



David was the structural team advisor for the "Solar Decathlon Competition" at the University of Minnesota, assisting the student team in the development and design of an energy independent demonstration home for a national competition sponsored by the Department of Energy. David served as the Structural Engineer of Record for this design which was constructed and exhibited on the National Mall in the fall of 2009.

David is a frequent guest lecturer for a class at the University of Minnesota School of Architecture on the subject of "The Historic Aspects of Structural Engineering". Providing insight into the evolution of theory, practice and material use and how this information may affect the renovation or restoration of historically significant structures.

For over ten years, David served as an adjunct professor at the University of Minnesota within the Bachelor of Applied Science Construction Management program. He taught a class for construction management and architecture students concerning the fundamentals of structural engineering and the common materials and systems used in building frame construction.

David served as a member of the "Minnesota State Building Code" Rules 1311 Committee, an advisory committee for the Minnesota Department of Administration, Building Codes and Standards Division. The purpose of the committee was to review the "International Existing Building Code" and recommend revisions prior to adoption into the Minnesota State Building Code.

David has been selected to serve on the ASCE – Structural Engineering Institute, Technical Activities Division "Design of Wood Structures Committee". This committee will be advising the ASCE 16 standards committee to move wood building design in the direction of performance-based design.

### **David H. Macdonald, P.E.**

David has over 37 years of experience in structural engineering which includes all phases and types of structural building systems. He has served as project engineer for several projects that have won awards for unique and innovative design, such as the restoration of the Nicollet Island Pavilion that received a CUE award from the City of Minneapolis, the St. Croix Lutheran High School Chapel which was recognized by AIA Minnesota with an honor award, the adaptive reuse and addition to the Humboldt Mill in Minneapolis which won an AIA/MN honor award and a Minneapolis Heritage Preservation award, the restoration of the Swedish Institute Solarium which was recognized with an AIA/MN Heritage Preservation award. In December of 2008 David was very grateful to be honored by AIA/MN with a special award for "Outstanding skill and creative solutions for the architectural profession as a structural engineer." David is a principal partner and co-founder of Mattson Macdonald Young, Inc. Structural Engineers.

#### **Education**

Bachelor of Civil Engineering with distinction - University of Minnesota 1976.

#### **Registration and Memberships**

Licensed Professional Engineer:

Minnesota	#14751
Wisconsin	#23949

American Council of Engineering Companies/Minnesota (ACEC/MN)

Past member of the Board of Directors  
Numerous Committees

Minnesota Structural Engineers Association  
Past President, Minnesota Chapter  
Member, Education Committee

ASCE - Structural Engineering Institute  
National Committee Member  
"Design of Wood Structures"