PROMOTION RECOMMENDATION

The University of Michigan

A. Alfred Taubman College of Architecture and Urban Planning

Ekaterina (Kathy) Velikov, assistant professor of architecture, A. Alfred Taubman College of Architecture and Urban Planning, is recommended for promotion to associate professor of architecture, with tenure, A. Alfred Taubman College of Architecture and Urban Planning.

Academic Degrees:

M.A.	2006	University of Toronto, History of Art and Architecture, ON, Canada
B.Arch.	1996	University of Waterloo, Cambridge, ON, Canada
B.ES.	1994	University of Waterloo, Environmental Studies, Cambridge, ON, Canada
Professional Record:		
2009 – Present		Assistant Professor of Architecture, A. Alfred Taubman College of
		Architecture and Urban Planning, University of Michigan
2007 – Present		Partner and Director, RVTR Inc., Ann Arbor, MI
2007 - 2009		Assistant Professor of Architecture, University of Waterloo, Cambridge, ON,
		Canada
2006 - 2007		Willard A. Oberdick Fellow, A. Alfred Taubman College of Architecture
		and Urban Planning, University of Michigan
1997 - 2007		Principal, Velikov + Thün Building Studio, Toronto, ON, Canada

Summary of Evaluation:

Teaching: Professor Velikov is an important and dynamic instructor with her primary teaching contributions centering on the areas of architecture design studios, the Master of Science in materials systems post-professional program, and graduate seminars. At the broad scale, her studio classes challenge students to integrate systems thinking and recognize the importance of context and infrastructure on the built environment. At the fine scale, knowledge and interest in responsive envelopes and materials is clearly present in her teaching in the Master of Science program. Student evaluations of Professor Velikov's teaching range from 4.0 to 5.0 and in 11 of the 16 courses she has taught students rated her teaching 4.5 or higher. By integrating her evolving research into the classroom, Professor Velikov enlivens her courses with her passion and enthusiasm for teaching and refreshes the content through her own evolving knowledge and experiences. She is professional, inspiring, and possesses both a theoretical and practical working knowledge of material systems, fabrication, and computation using her depth of knowledge and values as an architect to make sure students are fully aware of the implications of their designs.

In addition to her success within the classroom, Professor Velikov helped initiate and direct the new Master of Science program. As co-coordinator and core faculty of the program started in 2012, she taught both seminar and practicum courses. The development of this new program has led to interdisciplinary teaching efforts. With College of Engineering faculty member, Dr. Victor Li, Professor Velikov received a Gilbert R. Whittaker Fund Award to advance a cross-disciplinary course offered to both architecture and engineering students in sustainable material selection.

<u>Research</u>: Professor Velikov's creative practice explores the built environment as a complex ecologic, economic and social system and has garnered an extraordinary national and international reputation in the area of sustainability in architectural design. Her work is highly collaborative and interdisciplinary, at the intersection of creative practice and technological research. The work is

funded by an impressive stream of grant funding focused on key issues of form, technology, and urbanism that produce projects ranging from the design of individual buildings to production prototypes, books, scholarly articles, and public exhibitions.

Professor Velikov's award-winning research focuses on the design of responsive envelopes – highly-interactive building "skins" that respond to both internal and external conditions to maximize energy efficiency, comfort and beauty as well as urban systems – design at the scale of the city, the region, and the "megaregion," e.g., the Great Lakes, that addresses issues of economic development, governance, and community through new forms of transportation, communication, and public spaces. Both of these highly distinct areas can be brought together within a larger ecological paradigm, and her work responds through design to the technological and social challenges of creating a sustainable built environment. Her work has been widely disseminated in top academic journals such as the *Journal of Architectural Education* and has received prestigious awards including the R&D Award of Excellence from *Architect Magazine*, the Young Architect's Forum Award from the Architectural League of New York, and the Canadian Prix de Rome, all highly competitive awards.

Recent and Significant Publications and Awards:

- Kathy Velikov, Geoffrey Thün, Mary O'Malley. 2014. "Nervous Ether: Soft Aggregates, Interactive Skins," Leonardo: The Journal of the International Society of the Arts, Sciences and Technology V47, no 4, 344-351.
- Architizer A+ / Architecture + Sound Jury and Popular Vote Awards. 2013. Design Award for Resonant Chamber project.
- Kathy Velikov, Lyn Bartram, Geoffrey Thün, Lauren Barhydt, Johnny Rodgers, and Robert Woodbury. 2013. "Empowering the Inhabitant: Communication technologies, responsive interfaces and living in sustainable buildings," in *Constructing Green: The Social Structures of Sustainability*, eds. Rebecca Henn and Andrew Hoffman (Cambridge: MIT Press), 171-195.
- Geoffrey Thun and Kathy Velikov. 2012. "Conduit Urbanism: Rethinking Infrastructural Ecologies in the Great Lakes Megaregion, North America," in *Sustainable Energy Landscapes*, eds. Sven Stremke and Andy van Dobbelsteen (London: CRC Press/ Taylor & Francis), 261-284.
- Kathy Velikov, Geoffrey Thün, Colin Ripley. 2012. "Thick Air," Journal of Architectural Education (JAE) 65:2, Special Issue: Beginning Design, 69-97.
- Geoffrey Thün, Kathy Velikov, Mary O'Malley, Lisa Sauvé. 2012 "The Agency of Responsive Envelopes: Interaction, Politics and Interconnected Systems," *International Journal of Architectural Computing (IJAC) Special Issue: Architectural Robotics*, Issue 3, Volume 10, 377-400
- Royal Architectural Institute of Canada (RAIC): Award of Excellence for Innovation in the Practice of Architecture. 2011. Design Award for *North House*
- Architect Magazine, R&D Award Program, Award of Excellence. 2010. Design Award for North House Responsive Envelope System
- Canada Council for the Arts: Professional Prix de Rome in Architecture, 2009.

Service: Professor Velikov has been especially active in the Association of Collegiate Schools of Architecture serving as referee, session chair and juror. She is a founder of the Zero Energy Mass Custom House Network and has been an active mentor to intern architects seeking professional certification, with special attention to the issues surrounding female architects entering the profession. For the college, Professor Velikov has been a key member of the Post Professional Programs Committee, which has overseen the college's five Master of Science degrees and has taken direct responsibility for the Master of Science in material systems. For the university, Professor

Velikov has been an active member of the ArtsEngine Task Force as well as the Sustainable Mobility and Research Transformation steering committee of the University of Michigan Transportation Research Institute, where she again brings to bear her expertise in regional design on the issues of transportation innovation.

External Reviewers:

Reviewer A: "I would place her in the top 5th percentile of those working in the field with a comparable background... Her work has been recognized by the most distinguished national and international institutions, and scholars and practitioners within her field, as is evidenced by the number and range of invited lectures and conference papers, presentations, research grants, exhibitions, and awards and honors received by her and her firm for its innovations in architectural thought and design."

Reviewer B: "...Prof. Velikov's continuing design research in responsive architectural skins has required interdisciplinary teams, equipment, funds and laboratory space. She has been successful in securing all four and this should be recognized as an accomplishment in itself... The quality, quantity, focus and impact of her scholarly, research and creative work is marked by outstanding accomplishments and her future plans show how this research will continue to grow and deepen."

Reviewer C: "The level of research outcome is significant... She has an impressive quantity and source/affiliated journals and as a designer her design work has been validated by recognition with multiple design awards. She has secured a sturdy caliber of source, external grant funding to financially validate the vein of inquiry."

Reviewer D: "With three co-edited books (one forthcoming), nine book chapters, and seven refereed journal articles, Professor Velikov's scholarly production would fall in the top ten percent of her architecture peers. In terms of originality, she is among the top junior architecture faculty that I have reviewed."

Reviewer E: "I think that Professor Kathy Velikov is a dynamic and very engaged, committed researcher... The landscape of architectural research and practice is clearly changing, and Kathy Velikov is part of the leading edge of that change."

Summary of Recommendation:

Professor Velikov is an accomplished researcher and scholar who has made significant contributions to the field of sustainable design. She is also an enthusiastic and student-centered instructor and an active contributor providing valuable service to the college, university and profession. It is with the support of the Taubman College Promotion and Tenure Committee and the Executive Committee that I recommend Kathy Velikov for promotion to associate professor of architecture, with tenure, A. Alfred Taubman College of Architecture and Urban Planning.

Monica Ponce de Leon

Dean and Eliel Saarinen Collegiate Professor of Architecture and Urban Planning A. Alfred Taubman College of Architecture and Urban Planning

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