Distinctiveness through Academic Mission

The Vision for a University-Founded Community
at the University of Minnesota
Outreach, Research and Education Park

UMore Park Planning and Development
University of Minnesota

March 2008

UNIVERSITY OF MINNESOTA
Driven to Discover ℠

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Reports of the Academic Mission Task Forces
on Adding Value through University Research, Education and Public Engagement

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PREFACE

A vision comes to life only through the commitment, creativity and actions of many. Vision turns to reality when people are involved – those with enthusiasm, those who raise questions and those who challenge paradigms, old and new.

The vision to build a University-founded community of 20,000 to 30,000 people at the University of Minnesota Outreach, Research and Education (UMore) Park, a 25- to 30-year endeavor, evolved from a strategic planning process that commenced in Fall 2005. Consistent with the mission of this land grant university, the state's sole public research institution, it was essential to draw upon the expertise of the academy and the broader public to help shape the potential for the vision.

Nearly 100 members of the University community served on the six task forces that explored ways that University research, education and public engagement could add value to the envisioned community. More than 450 members of the public and additional University faculty, students and staff members participated in public sessions that additionally identified opportunities and challenges.

The academic mission goal for the task forces, which were launched in May 2007, was:

> *To anchor the University of Minnesota's new, sustainable community on the UMore Park property in the University's land grant mission of research, education and public engagement, imbuing it with the spirit of discovery, the rewards of knowledge for daily life and the opportunity to share commitments and talents in a place that meets the needs of tomorrow and the future.*

This volume represents the initial responses and refinements to the vision for a University-founded community that was articulated in the November 2006 publication *Creating the Vision: The Future of UMore Park.* It is a valuable record of emerging ideas that will be revised and enhanced over time. It follows from the December 2006 University of Minnesota Board of Regents resolution that directed the University administration to prepare a concept master plan for this University-owned 5,000-acre parcel of land in Dakota Country.

The volume opens with an introduction that provides a brief history of the UMore Park development activity to date. An executive report on academic mission, which is a synthesis of recommendations and principles from the six task force reports, follows. Specific ideas and principles are featured in the task force reports on interdisciplinary opportunities, education, energy, environment, health, and transportation. Appendices include the compilation of public comments from six public listening sessions that were held in the City of Rosemount, adjacent to the UMore Park property, in September 2007. Also included are comments offered during two campus forums in November 2007.

The principles described in the reports can help set the framework for the planning and development of the proposed community at UMore Park. They provide ideas that can be tested against the realities of the marketplace and the sense of place that people hold dear as they seek home and community for themselves and their families. Ultimately, this and subsequent reports and analyses will better inform the University Administration and the Board of Regents for decision making about the future of its unique 5,000-acre asset.

The contributions from the academy and the public put forth here are only the beginning. Good ideas are never in short supply; it is the University's responsibility to pursue them. We will continue to benefit from even broader public input processes and engagement of faculty, students and staff in order to ensure a unique and lasting University legacy of discovery and research-based education that helps to sustain people and communities in the region over the generations.

I am reminded of our collective responsibility in a familiar quote attributed to the 28th president of the United States Woodrow Wilson:

> *You are not here merely to make a living. You are here in order to enable the world to live more amply, with greater vision, with a finer spirit of hope and achievement. You are here to enrich the world, and you impoverish yourself if you forget the errand.*

With the vision for a community that will develop over 25 to 30 years, the University will continuously have the opportunity to foster new partnerships, refresh ideas with new perspectives of students and new community members, and discover unique ways to contribute to economic development and quality of life in the region. All can be enriched.

For their service to this initial exploration of what a University-founded community could be, I thank the members of the academic mission task forces. Names of task force members appear at the conclusion of each report. I especially acknowledge the leadership of the 12 co-chairs who guided deliberations among these six interdisciplinary groups that brought together wide-ranging expertise and world views: John S. Adams, Barbara Brandt, John Carmody, John Finnegan, Bob Johns, Mindy Kurzer, Lee Munnich, Kent Pekel, Lanny Schmidt, Deb Swackhamer, Dewey Thorbeck and Billie Wahlstrom.

I extend special appreciation to Carla Carlson, who directed this invaluable undertaking that has laid the foundation for further engagement of the public and the University community. The work of the task forces was further supported through the contributions of Lorri Chapman, Greg Cuomo, Joyce Johannson, Steven Lott, Deb Miller-Slipek and Emily Swanson.
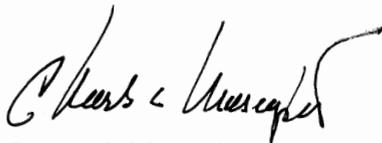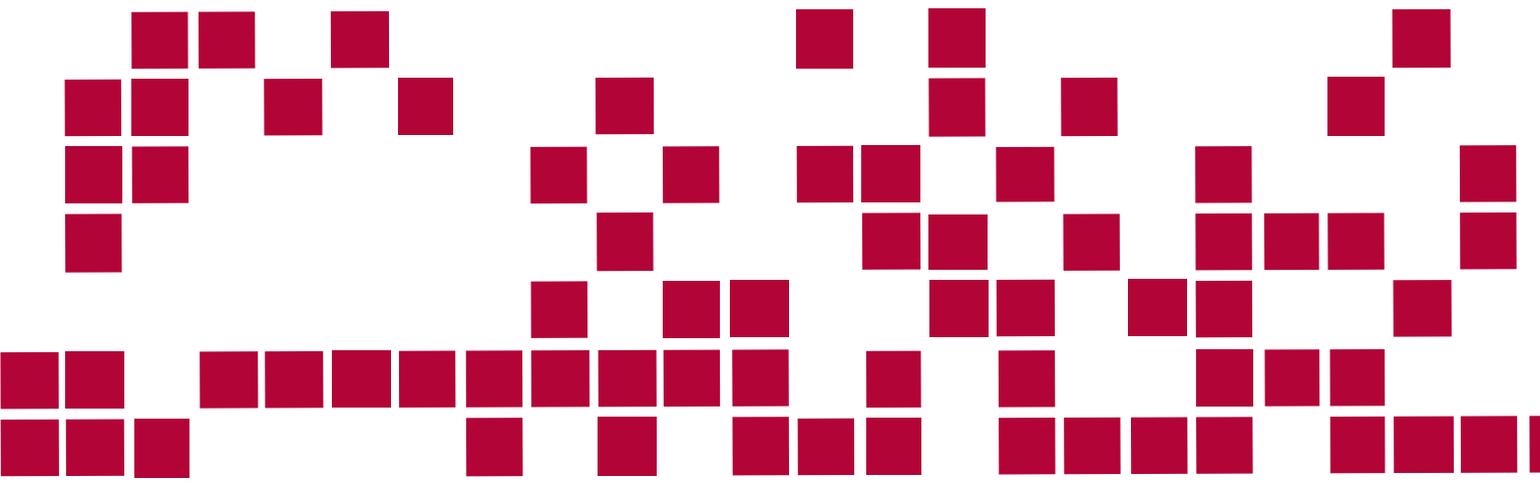
Charles C. Muscoplat
Vice President for Statewide Strategic Resource Development,
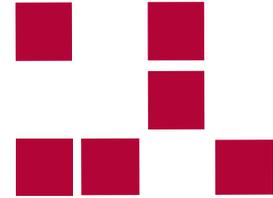and Responsible Officer, UMore Park

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**The Vision for a University-Founded Community
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INTRODUCTION

This volume is about the University of Minnesota's role as the state's sole public research institution. It is also about the future: Stewardship, legacy and the University's goal of becoming one of the top three research universities in the world.

The vision to create a new community on the 5,000-acre University of Minnesota Outreach, Research and Education (UMore) Park property in Dakota County is described in the November 2006 strategic planning report *Creating the Vision: The Future of UMore Park*. The reports contained in this volume focus specifically on ways that University research, education and public engagement – the academic mission – can add unique value and distinctiveness to the envisioned community. The reports were completed by six task forces, through deliberations that occurred between May and December 2007.

The University's stewardship responsibilities include pursuing opportunities to maximize the value of the property and the benefits to citizens through research, education and public engagement. UMore Park offers a unique and unprecedented opportunity for the University to transport its land grant mission into the future. It is an asset that could generate a wealth of academic, intellectual, economic and social bene-fits for the University, the state of Minnesota and the world. With the imprimatur of the University, the new community at UMore Park would be the lasting legacy that is refreshed over the generations through cutting-edge research and discovery.

The Charge

In December 2006 the University of Minnesota's Board of Regents voted unanimously to pursue concept master planning on the University-owned parcel of land in Dakota County known as UMORE Park, with the goal of transforming the property into a unique, vibrant, intellectually and culturally rich, sustainable community with atten-dant amenities. The community ultimately would include residential, retail and industrial areas and significant amounts of green space. Most impor-tant, however, is the goal that the community be notably distinctive through the University's unique imprimatur of education and discovery that brings quality of life to individuals and their families. Hallmarks of the values contributed through the University academic mission include the inte-grated elements of education, health, energy, environment, transportation and interdisciplinary strengths. The community will provide the path-way to:

• A unique and lasting University legacy of discovery and research-based education that

helps to sustain people and communities in the region over the generations;

- A vital regional economy that is characterized by enriched communities, thriving businesses, and educational, social and natural amenities;
- An attractive locale to live in, work in and visit that incorporates University research and education to achieve quality of life, innovation, a sense of place, close connection with the natural environment and sustainability; and
- A growing University endowment that supports the academic mission in perpetuity.

History of the Property

Segments of what is now the UMore Park property were used as a U.S. military plant to produce gunpowder for the Army and the Navy during World War II. When production at the Gopher Ordnance Works began in February 1945, the plant employed nearly 20,000 people who worked in about 800 buildings that had been quickly erected on what was then a rural area.

WWII ended a few short months after the Gopher Ordnance Works opened for production. The plant was immediately disassembled and the federal government deeded the property to the University in 1947-1948 with the stipulation that it would be used for education and research for at least 25 years. Since then, researchers from across the University – aeronautical engineers, medical researchers and agricultural and natural resource scientists, for example – have conducted research at the site. Agricultural research, in particular, is managed through the University's on-site Rosemount Research and Outreach Center.

Recent University Actions

In 2005, President Robert H. Bruininks charged a committee to study and make recommendations on potential further uses of the UMORE Park property. That committee recommended that the University undertake a strategic planning process to identify options for potential uses of the property that were consistent with the University's mission and strategic positioning goals. The

UMore Park Strategic Planning Steering Committee undertook this effort, and obtained the services of the internationally recognized firm Sasaki Associates, Inc., of Boston, to provide additional expertise.

Sasaki Associates, Inc., submitted a report to the Steering Committee entitled, *UMore Park Strategic Plan.* The Steering Committee considered that report and subsequently developed a report and recommendations for the Board of Regents entitled *Creating the Vision: The Future of UMore Park.* In November 2006, the Board of Regents members were briefed on and accepted the strategic plan and recommendations contained in that report. (Both documents and related information on the UMore Park property are available online at www.umorepark.umn.edu.)

At its December 2006 meeting, the Board adopted a resolution (see Appendices) that directed the University administration to undertake the following steps concerning the UMore Park property:

1. Continue to maintain the UMore Park development property as an intact whole parcel and use it in a manner that supports the University's teaching, research and outreach mission while the University plans for the future use of the entire property;
2. Prepare for consideration by the Board of Regents a concept master plan for the entire parcel, and periodically confer with the appropriate local and regional units of government engaged in preparing comprehensive plans regarding the University's master planning effort;
3. Prepare to make the land ready for development, including the following:
   (a) Preparing a plan for the removal of concrete remnants from the former Gopher Ordnance Works buildings;
   (b) Preparing a plan for the extraction of sand and gravel from the site; and
   (c) Taking appropriate steps to secure a site investigation of the property by the U.S. Army Corps of Engineers leading to the development of plans for any necessary environ-

mental remediation related to the Gopher Ordnance Works.

Also noteworthy to this brief background chronology is that in May 2006, the Governor of Minnesota signed into law legislation that provided for the State of Minnesota to acquire 2,822 acres in the southern-most reaches of the University's 7,686 acres of property in 24 years in conjunction with its support for the University's construction of a new Gopher football stadium on the Twin Cities campus. The University and the state's Department of Natural Resources (DNR) jointly oversee use of the parcel – newly named Vermillion Highlands – and assuming no default, the 2,822-acre parcel will come under the ownership of the state in 2032. The land is permanently protected for public use, and the University retains its right to use the land for its research, education and public engagement mission in perpetuity.

Approach to Work Activities

In November 2007, Design Workshop, Inc., based in Aspen, Colorado, was selected to be the University's developer-planner consultant team, and was approved in early November by the Board of Regents. Design Workshop, Inc., was one of ten nationally-recognized firms that had submitted proposals through a competitive process to assist the UMore Park management team with concept master planning on 5,000 acres of the property. A concept master plan typically includes land use designations – residential, retail, industrial and office space, housing types and styles, community facilities, quasi-public space, other green space, and other uses – while also incorporating future market flexibility. The Design Workshop team includes the Minneapolis-based firm Hoisington

Koegler Group Inc. Design Workshop's work will be completed within 18 to 24 months.

Six major elements of the UMore Park planning and development portfolio are under way in the current phase of work: (1) academic mission linkages, (2) aggregate resources (gravel) assessment, (3) developer/planner consultant team analyses, (4) comprehensive planning, (5) Gopher Ordnance Works site evaluation and (6) joint management of the southern parcel, Vermillion Highlands, with the DNR.

Concept master planning will be specifically focused on the approximately 5,000 acres in the northern sectors of the property, north of 170th Street, where development of the community would occur. Although joint planning on the Vermillion Highlands parcel to the south continues by the University and the DNR, these 2,822 acres will remain as an undeveloped, natural area.

Academic Mission

The reports included in this volume provide a foundation for envisioning the unique contributions that the University could make to this new community through research, education and engagement. The principles and ideas presented here can now be expanded, refined through additional public discussion and tested in the marketplace.

The University is in the business of knowledge creation for a rapidly changing world. The reality of a distinctive, sustainable community will emerge through the vibrancy of new knowledge that continuously adds value to the daily lives of citizens.

EXECUTIVE REPORT
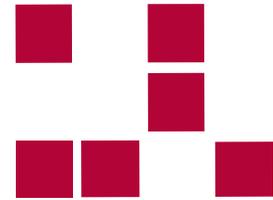
The never-ending story of the University of Minnesota's public mission and legacy is unfolding with striking distinctiveness. As the state of Minnesota approaches its sesquicentennial in May 2008, its public research institution – which predates the state by seven years – is determining unique ways that its research, education and public engagement strengths can further benefit citizens and the state. The University looks to the future through the vision for an innovative, University-founded community.

The University's academic mission – research, education and public engagement – will differentiate this envisioned community from all others. It will be unique, vibrant, intellectually and culturally rich, diverse and sustainable, with the imprimatur of the University of Minnesota.

Creating the Vision

The University of Minnesota Outreach, Research and Education (UMore) Park is a 5,000-acre site 25 miles southeast of the Twin Cities at the suburban-rural interface, near Rosemount, Minnesota. It is among the largest contiguous properties in the United States that is owned by a land grant university. The vision to build a University-founded community of 20,000 to 30,000 people at UMore Park, a 25- to 30-year endeavor, was affirmed by

the University's Board of Regents in November 2006.

The University envisions development of a new community as the pathway to:

- A unique and lasting University legacy of discovery and research-based education that helps to sustain people and communities in the region over the generations;
- A vital regional economy that is characterized by enriched communities, thriving businesses, and educational, social and natural amenities;
- An attractive locale to live in, work in and visit that incorporates University research and education to achieve quality of life, innovation, a sense of place, close connection with the natural environment and sustainability; and
- A growing University endowment that supports the academic mission in perpetuity.

At its December 2006 meeting, the Board adopted a resolution that directed the University administration to prepare a concept master plan for the 5,000-acre parcel. A priority for planning was to ensure that the University's academic mission is core to current and future uses of the property. Subsequently, six academic mission task forces

were launched in May 2007, focusing on Education, Energy, Environment, Health, Interdisciplinary Opportunities (arts and culture, diversity, technology, housing and other areas) and Transportation. Nearly 100 members of the University community served on the task forces. Additional expertise was brought to the task forces from professionals outside the University.

Academic Mission Goal

The academic mission goal for the task forces was:
> To anchor the University of Minnesota's new, sustainable community on the UMore Park property in the University's land grant mission of research, education and public engagement, imbuing it with the spirit of discovery, the rewards of knowledge for daily life and the opportunity to share commitments and talents in a place that meets the needs of tomorrow and the future.

The overarching charge to each of the six task forces was:
> To develop creative approaches that will ensure that education, health, energy, the environment, transportation and infrastructure, technology, arts and culture and civic life, among others, are incorporated into the core identity of the new UMore Park community to benefit the University; its faculty, staff and students; the citizens of the new community; and the broader region.

The task forces were also charged to seek broad-based input via inclusive public forums, or "listening sessions." Six public listening sessions were held in the City of Rosemount in September 2007 to encourage ideas and discussion among citizens, local jurisdictions, regional interests, special interest organizations, community groups, businesses and other public and private groups. Similarly, two sessions were held on the Twin Cities campus (and available to the coordinate campuses electronically) to capture ideas, comments and concerns from students, faculty and staff members. Compilations from all sessions informed the deliberations of the task forces and are included in the Appendices. All academic mission documents are also available at the UMore Park website at www.umorepark.umn.edu. A public comment box is located on the website to encourage individuals to contribute ideas at any time.

The following is the synthesis of the six task force reports and recommendations for an approach to development of a community that will draw people as residents and as visitors – because of the values, distinctiveness and future promise brought by the University of Minnesota.

A Unique, University-founded Community

Universities have a long history of engagement in their surrounding communities. It is unusual, however, for a university to develop a community. Examples of significant university involvement in current developments include Florida State University and the creation of a 571-acre residential community called Sky in Clarksville, Florida. The university's focus is specific to energy and the environment, through grants from the state of Florida and the U.S. Department of Energy. Centennial Campus is North Carolina State University's vision of the future. This "technopolis" consists of multi-disciplinary R&D neighborhoods, with university, corporate, and government facilities intertwined. A middle school, executive conference center and hotel, golf course, town center and recreational amenities will be woven into the campus. The master plan for 250 acres of land and increased academic research and teaching facilities includes some residential and minimal retail development. Two institutions in British Columbia, Simon Fraser University (UniverCity) and the University of British Columbia (University Town), have developed land adjacent to their campuses, with the goal of directing revenues into institutional endowments. In these cases, incorporation of academic mission into the development has not been a primary priority.

The University of Minnesota's vision for a new community is unique, given the size and location of its property and the foundational emphasis on infusing University research, education and public engagement into the fabric of the community.

Community Defined

This new community will be defined as all communities can be defined: A social group of any size whose members reside in a specific locality, share government and often have a common cultural and historical heritage. However, this community will be both a better place to live and a place to live better. It will be a place to belong, where individuals thrive and the community in turn thrives. It will be diverse in every way – by age, race, ethnicity, income, housing and life pursuits. It will be unified in its commitment to this diversity and multiculturalism and to the hallmarks of education, health and wellness, environmental quality and renewable energy, technology and innovation, arts and culture and design, including transportation. How will these idealistic characteristics become reality? Through the University and its commitment to the people. Through University students who learn and teach and assist with research-based community projects. Through the faculty who apply knowledge from investigations on issues of public health, renewable energy and environmental learning. Through multiple layers of individual relationships, professional relationships and institutional relationships. Through the daily dedication to knowledge that is created and shared for the common good.

Recommendations

All six task forces discussed the potentially powerful yet challenging dual dynamic of the vision for this community: The core of the University's academic mission relationship and the social fabric of a diverse community that develops in its own right. The very process of developing the UMore Park property must be seen as an evolving system that has feedback loops and adapts to change. In addition to highlighting the principles developed by the task forces, the following recommendations address the University's academic mission roles and responsibilities and the responsibilities of the members of the community to determine the values and characteristics of the community over time.

The University's Academic Mission

The following recommendations on University research, interdisciplinary approaches, students and public education and engagement are intended to support and uplift the University as it further defines the vision of a new community. This new type of partnership with the people is the contemporary land grant mission. It will define the University among the top three public research institutions in the world.

Research

There will come a day in this new community when University research will be regarded as infrastructure. That is, it will be highly valued for its seamless function and contributions to quality of life. It will permeate the community without being intrusive, disruptive or cumbersome. Residents will take pride in University research as a distinctive feature of the community, support it and participate in it. They will routinely meet faculty and staff members who interact in both everyday and special community activities. They will enjoy the presence of University students in a variety of settings. Research across disciplines will translate into learning opportunities, recreation, entertainment, cultural enrichment, job creation, economic development and a healthy environment.

Recommendation. The faculty, students, staff and leadership of the University must be challenged to discover how scholarship can be transformed into benefits to the community. An academic advisory entity consisting of faculty, students and staff members should be established to champion the research, education and public engagement that will occur in partnership with the community. The advisory entity should span the decades to ensure that this revolutionary step in the University's land grant mission leaves a lasting legacy.

Recommendation. Research that involves the faculty and students, local jurisdictions and public and private partners can and should begin immediately, at this early planning stage. Researchable

questions arise at every turn. Well-defined early projects should be evaluated to ensure that best practices for University-community research can be developed and applied well before the first residents begin to move into the community.

Interdisciplinary Approaches
It was clear from the beginning of the academic mission assessment that the six task force topic areas are interrelated – a fact further underscored in the listening sessions and campus forums. Citizens are eager to be informed and involved in research and practice that address the issues of the day. Societal issues are complex by their very nature; in a University-founded community, the institution has the ongoing commitment to address these issues through interdisciplinary approaches. The public sees the University as the entity that brings together wide-ranging expertise to focus on the complex issues in a changing world. Further, the University has a noteworthy track record for supporting interdisciplinary research and collaboration. In 2003, President Robert H. Bruininks brought focus to eight interdisciplinary initiatives that have continued to build on University core strengths. In addition, the University engages a broad range of communities of interest through numerous interdisciplinary centers that merge talents of faculty and students from many disciplines.

Recommendation: The University should engage its interdisciplinary centers, consortia and all academic departments in the planning of the new community at UMore Park. Disciplinary boundaries disappear as Minnesotans see the potential of the community and the successful models that can be developed there and replicated elsewhere. Interdisciplinary strategies should include faculty, students, community members and public and private partners.

The Students, the Future
The University's most significant contribution to the future is its students. They are the knowledge generators and creative problem solvers that will ensure improved quality of life and economic development over the generations. One of the most rewarding findings from this initial exploration of academic mission is that University students see the excitement of the vision and are proactive in their desire to further shape it. They want to be a formal part of the discussion of academic mission, and they want to be involved in research and education projects that contribute to the planning and development of a new community at UMore Park.

Recommendation: Student representation should be incorporated into an overall academic mission advisory entity, as noted previously. As the variety of faculty research projects are considered and initiated, special attention should be given to engaging graduate and undergraduate students in projects. Further, the University should seize the opportunity to develop new courses and curriculum around issues presented by the development of UMore Park.

Public Education and Engagement
Already, the citizens who have contributed to this early visioning have defined a University-founded community as one where education is paramount. Repeatedly during the listening sessions, individuals emphasized that education must begin now. On issues as far ranging as energy self-sufficiency, changing demographics and healthy living, citizens said that the University has a role and responsibility in providing education and public information to foster understanding. Citizens reasoned that when people are better informed, they will support and participate in opportunities in the community, for example, to reduce energy use; to celebrate the cultures, traditions and wisdom of many; and to embrace technologies that support health and wellness.

Recommendation: The University should convene interactive learning sessions on key topics that highlight opportunities in the new community, based on the interest of current residents in the region, citizens from other communities in the metropolitan area, and on academic strengths within the University. Such learning sessions would benefit from the participation of University students.

Community Fabric

The University can draw upon world-class knowledge and expertise to frame a distinctive community that offers innovation, enrichment and beauty. But the community will thrive because of its residents who will bring the spirit, warmth and enthusiasm for day-to-day life. Success will come through shared responsibilities among the people, the University and many partnerships.

Balance

The task forces offer key principles that will support innovation and opportunity in a new community the carries the University's imprimatur. The articulation of overarching values that are consistent with a public educational institution and its legacy are viewed as essential. Critical to the creation and evolution of a community, however, is consideration of the question: Where do University vision and values leave off and community self-determination and decision making begin?

The University will need to be intentional as it creates the framework for the creation of a community, accommodating both the academic mission and legacy interests of the institution and the vagaries of organic growth of a community over the decades.

Recommendation: The ideas that were generously brought forward by citizens and interest groups during the Fall 2007 public sessions were key to better understanding what the vision for a new community could and should be. The University will need to continue to engage citizens, local jurisdictions, and a range of potential partners to develop a framework for the community that best serves University interests and ensures flexibility to the community and its residents over time. The creation of a community carries opportunities and consequences that extend well beyond the 5,000-acre parcel of land. It is an undertaking that will be successful only with the active partnership of many interests and organizations.

Diversity

The task forces tried to anticipate what a University-founded community might encompass both in the near and more distant future. Their formulation of principles was grounded in demographic trends based on census data. Minnesota's population will continue to become more racially and ethnically diverse. By 2015, the nonwhite population is projected to grow 35 percent, compared to 7 percent for the white population, according to state demographic data. The Hispanic Origin population is expected to increase 47 percent. In addition, by 2030, individuals age 60 and older will represent 22 percent of the total metropolitan area population, according to the Metropolitan Council. Currently older adults (60+ years) represent 10.3 percent of the population in Dakota County.

Communities across the state are already addressing the challenge and rewards of diversity and multiculturalism. It is essential to create opportunities for current residents in the region and future residents as the community unfolds. As policy, the University's equal opportunity statement provides guidance for the creation of this University-founded community: *The University of Minnesota is committed to the policy that all persons shall have equal access to its programs, facilities and employment without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veteran status or sexual orientation.*

Recommendation: The new community at UMore Park should be a community that is multicultural and diverse in all ways – in age, gender, ethnicity, race, culture, income, housing, work and recreation opportunities and lifestyles. The planning for a new community will need to incorporate the realities of changing demographics. In order to develop an inclusive vision for the community and capture ideas important to planning and innovation, the University should establish an advisory entity that would provide perspectives on all

aspects of diversity and multiculturalism that can enrich a community and make it a place that draws residents, businesses and visitors.

The Principles

The principles for the new community at UMore Park listed below are highlighted in brief. Details that further describe the principles and the emerging strategies that support them are found in each of the six task force reports at www.umorepark.umn.edu.

For Interdisciplinary Opportunities

The planning process: The refinement of the vision, the planning and the development of this University-founded, master-planned community must be conducted with the quality, integrity, inclusiveness and transparency befitting the University of Minnesota as a renowned public research institution that strives to be among the top three in the world.

Arts and culture: The arts and culture will permeate the new community, offering learning, social interactions, entertainment and inspiration as well as economic development.

International emphases, global issues: The residents of the community will see themselves as citizens of the world, who experience countries and cultures first hand and through technology, establish entrepreneurial global businesses, and find opportunity through international connections.

Research: As Minnesota's sole public research institution, the University should ensure that research and research-based innovation benefit the community and its residents in exciting, life-enhancing and non-intrusive ways.

Education and public engagement: Research-based education and public engagement should infuse the new community with learning opportunities for all ages and community programs that delight the mind, body and spirit.

Diversity: The new community at UMore Park should be a community that is multicultural and diverse in all ways – in age, gender, ethnicity, race, income, housing, work and recreation opportunities and lifestyles.

Housing: The new community will offer a range of housing that includes single-family detached homes and multi-family units, owned and rented, that are affordable to a wide range of income levels and accommodate individuals and "families," defined broadly.

Emerging technologies: Next-generation technologies will support the community and its residents in multiple ways, throughout the evolution of development and beyond.

Partnerships: To best serve the community, the University should actively engage organizations in the public and private sector as partners to best achieve innovation, economic development and quality of life in the community.

For Education

Education and lifelong learning in the new community will be grounded in knowledge, knowledge creation and knowledge sharing.

Everyone will be a teacher and a learner, with all related responsibilities and personal rewards.

Diversity of all types will be seen as an asset.

Visionary partnerships will ensure extraordinary teaching and learning across the lifespan.

Education will take place in both the natural and virtual worlds.

The system will strive for coherence.

With the foundation of guiding principles, education and lifelong learning in the new community will fulfill the following goals at each stage of the continuum of learning:

Prenatal and early childhood learning and development will prepare our youngest learners

academically and developmentally for success in elementary school.

PreK-12 education and community learning opportunities will ensure that all students go beyond the basics to master "21st century skills" such as critical thinking, creativity and collaboration.

Postsecondary education will prepare every learner for a career that will enable him or her to support a family and realize personal goals and dreams.

Adult and continuing education will enable community members to continually enhance their knowledge and skills through personal enrichment, vocational advancement and civic engagement.

For Energy

Develop an economically viable, sustainable community that optimizes self-sufficient energy production and minimizes carbon emissions. Key elements of the community would include:

- Minimizing energy use and maximizing renewable generation;
- Moving beyond zero impact on the environment to restore and enhance the overall environment;
- Using a systems approach to the design of the community; and
- Creating policy, administrative structures and financing to enable and support the energy and research goals of the community.

Create a world class energy research park.

Utilize the energy use patterns and technologies at UMore Park as a vehicle for education at all levels.

For Environment

Research will serve as the basis for defining sustainable development.

Resource recovery priorities will address the reduction or elimination of waste, the inception of aggressive recycling programs, and use of renewable materials in construction, with the goal of zero waste.

The community will feature healthy indoor and outdoor environments that do not contribute to greenhouse gases, maintain indoor environmental quality and minimize light pollution.

Water quality will be preserved, conserved, and protected in and around the new community. Technologies will be employed to reduce water use by at least 30 percent over typical developments.

Energy efficiency will be maximized in every way. The goal is to try to achieve a carbon neutral or negative community, with greenhouse gas emissions 80 percent below the 2005 levels (consistent with state of Minnesota goals).

The new community will feature the highest sustainability standards for the built environment and provide models for education. Designs should meet or exceed the Leadership in Energy and Environmental Design (LEED) Gold Standard for all buildings and site plans.

The design of the new community will maximize connected systems across built areas and natural areas while minimizing negative impact.

The new community will incorporate research-based education into living, working and recreation.

The new community will protect, conserve and enhance ecosystem services.

The new community will integrate the production of a range of food, including livestock, locally as it is practical and economical to do so for the broader region. The element of local foods can also contribute to the social fabric of the community.

For Health

Social connectedness: The intentional design of the community to foster the physical and virtual interactions of individuals, families and the community will promote health through social connectedness.

Access: Health and wellness in the new community will be defined by principles of excellence, innovation and universal access.

Food: Health and wellness will be supported in the community through the availability of a variety of high-quality and healthy foods and education and information on food, nutrition and lifestyle choices.

Recreation and relaxation: The new community will provide for recreation and relaxation opportunities, both structures and programs, which are accessible to all members of this diverse community throughout their life span.

Safety: Through design, technology, public education, public services and highest standards for the built and natural environment, the community will be a safe and comfortable place for people to live, work and play.

For Transportation

Modal integration and prioritization: All transportation modes should be provided so as to be complementary and mutually supportive, giving priority, first, to pedestrians and bicyclists; second, to users of transit and intermodal transfer facilities; and third, to auto and parking facilities users.

Resiliency, flexibility and adaptability: The transportation system should be able to react to changes in travel patterns, behavior, and infrastructure conditions; adapt to changing demographics and technological advances; and accommodate growth in local, regional and global markets.

Maximize accessibility, reliability and mobility: The system should be designed to minimize transportation system and user costs, and maximize accessibility, reliability, and mobility choices for people of all ages and for freight.

Community enhancing: The transportation system should promote quality of life, health and safety, economic development, environmental protection and aesthetics.

Supportive of research and innovation: The system should allow demonstration of emerging transportation technologies and strategies and evaluation of experimental approaches.

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Interdisciplinary Opportunities
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INTERDISCIPLINARY OPPORTUNITIES
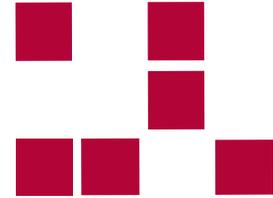
The University of Minnesota's vision of a sustainable future for the new community at UMore Park relies heavily on the discoveries that come from many different disciplines, working together. Interdisciplinary opportunities in the new community require not only the contributions of researchers but also of students, the public and other public and private entities joining forces to address complex issues of culture, social engagement and lifestyles; applications of technology in society, the environment, and other challenging issues of the day including human interactions on the landscape.

Vision

The UMore Park property is one of the most significant University assets to be leveraged to support the University of Minnesota's goal of becoming one of the top three public research institutions in the world. At this time, a unique alignment of opportunities has come together providing the University with a once-ever chance to propel its land grant goals and its educational, research and outreach efforts ahead into this new century. Some of these opportunities—including the opening of the new University campus in Rochester, partnerships being developed with the Mayo Clinic and IBM-Rochester, and extensive projects involving K-12 and local communities—

offer the University a powerful opportunity to bring together the best thinking about the future as it develops the plans for UMore Park.

Reaching this goal challenges the University to define its historical land grant mission in the context of today and of the future. The creation of UMore Park encourages the University to be introspective, examining what it can offer to a new community, and it offers the chance to find new ways to work with citizens, communities, and public and private organizations. Creating a University-founded community of 20,000 to 30,000 people that develops over 25 to 30 years is a unique undertaking and a sobering responsibility. Such a community substantially strengthens connections among the elements of the University's land grant mission to use its teaching, research and public engagement to address pressing social needs, including preservation of human dignity and the fostering of free and creative expression.

The University of Minnesota's vision for the development of its 5,000-acre property in Dakota County is one of a community differentiated by the integration of innovations in education, health, environmental quality, renewable energy, transportation, healthy food supply, arts and culture,

technology and international linkages while making the most of University research and education strengths. The resulting University-founded community would contribute to a vital regional economy characterized by thriving businesses, a vibrant social fabric, and both its designed and natural amenities.

UMore Park can be planned and built to respond to present and future societal needs and provide an intellectually and culturally rich, sustainable community where people want to live, work and play. The process of planning and building the community itself can foster an environment of support and opportunity and help the University develop a model of what a leading urban-centered public research university can become working hand-in-hand with people.

Community Defined

Talking about building a community is easier said than done, partly because the word *community* means different things to different people. So that we can claim success in building a community such as UMore Park, we have to begin with a definition that is clear. This new community is intended to be both a better place to live and a place to live better. The UMore Park community will be a place where individuals and families thrive and supporting diversity is the norm. One hallmark will be the rich variety across age, race, ethnicity, income, housing choices and life pursuits. The community at UMore Park will be unified in its commitment to education, health and wellness, environmental quality and renewable energy, technology and innovation based on sound research in all areas including transportation, arts and culture, and thoughtful, participatory design. The new community at UMore Park, locally, will evolve seamlessly with surrounding jurisdictions. In addition, the community will understand and value its role in the larger world, making a tangible difference in how the environment and international interactions are nurtured.

The Interdisciplinary Context of Principles and Strategies

The Interdisciplinary Opportunities Task Force was charged with the dual responsibilities of capturing the intersections and complementary ideas across the other five Academic Mission Task Forces to avoid duplication of efforts, and addressing gaps that could develop given the more specific issue orientation of the other five task forces – Education, Energy, Environment, Health and Transportation. Presented below are, first, the principles that must be included in their own right in the planning for the University-founded community. These address the planning process, arts and culture and international opportunities. The remaining principles are those common themes that have been discussed across multiple task forces. They include academic mission (research, education and public engagement), housing, diversity, emerging technologies and partnerships.

Principles and Strategies

The Planning Process

Principle: *The refinement of the vision, the planning and the development of this University-founded, master-planned community must be conducted with the quality, integrity, inclusiveness and transparency befitting the University of Minnesota as a renowned public research institution that strives to be among the top three in the world.*

Emerging Strategies:
- The planning process needs to articulate the kind of community that will be developed and the values of the community, which will be essential for long-term success.
- The community-creating process needs to be managed with "intent" so that it can be flexible.
- The early-stage planning process should include a comprehensive study of other university-community relationships and innovation, noting both success and failure. The University has planning and design units that can participate in this work.
- Resources associated with the property—gravel, concrete, agricultural and ecologically fragile lands, for example—need to be considered for the long-term sustainability of the property.

- The University needs to map its research, teaching and engagement strengths against what it will take to imagine, develop and sustain this community and sustain the active citizenship of its residents.

Public Comment

Public sessions were held in the City of Rosemount and on the University campus to listen to the comments of citizens and University faculty, students and staff members. It was evident that community members recognized the once-in-a-lifetime opportunity that the creation of a University-founded community presents as a potential world-class model. University community members commented on the value of the undertaking as a unique research platform, as a new opportunity to 'live' the land grant mission and as a lasting legacy. University students were notably enthusiastic about opportunities to participate in the planning and development of the community. The compilation of public comments from the six September listening sessions and the two November campus forums are included in the Appendices.

Arts and Culture

Principle: *The arts and culture will permeate the new community, offering learning, social interactions, entertainment and inspiration as well as economic development.*

Minnesota's nonprofit arts and culture industry is a driving force, in addition to for-profit arts, in the economy. The economic impact that supports jobs and generates state and local government revenues is significant to communities across the state. The community should offer a range of arts functions, performance spaces and artists' studios, in addition to the incorporation of art into public places, community gathering facilities, natural areas and gardens. University strengths through the expertise of the University Arts Quarter can foster innovation through arts and culture that will help to weave the social fabric of the new community. Other aspect of arts and culture that are significant are described as emerging strategies.

Emerging Strategies

- **Quiet natural beauty**. Planning and development of the community should capitalize on the natural beauty, the cleanliness and the quiet of the property's environment by fostering business, residential and recreational opportunities that sustain these attractive qualities, and incorporate them into daily life without diminishing them.
- **The property as art.** The 20th century shaper of French politics and culture Andre Malraux envisioned "museums without walls" – an idea that might establish the property itself as an outdoor arts and cultural venue. Public art (for which the Twin Cities is recognized nationally, with the major journal, the *Public Art Review,* published here) could liberally grace the property (perhaps the result of a percent-for-art development fee included as part of the development rights that would be granted).
- **Art in public places.** Artistic and creative activity should be visible and available to people in the community. Cultural knowledge, too, should be visible. For example, informational signage around the property that could inform residents and visitors about the history of the land and the University research that would be seamlessly integrated into the community. The community could be an arts and cultural venue that educates and inspires people as they move through the property.
- **Artists and classes.** The community should be designed with sensibility to arts concerns and involvement of public artists. For example, visiting artists, including students, could offer classes and assist the community in establishing its own programs. Collaborations with existing arts organizations will be important. Technology could bring lectures, dance, theatre and other performances to a community center, which could double as a "gallery" of sorts to bring the Weisman, Bell Museum, and other campus-based exhibits to the community.
- **Historic structures.** Select historic struc-

tures and remnants of the World War II Gopher Ordnance Works on the property at UMore Park could be incorporated into the development as public art forms that recall the legacy of the land while creating unique landscape details. It is important to note, however, that some view the concrete structures as a representation of a war economy, and suggest that a broader public discussion will be required to address their presence as public art.

- The University and community should jointly ensure the teaching about, the enjoyment of, and the doing of art. The community itself will need to set mechanisms for addressing the values of arts and culture over time.
- Creation of an arts center for the community is important and should engage University departments. It will serve as a destination that draws others to the community.
- Arts should reflect the diversity of the community.
- Arts should include the natural world. University units such as the department of landscape architecture, horticulture and others can contribute to ways that plants can be used for art and biodiversity.
- Technology should be a key part of the arts—delivering the arts from other places and as part of new and emerging arts. The Institute for New Media Studies should be engaged in planning and research.
- The interaction of art and the cultural traditions of agriculture on the landscape should be explored.

International Emphases, Global Issues

Principle: *The residents of the community will see themselves as citizens of the world, who experience countries and cultures first hand and through technology, establish entrepreneurial global businesses, and find opportunity through international connections.*

Learning and opportunities for residents of the community around global awareness and interna-

tionalization should be incorporated into the community. In addition to the possibility of the community as a site for international conferences (perhaps on innovations in renewable energy) or a destination for international visitors, the University adds value through its hundreds of special relationships with universities and programs in countries around the world. The University can bring to the community additional linkages to international relationships as it pursues its strategic positioning goal of becoming among the top three public research institutions in the world.

The location is prime to support international interactions — about 15 minutes from the Minneapolis-St. Paul International Airport. It is also convenient to Rochester, home to the Mayo Clinic, IBM-Rochester and the expanding University of Minnesota-Rochester campus.

Emerging Strategies
- An international focus should incorporate the richness of the new and old cultures of Minnesota – the Scandinavians, Irish and Germans as well as Hmong, Central Americans and Somali, for example.
- Emphases on renewable energy and the environment, for example, provides an entre to create business opportunities with companies in other countries that are innovators in those arenas.
- Units of the University that are involved in defining and strengthening the institution's global commitment should be engaged in the planning of the community at UMore Park.

Academic Mission - Research

Principle: *As Minnesota's sole public research institution, the University should ensure that research and research-based innovation benefit the community and its residents in exciting, life-enhancing and non-intrusive ways.*

The University is, first and foremost, the state's research institution. The unique character of this new community must be linked, in part, to the research efforts at the University. Agricultural research is a tradition on the property that will

continue to be valued, but the development of a new community opens up vast opportunities for an expansion of research topics and projects. Even at the earliest stages, for example, research from the arenas of engineering, transportation, landscape design, geography, technology and public policy can contribute to initial planning and infrastructure considerations.

Most important, the community should not feel as if it is under a microscope. Rather, from the initial launch of the development people should be well informed of the opportunities that are being derived from the relationship to University research so that they might embrace the institution, its mission and its faculty and students as partners. The community will also need to be empowered to approach the University with its own ideas for research that will make lasting contributions. (A set of principles for effective community-university research collaborations, developed by two University faculty members, Susan Ann Gust and Catherine Jordan, can be found in *Journal of Higher Education Outreach and Engagement,* Vol. 11, No. 2, p. 155, 2006).

Emerging Strategies
- The University should engage citizens in the excitement of the current and future research at UMore Park so that they can participate in the potentials for renewable energy, health and wellness and the application of new technologies in homes and public facilities, for example. Such engagement around research topics and potential benefits can best serve both the community and the University.
- To help ensure sustainability, the University will need to research change and how to help the community build in adaptation and flexibility.
- The University should establish endowed research fellowships to support student participation in research projects and create linkages to disciplines and departments.
- To the extent that research projects might focus on public health, nutrition or other topics that would involve human subjects,

the University should routinely provide information and education to community members on the objectives of such research and the potential outcomes and contributions to knowledge.
- The University should identify ways to integrate research in the social sciences and humanities that will contribute to enriching the community and its social fabric.
- The University should leverage what it has learned from the University Northside Partnership in North Minneapolis about working with communities as it develops the new community at UMore Park.
- The new community is a key opportunity for the University to find new ways to foster and translate multidisciplinary research.

Academic Mission – Education and Public Engagement
Principle: *Research-based education and public engagement should infuse the new community with learning opportunities for all ages and community programs that delight the mind, body and spirit.*

In addition to its research mission, the University is committed to extending educational and engagement opportunities to the new community. The University has much to give to such an endeavor, and it stands to gain tremendously from its interactions. The University can best deploy its assets to foster sustainability and vitality as well as encourage education.

The Role of University Students. Graduate and undergraduate students will need to play a key role in the new community. Practice has shown (through the Community Assistantship Program, the University-Neighborhood Network, the Minnesota Area Health Education Center program involving health professions students, and others) that the opportunity to work in communities – rural, suburban and urban – offers unique learning experiences that translate into career insights and opportunities for students. Students are also often linkage points between faculty members and community members.

Vocational-technical training opportunities. The new community is created to meet the range of educational interests and needs of its residents. In addition to early childhood development and preK-12 emphasis, the community should support learners in their post-secondary opportunities. Specifically, young people growing up in the community who do not pursue a college-bound track should be able to readily access training in the crafts, skills, and trades that will enable them to live and work in the community. Vocational and technical education can also provide opportunities to new immigrants and their extended families living and working in the community as they engage in the global business and professional communities.

Higher education partnerships. The University should use the community as a new opportunity to collaborate with the Minnesota State Colleges and Universities (MnSCU) system and private institutions to create alliances in support of higher education. In particular, the University and MnSCU – whose Dakota County Technical College is a neighbor to the UMore Park property – as public institutions can reach out to business and industry to discover the workforce needs of businesses and provide pathways to job opportunities in the new community that cross the spectrum of employments. Residents will be able to live, work and play in the community.

Public engagement. The University's mission statement on public engagement is to: "Extend, apply, and exchange knowledge between the University and society by applying scholarly expertise to community problems, by helping organizations and individuals respond to their changing environments, and by making the knowledge and resources created and preserved at the University accessible to the citizens of the state, the nation, and the world." The University's commitment to public engagement and the common good should permeate planning and development at UMore Park. The University should engage members of the community and related interest groups actively and often.

Emerging Strategies

- The community at UMore Park should be seen as a gathering of students of all ages who are continuously engaged in lifelong learning. Some will follow pathways leading to the University, to Dakota County Technical College, and to the many learning and enrichment programs for all – from the very youngest to the very oldest — via technologies, community classes and engagement with University faculty and students.
- Opportunities should be provided for graduate and undergraduate students to live in the community while working on community-based research and engagement projects.
- Academic departments should proactively take advantage of creating new learning and engagement opportunities through the new community.
- University partnerships should extend to other educational institutions.

Diversity

Principle: *The new community at UMore Park should be a community that is multicultural and diverse in all ways – in age, gender, ethnicity, race, income, housing, work and recreation opportunities and lifestyles.*

As policy, the University's equal opportunity statement provides guidance for the creation of this University-founded community: *The University of Minnesota is committed to the policy that all persons shall have equal access to its programs, facilities and employment without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veteran status or sexual orientation.*

Diversity means self-determination, self-sufficiency, active community participation, openness, respectfulness, caring and wellness in all its dimensions: physical, mental, social, emotional and spiritual. In a diverse community, everyone is both a teacher and a learner. A diverse community supports the sharing of strengths to help oneself, each other and the community. Through diversity

we both challenge individuals to develop unique talents and we benefit from their unique contributions.

Emerging Strategies
- At the earliest stages, planning should integrate values of inclusiveness and diversity – in learning, access to healthcare, housing, job creation, transportation, the arts and culture and all aspects of a vital community.
- The community should reflect the interconnected world and global society.

Housing Based on Changing Demographics
Principle: *The new community will offer a range of housing that includes single-family detached homes and multi-family units, owned and rented, that are affordable to a wide range of income levels and accommodate individuals and "families," defined broadly.*

The U.S. population is 300 million today and is projected to be 336 million by 2020; 364 million by 2030; and almost 400 million by 2040. The Twin Cities has about one percent of that total, so assuming growth at the same proportion, the metro area can expect a million more residents by 2030. The new community at UMore Park will capture part of that growth.

Immigrants and the children of immigrants account for close to half the country's annual population increase – with the large majority coming from Asia and Latin America. Newcomers from these origins must be seamlessly incorporated into our Upper Midwest culture, economy and civic life so that their lives can be enriched and their contributions maximized.

Young societies (Iran and Mexico, for example) have broad-based population pyramids with many young people and few elders. Mature societies (Sweden) have population pyramids with all age groups about equally represented. Aging societies (Japan) have many more middle-aged and elderly than young persons, portending population and economic decline. The U.S. and the Twin Cities area is a combination of Sweden and Mexico – with an aging native-born population plus a large and expanding younger population of young immigrant couples and their children. The community at UMore Park will need to create a housing stock that will accommodate the diverse ages and household compositions, realizing that decisions about the housing stock will partly determine who will live in the community over the years.

Several distinct concepts about trends and social forces need to be factored into UMore Park planning. The University must take advantage of the best urban planning knowledge and practices worldwide. Further, the vision for this community, described here, emphasizes collaborative and preventive research and education to protect, improve and promote the health of individuals, populations and communities. Along with the education and lifestyles that will help keep people well and healthy, community residents will need access to health care services. At this writing, the delivery of services such as those related to emergency care, acute care, chronic disease, mental health, aging, and end-of-life is organized through systems of clinics, pharmacies, specialty centers, hospitals and nursing homes. How this delivery system will evolve in the near-term and in the far future need not be a matter of chance for this community but should be based on careful planning to meet the needs of a diverse population. The new community's "system" should plan for team-based, patient-centered approaches to care with a focus on the home, technology, and health care facilities thoughtfully integrated into the community, easily accessible, and linked to the University health care system.

In particular, the University can add value in the area of housing by researching its social effects; determining implications for human health and wellness; developing and researching housing models appropriate for cold climates that are sustainable or restorative in their relationship to the environment; focusing on green and energy-efficient building materials, and studying satisfaction levels of various housing preferences

based on culture. The site could offer a research platform for assessing how the variables of diversity in age, race, culture, and others are reflected in housing.

Emerging Strategies
- The University, with its expertise in design and housing, could play a significant role in helping shape and study the kinds of housing that match best with the vision of UMore Park.
- Planners should anticipate different age structures and household forms when creating the housing stock.
- The University must address what will happen to the community and its values once the first set of home owners move on. Strategies should be in place to ensure the long-term viability of the community envisioned.
- Partnerships need to be created with relevant community, state and federal agencies with responsibilities for housing and community development.
- The University should be prepared to challenge state and local building, housing and zoning codes that fail to support the community that UMore Park should become.
- The design of the community – public places, community gathering facilities, natural areas and gardens, for example – must support multiple approaches and traditions of social interactions for large and small groups.
- Housing design should support human health and wellness.
- Universal design principles (UDP) should be applied in all housing units to support people throughout the lifespan and throughout a range of abilities.
- Housing should be designed with attentiveness to the future and changing demographics—design should reflect a range of cultural preferences (for example, dwellings could comfortably accommodate large or extended families; multi-generational housing might be preferred).
- Sustainability is a key value and might be

expressed not just as housing that is sustainable but restorative, improving rather than maintaining current conditions of the environment.
- Technology will change work, learning, interaction, access to medical assistance and information; houses should accommodate technology for everyone.

Emerging Technologies
Principle: *Next-generation technologies will support the community and its residents in multiple ways, throughout the evolution of development and beyond.*

The University of Minnesota can offer added value to the community through its commitment to technology. The University can extend its information and learning technologies to the new community, increasing its interaction with the University and with the world. Moreover, the technologies can provide lifelong learning connections to all in the community. University research can add value in the area of technology by investigating its social effects, developing new educational models that take into account individual differences, and by demonstrating the uses of technology (for example, in delivering health care and health care information). A whole host of other significant topics can be researched in the new community, with community members helping to set the research agendas.

Most importantly, the community will have to be designed for tomorrow and not for today in order to avoid expensive retrofitting when new technologies enter the market (for example, heating and cooling, ventilation, telecommunications, water and sewer, and expanding and contracting room sizes as needed). Reliance on experts at the University and beyond is critical.

Technology will provide life-enhancing innovations such as telemedicine and educational opportunities. It will enhance productivity, leisure time and quality of life. It will facilitate business creation and entrepreneurship, as well as foster computer literacy across the generations. Technol-

ogy will also reduce the footprint of the community on the physical environment. Waste and run-off will be managed locally to avoid impacts to the landscape and the watershed.

New technologies will be applied to support residents as the nature of work life and social engagement change over time. Technology enhances telecommuting, collaborative work, entrepreneurial businesses and social networks, factors that should be included in planning for the new community.

Emerging Strategies
- The University must establish as a guiding principle of development the flexibly to accommodate tomorrow's technologies in all structures and infrastructures.
- Technology is a cross-cutting theme. As such, it should be incorporated into all aspects of planning and development.
- Technology will affect learning at all levels and will be ubiquitous and mobile.
- Technology will be employed to facilitate and enhance social structures and interactions.
- Technology will support the environmental quality and energy efficiency of the community.
- The changing nature of work, based on current and emerging technologies, should be incorporated into all aspects of planning for the community.

Partnerships
Principle: *To best serve the community, the University should actively engage organizations in the public and private sector as partners to best achieve innovation, economic development and quality of life in the community.*

Even with its connection to the University, the new community will not be successful and sustainable unless it works with the existing community and forges new partnerships. The University must leverage existing and new partnerships to benefit the community and the broader region.

For example, Minnesota's international companies enjoy worldwide reach, but confront vigorous competitive challenges from emerging economies in China, India, Brazil, the European Union and elsewhere. These companies should be engaged in planning so that they can support the development of the community while benefiting from the international opportunities and linkages that international newcomers will provide. Potential partners would include "legacy" firms, but also newer companies led by entrepreneurs who are vitally important to the future of the area's economy.

Emerging Strategies
- Engage Minnesota-based companies in the planning of the community at UMore Park.
- Foster relationships that will ultimately draw entrepreneurs and businesses to locate firms in the new community and to live in the community.
- Seek expertise and partnerships among nonprofits and community organizations that will complement University strengths.

Interdisciplinary Opportunities Task Force

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Billie Wahlstrom, *Co-Chair,* Vice Provost, Office of the Senior Vice President and Provost

Victor Bloomfield, Associate Vice President, Office of Public Engagement (through August 2007), and Professor, Biochemistry, Molecular Biology and Biophysics

Frank Cerra, Senior Vice President for Health Sciences, Academic Health Center

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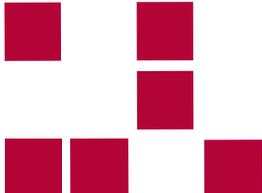**Tom Scott,** Director, Center for Urban and Regional Affairs

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Deb Miller Slipek, Task Force consultant

EDUCATION

Contemplate the engaged, ever active, fully expanding life of the mind, from birth to the end of life. How can it be nurtured and challenged every-day and in every individual through formal education, non-formal learning, and sharing life experiences in the community?

The creation of a University-founded community provides a remarkable opportunity to fuel the life of the mind, body and spirit for all residents and families based on community values and cutting-edge research. The development at UMore Park can become a vibrant and diverse community where people of all ages are welcomed, individuals are fulfilled, families are valued and the social fabric is strengthened.

This University-founded community must reflect educational best practices at every level. Both research and practice make it clear, however, that best practices need to be designed in collaboration with the people that they will serve. Given that this will be a community that develops over 25 to 30 years, it will be critical that principles of excellence and engagement guide education. The individuals and families who are drawn to this community over time must be continuously engaged in the design and operation of the schools, community classes, programs, facilities

and other learning opportunities. This active participation over generations will help to ensure that lifelong learning is infused into the spirit and daily life of the community and is refreshed again and again.

The Vision

The new University-founded community will be a true *learning community*. From early childhood through the older adult years, the community will offer its members an array of educational opportunities, all of which will reflect the community's commitment to educational excellence and equity for all. It will be a vibrant, diverse, multi-genera-tional community that brings people together to share knowledge, experience, wisdom and talent throughout their lives. It will be a place of resi-dences, learning centers, open spaces and learning opportunities for community members of all ages.

The task force defines "education and lifelong learning" as the continuous, in- and out-of-the-classroom teaching and learning that enhances the psychological, physical, and social development of children, youth and adults across the lifespan in families, organizations and the community. The new community should be an environment that supports learning in three broad categories: (1) formal learning, through excellent schools and

programs; (2) non-formal learning, through exciting and intentional opportunities in the community that meet the needs and interests of learners; and (3) informal learning, through experiences that can engage families and citizens of all ages.

The Context for Community

The community at UMore Park should be created with the understanding that three related trends are transforming public education in Minnesota, and that the new community should help to address those trends in positive and proactive ways.

The first transformational trend is the emergence of the global information age, in which all citizens must possess high-level knowledge and skills to earn a living wage and to take advantage of the extraordinary opportunities that are available to well-educated Americans today. The trend of globalization is being driven by political, economic and technological changes that are making it likely that Minnesota businesses will concentrate jobs and investments wherever high-skill workers can be found at the lowest costs across the globe.

The second trend that is transforming education in Minnesota today is rapid demographic shifts that are changing the face of our state. In communities and school districts of every size and in every region, there are increasing proportions of learners who are people of color whose first language is not English, and who live in poverty. By 2015, state demographic data projects that the percentage of Minnesota's citizens who are people of color will grow by 35 percent, while the percentage who are white will grow by 7 percent. In addition, Minnesota faces an upcoming talent shortage brought about by the combination of the retirement of the majority of baby boomers and a much smaller number of young adults coming into the workforce. The increasingly diverse and multicultural character of our learners of all ages is changing *who* we teach. It is also changing *what* and *how* we teach – and who we recruit and prepare to do the teaching.

A third trend is the reconsideration of how we use time for learning. From debates about extending the school day to creating a new day for learning that creates a stronger partnership between schools and community responsibility for learning, the issue of how to make every moment ripe with opportunities for learning is challenging. To do this in ways that energize people without over scheduling or creating unhealthy pressure is critical. The new community offers the opportunity to think differently about the use of time and learning and could link to a variety of national and international efforts to teach less and learn more.

Each of these trends would have major implications for education in Minnesota if it were the only change of major consequence. But in Minnesota we are experiencing globalization and demographic change in equal measure and at the same time. At a time when our state's prosperity depends more than ever before on the educational attainment of its citizens, the fastest growing segments of our population are those that currently experience the lowest rates of academic success in Minnesota's schools, postsecondary institutions and other educational environments – and who are least prepared for the global economy.

These trends are too powerful to slow down or reverse, but they can be shaped for the broader benefit of the state and its citizens. The University and the new community at UMore Park have the opportunity to develop and implement ways to educate all Minnesotans to the high levels of knowledge and skill required for success in the global information age.

Principles for Education

Within the context of fast-moving and far-reaching change, the University – its faculty, students and staff members – must engage with the public to shape the vision and educational values for the new community. It is important to underscore the point that the expectations of what must be achieved in this community of teachers and learners will have to emanate from the community itself. In such an intentional community, it is the people who will make learning come to life.

The creation of formal and non-formal educa-

tional systems and practices should be guided by the following overarching principles:

Principle: *Education and lifelong learning in the new community will be grounded in knowledge, knowledge creation and knowledge sharing.* Teaching and learning in this community will be the model for excellence, with the highest standards that support all types of learning and all types of learners. The application of continuously evolving technologies will support teaching and learning in schools, community facilities, libraries and, most important, in the home. Educational innovation should be the norm rather than the exception, and the lessons learned will be continually shared with the state, the nation and the world.

Principle: *Everyone will be a teacher and a learner, with all related responsibilities and personal rewards.* Everyone is also a volunteer, a leader, a follower and a true participant in the community. Parents, caregivers and other adults are supported as teachers. All learners are supported in developing their lifework plan that includes school-based learning, service-based learning, interest-based learning and work-based learning. Access to education – lifelong – is essential to planning for purposeful lives that benefit both the community residents and the community itself. Education grounds meaningful work, paid or unpaid, through the last breath.

Principle: *Diversity of all types will be seen as an asset.* The talents and interests of all learners will be developed to the fullest, and the community will understand that the challenges posed by diversity and multiculturalism also provide powerful opportunities for creation and collaboration. To meet the educational needs of multiple cultures and learning styles, excellent educational choices will be available to learners at every age, from early childhood to adult education.

Principle: *Visionary partnerships will ensure extraordinary teaching and learning across the lifespan.* Education and lifelong learning in the community will benefit from the integrated insti-

tutional approaches of the University of Minnesota, the Minnesota State Colleges and Universities system, private schools, the school district and related education and learning organizations. Equally important, learning will actively occur through community networks that include local businesses, health and service organizations, non-profit organizations, the faith community and citizens groups. Every effort should be made to ensure that the educators who serve learners in the new community at UMore Park can and do live in the community.

Principle: *Education will take place in both the natural and virtual worlds.* Given the green spaces within the community and Vermillion Highlands (the natural and ecologically fragile land adjacent to the development), the community should integrate the natural world into teaching and learning at every level. Similarly, the community's connection to the University will make it possible to connect with state-of-the-art technology in many fields. Given both of these distinctive opportunities, learning can extend far beyond a physical structure.

Principle: *The system will strive for coherence.* Too often in U.S. education today, initiatives that originate at one level – such as the school district or the school – are misaligned with initiatives at other levels, such as the state or the classroom. Similarly, families, community organizations and schools often have different priorities for lifelong learning. To the greatest extent possible, the new community at UMore Park will put in place educational structures and strategies that promote both vertical and horizontal coherence. As a result, what people learn at one level of the system will build upon and reinforce what they learn at other levels, and homes, schools and community organizations will agree upon and work together towards common educational priorities.

The Continuum of Education
Key strategies for education and lifelong learning are addressed below in four age-related segments of the life continuum: (1) pre-natal care and early childhood learning and development, (2) preK-12

education and community learning opportunities, (3) post-secondary, and (4) adult and continuing education. However, the community will be framed by the intent of an encompassing education that weaves together multiple learning opportunities across all ages. The community will appreciate that multiple pathways will lead to holistic approaches to teaching and learning. An encompassing education can be achieved through the commitment of the University, community residents and the future community's public and private partners, local businesses and the service industry. Ultimately, the residents of the new community and its surrounding areas will not only have the opportunity to benefit from learning opportunities, but also the responsibility to contribute to the ever-growing variety of opportunities needed to support a strong, healthy and dynamic learning environment for all.

With the foundation of guiding principles, education and lifelong learning in the new community will fulfill the following goals at each stage of the continuum of learning:

Pre-natal and early childhood learning and development will prepare our youngest learners academically and developmentally for success in elementary school.

PreK-12 education and community learning opportunities will ensure that all students go beyond the basics to master "21st century skills" such as critical thinking, creativity and collaboration.

Postsecondary education will prepare every learner for a career that will enable him or her to support a family and realize personal goals and dreams.

Adult and continuing education will enable community members to continually enhance their knowledge and skills through personal enrichment, vocational advancement and civic engagement.

Pre-natal Care and Early Childhood Learning and Development

Research has expanded our knowledge of basic mechanisms of brain and behavioral development during the earliest years and the ways these devel-opments serve as an essential foundation for later success as children enter school. Research has also demonstrated the increased power of new programs aimed at enhancing young children's language development, early literacy and socio-emotional development.

Concurrently, the publicly stated interest in early childhood learning and development among civic and business leaders in Minnesota is expanding advocacy and program design. The confluence of basic and applied research and civic action sets the stage for rapid changes in early childhood education and development and offers the cornerstone for effective programs for the new community at UMore Park.

Strategies
Key strategies for pre-natal care and early childhood learning and development include:
- Family life is the cornerstone of educational achievement. Parents will be supported through pre-natal and ongoing classes and other learning opportunities as the core component of the educational system.
- Most of a child's aptitude for educational success is determined in the family before the child reaches the preK-12 system, largely through the quality of parent child interactions that are in turn influenced by family structure and the educational level of the parents. The community will recognize the importance – and outcomes – of helping families and others to nurture every child's early development to prepare them socially, emotionally, cognitively and physically for elementary school.
- Community support systems outside the home – businesses, faith communities, profit and non-profit agencies and others – will provide a supportive network that puts children first, helps to ensure choices for child care and educational opportunities, and contributes to society overall.
- Intergenerational strategies, including co-located facilities, can benefit both the community's very young and its older citizens.

PreK -12 Education and Community Learning Opportunities

The educational system arguably will be the single most unifying institution in the new community. It will be the focal point for a promising future – for parents, educators and adult volunteers, local businesses and for children and youth.

The preK-12 education system in the new community will be founded on excellence. All aspects of education will be firmly grounded in current research on teaching and learning and will incorporate best practices from across the United States and around the world.

The mission of education is to prepare youth for democratic and civic engagement. The youth of the next generation have the opportunity to create a new vision of a future of personal growth, contributions to communities of place and of interest, social justice and global interaction. Adults often underestimate and undervalue the potential of young people to contribute to society. However, service learning and other forms of youth engagement in non-formal learning opportunities have demonstrated over the last 30 years that youth have the capacity to make a difference today. Youth inside and outside of school are engaged in their communities and the larger world identifying problems, envisioning solutions and implementing plans to improve the status quo.

Even when youth are not addressing problems through service learning, they can and should have community opportunities for non-formal learning that interest them. These non-formal learning opportunities spark youth's interest in a variety of topics, give them important ways to build competence and confidence, connect them with a wider range of caring adults and positive organizations, and create an excitement and motivation for learning they then bring with them into the classroom. Research shows it is often in these types of opportunities where youth are most motivated and concentrating – ideal conditions for learning.

The combination of the highest quality educational system and opportunities for service learning will support academic success and build skills, attitudes and behaviors that connect youth to their community and create a lifelong pattern of active citizenship. In the new community, people will be nurtured to take charge of their own learning. Vocational guidance will assist individuals in understanding personal opportunities and in matching curriculum choices to individual interests.

Geographically, the location of the new community is wholly contained within the existing Independent School District 196. The new community will capitalize upon the existing schools and infrastructure while also creating new opportunities that help youth attain educational goals. It will benefit from partnerships with the business community, other teaching and learning institutions and a range of public and private organizations.

Strategies
More specifically, key strategies include:
- The educational system should prioritize the needs of learners over the needs of educational providers. It should expect and help each learner to guide his or her own educational journey. That journey should seek to build upon the learner's assets and interests rather than focusing on deficits and deficiencies.
- Educational opportunities should provide all youth with the knowledge, skills and habits for success in the global information age.
- The overarching commitment is to individual learning. School-community learning interrelationships support personal growth in a comprehensive way; the focus is not academics alone. Learning will focus on the number of opportunities per child that are provided through school-community interrelationships. All children will be supported in recognizing opportunities for learning and participation in other activities that challenge their interests and their talents.
- The educational system should embrace new types of schools, centers, programs and learning networks, as well as new educa-

tional strategies at the classroom level.

- Learning can and should take place across a wide variety of times and places. It should be neither limited to the school building nor classroom time. Innovative ways to connect formal and non-formal uses of school days and summer are critical to making every minute count for learning and development as well as closing the achievement gap. Youth spend considerably more time in a year outside of school than in it. Leaving this large block of time to chance is neither wise nor effective in educating the youth of any community.

- The development of the educational system should never be seen as finished but continue to evolve through creative direction from the community.

- Learning is founded on the high-quality relationships between adults and the community's children and youth.

- All youth will take a post-secondary challenge class while in high school. Choices might include Advanced Placement, College in the Schools, International Baccalaureate or a Post-Secondary Enrollment Option class. All students should also be encouraged to take at least one post-secondary admissions exam.

- Outdoor natural areas and facilities will be integrated into the educational system to maximize learning opportunities. Such learning opportunities are most obvious in, but should not be limited to, the life sciences. For example, learners could investigate the history of Native Americans and early explorers in far more multi-dimensional ways than traditional settings might provide. Another powerful opportunity for learning exists in the history of the Gopher Ordnance Works, the munitions facility established during World War II, and its impact on families who lived and worked on the property during that time.

- In addition to hands-on experiential learning, outdoor activities can contribute to a positive lifestyle that thwarts diet-related chronic disease. Research also shows that exposure to learning and activities in green space areas reduce the impact of attention deficit disorder in children. The new community offers a unique opportunity to design green space into daily living and learning. Easy access to the Vermillion Highlands area to the south should be included in the community master plan.

Post-Secondary Education

In today's economy, it is estimated that the graduate of a four-year college will earn about $1 million more than a high school graduate over the course of the student's lifetime, according to U.S. Department of Education. A four-year college experience is not the pathway for all individuals. However, youth in the new community, from the early childhood years forward, should be supported, encouraged and prepared for a post-secondary education. This could be through a technical school, community college or a four-year institution. The academic rigor provided through education and lifelong learning in all its forms in the new community will prepare young men and women for post-secondary success.

Strategies

Key strategies to help achieve goals for post-secondary education include:

- Every student will be supported toward the goal of continuing to a post-secondary educational experience.

- Partnerships across educational institutions will provide unique yet complementary post-secondary opportunities for students living in the new community and for others. For example, the University of Minnesota; the Minnesota State Colleges and Universities system, especially the neighboring Dakota County Technical College; and private educational institutions should create a combination of classroom and on-line courses and degree programs that meet the needs of students today and in the future.

- Dakota County is the most populous area in Minnesota in which there is no four-year college or university. The community at UMore Park should find ways to make

University courses and programs available in the community.

- Educational institutions and the business community should create unique programs that enhance course and degree work, but also incorporate job opportunities that ultimately benefit businesses and students. For example, a business and industry partnership with educational institutions could serve a role for economic development in the region.
- University undergraduate and graduate students' learning experiences should be integrated into the development of the community at UMore Park. Research and learning that engages classes as well as individual students or teams through projects offers mutual benefits – to students and to the community.

Adult and Continuing Education

The new community will include adult basic education, continuing education and lifelong learning as key components of its educational system. Continuous learning the supports occupational mobility is critical.

According to the 2000 U.S. Census, 12 percent of Minnesotans over age 25 (381,345 adults) lack high school equivalency. The Minnesota Department of Education reports that the numbers of parents whose lack of basic skills are barriers to the success of their children are increasing. Adult basic education in the new community will address workforce preparation such as literacy skills and instruction in the 'soft skills' that are desired by employers, basic skills enhancement, English as a Second Language and General Educational Development diplomas, for example.

In Minnesota, 811,000 Twin Cities baby boomers and 1.3 million statewide over the next two decades will undergo the transitions that can bring renewed opportunities to themselves and their communities. Importantly, numerous research studies show that active education is a key factor in staving off memory loss, lethargy and loneliness in older adults. In addition, the demand for older adult education programs has more than doubled nationally, from 8 percent in 1991 to 20 percent in 1999.

By 2030, individuals age 60 and older will represent 22 percent of the total metropolitan area population, according to the Metropolitan Council. Currently older adults (60+ years) represent 10.3 percent of the population in Dakota County. Current trends show that those in mid-life and beyond are experiencing reduced savings, reduced retirement pensions, and the possibility of reduced health care benefits. These and other characteristics of an aging population are important considerations to address in the design of continuing education opportunities for community residents.

Most individuals younger than 45 years of age expect to work, that is, to be employed in some shape or form, all of their lives. These individuals are seeking meaning in their work in addition to pay. Adult and continuing education in the new community emphasizes the understanding that continuous learning is required to support occupational mobility to keep up with rapidly changing occupations.

Strategies

Key strategies for adult basic education and continuing education in the new community include:

- The new community, through the design of neighborhoods, facilities and programming, will address the growth trend in adult learning. It will create an environment that promotes lifelong learning as a personal and community investment.
- Members of the community are supported in their desire to come together to share experience, wisdom, talent and personal support – the lifelong learning that heightens personal enrichment, vocational advancement and civic engagement.
- Older adults will be engaged in shaping curricula, drawing upon their own expertise and life experiences, participating in the governance of this and other components of the educational system, and serving in ways

that satisfy their desires for a renewed sense of community.

- The community, through information resources, technology and business and industry linkages, will support the individual entrepreneur of any age in transforming individual creativity and knowledge into a business.

- The intergenerational fabric of the community will be supported by the intentional design that brings people together in indoor and outdoor settings to learn together, learn from each other and share interests, meals and creativity. Whenever possible, multiple educational programs should share space, facilitating collaboration across both generations and disciplines. These might include service learning projects designed for intergenerational teams.

- Adult and continuing education opportunities will be designed around hands-on experiential learning, with a special emphasis on outdoor activities that can contribute to a positive lifestyle and reduce chronic disease.

Sharing the Vision

The new, sustainable community at UMore Park will be distinctive in the nation with its unique educational foundation and the imprimatur of the University of Minnesota. The very idea of such a University-founded community has drawn the interest and engagement of people and organizations who wish to be part of the vision. The ideas and insights of the more than 450 individuals who participated in public Listening Sessions in September 2007 were energizing – a tangible reinforcement of the need to continually engage with the public as the educational vision for the community is transformed into reality.

Public forums for the University community in November 2007 underscored a critical factor for future success: Students joined the discussion in unexpectedly high numbers and proactively expressed desires to actively participate in research-based projects that will contribute to the development of the community. The potential for learning and co-learning – among University students and faculty, and community members of all ages – is beyond measure.

The ideas that were shared informed the Education Task Force report (see the Appendices for comments from the public Listening Sessions and the Campus Forums). The ideas of many people and potential partners will continue to benefit the creation of this new community with an inspired goal for education.

Academic Mission Strengths

The expertise and research, education and public engagement resources that can support development of the new community at UMore Park can be found in every unit of the University. The College of Education and Human Development alone includes 193 tenured and tenure-track faculty members whose academic and practical experiences can benefit the community. Nationally ranked programs in the College include: counseling and student personnel psychology, vocational/technical education, developmental psychology, special education, educational psychology, secondary education, elementary education, curriculum and instruction, administration/supervision, social work and family social science. In addition, strength areas reside in the College of Continuing Education (the new LearningLife program focuses on 'the second half of life'), Minnesota Extension, the Hubert H. Humphrey Institute for Public Affairs (Center for School Change), The Consortium for Post-Secondary Academic Success, and the education and public engagement programs housed within the University's 17 colleges and professional schools.

The University of Minnesota is poised to meet the challenge of developing a University-founded community, in conjunction with partner organizations and citizens, as it strives to become among the top three public research institutions in the world.

Education Task Force

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Darlyne Bailey, Dean, College of Education and Human Development
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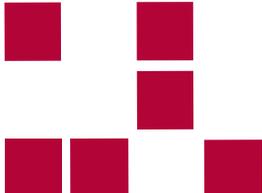
ENERGY

The Energy Task Force envisions a self sustaining community with efficient housing and buildings, self sufficient energy production, internal waste utilization programs, employment opportunities, and community ownership. The University must set the bar high and create a model for other communities, a place people come to learn. In this community the University can show that innovative approaches and technologies can work in a real-world setting and it can be a living laboratory that attracts funding support to sustain the research that can be developed around this community. An important component of the vision is an energy research park on the site.

Context
Significance
According to the *Architecture 2030* initiative, the built environment is responsible for 48 percent of carbon (CO_2) emissions in the United States, while the transportation sector is responsible for another 27 percent of carbon emissions. Recently, the American Institute of Architects endorsed the goals of *Architecture 2030*, which sets a target of zero carbon emissions from buildings by 2030 and requires emissions to be reduced by 60 percent by 2010. It is well documented that the building sector uses large shares of the world's wood, minerals, water and energy and generates a large portion of the waste going to landfills. According to *World Watch*, "Much of the environmental damage occurring today, from destruction of forests and rivers to air and water pollution and climate destabilization, is placed squarely at the doorsteps of modern buildings." Planning and design of the built environment not only results in environmental impacts from buildings themselves but impacts from the transportation patterns that are established by development. Much of the focus of sustainable design activity in the recent past has been on individual buildings; however, the same issues and impacts apply to infrastructure, developments and cities.

Issues
Currently timing is a key issue, particularly on integrating renewable energy production capabilities into the community. Producing and distributing energy is a complex issue with legal and policy implications. Another challenge is delivering energy reliably to a real community while creating a flexible infrastructure that facilitates research.

Uniqueness
The ability to design a complete new town and its infrastructure to meet visionary goals is a very unique opportunity. Energy can be a cornerstone

of this community and the issue that attracts worldwide attention. Academic research possibilities need to be considered in the initial planning so that opportunities are maximized in the future.

Conclusions and Recommendations

Primary Principles

1. Develop an economically viable, sustainable community that optimizes self-sufficient energy production and minimizes carbon emissions.

    A. Minimize energy use and maximize renewable generation.

        1. Minimize energy use through efficiency and avoid energy consumption through conservation in all areas – buildings, infrastructure and transportation.

        2. Optimize on-site renewable energy. Examples are wind, solar, energy crops, cellulosic and non-cellulosic waste conversion, and near-surface geothermal reservoir energy.

        3. Create a district energy system utilizing combined heat and power "smart" micro-grid technologies. Create an energy system and facilities that can adapt to new technologies and use flexible energy sources.

        4. Explore opportunities on or near the site for innovative energy systems. Examples include utilizing land for biomass and wind, the large sewer pipe, or excavated gravel pits for creating thermal and hydrogen energy storage. Seek local and other partners to leverage opportunities.

        5. Explore opportunities for symbiotic relationships where waste energy or material from one facility or operation is supplied to another facility or operation (industrial ecology).

    B. Go beyond zero impact to restore and enhance the overall environment.

        1. Make the development a net energy provider.

        2. Incorporate systems that contribute to other environmental attributes such as air quality, water quality, biodiversity and solid waste reduction.

    C. Use a systems approach to design the community.

        1. Include the energy and greenhouse gases (GHG) impacts associated with stormwater management, solid waste disposal, and water and wastewater treatment systems.

        2. Include the energy and GHG impacts associated with transportation by examining land use patterns, density, mixed-use development, public transit, and more efficient and alternative fuel vehicles.

        3. Include the energy and GHG impacts associated with food production and delivery.

    D. Create policy, administrative structure, and financing to enable and support the energy and research goals of the community.

        1. Create an "energy authority" that provides new financial models to support efficiency and the greenhouse gas reduction.

        2. Create very high building and community energy codes and standards that can be models for other communities.

        3. Create the necessary policies and administrative structure to enable a combined heat and power district energy system.

        4. Create administrative structures and financing to support systems integration research in parallel with the master planning process and throughout the life of the project.

        5. Ensure the research support and financing mechanisms are coordinated and synergistic with existing programs and mechanisms at the University.

2. Create a world class energy research park.

    A. Develop joint ventures with state and

federal agencies, utilities, non-governmental organizations and other commercial partners.

B. Explore cutting-edge technologies in energy-efficient building and infrastructure design that maintain healthy indoor and outdoor environments.

C. Explore cutting-edge technologies in energy production, storage and delivery as well as carbon sequestration (including solar, wind, bio-refinery, hydrogen from biomass and others).

D. Design the community energy system to be flexible enough to accommodate research and demonstration of new energy technologies.

E. Conduct detailed, long-term monitoring and control of all energy flows in the community.

F. Identify mechanisms for administering public grants and private funding that addresses intellectual property issues.

G. Develop employment opportunities for residents in the energy research park.

3. **Utilize the energy use patterns and technologies at UMore Park as a vehicle for education at all levels.**

A. Involve graduate and undergraduate students from multiple colleges and departments in research and demonstration projects.

B. Design the community energy systems and facilities as a living laboratory that maximizes public education.

C. Design and build a visitors' center as soon as possible that would demonstrate cutting-edge sustainable design.

Summary Statement

The UMore Park property development provides unprecedented opportunities for research, education and demonstration at the scale of an entire community. Many energy efficiency and renewable energy technologies can be developed in any location, but this property provides the unique opportunity to work with complete systems integration at the district scale. It will be possible to explore the limits of resource self-sufficiency on a

specific piece of land and understand if the built environment can have a positive, restorative impact on the earth's natural systems. It will provide an excellent opportunity to comprehensively monitor the overall operation and impacts of the new community.

While the opportunity to develop a community at UMore Park is unprecedented and addresses some of the most important issues of our time, the University should ensure the success of the project by avoiding possible pitfalls in the conventional planning and development process. Just as new technologies must be innovative, so must the approach to planning. Key issues and recommendations are summarized below.

There must be meaningful, ongoing participation of faculty and students in the planning process.
There is a tremendous reservoir of interest, enthusiasm and creative ideas within the faculty and some student groups. It is important not to marginalize their input and involvement during the early phases of the planning process. These groups will quickly lose any sense of having a voice or ownership in the development of a community at UMore Park if they are not engaged during the initial planning stages. Before proceeding further, an academic advisory committee consisting of key faculty and student representatives should be established with the same level of authority as other stakeholders in the planning process. This will protect against losing the long-term vision and falling back on business as usual development practices.

Systems integration research must happen at the beginning of the planning process.
It is impossible to plan an innovative community of the future without in-depth research driving the planning process. Otherwise, planning consultants, developers and other decision makers will be limited by their own experience and knowledge in fields that are just emerging. The type of research and analysis required for this project will not occur through voluntary faculty committees. Just as the University has chosen to fund a master plan-

ning consultant, they should also fund a team of faculty researchers that work in parallel with the planners. This research group could be formalized as a think tank for systems integration planning. The decision-making process needs to be transparent and treated as a unique, mutually beneficial learning opportunity for the planning and development disciplines, the research community, and the public. Even if this approach requires some rethinking of the planning timeline and process, it is essential to ensure the success of the overall project.

The process of developing UMore Park must be seen as an evolving system that has feedback loops and adapts to change.
There is a natural tendency to assume that the best current knowledge can be applied in a static way to the development of a community over the next 30 years. In fact, development practices and technology will undoubtedly change radically during that period. There is tension between short-term, market-based development approaches and long-term visionary thinking that incorporates cutting-edge research. The master planning should recognize the fact that there will be a constant stream of new ideas and feedback from faculty, students and the residents of the community.

The planning process must continue to include meaningful participation from citizens representing future residents of the community.
Most communities are shaped by their residents' participation over time. It is important to include the input and involvement of future residents during the early phases of the planning process, and then recognize that they will be a major force in shaping the community once it is established. The engagement of the public at this early phase, through the six Listening Sessions in September 2007, was an excellent beginning for an ongoing process. The existing UMore Park Advisory Council is also an important mechanism for citizen participation. An expanded citizen advisory committee should be considered to reach out to interests beyond those who currently reside near the property.

Public Engagement to Date
Public engagement and meaningful dialogue has been established with citizens of the community and the University. In September, 2007, six community Listening Sessions were held in Rosemount, Minnesota followed by two University Campus Forums in November, 2007. In total over 600 people attended these meetings. At the University forums, students in attendance were extremely excited about the possibility of gaining real world experience in their respective areas of study, noting that involvement in UMore Park would not be an abstract exercise. During the community Listening Sessions, conversations ranged from discussions about energy conservation to various new forms of power generation including wind, biomass and geothermal. Comments from all of these public sessions are included in the Appendices.

Recommended Next Steps
1. Establish an academic advisory committee of faculty and students empowered to work with the master planning process. The committee needs to be interdisciplinary rather than compartmentalized into multiple committees with separate areas of expertise.
2. Establish and fund a research component of the UMore Park planning process that works with planners to employ a research-based approach to decision making. This research group should utilize the talent and expertise of the University faculty.
3. Set up the master plan framework so that it can be open to new ideas, respond to continuous feedback and adapt to change over time.
4. Continue to make the planning and decision-making process transparent and participatory in the broadest sense.
5. In addition to the existing UMore Park Advisory Council, establish a mechanism to include interests of future residents and neighbors, to the extent possible.

Energy Task Force

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ENVIRONMENT
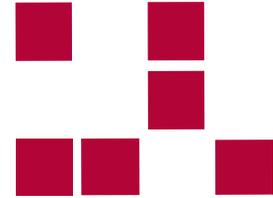
David Orr, in the Foreword to *Ecology and Design* (2002, Island Press) suggests that what is needed is:
"to harness the talents and energies of faculty and students to redesign their own campuses so that one day they are climatically neutral, discharge no waste, enhance biological diversity, and support the emergence of locally sustainable economies. This means converting the university from just a place where education happens to one that educates ecologically."

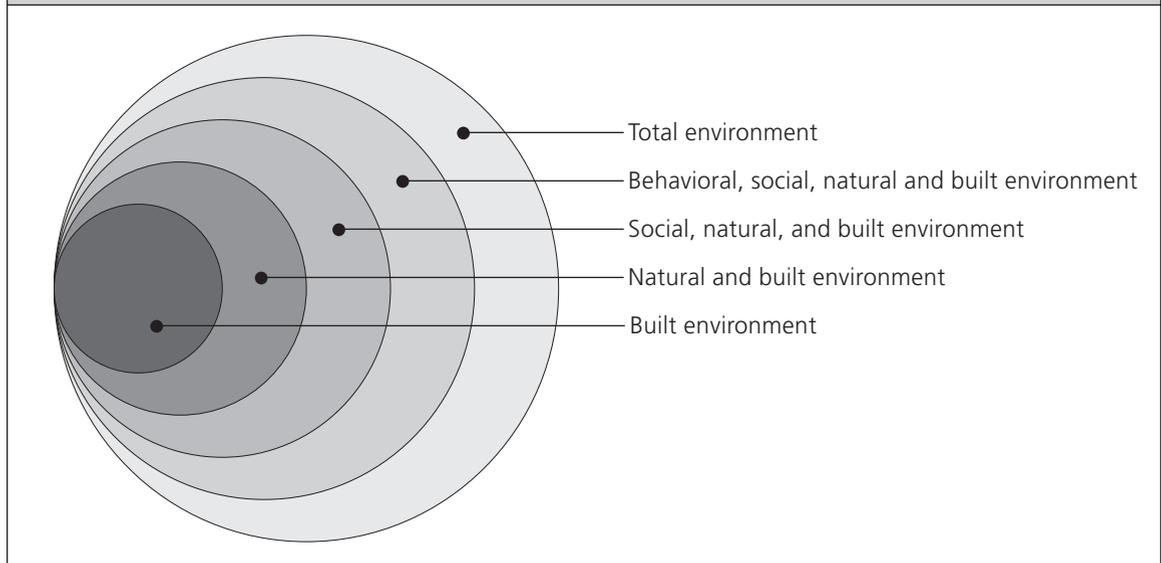## Introduction and Background

General Statement

The University of Minnesota has the unique opportunity to develop an entire community around the concept of sustainability (environmental, economic and social) and to make the most of that opportunity through the implementation of an interdisciplinary University research program in that community. From an environmental standpoint this means that we can, and should, design a community that will simultaneously 1) implement sustainable practices, 2) be a platform for ongoing University research and 3) educate the public about how to live sustainably.

The University is currently involved in research, education and public engagement in a wide range of environmental issues through the Institute on Environment, many other centers and individual faculty efforts. At UMore Park, the University has the opportunity to set the standard for a new

community at a level that is significantly higher than any other development in the region, the nation and the world. Indeed, in addition to setting new criteria for the University, it should be the model for community development standards in the 21st century. With high performance standards, the new community is expected to be highly marketable as a place with unique design character that functions within ecological limits, has a distinctive sense of place, and has high community livability. The model will be of the greatest value if it is designed to foster University research that will generate information for professionals and community residents.

The guiding principles described below have been developed with the intent that UMore Park will emerge as a world class model of environmental sustainability. The report recognizes, but does not address in detail, certain existing pre-conditions at UMore Park that must be considered in any vision

DIMENSIONS OF THE ENVIRONMENT

- Total environment
- Behavioral, social, natural and built environment
- Social, natural, and built environment
- Natural and built environment
- Built environment

Adapted From Smith, Corval, and Kjellstrom, 1999.

for future development. For example, the site contains some contaminants related to the Gopher Ordnance Works, a World War II facility that produced smokeless gunpowder in support of the war effort. Thus, environmental remediation will need to occur prior to or concurrent with anticipated UMore Park development. Further, there may be significant economic potential for gravel extraction at UMore Park. These operations will need to be done in accordance with environmental standards for mining and in a manner complementary to other activities at UMore Park. The reclamation plan may, in turn, present a unique opportunity to create lakes, wetlands, wildlife areas and landscapes to enhance development in UMore Park as well as recreational and environmental connections with Vermillion Highlands.

Definition

For the purposes of this report, "environment" is defined as: the built and natural environments containing living and non-living elements. Development at UMore Park will be an integrative and

holistic process that provides for the needs of people and nature using principles of sustainable development – environmental integrity, vibrant economy and social equity.

Guiding Principles for UMore Park Development

The Environment Task Force identified a number of guiding principles that we felt are appropriate for all University developments. These principles provide the theoretical underpinnings for the specific recommendations that appear later in this document. The success of this project depends on adherence to these principles and the continued involvement of University faculty at UMore Park property. The most effective way to ensure faculty involvement over the long term is to make financial resources available for this purpose. Without significant dedicated research funding, the unique potential of the UMore Park project will not be realized. The guiding principles are to:

•   Preserve and enhance ecosystems, ecological

[1]Ecological services are defined as those benefits that people get from the ecosystem, including products, functions, and attributes. This includes a variety of things such as providing water and food, regulating nutrient cycling, and providing spiritual and recreational benefits.

services[1] and functionality using the two fundamental principles of ecosystem function – energy flow and nutrient cycling. This will inform the design process to increase energy efficiency; maximize material recycling in both construction and operation; and utilize ecosystem services in climate moderation, waste and water pollution reduction, and providing biotic diversity.

- Be synergistic, holistic and systemic – to clarify issues, consider all things together, and maximize creativity and innovation in everything. Consider air, water and land in an integrated perspective. They are all integral to the environment, indoors as well as outdoors.
- Consider off-site as well as on-site impacts. Account for the connectedness between the developed site and the rest of the community.
- Promote food and agricultural relationships – how to feed an urban and suburban population by promoting locally grown foods, including on-site production.
- Embrace sustainability – to enhance resources, ecological services and diversity.
- Maximize the human interface with nature.
- Practice conservation design/green design – to transform the way buildings and communities are designed, built and operated enabling an environmentally and socially responsible, healthy and prosperous environment that improves the quality of life.
- Build a functional community as well as an aesthetic community.
- Maximize recreation and healthy living while providing for open space.
- Encourage, promote and support research at UMore Park. The true potential of this project can only be realized if there is a long-term commitment of money to encourage University faculty to conduct research in this unique research community.
  - ° Research at UMore Park should include both individual investigator initiated projects as well as themed initiatives identified by the University which encourage faculty participation.
  - ° A pilot projects grant program and a

matching grants program for sustained research efforts would ensure continued involvement of world class faculty and innovative research programs.
- ° Future research in the new community will require baseline data (environmental, economic and social) regarding the community as it is today. Therefore, it is essential that a monitoring program be implemented quickly.
- ° Encourage, promote and support University classes and students in the planning, implementation and evaluation of the community at UMore Park.

Context
Significance
As a sustainability umbrella, environment should set the standard that the University should strive to accomplish in the development. It is critical that the first phase of the development be accomplished at the highest level possible to illustrate from the beginning the University's intentions for the development.

The principles and strategies outlined for environment as a sustainability umbrella can be utilized for any other properties that the University might want to develop in the future.

Issues
Environment is a sustainability umbrella and not a matter of simply integrating into the design of the new community. It should be what _informs_ the community as the fundamental principle that the master developer and planner utilize to create the concept plan for the 5,000-acre site as well as the phase one development.

Uniqueness
The environmental and sustainability standards should be at the highest level possible. If fully incorporated into the development, these standards will make this community unique in the world.

Findings
The definition of environment as a sustainability

umbrella states that the primary goal for the new community is to transform the way buildings and communities are designed, built and operated, enabling an environmentally and socially responsible, healthy and prosperous environment that improves the quality of life.

As such, the University should set the national standard for community development in the 21st century in a way that is economical, marketable, functional and conducive to an exciting and interesting place to live, work and play.

Principles and Strategies

A. Research serves as the Basis for Defining Sustainable Development
- Use researchable questions to guide the form and function within the community.
- Commit to funding research during the development phase as well as ongoing after development is completed.

B. Resource Recovery
- Reduce or eliminate waste at the source by promoting the use of non-toxic or less-toxic substances, implementing conservation techniques and re-using materials rather than putting them into the waste stream.
- Integrate aggressive recycling programs and goals into community plans. Create incentives for residents and businesses to reduce waste, such as unit-based pricing for solid wastes and using tax base to support convenient recycling facilities.
- Actively encourage use of recycled content materials and renewable materials that are regionally sourced in construction, furnishings, operations and individual households.

C Healthy Environments
- Design for zero contribution to greenhouse gases or other pollutants into the air.
- Design to maintain high indoor environmental quality in residential and commercial development.
- Minimize light pollution with innovative neighborhood design.

D. Preserve, Conserve and Protect Water Quality
- Protect water quality with a non-degradation policy – quality in, quality out.
- Maintain or restore natural hydrologic flows to protect natural water bodies and watershed function, by treating water as a resource rather than a waste.
- Minimize water consumption through technologies that reduce water use by at least 30 percent over typical development.

E. Maximize Energy Efficiency
- Approach a carbon neutral or negative community – greenhouse gas (GHG) emissions 80 percent below 2005 levels (consistent with state's goal).
- Work with energy partners in the public and private sectors to get to 100 percent renewable energy.

F. Highest Sustainability Standards for the Built Environment and Serve as Models for Education
- Meet Leadership in Energy and Environmental Design (LEED) Gold Standard or above in the built environment for all buildings and site plans.
- Embrace higher density housing to increase preserved open space – housing density equal to urban areas in Minneapolis and St. Paul.
- Ensure that development is affordable to all segments of society.
- Utilize the non-renewable gravel resources on the property as a model of innovative resource inventory technology, extraction processing, minimization of adverse off-site effects, and exemplary reclamation to create new landforms and infrastructure such as recreational lakes.
- Incorporate education on sustainable design and living into the development.
- Incorporate sustainable local food and energy systems.

G. Maximize Connected Systems
- Maintain physical and functional connections between built areas and

natural areas both inside and outside the development.

- Connect water, green space, wildlife corridors and adjacent lands with people.
- Maximize use of the land while minimizing negative impact (spatial principle).
- Design the community so local goods, services and employment are available.
- Pursue coordinated research efforts with other University landholdings in locations across the state.

H. Incorporate Education
- Use UMore Park as an environmental experimentation and demonstration site.
   ° Maintain records and test data of environmental impacts and services.
   ° Provide interpretation and information on models that can be replicated elsewhere to share best practices in Minnesota and other states.
   ° Integrate environmental education into living, working and recreation.
   ° Protect the long-term agricultural research that is on-going.

I. Protect, Conserve and Enhance Ecosystem Services
- Protect significant natural resources.
   ° Enhance and expand existing ecosystem functionality.
   ° Conserve and restore species diversity (flora and fauna).
- Connect natural systems with built systems.
   ° Interweave natural and built environments – bringing 'Nature into the City.'
   ° Utilize native plants in urban landscaping.
   ° Design with nature as a model to include plants with multiple values to humans and wildlife.

J. Integrate Food Needs and Local Agriculture
- Provide a model for the integration of agriculture and food production into a community at the urban/rural edge.

- Integrate the production of a range of food, including livestock, locally as it is practical and economical to do so for the broader region. The element of local foods can also contribute to the social fabric of the community.

K. Cross-cutting Strategies
- Use design standards and the development as a model for urban/rural edge development for the metropolitan area in the future.
- Provide for food production within the community—small scale agriculture and urban agriculture, including community gardens, home-grown food and farmers' market.
- Minimize motorized transportation in the community through innovative strategies.
- Allow no physical development until a rail connection and public transportation system to the Twin Cities and the University of Minnesota-Twin Cities campus is in operation.

Community Dialogues

In September 2007, six community Listening Sessions were held in Rosemount, Minnesota to gather input from a wide array of citizens, local and regional units of government, and various other public and private partners. Discussions at these sessions included water quality, waste reduction and recycling, the preservation of open space, the use of alternative forms of energy and much more. Two Campus Forums were also held at the University in November 2007 to gather thoughts and comments from faculty, staff and students. Over 600 people contributed ideas during all of these gatherings. The summary comments from these conversations are included in the Appendices.

Summary

The Board of Regents established a goal and principles for UMore Park at its meeting on February 6, 2006 (see *Creating the Vision: The Future of UMore Park*. The Report by the Strategic Planning Steering Committee, University of Minnesota,

November 2006). The environmental principles and strategies that are outlined in this report as a sustainability umbrella for the development are consistent with and supportive of the Regent's principles. They are intended to utilize market value as a benchmark in assessing alternative development strategies, and as a way of informing the design of the development from the beginning, yet flexible to adjust to changing market, energy, cultural and livability concepts over time.

The vision statement for UMore Park, described in *Creating the Vision: The Future of UMore Park,* outlines sustainable development as being characterized by social, economic and environmental sustainability. The principles and strategies contained in this report support that definition.

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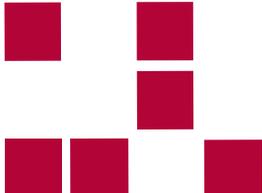
HEALTH

The University of Minnesota is the key institution that shapes the state's future through discovery and innovation in science, health, humanities, the arts and the professions. Its goal is to transform discovery through research and learning into benefits for the people and communities of Minnesota. It embraces responsibility for critical contributions to human progress and achievement that drive improvement in our economy, culture and the quality of life.

This is the basis of the University's role in Minnesota as it confronts the once-in-a-lifetime initiative to construct a new community at UMore Park. In the arena of health, the University is uniquely poised to shape its interdisciplinary, collaborative and preventive research and education to protect, improve and promote the health of individuals, populations and communities. The Health Task Force proposes the following values to guide the health and wellness of the new community:

- Nurture, sustain and enhance human health and well-being through a core focus on community, family and home – the bases of "social connectedness;"
- Employ innovation, research and evidence-based science in developing cutting-edge strategies by which the community can shape

itself to promote human health and well-being;
- Make liberal use of innovations in community design, information and environmental technology, education and public policy for maximum enhancement of factors that support, sustain and enhance human health and well-being; and
- Provide universal community knowledge and access to research opportunities, prevention and essential health care services with special attention to racial, ethnic, gender and cultural factors that influence disparities and differences in health outcomes.

Context for Health and Wellness

Health and wellness is the right, possession and responsibility of everyone. In the new University-founded community, health and wellness is nurtured and sustained through a core focus on the community, family and the home. Relationships expand from family members, caregivers and neighbors to community structures including the workplace, schools, faith communities, service agencies and the broader community – its physical characteristics and the interactions of its residents. Health is a collaborative effort.

Health defined. Health "is a state of complete physical, mental and social well-being and not

merely the absence of disease or infirmity" (World Health Organization, 1994). It includes the domains of the physical, emotional, social and spiritual. Good health is an indispensable basis for human progress and achievement and is "…a dynamic force in our daily lives, influenced by our circumstances, beliefs, culture and social, economic and physical environments…" (Health Canada, 2007). It takes an entire community to create the conditions to nurture and sustain good health as well as the actions of individuals, the family and organizations. This understanding of health and well-being embodies a focus on health promotion, prevention, the mind-body connection, health education and literacy, and services delivered in the community and the home.

Principles and Potential Strategies

The task force identified five key principles that should be addressed during the development of the new University-founded community: (1) social connectedness, (2) access, (3) food, (4) recreation and relaxation and (5) safety.

Social Connectedness

Principle: *The intentional design of the community to foster the physical and virtual interactions of individuals, families and the community will promote health through social connectedness.*

Although physical and mental health are shaped by genetic and biological factors, it is human interaction with the environment that plays a critical role in nurturing and sustaining health, or in placing an individual at risk for poor health. Physical and psychological isolation from others may not only produce psychological stress negatively impacting mental health, but also physical conditions that are at least partly linked to psychological factors. Being connected to others enhances health and protects a person from a variety of ills.

The family, as a unit, also experiences health, well-being, stress and dysfunction. The health of individuals within the family affects family functioning, and family functioning affects an individual family members' physical and mental well-being. As with individuals, the family's

health and emotional well-being are influenced by the social environment in which it functions.

Social capital is the idea that an individual's location within a network of relationships provides certain advantages. Likewise, advantage is created for families when they are able to situate themselves within supportive social networks. Entire communities can create social capital when support, communication, caring and cooperation are shared among community members. Not only is the mental and physical health of individuals and families promoted and ailments prevented, but support systems are in place and can be activated to assist in situations requiring long-term care or rapid response to health crises.

Potential Strategies

The physical design of a community can help individuals and families connect in positive ways to communicate, support, or cooperate – to create social capital. In designing the new community, attention will be paid to the ways that physical spaces, transportation systems and technology contribute to fitness, physical and mental health promotion and health care access. Potential strategies for achieving this include:

- Housing and landscape designs that encourage social interaction – front porches, common lawns, cul-de-sac arrangements, and neighborhood streets, sidewalks and trails that lead to social destinations.
- Homes and public buildings equipped with technology that supports rapid interaction and interaction among multiple users. The community's technology will have the capacity to support a variety of web-based communication tools that can contribute to social connectedness.
- Various types of social gathering places to increase and strengthen the social capital and fabric of the community. Space for spiritual and faith-based services, as well as other gathering places that encourage coming together for a purpose will be a part of the community.

- Transportation systems – from "concierge" service and ride sharing to public transportation – will provide the easy access that allows all residents to engage in community activities.

Distinctiveness

The University of Minnesota is uniquely positioned to positively impact this new community. The depth and breadth of the University's expertise in the health and wellness arena will benefit the community. University assets in the area of social connectedness that will be of assistance are:

- Cutting-edge research on holistic conceptualizations of health and the interaction between health and the built environment, via the social environment.
- Multidisciplinary approaches to creating health through the physical and social environments.
- Ability to strategically connect the needs of diverse Minnesota citizens to University of Minnesota resources in design, architecture, housing, transportation, health and mental health.

Access

Principle: *Health and wellness in the new community will be defined by principles of excellence, innovation and universal access.*

Access to high-quality systems – not just health delivery, but systems that support and sustain health and wellness with informatics and technology – is essential to this University-founded community. Towns, cities and states struggle with the key issues of access to the timely delivery of quality healthcare services, access to support services and healthcare coverage to citizens. Unfortunately, those with the most limited access to services are individuals, often children of color, living in economic disadvantage. This results in the creation and maintenance of significant health disparities. It also causes individuals and families to delay or postpone care until circumstances and increasing risk force them to seek the most expensive and inefficient "downstream services," that is, the hospital emergency room, for example. In addition, the public is well aware that the current healthcare system is disjointed, difficult to access, overburdened and unfocused on prevention, which often leads to poorer health outcomes.

According to the National Institute of Medicine, 45 million Americans do not have health insurance. About 80 percent of uninsured Americans come from working families, and about 20 percent are children. Parents that do not have health care coverage, and therefore likely have greater health problems, cannot attend as effectively to the care of their children. Health care coverage for children is necessary, but not sufficient for the healthy functioning of the family. Each year, about 18,000 Americans die prematurely because they lack health coverage and either delay or decide not to seek medical care. In Minnesota, the number of uninsured persons, including children, is on the rise. The Minnesota Health Access Survey states that in 2004 the number of uninsured individuals in Minnesota was 375,000 or 7.4 percent of the population, up from 281,000 or 5.7 percent in 2001. The uninsured rate for children ages 0 to 5 was 3.9 percent in 2001, and rose to 6.8 percent in 2004.

When the opportunity to establish a new community emerges, there is an occasion to examine healthcare from public health, family-centered and community-based vantage points rather than traditional indemnity insurance models alone. Access then becomes not only an issue of access to coverage and "downstream" healthcare delivery mechanisms, but access to health promotion and preventive services delivered through new paradigms – taking advantage of advanced technology in the home and access to physical and mental health-promoting contexts within the community. With the development of the new community at UMore Park comes the opportunity for a more planned approach to health, healthcare and wellness.

The vision for this community, described here, emphasizes collaborative and preventive research and education to protect, improve and promote the health of individuals, populations and communi-

ties. Along with the education and lifestyles that will help keep people well and healthy, community residents will need access to health care services. At this writing, the delivery of services such as those related to emergency care, acute care, chronic disease, mental health, aging, and end-of-life is organized through systems of clinics, pharmacies, specialty centers, hospitals and nursing homes. How this delivery system will evolve in the near-term and in the far future need not be a matter of chance for this community, but should be based on careful planning to meet the needs of a diverse population. The new community's "system" should plan for team-based, patient-centered approaches to care with a focus on the home, technology and health care facilities thoughtfully integrated into the community, easily accessible and linked to the University health care system.

Potential Strategies

With the imprimatur of this major research University adding value and context to the new community, health and wellness will be grounded in state-of-the-art science, best practices and the continuous applications and innovation of next-generation technologies.

Strategies to accomplish this could incorporate:

- Community members actively engaged in the design of health and wellness emphases and programs in the community – including health literacy and personal participation in one's own health goals.
- Access to integrative healthcare that will overcome cultural, economic and social barriers.
- Quality information on health and wellness that is presented in culturally appropriate and accessible language. Alternative formats would be available around the clock in the home, schools, community agencies and places of business. In essence, the new community would provide the equivalent of "the Weather Channel" for health. This will accentuate prevention and increase wellness, physical and mental health.
- A community goal to ensure some level of

universal healthcare as part of the health infrastructure provided by the University.

Distinctiveness

The University's involvement with the community could provide value-added health and wellness benefits, including:

- Access for community residents to participate in University health research projects and programs.
- An integrated health and wellness model that places health in a community and social context providing the support, education and understanding of the importance of health and prevention to the family and the community. An engaged and informed community may be more interested in participating in a community health system, and ultimately in longitudinal studies that track population health. (Such an example is the community of Framingham, Massachusetts, and the well-known Framingham Heart Study, which was initiated in 1948. The study, which focuses on cardiovascular disease and its major contributing risk factors, has involved thousands of residents from the community.)
- Engagement of external funders to support research on models and cost-benefit analyses of the new community pursuing a universal healthcare strategy that includes wellness, diet and early intervention.

Food

Principle: *Health and wellness will be supported in the community through the availability of a variety of high-quality and healthy foods and education and information on food, nutrition and lifestyle choices.*

Safe and healthy foods, along with wise food choices and smart eating habits, are essential to the quality of life for individuals, their families and overall community health. Diet-related chronic diseases – diabetes, heart disease, stroke,

cancer, obesity and asthma – consume 75 percent of the $1.4 trillion U.S. healthcare budget, according to Department of Health and Human Services statistics. Demographic shifts in the population resulting in socio and cultural changes in the marketplace have increasing and multiple effects as food relates to the health of diverse cultural groups.

The increasing incidence of obesity in adults and children is the result of poor quality food intake and decreased physical activity. In addition, busy families focus less time on food preparation in the home and increase consumption of food away from home. The major motivations for food choices in the United States are taste, cost and ease of access – quality and nutrition are low priorities. The ultimate long-term solution to reduce disease and promote health and wellness is prevention, through knowledge creation and public education and understanding.

Potential Strategies

Food can be a focal point for fostering a sense of community, both through the sharing of meals and through educational opportunities. The integration of nutrition education, gardening, cooking courses and retail food shopping options as formal and informal shared learning opportunities, for example, would address the interests of residents of all ages.

Potential strategies for the community include:
- Community facilities with kitchen and dining space that will encourage shared meals, intergenerational gatherings and community interactions around food and fellowship. Such community interactions can benefit all citizens, but are especially significant to the community's youngest and oldest members.
- Nutrition and cooking education offered through schools and community centers. Classes and events that feature farmers and horticulturalists would link the agrarian history of the region to current food production and local food sources.

- Community gardens at convenient locations across the community that offer enjoyment, social connectedness, physical activity and can be linked to formal and informal educational opportunities for all ages.
- Specialty markets, grocery stores, community-based farmers markets, co-ops, delicatessens and restaurants to meet lifestyle preferences and cultural and ethnic options. These will help residents celebrate quality food in community as part of the social fabric.

Distinctiveness

University faculty, students, staff members and program resources to guide the development of a community founded in health and wellness will be an advantage. Examples of the value-added through the University's relationship with the community include:
- Nutrition education that permeates the community through unique and engaging activities and forums.
- Integrating the community into University agricultural research located nearby.
- Extension food and nutrition services available to members of the community.

Recreation and Relaxation

Principle: *The new community will provide for recreation and relaxation opportunities, both structures and programs, which are accessible to all members of this diverse community throughout their life span.*

Regular physical activity substantially reduces the risk of dying of coronary heart disease, the nation's leading cause of death, and decreases the risk for stroke, colon cancer, diabetes and high blood pressure. It also helps to control weight; contributes to healthy bones, muscles and joints; reduces falls among older adults; helps to relieve the pain of arthritis; reduces symptoms of anxiety and depression; and is associated with fewer hospitalizations, physician visits and medications. Moreover, physical activity need not be strenuous

to be beneficial; people of all ages benefit from participating in regular, moderate-intensity physical activity.

In addition, relaxation and reflection opportunities contribute to social well-being and health. Such opportunities can be achieved through natural environment and landscape features (bodies of water, gardens and pathways) and programming for individuals and groups.

Potential Strategies

Physical activity, recreation and relaxation contribute to the health and well-being of individuals, families and communities. The new community will provide opportunities and support structures to nurture and sustain an active population at all ages and stages of life. Potential strategies include:

- The incorporation of design principles that promote both active and passive physical activity in all seasons.
- Community design that features elements including complete streets (sidewalks, medians, street lamps, crosswalks, bike lanes, and trees), high street connectivity, mixed land use, and high-density development in order to create a walkable environment.
- Schools that are located within a critical distance from most residences to promote walking as the primary mode of transportation.
- A variety of relaxation opportunities including arts and music accessible to all members of the community. Indoor spaces with plenty of light and vegetation, including skyway or underground walkway system, will allow for relaxation in inclement weather.
- Design that capitalizes on the natural environment to provide the quietness and beauty that offers relaxation and reflection.

Distinctiveness

The new community will benefit from unique

resources of the University that could include:

- Incorporation of principles from New Urbanism, transit-oriented development (TOD) and other leading planning principles to promote physical activity, generate more opportunities for recreation, and improve the health of residents.
- Consideration of the impact of the built environment on levels of physical activity and health as a component of the socio-ecological model.
- Elimination or reduction of some of the barriers for disadvantaged citizens in engaging in recreational and leisure time physical activity.

Safety

Principle: *Through design, technology, public education, public services and highest standards for the built and natural environment, the community will be a safe and comfortable place for people to live, work and play.*

Planned community design and the creation of a strong sense of community contribute to safety in neighborhoods. Even at a time when statistics in many places across the country show a steady decline in criminal activity, safety tops the list of concerns in national polls, according to the national Local Government Commission. Research shows that community spirit and willingness to get involved reduces violent crime by as much as 40 percent. The determining factor for willingness to watch out for one another is identified as a sense of community.

Potential Strategies

Strategies that could contribute to safety and comfort in the new community could include:

- Parks, schools, community facilities and shops that are easily reached via walking and bicycle paths to draw people together and create a "busy" community where people routinely see each other.
- The design of residential streets that slow traffic to help reduce the number of pedestrian injuries.

- "Front porch" design in houses and neighborhoods that create opportunities to interact with neighbors and encourage a sense of community concern for one another and safety.
- Sufficient and aesthetically pleasing lighting incorporated into residential, retail and public areas.

Distinctiveness

University of Minnesota research and resources will enable the new community to utilize the most innovative technologies to ensure that safety issues are addressed, including:
- Transportation design and use of alternative transit options.
- Sustainable, energy efficient lighting technologies.
- Community design that includes the built and natural environment to encourage openness and connectivity with others.

Expanding the Vision

Issues of health and wellness are interdisciplinary and can best be addressed in the new community through partnerships that involve residents and other Minnesota citizens, public and private organizations and the University. The ideas and hopes for the future that were articulated by individuals from outside the University and inside the University have informed this report and have validated the key values and principles put forward by the task force. The way to effectively build upon the vision for a University-founded community is to continuously engage the expertise and interests of an increasing number of citizens and organizations.

Community Perspective

A variety of public engagement events generated comments regarding the new University-founded community. The comments relating to health and wellness ran the gamut from physical and mental health delivery, to alternative medicine, community-based health systems, e-medicine, nutrition and physical activity. Many of the comments focused on the holistic, community-based approach to all types of health and wellness issues. A strong focus on "community," as well as a firm commitment to education is evident throughout the comments.

These public events involved over 600 people from the community and University. Six community Listening Sessions were held in Rosemount, Minnesota in September, 2007 – over 450 people attended these sessions. Additionally, in November 2007 two Campus Forums were held at the University of Minnesota for faculty, staff and students with over 150 in attendance. Comments from both sets of public sessions are included in the Appendices.

Academic Mission Strengths

The University of Minnesota is uniquely positioned to create this new University-founded community. The University houses a broad range of disciplines and professions relevant to the questions of social connectedness, physical and mental health promotion and access, food and nutrition, recreation and relaxation, safety and other issues. Its numerous colleges, centers, institutes, networks and programs are continuously researching and promoting their knowledge and resources to improve the quality of life for the citizens of Minnesota, the United States and the world. In the Academic Health Center alone, six schools and colleges include the disciplines of medicine, dentistry, nursing, pharmacy, public health, and veterinary medicine. Strong interdisciplinary centers and programs in bioethics, cancer, genomics, infectious disease, drug design, food safety, and spirituality and healing augment the broad range of professional health education and research efforts. In addition, strengths in the social sciences, the humanities, technology, design, food and nutrition, public policy and other disciplines from multiple departments across the University should be integrated into priority areas.

This new community will provide the University of Minnesota an opportunity to demonstrate the land grant mission of a world-class research institution in the 21st century. This community will be one of the University's greatest legacies.

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TRANSPORTATION
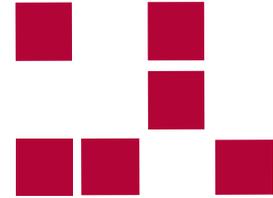
The development of a community at UMore Park presents a unique opportunity that depends on the integrated planning and design of land uses and resilient and sustainable infrastructure. A critical part of such infrastructure design and planning is the provision of a multimodal transportation system.

The University of Minnesota has a strong commitment to the land grant principles: research, teaching and community outreach. Multi-disciplinary efforts are especially important for addressing transportation issues, which often require a collaborative effort among a wide range of professions. The Center for Transportation Studies (CTS) at the University serves as a coordinating umbrella for these efforts, involving over 75 faculty in 25 different disciplines to offer a wide range of research, education and outreach activities on transportation-related topics.

This collaboration among experts in engineering, planning, policy, computer science, economics, environmental, psychology and other disciplines has resulted in new knowledge and applications in transportation safety, modal strategies, intelligent transportation systems technologies, infrastructure design and management, and community and economic development. For example, results of the four-year study on "Transportation and Regional Growth" have been used by public agencies, consultants and the business community in the development of plans and principles for future transportation systems. Currently, the "Access to Destinations" study is creating greater understanding of the need to tie transportation to land use policies, and a national study on "The Role of Well-Designed Transportation Projects in Enhancing Communities" is providing direction on integrating transportation into community designs. Through diverse projects such as these, the University of Minnesota is an innovative leader in transportation studies.

Definition

For the purposes of this report, transportation is defined as moving people and goods from origins to destinations in a safe, efficient manner. This report addresses a broad, integrated system of modes of transportation that could serve the UMore Park community, including pedestrian, bicycle, public transit modes (buses, light rail), and freight in addition to automobile travel. This report also considers other factors related to transportation, such as land use, environmental impacts, and community and economic development. Further, creating a community that is responsive to new transport and fuel technologies is a primary concern.

Context
Significance
The UMore Park development presents a unique opportunity to develop an integrated, balanced transportation plan from the beginning. A sustainability focus will shape the future of transportation on the UMore Park property, creating a transportation system that minimizes negative impacts on the natural environment, promotes economic development and ensures public safety, and enhances the community. This project could serve as an example of how to maximize accessibility while improving the sustainability of transportation networks. Because transportation choices have significant impacts on health, environment and community design, the UMore Park development is an opportunity to investigate and test new strategies to improve quality of life in new suburban community development settings. In this metropolitan area, a million new residents are projected by 2030, critically challenging existing assumptions about where and how growth will occur.

Issues
The community at UMore Park will face issues as it is integrated into a preexisting community and transportation network (see the Appendices for a regional map). Integrating the existing roads with the new priorities of mode choices could prove challenging. Additionally, the site location far away from major employment centers and existing transit nodes could stall efforts to create a transportation network in sync with the surrounding community and region, which will continue developing while the UMore Park planning process is under way. The transportation plan will also need to engage residents from adjacent communities, elected officials, agency staff and other stakeholders, to ensure that the new development fits their planning. The transportation plan should specifically address connections to the Minneapolis and Saint Paul downtowns, Rosemount, Hastings, Rochester and other communities in the region.

Uniqueness: Multidisciplinary Education and Research at the Core of Community
Transportation at UMore Park will differ from other master planned communities. The unique context allows for a focus on education and research related to transportation planning and engineering, the implementation of experimental and innovative techniques, and the involvement of students and experts. The University as a landholder will allow the development to occur in ways not typical of normal development, which will provide time for research, unconventional approaches and experimentation, and a thorough planning process.

Findings
UMore Park provides a laboratory for transportation innovation in a suburban environment. This setting will bring the challenge of creating a network of modes which connect the community and preserve environmental quality in an area on the fringe of the metropolitan area. However, this challenge only makes the UMore Park project more important; by demonstrating the capacity of a suburban environment to support innovations in transportation, the project serves as an example to other suburban developments.

Conclusions and Recommendations
Vision and Goals
The UMore Park design and development project will redefine transportation, providing new models for communities that will continually be enhanced through research and innovation. The transportation system at UMore Park should fulfill the following goals:
1. **Maximize access to destinations:** land use design and transportation choices that provide ease in reaching destinations.
2. **Provide mobility choices:** for all people, for all trip purposes.
3. **Minimize transportation costs:** time, energy, pollution, safety, implementation, maintenance and economic.

Principles
To accomplish the above transportation goals, the following design and implementation principles should be adhered to:
1. **Modal Integration and Prioritization:** All transportation modes should be provided so

as to be complementary and mutually supportive, giving priority, first, to pedestrians and bicyclists; second, to users of transit and intermodal transfer facilities; and third, to auto and parking facilities users.

2. **Resiliency, Flexibility and Adaptability:** The transportation system should be able to react to changes in travel patterns, behavior and infrastructure conditions; adapt to changing demographics and technological advances; and accommodate growth in local, regional and global markets.

3. **Maximize Accessibility, Reliability and Mobility:** The system should be designed to minimize transportation system and user costs, and maximize accessibility, reliability and mobility choices for people of all ages and for freight.

4. **Community Enhancing:** The transportation system should promote quality of life, health and safety, economic development, environmental protection and aesthetics.

5. **Supportive of Research and Innovation:** The system should allow demonstration of emerging transportation technologies and strategies and evaluation of experimental approaches.

Strategies

These principles can be achieved by implementing the following strategies:

1. **Integrate Design, Land Use and Accessibility**
The system should improve access to destinations (including jobs, residences and shops); provide well-designed facilities and networks that integrate with ecology, green space and other community resources. Additionally, the project should provide state-of-the-art telecommunications infrastructure.

2. **Provide Densities and a Mix of Land Uses to Support Multiple Modes**
The system design should provide densities and patterns of development to ensure the viability of multiple transportation modes. Consider land use patterns and natural resources within and outside of the commu-

nity to achieve regional connectivity, informed by environmental quality.

3. **Foster Community Identity**
The system should include innovative alternative transportation modes and networks within the community that contribute to a distinct identity. Incorporate iconic design elements such as lighting, pavements, signage, and vehicular and non-vehicular information signs to make the community distinct as a transportation innovator.

4. **Facilitate Non-Motorized Transportation**
The system should include pedestrian-friendly paths, sidewalks and trails, bicycle trails and systems, including parking, and exclusive bicycle and pedestrian facilities. The system should emphasize integration of non-motorized with motorized systems.

5. **Provide Ubiquitous and Innovative Transit Services**
The system should provide a network of regional and local transit options, including local feeder and circulator service, door-to-door service, and serve as a transit hub for bus and rail connections, while developing innovative transit technologies.

6. **Provide Personal Transportation Choices**
The system should promote a variety of individual transportation options, such as car sharing, small electric vehicles, telecommuting systems and bicycle sharing.

7. **Reduce Energy and Emissions Impacts**
The system should encourage hybrid and other alternative fuel vehicles, new fuel development and non-fossil energy sources (wind, solar, cellulosic) to minimize carbon dioxide emissions.

8. **Minimize Harmful Ecological Impacts**
The system should be designed to reduce fragmentation of habitat, water pollution impacts and land consumption.

9. **Design for Safety and Health**
The system design should reduce pedestrian/bicycle conflicts with motor vehicles, manage vehicle traffic flows to minimize impacts on sensitive areas, and develop safe travel for young and old, including non-motorized options for health improvement.

10. **Incorporate Innovative Goods Movement and Service Delivery**

    The system should integrate innovative vehicles and services, ensure the local availability of goods, and reduce food-miles when it is environmentally beneficial.

11. **Use Innovative Financing and Pricing for Transportation Infrastructure and Services**

    The system should ensure sufficient investment in capacity and manage peak period travel through innovative financing and strategies such as congestion pricing, parking pricing, transit pricing incentives or car usage tax.

12. **Connect the Community**

    The system should build connections to regional trails, bus and passenger rail. Freight rail, air and highway corridors will provide access to regional and global markets.

13. **Provide Extensive Sensing and Data Systems**

    The system should monitor systems for travel (vehicle and individual travel by mode), air quality, water, travel behavior, safety, fuel use and infrastructure conditions for research and demonstrations.

14. **Learn from Implementation**

    Plans should be dynamic and responsive to changes in circumstances, vision and continuous evaluation.

Community Participation

In Fall 2007, numerous public engagement sessions were held to gather comments from both external and internal stakeholders. Over 600 people participated in six community Listening Sessions held in Rosemount, Minnesota and two Campus Forums held at the University's Twin Cities campus. Comments during these sessions were far ranging, from discussions about the design of a community that discourages motor vehicle use and encourages the use of public transit, sidewalks, paths and trails to the integration of transportation concerns of surrounding communities, such as the development of an efficient and accessible transportation system that uses the latest technologies. Summary comments from all of the sessions are included in the Appendices.

Summary

The UMore Park design and development project should address the principles above using the strategies described. Each principle is supported by multiple strategies, a reflection of the interconnectedness of transportation issues. Although the envisioned UMore Park development will pose challenges in achieving a connected, accessible, efficient, yet diverse transportation network, the University's innovation and expertise in collaboration with the community can help produce effective solutions.

Transportation Task Force

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Lee Munnich, *Co-Chair*, Senior Fellow, Humphrey Institute of Public Affairs
Bob Baker, Executive Director, Department of Parking and Transportation Services
Kathleen Harder, Senior Research Associate, College of Design Research and Outreach
Mark Hoisser, President, Dakota Area Resources and Transportation for Seniors (DARTS)
Steve Kelley, Senior Fellow, Humphrey Institute of Public Affairs
David Levinson, Associate Professor, Department of Civil Engineering
Henry Liu, Associate Professor, Department of Civil Engineering
Lance Neckar, Professor, Department of Landscape Architecture
Myron Orfield, Director of the Institute on Race and Poverty, Law School
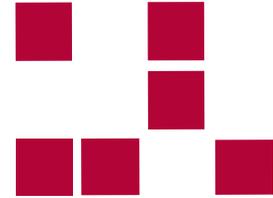**Ferrol Robinson,** Executive Vice President, SRF Consulting
Carissa Schively, Associate Professor, Humphrey Institute of Public Affairs

Greg Cuomo, Task Force liaison to UMore Park Management Team, and
    UMore Park Director of Operations
Emily Swanson, Task Force coordinator, and University of Minnesota graduate student

APPENDICES

THE BOARD OF REGENTS PRINCIPLES

The goal is to develop UMore Park in a manner that furthers the University's mission. A strategic long-range master plan for UMore Park will be developed that prioritizes University needs and considers current regional planning and development activities. This master plan will be developed in a timely manner, but the execution of the plan and the development of the UMore Park property are likely to require as much as 25 years.

The following principles shall guide deliberations and decisions regarding UMore Park:

- Protect and enhance the value of UMore Park through timely planning and action.

- Advance the University's research, education, and engagement mission through the physical and financial resources that UMore Park will provide over the long term.

- Improve the long-term financial health of the University through application of sound fiscal principles and stewardship, including investing the income generated through UMore Park in ways that support academic priorities to complement, supplement, and leverage state and private support.

- Retain oversight of UMore Park's planning and development and remain accountable for the master plan.

- Plan in such a way so as to optimize the value of UMore Park utilizing short-term strategies without restricting options for long-term strategies.

- Utilize market value as a benchmark in assessing alternative development strategies.

- Ensure that all planning and development activities are conducted with the highest standards of fairness, integrity, and sound business practice.

- Respect the needs of neighboring communities and local, regional, and state governments.

— Board of Regents, February 6, 2006

RESOLUTION RELATED TO PLANNING FOR THE DEVELOPMENT OF UMORE PARK

WHEREAS, in February 2006 the Board of Regents established the goal of developing property at UMore Park, consisting of approximately 5,000 acres of land in Dakota County, Minnesota ("UMore Park development property"), in a manner that furthers the University's mission; and

WHEREAS, in furtherance of that goal the University retained the services of Sasaki Associates, Inc. to prepare a strategic plan for the UMore Park development property and to assist the University's Strategic Planning Steering Committee ("Committee") in evaluating alternatives for developing the property; and

WHEREAS, the Committee has delivered its report entitled "Creating the Vision: The Future of UMore Park" to the Board of Regents; and

WHEREAS, the report includes the Committee's recommendation that the University should transform the property into a unique, vibrant, intellectually and culturally rich, sustainable community with attendant amenities and takes steps toward that end; and

WHEREAS, it is critical to the achievement of the University's goals that any planning and development of the UMore Park development property be done for the property as an intact whole pursuant to a comprehensive master plan; and

WHEREAS, it is beneficial to the University and to the citizens of the state and the metropolitan area that further planning for UMore Park take place on a timeline that is coordinated with the comprehensive planning activities of the units of government in which the property is located; and

WHEREAS, the University administration concurs in the recommendations of the Committee;

NOW, THEREFORE, BE IT RESOLVED that the Board of Regents affirms the goal of developing the UMore Park development property in a manner that furthers the University's mission; and

BE IT FURTHER RESOLVED that the Board of Regents directs the administration to undertake the following steps and periodically report to the Board of Regents on the progress being made in carrying out this Resolution:

1. Continue to maintain the UMore Park development property as an intact whole parcel and use it in a manner that supports the University's teaching, research and outreach mission while the University plans for the future use of the entire property;

2. Prepare for consideration by the Board of Regents a concept master plan for the entire parcel, and periodically confer with the appropriate local and regional units of government engaged in preparing comprehensive plans regarding the University's master planning effort;

3. Prepare to make the land ready for development, including the following:

   (a) preparing a plan for the removal of concrete remnants from the former Gopher Ordnance Works buildings;

(b) preparing a plan for the extraction of sand and gravel from the site; and

(c) taking appropriate steps to secure a site investigation of the property by the U.S. Army Corps of Engineers leading to the development of plans for any necessary environmental remediation related to the Gopher Ordnance Works; and

BE IT FURTHER RESOLVED that the University shall follow its customary purchasing and contracting practices in engaging consultants to assist the University in completing the work described above; and

BE IT FURTHER RESOLVED that the University shall continue to work together with the Minnesota Department of Natural Resources and Dakota County in cooperative oversight of the UMore Park conservation property described in Minnesota Laws 2006, ch. 247.

8 December 2006

UMORE PARK EXECUTIVE COMMITTEE 2007

Charles C. Muscoplat, *Chair,* Vice President for Statewide Strategic Resource Development

Kathryn F. Brown, Vice President and Chief of Staff, Office of the President

L. Steven Goldstein, Vice President for Strategic Initiatives, University of Minnesota Foundation

Robert J. Jones, Senior Vice President for System Academic Administration

Larry Laukka, University Distinguished Fellow and Senior Advisor for UMore Park

Kathleen O'Brien, Vice President for University Services

Richard Pfutzenreuter, Vice President for Budget and Finance and Chief Financial Officer

Mark Rotenberg, General Counsel

E. Thomas Sullivan, Senior Vice President for Academic Affairs and Provost

Executive Committee Program Staff

Carla Carlson, Assistant Vice President for Statewide Strategic Resource Development

Lorri Chapman, Executive Assistant, Office of Statewide Strategic Resource Development

UMORE PARK MANAGEMENT TEAM 2007

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Carla Carlson, Assistant Vice President for Statewide Strategic Resource Development

Greg Cuomo, UMore Park Director of Operations

L. Steven Goldstein, Vice President for Strategic Initiatives, University of Minnesota Foundation

Larry Laukka, University Distinguished Fellow and Senior Advisor for UMore Park

Dewey Thorbeck, Director, Center for Rural Design

Management Team Program Staff and Advisors

Lorri Chapman, Executive Assistant, Office of Statewide Strategic Resource Development

Kenneth Larson, Legal advisor to the Management Team; Director of Transactional Law Services, Office of the General Counsel

INTERDISCIPLINARY OPPORTUNITIES

Listening Session Summary
Rosemount Community Center
September 26, 2007
**PUBLIC COMMENT ON THE VISION
FOR A UNIVERSITY-FOUNDED COMMUNITY
UNIVERSITY OF MINNESOTA**

The University of Minnesota is creating a vision for the development of a University-founded community on its 5,000-acre property in Dakota County. The community would be differentiated by the integration of innovations in education, health, environmental quality, renewable energy, transportation, arts and culture, technology, international linkages and other University research and education strengths. The community of 20,000 to 30,000 residents would be developed over 25 years. It would contribute to a vital regional economy characterized by thriving businesses, a vibrant social fabric and designed and natural amenities.

To help create this vision, the University held six Listening Sessions in September 2007 to engage the public in a conversation about ideas and possibilities for the future. The sessions focused on the interrelated topics of Education, Energy, Environment, Health, Transportation and Interdisciplinary Opportunities. More than 450 people shared their perspectives and ideas for what this new community could be during the Listening Sessions.

The following highlights the comments that were offered by citizens during the Interdisciplinary Opportunities Listening Session. The compilation is intended to capture the ideas that emerged; it does not represent a consensus. These public comments help to inform the University's Interdisciplinary Opportunities Task Force and the UMore Park management team.

Community Culture and Values
- UMore Park offers a unique opportunity prior to the development of the community to establish a cultural framework that will reflect the community.
- The community values should be defined early in the process. When people join the community, they need to understand that it has its own culture while still respecting individual differences. Community success will be promoted if residents know the community values before they join.
- Guiding principles, like growing and nurturing people, will support collaboration within neighborhoods and connecting to the larger community.

Community Design –
The Landscape
- Create a sense of belonging and place by growing neighborhoods organically – one at a time. Participatory planning can help to achieve this.
- Develop multiple village-sized communities so people can participate on the local level. Small communities facilitate healthy community interaction. Each community could have a distinct theme or identity which could create a sense of diversity.
- Preserve the rural landscape and feel of the area. The community could be designed as a village surrounded by farms.
- A conscious design element may be to integrate different types of housing to support a multi-generational community where people take care of one another throughout their lifetime (examples of this can be found in Denmark).
- Create community, therapeutic, and labyrinth gardens.
- Preserve green space for aesthetic pleasure.
- Design paths and trails to have a sense of "mystery" – not just straight –that involve the participant in the journey (Fredrick Olmstead designs).
- The community should be pedestrian-oriented – ensure that there are no barriers to walking

everywhere. Create an underground system like in Rochester (Montreal) or use skyways to make it easy to get around.

- Implement car-free zones – cars should not be used within the new community. Vehicles could be left at the outskirts of the community and public or pedestrian transportation would be used inside the community.
- Community facilities, such as community centers, should be intergenerational. A part of their design could be community kitchens for social gatherings.
- Develop a conference center on the site.
- Develop living walls – covering walls with plants – to increase biodiversity.
- Use some of the land at UMore Park as a retreat center.
- Preserve some land for the arts and creativity.
- Land should be kept as green open-space and for agriculture.
- Land should be used for innovative farming research and for training people to use large, high-tech equipment for agriculture and industry.
- The land should be shaped into lakes, ponds, and green space after the gravel is mined.
- Incorporate natural prairie grasses into the landscaping.
- People should live and work in the new community. Design some flexible office space above retailers for telecommuting jobs.
- The community must have its own childcare and library facilities.
- Ban or limit chain retailers.
- The University should be sensitive to other builders in the local area.

Housing
- The University is perceived as a competitor in real estate and housing market in the region. The University's plans for developing a new community come at a time of severe downturn in the market.
- Build housing to accommodate residents with diverse social and economic backgrounds.
- Ensure that housing is flexible enough to be modified over someone's lifespan so that people can age in place, avoiding the need to move.
- Be bold in working with people of different income levels. Various housing prices should help create a mixed economic community.
- Work with units of government to modify rules and regulations to enable various types of construction.
- Affordable (workforce) housing must be a primary element of the University's vision for a new community.
- Long-term affordable housing options must be a part of the new community, possibly through the development of a giant land grant trust.
- Affordable housing for artists and immigrants must be planned for, so that they can be a part of this community.
- There should be a mixture of high and low density housing – a mix of rental and owned homes with a wide diversity of building types.
- Homes should be smaller, "greener," and more energy efficient.
- Build aesthetic apartment buildings like in Europe.
- Create more communal living opportunities.
- Ensure there is a diversity of financing options.
- Housing for the elderly and disabled should use technology to ensure their medical and safety needs are met.
- Develop temporary housing for international visitors, including students and faculty.
- Involve people in the actual building of their homes to create a deeper psychological attachment and sense of place.

Arts and Culture
- Enhance the arts and culture venues that already exist in the Twin Cities. Do not duplicate them; just make them easy to access with transportation.
- Develop opportunities for all ages for arts and culture experiences – this will help create diversity in the community.
- Art should happen where life happens – murals, public art, and neighborhood design.
- Build transit stations with public art integrated into them.

- Create a town history by having people share their stories about building and living in this new community – a participatory art experience.
- Preserve historic places, like parts of the Gopher Ordnance Works.
- Invite artists to participate in focus groups to determine what would attract them to live and work in the new community.
- Provide studio and loft-type space to bring artists and public art into the community. These could be subsidized in exchange for community service by the artist. An artist in residence program could be implemented, where the community supports one or more artists to live and work there for a year.
- Art venues and studios should be integrated to make this community an arts destination.
- Make sure that indicators of an artist-friendly community are met.
- The community should represent an arts and technology merger. There could be a virtual connection with arts activities on the University campus.
- Create a community center with digital technology for video game development and music recording.
- Develop an arts center that serves as a community theater and performing arts venue, an after school program for children, and provides space for all types of intergenerational art class. It is important that there be an educational component to the arts.
- Be sure that any form of art or cultural experience in the community is accessible and reasonably priced.

Technology
- Uphold the highest standards of advanced technology for this community and remain flexible during its development as technology is constantly changing.
- All types of innovative, green infrastructure and technology should be considered, including geo-thermal, wind, and solar power, and efficient air recycling.
- Plan for stormwater management powered by renewables.

- Ensure fiber optic connections and wireless technology throughout the community.
- Use green roofs on homes and buildings to conserve and contribute energy, to help with water run off, and to produce food.

Diversity
- Make policy decisions to encourage diversity.
- Be inclusive of all groups. Focus groups with diverse populations should be held to determine what they need and want.
- Develop a community that is culturally relevant to immigrants.
- Create a community outreach foundation for immigrants to assist those who want to move to this community.
- Diverse places of worship must be developed.
- The area is not currently diverse by race or ethnicity. Education about different cultures and an understanding of how diversity enriches a community will be important. Education and engagement around diversity may require special resources.

Global Connections
- Create a student exchange program where students would live in homes and provide learning opportunities to those households.
- Bring in faculty and students from the University to teach about global issues.
- Help to strengthen the relationship that Dakota County has with its sister city in China and its partnership in Ireland.
- Partner with Dakota County Technical College to develop a language program where different ethnic groups could learn English.
- Show evidence of multiple cultures throughout the new community with signage and art displays.

Transportation
- The new community should have a transit center for multiple modes of transportation (light rail, high speed trains and buses). This will enable easy access to the Twin Cities so residents of the new community will be able to enjoy all of the opportunities available there. Mass transit also encourages diversity.

All transit options should benefit the larger community.

- The Twin Cities and Rochester should be connected through UMore Park.
- There should be transportation access for different ages: bike paths for children, internal public transportation for the elderly, and rideshares for working adults.
- Be sure to take the necessary steps to alleviate additional pressures the new community will put on existing area roads.
- Build an air facility and shuttle to provide a link to the Minneapolis-St. Paul International Airport.

The University's Rule

- This is a phenomenal opportunity for students of all ages.
- The University should consider its responsibility to control urban sprawl.
- The University needs to create a real partnership with the local people. It must move beyond a purely academic focus.
- The University could use the new community as a service learning site to enhance its reputation for being part of the community.
- Share the arts and cultural assets of the University with the new community.
- Create collaboration between the University and Dakota County Technical College where the technical college develops students for further education at the University.
- Dakota County Technical College could be used as a research facility.
- Develop a partnership with Concordia Language Camp.
- Create satellite learning opportunities with seminars, classes and cultural exchange.
- Build a University teaching and learning facility in the new community.

Relationship with Existing Communities

- Do not cut the new community off from the existing surrounding communities – integrate it.

- The University should support and nurture small businesses in the existing communities, not create competition.
- UMore Park should share its infrastructure and resources with the greater community and vice-versa. Facilities and services should complement what is already available.
- Continue to educate, communicate, and interact with the surrounding communities regarding the development of UMore Park to diminish any future tensions.

Miscellaneous

- UMore Park should be a world class model for others to learn from.
- Create social capital from the beginning by having people involved in the whole development process – keep the conversations going.
- The broader community needs more detailed information about the planning process and the vision for the new community at UMore Park. Schedule more public meetings and hold them at times that are convenient for local citizens to attend.
- Prevent investment in property solely for financial gain – property should be rented or leased for 99 years.
- The new community at UMore Park could assist the region in adapting and assimilating the changing racial and ethnic demographics.
- The community should have an educational thrust – life-long learning experiences available right in the community. The community should have its own schools – possibly integrated with a community center.
- Encourage the idea that all people can learn from each other.
- Make healthcare services accessible to everyone.
- Create a health center like in Rochester by bringing the University's health departments to the new community.

INTERDISCIPLINARY OPPORTUNITIES

Campus Forums Summary
November 8 & 9, 2007
**CAMPUS COMMENT ON THE VISION
FOR A UNIVERSITY-FOUNDED COMMUNITY
UNIVERSITY OF MINNESOTA**

The University of Minnesota is creating a vision for the development of a University-founded community on its 5,000-acre property in Dakota County. The community would be differentiated by the integration of innovations in education, health, environmental quality, renewable energy, transportation, arts and culture, technology, international linkages and other University research and education strengths. The community of 20,000 to 30,000 residents would be developed over 25 years. It would contribute to a vital regional economy characterized by thriving businesses, a vibrant social fabric and designed and natural amenities.

To help create this vision, the University held two Campus Forums in November 2007 to engage the faculty, staff and students in a conversation about ideas and possibilities for the community. An open discussion was held which focused on the ways that research, teaching and learning, and public engagement could be integrated into the vision for this new community. How could the linkages to academic mission create opportunities for the citizens, the new community and the broader regions, as well as create opportunities for University faculty, students and staff members? The forums focused on the interrelated topics of Education, Energy, Environment, Health, Transportation and Interdisciplinary Opportunities. More than 150 people shared their perspectives and ideas for what this new community could be during the two Campus Forums.

The following highlights the comments that were offered by faculty, staff and students during the Interdisciplinary Opportunities Campus Forums. The compilation is intended to capture the ideas

that emerged; it does not represent a consensus. These comments will help to inform the University's Education Task Force and the UMore Park management team.

Student Involvement
- Look to students as citizens – a goal should be to create "lifelong citizen scholars."
- The colleges have to be critically invested in these ideas. Graduate students are more interested than faculty. That could be because the faculty are critically interested in the work they happen to be doing. The University has to find a means to induce people to be involved.
- Students are more consumer-centric. They have different needs to be educated in different ways.
- There should be more connection with the 1st generation, low income students. We cannot appear to be isolationist.
- There are incredible opportunities to engage student energy.
- Involve International Humphrey Fellows.
- Engage the students to 'cross the line' into the real world. They have new ideas of what works for them and what does not.
- The risk for the University is that it looks like this is an inward project even though it is supposed to be outward. There should be student involvement. Can we turn the power over to students more to turn this inside out?
- Will students be able to live in this community?

Citizen Engagement and Involvement
- There is a method that helps artists access their creativity called "critical response process." This could be a good citizen involvement tool.
- What is the connection between our Univer-

sity community and low income citizens? The University must engage people from diverse backgrounds and walks of life.

- Look at all the tastes – food, theater, and the arts. As you go through the senses, how do you create skills for civic engagement? Economic, social, cultural rights and environmental studies. Look at ways to bring research around those concepts.

University Engagement

- The development of this community should proceed with shared vision – the University and the public.
- The 'we' should be inclusive – the University and the citizens.
- If the University wants to be fully engaged, it should look to the lessons learned from interactions with the North Minneapolis community.
- You have highly educated people here who have been in the University system for a long time. Can they still come up with the new ideas?
- If the University is involved, won't people naturally want to be involved?
- The University can be intimidating to communities.

Managing University Space, Data and Research

- There could be research centers created at UMore Park where artists can come to work with students. There is now a lack of a place to do this. For example, film groups are looking for the film industry to come to the Twin Cities, but there is a housing problem. The University currently does not have a film production program. The film community is looking for space. Can the new community be an opportunity to embrace film and the arts?
- Pull together different groups and agendas to do research together. Have centers create space in the new community so there is a natural place to coexist. The centers are linked to the faculty.
- How do we research with inclusively in the community?

- How should we share and manage the data across all disciplines? There are human subjects there as well as the hard sciences. We can collect data on the people within the different projects and programs but it must be on a voluntary basis.
- Can we learn from University interactions to date with the North Minneapolis community? Research and education should be approached in conjunction with the community.

Existing Research

- Research exists there now. Some faculty and students have a vested interest in the property as their laboratory. It is the kind of research they can not do on campus.
- The University should create an endowment for fellowships and assistantships for education and outreach.
- There needs to be something that is the legacy to education and research – food, agriculture, environmental and natural resources – the University is trying to capture value for a larger segment of society.
- The University can do things on a scale at UMore Park that is more than just micro.
- The interfaces between urban and rural – how do we build communities so the uses of the land for such things as agriculture are viewed not as disturbances, but as a benefit to mankind? The neighborhood may not like the tractors running early and late in the day during harvest. How do we create an educational environment to be sensitive to that? Things that are there have utility – we are connected to the land. How do we develop public policy that is beneficial to both groups?
- The development is an opportunity to build literacy about human dependency on our natural resources.

Linkages – Adaptability – Organizational Change

- Education, energy, environment, health do not stand alone. Each function should be mindful in linking to the other. There are a lot of natural linkages. They link without intentionally

linking.

- Adaptability is important. This was a major downfall of "New Town." Designs should be performance-based not prescriptive. They should be able to make midcourse adjustments. For example, the structures should be adaptable to change, but also the processes. When the healthcare delivery model changes, for example, the new community can adapt. Adaptability has a large context.
- We have to recognize that portions of the new community may fail and adapt those for the following phases.
- We need mental adaptability too. Students may be better at this. People may not really "know" the University and our intentions.
- People who do large-scale organizational change may help in this process. There is a book by Peter Block called *"The Answer to How Is Yes: Acting on What Matters"* which may apply to this process.

Diversity

- Diversity should be emphasized in University presentations on the new community at UMore Park.
- Look at the demographic shift and appreciate it. Where are the minorities? They are not represented in the discussion today.
- There is a difference in what a backyard garden is from the perspective of a master gardener and from the perspective of a Hmong family.
- We should strive to get a mixed variety of people; it would be great to have mixed incomes and ethnicities.
- It should not be just $800,000 houses. We need to be planful in incorporating ideas, people and diversity, including international diversity.
- Storytelling is important to community development. It can be an important tool that strengthens the social fabric of a community.
- Engage the Chicano community. They are using clay products for building materials. Also include Latinos and Hmong.
- Everyone has a different view of diversity. There can be diversity of disciplines, econom-

ics, and ethnicity. They all have conflicting agendas.

Arts and Architecture

- The WWII production facility stacks on the site are astonishing archeological elements. We think of them as interruptions in the landscape but they can be a tremendous visual resource. They could be an example of sustainable architecture.
- Integrate the "stacks" into an Arts and Cultural Center. Utilize the other structures on the property as well.
- The Weisman Museum became part of the University community and created a presence of the University collections. UMore Park could do the same – be a place to go, a place to attract attention. What will draw someone to the new community?
- Architecture and landscape architecture can affect agriculture in various ways. Gravel removal affects drainage – landscape architecture is interested in existing drainage patterns. Drainage patterns should be rethought every 10 years.
- It sounds as though we are clearing the table and starting from nothing. There are already structures and development there. The University should be respectful of current residents and incorporate new opportunities into what exists today. We respond and react to things in our own ways. An example of this are "desire lines" – even if you put a sidewalk somewhere, people are still going to walk where they want to.

Housing

- To join a housing cooperative you can not make more than a certain amount of money.
- Incorporate housing cooperatives into the new community.
- The Dakota County CDA agency is a wonderful resource. We could partner with them for innovation on public housing, housing cooperatives, and affordable housing. They may even manage this portion of the project for us. There are great resources out there.
- How will we maintain the ideals beyond the

first set of home owners?

- The University could use deed restrictions, but that could negatively affect housing prices.

Leadership

- We should develop leaders and they will in turn draw in their peers.
- If this is going to be successful, we need to bring in indigenous leaders to look at the land. We should work on healing broken relationships and reach out through actions like the development of wild ricing, for example in the Ojibwe community. We should recognize the historical context. Some groups to consider would be the Law School's Human Rights Center, the Humphrey Institute of Public Affairs, American Indian Studies, the Community University Partnership, the College of Education and Human Development and others. A number of these are engaging in an international and interdisciplinary way with FLACSO-Mexico, the Latin American Faculty of Social Sciences (Facultad Latinoamericana de Ciencias Sociales), for example to foster collaboration and partners across borders and across disciplines.
- The community should be built from the ground up – individuals will figure out ways to get on board.

Sustainability

- This community should address human sustainability, not just physical sustainability. We need space. What is the connection between research and a community space?
- We need builders to build sustainable buildings. We need buy-in for a vision of sustainability from University academic departments and faculty.
- Sustainability has to be a bigger part of the University.

General Comments

- We have access to impact the children right now who will live in the new community someday.
- Author Malcom Gladwell states: "Tinker with your processes and you'll get a better outcome."
- Who will live here? What is the demographic - Rosemount South, Gardeners, Northwest Airlines employees?
- The University is an institution. If we want this to happen, we need to find ways to make it happen.
- Capitalize on gravel is a resource.
- Is removing the gravel really best for the land?
- Remember to honor the biodiversity.
- Who should be involved in managing this space and how will it be accomplished?
- We need the liberal arts dimension – develop a collaborative arts program.
- Tulane University is an example of a higher education institution that has also concentrated on projects of planning and design.
- Columbia, Maryland can be an example of a master planned community. Since 1967, The Howard Research and Development Corporation, formerly an affiliate of The Rouse Company, now of General Growth Properties, Inc., has developed Columbia into a city of almost 100,000 residents. Emphases include social and cultural outlets, jobs, quality education and abundant recreational opportunities.

EDUCATION

The University of Minnesota is creating a vision for the development of a University-founded community on its 5,000-acre property in Dakota County. The community would be differentiated by the integration of innovations in education, health, environmental quality, renewable energy, transportation, arts and culture, technology, international linkages and other University research and education strengths. The community of 20,000 to 30,000 residents would be developed over 25 years. It would contribute to a vital regional economy characterized by thriving businesses, a vibrant social fabric and designed and natural amenities.

To help create this vision, the University held six Listening Sessions in September 2007 to engage the public in a conversation about ideas and possibilities for the future. The sessions focused on the interrelated topics of Education, Energy, Environment, Health, Transportation and Interdisciplinary Opportunities. More than 450 people shared their perspectives and ideas for what this new community could be during the Listening Sessions.

The following highlights the comments that were offered by citizens during the Education listening session. The compilation is intended to capture the ideas that emerged; it does not represent a consensus. These public comments help to inform the University's Education Task Force and the UMore Park management team.

A Community of Learners

Education should represent the core of the UMore Park community. The community should have a climate that values education. All community members will become stakeholders in the community with a requirement for an education component. This will be seen in various ways, such as:

- All business owners and homeowners have a responsibility related to education. The entire community should be involved in educating the children.
- This educational culture would be integral not only to the whole community, but at the family level. Families will be educationally-grounded. Parents must be connected with the resources at the schools and in the community. Parents must be involved - possibly through a formal process like a listening circle. The community should foster family learning and family time when parents and children can learn together. This might include a recent immigrant integration system where adults learn English with their children.
- Experts from the community should be used as mentors.
- University-caliber libraries that are accessible to the entire community (including Rosemount) will act as a cohesive entity for the community and region. They will be the focal point for life-long learning. These facilities must be technologically advanced and usable by the young and old alike.
- Life-long learning will connect all generations. All community members – regardless of age will be teacher and learners. This will help to build community connections.
- Create a model in this community for integrated, intergenerational education in formal and informal respects that is adapted to multiple learning styles in multiple learning environments.
- Many people choose where to live based on the education system available. Diversity is

key – social, economic, racial, cultural, intellectual and physical – to ensure this does not become an elitist community. In order to attract all people the community must be empathetic and embed education in cultural relevance. Economically and racially diverse communities are a function of the housing costs, so you must have housing for all income levels.

- The community should have active teachers who are involved members of the community. This will allow children to interact with educators in other ways and see adults as more than just authority figures.
- The community will have open access to the schools' curriculum and even help design it.
- There will need to be a means to deal with evolution – things change. Do not strip away the ability to change and incorporate new ideas. There needs to be an adequate and enduring structure that maintains the vision for the long run. Mechanisms should be in place to avoid diluting the goals over time.

Service and Volunteerism
- Volunteerism must be a component of education and the responsibility of all community members.
- It can become part of the culture and educational system if introduced at the earliest stages of education. If integrated at the starting phase of school it would have a dramatically better chance of being successful.
- Service opportunities could exist from senior centers to Head Start programs.
- Teachers would make use of parent volunteers.

Early Childhood
- Daycare must be close to or at work site – affordable and of high quality.
- Informal education is critical for a child's development. Creativity is essential. Children need to find time to be kids and avoid being "over-planned."
- Young parents could receive education in nutrition, reading, parenting, and other areas. It is incumbent on the whole community to ensure they are doing well – a mentorship

program would be an important community component. The University could help with this educational endeavor.
- Change from PreK-12 to E-14 (early childhood ages 0-3 years old, and thru two years after high school). The current system is very fragmented and early childhood education is being left behind. Have an intensive development effort for children birth to 5 years old. Children should be able to move seamlessly from early childhood through post secondary.
- The idea of learner and teacher throughout life can be introduced here.
- Emphasis on the global community (culture) at an early age, while grounding children in their local community is very important.

PreK-12 Education
- Education needs to change – both the methodology and the system – to respond to changing global conditions. Education is the key to being globally competitive. The new community needs to take advantage of global opportunities. Classroom curricula should incorporate interaction with students abroad as a sign of global connectedness.
- Break the agrarian-industrial model of having a long summer vacation. Year-round school with 6 weeks on and one week off is a good model.
- The traditional 6.5 hour school day does not allow enough time for diversity and education outside the classroom. The constraints of meeting standards required by "No Child Left Behind" makes it hard to coordinate volunteer activities, to schedule practical application field trips and to be creative in learning opportunities. It is possible that an extended school day or extra-curricular classes could be voluntary. Teachers would have to be paid more if we had more school.
- Use "learning clusters" that emphasize student learning levels, competencies and skills over age and grade (mixed age learning).
- Test scores don't mean everything – they show knowledge, but not social skills such as the ability to give a presentation. Education at UMore Park needs to change evaluation meth-

ods to include standardized tests and soft skills. Focus on outcomes.

- Class size should be optimal.
- Education should be site-based.
- There should be many elementary schools and a diversity of school types – including some specialized schools like a magnet school focusing on Science, Technology, Engineering and Math (STEM).
- Be flexible in learning expectations and pace. Education should be accessible to all abilities, especially immigrant populations.
- Focus on developing critical thinking skills.
- The existing ecosystems should be preserved and used for educational purposes. Vermillion Highlands is a resource for education. Gardens and an arboretum could also be used in the study of the environment and ecology.
- Agricultural education should start early so that you have an informed community. The community should be educated that agriculture is more than just farming. There should be education on local foods and produce. There could be an agricultural high school and a dairy education center.
- Create a school system with "small town feel and sense of community" that utilizes advanced technologies and resources.
- Minnesotans value choice but a smaller community can't offer all options.
- Create opportunities for easy access online learning – be it for distance learning, home schooling or continuing education.
- Basic ethics education, character education – teach youth the consequences of bad choices – should be offered. Children don't grow up knowing what is expected of them. Educate the whole child.
- Change the structure of high school. Education in grades 11 and 12 should be geared toward a career path based on aptitude and interests.
- If education in UMore Park is outside of the "standards" then variances from federal, state and locals levels will be needed – especially if they are the funders. The community may even want to explore the possibility of a different form of government with an integrated

approach.

- Schools should have good college, employment and career resource centers and this information should be available to parents and students alike. Not everyone needs to go to college. Ensure that high school includes practical classes like parenting.
- Teach college level curriculum in high school.
- Design the community where sports are not attached to the schools, but community-based instead. If sports are going to be in schools then integrate them with other things like physics with football. Currently, academics are given up to sports.
- Establish a collaborative effort between administration and teachers. Break down the rules. What would it look like to have a non-union school system without tenure?

Physical Aspects of PreK-12 Schools

- The residential, research, and business components of the community could be designed around the education goal – the pod approach (location, nature, interconnectedness). Schools should be in close proximity with businesses to ease logistics of involvement. Students can get hands-on experiences as businesses participate in the educational process.
- Rethink the physical form of schools. Use the building on the evenings and weekends for other community functions. Schools should be envisioned as community centers, with several different disciplines sharing the same infrastructure. Combine building types so as to not waste infrastructure
- Schools should be small, not mega-schools. Schools should not be isolated, rather connect the PreK-12 schools.
- Everyone should walk to school so there will need to be paths, trails and sidewalks.
- Community services like health care and human services should be sited near the schools.
- Break the closed model of school where you keep students in and others out (security issue).
- Schools must be safe.

Education Funding Options

- If the school is not part of the public system some options for funding might be:
- Create a charter school – it must be partnered with a non-profit and the University is a natural partner.
- Build the education cost into the cost structure of the housing.
- Create a formula for funding education costs and have residents agree to it when joining the community. This will help with the levy issue every 10 years – especially for people with no children.
- Require developers to put in an education component as they do for streets and sewers. Developers should have a stake in it but cannot shoulder all the cost.
- Create a foundation from the aggregate funds.

Post-Secondary

- Create civic engagement by pairing post-secondary institutions with middle and high school students.
- Increase the continuity of education between high school and post secondary (preK-20).
- Create partnerships and collaborations with existing 2-year post-secondary institutions especially for students who do not plan to attend a 4-year college. Do not duplicate what is already there.
- Future schools may have a higher emphasis on 2-year specific program training.
- Provide adults easy access to get more training and education as their careers progress and needs change.

Adult Education

- The location and timing of adult education classes are critical for ease of access.
- Emphasize continuing community education – people should be able to learn everyday. All day adult education should be available.
- Businesses would pay for ongoing adult learning.
- Give seniors the chance to reinvent themselves after retirement by providing adult education opportunities.

Seniors

- Multigenerational learning and mingling is important to the social fabric of the community. Design a coffee house in the school, for example. Older adults don't want to sit at home with a computer! Social, arts and learning opportunities cross generations. Integrate the young and old – don't isolate different age or social groups.
- Engage seniors and utilize their intellectual capital to teach younger generations.
- Integrate senior, multi-generational convertible housing with the rest of the community. For example, combine senior housing with libraries, schools and daycares so they can be easily involved.
- Allow seniors the ability to walk to the library or have the library on the ground level and senior housing above in the same building.
- Keep senior housing close to resources and the rest of the community.
- Tax breaks could be offered to seniors who are involved in the school building assisting the children.
- Cultural elders should be valued.

Collaborations with Business and Industry

- Community businesses should mentor students and provide them opportunities for active internships in real working environments.
- Community businesses should give employees who are community members incentive (time-off) for volunteering at the school.
- Businesses and industries could hold workshops – "What skills do I need to do that job?"
- "Industry of the future" or a "clean industry" could partner with or be within the educational campus to compliment learning.
- Develop critical partnerships that complement learning beyond business and industry. These might include churches, community centers and the YMCA for after school programming.

The Role of the University

- The University should have value statements describing the expectations of active residents of the community and put these covenants in

the purchase agreements.

- There needs to be a landmark of some sort to identify the community with the University. The University should put its "print" on the foundation of the community.
- The University has to have educational opportunities such as an outreach center, a clearing house for opportunities or a micro Campus at UMore Park (classes and the ability to get a degree). There could be a resource center tied to the main campus where a lecture database is housed for access by community members. This campus will provide employment and income to people in the community.
- The University should find a way to link Rochester (a healthcare nexus) and the University to UMore Park.
- The community should be an interactive laboratory to study the effectiveness of all aspects of the UMore Park endeavor; however, the community members should not feel as if they are a "project." The University's expertise should be integrated across the spectrum of the community. This will help to engage students and faculty. Research and education components the University might consider would include:
  ° market research on age cohorts that should be targeted to live in the UMore development.
  ° help in the design of the new community.
  ° a site for practicum's across the breadth of the University – teachers, nurses, and other professionals.
  ° research to develop models on the best size of schools.
  ° study of the effectiveness of early childhood education programs in the community.
  ° assist in advancing and educating the community with respect to technology and best practices for construction, water consumption, and other resource-efficient and money-saving characteristics.
  ° use the community as a breeding ground for small business - nurture start-up businesses.

- The University should maintain an agricultural center at UMore Park as an educational opportunity.
- The university must maintain a partnership with District 196. If the community uses District 196 it should have geographical representation on the Board.
- The University needs to ensure that the Rosemount community has open lines of communication with it, especially when construction is underway.

Interaction with Nearby Communities

- The new community must interact well with nearby existing communities.
- The integration of surrounding communities will help to increase diversity.
- There should be open access to the educational system for children of the surrounding City of Rosemount.

Neighborhood Design (Miscellaneous)

- Draw on the historic roots of the culture and landscape – farmers markets, local foods and production agriculture. Preserve at least parts of the Gopher Ordnance Works for historical purposes. Have an interpretive center or museum about the land and its history.
- Provide mass transportation – especially to the Twin Cities, the airport and Rochester – to bridge the gap between these places. Do not significantly impact the traffic of surrounding community.
- Ensure safety – especially environmental safety - with regards to remediation of the Gopher Ordnance Works.
- Green space and open space should be combined with higher density design. Keep agricultural land near Highway 42.
- Limit light and noise pollution.
- Design common spaces to ensure lots of places for the community to meet and gather.

D
EDUCATION

Campus Forums Summary
November 8 & 9, 2007
CAMPUS COMMENT ON THE
VISION FOR A UNIVERSITY-FOUNDED
COMMUNITY
UNIVERSITY OF MINNESOTA

The University of Minnesota is creating a vision for the development of a University-founded community on its 5,000-acre property in Dakota County. The community would be differentiated by the integration of innovations in education, health, environmental quality, renewable energy, transportation, arts and culture, technology, international linkages and other University research and education strengths. The community of 20,000 to 30,000 residents would be developed over 25 years. It would contribute to a vital regional economy characterized by thriving businesses, a vibrant social fabric and designed and natural amenities.

To help create this vision, the University held two Campus Forums in November 2007 to engage the faculty, staff and students in a conversation about ideas and possibilities for the community. An open discussion was held which focused on the ways that research, teaching and learning, and public engagement could be integrated into the vision for this new community. How could the linkages to academic mission create opportunities for the citizens, the new community and the broader regions, as well as create opportunities for University faculty, students and staff members? The forums focused on the interrelated topics of Education, Energy, Environment, Health, Transportation and Interdisciplinary Opportunities. More than 150 people shared their perspectives and ideas for what this new community could be during the two Campus Forums.

The following highlights the comments that were offered by faculty, staff and students during the Education Campus Forums. The compilation is intended to capture the ideas that emerged; it does not represent a consensus. These comments will help to inform the University's Education Task Force and the UMore Park management team.

Introduction
Both conversations opened with a discussion about how the new community would not be "Utopia," but a place of continuous learning – a learning community where holistic and coherent learning occurred. A brief review of the Education Taskforce's work to date focused on common values and principles; including that everyone in the community should be a teacher and learner, that diversity and leadership are extremely important, and that all work in the field of education should be grounded in knowledge.

Education and Research
- The community should be a "research lab."
- All formal education should be based on evidence – however this is looking backward at research – the new community should be forward looking.
- We should implement not just what we know works, but also the strategies that succeed as we create this new community.
- Take experiences and outcomes in the new community and translate to the rest of the state.
- Be sure that your success is not because of the audience drawn – but because of what you did.

Education in the New Community
- Education should be the common value – a selecting value.
- Move beyond PreK-16 to continuous learning.
- The learning experiences of children and

youth in school should extend out to the family and the community.

- The community should have a comprehensive learning environment – not just in the school buildings. Education for children should not be so rigid with regard to schedules and buildings.
- The students' responsibilities to give back to the community outside UMore Park need to be incorporated into their schooling.
- Students need to feel good about an education focused on a vocational trade not just a four-year college degree – get rid of the stigma that differentiates post-secondary education choices.
- Parents should be valued in the educational process because of what they can do to help.
- Teachers need to be respected and looked to as leaders.
- Find ways to learn from the community and the environment. Take advantage of the earth – integrate it into classroom learning – develop parks with overnight camping facilities to help with this. Proximity for natural learning is a real plus.
- A learning camp for children with issues and/or special needs could be developed in the community.
- Environmental and archeological education could happen right in the community.

Diversity and Inclusion
- There should be diversity in "ways of knowing."
- There should be a partnership with the indigenous people of Minnesota (Native Americans).
- Involve diverse people early in the planning so they have a sense of belonging from the beginning.
- The University welcomes and embraces all people.

Community
- The opportunity this property provides is the key – it is about the property – think about what it could be.
- Community development of vision is ongoing.

- The community should be a laboratory in the best sense. It should be about the creation of knowledge. Minnesota is a "knowledge economy" – this is the paradigm.
- The new community should be a special place where people self-select to live.
- Involve citizens who live there – they need to be instrumental in the planning. Involve citizens at the beginning – the University started it, now they have to finish it. Engage community members – create dialogue.
- Make sure that whatever is developed on the property fits with what already exists on the borders – not a separate property but a seamless blend with the surroundings.
- How permeable should it be between the new community and the surrounding areas – who should get to use the resources at UMore Park?
- The new community will provide access to opportunities – lifestyle choices.
- As a retirement community, the development is attractive because it would allow a cleaner lifestyle and an opportunity to keep up with trends based on its relationship with the University.
- This is an opportunity to shape a culture. What does it mean to be part of the community? Values and principles should be clear to all.
- The new community should be accessible to all, given the high value placed on education in this place.

University Considerations
- Will the approach be highly prescriptive, with rules and restrictive covenants? How would the University enforce these?
- The University is in the "learning" business, not the "education" business.
- It is attractive for the community to be affiliated with the University, but the University will have to fight the image of being a big bureaucracy.
- Need a positive relationship with community research partners. These partners say it's an opportunity for them to influence the University, its research agenda, and how it does

business. They also value the institutional power of the University.

- Due to the distance from the Twin Cities campus, the University will need some physical presence in the community.
- The Dakota County population could benefit from an increased opportunity to achieve a four-year degree, providing additional post-secondary options.
- Integrate cutting-edge University designed and developed products into the community – pilot testing.
- It would be a negative step if the University involvement made the community exclusive or elitist.
- "Welcome Week" for freshman at the University could be held at the new community.
- The University is a living organism and its extension into this new community is positive – a part of its land grant mission.
- Ensure that community members do not feel like research guinea pigs – the University will need to explain benefits to them, be honest and transparent.
- The University's branding on the new community will be helpful.
- The University must have expectations of the community members and require things of them, including a commitment to lifelong learning.
- Citizens should play a key role in ongoing planning and development.

University Students

- Integrate work in the new community into graduate level studies and make it part of degree requirements.
- UMore Park is distant from the Twin Cities campus. Transportation will be an issue as students become engaged in research and education projects there.

MISCELLANEOUS

- District 196 is considering adding an elementary school social studies unit on the UMore Park property. A focus on the history and development of the property could be used to anchor the community as a unique place.
- Legislative action would be needed to remove the new community from School District 196. The District uses a neighborhood school model. All excess facility space is on the west side of the District. The District has a 92% saturation rate, with only one charter school in Dakota County.
- Rosemount high school has 11% students of color, while the rest of the schools have 20% students of color. The new community could raise the school district's student population level by 18%.

ENERGY

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The following highlights the comments that were offered by citizens during the Energy Listening Session. The compilation is intended to capture the ideas that emerged; it does not represent a consensus. These public comments help to inform the University's Energy Task Force and the UMore Park management team.

Creating a Model
The development of this community is an oppor-

tunity to create a national or possibly global model for all communities to deal with energy and new technologies. This could be a place where University concepts and theories can be practiced. Energy efficient construction could be used when at all possible. A geothermal heating and cooling system – which harnesses the internal heat of the earth in a closed loop system – could be used for the entire community rather than individual homes. There is also the possibility that the nearby landfill waste could be used for energy. State of the art appliances, furnaces, and air conditioners should be mandated in each home, as well as energy efficient light bulbs. The community could even create a tax advantage for members linked to their energy efficiency.

Energy Conservation
- The new community at UMore Park has the potential to be a demonstration community for renewable and sustainable energy initiatives.
- Integrate energy systems using a holistic standard.
- Plan to build in energy efficiencies using renewable products and solar panel shingles.
- Recognize there is energy in everything – materials, sewage, and animal waste – and conserve aggressively.
- Leave no trace – focus on the life-cycle of recycling all products within the community.
- Create a community culture where energy efficiency is highly valued.
- Proper street design and block layout can conserve energy consumption with fewer automobile trips.
- Use LED lighting for public street lights and parking lots.
- Keeping up with the newest, most efficient technologies in all aspects of the community will be very important.
- Build underground buildings or green roofs

to save on heating and cooling and as part of the landscape.

- Utilize unique geological aspects of land such as building deeper into ground or use aspects of caves to cool.
- Use what is already available. Harness the heat and energy of nearby industries and from the big sewer pipe that runs along the property.
- Provide residents free ongoing energy assessments, so they know where they're wasting energy.
- Utilize local materials to reduce the use of non-renewable resources (i.e., less materials transported = less fuel consumed) and ensure actual building materials are very efficient.
- Conserve waste heat.
- Consider using dehumidification systems for heat. For example, when you extract moisture from the air in enclosed swimming pool systems, heat is produced.
- Use propane for refrigerators as it is less expensive than electricity, but needs to be vented to outside.
- Put all duct work under the frost line to recirculate air. Nature will cool the air, but you may need an alternate system to boost cooling during certain conditions. This is not new technology and has been used in horse barns all over the country.
- Energy production and recycling facilities should have an educational component to increase knowledge about conservation.
- Develop conservation incentives to promote a particular application and minimize its cost.

Carbon
- The new community should not minimize its carbon footprint, but make it zero! Greenhouse gas reduction also needs to be considered.
- "Greening up" the new community will help reduce CO_2 emissions.
- The community could be used as a research model on how to reach carbon emission goals, as people live their daily lives.
- Sequestering carbon dioxide is not renewable.

- Crops grown on some of the land using methods that pull carbon out of the air become a service to the surrounding communities.
- No coal burning facilities should be located in the new community.

Biomass and Grass
- No lawns or lawn mowers should be allowed in the new community. Naturalize with grasses and use them to generate energy.
- Establish an on-site tree nursery now for future replanting of gravel extraction areas.
- The community as a whole should have a compost site instead of individual homes.

Solar
- Develop building with passive solar design – orient homes for sun and shade.
- Do not cut down all the trees – use them for shade.

Power Generation
- Consider both on-site and off-site power generation strategies.
- Create power generation on-site through renewables. This would be the most flexible way to generate electricity, especially if they could capture the escaping heat and use turbines to generate even more electricity.
- Make the community an energy producer.
- In reality there will probably be a mix of older and newer technologies, but there must be more renewable technologies used.
- Possible 'next generation' utility grid would be more self-controlled and self-regulated to help prevent problems of black-outs or shortages. The infrastructure grid should be shared with the entire community instead of each home having its own system. The community as a whole should have a backup generator instead of each home.
- Consider smaller, more distributed generators for efficiency.
- Make fitness machines produce power.
- All power lines should be located underground.
- Consider making hydrogen from water with

electrolysis powered by the sun and wind.
- Use water from an intermediary plant and domestic wastewater to generate energy and distribute it back to homes after it has been cleaned up. Utilize the nutrients from the process to generate a biomass energy crop. Do not separate energy from environment, but create a synergy. Combine sewage treatment and household solid waste treatment with energy generation.
- Syngas utilization should be considered as a fuel option. Syngas – also known as synthesis gas – is the name given to a gas mixture that contains varying amounts of carbon monoxide and hydrogen generated by the gasification of a carbon containing fuel to a gaseous product with a heating value.
- Utilize solar energy.

Wind
- Wind turbines on the property could be a sign of a "cool community."
- Complete a wind resource assessment to determine if wind turbines are a viable option.
- New wind turbine technology allows even areas with low wind speeds to generate energy.
- Wind turbines may not be best choice if many are required to serve the entire community because they can be noisy.
- Consider locating wind energy at the south-end of the property based on prior research of wind flows.
- Consider locating wind generators as a buffer between industries and homeowners.

Biomass
- Use some of the land to grow crops that can be converted into fuels like ethanol or bio-diesel and use them locally.
- Ethanol production is not currently economical. It does not utilize all products from the process.
- Use Vermillion Highlands to harvest prairie grass for fuel.
- Plant trees for use as biomass, which can also help remediate contaminated soil.

- Use local forests as a source for biomass.

Geothermal
- The removal of the aggregate and subsequent reestablishment of the terrain provides a unique opportunity for installation of geothermal energy capabilities at reduced cost and for creating terrain conducive to both more efficient energy use and amenities. For example, creation of a chain of lakes could tie into an efficient energy system while providing residents with recreational opportunities.
- Consider geothermal use for entire development instead of individual dwellings to gain greater efficiencies.
- Capture underground geothermal heat from nearby pipeline.
- Geothermal power in kilowatts is a 3 to 1 efficiency gain, but the production of electricity is only 30% efficient. The result is break even.

Waste Management
- Incorporate waste management strategies into the community.
- Consider recycling garbage rather than burning it.
- Develop a closed system where nothing leaves community. All community members would need to agree to this prior to living or working there.
- Model multiple clean energy systems and close the loop.
- Consider using compost piles.
- Ensure that waste management is coordinated so that multiple contractors are not in area doing the same thing which increases truck usage and wastes energy.
- Caution developers that using waste energy can increase carbon dioxide in air.

World Class Energy Research Park
- Provide the infrastructure to incorporate the University's research and learning facilities in one location.
- Solicit ideas from professors to develop a high caliber facility.

- Recruit well recognized researchers and faculty to the facility.
- A world class energy research park has the potential of aiding in the development of new energy efficient techniques through collaborations with other universities and non-profit organizations.
- An energy park can help to bridge the gap between academia and the market place.
- The dissemination of ideas and innovation will have an avenue of access. This world class energy research park could be known as a "Center for Innovation."
- A world class energy research park must maintain a cutting-edge philosophy.
- A world class energy research park could create more jobs for the new community.

Transportation
- When establishing a transit corridor, consider developing it around the community rather through it.
- Consider a potential partnership with the South Robert Street Corridor which is already in the planning stages.
- Develop commuter rail or high-speed transit for energy conservation and emissions reduction.
- Use only clean fuels for vehicles.
- Consider using only plug-in hybrid electric vehicles within the new community. This would reduce CO_2 emissions. Build sufficient plug-ins throughout the community for these vehicles.
- Develop the community so people who live there are encouraged to buy zero emission vehicles, possibly through incentives or rewards.
- Ensure that there are trails and roads for smaller vehicles, so they do not have to compete on the highways with larger transport vehicles.
- Vehicles would be parked in one central underground place.
- Be sure to consider what 30,000 additional people will do to traffic.
- Design the community for clear separation of automobile traffic from pedestrian and bicy-

cle traffic. This leads to enhanced safety and enjoyment for pedestrians and bicyclists which encourages these modes of energy efficient transportation.
- Sidewalks should have a priority in mixed use developments, with no heavy traffic. When sidewalks are available it seems like more people walk and community ownership is fostered.
- Consider new technologies that are being developed – new types of batteries; ultracapacitors that can be charged and recharged thousands of times and can store large amounts of energy; and a catalyst to convert ethanol to hydrogen.

Housing
- The community has the potential to be a world model in home building.
- People like to have choices, so the buildings must have some diversity, but energy efficiency must be the underpinning.
- People who move to the community would have the understanding that it is a sustainable community with smaller and different shaped houses and open space.
- Reduce the carbon footprint of homes.
- Increase housing efficiency by using more renewables.
- Promote energy efficient design including buildings that are earth-bermed, south facing passive solar, or underground.
- Utilize green roofs and rooftop gardens.
- Use lots of insulation, passive solar, and heat-exchanges – there are Swedish houses near Gothenburg that do not even have heating systems.
- Houses should use solar panels.
- Do not have big lots. Use higher density, communal arrangements, and smaller houses for energy savings – the younger generation is more accepting of these. We can learn a lot from the Europeans regarding size and multiple generations in one home. Denser housing helps create a sense of community and walkability.
- High density development might be the most energy efficient, but people might not be

looking for this.

- Homes covered with earth cost about a quarter as much to heat and cool, and about $1000 per year to insure.
- Contractors must have efficiencies of scale to develop more sustainable designs.
- Existing building codes may need to be amended to accommodate greater energy efficiency.
- Develop "smart" dwellings that allow residents to remotely manage energy consumption. People living in the community at UMore Park could have a touch screen in their home documenting daily energy use and cost.
- Link homes together for research purposes.
- Have demonstration homes for prospective new homeowners to view.

Food
- Locally-grown foods cut down on energy for transportation.
- Create organic community gardens. Consider linkages to University of Minnesota Extension programs.
- Eco-villages have locally-grown food and small lots.
- Grow organic foods as they use less energy to produce.
- Agriculture must be a part of the community and there must be no imports of food.

Economic Development
- Create jobs in the new community so there is no long commuting. Money saved from not commuting can be used to pay for energy efficiencies.
- If a business has a smokestack it will need a plasma incinerator so there are no emissions.
- Industries should be developed in the community that manufactures products that conserve energy.
- Entrepreneurs who want to find new ways to sustain energy would be encouraged to live here and be able to experiment.
- New energy technologies create good employment and training opportunities in:

installation, maintenance, and research. The presence of these jobs in the community will reduce residents commuting time and lessen energy consumption.
- Housing construction will be an economic engine.

Financing Alternative Energy
- There is an upfront cost to be energy efficient. It is a long-term investment that pays back over time.
- Consider the possibility of private sector involvement to help fund energy initiatives.
- Explore the possibility of local governments and the community having ownership of the energy structure at UMore Park.
- The community could form its own municipal utility and sell excess energy for profit.
- Community-Based Energy Development (CBED) provides incentives for utilities to enter into contracts with people who are investing funds for renewable energy projects and should be used in the new community.
- Apply for research grants and partner with corporations interested in underwriting new energy research technologies.
- Industry needs to assume the burden of research and help fund future research within the new community.
- Establish a sliding cost scale so that the more energy you use, the more each unit costs.
- Community members could buy into a solar bank and when the solar bank produces energy they get an energy return as part of their investment.
- Mine the gravel first, make money off of it, and use that money to develop the community.
- Develop self-financing pools to help homeowners pay for efficiencies.
- The higher costs of acquiring "green" materials will have to be balanced with the savings of being energy efficient.
- Be sure to look at total costs of energy efficiency – corn ethanol plant costs have turned out to be in excess of the advantages.

Partnerships

- Consider strategic partnerships for future modes of transportation.
- Partner with existing energy providers.
- Connect with builder associations to determine newest "green" programs and standards.
- Partner with existing businesses, industries, and educational organizations in all aspects of energy.
- Collaborate with existing community colleges who would like access to the new community for training and research, which could lead their students to complete their education at the University.

Developing the Community

- Are there model communities to look at for examples so we do not "reinvent the wheel?"
- Develop guiding energy principles for the community first, then create the community to conform to them – brown lawn, plant certain number of trees or other energy efficiencies. Consider incentives that would help people alter their former lifestyle habits to be compliant.
- Land use decisions need to take into account energy decisions.
- Agreements or covenants need to be made with those who chose to live or work in the new community regarding the use of alternate or renewable energy.
- Different ways to frame restrictions and requirements exist, such as, energy credits, tax reductions, or rebates.
- Choices must be available to support individual lifestyles and the needs for people in every stage in their life. Energy consumption must match those lifestyles and needs.
- The community must be a leader in demonstrating living a simpler lifestyle.
- The concept of renewable energy is appealing, but the appearance of the physical plants that produce it may not be. Try to change attitudes and be sure that community members buy into the innovative processes. Find a way to minimize the effect of the buildings and structures on the land. Model

some of the physical power plants like those in Europe where they blend in to the landscape, produce no smells, and look nice.
- It is important that the community not be separate from the surrounding communities so that benefits can be seen and shared.

University's Role

- Educate people about energy efficiency. Model energy efficient homes could be part of the education process that all citizens learn from.
- Educate and train residents of the new community to develop (create), install and maintain energy systems – both now and into the future.
- The University, as part of its research and education, should find ways to fund energy efficiencies for homeowners; such as the creation of a low interest, long-term loan program for energy and maintenance of homes or the development of a homeowners association.
- Random sampling of homes for research would be acceptable. If research is done in your home it might cost less or you might get subsidized tuition at the University.
- Incorporate the idea of research and development (R&D) in the community as a way to market it to the masses.
- The University needs to make a commitment to stay with adopted programs over the long term.
- The University needs to continue with research that can benefit the community as it is developed and in the future.
- The University needs to test any models that the citizens will use.
- The community will need to appeal to the average person. The University may need to provide education to potential buyers to be sure individuals know what they are getting into. Potential homeowners may be required to take courses on how to maintain the home and yard.
- All development activities should be research based.
- Research means taking more risk. The

community may need to be overbuilt in order to have adequate resources for the entire community if a plan does not work exactly as expected. There needs to be a safety net.

Miscellaneous
- The community will need a website to market itself and tell about all the energy efficiencies.
- Preserve some land so that in 50 years when technology changes you will have space to build what you need to remain cutting edge.
- The community should benefit everyone and appeal to the masses so it has a better chance to succeed.
- In 2030, one-fifth of the people in Dakota County will be 65 years or older.
- Caution against paralysis that may result from trying to achieve the perfect, cutting edge community.
- The community must become a bi-partisan issue that requires cooperation from political groups, academic, and social groups.

E ENERGY

Campus Forums Summary
November 8 & 9, 2007
**CAMPUS COMMENT ON THE VISION
FOR A UNIVERSITY-FOUNDED COMMUNITY
UNIVERSITY OF MINNESOTA**

The University of Minnesota is creating a vision for the development of a University-founded community on its 5,000-acre property in Dakota County. The community would be differentiated by the integration of innovations in education, health, environmental quality, renewable energy, transportation, arts and culture, technology, international linkages and other University research and education strengths. The community of 20,000 to 30,000 residents would be developed over 25 years. It would contribute to a vital regional economy characterized by thriving businesses, a vibrant social fabric and designed and natural amenities.

To help create this vision, the University held two Campus Forums in November 2007 to engage the faculty, staff and students in a conversation about ideas and possibilities for the community. An open discussion was held which focused on the ways that research, teaching and learning, and public engagement could be integrated into the vision for this new community. How could the linkages to academic mission create opportunities for the citizens, the new community and the broader regions, as well as create opportunities for University faculty, students and staff members? The forums focused on the interrelated topics of Education, Energy, Environment, Health, Transportation and Interdisciplinary Opportunities. More than 150 people shared their perspectives and ideas for what this new community could be during the two Campus Forums.

The following highlights the comments that were offered by faculty, staff and students during the Campus Forums. The compilation is intended to capture the ideas that emerged; it does not represent a consensus. These comments will help to inform the University's Energy Task Force and the UMore Park management team.

Student Engagement
- It will be critical to establish a Student Advisory Group to help facilitate involvement within the project.
- Various student organizations at the University, like the Applied Environmental Solutions, Solar Decathlon and Engineers Without Borders, are interested in getting involved in the many engineering facets including the research and the creation of energy systems. They want to be involved at the ground level with infrastructure.
- It could be a very engaging process for students to be involved at this stage to gain experience in "real world" projects pertaining to their respective areas of study. This would not be an abstract exercise.
- Could we get the Greenlight Challenge involved working on design at this point?
- Students could up their involvement with Capstone Projects in their related fields. Time and effort could pay off, if perhaps class credit is applied for their involvement with UMore Park development.
- The University needs to establish a process for students to be actively involved – possibly through the Undergraduate Research Opportunities Program (UROP).
- The faculty philosophy needs to change in order to excite and create incentives for serious student research opportunities.
- Builders and architects seem to be disconnected. This could be a great opportunity to get architecture students involved early with research and practical real world scenarios.

- A very important part of this project is to determine how a structured engagement process of students and faculty gets implemented. We need to set up a systematic way of engaging that will automatically kick in as the project progresses through time.
- Currently, some students go to Scandinavia to study and view new technologies. UMore Park could be a much more efficient learning experience for many more students.

University Engagement
- The University must facilitate the integration of knowledge, and foster participation of students, faculty and staff members across all areas of the University?
- Establish an Initiative for Renewable Energy and Environment clearinghouse for proposed research opportunities at the UMore Park property.
- Develop a centralized way of bringing research up the pipeline; then integrate it into UMore Park.
- We should not wait – the industry is already moving forward. UMore Park could be an extension of what the industry is already doing. People can get involved now – then sell it into the future. Get a University campaign going that could energize people, students and faculty today.
- There is a real opportunity for a "think tank." Right now there is not much time for faculty to be involved and consider, brainstorm, or think about new ways of doing things. The collaboration potential is huge as this property is developed.

Community
- The UMore Park project and community will ruffle feathers if it is successful. By pushing the envelope on technology the status quo will be challenged and people will take notice.
- We do not want to create a disconnect by potentially thinking that this is only something the University can accomplish. We will want to create infrastructure and changes that can be retrofitted and become transfer-

able to neighboring communities, states and countries. If the community we build is the only community that can have the kind of energy efficiencies we dream about then the mission of the University is not served.
- With respect to UMore Park, the University should define the parameters of "community." Is it the village being built or is it a broader picture? The University should coordinate with what already exists, how it is being done, where it is done, and its efficiency model. How does the UMore Park energy initiative add value to an already existing community infrastructure?
- We should start research work now and then integrate it into the larger community and the new community as the project unfolds. This project can not be isolated; its research and findings should be adaptable to other communities.
- Use the new community to communicate to the rest of the world the potential of these new technologies.
- Farming and agricultural work is a huge user of energy. How can we make any farming associated with the new community more energy efficient?
- What kind of people will end up living there? Commitment of the people within the community for it efficiencies will be important.

Systems Integration
- Infrastructure systems integration will be important from the onset of the development. Plumbers talking to electricians, talking to utility companies, and talking to all the other trades.
- Interdisciplinary opportunities and research – if we can get the model for co-management of systems established, the University could get this model out to the building industry and they could see how developmental silos are being broken down.
- Systems integration – right now we piecemeal the fixes to building structures and designs. We should be looking forward to the next best technologies. The University has

the opportunity to force the issue. Can the University leap-frog the process and move right into the next generation technology?

- All information should be disseminated to the public as the project progresses.

Infrastructure

- There is a large potential with the gravel mining project for geothermal energy utility implementation. We can create a central utility supply source and send everything, including air-conditioning and heat to specific buildings, as opposed to having everything site specific and located within each structure.
- Model homes and sample houses could help to set the stage for a vast potential of energy technology implementation.
- As technologies emerge and new technologies hit the marketplace UMore Park must have an energy infrastructure flexible enough to accommodate change.
- Periodic milestones need to be established to show successes and they must be modified as technology changes.
- Selling electricity back to the grid could have some hurdles with the transmission line running through the community.

Technology and Codes

- We have the technologies to build energy-efficient homes now. Building codes will be the hurdle to overcome. Can the University by-pass some of the more restrictive codes based on its constitutional autonomy?
- Building windows will change. Their design will change based on needs of the consumers. Technology, or a perceived lack

of it, will not be the barrier to change. The University has a huge opportunity to step in and help guide the research of new technologies with sponsored projects.

- Policy framework will be critical during the implementation process. Incentives to get new technologies into place will be important.

Efficiency

- As the growth of the community progresses over the next 10 to 20 years, energy efficiency targets could be measured and we could work to attain specific levels of efficiency. What would be a success in terms of energy efficiency targets? Are there energy processes in the industry that could be successfully implemented with the proper code interpretation?
- Demonstrate the concept that "less is more." Could building energy efficient housing and infrastructure at the beginning versus retro-fitting the energy efficient systems into place after the fact, aid in true efficiency?
- Homes could utilize the efficiency of "day-lighting." This could introduce massive energy savings and safety. Day-lighting is the practice of using natural light to illuminate building spaces rather than relying solely on electric lighting during the day. It connects people to the outdoors and provides pleasing illumination at a fraction of the cost of the most efficient electric lights.
- Data collection will be very important with all technologies implemented. We should be looking at the community systems as a whole; as well as, individual structure efficiencies.

ENVIRONMENT

F

**Listening Session Summary
Dakota County Technical College
Rosemount, MN
September 19, 2007**
**PUBLIC COMMENT ON THE VISION
FOR A UNIVERSITY-FOUNDED COMMUNITY
UNIVERSITY OF MINNESOTA**

The University of Minnesota is creating a vision for the development of a University-founded community on its 5,000-acre property in Dakota County. The community would be differentiated by the integration of innovations in education, health, environmental quality, renewable energy, transportation, arts and culture, technology, international linkages and other University research and education strengths. The community of 20,000 to 30,000 residents would be developed over 25 years. It would contribute to a vital regional economy characterized by thriving businesses, a vibrant social fabric and designed and natural amenities.

To help create this vision, the University held six Listening Sessions in September 2007 to engage the public in a conversation about ideas and possibilities for the future. The sessions focused on the interrelated topics of Education, Energy, Environment, Health, Transportation and Interdisciplinary Opportunities. More than 450 people shared their perspectives and ideas for what this new community could be during the Listening Sessions.

The following highlights the comments that were offered by citizens during the Environment Listening Session. The compilation is intended to capture the ideas that emerged; it does not represent a consensus. These public comments help to inform the University's Environment Task Force and the UMore Park management team.

WATER
- Water quality is a major concern. The new community should actually work to improve water quality.
- Concern exists about the ability to control mosquito breeding.
- Design technologies to control stormwater run off, possibly through the use of community-wide rain gardens. These may also help to control mosquitoes.
- Use catch basins and pervious surfaces for stormwater run off.
- Have a sustainable water treatment system. Trap rainwater on site – every home should have a swale or rain garden which master gardeners could help teach about.
- Preserve healthy waterways and river systems, including the Vermillion River.
- Recover and recycle wastewater and grey water.
- Be innovative – go beyond low-flow shower heads and small tank toilets.
- Heat water during off peak hours.
- Water fountains could be decorative and aerate water.
- Plant native vegetation in the ditches to defend local rivers from waste runoff.
- Water is the oil of the future – conserve it.
- Captured for reuse the contents of the treated effluent line going by UMore Park to the North and West.
- Develop zero run off technologies.
- Research and inventory wetlands.

Waste and Recycling
- Eliminate all building waste.
- Plan for the community to create no waste on a daily basis.
- Make the recycling program easy to understand.
- Recycle the Gopher Ordnance Works concrete into new roads and structures.

- Have onsite compost bins – either individual or for families. This could even be on a commercial scale. 70% of the garbage thrown away could be composted.
- It should cost money to throw away trash so that there is an incentive to recycle and compost.
- Ensure pre-existing contamination is cleaned up.

Open Space and Recreation
- Preserve as much open space in its natural state as possible.
- Preserve woodlands and biodiversity.
- Keep most of the land undeveloped. UMore Park could preserve disappearing farmland. Do not contribute to sprawl.
- Do not just make parks – keep wilderness areas. Develop walkable and bikeable access to wild places – so you do not have to drive to get there.
- Replace any harvested biomass.
- Keep community rural – not urban or suburban.
- Allow hobby farms.
- Let gardens be part of the open space – encourage people to garden. Create community gardens and use them to help integrate people to the surrounding landscape and support diversity. Gardens may also serve as an economic component.
- Create a measured trail with stations throughout the garden. Make it handicapped accessible and multi sensory – scented gardens, fuzzy textured plants.
- Green roofs could serve as green space.
- Have an arboretum onsite.
- Do not have an arboretum onsite.
- Mix open space into the heart of the community. Green space should be spread throughout the community.
- Create a relationship with the Vermillion Highlands area. Increase the Vermillion Highlands and minimize the UMore Park development.
- Consider wildlife management and habitat in the design – create wildlife corridors.
- Plant native species around buildings and roadways.
- Design ponds and hills to make the property more attractive.
- Keep 500 acres for ATV use.
- Develop a skateboard park.
- Do not eliminate the existing dog park – build more.
- Make the community resources open to the whole state.
- Build a central swimming area – not necessarily a swimming pool.
- Link the community to nature trails and scatter natural interpretation stations on the trails.
- Create walking, biking, and cross country skiing trails.

Energy
- Use solar and wind energy.
- Do not encourage ethanol.
- Make the community energy self-sustaining.
- Ration natural gas – price it with a terraced system like water.
- Conserve energy through building design – build energy efficient housing.
- Develop district heating supported by biomass.
- Grow prairie grasses for biomass in the community.
- Use this opportunity to take risks. Do not just use what is popular now – be innovative.
- Build recycling systems that are not reliant on oil or outside energy.
- Minimize the community's energy footprint – make it carbon neutral.
- Do not reduce the goals for energy to try and attract more people – the community can self-select.
- Use energy saving LED lights.
- Take the time to map wind resources before you begin building. That way you will not accidentally build over the best wind production areas.
- Build south-facing passive solar buildings to reduce energy needs.
- Plant trees for shade to reduce air conditioning needs.
- Tax people based on their carbon footprint to

encourage them to reduce energy consumption.
- Follow Sweden's examples of energy innovation.
- Use the community for energy research.
- Much of the energy used is to heat and cool homes. Find creative ways to reduce those energy needs, such as building underground.

Agriculture
- Agriculture research and production should remain an integral part of the new community.
- Agriculture could contribute to energy production through biomass.
- The community should be agriculturally self-sustaining and focus on local organic food production.
- The prime agricultural land at UMore Park should be preserved and retained for agriculture.
- Integrate agriculture with neighborhood development.
- Do not integrate agriculture with neighborhood development.
- Inorganic pesticide use should be limited so that pesticides do not contaminate water sources.
- There should be a strong emphasis on composting waste, which could be used as organic fertilizer.

Housing
- Control the density of housing, have enough density to support mass transit.
- Balance density so that open space and recreational areas are provided.
- Ensure that there is a market for the housing that will be built.
- Housing should have a minimal environmental impact.
- Make housing innovative but livable.
- Create an open, non-gated community.
- Integrate housing with economic development, agriculture, and the environment.
- Create green roofs.
- Utilize solar energy for housing.

- Do not rush into building houses and sacrifice quality.
- Size houses appropriately – do not build "McMansions." Limit the square footage of houses to something like 2500 square feet.
- Implement conservation design – build on small lots with nearby open space. Do not have 5 acre lots for homes.
- Cluster homes together to reduce sprawl and traffic.
- Do not dictate housing designs too specifically. Create unique homes, not uniform development. Do not make covenants on color and roofs for homes.
- Have a variety of housing types – mixed use, mixed incomes, and neo-traditional.
- Consider using composting toilets.
- Offer affordable green housing to illustrate that can be affordable, especially over the long term.
- Demonstrate the health value of green buildings – no mold or synthetic chemicals.
- The community might have to rely on bylaws to control people's actions on their own property.
- Create homes that produce so much energy that they put some back onto the grid.
- Utilize natural, innovative, and recyclable building materials.
- Build homes to last a long time.
- Create neighborhoods, both to cluster development and to create a sense of identity and ownership.
- Make front porches to encourage community interaction, as well as, gathering spaces for the community.
- Reduce turf lawns – plant native species.
- Make homes as low maintenance as possible.
- Build life-cycle housing – homes should be able to serve people over their entire lifespan.
- Housing should be horizontal to keep people close to nature, do not build tall skyscrapers.
- Buildings should all have the Leadership in Energy and Environmental Design (LEED) Green Building Rating System™ "Gold" designation.

Transportation

- The new community could be a transportation hub between Rochester and the Twin Cities – connect to the light rail.
- Be innovative in transportation – research European transportation concepts.
- Make this a place where people can live, work, and play. Incorporate work and employment opportunities into the community to help eliminate commuting.
- Implement state of the art affordable public transportation systems and encourage people to leave their vehicles behind.
- Provide transportation for all ages.
- Make this a non-motorized community from the beginning.
- Integrate sidewalks, trails and streets. Design bike and walking trails to connect recreational areas and errand destinations. Make this a walkable community.
- Build amenities close to housing, so people can shop without a car.
- Make this a bicycle-friendly place. People should be able to do a lot of their shopping by bicycle.
- Encourage bike or golf cart transportation.
- Have energy efficient or battery-powered cars.
- Use horses for transportation in the community.
- Do not build cul-de-sacs; make through streets.
- Make a greenway corridor connecting the community to the open space in the south and west – connect with the Flint Hills and the bluffs area.
- Build transportation to increase personal safety – make it easy to police.
- Build normal-sized curbs to increase safety.
- Build right of ways for buses.

Diversity

- Develop the new community to include a diversity of incomes, cultures, ethnicities, and ages and design it to be easy for all of them to navigate.
- Build youth facilities – possibly one for youth who have been arrested more than

twice. An AmeriCorps type program could also be established to teach life skills.
- Make it easy for seniors to be involved in the community and its programs.
- Invite religious communities of all faiths to take part.

Community

- Do not make this an exclusive community. It needs to be welcoming to people who do not live there.
- The community should not be part of Rosemount – it should be its own, new community.
- Ensure services that people need are within walking distance.
- Many people want to live an environmentally-friendly lifestyle, but cannot afford it. Make living in this community affordable.
- Build community gathering spots. People should have many opportunities to get to know each other.
- Make the commercial areas walkable. Do not allow big box stores in the community. All retail should be locally-owned.
- Have a "tool-pool" each house does not need a lawn mower. The community can share resources. This will save money and help people get to know one another.
- Have community kiosks.
- Rewrite suburban community association rules.
- Make the community so that it is conducive to teachable moments.

University's Role

- The University should contribute its research to the development – it should design energy efficient houses with cutting-edge technology and educate the homeowners about it.
- The University should not be so concerned about making money that it fails to build affordable housing.
- Monitor energy use and transportation patterns for future applications.
- Use the community as a test site for the newest technologies.
- Create living research – make research more

interesting than in a classroom.

- The natural areas can serve as a living laboratory. These can demonstrate the watershed and environmental impacts on the area.
- Carry out geothermal, wind, and biomass energy research in the new community.
- Students presently working on research at UMore Park should get to continue.
- This is an opportunity for the University to study a neighborhood and measure how self-sufficient it is.
- Develop interpretive centers and demonstration buildings that teach how to emulate the standards used in the community.
- Build a Master Gardener Research Garden – they can help educate others.
- Build a composting center where kids can learn how to compost. It could be part of the school curriculum.
- The University could offer classes in the new community. It would be part of children's lives from early childhood through college. This would create great alumni.
- Sponsor classes such as mushroom hunting, so people can go out and learn on the natural areas surrounding them.

Miscellaneous

- Do not educate only the children. Educate all the people who will live in the community and nearby.
- Have schools on-site. Create magnet schools for ecology or environmental issues.
- Reduce noise and light pollution.
- Aggregate mining is not compatible with the community's mission.
- Mining will strip the land of its valuable natural features.
- The development should guide the mining, not the other way around.

ENVIRONMENT

Campus Forums Summary
November 8 & 9, 2007
**CAMPUS COMMENT ON THE VISION
FOR A UNIVERSITY-FOUNDED COMMUNITY
UNIVERSITY OF MINNESOTA**

The University of Minnesota is creating a vision for the development of a University-founded community on its 5,000-acre property in Dakota County. The community would be differentiated by the integration of innovations in education, health, environmental quality, renewable energy, transportation, arts and culture, technology, international linkages and other University research and education strengths. The community of 20,000 to 30,000 residents would be developed over 25 years. It would contribute to a vital regional economy characterized by thriving businesses, a vibrant social fabric and designed and natural amenities.

To help create this vision, the University held two Campus Forums in November 2007 to engage the faculty, staff and students in a conversation about ideas and possibilities for the community. An open discussion was held which focused on the ways that research, teaching and learning, and public engagement could be integrated into the vision for this new community. How could the linkages to academic mission create opportunities for the citizens, the new community and the broader regions, as well as create opportunities for University faculty, students and staff members? The forums focused on the interrelated topics of Education, Energy, Environment, Health, Transportation and Interdisciplinary Opportunities. More than 150 people shared their perspectives and ideas for what this new community could be during the two Campus Forums.

The following highlights the comments that were offered by faculty, staff and students during the

Campus Forums. The compilation is intended to capture the ideas that emerged; it does not represent a consensus. These comments will help to inform the University's Environment Task Force and the UMore Park management team.

General Comment
This project is unique because of the University's involvement. There needs to be clear linkages to the University's educational and research mission.

University Research Issues and Opportunities
- UMore Park should not sound like an experiment. It should be a place where people want to live because of the benefits of research and learning.
- The new community should feature research on "peri-urban" agriculture. Anchor what is already there and add more. Small-scale, horticultural-oriented farms need to be near cities so that they can sell their goods. In typical development, big farms become suburbs and there is no buffer of small farms.
- Conduct research on sustainability – social, economic and environmental concerns.
- Emphasize locally-grown foods. This could be an opportunity to do research on how neighborhood garden farms affect families' health, finances and time.
- Research the atmospheric and agricultural sides of carbon.
- Research whether the community really is carbon neutral – measuring carbon outputs for verification for carbon-neutral claims.
- Research the economic and pricing aspects of the community. Full-cost accounting of carbon would help people make better long-term decisions. How do you build long-term costs into up-front capital costs? Do research on life-cycle costs.

- Conduct landscaping research on the types of perennials and native plants that will thrive in the area.
- Research best practices to integrate small-scale agriculture into the community. Green space should not just be parks, but also farms and gardens for food production, security, health and nutrition.
- The new community could incorporate green roofs, then conduct research on their generally feasibility.
- Research genetically modifying crops for local production – extend the growing season with some genetic modifications.
- Research all types of season-extending opportunities. Genetic modifications are not necessary. Instead, look at best practice greenhouses – build greenhouses without using so much plastic.
- Use the community to research the differences in consumption and waste between the people living in traditional developments across the street and the people in the new community.
- Research the waste stream including behavior and social research. Reduce the waste stream through recycling and managing waste.
- Conduct ecological research. How will the land and species composition change? Will climate change affect those species? Is the composition of species changing? Does the development just look like natural habitat or does it actually support a variety of species? Use the Department of Natural Resources (DNR) land to the south for comparison. How does this type of development work in the long run for habitat and prairie restoration?
- Current crop research will be disrupted if moved to other locations. Soil types and slopes will be different.
- Relocation of research will especially interfere with longer-term research projects.
- Investigate how moving research plots affect the research. That alone is an educational opportunity. Can you reproduce results in a new location?

- Conduct research on how to make the building process itself environmental. The production as well as the end product should be sustainable. Use the building process to educate. Show community members how to do it.
- Could carrying out research in new soils expand the data?
- Do not disrupt existing research that is located on the property. It seems illogical to build houses there. Land with more relief is more interesting for building houses anyway.
- Gravel extraction money versus agricultural money. Is there any way the agricultural grants could offset the price of gravel extraction money and allow some research areas to remain untouched?
- Lots of agricultural research is environmentally-related. The University should look at establishing a research center in southeastern Minnesota. Research should be conducted in the Karst topography and there is currently no research center there. This area of the state is also the most vulnerable. The University should invest in this agricultural and environmental research opportunity, especially if there are diminishing agricultural research opportunities in the new community.
- Researchers should conduct surveys of community members.
- There could be research on how to engage the public.

Research Ethics
- UMore Park researchers must approve research on human subjects through the University's Institutional Research Board (IRB).
- IRB approval may slow down research proposal approval – establish a relationship with the IRB in order to speed up this process.

Student Involvement
- Engage classes. For example, a current class requires students to create theoretical models of plans for developments and works actively

with development personnel.

- Incorporate UMore Park information into architecture workshops for the Green Light Group, students for new urbanism and the College of Design.
- Pursue a class research project using M3DP code to assess the mismatch of where people live and work within the city of Rosemount.

Environmental Protection

- Will gravel mining completely reshape the site? How will you minimize the harmful impacts of gravel mining? Also, how much will the concrete removal impact the site?
- Most of the land was cleared in the 1940s, so the vegetation that is there is not really old growth. However, there should be an effort to preserve the oak areas.
- Many developers strip all the top soil and replace it will another type of top soil and plant grass. This action forces homeowners to water the grass forever. The development should maintain the existing soil, and add only soils that match the area.
- Are there areas where the bedrock might preclude the formation of lakes?
- Will gravel extraction be part of the sustainability plan? The University needs to make sure that it extracts gravel as sensitively as possible.
- Can you market the gravel as "sustainably extracted" if done correctly?
- Protect all water resources – groundwater as well as rivers. Minimize the impact of water from gravel mining.
- Clean-up the entire property, not just the parts you want to build on. It is the University's responsibility.
- How will you make the community carbon negative? Being carbon-negative is a great idea, but it is easier to talk about than to actually make it happen. If the community cannot actually become carbon negative, will it purchase offsets?
- In 10 years it will be a different world with carbon trading, so that could be a possibility in the future.
- The University of Minnesota's Morris

Campus produces a significant amount of its own energy with wind turbines. Could UMore Park become an energy producer, even offsetting some of the Twin Cities' carbon footprint?

- What are the barriers to instituting certain building plans such as waterless urinals?
- How will UMore Park handle air quality issues such as odor?
- UMore Park could potentially add to existing carbon emissions if there are lots of commuters.
- UMore Park should maintain a wildlife corridor.
- UMore Park could help find a balance between environmental sustainability and urban sprawl by developing the community.
- Compost human waste.
- Tax the handling of stormwater to encourage onsite processes.
- Take advantage of the current heightened environmental consciousness.

Public Engagement

- Establish partnerships with local citizens and governments.
- How will the new community interface with the surrounding community?
- The community will be diverse on many levels. Can the University leverage this diversity to increase public engagement?
- To get to the community, people will have to travel through surrounding communities. Locals will want to be and should be at the table.
- Be transparent and attentive to the interests and concerns of local residents and local farmers.

Education

- The University should educate citizens of the new community to be stewards of the environment.
- There could be an environmental education center in the new community. Students could learn that you do not have to go elsewhere to find nature. It could make them more sensitive to, and therefore responsible for, the

local environment. Environmental education students at the University could student teach in the new community. Build this environmental education center in the northern section of the property – do not encroach on the university-DNR jointly managed land. It will show students that humans can be an integral part of nature.
- Create community learning centers that include computer labs and classrooms for instruction. Learning facilities and classroom opportunities should be an integral component of this new community and used by the public.
- This community could be a "peri-urban" model for students and farmers. There should be an experimental research station and opportunities for distance education. There could be a televised cheese making class or gardening class. There are life-long learning opportunities here.
- There could be special student housing at the site so that students could carry out their research there. Build a community facility to accommodate University students who will work, learn and contribute in the community.

Governance
Resolve the major issues of self-governance, ordinances and policies in a timely way.
The University should maintain the land under its jurisdiction for as long as possible.

Community and Housing
- Environmental programs and structures, such as rain gardens, should be visible to the community.
- Design the community to keep people well.
- Cluster development and housing.
- Homes should be affordable.
- The new community has the potential to alter ideas of urban expansion with high- density housing.
- UMore Park should lease land to homeowners.
- UMore Park could use the University's control over land as a marketing strategy.

Miscellaneous
- Establish a guiding ethic or principle for all operations.
- Could campuses of the University of Wisconsin become involved? Such partnerships could be helpful, and the development might attract people from Wisconsin as well.
- UMore Park's transportation system may benefit people in surrounding communities.
- Create and store energy, optimize resources, and take advantage of multiple use functions.
- The T-walls should be maintained as a historic park.
- UMore Park should consider partnering with the nearby refinery in some way

Listening Session Summary
Rosemount Community Center
September 25, 2007
**PUBLIC COMMENT ON THE VISION
FOR A UNIVERSITY-FOUNDED COMMUNITY
UNIVERSITY OF MINNESOTA**

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To help create this vision, the University held six Listening Sessions in September 2007 to engage the public in a conversation about ideas and possibilities for the future. The sessions focused on the interrelated topics of Education, Energy, Environment, Health, Transportation and Interdisciplinary Opportunities. More than 450 people shared their perspectives and ideas for what this new community could be during the Listening Sessions.

The following highlights the comments that were offered by citizens during the Health Listening Session. The compilation is intended to capture the ideas that emerged; it does not represent a consensus. These public comments help to inform the University's Health Task Force and the UMore Park management team.

Healthcare and Wellness
- In the new community health and wellness must be viewed as a multi-dimensional way of life.
- A holistic approach to health in the new community must be ensured.

Healthcare Access and Delivery
- Design health services around the needs of the people using a community-based model of healthcare. The focus would be on prevention, including screenings for all residents.
- "Life coaches" or "healthcare coaches" would be easily accessible to all community members to guide people through health related issues. The coaches would do home visits and could also assess home environments to assure they are healthy. This type of program might be modeled after the "block nurse program."
- Primary and urgent care should be available in the community.
- Utilization of "E-Medicine" including robotic surgery, telemedicine, and online health help lines should be built into the community.
- An "electronic health care matrix" would exist where digital and electronic healthcare services were the norm – like comprehensive electronic medical records.
- In-home services, like technology to do simple lab tests and report the results to a clinic, should be provided to the maximum extent.
- A wellness center that encompasses alternative medicine options like acupuncture and Chinese medicine would be a positive addition to the community.
- The community should develop an "integrated communication support system" to provide quick and easy access to providers and community members – not only for health needs, but "life" needs as well. This would ensure that everyone was connected

through multiple forms of communication. It could also include health and wellness monitoring in households via an interactive website.

- Health information and care need to be convenient and easily available in public spaces like grocery store pharmacies, schools, churches and workplaces.

Health Education

- A position of Community Physical Education Director would be created.
- Education regarding all types of health and wellness – mental, physical and spiritual – would be widely available to everyone in the community.
- "Eat right and exercise" should be a community theme.
- Extensive health and physical education would be integrated into the schools at all levels. Students would be required to walk to school.
- Healthy meal preparation, cooking and food preservation education and classes could be offered to all residents.

Recreation

- Give residents recreation options in their neighborhood that they can afford and use in all seasons.
- Several multi-purpose, multi-generational community centers would cater to the many needs of the public. These could include an exercise center, wellness and health center, and public space for meetings and education. Recreational amenities might include an ice skating rink, aquatics center, fitness center, indoor track, mini-golf, bowling alley, or a short par 3 (inside and outside) golf course. The key point is that these facilities be accessible and affordable to everyone in the community.
- Community center services would be free to those who could not afford them, encouraging more people to participate rather than leaving anyone out.
- Physical activity is critical. Parks and playgrounds would be designed within a quarter mile of every home.
- Community athletic associations help to build a sense of community. Sporting fees could be based on a sliding scale thereby encouraging all members of the community to participate, regardless of income.

Healthy Food Initiatives

- Teach people the importance of healthy food choices and give them affordable access to those food choices.
- Schools should provide only healthy food choices.
- Small, affordable markets should be readily accessible to all homes, either by foot or transit – more of a European model with a butcher, a baker, and a fruit store.
- Sustainable, organic and locally-grown foods should be a theme of the community.
- Some of the land should be kept for agriculture; possibly a community supported agricultural farm could be developed within the community.
- A farmers market that is available on a regular basis throughout the year should be established within walking distance of homes.
- Community greenhouses along with vegetable and flower gardens that use organic practices should be developed and potentially be located near the community center.
- Limit fast-food chains and big box retailers in the area.

Healthy Environment

- The community should focus on the connection between nature and the environment. The surrounding environment must be healthy to ensure human health.
- Existing environmental concerns regarding air and water pollution in the area, especially contaminated ground water, must be addressed.
- Maximize recycling, including the consideration of "plasma arc gasification" – a new process of getting energy from solid waste. It has low emission rates and is very effective

at getting rid of solid waste.
- Design and promote car free zones to decrease pollution by providing many underground parking areas or ramps. Also, consider the use of electric or alternative fuel vehicles.
- Provide easy access to light rail transit or other forms of public transportation.

Social and Spiritual Health
- The community should be designed for connectedness – a holistic approach.
- There must be a culture shift from people preferring individual privacies to enjoying public activities and becoming a true member of the community. People need to be re-taught what "community" means.
- Intergenerational integration should be considered in all aspects of the community.
- The community should foster events, activities, and education that would help decrease segregation by age, race and sex.
- Social clubs and networks foster a sense of community. Existing ones – like the youth sports association and senior citizens club in Rosemount – should be enhanced.
- The community needs to support people through the healthcare system, whether they are hospitalized or need assistance getting to exercise classes or therapies.
- If you live in the community, you should make a contribution to the community. Required community service will help the community grow and develop. A neighbor-to-neighbor helping concept should be developed.
- Spiritual health and its connection to the mind and body need to be a component in the overall definition of health.
- Spiritual health is very important – a healthy community is a hopeful community. In a community of 20,000-30,000 people about 50% would have a faith community. Multiple places of worship (approximately 10-12) including churches, temples, and mosques would need to be established for the new community. A healthy size for a faith community is 1,000 - 2,000 people.

- Faith communities function as places that care for people on the fringes of society, be that the very young (daycare), elderly, immigrant, or otherwise disadvantaged.
- Churches in the immediate area are already full.

Healthy Community Design
- Design a community to make the healthier choice, the easier choice.
- Design the community to encourage interaction and connectedness. This could include houses with front porches so neighbors can visit and watch others which increases neighborhood safety. This will also help to build a sense of community and increase social capital.
- Build the community in a circular fashion versus a linear, individual fashion. Neighborhood clusters designed around something will encourage a sense of community.
- Design affordable homes with smart technology that can provide health, wellness, and safety reminders and alerts. Houses should be able to adapt to the resident's stage of life encouraging aging in place. The community must include multi-generational housing development.
- Housing must be smaller and affordable so that people can live, work and play in the same community – even teachers! A minimum of 20% of the housing should be "affordable" and land should be reserved for Habitat for Humanity homes.
- Develop mixed-use buildings that have housing units above and retail on the street level. Everyday retail needs must be met within the community.
- Design a walkable community with lots of sidewalks and easily accessible, yet separate, bike and walking trails that lead somewhere. This would also help with transportation and commuting issues. The possibility of enclosing some of these paths due to weather should be considered.
- Develop entertainment and activities that have a healthy focus – less movie theaters and more recreational space for physical

activity.
- Establish large open fields for multi-use recreation and dog parks for our canine friends.
- Use "green" technology and construction practices including use of recycled materials, natural lighting and green roofs.

Safety
- Develop ways to prevent public health issues, such as emerging infectious diseases. Improve public safety so that people feel safe. Make it safe for kids to play outside and wander.
- Create safety committees.

Economic and Financial Aspects
- By building a healthy community you are growing a more economically viable community. Unhealthy communities drain resources.
- Currently, healthcare is a business. Change that model to one of providing services and prevent escalating healthcare costs.
- Modify the insurance system by offering healthcare payer benefits for insuring a healthy community.
- Create a community-wide healthcare insurance program that rewards people with healthy lifestyles and is affordable or free.
- Create adequate head of household jobs in the community because financial health affects overall health.
- Establish a trust fund to support some of the community's health needs.

The University's Role
- This community should be a large research experiment, especially with regard to what healthcare could be.

- The university should study the populations' health and the outcomes for what works and what does not work.
- The community's research potential may be an appealing way to market the community.
- UMore Park could become a national model for how others communities could improve.
- The community should be a place for health-care delivery innovation in action – study new ways to provide healthcare in the community; including process of care changes and insurance coverage.
- University medical students and other health professional students should use the community for internships and externships.

Miscellaneous
- Other health organizations should invest in facilities and research opportunities in the new community.
- New businesses at UMore Park should not degrade or distract from the downtown Rosemount business district.
- Be careful that the "new community" terminology used to describe UMore Park does not create an "elitist" feeling. Find alternative terminology to market UMore Park that characterizes it as special, but inclusive.
- The formation of different neighborhoods at different times may increase the feeling of not being part of the entire community. The governing body will need to set the stage with the broader vision to prevent this.
- Land ownership ideas include owning a home, but not the land it is on. All property in UMore should be rental property.

Campus Forums Summary
November 8 & 9, 2007
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UNIVERSITY OF MINNESOTA

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To help create this vision, the University held two Campus Forums in November 2007 to engage the faculty, staff and students in a conversation about ideas and possibilities for the community. An open discussion was held which focused on the ways that research, teaching and learning, and public engagement could be integrated into the vision for this new community. How could the linkages to academic mission create opportunities for the citizens, the new community and the broader regions, as well as create opportunities for University faculty, students and staff members? The forums focused on the interrelated topics of Education, Energy, Environment, Health, Transportation and Interdisciplinary Opportunities. More than 150 people shared their perspectives and ideas for what this new community could be during the two Campus Forums.

The following highlights the comments that were offered by faculty, staff and students during the Education Campus Forums. The compilation is intended to capture the ideas that emerged; it does not represent a consensus. These comments will help to inform the University's Health Task Force and the UMore Park management team.

Integration of University Research Projects

- It is a challenge to organize cohort research trials. The new community provides the opportunity to organize longitudinal cohort studies. It will enable integrated research opportunities throughout the University. The new community could be a remote campus with a research center on-site. Facilities, researchers, and support staff could all be there.
- The new community will help eliminate barriers for citizens participating in research.
- Research organizations could utilize the skills of emeritus faculty – part-time involvement.
- The community could create opportunities for rapidly aging faculty to continue working, but with more flexibility.
- Much of research demands a team approach – proposals that incorporate the team approach are generally looked upon favorably. The new community will offer a wide variety of researchable topics that can involve many.
- This would be a good place to conduct research on whether giving people all the tools to live a healthy lifestyle is effective in sustaining a healthy lifestyle.

Emphasis on Preventive Healthcare – Movement Away from Traditional Hospital Model

- The concept of using more public health nurses - cheaper and more effective – provides more preventive and family services

– should be considered.

- The concept of providing public services – such as rehabilitation services and social networks – was discussed, especially as it relates to social and physical activity for the aging population.
- Shift the burden of acute care to preventive care provided by nurse practitioners using interactive technology – change the market.
- Utilize mobile clinics to screen for illness, such as tuberculosis.
- Will there be a hospital or emergency facility?
- Assign public health nurses to certain localities. Look back to the history of healthcare in this country – there were a lot more home visits and home care.
- Establish "Minute Clinics" to provide non-severe acute care staffed by nurse practitioners.
- Scale health facilities down to something that is more cost-effective and scattered around the community rather than centralized as the current hospital model is. Historical perspective – first shifted to medical arts facilities, then to clinics, and now to specialty clinics as medicine becomes increasingly specialized. Can we get away from a giant-sized hospital? Can smaller units survive outside the traditional hospital model?
- Having home visits by nurses increases the likelihood that patient records are kept accurately – it also increases the continuity of care. A lot of countries have better record systems to track patient information.

Universal Health Coverage
- How does health insurance play in the picture?
- The health taskforce's draft report suggests universal coverage to some basic level of care. Details of insurance and payment not fully developed. All citizens would have some access to university healthcare. "Health City" outside of Bangalore, India has ten operating rooms that run all day, every day. It is as good as or better than hospitals in the United States. It treats poor people in India by harvesting "medical tourism."

- Development in the United States is economically driven – competition. How is this community going to get around this dynamic?
- Financing will be an important consideration. Will financial resources derived from the gravel mining be sufficient to infuse opportunities for universal health coverage or other academic mission needs?
- This is a perfect opportunity to try out completely new ideas in healthcare – perhaps ones that are not economically based. A new form of exchange instituted at UMore Park could serve as a model for the entire country – movement to a barter economy – a different basis for the economy.

Innovation
- This community will value innovation and experimentation. If you value that, you also have to value failure – which sometimes means a loss of money – but that has to be OK as you are trying new things. This is risky, but necessary for innovation.
- There is risk in all undertakings, including research. Sometimes experiments fail. It is important to disseminate programs found to be successful.
- National Children's Health Study, funded by the NIH, is unique in that the subjects have not yet been born. It will follow a cohort from birth to age 21. In large part it is devoted to trying to understand genomic and environment interaction. Is it possible to include a component of this study in UMore Park?
- Consider mobile healthcare options.
- Technology will be important, such as "Smart Houses" that adapt to individuals needs and circumstances.
- "Personal learning coaches" could make learning more personal, easier, and help people achieve their goals.

Diversity
- This is a wonderful opportunity to try new

ways to develop healthcare policy and delivery models with a diverse population.

- Looking at demographic projections for Dakota County in the years ahead, a large part of the growth will come from immigrant communities. How do you develop a healthcare system equipped to service these diverse communities? How do you develop a system that is able to adapt to changes in the community? This will be important.

Schools and Recreation
- The schools could be a place to test if leisure improves academic performance.
- The community will need strong youth recreation programs. These would need a balance that is not currently present in youth sports programs. The programs should be aimed at keeping kids active and not solely on fostering successful athletes, since few children will actually pursue athletics after high school.
- There should be opportunities for kids to try a variety of sports. They should not be locked into one sport.
- Education could be integrated into the recreation.
- Academics could be through a University-sponsored charter school.
- Use physical education to teach academics.

Community Recreation
- The new community could be a place to pilot innovative recreation programs.
- Take the University's recreation programs to the new community.
- This would be a place to build a strong focus on health informatics and introduce new ways for people to interact with healthcare systems.
- A community of this size would need 1-2 health clubs.

- The community could have University-managed health clubs that would be nonprofit and more accessible to the residents.
- Fee structures for health clubs are important to the success of the program.
- Recreation programs should have community input. They should identify their needs and desires.
- Recreation could use the health insurance rebate model.
- Recreation costs could be factored into taxes.
- Recreation centers need 12-14 sq. feet per person in the community.
- The community needs indoor tennis courts.

Miscellaneous
- Use landscaping to incorporate food – grow an apple tree in every lawn.
- Does the community have to be car accessible? Greater promotion of walking and biking. In Copenhagen, Denmark there is a bike program – for a quarter you can utilize a bike.
- Design the community so that it is not developed around cars. Put tunnels underground for traffic. This will allow more open space for people. Reduce the carbon impact. Electric technologies are improving.
- Mental health component will be critical. Provide a much needed model for the country. Tasks Unlimited, a Minneapolis-based nonprofit, is a very successful model. Tasks Unlimited is a group of not-for-profit organizations committed to helping adults with serious and persistent mental illness and brain disorder improve their status by promoting their self-sufficiency. Programs serve residents of Minnesota and are located in Anoka, Dakota, Hennepin and Ramsey Counties.

TRANSPORTATION

Listening Session Summary
Rosemount Community Center
September 27, 2007
PUBLIC COMMENT ON THE VISION
FOR A UNIVERSITY-FOUNDED COMMUNITY
UNIVERSITY OF MINNESOTA

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The following highlights the comments that were offered by citizens during the Transportation Listening Session. The compilation is intended to capture the ideas that emerged; it does not represent a consensus. These public comments help to inform the University's Transportation Task Force and the UMore Park management team.

Transportation
- Whatever modes of transportation are settled

upon they must have progressive insight. Any system will have to have enough foresight so that it's not obsolete in the relative future. Plan for twenty years into the future. Build and plan for the unexpected. Think outside the box – adopt an earth friendly mentality!

- Timing of investments will be important with the state of economy state now.
- Obtain easements now.
- Use this opportunity to expand and improve current infrastructure in the greater southeast metro region. The region needs better public transportation – the new community should serve as a hub for public transportation
- Money allocated to public transportation should be for light rail to enrich the State's mass transit system as a whole and not for more buses.
- Build light rail between the Twin Cities, the new community, and Rochester. This would be the best way to ease congestion in the southeast metro area.
- The problem with current light rail lines is that they are not heavily used throughout the day because they were not routed to places where they were most needed. Everyone wants rail, but it has its problems too.
- Look to other models – in Denver regional voters contributed tax money to augment their rail and commuter systems.
- Build light rail out to St. Cloud, where people could store cars for summer use.
- Use rail trains to carry vehicles to major points in northern areas, such as Duluth.
- Metro Transit offerings for Rosemount are less than ideal. Buses only go downtown, not to other suburbs, and they are not convenient enough to use regularly. There needs to be better transit options for surrounding areas. It is difficult to serve Rosemount with transit because of its low density. High capacity transit currently does not make sense south

of Highway 42.

- Use Highway 52 as a corridor between St. Paul and Rochester. Possibly build a private north-south road as a new corridor along Highway 52.
- Incorporate "Park and Rides."
- Tie into existing infrastructure, such as highways.
- Many residents of the new community will likely need to commute to the Twin Cities – need to accommodate extra automobile traffic.
- People will not want to move to the new community if they have to sit in traffic for hours every day.
- East and west outer belt areas offer potential connections to industrial parks south of Highway 42.
- Build another bridge over the river – the Hastings Bridge, Highway 52 Bridge and Lakota Bridge might not be enough.
- Both external and internal transportation systems will need to be developed.

Transportation in the New Community

Planning and Design

- The transportation system must have diverse options utilizing the newest technologies and be flexible, efficient, affordable, and dependable.
- The University's presence will allow the community to try new transportation systems – it can serve as a design testing facility. Capitalize on the University's resources.
- Design the community so that it discourages motor vehicle use – have amenities accessible if you eliminate cars. Cluster development, use buildings vertically, and put diverse land uses close to each other for integration.
- Design transportation as a means to improve interaction between community members.
- Must have an adaptable winter maintenance plan.
- Car traffic follows a different system than the sidewalk traffic – overlay two transportation networks.

- Separate pedestrians and bikers from cars – create separate lanes while mining the aggregate and by grading separate lanes and areas.
- UMore Park is a clean slate—you can design roads however you want to.
- Invite the transportation planners involved in the Robert Street and Cedar Avenue projects to become part of this process. The new community could serve as a catalyst to speed up transportation development.
- Assess the design of Swiss and Italian resort communities where cars are not allowed for best practices.

Roads and Bridges

- Build a grid system rather than curved roads. A grid system with smaller blocks and connected streets tends to have more pedestrian traffic, like in Portland, Oregon.
- Paving Biscayne Avenue would make it extremely busy.
- The new community is in a great position to connect with Rosemount and other communities' existing roads. The system will have to work well internally – the major roads on the north, east, and west of the property offer options. Connections could be made by tunnels or overpasses.
- Establish alternatives from the beginning - create dedicated bus lanes.
- Build intelligent roads – every light and signal could be connected to a data base, integrating information in real time and providing real time intelligence on a large scale. This research could be extremely valuable.
- Cul-de-sacs would be a bad design in this community – they would limit accessibility.
- Some people dislike metered ramps, others really like them.
- Set up blocks with alleys behind the homes. There should be no parking on the "Green Street."
- Plan streets for storm water run off.
- Use pervious pavement.
- Plan and build narrow streets with minimal cross streets and roundabouts.

Transit

- Integrate transit right into buildings because cold weather makes it difficult to wait outside.
- Design a dependable circulator system - you do not even need a bus, you could use vans. Using smaller transit options like vans would make it more cost effective and you could run more of them. Connect the system to Rosemount's developing downtown and provide service to Red Wing.
- Use a free shuttle to move people around the community.
- Have a smaller scale internal transit system to get people to and from school, services, and housing.
- Make transit system safer – reduce traffic related deaths.
- Make it easy and safe for kids to ride buses – then parents have more time and kids get used to transit.
- Denver stops regional buses at the outskirts of the city and then people transfer to shuttles within the city limits.

Vehicles

- From the beginning, let people know that this community is not for everybody. If all you want to do is drive your car, then maybe you should not move here. Encourage people to think about how they can avoid driving.
- Share taxis, sometimes called jitneys, could be used for moving people between transportation stops.
- Community residents should not own cars.
- People will have to own cars for when they leave the community.
- Create a car share program so that you don't need to own your own car.
- People from other communities might visit and need to park.
- Offer small motorized vehicles for getting around the community – like golf carts.
- Offer incentives for people to use plug-in vehicles. Provide free plug-ins in public places.
- Plan for shared parking spaces for different uses, rather than every business having its own designated parking spaces.
- Eliminating cars will help build a sense of community because people will share trips or carpool. It also simplifies life. Cars isolate people.
- Minimize motor vehicle traffic for air quality and safety purposes.
- Charge a lot for parking and have value pricing on public transit to reduce car use.

Sidewalks, Paths, and Trails

- Build sidewalks, bike paths, skyways and tunnels.
- Encourage the use of sidewalks. Walking will encourage good health and children's obesity could be prevented by making them walk to school. Make safe ways for them to walk to school.
- Provide a covered bikeway for year round biking. They could have solar lighting and wind powered heating to keep them warm in the winter.
- Make heated bike trails and sidewalks. People can bike and walk in the winter.
- Many people use trails on corridors during the winter.
- If there are great trails, people will use them.
- Make aesthetic, integrated and accessible trails with boulevard trees and underpasses.
- Make trails safe – not just from traffic but from crime.
- Develop a large trail system with smaller segments in each neighborhood.
- Provide walkable access to services and goods.
- Make trails seductive so people will use them.
- Do not put trails on the roadway.

Other

- The new community can be a park and ride for transit to campus, which would alleviate parking problems at the University.
- Even if some residents of the community can work from home, others will have to drive.
- Make it easy for people to work from home.
- There is a lot of concern that developing UMore Park will overwhelm the already

existing overloaded infrastructure, including transportation. The University has an obligation to ease traffic in the area because the new community will be burdening the area with additional traffic.

- Utilize home delivery services so people can avoid driving.
- Consider building a community where you need to park a mile away and then use alternative transportation to get to your home.
- Probably can not use tax dollars for internal roads.
- If this is a commuter community, then it will not work to eliminate cars.
- The Farmington, Empire, Hastings communities are expanding outwards – their road improvements will benefit this community.

Community Development

- Connect housing with shopping and community centers – make the community amenities accessible.
- Aim to incorporate multiple generations into one living space.
- Supply a wide range of housing options. The community will be more vibrant if you mix high and low density.
- Some people would be willing to trade better housing options for higher density.
- Increase housing density, but be aware that some people do not want denser housing. Build like Europeans – move away from single-family development – build multi-level structures.
- Some people just don't want to live in dense communities.
- There is a shortage of affordable housing in Dakota County – the new community should address this need.
- Share kitchens and equipment – everyone doesn't need their own lawnmower or kitchen.
- If people from the south metro came here instead of to the Twin Cities, that could alleviate congestion.
- Design the community as a place for people to come visit, not just live.
- Make this a place where people can live and work. Do not create a bedroom community.
- Provide a telework center where people can work without having to go to work.
- Use libraries to support working from home.
- An aging population will not need to commute to work.
- Have grocery stores that deliver to customers.
- This community might be too homogenous to appeal to urban dwellers.
- Do not build some exclusive or utopian community that is not connected with Dakota County.
- Do not make all 5,000 acres the same.
- It may be difficult to encourage retail and offices to move here if access is limited.
- If you want businesses to move here, then you need to build a dense community.
- Make this an innovative and technology-minded community.
- Development should include cores surrounded by more sparsely populated areas.
- Create pods of neighborhoods with retail located in each pod.
- Have open spaces and transit systems that all interconnect.
- Need to accommodate the elderly.
- It will be difficult to have a consistent design if multiple developers are involved.
- Developers will have to take risks.
- There are currently 10 jobs for every 14 workers in Dakota County, and jobs pay more in the Twin Cities. Provide job opportunities.
- Plymouth and Eagan are bigger job centers than Rosemount.
- Plan for technology oriented jobs – maintain a partnership with Dakota County Technical College.
- Fiber optics could remove the need for people to leave the community at all.

Energy and Environment

- The new community should be all about sustainability. Experiment with alternative types of energy sources.
- Use geothermal (harnesses the internal heat

of the earth in a closed loop system) and solar energy.

- Gas prices might limit relocation to the community – too expensive to commute.
- Need to eliminate traffic and save energy.
- Alternative fuels are only going to increase in popularity – research alternative fuels.
- Use multiple clean energy sources, such as hydrogen, biodiesel, and ethanol.
- Ethanol is a bad idea.
- Explore regulations that prohibit families from owning more than one non-hybrid car.
- Residents should be able to charge battery-operated vehicles more quickly.
- Store hydrogen under ground and make this a hydrogen community.
- Don't have curbs and gutters—have rain gardens.
- Recycle storm water.
- When mining aggregate, keep future possibilities in mind—tunnels and other transportation options.
- Drain water from underground when mining aggregate so that it won't affect roads later on.
- The University should not compete with smaller private businesses that could mine and sell the gravel.

Miscellaneous
- Offer educational resources and people will move here.
- Build magnet schools that can also serve as educational research opportunities.
- Draw students from beyond the new community's borders.
- Many people want to preserve downtown Rosemount.
- Some locals will not support the development of UMore Park.
- People will resist unconventional ideas.
- Cities have land use authority.
- Some people are supportive of land use development.
- Take some of the traffic pressure off of Rosemount.
- The University needs to be a community player.

- It will be difficult to make this a diverse community.
- City ordinances could make development of a new community difficult.
- The University will need the cooperation of local officials and governments.

University's Public Engagement Process
- The public listening sessions regarding UMore Park are a good idea in theory, but it remains to be seen how the University will incorporate public comment into its process.
- The public needs a detailed view of the University's concept for UMore Park in order to make more informed responses. For example, citizens should have detailed information about how often roads will need to be resurfaced to support new traffic loads, or who will be offsetting the cost of new infrastructure (i.e., new roads) needed to serve the UMore Park development.
- The University receives taxpayer money and so should address the interests and needs of the taxpayer.
- The University should consider options for uses of the property other than development of the new community.

Uses for UMore Park Property
- The uses for UMore Park other than creation of a new community could be much more beneficial to all stakeholders.
- A new community will add additional houses to a market that is already flooded with houses. This is unfair to the existing local community as it could drive their own property values down and makes their own land harder to sell.
- The development of a new community should be directed by private industry, not by a public institution like the University.
- A development the size of the proposed UMore Park community would be disruptive to the existing community.
- The UMore Park development will not likely bring additional business into the area, and so residents in UMore Park will still likely

have to commute to work. The University should provide grants to bring businesses into the area.

- The UMore Park site is strategically located between the Twin Cities and Rochester, and if linked to these locations by high speed light rail, could fulfill many possible valuable functions for these areas such as:
  - ° A medical campus that links research/education/teaching/patient care at the Mayo Clinic to that at University of Minnesota medical centers.
  - ° A training center in collaboration with Dakota County Technical College.
  - ° A satellite campus for the University of Minnesota. UMore Park could provide additional space for classes and other University facilities.
  - ° An agricultural facility for the research and development of alternative energy sources, such as cellulosic ethanol.
  - ° An air cargo center has been discussed over time. This is a potentially large asset to the community as it could allevi-

ate traffic by decreasing the number of trucks carrying cargo on the road.
  - ° The possibilities stated above address the University's role as a land grant institution.

The University's Goals for UMore Park

- It appears that the University's goal is to make a profit on this new community. The University needs to maintain a higher purpose as it develops this property. For example, the University in building a community that would be an experiment in sustainable development – using the most environmentally sound materials – would serve as a national example of how sustainable development might take place on a large scale.
- UMore Park is a very large area, and the University should not develop the whole 5000 acres. It would be fairer to sell the land to several small developers.

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TRANSPORTATION

Campus Forums Summary
November 8 & 9, 2007
**CAMPUS COMMENT ON THE VISION
FOR A UNIVERSITY-FOUNDED COMMUNITY
UNIVERSITY OF MINNESOTA**

The University of Minnesota is creating a vision for the development of a University-founded community on its 5,000-acre property in Dakota County. The community would be differentiated by the integration of innovations in education, health, environmental quality, renewable energy, transportation, arts and culture, technology, international linkages and other University research and education strengths. The community of 20,000 to 30,000 residents would be developed over 25 years. It would contribute to a vital regional economy characterized by thriving businesses, a vibrant social fabric and designed and natural amenities.

To help create this vision, the University held two Campus Forums in November 2007 to engage the faculty, staff and students in a conversation about ideas and possibilities for the community. An open discussion was held which focused on the ways that research, teaching and learning, and public engagement could be integrated into the vision for this new community. How could the linkages to academic mission create opportunities for the citizens, the new community and the broader regions, as well as create opportunities for University faculty, students and staff members? The forums focused on the interrelated topics of Education, Energy, Environment, Health, Transportation and Interdisciplinary Opportunities. More than 150 people shared their perspectives and ideas for what this new community could be during the two Campus Forums.

The following highlights the comments that were offered by faculty, staff and students during the Campus Forums. The compilation is intended to capture the ideas that emerged; it does not represent a consensus. These comments will help to inform the University's Transportation Task Force and the UMore Park management team.

Accessibility
- Accessibility is of the utmost importance.
- Consider accessibility to Minneapolis and St. Paul.
- Pay attention to long-term planning to make sure Robert Street goes down to 42nd Avenue to ensure easy access to the new community.
- Design should incorporate efficiency.
- The new community should incorporate alternative transportation modes.
- UMore Park needs to integrate transportation concerns with the surrounding communities.
- Our hierarchy of uses favors walking and biking over auto. How can the new community be constructed for safety? What is the next step beyond just trails – integrate the system to provide access to destinations?
- There should be more data on accessibility measures by mode and travel times. Having this information will foster discussion and debates.
- Can the University's transit system serve UMore Park?
- Will there be an express bus?
- Relying on a train system reaching UMore Park is impractical.

Research Opportunities
- The Center for Transportation Studies (CTS) can keep transportation on the radar and help develop research opportunities.
- The University's transit system could be a research opportunity.
- Researchers should consider how to expand the market for bus service.
- Researchers should investigate what it would

take to get bus service to UMore Park.

- Research parking facilities and land use for the new community.
- UMore Park presents a different type of research opportunity because it is being created from scratch, other cases are rehabilitative.
- UMore Park will have to engage other communities to support transportation research and innovation.
- The Urban Partnership Agreement, through the Federal Highways Administration, might provide federal money to reduce traffic congestion.
- This is a great opportunity to connect the new community to already occurring transportation investments.
- Researchers might rethink other types of money available.
- Research the infrastructure requirements of alternative transportation modes, such as Segways and golf carts.
- There should be research on access to "destination" communities.
- Research developing transit models and encourage public engagement to gain support.
- Research the best way to transport the gravel resource.
- There should be considerable research on integrating energy and transportation for use at UMore Park.

University Engagement

- UMore Park should work with student groups related to transportation such as the Interdisciplinary Transportation Student Organization or the Planning Student Organization at the Humphrey Institute.
- Energy Management and the Humphrey Institute have been working with the Chicago Climate Exchange. Perhaps UMore Park could get involved in a similar relationship to reduce greenhouse gas emissions?

Planning Considerations

- Consider what types of transportation are already successful and incorporate them.

- UMore Park planners need to know what type of transit system would be ideal, but might not work without a critical mass of people. Researchers should explore ways to make those types of transit work in the environment that will exist in the future.
- Recognize alternative technologies that currently do not make sense, but might in the future. Build a system flexible enough to incorporate those technologies.
- How will short-term and long-term development fit together? The usual way of short-term development establishes roadblocks for long-term development.

Challenges

- It will take 10-15 years to build a population, along with Rosemount and Farmington, which are also growing – transit depends on density.
- What incentives will there be for people to move there?
- How will the new community become a place that serves as a destination?
- UMore Park planners need to make people cognizant of the fact there will be 30-40,000 people living there.
- The UMore Park area has been ignored by existing plans because there is nothing there. Planners need to outline and define how this area will fit with metro-wide and other surrounding communities' plans.
- Other developers and new communities will be competing for the same market.
- Workforce housing:
  ° How will UMore Park create something different? It has an opportunity to develop higher density housing.
  ° Transit dependent populations will be a challenge if the new community does not have the critical mass necessary to support public transit.
 ° Pay attention to job access.

Miscellaneous

- People who will move to the new community might be more committed to alternative transportation modes.

- In Mahtomedi, Minnesota people clear snow from paths and use them year round for recreation.
- Minnesota has many bike trails, but most are for local use rather than providing regional access.
- This is a unique opportunity because UMore Park has "patient capital."
- The metro area used to be shaped by sewers, now it is shaped by congestion. If planners can improve traffic congestion, people will be more likely to move to the new community.
- How will UMore Park support Rochester – St. Cloud train connections?
- The "crescent of growth" from Rochester to St. Cloud could spur rail initiatives.
- UMore Park will provide the opportunity for south metro communities to speak together. It has the political power to make regional connections happen.
- UMore Park should use its location to spur development and provide jobs. How can UMore Park fit into the south metro region and still provide economic growth?
- The new community will need eight foot wide paths for bikes.
- There should be a focus on creating a carbon neutral community.

REGIONAL MAP

Transportation

UMore Park's location on the edge of the metro area offers fewer transportation links than more developed suburbs. This situation creates unique challenges and opportunities for the development of the UMore Park property.

To be developed; U of M; 5,000 acres

Vermillion Highlands; U of M - DNR; 2,822 acres
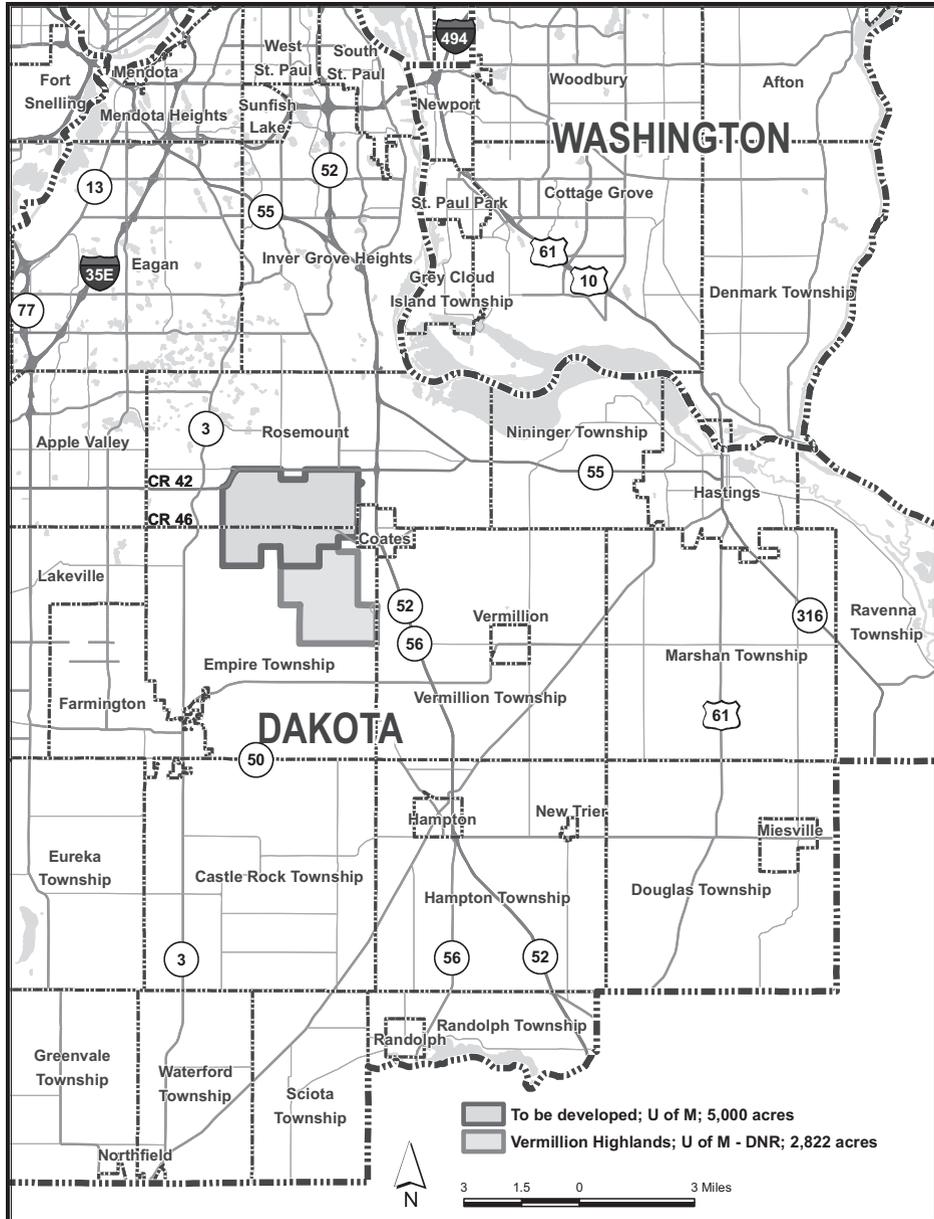
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