

DEFINING THE ST. PAUL CAMPUS

A Working Draft - February 18, 2008

I. BACKGROUND AND SUMMARY

In 2007, Provost Sullivan charged the seven St. Paul deans, convened by Kate VandenBosch and Bob Kvavik, to identify themes defining the mission of the St. Paul campus for the future. Ideally, these themes will unify clusters of research and academic programs and bring new energy to the campus. A desired outcome is to use the clusters to identify campus precincts aligned with the themes. The defined themes will also provide context for assigning new programmatic initiatives to St. Paul, planning new research facilities in St. Paul, aligning building use with academic priorities, and maximizing use of classroom space.

To meet the charge, Kvavik and VandenBosch met with the Deans of the Colleges of Biological Science (CBS), Continuing Education (CCE), Design (CDES), Education and Human Development (CEHD), Food, Agricultural and Natural Resource Sciences (CFANS), Veterinary Medicine (CVM), and Extension and their associates. We also met with selected faculty and others with insight into St. Paul Campus strengths and potential, emphasizing leaders of interdisciplinary centers or initiatives. We used a common set of questions, listed in Appendix I, to structure the discussions. From these conversations, clear unifying themes for the campus emerged. In addition, the deans and others identified additional opportunities to bring vitality to campus, as well as obstacles to be overcome.

The key findings are as follows:

1. The St. Paul Campus' future is as an integral part of the Twin Cities campus, rather than as a freestanding or branch campus. The campus' strengths are seen as key to University mission.
2. The proposed themes to characterize St. Paul programs include environmental sustainability; the bio-economy; safe and healthy foods; education and human development across the life span; and healthy communities.
3. St. Paul is a global campus with many ties to international themes in research, education, and campus residences, with potential for greater synergy and visibility.
4. The St. Paul Campus can be a magnet of interdisciplinary scholarship and a key go-to place for expertise around the identified themes.
5. Increasing the critical mass of undergraduate activities is a key to the vitality of the St. Paul campus, and can be achieved through better logistics and support for innovation.
6. The St. Paul Campus can build on current strengths in outreach and engagement to become the public face of the University for diverse groups of constituents.
7. The St. Paul Campus can develop as a 'green campus' and be a demonstration site for renewable energy, sustainable development, and a healthy urban environment.
8. Retention of open and agricultural spaces is key to campus function as a 'living laboratory', as well as to the character of the campus and its connection to surrounding communities.
9. The proximity of the St. Paul Campus to the State Fair grounds and to the transit way offer opportunities for partnerships with the State Fair, the private sector, and the cities of Falcon Heights, St. Paul, and Minneapolis around the proposed themes.
10. Perceived transit difficulties and relative lack of amenities are obstacles to attracting activities to St. Paul. To thrive, the St. Paul campus must function as a village, with frequent and rapid transportation links to the Minneapolis campus and surrounding communities.

This report should be considered a working draft, to be finalized following input from the University community and other constituents. This input will be key to defining next steps.

II. FINDINGS AND RECOMMENDATIONS

21st Century Challenges to be addressed by our Land Grant University. The 21st century is expected to be a time of continued rapid change, fueled by the increase in the human population. The global population is projected to increase from 6 to 9 billion people in the first half of the century, while the U.S. population will increase by as much as 100 million people by 2050. The St. Paul Deans and leaders of several interdisciplinary initiatives in St. Paul identified large-scale challenges related to the unprecedented population pressures. These included:

- increasingly limited land and natural resources. Dominant challenges will be meeting societal needs for sustainable production of healthy foods, clean energy, and other products vs. competing land uses.
- negative impacts on environmental quality and ecosystem health, including climate change and loss of biodiversity and habitat.
- changing demographics, further increasing challenges in providing meaningful access to education, health services and quality of life to underserved populations.
- emergence of zoonotic and infectious diseases, due to more intense human interaction with the environment, that threatens both animal and human health.

Themes for the St. Paul Campus. The 21st century challenges identified above guided the development of crosscutting themes for the St. Paul Campus. The themes, outlined below, arise from and extend the campus' historical roots in agriculture, veterinary medicine, natural resources, and home economics. They build on strengths of academic units with a St. Paul footprint or link, plus opportunities for growth and modest reorganization. The themes identified here integratively build on the mission and goals of individual colleges to create new synergies among St. Paul-based units, raise the profile of the campus, and enhance the overall excellence of the University.

Products from the land and living sources: the bio-economy. Since its beginnings, the St. Paul campus has had a focus on renewable products from the land. New scientific tools and markets are expanding opportunities for growth of the bio-economy, the intersection of life sciences technology with the global economy. Broad interest in bioenergy and its economic potential is prominent in Minnesota and beyond. Biotechnology and allied approaches are enabling the sustainable engineering of new 'green' materials and products from plants and microbes. Medical biotechnology also has a presence on the St. Paul campus, especially as concerns animals as vectors of infectious disease and as models for human medicine. The campus' strengths in basic biological sciences support innovation in production and utilization of bioenergy and bioproducts. Genomics, systems biology, metabolomics, bioprocessing, computational biology, and bioinformatics are common tools that provide the means to enhance synergy among related disciplines based in St. Paul.

Products from the land and living sources: a safe and healthy food supply. Production of high quality foods for a growing population is an important challenge and a focus of the St. Paul campus. Our faculty has the expertise to provide scientific solutions to immediate and future problems of plant and animal agriculture, and will participate actively in implementation of advanced technological solutions for improvement of animal and plant health. St. Paul research also addresses food safety, nutrition, health-promoting effects of food, and the economics of food supply systems. Pursuit of a safe and healthy food supply further integrates common discovery and dissemination activities of the University in the areas of health and well-

being, and capitalizes on the St. Paul campus international strengths that will be critical in the future, as the food supply becomes increasing global.

Environmental sustainability: supporting healthy ecosystems in the face of competing needs. Many academic units in St. Paul already have environment-related missions at their core, addressing fundamental questions on environmental function and developing new strategies for a changing world. In addition to production of new sources of energy and materials, mentioned above, conservation and wise use of resources are key tactics to meeting the global challenges identified. These approaches include watershed management; soil and water conservation; utilization of wastes; and conservation of biodiversity and the ecosystem services it provides. Natural, developed, and managed ecosystems are all addressed. The Twin Cities campus is novel among Land Grant institutions that deal with many of these issues in that it is in an urban setting. This provides an excellent opportunity for the St. Paul campus to address special issues such as healthy urban landscapes and the rural/urban interface.

Education and human development across the spectrum of life: childhood and family education to professional development, continuing education and public engagement. St. Paul campus units have broad expertise in education that includes the spectrum of life and touches many external constituents. The recent college restructuring provides an opportunity for a unified focus on human development, family and early childhood education in St. Paul. Opportunities for K-12 outreach, both school-based and time spent outside of school, are strong in St. Paul. With CEHD units, Extension, and CCE already based here, outreach and adult education have a strong base for further growth. Collaboration of education and life sciences units in St. Paul also enables possible joint efforts such as work force training in emerging fields in the bio-economy, integrated learning opportunities in multidisciplinary areas, and partnering to attract young students, especially from under-represented groups, to life science and other disciplines related to St. Paul strengths.

Healthy communities. The St. Paul campus is home to diverse expertise that together constitutes an integrated, interdisciplinary approach to improving the physical, emotional, and mental health of families and communities. The work of two departments in CEHD – Family Social Sciences and School of Social Work – will be instrumental in promoting healthy communities. This theme also relates to above-mentioned campus strengths in food and nutrition, and in the health of ecosystems, animals and plants that support and benefit communities.

A global campus with international ties. The challenges outlined above are global in scope, so it is appropriate to emphasize and build on St. Paul's global connections. Researchers in many disciplines have international research projects and collaborations. Conversations with campus leaders revealed that many academic programs based here have large numbers of international students. In addition, the Commonwealth Terrace family housing cooperative enriches the international flavor of the campus as home to student families from more than 70 countries. Elevating these strengths to a focus on an international theme will create synergy where connections have not previously been fully realized.

Concepts and approaches for bringing new vitality to the St. Paul campus

1. Research. The St. Paul campus once was nearly self-contained, with a focus on agriculture, forestry, and home economics. Today, St. Paul-based disciplines have important ties to the Minneapolis campuses. A majority of St. Paul colleges also have a footprint in Minneapolis. Moreover, CVM forms the east end of an extended corridor for the Minneapolis-based Academic Health Center. In general, ties to colleagues in Minneapolis-based units are important for interdisciplinary scholarship in existing programs and around emerging themes. As a result,

several recommendations emphasize means to foster interdisciplinary interactions. Recommendations under Teaching and Outreach also address the St. Paul/Minneapolis split of the University.

1.1 Develop facilities to support integrated, interdisciplinary research around the identified themes. To support such interdisciplinary research, flexible research space is needed to accommodate changing teams from multiple areas of expertise. In addition to St. Paul-based faculty, team members should include those drawn from Minneapolis units for the duration of projects. New types of spaces are needed to facilitate interdisciplinary research interactions that would otherwise not occur. A model based on the Cargill Building for Microbial and Plant Genomics would be functional for problem-oriented scholarship in many areas.

1.2 Foster collaboration with external colleagues through on-campus facilities. The Twin Cities is beset by ‘intellectual sprawl’, where industry professionals, government agencies, and NGOs are scattered around the metropolitan area and separated from academic expertise. Effective collaboration requires more frequent interactions, such as occurs for some other universities and their industrial partners, such as M.I.T. Ways to bring these groups into closer proximity should be explored, such as leasing of university space or creation of collaborative think-tanks. Such arrangements would facilitate public/private partnerships around the themes.

1.3 Increase molecular biology/biotechnology space to support cutting edge research in changing disciplines. Several units need an increase in this type of research laboratory space. While some of this space could be developed to be discipline-specific, other space of this nature could be interdisciplinary, as described in 1.1. Moreover, the University must continue to add cutting-edge research support facilities in St. Paul¹, to support a vibrant research community with the flexibility to address emergent issues. Such facilities will contribute to full realization of the St. Paul campus potential for global leadership in its core areas of strength.

1.4. Conserve the campus as a ‘living laboratory’ for research on the environment, agriculture, animal health, land use and landscape design. Retaining open spaces, fields, and animals on campus is key to research that addresses the themes². Long term planning is required to balance the need for new construction with the optimal use of these spaces. Evaluation of outdoor space needs should integrate facilities planning with academic strategic planning, and take into account needs for teaching and outreach, in addition to research.

1.5 Explore the St. Paul campus as a home for focused scholarship on the family and early childhood. The newly restructured CEHD brings several departments addressing early childhood into one college. Redistribution of departments could enable new collaborations within CEHD and with researchers outside the college, such as nutrition experts (Department of Food Science and Nutrition). In addition, the proposed environmental focus and outreach units based in St. Paul (see below) could provide an exciting context for the Lab School.

2. Academic Programs. St. Paul campus leaders agree that undergraduate programs are key to campus vitality, and that students in majoring in St. Paul-based disciplines should be proximal to research activities in their disciplines. Therefore, because these undergraduates also have many classes in Minneapolis, it is necessary to surmount the separation of the campuses. For a vibrant

¹ An example of such a facility is the recently completed Bio-safety (BL3 level) Laboratory and Glasshouse. See http://plpa.cfans.umn.edu/Plant_Pathology_Bio-Safety_Lab_Glasshouse.html.

² See <http://wrc.umn.edu/outreach/stormwater/pdfs/draftecologicalplan.pdf> for a draft of an Ecological Master Plan for the St. Paul Campus. This report is an excellent source of information on use of open spaces and prospects for green design in St. Paul. A summary in Powerpoint format is available at http://fwcb.cfans.umn.edu/courses/FW5603/Lecture_2_Sept_07_Campus%20Ecology%20Plan.pdf.

learning environment and sense of community, it is necessary to achieve a greater critical mass in St. Paul. Several mechanisms are proposed to increase vitality and utilization of the St. Paul campus for undergraduate programs. These solutions would impact not only St. Paul-based majors, but also students in other majors who may take courses in St. Paul to satisfy Liberal Education or other requirements.

2.1 Bundle classes for convenient scheduling. To avoid frequent trips between Minneapolis and St. Paul, course offerings could be organized so that classes frequently taken concurrently would be offered conveniently in St. Paul. This could include not only courses in St. Paul-based degree programs, but also in supporting programs. St. Paul-based offerings could afford convenience for faculty from Minneapolis-based units who engage in collaborative, interdisciplinary interactions in St. Paul, as described in 1.1, above.

2.2. Develop flexible teaching spaces for collaborative learning among students. Just as cutting-edge, collaborative research needs a new kind of space, so do new approaches to teaching. Unlike standard lecture courses, collaborative learning around projects needs flexible space for discussion, peer interactions, and digital or laboratory investigations as well as lecture. Courses of this sort could be scheduled for half-day time slots, resulting in fewer between-campus trips. The St. Paul campus could lead the U in developing such courses. CBS has recently taken a step in this direction by remodeling space on the St. Paul campus to accommodate collaborative learning. By next year, all incoming CBS majors will participate in a collaborative class addressing the foundations of biology that is currently being taught in this space on a pilot scale.

2.3. Explore opportunities for increasing interdisciplinary instruction. Integrated programs that draw on interdisciplinary assets could be signature strengths of the academic environment of the campus. The CVM and School of Public Health MS degree in Public Health is an example of an integrated, interdisciplinary program that offers students opportunities to explore interfaces between humans, animals and the environment. The construction of integrated research facilities, described above under 1.1, will provide new educational opportunities, as will recent and planned moves of departments within colleges.

2.4 Increase availability of living/learning communities tied to campus themes. Living/learning communities around campus themes could draw students from many majors and enhance the knowledge of and participation in St. Paul programs. As an example, a living/learning community based on sustainability could build on the Environment and St. Paul Honors living/learning communities to include students from colleges in addition to CFANS and CDES. The student organic farm on campus, Cornercopia³, serves as an example of an extracurricular activity related to campus themes that could complement academic programs.

2.5 Upgrade facilities for virtual interactions. Video links between campuses and other infrastructure to support virtual interactions could support distance education and research interactions, as well as diversifying delivery of teaching materials for on-campus instruction. Adoption of innovative technology will advance collaborative learning and distance education. The university library and CCE can help develop and implement specific strategies.

3. Outreach and public engagement.

3.1 Establish the St. Paul campus as a key public face of the University. As home to Extension and the College of Continuing Education, the St. Paul campus already excels in outreach and public engagement, not only to greater Minnesota, but to the Metro area as well.

³ See Cornercopia's web site at <http://sof.cfans.umn.edu/> for more information on programs.

Many features draw the public to campus, including the heavily used Continuing Education and Conference Center, the Veterinary Clinics, the Raptor Center, the Horticultural Display Gardens and Recreational Sports facilities. These features, as well as research facilities, make the campus a destination for school groups. The new Equine Center and the Bell Museum will add substantially to the attractions for youth and adults. The beauty of the campus, access to major roads, and sufficient parking support its capacity to attract the public. Additional programming around translational research demonstration and personal enrichment programs could further increase outreach activities in St. Paul. This must be done in a way that also protects potentially vulnerable research areas, such as animal facilities and experimental fields.

3.2 Create demonstration sites for renewable energy, 'green buildings', and sustainable urban land use. Establishing a research and teaching focus around sustainability would create a strong opportunity for translational research demonstration projects for professionals, school groups, and the general public. Similarly, instituting such demonstration projects would provide opportunities for integrated, experiential learning for students.

3.3 Establish a hub for distance education in St. Paul. Facilities that are needed for inter-campus communication for research and teaching could also support distance education. Creating a hub for these activities will contribute to efficient management and uniform support services. One suggestion is to establish this hub through CCE.

4. Improving campus life: transforming the St. Paul campus into a village. Almost all participants indicated that the St. Paul campus is relatively lacking in many of the amenities that are more available in Minneapolis. All agreed that these amenities are important to increase campus community and vitality, and to make the St. Paul campus a destination attractive to students, visiting scholars, and the public. It is important when considering campus development to consider that the St. Paul campus neighborhood is residential on the north and west sides.

4.1. Increase and improve dining options on campus. Alternatives to fast food are needed, especially because there are few off-campus dining options in close proximity. Notably, the St. Paul campus lacks a location with a campus club-like atmosphere. This is needed for special events, for fostering interactions among faculty and staff, and for entertaining visiting scholars. Given St. Paul campus interests in nutrition, food production, and sustainability, developing a venue for high quality, locally produced food on an institutional scale would be an extension of our research and classrooms. These goals are consistent with the current efforts in sustainability of the University Dining Services. Yale University's sustainable food project⁴ provides an example for what campus food services could be.

4.2 Assure excellent transportation options into the future. Rapid and frequent linkages are important to enhancing connections among the Twin Cities campuses, and between the St. Paul campus and the surrounding metropolitan area. As light rail expands its distribution, it is essential to plan for mass transit connections to the St. Paul campus via hubs at the new stadium and/or elsewhere. Befitting the themes of renewable energy and the environment, options for progressive, efficient vehicles should be explored for the transit way.

4.3 Locate more housing in St. Paul during future construction projects. Having more resident students in St. Paul would increase the utilization of campus and enhance community on campus. New housing could include conventional residence halls and more residential "swing space". The latter would provide flexible space that could be available to graduate students, post-doctoral research associates, and visiting scholars.

⁴ See information about Yale's sustainable food project at: <http://www.yale.edu/sustainablefood/>.

4.4 Encourage development of hotel space on or near campus. Hotel space near the St. Paul campus would be advantageous for conferences and short term stays of visiting scholars, much the way the Radisson Metrodome is in Minneapolis. One potential location for a hotel could be along the east side of campus along the interface with the State Fairgrounds. This would direct noise and traffic away from residential neighborhoods, as well as benefit events at the State Fairgrounds.

4.5 Encourage more commercial development on or near campus to serve the needs of resident students and the campus community in general. To avoid negatively impacting residential neighborhoods near campus, shops and restaurants could be located in residence halls or parking structures at or below ground level, as has been done at some other campuses. As with a hotel, other commercial development could occur along the interface with the State Fair. The University should work with the cities of St. Paul and Falcon Heights to explore options that would serve these communities, as well as the U.

4.6 Bring more cultural activities to the St. Paul campus. This would enliven the campus in evenings and also benefit the surrounding communities. Such activities could make use of existing performance spaces, including the St. Paul Student Center Theater and Ballroom.

4.7 Connect the campus to adjacent communities through greenways and a bicycle path network. Pedestrian and bicycle corridors make additional use of open space and deepen the campus' connection to the community. Means to connect the St. Paul campus, on multiple scales, to its surroundings have been explored in the St. Paul Campus Master Ecological Plan⁵.

5. Supporting opportunities

5.1. Proximity to State Fairground. Our neighbor, the State Fair, provides an excellent delivery mechanism to reach the public on a grand scale. Moreover, the State Fair has communicated with the College of Design about means to 'green' their operations. A partnership with the State Fair would provide an excellent opportunity for collaboration around renewable energy demonstration, green building design, and sustainable landscape use. As described above, the proximity to the State Fairground also provides the possibility for development of a hotel and commercial area away from neighboring residential neighborhoods.

5.2 Proximity to the intercampus transit way. The University Enterprise Laboratories, Inc. (UEL) was established along the eastern end of the transit way to be an incubator facility for biotech start-up companies. This area has potential to be a research and development corridor that would enhance prospects for University/Industrial partnerships. Encouraging related high-tech industries to develop new facilities in the vicinity would not only address the 'intellectual sprawl' issue of the Twin Cities, it would also enhance the connection between the disciplines divided between the campuses.

NEXT STEPS FOR CREATING A STRATEGIC PLAN FOR THE ST. PAUL CAMPUS

1. Convene public forums to discuss the draft recommendations for the St. Paul campus.

Faculty, staff, students, and external constituents should all be invited to take part in the discussions. The final report should take into account these discussions.

2. Evaluate options for future use of animals, and agricultural and open space on campus.

A committee should be charged with evaluating the needs of CFANS, CVM, Extension and the Experiment station for future use of animals and agricultural space on campus. The committee

⁵ See <http://wrc.umn.edu/outreach/stormwater/pdfs/draftecollogicalplan.pdf>

should evaluate alternatives for off-campus animal facilities and crop space. The committee should also develop guiding principles for making balanced decisions concerning competing needs for animal use and crop space versus development on campus. Similarly, a committee should be tasked with developing guiding principles for use of open space on campus, including landscaped and natural areas.

3. Convene discussions in CEHD to consider reallocation of space to college units. The college should engage in a discussion to:

- evaluate the proposed educational theme for the St. Paul campus,
- identify opportunities for new interactions in St. Paul, and
- suggest the optimal apportionment of departments between Minneapolis and St. Paul.

4. Define an action agenda. An overarching goal is to define a process that will integrate core planning activities of academic units, interdisciplinary activities that cross colleges, and service and support units. This integrative process should align academic and capital planning with strategic positioning. To assist development of an integrated strategic and capital plan for the St. Paul Campus, there are several specific priorities that need attention, including:

- definition of campus precincts.
- estimation of the needed critical mass (e.g. number of students based in St. Paul) needed to merit infrastructural changes on the St. Paul Campus.
- evaluation of the ramifications of bringing more people to campus. This study should evaluate both the means to attract students and the public vs. the impact on the neighborhood and research areas.
- envisioning upgrades of the St. Paul Student Center that would support increased utilization.
- development of a comprehensive business strategy for increasing adult education.
- evaluation of parking and transportation needs to support plans for increased utilization of the campus.
- evaluation of opportunities to enhance campus amenities, emphasizing those that support the mission and themes of St. Paul.
- continuing inventory of current uses of the campus as a living classroom⁶.
- development of a strategy to evaluate collaborative opportunities with the State Fair, in collaboration with the city of Falcon Heights.
- development of a strategy to create a research and development corridor along the transit way, in collaboration with the cities of Minneapolis and St. Paul.

Existing campus entities have expertise in many of these areas. The appropriate entities should be tasked with these priorities to avoid redundant efforts.

⁶ This inventory was initiated during the preparation of the Ecological Master Plan for the St. Paul Campus, and has been continued by the Stormwater Management Committee.

APPENDIX I. DISCUSSION QUESTIONS USED IN CONSULTATIVE MEETINGS

Global vision:

- What is your vision for new 21st challenges to be addressed by our land grant university?
- What will be your unit's role in addressing these challenges?
- How will these efforts change academic programs and research activities in your unit? What will be the scale of the new activities?
- What partnerships are currently important to your unit's programs? What new partnerships do you envision?

Programmatic view of St. Paul campus:

- What themes currently define the St. Paul campus? How will that change in the future?
- What specific opportunities do you see for the St. Paul campus?
- What would bring new vitality to the campus?
- What impediments are there to achieving this vision and/or the goals of your unit?
- Are there activities that are currently based in St. Paul that should move to Minneapolis?
- Are there activities that are currently based in Minneapolis that should move to St. Paul?

Space and facilities issues:

- What are your unit's current facilities-related problems for undergraduate training (Minneapolis or St. Paul)?
- What unmet facilities needs does your unit have for research and graduate training (Minneapolis or St. Paul)?
- What facilities needs do anticipate for research in your unit and/or for interdisciplinary research? Of these needs, what should be based in St. Paul?
- What are current and prospective uses of space for instruction in St. Paul?
- What are your unit's currently stated capital priorities in St. Paul?

Miscellaneous issues:

- What other individuals should be consulted? For example, are there leaders of interdisciplinary initiatives connected to St. Paul that you can recommend?
- How should input be sought from faculty and students?