

Ferris State University
FY 2009 CAPITAL OUTLAY PROJECT REQUEST
Center for Collaborative Health Education

Priority #1
\$26,900,000

<i>Is The Project A Renovation or New Construction?</i>	Ren <input type="checkbox"/> New <input checked="" type="checkbox"/>
<i>Is There a 5-Year Master Plan Available?</i>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<i>(Projects will not be approved without a current 5-year plan on file with the State Budget Office)</i>	
<i>Are Professionally Developed Program Statement and/or Schematic Plans Available Now?</i>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<i>Are Match Resources Currently Available?</i>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
<i>Has the University Identified Available Operating Funds?</i>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

This project request consists of:

The Michigan College of Optometry
And Center for Collaborative Health Education

A. - Project Description Narrative

The Michigan College of Optometry was created with Act 227 of the Michigan Public Acts of 1974 in response to a documented need for optometrists in the State of Michigan and is one of only 16 in the United States. The first class was admitted in 1975 and housed in Pennock Hall, a six-story building erected as a residence hall on the Ferris campus in 1968.

Optometry is the fourth largest independently licensed health profession, after medicine, osteopathy and dentistry. These professions have the state authority to examine patients and initiate treatment plans for the care of patients. Other allied health professions work with these independent professions to care for patients. As a result, collaborative care for patients is a critical component of the optometric profession.

Optometry is a four-year, first professional program that builds upon the undergraduate education students receive at the bachelors level. Students graduating from the Michigan College of Optometry program at Ferris State University receive the degree, Doctor of Optometry.

Current Pennock Hall Condition – Because Pennock Hall was built as a residence hall, the width of the building does not accommodate a full-sized classroom or laboratory. This means that each of the classrooms or laboratory spaces in the current facility is quite narrow and extraordinarily long. There is no way to move walls and reconfigure to make the space more useful, and structural columns run throughout the classrooms and laboratories, further restricting the space. The laboratories are in disrepair with poor lighting, and no plumbing. Wet labs are needed for required courses in anatomy, physiology, and microbiology. Simply put, this a very poor place for faculty to teach and for students to learn. Faculty, staff, and students succeed despite this facility, rather than benefiting from what is possible with modern state-of-the-art facilities.

As a working health care facility, one of the critical components is the patient-care clinic. The current clinic is on the fifth and sixth floors. It is served by two very old, small, cramped elevators, which have been operated long-past their useful life. To effectively work with patients who need eye care, a ground floor clinic is necessary to provide access for the elderly, visually impaired and disabled. Additionally, because it is placed in a residence hall, the clinic is unattractive and not nearly as patient friendly as it should be. It does not feel like a clinic, it feels like a residence hall. This is a serious impediment.

The original building was not designed with air conditioning and was retrofitted during its conversion from a dormitory to a health care facility. As a result it has extraordinarily poor heating, ventilation, and air conditioning. The components for the system are out-of-date, the manufacturers are out-of-business, and parts are not available. The system works ineffectively and breaks frequently. When this happens, parts for repairs must be made by the University's physical plant.

The condition of Pennock Hall has become a serious problem for its continued accreditation by the American Optometric Association, an accreditation that is necessary for the continued operation of the program, as well as, state licensure by optometry graduates. The following concern is from the most recent visit by this accreditation board -

Because of the age and the original function of Pennock Hall, the building has limitations to house a professional optometry program. Patients initially have difficulty locating Pennock Hall and then have difficulty locating the patient reception area. Patient care is provided on the fifth and sixth floors, and the two elevators are reportedly unreliable. All six floors have numerous exposed heating and cooling pipes which run along the ceiling. These pipes leak and have damaged the program's equipment and facilities. Temperature control is difficult to maintain, and repair parts for the existing heating source are no longer available... Maintenance and repair of Pennock Hall is expensive, and the College reports the condition of Pennock Hall hinders the recruitment of both students and faculty.

Collaborative Health Care - The Michigan College of Optometry has received national recognition for its work in interdisciplinary health care. At Ferris State University the Michigan College of Optometry, College of Pharmacy and College of Allied Health Sciences developed the award winning Interprofessional Diabetic Clinic. This clinic won the 2004 United States Secretary of Health and Human Services Secretary's Award for Innovation in Health Promotion and Disease Prevention. This is the highest award of the Department and is personally presented by the Cabinet Secretary. Ferris State University's project was selected over submissions from leading research colleges and universities throughout the country. This innovative, collaborative approach addresses the vision problems, dietary needs and medication compliance of rural diabetes patients.

The proposed new facility creates dedicated physical spaces for the continuation of this work in the multi-disciplinary **Center for Collaborative Health Care Education**. The Center for Collaborative Health Education advances public health by promoting interprofessional education and collaboration among Ferris State University faculty and students. With active student participation, the Center for Collaborative Health Education addresses the Institute of Medicine's directive to increase the level of interprofessional practice with the intent of improving health care. The proposed Center addresses the didactic and experiential education needs in an interprofessional manner and facilitates the development of proposals for establishment of collaborative practice models in the underserved communities of the State.

These innovative approaches bring together the efforts of over a thousand students enrolled in the health care colleges at the University. They will collaborate

together on initiatives such as the Interprofessional Diabetes Wellness program and other initiatives of the Center for Collaborative Health Education.

The new building helps facilitate the College of Optometry in developing increased training arrangements with the Colleges of Allied Health and Pharmacy. There are currently several programs with both colleges that include working with pharmacy, medical records, and nursing students. One example of this cooperation is the course for injectible medications and suturing that is taught with instructors from the College of Allied Health. Another example is the pharmacology coursework and biochemistry instruction taught by College of Pharmacy faculty.

The auditorium, classrooms, laboratories and clinical areas of this facility will be available for use by the Colleges of Allied Health and Pharmacy for the instruction of their students. These other health care facilities, while not converted dormitories, date from the late 1960's and early 1970's. They do not have the same problems with classroom size or shape or clinic access, but suffer from significant overcrowding and age. The new facilities are especially well-suited for their use as they are designed specifically for the instruction of health care students.

Proposed Construction - The proposed construction is a new facility at Ferris State University to include academic, laboratory and clinical spaces in support of the teaching, research and patient care missions of the Michigan College of Optometry. New construction is estimated to comprise approximately 91,000 gross square feet. The proposed construction creates a modern health-care facility offering state-of-the-art eye and vision care.

It is anticipated that construction on this facility would commence in 2009 with completion projected for 2010. The University has funded and completed the programming phase of this project and can provide complete information on the building, its programming, sizes and number of spaces. As a result Ferris State University is ready to immediately begin this project upon recommendation of the Legislature and approval by the Governor. The projected annual operating cost is \$637,000 for the entire 91,000 GSF.

Specifically, the structure is designed to accommodate the following -

An **Eye and Vision Care Clinic** that offers optometric/medical eye care and clinical training for optometry students, interns, and residents. Currently this facility has 80-90 patient encounters per day. This results in 19,454 patient encounters per year. It is anticipated that these patient numbers will increase by at least 10,000 per year (30- 40 per day) with a ground floor, redesigned clinic.

- The clinic includes an optical and contact lens dispensary where student interns may receive practical hands-on training in the fitting of optical devices.
- The clinic includes twenty-six eye lanes, which are split between primary care services, contact lenses services, pediatric / binocular vision services, medical / surgical services, and low vision rehabilitation services.
- The clinic has a waiting area, administration/billing office, optical dispensary and fabrication area, common testing rooms and special testing rooms for specific vision equipment.

- The clinic houses the only fully equipped low-vision clinic in western Michigan. With an aging population, this is an enormous resource and will only see increased use with each passing year.
- Clinical examination rooms help facilitate the continued efforts of faculty in clinical research in the eye care field.

The **Center for Collaborative Health Education**, described above, brings together students, staff, faculty, and professionals in the Colleges of Allied Health, Optometry, and Pharmacy in a team oriented approach to health education and healthcare.

The **Center for Lifelong Learning and Competency** will be created in this facility to support eye care professionals. Using distance technology, web-based support, continuing education efforts, and conference sessions, this Center will help optometrists receive information and education on the latest developments in the field and stay current in this rapidly evolving profession. It doing so, it assures the continued competency and the highest standard of preparation and support for optometrists practicing in Michigan. The Center will help ensure that quality eye care continues to be delivered to the citizens of the state of Michigan long after the optometrist graduates from the college.

Laboratory spaces are a critical component in the education of optometrists and a serious weakness in the current facility. The new facility includes seven laboratories for hands-on instruction in contact lens, ophthalmic optics, basic science (2), vision science, ophthalmic procedures, and test & procedure demonstration. These include six wet/dry laboratories, facilities that are not existent in the current facility. It also helps address a serious shortage of state-of-the-art laboratory spaces across the campus.

Classrooms, computer facilities, distance education facilities, and a mid-sized auditorium are included in the building and available to all students on the Ferris State University campus. The new facility is situated in proximity to the existing buildings housing the College of Pharmacy and College of Allied Health Sciences, thus establishing an educational synergy in the health sciences at Ferris State University and addressing aged facilities and overcrowding in these areas. The building also includes faculty offices and administrative spaces for the Michigan College of Optometry.

Of great importance to the college and its statewide mission is the **Distance Learning Facilities.** The location of Big Rapids and the statewide responsibility of Ferris State University for optometric education and the support of professionals across Michigan require significant use of distance learning technologies. The current Pennock facility has no distance capabilities and faculty must move a significant distance across campus to the library to communicate with students and other sites. This takes them away from the specialized facilities, equipment, and resources and limits interaction via distance education methods.

A number of educational and professional efforts benefit greatly from increased and more sophisticated distance learning capabilities. As part of their education, Optometry students are placed in internships across the state and around the nation. Student interns are placed at affiliated external clinic sites to gain a wide range and depth of experiences in the optometric profession. Prior to graduation, students attending the Michigan College of Optometry typically experience in excess of 1500 patient examinations—an extraordinary number of patient contacts and an exceptional educational opportunity. Examples of these affiliated external sites include the following-

- Health Management Organizations, including the Henry Ford Medical Center, the largest southeast Michigan HMO. Student interns provide eye care services at the Henry Ford Medical Center locations in Westland, West Bloomfield, and Livonia, Michigan. Additionally the college affiliates with an inner city HMO, The Wellness Plan of Detroit, Michigan, a combined staff and Independent Practice Associations (IPA) model, with approximately 80,000 subscribers.
- Veterans Affairs Medical Centers/Out-Patient Clinics, located in Grand Rapids, Battle Creek, Detroit, and Saginaw, Michigan and Fort Wayne, Indiana.
- The Department of Corrections Duane L. Waters Hospital at the State Prison of Southern Michigan in May, 1986. With over 100 beds, the general medical/surgical hospital is the first maximum security health care facility located within a main prison. College clinical professors and fourth year student interns provide in-patient and out-patient care for approximately 7,500 residents housed at the State Prison of Southern Michigan's maximum, medium and minimum security complexes and the outlying satellite facilities, which depend upon the Hospital for health care services. An ocular prosthetics program, initiated with cooperation and consultation from the College's Contact Lens Service, is now a regular and viable part of the clinic services available. Efforts at the prison currently use telemedicine consultations and grand rounds occur regularly between Optometry faculty and Hospital student interns and doctors. Improved and accessible distance facilities would greatly facilitate and support these efforts.

- University-based optometric and medical practice sites include The Clinical Center, Neuro-ophthalmology clinic, located on the campus of Michigan State University, East Lansing, Michigan.
- Military Medical facilities at Grand Forks Air Force Base (AFB), North Dakota, Eglin AFB, Florida, Fort Wainwright Army Base, Fairbanks, Alaska and National Naval Medical Center, Bethesda, Maryland.
- Co-management consultation centers where patients are accepted on a referral basis for secondary level eye care. Student interns examine patients with acute and chronic eye disease conditions during a typical rotation. Current affiliation centers include Balian Eye Center of Rochester, Michigan, and Andersen Eye Associates, Saginaw, Michigan, Gabriele Eye Institute and South Bend Clinic, South Bend, Indiana.
- Private practice affiliations, including the Garrett Eye Center of Iron Mountain, Grand Rapids Ophthalmology of Grand Rapids, Shelby Eye Care Associates of Shelby Township, Eaton Rapids Optometrists of Eaton Rapids, Walton and Becker Optometry, Oxford, Michigan, Lakeshore Eyecare, Norton Shores, Michigan. Besides patient care experiences, these private practice sites help broaden the student intern's understanding of the business side of eye-care practices.
- Specialty service sites where there is a very specific emphasis on one subset population or one subset of optometric care. These sites include Saginaw Valley Special Needs Vision Clinic, Saginaw, Michigan, Kresge Eye Institute, Detroit, Michigan, Henry Ford Visual Rehabilitation and Research Center, The Sinai

Hospital of Detroit's Vision Rehabilitation Institute, and several optometric practices where low vision rehabilitative services are provided. The Saginaw Valley Special Needs Vision Clinic, a non-profit, community-based agency, emphasizes the functional and developmental vision evaluation of the district's multiple handicapped and developmentally disabled students. The clinic's service area includes nine counties in the Saginaw Valley region, and reaches patients from pre-school to young adult ages. Additionally, the clinic provides low-vision care to area residents upon referral by the Michigan Commission for the Blind, area practitioners, or self-referrals.

Using WebCT course management software, a year-long on-line course has been developed and is currently in use for all on- and off-campus faculty and interns as a way to connect and communicate in discussions, case presentations, provide feedback in a timely manner and provide a method of dispersing and receiving administrative information. This online course is designed to enhance the extern's real-time clinical activities.

The increasing role of telemedicine creates many more demands for the use of these distance facilities in clinical outreach. For example, the detection of diabetic retinopathy, a leading cause of blindness, is facilitated by telemedicine where an optometrist reviews retinal images sent from a remote location over the Internet.

Improved and readily accessible distance education facilities support and enhance optometric education and the quality of eyecare throughout the state. This is especially true for indigent and rural populations.

B. - Other Alternatives Considered

This project creates an appropriate facility to accommodate the needs of the Michigan College of Optometry and the Center for Collaborative Healthcare Education at Ferris State University. Since the founding of the college, the scope of optometric practice has advanced to include the diagnosis and treatment of eye disease, training in the use of pharmaceuticals, fitting of soft and extended wear contact lenses, pre- and post-operative care of surgical patients and much more. From the viewpoint of training optometrists for today's health care market, the college has long ago outgrown its original, out-dated home in Pennock Hall.

Of great importance in the proposed construction is the creation of a modern, ground-floor clinical facility. Currently, the eye and vision clinic facilities are located on the fifth and sixth floors of Pennock Hall. This is very inconvenient for patients, particularly the elderly and the handicapped that would be stranded in the event of a power failure.

Currently, there is no facility on the campus of Ferris State University that can accommodate the Michigan College of Optometry. The University has considered renovating Pennock Hall and adding an addition to handle some of the clinical requirements. However, after study by a professional architectural firm, the project was deemed as not cost effective; and, if carried out would have provided compromising space, lacking functionally, for the college. The nature of the site of Pennock Hall is that the cost to add space, or create a ground floor clinic is prohibitive. Thus, a new facility is required to meet the programmatic needs of the college.

This facility has been a major goal of the University since 1999. It has twice been recommended for funding by the legislature. Regrettably it was not approved by either Governor Engler nor Governor Grandholm when state revenues began a significant decline. Were this request not funded, the college will continue to function in its present location. However, it must be stated that the current facilities hinder education/training of optometry students, limits the number of students that can be accepted into the optometric profession, impedes efficient clinical care, and provides inadequate facilities for distance education and research. Additionally, faculty and student recruitment has been impacted due to the poor condition of Pennock Hall.

C. - Programmatic Benefit to State Taxpayers and Specific Clientele or Constituencies

The Michigan College of Optometry at Ferris State University is a major provider of health care education in Michigan. As the only college of optometry in Michigan, the Michigan College of Optometry has been responsible for all training of the majority of optometrists in the state. The College serves a wide patient base in one of the poorest areas of the state. The service area includes residents of Lake, Mecosta, Osceola, and Montcalm counties. We care for many Medicaid and indigent patients in surrounding counties.

Additional capacity, program expansion, and the need for optometrists –
Admission to the optometry program is very competitive; seven students apply for every position available. It is impossible to expand the program further without this new facility. With the new facility admissions will be expanded to fifty students annually and the structure is designed to handle 75 students per year. Ultimately the number of

optometrists prepared for the State of Michigan could be doubled. This would help address a growing critical shortage of practitioners.

According to the American Optometric Association, optometrists perform approximately 60% of all eye examinations in the country. There has been an enormous amount of attrition of optometrist numbers as many of the World War II generation retire and leave the profession. These positions are now being filled by our graduates, and the need for more graduates will only increase.

Additionally, as our population continues to age and live longer, they will experience more eye and vision problems—such as glaucoma, cataracts, macular degeneration, etc. The need for optometrists will continue to grow with the increase in the aging population. Additionally as people continue working into their 60's, 70's, and 80's, they will require good eyesight to continue their careers.

Optometry is a program with 100% placement. Graduates are recruited by independently practicing Doctors of Optometry, Veterans Administration Medical Centers, Health Management Organizations, Group practices, Ophthalmology practices and corporate settings. Many employers contribute to our established scholarships and provide substantial support for students and future employees. Students who have signed a commitment to the military have their education paid for by the Government and enter the Army with the rank of Captain.

Optometry is rated the number two career in the “excellent” category of a guide to careers that appeared January 5, 2006 on the *U.S. News and World Report* Web site. This article describes 39 different careers and categorizes them into excellent, good, fair and poor. The objective information for this rating criteria is gleaned largely from the U.S.

Bureau of Labor Statistics' Occupational Outlook Handbook, 2006-2007 edition.

Subjective information is based on author Marty Nemko's interviews and discussions with clients. Additional information and a complete copy of this study is available at <http://www.usnews.com/usnews/biztech/articles/060105/5bestcareers.htm>. In the *U.S. News and World Report* guide, Optometry is described as a "one-on-one helping career that will serve the massive numbers of boomers."

Economic Impact - The impact of graduates from the Michigan College of Optometry is significant. Based on a recent economic survey conducted by the American Optometric Association, the average optometric practice has gross revenues of approximately \$500,000. Assuming that most graduates stay in Michigan, the economic impact of our graduate optometrists on Michigan's economy is annually over one-third of a billion dollars. That figure does not include revenues generated by pharmaceuticals prescribed by optometrists.

It is important to note that unlike pharmacists, some physicians, and most other healthcare professionals, the majority of optometrists create and operate small businesses. In their practices they hire five or more other individuals, creating additional employment opportunities across the State of Michigan. Optometrists become important members of their local business communities helping to create additional economic development through the State.

Additional Benefits – A number of additional and significant benefits result from the work of the Michigan College of Optometry at Ferris State University -

- Research by Ferris State University professors has demonstrated a direct connection between eyecare problems and the need for developmental education

by college students. Beginning in the fall of 2002, the College has screened 317 students placed on academic probation by their colleges. These at-risk students were screened for free and, if they failed the screening, offered free comprehensive eye examinations. In addition, students who needed new spectacles were offered \$90.00 towards a pair of glasses. Of the 371 at risk-students, 194 (61%) failed the vision screening. These findings have significant implications for the success of at-risk students across the state.

- Infant and children's vision – The University has a pediatrics clinic caring for children's eye problems. This helps ensure that children receive a complete eye exam before entering school. Statistics show that as many as 80% of children with poor school performance have eye problems that can be corrected if discovered early in their development and maturation. The College participates in project InfantSEE—a program sponsored by the American Optometric Association and Johnson & Johnson to provide every infant an eye assessment in the first year of life to pick up factors contributing to amblyopia or lazy eye. Former President Jimmy Carter is the spokesperson for this effort.
- Partnerships for indigent people – Beyond its immediate clinic service area, the College participates in a number of programs for low-income families and needy children. This provides much-needed eye care to those who would otherwise not receive it. These affiliations include the Cherry Street Clinic in Grand Rapids, a community based clinic for low or limited income patients. The College has conducted a series of clinics for migrant field workers. The College is in the planning stages of a community-based eye clinic in Baldwin. Faculty and

students annually make medical mission trips to Dominica, Africa and other underserved countries.

- Michigan taxpayers will benefit significantly by the expanded opportunity afforded by the new facility for research into eye and vision related areas. For example, research into vision-related factors in aviation is in its infancy. Age-related vision problems will become more significant to society as the “baby-boomers” age. Currently, Pennock Hall offers no space for expanded research into these and other areas.
- A new, modern facility for the College of Optometry is essential for recruitment of students. Each year there are many talented and highly qualified students that cannot be admitted into the profession because of the limitations of the current facility. Additionally, the recruitment of optometry students is highly competitive. Ferris State University is competing with major schools in surrounding states for the best and brightest undergraduates who wish to enter the profession of optometry. The current facility is inadequate in this area.

D. Funding Resources

The Optometric Profession is very committed to supporting a new facility for the Michigan College of Optometry. **Every member of the college** has made a financial contribution to this building. To date, over \$1,250,000 has been pledged in support of operating and matching funds for the new facility. The University is currently entering the second phase of this fundraising campaign with an expectation that a minimum of \$2 million in additional support will be raised. As needed, additional funding resources will be developed from other University sources and from institutional bonds.

Concluding Thoughts - In order to continue its significant contribution to the health and welfare of the State of Michigan, the Michigan College of Optometry and the Center for Collaborative Health Education must be housed in a facility conducive to modern clinical training and clinical care. Students being educated for the health professions should be trained in an environment that, as much as possible, is similar to that in which they will function after graduation. They should be exposed to a wide variety of patients, utilize state-of-the-art equipment, and learn to work with support personnel and other health providers in this era of managed care. Patients treated in our facility deserve a facility that will allow us to provide them state-of-the-art care.