architect: Mithun
AIA Seattle Honor Awards, Commendation, 2009
IIDA Northern Pacific Chapter, INawards, Interior Design Award 2009
General Design Award in Collaboration, Special Mention
AIA National, Institute Honor Award for Interior Architecture, 2008

2.3.2 Competitive Grants and Contracts Awarded (Selected)



Meek, C., "Integrated Design Lab Operation and Other Services"; Northwest Energy Efficiency Alliance; \$429,000 (2018) (\$815,000 2018-2019)

Meek, C. and Burpee, H co-PIs, with Andrew Dannenberg, "AIA National Professional Practice Resources for Prosperity Editorial Consulting for the AIA Handbook of Professional Practice"; The American Institute of Architects (2019)

Meek, C., "Advancing Luminaire-Level Lighting Controls (LLCs) Technology in the Pacific Northwest"; Northwest Energy Efficiency Alliance; \$41,000 (2018) Awarded

Meek, C. PI; Burpee, H; Gilbride,; "Building Tune-Up Accelerator"; U.S. Department of Energy FOA#: DE-

FOA-0001385; Sub-Proposal to City of Seattle Office of Sustainability and Environment, Total Project \$3,100,000 (2016-2019)

Burpee, H. and **Meek, C.**, Center for Integrated Design Partnership Initiative Rosetta Stone: A translational Tool for Research-Informed Practice, a tool under development by IDL under the Partnership Initiative. \$80,000+ (cumulative) (2016-Present)

Meek, C. and Burpee, H co-PIs.; American Institute of Architects, Seattle Chapter. "Materials Matter Curriculum and Development and Pilot Program Delivery"; Materials Matter professional education series with detailed outlines of pilot delivery and lessons-learned for a national roll-out. Produced with AIA Seattle. (2015)

Meek, C. and Burpee, H co-PIs, Sigler, D., Key Personnel; "Bullitt Center Tour Development, Coordination, and Delivery,"; The Bullitt Foundation; \$28,600/yr. + \$12,600/yr. IDL Cash Match, Awarded via UW Foundation (2015 - Present)

Douglas, K, with **Meek, C.**, Kenney, K, Strandberg, E.; Campus Illumination: An Implementation Strategy for Sustainable Exterior Lighting; \$72,000 (Campus Sustainability Fund, Office of Planning and Management (2016)

Meek, C. Illuminating Engineering Society of North America (IESNA) "Daylighting Roadshow: Educational Program in Twenty Cities in Western North America"; \$28,000 (2013-2015)

Taya, M., PI; Co-PIs: Cooper, J.; Kuga, Y.; Luscombe, C; **Meek, C.**; "Emerging Frontiers in Research and Innovation: Science in Energy and Environmental Design (EFRI-SEED): Towards Zero-Energy Buildings Based on Energy Harvesting Electrochromic Window (EH-ECW) and Thermoelectrics (TE) Systems"; National Science Foundation; \$2,000,000 (\$398,000 to UW College of Built Environments) (2011-2015)

Meek, C.; Van den Wymelenberg, K.; "Development of a Daylighting Pattern Guide: Phase 2"; Private foundation funding arranged by New Buildings Institute; Collaboration with University of Idaho; \$212,000 (\$106,000 in UW funding) (2010-2012)

Section 3: Exhibits

3.1 Influential Projects

- 3.1.1 Bullitt Center: Daylighting Simulation and Consulting with The Miller Hull Partnership
- 3.1.2 Austin Central Library: Daylighting Simulation and Consulting with Lake Flato Architects
- 3.1.3 Coastal Biology and Marine Sciences Building, University of California: Daylighting Simulation and Consulting with EHDD Architecture
- 3.1.4 Terry Thomas Building: Daylighting Simulation and Consulting with Weber + Thompson
- 3.1.5 Novelty Hill Winery: Daylighting Simulation and Consulting with Mithun

3.2 Selected Books Published

- 3.2.1 Daylighting Design in the Pacific Northwest

3.3 Innovative AIA Professional Education Programs

- 3.3.1 AIA Materials Matter (Curriculum Development and Pilot Delivery) w/ AIA Seattle
- 3.3.2 AIA Getting to Zero (Curriculum Development and Pilot Delivery) w/ AIA Seattle

3.4 Performance-Based AIA Award Program

- 3.4 AIA Seattle Energy in Design Award

3.5 Transformative Policy

- 3.5 Seattle Building Tune-Up Accelerator

Exhibit 3.1.1: Bullitt Center

Seattle, Washington

Architect of record: **The Miller Hull Partnership**

Completion date: 2013

Role of Nominee: Daylighting and Solar Control Consultant,
Post-Occupancy Evaluation

Awards

AIA Seattle

2016 Energy in Design

AIA COTE | Committee on the Environment

2015 Top Ten Green Projects
Sustainable Buildings Industry Council

2015 Beyond Green Award |
First Place

International Living Future Institute

2015 Living Building Challenge | Certified Living Building

World Architecture News
2013 Sustainable Building of the Year

Architizer

2014 A+ Award Architecture + Sustainability | Finalist & Special Mention

Architizer

2013 A+ Award Architecture & Sustainability | Special Mention



Prof. Meek provides creative daylighting design assistance and simulation support on projects of extraordinary ambition and international reach.

SYNOPSIS:

In 2009, the Bullitt Foundation set out to change the world with a building, creating a technical and financial pathway for the most ambitious ecological design goals. Since 2013, more than five years into operation, those goals have become a reality. This 50,000 ft² six-story urban office building has achieved net positive energy use raising the sustainability bar and serving as an international example for owners and designers seeking to deliver exemplary occupant experience with the smallest environmental impact.

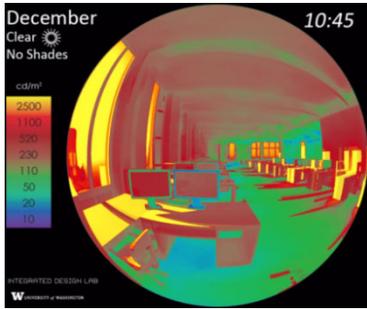
PROF. MEEK'S ROLE:

To meet aggressive energy and visual quality goals, daylight is the primary source of illumination in the Bullitt Center. In support of this objective, Prof. Meek worked in collaborative partnership with the Miller Hull Partnership and the Bullitt Foundation, leading the UW IDL's daylighting, solar shading, and glare control simulation and design guidance to the project team. Prof. Meek evaluated

Declaration of Responsibility

I have personal knowledge of the nominee's responsibility for the project listed above. This responsibility included: Daylighting Consultant

Brian Court, AIA, Partner
The Miller Hull Partnership



building massing and floor plate design, conducting glare control and diffuse illuminance performance through dynamic luminance maps and short time-step animations under a range of dynamic and fixed facade systems including automated exterior venetian blinds systems. Furthermore, Prof. Meek used simulation to quantify visual comfort and lighting power savings, guiding the design team through the selection of shading systems and controls integration.

“Daylight was perhaps the single most influential factor in shaping the design of the building.”

– The Miller Hull Partnership

HIGHLIGHTS:

- Percentage of occupied hours when electric lighting is unnecessary: 82%
- Views to the Outdoors: 100% of regularly occupied spaces
- Building area within 15'-0" of an Operable Window: 62%
- Net annual energy consumption: 0%

INFLUENCE:

The Bullitt Center has received national and international acclaim and interest for its achievements in building performance and climate-responsive design. Prof. Meek has secured funding for, and led a broad range of post-occupancy evaluation, and education programs that share the successes and challenges of the Bullitt Center's design and operation. He has personally secured funding for and directed a tour program that has share the experience of the building with over 25,000 individuals representing building owners, designers, students, and the curious public from over 50 countries. He has personally led a research program resulting in several peer-reviewed publications and invited lectures about technical and social aspects of the building. Building on the intent of the project as a technical and financial pathway towards sustainable development, Prof. Meek seeks to leverage the Bullitt Center as a living laboratory to promote the healthiest and most energy efficient design and construction practices.



Images: Dynamic Shades Simulation; Floor plate diffuse Illuminance analysis

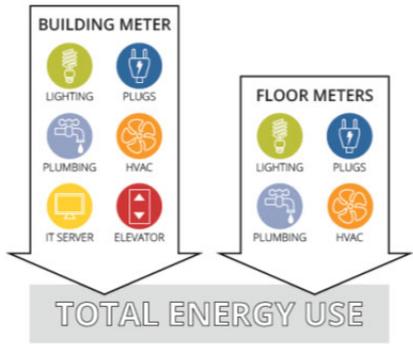
Awards (con't)

- American Buildings Company
2013 Building of the Year
- AIA Northwest & Pacific
Region
2013 Special Jury Recognition
ENR | Northwest
- 2013 Best Green Project of
the Year
ENR | National
- 2013 Best Green Project of
the Year
AIA Seattle
- 2012 What Makes It Green
Seattle Business Magazine
- 2012 Washington Green 50
List | Special Recognition
GreenSource Magazine
- 2011 Evergreen Award | On
the Boards Winner

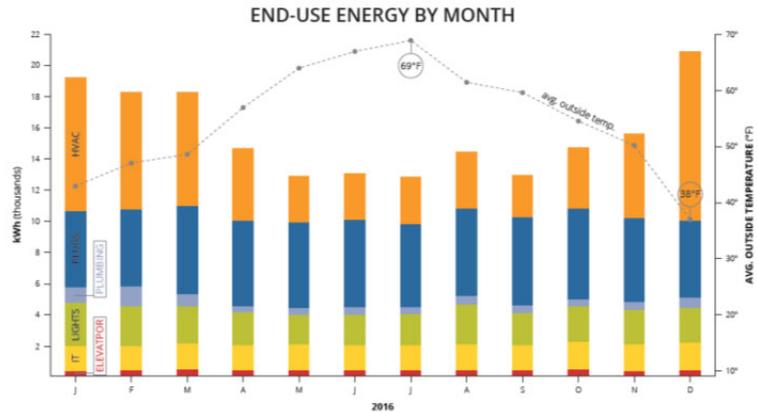
BULLITT CENTER OPERATIONAL ENERGY PERFORMANCE DATA:

BUILDING ENERGY USE ANALYSIS / 2016

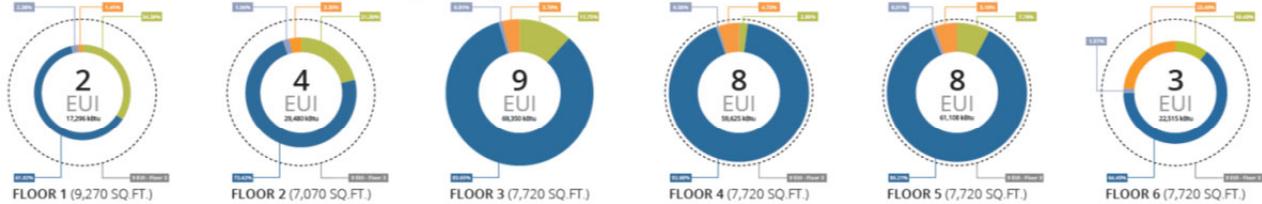
Energy use can be separated by floor and end-use, which allows for comparisons at different temporal and spatial scales. This can provide insights into to how building energy use is impacted by climate and occupant behavior.



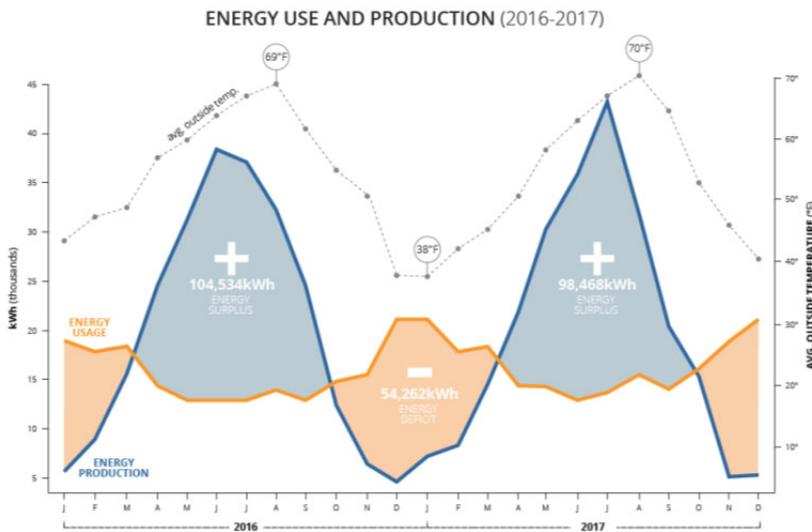
76,015 kWh BUILDING METER + 111,555 kWh FLOOR METERS = 187,570 kWh TOTAL ENERGY



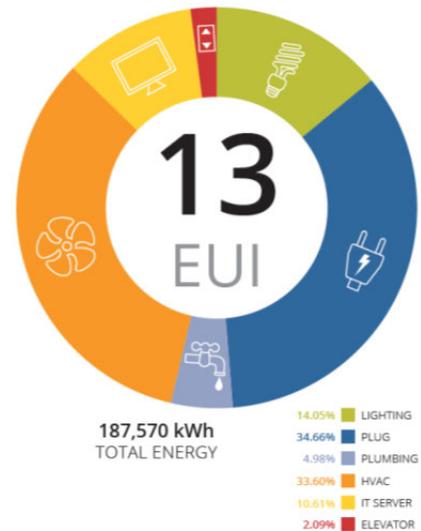
ENERGY USE COMPARISON BY FLOOR (excluding building systems)



NET POSITIVE PERFORMANCE



ENERGY USES / 2016



Bullitt Center: Operational energy performance data visualization, 2016
(Data collection and graphics by UW IDL produced under direction of Prof. Meek)

Exhibit 3.1.2: Austin Central Library

Austin, Texas

Architect of record: **Lake Flato Architects/Shepley Bulfinch**

Completion date: 2016

Role of Nominee: Daylighting and Solar Control Consultant

Awards

AIA/ALA

2018 Library Building Award

ALA/IIDA

2018 Library Interior Design Award

AIA Austin

2018 Design Award with Sustainability Commendation

American Public Works Assoc.

2018 TX Chapter Project of the Year

Architizer

2018 A+ Awards Special Mention

ULI Austin

2018 Best Project Design Award

Austin Green Awards

2018 Project of the Year

International Federation of Library Association

2018 Finalist for Public Library of the Year Award



Prof. Meek brings cutting edge simulation methods and design innovation to some of the most difficult daylighting design challenges.

SYNOPSIS:

Overlooking Shoal Creek and Lady Bird Lake, the LEED Platinum Austin Central Library is a building shaped by light and designed to respond to the context of its place. Aspiring to be the most daylit public library in the nation, the heart of the building is the six-story atrium, which provides daylight for more than 80% of regularly occupied spaces. The unique rooftop butterfly garden and reading porches, inspired by Texans' love for the outdoors, draw visitors to connect with nature. Serving as the western portal to downtown, the library is a technologically-rich, innovative community hub which establishes a culturally-sensitive, major civic presence and community gathering space in the heart of downtown.

PROF. MEEK'S ROLE:

Prof. Meek worked in close partnership with the design team at Lake Flato Architects to achieve the "best daylight Library in the nation. Using a range of simulation methods from a 3/8th" = 1'-0" scale physical model to advanced

Declaration of Responsibility

I have personal knowledge of the nominee's responsibility for the project listed above. This responsibility included: Daylighting Consultant

Jonathan Smith, AIA,
Lake Flato Architects



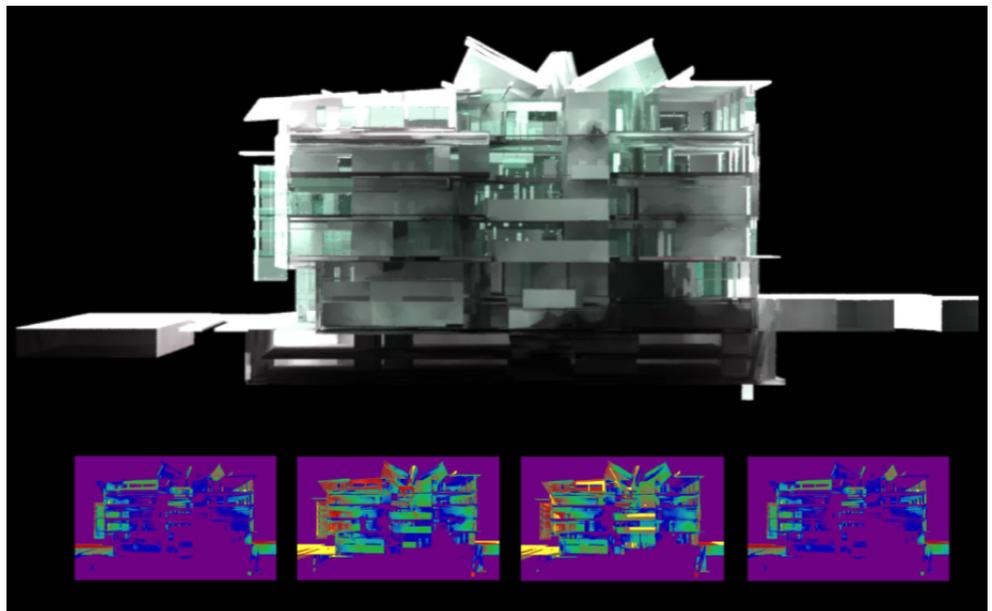
Radiance simulations, Prof. Meek provided several interactive work sessions at each stage of project development around qualitative and quantitative aspects of the building volume, apertures, and shading systems. Using models to answer a series of actionable design questions, Prof. Meek brought a combination of creative daylighting design and composition, along with technical recommendations to ensure delivery of an unparalleled user experience of sunlight, daylight, and connections to the surrounding landscape.

Awards (con't)

- National Council of Structural Engineers Assoc. **2018 Excellence in Structural Engineering Award**
- 2018 Texas Outstanding Civil Engineering Achievement Award**
- Time Magazine **2018 Named one of the World's Greatest Places**
- Urban Libraries Council **2018 Top Innovator Award**

“The atrium, the whole building in fact, has a dreamlike quality. The silvery sparkle and dynamic fluctuation of the well-diffused daylight has an almost material presence, as though it were calibrated by James Turrell.”

– Aaron Seward, Texas Architect Magazine



Images: Luminance section models of atrium; Technical process sketches

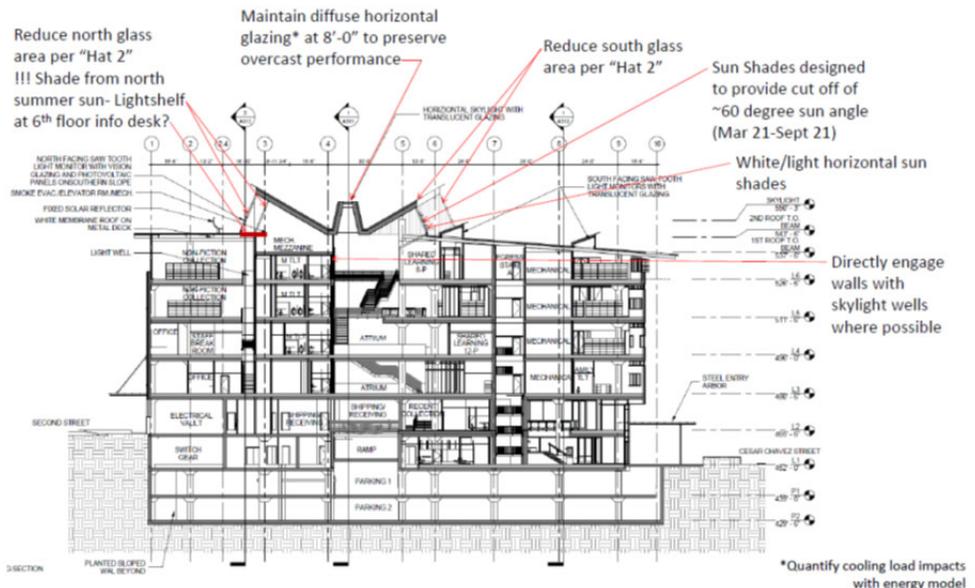


Exhibit 3.1.3: Coastal Biology and Marine Sciences, University of California

Santa Cruz, California

Architect of record: **EHDD Architecture**

Completion date: 2017

Role of Nominee: Daylighting and Solar Control Consultant

Awards

US green Building Council
2018 LEED Gold Certification
Interior Design
2018 Honoree, Education:
Higher Learning



Prof. Meek enables design teams to meet the most ambitious building performance goals through the innovative implementation of daylighting, solar shading and glare control systems.

Declaration of Responsibility

I have personal knowledge of the nominee's responsibility for the project listed above. This responsibility included: Daylighting Consultant

Scott Shell, FAIA
EHDD Architecture

SYNOPSIS:

This new 40,000 sf building is part of the world-class marine and ocean health research, education and public service facility at UC Santa Cruz' Wells Fargo Coastal Science Research Center. The Coastal Biology Building houses the Department of Ecology and Evolutionary Biology (EEB) and supports research and teaching on coastal conservation, ecology, habitat restoration, climate change impacts, and policy. The campus is a 97 acre site situated on the central California coast near the center of the Monterey Bay National Marine Sanctuary. Both university departments, Ecology and EEB, have embraced field-based learning and this research center has nearby wetlands, lagoons and other natural habitat easily accessible. Located on the Pacific Ocean coast, it brings together faculty and

students to promote scientific collaboration, the sharing of specialized facilities and the integration of instructional and research activities.

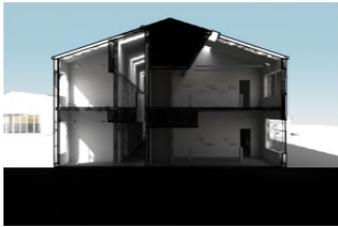


Image: Luminance section models of offices, labs and corridor

PROF. MEEK’S ROLE:

Prof. Meek partnered with the team at EHDD to use daylight to amplify the indoor-outdoor connection on this beachfront site and to use daylight to illuminate the interior while reducing contrast between the interior surfaces of the facility and the views to the exterior. Key activities Prof. Meek provided guidance and simulation support for include section design and managing direct sunlight and views relative to building user occupancy patterns. This centered on areas where sun could be permitted for dramatic effect, areas where sun needed continuous control, and areas where the user experience required transformations between the two depending on current activities. Using digital models, Prof. Meek brought a combination of creative daylighting design and analytical rigor to ensure delivery of an unparalleled user experience of sunlight, daylight, and connections to the surrounding marine landscape.

"The natural light inside is beautiful, and there are special touches that make it feel like it was designed for us as field biologists and people who love nature."

– Ingrid Parker, Professor and Department Chair



Earliest classes begin (08:00)



9am September 21



Sun exists seating area (09:45)

Images: Glare control scoping study

Exhibit 3.1.4: Terry Thomas Building

Seattle, WA

Architect of record: **Weber+Thompson**

Completion date: 2008

Role of Nominee: Daylighting Consultant and Simulation Support

Awards

ASHRAE
2010 First Place, New
Commercial Buildings
ASHRAE Technology Award
2009 First Place,
ASHRAE
Society Level Technology
Award, Commercial Buildings
AIA Northwest & Pacific
Region
2009 Design Honor Award
AIA Seattle
2009 What Makes it Green?
Award Recipient
AIA National
2009 COTE Top Ten Green
Projects Award
US Green Building Council
2009 LEED Gold Certified for
Core and Shell
AIA Seattle
2008 Honor Award
Eco-Structure Magazine
Commendation



Prof. Meek collaborates with architects and engineers to create buildings that serve as new models for sustainable design and daylight performance.

SYNOPSIS:

Ove Almost every strategy employed in The Terry Thomas was incorporated with an eye toward creating connections with the outside. Starting with extensive daylight and thermal modeling, each building façade was specifically treated for its greatest capacity to bring fresh air and sunlight into the building. Internally, shallow floor plates combined with an abundance of windows and low partition heights at work stations allow natural light to penetrate the interior of the offices from both the exterior of the building and the central open-air courtyard, facilitating air flow movement throughout.

PROF. MEEK'S ROLE:

With "access to daylight and fresh air" as a stated primary design goal for the building, Prof. Meek provided rapid iterative assessment of design alternatives using physical models and led a team to test and document daylight performance attributes. Subsequent to construction and occupancy, Prof. Meek extensively documented to the building through high-dynamic-range (HDR) imagery which

Declaration of Responsibility

I have personal knowledge
of the nominee's
responsibility for the
project listed above.
This responsibility included:
Daylighting Consultant

Myer Harrell, AIA, LEED AP
Weber+Thompson

were subsequently and used by numerous national and international publications which cited the exemplary nature of the daylighting design of the the project. ASHARE, the AIA, the IES, the USGBC, and The US DOE includes the Terry Thomas building as a case study example of daylighting best-practices, extensively documented in ASHRAE's *Advanced Energy Design Guide for Small to Medium Office Buildings: Achieving 50% Energy Savings Toward a Net Zero Energy Buildings*.

"This building is innovative in the quality of its interior spaces and its forward-thinking relationship to energy use. The quality of daylight in the interior spaces is particularly unique for an office environment and provides flexibility in the case of future energy limitations."

—American Institute of Architects Washington Council jury

Awards (con't)

- US Green Building Council 2009 Weber Thompson Offices within The Terry Thomas
- LEED Platinum Certified for Commercial Interiors
- Washington State NAIOP 2008 Sustainable Development of the Year
- AIA Seattle 2008 Third Place, Evergreen Awards, Commercial Category

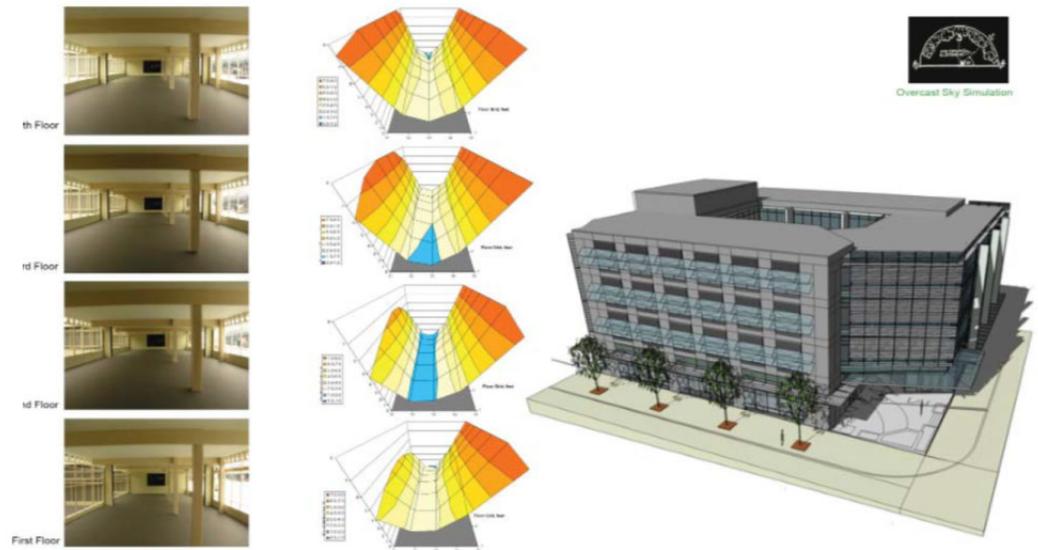


Exhibit 3.1.5: Novelty Hill Winery

Woodinville, WA

Architect of record: **Mithun**

Completion date: 2008

Role of Nominee: Daylighting Consultant and Simulation Support

Awards

AIA Seattle

2009 Honor Awards,
Commendation

Washington Aggregates &
Concrete Association

2008 Excellence in
Concrete Awards, Tilt-Up
Structures, Non-Industrial
Merit Award

IIDA Northern Pacific
Chapter

2008 INawards

Interior Design Award

ASLA Washington Chapter
Professional Awards

2008 General Design
Award in Collaboration,
Special Mention

AIA

2008 Institute Honor
Award for Interior

Architecture



Prof. Meek crafts an experience of light that expresses the authentic nature of place, the unique vision of a project, and value of human experience.

SYNOPSIS:

Novelty Hill's destination winery is a contemporary design celebrating wine's agrarian roots as well as the artistry of fine winemaking. The honest use of a few simple materials, primarily concrete, glass and wood, blend the building's interior space to showcase the wine with the site's landscape, inviting the outside "in". It is a winery that celebrates the art and science of wine while remaining true to the land. With an emphasis on biophilic experience the 34,000 square foot winery provides a dramatic and contemporary setting for wine tasting, production, bottling, cask aging, as well as fine dining in a context of ever-changing light and dark.

PROF. MEEK'S ROLE:

Using simple physical models and a palate of sunlight, diffuse daylight, brightness, darkness, and shade, Prof. Meek collaborated with the design team at Mithun to create a choreographed set of experiences tightly tuned to the variety of spatial experiences planned for the winery. From the highly controlled industrial

Declaration of Responsibility

I have personal knowledge
of the nominee's
responsibility for the
project listed above.
This responsibility included:
Daylighting Consultant

Richard Franko, FAIA
Mithun

Section 3: Exhibits – Projects

brightness of the tank and bottling room, to the measured sunlight patterns on the walls of the tasting room, Prof. Meek brought a combination of creative daylighting design and composition, along with technical recommendations to ensure delivery of a seasonally defined user experience of sunlight, daylight, and connections to the surrounding landscape.

Images: Physical Models tested in the Daylighting Lab's overcast sky chamber and heliodon direct sun simulator, and actual spaces

"We really wanted to blur the lines between outside and in, at every point, there are connections to the outside."

--Susan McNabb, AIA, Architect, Mithun

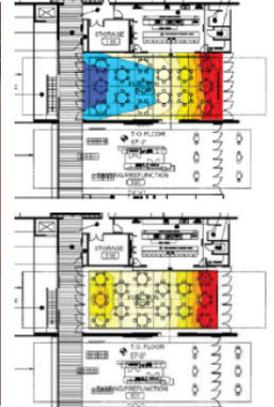


Exhibit 3.2: Daylighting Design in the Pacific Northwest

By Christopher Meek and Kevin Van Den Wymelenberg
Full-Length Book Publication
Publication date: 2014
Role of nominee: Co-Author

Full-length book publication (192 Pages/232 color Illustrations)
University of Washington Press, Seattle and London.



Prof. Meek seeks to disseminate new knowledge for building designers, owners, and users, in a way that both instructs and inspires.

Declaration of Responsibility

I have personal knowledge of the nominee's responsibility for the project listed above. This responsibility included: Co-Author

Joel Loveland
Professor Emeritus
University of Washington

SYNOPSIS:

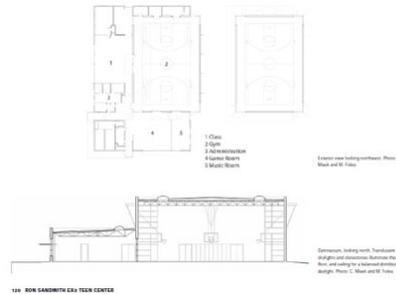
Daylighting Design in the Pacific Northwest showcases daylighting design and research done in collaboration with some of the Northwest's leading architectural design teams. In this effort we strive to bridge the "monograph" culture of the design world and the density of traditional building-science texts in a format that both inspires and instructs.

The primary content consists of 14 exemplary projects covering a range of commercial, institutional, educational, and cultural facilities sited in the varied climate regions of the Pacific Northwest. We tell the story of these projects through photographic images of interior spaces and design details, supported by narrative of the design intent, process, and the collaborative efforts of the design teams.

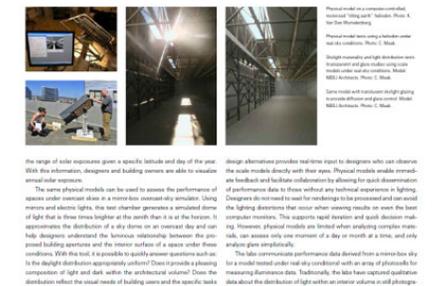
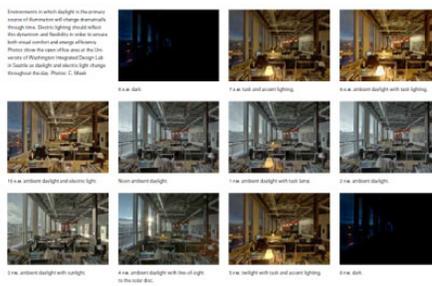
PROF. MEEK'S ROLE:

My contribution to this book includes lead authorship describing the majority of Puget Sound area buildings. The Introduction, Part 3, and the Appendix are equally co-authored. I led the photography and HDR image processing of the Puget Sound area projects photography and am author or co-author on all original photography included in the book. Additionally, I have led coordination with the University of Washington Press, the Editorial Committee.

“The Pacific Northwest Daylighting Lab at the University of Washington has become the center of regional daylighting research and investigation. The introduction of the poetic term “oyster light” with its implications of unique regional lighting conditions leads one to ask if we should have other regional lighting institutions that honor and support the qualities of light unique to their respective regions? Could we create a better connection between architecture and people that recognizes and values those characteristics? And could we do this in a way that beautifully values both architecture and energy? The Pacific Northwest Daylighting Lab thinks so.”



THE RON SANDWITH EX3 TEEN CENTER IS A BOUTE-SOLEIL CLUB SITED IN FEDERAL WAY, ABOUT TWENTY-FIVE MILES WEST OF SEATTLE. IT IS DEDICATED ENTIRELY TO YOUNG MEN AND WOMEN IN THE AREA OF THE BLUE & SILVER CLUB AT A NEIGHBORING LEVEL. THE CENTER IS ADJACENT TO AN ALTERNATIVE HIGH SCHOOL AND A HEAD START FACILITY, FORMING A SMALL CAMPUS WHERE EACH FACILITY BENEFITS FROM THE RESOURCES OF THE OTHERS. THE PROGRAM CONSISTS OF A LARGE CENTRAL GYMNASIUM, A GAME ROOM, A MEETING ROOM, STAFF OFFICES WITH A RECEPTION AREA, AND SPECIAL BUILDING SUPPORT SPACES SUCH AS RESTROOMS, STORAGE, AND UTILITY SPACES. THE EX3 TEEN CENTER IS HEAVILY OCCUPIED THROUGHOUT THE DAY, DEMANDING EFFICIENT AND DIVERSE DESIGN APPROACHES. THE FACILITY SERVES AS THE AFTER-SCHOOL HANGOUT FOR THE ALTERNATIVE HIGH SCHOOL, A CHILDREN'S FACILITY, AND A TEEN CENTER AND COMMUNITY GATHERING PLACE AFTER SCHOOL HOURS.



-Fred Oberkircher, Fellow IES, Ed. IALD, LC
 Past President Illuminating Engineering Society of North America, 2013
 Book review in *Lighting Design and Application*

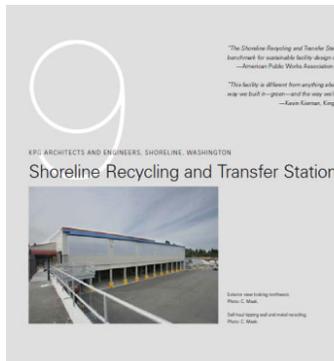


Exhibit 3.3.1: **AIA Materials Matter**

Educational Program Development Partnership with
AIA National and AIA Seattle

Development and Pilot Delivery Date: **2016-2018**



ROLE OF NOMINEE:

Prof. Meek led a winning proposal to AIA National for the curriculum development and pilot delivery of Materials Matter, and innovative professional education program focused on healthy materials. He led the format and structure development process and partnered with AIA Seattle for pilot delivery of program. Engaging with stakeholders, Prof. Meek led the creation of the curriculum outline and program content for national roll-out and adoption. During pilot delivery, Prof. Meek moderated several sessions and panel discussions.



FUNDING: The American Institute of Architects (AIA)



SYNOPSIS:

Prof. Meek co-led with Research Associate Professor Heather Burpee the development of the Materials Matter Curriculum with support from subject matter experts, Professor Kate Simonen (University of Washington), and Joel-Ann Todd (Health Product Declaration Collaborative).



Materials Matter is a five-session series delivering comprehensive, high-level knowledge and strategies for assessing and selecting healthy, sustainable materials. Topics Include:



- Session 1 **Healthy Planet: Materials + the Environment** kicks off the Materials Matter program with a candid overview of why materials matter for both environmental and human health.

Declaration of Responsibility

I have personal knowledge of the nominee's responsibility for the project listed above. This responsibility included: Secured funding and led program development.

Lisa Richmond,
Executive Director
AIA Seattle

- Session 2 **Healthy People: Materials Science + Human Health**, delves into the science behind materials and human health to understand how material substances reach people and lead to health consequences.
- Session 3 **Tools of the Trade: Assessment + Implementation** builds on the knowledge gained during the first two sessions by diving into tools used to communicate environmental and human health impacts of materials.
- Session 4 **Just Do It: Strategies for Projects** presents frameworks for integrating knowledge of environmental and human health impacts from material substances into projects.
- Session 5 **Beyond Transparency: Materials Disclosure + Practice** unpacks how to integrate healthy materials selection into firm culture and practice.

IMPACT:

Prof. Meek was instrumental in the development of this nationally influential education program which delivers a comprehensive, high-level knowledge and strategies for assessing and selecting healthy, sustainable materials. Subsequent to the pilot offerings delivered in Seattle (both fully subscribed with over 100 attendees per year), this curriculum was delivered in AIA Chapters nationally and via the on-line AIAU platform, where it is one of the most popular online courses. AIAU Participants can earn a *Materials Matter Certificate* for completion of this course series, extending practitioner knowledge and awareness in this important subject area.

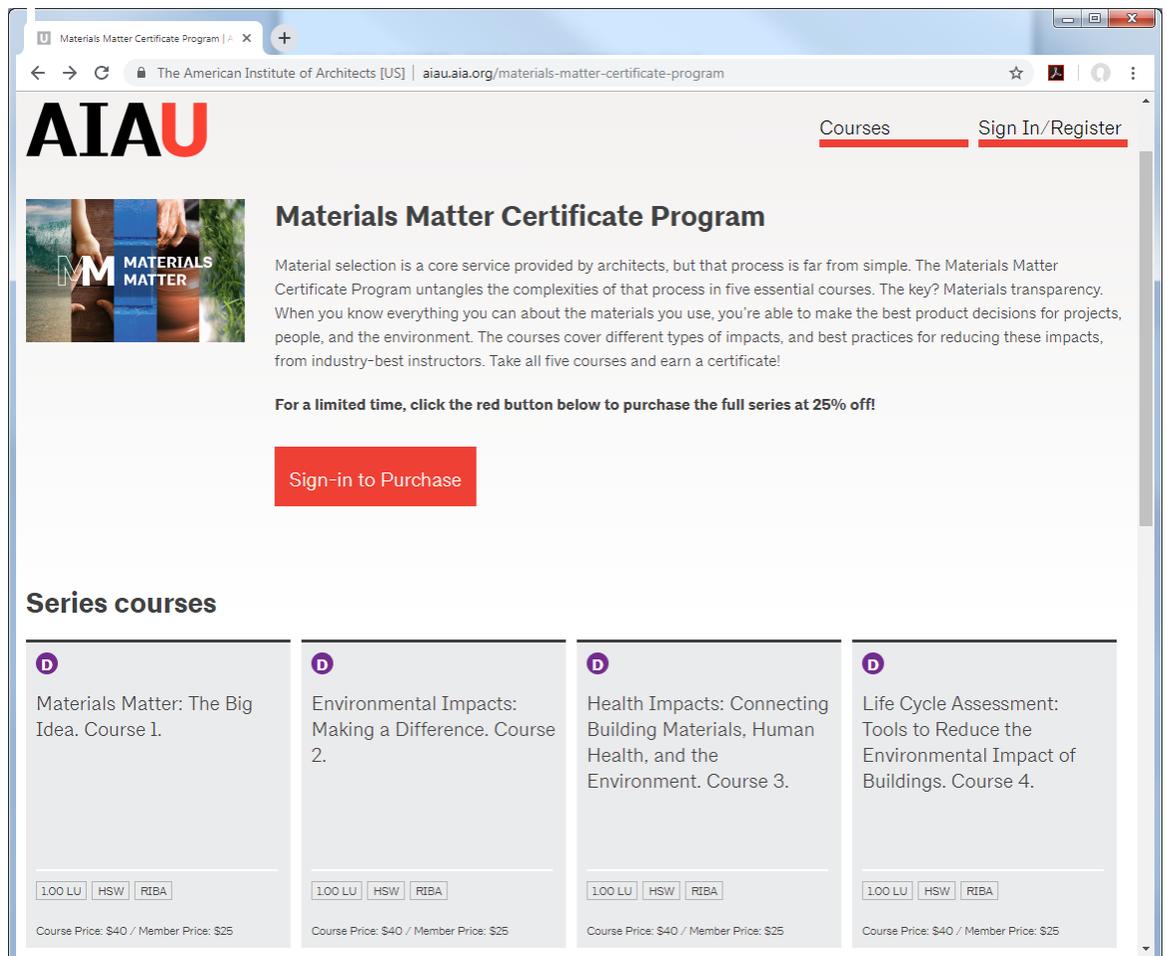


Exhibit 3.3.2: AIA Getting to Zero

Educational Program Development Partnership with
AIA Seattle and AIA National
Development and Pilot Delivery Date: **2014-2016**



ROLE OF NOMINEE:

Prof. Meek led a winning proposal to AIA Seattle for the curriculum development and pilot delivery of *Getting to Zero* an innovative energy-focused educational program. He led curriculum development process and partnered with AIA Seattle for pilot delivery of program, and created curriculum outline and program content for national roll-out and adoption. Prof. Meek presented at and moderated several sessions during pilot delivery.



FUNDING: American Institute of Architects (AIA) Innovation Grant to AIA Seattle



The UW IDL, under Prof. Meek's direction, secured funding for and developed a multi-day program curriculum, managed subject-matter experts, and led pilot delivery for program in Seattle, WA. He led the production and delivery of a report to AIA Seattle with guidance, speaker resources, and program for future delivery by other AIA Chapters. *Getting to Zero* features four new sessions delving into the next targets of the 2030 challenge: 70% reduction and beyond. Join us for this enhanced four-part series of workshops, case studies, and more. These sessions will explore strategies for making the case for net zero, technical how-to, and cross-disciplinary approaches essential for planning, regulations, financing, and operations for net zero design.

Declaration of Responsibility

I have personal knowledge of the nominee's responsibility for the project listed above. This responsibility included: Secured funding and led program development.

Lisa Richmond,
Executive Director
AIA Seattle



“Focusing on changing the mentality of creating beautiful efficient buildings, AIA Seattle is empowering building professionals to go out and change how the world thinks about design.”

**- Louisa Gaylord,
Author and
Commentator on the
Built Environment**

It was a truly educational and inspiring experience to come together with other industry professionals who are passionate about achieving the net zero goal.

**- Shaun May and Matt
Woo, PE, P.E., RCDD,
LEED AP BD+C
Attendees**

SYNOPSIS:

Getting to Zero features four half-day educational sessions that delve into the next targets of the 2030 challenge: a 70% reduction of carbon emissions relative to a 2003 baseline. These sessions explore strategies for developing the technical how-to, and crafting the cross-disciplinary approaches essential for planning, regulations, financing, and operations for net zero building design.

The first session of a four-part comprehensive educational series, *Preparing for Net Zero* explores the current state of practice and the direction we are headed with net zero energy. This session covers the support and opposition from key stakeholders, the actual cost-effectiveness, and feasibility of achieving net zero and its impacts beyond the individual scale into the greater community. The second session, *Design for Net-Zero*, delves into the next target of the 2030 Challenge. The third session, *Operations for Net Zero*, explores the hand-off from the design/construction team to the owner/operator team and how the effective net zero building operates. The last session *Financing & Regulations for Net Zero* explores the value of high-efficiency buildings, the role of the lenders and appraisers in net zero buildings and the return on energy efficiency and renewable energy investments. This session also includes the financing and regulation changes needed in ACE industries, including cost-effectiveness, new construction vs. upgrade of existing building stock, profitability for developers and affordability for institutions, carbon taxes, and incentives versus codes.

IMPACT:

Getting to Zero builds on the *AIA+2030 Series* to provide a financial and technical framework for addressing the challenges of eliminating operational carbon emissions in buildings. It delivers a comprehensive, high-level knowledge and strategies for assessing and selecting healthy, sustainable materials. Subsequent to the pilot offerings delivered in Seattle (both fully subscribed with over 100 attendees per year), this curriculum was delivered in AIA Chapters nationally and via the on-line AIAU platform, where it is one of the most popular online courses. AIAU Participants can earn a *Materials Matter Certificate* for completion of the course series on this important subject area.

PROGRAM SPONSORS:



Exhibit 3.4: AIA Seattle Energy in Design Award

Partnership with AIA Seattle

AWARDS Program

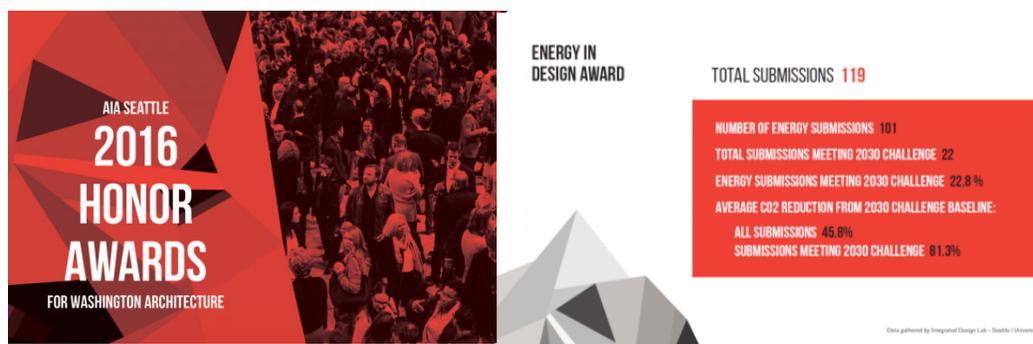
Offered: 2016- Present



ROLE OF NOMINEE:

Prof. Meek led technical development, production, and project-by-project validation for a groundbreaking new *Energy in Design* award program in partnership with AIA Seattle. As part of the annual *Honor Awards*, this award provides a performance-based reflection of the projects that the region has selected as its best work. Prof. Meek's role included the customization of a carbon emissions reduction calculator specific to the Award (now required for every building submission), providing in-person and web-based training sessions to for submitters and leading a "help-desk" function during the submission period. Once the submission date concluded, Prof. Meek led a team of that reviewed all submissions for accuracy and completeness and contacted any entrants that were missing data or had errors in their submission. Finally, he led the creation of summary tables and graphics for the entire project set to the jury to aid in the deliberation and to present during the awards, as an energy "report card" to the design community. Typical of other years, in 2018 there were over 120 submissions with 16 projects meeting the 2030 Challenge.

FUNDING: Northwest Energy Efficiency Alliance (NEEA) and the University of Washington Integrated Design Lab



Declaration of Responsibility

I have personal knowledge of the nominee's responsibility for the project listed above. This responsibility included: Award Development

Lisa Richmond,
Executive Director
AIA Seattle

SYNOPSIS:

For the past three years AIA Seattle, in partnership with the University of Washington Integrated Design Lab (UW IDL) has implemented a new *Energy in Design Award* to commend projects that have made quantifiably significant strides in energy reduction while also maintaining the highest qualitative design caliber. This award is intended to "become an annual galvanic moment; at once a litmus test and a lightning rod for us all as we continue to recognize the immense role and responsibility architects have in reducing the negative impacts of the built environment on the natural environment."

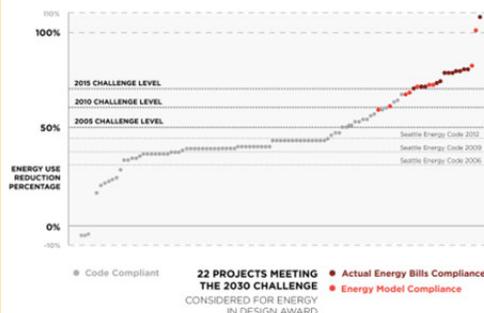
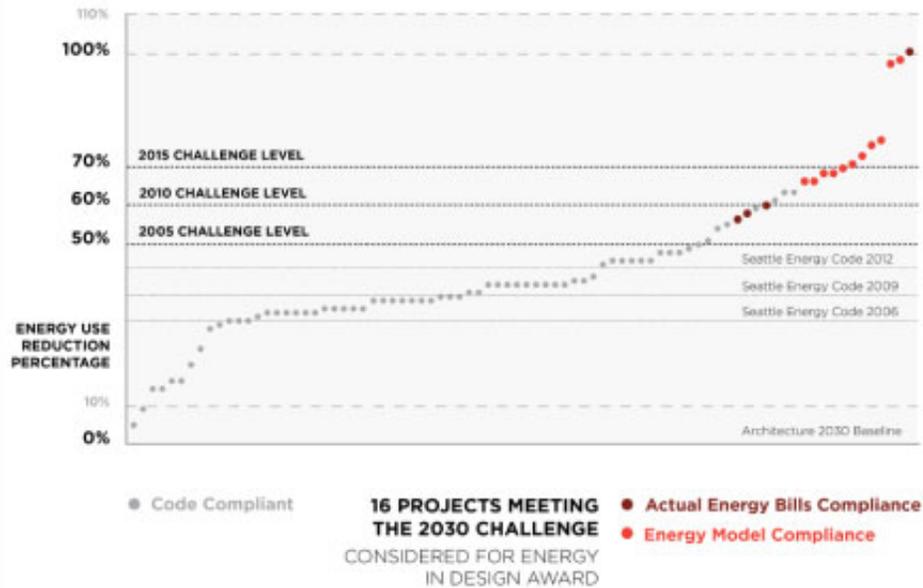
Section 3: Exhibits – AIA Honor Awards Program

With a submission calculator crafted to be inclusive of all built projects, the Award is meant to celebrate projects which balance exceptional design and forward thinking energy performance. This award is not just about one exemplary project; it is about our community's commitment to innovative, sustainable architecture and leadership among our design peers.

IMPACT:

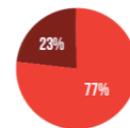
Providing the Pacific Northwest design community direct feedback on our progress toward meeting our 2030 Challenge commitments, the AIA Seattle *Energy in Design Award* has been a catalyst for national action in how the profession recognizes design achievement. Prof. Meek has presented the work underlying this award program to several regional AIA Chapter representatives, and Knowledge Community members to share the experience and challenges of delivering the program. He has also participated in the development of the “Common App” – AIA’s next generation of project performance criteria for evaluating exemplary projects.

Images: Data visualization from 2018, 2017, and 2016 AIA Seattle Energy in Design Awards



ENERGY IN DESIGN AWARD

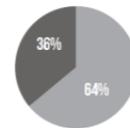
Percentage of Submissions meeting the 2030 Challenge



Did not meet the 2030 Challenge

Met the 2005-2015 Guidelines

Qualifying Entries Compliance Method



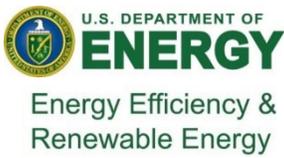
Energy Model

Actual Energy Bills

Data gathered by Integrated Design Lab - Seattle University of Washington

Exhibit 3.5: US Department of Energy Building Tune-Up Accelerator

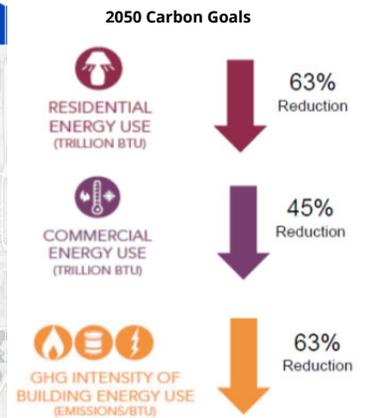
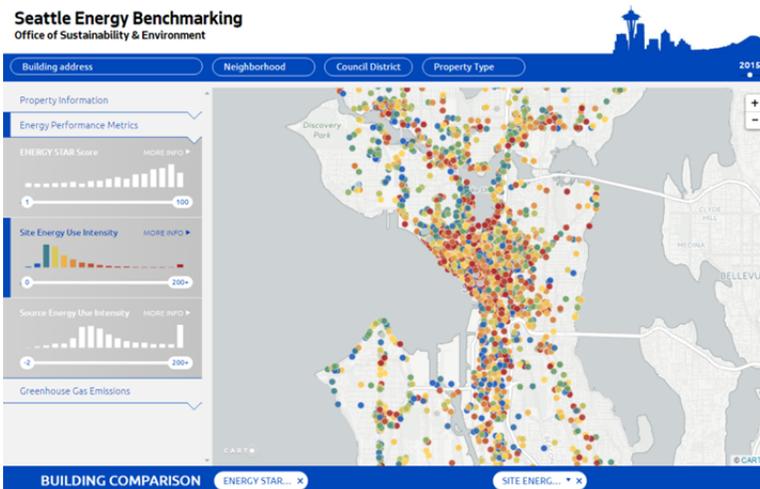
Partnership with City of Seattle Office of Sustainability and Environment for Existing Building Energy Policy Adoption
Grant Period: 2016-Present



ROLE OF NOMINEE:

Prof. Meek led the University of Washington’s component of a successful \$3.1 million, three-year grant from the US Department of Energy’s office of Energy Efficiency and Renewable Energy (EERE). Prof. Meek led implementation of a building-owner engagement and technical assistance process aimed at accelerating voluntary deep energy retrofits (20-50% carbon emissions reductions) in the existing medium-sized (approximately 20,000-100,000ft²) commercial building stock in Seattle, WA, as part of a new mandatory building tune-up requirement. Leveraging a municipal ordinance mandating building tune-ups at five-year intervals, the university-based research and deployment team seeks to develop a scalable pathway for creating custom technical and financial roadmaps for deep-energy retrofits that drive carbon-neutral operations.

FUNDING: U.S. Department of Energy (US DOE) Office of Energy Efficiency and Renewable Energy (EERE)



Source: 2013 Climate Action Plan

Declaration of Responsibility
I have personal knowledge of the nominee’s responsibility for the project listed above. This responsibility included: Principal Investigator (UW)

Sandra Mallory
Program Manager
Office of Sustainability and Environment,
City of Seattle

Prof. Meek seeks impact public policy in a way that builds a technical and financial pathway to improving the quality of the built environment while dramatically reducing carbon emissions.

SYNOPSIS:

This program implements a data-driven municipal-scale building-owner engagement and technical assistance process aimed at accelerating voluntary deep energy retrofits (20-50% carbon emissions reduction the existing medium

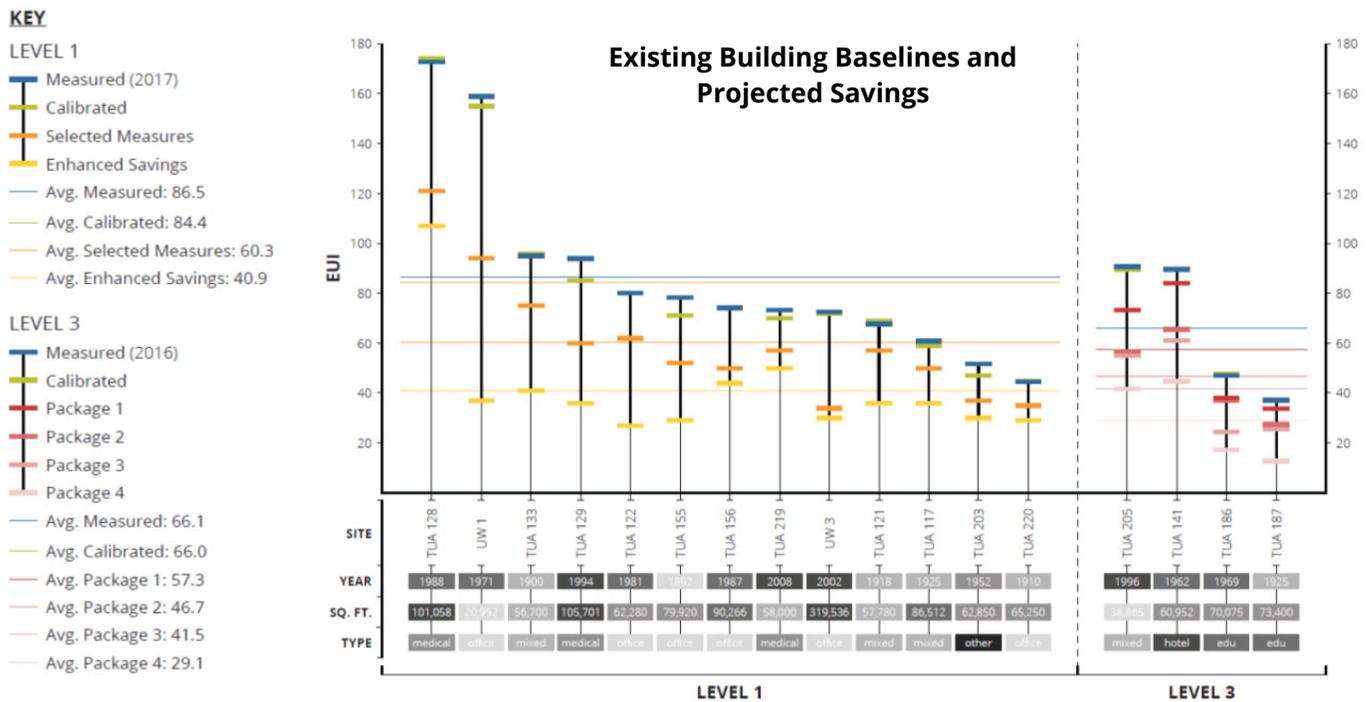
Section 3: Exhibits – Projects



sized commercial building stock. Leveraging building energy consumption disclosure data, a municipal ordinance mandating building tune-ups at five-year intervals, and a suite of freely-available energy simulation tools, the university-based research and deployment team seeks to develop a scalable pathway for creating custom technical and financial roadmaps for deep-energy retrofits that drive carbon-neutral operations.

“Professionals will tune up 70-80 buildings with 10-20% energy savings, and complete capital retrofits to 20-30 buildings providing 35% energy savings. Savings will target 100 million kBtu annually”

-Office of Sustainability and Environment, City of Seattle



IMPACT:

As a nationally and internationally recognized program, the Tune-Up Accelerator serves as a model for cities and regions seeking to improve their building stock while reducing carbon emissions. Whole building energy efficiency through capital and operational savings generated in the program are anticipated at 100 million kBtu per year. To encourage building owners to pursue deeper retrofit options beyond the tune-up, owners are offered, at no cost to them, targeted, in-depth technical assistance and utility incentives. This suite of investments is anticipated to generate an average of 35% energy savings. Seattle City Light (SCL), Seattle's publicly-owned electric power utility, will offer existing incentives for capital measures as well as innovative performance-based incentive packages currently under development. Prof. Meek will also collect and disseminate anecdotal feedback and initial observations outlining opportunities, challenges, and the current state of implementation, to guide future policy and market intervention strategies. In addition to generating energy savings we expect to modernize existing building, extend their useful life, and improve the health and comfort of building occupants.