

Daniel Handeen

hande020@umn.edu

O: 612-626-2284

M: 612-720-0712

Bio:

Daniel Handeen, M. Arch., Assoc AIA, LEED-AP is a Research Fellow at the Center for Sustainable Building Research, who focuses on communicating healthy, durable, environmentally-sensitive building methods to professionals and laypeople. His work has included: Development of the Athena Eco-Calculator, to calculate the environmental impacts of common building assemblies; Development of concept, graphics, video, and 3-d instructional exhibits for the Sustainable Shelters exhibit for the Bell Museum of Natural History; Co-managing the U of M's entry to the 2009 Solar Decathlon competition; Development of graphics and animations for the Building America Foundations Best-practices Handbook; Design and project management of the Build Better & Be Ready exhibit for the 2014-2016 MN State Fairs; Passive House market research for UMORE; and Sustainable design assistance for multiple rural MN communities. He is currently developing the prototype for a low-energy greenhouse for winter crop production in partnership with the U of M Extension service. He also teaches systems- and ethics-related classes in the Architecture program, including Arch+Eco, Mat'ls+Methods I, Sustainable Community design, and the Net-Zero Habitat for Humanity design projects.

Educational Background:

M.S. Sustainable Design, University of Minnesota, (underway)

M. Arch., University of Minnesota, 2007

Thesis: Mixed-use green redevelopment of the Cenex/Harvest States Elevator

B.A., Macalester College, 1997

Focus: Sculpture and drawing

Teaching Experience:

Lecturer, School of Architecture, U of MN, 2010-present.

Classes:

Architecture and Ecology (ARCH4561) – 100-180 student undergraduate lecture course on the intersections between the natural and built environments, and how designers can mitigate and minimize negative impacts.

Methods and Materials I (ARCH4511) – 40-70 student undergraduate lecture course that introduces the primary building materials, the techniques by which they are used, and how to design with them in mind.

Contemporary Sustainable Communities (DES4160) – Graduate seminar reviewing and researching the best practices in sustainable community design.

Net-Zero Project (ARCH4150/5550) – Partnership with Habitat for Humanity of Minnesota and HfH of the Twin Cities to design net-zero houses. Two houses constructed: One in [Princeton, MN](#), and one in N. Mpls.

Advising Experience:

Service on thesis committees, and as thesis chair for MS-SD students.
Acted in typical advising capacity for students in ARCH4561 and ARCH4150/5550.

Service:

Faculty advisor for Freedom by Design student group (present)
Arch. Undergraduate Curriculum Committee (present)
Arch. BS Subcommittee (present)
CDES Catalyst for Change *Engagement* group spokesperson (2015-16)

Professional Associations:

American Institute of Architects Associate
Leadership in Energy and Environmental Design Accredited Professional ([LEED-AP](#))
through the US Green Building Council.
[Alpha Rho Chi](#)

Employment History:

Lecturer, U of MN CDES School of Architecture, 2010-present
Research Fellow, Center for Sustainable Building Research (CSBR), U of MN, 2008-present.
Research Specialist, CSBR, 2007-2008
Research Assistant, CSBR, 2006-2007
Research Assistant, School of Architecture, U of MN, 2005-2006
Teaching Assistant, School of Architecture, U of MN, 2004-2005
Self-employed, Handeen Design & Construction, 2001-2004
Site manager, designer, and laborer, One World Landscape and Supply, 1999-2000.

Projects (Academic):

Co-P.I. *Affordable, Innovative, High-Performance, Moisture-managed Building Enclosure System*. US Dept. of Energy Building America funded project. Current
P.I. for Deep Winter Greenhouse prototype development for the [MN Extension DWG campaign](#). 2014-16
Led design, layout, and project management of the Zero-Energy Ready New Construction exhibit at the 2015 and 2014 MN State Fair EcoExperience.
Co-P.I. and Co-author of the [Cold-Climate Greenhouse Resource Guide](#). 2013
Led design, layout, calculations, and development of the [Athena EcoCalculator](#). 2009
Led initial [mapping layout](#) for the [Energy Innovation Corridor](#) project.
Consulting, development, and design for the [Bell Museum's Sustainable Shelter exhibit](#).
Assistant Project Manager for [U of MN entry to the 2009 DOE Solar Decathlon](#). 2007-09
Community Design Assistance Projects:
Kabetogama Community center community engagement and schematic design.
A Community-based implementation of [Nature-based playspaces in Fertile and Crookston, MN](#).
Energy and efficiency strategies for the [Virginia Community Historic Greenhouse](#)
Development of a client-focused garden operation for the Bemidji Community Food Shelf.

Presentations:

MN Dept. of Ag: *Deep Winter Greenhouse design and performance.*
Habitat for Humanity Minnesota: *Insulation installation and performance.*
U of M alumni assoc. Glacial Ridge chapter: *Energy Efficiency and High Performance building at the University of Minnesota.*
AIA-MN Building Enclosure Council: *High performance building and insulation strategies.*
Window and Door Manufacturers Association: *Life Cycle Assessment.*
Harvard University: *Building Material Life Cycle Assessment and the Athena Impact Estimator.*
Bell Museum's Café Scientifique: [*Lessify, Maximize, Optimize.*](#)

Publications:

Handeen, D., Rader, J., and Singh, V. "*Cold Climate Greenhouse Resource,*" U of M Extension, 2013.
Carmody, J., and D. Handeen, *Passive House and High Performance Housing;* 2012
Handeen, D, and Hilvert, R. "*What's the Deal with Carbon?*" Animated short produced for the Bell Museum of Natural History, 2010
Handeen, Daniel "*Nothing from Nothing: The Basics of Life-cycle Assessment,*" Dwell Magazine, Feb. 2009.
Carmody, J., W. Trusty, M. Lucuik, J. Meil, and D. Handeen, "*New Life Cycle Assessment Tools for Building Assemblies in North America,*" SB08 Conference, Melbourne, Australia, September 2008.
Carmody, J., W. Trusty, M. Lucuik, J. Meil, and D. Handeen, "*Life Cycle Assessment Tool for Building Assemblies,*" Proceedings of SB07 Conference, Lisbon, Portugal, September 2007.

References gladly provided upon request.