

LEE A. FITHIAN, PhD, AIA, AICP, LEED AP, NCARB

Associate Professor

College of Architecture, Division of Architecture

University of Oklahoma

405.606.5905 | leefithian@ou.edu | Norman, OK

EDUCATION

- 2019 PhD in Engineering, University of Oklahoma
- 1998 MArch in Architecture, University of Oklahoma
- 1986 BS in Computer Science
- 1984 BS in Architectural Engineering

PROFESSIONAL CREDENTIALS

- 2005 to Present Certified Planner, American Institute of Certified Planners (AICP)
- 2002 to Present Leadership in Energy and Environmental Design Accredited Professional (LEED AP)
- 1998 to Present National Council of Architectural Registration Boards (NCARB)
- 1998 to Present Licensed Architect, State of Oklahoma

ACADEMIC APPOINTMENTS

2011 – Present

Associate Professor – College of Architecture, University of Oklahoma – Norman, Oklahoma

Channels efforts to boost University capabilities through multidisciplinary collaborative research. Active in University and community services, academic program committees, and diversity and inclusion activities. Fiscal steward of allocated budgets in project management spaces. Teaches Graduate and Undergraduate classes in:

- Sustainable Design Analytics and Technologies
- 5th Year and Graduate Studios
- Methods IV and V – Sustainable and Resilient Systems I and II
- Methods VIII – Building Performance Analytics
- LEED Seminar: Integrated use of REVIT BIM environments and coordinating interdisciplinary research throughout the University and internationally as the College's Architecture Research Liaison.

2005 – 2011

Assistant Professor – College of Architecture, University of Oklahoma – Norman, Oklahoma

Advisor for MArch+2 accelerated program. Focused on the interdisciplinary application of Sustainability to the Built Environment with particular focus on Architecture, Urban Design and Engineering. Advised on the use of analytical programs and energy modeling software, Ecotect, SketchUp, 5D BIM, Triple Zero and Net Zero buildings and LCCA to enhance building design. Taught the incorporation of LEED and other sustainability criteria into the project delivery process. Developed curriculum and conducted classes in:

- Environmental Controls
- Graduate and Undergraduate Architectural Design Studios
- Graduate Liaison and Graduate Studio Coordinator

2003 – 2005**Adjunct Instructor – College of Architecture, University of Oklahoma – Norman, Oklahoma**

Developed curriculum and facilitated graduate level class covering sustainable architecture and its practical application. Assisted with the Graduate integrated design studio.

Fall Semester – 2000**Adjunct Instructor – Oklahoma State University – Oklahoma City, Oklahoma**

Developed curriculum and conducted classes teaching landscape graphics and site design. Instructed basic introduction to graphics and site design. Taught sketching, rendering, layout and composition, and drafting fundamentals.

PROFESSIONAL EXPERIENCE**2005 – Present****Principal – Fithian Architecture and Urban Design – Norman, Oklahoma**

Sole proprietor, executive consultant, architect, and designer with specialized emphasis in sustainable environments. Supported major products to include government, commercial, institutional, and residential construction. Concentrated project strategies and structural designs in economic viability, operational efficiency, natural resource conservation, and social equity. Notable projects include:

- **Sam Noble Oklahoma Museum of Natural History.** Functioned as LEED Professional for building certification. Positioned project planning to obtain sustainability rating. Constructed energy components to meet University standards. Conducted commissioning study and contractor estimate reviews which revealed a \$200K cost savings opportunity. Project placed on indefinite hold.
- **MacDill Air Force Base.** Architect and Project Manager for \$30M overhaul of military morale and welfare facilities. Led multi-disciplined collaboration efforts. Partnered with Department of Defense and Air Force executives, contractor firms, and civil engineering management teams.

1997 – 2005**Project Manager / Designer – The Benham Companies, LLC – Oklahoma City, Oklahoma**

Managed projects ranging from \$1 million to \$130 million across domestic and international sites. Collaborated cross-functionally with multidisciplinary teams from government organizations, Department of Defense, and foreign agencies. Integrated sustainable design concepts throughout project lifecycles. Selected projects include:

- **Mitchell Manor Renovation, East Meadow, NY.** Sustainability Director for \$30M, 215-unit military housing development project. Incorporated sustainability principles to include low impact development, water and material resource efficiency, and Urbanist Design Guides. Ensured environmental stewardship and improved quality of life for military families.
- **Army Command and General Staff College, Leavenworth, KS.** Sustainability Director and Designer for 400,000 gsf education/administration facility in National Historic Landmark District of Ft. Leavenworth, KS. Developed specialized structuring to ensure compliance with stringent national landmark requirements. Achieved Gold rating in US Army SPIRiT rating systems (based on LEED criteria). Garnered 2008 Merit Award, USACE Design & Environmental Awards Program.
- **Special Operations Facilities, Aviano AFB, Italy.** Sustainability Director for multi-cultural collaboration project consisting of US Army, Navy, Air Force, and Italian government agencies. Developed strategic planning to ensure LEED Certified requirements met for Naval Facilities Engineering Command. Headed sustainability initiatives to include site selection, energy efficiencies, renewable energy, water conservation, indoor environmental quality, and natural resource conservation.
- **University of Oklahoma College of Allied Health, Oklahoma City, OK.** Project Manager and Designer for 29,000 gsf facility at University Health Sciences Center. Integrated distance learning network classroom facilities with John Keyes Speech and Hearing Center. Cultivated focal point of new campus pedestrian mall.

1987 – 1997**Project Coordinator – Architectural and Engineering Services, University of Oklahoma – Norman, Oklahoma**

Collaborated with Campus Planner on a variety of site, campus design, fiscal management, and indirect cost recovery planning issues including development of new campus facilities management database. Supported tri-phase project management of \$15M design, renovation, remodeling, and addition effort for the Oklahoma Memorial Union, Conoco Student Leadership Center, and new dining facility. Renovated and remodeled 105,000 gsf while adding 4,000 gsf supplemental structure.

Sooner Magazine Article: https://digital.libraries.ou.edu/sooner/articles/p4-8_2001v22n1.pdf

GRANTS**Funded Grants**

- \$12,800. Fithian, L. University of Oklahoma, College of Engineering AME Capstone, “Mid-Scale Double Skin Facade System to Test Evacuation of Street Canyon Air Pollutants”, Fall 2019 – Spring 2020.
- \$2,600. Fithian, L., University of Oklahoma, Undergraduate Research, Graduate Research Guide, Spring 2017.
- \$993. Fithian, L., Robberson Grant, “Green Walls”, University of Oklahoma, Summer 2016.
- \$1,000. Fithian, L., OU College of Architecture Research/Travel Seed Grant, “Green Walls”, Summer 2016.
- \$2,600. Fithian, L., University of Oklahoma, Undergraduate Research, Graduate Research Guide, Fall 2016.
- \$4,585. Fithian, L., Butko, D., Pavlik, R., Pilat, S. OU College of Architecture Research Seed Grant “3DMAVS: Development of a mobile, studio level, scalable, 3D visualization and auralization suite for 5 viewers simultaneously”, 2015.
- \$2,000. Fithian, L. Alternative Textbook Project Initiative, University of Oklahoma Libraries, 2015.
- \$650. Fithian, L. Mobile Blogging and Scholarship, OU Center for Teaching Excellence, equipment grant.
- \$2,384. Fithian, L. Ed Cline Faculty Development Award, 2014.
- \$1,000. Fithian, L., OU Water Conference, conference attendance funding for faculty and 15 students.
- \$20,000. McCuen, T., Fithian, L., President’s Dream Course, Fall 2012 - ARCH 4755/CNS 4122 - BIMStorm OKC: A Virtual Event to Build Community and Enhance Connectivity.
- \$6,500. Fithian, L. SAIC LEED Sustainability Seminar Series, Acquisition, Coordination and Dissemination of AIA+2030 Curriculum. Grant funded presentation of 40 CEUs of professional continuing education based upon local adaptation of AIA + 2030 curriculum teaching how to reach 50% energy reduction targets. Continuing Education series was presented locally and simulcast to Oklahoma City and Tulsa, 2012-2013.
- \$1,500. Faculty Advisor, Association of Collegiate Schools of Architecture and National Science Foundation Open Challenge Competition: Architecture and Engineering of Net-Zero Sustainable Buildings, MArch Graduate student Mr. Andrew Stevens - 2nd Place, 2012.
- \$1,500. Fithian, L. Presidential International Travel Fellowship, 2011.
- \$83,000. Coffman, R., PI, Klein, P., Co-PI, Fithian, Co-PI, EPA “Experimental Green Roof at the National Weather Center”, 2010-2013. Researcher, Glare Studies - OU NWS Green Roof, mitigation of occupant glare caused by refractive roofing systems in built environments through the use of alternate green roof technologies involving vegetated systems.
- \$20,000. Alicia Burriss (IT/EDU), Lee Fithian (Arch), Matthew Kane (CoE), Petra Klein (Metr), Farrokh Mistree (Coordinator, CoE), Zahed Siddique (CoE), Musharraf Zaman (CoE) President’s Dream Course Fall 2010 - ARCH 4970/5970: Managing Dilemmas – Net Zero Energy/Eco Footprint in the Built Environment.
- \$5,800. Coffman, R. PI, Fithian, L., Co-PI, Carrington Trails Green School and Schoolyard Design Alternatives, Fall 2009.
- \$20,000 matching funds. Cooper-Hart, K. PI, Fithian, L., Co-PI, Oklahoma City AIA SDAT – First AIA National Award for a Sustainable Design Assessment Team, Fall 2007.

Unfunded

- Gosh, McCuen, Fithian, Cricchio, "Systems Improvement of Project Lifecycles Using Emerging Tools", A+CA Conference, Sponsorship.
- Fithian, McCuen, Cricchio, Pober – NCARB Grant Proposal, "C5-Collaborate, Create, Construct, Capstone, Charette", \$22,900.
- Siddique, Fithian, Neeman, Radhakrishnan, McCuen, Internal OU MRI, Acquisition of an Immersive Virtual Environment to Foster Complex System Research and Education at the University of Oklahoma, \$660,000, 2011.
- Graham, C., Fithian, L., Asojo, A., McCuen, T. ARRA Proposal, Continuing Education and Outreach Program for Green Building and Sustainability, 2009.
- Mistree, Siddique, Fithian, Klein, Song, Vedula, Kane, Dietrich, Cricchio, NSF EFRI SEED Proposal, Biomorphic High Performance Buildings: Re-Conceptualization Leading to New Science and Breakthroughs, 2010.
- Fithian, L, McCuen T., NCARB, Virtual Teams in BIM for Sustainable Building: Technology and the Design Process – Recordable Synchronous Communications using the Studio as a Testbed for Partners in Practice, 2009.

PATENT

Patent 62/576,947 (provisional), Apparatus and Methods for Enhancing Air Quality in Urban Street Canyons (2019)

CREATIVE ACTIVITY**2013 – 2018 Architect, Nitschke Residence.**

Architect for 3,500 sf private residence in Waurika, OK. Designed to have significant passive heating/cooling, daylighting, and natural ventilation. Predicted energy savings of up to 70% with electrical system designed to accept future PV installation for Net-Zero solution. Project used to compare energy models derived from the closest available climate data reporting station (Lawton, OK) with OK Mesonet climate data located in Waurika.

2008 – 2010 Architect, Meyers Residence.

Architect for 2,500 sf private residence with detached 1,300 sf facility in Ardmore, OK. Incorporated high level of sustainable features including integrated roof/site storm water management, insulated concrete forms, passive solar heating, and optimized natural ventilation/site design for passive cooling.

2007 LEED Consultant, Ray and Joan Kroc Community Center for The Salvation Army.

LEED/Sustainability Consultant for \$15 million multi-use facility in Atlanta, GA. Urban infill project registered as LEED Silver.

AWARDS

National Fellow, Environmental Leadership Program (2017)

Pisces Award, EPA Clean Water State Revolving Fund (2010)

Award of Excellence Winner, Keep Oklahoma Beautiful (2010)

PROFESSIONAL SERVICE**University of Oklahoma**

- 2019 – 2020 Chair, Provost Advisory Council on Women’s Interests (PACWI)
- 2019 – 2020 Dean of the College of Professional and Continuing Studies Search Committee
- 2019 – 2020 University Libraries Scholarly Communications Taskforce
- 2018 – 2019 College of Architecture, Division of Landscape Architecture, Faculty Search Committee Member
- 2018 – Present College of Architecture, Division of Architecture, Curriculum Committee
- 2016 – Present University of Oklahoma Research Council
- 2016 – Present Provost Advisory Council on Women’s Interests (PACWI)
- 2015 – 2018 College of Architecture, Division of Architecture, Committee A Member
- 2016 College of Architecture, Division of Architecture Faculty, Search Committee Member
- 2015 – 2016 VPR Inaugural Faculty Leadership Academy
- 2013 – 2014 College of Architecture, Division of Architecture Faculty, Search Committee Member
- 2008 – Present Kessler Atmospheric and Environmental Field Station (KAEFS) Steering Committee
- 2014 – 2015 Academic Programs Council, Chair Course Subcommittee
- 2010 – 2015 Academic Programs Council
- 2009 – 2012 College of Architecture, Division of Architecture, Graduate Liaison/Graduate Studio Coordinator
- 2009 – 2017 College of Architecture, Graduate Curriculum and Research Committee
- 2009 College of Architecture, Division of Construction Science, Structural Faculty Search Chair
- 2009 College of Engineering, Mechanical Engineering Faculty Search Committee Member
- 2008 – Present College of Architecture, Division of Interior Design, ID Masters Committee Member
- 2006 College of Architecture, Division of Construction Science, Search Committee Member

Community Affiliations

- 2019 – Present City of Norman, Environmental Concerns Advisory Board Subcommittee on Renewable Energy
- 2019 – Present Oklahoma Sierra Club RF100 Initiative Advisor
- 2018 – Present Senior Fellow, Environmental Leadership Program
- 2017 – 2018 National Fellow, Environmental Leadership Program
- 2008 – 2011 Member Transportation Research Board of the National Academies (TRB) Panel NCHRP 08-74 “Sustainability Performance Measures for State Departments of Transportation and Other Transportation Agencies” (<https://www.nap.edu/download/14598>)
- 2008 Sustainable Design Coordinator Cleveland County (Oklahoma) Habitat for Humanity
- 2007 – 2011 U.S. Green Building Council (USGBC)
Ex-Officio, Oklahoma Chapter
Founding Member, First Chair, Oklahoma Chapter (2007 – 2009)
- 2004 – Present American Institute of Architects (AIA)
Chair, Central Oklahoma Chapter AIA, Committee on the Environment (2006 – 2017)
Treasurer, Central Oklahoma Chapter AIA (2006 – 2014)
Director, Central Oklahoma Chapter AIA (2004 – 2006)
Member (2004 – Present)
- 2000 Founding Member, Oklahoma Sustainability Network

GRADUATE ADVISING – UNIVERSITY OF OKLAHOMA

Chair, Master's Thesis

- Ms. Yetunde Obasade (MS, 2019)
- Ms. Tayana Gosh, (MS, 2019)
- Mr. Mahdi Afkhamiaghda (MS in Arch 2017)
- Mr. Austin McCoy (MArch 2015)
- Mr. Jason Leach (MArch, expected 2015)
- Mr. Stephen Curtis (MArch 2013)
- Mr. Kevin Hill (MArch, 2012)
- Mr. Daniel Wallace (MArch, 2011)
- Ms. Emily Booher (MArch, 2010)
- Mr. Bao Tran (MArch, Spring 2010)
- Mr. Cody Pistulka (MArch, Spring 2009)
- Mr. Josh Mazur (MArch, Spring 2008)

Graduate Committee Member, Master's Thesis

- MS. Ramya Palani (MS,2019)
- Mr. Guy Abou-Nassar (MS in AME, 2015)
- Ms. Rebekah Ulm (MArch 2014)
- Mr. Jason Overton (MS CNS, 2011)
- Ms. Lu Yu (MArch, Spring 2010)
- Ms. Kavita Kumar (MArch, Spring 2009)

SELECT PUBLICATIONS AND PRESENTATIONS

1. **Fithian, L.**, "Active Building Facades to Mitigate Urban Street Pollution", Dissertation, 2019.
<https://shareok.org/handle/11244/323255>
2. Shadravan, S., **Fithian, L.**, Callahan, M., Afkhamiaghda, M., "Design Technology: Architects' Early Impact on Indoor Air Quality", Conference Proceedings, AEI 2019:
<https://ascelibrary.org/doi/abs/10.1061/9780784482261.026>
3. Gosh, T., Callahan, M., Shadravan, S., **Fithian, L.**, "Composite Mycelium-Glass Brick Unit", Conference Proceeding, Advanced Material Congress (AMC) Conference, Stockholm, Sweden, 2019
4. **Fithian, L.** (2018). "The Double Skin Facade: Enhancing Air Quality." Los Angeles, Tectonics Press Publications Vol. 1, 563-568. https://facadetectonics.org/wp-content/uploads/2018/03/Facade-Tectonics_2018-World-Congress_Proceedings_Vol-1_Compressed.pdf. pp 563-568
5. **Fithian, L.**, Siddique, Z., Wang, N., "Investing in Sustainable Buildings to Enhance Community Resilience", AEI 2017: Resilience of the Integrated Building, Volz, J. Ed. pp. 1034 – 1043;
<http://ascelibrary.org/doi/10.1061/9780784480502.086>
6. Coffman, R., **Fithian, L.**, Akins, E., "Deploying Shipping Containers for Innovative Living Architecture Design Education", Journal of Living Architecture, Vol 4:2 pp. 1-16; 2017.
https://static1.squarespace.com/static/588221e420099e47b8fe06d8/t/5968f32b3e00be3b924b524e/1500050239052/JLIV2017_Volume4_Issue2-Coffman_etal.pdf
7. **Fithian, L.** "How Advanced Building Systems Can Offset Water Infrastructure Needs", paper, selected for publication 52nd IMCL eConference and eReport, Bristol, UK, June 29-July 3, 2015.
<https://shareok.org/handle/11244/322077>

8. **Fithian, L.**, Oklahoma American Planning Association, "How Advanced Building Systems Can Offset Water Infrastructure Needs", presentation, Norman, OK 2014
9. **Fithian, L.**, Central Oklahoma Chapter AIA, "A Semester in Italy", ChitChat Presentation, 2014
10. **Fithian, L.** and McCuen, T., FOREFRONT Conference - AIA Architects as Collaborative Leaders "BIMStorm OKC: A Virtual Event to Build Community and Enhance Connectivity", the outcomes of Dream Course funding, Salt Lake City, UT, 2013.
11. Abou-Nassar, G., Siddique, Z., **Fithian, L.** "Computational Analysis to Design Energy Efficient Built Environments", paper, ASME 2012 International Design Engineering Technical Conferences & Computers and Information in Engineering Conference (IDETC/CIE) Conference Proceedings, Chicago, IL, August 12-15, 2012.
12. Klein, P.K., Coffman, R., **Fithian, L.**, Vogel, J., "Performance Evaluation of an Experimental Green Roof in a Semi-Arid Region", poster, ICUC8-8th International Conference on Urban Climates, 6th-10th Aug, 2012, UCD, Dublin, Ireland.
13. **Fithian, Lee A.** "Point: An Oklahoma City Landmark," Oklahoma Gazette, September 28, 2011. Referenced March 22, 2012 for Mummers Theater National Register of Historic Places Registration.
14. **Fithian, L.**, Montgomery, C., "Recovering Historical Climate Based Influences for Heritage and Conservation Planning", paper.
15. 3rd International Academic Consortium for Sustainable Cities (IACSC), Rangsit, Thailand, September 8, 2012.
16. Adshead, J. ed., CIB Book: Green Buildings and the Law, chapter, McCuen, T., **Fithian, L.**, "Potential Harmful Environmental Impacts as a Consequence of Material and System Specifications, Installation, and Operations in Current U.S. Green Building Practices", (2011).
17. Koch J.E., Gransberg D.D., Molenaar K.R., Project Administration for Design-Build Contracts, Appendix B, **Fithian, L.** "Implementing Sustainability in Design-Build Projects", (2010); pp 273-279; <https://doi.org/10.1061/9780784410752.apb>
18. Loon, L., **Fithian, L.**, "The Interdisciplinary Urban Studio: Graduate Student Service-Learning Projects and Their Effect on Communities in Oklahoma", paper, CELA/ISOMUL International Conference Proceedings, Maastricht, The Netherlands, 2010.
19. McCuen, T. and **Fithian, L.**, Conference Proceedings: EcoBUILD America BIM-Related Academic Workshop December 7-9, 2010 "Team Processes and Dynamics Demonstrated in Interdisciplinary BIM Teams".
20. Touran, A., Gransberg, D.D., Molenaar, K., Ghavamifar, K., Mason, D.J., **Fithian, L.** "TCRP Report 131: A Guidebook for the Evaluation of Project Delivery Methods", 112 pp, 2009.
21. **Fithian, L.**, McCuen, T., "BIM and the Charrette: Technology and the Design Process, Results from the Interdisciplinary Course", paper, ACSA 97th Annual Meeting Proceedings, Portland, Oregon, 2009.
22. **Fithian, L.**, Remy, Q., "An Improved Visual Tool to Enhance Community Involvement and Participation in the Stormwater Management Planning Process", StormCon '06 Conference Proceedings, Denver, Colorado, 2006.
23. **Fithian, L.** "Book Review: The Ecological Engineer Volume ONE: KEEN Engineering" authors Macauley, D. McLennan, J., AIA National Committee on the Environment (COTEnotes) Newsletter, Spring 2007.
24. Sendich, E. ed., American Planning Association, Planning and Urban Design Standards, J. Wiley, chapter, **Fithian, L.** 2006.
25. **Fithian, L.** and Jahanshahi, M., "Standards of Excellence for the Competitive CAD Portfolio", CADENCE, Vol.7, No.11, pp.93-96, (November 1992).
26. **Fithian, L.**, "In the Future, Handholding Won't be Necessary", CADENCE, Vol.6, No.3, pp.24-26, (March 1991).
27. **Fithian, L.**, "The Vision of Accessibility", CADENCE, Vol.5, No.6, pp.101-102, (September 1990).
28. **Fithian, L.**, "Keeping Track at OU", CADENCE, Vol.5, No.6, pp.113-118, (July 1990).

COURSES TAUGHT – UNIVERSITY OF OKLAHOMA

ARCH 2463, Methods IV
ARCH 4353, LEED Seminar
ARCH 4463, Methods IV
ARCH 4563, Methods V
ARCH 4755, Design VII-Systems & Context
ARCH 4823, Methods VIII-Arch Analytics
ARCH 4855, Design VIII-Arch Synthesis
ARCH 4863, Methods VIII
ARCH 4960, Directed Readings
ARCH 4970, Sustainable Design Analytics
ARCH 5055, Design X-Comp Arch II
ARCH 5463, Adv Sustainable-Resilient Sys
ARCH 5526, Grad Architectural Design II
ARCH 5536, Grad Architectural Design III
ARCH 5546, Grad Architectural Design IV
ARCH 5563, Methods V
ARCH 5823, Methods VIII
ARCH 5863, Methods VIII
ARCH 5955, Design I
ARCH 5960, Directed Readings
ARCH 5970, LEED Seminar
ARCH 5980, Research for Master's Thesis
ARCH 5990, Special Studies in Arch
ARCH 6133, Sustainable Design Analytics
ARCH 6156, Graduate Studio I
ARCH 6233, Sustainable Technology
ARCH 6256, Graduate Studio II
ARCH 6356, Graduate Studio III
ARCH 6456, Graduate Studio IV
ARCH 6960, Directed Readings
ARCH 6990, Special Studies