2012 PROGRESS REPORT
Publicly Engaged Research, Education and Outreach at UMore Park

Office for UMore Park
Academic Initiatives

University of Minnesota
Driven to Discover℠
What is the value of a new idea? A design, an application, a reorientation of an old problem that can lead to a new solution? Students, faculty and staff members are exploring ideas that can benefit UMore Park, in classrooms, in studios, in the field and in partnership with community organizations. These academic opportunities and community partnerships have related to planning, architectural design, health and wellness, communications and marketing, environmental law, multifamily housing, ecosystem resources, retail opportunities, renewable energy, and many other areas. Importantly, all of these interrelated pursuits underscore the contributions that can evolve from interdisciplinary work and the context of sustainability. The ideas address the complex issues that face policy makers, public and private sector leaders, communities and families. The creative solutions generated by students and faculty benefit both the UMore Park project and sustainable development more broadly.

The University’s 5,000-acre UMore Park property in Dakota County and the long-term vision for the development of a sustainable community has created a place-based frame for real-time, real-world interdisciplinary experiences and opportunities. The concept of place is the unifying theme that draws the interdisciplinary strengths of the University to innovate. The glacial landscape, the citizens and the economy can reap value from new knowledge in geography, history, cultural studies, and art and design as well as engineering, ecology, public health, biosciences, law and more.

Even before the time that the Office for UMore Park Academic Initiatives was established in 2010 and the first meeting of the UMore Park Academic Mission Advisory Board in 2009, faculty, students and staff members were actively contributing to UMore Park through publicly engaged research, education and outreach. More than 100 faculty, students, staff members and external contributors in 2007 participated in six task forces that addressed academic opportunities for UMore Park in the areas of education, energy, environment, health, transportation and interdisciplinary opportunities that included arts, culture, social fabric and technology. The work of the task forces was also the basis for the initial set of listening sessions that engaged local citizens. Students, faculty and staff have continued to participate in subsequent public forums that have captured the perspectives, hopes and concerns of members of the community.

To date, 122 undergraduate students and 65 graduate students have contributed new knowledge that is relevant to the goals for UMore Park – and for sustainable community development in general. Students have made their contributions through capstone courses, internships, public education, class projects and special research studies.

In the pages that follow, we chronicle the origins of the academic foundation of the
UMore Park project and the partnerships, events and reports that have enhanced our work. Most important, we provide a brief glance at the research and learning that has enriched planning at UMore Park. All who have participated have unique stories to tell.

The development of the UMore Park property is a long-term endeavor – 30 years and more. The academic accomplishments along the way will weave through phases of planning and development to ensure innovation, quality and opportunities for all, within the University and in the community.

What follows is a preview of the future.

Carla Carlson
Executive Director
Office for UMore Park Academic Initiatives
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UMORE PARK: THE UNIVERSITY’S VISION

The University of Minnesota Outreach, Research and Education (UMore) Park is a 5,000-acre property owned by the University. Located 25 miles southeast of the Twin Cities in Dakota County, it is among the largest contiguous properties in the United States to be owned by a land-grant university.

In 2006, the University’s Board of Regents affirmed a vision for UMore Park: to use the property to build an innovative, sustainable community of 20,000 to 30,000 people, to be developed over 25 to 30 years.

Planning and development for UMore Park have been founded on the University’s academic mission – research, education and outreach, with a specific focus on how University-based innovations -- in areas such as renewable energy, education and lifelong learning, environmental quality, transportation, arts and culture, technology, housing, health and wellness, and other University strengths – can enhance the community, and contribute positive environmental, socio-cultural and economic opportunities for the region.

LOCATION

UMore Park is located in the center of Dakota County. The northern two-thirds of the property lies within the City of Rosemount; the southern third is within Empire Township. The property is equidistant from downtown Minneapolis and Saint Paul, and within 20 minutes of the Minneapolis-St. Paul International Airport.

Dakota County is one of the fastest growing counties in the state; the county’s population is projected to grow from more than 371,000 to nearly 510,000 by 2030.
A concept master plan for the property, which was affirmed by the Board of Regents in December 2008, envisions:

- Neighborhoods blending mixed-use commercial and retail amenities
- 1,000-acres of open space for parks, trails, play fields and community gardens
- An eco-industrial park to locate R&D-based companies
- An office and wellness complex incorporating professional offices and health and wellness facilities
- Single family and multi-family dwellings accommodating 20,000 to 30,000 residents

The Office for UMore Park Academic Initiatives was established to ensure that University research, teaching and learning, and outreach are seamlessly integrated into planning and development in ways that add value to the property and enrich the community.
THE OFFICE FOR UMORE PARK ACADEMIC INITIATIVES

The Office for UMore Park Academic Initiatives was established in 2010 as the conduit for infusing the University’s academic resources and expertise into the planning and development of the property to:

1) create research and education opportunities for faculty, students and staff members,
2) enhance the value of the property; and
3) benefit the regional economy and quality of life for citizens.

The Office is a complement to the UMore Park Development Limited Liability Company (LLC), the entity responsible for managing the real estate and business development for UMore Park.

Academic Mission Advisory Board

In the fall of 2008, an Academic Mission Advisory Board was created to support the integration of the academic mission into planning and development efforts. The board’s role is to identify opportunities and further the integration of publicly engaged University research, education and outreach into plans for the UMore Park property. The membership represents the range of interests and expertise across the colleges, coordinate campuses, interdisciplinary centers, and outreach and public engagement programs. The Board is committed to supporting the University’s goals for diversity and multiculturalism. Current members of the Academic Mission Advisory Board are listed on page 17.

Goals

The work of the Office for UMore Park Academic Initiatives is guided by these goals:

• Create awareness within the University community for the research and education opportunities that exist for faculty members, students and staff members during all phases of planning and development at UMore Park.
• Support the creativity of faculty research and discovery that pursues unanswered questions and creates new knowledge, through both disciplinary and interdisciplinary research.
• Optimize opportunities to foster student projects, new curricula and models for experiential learning that contribute to learning opportunities for students during planning and development and in the community setting.
• Encourage research collaborations and partnerships that extend into the private and nonprofit sectors as well as across University departments and campuses – and the community and region.
• Engage citizens and surrounding communities in discussions of potential research contributions and the creation of opportunities for research and education that bring innovation and distinctiveness to the new community and the region.
• Coordinate the process for research and education endeavors to best facilitate faculty, student and community interactions around research projects and teaching and learning experiences.
• Ensure that engaged research, education and outreach enhance planning and development and dovetail with real estate development time lines and the dictates of the market.

Guiding Principles
The Academic Mission Advisory Board and the Office for UMore Park Academic Initiatives follow overarching principles to ensure the UMore Park community is rooted in the University’s academic mission and to maximize the benefits for the community and the University, students and faculty. These seven principles are:
1. Advance the mission of the University.
2. Contribute to the long-term success of the project.
3. Engage and promote community involvement.
4. Promote environmental, social and economic sustainability.
5. Ensure that projects are relevant, addressing major issues of the day.
6. Advance and steward new knowledge.
7. Institutionalize UMore Park as a unique platform for community-engaged research, teaching and outreach.

Coordination of Academic Mission Activities
The Office for UMore Park Academic Initiatives works in conjunction with Office of the Senior Vice President for Academic Administration, University of Minnesota System. Onsite research locations include those coordinated by the Rosemount Research and Outreach Center. The Rosemount Research and Outreach Center has for decades coordinated agricultural and natural resource-based research projects on the property.
THE FOUNDATION OF ACADEMIC STRENGTHS

Even before the Office for UMore Park Academic Initiatives was established in July 2010, the University’s engaged research, education and outreach have been integrated into planning and pre-development activities of the UMore Park property. The genesis of the vision for a sustainable community and key milestones include:

2006

- **Regents’ principles.** The Board of Regents provided eight principles for the development of UMore Park, including advancement of the “research, education, and engagement mission,” February 2006.
- **Strategic planning.** Multiple discussions and examples of research, teaching and learning, and outreach informed the strategic planning process, reported in *UMore Park Strategic Plan*, issued by Sasaki Associates, October 2006.
- **The vision for the property.** The report *Creating the Vision: The Future of UMore Park* outlined potential uses of the land and recommended the development of a sustainable community based on the University’s academic mission, November 2006.
- **Regents’ directive.** The Board of Regents directed the University administration to make the land ready for development, to prepare a concept master plan, and to maintain the land as an intact parcel in ways that support the research, teaching and outreach mission, December 2006.

2007

- **Academic mission task forces.** Six University task forces, formed around the topics of education, energy, the environment, health, transportation and interdisciplinary opportunities, explored ways that engaged research, education and outreach could add value to the new community at UMore Park. The task forces involved University faculty and students with a wide range of expertise and interests, and from a cross section of colleges, interdisciplinary centers, public engagement programs and other areas of the University, May 2007 – December 2007.
- **Community listening sessions.** Six listening sessions drew more than 450 people from the local communities to discuss education, energy, environment, health, interdisciplinary initiatives, and transportation while faculty and students listened and captured public input, September 2007.
- **University campus forums.** Students, faculty and staff members discussed the academic task force topics, contributed ideas and recommended ways that the University can be involved over time, November 2007.
- **Concept master planning.** The Design Workshop, Inc., team used the academic and community recommendations to inform the planning process (*Concept Master Plan*, p. 16-18), November 2007.
2008

- **Foundational publication.** The 128-page report *Distinctiveness through Academic Mission* recorded the work of the task forces and the comments that community members offered during the listening sessions, March 2008.

- **University and community forums.** Students, faculty and staff members participated in on-campus discussions of the four concept master plan scenarios while similar discussions were being held in the region as the UMore Park team and consultants refined elements to achieve a final concept master plan, June 2008.

- **Academic Mission Advisory Board.** As a result of the work of the academic mission task forces, the UMore Park Academic Mission Advisory Board was established. Composed of students, faculty and staff members, the Board provides advice and guides strategies to bring the breadth of University expertise and potential to planning and development, November 2008.

- **Concept master plan.** The plan, including the baseline of academic elements, was approved by the Board of Regents, December 2008.

2009

- **Focus on students, faculty engagement.** Three committees convened under the auspices of the UMore Park Academic Mission Advisory Board to address (1) guiding principles for research, education and outreach, (2) faculty incentives and rewards, and (3) student opportunities. *Integrating Academic Mission into Planning and Development of the UMore Park Property: Opportunities for Faculty, Students and Staff Members* was distributed broadly across University units, with promotional efforts that engaged student organizations, classes and departmental faculty in exploring opportunities at UMore Park, November 2009.

2010

- **Office for UMore Park Academic Initiatives is established.** The Office for UMore Park Academic Initiatives was created as a complement to the UMore Park Development Limited Liability Company (LLC), the entity responsible for managing the real estate and business development for UMore Park, July 2010.
SUSTAINABILITY: A HALLMARK OF UMORE PARK PLANNING

Sustainability underpins the vision for a new community at UMore Park. A shared understanding of sustainability within the community and among partners can lead to enhanced lifestyles, a strong community fabric, reduced energy costs, local wealth creation and a lighter environmental footprint.

In the November 2006 report “Creating the Vision: The Future of UMore Park,” sustainability at UMore Park was defined as “integrating environmental, socio-cultural and economic opportunities with a specific focus on innovation in health and wellness, renewable energy, and education and lifelong learning through sustainable design and programs.”

The Office for UMore Park Academic Initiatives and the UMore Park team have fostered research, education and outreach around 10 sustainability principles to help inform UMore Park’s goal of economic, environmental and social sustainability.

The 10 One Planet Principles

1. Zero Carbon
2. Zero Waste
3. Sustainable Transport
4. Sustainable Materials
5. Local & Sustainable Food
6. Sustainable Water
7. Land Use & Wildlife
8. Culture & Heritage
9. Equity & Local Economy
10. Health and Happiness

Courtesy of BioRegional
www.bioregional.com
University faculty and students have been active participants in a UMore Development LLC-hosted outreach effort to explore potential goals and actions for sustainability. International nonprofit *BioRegional* assisted the UMore Park team and its public and private sector colleagues to identify aspirational goals for sustainability at UMore Park. This planning process included a facilitated two-day workshop in April 2011 to discuss sustainability goals and best practices. Participants were from local units of government, state and federal agencies, private sector and nonprofit organizations, citizens, and the University of Minnesota.

Following the workshop, more than 150 citizens attended a public forum to share their ideas and input to hone the goals and opportunities for the future community – and to support local jurisdictions and other organizations as they, too, explore sustainable steps that can reduce costs and support the health, safety and comfort of citizens. Participants explored aspects of sustainability including health, community culture, job creation and economic development, transportation, renewable energy, the environment, and other areas.

Individuals who participated in the two-day workshop volunteered their time, insights and expertise to capture ideas from the workshop discussion and assist in transforming them into sustainability reports. Using the outline offered by *BioRegional*, these publications address 10 broad areas of sustainability: zero carbon, zero waste, sustainable transport, sustainable materials, local and sustainable food, sustainable water, land use and wildlife, culture and community, equity and local economy, and health and happiness.

The aspirational goals for sustainability that were identified through the engaged community process provide a real-life framework for possible research, education and outreach around the topic of sustainability. In addition, University coursework and faculty and student projects are helping to further inform the sustainability goals.
FACULTY AND STUDENT CONTRIBUTIONS

UMore Park has been a component of a wide range of coursework, student internships, special projects and faculty research. Selected student and faculty reports can be found online at www.umorepark.umn.edu.

Design for Living

• **Architectural design studio class.** An undergraduate class of 18 students developed neighborhood concepts and residential building designs, based on the concept master plan for the sustainable community at UMore Park, Fall 2009. *Instructor: Lucas Alm, School of Architecture, College of Design*

• **Affordable housing internship.** One undergraduate intern through the Department of Design, Housing and Apparel focused on affordable housing financing programs and models for maintaining affordability over time, Summer 2010. *Adviser: Marilyn Bruin, Department of Design, Housing and Apparel*

• **Computer applications in land use planning class.** Graduate students in the Humphrey School of Public Affairs explored scenarios for future development at UMore Park. The class provided students with hands-on experience with software used to simulate models for land use planning and design of neighborhoods, cities and regions, Spring 2011. *Instructor: Richard Bolan, Humphrey School of Public Affairs*

• **Information design class projects.** Graduate students in the Writing Studies Program of the College of Liberal Arts analyzed how information design best

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RESEARCH, EDUCATION AND PUBLIC ENGAGEMENT AT UMORGE PARK: EOLOS WIND ENERGY RESEARCH STATION

*Principal Investigator:* Fotis Sotiropoulos, James L. Record Professor and Director, St. Anthony Falls Laboratory, College of Science and Engineering

The University of Minnesota is conducting nationally funded research on wind energy, supported by a $7.9 million U.S. Department of Energy (DOE) wind energy research grant. The project included siting of a single 2.5 megawatt wind turbine and meteorological tower on the eastern edge of the UMore Park property. The DOE funding supports Eolos, a University of Minnesota-led wind energy research consortium team, for research and education activities that contribute to the DOE’s goal to increase the wind power contribution to the U.S. electricity supply from approximately 2% to 20% by 2030. The Eolos Wind Research Station at UMore Park was built in 2011 and commissioned in October of that year.

The DOE-supported project includes research, testing and field-scale demonstration of cutting-edge turbine technologies to reduce the cost of wind energy through increased reliability, more durable component parts and more efficient operations. Areas of research include:

- Increasing wind turbine energy output
- Improving aerodynamic performance and reducing noise
practices can enhance UMore Park communications to University faculty and students about opportunities for research, education and public engagement through UMore Park planning and development, Spring 2011. *Instructor, Ann Hill Duin, Department of Writing Studies*

- **Promoting community independence class.** Undergraduate students in the Department of Design, Housing and Apparel in the College of Design explored housing and community designs and strategies to meet the needs of specific populations including older adults and individuals with disabilities. The goal was to create accessible communities for lifelong living. Outcomes included strategies for universal design, assistive technologies, community layout and pathways, among others, Fall 2011. *Instructor: Marilyn Bruin, Department of Design, Housing and Apparel*

- **Sustainable building materials class.** Students investigated material developments that have the greatest promise to affect positive change and conducted research on several prominent local material resources to optimize cradle-to-cradle resource utilization, primarily related to building construction, Spring 2012. *Instructor: Blaine Brownell, College of Design*

- **Creating ecosystems of well-being class.** Students examined factors and ecosystems that contribute to health, happiness and well-being and develop a community plan for well-being for the future UMore Park community. The plan would strive for attaining goals for healthiest community in the country by focusing on information, practices, and tools that enable communities to build capacity for well-being, Spring 2012. *Instructors: Dylan Skybrook and Kate Hathaway, Center for Spirituality and Healing*

- Mitigating ice accumulation on wind turbine blades
- Minimizing impact of wind farms on Federal Aviation Administration (FAA) and weather radars
- Developing multi-scale modeling for wind farm siting

Eolos is also developing educational opportunities for graduate and undergraduate students and joining with other DOE efforts to develop the next generation of engineers and scientists in renewable energy. In addition to developing new curricula, Eolos is providing new opportunities to undergraduate student groups such as Innovative Engineers, and is exploring opportunities to support Science, Technology, Engineering and Mathematics (STEM) programming within primary education for K-12 and post-secondary education.

Consortium partners include the University of Minnesota, Twin Cities; Syracuse University, Dakota County Technical College, Clipper Windpower, Barr Engineering, Lockheed Martin, 3M and WindLogics. The University’s Initiative for Renewable Energy and the Environment (IREE) provided early-stage research funding to support consortium collaborations.
• **Housing development and management class.** Undergraduate students developed proposals for multifamily housing developments for specific neighborhoods in UMore Park. Students conducted a needs assessment to identify the target market, housing tenure, type, and style. They also developed a proposed financial and management plan, Spring 2012. *Instructor: Marilyn Bruin, Department of Design, Housing and Apparel, College of Design*

• **Sustainability planning Capstone.** Graduate students in the Humphrey School developed a detailed guidance document that outlines programs, policies, implementation strategies and regulatory language that might be used to implement UMore Park sustainability goals. The work focused on energy, water resources, stormwater management, solid waste, eco-industrial and economic development, and land use and the environment, in conjunction with the City of Rosemount, Spring 2012. *Instructor: Mike Greco, Humphrey School of Public Affairs*

• **Creating Sustainable, Resilient and Intelligent Communities: Focus UMore Park.** Graduate and undergraduate students researched sustainable community precedents, identifying sustainable design patterns and innovative development approaches as well as marketing and legal strategies, Summer 2012. *Instructors: John Carmody, Dan Handeen, and Rich Strong, Center for Sustainable Building Research; Peter MacDonagh, Kestrel Design Group.*

**Energy**

• **Energy-saving technologies internship.** A summer intern from the College of Design focused on energy-saving technologies utilized in affordable housing construction and highlights of related consumer education programs, Summer 2010. *Adviser: Becky Yust, Department of Design, Housing and Apparel, College of Design*

• **Renewable energy internship.** A summer intern from the College of Science and Engineering focused on new renewable energy technologies and energy conservation products that are market-ready and being incorporated into homes and commercial buildings. The information addressed approaches and best practices that could be incorporated into planning, Summer 2010. *Adviser: Randal Barnes, Department of Civil Engineering*

• **Smart grid capstone project.** The Office for UMore Park Academic Initiatives collaborated with the director of the Technological Leadership Institute to seek competitive proposals for a smart grid analysis for UMore Park. A team of four Master of Technology mid-career students conducted financial and implementation analyses, Fall 2010-Spring 2011. *Adviser: Massoud Amin, Technological Leadership Institute*

• **Ground-source heating and cooling.** A team of four Masters of Business Administration students in the Carlson School of Management explored business development opportunities at UMore Park for the implementation of ground-source heating and cooling technology, Spring 2011. *Adviser: Connie Rutledge, Carlson Ventures Enterprise and Leza Beemann, Office of Technology Commercialization*
• **Energy-efficient strategies for affordable housing.** Through the Carlson Ventures Enterprise program, a team of four Masters of Business Administration students researched trends and best practices for incentivizing the integration of energy-efficient affordable housing into the planning and development of UMore Park, Spring 2011. *Adviser: Connie Rutledge, Carlson Ventures Enterprise*

• **Energy and indoor environmental quality class.** Students focused on energy and indoor environmental quality issues that are key to a sustainable approach to architecture. Independent research projects offered hands-on opportunities to investigate prototype building design, Spring 2012. *Instructor: Jay Johnson, College of Design*

**Environmental**

• **Groundwater monitoring and modeling.** Graduate students in the Department of Geology and Geophysics collected and monitored data on groundwater at UMore Park, including temperature, elevation, flow and recharge. The work complemented the sand and gravel Environmental Impact Statement process, April 2009 through Spring 2011. *Adviser: Calvin Alexander, Department of Earth Sciences, College of Science and Engineering*

• **Promoting healthy eating and local foods.** A team of Masters of Business Administration students in the Carlson School of Management explored the opportunity to establish community and research and demonstration gardens for vegetable and fruit crops as a way of contributing to healthy lifestyles and bringing an early focus to sustainability goals. The work emphasized regional distribution systems, Fall 2011. *Adviser: Connie Rutledge, Carlson Ventures Enterprise, Carlson School of Management*

• **Observing animal behavior course.** Undergraduate students in the Biology Program at Augsburg College explored animal behavior and research methods in a course that included field-based observation of animals at Vermillion Highlands using infrared photography to capture animal movement, Fall 2011. *Instructor: Kevin Potts, Department of Biology, Augsburg College*

• **Environmental law capstone.** Law students analyzed UMore Park as part of their study of the law relating to brownfields properties, Spring 2012. *Instructor: Alexandra Klass, Law School*

**Faculty Research**

• **Design performance standards research.** Researchers from the University's College of Design explored the impacts for housing and community design of integrated energy and water systems to achieve sustainability goals for the future community at UMore Park. The project included recommendations for an integrated district-scale heating and cooling, potable water and wastewater system as a highly efficient, cost-effective solution for phased development, Spring 2010. *Authors: John Carmody, Center for Sustainable Building Research and Louise Goldberg, Department of Bioproducts and Biosystems Engineering*
• **Supporting smart grid research.** The UMore Park team collaborated with an interdisciplinary team to prepare a proposal to the U.S. Department of Energy for smart grid research. Using UMore Park as a demonstration site, the proposed research would have modeled, designed and developed a reconfigurable smart distribution management system to support smart grid functionality, June 2010. *Principal Investigator: Massoud Amin, Technological Leadership Institute*

• **Passive House technology.** Researchers in the Center for Sustainable Building Research explored innovative approaches for high performance housing. The report examined examples of advanced energy efficient construction, specifically the principles of the Passive House approach to construction, Fall 2011. *Authors: John Carmody and Dan Handeen, Center for Sustainable Building Research*
PARTNERSHIPS FOR SUCCESS

UMore Park, a unique place-based University project, offers innumerable ways to work collaboratively within the University community and in partnership with the diverse community in the Dakota County region. Importantly, UMore Park provides a foundation for faculty, students and staff to work side-by-side with community-based organizations – to share expertise while exploring issues and developing new approaches to community issues. University-community partnerships have been fostered through mutual interests, especially in the interdisciplinary intersections among energy, environment, education, health and wellness, arts and culture, transportation, design, technology and other areas.

The UMore Park annual distinguished interdisciplinary lecture, conferences, public forums, research grant programs and other activities have benefitted from the interactive partnerships with and support from the Center for Spirituality and Healing; the Center for STEM Education; the Center for Sustainable Building Research; the Center for Transportation Studies; the Center for Urban and Regional Affairs; the College of Design; the College of Food, Agricultural, and Natural Resource Sciences; the College of Science and Engineering; the Eolos Wind Energy Research Consortium; Global Programs and Strategy Alliance; the Healthy Foods, Healthy Lives program; the Humphrey School of Public Affairs; Innovative Engineers; the Institute on the Environment; the Office for Public Engagement; the School of Public Health; and the overarching sustainability focuses of the University’s Sustainability and U activities; among others.

The creativity and intellectual contributions of University faculty, students and staff members have blended in a variety of ways with the expertise of key community partners. The relationships that have developed create shared goals and responsibilities, and will continue to foster sustainable social, economic and environmental opportunities in the region. Key partners include the City of Rosemount; Dakota County; Dakota County Technical College; Empire Township; Independent School District 196, the Rosemount-Apple Valley-Eagan Public Schools; the Minnesota Department of Natural Resources; and many other public and private organizations and citizens groups.

The following illustrate the significant activities and events that have helped to foster publicly engaged research, education and outreach in conjunction with local, national and international partners:

- **Engaged department grant.** The UMore Park team collaborated with the University’s Office of Public Engagement to support a faculty team of eight in the Department of Design, Housing and Apparel that focused on housing needs at UMore Park, the incorporation of retail into the development, and
community identity. Work included teaching, research, collaboration with local organizations, citizen focus groups and case studies, January 2010.

- **Community of Scholars proposal.** The UMore Park Academic Mission Advisory Board and its ad hoc committee crafted a strategy for integrating interdisciplinary scholarship that leverages opportunities for faculty, graduate students and undergraduates in community. The proposal was completed in May 2010.

- **American Association for the Advancement of Science symposium on UMore Park.** A symposium on sustainable master-planned communities under the international annual meeting theme ‘bridging science and society’ focused on UMore Park. Speakers: C. Carlson (organizer), University of Minnesota; F. Merrill, Sasaki Associates, Inc.; R. Borchelt, U.S. Department of Agriculture and National Association of Science Writers, February 2010.

- **Enhancing the UROP program.** The Undergraduate Research Opportunities Program Office (UROP) initially partnered with the Office for UMore Park Academic Initiatives in June 2010 to promote UMore Park as a unique hands-on research experience for students and faculty mentors, with the goal of engaging more new mentors and increasing participation overall in the UROP program, ongoing.

- **Renewable energy public forum.** A community forum in Rosemount focused on renewable energy research and education opportunities, and specifically aspects of the wind turbine research project that relates to public-private partnerships, education opportunities in collaboration with the local school district and Dakota County Technical College, and innovation that can bring recognition to the community and region, July 2010.

- **K-12 partnerships.** Partnership discussions with local independent school district 196 were launched. Projects and opportunities include a focus on STEM (science, technology, engineering and math), renewable energy, sustainability and formats that include summer programming and University faculty and student participation in the classroom, September 2010 and ongoing.

- **Distinguished interdisciplinary lecture.** The Office for UMore Park Academic Initiatives featured internationally noted architect and German “grandfather of green” Joachim Eble of Joachim Eble-Architektur, Tübingen, Germany, as the first UMore Park Distinguished Interdisciplinary Lecturer. Eble also engaged with faculty and students in seminars and discussion groups on sustainable community design. Nine University units joined with the Office to co-sponsor the event, September 2010.

- **Public forum on sustainability goals for UMore Park.** A community forum in Rosemount highlighted facets of sustainability including health, community culture, job creation and economic development, transportation, renewable energy, the environment, and other areas, for the future community at UMore Park. More than 150 citizens attended to learn more and share their ideas on what makes a community sustainable, April 2011.
• **National ratings for sustainability in higher education.** Publicly engaged research, education and outreach at UMore Park provided the “innovation credit” for unique initiatives and programs that helped the University Twin Cities campus achieve its Silver Rating from the Association for the Advancement of Sustainability in Higher Education. The Association maintains a sustainability tracking and reporting system as a common metric for sustainability in higher education, August 2011.

• **2nd Annual distinguished interdisciplinary lecture.** Internationally renowned sculptor, artist and landscape architect Herbert Dreiseitl, founder of Atelier Dreiseitl in Ueberlingen, Germany addressed students, faculty, staff and community members on the topic “Sustainable Waterscapes and Livable Cities,” as the UMore Park 2nd annual distinguished lecturer, September 2011.

• **Wind turbine commissioning.** The Eolos Wind Energy Research Consortium team and UMore Park hosted the U.S. Department of Energy commissioning of the Eolos Wind Research Station at UMore Park following construction of a 2.5 megawatt Clipper wind turbine and meteorological tower for research and education. More than 200 community members, including local school children and youth participated, October 2011.

• **Conference on Renewable Energy.** UMore Park was one of the University sponsors of E3 2011: The Latest in Renewable Energy Generation, a conference hosted by the University’s Institute on the Environment, November 2011.

• **Institute on the Environment grant award.** The Office for UMore Park Academic Initiatives and the St. Anthony Falls Laboratory received a grant award from the Institute on the Environment to convene a UMore Park Energy Roundtable that brings an interdisciplinary group of faculty, staff, students and individuals from other public and private sector entities to define synergistic research and education strategies that can strive to address energy systems and related systems including infrastructure and water. The Roundtable is tentatively scheduled for Fall 2012.

In addition, invited presentations and discussion sessions on UMore Park have been hosted by a diverse group of organizations that includes the American Swedish Institute, Independent School District 196, the American Institute of Architects-Minnesota, the Midwestern Higher Education Compact, the Minnesota Center for Mineral Resource Education, the Minnesota Gerontological Society, the Minnesota Ground Water Association, the Rosemount Rotary Club, chapters of the University of Minnesota Alumni Association, the Urban Land Institute-Minnesota and others.
UMORE PARK ACADEMIC MISSION ADVISORY BOARD

The Office for UMore Park Academic Initiatives benefits from the intellectual contributions and suggestions for innovation in publicly engaged research, education and outreach from the Academic Mission Advisory Board.

UMore Park Academic Mission Advisory Board
*Indicates founding members who have completed terms of service

Allen Levine, Chair, Dean, College of Food, Agricultural and Natural Resource Sciences
*John Adams, Professor Emeritus of Geography, College of Liberal Arts (through June 2011)
Noro Andriamanalina, Director of Academic and Professional Development, Office for Equity and Diversity and the Graduate School
Rebecca Brown, Graduate student, Urban and Regional Planning, Humphrey School of Public Affairs
Marilyn Bruin, Associate Professor of Housing Studies, College of Design
Steven B. Carnes, Office for Student Affairs
Christina Frazier, Assistant Director, Office of Planning and Analysis (through March 2012)
Patricia Frazier, Distinguished McKnight University Professor of Psychology
Andrew Furco, Associate Vice President for Public Engagement, Office of the Senior Vice President for System Academic Administration
Carolyn Garcia, Assistant Professor, School of Nursing
Michael Greco, Program Coordinator, Community Growth Options, Center for Urban and Regional Affairs
*Ann Hill Duin, Associate Vice President and Associate CIO, Office of Information Technology (through June 2011)
*Arthur Huang, graduate student in Civil Engineering, Institute of Technology (through June 2011)
Alexandra Klass, Professor of Law, Associate Dean for Academic Affairs, and Solly Robins Distinguished Research Fellow, Law School
Mary Jo Kreitzer, Director of the Center for Spirituality and Healing, and Professor, School of Nursing
*Krysti Kremers, graduate student in Educational Policy and Administration, College of Education and Human Development (through June 2011)
Kristen Mastel, Outreach and Instructional Librarian, University Libraries
*Meredith McQuaid, Associate Vice President and Dean, Global Programs and Strategy Alliance (through June 2011)
*Laura Molgaard, Associate Dean for Academic and Student Affairs, College of Veterinary Medicine (through June 2011)
Scott Morton, Undergraduate student, Mechanical Engineering, College of Science and Engineering
*Ed Nater, Professor, Department of Soil, Water, and Climate, College of Food, Agricultural and Natural Resource Sciences (through June 2011)

*Thomas Norman, Senior Director for Research, Innovation and Outreach, College of Education and Human Development (through June 2011)

Sheila Riggs, Director, Office for Healthcare Transformation, Academic Health Center and Chair, Department of Primary Care, School of Dentistry

Bob Sterner, Professor, College of Ecology, Evolution and Behavior

Richard Strong, Senior Research Fellow, Center for Sustainable Building Research, and Adjunct Professor, College of Design

Peggy Sundermeyer, Executive Director of Research Advancement, Office for the Vice President of Research

Dan Svedarsky, Director, Center for Sustainability, University of Minnesota - Crookston, and Research Biologist, NW Research and Outreach Center

Deborah Swackhamer, Professor of Environmental Health Sciences, School of Public Health, Co-Director of the Water Resources Center, and Charles M. Denny, Jr. Chair for Science Technology and Public Policy, Humphrey Institute of Public Affairs

Bill Toscano, Professor and Division Head, Environmental Health Sciences, School of Public Health

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