



**Grand Rapids Community College
State of Michigan FY 2017
Five-Year Capital Outlay Plan**

**Approved by GRCC Board of Trustees
October 12, 2015**

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Section 1 - Mission Statement

The Grand Rapids Board of Education founded Grand Rapids Junior College (GRJC) in 1914 following a resolution by the University of Michigan faculty that encouraged the establishment of junior colleges in Michigan. Grand Rapids Junior College was the first junior college in Michigan. In the 1950's and 1960's, the state of Michigan passed constitutional language and legislative acts, which still regulate Grand Rapids Community College (GRCC), that outlined the responsibilities of and requirements for community colleges. Under the 1966 Community College Act, Michigan included postsecondary vocational-technical education in the community college program. Consequently, GRCC now offers education services for workforce degree students, transfer students, and job training students.

Since its founding, GRCC has developed a strong reputation for academic excellence and innovation. The College has been accredited continuously since 1917 by the Commission on Institutions of Higher Education of the North Central Association of Colleges and Schools. In 2002, GRCC continued its accreditation process when the College was accepted into the North Central Association (NCA) alternative accreditation method: the Academic Quality Improvement Project (AQIP). In 2010, the NCA Higher Learning Commission instituted a pilot AQIP program with a Baldrige option, and GRCC was accepted into this pilot in 2011. In April 2014 GRCC hosted the AQIP Quality Checkup – Baldrige Option, which involved two reviewers visiting the campus over a three day period. The reviewers concluded that GRCC provided evidence that met or exceeded expectations for all five Criteria for Accreditation and their corresponding core components (*revised* criteria effective February 2012) and went on to provide specific examples. Words the reviewers use to describe GRCC include “pioneers,” “exemplary,” “exceeds expectations,” “highly organized,” “pride,” “high quality,” and “best practice.” In May 2015, the Higher Learning Commission reapproved accreditation for Grand Rapids Community College. This decision extends GRCC's accreditation to 2023.

In addition to institutional accreditation through the Higher Learning Commission, many GRCC programs hold separate accreditations including the Early Childhood Associate Degree program and Lab Preschool, six health programs, Culinary Arts, Corrections, Visual Arts, Music programs and Automotive Technology. Since 2000, the College has received a Pacesetter award, three awards from the Michigan Quality Council, a Bellwether Finalist Award at the Futures Assembly 2002 and numerous awards and recognitions for its programs including the National Award of Excellence in Post-Secondary Food Service Education from the National Restaurant Association, the highest distinction awarded by this organization to culinary schools. In July 2015, GRCC was awarded the Noel-Levitz Retention Award. The Retention Excellence Awards Program was established in 1989 to honor outstanding achievements in student retention by colleges and universities throughout the United States and Canada. Most recently, in September 2015, Achieving the Dream announced that Grand Rapids Community College was one of 19 community colleges nationwide to earn Leader College distinction – a national designation awarded to community colleges that commit to improving student success and closing achievement gaps.

GRCC's downtown campus encompasses an eight-block area located in downtown Grand Rapids, and the DeVos campus located in the Heritage Hill neighborhood, two blocks east. GRCC also offers courses at a variety of off-campus locations including the Tassell Michigan Technical Education Center (M-TEC®) and at numerous high schools in Kent County. GRCC's Lakeshore campus, located in Ottawa County, offers a full slate of learning opportunities across five locations, including the Thompson Michigan Technical Education Center (M-TEC®).

GRCC's primary service area is Kent County, with a total population of 629,237. (*US Census - 2014*) Additionally, we serve the contiguous counties of Ottawa, Allegan and Ionia, as well as drawing students from all areas of the State of Michigan.

Given GRCC's open-access enrollment policy, the institution is serving a very diverse range of students. In addition to 'traditional' students seeking terminal degrees and those seeking to transfer to four-year institutions, GRCC also serves high school students pursuing advanced placement, dual enrollment/early college, adults seeking job training or retraining and apprentices, international students, developmental students and older learners.

Grand Rapids Community College faculty and staff have been committed to student success for 100 years. During the 2014-15 academic year, GRCC celebrated the century mark with a number of special events. More importantly, the institution launched the 2014-2017 Strategic Plan, which builds on the "great past – bright future" theme and outlines the strategies, action projects and indicators of success that will chart the course for GRCC's future.

VISION
As a college of distinction, GRCC inspires students to meet the needs of the community and the world.
MISSION
GRCC is an open access college that prepares individuals to attain their goals and contribute to the community.
VALUES
<p>Excellence – We commit to the highest standards in our learning and working environment as we strive for distinction in all aspects of our work.</p> <p>Diversity – We create an inclusive learning and working environment that recognizes the value and dignity of each person.</p> <p>Responsiveness – We anticipate and address the needs of students, colleagues, and community.</p>

<p>Innovation – We seek creative solutions to problems through experimentation and adaptation.</p> <p>Accountability – We set benchmarks and outcomes to frame our decision-making, measure our performance, and evaluate our results.</p> <p>Sustainability – We use resources in responsible ways to achieve balance among our social, economic, and environmental practices and policies.</p> <p>Respect – We treat others with courtesy, consideration and civility.</p> <p>Integrity – We commit to GRCC values and take personal responsibility for our words and actions.</p>
ENDS
<p>In all instances, the work to achieve these Ends will reflect our core values.</p> <p>Student Success Pathways – A student-centered experience will ensure opportunities for students to learn the skills necessary to achieve their educational goals.</p> <p>Workforce Pathways – GRCC will prepare students for the workforce in our community and the world.</p> <p>Transfer Pathways – GRCC prepares students to transfer to the college or university of their choice.</p>

Figure OP.1 GRCC Vision, Mission, Values, Ends

GRCC Strategic Plan - 2014 – 2017

(Revised July, 2015)

End #1: Student Success Pathways

A student-centered experience will ensure opportunities for students to learn the skills necessary to achieve their educational goals.

Strategy 1.1 **Access and Inclusion-** Improve services and outreach initiatives to students considering GRCC while creating a welcoming and inclusive environment for all at GRCC

CAP #1.1.1: Improve outreach and recruitment of new students*

CAP #1.1.3: Implement projects related to campus climate study to foster an inclusive, welcoming college

Strategy 1.2 **Persistence and Completion–** Provide college programs, resources and systems to support students in their educational pathway including the attainment of a credential

CAP #1.2.1: Student Success in Developmental Education

CAP #1.2.3: Increase the readiness of students taking on-line courses

CAP #1.2.4: Reduction of Financial Barriers for Students

CAP #1.2.5: Implement First Scholars Project: Increasing completion rates for first time/full time students

CAP #1.2.6: Implement college-generated graduation processes and procedures

Strategy 1.3 **Student Support –** Improve support services to instill in students the skills necessary to be effective learners, citizens and individuals

CAP #1.3.2: Create and improve student services for part-time, evening students

CAP #1.3.3: Provide additional student support for Latino students

CAP #1.3.4: Support an academic leadership program (Alpha Beta Omega) to support the success of the College's most challenged students

Strategy 1.4 **Student Learning** - Improve student success through the creation, revision, and monitoring of curriculum and assessment

CAP #1.4.1: Implement institutional assessment of student learning

End #2: Workforce Pathways

GRCC will prepare students for the workforce in our community and the world.

Strategy 2.1 **Knowledge and Infrastructure** – Ensure that resources and infrastructure are effectively organized and consistently aligned to provide students and other stakeholders with an efficient, successful, user-centered system to promote the attainment of skills necessary to enter the workforce

CAP #2.1.1: Construct core competencies in workforce development

CAP #2.1.2: Increase use of labor market information forecasting

Strategy 2.2 **Student Pathways** – Provide expanded engagement opportunities for students related to work goals

CAP #2.2.1: Integrate all career and job placement service

CAP #2.2.2: Create and expand career learning experiences

End #3: Transfer Pathways

GRCC prepares students to transfer to the college or university of their choice.

Strategy 3.1: **Knowledge and Infrastructure**- Ensure that college messaging, alignment with secondary and other post-secondary institutions, resources, and infrastructure are effectively organized to provide students and other stakeholders with an efficient and effective system to promote transfer

CAP #3.1.2: Improve GRCC's infrastructure and ability to develop collaborative programs and partnerships to enhance student preparedness for post-secondary education

CAP #3.1.3: Enhance transfer resources throughout the College

Strategy 3.2: **Student Pathways** - Provide students with the experiences, preparation, and support necessary for successful transfer to a four-year college

CAP #3.2.1 – Integrate services for students on a transfer pathway

*College Action Project

Section 2 – Instructional Programming

A. *Instructional Vision*

Grand Rapids Community College is a college of choice. We are an open-access institution that transforms students through experiences that blend rigor with relationship, safety with risk, independence with support, community with individual, and theory with practice. We are committed to promoting freedom of inquiry through a broad range of programs providing students with both breadth and depth in their learning experiences. We are an integral community partner within the educational system of our region and share responsibility for its effectiveness.

Our overarching goal for learning is:

GRCC students will become successful learners and responsible community members. Our students will have the competencies to be successful in the future they help create. To reach this goal we have set specific objectives in the areas of academic challenge, active and collaborative learning, student effort, and support for learners and student faculty interaction.

The principles we hold to achieve this vision are:

- All people can learn given the right conditions and supports.
- Comprehensive supports are critical for the successful learning process.
- We improve learning by applying our understanding of the ways that people learn best and then assessing and responding to the results.
- We shape learning environments with conscious and purposeful intention.
- Curriculum is active, interactive, and dynamic.
- We are committed to engaging in and promoting life-long learning.

To support this vision, GRCC has adopted the Completion Agenda to facilitate our work around student success. This agenda includes a slate of specific college action projects developed through the Street to Completion (S2C) project and integrated into the College's 2014-2017 Strategic Plan. Additionally, department-level projects directly and indirectly align with the established student success focused college ends: Student Success Pathways, Workforce Pathways, and Transfer Pathways. We are also a member of the HLC Academy for Student Persistence and Completion which provides further support for this work.

The student success work is driven by intentional college action project (CAP) teams which are led by passionate leader champions. The cross college teams work collaboratively while analyzing relevant data, assessing processes and practices, developing responsive intervention strategies, implementing action plans and monitoring effectiveness. Practical guidelines were developed to keep student success initiatives on track, on pace, and making a difference. The teams focus on assessing the resources and existing support systems available, identifying scale- up cross- system opportunities, and involving college stakeholders when developing tactics. Where the College is pursuing projects with indirect impact on the completion agenda, it is also building infrastructure and capacity for future projects with more direct impact and, in

some instances, scale-up potential. The charge and outcome for this visionary and strategic work focuses on raising the needle on student success and key outcome indicators for the institution.

We measure the success of our efforts by monitoring student performance in three specific areas:

- Persistence
- Completion
- Transfer

Persistence is measured by:

- Fall to Winter term persistence (all students)
- Fall to Fall persistence (first time, full time students only)

Completion is measured by:

- Number of degrees/certificates awarded
- Percent of students who earn a degree within six years

Transfer is measured by:

- Percent of students who successfully transfer within six years

The Academic and Student Affairs area is leading 13 College Action Projects (CAPs) to support the goals and objectives of the new 2014-17 College Strategic Plan, detailed in Section 1 of this document. Through the Teaching and Learning Quality Model (TLQM), we track progress on process measures, outcomes, and yearly improvement plans for 40 key academic processes. Our Academic Program Review process tracks the assessment of program student learning outcomes and our Institutional Learning Outcomes (ILOs). All of these efforts are geared to advance the completion agenda by continuously improving the quality of the work we are doing.

B. Existing Academic Programs

Our liberal arts programs provide students with college-level curricula that create a foundation for individual achievement – whether this takes the form of the pursuit of a profession, the attainment of a baccalaureate degree, self-enrichment, or the exercise of civic responsibility. Our occupational programs provide students with the skills and knowledge needed to obtain a credential, certificate or degree in order to succeed in chosen occupations.

Degrees and Certificates

Students may earn the following degrees and certificates:

- Associate of Applied Arts & Sciences
- Associate of Arts
- Associate of Science
- Associate of Business
- Associate of Music
- Associate of Nursing
- Associate of Fine Arts
- Associate of General Studies
- Certificate
- Advanced Certificate
- Industry Recognized Certification
- Certificate of Completion

Applied Technology Programs

Industrial Maintenance Certificate
Industrial Maintenance Technology, A.A.A.S.
Heating, Ventilation, Air Conditioning/
Refrigeration Certificate
Heating, Ventilation, Air Conditioning/
Refrigeration, A.A.A.S.
Electrical Controls/Mechatronics, Certificate
Electronics Engineering Technology, Certificate
Electronic Engineering Technology A.A.A.S.

Automotive Programs

Automotive Servicing Certificate
Automotive Technology, A.A.A.S.

Business Programs

Accounting, A.B.
Business Administration, A.B.
Office Administration, A.B.
Management & Supervision, A.B.
Marketing Certificate
Marketing, A.B.
Entrepreneurship Certificate
Pre-Business, A.A.

Computer Applications Programs

Computer Programming, A.A.A.S.
Computer Support Specialist, A.A.A.S.
Graphics/Web Development, A.A.A.S.
Network Administration, A.A.A.S.
Pre-Computer Information Security, A.A.
Pre-Computer Information Systems, A.A.
Pre-Computer Science, A.S.

Criminal Justice Programs

Corrections, A.A.A.S.
Juvenile Services, A.A.A.S.
Law Enforcement, A.A.A.S.
Addiction Studies Certificate
Police Academy, Certificate

Education and Child Development

Child Development, A.A.A.S.
Infant & Toddler CDA Formal Training Hours,
Certificate
Preschool CDA Formal Training Hours,
Certificate
Paraprofessional Education, A.A.A.S.

Health Programs

Practical Nursing Certificate
Nursing, A.D.N.
Dental Assisting Certificate
Dental Assisting, A.A.A.S.
Dental Hygiene, A.A.A.S.
Occupational Therapy Assisting
Radiologic Technology, A.A.A.S.
MRI Technology Advanced Certificate

Language and Thought Programs

Pre-Journalism (General), A.A.

Manufacturing Programs

Apprenticeship Option, A.A.A.S.
Industrial Technology Certificate
Quality Science Certificate
Quality Science, A.A.A.S.
Plastics-Polymer Engineer Technology, A.A.A.S.
Plastics-Polymer Engineer Technology
Certificate
Tooling & Manufacturing Technology Certificate
Tooling & Manufacturing Technology, A.A.A.S.
Welding Certificate
Welding Technology, A.A.A.S.
Technology Option, A.A.A.S.

Mechanical & Architectural Design

Architectural Technology, A.A.A.S.
Mechanical Design Certificate
Mechanical Design, A.A.A.S.

Music Programs

Music, A.M.
Music Merchandising, A.M.
Music Recording Technology, A.M.
Digital Audio Specialist Certificate

Physical Science Programs

Chemical Technology, A.A.A.S.
Pre-Chemistry

Psychology Programs

Gerontology Certificate

Secchia Institute for Culinary Education

Baking & Pastry Arts Certificate
Baking & Pastry Arts Advanced Certificate
Culinary Certificate
Culinary Arts Advanced Certificate
Culinary Arts, A.A.A.S.
Hospitality Management Advanced Certificate
Personal Chef Advanced Certificate
Personal/Private Chef Certificate
Restaurant Management, A.A.A.S.

Visual Arts Programs

Fine Arts, A.F.A.
Photography, A.F.A.
Pre-Art, A.A.
Pre-Photography, A.A.
Interior Decorating & Design, A.A.A.S.

Job Training Programs – All Certificate of Completion

Automotive Technician
Computer Support Technician
Green Construction Remodeling
Introduction to Construction
Machinist/CNC Technician
Residential Construction
Welding/Fabrication Technician

Workforce Training Programs – All Certificate of Completion

Medical Assistant
Personal Trainer
Phlebotomy Skills for Healthcare
Deconstruction

Students can prepare to transfer with an AA or AS degree by taking courses in the following disciplines

Anthropology
Architecture
Astronomy
Athletic Training
Biology
Criminal Justice
Digital Animation & Game Design
Economics
Elementary Education
Secondary Education
Engineering
English
Exercise Science
French
Geography
Geology
German
Health Information Management
History
Hospitality and Tourism Management
Human Resources
International Relations
Legal Assistant/Paralegal
Mathematics
Medical Laboratory Science
Natural Resources Management
Nursing (toward a BSN)
Philosophy
Physics
Political Science
Pre-Law
Pre-Medicine (Biological Sciences)
Pre-Optometry (Biological Sciences)
Pre-Physician Assistant (Biological Sciences)
Public relations
Recreation Leadership & Management
Social Work
Sociology
Spanish
Speech Pathology & Audiology
Statistics
Theater
Therapeutic Recreation
Women & Gender Studies
Writing

The following academic programs have formal and specific transfer agreements for students who plan to start at GRCC and transfer to specific institution and study a specific program:

Pre-Business, A.A. (Cornerstone University)
Pre-Business Administration, A.A. (Western Michigan University)
Pre-Exercise Science, A.A. (Cornerstone University)
Pre-Exercise Science, A.A. (Grand Valley State University - Clinical Exercise Science)
Pre-Exercise Science, A.A. (Grand Valley State University – Health Fitness Instruction)
Pre-Master of Architecture, A.A. (Lawrence Technological University)
Architectural Technology, A.A.A.S (Ferris State University – Facility Management)
Music. A.M. (Grand Valley State University)
Music, A.M. (Western Michigan University)
Plastics-Polymer Engineering Technology, A.A.A.S. (Ferris State University - Manufacturing Engineering Technology)
Plastics-Polymer Engineering Technology, A.A.A.S (Ferris State University - Plastics Engineering Technology)
Pre-General Science/Chiropractic (Palmer College of Chiropractic)

Continuing Education/Customized Training Offerings

Advanced Manufacturing Certificate Program
Lean Manufacturing Champion Program
ISO 13485 and 14000 Internal Auditor
TS 16949 Internal Auditor
RJG Master Molder
RUG I Plastics Technician
Lean Administration & Boot Camp
Failure Mode and Effects Analysis
Advanced Product Quality Planning
Production Part Approval Process
Corrective and Preventative Action
Leading Lean/Policy Development
Value Stream Mapping
SS Visual Organization/Visual Controls
Stabilizing for Flow
Mistake Proofing
Continuous Flow: Cell Design and Implementation
Understanding the People Side of Lean
Job Instruction and Standardized

Work/Scientific Method
Designing and Implementing Pull Systems
Lean for High Mix/Low Volume Suppliers
Supply Chain/Purchasing
Measuring and Gaging for Manufacturing
Arc Flash
Permit Required Confined Spaces
Training within Industry Workshops (TWI)
Dental - Nitrous Oxide and Local Anesthesia
Certified Nurse Assistant Testing
Innovation and Design Theory
Networking
Advanced Manufacturing Topics
Good Agricultural Practices
OSHA 30 hour & OSHA 10 hour
Geometric Dimensioning & Tolerancing (GD&T),
 for machine shop mgmt., machinists &
 shop floor basics
GD&T Updates (ASME Y 14.5-2009)
Motorcycle Safety
Career Coaching Certification
On-line Cengage Learning
On-line Pierson Workforce
Concrete Certification
Ironworker Certification
Carpentry 1
Carpentry 2
Core Commercial Construction Program
Mechanical Certification Program
Industrial Sewing
Manufacturing Readiness Program

C. Projected programming changes during the next five years

1. Exercise Science Department

The mission of GRCC's Exercise Science Department is to educate and positively impact the health of students and the community by offering academic coursework, outreach, and practical learning opportunities that promote individual wellness skills and prepare future health, exercise science, and wellness professionals for their future.

The Exercise Science Department (formerly the Wellness Department) has updated and modernized its curriculum from the old PE model into Exercise Science. Recently created and soon-to-be-forthcoming courses in Exercise Science include Introduction to Exercise Science, Group Exercise Instructor Course, Personal Trainer Instructor Course, Concepts in Public Health, Kinesiology, and Advanced Athletic Training, as well as Spinning and Urban Eco-Trek. These courses align to specific job requirements and popular fitness trends, as well as to bachelor's degree programs at our four-year transfer institutions. The Exercise Science Department has recently created a pre-major that is aligned with the exercise science programs at our five major transfer institutions, as well as specific articulation agreements with Grand Valley State University (our number one transfer institution). Formal articulation and 2+2 agreements have been finalized with Cornerstone and Western Michigan University, and we are finalizing a formal agreement with Aquinas. In addition to offering transfer curricula, the Exercise Science Department offers professional certifications (e.g. Spinning, Yoga, Pilates, Personal Training, and Group Exercise) to persons currently practicing in the field, and its courses meet the Wellness graduation requirement that all GRCC degree-seeking students must meet.

The popularity of and need for Exercise Science majors and professionals is rapidly increasing. For example, Exercise Science majors at GVSU have increased by 400% in the last 5 years and are increasing rapidly across the nation. The U.S. Bureau of Labor Statistics estimates that in 2020, there will be a 24% increase in fitness trainers and instructors, a 39% increase in physical therapists, a 30% growth in athletic trainers, a 28% growth in exercise physiologists, and a 29% growth in cardiovascular rehabilitation technicians. Exercise science degrees often lead students to careers in all the aforementioned fields.

The facility which houses the majority of GRCC's Exercise Science courses, and which serves the College's Police Academy, as well as the required Wellness courses, is the Ford Field House. The most significant shortcomings of the building are lack of appropriate classroom spaces for the new coursework referenced earlier. Several teaching spaces in the building are not ADA compliant. Appropriately equipped and sized classroom space is needed near the College's exercise facilities (e.g. basketball courts, weight rooms, track, etc.). New curricula also require space for a human performance lab that is more sophisticated and spacious than the current room used for this purpose. This lab will also be a resource to our health and science programs.

Problems that impact the usability of this facility include lack of air conditioning, which in summer, when temperatures in the building rise to dangerous levels, can lead to health risks or even all classes in the building being cancelled.

2. Early Childhood Education & Lab Preschool –

The GRCC Education Program serves students pursuing degrees related to Child Development, Paraprofessional Education, and Pre-Professional K-12 Education. The GRCC Lab Preschool is an integral part of the Education and Child Development Associates degree curriculum, providing college students experience working with young children under the supervision of their laboratory instructors, in a model early childhood program.

A primary function of the Lab Preschool is to serve as a real-world laboratory for college students who attend GRCC's Child Development and Education program. Through this pipeline, students gain experience working with children in the Preschool while earning a degree or certification. These students go on to become directors, teachers, paraprofessionals and aides at child care centers, and public school systems. Their skills are in high demand as \$130 million has been allocated to Michigan's preschool system in the last two years, creating a need for more teachers, classrooms and caregivers. Early childhood teaching and care positions are expected to grow from 8 to 12 percent by 2018 in Michigan.

The College currently leases space in the First United Methodist Church for the year-round program. GRCC executive leadership, faculty and staff are working together with community members to enhance and expand the services of the Lab Preschool through the new construction of a state-of-the-art facility. The need for more space in a modern, technologically advanced, and accessible facility is pressing. Having the classrooms and the lab in the same building will provide enhanced opportunities for student learning through observation rooms and shared space to document learning—both the children's learning and the college students' learning.

The goal of the Laboratory Preschool construction project is to enhance preschool programming; create early childhood education learning opportunities for students, expand the number of at-risk children and their families being served; and provide continuing education for educators and child care providers in our community. Over the last two and a half years, an average of nearly 900 students per year express a desire to pursue careers in Child Development, Elementary Education, or Secondary Education. These programs directly affect the availability of quality child care in our community and the access to college for students to begin their preparation to be elementary and secondary teachers. A classroom for students in these programs would be housed in the new building.

As a leader in promoting quality, the GRCC Lab Preschool was one of the first to receive a five STAR rating, the highest possible, in the newly implemented state of Michigan Total Quality Rating and Improvement Scale. The program is also accredited through the National Association for the Education of Young Children (NAEYC). The GRCC Laboratory Preschool engages each child's interests and personal gifts in a carefully planned environment with opportunities to explore language arts, music and movement, creative arts, science, and math activities. The program serves children from 6 weeks to 6 years of age from 6:30 a.m. to 6:00 p.m., five days a week. The children who currently attend the Lab Preschool and their families will greatly benefit from expansion of Lab Preschool facilities as adequate security, outdoor space, meeting rooms, and access to early childhood education materials and training would be enhanced.

We are pleased and excited to report that successful private fundraising has allowed us to move forward with this project. Formal project planning is recently complete and construction on this new facility will begin in spring of 2016.

3. GRCC's Music Program

One of only twenty-five community college music programs accredited by the National Association of Schools of Music (NASM), and the only community college music program in Michigan that is accredited by that organization, GRCC's Music Program has a long history of excellence.

The GRCC Music Program offers the Associate of Music Degree with emphasis in Music Education, Music Performance, Music Merchandising, and Recording Technology. The Music Program has recently added a Digital Audio Specialist Certificate to its offerings. GRCC's Music Program also prepares students to pursue Music Therapy degrees from four-year universities. In recent years, the Music Program has served nearly 200 music "majors" annually. Several music courses also meet GRCC's general education requirements and are taken by the broader student population.

The Music Program is housed in the Music Center, a brick and masonry structure that was constructed in 1922 as a physical education building. The building continued to be used in its original purpose first by Strong Junior High School and then Grand Rapids Junior College until 1976 when the College's Ford Field House was completed. The building stood vacant for three years until it was determined structurally sound for conversion into other educational uses. Renovation work began in September 1979, and was completed in August 1980 allowing the Music Department to move into its newly adapted, but substandard facility.

Problems that impact the very usability of the current facility include the lack of an ADA compliant entryway and main office, the lack of fire suppression, the lack of adequate security systems to prevent theft and to maintain student safety, and the lack of adequate climate control to preserve instruments.

From a curricular standpoint, the most significant shortcomings of the building are sound contamination among all rooms, an inadequate number of practice rooms, and an inadequate performance space created from the old gymnasium.

The addition of more student spaces for studying and collaborating, as well as more faculty gathering space, would create greater collaboration, shared learning, and faculty-student interaction in the building.

GRCC's Music Building needs major renovations in order to offer students a learning environment experience commensurate with the quality of the curriculum that is offered, and one that allows for ongoing curricular improvements. Renovations are also needed to recruit students whose high school facilities were far superior to those they find at GRCC.

We are pleased and excited to report that private fundraising and project development planning are nearly complete, and the long-needed major renovation of GRCC's Music Building will begin in spring of 2016.

4. Student Services

GRCC Student Services continues to realign and implement changes to the support services and programs that provide the greatest value and benefit for the changing needs of the prospective, new and returning students, as a priority. The college strives to transition and advance the service systems, operations and processes to provide a student experience that is high touch, high tech and highly engaging with a focus on student persistence, transfer and completion. The use of continuous improvement practices have led to staffing support reorganization, process streamlining, leveraging technology resources, and services integration. These improvements have also included the adjustment of existing space to accommodate a more responsive and accountable personalized service and learning environment. The goal is to continue to identify process improvement opportunities that increase student satisfaction, maintain quality and value, reduce response time on outbound and inbound student follow-up, maximize user-friendly self-service features, and increase engaging student contacts. These improvements require continued assessment of the service space, and possible renovations, to accommodate self-service technologies, one-stop student service experiences, and multi-purpose support space use to meet student expectations. The current and future visioning and planning is toward moving and aligning services in a proximal and central location to improved student navigation and access. This also provides greater networking opportunities for staff when assisting students. Today's students require multiple contacts, strong and clear communication, and intentional engagement to support their learning and educational goals. All this is necessary to keep pace with the changing and diverse students we serve. The service support systems for the future must closely link services. This linkage will allow us to maximize existing staff capacity, align for access and consistency, and collaborate across service units. These types of changes deliver a welcoming and inclusive experience, just in time

support, and ensure a student success focused approach when students are inquiring, starting, persisting and completing their educational and career goals.

5. Academic Foundations Program (AFP)

AFP is geared to meet the needs of under-prepared students enrolling at GRCC. This population continues to increase along with their demand for support. GRCC is entering the final year of a significant grant award of nearly \$2 million from the U. S. Department of Education Title III program. The program focuses on helping developmental education students who enroll in college without the skills necessary to be successful college students, stay in college and graduate with a degree. The program utilizes a FastTrack to College Readiness approach to assist eligible students gain the skills necessary to bypass developmental education. The program is offered in the College Success Center and has been offered to high school seniors in select high schools. FastTrack is offered in all Grand Rapids Public Schools high schools. An average of 5,300 GRCC students fall into the developmental category each year. The College will institutionalize these efforts as the Title III grant comes to an end. The needs during the next five years will be to align the College Success Center with intake and advising services. Currently the Center is located on the DeVos Campus and students must go from one campus to the other in order to be served. Additionally, all students taking the Accuplacer placement exam will be required to attend a brush up session prior to taking the placement exam. These workshops will be offered by the College Success Center staff.

Both academic instruction and support services are needed for students to gain the skills necessary to be successful and complete their educational plans. The needs of the AFP students and program success factors are being addressed by a cross-college steering committee. Serving the increased number of students and their diverse needs is a challenge we face. The program requires intentional and focused resources for these students. The College Success Center, funded by Title III and the College, is an example of the intentional and focused resources being put into this work. The College has identified this program as one of the key priorities and has developed specific strategies to address the needs of the students so they can achieve success.

5. Manufacturing

The West Michigan region continues to experience a resurgence in manufacturing. This growth has impacted the classrooms, equipment, and laboratory usage of our facilities. With employer support, GRCC continues to be asked to create additional trainings and programs in this discipline to meet the needs of their projected workforce. Also of note is the recent awarding of a \$3.9 million grant from the federal government to GRCC and Macomb Community College. This collaborative partnership will bring approximately 600 new apprenticeships to the state, with manufacturing being one of the industries of focus.

6. Distance Learning & Technology

GRCC is currently involved in several efforts to build the quality of its Distance Learning program. The Academic Governing Council (AGC) recently passed new Standards for Online Teaching and a policy on mandatory orientation for online students. The implementation of the mandatory orientation is being guided by a College Action Project team. These quality improvement efforts are critical since approximately 15% of Fall credits and 38% of summer credits are offered in an online or hybrid format.

We use the Blackboard Course Management System both for our online courses and to support face-to-face courses. All of our lecture classrooms are outfitted with multimedia systems (computer, ceiling mount projector, switching equipment, and speakers). Five classrooms are outfitted as "Learn Labs" to include three projectors, content capture technology and powered tables for student use. All of these efforts are supported by the Distance Learning and Instructional Technologies office to help faculty make creative and thoughtful use of technology - in class, outside of class, and in distance learning.

According to Higher Learning Commission's "Best Practices for Electronically Offered Degree and Certificate Programs", the institution "assures adequacy of technical and physical plan facilities including appropriate staffing and technical assistance, to support its electronically offered programs." The increase use of technology for distance learning as well as to support face-to-face instruction continues to grow. This includes not only the infrastructure, facilities, and hardware, but it also includes office space to support the systems and furthermore the space to ensure effective faculty professional development can take place that is appropriate to the curriculum.

Faculty members are creating many ways to use innovative tools to support student learning such as social media, podcasts, blogs, student editing on a notebook computer, review sessions via computer, and various student multimedia presentations. Technology is allowing us to provide learning materials in multiple ways to meet the various learning needs of our widely diverse student body. A student can attend class in person, go home and use the notes and a podcast of the lecture to review the learning, and communicate with the professor and other classmates via Blackboard. Faculty are thinking together about what learning is best done face-to-face and what learning can be done very well online. This influences how we use space and what kind of space we need. Our on-ground space has been re-structured to better accommodate small group work, dialogue, and student presentations – activities that work well face-to-face.

Grand Rapids Community College understands that opportunities for students to learn are not confined to traditional classrooms. Recent renovations and innovations have taken advantage of opportunities to make more of the campus conducive to active learning. These learning environments improvements include state of the art furnishings that meld comfort with function. Appreciating that students are likely to use mobile devices, tablets, iPads, and even pencil and paper to review assignments, the institution

has increased the number of formal and informal spaces that allow for group and individual study in a range of modalities. Hallways have been broadened and brightened; electrical outlets are abundant; built-in banquette seating arrangements are now a part of the institutional interior-scape.

7. Learning Technology on Campus

The entire campus is wireless. All full-time faculty have computers that are used in both their offices and the classrooms. Classrooms are being renovated to allow flexible use of space and easy use of multimedia technology to support learning. All lecture classrooms are outfitted with computers and multimedia capacity. Two classrooms at the DeVos Campus and three classrooms on the Main campus are designed as Learn Labs with multiple projectors, content capture functionality, powered tables for student use and a room configuration that allows diverse learning experiences without rearranging furniture. Additionally, over the next several years, all classroom instruction equipment will be upgraded to support high-definition video.

D. New Academic Programs

New academic programming to meet local training and education needs include:

- **Health Care and Human Services Programming**

GRCC will continue to expand its healthcare programs in collaboration with area employers and other community colleges. We currently house six credit programs (LPN and ADN Nursing; Dental Hygiene and Dental Assisting, Radiologic Technology, and Occupational Therapy Assistant) and one non-credit program (Medical Assistant) in healthcare in our newly renovated Cook Hall. With increased demand for certified nursing assistants, home health aides and mental health workers, GRCC plans to offer accelerated trainings in these areas to meet regional demand.

- **Advanced Manufacturing**

GRCC was recently awarded \$4.1 million in partnership with the Michigan Coalition for Advanced Manufacturing (total \$24.9 million with eight other Michigan community colleges). The goal of this collaborative grant is to build capacity at the Michigan community colleges, to meet the needs of the manufacturing sector for skilled employees now and in the future. The four areas of focus for this work includes:

• Job Sector	• % of employers citing need for talent
• CNC Machining	• 41%
• Welding/Fabrication	• 34%
• Multi-Skilled Technician	• 30%
• Production Operations	• 23%

(Data from June, 2013 survey of 1,212 employers, 69% return rate (837))

- Manufacturing Readiness**
 This is a new 40 hour training program to give basic manufacturing and employability skills for entry level manufacturing jobs. This program was developed with employer partners from the west Michigan Discover Manufacturing employer group.
- Certified Production Technician (CPT)**
 CPT is a new 180 hour training program that results in the Manufacturing Skills Standards Certification CPT. This program was developed with Lansing Community College and local members of the west Michigan Discover Manufacturing Program.
- Industrial Sewing**
 Industrial sewing is a new program that was developed with a 2014 \$20,000 startup grant from the JP Morgan Chase Foundation. In 2015 JPMorgan Chase has granted GRCC \$41,000 to scale up the sewing program. Three cohorts have completed training and the Haworth Corporation has given GRCC the use of their facilities for additional lab space. GRCC is also one of the founding community colleges in the Michigan Industrial Sewing Consortium. This consortium is working with employers to create a standardized certification for industrial sewing. Members of the consortium include: Henry Ford Community College, St. Clair Community College, Lansing Community College and the Detroit Garment Workers.
- Advanced Automotive Technology (i.e. alternative fuels and hybrid technology)**
 GRCC will continue to expand its program content in automotive technology to meet employer demand. Advisory committee members made up of community employers in automotive are asking for graduates with competencies in alternative fuels including diesel and hybrid technology. Training in these areas is incorporated into both our certificate and Associate's degree program in automotive technology. Students in our Automotive Technology program surpassed the national pass rate by 20% on all eight sections of the NA3SA (National Automotive Student Skills Standards Assessment Certification Exam), an industry recognized certificate.
- Information Technology including Information Security**
 IT program development is ongoing at GRCC due to the ever changing requirements of the industry. Working with area employers and as part of a community college consortium with Northwestern Michigan College and West Shore Community College, GRCC is working to create programs that lead to IT certifications necessary for work within our region. It is vital to our state that students are current in their knowledge of technology within their discipline and related fields.
- Brewmaster Certificate**
 The Craft Brew Certificate will begin offering courses in Winter of 2016. With the construction of a brew pub on campus (connected to the Heritage, GRCC's high-recognized restaurant serviced by students in the GRCC Secchia Institute of Culinary

Education), GRCC will become the first college in the country to house a pub on campus as a laboratory for students to learn both brewing processes, as well as the operations side of the business. The college, through a generous grant from the state of Michigan and contributions from private donors, was able to invest nearly \$1 million to create the brewery for the program which will provide students with training on relevant equipment that is consistent with components used by industry partners.

- **Construction**

In partnership with the employer led Construction Workforce Development Alliance, GRCC has created five new programs to meet the needs of over 400 construction firms and subcontracting organizations. The certification programs built are Concrete Certification, Core Commercial Construction, Ironworker Certification, Carpentry 1 and Carpentry 2. These programs not only were built with employer partners, but employers co-teach these courses to bring field experiences into the classroom.

- **Pre-Major Programs in the Liberal Arts**

Departments are creating curricular pathways for students who intend to transfer. Some of these are general pre-major programs, designed to facilitate transfer to most senior institutions. Others are articulated pre-major programs, designed in partnership with university faculty members to ensure transfer into a particular program at a particular college.

E. Unique Characteristics of GRCC's Instructional Program

1. Center for Teaching Excellence (CTE)

The Center is the central source for faculty professional development at GRCC. The CTE strives to promote student learning and success by providing faculty with resources and opportunities designed to help them realize their full potential as teachers.

Organizationally, the CTE works collaboratively with Distance Learning and Instructional Technologies, and Experiential Learning (Study Away, Academic Service Learning, and Honors) to support faculty as they implement innovative pedagogical approaches. In terms of programming, the CTE offers workshops on a variety of teaching and learning topics, coordinates College-wide events such as Faculty Learning Day and the Great Teachers Seminar, and maintains a library of "self-help" resources for faculty. The CTE also administers a New Faculty Program that provides a comprehensive orientation and 10-month Institute required for all full-time faculty members new to the College.

2. Partnerships with Business and Industry

GRCC has active partnerships with business and industry in each of our Workforce Development departments as represented by 23 advisory committees comprised of over 400 industry representatives. Each committee is responsible for reviewing discipline specific curricula to ensure it meets today's high demand, high skill, and high

wage workforce needs that GRCC aims to serve. GRCC works collaboratively with industry to provide opportunities for students that include paid internships, co-operative learning, guest presentations, and industry specific career fairs.

GRCC continues the partnership with area employers in manufacturing to meet the needs for a trained workforce through the Advanced Manufacturing Partnerships, or AMP. This initiative provides students tuition free training while working within the industry to earn an Associate's degree in Manufacturing. This is an excellent example of community college and industry partnerships that is aligned with the sector focus of the Michigan Economic Development Corporation as well as our regional employers and economic development partners such as West MichiganWorks! and The Right Place.

3. Academic Outreach

The mission of GRCC's Academic Outreach department is to expand quality academic partnerships, academic programs, and student support services that encompass high school initiatives, adult education, and off campus operations. In all, we offer college coursework and/or student support services at 18 off-campus sites, plus the Lakeshore Campus in Holland. The off-sites are a creative alternative bringing educational opportunities closer to the homes of the students and help in the transition to get a higher education degree. The ultimate goal is to assure accessible and affordable education to our constituents in order to help students be successful in life. A new dual enrollment differential tuition rate was approved by the Board of Trustees in 2014 for early college/middle college students taking their college course(s) offered at the high school.

The underlying principles are: offer the most popular classes and classes that fulfill the Michigan Transfer Agreement (MTA) in locations other than the downtown campus; to offer dual enrollment, early college and/or middle college experiences to high school students deemed prepared to take college courses; and to deliver adult education in communities that most need ESL. With this strategy we are meeting the vision, mission, and ends of our institution. In order to achieve this we are partnering with different school districts throughout our service areas. The school districts are providing additional resources for students (such as computer labs, networking connections, student lounge, etc.) and GRCC is increasing the number of classes and the services (such as counseling, tutoring, reference librarian, etc.) as needed.

4. Community Partnership Programs

Community partnerships allow central city residents to participate in GRCC programs and services at an easily accessible site and continue to be one of GRCC's successful models. Through ESL and Citizenship initiatives, GRCC has helped adult citizens become better educated and ultimately contribute to the economic well-being and vitality of the Kent County area.

In addition to adult education partnerships the college is an active partner with high school partnerships that focus on central city students. GRCC is a post-secondary partner in the Grand Rapids Foundation Challenge Scholars program and in Grand Rapids Public School's Believe 2 Become program. These partnerships focus on the first generation, low income student that may not consider a college experience otherwise and provide educational opportunities and supports to see these students access and succeed in college.

5. Tassell M-TECsm Center; Grand Rapids

This center provides new partnership opportunities with local and regional County employers. The M-TEC offers learning opportunities in a variety of flexible formats that include traditional semesters, degree programs, short-term job training programs, open-entry/open-exit, customized training for employers, on-line learning options, and continuing education programs. A Kellogg Foundation Pathways for Success project, Michigan Coalition for Advanced Manufacturing grant and a Pathways to credentials grant serve the community from this location offering career coaching, job developers and occupational assessments to meet employer and community. Program offerings continue to expand to meet the learning needs of employers, students and the community.

6. Lakeshore Campus, including the Thompson M-TECsm

The Lakeshore Campus is serving individuals and employers in Ottawa County and the surrounding area, and serves approximately 1000 students. The Lakeshore Campus is a distributive campus and has partnerships with Grand Valley State University at their Meijer Campus, the Ottawa Area Intermediate School District at their Careerline Tech Center, West Ottawa Public Schools at their North High School, and Midtown Center in downtown Holland. The campus includes the Patrick A Thompson M-TEC as one of its main hub of operations. GRCC offers four associate degrees and a variety of certificates and student services at its Lakeshore Campus.

7. K-12 Relations and Transition

GRCC visits over 70 regional high schools each year to inform students about the community college's opportunities and planning process. The intentional engagement and communication includes elementary, middle and high school, and is accomplished through activities that connect with teachers, counselors, parents, and prospective students. A Counselor Advisory Group has been recently formed which represents a cross section of local high schools (geographic, type of school, size, etc.) and is convened to provide feedback to improve GRCC's, admissions, enrollment, financial aid, services and communication processes. Each spring GRCC hosts a counselor breakfast which is usually attended by over 50 counselors representing 40 schools in the region. At this meeting, the new program and initiatives to support transition into higher education are highlighted.

The various GRCC Academic Departments are active in building relationships with K12 partner schools, students, teachers and parents. The engagement promotes student college exposure, transition experiences and overall familiarity with college opportunities in the future. These include Foreign Language Week, Culinary Etiquette Dinner for 5/6th and 7/8th graders, STEM for 5th – 8th grade girls, Forensic Chemistry Camp, water analysis projects with high school students, and 9th and 10th grade mathematics competition, as a few highlights. Faculty and staff are open to ideas and build programs that may focus on their disciplines or service area to support and promote the community college educational value and benefits for the K12 student's future.

GRCC continues a partnership with Grand Rapids Public Schools (GRPS), to pilot a high school completion program with a college readiness emphasis. The program is targeted at students who have already stopped out of high school, and is delivered in a non-traditional format, preparing students for successful transition to GRCC. This program is called Grand Rapids Learning Center and is held on GRCC's campus.

GRCC has a partnership with Wyoming Public Schools as the post-secondary choice for their Wyoming Middle College (entering its fourth year) and with Cedar Springs Public Schools for their Cedar Springs Middle College program (entering its first year). The vision of the middle college partnership is to provide an opportunity for eligible students to earn both a high school diploma and an associate of arts degree in four years. Middle College students begin in their sophomore year and complete the program at the end of their 13th year. The College has also entered into multiple partnerships with other area high schools to provide an early college experience and concurrent enrollment courses at the high schools. These are college courses, taught by college faculty, with a high school cohort that may earn dual enrollment credit. GRCC is in conversation with other school districts to add a middle college program at their high school.

GRCC's Child Development and Education program is working with the Kent Intermediate School District's Kent Transition Center. This includes working closely with the development of a yearlong course that will be offered for articulated credit for our CD 105 – Foundations of Early Childhood. This partnership serves a challenging population that might not otherwise be reached.

For the last several years the Child Development and Education program has had a strong partnership with Grand Rapids Public Schools Early Childhood program. This relationship was strengthened by two Early Reading First grants that we worked in collaboration on. One element of this relationship includes shared Great Start School Readiness classrooms. With Grand Rapids Community College gaining funding for these classrooms more children and families in the heart of the city are being served.

Currently we have two classrooms at the Gerald R. Ford Academic Center that are funded in this manner. In addition, we are able to use these classrooms for our CD 118 – Human Growth and Development class as observation sites.

8. Focus on Lifelong Learning

GRCC focuses on lifelong learning, comprised of offerings through Older Learner Education Program, Staff Development, Diversity Learning Center, and the Continuing Education/Professional Development department within the Training Solutions Unit.

F. Economic Impact

GRCC has a long history of providing programs and services that contribute to the economic vitality of our community, region and state. In addition to the partnerships and programs already identified, GRCC provides education and training opportunities that assist individuals increase their earning potential, and assists employers with workforce training needs. We work diligently to leverage local, state, and federal government funding, to equip a skilled West Michigan workforce to be ready to compete in emerging job sectors. For example:

- \$700,000 Kellogg Foundation Pathways to Success grant program
- \$75,000 Pathways to Credentials grant program
- \$24.9 million/\$4.1. million (GRCC) Michigan Coalition for Advanced Manufacturing with eight other community colleges
- \$20,000 Industrial Sewing JP Morgan Chase Foundation
- \$41,000 Industrial Sewing Scale Up & Logistics Program Exploration JP Morgan Chase Foundation 2015
- Michigan Skill Trades Training Fund Customized Training Projects, \$357,309.01 (18 projects in 2014-15)
- State of Michigan, Secretary of State's office, Motorcycle Safety Foundation grants \$165,070
- Michigan New Jobs Training Programs for Employers
- West Michigan WorkReady Communities Leader
- Economic Development grants for business and industry

GRCC leads the State in administering the Michigan New Jobs Training program. The ten employers currently participating in the program (Autocam, Farmers Insurance, Fogg Filler, Founders, Haworth, Johnson Controls Power Systems, LG Chem, Pridgeon and Clay, Smooth Logics, and Transmatic) will bring more than 6,710 new jobs to the West Michigan area, as well as launch new industries for future economic expansion

Additionally, as defined and outlined in section 230 of Public Act 196 of 2014, the Local Strategic Value Resolution was adopted by the GRCC Board of Trustees on September 21, 2015. In this resolution, GRCC provided the examples of best practice in the required categories. The resolution is included as Appendix A.

Section 3 – Staffing and Enrollment

A. Student Profile

Credit Enrollment (headcount)

A total of 14938 students were enrolled in credit classes for Fall 2015: 30.3% full time, 69.7% part time. This number is down from 15,719 students during Fall 2014. The breakdown of enrollments from Fall 2015 by academic program for both fulltime and part-time students is presented in Appendix B.

In addition to traditional classes offered through our Grand Rapids Campus (Main and DeVos), both the Thompson and Tassell M-TEC Centers, and our Lakeshore and Regional centers, distance learning opportunities were available through interactive TV courses, cable TV, web-based Internet courses, and through the Michigan Community College Virtual Learning Consortium for a total of 5226 enrollments (duplicated). The distance learning options currently available to students are scattered throughout all academic programs and are not concentrated in any particular area.

Non-Credit Enrollment (headcount)

From July 2014 to June 2015, a total of 16905 participated in learning opportunities through Training Solutions, Non-Credit Apprenticeships, or Job Training (duplicated).

B. Projected Enrollment for Next Five (5) years

Credit Enrollment (headcount)

The National Center for Education Statistics projects that undergraduate enrollment in public colleges will grow by 13% between 2007 and 2018. Since this is our 5th year of declining enrollments, GRCC is projecting a flat enrollment (0 percent growth annually) for the time period 2013 – 2019.

(<http://nces.ed.gov/programs/projections/projections2018/sec2c.asp>).

Table 1 presents additional enrollment growth projected due to new programming. The projected total student fall headcount for credit programming is 15408 in 2020-2021, up 3.1% from 2015-2016 levels.

Table 1
Projected Fall Credit Enrollment for 2016-17 to 2020-21

Year	Projected credit enrollment based on flat enrollment	Additional enrollment due to new programs	Total Projected Enrollments
2016-2017	14938	235	15173
2017-2018	14938	470	15408
2018-2019	14938	470	15408
2019-2020	14938	470	15408
2020-2021	14938	470	15408

Non-Credit Enrollment (headcount)

Non-credit enrollments in the areas of Training Solutions are projected to decline 3% in 2015-2016 due to the ending of grant funding in a particular area. Enrollment will then remain at the reduced level for each of the next four years. Job Training enrollments are also not projected to increase. Non-credit Apprenticeships are projected to increase slightly each year. Total projected headcount for clients served through non-credit programming in 2019-2020 is 16381(duplicated) as seen in Table 2.

Table 2
Projected Non-Credit Enrollment for 2015-2016 to 2019-2020

Year	Training Solutions (Duplicated)	Job Training	Non-Credit Apprenticeship	Total Projected Enrollments
2015-2016	15927	202	233	16362
2016-2017	15927	202	237	16366
2017-2018	15927	202	242	16371
2018-2019	15927	202	248	16377
2019-2020	15927	202	252	16381

C. Enrollment Patterns for Previous Five (5) Years**Credit Enrollment (Headcount)**

Table 3 presents credit enrollments for fall and winter semesters for the past five years. Overall, fall enrollment has decreased 12.3% with a gain in 2010-11 followed by four years of enrollment declines. Winter enrollment has decreased 18.9% over the same five year span with a similar pattern.

Table 3
Credit Enrollment Counts for Fall and Winter Semesters, 2010-2011 to 2014-2015

Year	Fall	% Change	Winter	% Change
2014-2015	15719	-5.4	14757	-6.4
2013-2014	16613	-4.7	15767	-7.5
2012-2013	17426	-1.0	17040	-2.3
2011-2012	17601	-1.8	17448	-3.8
2010-2011	17920	5.5	18142	5.1

Non-Credit Enrollment (Headcount)

Table 4 shows the non-credit enrollment history for the past five (5) years.

Table 4
Non-Credit Enrollment for 2010-2011 to 2014-2015

Training Solutions (Duplicated)			Job Training		Non-Credit Apprenticeship	
Year	Number	% Change	Number	% Change	Number	% Change
2014-2015	16470	-1.1	202	0.1	233	10.4
2013-2014	16652	-1.0	200	-16.0	211	18.5
2012-2013	16822	36.9	238	-10.2	178	29.0
2011-2012	12291	39.1	265	-24.3	138	-20.7
2010-2011	8838	8.6	350	-2.8	174	-27.5

D. Instructional Staff/Student Ratios and Administrative Staff/Student Ratios

Table 5 provides instructional staff to student ratios for Fall 2015. Please note that this ratio includes full-time faculty only (no adjunct faculty).

Table 5
Instructional Staff to Student Ratios for Fall 2015 (Credit)

Year	Number of Full-Time Instructional Staff	Number of Students Enrolled in Credit Programs	Ratio
Fall 2015	250	14938	1 to 59

Table 6 provides the ratio of administrative staff to students for Fall 2014.

Table 6
Administrative Staff to Student Ratios for Fall 2015 (Credit)

Year	Number of Administrators	Number of Students Enrolled in Credit Programs	Ratio
Fall 2015	50	14938	1 to 299

E. Projection of Future Staffing Needs

Table 7 provides a projection of future staffing needs over Fall 2015 actual staffing levels, due to enrollment patterns and programming changes. (Cumulative) (Assumes additional instructional needs would be covered by fulltime faculty rather than adjunct faculty.)

Table 7
Projected Future Staffing Needs Over Fall 2015 Levels (Cumulative)

Year	Projected Number of Additional Enrollments Credit	Projected Number of Additional Enrollments Non-Credit	Projected Number of Additional Full-Time Instructional Staff	Projected Number of Additional Administrative and Support Staff
Fall 2016	55	9	1	<1
Fall 2017	60	13	1	<1
Fall 2018	65	18	1	<1
Fall 2019	70	22	1	<1
Fall 2020	75	27	1	<1

F. Current and Projected Average Class Size

Table 8 provides information on average class size for students enrolled in credit courses. The projected average class size for Fall 2016 and beyond is 23.1 students.

Table 8
Average Class Size

Year	Total Number of Lecture Sections	Average Number a Students Per Section
Fall 2015	1751	22.9
Fall 2014	1911	22.8
Fall 2013	2062	22.8
Fall 2012	2142	23.5
Fall 2011	2238	23.3

Section 4 - Facility Assessment

A. Summary Description of Each Facility:

Administration Building is a two story 20,340 square-foot office building with a basement and attic housing the Office of the President, Finance and Administration, Human Resources, Payroll, Purchasing, Staff Development and Communications.

Building Type: 100% Office

Applied Technology Center is a three-level, 187,822 square-foot academic building housing GRCC technology and culinary arts programs as well as Ferris State University Grand Rapids' programs. It has one level of parking beneath levels 1 through 3.

Building Type: 5% Office; 2% Auditorium; 28% Classroom; 40% Laboratory Classrooms; 25% parking garage

Bostwick Parking Structure is a six-level, 2,500 space parking facility. A 16,000-square-foot area of Level One is built out and finished office space.

Building Type: 3% Office; 97% Parking Garage

Bungalow (Carriage House) is a two story with basement, 3,370 square foot house. The facility is inadequate for use due to room size and non-ADA compliance. It has been used as a training facility for police academy search tactics.

Building Type: 100% Storage

Calkins Science Center is a five-level, 134,000-square-foot academic building housing GRCC Physical and Biological Sciences department classrooms, laboratories, offices, and auditorium.

Building Type: 10% Office; 2% Auditorium; 30% Classroom; 58% Laboratory Classrooms

Chiller Plant is a two-level, 4,000-square-foot building housing mechanical equipment serving numerous campus buildings.

Building Type: 100% Service

College Park Plaza is a six-story, 48,913 square-foot building housing faculty offices for seven academic departments, the College Foundation and the Grants office. In addition it has a 19,050 square-foot covered and open deck parking area. This is a LEED certified building.

Building Type: 62% Office, 38% Parking

Cook Academic Building is a seven-story, 133,255 square-foot instructional facility with two levels of parking below. Two floors are dedicated to Nursing and Allied Health classrooms and labs, and three floors are general purposes classrooms primarily used by Math, English and Business. The building also houses four academic support tutoring labs. This is a LEED certified building.

Building Type: 5% Office; 16% laboratory; 49% Classroom; 30% Parking Garage

Education/Pre-School is a 4,000 square-foot learning lab housed in a local church.

Building Type: N/A

Ford Field House is a three-level, 74,319-square-foot building housing a multipurpose gymnasium/arena, fitness center, the Athletic Department, and aerobic studio.

Building Type: 70% Gymnasium; 25% laboratory Classroom; 5% Office

Ford Pool is a four-level, 44,000-square-foot building housing a competitive swim pool, racquetball courts, and weight training room.

Building Type: 100% Gymnasium

Learning Resource Center is a two-level, 74,000-square-foot building housing the college library, tutoring services, media services, and the Diversity and Older Learner centers.

Building Type: 60% library; 40% Office

Lettinga Center is a 6,585 square foot building consisting of 2-levels and a basement. It was formerly a home which was used by the previous owner for additional office space for faculty and staff.

Building Type: 100% Office

Lyon Street Parking Structure is an eight-level, 750-space parking facility. A built-out area of the facility houses the College's Facilities Office and the Campus Police Department.

Building Type: 6% Office; 94% Parking Garage

Mable Engle House is a 12,620 square foot, 3-level with basement home. The facility is used for office space for Institutional Research, Labor Relations and General Council.

Building Type: 100% Office

Main Building is a seven-level, 210,000-square-foot building containing mostly classrooms. Several administrative, departmental, student services offices, and a Lake Michigan Credit Union branch office occupy the building as well.

Building Type: 15% Office; 3% administrative; 72% Classroom; 10% Service

McCabe-Marlowe House is a three-level, 5,400-square-foot hospitality house in a historic district of Grand Rapids near the main campus.

Building Type: 100% Hospitality

Music Center is a three-level, 35,000-square-foot building housing the Music Department offices, classrooms, recital hall, practice rooms, and laboratories.

Building Type: 7% Office; 40% Classroom; 40% Music lab; 13% Auditorium

Practice Field Service Building is a 700-square-foot, one-level service building supporting the College's practice field.

Building Type: 100% Service

Sneden Academic Hall is an 88,820 square foot, 3 story building with a basement. The first floor houses the Student Success Center, the Information Technology department, conference rooms and student gathering spaces. The remaining two floors are general purpose classrooms.

Building Type: 85% Classrooms, 5% Auditorium, 5% Cafeteria and 5% Office

Sneden Hall Parking Deck is a two story parking 71,770 square foot parking facility. Additionally, it has one small office.

Building Type: 99% Parking, 1% Office

Spectrum Theater is a three-level, 33,000-square-foot building housing the Theater Department and a portion of the Culinary Arts Program.

Building Type: 30% Auditorium; 3% Office; 3% Classroom; 64% Laboratory Classroom

Stewart E. White Hall is a 20,380 square foot, 3 story office facility with a basement. The facility was previously renovated from a historical residence to an office building and is LEED certified.

Building Type: 100% Office

Student Center is a three-level, 65,000-square-foot building housing the bookstore, food service, Student Life, and other student services departments.

Building Type: 60% Office; 25% Dining Hall; 10% Classroom; 5% Auditorium

Tassell M-TECsm is a two-level, 82,000-square-foot technical training center located off campus on the southwest side of Grand Rapids.

Building Type: 5% Office; 30% Classroom; 65% Laboratory Classroom

Thompson M-TECsm is a one-level, 32,000-square-foot technical training center located in Holland, Michigan, on the campus of the Ottawa Area Intermediate School District (OAISD)

Building Type: 6% Office; 30% Classroom; 74% Laboratory Classroom

B. Building and/or Classroom Utilization Rates:

NOTE: The data below reflects credit course utilization only. Classrooms and instructional spaces are also used for related lab activities, non-credit training and workshop activities, specialized labs and academic support services, meetings, and community partnership initiatives. Most GRCC courses run Monday through Thursday with labs and meetings on Friday. Classrooms are also used for FastTrack training activities, New Student Orientation and Information Literacy course.

GRCC Building Percent Capacity
Fall 2015 Count Date

Percent Capacity										
Data:	Peak Mon- Fri 10:00 - 3:00		Off-Peak Mon - Fri 7:45 - 10:00am		Off-Peak Mon - Fri 3:00 - 5:00pm		Evenings Mon - Fri 5:00 - 10:00 pm		Weekends Saturday 7:30am - 6:00pm	
	% of rooms	% seats	% of rooms	% seats	% of rooms	% seats	% of rooms	% seats	% of rooms	% seats
<u>Building:</u>										
ATC	33.3	51.7	28	40	16.8	33.6	32.7	48.8	.7	2.1
Cook Hall	57.3	72.9	34.9	62.1	40.1	70.1	21.6	49.5		
Ford Field House	36.5	51.4	19.4	50.7	9.4	28.5	10.3	51.5		
Main Building	57.3	78.8	28.3	71	36.7	66.5	26.1	59.8		
Music Building	32.1	46.1	19.3	50.2	19.5	44.4	6.3	25.6		
Calkins Science Ctr	42.6	76.5	26.5	63.1	27.1	57.9	19.9	54.5	6.3	11.1
Snedden Hall	58.8	80.4	33	78.7	30.8	52.5	24.7	53.5		
Spectrum Theater	26.5	60.8	31.7	38.1	23.1	48.6	27.1	40.8		
Tassell MTEC	11.1	17.4	9	17.9	8.4	11.6	19.1	29.1		
TOTAL	45.1	65.9	28.1	56.9	28.2	53	23.5	49.9	1.3	2.4

Source: GRCC R25 Data

C. Mandated Facility Standards

GRCC must uphold the following facility and/or accreditation standards:

NCA	North Central Association (all programs)
OSHA	Occupational Safety and Health Administration (all programs)
NLNAC	National League for Nursing Accrediting Commission
ADA	American Dental Association
ACOTE	American Occupational Therapy Association
ARRT	Radiologic Technology
ACF	American Culinary Federation
NASM	National Association of Schools of Music
MCOTC	Michigan Corrections Officer Training Council
NASAD	National Association of Schools of Art and Design
NAEYC	National Association of the Education of Young Children

D. Functionality of Existing Facilities and Space Allocation to Programs Served

1. The facility which houses the majority of GRCC's Exercise Science courses, supports the Police Academy and serves the required student Wellness course needs, is the Ford Field House. The most significant shortcomings of the building are lack of appropriate classroom space for the new coursework referenced in section two. Appropriately equipped and sized classroom space for these courses is needed near the College's exercise facilities (e.g. basketball courts, weight rooms, track, etc.). New curricula also require space for a human performance lab that is more sophisticated and spacious than the current room used for this. Problems that impact the usability of this facility include lack of air conditioning, which in summer, when temperatures in the building rise to dangerous levels, can lead to health risks and even all classes in the building being cancelled. Furthermore, several teaching spaces in the building are not ADA compliant. Renovations are needed to bring the facility to current ADA accessibility standards, address life safety issues, code compliance, energy management, plumbing, electrical and mechanical systems.
2. The Education Lab Preschool currently operates from leased space in a nearby church. While we have a good relationship with the church, the need for more space in a modern, technologically advanced, and accessible facility is pressing. The Lab Preschool serves the community by immersing children in a best-practice learning environment. Children, students, and parents seek out the Lab Preschool for its inclusive, nurturing environment, parent resources, and evidence of leading early childhood education. Due to the growth of the program, the church facility is bursting at its seams which will limit the growth and effectiveness of the program now and into the future if no changes are made. With this awareness, the W.K. Kellogg Foundation graciously supported a grant for GRCC to partner with planners and designers to facilitate a process of inquiry, visioning, and conceptualization for a state-of-the-art lab preschool. Community engagement was foundational throughout this process, and thereby students, staff, faculty, parents, community educators, and leaders shared what they believe is needed for a facility of this caliber. This broad spectrum of beneficiaries reaffirmed current practices, identified needs, and envisioned what GRCC can do to become an internationally recognized, premier center of excellence. We are pleased and excited to report that successful private fundraising has allowed us to move forward with this project. Formal project planning is recently complete construction on this facility will begin in spring 2016.
3. GRCC's Music Program is one of the premier Community College programs in the country, and the entire music building is in need of renovation for classroom and rehearsal spaces. The music department is housed in the Music Center, a brick and masonry structure that was constructed in 1922 as a physical education building. The building continued to be used in its original purpose until 1976 when the Ford Field House was completed. The building stood vacant for three years until it was determined structurally sound for conversion into other educational uses. Most recent renovations to the facility occurred 25 years ago and the building is now in need of significant work to transform it into a truly appropriate and inspiring music education environment. Grand Rapids Community

College is an accredited member of the National Association of Schools of Music, and offers the Associate of Music degree with emphasis in Music Education, Music Performance, Music Merchandising and Recording Technology. Existing facility conditions are no longer adequate to support the level of quality instruction and programming offered by the department. Exterior improvements are needed for environment protection, HVAC and fire suppression systems are necessary for life safety and asset protection. Sound isolation improvements are needed between classrooms to improve utilization and reduce sound contamination. National Association of Schools of Music standards require a performance auditorium that can accommodate all performance ensembles. The current recital hall is sorely inadequate and in need of ADA improvements. GRCC's Music Building needs major renovations in order to offer students a facilities experience commensurate with the quality of the curriculum that is offered, and one that allows for ongoing curricular improvements. We are pleased and excited to report that private fundraising and project development planning are nearly complete, and the long-needed major renovation of GRCC's Music Building will begin in summer of 2016.

4. The final renovations of Cook Academic Hall were completed in summer 2014 with the full remodel of floors two and three. The design elements that were introduced on the first floor in 2007 are now evident on every floor in the building, and additional features have been added! Students now have great new classrooms, transparency & access to natural light, places to gather and work between classes, academic support labs that support individual and group study, small meeting areas, improved restroom facilities, elevators and life safety systems. The building is now adequate to serve students well into the future.
5. The Main Building is a 1920's vintage building. This seven-story historical facility houses classrooms and labs for academic programs from both Arts and Science and Workforce Development. The building also houses the crucial front-line student services that support admissions and enrollment, financial aid, cashiers, student employment services, records and veteran services. Historically, these were stand-alone services functioning in separate office locations. New student service models combine services to more efficiently and effectively meet the needs of students. Significant renovations to the student service areas in this facility are needed to appropriately support the new service models. In addition to academic classrooms and student services, the building is home to the Center for Teaching Excellence, which supports faculty; GRCC Printing and Graphics operations; faculty and administrative offices; food service operations and a Lake Michigan Credit Union branch. The facility has recently undergone bond funded infrastructure renovations to improve HVAC, fire protection and lighting. And, thanks to a private donor, a portion of the second floor has been renovated to house the Meijer Center for Business Studies. However, remaining floors are still in need of renovations and upgrades to the physical space to match the quality of learning environments students now experience in other campus facilities.

6. The Student Center currently houses Counseling and Career Services, Disability Support Services and the Academic Testing Center, as well as Student Life, the campus bookstore and food service areas. Although the facility has recently undergone bond funded infrastructure renovations to improve HVAC, fire protection and lighting, the spaces within the facility are still inadequate for expanding services and operations that function from this facility.
7. The Learning Resource Center houses the Library and Learning Commons, Academic Support programs, tutoring services, the Woodrick Diversity Learning Center, Media Technologies and a few general purpose classrooms. This facility is open to students seven days a week during fall and winter semesters. The facility is in need of electrical upgrades and panels, transformers, restroom enhancements to comply with ADA requirements, interior doors; lighting and control systems; HVAC air handling units and energy management systems.
8. The expansion of IT and IT services will require infrastructure improvements across campus as well as expanded space for technical maintenance, equipment repair, storage, staff offices and student support areas.
9. The Applied Technology Center (ATC) houses programs and offices for both GRCC and Ferris State University. Ferris State University is a one-third partner in the ATC. The increase in enrollment, expansion of non-credit job training programs, and development of new programs is increasing the need for additional, larger classroom space in the ATC. Additionally, demand for lab Machine Tool Lab for traditional courses, apprentice training and customized employer programs has reached capacity.

E. Replacement Value of Existing Facilities

See attached Facility Assessment, Appendix C.

F. Utility System Condition

See attached Facility Assessment, Appendix C.

G. Facility Infrastructure Condition

See attached Facility Assessment, Appendix C.

H. Projected Utilities and Infrastructure Adequacy

Upgrades to the College boiler plant provide adequate growth capability for heating and cooling systems. In general, we have adequate utilities and infrastructure systems for 5-year projected programmatic needs. Exceptions are detailed in attached Facility Assessment, Appendix C.

I. Land Owned, Future Development Capacity

The College owns property on its downtown campus that would allow for expansion and completion of its downtown campus master plan. See attached Master Plan update, Appendix D.

J. Buildings Obligated to State Building Authority

Two GRCC facilities are currently obligated to the State Building Authority:

1. The Calkins Science Center – Lease end date 11/30/2034
2. The Main Building – Lease end date 3/31/2037
3. Cook Academic Hall – Lease end date 8/31/2050

Facility Assessment

5 Year Plan

GRCC contracted with IDS, Inc. in 2015 to complete a full assessment of seventeen facilities to identify capital deficiencies, deferred maintenance needs and prioritize critical areas. The criteria used to evaluate each facility included:

- Site materials and conditions
- Building material/systems and condition
- Building safety provisions
- Barrier-free accessibility
- Equipment and furnishings (evaluated by GRCC)
- Mechanical systems and conditions
- Electrical systems and conditions

An implementation plan to address these deficiencies was then constructed based on the priorities assigned to each facility. The plan identified the priority; item requiring attention; type category, i.e., architectural, mechanical, electrical, etc.; and an approximate cost.

IDS provided detailed spreadsheets for each facility, including square footage, circa year constructed and estimated replacement value. The current documents for each facility are attached. (Appendix C)

Section 5 – Implementation Plan

A. Prioritize Major Capital Projects Requested from the State

GRCC's number one priority for new Capital Outlay funds is renovation of the Ford Fieldhouse. The Ford Fieldhouse is first and foremost an instructional facility. As stated in the GRCC Facility Use Policy, GRCC property, buildings, parking lots and grounds support the mission and purposes of the institution. Spaces within the facility are used day and evening, Monday through Friday for Exercise Science, Wellness and Police Academy instruction. Approximately 70 different sections of credit course work are offered each semester as all GRCC students must complete a one-credit wellness course as a graduate requirement. Plans call for renovations within the Ford Fieldhouse to convert under-utilized space into functional classrooms, accommodate HVAC, electrical, plumbing and code compliance requirements. In addition, ADA compliance and significant life safety needs must be addressed throughout the facility

B. Deferred Maintenance Backlog

GRCC's estimated deferred maintenance backlog is approximately \$20.2 million. Projects are listed in order, by building, and prioritized by a scoring system taking into account both the consequences of the problem as well as the need. The consequence of the problem ranks each item in terms of its critical nature. This ranges from the most critical items that are considered to be a hazard to life, health, or safety, to the least critical, such as a condition that reduces the functional utility of the facility or results in extensive energy consumption. The need of the problem ranks each item from the most critical, those that if not accomplished, will result in serious and irrevocable loss or damage, to those that are desirable or necessary to improve handicap accessibility. The resulting sum of these two factors results in the overall priority score, where the lowest numerical number relates to the highest priority.

Two additional evaluation categories that are not included in the overall priority score, but may still be used as a determining factor, are frequency of use and whether or not an item may represent a savings in energy consumption when replaced and/or corrected.

The impact of the deferred maintenance can range from urgent (leaking roofs) to efficiency upgrades in our HVAC systems. Programmatic impact would occur due to failure of roof systems, HVAC systems or electrical systems.

See attached Facility Assessment, Appendix C.

C. On-going State Building Authority Projects - None at this time.

D. Planned Expenditure Rate of Return

As reported on the Use and Finance Bi-annual report, GRCC has recently completed a three-year bond funded capital improvement effort. The improvements made as part of this effort are expected to generate significant savings due to energy efficiency improvements and reduction in the deployment of maintenance resources.

E. Alternatives to New Infrastructure

We are continually working with faculty to increase and enhance our online and hybrid offerings. We also continue to partner with our K-12 school districts to offer college courses in their regions. For fall 2015, we are offering courses in Byron Center, Grandville, Kent City, Lowell, Rockford, the Kent Career Technical Center, Wyoming (Middle College program) and our Ottawa County Lakeshore Campus sites.

F. Major Maintenance Items in Excess of \$1 Million, 2015-2019

(See attached Facility Assessment – Appendix C)

1. Ford Fieldhouse infrastructure renovations are required to accommodate HVAC; electrical; plumbing and code compliance requirements. In addition, ADA compliance needs to be addressed in both men and women restrooms and locker rooms throughout the facility. Interior doors; paneling; and ceiling tiles need upgrades and fire alarm/suppression needs must be addressed.
2. The Music Center requires major infrastructure renovations to classrooms; HVAC systems such as, air handling units and energy management systems; electrical and plumbing upgrades; updated life safety compliance; exterior brick sealing; acoustical abatement; and elevator upgrades to comply with ADA requirements. Renovations to this facility are scheduled to begin in spring 2016, funded by private gifts and college funds.
3. Ford Natatorium requires major electrical work ranging from lighting and panel boards to high voltage entry service gear. Interior doors require replacement; life safety issues such as, emergency lighting and fire alarm/suppression need to be addressed. HVAC issues regarding air handling units, energy management system, and exhaust fans require upgrades. Men and women restrooms and locker rooms need plumbing upgrades ADA code compliancy.
4. Learning Resource Center renovation would include electrical upgrades and panels, transformers, restroom enhancements to comply with ADA requirements, interior doors; lighting and control systems; HVAC air handling units and energy management systems.
5. The Main building requires stairwell upgrades to become code compliant. The existing roof membrane is at end of life cycle and the freight elevator required upgrades to remain code certified. Infrastructure replacement is needed for sanitary and storm lines and exterior emergency lighting does not meet code.

G. Non-routine Maintenance

Parking Ramp repairs are budgeted at \$547,105 per year, and paid for from College auxiliary funds (parking revenue from student parking).

At a regular meeting of the members of the Board of Trustees (the "Board") of Grand Rapids Community College, Michigan (the "College"), held at the College on September 21, 2015

PRESENT: Trustee Bailey, Trustee James, Trustee Stewart,
Trustee Vorburg, Trustee Bristol, Trustee James, Chairperson Blete

ABSENT: _____

The following preamble and resolution were offered by Trustee Bristol, and seconded by Trustee Bailey:

Whereas the Grand Rapids Community College is a community college duly constituted under Act 331 of the Michigan Public Acts of 1966, as amended ("Act 331");

And Whereas the State of Michigan, through Public Act 85, Section 230 (2) of the Michigan Public Acts of 2015 has indicated that the appropriation noted in Section 201(2) of the same Act shall be allocated to each community college that certifies to the state budget director, through a resolution adopted by a board of trustees, that the college has met 4 out of 5 best practices listed in each category described in Section 230, subsection (3);

NOW, THEREFORE, BE IT RESOLVED by the Board of Trustees of the Grand Rapids Community College:

The Board hereby certifies that the College has met all 5 of the best practices described in Public Act 85, Section 230, subsection (3) and offers the following examples of practices currently in place at the College in order to demonstrate compliance;

Best Practices by Category	Examples of Adherence
Category A: Economic Development and Business or Industry Partnerships (must meet 4 of 5)	
(i) The community college has active partnerships with local employers including hospitals and health care providers.	GRCC currently has 42 signed partnership agreements with local partners and 140 signed clinical agreements with medical and dental professionals in the region.
(ii) The community college provides customized on-site training for area companies, employees, or both.	GRCC has provided customized training to 54 companies through 526 classes reaching 4,462 people during the past fiscal year. In addition, 583 companies were served through continuing education and professional development.
(iii) The community college supports entrepreneurship through a small business	GRCC supports small businesses in west Michigan by offering several offerings such as a small business

Best Practices by Category	Examples of Adherence
assistance center or other training or consulting activities targeted toward small businesses.	accounting certificate, 20 on-line classes through ed2go that range from QuickBooks to how to build a lean staffing plan, and continuing education offerings in personal networking, social media use and many other titles. GRCC partners with the West Michigan Small Business Development Center, hosting classes and offering support in training and assessment.
(iv) The community college supports technological advancement through industry partnerships, incubation activities, or operation of a Michigan technical education center or other advanced technology center.	The College operates two technical education centers. The Tassell MTEC is located in Grand Rapids and offers hands on training programs in manufacturing, automotive repair, construction trades, sustainability and deconstruction, medical assistant, personal trainer, renewable energy and concrete and iron worker training. The Tassell MTEC, at the request of industry partners, has also added training in industrial sewing, as the sewing industry makes a resurgence in West Michigan after a noticeable absence. The Thompson MTEC is located in Holland and operated in partnership with the Ottawa Area Intermediate School District. This center also plays host to several training programs mentioned above.
(v) The community college has active partnerships with local or regional workforce and economic development agencies.	GRCC has active partnerships with a number of local and regional workforce and economic development agencies, including West Michigan Works, The Right Place, The Source, Talent 2025, Hello West Michigan, Michigan Manufacturing Technology Center- West, and the Michigan Manufacturing Association.
Category B: Educational Partnerships (must meet 4 of 5)	
(i) The community college has active partnerships with regional high schools, intermediate school districts, and career-tech centers to provide instruction through dual enrollment, concurrent enrollment, direct credit, middle college, or academy programs.	GRCC currently has more than 60 active partnerships in place with regional high schools, intermediate school districts, and technology centers. We also have 20 active early college/middle college partnerships in place.
(ii) The community college hosts, sponsors, or participates in enrichment programs for area K-12 students, such as college days, summer or after-school programming, or science Olympiad.	GRCC hosts and cosponsors a number of events and programs for area K-12 students including the Latino Youth Conference which encourages West Michigan 8 th graders to strive for educational excellence and to look beyond high school to higher education. Planned educational connections are offered on campus and at local schools to provide experiences in 9 th and 10 th grade challenges in mathematics, skilled trade camps, skillsUSA state competitions, Global Leaders Program, Forensic Chemistry Camps, STEM awareness event for 5 th -8 th grade girls, business programs and careers, To College Through

Best Practices by Category	Examples of Adherence
(iii) The community college provides, supports, or participates in programming to promote successful transitions to college for traditional age students, including grant programs such as talent search, upward bound, or other activities to promote college readiness in area high schools and community centers.	<p>College initiative (TCTC), and arts outreach programs.</p> <p>GRCC sponsors an Upward Bound program servicing 88 9th through 12th grade students annually.</p> <p>The College also partners with Grand Rapids Public Schools to operate the Grand Rapids Learning Center. This high school credit recovery program is housed on the GR campus, allowing students to experience college campus life while completing high school requirements. Students also have the ability to be dual enrolled and many graduate from high school with college credits earned.</p>
(iv) The community college provides, supports, or participates in programming to promote successful transitions to college for new or reentering adult students, such as adult basic education, GED preparation and testing, or recruiting, advising, or orientation activities specific to adults.	GRCC provides an ESL program to support adult learners.
(v) The community college has active partnerships with regional 4-year colleges and universities to promote successful transfer, such as articulation, 2+2, or reverse transfer agreements or operation of a university center.	<p>GRCC currently has six reverse transfer agreements as well as 18 articulated programs with other institutions.</p> <p>GCC offers 24 transfer pathways for students which are outlined in our academic catalog as program offerings. These pathways can be separated into the following categories, with the number of each indicated in parenthesis:</p> <ul style="list-style-type: none"> • General Pre-Majors (9) • Articulated Pre-Majors (12) • Pre-Professional Programs (3)
Category C: Community Services (must meet 4 of 5)	
(i) The community college provides continuing education programming for leisure, wellness, personal enrichment, or professional development.	GRCC provides 691 continuing education courses serving approximately 14,234 members during the 2014/2015 fiscal year.
(ii) The community college operates or sponsors opportunities for community members to engage in activities that promote leisure, wellness, cultural or personal enrichment such as community sports teams, theater or musical ensembles, or artist guilds.	GRCC held 5 separate visual art events in the Collins Art Gallery. GRCC also participated in the Grand Rapids ArtDowntown event by offering a student exhibition in the Collins Art Gallery. Both the Collins Art Gallery and Spectrum Theater have been venues for ArtPrize since its inception. Fourteen separate productions were

Best Practices by Category	Examples of Adherence
	presented in GRCC's Spectrum Theater, and 39 separate musical recitals or concerts were held in campus or local facilities. GRCC also sponsors the Kent Philharmonic Orchestra, a community ensemble. All arts events and performances are open to the community.
(iii) The community college operates public facilities to promote cultural, educational, or personal enrichment for community members, such as libraries, computer labs, performing arts centers, museums, art galleries, or television or radio stations.	GRCC operates the Collins Art Gallery and held 5 separate visual arts shows last year, including participation in Grand Rapids ArtDowntown. GRCC's Spectrum Theater, is home not only to the College's Theater program, but also three community theater groups: Actor's Theater, Jewish Theater Grand Rapids and Heritage Theater. Both the Collins Art Gallery and Spectrum Theater have been venues for ArtPrize since its inception. The GRCC Music Center provides rehearsal space for the Grand Rapids Choir of Men and Boys, the Schubert Male Chorus, the Grand River Winds, and the West Michigan Flute Ensemble. Our Applied Technology Center Tutorial and Open Computer Lab, along with the Sneden Open Computer Lab, provided over 50 programs and served more than 4,100 students and community members last year. Programs included: Phlebotomy Skills for Healthcare, PC Basics, Fast Track and On Track sessions, OLC Senior Community Club, Empco Testing for Police Academy, 25Live User Training, AFP Learning Day, Upward Bound, and Tutorial Labs and Study Groups.
(iv) The community college operates public facilities to promote leisure or wellness activities for community members, including gymnasiums, athletic fields, tennis courts, fitness centers, hiking or biking trails, or natural areas.	GRCC operates a gymnasium, a fitness center and an aquatic facility that are all open to the public. GRCC also maintains a large green space and a walking/running track that are also available for community use.
(v) The community college promotes, sponsors, or hosts community service activities for students, staff, or community members.	GRCC's Department of Experiential Learning supports faculty in the integration of service learning into academic courses. During the 2014-2015 academic year 44 faculty teaching 60 sections provided service learning to 506 students. Examples of current projects include: the Mobile Application Development and Security course partnered with the Grand Rapids Festival of the Arts to create a mobile application allowing event patrons to learn about the event happenings, students in the Table Service course created a fundraising event benefiting the Make a Wish Foundation, partnering with Hospice of Michigan, students in the Introduction to Journalism course wrote a series of stories to educate the public and document the lives of those who seek hospice services, students in the Introduction to computer Programming

Best Practices by Category	Examples of Adherence
	course worked with 5 th grade students at Orchard View Elementary on the fundamentals of coding, students in the Community Transcultural Nursing course partnered with North End Community Ministry to assess their food pantry needs primarily focused on health promotion and disease prevention intervention

Adopted this 21st day of September, 2015

YEAS:

NAYS:

CERTIFICATION

I hereby certify that the forgoing is a true and complete copy of a resolution adopted by the Board of Trustees of the Grand Rapids Community College, County of Kent, State of Michigan, at a meeting held on September 21, 2015, the original of which is on file in my office and available to the public. Public notice of said meeting was given pursuant to and in compliance with the Open Meetings Act, Act No. 267 of the Public Acts of Michigan of 1976, including in the case of a special or rescheduled meeting, notice by posting at least eighteen (18) hours prior to the time set for said meeting.

GRAND RAPIDS COMMUNITY COLLEGE

State of Michigan

By: 

Chairperson, Board of Trustees

Countersigned:

By: 
Secretary, Board of Trustees

Appendix A
GRCC Fall 2015 Enrollment by Program Plan—Full-Time and Part-Time

Plan No.	Description of Major	CIP Code	Full-time	Part-time	All	% of Total
000	Undecided	00.0000	355	861	1216	8.15%
003	Early College Enrollment	24.0000	2	681	683	4.58%
006	Liberal Arts, General	24.0101	66	134	200	1.34%
007	Transfer/Other	24.0101	1840	2838	4678	31.34%
011	Assoc of Science (011)	24.0101	209	255	464	3.11%
101	Business Admin, Trf	52.0101	192	212	404	2.71%
102	Bus Administration	52.0201	216	453	669	4.48%
108	Computer Applications, Cert	11.0201	0	4	4	0.03%
109	Computer Applications Tech	11.0201	7	30	37	0.25%
112	Office Administration	52.0402	13	65	78	0.52%
116	Marketing, Cert	52.1801	0	1	1	0.01%
120	Child Development	19.0708	52	167	219	1.47%
121	Fashion Merchandising	52.1902	10	20	30	0.20%
122	Interior Decorating & Des	50.0408	25	37	62	0.42%
125	Marketing	52.1801	43	75	118	0.79%
127	Management & Supervision	52.0201	49	102	151	1.01%
128	Accounting	52.0302	83	143	226	1.51%
131	Infant & Toddler, Cert (131)	19.0708	0	5	5	0.03%
133	Preschool, Cert (133)	19.0708	0	1	1	0.01%
135	Digital Prepress Cert	09.1001	0	1	1	0.01%
136	Digital Prepress	50.0402	1	2	3	0.02%
143	Unix Sys Admin, Cert	11.9999	0	2	2	0.01%
144	Digital Graphic Communications	50.0402	10	34	44	0.29%
146	Comp Info Sys-Application Software	11.0202	4	16	20	0.13%
147	Comp Info Sys-Network Admin	11.1002	48	116	164	1.10%
149	Comp Info Sys-Programming	11.0201	55	110	165	1.11%
150	Information Security	11.1003	15	17	32	0.21%
151	Culinary Arts	12.0503	130	197	327	2.19%
152	Corrections	43.0102	21	39	60	0.40%
153	Juvenile Services	43.0102	20	62	82	0.55%
154	Addiction Studies, Cert	34.0104	2	17	19	0.13%
155	Culinary Mgmt, Assoc.	12.0504	21	36	57	0.38%
156	Baking & Pastry Arts, Cert	12.0501	4	31	35	0.23%
157	Culinary Arts, Cert (157)	12.0503	1	9	10	0.07%
158	Personal Chef	12.0501	1	2	3	0.02%
160	Web Design/Development	11.1004	19	56	75	0.50%
162	Web Design/Develop, Cert	11.1004	1	6	7	0.05%
163	Web Technical Support Cert	11.1004	0	2	2	0.01%
165	Computer Supp Specialist (165)	11.1006	7	15	22	0.15%
170	Entrepreneurship	52.0701	8	10	18	0.12%
180	Child Development (180)	19.0706	3	28	31	0.21%
201	Art, Trf	50.0701	25	40	65	0.44%
206	Music Education: Instrumental	13.1312	19	15	34	0.23%
207	Music Education: Choral	13.1312	7	5	12	0.08%

208	Music Performance: Instrumental	50.0903	8	7	15	0.10%
209	Music Performance: Voice	50.0908	15	12	27	0.18%
210	Music Perform: Piano/Organ	50.0907	2	1	3	0.02%
211	Music Merchandising, Trf	50.0909	2	2	4	0.03%
212	Recording Tech, Trf	50.0999	26	31	57	0.38%
215	Digital Audio Spec, Cert (215)	10.0203	0	1	1	0.01%
220	Assoc of Music (220)	50.0901	2	2	4	0.03%
250	Photography	50.0605	14	36	50	0.33%
251	Fine Arts	50.0702	28	39	67	0.45%
305	Radiologic Tech	51.0907	0	41	41	0.27%
321	Assoc Deg Nursing-Incomplete	51.1601	112	326	438	2.93%
322	Dental Assisting-Incomplete	51.0601	3	10	13	0.09%
323	Practical Nursing-Incomplete	51.1613	22	93	115	0.77%
324	Dental Hygiene-Incomplete	51.0602	31	99	130	0.87%
325	Radiological Tech Incomplete	51.0907	25	104	129	0.86%
328	OTA Incomplete	51.0803	26	74	100	0.67%
329	ADV Stand Nurs-Incomplete	51.1601	1	23	24	0.16%
331	Adn - Ready	51.1601	13	118	131	0.88%
332	Da - Ready	51.0601	21	22	43	0.29%
333	Pn - Ready	51.1613	6	43	49	0.33%
334	Dh - Ready	51.0602	1	9	10	0.07%
335	Rt - Ready	51.0907	2	23	25	0.17%
338	Ota - Ready	51.0803	0	10	10	0.07%
339	Ads - Ready	51.1601	1	13	14	0.09%
340	Occupational Therapy Assistant	51.0803	1	53	54	0.36%
361	Assoc Deg Nursing-In Class	51.1601	1	132	133	0.89%
369	ADN Adv Stand Nurs-InClass	51.1601	1	38	39	0.26%
371	Pract Nurs, Cert-In class	51.1613	1	62	63	0.42%
394	Dental Hygiene, FT	51.0601	63	1	64	0.43%
395	Dental Assisting, Cert. PT	51.0601	0	1	1	0.01%
396	Dental Assisting, Assoc PT	51.0601	0	5	5	0.03%
402	Journalism, Trf	09.0401	10	24	34	0.23%
420	Paraprofessional Education	13.1501	8	15	23	0.15%
450	Pre-Computer Info Sys (450)	24.0101	6	7	13	0.09%
452	Pre-Computer Science (452)	24.0101	9	9	18	0.12%
530	Pre-Psychology (530)	24.0101	26	22	48	0.32%
605	Pre-Master Architecture (605)	24.0101	1	2	3	0.02%
610	Arch Tech-FSU-Fac Mgmt (610)	04.0901	5	4	9	0.06%
612	Pre-Construct Mgmt-FSU (612)	24.0101	6	8	14	0.09%
631	Music-WMU (631)	50.0903	9	0	9	0.06%
632	Pre-Business Admin-WMU (632)	24.0101	4	2	6	0.04%
640	Pre-Ex Sci-Cornerstone (640)	24.0101	1	0	1	0.01%
646	Pre-GenSci-Chirop-Palmer (646)	24.0101	1	1	2	0.01%
651	Chemical Technology	41.0301	9	17	26	0.17%
652	Landscape Management	01.0605	3	3	6	0.04%
661	Music-GVSU (661)	50.0903	2	1	3	0.02%
662	Pre-ExSci-ClinExSci-GVSU (662)	24.0101	21	32	53	0.36%
663	Pre-ExSci-HFitInstr-GVSU (663)	24.0101	19	15	34	0.23%

701	Chemistry, Trf	40.0501	26	15	41	0.27%
797	Manufac Eng Tech, FSU Trf	15.0607	5	15	20	0.13%
798	Plastics Tech, FSU Trf	15.0607	12	9	21	0.14%
808	Law Enforcement	43.0107	61	125	186	1.25%
809	Law Enforcement-Police Academy	43.0107	1	26	27	0.18%
817	Gerontology	19.0702	0	8	8	0.05%
819	Police Academy, Cert (819)	43.0107	2	8	10	0.07%
847	MCCVLC Student	24.0000	1	7	8	0.05%
848	Guest Student	24.0000	11	197	208	1.39%
849	Career Exploration	12.0000	0	6	6	0.04%
850	Personal Interest, Non-Degree	12.0000	24	365	389	2.61%
900	Technology Option	15.9999	2	11	13	0.09%
903	Electr Controls Eng Tech (903)	15.0406	6	27	33	0.22%
904	Mechanical Design	15.1306	30	75	105	0.70%
905	Architectural Design	04.0201	7	11	18	0.12%
906	Electronics Tech	15.0303	20	57	77	0.52%
908	Tooling & Mfg Tech	48.0503	15	101	116	0.78%
912	Air C, Ref, Ht Tech	15.0501	14	42	56	0.38%
918	Industrial Maintenance Tech Cert	47.0303	0	14	14	0.09%
919	Industrial Tech, Cert	47.0303	0	4	4	0.03%
920	Tooling & Mfg, Cert	48.0503	4	9	13	0.09%
921	Auto Servicing, Cert	47.0604	8	21	29	0.19%
922	Automotive Technology	15.0803	38	108	146	0.98%
923	Electric Cont/Mech, Cert (923)	15.0406	0	8	8	0.05%
924	Air C, Ref, Ht, Cert	47.0201	5	22	27	0.18%
925	Architectural Technology	15.1303	9	21	30	0.20%
926	Electronics Svc, Cert	47.0199	5	10	15	0.10%
927	Photography, Trf	50.0605	6	8	14	0.09%
928	Mechanical Design, Cert	15.1306	0	8	8	0.05%
931	Welding, Cert	48.0508	3	24	27	0.18%
932	Welding Technology	48.0508	15	49	64	0.43%
935	Plastics Mfg Tech	15.0607	4	22	26	0.17%
939	Quality Science	15.0702	3	36	39	0.26%
940	Quality Science, Cert	15.0702	0	3	3	0.02%
945	Plastics Mfg Tech, Cert	15.0607	0	2	2	0.01%
950	Apprenticeship Option	47.9999	0	24	24	0.16%
954	Manufacturing Apprentice Cert	47.0000	0	343	343	2.30%
985	Industrial Maintenance Tech	47.0303	4	47	51	0.34%
	Grand Total		4493	10433	14926	100.00%



GRAND RAPIDS COMMUNITY COLLEGE
GRAND RAPIDS, MICHIGAN

5-YEAR CAPITAL OUTLAY PLAN

IDS Project No. 15150-1000

September 2015



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Overview

Integrated Design Solutions LLC (IDS) was commissioned by Grand Rapids Community College (GRCC) to conduct a facility assessment of twenty-five (25) structures at GRCC for the purpose of updating the 5-Year Capital Outlay Plan. The survey was conducted between July 15, 2015 and August 31, 2015. Each facility was thoroughly surveyed with the assistance of GRCC building engineers and supervisory personnel, and historical data.

The following report compiles a list of all deficient building, mechanical, electrical and life safety items that, in our professional opinion, would require replacement, enhancement and/or repair within the next five years in order to meet the goals of preserving the assets of each facility. Itemized deficiencies were not meant to change the facilities specific layouts or functions. Items excluded from the report include site amenities, utility tunnels, furnishings, window treatments, leased and tenant areas except for the base building systems that serve these areas. The IDS survey team consisted of senior level individuals with extensive knowledge in each of the facility categories surveyed.

The IDS survey team evaluated each deficiency discovered during the survey and assigned an overall score based on two factors, the consequences of the problem and the need. The consequence of the problem ranks each item in terms of its critical nature. This ranges from the most critical items that are considered to be a hazard to life, health or safety to the least critical, such as a condition that reduces the functional utility of the facility or results in extensive energy consumption. The need of the problem ranks each item from the most critical, those that if not accomplished, will result in serious and irrevocable loss or damage, to those that are desirable or necessary to improve handicap accessibility. The resulting sum of these two factors results in the overall score, where the lowest numerical number relates to the highest priority.

Deficiency priority is based on the lower of the two scoring numbers. For example, a deficiency scoring a one (1) under consequence and a three (3) under need will receive a priority of one (1).

Deficiencies for each facility are summarized first by priority, with priority one (1) items first followed by score.

Approximately 4.42 percent of the deficiencies were classified as priority one (1), 13.09 percent were classified as priority two (2), 61.20 percent as priority three (3) and 21.29 percent as priority four (4).

Deficiency costs were summarized for all facilities and it was determined that approximately 3.92 percent were of a high score (a numerical score of 4 or less). These deficiency items are those considered to be a hazard or potential for interruption of essential services and are of a critical or urgent need.

Approximately 71.72 percent of all deficiency costs for all facilities are of a moderate score (a numerical score from 5 to 7). These deficiency items generally include conditions causing premature deterioration and are necessary, but do not have an urgent need.

The remaining 24.36 percent of all deficiency costs for all facilities have the lowest score (a numerical score from 8 to 10). These deficiency items generally include conditions that may reduce the functional utility of a facility or result in excessive energy consumption and are considered to have a desirable need.

Two additional evaluation categories that are not included in the overall priority score, but may still be used as a determining factor, are frequency of use and whether or not an item may represent a savings in energy consumption when replaced and/or corrected.

Scope of Report

This report consists of the following information:

- An executive summary of all buildings, with respective deficiency costs, current replacement value and facility condition index outlined.
- General information related to the report parameters and methodology.
- Minimum code and barrier free requirements.

For each building, the following information is provided:

- A brief description of the present use and vital statistics of each building.
- A summary and detailed narrative description of the major findings related to the building deficiencies for the following elements and systems where applicable:
 - Roof
 - Building Enclosure
 - Interior Finishes
 - HVAC
 - Plumbing
 - Fire Protection
 - Temperature Controls
 - Primary Power
 - Secondary Power
 - Electrical Distribution
 - Lighting
 - Code/Barrier Free
- A spreadsheet listing each deficiency organized by the priority score of the item with cost estimates to correct each of the identified deficiencies extrapolated out for the next five years.
- A graphic chart displaying the percentage of deficiency cost broken down the priority score.
- Photographs that document existing systems and areas of deficiencies.

The deficiencies outlined in this report were the result of visual inspections by IDS staff and/or information obtained from College facility and maintenance personnel directly responsible for the respective buildings. The inspections were not intended to be invasive and generally do not include items beyond the surface of floors, walls, ceilings or building systems.

Estimated costs are itemized by architectural, mechanical and electrical trades, and are totaled under Construction Costs and include the following additional mark-ups:

• Design Contingency	5%
• Construction Contingency	10%
• Subcontractor Mark-up	22%
• General Conditions	12%
• Construction Manager Mark-up	2.8%
• Architectural and Engineering Fees	6.5%
Total	58.3%

Estimated costs have been extrapolated through the year 2020 at an inflation rate of 3.5 percent per year. In some cases, due to the nature of the work, quantities were estimated and assumptions made in order to establish the course of action. Further development and investigation during future implementation phases will be necessary to determine a more accurate scope of work and more precise budget estimate.

Findings

The following chart lists the deficiency cost (DC) estimates and current replacement value (CRV) for each building. The facility condition index (FCI) number indicates the level of deficiency for each building. This number is arrived at by taking the deficiency cost and dividing it by the current replacement value. The FCI method was developed by Applied Management Engineering of Virginia Beach, VA and was published in 1991 by the National Association of College and University Business Officers (NCUBO) in *Managing the Facilities Portfolio*.

Building	Deficiency Cost	Current Replacement Value	Facility Condition Index (%)
Administration Building	\$ 395,275	\$ 5,004,000	7.90%
Applied Technology Center and Parking Ramp	\$ 583,949	\$ 75,082,000	0.78%
Bungalow (Carriage House)	\$ 311,669	\$ 1,036,000	30.08%
Calkins Science Center	\$ 222,476	\$ 54,166,000	0.41%
Chiller Plant	\$ 35,143	\$ 9,446,000	0.37%
College Park Plaza and Parking Ramp	\$ 98,007	\$ 13,288,000	0.74%
Cook Academic Building and Parking Ramp	\$ 718,376	\$ 44,767,000	1.60%
Data Center and Bostwick Parking Ramp	\$ 182,719	\$ 54,850,000	0.33%
Facilities Offices and Lyon Street Parking Ramp	\$ 82,627	\$ 27,166,000	0.30%
Ford Field House	\$ 5,803,341	\$ 20,568,000	28.22%
Ford Natatorium	\$ 2,424,050	\$ 12,254,000	19.78%
Learning Resource Center	\$ 1,316,826	\$ 20,464,000	6.43%
Lettinga Center	\$ 734,870	\$ 2,025,000	36.29%
Mable Engle	\$ 814,199	\$ 3,880,000	20.98%
Main Building	\$ 1,261,816	\$ 77,665,000	1.62%
McCabe-Marlow House	\$ 262,041	\$ 1,654,000	15.84%
Music Center	\$ 2,880,241	\$ 12,889,000	22.35%
Practice Field Service Building	\$ 17,666	\$ 170,000	10.39%
Snedden Academic Building	\$ 745,332	\$ 27,312,000	2.73%
Snedden Hall Parking Ramp	\$ 78,169	\$ 7,442,000	1.05%
Spectrum Theater	\$ 235,475	\$ 13,300,000	1.77%
Student Center	\$ 722,375	\$ 21,843,000	3.31%
Tassell M-TEC	\$ 139,067	\$ 30,295,000	0.46%
Thompson M-TEC	\$ 180,209	\$ 11,070,000	1.63%
White Hall	\$ 4,749	\$ 6,267,000	0.08%
Total	\$ 20,250,664	\$ 553,903,000	3.66%

The FCI uses empirical data to benchmark relative measures of conditions on campuses. The FCI values are assessed as follows:

- FCI value less than 5% = Good condition
- FCI value 5% – 10% = Fair condition
- FCI value greater than 10% = Poor condition



Based upon these FCI values, 8 buildings are in poor condition. Ford Field House and Bungalow (Carriage House) have the most immediate need for replacement work, as they have the highest FCI values ranging from 27.55% to 30.08%. These values are primarily driven by the high cost of building and mechanical infrastructure upgrades and equipment replacement costs.

This report recommends system upgrades that are long-term goals campus wide. The FCI values should not be construed as meaning an entire building is deficient, rather, over time, the systems upgrades have not kept pace with comparable facilities of the latest design and engineering.

The charts on the following pages list the building deficiency costs for each building ranked by score and priority.

Conclusions

Overall, the campus wide deficiencies account for approximately 3.66% of the replacement value for all buildings. The total of all deficient items was estimated to be \$20,250,664 in 2015 dollars, including all mark-ups listed in the report.

Management of the facilities portfolio carries with it the stewardship responsibility to preserve the assets and maintain them in a condition that will allow the College to effectively carry out its mission. To achieve this, the College has developed a strategic plan for the preservation of campus buildings. The major barrier to full implementation is funding. Failure to fund, however, does not save money or reduce cost, for only by strategically investing in asset preservation can dollars be saved and costs controlled.

2015 Building Deficiencies Cost Totals by Score

Building	Score									
	1	2	3	4	5	6	7	8	9	10
Administration Building	\$ -	\$ -	\$ 3,166	\$ 72,574	\$ 792	\$ 37,527	\$ 20,765	\$ 43,113	\$ 217,338	\$ -
Applied Technology Center and Parking Ramp	\$ -	\$ -	\$ -	\$ 11,873	\$ 41,158	\$ 443,854	\$ 87,065	\$ -	\$ -	\$ -
Bungalow (Carriage House)	\$ -	\$ -	\$ -	\$ 31,383	\$ 48,202	\$ 92,601	\$ 87,157	\$ 52,326	\$ -	\$ -
Calkins Science Center	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 41,896	\$ -	\$ 180,581	\$ -	\$ -
Chiller Plant	\$ -	\$ -	\$ -	\$ -	\$ 28,019	\$ 7,124	\$ -	\$ -	\$ -	\$ -
College Park Plaza and Parking Ramp	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 59,223	\$ -	\$ 31,660	\$ 7,124	\$ -
Cook Academic Building and Parking Ramp	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 204,148	\$ 20,421	\$ 493,807	\$ -	\$ -
Data Center and Bostwick Parking Ramp	\$ -	\$ -	\$ -	\$ 18,996	\$ 14,051	\$ 115,599	\$ 22,202	\$ 11,873	\$ -	\$ -
Facilities Offices and Lyon Street Parking Ramp	\$ -	\$ -	\$ -	\$ -	\$ 34,266	\$ 23,428	\$ 5,145	\$ 19,788	\$ -	\$ -
Ford Field House	\$ -	\$ 6,332	\$ -	\$ 118,725	\$ 1,349,230	\$ 2,498,892	\$ 410,155	\$ 1,415,234	\$ 4,773	\$ -
Ford Natatorium	\$ -	\$ -	\$ -	\$ 33,876	\$ 295,165	\$ 776,050	\$ 424,094	\$ 889,293	\$ 5,572	\$ -
Learning Resource Center	\$ -	\$ -	\$ 58,571	\$ -	\$ 215,288	\$ 901,708	\$ 36,187	\$ 105,072	\$ -	\$ -
Lettinga Center	\$ -	\$ -	\$ 10,836	\$ 18,675	\$ 37,343	\$ 214,173	\$ 201,437	\$ 218,414	\$ 33,991	\$ -
Mable Engle	\$ -	\$ -	\$ -	\$ 21,766	\$ 6,807	\$ 285,065	\$ 35,127	\$ 26,120	\$ 439,314	\$ -
Main Building	\$ -	\$ 13,060	\$ 11,081	\$ 301,948	\$ 97,228	\$ 609,829	\$ 33,243	\$ 195,428	\$ -	\$ -
McCabe-Marlow House	\$ -	\$ -	\$ -	\$ -	\$ 30,541	\$ 38,119	\$ 18,919	\$ 63,415	\$ 111,047	\$ -
Music Center	\$ -	\$ -	\$ -	\$ -	\$ 76,752	\$ 2,642,189	\$ 161,300	\$ -	\$ -	\$ -
Practice Field Service Building	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 17,318	\$ 348	\$ -	\$ -	\$ -
Sneden Academic Building	\$ -	\$ -	\$ -	\$ 7,915	\$ 84,239	\$ 66,486	\$ 509,773	\$ 26,579	\$ 50,339	\$ -
Sneden Hall Parking Ramp	\$ -	\$ -	\$ -	\$ -	\$ 63,257	\$ 11,667	\$ 3,245	\$ -	\$ -	\$ -
Spectrum Theater	\$ -	\$ -	\$ 8,437	\$ 5,620	\$ 1,615	\$ 188,626	\$ 3,720	\$ 27,457	\$ -	\$ -
Student Center	\$ -	\$ -	\$ 3,166	\$ 3,166	\$ -	\$ 426,005	\$ 204,262	\$ 85,776	\$ -	\$ -
Tassell M-TEC	\$ -	\$ -	\$ -	\$ 8,311	\$ 33,560	\$ 8,073	\$ 57,146	\$ 31,977	\$ -	\$ -
Thompson M-TEC	\$ -	\$ -	\$ -	\$ 24,853	\$ -	\$ 7,978	\$ 792	\$ 146,586	\$ -	\$ -
White Hall	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,749	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ 19,392	\$ 95,257	\$ 679,681	\$ 2,457,512	\$ 9,722,327	\$ 2,342,502	\$ 4,064,495	\$ 869,499	\$ -

2015 Building Deficiencies Cost Totals by Priority

Building	Priority				
	1	2	3	4	5
Administration Building	\$ 91,699	\$ 6,728	\$ 36,397	\$ 260,451	\$ -
Applied Technology Center and Parking Ramp	\$ 14,550	\$ 41,158	\$ 528,242	\$ -	\$ -
Bungalow (Carriage House)	\$ 31,383	\$ 48,202	\$ 191,440	\$ 40,644	\$ -
Calkins Science Center	\$ -	\$ -	\$ 188,600	\$ 33,876	\$ -
Chiller Plant	\$ -	\$ 28,019	\$ 7,124	\$ -	\$ -
College Park Plaza and Parking Ramp	\$ 989	\$ -	\$ 58,234	\$ 38,784	\$ -
Cook Academic Building and Parking Ramp	\$ -	\$ -	\$ 224,568	\$ 493,807	\$ -
Data Center and Bostwick Parking Ramp	\$ 2,337	\$ 30,710	\$ 137,800	\$ 11,873	\$ -
Facilities Offices and Lyon Street Parking Ramp	\$ -	\$ 34,266	\$ 28,573	\$ 19,788	\$ -
Ford Field House	\$ 125,057	\$ 1,349,230	\$ 3,030,938	\$ 1,298,115	\$ -
Ford Natatorium	\$ 24,695	\$ 329,042	\$ 1,252,726	\$ 817,588	\$ -
Learning Resource Center	\$ 58,571	\$ 220,987	\$ 932,197	\$ 105,072	\$ -
Lettinga Center	\$ 35,143	\$ 237,466	\$ 384,492	\$ 77,769	\$ -
Mable Engle	\$ 46,065	\$ 10,210	\$ 292,489	\$ 465,434	\$ -
Main Building	\$ 336,251	\$ 87,065	\$ 643,072	\$ 195,428	\$ -
McCabe-Marlow House	\$ 5,066	\$ 25,475	\$ 71,403	\$ 160,097	\$ -
Music Center	\$ 79,973	\$ -	\$ 2,800,268	\$ -	\$ -
Practice Field Service Building	\$ -	\$ -	\$ 17,666	\$ -	\$ -
Snedden Academic Building	\$ -	\$ 92,154	\$ 576,259	\$ 76,918	\$ -
Snedden Hall Parking Ramp	\$ -	\$ 63,257	\$ 14,912	\$ -	\$ -
Spectrum Theater	\$ 14,057	\$ 1,615	\$ 207,930	\$ 11,873	\$ -
Student Center	\$ 3,166	\$ 4,037	\$ 629,397	\$ 85,776	\$ -
Tassell M-TEC	\$ 8,311	\$ 33,560	\$ 65,220	\$ 31,977	\$ -
Thompson M-TEC	\$ 16,938	\$ 7,915	\$ 68,449	\$ 86,907	\$ -
White Hall	\$ -	\$ -	\$ 4,749	\$ -	\$ -
Total	\$ 894,251	\$ 2,651,095	\$ 12,393,145	\$ 4,312,173	\$ -

GRCC
GRAND RAPIDS COMMUNITY COLLEGE
Downtown Campus Map

Administration Building	17	K-9
Athletic Field/Practice Field	13	G-2
Bostwick Parking Ramp	8	D-5
Student/Visitor Parking		
Calkins Science Center (SCIE)	5	D-1
Carriage House	22	M-9
Child Development	15	G-9
Laboratory Preschool (First United Methodist Church)		
Preschool Playground	15A	G-6
College Park Plaza	1	B-4
Peter and Pat Cook	3	C-4
Academic Hall (COOK)		
Gerald R. Ford Fieldhouse (FORD)	6	D-3
Ford Natatorium	6A	E-2
Learning Center	10	F-4
(Library) (LRC)		
Lettinga House	23	N-9
Lyon Parking Ramp	2	C-2
Student/Visitor Parking Campus Police	2A	C-3
Mable Engle	21	M-9
Main Building (MAIN)	4	C-5
McCabe-Marlowe House	16	I-7
Music Center (MUSC)	9	F-4
Snedden Hall (SNE DEN)	19	L-9
Welcome Center	19A	L-9
Snedden Hall Parking	20	M-8
Student/Visitor Parking		
Spectrum Theater (SPEC)	12	F-7
Student Center (SCC)	7	D-4
Stewart Edward White Hall (White Hall)	18	L-9
Wisner-Botrall Applied Technology Center (ATC)	11	F-5



Facility Assessment Team

Integrated Design Solutions

Robert Kurtz Architectural
 Bruce Snyder Mechanical
 Joseph Robinson Mechanical
 Greg Sell Electrical

Facility Contacts

Grand Rapids Community College

Jim Van Dokkumburg	Facilities	616-234-3978
Joe Milito	Facilities	616-234-4118
Abbot Kastanek	Facilities	616-234-2183
Scott Martin	Facilities	616-234-3495
Dorothy Burns	Energy Manager	
Bryan Wible	Head Construction	616-234-3250
Neal McGladdery	Carpentry	616-540-9171
Steve Schueuer	HVAC	616-234-4221
Hayden Butcher	HVAC	616-234-3410
Wesley Casarez	HVAC	616-234-3949
Martin DeVries	Plumbing	616-234-3479
Oene Pomper	Electrical	616-234-3762
Dave Miles	Electrical (DeVos Campus)	616-451-3511(ext. 1301)
Bryan Wible	Building Manager	
Jimmie Taylor	Electrical	
David Emelander	Building Manager	
Robert Green, Jr.	Building Manager	
Mike Rowe	Building Manager	

Resource Information (Provided by GRCC)

Bostwick Street Parking Structure Repairs Report – 7/2015
 GRCC Roofing Assessment Report – 5/2015

Carl Walker, Inc.
 GRCC Facilities

Assessment Report Format

The following facility assessment reports have been organized by building with items prioritized from the highest to lowest in terms of the priority score comprised of the consequence and need of the problem.

Two additional evaluation categories that are not included in the overall score or priority, but may still be used as a determining factor, are frequency of use and whether or not an item may represent a savings in energy consumption when replaced and/or corrected.

For additional information on the evaluation categories, please refer to the Building Deficiencies Priorities by Category explanation on the following page.

Estimated costs for each item are broken down by architectural, mechanical and electrical trades. The totals are construction costs and include sub contractor and construction manager mark-ups, design and construction contingencies, and architectural and engineering fees totaling 58.3 percent. Total costs are then extrapolated through 2020 by including a 3.5 percent adjustment for inflation for each year.

In some cases, due to the nature of the work, quantities were estimated and assumptions made to establish the course of action. Further development and investigation during the implementation stage will be necessary to determine a more accurate scope of work and a more precise budget estimate. The mark-up percentage may also require adjustment to reflect how a specific project may be performed, such as a smaller project where a construction manager may not be involved or when work is performed by GRCC staff.

Building Deficiencies Priorities by Category

Consequences of the Problem

1. Hazards: Presents hazards to life, health or safety.
2. Interruption: Potential for interruption of essential services.
3. Deterioration: Conditions causing premature deterioration.
4. Utility: Conditions that reduce the functional utility of facilities.
5. Energy: Conditions which result in excessive consumption of energy.

Need

1. Critical: If not accomplished, will result in serious and irrevocable loss or damage.
2. Urgent: If not accomplished, will shortly deteriorate into a Category 1 position.
3. Necessary: If not accomplished, may jeopardize the continued usefulness of the facility.
4. Desirable: All remaining projects necessary to renew or restore the facility.
5. A.D.A.: Projects necessary to improve/meet handicap accessibility needs.

Frequency of Use

1. Constant: Student and public common spaces, central heating plant, etc.
2. Frequent: Offices, dormitories, toilet rooms, parking ramps, etc.
3. Occasional: Classrooms, laboratories, etc.
4. Infrequent: Arenas, auditoriums, storage, etc.
5. Meager: Dead storage. To be repaired only if scheduled for retention and possible reuse. (Do not include unused buildings or those, which are scheduled to be vacated, abandoned, or demolished.)

Code and Barrier Free Requirements

Building and barrier free codes have changed extensively since many of the buildings on campus were constructed. Attempting to apply today's codes to buildings of this era is not always practical, but nonetheless, provides a benchmark to evaluate existing conditions. While there is no code mandated requirement to bring an existing building up to current code requirements, any new or renovation work would be required to meet most current codes. In addition, renovation work involving an excess of 50 percent of the building's area would trigger a total building code update including barrier free. Contributing factors that make current code compliance problematic include limitations imposed by existing infrastructure that may prevent or make code compliance extremely difficult, both physically and monetarily. As a result, it may be necessary to consider equivalent code measures or combinations of code systems to achieve a desired life safety improvement or code compliance objective.

In addition to the Michigan Barrier Free Design Code, which generally comes into play when there is renovation or new work, there are continuing obligations under the Americans with Disabilities Act (ADA) to remove barriers. The ADA is a civil rights act, not a code or standard and therefore, no agency verifies compliance. The Act expects compliance with the intent of the Act, which is to eliminate discrimination of the disabled. Portions of the buildings that are accessible to the public and students fall under the "public accommodations" classification. These areas are governed by Title III of the ADA that requires the facilities owner to make "readily achievable" changes that are in compliance with the ADA. The barrier free noncompliance issues in this report are generally based on full compliance to all requirements, although for reasons stated above, removal of all barriers may not be required at this time.

Applicable Codes and Standards

The following current codes and standards represent the primary regulations that would apply to the college and are reflected in the subsequent listing of minimum code requirements. When the proposed projects are implemented, the most current codes and standards that are in effect at that time must be utilized.

Building:	Michigan Department of Licensing and Regulatory Affairs, 2012 Michigan Building Code Incorporating the 2006 Edition of the International Building Code
	Michigan Department of Licensing and Regulatory Affairs, 2012 Michigan Rehabilitation Code for Existing Buildings Incorporating the 2012 Edition of the International Existing Building Code
	Michigan Department of Licensing and Regulatory Affairs, Bureau of Fire Services, Rules for Schools, Colleges and Universities, 1999, incorporating the 1997 Edition of the NFPA Life Safety Code
Barrier Free:	Michigan Department of Licensing and Regulatory Affairs, 2012 Michigan Building Code Incorporating the 2012 Edition of the International Building Code
	Americans with Disabilities Act (ADA), 2010, Standards for Accessible Design
Elevator:	Michigan Department of Licensing and Regulatory Affairs, Elevator Safety Division, Elevator Rules, 2007, Incorporating ASME A17.1 - 2008
Structural:	Michigan Department of Licensing and Regulatory Affairs, 2012 Michigan Building Code Incorporating the 2012 Edition of the International Building Code
Mechanical:	Michigan Department of Licensing and Regulatory Affairs, 2012 Michigan Mechanical Code Incorporating the 2006 Edition of the International Mechanical Code
	ANSI/ASHRAE/IESNA 90.1-2004 Energy Standard for Buildings Except Low-Rise Residential Buildings
	NFPA 13 – Installation of Sprinkler Systems – 2002 Edition
Plumbing:	Michigan Department of Licensing and Regulatory Affairs, 2012 Michigan Plumbing Code Incorporating the 2006 Edition of the International Plumbing Code
Electrical:	Michigan Department of Licensing and Regulatory Affairs, 2011 Michigan Electrical Code Incorporating the 2014 Edition of the National Electrical Code.
	ANSI/ASHRAE/IESNA Standard 90.1-2004 Michigan Energy Code
Fire Alarm:	NFPA 72 – National Fire Alarm Code, 2002 Edition

Minimum Code Requirements

The following is a general summary of the life safety and barrier free code requirements for all buildings utilizing current applicable codes and standards. The summary is based on the requirements for new construction, only as a benchmark to evaluate existing conditions within each building.

Building Fire and Occupancy Separations (MBC Section 508, 26-1.2.1)

- 2-hour fire rated separation between different uses.

Means of Egress and Fire Ratings:

- A minimum to two exits from all floors and a maximum common path of egress travel of 75 feet for non-sprinklered buildings and 100 feet for sprinklered buildings. (MBC Sections 1014 and 1018, NFPA 26-2.4, 26-2.5.3)
- Doors shall swing in the direction of egress where serving an occupant load of 50 or more. Doors shall be equipped with panic hardware where serving an occupant load of 50 or more. (MBC Section 1008.1.2, NFPA 5-2.1.4.2)
- Dead end corridors cannot exceed 20 feet in length in non-sprinklered buildings and 50 feet in fully sprinklered buildings. (MBC Section 1017.3, NFPA 26-2.5.2)
- Maximum total exit access travel distance cannot exceed 200 feet in non-sprinklered buildings and 300 feet in fully sprinklered buildings. (MBC Section 1016, NFPA 26-2.6)
- The total width of a level means of egress shall not be less than the total occupant load served multiplied by a factor of 0.2" per occupant. (MBC Section 1005, NFPA 5-3.3.1)
- The total width of a means of egress stair shall not be less than the total occupant load served multiplied by a factor of 0.3" per occupant. (MBC Section 1005, NFPA 5-3.3.1)
- Rooms or spaces with an occupant load exceeding 50 or a travel distance exceeding 75 feet are required to have two exits or exit access doorways. (MBC Sections 1014 and 1018, NFPA 5-4)
- Rooms or spaces with an occupant load exceeding 500 require a minimum of three exits (MBC Section 1018, NFPA 5-4)
- Stairs and ramps shall have handrails on each side and shall be continuous without interruption. (MBC Section 1009.11, 1012, NFPA 5-2.2.4 and 5-2.5.4)
- Guards 42" high shall be provided at all open sided walking surfaces, stairs and ramps higher than 30" above the floor or grade below. (MBC Section 1013, NFPA 5-2.2.4 and 5-2.5.4)
- 1-hour fire rated corridor walls with 20-minute fire rated doors typically for non-sprinklered buildings. (MBC Section 1016.1, NFPA 26-3.6.1)
- Smoke-tight corridor walls typically for fully sprinklered buildings (NFPA 26-3.6.1)
- 1-hour fire rated stair enclosures with 60 minute B label fire rated doors for stairs less than 4 stories high. (MBC Section 1019, NFPA 6-2.4)
- 1-hour fire rated elevator and utility shafts when less than 4 stories high. (MBC Section 707, NFPA 6-2.4)
- 2-hour fire rated stair enclosures with 90 minute B label fire rated doors for stairs 4 stories and higher. (MBC Section 1019, NFPA 6-2.4)
- 2-hour fire rated elevator and utility shafts when 4 stories or higher. (MBC Section 707, NFPA 6-2.4)

Signage is required for the following:

- Tactile "EXIT" sign adjacent to each stairway egress door, exit passageway and exit discharge.
- Elevator floor designation at hoistway.
- Assembly space maximum occupant load (spaces with an occupant load exceeding 50).

Exit Signage:

- Exits and exit access doors shall be marked with readily visible exit signs (MBC Section 1011, NFPA 5-10)
- Viewing distance in an exit access corridor shall not exceed 100 feet (MBC Section 1011, NFPA 5-10)

Emergency Egress Lighting:

- Lighting along all means of egress to provide not less an average of than 1 footcandle and a minimum of 0.1 footcandle measured along the path of egress at the floor level. Furthermore, a maximum-to-minimum illumination uniformity ration of 40 to 1 shall not be exceeded. (MBC Section 1006, NFPA 26-2.9)
- In the event of a power failure, an emergency electrical system shall automatically illuminate the following areas for a duration of net less than 90 minutes and shall consist of storage batteries, unit equipment or an on-site generator: (MBC Section 1006, NFPA 26-2.9)
 - Exit access corridors
 - Exit access passageways and aisles in rooms and spaces required to have two or more exits
 - Exit stairways

Occupancy Sensors:

- Michigan Energy Code 9.2.1.1 requires that all buildings over 5,000 square feet be equipped with automatic control devices capable of shutting off light in all spaces without occupant intervention.
- Section 9.5.1 requires that a lighting power budget be established based upon the building usage. The budget establishes a maximum allowable lighting wattage to be installed in the building.

Fire Alarm Systems:

- Manual fire alarm system at Assembly occupancies with an occupant load of 300 or more (MBC Section 907, NFPA 8-3.4).
- Manual fire alarm system at Business occupancies with an occupant load of more than 100 above or below the lowest level of exit discharge (MBC Section 907, NFPA 26-3.4).

Fire Suppression Systems

- An automatic sprinkler system at Assembly occupancies with a fire area exceeding 12,000 square feet (MBC Section 903, NFPA 13).

Barrier Free Requirements

At least one accessible route shall connect accessible buildings, accessible facilities, accessible elements and accessible spaces that are on the same site.

At least 60 percent of all building public entrances shall be accessible.

When a building or portion thereof is required to be accessible, an accessible route shall be provided to each portion of the building, to accessible building entrances connecting accessible pedestrian walkways, and a public way.

At least one accessible route shall be provided to stories above and below accessible levels with aggregate floor areas exceeding 3,000 square feet.

Changes in floor level between 1/4" minimum to 1/2" high maximum is to be beveled with a slope no steeper than 1:2. Any change in level greater than 1/2" must be ramped.

The minimum width of each door opening shall be sufficient for the occupant load thereof and provide a clear width of at least 32 inches.

Swinging doors must have maneuvering clearances in compliance with ICC/ANSI A117.1.

Door handles, pulls, latches, locks and other operating devices on doors required to be accessible must not require tight grasping, tight pinching or twisting of the wrist to operate.

Code compliant signage shall be provided at the following locations:

- Accessible areas of refuge required by MBC Section 1007.6
- Accessible entrances where not all are accessible
- Directional signage at inaccessible entrances
- Unisex toilets
- Accessible toilets where not all are accessible
- Directional signage to accessible toilets at inaccessible toilets

Wall mounted or free standing protruding objects must comply with MBC Sections 1003.3.1-1003.3.4.

Passenger elevators on an accessible route shall be accessible and comply with applicable provisions of the code.

Plumbing elements and facilities required to be accessible must comply with applicable provisions of the code. At least one of each type of fixture, element, control or dispenser in each accessible toilet room and bathing facility must be accessible.

Existing Building Code Application

The legal occupancy of any structure existing on the date of adoption of the code shall be permitted to continue without change unless deemed necessary by the building official for the general safety and welfare of the occupants and the public.

Existing buildings undergoing repair, alterations or additions and change of occupancy shall be permitted to comply with the Michigan Rehabilitation Code for Existing Buildings.

New work, including renovations and additions to any structure shall conform to the code requirements for new construction. Modifications and repairs shall not cause the existing structure to be in violation of the code. Portions not altered or affected by the modifications need not comply with the current building code

ADMINISTRATION BUILDING (AB)



GENERAL OVERVIEW

Use: Office
Year Built: Unknown
Total Area: 20,340 SF
Floors: 2 (plus basement and attic penthouse)

MAJOR FINDINGS**Roof**

- The single ply EPDM membrane roof is in poor condition and should be replaced.

Exterior

- Stone adjacent to north entrance is deteriorated.
- Wood trim and windows require painting.

Interior

- Several doors on the lower level lack code required wire glass and have louvers not permitted by code.
- Carpet on a portion of the first floor is in poor condition and should be replaced.

HVAC

- The building utilizes its own heating and cooling plant consisting of 3 boilers and one indoor chiller. The plant and main air handler in the basement are in fair/good condition.

Plumbing

- Point of use electrical water heaters should be replaced with a central domestic hot water distribution system and return loop.

Fire Protection

- The majority of this building is not sprinkled. There is no fire pump.

Temperature Controls

- The building utilizes a Trane Tracer Summit Building Control Module (BCU) for primary building control and Tekmar control panel for boiler sequencing and control.

Lighting and Controls

- There are automatic "OFF" controls for turning off lighting fixtures in toilet rooms only. Occupancy sensors should be added.
- Additional exit signs are required to meet current code requirements.
- Emergency lighting system needs to be updated to meet current code requirements.



Fire Alarm System

- Building has too few horns/strobes to provide proper coverage. Additional horns/strobes should be installed.

Power Systems

- AHU-1 VFD disconnect switch is broken and should be replaced.



AB-9



AB-15



AB-17



AB-18

Administration Building

Address:		415 E. Fulton		Building Deficiencies Priorities by Category:							Consequences of the Problem				Need		Frequency of Use									
Bldg. Area:		20,340									1. Hazards				1. Critical		1. Constant									
No. of Floors:		2 + basement and attic penthouse									2. Interruption				2. Urgent		2. Frequent									
Year Built:											3. Deterioration				3. Necessary		3. Occasional									
Evaluation Date:		7/14/2015		Note: Lower score equals higher priority							4. Utility				4. Desirable		4. Infrequent									
											5. Energy				5. ADA		5. Meager									
No.	Item/Description	Location	Photo No.	Priority	Cons.	Need	Score	Energy	Freq.	Notes	Action	Qty.	Unit	Architectoral		Mechanical		Electrical		2016 Project Cost	2017 Project Cost	2018 Project Cost	2019 Project Cost	2020 Project Cost		
														Unit Cost	Subtotal	Unit Cost	Subtotal	Unit Cost	Subtotal							
AB-1	Motor Control Center Maintenance	Mechanical Room 100		1	1	2	3	No	2	MCC1 requires maintenance and repair to prevent further arc flash occurrences.	Provide full maintenance and rework on motor control center. Replace existing disconnect springs.	1	LS					\$ 2,000.00	\$ 2,000	\$ 3,166	\$ 3,277	\$ 3,391	\$ 3,510	\$ 3,633		
AB-2	Emergency Lighting	Throughout building		1	1	3	4	No	2	Update to meet code requirements.	Add emergency battery units.	26	EA					\$ 476.00	\$ 12,376	\$ 19,591	\$ 20,277	\$ 20,987	\$ 21,721	\$ 22,481		
AB-3	Exit signage	Throughout building		1	1	3	4	No	2	Update to meet code requirements.	Add/replace with LED exit signs.	3	EA					\$ 440.00	\$ 1,320	\$ 2,090	\$ 2,163	\$ 2,238	\$ 2,317	\$ 2,398		
AB-4	Interior doors	Lower Level		1	1	3	4	No	2	Code required 20 min. rated doors have louvers.	Replace doors.	6	EA	\$ 1,550.00	\$ 9,300					\$ 14,722	\$ 15,237	\$ 15,770	\$ 16,322	\$ 16,894		
AB-5	Lighting Inverter System	Throughout building		1	1	3	4	No	3	Emergency lighting inverter system is approaching end of life.	Replace inverter system.	1	LS					\$ 19,100.00	\$ 19,100	\$ 30,235	\$ 31,294	\$ 32,389	\$ 33,522	\$ 34,696		
AB-6	Fire alarm system - strobes	Throughout building		1	1	5	6	No	2	Too few strobes.	Add strobes.	20,340	SF					\$ 0.68	\$ 13,831	\$ 21,895	\$ 22,661	\$ 23,454	\$ 24,275	\$ 25,125		
AB-7	Roof membrane	Flat roof		2	2	2	4	No	4	EPDM roof is in poor condition.	Replace EPDM roof.	1,500	SF	\$ 2.50	\$ 3,750					\$ 5,936	\$ 6,144	\$ 6,359	\$ 6,582	\$ 6,812		
AB-8	Disconnect Handle	Mechanical Room 100		2	2	3	5	No	3	AHU-1 VFD disconnect handle is broken and inoperable.	Replace AHU-1 VFD disconnect.	1	LS					\$ 500.00	\$ 500	\$ 792	\$ 819	\$ 848	\$ 878	\$ 908		
AB-9	Stone base	Exterior walls	AB-9	3	3	3	6	No	4	Stone base is spalled, scraped and grout missing.	Replace bad stone slabs and tuckpoint.	750	SF	\$ 10.00	\$ 7,500					\$ 792	\$ 819	\$ 848	\$ 878	\$ 908		
AB-10	Exterior wood trim and windows	All elevations		3	3	3	6	No	3	Paint peeling.	Paint wood trim, windows and shutters.	1	LS	\$ 7,380.00	\$ 7,380					\$ 11,683	\$ 12,091	\$ 12,515	\$ 12,953	\$ 13,406		
AB-11	Exterior stone	North elevation		3	3	3	6	No	3	Stone deteriorated adjacent to doors.	Replace stone.	15	SF	\$ 92.00	\$ 1,380					\$ 2,185	\$ 2,261	\$ 2,340	\$ 2,422	\$ 2,507		
AB-12	Slate roof	Sloped roofs		3	3	3	6	No	3	Some broken pieces.	Repair roof.	1	LS	\$ 615.00	\$ 615					\$ 974	\$ 1,008	\$ 1,043	\$ 1,079	\$ 1,117		
AB-13	Aluminum door and sidelite	North entrance door		3	3	4	7	No	3	Door and side lite is corroded at base.	Replace door sidelite, threshold and hardware.	1	EA	\$ 200.00	\$ 200					\$ 317	\$ 328	\$ 339	\$ 351	\$ 363		
AB-14	Carpet	First floor, west side		3	3	4	7	No	2	Poor condition.	Replace carpet.	950	SF	\$ 4.65	\$ 4,418					\$ 6,993	\$ 7,238	\$ 7,491	\$ 7,753	\$ 8,025		
AB-15	Trane BAS	Basement mechanical room	AB-15	3	4	3	7	Yes	1	Roughly 25% of the building HVAC equipment is not tied into GRCC Trane BAS infrastructure.	Expand BAS to monitor HWH system and tie into GRCC campus BAS.	1	LS			\$ 5,000.00	\$ 5,000			\$ 7,915	\$ 8,192	\$ 8,479	\$ 8,776	\$ 9,083		
AB-16	Perimeter fin tube issues	Throughout building		3	4	3	7	Yes	2	Fin tube system has 3-way control valves that are not working properly	Evaluate perimeter fin tube system for faulty control valves and replace as required. Obtain the services of a test and balance company to rebalance the heating hot water system	1	LS			\$ 3,500.00	\$ 3,500			\$ 5,541	\$ 5,734	\$ 5,935	\$ 6,143	\$ 6,358		
AB-17	Refrigerant line set and wall mounted evaporator and condenser	Basement electrical room	AB-17	4	4	4	8	No	1	Split system AC refrigerant line set runs over electrical distribution panel.	Demolish refrigerant line set, wall mounted evaporator and wall mounted condenser, as it is no longer being used	1	LS			\$ 1,475.00	\$ 1,475			\$ 2,335	\$ 2,417	\$ 2,501	\$ 2,589	\$ 2,679		
AB-18	Electric water heaters	Basement and first floor toilet rooms	AB-18	4	4	4	8	Yes	2	Existing point of use electric water heaters increase maintenance and energy costs.	Demolish and remove point of use water heaters. Install larger building domestic water heater and run central hot water lines to all sinks.	1	LS			\$ 12,920.00	\$ 12,920			\$ 20,452	\$ 21,168	\$ 21,909	\$ 22,676	\$ 23,470		
AB-19	Toilet room fixtures	Basement		4	4	4	8	No	2	Existing sinks, faucets and trim are in poor condition.	Install new sinks, faucets and trim.	4	EA			\$ 2,460.00	\$ 9,840			\$ 15,577	\$ 16,122	\$ 16,686	\$ 17,270	\$ 17,875		
AB-20	Exhaust fan required	Room 110		4	4	4	8	No	2	Mail, copier and break room needs exhaust	Add exhaust fan, ductwork, grille, electrical and controls	1	LS			\$ 3,000.00	\$ 3,000			\$ 4,749	\$ 4,915	\$ 5,087	\$ 5,265	\$ 5,450		
AB-21	Occupancy sensors	Throughout building		4	5	4	9	Yes	2	Shut off lights in unoccupied rooms.	Add room occupancy sensors.	20,340	SF					\$ 1.35	\$ 27,459	\$ 43,468	\$ 44,989	\$ 46,564	\$ 48,193	\$ 49,880		
AB-22	Lighting	Throughout building		4	5	4	9	Yes	2	T-12 lamps/magnetic ballasts.	Replace with T-8 lamps/electronic ballasts.	20,340	SF					\$ 5.40	\$109,836	\$ 173,870	\$ 179,956	\$ 186,254	\$ 192,773	\$ 199,520		
																				\$ 395,275	\$ 409,109	\$ 423,428	\$ 438,248	\$ 453,587		

APPLIED TECHNOLOGY CENTER (AT) AND PARKING RAMP



GENERAL OVERVIEW

Use: Classroom, Parking Ramp
Year Built: 1990
Total Area: 187,822 SF
Floors: 3 (plus 1 parking ramp)

MAJOR FINDINGS

Exterior

- Loading dock driveway pavement is spalled and needs replacement.
- Parking ramp concrete slab is spalled and needs retopping.

HVAC

- This building utilizes central campus steam for heating. Chiller water is produced by a water cooled centrifugal chiller in the basement mechanical space and an air cooled chiller on the roof. Air handlers are located in the lower level fan room, the penthouse, and miscellaneous other spaces. All are in relatively good condition.

Plumbing

- There are no notable deficiencies in this building's plumbing infrastructure other than the replacement of some manual fixtures to automatic to match the campus standard.

Fire Protection

- The parking deck and building is sprinkled. The fire pump is located off of the parking deck.

Temperature Controls

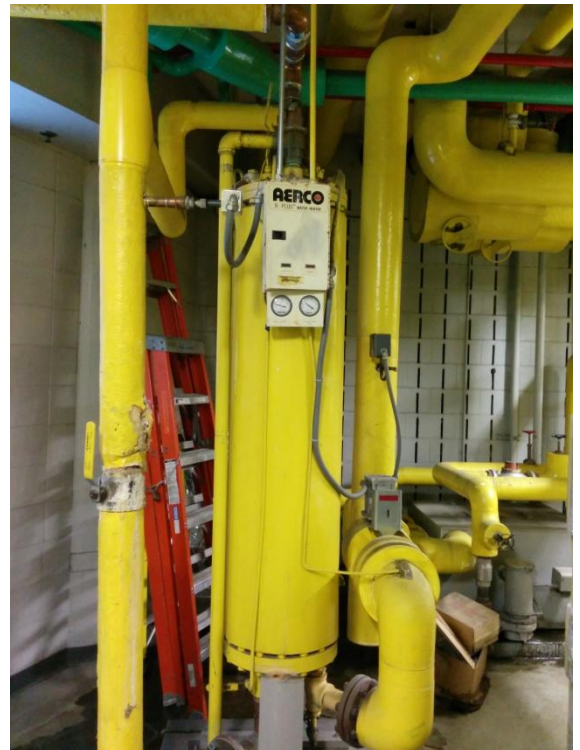
- Existing Trane Tracer ES building automation system (BAS).

Lighting and Controls

- Lighting rocker switches are out of date and no longer manufactured. All switches should be replaced with new low voltage switches.
- Parking ramp light fixtures are out of date and should be replaced.
- All lamps and ballasts are outdated T-12 and should be replaced.
- Emergency lighting system in windowless classrooms needs to be updated to meet current code requirements.



AT-1



AT-3



AT-7



AT-8



AT-9



AT-10



AT-12

Applied Technology Center and Parking Ramp

Address: 151 Fountain NE		Building Deficiencies Priorities by Category:								Consequences of the Problem				Need				Frequency of Use							
Bldg. Area: 187,822 SF										1. Hazards				1. Critical				1. Constant							
No. of Floors: 3 (plus 1 parking ramp)										2. Interruption				2. Urgent				2. Frequent							
Year Built: 1990										3. Deterioration				3. Necessary				3. Occasional							
Evaluation Date: 8/18/2015		Note: Lower score equals higher priority								4. Utility				4. Desirable				4. Infrequent							
										5. Energy				5. ADA				5. Meager							
No.	Item/Description	Location	Photo No.	Priority	Cons.	Need	Score	Energy	Freq.	Notes	Action	Qty.	Unit	Architctural		Mechanical		Electrical		2016 Project Cost	2017 Project Cost	2018 Project Cost	2019 Project Cost	2020 Project Cost	
														Unit Cost	Subtotal	Unit Cost	Subtotal	Unit Cost	Subtotal						
AT-1	Exterior ramp handrails	Exterior	AT-1	1	1	3	4	No	3	Exterior handicap ramps missing handrail.	Provide code compliant handrails on both side of ramps.	1	LS	\$ 7,500.00	\$ 7,500					\$ 11,873	\$ 12,288	\$ 12,718	\$ 13,163	\$ 13,624	
AT-2	Stair and ramp handrails	Auditorium entrance at corridor		1	1	5	6	No	2	Stair and ramp have handrails on one side only. Code requires handrails both sides.	Add handrails.	55	LF	\$ 30.75	\$ 1,691					\$ 2,677	\$ 2,771	\$ 2,868	\$ 2,968	\$ 3,072	
AT-3	Water heater	Room P11	AT-3	2	2	3	5	No	2	Aerco steam to water heater is beyond its useful service life	Replace water heater with like kind	1	LS			\$ 25,000.00	\$ 25,000	\$ 1,000.00	\$ 1,000	\$ 41,158	\$ 42,599	\$ 44,089	\$ 45,633	\$ 47,230	
AT-4	Indoor sump for process cooling tower	Room 142F		3	3	3	6	No	3	Existing unit is in poor condition.	3 pumps totaling 300 gpm.	1	LS			\$ 20,000.00	\$ 20,000			\$ 31,660	\$ 32,768	\$ 33,915	\$ 35,102	\$ 36,331	
AT-5	Liebert rooftop condenser	Rooftop		3	3	3	6	Yes	2	Existing units are beyond their useful life.	Replace with like and kind.	1	EA			\$ 2,700.00	\$ 2,700			\$ 4,274	\$ 4,424	\$ 4,579	\$ 4,739	\$ 4,905	
AT-6	Concrete pavement	Parking ramp		3	3	3	6	No	2	Concrete is spauling.	Grind concrete and apply traffic topping sealer.	43,200	SF	\$ 4.90	\$ 211,680					\$ 335,089	\$ 346,818	\$ 358,956	\$ 371,520	\$ 384,523	
AT-7	Exterior loading dock slab settled	Second floor operations dock	AT-7	3	3	3	6	No	2	Exterior slab settled 3"+; expansion joint bad.	Remove slab and replace with new flush to overhead door slab. Reseal expansion joint at perimeter.	5.5	CY	\$ 200.00	\$ 1,100					\$ 1,741	\$ 1,802	\$ 1,865	\$ 1,931	\$ 1,998	
AT-8	Exterior loading dock concrete driveway	Second floor operations dock to Fountain Street	AT-8	3	3	3	6	No	2	Concrete paving is spauled, broken, bad.	Replace concrete drive totally.	139	CY	\$ 200.00	\$ 27,800					\$ 44,007	\$ 45,548	\$ 47,142	\$ 48,792	\$ 50,500	
AT-9	AHU-4 and 5 unit casings	Room P16	AT-9	3	3	3	6	No	2	Unit casings leaking water	Inspect drain pans for plugs and correct the water drainage issue	1	LS			\$ 250.00	\$ 250			\$ 396	\$ 410	\$ 424	\$ 439	\$ 454	
AT-10	AHU-1 unit casing	Room P17	AT-10	3	3	3	6	No	2	Unit casing leaking water	Inspect drain pans for plugs and correct the water drainage issue	1	LS			\$ 250.00	\$ 250			\$ 396	\$ 410	\$ 424	\$ 439	\$ 454	
AT-11	Dishwasher exhaust duct	Room 106		3	3	3	6	No	2	Dishwasher duct leaks water due to insufficient run times	Determine if increased operating time can be justified or modify ductwork and provide drain to address condensate	1	LS			\$ 500.00	\$ 500			\$ 792	\$ 819	\$ 848	\$ 878	\$ 908	
AT-12	Exterior hollow metal doors and frames	Entire building	AT-12	3	3	4	7	No	3	Doors and frames are rusted; bad seal.	Replace with like and kind.	1	LS	\$ 55,000.00	\$ 55,000					\$ 87,065	\$ 90,112	\$ 93,266	\$ 96,531	\$ 99,909	
AT-13	Exterior lighting and emergency lighting	Exterior		3	3	3	6	No	3	Exterior wall mounted light fixtures are at end of life. Exterior emergency lighting is inadequate per NFPA 101.	Replace wall mounted light and step light fixtures with like and kind. Provide new exterior emergency light fixtures over all exits per NFPA 101.	1	LS					\$ 9,000	\$ 14,247	\$ 14,746	\$ 15,262	\$ 15,796	\$ 16,349		
AT-14	Disconnect switches	Exterior of Machine Tool Lab 142		3	3	3	6	No	3	Disconnects are rusted and at end of life.	Replace disconnects in Tool Lab with NEMA 3R disconnects.	6	EA					\$ 584.00	\$ 3,504	\$ 5,547	\$ 5,741	\$ 5,942	\$ 6,150	\$ 6,365	
AT-15	Maintenance Receptacles	Roof		3	3	3	6	No	4	There were no maintenance receptacles on roof for HVAC equipment.	Provide GFI protected maintenance receptacles.	5	EA					\$ 82.50	\$ 413	\$ 653	\$ 676	\$ 699	\$ 724	\$ 749	
AT-16	Stairwell lighting	Stairwell to Mechanical Room 404		3	3	3	6	No	4	Structure was built below light fixtures leaving the stairwell with minimal light levels.	Provide new wall mounted emergency powered stairwell lighting.	1	LS		\$ -				\$ 1,500	\$ 2,375	\$ 2,458	\$ 2,544	\$ 2,633	\$ 2,725	
																					\$ 583,949	\$ 604,388	\$ 625,541	\$ 647,435	\$ 670,095

BUNGALOW (CARRIAGE HOUSE) (BU)



GENERAL OVERVIEW

Use: Storage, Apartments
Year Built: Unknown
Total Area: 3,370 SF
Floors: 2 (plus basement)

FINDINGS

Exterior

- Exterior windows are single glazed and in poor condition.
- The exterior door to the second floor is in poor condition and should be replaced.
- Heat trace system should be added to reduce harmful ice build-up.

Interior Finishes

- Carpet and resilient flooring in two of the three units is in poor condition.
- Wood flooring in the first floor unit needs refinishing.
- Kitchen cabinets in all three units are in poor condition and should be replaced.
- A portion of the concrete floor above the basement is deteriorated and the supporting steel is severely rusted. The concrete slab and supporting structure should be replaced.

HVAC

- This building is heated via fin tube radiation around the perimeter of the building. Heating hot water is produced by two older boilers in the basement mechanical room. The space is air conditioned via window units. There are no air handlers in this building.

Plumbing

- The domestic water piping is in poor condition. The toilet room fixtures and kitchen fixtures are all in poor condition and should be replaced when this space is renovated. Portions of the sanitary pipe are in poor condition and in need of replacement.

Fire Protection

- The storage area of this building is sprinkled.

Temperature Controls

- There is no building automation system (BAS) in this building.



Lighting and Controls

- There are no automatic "OFF" controls for turning off lighting fixtures. Occupancy sensors should be added.
- Exit signs do not meet current code requirements.
- All fixtures are outdated and should be replaced.
- Emergency lighting system needs to be updated to meet current code requirements.

Fire Alarm System

- The fire alarm device locations do not meet current code requirements.



BU-6



BU-7



BU-8



BU-20

Bungalow (Carriage House)

Address:		455 E. Fulton		Building Deficiencies Priorities by Category:						Consequences of the Problem			Need		Frequency of Use										
Bldg. Area:		3,370 SF								1. Hazards			1. Critical		1. Constant										
No. of Floors:		2 + basement								2. Interruption			2. Urgent		2. Frequent										
Year Built:										3. Deterioration			3. Necessary		3. Occasional										
Evaluation Date:		7/21/2015		Note: Lower score equals higher priority						4. Utility			4. Desirable		4. Infrequent										
										5. Energy			5. ADA		5. Meager										
															Note: Project Cost includes 58.3% mark-ups and fees										
No.	Item/Description	Location	Photo No.	Priority	Cons.	Need	Score	Energy	Freq.	Notes	Action	Qty.	Unit	Architctural		Mechanical		Electrical		2016 Project Cost	2017 Project Cost	2018 Project Cost	2019 Project Cost	2020 Project Cost	
														Unit Cost	Subtotal	Unit Cost	Subtotal	Unit Cost	Subtotal						
BU-1	Emergency lighting	Throughout building		1	1	3	4	No	2	Update to meet code requirements.	Add emergency battery units.	10	EA					\$ 475.00	\$ 4,750	\$ 7,519	\$ 7,782	\$ 8,055	\$ 8,337	\$ 8,629	
BU-2	Exit signage	Throughout building including new exits		1	1	3	4	No	2	Update to meet code requirements.	Add/replace with LED exit signs.	8	EA					\$ 340.00	\$ 2,720	\$ 4,306	\$ 4,456	\$ 4,612	\$ 4,774	\$ 4,941	
BU-3	Fire alarm system - pull stations	Throughout building		1	1	3	4	No	2	Update to meet code requirements.	Complete new system	1	LS					\$ 11,680.00	\$ 11,680	\$ 18,489	\$ 19,137	\$ 19,806	\$ 20,500	\$ 21,217	
BU-4	Door closer	Basement door to garage		1	1	3	4	No	4	Door lacks closer.	Add door closer.	1	EA	\$ 675.00	\$ 675					\$ 1,069	\$ 1,106	\$ 1,145	\$ 1,185	\$ 1,226	
BU-5	Concrete floor	First floor garage		2	2	3	5	No	4	Concrete deteriorated and supporting steel rusted.	Replace concrete slab and structure.	150	SF	\$ 43.00	\$ 6,450					\$ 10,210	\$ 10,568	\$ 10,938	\$ 11,320	\$ 11,717	
BU-6	Boilers & pumps replacement	Basement	BU-6	2	2	3	5	Yes	1	Utica boilers are 21 years old and in poor condition (2 @ 250 MBH each). Circulating pumps are old and in poor condition as well.	Replace boilers, mechanical trim, pumps and controls	2	EA			\$ 12,000.00	\$ 24,000			\$ 37,992	\$ 39,322	\$ 40,698	\$ 42,122	\$ 43,597	
BU-7	Brick walls	Exterior	BU-7	3	3	3	6	No	3	Brick is dirty and grout joints are bad.	Clean brick and tuck-point joints.	1,056	SF	\$ 12.00	\$ 12,672					\$ 20,060	\$ 20,762	\$ 21,489	\$ 22,241	\$ 23,019	
BU-8	Wood trim siding and shingles	Exterior	BU-8	3	3	3	6	No	3	Boards are rotting; paint is peeling.	Replace bad boards and repaint.	1,184	SF	\$ 10.00	\$ 11,840					\$ 18,743	\$ 19,399	\$ 20,078	\$ 20,780	\$ 21,508	
BU-9	Toilet room fixtures	First and second floors		3	3	3	6	No	2	Toilet, sink and faucet are in poor condition.	Provide new toilet, sink and faucet for each toilet room.	9	EA			\$ 615.00	\$ 5,535			\$ 8,762	\$ 9,069	\$ 9,386	\$ 9,714	\$ 10,054	
BU-10	Sump pump	Basement		3	3	3	6	No	3	Basement floor shows signs of water damage.	Install drainage pipe, sump pit, pump and pipe to sanitary line.	1	LS			\$ 18,450.00	\$ 18,450			\$ 29,206	\$ 30,229	\$ 31,287	\$ 32,382	\$ 33,515	
BU-11	Plumbing piping replacement	Throughout building		3	3	3	6	No	2	Existing plumbing piping is past its useful service life and is in poor condition	Replace domestic hot and cold water piping with copper piping, fittings and valves	1	LS			\$ 7,500.00	\$ 7,500			\$ 11,873	\$ 12,288	\$ 12,718	\$ 13,163	\$ 13,624	
BU-12	Asbestos removal on insulated piping that is planned for demolition	Throughout building		3	3	3	6	No	2	Plumbing piping that needs to be replaced likely has asbestos in the insulation.	Abate and remove any asbestos pipe insulation before demolition of the piping	1	LS			\$ 2,500.00	\$ 2,500			\$ 3,958	\$ 4,096	\$ 4,239	\$ 4,388	\$ 4,541	
BU-13	Carpet	First floor and second floor north unit		3	3	4	7	No	2	Carpet worn and stained.	Replace carpet.	550	SF	\$ 4.60	\$ 2,530					\$ 4,005	\$ 4,145	\$ 4,290	\$ 4,440	\$ 4,596	
BU-14	Resilient flooring	First floor kitchen		3	3	4	7	No	2	Resilient floor worn and damaged.	Replace with resilient sheet flooring.	100	SF	\$ 13.50	\$ 1,350					\$ 2,137	\$ 2,212	\$ 2,289	\$ 2,369	\$ 2,452	
BU-15	Wood flooring	First floor		3	3	4	7	No	2	Wood floor needs refinishing.	Refinish wood floor.	120	SF	\$ 2.15	\$ 258					\$ 408	\$ 423	\$ 438	\$ 453	\$ 469	
BU-16	Kitchen cabinets and counter	First floor and second floor		3	3	4	7	No	2	Poor condition.	Replace base and upper cabinets, counter and plumbing fixtures.	3	EA	\$ 1,845.00	\$ 5,535	\$ 1,100.00	\$ 3,300			\$ 13,986	\$ 14,475	\$ 14,982	\$ 15,506	\$ 16,049	
BU-17	Plaster ceiling	Second floor hallway		3	3	4	7	No	2	Damaged from water leak.	Repair ceiling.	1	LS	\$ 615.00	\$ 615					\$ 974	\$ 1,008	\$ 1,043	\$ 1,079	\$ 1,117	
BU-18	Exterior door	Stair door east elevation		3	3	4	7	Yes	2	Poor condition.	Replace door and frame.	1	EA	\$ 2,330.00	\$ 2,330					\$ 3,688	\$ 3,817	\$ 3,951	\$ 4,089	\$ 4,233	
BU-19	Exterior windows	All elevations		3	3	4	7	Yes	2	Wood windows are single glazed and in poor condition.	Replace with historically correct metal covered wood windows with insulating glass.	18	EA	\$ 1,970.00	\$ 35,460					\$ 56,133	\$ 58,098	\$ 60,131	\$ 62,236	\$ 64,414	
BU-20	Sanitary pipe	Basement	BU-20	3	3	4	7	No	1	Existing steel and PVC sanitary pipe is in poor condition.	Replace sanitary pipe with all cast iron.	40	LF			\$ 92.00	\$ 3,680			\$ 5,825	\$ 6,029	\$ 6,240	\$ 6,459	\$ 6,685	
BU-21	Lighting control system	Throughout building		3	5	3	8	Yes	2	Required per ASHRAE Standard 90.1-2004.	Install lighting control system.	1	LS					\$ 7,380.00	\$ 7,380	\$ 11,683	\$ 12,091	\$ 12,515	\$ 12,953	\$ 13,406	
BU-22	Trane BAS	Basement		4	4	4	8	Yes	1	No existing building automation system.	Tie existing mechanical equipment into a new Trane BAS and connect to GRCC central system.	1	LS			\$ 9,200.00	\$ 9,200			\$ 14,564	\$ 15,073	\$ 15,601	\$ 16,147	\$ 16,712	
BU-23	Combustion air damper	Basement		4	4	4	8	Yes	1	Existing combustion air intake has no mechanical damper.	Install mechanical damper and interlock with boiler controls.	1	LS			\$ 1,475.00	\$ 1,475			\$ 2,335	\$ 2,417	\$ 2,501	\$ 2,589	\$ 2,679	
BU-24	Heat Trace	Roof		4	4	4	8	No	3	Ice build up causing safety concerns.	Add heat trace to trouble areas of roof.	1	LS					\$ 15,000.00	\$ 15,000	\$ 23,745	\$ 24,576	\$ 25,436	\$ 26,327	\$ 27,248	
																					\$ 311,669	\$ 322,577	\$ 333,868	\$ 345,553	\$ 357,647

CALKINS SCIENCE CENTER (CS)



GENERAL OVERVIEW

Use: Science Classroom
 Year Built: 1999
 Total Area: 135,500 SF
 Floors: 5 (plus penthouse)

MAJOR FINDINGS

Exterior

- Sealant joints are in need of replacement, especially at the west elevation at the upper floors.
- Some minor roof leaks need repair.

Interior Finishes

- Plaster walls need repair at fifth floor windows at the west elevation and at a few other locations damaged by water leaks.

HVAC

- This building utilizes central campus steam for heating and chilled water from the adjacent chiller plant for cooling. The heating plant consists of a steam to heating hot water heat exchanger and cooling plant consists of the absorption chiller located in the adjacent chiller plant building. Air handlers located in the penthouse are in good condition.

Plumbing

- There are no notable deficiencies in this building's plumbing infrastructure other than the replacement of some manual fixtures to automatic to match the campus standard.

Fire Protection

- This building is fully sprinkled.

Temperature Controls

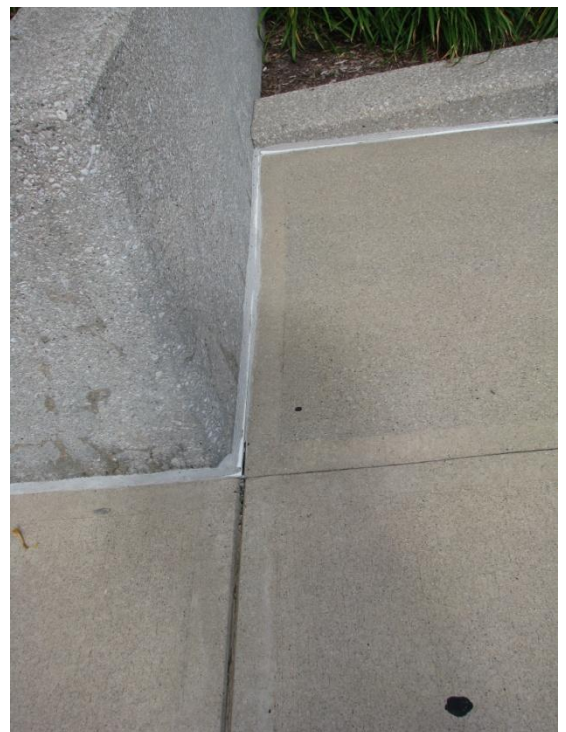
- This building utilizes a Trane Tracer Summit Building Control Modules (BCU) for primary building control. It is connected to the Trane campus wide building automation system (BAS).

Lighting and Control

- There are no automatic "OFF" controls for turning off lighting fixtures. Occupancy sensors should be added.
- Light fixtures in the Atriums are inaccessible and should be replaced with low maintenance LED type.



CS-2A



CS-2B



CS-4



CS-6

Calkins Science Center

Address: 226 Bostwick NE		Building Deficiencies Priorities by Category:										<u>Consequences of the Problem</u>				<u>Need</u>				<u>Frequency of Use</u>					Note: Project Cost includes 58.3% mark-ups and fees				
Bldg. Area: 135,500 SF												1. Hazards				1. Critical				1. Constant									
No. of Floors: 5 + penthouse												2. Interruption				2. Urgent				2. Frequent									
Year Built: 1999												3. Deterioration				3. Necessary				3. Occasional									
Evaluation Date: 8/11/2015		Note: Lower score equals higher priority										4. Utility				4. Desirable				4. Infrequent									
												5. Energy				5. ADA				5. Meager									
No.	Item/Description	Location	Photo No.	Priority	Cons.	Need	Score	Energy	Freq.	Notes	Action	Qty.	Unit	Architectural		Mechanical		Electrical		2016 Project Cost	2017 Project Cost	2018 Project Cost	2019 Project Cost	2020 Project Cost					
														Unit Cost	Subtotal	Unit Cost	Subtotal	Unit Cost	Subtotal										
CS-1	Exterior sealant joints in walls	North wall of court at east side of building; east wall of auditorium, 5th floor windows west elevation		3	3	3	6	No	3	Sealant joints cracked and separated.	Replace sealant joints.	200	LF	\$ 5.00	\$ 1,000					\$ 1,583	\$ 1,638	\$ 1,696	\$ 1,755	\$ 1,817					
CS-2	Exterior sealant joints between building and sidewalks	Northeast, northwest and southwest building corners	CS-2A CS-2B	3	3	3	6	No	3	Sealant joints cracked and separated; zip strip is left in.	Replace sealant joints.	200	LF	\$ 6.33	\$ 1,266					\$ 2,004	\$ 2,074	\$ 2,147	\$ 2,222	\$ 2,300					
CS-3	Phoenix air valves	Penthouse mechanical room		3	3	3	6	No	2	Existing type of valves are failing	Convert Phoenix air valves to newer style controller. Partially completed	23	EA			\$ 715.00	\$ 16,445			\$ 26,032	\$ 26,944	\$ 27,887	\$ 28,863	\$ 29,873					
CS-4	RO system piping	Penthouse mechanical room	CS-4	3	3	3	6	Yes	2	Pumps appear to be piped incorrectly.	Re-pipe and recommission.	1	LS			\$ 7,755.00	\$ 7,755			\$ 12,276	\$ 12,706	\$ 13,151	\$ 13,611	\$ 14,087					
CS-5	Automatic (off) lighting control	Throughout building		3	5	3	8	Yes	2	Update to meet code, shut off lights in unoccupied rooms.	Install occupancy sensors.	1	LS					\$ 92,675.00	\$ 92,675	\$ 146,705	\$ 151,839	\$ 157,154	\$ 162,654	\$ 168,347					
CS-6	Fume hood piping	Room 524	CS-6	4	4	4	8	No	2	Vacuum, water and gas piping and valving is in poor condition	Replace piping and valving to fume hoods	1	LS			\$ 10,000.00	\$ 10,000			\$ 15,830	\$ 16,384	\$ 16,957	\$ 17,551	\$ 18,165					
CS-7	Stratification issues in Auditorium	Auditorium		4	4	4	8	Yes	2	Air stratifies in Auditorium	Add destratification ceiling fans in Auditorium	4	EA			\$ 2,500.00	\$ 10,000	\$ 350.00	\$ 1,400	\$ 18,046	\$ 18,678	\$ 19,332	\$ 20,008	\$ 20,708					
																				\$ 222,476	\$ 211,585	\$ 218,991	\$ 226,655	\$ 234,588					

CHILLER PLANT



GENERAL OVERVIEW

Use: Power Plant
Year Built: 1960 (major remodel 1999)
Total Area: 3,840 SF
Floors: 2

MAJOR FINDINGS**HVAC**

- This building houses the main absorption chiller that provides chilled water to Calkins Science Center. This space conditioned via exhaust fans and unit heaters.

Plumbing

- There are no notable deficiencies in this building's plumbing infrastructure.

Fire Protection

- This building is not sprinkled.

Temperature Controls

- This building utilizes a Trane Tracer Summit Building Control Modules (BCU) for primary building control. It is connected to the Trane campus wide building automation system (BAS).



CH-3



CH-4

Chiller Plant

Address:		226 Bostwick NE		Building Deficiencies Priorities by Category:						<u>Consequences of the Problem</u>				<u>Need</u>				<u>Frequency of Use</u>								
Bldg. Area:		3,840 SF								1. Hazards				1. Critical				1. Constant								
No. of Floors:		2								2. Interruption				2. Urgent				2. Frequent								
Year Built:		1960 (major remodel 1999)								3. Deterioration				3. Necessary				3. Occasional								
Evaluation Date:		7/28/2015		Note: Lower score equals higher priority						4. Utility				4. Desirable				4. Infrequent				Note: Project Cost includes 58.3% mark-ups and fees				
										5. Energy				5. ADA				5. Meager								
No.	Item/Description	Location	Photo No.	Priority	Cons.	Need	Score	Energy	Freq.	Notes	Action	Qty.	Unit	Architectural		Mechanical		Electrical		2016 Project Cost	2017 Project Cost	2018 Project Cost	2019 Project Cost	2020 Project Cost		
														Unit Cost	Subtotal	Unit Cost	Subtotal	Unit Cost	Subtotal							
CH-1	Electrical substation ventilation	1st floor entrance		2	2	3	5	No	1	Existing space does not have mechanical ventilation.	Add inline exhaust fan and louvers above the door.	1	LS			\$ 6,600.00	\$ 6,600	\$ 1,100.00	\$ 1,100	\$ 12,189	\$ 12,616	\$ 13,057	\$ 13,514	\$ 13,987		
CH-2	Electrical substation (serving Natatorium) ventilation	2nd floor		2	2	3	5	No	1	Existing space does not have mechanical ventilation.	Add roof mounted exhaust fan and ductwork	1	LS			\$ 7,500.00	\$ 7,500	\$ 1,500.00	\$ 1,500	\$ 14,247	\$ 14,746	\$ 15,262	\$ 15,796	\$ 16,349		
CH-3	Cooling tower basin leak	Roof	CH-3	2	2	3	5	No	1	Water leaking from the cooling tower basin onto the roof, causing ponding and plant growth	Inspect and repair cooling tower basin leak	1	LS			\$ 1,000.00	\$ 1,000			\$ 1,583	\$ 1,638	\$ 1,696	\$ 1,755	\$ 1,817		
CH-4	Exterior concrete steps	Exterior west elevation	CH-4	3	3	3	6	No	3	Concrete step damaged and sealant is bad.	Patch concrete steps and replace sealant.	1	EA	\$ 4,500.00	\$ 4,500					\$ 7,124	\$ 7,373	\$ 7,631	\$ 7,898	\$ 8,174		
																				\$ 35,143	\$ 29,000	\$ 30,015	\$ 31,065	\$ 32,153		

COLLEGE PARK PLAZA (CP) AND PARKING RAMP



GENERAL OVERVIEW

Use: Office
Year Built: 1979
Total Area: 48,913 SF (building) 19,050 SF (ramp)
Floors: 6 (plus basement, mezzanine and penthouse)

MAJOR FINDINGS

Exterior

- Minor areas of brick needs tuck pointing and repair.
- Exterior sealant joints need replacement.

Interior Finishes

- Vinyl wall covering and wood doors and frames are in fair to poor condition.

HVAC

- The HVAC equipment is in good condition.

Plumbing

- There are no notable deficiencies in this building's plumbing infrastructure.

Temperature Controls

- The building utilizes Trane ES Building controls. It is connected to the Trane campus wide building automation system (BAS).



CP-1



CP-2



CP-4



CP-5



CP-6

College Park Plaza and Parking Ramp

Address:		180 North Division NE			Building Deficiencies Priorities by Category:					<u>Consequences of the Problem</u>			<u>Need</u>			<u>Frequency of Use</u>									
Bldg. Area:		48,913 SF (building) 19,050 SF (ramp)								1. Hazards			1. Critical			1. Constant									
No. of Floors:		6 + mezzanine, basement & penthouse								2. Interruption			2. Urgent			2. Frequent									
Year Built:		1979								3. Deterioration			3. Necessary			3. Occasional									
Evaluation Date:		8/11/2015			Note: Lower score equals higher priority					4. Utility			4. Desirable			4. Infrequent			Note: Project Cost includes 58.3% mark-ups and fees						
										5. Energy			5. ADA			5. Meager									
No.	Item/Description	Location	Photo No.	Priority	Cons.	Need	Score	Energy	Freq.	Notes	Action	Qty.	Unit	Architectural		Mechanical		Electrical		2016 Project Cost	2017 Project Cost	2018 Project Cost	2019 Project Cost	2020 Project Cost	
														Unit Cost	Subtotal	Unit Cost	Subtotal	Unit Cost	Subtotal						
CP-1	Stair handrail	West stair between 1st & mezzanine	CP-1	1	1	5	6	No	3	Handrail not provided at wall (code requires handrails on both sides).	Provide wall mounted handrail.	25	LF	\$ 25.00	\$ 625					\$ 989	\$ 1,024	\$ 1,060	\$ 1,097	\$ 1,135	
CP-2	Exterior exposed steel lintels	1st floor ramp	CP-2	3	3	3	6	No	2	Paint peeled, minor rust.	Clean and paint.	75	LF	\$ 5.00	\$ 375					\$ 594	\$ 614	\$ 636	\$ 658	\$ 681	
CP-3	Exterior sealant joints	Metal panels at west elevation		3	3	3	6	No	3	Sealant joint failing.	Replace sealant.	100	LF	\$ 5.00	\$ 500					\$ 792	\$ 819	\$ 848	\$ 878	\$ 908	
CP-4	Roof membrane	Roof	CP-4	3	3	3	6	No	3	Roof membrane is in fair to poor condition.	Replace with new EPDM (fully adhered).	3,600	SF	\$ 4.42	\$ 15,912					\$ 25,189	\$ 26,070	\$ 26,983	\$ 27,927	\$ 28,905	
CP-5	Windows	Exterior	CP-5	3	3	3	6	No	2	Window gaskets are failing.	Re-seal/gasket windows.	1	LS	\$20,000.00	\$ 20,000					\$ 31,660	\$ 32,768	\$ 33,915	\$ 35,102	\$ 36,331	
CP-6	Cabinet unit heaters	Stair towers and toilet Rooms	CP-6	4	4	4	8	No	3	Units are old and past their useful service life	Replace with like kind	1	LS			\$ 20,000.00	\$ 20,000			\$ 31,660	\$ 32,768	\$ 33,915	\$ 35,102	\$ 36,331	
CP-7	Toilet room entrance	Women's toilet room mezzanine level		4	4	5	9	No	2	Code required maneuvering space not provided at entrance door.	Provide auto door operator and remove interior door.	1	EA	\$ 4,500.00	\$ 4,500			\$ 1,000.00		\$ 7,124	\$ 7,373	\$ 7,631	\$ 7,898	\$ 8,174	
																					\$ 98,007	\$ 101,437	\$ 104,987	\$ 108,662	\$ 112,465

COOK ACADEMIC BUILDING (CA) AND PARKING RAMP



GENERAL OVERVIEW

Use: Classroom, Office
 Year Built: 1970
 Total Area: 133,225 SF
 Floors: 5 (building) 2 (parking ramp)

FINDINGS

Exterior

- Wrought iron fencing needs replacing.
- Some areas of precast concrete reinforcement bars are exposed and rusted.

HVAC

- This building utilizes central campus steam for heating and cooling via its own dedicated electric chiller. Each floor is served by its own air handler that is in fair/good condition.

Plumbing

- There are no notable deficiencies in this building's plumbing infrastructure.

Temperature Controls

- This building utilizes a Trane ES Building controls. It is connected to the Trane campus wide building automation system (BAS).

Lighting and Controls

- Parking ramp lighting at G2 level is outdated and should be replaced.
- Exterior lighting is outdated and should be replaced.
- Exterior emergency lighting does not meet current code; new emergency fixtures should be installed.

Power Distribution

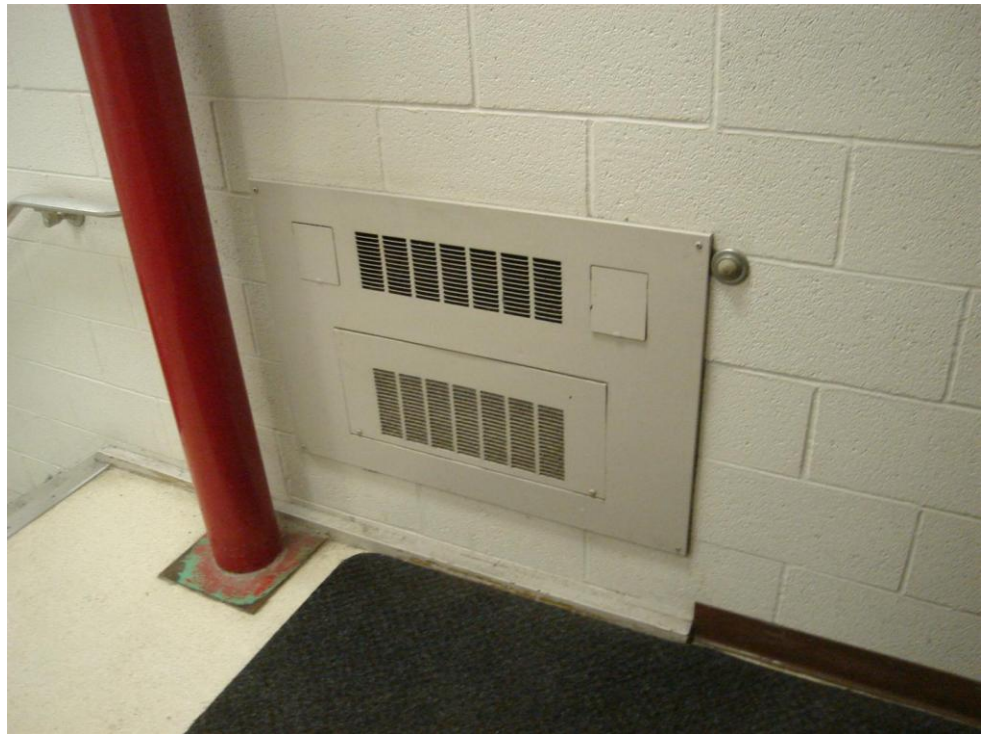
- Oil-filled transformer is at end of life and should be replaced.



CA-1



CA-3



CA-10



CA-11

Cook Academic Building and Parking Ramp

Address:		143 Bostwick NE		Building Deficiencies Priorities by Category:				<u>Consequences of the Problem</u>				<u>Need</u>				<u>Frequency of Use</u>								
Bldg. Area:		133,225 SF						1. Hazards				1. Critical				1. Constant								
No. of Floors:		5 (building) 2 levels (parking ramp)						2. Interruption				2. Urgent				2. Frequent								
Year Built:		1970						3. Deterioration				3. Necessary				3. Occasional								
Evaluation Date:		8/4/2015		Note: Lower score equals higher priority				4. Utility				4. Desirable				4. Infrequent				Note: Project Cost includes 58.3% mark-ups and fees				
								5. Energy				5. ADA				5. Meager								
No.	Item/Description	Location	Photo No.	Priority	Cons.	Need	Score	Energy	Freq.	Notes	Action	Qty.	Unit	Architectural		Mechanical		Electrical		2016 Project Cost	2017 Project Cost	2018 Project Cost	2019 Project Cost	2020 Project Cost
														Unit Cost	Subtotal	Unit Cost	Subtotal	Unit Cost	Subtotal					
CA-1	Overhead coiling grille tracks	Parking ramp, G1 level	CA-1	3	3	3	6	No	2	Tracks are rusted at bottom.	Replace overhead grilles and motors.	2	EA	\$12,500.00	\$ 25,000					\$ 39,575	\$ 40,960	\$ 42,394	\$ 43,878	\$ 45,413
CA-2	Roof membrane	Roof		3	3	3	6	No	3	Roof membrane is nearing end of life.	Replace all roofing, flashing, etc. with new.	9,000	SF	\$ 9.00	\$ 81,000					\$ 128,223	\$ 132,711	\$ 137,356	\$ 142,163	\$ 147,139
CA-3	Wrought iron fence	G2 level plaza ramp north side	CA-3	3	3	3	6	No	3	Existing iron fencing is rusted and needs replacement.	Replace wrought iron fence with new.	75	LF	\$ 39.50	\$ 2,963					\$ 4,690	\$ 4,854	\$ 5,024	\$ 5,199	\$ 5,381
CA-4	Lighting	Parking Ramp G2		3	3	3	6	Yes	2	Parking ramp lighting is in disrepair or at end of life.	Replace lighting in parking ramp.	10,000	SF					\$ 2.00	\$ 20,000	\$ 31,660	\$ 32,768	\$ 33,915	\$ 35,102	\$ 36,331
CA-5	Exterior Lighting	Exterior		3	3	4	7	Yes	2	Existing cube site lighting fixtures are in disrepair.	Replace exterior light fixtures.	1	LS						\$ 12,500	\$ 19,788	\$ 20,480	\$ 21,197	\$ 21,939	\$ 22,707
CA-6	Exterior Lighting	Roof		3	3	4	7	Yes	2	Existing flood light fixtures are end of life and should be replaced.	Replace existing flood lights with LED type.	1	EA					\$ 400.00	\$ 400	\$ 633	\$ 655	\$ 678	\$ 702	\$ 727
CA-7	Acoustical ceiling panels	Northeast stair, 5th floor, corridor at southwest stair		4	4	4	8	No	3	Water stained panels.	Replace panels.	16	SF	\$ 2.75	\$ 44					\$ 70	\$ 72	\$ 75	\$ 77	\$ 80
CA-8	Service entrance gear	G1 level electrical room		4	4	4	8	No	2	Switchboard is out of date.	Replace 2000 ampere switchboard and remove wall.	1	LS					\$ 192,500.00	\$ 192,500	\$ 304,728	\$ 315,393	\$ 326,432	\$ 337,857	\$ 349,682
CA-9	750 KVA transformer	G1 level electrical room		4	4	4	8	No	2	Transformer is past useful life	Replace with 480/277 V secondary.	1	LOT					\$ 88,000.00	\$ 88,000	\$ 139,304	\$ 144,180	\$ 149,226	\$ 154,449	\$ 159,855
CA-10	Cabinet unit heater	Stairwells 1, 3 and 5	CA-10	4	4	4	8	Yes	1	Cabinet unit heaters are in poor condition.	Replace with like and kind.	1	LS			\$ 15,000.00	\$ 15,000			\$ 23,745	\$ 24,576	\$ 25,436	\$ 26,327	\$ 27,248
CA-11	Roof drains	Roof	CA-11	4	4	4	8	No	1	Existing roof drains are damaged.	Install new roof drains.	4	EA			\$ 350.00	\$ 1,400			\$ 2,216	\$ 2,294	\$ 2,374	\$ 2,457	\$ 2,543
CA-12	VAV box replacement	West and central sides of 1st floor		4	4	4	8	Yes	2	10 dual duct boxes are past their useful service life	Replace dual duct VAV boxes with single duct VAV boxes	10	EA			\$ 1,500.00	\$ 15,000			\$ 23,745	\$ 24,576	\$ 25,436	\$ 26,327	\$ 27,248
																				\$ 718,376	\$ 743,519	\$ 769,542	\$ 796,476	\$ 824,353

DATA CENTER (DC) AND BOSTWICK PARKING RAMP



GENERAL OVERVIEW

Use: Offices and parking ramp
Year Built: 1970
Total Area: 16,056 SF (Data Center)
Floors: 1 (Data Center) 6 (Parking Ramp)

MAJOR FINDINGS

Exterior

- Parking ramp toll booths, rolling grille tracks, elevator doors and frames at the first floor lobby are rusted and need repair or replacement.

Interior Finishes

- Toilet rooms are in fair to poor condition.

HVAC

- The heating plant for this building is a single boiler located in the mechanical space behind the Data Center. There is a single air handler with direct expansion cooling for building occupants and two Liebert stand alone A/C units that serve the actual data center room.

Plumbing

- There are no notable deficiencies in the Data Center's plumbing infrastructure other than the replacement of some manual fixtures to automatic to match the campus standard.

Fire Protection

- The Data Center room itself is protected by a Fenwal chemical suppression system. The rest of the data center and Boswick ramp are not sprinkled.

Temperature Controls

- The building utilizes Trane ES Building controls. It is connected to the Trane campus wide building automation system (BAS).

Lighting and Controls (Office and Parking Deck)

- Light fixtures in skywalks are in poor condition and should be replaced.



DC-2A



DC-2B



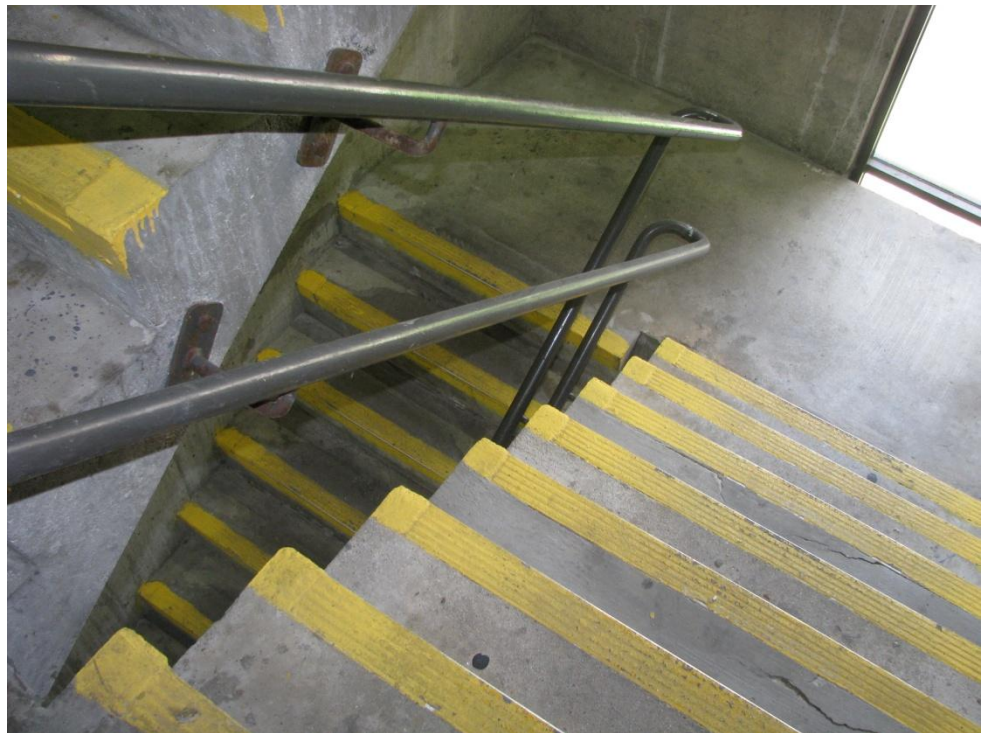
DC-3



DC-4



DC-10



DC-14

Data Center and Bostwick Parking Ramp

Address:		140 Bostwick NE		Building Deficiencies Priorities by Category:		<u>Consequences of the Problem</u>		<u>Need</u>		<u>Frequency of Use</u>															
Bldg. Area:		16,056 SF (Data Center)				1. Hazards		1. Critical		1. Constant															
No. of Floors:		1 (Data Center) 6 (Parking Ramp)				2. Interruption		2. Urgent		2. Frequent															
Year Built:		1970				3. Deterioration		3. Necessary		3. Occasional															
Evaluation Date:		7/28/2015		Note: Lower score equals higher priority		4. Utility		4. Desirable		4. Infrequent															
						5. Energy		5. ADA		5. Meager															
No.	Item/Description	Location	Photo No.	Priority	Cons.	Need	Score	Energy	Freq.	Notes	Action	Qty.	Unit	Architectural		Mechanical		Electrical		2016 Project Cost	2017 Project Cost	2018 Project Cost	2019 Project Cost	2020 Project Cost	
														Unit Cost	Subtotal	Unit Cost	Subtotal	Unit Cost	Subtotal						
DC-1	Stair handrails	Parking ramp stairs		1	1	4	5	No	2	Handrail ends do not return to wall - hazardous condition.	Provide new fittings at ends of rails that return to wall	48	EA	\$ 30.75	\$ 1,476					\$ 2,337	\$ 2,418	\$ 2,503	\$ 2,591	\$ 2,681	
DC-2	Boiler stack replacement and extension	Data Center mechanical room and south parking ramp exterior	DC-2A DC-2B	2	2	2	4	No	1	Exhaust stack height is code violation. Additionally, the existing stack is beyond its useful life and has a corroded inner wall	Replace existing boiler stack and extend exhaust 8' above upper deck	1	LS			\$ 12,000.00	\$ 12,000			\$ 18,996	\$ 19,661	\$ 20,349	\$ 21,061	\$ 21,798	
DC-3	Data Center AHU replacement	Data Center mechanical room	DC-3	2	2	3	5	No	2	Existing AHU is beyond its useful service life	Replace AHU with like kind	1	LS			\$ 18,000.00	\$ 1,200			\$ 1,900	\$ 1,966	\$ 2,035	\$ 2,106	\$ 2,180	
DC-4	Data Center boiler replacement	Data Center mechanical room	DC-4	2	2	3	5	Yes	2	Existing boiler is beyond its useful service life	Replace boiler with like kind	1	LS			\$ 13,000.00	\$ 1,200			\$ 1,900	\$ 1,966	\$ 2,035	\$ 2,106	\$ 2,180	
DC-5	Lighting	Skywalks		2	3	2	5	No	2	Fixtures in the skywalks are dirty and damaged.	Replace existing light fixtures, increase light levels.	1	LS					\$ 5,000.00	\$ 5,000	\$ 7,915	\$ 8,192	\$ 8,479	\$ 8,776	\$ 9,083	
DC-6	Concrete foundation wall	Data Center east wall of mechanical rooms		3	3	3	6	No	4	Cracked and spauled from ground water leaks.	Repair and waterproof wall from interior side.	500	SF	\$ 13.50	\$ 6,750					\$ 10,685	\$ 11,059	\$ 11,446	\$ 11,847	\$ 12,262	
DC-7	Overhead coiling grille tracks	Parking ramp entrances		3	3	3	6	No	2	Minor rust.	Clean and paint grille tracks.	14	EA	\$ 190.00	\$ 2,660					\$ 4,211	\$ 4,358	\$ 4,511	\$ 4,669	\$ 4,832	
DC-8	Toll booths	Parking ramp first, fifth and sixth levels		3	3	3	6	No	2	Toll booths rusted at pavement level	Remove toll booths	3	EA	\$ 1,000.00	\$ 3,000					\$ 4,749	\$ 4,915	\$ 5,087	\$ 5,265	\$ 5,450	
DC-9	Concrete sill wall	Parking ramp, first floor, elevator lobby		3	3	3	6	No	2	Concrete sill below window cracked	Repair concrete	1	LS	\$ 615.00	\$ 615					\$ 974	\$ 1,008	\$ 1,043	\$ 1,079	\$ 1,117	
DC-10	Stairwell skylight glass	Ramp stairwells	DC-10	3	3	3	6	No	2	Glass roof skylight leaks.	Re-gasket and seal skylight.	3	EA	\$ 5,000.00	\$ 15,000					\$ 23,745	\$ 24,576	\$ 25,436	\$ 26,327	\$ 27,248	
DC-11	Ramp overhead grilles	1st floor		3	3	3	6	No	2	Overhead grilles are at end of life.	Replace overhead grille and motors.	3	EA	\$ 15,000.00	\$ 45,000					\$ 71,235	\$ 73,728	\$ 76,309	\$ 78,980	\$ 81,744	
DC-12	Egress stair and landing	Parking ramp, skywalk to Student Center		3	3	4	7	No	2	Metal stair and landing rusted	Remove rust and paint	1	LS	\$ 925.00	\$ 925					\$ 1,464	\$ 1,516	\$ 1,569	\$ 1,623	\$ 1,680	
DC-13	Exterior door	Parking ramp, first floor room behind elevators		3	3	4	7	No	2	Door rusted.	Replace HM door	1	EA	\$ 1,100.00	\$ 1,100					\$ 1,741	\$ 1,802	\$ 1,865	\$ 1,931	\$ 1,998	
DC-14	Stair handrails	All floors	DC-14	3	3	4	7	No	2	Stair handrails need paint.	Paint all steel stair handrails.	3	EA	\$ 4,000.00	\$ 12,000					\$ 18,996	\$ 19,661	\$ 20,349	\$ 21,061	\$ 21,798	
DC-15	Wire management	Entire Ramp		4	4	4	8	No	3	Wireways, junction boxes and pull boxes are rusted and falling apart.	Replace rusted out wireways, junction and pull boxes within ramp area.	1	LS					\$ 7,500.00	\$ 7,500	\$ 11,873	\$ 12,288	\$ 12,718	\$ 13,163	\$ 13,624	
																					\$ 182,719	\$ 189,115	\$ 195,734	\$ 202,584	\$ 209,675

FACILITIES OFFICES (FO) AND LYON STREET PARKING RAMP



GENERAL OVERVIEW

Use: Offices and parking ramp
Year Built: 1994
Total Area: 14,431 (Facilities Offices)
Floors: 2 (office and shops) 7 (parking ramp)

MAJOR FINDINGS

HVAC

- The heating plant for this building is a single boiler located in the mechanical space in the Lyon Street Parking Deck. The space is over crowded and does not allow for proper service clearance for any of the equipment located within it. There are two small air handlers with direct expansion cooling for building occupants and hydronic unit heaters in the shop area.

Plumbing

- There are no notable deficiencies in this building's plumbing infrastructure other than the replacement of some manual fixtures to automatic to match the campus standard.

Fire Protection

- The building is not sprinkled. However, it does meet current code requirements.

Temperature Controls

- This building utilizes Trane Summit Building Control Modules (BCU) for primary building control. It is connected to the Trane campus wide building automation system (BAS).

Lighting and Controls (Office and Ramp)

- Skywalk lighting fixtures are in poor condition and should be replaced.

Fire Alarm System

- Fire alarm system should be added to Facilities offices and Maintenance.



FO-3



FO-7

Facilities Offices and Lyon Street Parking Ramp

Address: 211 Bostwick NE				Building Deficiencies Priorities by Category:				<u>Consequences of the Problem</u>				<u>Need</u>				<u>Frequency of Use</u>									
Bldg. Area: 14,431 SF (Facilities Offices)								1. Hazards				1. Critical				1. Constant									
No. of Floors: 2 (office and shops) 7 (parking ramp)								2. Interruption				2. Urgent				2. Frequent									
Year Built: 1994								3. Deterioration				3. Necessary				3. Occasional									
Evaluation Date: 7/28/2015				Note: Lower score equals higher priority				4. Utility				4. Desirable				4. Infrequent									
								5. Energy				5. ADA				5. Meager									
No.	Item/Description	Location	Photo No.	Priority	Cons.	Need	Score	Energy	Freq.	Notes	Action	Qty.	Unit	Architectural		Mechanical		Electrical		2016 Project Cost	2017 Project Cost	2018 Project Cost	2019 Project Cost	2020 Project Cost	
														Unit Cost	Subtotal	Unit Cost	Subtotal	Unit Cost	Subtotal						
FO-1	Fire alarm system	Facility offices and maintenance shop		2	2	3	5	No	4	The facility does not have a fire alarm system.	Add a new fire alarm system.	14,431	SF					\$ 1.50	\$ 21,647	\$ 34,266	\$ 35,466	\$ 36,707	\$ 37,992	\$ 39,321	
FO-2	Toll booths	Parking ramp Level 1 and 4		3	3	3	6	No	2	Rust at lower edge.	Remove rust and paint booth (cost per CWI report 11/2009).	1	LS	\$ 500.00	\$ 500					\$ 792	\$ 819	\$ 848	\$ 878	\$ 908	
FO-3	Concrete steps	Parking ramp, north stair, level 5	FO-3	3	3	3	6	No	2	Concrete spalling at stair treads.	Patch concrete.	36	SF	\$ 50.00	\$ 1,800					\$ 2,849	\$ 2,949	\$ 3,052	\$ 3,159	\$ 3,270	
FO-4	Carpet/base	Facility		3	3	3	6	No	3	Carpet is worn and damaged.	Replace carpet and vinyl base.	2,500	SF	\$ 5.00	\$ 12,500					\$ 19,788	\$ 20,480	\$ 21,197	\$ 21,939	\$ 22,707	
FO-5	Elevator shaft roof	Parking ramp		3	3	4	7	No	3	Roof is nearing end of life.	Re-roof with new EDPM membrane.	1	LS	\$ 3,250.00	\$ 3,250					\$ 5,145	\$ 5,325	\$ 5,511	\$ 5,704	\$ 5,904	
FO-6	Skywalk Lighting	Skywalk		4	4	4	8	Yes	3	Light fixtures are in poor condition with rusty stem mounts.	Replace light fixtures.	1	SF					\$ 12,000.00	\$ 12,000	\$ 18,996	\$ 19,661	\$ 20,349	\$ 21,061	\$ 21,798	
FO-7	Storm pipe elbow relocation	Parking ramp level 5 south stair	FO-7	4	4	4	8	No	3	Existing elbow location susceptible to damage by automobiles	Relocate elbow and/or vertical storm riser to prevent damage from automobiles	1	LS			\$ 500.00	\$ 500			\$ 792	\$ 819	\$ 848	\$ 878	\$ 908	
																					\$ 82,627	\$ 85,519	\$ 88,512	\$ 91,610	\$ 94,816

A photograph of the exterior of the Forth Worth Zoo building. The building is a large, multi-story concrete structure with a prominent entrance featuring a set of stairs. A blue sign above the entrance reads "FORTH WORTH ZOO". To the left of the entrance, there is a blue lamppost and a small bus stop shelter. A concrete walkway leads from the foreground to the entrance. The sky is overcast.

GENERAL OVERVIEW

Use: Gymnasium
Year Built: 1976
Total Area: 74,319 SF
Floors: 3

MAJOR FINDINGS**Exterior**

- Some roof walkway pavers are cracked and walkway guardrails need painting.
- Minor repair, cleaning and resealing is required at exterior concrete walls.

Interior Finishes

- Locker room tile needs replacement.
- Several interior wood doors are in poor condition with failing hardware and should be replaced.
- Non-accessible corridor ceilings and tectum ceiling to Natatorium are in poor condition and should be replaced.

HVAC

- The building utilizes central campus steam for heating. Only a small portion of this building is air conditioned via direct expansion cooling in one of the air handlers. The cooling is inadequate for the space and needs to be redesigned. Air handlers located in the penthouse are in fair condition. The lower level locker room air handling unit, including the outdoor air intake, is undersized and should be replaced.

Plumbing

- There are no notable deficiencies in this building's plumbing infrastructure other than the replacement of some manual fixtures to automatic to match the campus standard.

Fire Protection

- The building is not sprinkled.

Temperature Controls

- The building utilizes Trane Summit Building Control Modules (BCU) for primary building control. It is connected to the Trane campus wide building automation system (BAS).

Lighting and Controls

- There are no automatic "OFF" controls for turning off lighting fixtures. Occupancy sensors should be added.
- Some exit signs are in poor conditions and locations do not meet current code requirements.
- All lamps and ballasts (excluding Gymnasium) are outdated and should be replaced.
- Additional exterior emergency lighting fixtures need to be added to meet current code requirements.



Fire Alarm System

- The fire alarm system is outdated and current device locations do not meet current code requirements.



FF-06



FF-15



FF-16



FF-19 and FF-20



FF-24



FF-31



FF-32



FF-38

Ford Field House

Address: 111 Lyon Street NE		Building Deficiencies Priorities by Category:									Consequences of the Problem				Need				Frequency of Use				Note: Project Cost includes 58.3% mark-ups and fees				
Bldg. Area: 74,319 SF											1. Hazards				1. Critical				1. Constant								
No. of Floors: 3											2. Interruption				2. Urgent				2. Frequent								
Year Built: 1976											3. Deterioration				3. Necessary				3. Occasional								
Evaluation Date: 8/12/2015		Note: Lower score equals higher priority									4. Utility				4. Desirable				4. Infrequent								
											5. Energy				5. ADA				5. Meager								
No.	Item/Description	Location	Photo No.	Priority	Cons.	Need	Score	Energy	Freq.	Notes	Action	Qty.	Unit	Architectural		Mechanical		Electrical		2016 Project Cost	2017 Project Cost	2018 Project Cost	2019 Project Cost	2020 Project Cost			
														Unit Cost	Subtotal	Unit Cost	Subtotal	Unit Cost	Subtotal								
FF-1	Smoke detectors on all AHU's	North and south mechanical rooms		1	1	1	2	No	1	Existing smoke detectors have been removed.	Reinstall and test for successful shutdown.	8	EA			\$ 500.00	\$ 4,000			\$ 6,332	\$ 6,554	\$ 6,783	\$ 7,020	\$ 7,266			
FF-2	Elevator	Interior south entry		1	1	3	4	No	2	Elevator controls are not working properly.	Repair controls and comply with ADA.	1	LS	\$ 20,000.00	\$ 20,000					\$ 31,660	\$ 32,768	\$ 33,915	\$ 35,102	\$ 36,331			
FF-3	Stair handrails and guard rails	Throughout building		1	1	3	4	No	3	Handrails and guard rails not compliant to code.	Replace/fix to meet code.	1	LS	\$ 55,000.00	\$ 55,000					\$ 87,065	\$ 90,112	\$ 93,266	\$ 96,531	\$ 99,909			
FF-4	Exit signage	Throughout building		2	2	3	5	No	2	Update to meet code requirements.	Add/replace with LED exit signs.	10	EA					\$ 275.00	\$ 2,750	\$ 4,353	\$ 4,506	\$ 4,663	\$ 4,827	\$ 4,995			
FF-5	Fire alarm system	Throughout building		2	2	3	5	No	4	The fire alarm system is obsolete and does not meet current code requirements.	Remove existing fire alarm system and install new fire alarm system.	74,319	SF					\$ 1.50	\$ 111,479	\$ 176,470	\$ 182,647	\$ 189,040	\$ 195,656	\$ 202,504			
FF-6	Multizone unit	Mechanical Room 100	FF-6	2	2	3	5	Yes	2	Existing unit has limited fresh air and no cooling.	Increase outdoor air intake area and add air conditioning - approximately 30 tons.	1	LS			\$ 66,000.00	\$ 66,000			\$ 104,478	\$ 108,135	\$ 111,919	\$ 115,837	\$ 119,891			
FF-7	Roof membrane	Roof		2	3	2	5	No	3	Roof membrane is at end of life.	Replace with 60 mil EDPM.	46,008	SF	\$ 12.00	\$ 552,096					\$ 873,968	\$ 904,557	\$ 936,216	\$ 968,984	\$ 1,002,898			
FF-8	Interior Lighting	Locker Rooms and Main Office		2	3	2	5	Yes	3	Light fixtures are outdated technology and in disrepair.	Replace existing fixtures with like and kind.	15,000	SF					\$ 1.50	\$ 22,500	\$ 35,618	\$ 36,864	\$ 38,154	\$ 39,490	\$ 40,872			
FF-9	Exterior Lighting	Exterior		2	2	3	5	Yes	3	Exterior light fixtures are at end of life and do not meet current life safety code.	Replace existing perimeter light fixtures with LED type. Add new emergency light fixtures above all exits.	1	LS					\$ 15,000.00	\$ 15,000	\$ 23,745	\$ 24,576	\$ 25,436	\$ 26,327	\$ 27,248			
FF-10	Inline pump relocation	Rm 101		2	2	3	5	No	2	Pump and associated piping is located over an electrical panel	Relocate pump and piping	1	LS			\$ 2,500.00	\$ 2,500			\$ 3,958	\$ 4,096	\$ 4,239	\$ 4,388	\$ 4,541			
FF-11	Wet pipe sprinkler system	Throughout building		2	2	3	5	No	1	Building is not entirely sprinkled	Provide wet pipe sprinkler system throughout the building	1	LS			\$ 80,000.00	\$ 80,000			\$ 126,640	\$ 131,072	\$ 135,660	\$ 140,408	\$ 145,322			
FF-12	Building lighting	All areas, excluding Gymnasium		3	3	3	6	Yes	2	Presently T-12 lamps.	Replace with T-8, lamps and program rapid start ballasts.	1	LS					\$ 20,000.00	\$ 20,000	\$ 31,660	\$ 32,768	\$ 33,915	\$ 35,102	\$ 36,331			
FF-13	Exterior concrete wall sealant joints	All elevations		3	3	3	6	No	3	Cracked sealant and cracks in concrete.	Remove and replace sealant.	500	LF	\$ 5.00	\$ 2,500					\$ 3,958	\$ 4,096	\$ 4,239	\$ 4,388	\$ 4,541			
FF-14	Exterior concrete walls	All elevations		3	3	3	6	No	3	Concrete needs cleaning. Reported water leaks.	Clean concrete and seal entire surface.	33,000	SF	\$ 2.20	\$ 72,600					\$ 114,926	\$ 118,948	\$ 123,111	\$ 127,420	\$ 131,880			
FF-15	Heat exchangers	Second level mechanical room	FF-15	3	3	3	6	Yes	1	Existing heat exchangers are 30 years old.	Replace with like and kind, shell and tube - 300 gpm, 40 degrees delta T, 10 lbs. steam. Lower heat exchangers to allow for proper servicing.	1	LS			\$ 35,000.00	\$ 35,000			\$ 55,405	\$ 57,344	\$ 59,351	\$ 61,429	\$ 63,579			
FF-16	AHU-3	South mechanical room	FF-16	3	3	3	6	No	2	Existing unit is short on airflow - serves offices. Unit is substantially undersized.	Replace with larger unit (E) 2,200 CFM replace with approximately 3,300, 8-10 tons.	1	EA			\$ 17,600.00	\$ 17,600			\$ 27,861	\$ 28,836	\$ 29,845	\$ 30,890	\$ 31,971			
FF-17	Stair risers	South stair		3	3	3	6	No	1	Metal risers are worn.	Remove chipped paint and re-paint.	120	SF	\$ 4.00	\$ 480					\$ 760	\$ 786	\$ 814	\$ 842	\$ 872			
FF-18	Exterior concrete walls	South elevation of gymnasium		3	3	3	6	No	3	Concrete wall is spauled exposing resteel.	Repair concrete wall.	1	LS	\$ 500.00	\$ 500					\$ 792	\$ 819	\$ 848	\$ 878	\$ 908			
FF-19	Roof walkway pavers	Roof walkway between Calkins bridge and Lyon Ramp bridge	FF-19	3	3	3	6	No	2	Concrete pavers deteriorating.	Replace pavers.	100	SF	\$ 9.00	\$ 900					\$ 1,425	\$ 1,475	\$ 1,526	\$ 1,580	\$ 1,635			
FF-20	Roof walkway guardrails	Roof walkway between Calkins bridge and Lyon Ramp bridge	FF-20	3	3	3	6	No	2	Paint peeling.	Repaint guardrails.	2,000	SF	\$ 2.00	\$ 4,000					\$ 6,332	\$ 6,554	\$ 6,783	\$ 7,020	\$ 7,266			
FF-21	Showers/locker area	1st floor		3	3	3	6	No	2	Lockers, benches, showers are in fair to poor condition.	Renovate entire area with new.	8,750	SF	\$ 100.00	\$ 875,000					\$ 1,385,125	\$ 1,433,604	\$ 1,483,781	\$ 1,535,713	\$ 1,589,463			
FF-22	Showers/locker area	2nd floor		3	3	3	6	No	2	Lockers, benches, showers are in fair to poor condition.	Renovate entire area with new.	4,000	SF	\$ 100.00	\$ 400,000					\$ 633,200	\$ 655,362	\$ 678,300	\$ 702,040	\$ 726,612			
FF-23	Gymnasium netting, curtains, cages	2nd floor		3	3	3	6	No	2	Curtains, netting, batting cages are old and worn out.	Replace with new.	1	LS	\$ 150,000.00	\$ 150,000					\$ 237,450	\$ 245,761	\$ 254,362	\$ 263,265	\$ 272,479			
FF-24	Interior wood doors	Throughout building	FF-24	3	3	4	7	No	3	Doors are in poor condition, hardware has been repaired many times.	Replace doors and hardware.	65	EA	\$ 1,260.00	\$ 81,900					\$ 129,648	\$ 134,185	\$ 138,882	\$ 143,743	\$ 148,774			
FF-25	Ceramic tile wall	Locker rooms throughout building		3	3	4	7	No	2	Foul smell behind ceramic tile at exterior wall.	Investigate and replace ceramic tile.	7,280	SF	\$ 12.50	\$ 91,000					\$ 144,053	\$ 149,095	\$ 154,313	\$ 159,714	\$ 165,304			
FF-26	Portable bleachers	2nd floor		3	3	4	7	No	3	Portable bleachers are heavy, old and hard to move.	Replace with new.	1	LS	\$ 86,200.00	\$ 86,200					\$ 136,455	\$ 141,231	\$ 146,174	\$ 151,290	\$ 156,585			

Ford Field House

Address: 111 Lyon Street NE				Building Deficiencies Priorities by Category:							Consequences of the Problem				Need				Frequency of Use				Note: Project Cost includes 58.3% mark-ups and fees				
Bldg. Area: 74,319 SF											1. Hazards				1. Critical				1. Constant								
No. of Floors: 3											2. Interruption				2. Urgent				2. Frequent								
Year Built: 1976											3. Deterioration				3. Necessary				3. Occasional								
Evaluation Date: 8/12/2015				Note: Lower score equals higher priority							4. Utility				4. Desirable				4. Infrequent								
											5. Energy				5. ADA				5. Meager								
No.	Item/Description	Location	Photo No.	Priority	Cons.	Need	Score	Energy	Freq.	Notes	Action	Qty.	Unit	Architectural		Mechanical		Electrical		2016 Project Cost	2017 Project Cost	2018 Project Cost	2019 Project Cost	2020 Project Cost			
														Unit Cost	Subtotal	Unit Cost	Subtotal	Unit Cost	Subtotal								
FF-27	Automatic (off) lighting controls	Throughout building		3	5	3	8	Yes	2	Update to meet code, shut off lights in unoccupied rooms.	Install occupancy sensors.	70,000	SF					\$ 1.10	\$ 77,000	\$ 121,891	\$ 126,157	\$ 130,573	\$ 135,143	\$ 139,873			
FF-28	Locker room flooring	First floor men's and women's locker rooms, health club and second floor men's locker room		4	4	4	8	No	3	Seamless flooring is worn, soiled and cracked at base.	Replace with like and kind.	7,600	SF	\$ 11.50	\$ 87,400					\$ 138,354	\$ 143,197	\$ 148,208	\$ 153,396	\$ 158,765			
FF-29	Folding partition	Third floor dance studio		4	4	4	8	No	3	Partition is in fair to poor condition.	Replace folding partition, 25 ft. long x 16 ft. high.	400	SF	\$ 50.00	\$ 20,000					\$ 31,660	\$ 32,768	\$ 33,915	\$ 35,102	\$ 36,331			
FF-30	Condensate return piping	Meter room		4	4	4	8	No	5	Pipe is no longer in use.	Demolish and remove entire pipe.	200	LF			\$ 23.10	\$ 4,620			\$ 7,313	\$ 7,569	\$ 7,834	\$ 8,109	\$ 8,392			
FF-31	AHU-2, AHU-4 and AHU-5	South and north mechanical rooms	FF-31	4	4	4	8	No	3	Existing units lack air conditioning. Total airflow is inadequate.	Replace units and add air conditioning.	3	EA			\$ 150,000.00	\$ 450,000			\$ 712,350	\$ 737,282	\$ 763,087	\$ 789,795	\$ 817,438			
FF-32	Relief air hood dampers	Gymnasium roof	FF-32	4	4	4	8	No	3	Dampers are in poor condition	Replace dampers and actuators	1	LS			\$ 20,000.00	\$ 20,000			\$ 31,660	\$ 32,768	\$ 33,915	\$ 35,102	\$ 36,331			
FF-33	Laundry room condensate disposal	Rm 103 laundry		4	4	4	8	No	3	Condensate needs to be cooled and drained	Provide condensate coolers and demolish existing condensate receiver, pumps, piping, electrical and controls	1	LS			\$ 20,000.00	\$ 20,000			\$ 31,660	\$ 32,768	\$ 33,915	\$ 35,102	\$ 36,331			
FF-34	Showers and plumbing fixtures	Health club, student locker rooms, team locker rooms		4	4	4	8	No	3	Showers and plumbing fixtures are in poor condition	Replace showers and plumbing fixtures	1	LS			\$ 50,000.00	\$ 50,000			\$ 79,150	\$ 81,920	\$ 84,787	\$ 87,755	\$ 90,826			
FF-35	Inadequate ventilation	Health club, student locker rooms, team locker rooms		4	4	4	8	No	2	Poor airflow in these rooms and undersized ventilation equipment	Renovate the locker rooms ventilation systems and ensure compliance with current ventilation standard 62.1-2007	1	LS			\$ 75,000.00	\$ 75,000			\$ 118,725	\$ 122,880	\$ 127,181	\$ 131,633	\$ 136,240			
FF-36	Exhaust fans	Throughout building		4	4	4	8	No	2	Exhaust fans are past their useful service life	Replace all exhaust fans with like kind	1	LS			\$ 30,000.00	\$ 30,000			\$ 47,490	\$ 49,152	\$ 50,872	\$ 52,653	\$ 54,496			
FF-37	Office VAV terminal addition	Office area		4	4	4	8	Yes	2	Existing system is constant volume with no individual zone temperature control	Convert system to VAV and add VAV single duct terminal units with hot water reheat	1	LS			\$ 40,000.00	\$ 40,000			\$ 63,320	\$ 65,536	\$ 67,830	\$ 70,204	\$ 72,661			
FF-38	Cabinet unit heaters	Throughout building	FF-38	4	4	4	8	No	3	Cabinet unit heaters are past their useful service life	Replace units with like kind	1	LS			\$ 20,000.00	\$ 20,000			\$ 31,660	\$ 32,768	\$ 33,915	\$ 35,102	\$ 36,331			
FF-39	Condensate tank, pump and trim	Room 103		4	5	4	9	Yes	1	Missing insulation, area is very hot.	Install new insulation.	50	LF			\$ 9.90	\$ 495			\$ 784	\$ 811	\$ 839	\$ 869	\$ 899			
FF-40	Toilet room fixtures	Men's locker room toilets, first and second floors		4	4	5	9	No	2	BF urinal not provided.	Lower one urinal to BF height.	2	EA			\$ 1,200.00	\$ 2,400			\$ 3,799	\$ 3,932	\$ 4,070	\$ 4,212	\$ 4,360			
FF-41	Toilet room accessories	Men's and women's toilets		4	4	5	9	No	2	Accessories not mounted at BF height.	Lower accessories.	4	EA	\$ 30.00	\$ 120					\$ 190	\$ 197	\$ 203	\$ 211	\$ 218			
																				\$ 5,803,341	\$ 6,006,457	\$ 6,216,683	\$ 6,434,267	\$ 6,659,467			

FORD NATATORIUM (FN)





GENERAL OVERVIEW

Use: Pool, classrooms
Year Built: 1976
Total Area: 44,279 SF
Floors: 3 (plus viewing balcony)

MAJOR FINDINGS

Interior Finishes

- Several interior wood doors are in poor condition with failing hardware and should be replaced.
- Ceilings in some areas are damaged from water leaks and need replacement.

HVAC

- This building utilizes central campus steam for heating. This building is not air conditioned.

Plumbing

- A few column showers are in need of replacement and some fixtures require a change from manual to automatic in order to match the campus standard.

Fire Protection

- The building is not sprinkled.

Temperature Controls

- The building utilizes Trane Summit Building Control Modules (BCU) for primary building control. It is connected to the Trane campus wide building automation system (BAS).

Lighting and Controls

- There are no automatic "OFF" controls for turning off lighting fixtures. Occupancy sensors should be added.
- Exit signs are in poor conditions and locations do not meet current code requirements.
- All lamps and ballasts are outdated and should be replaced.

Fire Alarm System

- The fire alarm system is outdated and current device locations do not meet current code requirements.

Power Systems

- The main switchboard and panelboards are outdated, in poor condition and should be replaced.



FN-3



FN-4



FN-7



FN-19



FN-20



FN-23



FN-24



FN-29



FN-31

Ford Natatorium

Address: 226 Ransom NE		Building Deficiencies Priorities by Category:								<u>Consequences of the Problem</u> 1. Hazards 2. Interruption 3. Deterioration 4. Utility 5. Energy				<u>Need</u> 1. Critical 2. Urgent 3. Necessary 4. Desirable 5. ADA				<u>Frequency of Use</u> 1. Constant 2. Frequent 3. Occasional 4. Infrequent 5. Meager				Note: Project Cost includes 58.3% mark-ups and fees				
Bldg. Area: 44,279 SF																										
No. of Floors: 3 (plus viewing balcony)																										
Year Built: 1976																										
Evaluation Date: 8/12/2015		Note: Lower score equals higher priority																								
No.	Item/Description	Location	Photo No.	Priority	Cons.	Need	Score	Energy	Freq.	Notes	Action	Qty.	Unit	Architectural		Mechanical		Electrical		2016 Project Cost	2017 Project Cost	2018 Project Cost	2019 Project Cost	2020 Project Cost		
														Unit Cost	Subtotal	Unit Cost	Subtotal	Unit Cost	Subtotal							
FN-1	Interior doors	Former racquetball court entrance doors		1	1	5	6	No	2	Door size does not meet minimum building and BF code requirements.	Increase concrete wall opening height (saw cut) and provide new wood door in hollow metal frame.	6	EA	\$ 2,000.00	\$ 12,000					\$ 18,996	\$ 19,661	\$ 20,349	\$ 21,061	\$ 21,798		
FN-2	BF access	Former racquetball court entrance doors		1	1	5	6	No	2	4" step at door prevents wheelchair access to rooms.	Provide ramp inside room.	6	EA	\$ 600.00	\$ 3,600					\$ 5,699	\$ 5,898	\$ 6,105	\$ 6,318	\$ 6,540		
FN-3	Pool heater heat exchanger	Room 113	FN-3	2	2	2	4	Yes	1	Original heat exchanger beyond useful life.	Replace with like and kind - 125 GPM, 40 degrees delta.	1	LS			\$ 4,400.00	\$ 4,400			\$ 6,965	\$ 7,209	\$ 7,461	\$ 7,722	\$ 7,993		
FN-4	HWH pumps	First floor mechanical room	FN-4	2	2	2	4	Yes	1	Base-mounted HWH pumps for Natatorium; 1 pump failed, 1 isolation valve failed.	Replace both pumps with like and kind.	2	EA			\$ 8,500.00	\$ 17,000			\$ 26,911	\$ 27,853	\$ 28,828	\$ 29,837	\$ 30,881		
FN-5	Exit signage	Throughout building		2	2	3	5	No	4	Add/replace exit signage.	Replace with LED exit lighting units.	35	EA					\$ 275.00	\$ 9,625	\$ 15,236	\$ 15,770	\$ 16,322	\$ 16,893	\$ 17,484		
FN-6	Fire alarm	Throughout building		2	2	3	5	No	4	System does not meet current codes, strobes are not present and pull stations are not within 5'-0" of egress doors.	Add new strobes, pull stations, horns and remote annunciator panel connected to new Main FACP located in the Field House.	44,379	SF					\$ 0.83	\$ 36,835	\$ 58,309	\$ 60,350	\$ 62,462	\$ 64,648	\$ 66,911		
FN-7	Pool pump and VFD replacement	Pool mechanical room	FN-7	2	2	3	5	No	2	Pool pumps and VFD's are past their useful service life	Replace pumps and VFD's with like kind	1	LS			\$ 10,000.00	\$ 10,000			\$ 15,830	\$ 16,384	\$ 16,957	\$ 17,551	\$ 18,165		
FN-8	Pool filtration system media	Pool mechanical room		2	2	3	5	No	2	Media is diatomaceous earth and in poor condition	Replace media and system with latest technology filter system	1	LS			\$ 20,000.00	\$ 20,000			\$ 31,660	\$ 32,768	\$ 33,915	\$ 35,102	\$ 36,331		
FN-9	Wet pipe sprinkler system	Throughout building		2	2	3	5	No	1	Building is not entirely sprinkled	Provide wet pipe sprinkler system throughout the building	1	LS			\$ 80,000.00	\$ 80,000			\$ 126,640	\$ 131,072	\$ 135,660	\$ 140,408	\$ 145,322		
FN-10	Heat exchangers	Throughout building		2	2	3	5	No	2	Existing heat exchangers are past their useful service life	Replace heat exchangers with like kind	1	LS			\$ 30,000.00	\$ 30,000			\$ 47,490	\$ 49,152	\$ 50,872	\$ 52,653	\$ 54,496		
FN-11	Building lighting	Throughout building (except pool)		3	3	3	6	Yes	2	Outdated T-12 Lamps, ballasts and fixtures.	Replace with T-8 lamps and program rapid start ballasts.	23,000	SF					\$ 4.40	\$ 101,200	\$ 160,200	\$ 165,807	\$ 171,610	\$ 177,616	\$ 183,833		
FN-12	Exterior concrete wall sealant joints	All elevations		3	3	3	6	No	3	Sealant is in poor condition	Remove and replace sealant.	550	LF	\$ 5.00	\$ 2,750					\$ 4,353	\$ 4,506	\$ 4,663	\$ 4,827	\$ 4,995		
FN-13	Exterior concrete wall	All elevations		3	3	3	6	No	3	Concrete needs cleaning. Reported water leaks.	Clean concrete and seal entire surface.	14,500	SF	\$ 2.20	\$ 31,900					\$ 50,498	\$ 52,265	\$ 54,094	\$ 55,988	\$ 57,947		
FN-14	Stair egress door	North stair, pool level		3	3	3	6	No	3	Sealant missing at door frame perimeter.	Provide sealant.	1	LS	\$ 110.00	\$ 110					\$ 174	\$ 180	\$ 187	\$ 193	\$ 200		
FN-15	Acoustical ceilings	Southeast stair tower, south stair, Office 2002		3	3	3	6	No	3	Stained and damaged 1 x 1 acoustical tile.	Provide lay-in panels and exposed aluminum grid. Replace lighting and mechanical grilles.	850	SF	\$ 4.70	\$ 3,995	\$ 0.50	\$ 425	\$ 4.00	\$ 3,400	\$ 12,379	\$ 12,812	\$ 13,261	\$ 13,725	\$ 14,205		
FN-16	Locker room MAU	Mechanical Room 110		3	3	3	6	No	1	Existing valve is in poor condition.	Replace 3-way control valve on locker room MAU.	1	LS			\$ 1,210.00	\$ 1,210			\$ 1,915	\$ 1,982	\$ 2,052	\$ 2,124	\$ 2,198		
FN-17	Exterior concrete	West entrance Racquetball Court level		3	3	3	6	No	3	Spauled concrete has exposed steel reinforcing.	Repair concrete wall.	1	LS	\$ 500.00	\$ 500					\$ 792	\$ 819	\$ 848	\$ 878	\$ 908		
FN-18	Pool lighting	Around perimeter of Pool		3	3	3	6	Yes	2	Presently Metal Halyde lamps.	Replace Metal Halide lamps with new updated lighting systems designed for pool area with LEDs.	1	LS					\$ 25,000		\$ 39,575	\$ 40,960	\$ 42,394	\$ 43,878	\$ 45,413		
FN-19	Tile	Shower/locker rooms	FN-19	3	3	3	6	No	2	Tile walls and floor are in poor condition.	Replace all tile walls and flooring.	25,000	SF	\$ 10.00	\$ 250,000					\$ 395,750	\$ 409,601	\$ 423,937	\$ 438,775	\$ 454,132		
FN-20	Lockers/benches	Throughout building	FN-20	3	3	3	6	No	2	Lockers/benches are in fair to poor condition.	Replace with new.	190		\$ 285.00	\$ 54,150					\$ 85,719	\$ 88,720	\$ 91,825	\$ 95,039	\$ 98,365		
FN-21	Interior doors	Throughout building		3	4	3	7	No	2	Doors and hardware in poor condition.	Replace doors and hardware, FRP doors and aluminum frames at pool.	22	EA	\$ 1,265.00	\$ 27,830					\$ 44,055	\$ 45,597	\$ 47,193	\$ 48,844	\$ 50,554		
FN-22	Building expansion joint	Public washroom level at corridor		3	3	4	7	No	3	VCT damaged at floor. Evidence of water leaks.	Repair VCT and correct water leaks.	1	LS	\$ 825.00	\$ 825					\$ 1,306	\$ 1,352	\$ 1,399	\$ 1,448	\$ 1,499		
FN-23	AC ceiling panels	Pool	FN-23	3	3	4	7	No	3	Ceiling panel over pool is inaccessible.	Remove suspended AC panels and grid; paint deck.	14,950		\$ 15.00	\$ 224,250					\$ 354,988	\$ 367,412	\$ 380,272	\$ 393,581	\$ 407,357		
FN-24	Condensate pump replacement	Pool mechanical room	FN-24	3	4	3	7	No	3	Condensate pump system is past its useful service life	Replace system with like kind	1	LS			\$ 15,000.00	\$ 15,000			\$ 23,745	\$ 24,576	\$ 25,436	\$ 26,327	\$ 27,248		
FN-25	Automatic (off) lighting controls	Throughout building		3	5	3	8	Yes	2	Update to meet code, shut off lights in unoccupied rooms.	Install occupancy sensors.	44,379	SF					\$ 1.10	\$ 48,817	\$ 77,277	\$ 79,982	\$ 82,781	\$ 85,679	\$ 88,677		

Ford Natatorium

Address: 226 Ransom NE				Building Deficiencies Priorities by Category:							<u>Consequences of the Problem</u>				<u>Need</u>				<u>Frequency of Use</u>						
Bldg. Area: 44,279 SF											1. Hazards				1. Critical				1. Constant						
No. of Floors: 3 (plus viewing balcony)											2. Interruption				2. Urgent				2. Frequent						
Year Built: 1976											3. Deterioration				3. Necessary				3. Occasional						
Evaluation Date: 8/12/2015				Note: Lower score equals higher priority							4. Utility				4. Desirable				4. Infrequent						
											5. Energy				5. ADA				5. Meager						
No.	Item/Description	Location	Photo No.	Priority	Cons.	Need	Score	Energy	Freq.	Notes	Action	Qty.	Unit	Architectural		Mechanical		Electrical		2016 Project Cost	2017 Project Cost	2018 Project Cost	2019 Project Cost	2020 Project Cost	
														Unit Cost	Subtotal	Unit Cost	Subtotal	Unit Cost	Subtotal						
FN-26	Service entrance gear	Electrical room east of Calkins		4	4	4	8	No	2	Beyond useful life.	Replace 1,000 ampere 480/277V and 400 ampere 240/120V switchboard and transformers.	1	EA					\$ 137,500.00	\$ 137,500	\$ 217,663	\$ 225,281	\$ 233,166	\$ 241,326	\$ 249,773	
FN-27	Panelboards	Throughout building		4	4	4	8	No	2	Beyond useful life.	Replace panelboards.	25	EA					\$ 4,180.00	\$ 104,500	\$ 165,424	\$ 171,213	\$ 177,206	\$ 183,408	\$ 189,827	
FN-28	VCT flooring	North/south corridor racquetball court level		4	4	4	8	No	2	Flooring is in fair to poor condition, repaired with non-matching tile.	Replace VCT and resilient base.	1,200	SF	\$ 3.30	\$ 3,960					\$ 6,269	\$ 6,488	\$ 6,715	\$ 6,950	\$ 7,193	
FN-29	AHU-8	Upper level mechanical room	FN-29	4	4	4	8	Yes	2	Unit is in poor condition and lacks required air quantity.	Replace with larger unit.	1	LS			\$ 40,000.00	\$ 40,000			\$ 63,320	\$ 65,536	\$ 67,830	\$ 70,204	\$ 72,661	
FN-30	AHU-9	Upper level mechanical room		4	4	4	8	Yes	2	Existing unit is in fair to poor condition. Controls are in fair to poor condition.	Replace with like and kind.	1	LS			\$ 187,000.00	\$ 187,000			\$ 296,021	\$ 306,382	\$ 317,105	\$ 328,204	\$ 339,691	
FN-31	Column showers	Team locker room	FN-31	4	4	4	8	No	3	Existing shower heads are in fair to poor condition.	Replace with like and kind.	8	EA			\$ 2,500.00	\$ 20,000			\$ 31,660	\$ 32,768	\$ 33,915	\$ 35,102	\$ 36,331	
FN-32	Exhaust fan replacement	Throughout building		4	4	4	8	No	3	Exhaust fans are past their useful service life	Replace fans with like kind	1	LS			\$ 20,000.00	\$ 20,000			\$ 31,660	\$ 32,768	\$ 33,915	\$ 35,102	\$ 36,331	
FN-33	Passenger elevator	Adjacent to south stair		4	4	5	9	No	2	No audible signal or floor designation signs at hoist way jambs.	Provide audible signal and floor designation signs.	1	LS	\$ 3,520.00	\$ 3,520					\$ 5,572	\$ 5,767	\$ 5,969	\$ 6,178	\$ 6,394	
																					\$ 2,424,050	\$ 2,508,892	\$ 2,596,703	\$ 2,687,588	\$ 2,781,653

LEARNING RESOURCE CENTER (LR)



GENERAL OVERVIEW

Use: Library
Year Built: 1972
Total Area: 73,946 SF
Floors: 2 (plus basement)

MAJOR FINDINGS**Exterior**

- Plaza waterproofing needs repair at second floor east stair exit.
- Minor repair, cleaning and resealing is required at exterior concrete walls.

Interior Finishes

- Ceramic tile in Lobby needs joints to be regouted; tiles are in poor condition and should be replaced.

HVAC

- This building utilizes central campus steam for heating and cooling via its own dedicated chiller. The plant consists of steam to hot water heat exchangers and one indoor chiller. There are four main air handlers housed in roof level mechanical spaces that are in need of replacement.

Plumbing

- There are no notable deficiencies in this building's plumbing infrastructure other than the replacement of some manual fixtures to automatic to match the campus standard.

Fire Protection

- This building is sprinkled.

Temperature Controls

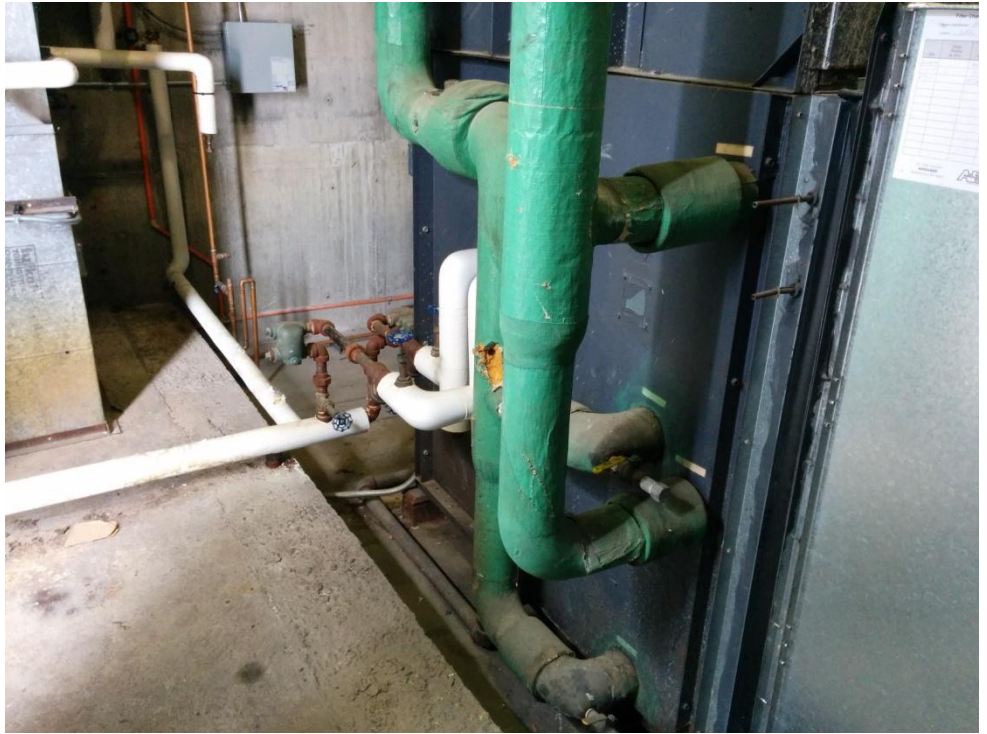
- This building utilizes a Trane ES Building controls. It is connected to the Trane campus wide building automation system (BAS).



LR-1



LR-2



LR-5



LR-13



LR-17



LR-20



LR-21

Learning Resource Center

Address: 140 Ransom NE		Building Deficiencies Priorities by Category:								<u>Consequences of the Problem</u> 1. Hazards 2. Interruption 3. Deterioration 4. Utility 5. Energy				<u>Need</u> 1. Critical 2. Urgent 3. Necessary 4. Desirable 5. ADA				<u>Frequency of Use</u> 1. Constant 2. Frequent 3. Occasional 4. Infrequent 5. Meager				Note: Project Cost includes 58.3% mark-ups and fees					
Bldg. Area: 73,946 SF		No. of Floors: 2 (plus basement)		Year Built: 1972		Evaluation Date: 8/18/2015																					
No.	Item/Description	Location	Photo No.	Priority	Cons.	Need	Score	Energy	Freq.	Notes	Action	Qty.	Unit	Architectural		Mechanical		Electrical		2016	2017	2018	2019	2020			
														Unit Cost	Subtotal	Unit Cost	Subtotal	Unit Cost	Subtotal	Project Cost	Project Cost	Project Cost	Project Cost	Project Cost			
LR-1	Interior loading dock steps and rail	Service Dock 001	LR-1	1	1	2	3	No	2	Dock steps too narrow; missing handrails, guardrails.	Replace concrete stairs with code compliant width rails.	1	LS	\$ 12,500.00	\$ 12,500					\$ 19,788	\$ 20,480	\$ 21,197	\$ 21,939	\$ 22,707			
LR-2	Interior loading dock roof deck	Service Dock 001	LR-2	1	1	2	3	No	2	Roof deck leaks; concrete falling down.	Concrete roof deck needs structural repair and waterproofing.	1	LS	\$ 24,500.00	\$ 24,500					\$ 38,784	\$ 40,141	\$ 41,546	\$ 43,000	\$ 44,505			
LR-3	Heating hot water and domestic hot water heat exchangers	Mechanical room		2	2	3	5	No	2	Existing heat exchangers are beyond their useful life.	Replace heat exchangers.	2	EA			\$ 12,000.00	\$ 24,000			\$ 37,992	\$ 39,322	\$ 40,698	\$ 42,122	\$ 43,597			
LR-4	Heating hot water convertor, pumping and piping distribution system	Mechanical room		2	2	3	5	No	2	It is desired that the Penthouse air handlers (when they get replaced) be served by heating hot water in lieu of steam for the heating coils.	Provide central steam to heating hot water convertor, pumping and piping distribution system to serve the Penthouse air handlers.	1	LS			\$ 100,000.00	\$ 100,000			\$ 158,300	\$ 163,841	\$ 169,575	\$ 175,510	\$ 181,653			
LR-5	Chilled water coils	Mechanical penthouses	LR-5	2	2	3	5	No	2	Chilled water coils are beyond their useful service life and are prone to leaks and service calls.	If the penthouse air handlers do not get replaced, then it is desired that at least the chilled water coils be replaced.	4	EA			\$ 3,000.00	\$ 12,000			\$ 18,996	\$ 19,661	\$ 20,349	\$ 21,061	\$ 21,798			
LR-6	Lighting	Loading Dock 001		2	2	4	6	No	3	Light levels are not adequate for area.	Replace existing light fixtures with LED type.	1	LS					\$ 3,600.00	\$ 3,600	\$ 5,699	\$ 5,898	\$ 6,105	\$ 6,318	\$ 6,540			
LR-7	Exterior concrete walls	All elevations		3	3	3	6	No	3	Concrete needs cleaning. Reported water leaks.	Clean concrete and seal entire surface.	20,000	SF	\$ 2.70	\$ 54,000					\$ 85,482	\$ 88,474	\$ 91,570	\$ 94,775	\$ 98,093			
LR-8	Exterior metal doors, panels and louvers	Above roof at mechanical penthouses and stair towers		3	3	3	6	No	3	Metal is rusted and deteriorated.	Replace with FRP doors, insulated aluminum panels and louvers in aluminum framing.	1,350	SF	\$ 92.00	\$ 124,200					\$ 196,609	\$ 203,490	\$ 210,612	\$ 217,983	\$ 225,613			
LR-9	Main drip steam supply line	Manhole outside of building		3	3	3	6	No	1	Existing temporary fix needs permanent repair.	Replace 10' of 1.5" steel pipe in the man hole.	1	LS			\$ 4,125.00	\$ 4,125			\$ 6,530	\$ 6,758	\$ 6,995	\$ 7,240	\$ 7,493			
LR-10	Fresh air dampers on AC-1, AC-2, AC-3 and AC-4	Mechanical penthouses		3	3	3	6	No	2	Existing dampers are not functioning well due to age.	Replace fresh air dampers. Approximate size: 114" x 16" each.	4	EA			\$ 2,650.00	\$ 10,600			\$ 16,780	\$ 17,367	\$ 17,975	\$ 18,604	\$ 19,255			
LR-11	Mechanical penthouse exhaust fans	Mechanical penthouses		3	3	3	6	No	1	Existing units are beyond their useful life.	Replace with like and kind.	4	EA			\$ 3,380.00	\$ 13,520	\$ 500.00	\$ 2,000	\$ 24,568	\$ 25,428	\$ 26,318	\$ 27,239	\$ 28,193			
LR-12	Dielectric fittings	Toilet rooms, entrances, CUH's		3	3	3	6	No	1	Existing fittings are bad.	Remove or replace with brass fittings.	25	EA			\$ 345.00	\$ 8,625			\$ 13,653	\$ 14,131	\$ 14,626	\$ 15,138	\$ 15,668			
LR-13	Ceramic tile floor	First floor lobby	LR-13	3	3	3	6	No	1	Grout joints cracked and missing. Tiles are at end of life.	Replace tile flooring.	3,650	SF	\$ 3.00	\$ 10,950					\$ 17,334	\$ 17,941	\$ 18,568	\$ 19,218	\$ 19,891			
LR-14	Overhead door	Service Dock 001		3	3	3	6	No	2	Service dock overhead door is at end of life.	Replace overhead door motor and seals.	1	LS	\$ 18,000.00	\$ 18,000					\$ 28,494	\$ 29,491	\$ 30,523	\$ 31,592	\$ 32,698			
LR-15	Penthouse air handlers	Mechanical penthouses		3	3	3	6	No	1	Existing air handlers are beyond their useful service life.	Replace air handlers.	4	EA			\$ 80,000.00	\$ 320,000			\$ 506,560	\$ 524,290	\$ 542,640	\$ 561,632	\$ 581,289			
LR-16	Toilet room lavatory counter	Second floor men's toilet room		3	3	4	7	No	2	Laminate counter is deteriorated.	Replace countertop, sink and plumbing fixtures.	1	EA	\$ 185.00	\$ 185	\$ 1,475.00	\$ 1,475			\$ 2,628	\$ 2,720	\$ 2,815	\$ 2,913	\$ 3,015			
LR-17	Elevator	Southwest area in Library 110	LR-17	3	3	4	7	No	2	Elevator laminate cracked.	Update cab finishes.	1	LS	\$ 2,000.00	\$ 2,000					\$ 3,166	\$ 3,277	\$ 3,391	\$ 3,510	\$ 3,633			
LR-18	Exterior pole lighting	Exterior		3	3	4	7	Yes	2	Cube light fixtures are out of date and in disrepair.	Replace all cube lighting with new pole mounted fixtures.	1	LS					\$ 14,400.00	\$ 14,400	\$ 22,795	\$ 23,593	\$ 24,419	\$ 25,273	\$ 26,158			
LR-19	Penthouse Lighting	Penthouses		3	3	4	7	Yes	4	Existing light fixtures are T12 lamps with no automatic control.	Replace existing fixtures with T8 fixtures. Provide each penthouse with twist timer.	1	LS					\$ 4,800.00	\$ 4,800	\$ 7,598	\$ 7,864	\$ 8,140	\$ 8,424	\$ 8,719			
LR-20	HWH pumps	Mechanical Room P11	LR-20	4	4	4	8	Yes	1	Existing B & G HWH pumps are in fair to poor condition.	Replace with like and kind. No data available on pump.	1	LS			\$ 15,375.00	\$ 15,375			\$ 24,339	\$ 25,190	\$ 26,072	\$ 26,985	\$ 27,929			
LR-21	Side stream filters (closed loop and open loop units) controls	Mechanical room	LR-21	4	4	4	8	Yes	2	Side stream filters are desired to operate only when the chiller or cooling tower are in operation.	Revise controls for side stream filters.	2	EA			\$ 500.00	\$ 1,000			\$ 1,583	\$ 1,638	\$ 1,696	\$ 1,755	\$ 1,817			
LR-22	Cabinet unit heaters	Stairwells and entrances		4	4	4	8	No	3	Existing units are beyond their useful service life.	Replace cabinet unit heaters.	1	LS			\$ 20,000.00	\$ 20,000			\$ 31,660	\$ 32,768	\$ 33,915	\$ 35,102	\$ 36,331			
LR-23	Toilet room renovation	Throughout building		4	4	4	8	No	2	Toilet rooms are outdated and in poor condition.	Replace all toilet room fixtures, flush valves, faucets, trim and exhaust grilles.	1	LS			\$ 30,000.00	\$ 30,000			\$ 47,490	\$ 49,152	\$ 50,872	\$ 52,653	\$ 54,496			
																					\$ 1,316,826	\$ 1,362,915	\$ 1,410,617	\$ 1,459,989	\$ 1,511,089		

LETTINGA CENTER (LC)



GENERAL OVERVIEW

Use: Office
 Year Built: Unknown (Renovated 2000)
 Total Area: 6,585 SF
 Floors: 2 (plus basement)

MAJOR FINDINGS

Exterior

- Windows are single glazed and in poor condition.
- Wood siding and trim needs repainting and relacing of rotted boards.
- Wood decking on porch needs rotted boards replaced and repainted.

Interior

- North and south stairs have missing and/or non-code compliant handrails.
- Cement parging on the basement walls is cracked and deteriorated.

HVAC

- This building is served by residential style forced air furnaces with direct expansion cooling and associated condensers that should all be replaced. One furnace is located in the basement, the other in the third floor attic space. It is recommended that the condenser that is in the attic be moved to slab on grade.

Plumbing

- The domestic plumbing and fixtures are in poor condition and should be replaced.

Fire Protection

- This building is not sprinkled.

Temperature Controls

- There are residential type stand alone controls in this building. It should eventually be connected to Trane campus wide building automation system (BAS).

Lighting and Controls

- There are no automatic "OFF" controls for turning off lighting fixtures. Occupancy sensors should be added.
- Additional exit signs are needed to meet current code requirements.
- All incandescent lamps should be replaced with compact fluorescent or LED.
- Emergency lighting system needs to be updated to meet current code requirements.

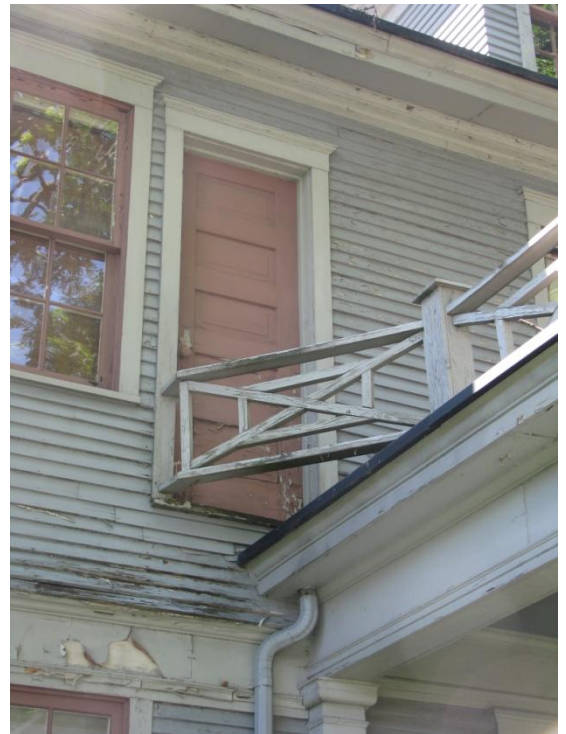
Fire Alarm System

- The fire alarm system is outdated and current device locations do not meet current code requirements.



Power Systems

- Branch circuitry should be replaced. All receptacles should be replaced with ground pin type.



LC-2



LC-8



LC-15



LC-16



LC-17



LC-18



LC-19



LC-20



LC-23



LC-24



LC-25



LC-26

Lettinga Center

Address: 473 E. Fulton		Building Deficiencies Priorities by Category:								Consequences of the Problem				Need		Frequency of Use								
Bldg. Area: 6,585 SF										1. Hazards				1. Critical		1. Constant								
No. of Floors: 2 + basement										2. Interruption				2. Urgent		2. Frequent								
Year Built: 19/Renovated 2000										3. Deterioration				3. Necessary		3. Occasional								
Evaluation Date: 7/21/2015		Note: Lower score equals higher priority								4. Utility				4. Desirable		4. Infrequent								
										5. Energy				5. ADA		5. Meager								
No.	Item/Description	Location	Photo No.	Priority	Cons.	Need	Score	Energy	Freq.	Notes	Action	Qty.	Unit	Architectural		Mechanical		Electrical		2016 Project Cost	2017 Project Cost	2018 Project Cost	2019 Project Cost	2020 Project Cost
														Unit Cost	Subtotal	Unit Cost	Subtotal	Unit Cost	Subtotal					
LC-1	Floor settlement	First floor		1	1	2	3	No	2	Floor deflecting at area of file cabinets.	Reduce load and install adjustable lolly columns with foundations in basement.	1	LS	\$ 1,845.00	\$ 1,845					\$ 2,921	\$ 3,023	\$ 3,129	\$ 3,238	\$ 3,351
LC-2	Door to nowhere	2nd floor Room 203	LC-2	1	1	2	3	No	4	Exterior door exits to half of a porch roof.	Remove door and fix railing parallel to gutter.	1	EA	\$ 5,000.00	\$ 5,000					\$ 7,915	\$ 8,192	\$ 8,479	\$ 8,776	\$ 9,083
LC-3	Exit signage	Throughout building		1	1	3	4	No	2	Update to meet code requirements.	Add/replace with LED exit signs.	10	EA					\$ 338.00	\$ 3,380	\$ 5,351	\$ 5,538	\$ 5,732	\$ 5,932	\$ 6,140
LC-4	Emergency lighting	Throughout building		1	1	3	4	No	2	Update to meet code requirements.	Add emergency battery units.	10	EA					\$ 473.00	\$ 4,730	\$ 7,488	\$ 7,750	\$ 8,021	\$ 8,302	\$ 8,592
LC-5	Interior stair handrails	North and south stairs		1	1	3	4	No	2	Handrails missing and/or not code compliant.	Replace stair handrails.	90	LF	\$ 30.75	\$ 2,768					\$ 4,381	\$ 4,534	\$ 4,693	\$ 4,857	\$ 5,027
LC-6	Fire alarm system - strobes	Throughout building		1	1	5	6	No	2	Too few strobes.	Add strobes.	6,585	SF					\$ 0.68	\$ 4,478	\$ 7,088	\$ 7,336	\$ 7,593	\$ 7,859	\$ 8,134
LC-7	Water leak	Attic at chimney		2	2	2	4	No	4	Suspected water leak at roof.	Repair leak.	1	LS	\$ 920.00	\$ 920					\$ 1,456	\$ 1,507	\$ 1,560	\$ 1,615	\$ 1,671
LC-8	Foundation walls	Basement	LC-8	2	3	2	5	No	3	Interior parging cracked.	Recoat basement walls.	1,600	SF	\$ 4.90	\$ 7,840					\$ 12,411	\$ 12,845	\$ 13,295	\$ 13,760	\$ 14,242
LC-9	Furnace replacement	Basement		2	2	3	5	No	2	Existing furnace is beyond its useful service life, and is in poor condition.	Replace furnace with new unit and provide a means for outside air to achieve code required ventilation rates	1	LS			\$ 4,000.00	\$ 4,000			\$ 6,332	\$ 6,554	\$ 6,783	\$ 7,020	\$ 7,266
LC-10	Plumbing piping replacement	Throughout Building		2	2	3	5	No	2	Existing plumbing piping is beyond its useful service life and is in poor condition	Replace domestic hot and cold water piping with copper piping, fittings and valves	1	LS			\$ 7,500.00	\$ 7,500			\$ 11,873	\$ 12,288	\$ 12,718	\$ 13,163	\$ 13,624
LC-11	Asbestos removal on insulated piping that is planned for demolition	Throughout Building		2	2	3	5	No	2	Piping that needs to be replaced likely has asbestos in the insulation	Abate and remove any asbestos in the piping insulation before demolition of the piping	1	LS			\$ 2,500.00	\$ 2,500			\$ 3,958	\$ 4,096	\$ 4,239	\$ 4,388	\$ 4,541
LC-12	Exterior Emergency Lights	Exterior		2	2	3	5	No	4	Exterior emergency exit lights are in disrepair.	Replace all exterior emergency light fixtures with LED type fixtures.	5	EA					\$ 350.00	\$ 1,750	\$ 2,770	\$ 2,867	\$ 2,968	\$ 3,071	\$ 3,179
LC-13	ADA	Throughout building		2	2	5	7	No	3	Building is non-compliant for barrier free access.	Add barrier free ramps, elevator, toilets, kitchen, etc.	1	EA	\$ 125,500.00	\$ 125,500					\$ 198,667	\$ 205,620	\$ 212,817	\$ 220,265	\$ 227,974
LC-14	Concrete porch	East side of building		3	3	3	6	No	3	Paint peeling.	Repaint porch.	80	SF	\$ 1.85	\$ 148					\$ 234	\$ 242	\$ 251	\$ 260	\$ 269
LC-15	Exterior wood siding and trim	All elevations	LC-15	3	3	3	6	No	3	Paint peeling; boards rotted.	Repaint exterior wood siding and trim.	1	LS	\$ 40,000.00	\$ 40,000					\$ 63,320	\$ 65,536	\$ 67,830	\$ 70,204	\$ 72,661
LC-16	Wood porch	Exterior south elevation	LC-16	3	3	3	6	No	3	Wood porch paint peeling, boards are rotting.	Replace bad board and repaint.	1	LS	\$ 10,000.00	\$ 10,000					\$ 15,830	\$ 16,384	\$ 16,957	\$ 17,551	\$ 18,165
LC-17	Exterior paint	Entire exterior	LC-17	3	3	3	6	No	3	Entire building paint is at end of life.	Repaint building; replace bad boards.	1	LS	\$ 50,000.00	\$ 50,000					\$ 79,150	\$ 81,920	\$ 84,787	\$ 87,755	\$ 90,826
LC-18	Wood column	Exterior south porch	LC-18	3	3	3	6	No	3	Base of wood columns are rotting.	Replace with new to match existing.	3	EA	\$ 1,500.00	\$ 4,500					\$ 7,124	\$ 7,373	\$ 7,631	\$ 7,898	\$ 8,174
LC-19	Asphalt shingles	Roof	LC-19	3	3	3	6	No	3	Roof asphalt shingles are in poor condition.	Replace shingles.	1	EA	\$ 10,000.00	\$ 10,000					\$ 15,830	\$ 16,384	\$ 16,957	\$ 17,551	\$ 18,165
LC-20	Gutters and downspouts	Exterior	LC-20	3	3	3	6	No	3	Gutters and downspouts are in poor or broken condition.	Replace gutters and downspouts.	1	EA	\$ 3,000.00	\$ 3,000					\$ 4,749	\$ 4,915	\$ 5,087	\$ 5,265	\$ 5,450
LC-21	Branch circuitry and devices	Throughout building		3	3	3	6	No	3	Grounding in building is an issue and safety hazard.	Pull new branch circuits and new ground pin receptacles.	6,585	SF					\$ 2.00	\$ 13,170	\$ 20,848	\$ 21,578	\$ 22,333	\$ 23,115	\$ 23,924
LC-22	Carpeting	First and second floors		3	3	4	7	No	2	Carpet buckled.	Restretch carpet.	1,400	SF	\$ 1.25	\$ 1,750					\$ 2,770	\$ 2,867	\$ 2,968	\$ 3,071	\$ 3,179
LC-23	Exterior windows	All elevations	LC-23	3	5	3	8	Yes	3	Wood windows are single glazed and in poor condition.	Replace with historically correct metal covered wood windows with insulating glass.	56	EA	\$ 1,970.00	\$ 110,320					\$ 174,637	\$ 180,749	\$ 187,075	\$ 193,623	\$ 200,399
LC-24	Domestic water main	Basement	LC-24	4	4	4	8	No	1	Dissimilar metals are corroding on existing line.	Install new copper pipe with brass fittings.	20	LF			\$ 61.50	\$ 1,230			\$ 1,947	\$ 2,015	\$ 2,086	\$ 2,159	\$ 2,234
LC-25	A/C condenser	Attic	LC-25	4	4	4	8	Yes	1	Second floor furnace condenser is located in the attic space.	Relocate to slab on grade next to existing basement unit.	1	LS			\$ 1,845.00	\$ 1,845			\$ 2,921	\$ 3,023	\$ 3,129	\$ 3,238	\$ 3,351
LC-26	HVAC ductwork	Attic	LC-26	4	4	4	8	Yes	1	Existing ductwork and insulation is in poor condition.	Replace all ductwork in the attic and ensure flexible ductwork is limited to 5 ft in length. Provide new ductwork insulation	1	LS			\$ 4,920.00	\$ 4,920			\$ 7,788	\$ 8,061	\$ 8,343	\$ 8,635	\$ 8,937
LC-27	Domestic water pipe	Basement		4	4	4	8	Yes	1	Existing domestic water pipe is partially insulated.	Insulate all domestic hot and cold pipe.	20	LF			\$ 49.00	\$ 980			\$ 1,551	\$ 1,606	\$ 1,662	\$ 1,720	\$ 1,780
LC-28	Sanitary pipe	Basement		4	4	4	8	No	1	Sanitary pipe is mostly PVC.	Replace PVC pipe with cast iron pipe to meet campus standard.	40	LF			\$ 92.00	\$ 3,680			\$ 5,825	\$ 6,029	\$ 6,240	\$ 6,459	\$ 6,685

Lettinga Center

Address: 473 E. Fulton				Building Deficiencies Priorities by Category:							Consequences of the Problem				Need		Frequency of Use							
Bldg. Area: 6,585 SF											1. Hazards				1. Critical		1. Constant							
No. of Floors: 2 + basement											2. Interruption				2. Urgent		2. Frequent							
Year Built: 19/Renovated 2000											3. Deterioration				3. Necessary		3. Occasional							
Evaluation Date: 7/21/2015				Note: Lower score equals higher priority							4. Utility				4. Desirable		4. Infrequent							
											5. Energy				5. ADA		5. Meager							
No.	Item/Description	Location	Photo No.	Priority	Cons.	Need	Score	Energy	Freq.	Notes	Action	Qty.	Unit	Architectural		Mechanical		Electrical		2016 Project Cost	2017 Project Cost	2018 Project Cost	2019 Project Cost	2020 Project Cost
														Unit Cost	Subtotal	Unit Cost	Subtotal	Unit Cost	Subtotal					
LC-29	Trane BAS	Entire building		4	4	4	8	Yes	1	No existing building automation system.	Tie existing mechanical devices into a Trane BAS and connect to the GRCC central BAS.	1	LS			\$ 15,000.00	\$ 15,000			\$ 23,745	\$ 24,576	\$ 25,436	\$ 26,327	\$ 27,248
LC-30	Occupancy sensors	Throughout building		4	5	4	9	Yes	2	Shut off lights in unoccupied rooms.	Add room occupancy sensors.	6,585	SF					\$ 1.35	\$ 8,890	\$ 14,072	\$ 14,565	\$ 15,075	\$ 15,602	\$ 16,148
LC-31	Lighting	Throughout building		4	5	4	9	Yes	2	Incandescent lamps.	Replace with self-ballasted fluorescent	55	EA					\$ 13.50	\$ 743	\$ 1,175	\$ 1,217	\$ 1,259	\$ 1,303	\$ 1,349
LC-32	BF toilet room	First floor		4	4	5	9	No	2	Paper towel dispenser height and water closet dimension from wall not BF code compliant.	Remount dispenser and provide floor mounted grab bar at water closet.	1	LS	\$ 370.00	\$ 370					\$ 586	\$ 606	\$ 627	\$ 649	\$ 672
LC-33	Interior ramp	First floor		4	4	5	9	No	2	Lacks code required handrails.	Provide handrails both sides of ramp.	14	LF	\$ 30.75	\$ 431					\$ 681	\$ 705	\$ 730	\$ 756	\$ 782
LC-34	Door hardware	Throughout building		4	4	5	9	No	2	Knobs do not meet BF requirements.	Replace with lever handles and rekey.	24	EA	\$ 460.00	\$ 11,040					\$ 17,476	\$ 18,088	\$ 18,721	\$ 19,376	\$ 20,054
																				\$ 734,870	\$ 760,590	\$ 787,211	\$ 814,763	\$ 843,280

MABLE ENGLE (ME)



GENERAL OVERVIEW

Use: Office
Year Built: Unknown
Total Area: 12,620 SF
Floors: 3 (plus basement)

MAJOR FINDINGS**Exterior**

- Windows are single glazed and in poor condition.
- Stone foundation walls require tuck pointing.
- Heat trace system should be added to reduce harmful ice build-up.

Interior Finishes

- Carpet in areas of basement, first and second floors is in poor condition and should be replaced.
- Stairs have missing and/or non-code compliant handrails.

HVAC

- This building is heated by radiators and finned tube served by boilers located in the Carriage House. One furnace is located in the basement, the other in the third floor attic space. It is recommended that the condenser that is in the attic be moved to slab on grade. Air conditioning is provided by split systems with most of the condensers located on the second floor porch. It is recommended that all fin tube and air conditioning systems be replaced.

Plumbing

- The domestic plumbing and fixtures are in poor condition and should be replaced.

Fire Protection

- This building is not sprinkled.

Temperature Controls

- There are residential type stand alone controls in this building. It should eventually be connected to Trane campus wide building automation system (BAS).

Lighting and Controls

- There are no automatic "OFF" controls for turning off lighting fixtures. Occupancy sensors should be added.
- Emergency lighting needs to be added to meet current code requirements.
- Exterior emergency lights should be added to meet current code standards. Existing exterior emergency lighting fixtures should be replaced.

Fire Alarm System

- The fire alarm system needs to be updated to meet current code requirements.

Power Systems

- A number of general use receptacles are wired without ground wires or GFCI protection. Older wiring should be replaced.
- Panel 4 has “piggyback” type breakers and should be replaced.



ME-7

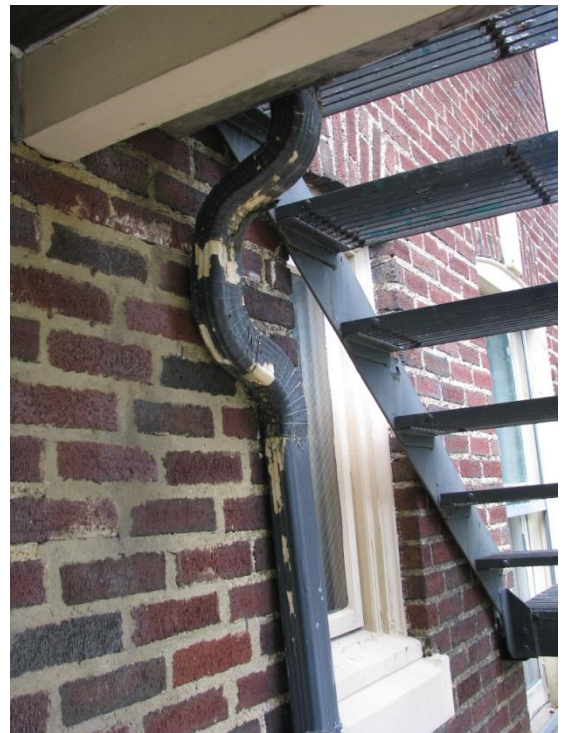


ME-9

ME-9



ME-10A



ME-10B



ME-11



ME-12



ME-15



ME-19

Mable Engle

Address: 455 E. Fulton		Building Deficiencies Priorities by Category:								Consequences of the Problem				Need				Frequency of Use						
Bldg. Area: 12,620										1. Hazards				1. Critical				1. Constant						
No. of Floors: 3 + basement										2. Interruption				2. Urgent				2. Frequent						
Year Built:										3. Deterioration				3. Necessary				3. Occasional						
Evaluation Date: 7/21/2015		Note: Lower score equals higher priority								4. Utility				4. Desirable				4. Infrequent						
										5. Energy				5. ADA				5. Meager						
No.	Item/Description	Location	Photo No.	Priority	Cons.	Need	Score	Energy	Freq.	Notes	Action	Qty.	Unit	Architectural		Mechanical		Electrical		2016 Project Cost	2017 Project Cost	2018 Project Cost	2019 Project Cost	2020 Project Cost
														Unit Cost	Subtotal	Unit Cost	Subtotal	Unit Cost	Subtotal					
ME-1	Emergency lighting	Throughout building		1	1	3	4	No	2	Update to meet code requirements.	Add emergency battery units.	16	EA					\$ 475.00	\$ 7,600	\$ 12,031	\$ 12,452	\$ 12,888	\$ 13,339	\$ 13,806
ME-2	Stair handrails	North and east stairs		1	1	3	4	No	2	Handrails on one side of stair only and not code compliant.	Replace stair handrails.	200	LF	\$ 30.75	\$ 6,150					\$ 9,735	\$ 10,076	\$ 10,429	\$ 10,794	\$ 11,172
ME-3	Non GFCI receptacles	At all sinks and tubs		1	1	4	5	No	2	Update to meet code requirements.	Add ground wire and replace with GFCI receptacle.	10	EA					\$ 185.00	\$ 1,850	\$ 2,929	\$ 3,031	\$ 3,137	\$ 3,247	\$ 3,361
ME-4	Fire alarm system - strobes	Throughout building		1	1	5	6	No	2	Too few strobes.	Add strobes.	10,000	EA					\$ 1.35	\$ 13,500	\$ 21,371	\$ 22,118	\$ 22,893	\$ 23,694	\$ 24,523
ME-5	Exterior Emergency Lights	Exterior		2	2	3	5	No		Exterior emergency exit lights are in disrepair.	Replace all exterior emergency light fixtures with LED type fixtures.	7	EA					\$ 350.00	\$ 2,450	\$ 3,878	\$ 4,014	\$ 4,155	\$ 4,300	\$ 4,450
ME-6	Panel 4	Second Floor		2	2	4	6	No		Panel 4 consists of "piggyback" breakers.	Replace panel with adequate size so piggyback breakers are not needed.	1	EA					\$ 4,000.00	\$ 4,000	\$ 6,332	\$ 6,554	\$ 6,783	\$ 7,020	\$ 7,266
ME-7	Porch drainage	West elevation	ME-7	3	3	3	6	No	3	Water flowing thru scupper in wall w/o drip is deteriorating brick.	Add scupper drip and clean/repair brick.	1	EA	\$ 250.00	\$ 250					\$ 396	\$ 410	\$ 424	\$ 439	\$ 454
ME-8	Slate roof	Roof		3	3	3	6	No	4	Roof slate tile areas are approaching end of life.	Replace bad slate tiles.	2,603	SF	\$ 23.00	\$ 59,869					\$ 94,773	\$ 98,090	\$ 101,523	\$ 105,076	\$ 108,754
ME-9	Brick	Exterior walls	ME-9	3	3	3	6	No	4	Brick is dirty and grout is cracking. Brick has efflorescence.	Clean brick and tuck-point joints.	5,000	SF	\$ 5.00	\$ 25,000					\$ 39,575	\$ 40,960	\$ 42,394	\$ 43,878	\$ 45,413
ME-10	Gutters and downspouts	Exterior	ME-10	3	3	3	6			Gutters and downspouts are in fair to bad condition.	Replace gutters and downspouts.	128	LF	\$ 15.00	\$ 1,920					\$ 3,039	\$ 3,146	\$ 3,256	\$ 3,370	\$ 3,488
ME-11	Soffit vents	Exterior	ME-11	3	3	3	6			No soffit vents found.	Provide soffit vents and ridge vents for better attic airflow to prevent ice damming.	1	LS	\$ 2,800.00	\$ 2,800					\$ 4,432	\$ 4,588	\$ 4,748	\$ 4,914	\$ 5,086
ME-12	Fin tube replacement	Throughout building	ME-12	3	3	3	6	No	2	Existing fin tube is beyond its useful service life and is in poor condition	Replace fin tube with like kind	1	LS			\$ 6,000.00	\$ 6,000			\$ 9,498	\$ 9,830	\$ 10,174	\$ 10,531	\$ 10,899
ME-13	Plumbing piping replacement	Throughout building		3	3	3	6	No	2	Existing domestic hot and cold water piping is beyond its useful service life and is in poor condition	Replace all plumbing piping with copper piping, fittings and valves	1	LS			\$ 7,500.00	\$ 7,500			\$ 11,873	\$ 12,288	\$ 12,718	\$ 13,163	\$ 13,624
ME-14	Heating hot water piping replacement	Throughout building		3	3	3	6	No	2	Existing heating hot water piping is beyond its useful service life and is in poor condition	Replace all heating hot water piping with copper piping, fittings and valves	1	LS			\$ 9,000.00	\$ 9,000			\$ 14,247	\$ 14,746	\$ 15,262	\$ 15,796	\$ 16,349
ME-15	Split system AC replacement	Throughout building	ME-15	3	3	3	6	No	2	Existing split system AC units and window mounted AC units are beyond their useful service life and are in poor condition	Replace existing split system AC units and add outside air unit to provide code required ventilation air	1	LS			\$ 25,000.00	\$ 25,000			\$ 39,575	\$ 40,960	\$ 42,394	\$ 43,878	\$ 45,413
ME-16	Branch circuitry and devices	Throughout building		3	3	3	6	No	3	Grounding in building is an issue and safety hazard.	Pull new branch circuits and new ground pin receptacles.	12,620	SF					\$ 2.00	\$ 25,240	\$ 39,955	\$ 41,353	\$ 42,801	\$ 44,299	\$ 45,849
ME-17	Carpet	Basement, first and second floors		3	3	4	7	No	2	Carpet in poor condition.	Replace carpet.	2,250	SF	\$ 4.60	\$ 10,350					\$ 16,384	\$ 16,957	\$ 17,551	\$ 18,165	\$ 18,801
ME-18	Toilet fixtures	First, second and third floors		3	4	3	7	No	2	Toilets, sinks and faucets are older. Some are in poor condition.	Provide new toilets, sinks and faucets. (In addition to the BF toilet room upgrades.)	4	EA			\$ 2,460.00	\$ 9,840			\$ 15,577	\$ 16,122	\$ 16,686	\$ 17,270	\$ 17,875
ME-19	Emergency escape stair	Exterior	ME-19	3	3	4	7			Paint is peeling and steel is rusting.	Clean rust off and re-paint metal emergency escape stair.	1	LS	\$ 2,000.00	\$ 2,000					\$ 3,166	\$ 3,277	\$ 3,391	\$ 3,510	\$ 3,633
ME-20	Basement ceiling heights	Corridor, kitchen, offices		4	4	4	8	No	2	Rooms have ceiling heights below code minimum of 7'-6".	Existing condition without remedy. No action at this time.	--	--	--	--									
ME-21	Pipe insulation asbestos abatement	Basement		4	4	4	8	Yes	1	Asbestos insulation	Abate and remove asbestos pipe insulation when demolishing old piping for new	30	LF	\$ 50.00	\$ 1,500					\$ 2,375	\$ 2,458	\$ 2,544	\$ 2,633	\$ 2,725
ME-22	Heat Trace	Roof		4	4	4	8	No		Ice build up causing safety concerns.	Add heat trace to trouble areas of roof.	1	LS					\$ 15,000.00	\$ 15,000	\$ 23,745	\$ 24,576	\$ 25,436	\$ 26,327	\$ 27,248
ME-23	Occupancy sensors	Throughout building		4	5	4	9	Yes	2	Shut off lights in unoccupied rooms.	Add room occupancy sensors.	10,000	SF					\$ 1.50	\$ 15,000	\$ 23,745	\$ 24,576	\$ 25,436	\$ 26,327	\$ 27,248

Mable Engle

Address:		455 E. Fulton		Building Deficiencies Priorities by Category:							Consequences of the Problem					Need					Frequency of Use				
Bldg. Area:		12,620									1. Hazards					1. Critical					1. Constant				
No. of Floors:		3 + basement									2. Interruption					2. Urgent					2. Frequent				
Year Built:											3. Deterioration					3. Necessary					3. Occasional				
Evaluation Date:		7/21/2015		Note: Lower score equals higher priority							4. Utility					4. Desirable					4. Infrequent				
											5. Energy					5. ADA					5. Meager				
No.	Item/Description	Location	Photo No.	Priority	Cons.	Need	Score	Energy	Freq.	Notes	Action	Qty.	Unit	Architectural		Mechanical		Electrical		2016 Project Cost	2017 Project Cost	2018 Project Cost	2019 Project Cost	2020 Project Cost	
														Unit Cost	Subtotal	Unit Cost	Subtotal	Unit Cost	Subtotal						
ME-24	Exterior windows	All elevations		4	5	4	9	Yes	3	Wood windows are single glazed and in poor condition.	Replace with historically correct metal covered wood windows with insulating glass.	69	EA	\$ 1,970.00	\$ 135,930					\$ 215,177	\$ 222,708	\$ 230,503	\$ 238,571	\$ 246,921	
ME-25	BF toilet room	Throughout building		4	4	5	9	No	2	Building lacks BF toilet rooms.	Renovate existing toilet rooms to unisex BF toilet rooms on first, second and third floors.	3	LS	\$ 4,800.00	\$ 14,400	\$ 4,900.00	\$ 14,700	\$ 1,230.00	\$ 3,690	\$ 51,907	\$ 53,723	\$ 55,604	\$ 57,550	\$ 59,564	
ME-26	Elevator	Throughout building		4	4	5	9	No	2	Building lacks an elevator.	Add elevator to access first, second and third floors as required by BF code.	1	LS	\$ 79,950.00	\$ 79,950			\$ 1,000.00	\$ 1,000	\$ 128,144	\$ 132,629	\$ 137,271	\$ 142,075	\$ 147,048	
ME-27	Insulation	Throughout building		4	5	4	9			Insulation missing/minimal.	Insulate all exterior walls and attic roof spaces.	1	LS	\$ 12,850.00	\$ 12,850					\$ 20,342	\$ 21,054	\$ 21,790	\$ 22,553	\$ 23,342	
																					\$ 814,199	\$ 842,696	\$ 872,190	\$ 902,717	\$ 934,312

MAIN BUILDING (MB)





GENERAL OVERVIEW

Use: Classroom, Office
Year Built: 1922 (major addition 1929)
Total Area: 210, 475 SF
Floors: 5, (plus 2 basement levels and penthouses)

MAJOR FINDINGS

Exterior

- Some stone foundation panels are spauling and are in fair to poor condition.

Interior

- Several stairs need handrails or guard rails replaced to meet code compliance.
- Corridor lockers on the fourth floor are in poor condition and should be replaced or removed.

HVAC

- This building district steam from a third party (Veolia Energy). The chiller plant consists of three indoor chillers; one air-cooled and two water-cooled. All are in good condition. There are multiple indoor air handlers located in the lower level through the penthouse. There are additional outdoor rooftop units on lower level roofs as well as the upper.

Fire Protection

- This building is fully sprinkled.

Temperature Controls

- This building utilizes a Trane ES Building controls. It is connected to the Trane campus wide building automation system (BAS).

Lighting and Controls

- Exterior emergency lighting is minimal and does not meet current code. Exterior emergency lights should be replaced and added to meet current code standards.
- Exterior flood lighting is at end of life and should be replaced.



MB-3



MB-4



MB-8



MB-10



MB-12



MB-16



MB-19



MB-20



MB-23



MB-25

Main Building

Address: 143 Bostwick NE		Building Deficiencies Priorities by Category:				Consequences of the Problem		Need		Frequency of Use															
Bldg. Area: 210,475 SF						1. Hazards		1. Critical		1. Constant															
No. of Floors: 5, 2 basement levels & penthouses						2. Interruption		2. Urgent		2. Frequent															
Year Built: 1922 (1929 major addition)						3. Deterioration		3. Necessary		3. Occasional															
Evaluation Date: 8/4/2015		Note: Lower score equals higher priority				4. Utility		4. Desirable		4. Infrequent															
						5. Energy		5. ADA		5. Meager															
No.	Item/Description	Location	Photo No.	Priority	Cons.	Need	Score	Energy	Freq.	Notes	Action	Qty.	Unit	Architectural		Mechanical		Electrical		2016 Project Cost	2017 Project Cost	2018 Project Cost	2019 Project Cost	2020 Project Cost	
														Unit Cost	Subtotal	Unit Cost	Subtotal	Unit Cost	Subtotal						
MB-1	Exhaust system	G1 Room 15		1	1	1	2	No	4	No existing exhaust.	Add exhaust fan and duct to outside.	1	LS			\$ 8,250.00	\$ 8,250			\$ 13,060	\$ 13,517	\$ 13,990	\$ 14,480	\$ 14,986	
MB-2	Exterior EM Lighting	All Exterior EM Lights		1	1	2	3	No	3	Exterior emergency egress lighting is non existent or in disrepair.	Provide new emergency egress lighting at all exits.	20	EA					\$ 350.00	\$ 7,000	\$ 11,081	\$ 11,469	\$ 11,870	\$ 12,286	\$ 12,716	
MB-3	Stair handrails	Stairways B, C, D and E	MB-3	1	1	3	4	No	2	Stairwells with non-compliant handrails.	Replace with code compliant handrails.	1,792	LF	\$ 42.00	\$ 75,264					\$ 119,143	\$ 123,313	\$ 127,629	\$ 132,096	\$ 136,719	
MB-4	Stair guard and handrail	Stairway A	MB-4	1	1	3	4	No	2	Stairway with non-compliant handrails and guard rails.	Replace with code compliant handrail and guard rails.	504	LF	\$ 120.00	\$ 60,480					\$ 95,740	\$ 99,091	\$ 102,559	\$ 106,148	\$ 109,864	
MB-5	Corridor doors	Classrooms, offices		1	1	4	5	No	3	Many doors are not self-closing as required by code.	Provide door closers, remove door stops and holders.	32	EA	\$ 550.00	\$ 17,600					\$ 27,861	\$ 28,836	\$ 29,845	\$ 30,890	\$ 31,971	
MB-6	Corridor doors	Classrooms, offices		1	1	4	5	No	3	Many doors do not have fire rated safety glass as required by code.	Replace door and hardware.	27	EA	\$ 1,260.00	\$ 34,020					\$ 53,854	\$ 55,739	\$ 57,689	\$ 59,709	\$ 61,798	
MB-7	Corridor borrowed lights	Classrooms, offices		1	1	4	5	No	3	Many borrowed lights do not have wire glass as required by code.	Replace glass.	350	SF	\$ 28.00	\$ 9,800					\$ 15,513	\$ 16,056	\$ 16,618	\$ 17,200	\$ 17,802	
MB-8	Storm and sanitary system	Throughout building	MB-8	2	2	2	4	No	1	Some combined storm and sanitary lines.	Separate the systems to city mains.	1	LS			\$ 55,000.00	\$ 55,000			\$ 87,065	\$ 90,112	\$ 93,266	\$ 96,531	\$ 99,909	
MB-9	Exterior freight elevator door jams	West elevation at grade		3	3	3	6	No	3	Openings in walls.	Repair wall openings.	1	LS	\$ 400.00	\$ 400					\$ 633	\$ 655	\$ 678	\$ 702	\$ 727	
MB-10	Roof membrane	Roof	MB-10	3	3	3	6	No	3	All membrane roof is nearing end of life.	Replace all membrane roofs with new on al roof areas except on new low roofs.	28,253	SF	\$ 12.00	\$ 339,036					\$ 536,694	\$ 555,478	\$ 574,920	\$ 595,042	\$ 615,869	
MB-11	Skylight in Stair D	Stairway D		3	3	3	6	No	3	Skylight above ceiling in Stair D.	Remove skylight and patch roof to match existing.	1	LS	\$ 1,250.00	\$ 1,250					\$ 1,979	\$ 2,048	\$ 2,120	\$ 2,194	\$ 2,271	
MB-12	Terrazzo flooring	1st floor	MB-12	3	3	3	6	No	2	Terrazzo was patched with concrete.	Restore terrazzo to match existing in all areas.	2,500	SF	\$ 15.00	\$ 37,500					\$ 59,363	\$ 61,440	\$ 63,591	\$ 65,816	\$ 68,120	
MB-13	Fan replacement	Ramp between Bostwick parking deck and Main		3	3	3	6	No	2	Fans are past their useful service life	Replace fans with like kind	2	EA			\$ 2,000.00	\$ 4,000			\$ 6,332	\$ 6,554	\$ 6,783	\$ 7,020	\$ 7,266	
MB-14	Electric heater addition	Room 12A		3	3	3	6	No	3	Inadequate heating on occasion	Add electric heaters to space	1	EA			\$ 1,250.00	\$ 1,250			\$ 1,979	\$ 2,048	\$ 2,120	\$ 2,194	\$ 2,271	
MB-15	Exterior Lighting	Roof		3	3	3	6	No	2	Existing flood light fixtures are end of life and should be replaced.	Replace existing flood lights with LED type.	4	EA					\$ 450.00	\$ 1,800	\$ 2,849	\$ 2,949	\$ 3,052	\$ 3,159	\$ 3,270	
MB-16	Main entrance doors	Main entrance south doors	MB-16	3	3	4	7	No	2	Copper doors and transom are worn out, dented and tarnished.	Restore doors and transom, replace parts and hardware.	6	EA	\$ 3,000.00	\$ 18,000					\$ 28,494	\$ 29,491	\$ 30,523	\$ 31,592	\$ 32,698	
MB-17	Main entrance stone steps	Main entrance south doors		3	3	4	7	No	2	Stone steps at doors are chipped and worn.	Replace stone steps.	3	EA	\$ 1,000.00	\$ 3,000					\$ 4,749	\$ 4,915	\$ 5,087	\$ 5,265	\$ 5,450	
MB-18	Corridor lockers	4th floor		4	4	4	8	No	3	Lockers are in poor condition.	Remove and infill with wall or bench.	123	EA	\$ 198.00	\$ 24,354					\$ 38,552	\$ 39,902	\$ 41,298	\$ 42,744	\$ 44,240	
MB-19	Re-pipe sinks	Photo Labs 431 and 432	MB-19	4	4	4	8	No	3	Existing sinks have low flow. Water is too warm to develop.	Re-pipe water supply and waste (6 sinks total).	6	EA			\$ 700.00	\$ 4,200			\$ 6,649	\$ 6,881	\$ 7,122	\$ 7,371	\$ 7,629	
MB-20	Roof drains	Roof	MB-20	4	4	4	8	No	1	Some roof drains are damaged.	Replace with like and kind.	4	EA			\$ 350.00	\$ 1,400			\$ 2,216	\$ 2,294	\$ 2,374	\$ 2,457	\$ 2,543	
MB-21	Freight elevator	West side of building		4	4	4	8	No	3	Freight elevators need to be functioning, upgraded and certified.	Upgrade freight elevators to be safe, active functioning and certified.	2	EA	\$ 40,000.00	\$ 80,000					\$ 126,640	\$ 131,072	\$ 135,660	\$ 140,408	\$ 145,322	
MB-22	Condensate reduction	Mechanical rooms		4	4	4	8	No	2	Condensate from other buildings needs to be reduced	Investigate condensate sources and determine the best method for reduction of flows	1	EA			\$ 2,500.00	\$ 2,500			\$ 3,958	\$ 4,096	\$ 4,239	\$ 4,388	\$ 4,541	
MB-23	Sink replacement	Rooms 463,465,460,461A,404	MB-23	4	4	4	8	No	3	Sinks are past their useful service life	Replace sinks with like kind	5	EA			\$ 1,000.00	\$ 5,000			\$ 7,915	\$ 8,192	\$ 8,479	\$ 8,776	\$ 9,083	
MB-24	Sink replacement	Rooms 431 and 432		4	4	4	8	No	3	Sinks are past their useful service life	Replace sinks with like kind	2	EA			\$ 1,000.00	\$ 2,000			\$ 3,166	\$ 3,277	\$ 3,391	\$ 3,510	\$ 3,633	
MB-25	Air compressor demolition	Mechanical room	MB-25	4	4	4	8	No	2	Air compressors are no longer used	Demolish air compressors	1	LS			\$ 2,500.00	\$ 2,500			\$ 3,958	\$ 4,096	\$ 4,239	\$ 4,388	\$ 4,541	
MB-26	General Receptacles	Corridors		4	4	4	8	No	3	Some corridors lack general receptacles for cleaning staff.	Provide new general receptacles.	20	EA					\$ 75.00	\$ 1,500	\$ 2,375	\$ 2,458	\$ 2,544	\$ 2,633	\$ 2,725	
																					Note: Project Cost includes 58.3% mark-ups and fees				
																					\$ 1,261,816 \$ 1,305,979 \$ 1,351,688 \$ 1,398,998 \$ 1,447,962				

MCCABE-MARLOWE HOUSE (MM)





GENERAL OVERVIEW

Use: Conference Center
Year Built: 1865/1981
Total Area: 5,379 SF
Floors: 2 (plus basement and attic)

MAJOR FINDINGS

Exterior

- Exterior single glazed wood windows are in fair to poor condition and should be replaced with insulated units to save energy costs.
- Main front doors lack weather seals and there is a problem with the stone sill heaving during cold weather.

HVAC

- This building is heated by radiators and finned tube served by a single boiler located in the basement. There are also ceiling hung air handlers located in the basement with associated condensers out on slab to provide cooling. The boiler and air handlers are approaching their useful life and should be considered for replacement.

Plumbing

- The domestic plumbing and fixtures are in poor condition and should be replaced.

Fire Protection

- This building is not sprinkled.

Temperature Controls

- There are residential type controls in this building with relays that controls the hot water zone pumps.

Lighting Controls

- There are no automatic "OFF" controls for turning off lighting fixtures. Occupancy sensors should be added.
- Exit signs need to be added to meet current code requirements.
- Emergency lighting fixtures need to be added to meet current code requirements.

Fire Alarm System

- The fire alarm system is outdated and current device locations do not meet current code requirements.



MM-1



MM-6



MM-7



MM-10



MM-11



MM-14



MM-18



MM-19

Grand Rapids Community College
5 - Year Capital Outlay Plan
July 2015

McCabe-Marlow House

Address:		74 Lafayette NE		Building Deficiencies Priorities by Category:						Consequences of the Problem			Need			Frequency of Use									
Bldg. Area:		5,379 SF								1. Hazards			1. Critical			1. Constant									
No. of Floors:		2 (plus basement and attic)								2. Interruption			2. Urgent			2. Frequent									
Year Built:		1865/1981								3. Deterioration			3. Necessary			3. Occasional									
Evaluation Date:		8/25/2015		Note: Lower score equals higher priority						4. Utility			4. Desirable			4. Infrequent									
										5. Energy			5. ADA			5. Meager									
No.	Item/Description	Location	Photo No.	Priority	Cons.	Need	Score	Energy	Freq.	Notes	Action	Qty.	Unit	Architectural		Mechanical		Electrical		2016 Project Cost	2017 Project Cost	2018 Project Cost	2019 Project Cost	2020 Project Cost	
														Unit Cost	Subtotal	Unit Cost	Subtotal	Unit Cost	Subtotal						
MM-1	Laminate/vinyl flooring	Family room	MM-1	1	1	4	5	No	3	Vinyl flooring not level and curling.	Remove and replace with oak flooring.	400	SF	\$ 8.00	\$ 3,200					\$ 5,066	\$ 5,243	\$ 5,426	\$ 5,616	\$ 5,813	
MM-2	Roof soffit	North side of garage		2	2	3	5	No	2	Gap in soffit boards may invite birds to nest.	Repair soffit.	1	LS	\$ 125.00	\$ 125					\$ 198	\$ 205	\$ 212	\$ 219	\$ 227	
MM-3	Exit signage	Throughout house		2	2	3	5	No	2	Update to meet code requirements.	Add/replace with LED exit signs.	11	EA					\$ 338.00	\$ 3,718	\$ 5,886	\$ 6,092	\$ 6,305	\$ 6,525	\$ 6,754	
MM-4	Emergency lighting	Throughout house		2	2	3	5	No	2	Update to meet code requirements.	Add emergency lighting.	25	EA					\$ 490.00	\$ 12,250	\$ 19,392	\$ 20,070	\$ 20,773	\$ 21,500	\$ 22,252	
MM-5	Domestic water pipe	Throughout house		3	3	3	6	No	1	Galvanized pipe is corroding.	50% of the domestic pipe is galvanized. Replace with copper pipe.	2,500	SF			\$ 4.05	\$ 10,125			\$ 16,028	\$ 16,589	\$ 17,169	\$ 17,770	\$ 18,392	
MM-6	Kitchen drain pipe	Basement	MM-6	3	3	3	6	No	1	Existing drains are combination of galvanized and PVC.	Replace all kitchen drain pipe with copper or carbon steel.	1	LS			\$ 2,460.00	\$ 2,460			\$ 3,894	\$ 4,030	\$ 4,172	\$ 4,318	\$ 4,469	
MM-7	Heating hot water boiler	Basement	MM-7	3	3	3	6	Yes	1	Existing boiler is approaching its life expectancy.	Replace with new high efficiency boiler - 200 MBH input.	1	LS			\$ 8,795.00	\$ 8,795			\$ 13,922	\$ 14,410	\$ 14,914	\$ 15,436	\$ 15,976	
MM-8	Exterior Lighting	Exterior		3	3	3	6	No	3	Exterior lighting is not adequate for use. Existing fixtures are at end of useful life.	Provide new exterior lighting at side porch. Replace existing wall packs. Provide emergency exterior fixtures above all exits.	1	LS					\$ 2,700		\$ 4,274	\$ 4,424	\$ 4,579	\$ 4,739	\$ 4,905	
MM-9	Fire alarm system	Throughout house		3	4	3	7	No	4	The Fire Alarm System is obsolete and does not meet current code requirements	Remove existing fire alarm system and install new fire alarm system.	5,379	SF					\$ 1.85	\$ 9,951	\$ 15,753	\$ 16,304	\$ 16,875	\$ 17,465	\$ 18,077	
MM-10	Kitchen exhaust fan	Roof cupola	MM-10	3	3	4	7	No	3	Exhaust fan is beyond its useful service life	Replace fan with like kind	1	LS			\$ 2,000.00	\$ 2,000			\$ 3,166	\$ 3,277	\$ 3,391	\$ 3,510	\$ 3,633	
MM-11	Entrance doors	West elevation, front doors	MM-11	3	5	3	8	Yes	3	Doors do not seal properly, leak air. Stone sill heaves in winter.	Rebuild/weatherstrip doors and correct sill problem.	1	LS	\$ 3,075.00	\$ 3,075					\$ 4,868	\$ 5,038	\$ 5,214	\$ 5,397	\$ 5,586	
MM-12	Automatic (off) lighting controls	Throughout house		3	5	3	8	Yes	2	Update to meet code, shut off lights in unoccupied rooms.	Add occupancy sensors (wireless type).	20	EA					\$ 300.00	\$ 6,000	\$ 9,498	\$ 9,830	\$ 10,174	\$ 10,531	\$ 10,899	
MM-13	Main service circuit breaker	Basement		4	4	4	8	No	3	400 ampere MLO panelboard with (6) 2P breakers and (2) 1P breakers.	Add main circuit breaker, Square D I-Line kit.	1	EA					\$ 6,090.00	\$ 6,090	\$ 9,640	\$ 9,978	\$ 10,327	\$ 10,689	\$ 11,063	
MM-14	Air conditioning	1st floor	MM-14	4	4	4	8	No	1	Inefficient zoning.	Modify ductwork associated with AC-1 and AC-2.	1	LS			\$ 4,300.00	\$ 4,300			\$ 6,807	\$ 7,045	\$ 7,292	\$ 7,547	\$ 7,811	
MM-15	Air conditioning	2nd floor		4	4	4	8	No	3	2nd floor has no air conditioning.	Install a new AC unit in the attic and duct down.	1	LS			\$ 18,450.00	\$ 18,450			\$ 29,206	\$ 30,229	\$ 31,287	\$ 32,382	\$ 33,515	
MM-16	Lighting	Attic		4	4	4	8	No	4	Light fixtures in attic not operational.	Provide new LED type light fixtures.	1	LS						\$ 2,145	\$ 3,396	\$ 3,514	\$ 3,637	\$ 3,765	\$ 3,896	
MM-17	Exterior wall insulation	All elevations of house		4	5	4	9	Yes	3	Walls lack insulation.	Add blown-in or foam insulation from exterior.	1	LS	\$ 23,000.00	\$ 23,000					\$ 36,409	\$ 37,683	\$ 39,002	\$ 40,367	\$ 41,780	
MM-18	Barrier free toilet room	1st floor	MM-18	4	4	5	9	No	3	Toilet room is not barrier free.	Add grab bars, BF toilet seat, lever handle door hardware.	1	LS	\$ 675.00	\$ 675					\$ 1,069	\$ 1,106	\$ 1,145	\$ 1,185	\$ 1,226	
MM-19	Heating hot water piping	Basement	MM-19	4	5	4	9	Yes	1	Much of the existing pipe is uninsulated.	Insulate approximately 100' of 1-1/2" line and identify pipe.	100	LF			\$ 11.65	\$ 1,165			\$ 1,844	\$ 1,909	\$ 1,976	\$ 2,045	\$ 2,116	
MM-20	Exterior windows	All elevations		4	5	4	9	Yes	3	Wood windows are single glazed and in poor condition.	Replace with historically correct metal covered wood windows with insulating glass.	23	EA	\$ 1,970.00	\$ 45,310					\$ 71,726	\$ 74,236	\$ 76,834	\$ 79,524	\$ 82,307	
																					\$ 262,041	\$ 265,969	\$ 275,278	\$ 284,913	\$ 294,885

MUSIC CENTER (MC)



GENERAL OVERVIEW

Use: Classroom
Year Built: 1930
Total Area: 34,932 SF
Floors: 3 (plus penthouse)

MAJOR FINDINGS**Roof**

- The roof was replaced in 2009.

Exterior

- All exterior windows need replacement.
- Minor tuck pointing is required below windows on south elevation.

Interior

- There are several problems with interior wood doors including sound seals at practice rooms, delaminating plastic laminate and knob style door handles that do not meet barrier free requirements.
- The Recital Hall auditorium seating is in poor condition and replacement parts are no longer available.
- Plaster walls need repair and suspended acoustical ceiling panels need replacement at several locations of former water leaks.

HVAC

- This building utilizes central campus steam for heating. The steam to hot water heat exchanger is located in the penthouse mechanical space. Indoor air handlers are located on the second floor and in the penthouse mechanical space. The air handlers are equipped with direct expansion cooling coils with associated condensers on the roof.

Plumbing

- There are no notable deficiencies in this building's plumbing infrastructure other than the replacement of some manual fixtures to automatic to match the campus standard.

Fire Protection

- This building is not sprinkled.

Temperature Controls

- This building utilizes a Trane Summit Building controls. It is connected to the Trane campus wide building automation system (BAS).

Power Systems

- Secondary service entrance gear should be replaced with primary service entrance gear with metering.
- Building currently does not have generator back-up. A new generator should be installed for life safety loads.



MC-6



MC-7



MC-8



MC-9

Music Center

Address: 142 Ransom NE Bldg. Area: 34,932 SF No. of Floors: 3 (plus mechanical penthouse) Year Built: 1930 Evaluation Date: 8/25/2015				Building Deficiencies Priorities by Category:				<u>Consequences of the Problem</u> 1. Hazards 2. Interruption 3. Deterioration 4. Utility 5. Energy				<u>Need</u> 1. Critical 2. Urgent 3. Necessary 4. Desirable 5. ADA				<u>Frequency of Use</u> 1. Constant 2. Frequent 3. Occasional 4. Infrequent 5. Meager				Note: Project Cost includes 58.3% mark-ups and fees					
				Note: Lower score equals higher priority																					
No.	Item/Description	Location	Photo No.	Priority	Cons.	Need	Score	Energy	Freq.	Notes	Action	Qty.	Unit	Architectural		Mechanical		Electrical		2016 Project Cost	2017 Project Cost	2018 Project Cost	2019 Project Cost	2020 Project Cost	
														Unit Cost	Subtotal	Unit Cost	Subtotal	Unit Cost	Subtotal						
MC-1	Roof hatch ladder	Penthouse		1	1	4	5	4	No	Ladder handrails interfere with sides of roof opening.	Rework ladder handrails to reduce width.	1	LS	\$ 310.00	\$ 310					\$ 491	\$ 508	\$ 526	\$ 544	\$ 563	
MC-2	Generator	Entire Building		1	1	4	5	4	No	There is currently no generator power to Music Center for emergency lighting.	Provide 100KW exterior generator, with outdoor enclosure, critical exhaust, sound attenuation and 225A automatic transfer switch. Provide 2 new panels to connect to emergency lighting.	1	LS					\$ 48,175.00	\$ 48,175	\$ 76,261	\$ 78,930	\$ 81,693	\$ 84,552	\$ 87,511	
MC-3	Auditorium handrails	Second floor Recital Hall		1	1	5	6	No	2	Handrails do not provide proper graspability.	Provide proper handrail mounted to existing.	55	LF	\$ 37.00	\$ 2,035					\$ 3,221	\$ 3,334	\$ 3,451	\$ 3,572	\$ 3,697	
MC-4	Exterior windows	All elevations		3	3	3	6	No	3	Exterior windows are old and are in poor condition.	Replace exterior windows.	2,705	SF	\$ 100.00	\$ 270,500					\$ 428,202	\$ 443,189	\$ 458,700	\$ 474,755	\$ 491,371	
MC-5	Air handling units	Throughout building		3	3	3	6	Yes	2	Existing units are undersized.	Replace all five (5) AHU's with larger RTU's - install larger ductwork.	35,000	SF			\$ 38.50	\$ 1,347,500			\$ 2,133,093	\$ 2,207,751	\$ 2,285,022	\$ 2,364,998	\$ 2,447,773	
MC-6	AHU-4	Mechanical penthouse	MC-6	3	3	3	6	Yes	2	Existing single zone unit is undersized.	Demolish existing unit and replace with one (1) RTU and keep hydronic reheat within the mechanical space - 5-ton unit.	1	LS			\$ 34,000.00	\$ 34,000			\$ 53,822	\$ 55,706	\$ 57,655	\$ 59,673	\$ 61,762	
MC-7	Exterior brick	South elevation below windows	MC-7	3	3	3	6	3	No	Brick is deteriorated.	Tuck point mortar joints.	50	SF	\$ 6.15	\$ 308					\$ 487	\$ 504	\$ 521	\$ 540	\$ 559	
MC-8	Liebert condenser	Roof	MC-8	3	3	3	6	Yes	3	Existing condenser is beyond its useful service life and is in poor condition	Replace with like kind	1	LS			\$ 14,760.00	\$ 14,760			\$ 23,365	\$ 24,183	\$ 25,029	\$ 25,905	\$ 26,812	
MC-9	Exhaust fans	Roof	MC-9	3	3	4	7	No	2	Exhaust fans are beyond their useful service life	Replace fans with like kind	7	EA			\$ 2,000.00	\$ 14,000			\$ 22,162	\$ 22,938	\$ 23,740	\$ 24,571	\$ 25,431	
MC-10	Main Switchboard	Electrical Vault 132		3	3	4	7	1	No	Existing secondary service is outdated.	Provide new primary service to building.	1	LS					\$ 87,895.00	\$ 87,895	\$ 139,138	\$ 144,008	\$ 149,048	\$ 154,265	\$ 159,664	
																					\$ 2,880,241	\$ 2,981,049	\$ 3,085,386	\$ 3,193,374	\$ 3,305,143

PRACTICE FIELD SERVICE BUILDING (PF)





GENERAL OVERVIEW

Use: Storage
Year Built: Unknown
Total Area: 711 SF
Floors: 1

FINDINGS

Exterior

- Minor repair and painting is required at the wood fascia and soffit.
- Roof bur needs replacement.

HVAC

- There is no HVAC in this building.

Plumbing

- The single drinking fountain is non-operational.

Fire Protection

- This building is not sprinkled.

Temperature Controls

- There are no controls in this building.

Lighting Controls

- There are no automatic "OFF" controls for turning off lighting fixtures. Occupancy sensors should be added.

Fire Alarm System

- There is no fire alarm system in this building.



PF-1



PF-2

Practice Field Service Building

Address:		Corner of Crescent and Barclay NE			Building Deficiencies Priorities by Category:					<u>Consequences of the Problem</u>				<u>Need</u>		<u>Frequency of Use</u>								
Bldg. Area:		711 SF								1. Hazards				1. Critical		1. Constant								
No. of Floors:		1								2. Interruption				2. Urgent		2. Frequent								
Year Built:		Unknown								3. Deterioration				3. Necessary		3. Occasional								
Evaluation Date:		8/25/2015			Note: Lower score equals higher priority					4. Utility				4. Desirable		4. Infrequent				Note: Project Cost includes 58.3% mark-ups and fees				
										5. Energy				5. ADA		5. Meager								
No.	Item/Description	Location	Photo No.	Priority	Cons.	Need	Score	Energy	Freq.	Notes	Action	Qty.	Unit	Architectural		Mechanical		Electrical		2016 Project Cost	2017 Project Cost	2018 Project Cost	2019 Project Cost	2020 Project Cost
														Unit Cost	Subtotal	Unit Cost	Subtotal	Unit Cost	Subtotal					
PF-1	Wood fascia/soffit	Entire building	PF-1	3	3	3	6	No	4	Wood fascia is deteriorated at several locations. Fascia and soffit paint is peeling and rotting.	Repair fascia and paint fascia and soffit.	1	LS	\$ 440.00	\$ 440					\$ 697	\$ 721	\$ 746	\$ 772	\$ 799
PF-2	Roof	Practice field	PF-2	3	3	3	6	No	4	Roof is in poor condition.	Replace with new EPDM.	700	SF	\$ 15.00	\$ 10,500					\$ 16,622	\$ 17,203	\$ 17,805	\$ 18,429	\$ 19,074
PF-3	Lighting wall switch	North entrance door		3	4	3	7	No	5	Lighting wall switch required per code immediately upon entering building.	Install wall switch.	1	EA					\$ 220.00	\$ 220	\$ 348	\$ 360	\$ 373	\$ 386	\$ 400
																				\$ 17,666	\$ 18,285	\$ 18,925	\$ 19,587	\$ 20,272

SNEDEN ACADEMIC BUILDING (SA)



GENERAL OVERVIEW

Use: Classroom
 Year Built: 1965/1983
 Total Area: 88,820 SF
 Floors: 3 (plus basement)

MAJOR FINDINGS

Exterior

- Sealant joints in brick are deteriorated and should be replaced.
- Brick screen and retaining walls have cracked brick and failing mortar joints.

Interior

- Carpet in areas of the first floor is in poor condition and should be replaced.
- Several doors in the original south building are in poor condition and should be replaced.

HVAC

- This building has its own heating and cooling plant. There are two hot water boilers. One boiler was replaced in 2015. The cooling plant consists of a single air cooled chiller located on grade a couple hundred feet from the building. The air handlers consist of indoor built up units, ceiling hung unit ventilators, horizontal non-ducted unit ventilators, and rooftops units.

Plumbing

- There are no notable deficiencies in this building's plumbing infrastructure other than the replacement of some manual fixtures to automatic to match the campus standard.

Fire Protection

- The building is not fully sprinkled.

Temperature Controls

- There is a combination of Automated Logic and Trane controls in this building.

Lighting and Controls

- There are no automatic "OFF" controls for turning off lighting fixtures. Occupancy sensors should be added.
- Emergency lighting system needs to be updated on floor 1 and the basement to meet current code requirements.

Power Systems

- Federal Pacific motor control centers are outdated and should be replaced.



SA-1



SA-2



SA-4



SA-5



SA-6



SA-7



SA-13

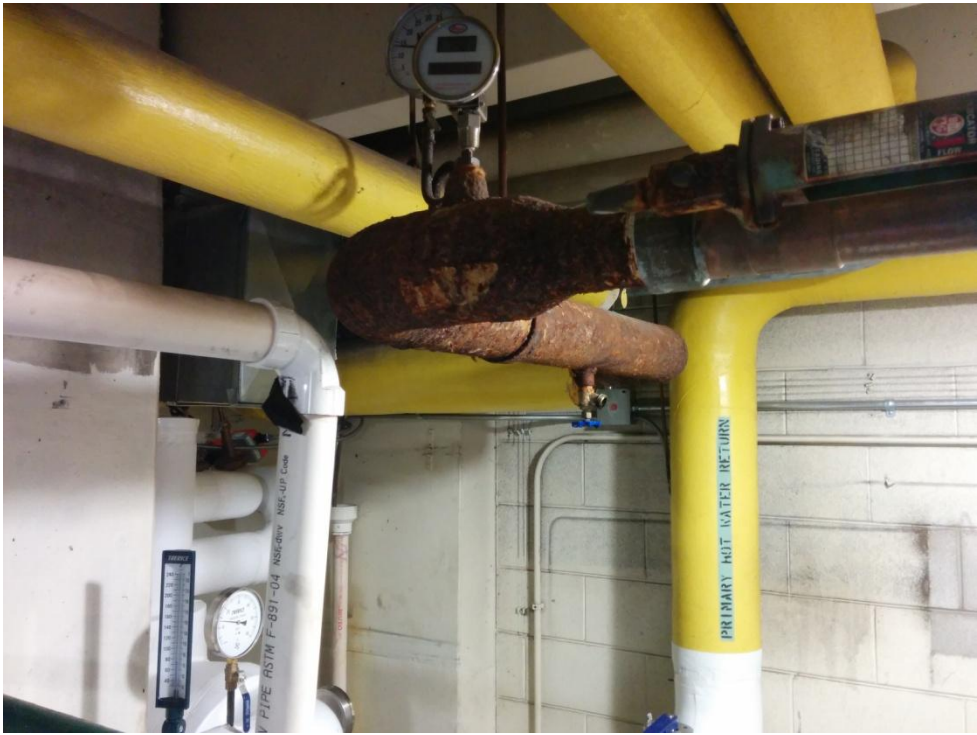


SA-13





SA-13



SA-15

Sneden Academic Building

Address: 435 E. Fulton		Building Deficiencies Priorities by Category:								Consequences of the Problem				Need		Frequency of Use								
Bldg. Area: 88,820 SF										1. Hazards				1. Critical		1. Constant								
No. of Floors: 3 + basement										2. Interruption				2. Urgent		2. Frequent								
Year Built: 1965/1983										3. Deterioration				3. Necessary		3. Occasional								
Evaluation Date: 7/21/2015		Note: Lower score equals higher priority								4. Utility				4. Desirable		4. Infrequent								
										5. Energy				5. ADA		5. Meager								
No.	Item/Description	Location	Photo No.	Priority	Cons.	Need	Score	Energy	Freq.	Notes	Action	Qty.	Unit	Architectural		Mechanical		Electrical		2016 Project Cost	2017 Project Cost	2018 Project Cost	2019 Project Cost	2020 Project Cost
														Unit Cost	Subtotal	Unit Cost	Subtotal	Unit Cost	Subtotal					
SA-1	Overheated electrical room	Basement	SA-1	2	2	2	4	No	1	Basement electrical room supply air is short circuiting to the return air grille.	Extend supply air duct to the opposite end of the electrical room to eliminate short circuiting.	1	LS			\$ 5,000.00	\$ 5,000			\$ 7,915	\$ 8,192	\$ 8,479	\$ 8,776	\$ 9,083
SA-2	Roof drainage	NE corner of original south building	SA-2	2	2	3	5	No	3	Water drainage from low roof is deteriorating brick wall.	Correct drainage and clean/repair brick.	1	LS	\$ 920.00	\$ 920					\$ 1,456	\$ 1,507	\$ 1,560	\$ 1,615	\$ 1,671
SA-3	Motor control centers	Basement mechanical space		2	2	3	5	No	2	100 and 400A motor control centers are deteriorating and having problems functioning properly.	Replace existing motor control centers.	1	LS					\$ 22,295.00	\$ 22,295	\$ 35,293	\$ 36,528	\$ 37,807	\$ 39,130	\$ 40,500
SA-4	Heating hot water piping issue	Basement electrical room	SA-4	2	2	3	5	No	1	Existing heating hot water piping is routed through an electrical room and it does not serve equipment in this room which is against code.	Re-route existing heating hot water piping so that it does not pass through the electrical room.	1	LS			\$ 30,000.00	\$ 30,000			\$ 47,490	\$ 49,152	\$ 50,872	\$ 52,653	\$ 54,496
SA-5	Exterior brick screen and retaining walls	All sides of building	SA-5	3	3	3	6	No	3	Brick joints cracked.	Rebuild brick walls and provide properly flashed stone copings.	350	LF	\$ 80.00	\$ 28,000					\$ 44,324	\$ 45,875	\$ 47,481	\$ 49,143	\$ 50,863
SA-6	EFIS panels/brick walls/retaining walls	Entire building	SA-6	3	3	3	6	No	3	Moss, efflorescent mold, dirt, grout joints.	Remove moss, efflorescent mold and dirt; clean brick, tuck-point where needed.	1	LS	\$ 10,000.00	\$ 10,000					\$ 15,830	\$ 16,384	\$ 16,957	\$ 17,551	\$ 18,165
SA-7	Corroded pipe	Basement south mechanical room	SA-7	3	3	3	6	No	1	It is suspected that the original 2 pipe hydronic heating and cooling system was not installed with a vapor barrier. Consequently, there is a considerable amount of piping that is severely corroded.	Perform a building-wide piping audit and determine location, size and lengths of piping that require replacement due to severe corrosion.	1	LS			\$ 4,000.00	\$ 4,000			\$ 6,332	\$ 6,554	\$ 6,783	\$ 7,020	\$ 7,266
SA-8	Carpet	First floor Rooms 103, 122, 123, 124, 125, 126, 127, 130		3	3	4	7	No	2	Carpet in poor condition.	Replace carpet.	10,130	SF	\$ 4.60	\$ 46,598					\$ 73,765	\$ 76,346	\$ 79,019	\$ 81,784	\$ 84,647
SA-9	Interior wood doors	Original south building		3	3	4	7	No	3	Doors in poor condition.	Replace wood doors to match existing.	10	EA	\$ 1,550.00	\$ 15,500					\$ 24,537	\$ 25,395	\$ 26,284	\$ 27,204	\$ 28,156
SA-10	Flat roof replacement	Entire building		3	3	4	7	No	4	Replace entire flat roof membrane.	Install new single ply membrane.	37,500	SF	\$ 5.21	\$ 195,375					\$ 309,279	\$ 320,103	\$ 331,307	\$ 342,903	\$ 354,904
SA-11	Corridor acoustic ceilings	Second and third floors		3	3	4	7	No	2	Acoustic panels and grid are old and damaged.	Replace acoustic panels and grid.	10,550	SF	\$ 5.74	\$ 60,557					\$ 95,862	\$ 99,217	\$ 102,689	\$ 106,284	\$ 110,004
SA-12	Chilled water system differential pressure control	Unsure where DP transmitter is located		3	4	3	7	Yes	1	It is suspected that the DP transmitter is not located properly or is not functioning correctly as the chilled water pump VSD's operate at 60Hz all the time.	Investigate location and operation of the DP transmitter and make determination as to why pump VSD's do not respond to load variation.	1	LS			\$ 2,000.00	\$ 2,000			\$ 3,166	\$ 3,277	\$ 3,391	\$ 3,510	\$ 3,633
SA-13	Heating hot water tertiary pump issue	Basement south mechanical room	SA-13	3	4	3	7	Yes	1	Tertiary pumps are constant speed with variable speed primary pumps, so it is not understood how pump energy savings are being achieved.	Investigate pumping scheme and controls and explain whether the system is operating correctly or if it is need of modifications to achieve pump energy savings.	1	LS			\$ 2,000.00	\$ 2,000			\$ 3,166	\$ 3,277	\$ 3,391	\$ 3,510	\$ 3,633
SA-14	Cabinet unit heater replacement	West entrance, southeast entrance, northeast entrance		4	4	4	8	No	1	Existing units are in poor condition.	Replace with like and kind.	3	EA			\$ 3,930.00	\$ 11,790	\$ 500.00	\$ 1,500	\$ 21,038	\$ 21,774	\$ 22,537	\$ 23,325	\$ 24,142
SA-15	Heating hot water pipe insulation issue	Basement electrical room	SA-15	4	4	4	8	Yes	1	Heating hot water piping traversing the electrical room is uninsulated in some places.	Provide pipe insulation where missing.	1	LS			\$ 2,000.00	\$ 2,000			\$ 3,166	\$ 3,277	\$ 3,391	\$ 3,510	\$ 3,633
SA-16	Hot room issue	Room 300H		4	4	4	8	No	1	Electrical room with 75 kVA transformer is not adequately ventilated.	Investigate how to improve the ventilation to this room to reduce the temperature.	1	LS			\$ 500.00	\$ 500			\$ 792	\$ 819	\$ 848	\$ 878	\$ 908
SA-17	Hot room issue	Room 200E		4	4	4	8	No	1	Electrical room with 75 kVA transformer is not adequately ventilated.	Investigate how to improve the ventilation to this room to reduce the temperature.	1	LS			\$ 500.00	\$ 500			\$ 792	\$ 819	\$ 848	\$ 878	\$ 908
SA-18	Hot room issue	Room 300J		4	4	4	8	No	1	Electrical room with 75 kVA transformer has exhaust fan that is not working.	Investigate fan operation and make repairs if required.	1	LS			\$ 500.00	\$ 500			\$ 792	\$ 819	\$ 848	\$ 878	\$ 908
SA-19	Occupancy sensors	Throughout building		4	5	4	9	Yes	2	Shut off lights in unoccupied rooms.	Add room occupancy sensors.	20,000	SF					\$ 1.35	\$ 27,000	\$ 42,741	\$ 44,237	\$ 45,785	\$ 47,388	\$ 49,046

Sneden Academic Building

Address:		435 E. Fulton		Building Deficiencies Priorities by Category:				Consequences of the Problem				Need				Frequency of Use									
Bldg. Area:		88,820 SF						1. Hazards				1. Critical				1. Constant									
No. of Floors:		3 + basement						2. Interruption				2. Urgent				2. Frequent									
Year Built:		1965/1983						3. Deterioration				3. Necessary				3. Occasional									
Evaluation Date:		7/21/2015		Note: Lower score equals higher priority				4. Utility				4. Desirable				4. Infrequent									
								5. Energy				5. ADA				5. Meager									
																Note: Project Cost includes 58.3% mark-ups and fees									
No.	Item/Description	Location	Photo No.	Priority	Cons.	Need	Score	Energy	Freq.	Notes	Action	Qty.	Unit	Architectural		Mechanical		Electrical		2016 Project Cost	2017 Project Cost	2018 Project Cost	2019 Project Cost	2020 Project Cost	
														Unit Cost	Subtotal	Unit Cost	Subtotal	Unit Cost	Subtotal						
SA-20	Toilet fixtures	Men's toilet first, second and third floors		4	4	5	9	No	2	Urinal is not at barrier free height.	Lower urinal.	3	EA			\$ 1,600.00	\$ 4,800			\$ 7,598	\$ 7,864	\$ 8,140	\$ 8,424	\$ 8,719	
																					\$ 745,332	\$ 771,418	\$ 798,418	\$ 826,363	\$ 855,285

SNEDEN HALL PARKING RAMP (SP)



GENERAL OVERVIEW

Use: Parking Ramp, Maintenance Office
 Year Built: 1983
 Total Area: 71,770 SF
 Floors: 2

MAJOR FINDINGS

Exterior

- Several fascia shingles are cracked and/or missing and should be replaced.
- The ramp deck coating is fair and requires recoating and striping.
- Grade level parking asphalt paving is at end of life and needs replacement.

HVAC

- The adjacent work room utilizes electric heat and a window air conditioner.

Plumbing

- There are no notable deficiencies in this building's plumbing infrastructure.

Temperature Controls

- The building utilizes local controls.

Lighting Controls

- Replace parking ramp lower level lighting fixtures with LED.

Sneden Hall Parking Ramp

Address:		DeVos Campus		Building Deficiencies Priorities by Category:						Consequences of the Problem				Need				Frequency of Use						
Bldg. Area:		71,770								1. Hazards				1. Critical				1. Constant						
No. of Floors:		2								2. Interruption				2. Urgent				2. Frequent						
Year Built:		1983								3. Deterioration				3. Necessary				3. Occasional						
Evaluation Date:		7/28/2015		Note: Lower score equals higher priority						4. Utility				4. Desirable				4. Infrequent						
										5. Energy				5. ADA				5. Meager						
No.	Item/Description	Location	Photo No.	Priority	Cons.	Need	Score	Energy	Freq.	Notes	Action	Qty.	Unit	Architectural		Mechanical		Electrical		2016 Project Cost	2017 Project Cost	2018 Project Cost	2019 Project Cost	2020 Project Cost
														Unit Cost	Subtotal	Unit Cost	Subtotal	Unit Cost	Subtotal					
SP-1	Roof scupper	SE stair roof drainage		2	3	2	5	No	2	Roof scupper drain water onto wall deteriorating brick.	Tuck point and clean brick, provide downspout.	1	LS	\$ 2,460.00	\$ 2,460					\$ 3,894	\$ 4,030	\$ 4,172	\$ 4,318	\$ 4,469
SP-2	Lighting	Parking ramp, lower level		2	3	2	5	Yes	2	Existing fixtures are T8 and were recently replaced. Fixtures are failing and falling apart.	Replace existing fixtures with fixtures that are LED type, bi-level illumination and local sensors.	15000	SF					\$ 2.50	\$ 37,500	\$ 59,363	\$ 61,440	\$ 63,591	\$ 65,816	\$ 68,120
SP-3	Exterior fascia tile shingles	South and east elevations		3	3	3	6	No	2	Shingles are cracked and missing.	Replace missing shingles (cost per CWI report 12/8/2009).	1	LS	\$ 5,900.00	\$ 5,900					\$ 9,340	\$ 9,667	\$ 10,005	\$ 10,355	\$ 10,718
SP-4	Fascia panels	Parking ramp		3	3	3	6	No	2	Fascia is deteriorated	Replace panels (cost per CWI report 12/8/2009)	3	EA	\$ 490.00	\$ 1,470					\$ 2,327	\$ 2,408	\$ 2,493	\$ 2,580	\$ 2,670
SP-5	Perimeter wood fence	Sneden parking ramp		3	3	4	7	No	4	Wood fence is weathered and damaged.	Repair and replace wood fence to match existing.	100	LF	\$ 20.50	\$ 2,050					\$ 3,245	\$ 3,359	\$ 3,476	\$ 3,598	\$ 3,724
																				\$ 78,169	\$ 80,904	\$ 83,736	\$ 86,667	\$ 89,700

SPECTRUM THEATER (ST)





GENERAL OVERVIEW

Use: Theater and Classrooms
Year Built: 1997
Total Area: 33,270 SF
Floors: 3

MAJOR FINDINGS

Exterior

- Minor repair is required at the exterior wall sheathing.

HVAC

- This building utilizes central campus steam for heating. This buildings chilled water is supplied from the ATC. There two main indoor air handlers located in the second level and one on the roof that are in need of replacement.

Plumbing

- There are no notable deficiencies in this building's plumbing infrastructure other than the replacement of some manual fixtures to automatic to match the campus standard.

Fire Protection

- This building is partially sprinkled.

Temperature Controls

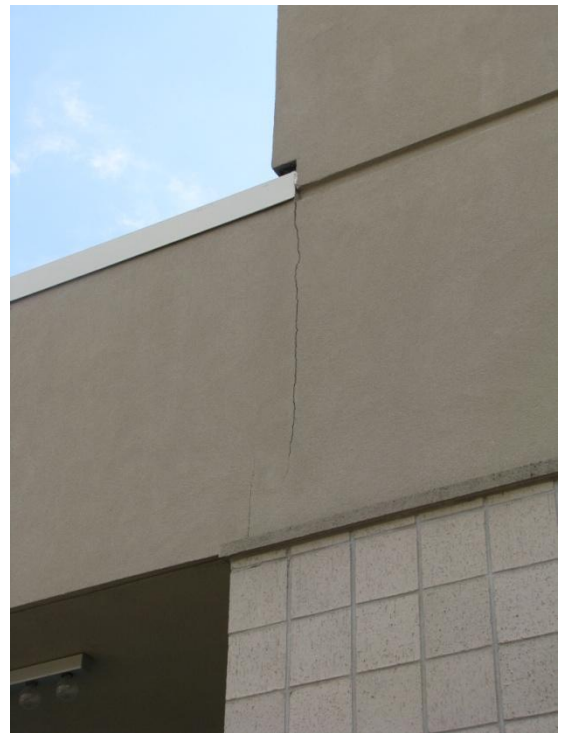
- This building requires a BAS upgrade. It is connected to the Trane campus wide building automation system (BAS).

Lighting and Controls

- There are too few automatic "OFF" controls for turning off lighting fixtures. Occupancy sensors should be added.
- Exterior emergency lighting for egress is inadequate. Replace existing fixtures and add new fixtures to comply with NFPA 101 Life Safety Code.



ST-3



ST-7



ST-11



ST-13



ST-14



ST-14



ST-15



ST-20



ST-20



ST-21

Spectrum Theater

Address: 160 Fountain NE		Building Deficiencies Priorities by Category:								Consequences of the Problem				Need				Frequency of Use						
Bldg. Area: 33,270 SF										1. Hazards				1. Critical				1. Constant						
No. of Floors: 3										2. Interruption				2. Urgent				2. Frequent						
Year Built: 1997										3. Deterioration				3. Necessary				3. Occasional						
Evaluation Date: 8/19/2015		Note: Lower score equals higher priority								4. Utility				4. Desirable				4. Infrequent						
										5. Energy				5. ADA				5. Meager						
No.	Item/Description	Location	Photo No.	Priority	Cons.	Need	Score	Energy	Freq.	Notes	Action	Qty.	Unit	Architectural		Mechanical		Electrical		2016 Project Cost	2017 Project Cost	2018 Project Cost	2019 Project Cost	2020 Project Cost
														Unit Cost	Subtotal	Unit Cost	Subtotal	Unit Cost	Subtotal					
ST-1	Substation	Basement substation room exit		1	1	2	3	No	4	Panic hardware required per NEC 110.26(C)(3).	Add panic hardware on exit door.	1	EA	\$ 1,150.00	\$ 1,150					\$ 1,820	\$ 1,884	\$ 1,950	\$ 2,018	\$ 2,089
ST-2	Substation	Basement substation room		1	1	2	3	No	4	Substation room has flooded from heat exchanger.	Replace single sump pump with duplex sump pump and put on standby power.	1	EA			\$ 4,180.00	\$ 4,180			\$ 6,617	\$ 6,849	\$ 7,088	\$ 7,336	\$ 7,593
ST-3	Theater seating	Theater	ST-3	1	1	3	4	No	2	Some seats are not secured to floor.	Insure all seats are bolted to concrete floor.	1	LS	\$ 750.00	\$ 750					\$ 1,187	\$ 1,229	\$ 1,272	\$ 1,316	\$ 1,362
ST-4	Exterior Emergency Lighting	Exterior by all exits		1	1	3	4	No	3	Exterior emergency lighting per NFPA 101 were at end or life or not present.	Replace or provide new exterior emergency light fixtures above all exits from building.	1	LS					\$ 2,800.00	\$ 2,800	\$ 4,432	\$ 4,588	\$ 4,748	\$ 4,914	\$ 5,086
ST-5	Dimmer rack	Second floor mechanical room		2	2	3	5	No	4	Cooling fans on top of 3 out of 4 racks not operating.	Replace/repair circulating fans.	3	EA					\$ 340.00	\$ 1,020	\$ 1,615	\$ 1,671	\$ 1,730	\$ 1,790	\$ 1,853
ST-6	Exhaust fan	Basement Substation Room LL6		3	3	3	6	No	1	Excessive heat build-up.	Provide mechanical ventilation/exhaust fan and duct to outside under loading dock.	1	EA	\$ 6,150.00	\$ 6,150	\$ 24,600.00	\$ 24,600	\$ 200.00	\$ 200	\$ 48,994	\$ 50,709	\$ 52,483	\$ 54,320	\$ 56,222
ST-7	Exterior wall sheathing	North and west elevations	ST-7	3	3	3	6	No	2	EIFS wall sheathing is cracked.	Repair crack and provide control joint with sealant.	1	LS	\$ 1,350.00	\$ 1,350					\$ 2,137	\$ 2,212	\$ 2,289	\$ 2,369	\$ 2,452
ST-8	Building automation system	Throughout		3	3	3	6	Yes	2	Existing BAS is out of date. No longer supported.	Upgrade BAS to Trane Summit.	1	LS			\$ 10,150.00	\$ 10,150			\$ 16,067	\$ 16,630	\$ 17,212	\$ 17,814	\$ 18,438
ST-9	Kitchen walk-in refrigerators	Lower level kitchen		3	3	3	6	No	2	Seams between panels need repair.	Repair seams.	1	LS	\$ 1,660.00	\$ 1,660					\$ 2,628	\$ 2,720	\$ 2,815	\$ 2,913	\$ 3,015
ST-10	Dielectric fittings	Throughout		3	3	3	6	No	1	Existing fittings are beginning to fail.	Replace dielectric fittings.	25	EA	\$ 2,340.00		\$ 50.00	\$ 1,250			\$ 1,979	\$ 2,048	\$ 2,120	\$ 2,194	\$ 2,271
ST-11	Roof ponding	Roof	ST-11	3	3	3	6	No	2	Water standing on high tower areas.	Lower scuppers to drain towers onto lower main roof.	1	LS	\$ 3,550.00	\$ 3,550					\$ 5,620	\$ 5,816	\$ 6,020	\$ 6,231	\$ 6,449
ST-12	Maintenance Receptacles	Roof		3	3	3	6	No	4	There were no maintenance receptacles on roof for HVAC equipment.	Provide GFI protected maintenance receptacles.	3	EA					\$ 82.50	\$ 248	\$ 392	\$ 406	\$ 420	\$ 434	\$ 450
ST-13	Exhaust fans	Roof	ST-13	3	3	3	6	No	2	Exhaust fans are beyond there useful service life	Replace 3 exhaust fans	1	LS			\$ 10,000.00	\$ 10,000			\$ 15,830	\$ 16,384	\$ 16,957	\$ 17,551	\$ 18,165
ST-14	Air handling units	Roof	ST-14	3	3	3	6	No	2	Air handling units are beyond their useful service life	Replace 3 air handling units	1	LS			\$ 60,000.00	\$ 60,000			\$ 94,980	\$ 98,304	\$ 101,745	\$ 105,306	\$ 108,992
ST-15	Exterior metal door and frame	First floor Scene Shop	ST-15	3	3	4	7	No	3	Door and frame is rusted.	Replace door (pair) and frame.	2	EA	\$ 245.00	\$ 490					\$ 776	\$ 803	\$ 831	\$ 860	\$ 890
ST-16	Ceramic tile	Southeast entrance		3	3	4	7	No	2	Exterior door sill and base corners are damaged.	Replace ceramic tile.	1	LS	\$ 615.00	\$ 615					\$ 974	\$ 1,008	\$ 1,043	\$ 1,079	\$ 1,117
ST-17	Resilient cove base	First floor corridor		3	3	4	7	No		Cove base is cracked.	Replace cove base.	1	LS	\$ 245.00	\$ 245					\$ 388	\$ 401	\$ 415	\$ 430	\$ 445
ST-18	Kitchen grease duct	Kitchen		3	4	3	7	No	2	Kitchen grease duct is suspected to be in poor condition	Perform an internal and external inspection of entire duct and provide an assessment report to Owner	1	LS			\$ 1,000.00	\$ 1,000			\$ 1,583	\$ 1,638	\$ 1,696	\$ 1,755	\$ 1,817
ST-19	Lighting control system	Throughout building		3	5	3	8	Yes	2	Required per ASHRAE Standard 90.1-2004.	Install lighting control system.	1	LS	\$ 4.60	\$ 5			\$ 9,840.00	\$ 9,840	\$ 15,584	\$ 16,129	\$ 16,694	\$ 17,278	\$ 17,883
ST-20	Roof mounted ductwork	Roof	ST-20	4	4	4	8	Yes	2	Existing duct covering is semi-worn.	Repair and replace as required to maintain the integrity of the insulation.	1	LS			\$ 3,000.00	\$ 3,000			\$ 4,749	\$ 4,915	\$ 5,087	\$ 5,265	\$ 5,450
ST-21	Roof hatch	Roof	ST-21	4	4	4	8	No	3	Existing roof drop creates hazard exiting hatch.	Provide guard rail at roof drop/step.	1	LS	\$ 2,500.00	\$ 2,500					\$ 3,958	\$ 4,096	\$ 4,239	\$ 4,388	\$ 4,541
ST-22	Roof sump	Roof		4	4	4	8	No	2	Roof sumps are in poor condition.	Replace roof sumps.	1	LS			\$ 2,000.00	\$ 2,000			\$ 3,166	\$ 3,277	\$ 3,391	\$ 3,510	\$ 3,633
																				\$ 235,475	\$ 240,439	\$ 248,855	\$ 257,565	\$ 266,579

STUDENT CENTER (SC)



GENERAL OVERVIEW

Use: Cafeteria, Book Store, Student Services Offices
Year Built: 1981
Total Area: 64,575 SF
Floors: 3

MAJOR FINDINGS**Exterior**

- Sealant at the perimeter of exterior windows and at concrete wall joints needs replacement.

Interior

- Acoustical tile ceiling in the second floor kitchen is in poor condition and design limits accessibility.
- The passenger elevator lacks audible signals and proper floor designation signs, in addition to car controls that do not meet barrier free requirements.

HVAC

- This building utilizes central campus steam for heating. Chiller water is produced by a single water cooled centrifugal chiller in the basement mechanical space. Air handlers are located in the lower level fan room. They are in need of replacement.

Plumbing

- There are no notable deficiencies in this building's plumbing infrastructure other than the replacement of some manual fixtures to automatic to match the campus standard.

Fire Protection

- This building is fully sprinkled.



SC-2



SC-11



SC-12A



SC-12B



SC-12C



SC-16



SC-17



SC-18

Student Center

Address: 122 Lyon NE				Building Deficiencies Priorities by Category:				Consequences of the Problem				Need				Frequency of Use									
Bldg. Area: 64,575 SF								1. Hazards				1. Critical				1. Constant									
No. of Floors: 3								2. Interruption				2. Urgent				2. Frequent									
Year Built: 1981								3. Deterioration				3. Necessary				3. Occasional									
Evaluation Date: 8/25/2015				Note: Lower score equals higher priority				4. Utility				4. Desirable				4. Infrequent									
								5. Energy				5. ADA				5. Meager				Note: Project Cost includes 58.3% mark-ups and fees					
No.	Item/Description	Location	Photo No.	Priority	Cons.	Need	Score	Energy	Freq.	Notes	Action	Qty.	Unit	Architectural		Mechanical		Electrical		2016 Project Cost	2017 Project Cost	2018 Project Cost	2019 Project Cost	2020 Project Cost	
														Unit Cost	Subtotal	Unit Cost	Subtotal	Unit Cost	Subtotal						
SC-1	Electrical Room Panic Hardware	Electrical Room 38 and Room 210		1	1	2	3	No	3	Doors do not have required panic hardware per NEC 110.26(C)(3)	Provide panic hardware on doors.	1	LS					\$ 2,000.00	\$ 2,000	\$ 3,166	\$ 3,277	\$ 3,391	\$ 3,510	\$ 3,633	
SC-2	Floor drain backup	Mechanical Room 37	SC-2	2	2	2	4	No	3	Floor drain under cooling tower backs up during heavy rains and the water floods the adjacent electrical room	Investigate backup issue and determine if a backwater valve would be appropriate	1	LS			\$ 2,000.00	\$ 2,000			\$ 3,166	\$ 3,277	\$ 3,391	\$ 3,510	\$ 3,633	
SC-3	GFI protected receptacles	Roof and Room 376		2	4	2	6	No	4	Required per NEC Article 210.63, 210.8(B)(3) and 210.8(B)(5).	Provide GFI receptacle at rooftop exhaust fans and at 6ft from edge of sinks.	2	EA					\$ 338.00	\$ 676	\$ 871	\$ 901	\$ 933	\$ 965	\$ 999	
SC-4	Exterior window perimeter and concrete wall sealant joints	All elevations		3	3	3	6	No	2	Sealant is cracked and deteriorated.	Reseal joints.	950	LF	\$ 6.15	\$ 5,843					\$ 9,249	\$ 9,572	\$ 9,907	\$ 10,254	\$ 10,613	
SC-5	Sealant joint between building and sidewalk	Building perimeter		3	3	3	6	No	2	Sealant is cracked and deteriorated.	Reseal joint.	200	LF	\$ 7.75	\$ 1,550					\$ 2,454	\$ 2,540	\$ 2,628	\$ 2,720	\$ 2,816	
SC-6	Concrete wall	Second floor Mall at elevator wall		3	3	3	6	No	3	Concrete wall is cracked at beam connection. Evidence of water leaks.	Repair concrete wall.	1	LS	\$ 1,015.00	\$ 1,015					\$ 1,607	\$ 1,663	\$ 1,721	\$ 1,781	\$ 1,844	
SC-7	Floor drains	Kitchen - second floor		3	3	3	6	No	1	Existing drains are failing.	Replace with cast iron pipe with hubless connections.	10	EA			\$ 1,190.00	\$ 11,900			\$ 18,838	\$ 19,497	\$ 20,179	\$ 20,886	\$ 21,617	
SC-8	Water main isolation valves	Mechanical Room 37		3	3	3	6	No	1	Original valve likely will not hold.	Replace the gate valves 2" lines.	3	EA			\$ 1,390.00	\$ 4,170			\$ 6,601	\$ 6,832	\$ 7,071	\$ 7,319	\$ 7,575	
SC-9	Heat exchanger isolation valves	Mechanical Room 37		3	3	3	6	No	1	Existing balancing valves are not holding for isolation.	Add isolation valves	1	LS			\$ 2,580.00	\$ 2,100			\$ 3,324	\$ 3,441	\$ 3,561	\$ 3,686	\$ 3,815	
SC-10	Exterior water leak	South stair between second and third floor terraces		3	3	3	6	No	2	Water is leaking through concrete stair.	Waterproof stairs.	1	LS	\$ 985.00	\$ 985					\$ 1,559	\$ 1,614	\$ 1,670	\$ 1,729	\$ 1,789	
SC-11	Skylight glass	Mall	SC-11	3	3	3	6	No	2	The Mall skylight glass is leaking; framing is peeling.	Replace glass skylight and all framing.	1	LS	\$ 66,000.00	\$ 66,000					\$ 104,478	\$ 108,135	\$ 111,919	\$ 115,837	\$ 119,891	
SC-12	AHU's & return fan	Mechanical Room 37	SC-12A SC-12B SC-12C	3	3	3	6	Yes	1	Existing AHU's and return fan are past their useful service life	Replace AHU's and return air fan	1	LS			\$ 175,000.00	\$ 175,000			\$ 277,025	\$ 286,721	\$ 296,756	\$ 307,143	\$ 317,893	
SC-13	Kitchen walk-in refrigerators	Kitchen - second floor		3	3	4	7	No	3	Walk-in refrigerators are approaching the end of their service life.	Replace walk-in refrigerators. New air-cooled compressors.	500	SF	\$ 175.00	\$ 87,500	\$ 29.00	\$ 14,500			\$ 161,466	\$ 167,117	\$ 172,966	\$ 179,020	\$ 185,286	
SC-14	Hollow metal door and frame	First floor Rooms 35, 39 and 36		3	3	4	7	No	4	Doors and frames are rusted.	Replace hollow metal doors and frames.	3	EA	\$ 1,845.00	\$ 5,535					\$ 8,762	\$ 9,069	\$ 9,386	\$ 9,714	\$ 10,054	
SC-15	Carpet	Raider Grille #203		3	3	4	7	No	2	Carpet worn and stained.	Replace carpet.	1	LS	\$ 20,000.00	\$ 20,000					\$ 31,660	\$ 32,768	\$ 33,915	\$ 35,102	\$ 36,331	
SC-16	Cabinet unit heater	Main entrance	SC-16	3	3	4	7	No	3	Existing unit is beyond its useful service life	Replace unit with like kind	1	LS			\$ 1,500.00	\$ 1,500			\$ 2,375	\$ 2,458	\$ 2,544	\$ 2,633	\$ 2,725	
SC-17	Acoustical ceiling	Kitchen - second floor	SC-17	4	4	4	8	No	2	Ceiling is in poor condition, access is difficult.	Replace acoustical ceiling.	3,750	SF	\$ 8.60	\$ 26,250	\$ 2.50	\$ 7,500	\$ 5.00	\$ 18,750	\$ 83,108	\$ 86,016	\$ 89,027	\$ 92,143	\$ 95,368	
SC-18	Locker bases	Kitchen locker rooms second floor	SC-18	4	4	4	8	No	3	Locker base paint is in poor condition.	Paint and install resilient base.	40	LF	\$ 3.70	\$ 148					\$ 234	\$ 242	\$ 251	\$ 260	\$ 269	
SC-19	Exterior metal trim	North end of building		4	4	4	8	No	3	Faded and paint is peeling.	Refinish metal trim.	250	LF	\$ 6.15	\$ 1,538					\$ 2,434	\$ 2,519	\$ 2,607	\$ 2,698	\$ 2,793	
																					\$ 722,375	\$ 747,658	\$ 773,826	\$ 800,910	\$ 828,942

TASSELL M-TEC (TA)



GENERAL OVERVIEW

Use: Classrooms, Industrial Labs and Offices
Year Built: 2001
Total Area: 82,100 SF
Floors: 2

MAJOR FINDINGS**Exterior**

- Metal composite round column covers at loading dock are damaged.

Interior

- Some wall cracks in gypsum board and concrete masonry walls needs structural investigation prior to repair.
- Interior masonry wall cracks need to be repaired.

HVAC

- This building has a two boiler heating plant. One of the boilers has had its heat exchanger replaced and the other should have it as well. Chilled water is produced by a single air cooled chiller that sits on grade just outside the building. Indoor built up air handlers are located in the first and second level fan rooms. All are in good condition. Insufficient make-up air to Weld Shop and a new make-up air unit is required.

Plumbing

- There are no notable deficiencies in this building's plumbing infrastructure other than the replacement of some manual fixtures to automatic to match the campus standard.

Fire Protection

- This building is fully sprinkled.

Temperature Controls

- This building utilizes a Trane Tracer Summit Building Control Modules (BCU) for primary building control. It is connected to the Trane campus wide building automation system (BAS).

Lighting and Controls

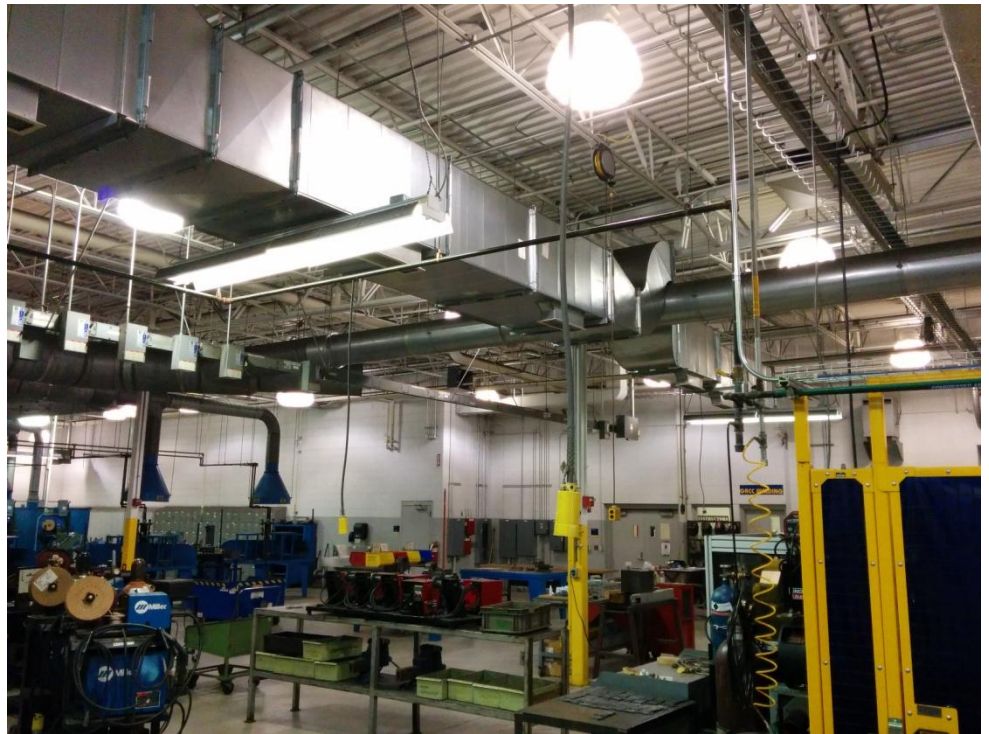
- There are no automatic "OFF" controls for turning off lighting fixtures. Occupancy sensors should be added.
- Additional exterior emergency lighting fixtures need to be added above all exits/man doors to meet current code requirements.

Ground System

- Building grounding system needs to be tested. Arc blow has been present in the process of welding.

Electrical Distribution

- Add maintenance receptacles to rooftop HVAC units per NEC 210.63.



TA-2



TA-7



TA-7



TA-8



TA-10



TA-11

Tassell M-TEC

Address: 622 Godfrey SW		Building Deficiencies Priorities by Category:								Consequences of the Problem				Need				Frequency of Use							
Bldg. Area: 82,100 SF										1. Hazards				1. Critical				1. Constant							
No. of Floors: 2										2. Interruption				2. Urgent				2. Frequent							
Year Built: 2001										3. Deterioration				3. Necessary				3. Occasional							
Evaluation Date: 7/22/2015		Note: Lower score equals higher priority								4. Utility				4. Desirable				4. Infrequent							
										5. Energy				5. ADA				5. Meager							
No.	Item/Description	Location	Photo No.	Priority	Cons.	Need	Score	Energy	Freq.	Notes	Action	Qty.	Unit	Architectural		Mechanical		Electrical		2016 Project Cost	2017 Project Cost	2018 Project Cost	2019 Project Cost	2020 Project Cost	
														Unit Cost	Subtotal	Unit Cost	Subtotal	Unit Cost	Subtotal						
TA-1	Man Door Emergency Exit Lights	Exterior Exits		1	1	3	4	No	4	Man doors lack emergency lighting fixtures.	Provide new LED egress emergency fixtures. NEC 700.16.	15	EA					\$ 350.00	\$ 5,250	\$ 8,311	\$ 8,602	\$ 8,903	\$ 9,214	\$ 9,537	
TA-2	Insufficient make up air to the weld shop	Weld shop	TA-2	2	2	3	5	No	2	Weld shop is very negatively pressurized due to insufficient make up air when all 3 bag houses are in operation	Add roof mounted direct gas fired makeup air unit properly sized to accommodate all 3 bag houses in operation	1	LS			\$ 20,000.00	\$ 20,000			\$ 31,660	\$ 32,768	\$ 33,915	\$ 35,102	\$ 36,331	
TA-3	Domestic water heater	Boiler room		2	2	3	5	No	2	Domestic water heater is approaching the end of its useful service life	Replace existing 100 gallon storage type water heater	1	LS			\$ 1,200.00	\$ 1,200			\$ 1,900	\$ 1,966	\$ 2,035	\$ 2,106	\$ 2,180	
TA-4	Interior masonry walls	First floor		3	3	3	6	No	2	CMU walls are cracked.	Investigate and repair cracks.	1	LS	\$ 2,000.00	\$ 2,000					\$ 3,166	\$ 3,277	\$ 3,391	\$ 3,510	\$ 3,633	
TA-5	Interior gypsum board walls	First floor		3	3	3	6	No	2	Gypsum board walls are cracked.	Add control joints and repair cracks.	1	LS	\$ 2,000.00	\$ 2,000					\$ 3,166	\$ 3,277	\$ 3,391	\$ 3,510	\$ 3,633	
TA-6	Exterior door frame	North exit from Stair 2		3	3	3	6	No	3	Hollow metal door frame is rusted.	Replace hollow metal door frame.	1	EA	\$ 1,100.00	\$ 1,100					\$ 1,741	\$ 1,802	\$ 1,865	\$ 1,931	\$ 1,998	
TA-7	Metal composite wall panels	Exterior	TA-7	3	3	4	7	No	3	Metal panels are damaged.	Replace panels.	2	EA	\$ 5,000.00	\$ 10,000					\$ 15,830	\$ 16,384	\$ 16,957	\$ 17,551	\$ 18,165	
TA-8	Air compressors	Rm 115 finishing	TA-8	3	4	3	7	No	2	Two Gardner Denver air compressors are approaching the end of their useful service life	Replace existing two air compressors	1	LS			\$ 25,000.00	\$ 25,000			\$ 39,575	\$ 40,960	\$ 42,394	\$ 43,878	\$ 45,413	
TA-9	Maintenance Receptacles	Roof		3	4	3	7	No	4	HVAC equipment on roof lack maintenance receptacle.	Add maintence receptacle to each unit.	4	EA					\$ 275.00	\$ 1,100	\$ 1,741	\$ 1,802	\$ 1,865	\$ 1,931	\$ 1,998	
TA-10	Dust collector access hatch addition	Exterior	TA-10	4	4	4	8	No	3	Dust collectors jam up.	Add access hatches to manually clean jams.	4	EA			\$ 2,460.00	\$ 9,840			\$ 15,577	\$ 16,122	\$ 16,686	\$ 17,270	\$ 17,875	
TA-11	Mechanical damper addition	Finishing Room 115	TA-11	4	4	4	8	Yes	2	Existing outdoor air louver dumps cold air into space.	Add an acutated damper to the outdoor air louver and interlock it with the operation of the air compressors	1	LS			\$ 8,360.00	\$ 8,360			\$ 13,234	\$ 13,697	\$ 14,176	\$ 14,673	\$ 15,186	
TA-12	Roof access	Interior		4	4	4	8	No	4	More convenient access to roof.	Provide hollow metal door opening from 2nd floor to roof.	1	LS	\$ 2,000.00	\$ 2,000					\$ 3,166	\$ 3,277	\$ 3,391	\$ 3,510	\$ 3,633	
																					\$ 139,067	\$ 143,934	\$ 148,972	\$ 154,186	\$ 159,582

THOMPSON M-TEC (TH)



GENERAL OVERVIEW

Use: Classrooms, Industrial Labs and Offices
Year Built: 2000
Total Area: 30,000 SF
Floors: 1

MAJOR FINDINGS**Exterior**

- Load dock ramp guard rail posts are not sealed to the concrete retaining wall.
- Weather-stripping and sealant is required at two doors.

Interior

- Minor repair is required at the roof insulation above the mezzanine.

HVAC

- This building has a two boiler heating plant. Chilled water is produced by a single air cooled chiller that sits on grade just outside the building. Indoor built up air handlers are located in two locations within the central industrial lab. Both are in good/fair condition.

Plumbing

- There are no notable deficiencies in this building's plumbing infrastructure other than the replacement of some manual fixtures to automatic to match the campus standard and some issues with domestic water pressure, odor and silt on occasion.

Fire Protection

- This building is not sprinkled.

Temperature Controls

- This building utilizes a Honeywell BAS for primary building control. It is not connected to the GRCC Trane campus wide building automation system (BAS).

Lighting and Controls

- There are no automatic "OFF" controls for turning off lighting fixtures. Occupancy sensors should be added.
- Additional emergency lighting fixtures need to be added to meet current code requirements.
- Additional exterior emergency lighting fixtures need to be added above all exits/man doors to meet current code requirements.

Power Systems

- The concrete pad below the utility transformer outside is sinking in one corner. Sinking of the transformer is significant, exposing the vault underneath and snapped the surface mounted conduit to the utility meter.



TH-5



TH-6



TH-7



TH-12



TH-14



TH-15

Thompson M-TEC

Address:		6364 136th Avenue (Holland)			Building Deficiencies Priorities by Category:					Consequences of the Problem			Need		Frequency of Use									
Bldg. Area:		30,000								1. Hazards			1. Critical		1. Constant									
No. of Floors:		1								2. Interruption			2. Urgent		2. Frequent									
Year Built:		2000								3. Deterioration			3. Necessary		3. Occasional									
Evaluation Date:		7/22/2015			Note: Lower score equals higher priority					4. Utility			4. Desirable		4. Infrequent					Note: Project Cost includes 58.3% mark-ups and fees				
										5. Energy			5. ADA		5. Meager									
No.	Item/Description	Location	Photo No.	Priority	Cons.	Need	Score	Energy	Freq.	Notes	Action	Qty.	Unit	Architectoral		Mechanical		Electrical		2016 Project Cost	2017 Project Cost	2018 Project Cost	2019 Project Cost	2020 Project Cost
														Unit Cost	Subtotal	Unit Cost	Subtotal	Unit Cost	Subtotal					
TH-1	Emergency lighting	Throughout building		1	1	3	4	No	2	All areas may not meet the current emergency lighting code.	Document emergency lighting levels and add additional emergency lighting to meet code.	1	LS					\$ 6,150.00	\$ 6,150	\$ 9,735	\$ 10,076	\$ 10,429	\$ 10,794	\$ 11,172
TH-2	Man Door Emergency Exit Lights	Exterior Exits		1	1	3	4	No	4	Man doors lack emergency lighting fixtures.	Provide new LED egress emergency fixtures. NEC 700.16.	13	EA					\$ 350.00	\$ 4,550	\$ 7,203	\$ 7,455	\$ 7,716	\$ 7,986	\$ 8,265
TH-3	Utility transformer	Outside of the main electrical room		2	2	2	4	No	1	The concrete pad supporting the utility transformer is sinking in one corner exposing the vault underneath and has snapped the meter conduit.	Repair, relevel concrete pad.	1	LS					\$ 6,150.00	\$ 5,000	\$ 7,915	\$ 8,192	\$ 8,479	\$ 8,776	\$ 9,083
TH-4	Unit heater	Boiler room		3	3	3	6	Yes	1	No unit heater in boiler room with 2 doors to the outdoors.	Install new HWH unit heater in this room to protect against possible pipe freezing.	1	LS			\$ 3,690.00	\$ 3,690			\$ 5,841	\$ 6,046	\$ 6,257	\$ 6,476	\$ 6,703
TH-5	Radiant ceiling panels	Perimeter spaces	TH-5	3	3	3	6	Yes	2	Existing radiant ceiling panels are not adequately heating.	Troubleshoot radiant ceiling panels and controls and fix.	1	LS			\$ 1,230.00	\$ 1,230			\$ 1,947	\$ 2,015	\$ 2,086	\$ 2,159	\$ 2,234
TH-6	Downspouts	Exterior	TH-6	3	3	3	6			End of downspouts are damaged.	Install new elbows.	6	EA	\$ 20.00	\$ 120					\$ 190	\$ 197	\$ 203	\$ 211	\$ 218
TH-7	Loading dock guard rails	Exterior	TH-7	3	3	4	7			Pipe guardrails are rusting in cored concrete holes.	Seal posts at base.	1	LS	\$ 500.00	\$ 500					\$ 792	\$ 819	\$ 848	\$ 878	\$ 908
TH-8	Automatic (off) lighting control	Throughout building		3	5	3	8	Yes	2	Update to meet code, shut off lights in unoccupied rooms.	Add room occupancy sensors.	30,000	SF					\$ 1.25	\$ 37,500	\$ 59,363	\$ 61,440	\$ 63,591	\$ 65,816	\$ 68,120
TH-9	Exterior door weatherstripping	Mechanical room, receiving		3	5	3	8	Yes	3	Pair of doors lack adequate weather seals.	Add weather seals.	2	EA	\$ 50.00	\$ 100					\$ 158	\$ 164	\$ 170	\$ 176	\$ 182
TH-10	Exterior door sealant	Mechanical room		3	5	3	8	Yes	3	Door frame lacks perimeter sealant.	Provide perimeter sealant.	1	LS	\$ 50.00	\$ 50					\$ 79	\$ 82	\$ 85	\$ 88	\$ 91
TH-11	Roof insulation	Above mezzanine		3	5	3	8	Yes	3	Roof insulation sagging.	Repair insulation.	1	LS	\$ 50.00	\$ 50					\$ 79	\$ 82	\$ 85	\$ 88	\$ 91
TH-12	Trane BAS	Throughout building	TH-12	4	4	4	8	Yes	1	Existing Honeywell BAS is not very user friendly.	Install new Trane Trace BAS to match GRCC standard.	1	LS			\$ 36,900.00	\$ 36,900			\$ 58,413	\$ 60,457	\$ 62,573	\$ 64,763	\$ 67,030
TH-13	Flush valves and faucets	First floor toilet rooms		4	4	4	8	Yes	2	Existing fixtures are manual	Install new automatic faucets and flush valves to match GRCC standard	12	EA			\$ 615.00	\$ 6,000			\$ 9,498	\$ 9,830	\$ 10,174	\$ 10,531	\$ 10,899
TH-14	Domestic water odor	Boiler room	TH-14	4	4	4	8	No	2	Occupant complaint about periodic domestic water odor	Provide carbon filter to address domestic water odor problem	1	LS			\$ 1,500.00	\$ 6,000			\$ 9,498	\$ 9,830	\$ 10,174	\$ 10,531	\$ 10,899
TH-15	Domestic water sediment	Boiler room	TH-15	4	4	4	8	No	2	Occupant complaint about periodic sediment and silt laden domestic water	Provide sediment filter to address silt laden domestic water	1	LS			\$ 1,500.00	\$ 6,000			\$ 9,498	\$ 9,830	\$ 10,174	\$ 10,531	\$ 10,899
																				\$ 180,209	\$ 186,516	\$ 193,044	\$ 199,801	\$ 206,794

WHITE HALL (WH)





GENERAL OVERVIEW

Use: Office
Year Built: 1908
Total Area: 20,380 SF
Floors: 3 (plus basement)

MAJOR FINDINGS

Roof

- Ice damming is occurring at eaves. Install additional soffit vents for better airflow.



WH-1

White Hall

Address:		415 E. Fulton		Building Deficiencies Priorities by Category:				Consequences of the Problem				Need				Frequency of Use											
Bldg. Area:		20,380 SF																									
No. of Floors:		3 + basement																									
Year Built:		1908																									
Evaluation Date:		7/28/2015																									
				Note: Lower score equals higher priority				4. Utility				4. Desirable				Note: Project Cost includes 58.3% mark-ups and fees											
								5. Energy				5. ADA				5. Meager											
No.	Item/Description	Location	Photo No.	Priority	Cons.	Need	Score	Energy	Freq.	Notes	Action	Qty.	Unit	Architectural		Mechanical		Electrical		2016 Project Cost	2017 Project Cost	2018 Project Cost	2019 Project Cost	2020 Project Cost			
														Unit Cost	Subtotal	Unit Cost	Subtotal	Unit Cost	Subtotal								
WH-1	Ice damming at eaves	Exterior eaves/soffits	WH-1	3	3	3	6	No	4	Ice damming at eaves.	Create more soffit vents and ridge vents for better airflow.	20	EA	\$ 150.00	\$ 3,000					\$ 4,749	\$ 4,915	\$ 5,087	\$ 5,265	\$ 5,450			
																							\$ 4,749	\$ 4,915	\$ 5,087	\$ 5,265	\$ 5,450

The following is a listing of all the general barrier free deficiencies for each building based on requirements for new construction. Refer to the Assessment Report spreadsheets for more detailed information.

Administration Building

- No barrier free deficiencies.

Applied Technology Center and Parking Ramp

- No barrier free deficiencies.

Bungalow (Carriage House)

- No barrier free apartment units are provided.

Calkins Science Center

- No barrier free deficiencies.

Chiller Plant

- Not applicable.

College Park Plaza and Parking Ramp

- No barrier free deficiencies.

Cook Academic Building and Parking Ramp

- No barrier free deficiencies.

Data Center and Bostwick Parking Ramp

- Men's toilet room lacks a barrier free urinal.

Facilities Offices and Lyon Street Parking Ramp

- No barrier free deficiencies.

Ford Field House

- Men's locker rooms lack barrier free urinals.

Ford Natatorium

- Elevator lacks audible signal.
- Six (6) former racquetball courts (currently classrooms and training rooms) have doors that do not meet barrier free accessibility requirements.

Learning Resource Center

- No barrier free deficiencies.

Lettinga Center

- Barrier free toilet room water closet lacks grab bars and paper towel dispenser is not mounted at barrier free height.
- Interior ramp lacks handrails.
- Door knobs are not barrier free.

- Barrier free access is not provided to all levels.

Mable Engle

- Building lacks a barrier free toilet room.
- Barrier free access is not provided to all levels.

Main Building

- No barrier free deficiencies.

McCabe-Marlowe House

- Accessible toilet room on first floor lacks grab bars at water closet and accessible door hardware.

Music Center

- Elevator lacks audible signal and car controls are not at barrier free height.
- Men's toilet room on first and second floors lacks grab bar on one side of toilet stall.
- Toilet room paper towel dispensers are not mounted at barrier free height.
- Stair handrails at Recital Hall seating aisles do not provide proper graspability.

Practice Field Service Building

- No barrier free deficiencies.

Sneden Academic Building

- No barrier free deficiencies.

Sneden Hall Parking Ramp

- No barrier free deficiencies.

Spectrum Theater

- No barrier free deficiencies.

Student Center

- Two (2) first floor toilet rooms lack sufficient maneuvering space at entrance doors.

Tassell M-TEC

- No barrier free deficiencies.

Thompson M-TEC

- No barrier free deficiencies.

White Hall

- No barrier free deficiencies.

The following is a listing of all the potential energy saving opportunities for each building based on requirements for new construction. Refer to the Assessment Report spreadsheets for more detailed information.

Administration Building

- New high efficiency air-cooled chiller.
- Energy management system programming modifications for tighter control.
- Variable frequency drive – HVAC fan/pump.
- Upgrade boiler controls.
- High efficiency condensing boilers.
- Additional pipe insulation.
- Demand control ventilation on the air handler.
- Variable frequency drive – secondary chilled water pumps. Convert 3-way valves to 2-way valves.
- Install NEMA premium efficiency motors.
- Gas tankless water heater.
- Plug load occupancy sensors.
- Infrared scan building to identify insulation gaps and air leaks.

Applied Technology Center and Parking Ramp

- New high efficiency replacement refrigerators and freezers.
- New or replacement steam cookers.
- High efficiency refrigeration condensers.
- Floating head pressure controls.
- Energy management system programming modifications for tighter control.
- Variable frequency drive – HVAC fan/pump.
- Window film.
- Infrared heaters in high bay areas.
- Demand control ventilation on air handlers.
- Install NEMA premium efficiency motors.
- Variable frequency drives on pumps and convert 3-way control valves to 2-way.
- Gas tankless water heaters.
- Beverage vending machine controllers.
- Energy efficient ice machines.
- Infrared scan building to identify insulation gaps and air leaks.

Bungalow (Carriage House)

- Replace single glazed exterior windows with insulating glass in metal covered wood windows.
- New high efficiency replacement refrigerators (Energy Star).
- Programmable thermostats.
- Energy management system.
- Upgrade boiler controls.
- High efficiency boilers.
- Infrared heaters in garage area.
- Added insulation.
- Additional pipe insulation.
- Install NEMA premium efficiency motors.
- Gas tankless water heater.
- Infrared scan building to identify insulation gaps and air leaks.

Calkins Science Center

- Provide localized lighting control throughout building.
- Energy management system programming modifications for tighter control.
- Demand control ventilation on air handlers.
- Install NEMA premium efficiency motors.
- Beverage vending machine controllers.
- Infrared scan building to identify insulation gaps and air leaks.

Chiller Plant

- Energy management system programming modifications for tighter control.
- Additional pipe insulation.
- Install NEMA premium efficiency motors.

College Park Plaza and Parking Ramp

- Window film.
- Infrared scan building to identify insulation gaps and air leaks.

Cook Academic Building and Parking Ramp

- Energy management system programming modifications for tighter control.
- Demand control ventilation on air handlers.
- Infrared scan building to identify insulation gaps and air leaks.

Data Center and Bostwick Parking Ramp

- Replace lamps and ballasts with lower wattage, energy saving type.
- High efficiency condensers.
- Floating head pressure controls on compressors.
- Energy management system programming modifications for tighter control.
- Upgrade boiler controls.
- High efficiency boiler.
- Additional pipe insulation.
- Demand control ventilation on air handlers.
- Gas tankless water heater.
- Infrared scan building to identify insulation gaps and air leaks.

Facilities Offices and Lyon Street Parking Ramp

- Provide localized lighting control throughout building.
- Replace lamps and ballasts with lower wattage, energy saving type.
- Install high efficiency boilers.
- Install high efficiency (SEER) rated condensers for all air conditioning units.
- Modify energy management software for greater setbacks and shorter run times.
- Use infrared heaters in open shop area.
- Add demand control ventilation to air handlers.
- Use tankless water heater.

Ford Field House

- Provide localized lighting control throughout building.
- Replace lamps and ballasts with lower wattage, energy saving type.
- Install exit signs with "LED" type lamps.
- New high efficiency air-cooled chiller.
- Energy management system programming modifications for tighter control.

- Additional pipe insulation.
- Demand control ventilation on air handlers.
- Install NEMA premium efficiency motors.
- Beverage vending machine controllers.
- High efficiency clothes washer and dryer.
- Infrared scan building to identify insulation gaps and air leaks.

Ford Natatorium

- Provide localized lighting control throughout building.
- Replace lamps and ballasts with lower wattage, energy saving type.
- Install exit signs with “LED” type lamps.
- Energy management system programming modifications for tighter control.
- Variable frequency drive – HVAC fan/pump.
- Additional pipe insulation.
- Demand control ventilation on air handlers.
- Install NEMA premium efficiency motors.
- Pool covers.
- Beverage vending machine controllers.
- Plug load occupancy sensors.
- High efficiency clothes washer and dryer.
- Infrared scan building to identify insulation gaps and air leaks.

Learning Resource Center

- Replace single glazed exterior windows with insulating glass in thermally broke aluminum frames.
- Demand control ventilation on air handlers.
- Variable frequency drive – secondary chilled water pumps. Convert 3-way control valves to 2-way.
- Install NEMA premium efficiency motors.
- Variable frequency drives on HWH pumps.
- Gas tankless water heater.
- Beverage vending machine controllers.
- Infrared scan building to identify insulation gaps and air leaks.

Lettinga Center

- Replace single glazed exterior windows with insulating glass in metal covered wood windows.
- Insulate attic space.
- High efficiency condensers.
- Programmable thermostats.
- Energy management system.
- High efficiency furnace.
- Additional pipe insulation.
- Gas tankless water heater.
- Infrared scan building to identify insulation gaps and air leaks.

Mable Engle

- Replace single glazed exterior windows with insulating glass in metal covered wood windows.
- Insulate attic space.
- High efficiency refrigeration condenser.
- Programmable thermostats.
- Energy management system.
- Additional pipe insulation.
- Gas tankless water heater.
- Infrared scan building to identify insulation gaps and air leaks.

Main Building

- Beverage vending machine controllers.
- Infrared scan building to identify insulation gaps and air leaks.

McCabe-Marlowe House

- Replace single glazed exterior windows with insulating glass in metal covered wood windows.
- Provide localized lighting control throughout building.
- Install exit signs with "LED" type lamps.
- High efficiency condensers.
- Programmable thermostats.
- Ground-source heat pump.
- Energy management system programming modifications for tighter control.
- Upgrade boiler controls.

- High efficiency boiler.
- Additional pipe insulation.
- Gas tankless water heater.
- Infrared scan building to identify insulation gaps and air leaks.

Music Center

- Replace lamps and ballasts with lower wattage, energy saving type.
- Install exit signs with “LED” type lamps.
- High efficiency condensers on air conditioning units.
- Energy management system programming modifications for tighter control.
- High efficiency rooftop units.
- Additional pipe insulation.
- Demand control ventilation on air handlers.
- Beverage vending machine controllers.
- Infrared scan building to identify insulation gaps and air leaks.

Practice Field Service Building

- No energy saving opportunities available.

Snedden Academic Building

- Energy management system programming modifications for tighter control.
- Demand control ventilation on air handlers.
- Variable frequency drives on HWH pumps.
- Beverage vending machine controllers.
- Energy efficient ice machines.
- Infrared scan building to identify insulation gaps and air leaks.

Snedden Hall Parking Ramp

- Replace lamps and ballasts with lower wattage, energy saving type.
- Install exit signs with “LED” type lamps.

Spectrum Theater

- New high efficiency replacement refrigerators and freezers.
- High efficiency refrigeration condensers.
- Floating head pressure controls.

- Energy management system programming modifications for tighter control.
- Variable frequency drive – HVAC fan/pump.
- High efficiency rooftop unit.
- Additional pipe insulation.
- Demand control ventilation on air handlers.
- Install NEMA premium efficiency motors.
- Infrared scan building to identify insulation gaps and air leaks.

Student Center

- New high efficiency replacement refrigerators and freezers.
- New or replacement steam cookers.
- Floating head pressure controls.
- Energy management system programming modifications for tighter control.
- Variable frequency drive – HVAC fan/pump.
- Additional pipe insulation.
- Demand control ventilation on air handlers.
- Install NEMA premium efficiency motors.
- Variable frequency drives on pumps.
- Beverage vending machine controllers.
- Energy efficient ice machines.
- Infrared scan building to identify insulation gaps and air leaks.

Tassell M-TEC

- Provide localized lighting control throughout building.
- New high efficiency air-cooled chiller.
- Energy management system programming modifications for tighter control.
- Variable frequency drive – HVAC fan/pump.
- Upgrade boiler controls.
- High efficiency boilers.
- Infrared heaters.
- Additional pipe insulation.
- Demand control ventilation on air handlers.

- Install NEMA premium efficiency motors.
- Gas tankless water heater.
- Beverage vending machine controllers.
- Energy recovery wheel.
- Infrared scan building to identify insulation gaps and air leaks.

Thompson M-TEC

- Provide localized lighting control throughout building.
- Ground-source heat pump.
- New high efficiency air-cooled chiller.
- Energy management system programming modifications for tighter control.
- Variable frequency drive – HVAC fan/pump.
- Upgrade boiler controls.
- High efficiency boilers.
- Infrared heaters.
- Added roof insulation.
- Additional pipe insulation.
- Demand control ventilation on air handlers.
- Gas tankless water heater.
- Beverage vending machine controllers.
- Infrared scan building to identify insulation gaps and air leaks.

White Hall

- Install dedicated high efficiency boilers.



2015 GRCC Master Plan

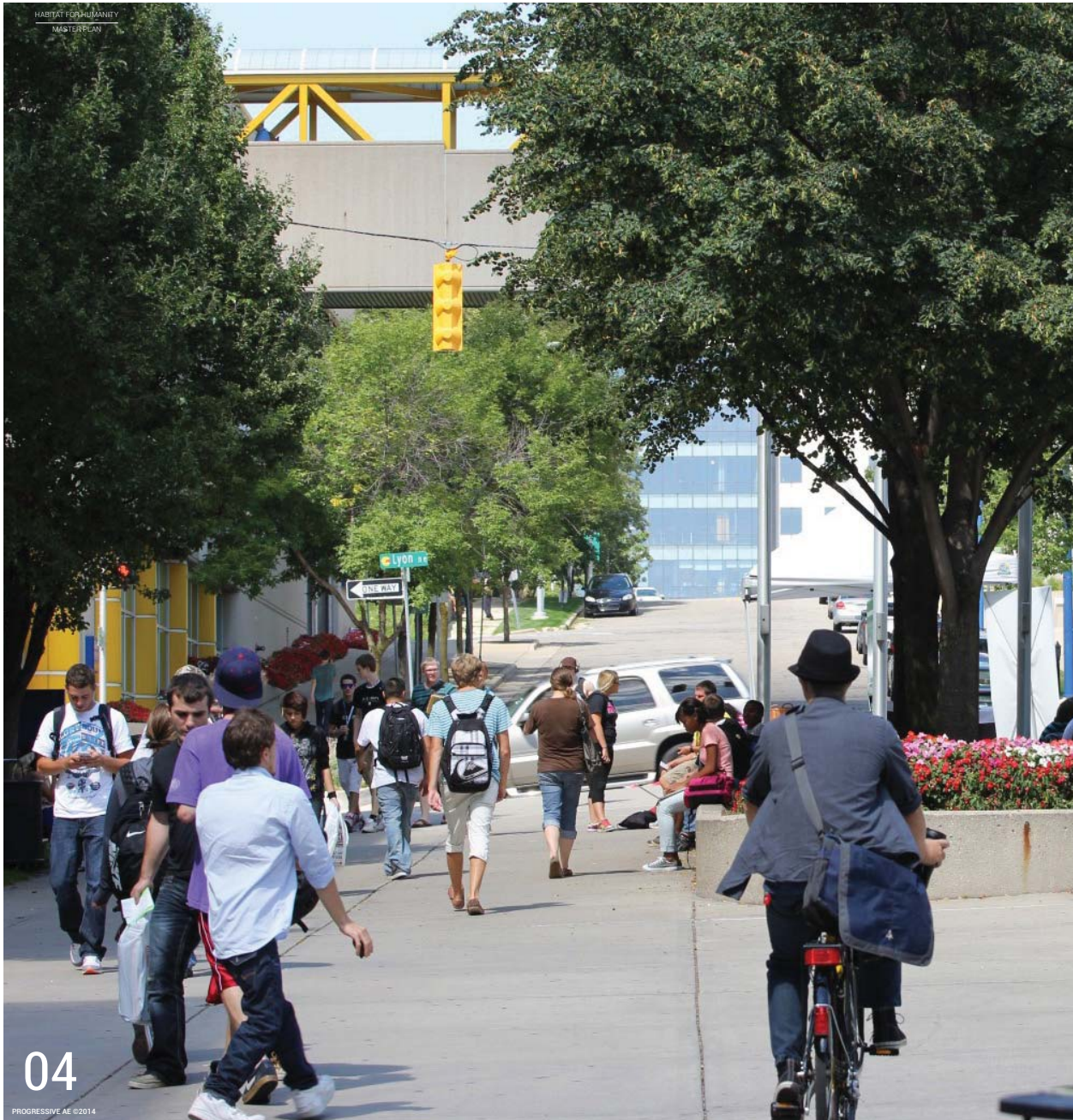
GRAND RAPIDS COMMUNITY COLLEGE
[visioning & charrette synthesis]

progressive ae

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Executive Summary



Master Plan Update 2015:

Grand Rapids Community College celebrated its centennial during the 2014-2015 academic year. As the College looks to the future, Progressive AE was selected to assist with an update to the campus facilities master plan. The purpose for this update was to bring the current vision, research, understanding, accomplishments, and plans for future projects together in a single publication. This Plan Update will outline steps to transform the College of now into the College of the future, and as the College evolves and deals with new opportunities in the future, the Master Plan will help the College address change.

The College extends its gratitude to the inspiring people of GRCC's Master Planning Steering Committee for their vision, passion, and dedication to furthering the education of our Greater Grand Rapids community.

Lisa Freiburger, Vice President for Finance & Administration

Tom Smith, Executive Director of Facilities

Jim Van Dokkumburg, Director of Facilities

Scott Martin, Facilities Project Manager

Vicki Janowiak, Executive Director, Operational Planning

We also extend a special thank you to all students, faculty, staff and administration for their contributions of time, talent, and dedication and to the Heritage Hill Neighborhood Association, City of Grand Rapids, Van Andel Institute, Spectrum Health, Ferris State University, The Right Place and Michigan Works for valuing the College and contributing to its future.

A master plan emerges out of mission, vision, and values, providing a glimpse of a realistic future. A master plan should not come as a surprise to those who participate along the way, but should logically respond to and emerge from the existing conditions, land use, growth trends, community needs, and future vision discovered along the way. By considering these elements, a master plan helps future development to be strategic and prioritized rather than a series of knee-jerk reactions. A master plan seeks to accomplish the following objectives:

- **Take stock of existing limitations and opportunities on the Main and DeVos campuses**
- **Identify and prioritize needs and vision from a student, employee, and neighborhood perspective**
- **Paint a picture of future facilities development that is in keeping with the immediate and long-term needs of the College**
- **Live on as a sounding board to aid in future decision-making**
- **Remain flexible for shifting priorities and unforeseen needs**



process

WHO
our values
our ends
our current state
participants

WHAT
how we will succeed
insights

Who we are

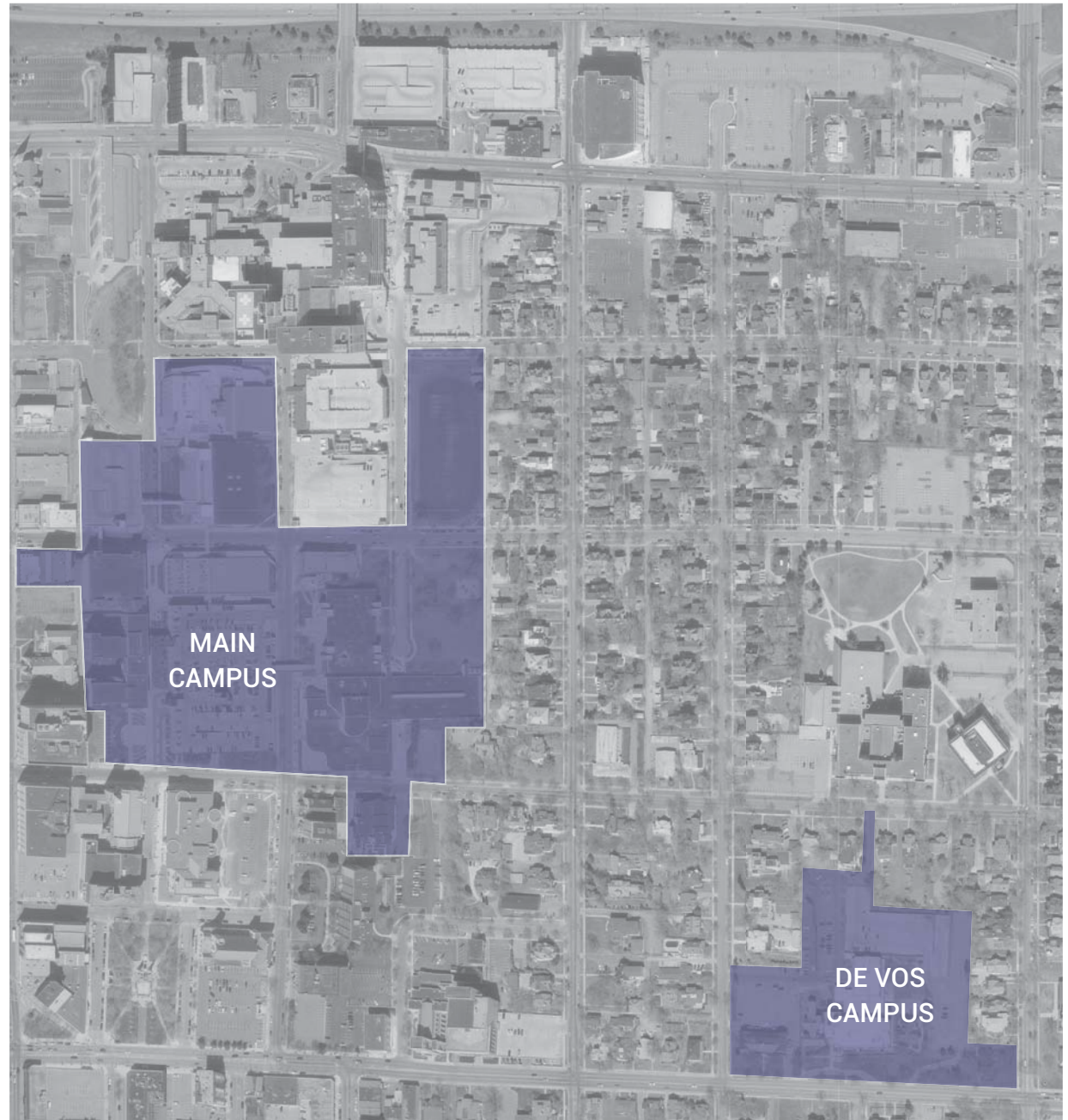
Who we are matters. A project's success depends largely on the way it is seen by the public [the people who we interact with] and its stakeholders. This means taking the time to learn what is important and who it will impact.

Mission Statement

GRCC is an open access college that prepares individuals to attain their goals and contribute to the community.

Vision Statement

As a college of distinction, GRCC inspires students to meet the needs of the community and the world.



Who we are

"It is an exciting time to be at GRCC. We are celebrating our centennial anniversary, 100 years of serving the educational and workforce readiness needs of the community. But we are not just looking back this year. We are looking forward, and we will continue the tradition of excellence that so many have worked so diligently, and with unparalleled passion, to establish in the Grand Rapids community." ~ Steven C. Ender, Ed.D.

Our Values

- Excellence** We commit to the highest standards in our learning and working environment as we strive for distinction in all aspects of our work.
- Diversity** We create an inclusive learning and working environment that recognizes the value and dignity of each person.
- Responsiveness** We anticipate and address the needs of students, colleagues, and community.
- Innovation** We seek creative solutions to problems through experimentation and adaptation.
- Accountability** We set benchmarks and outcomes to frame our decision-making, measure our performance, and evaluate our results.
- Sustainability** We use resources in responsible ways to achieve balance among our social, economic, and environmental practices and policies.
- Respect** We treat others with courtesy, consideration and civility.
- Integrity** We commit to GRCC values and take personal responsibility for our words and actions.

Who we are

"Grand Rapids is part of our name, but so is "community," and the community we serve deserves the best from its community college." ~ Steven C. Ender, Ed.D.

Our Ends

#1: Student Success Pathways

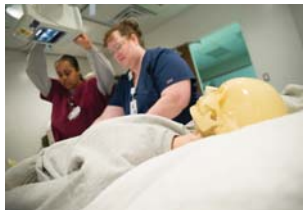
A student centered experience will ensure GRCC students will learn the skills necessary to achieve their educational goals.

#2: Workforce Pathways

GRCC will provide prepared students for the workforce in our community and the world.

#3: Transfer Pathways

GRCC prepares students to transfer to the college or university of their choice.



Our current state

One college, many communities.

Approach

Progressive's design team held a series of visioning sessions including college planning professionals, students, faculty and staff to assess the range of issues around the campus experience; both in the traditional learning environments as well as the services and amenities found on campus and within the immediate neighborhood. These sessions helped identify, align, and prioritize the most important gaps in available services and amenities not found on GRCC's downtown campuses. These gaps are potential stumbling blocks getting in the way of GRCC achieving its goals.

We recognize that GRCC is an anchor institution on the hill, accompanied by some of the most important learning, research, and health partners in West Michigan. This presents a unique confluence of stakeholders and visitors who share similar needs for:

- Improved access
- Security
- Accommodating alternative mobility
- A variety of amenities and services within walking distance.

Understanding the opportunity this confluence presents, GRCC invited community partners to engage in a conversation revolving around their awareness of the impact of GRCC campus on their lives, their perception of GRCC's brand, and opportunities to envision potential uses for under utilized properties on the Main and DeVos campuses. This engagement proved fruitful, as many of the gaps identified by GRCC stakeholders were echoed by our community partners.

Our understanding of these needs provided the master planning team with potential uses for under utilized as well as aging facilities. These insights drive conceptual planning and, ultimately, validate the directive of the Master Plan.



Participants

Grand Rapids Community College

Progressive AE engaged a group of key decision makers and influencers directly employed by the college. This group includes students, faculty, staff and administrators. We considered this group as a representative voice of the college. For the master plan update, GRCC delegated key representatives from facilities, finance and planning to collaborate with the Progressive AE team. Being the first group to interact with the Progressive AE team, we had them participate in an alignment exercise. The objective of this exercise was to have members think about quantitative and qualitative components within the college. They are categorized as Human Experience, Building and Site Infrastructure, Financial & Sustainable Results, and Business Operations. It was felt that this planning exercise had a positive outcome, and therefore we engaged a larger group of academic leaders, the President's Cabinet, in the same exercise. Additionally, a larger group of GRCC employees engaged in a unique visioning session which encouraged an empathic understanding of who benefits from academic and career development offerings at the core of GRCC service to the community. The results from each exercise indicate great alignment of priorities within GRCC towards achieving success.

Student and Employee surveys

The team believes it is important to capture the voice of students and employees of GRCC to better understand their perception of opportunities, needs, and ideal states for what GRCC offers its stakeholders. Two surveys were developed and deployed. Both students and employees were surveyed, with particular inquiry into what amenities are found around the campus which are not currently offered on campus. Student respondents frequently highlighted the need to improve parking (mobility) and access (to food, parking, faculty, study spaces) as key areas that can be improved upon. As with students, the employee respondents frequently highlighted the need to improve parking (mobility) and access (to food, parking, faculty, work spaces) as key areas that will drive success for the college moving forward. Also, wayfinding should be considered in an effort to improve safety and security on campus. Access to natural light and views will improve safety and security, as will better lighting within buildings (parking structures). The results and the identification of the specific groups are documented further in this report.

Key Influencers






This group is composed of individuals, agencies, organizations and institutions which have a vested interest in the neighborhoods and developments around GRCC's downtown campuses. The voices within Heritage Hill Neighborhood Association, Van Andel Institute, Ferris State University, Spectrum Health, The Right Place, Michigan Works, and the City of Grand Rapids need to be considered so we, as planners, can better understand the needs of their stakeholders in an effort to prioritize facility development within the downtown campuses. Each one of these groups and their members can serve as a catalyst and contributor for projects to be realized, viable, and contributory to the needs of the community.

WHAT | HOW WE WILL SUCCEED

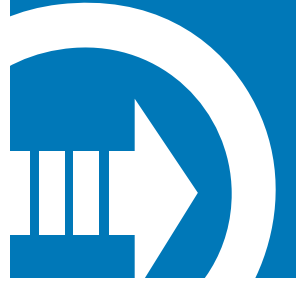
Below are the top priorities that the master planning team needs to focus on when planning how GRCC will meet its goals. By focusing on these when creating organizational strategies, implementing planning, and developing facilities, GRCC can plan for and measure success in how well it serves these components.






HUMAN EXPERIENCE



-  Create the GRCC Experience
-  Student/Educator Centered Practices
-  Attraction/Retention
-  Greater Flexibility
-  Identity/Experience (External)






BUSINESS OPERATIONS



-  Introduce New Programs
-  Flexibility/Ease of Change
-  Increase Visibility
-  Educational Efficiency
-  Institution Resources

BUILDING + SITE INFRASTRUCTURE



-  Respect Staff, Students, and Faculty
-  Intuitive Wayfinding
-  Accessibility
-  Environmental Responsibility
-  Reflect Brand & Mission

FINANCIAL + SUSTAINABLE RESULTS



-  Affordability
-  Sustainability
-  Curricular & Programmatic Currency & Relevancy
-  Degree/Transfer Completion and Employment
-  Increase Revenue

WHAT | UNDERSTANDING YOUR CURRENT STATE

In an effort to capture the voice of the GRCC community, Progressive AE developed and deployed a 19 question inquiry via survey monkey seeking student and employee input on issues regarding the learning environment, access and mobility, security and safety, and the overall impression the GRCC campus has on their lives.

16 questions requested ranking while 3 requested written responses. 858 students responded to the survey, while 184 employees completed the survey.

Results are categorized in the following groups for sake of comparison.

students

1st &
2nd year

3rd year +
or a cred./
cert.

employees

Full
Time

Part Time



WHAT | INSIGHTS

student survey

- Of the 858 students who completed the survey, 529 were in their first or second year
- 60% of respondents are female, 39% are male, 1% are transgender
- 58% are full time, 32% are part time
- 62% of first or second year students are Generation Y
- 74% of third year plus students are Generation Y
- All students view improved parking and public transit as the best way to improve access to the downtown campus
- All students view improved wayfinding and lighting as the best way to improve safety and security on the downtown campus
- All students spend 82% of their study time alone while on campus. 32% of their time on campus is in a primary building
- All students rank access to technology as the best amenity on campus and that the current classroom environment supports the way instruction is given
- All students strongly agree that academic offerings support their goals to complete their degree or transfer
- All students agree that the ideal campus provides them with a strong sense of safety and security
- Third year plus identified a need to improve the way technology supports learning in the ideal classroom
- The ideal student experience supports personal & academic growth

Student respondents frequently highlighted the need to improve parking (mobility) and access (to food, parking, faculty, study spaces) as key areas that can be improved upon. Also, wayfinding should be considered in an effort to improve safety and security on campus, as would access to natural light and views. After two years, students view their learning environment to be more critical in improving their learning overall and are less critical regarding access to parking.

employee survey

- Half of all respondents are baby boomers
- 44% are faculty, while 37% hold a meet & confer roll w/in GRCC
- In terms of improving access to GRCC, improved parking led, with access to public transit and downtown shuttles following
- In terms of improving security, wayfinding was most important to of full time employees, while lighting was most important to part time employees
- Full time employees spend the majority of their time in individual workspace assigned to them
- Part time employees spend the majority of time in the classroom
- Most full time employees work alone or in large groups
- Most part time employees work in groups of 6 or more
- Most employees spend over 60% of their time on campus in their primary campus building
- Full time staff do not agree that the current classroom environment supports the technology used for class activities, while part time staff do
- Full time staff do not agree as much as part time staff do in terms of the GRCC environment empowering them to explore new ways of working

As with students, the employee respondents frequently highlighted the need to improve parking (mobility) and access (to food, parking, faculty, study spaces) as key areas that will drive success for the college moving forward. Also, wayfinding should be considered in an effort to improve safety and security on campus. Access to natural light and views will improve safety and security, as will better lighting within buildings (parking structures).



visioning

ENGAGEMENT

Visioning is an **immersive engagement** where key individuals collaborate to set priorities, understand goals and what drives success. Through dialogue and activities we draw upon knowledge and insights to uncover the essence of the issue. We **drive alignment** and develop creative and value-driven ideas and opportunities.

OUTCOMES

Design Principles

VISIONING | EXERCISES

In this visioning session, leaders from across campus formed teams. They were asked to select a photo and **create a persona and life story** for a fictional student. The teams then **listed** their **student's needs** in various categories: social, learning, cultural, physical, and emotional. Lastly, the teams were tasked with a quadrant exercise and answered: **based on my persona's needs, their learning requirements will be met if we....**



PERSONAS



Guillermo

Becky Whitman | Jim Van Dokkumburg | Kathy Keating
Laurie Chesley | Leah Nixon | Vicki Janowiak

John-Eric

David Anderson | Eric Williams | Misty McClure
Tina Hoxie | Todd Hurley

Robert

Bill Faber | Dan Clark | Eric Mullen
Kathy Mullins | Rick VanderVeen | Scott Martin

Heather

Donovan Wallace | John Cowles | Mansfield Matthewson
Steve Ender | Todd Torrey

Xeuliang

Kurt Meinders | Lisa Freiburger | Mike Vargo
Paula Sullivan | Raynard Ross

Maarvin

David Selmon | Jim Peterson | Lilly Anderson
Patti Trepkowski | Tom Smith

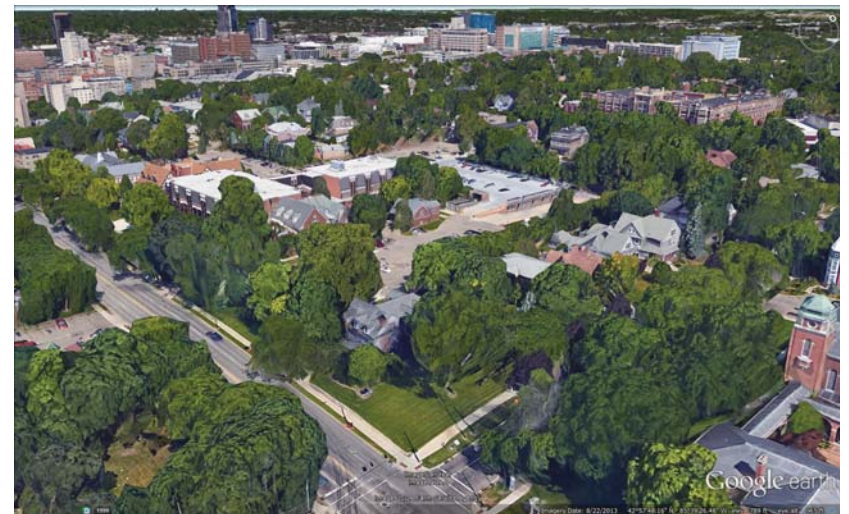
VISIONING | INFLUENCES

Move to understanding **how** by creating resolution to aspects that are important. Define what we are trying to achieve and **how** it will make this project a success. Test in the context that our solutions will actually be used.

In an effort to engage the community immediately surrounding GRCC, Progressive AE lead a visioning session which asked specific questions of participants regarding the potential improvement of under-utilized campus assets. These included the practice field/track located on Lyon at the northeast corner of the main campus and the Lettinga House, located on the northwest corner of Fulton and College.

Both locations are gateways to GRCC's downtown campus, and are opportunities to improve the GRCC experience, as well as respond and contribute to planning strategies around the campus.

What follows are recommendations offered up by these influencers. It should be noted they are the voice of our neighbors, and therefore do not necessarily represent favored direction for use or development, but are points to consider when planning for these under-utilized campus assets is taken up by the college.



The voices within Heritage Hill Neighborhood Association, Van Andel Institute, Ferris State University, Spectrum Health, The Right Place, Michigan Works, and the City of Grand Rapids responded in these ways:

HOW DO YOU EXPERIENCE GRCC?

Awareness of opportunities at GRCC, e.g. cultural diversity events, learning events, conferences and celebrations.

- Diversity lecture series - learned by press and word-of-mouth, participated in for knowledge and socialization
- Guest speaker series
- Cable access channel
- Events on Bostwick Mall including presentations, students, career fairs, dunk tank, Christmas lights (These represent a vibrant, safe, interactive and usable campus that is easy to engage)
- Social media - Facebook (students), LinkedIn, Twitter
- Sneden Hall - Heritage Hills Association uses on a monthly and annual basis
- Diversity of student body (age, culture, nationality) leads to great experiences

Arrival on and experience within campus boundaries.

- GRCC is a good neighbor, not an island
- No boundaries. Buildings blend in to each other (Is it good not to have edges?)
- Signage helps
- Lots of student activity (density/population)
- Congestion. Focus on serving the automobile more than students/pedestrians
- Buses connecting students to DeVos campus has changed the HH resident experience. They are more aware of GRCC within their community
- "Blue signs" on buildings are good at marking the campus buildings
- Vibrant, comfortable, safe. This is a learning institution (adds to experience)
- Well-maintained campus, but buildings are not friendly (concrete) and lack views to the interior

HOW DO YOU PLAN FOR MOBILITY & ACCESS?

What are your strategies for balanced access to transit & parking?

- Give or incentivize employee choice for parking
- Understand where student body comes from and focus on creating hubs between downtown campus and transitional zones at the city's edge
- Locking facility for bikes
- Michigan Street corridor plan (co-op with MDOT, GRCC, and many others), the Michigan Hill logistic group is now a task force to implement the plan, of which GRCC is a participant
- Laker Line (The Rapid and GVSU agreement). GVSU has a transportation class on how to take the bus, thereby educating students as to the benefits of hub lots and reduced parking costs
- Anchor garages/hub lots, with the goal that the bus must take less than half hour to use
- Increase the cost of parking to influence behavior
- Move "daily" users to more sustainable transit modes, carpooling, hub lots, bus transit
- Develop "transit only" districts
- Create an app for GRCC students that lets them know when the next bus is arriving (the Silver Line has this). Requires busses to have GPS and an app for users
- Make transit a part of the student orientation process (focus on transit options)
- Can institutions work together to create the "business case" for shared cars/bikes as a business?
- GVSU Maynard & Lake Michigan Drive Hub Lot (in Standale at 3059 Lake Michigan Dr. NW)
- Communicate the time saved when using transit versus automobile
- Demand management and awareness of access

The voices within Heritage Hill Neighborhood Association, Van Andel Institute, Ferris State University, Spectrum Health, The Right Place, Michigan Works, and the City of Grand Rapids responded in these ways:



PRACTICE FIELD / TRACK?

- Green space, with outdoor study areas, added trees and landscaping, outdoor classes, exercise stations, community exercise area, park for respite and tranquility
- Remove fencing
- Multi-institutional use, not just for GRCC
- Practice fields for kid's sports
- Mixed-use development including retail storefronts utilizing career pathways, e.g. bakery, coffee shops, brewery/restaurant, fashion design, hotel/condos above
- World-class hotel/condos run by students (modelled after Loyola University program in Chicago)
- Expansion of hospitality house for patients who travel, temporary residences for visiting Spectrum Health, Van Andel Institute, MSU, and GRCC academics
- Swap land w/ Spectrum Health for out-of-date ramp on NE corner of Lyon Street and Ransom Avenue
- Bicycle parking facility w/ bike repair, coffee shop which connects to Lyon Street bikeway (to be developed)



The voices within Heritage Hill Neighborhood Association, Van Andel Institute, Ferris State University, Spectrum Health, The Right Place, Michigan Works, and the City of Grand Rapids responded in these ways:

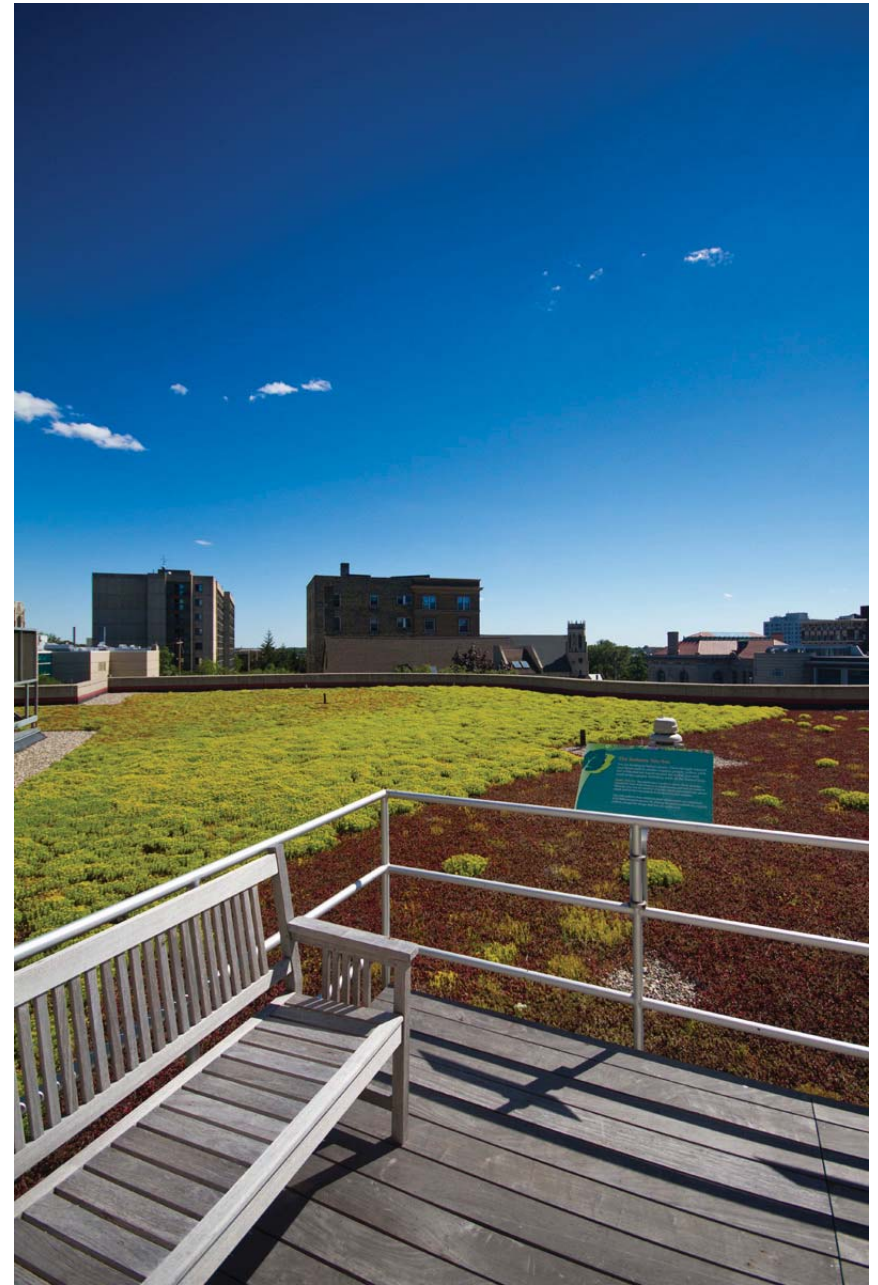
LETTINGA HOUSE?

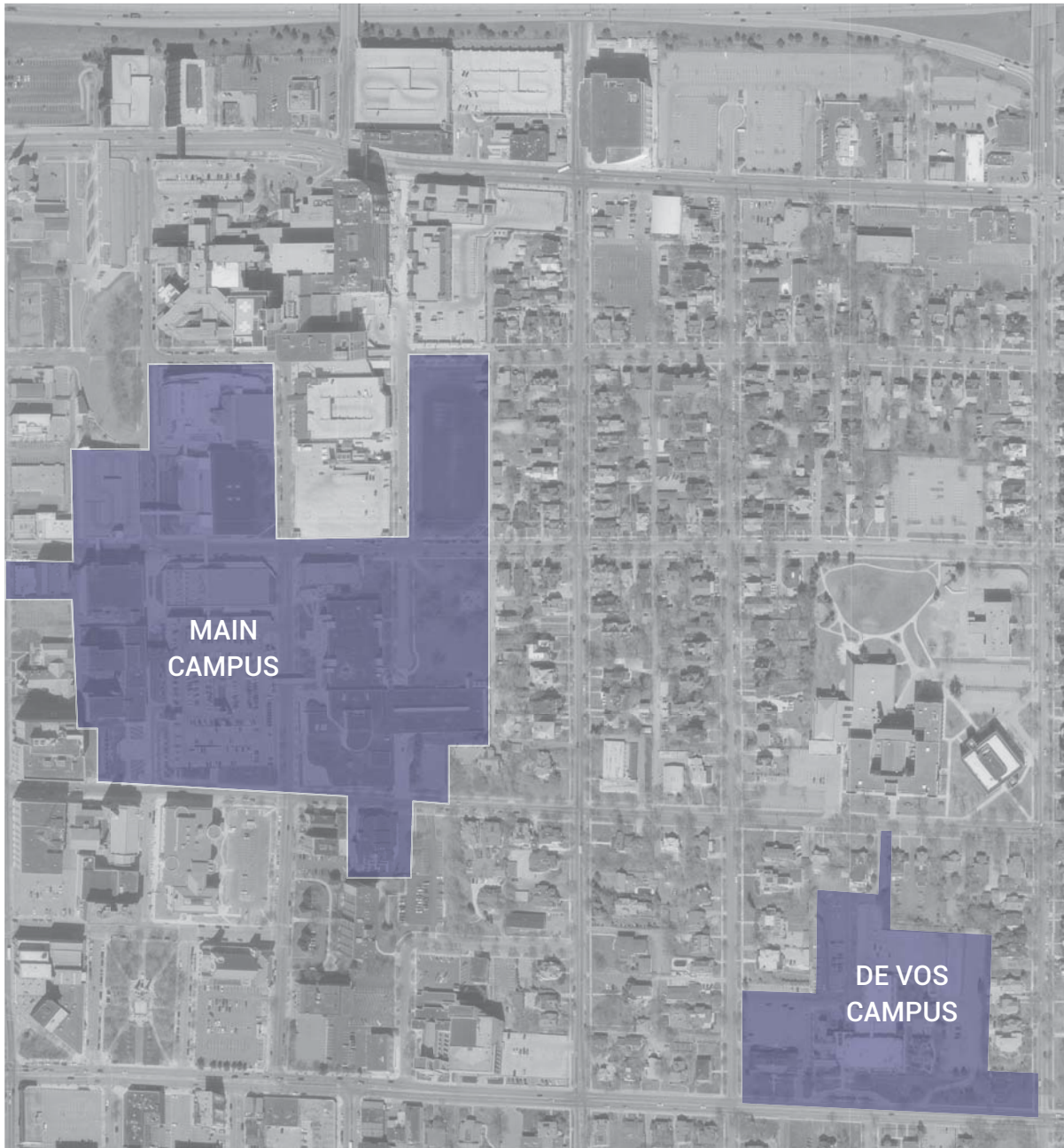
- Becomes the home for the GRCC President
- Becomes a retirement home for North College Block Club Members
- Sell or convert it to residential use, retaining use restrictions/covenants if sold
- Student Housing
- Home for GRCC Foundation offices
- Guest House for campus visitors
- Used as a hospitality home for meetings/functions, staffed by Heritage Hill Association members



DESIGN PRINCIPLES

Design principles provide organizations with purpose and meaning behind their planning and design decisions. These statements of purpose are actionable, measureable, and direct. We find that teams are most successful when working through planning and design decisions if they understand and are reminded of the reason and intent behind the plan. Design Principles are authored by us, Progressive AE, but come out of our deep understanding of our client's, and thereby our community's goals. Each design principles is actionable and measureable. The success of a project will be realized when the principles guide the development, implementation, and use of the College's environments.





DESIGN PRINCIPLES

Develop a master plan which creates a college campus environment and experience with perceivable edges that holistically defines gateways and includes clear wayfinding to increase campus safety and security.

Develop a master plan that improves campus access by increasing use of public transit and alternative mobility methods, improves pedestrian safety and right-sizes our approach to parking through urban parking strategies

Develop a master plan that leverages under-utilized assets to meet the needs of students, academic delivery and our community

Charrette

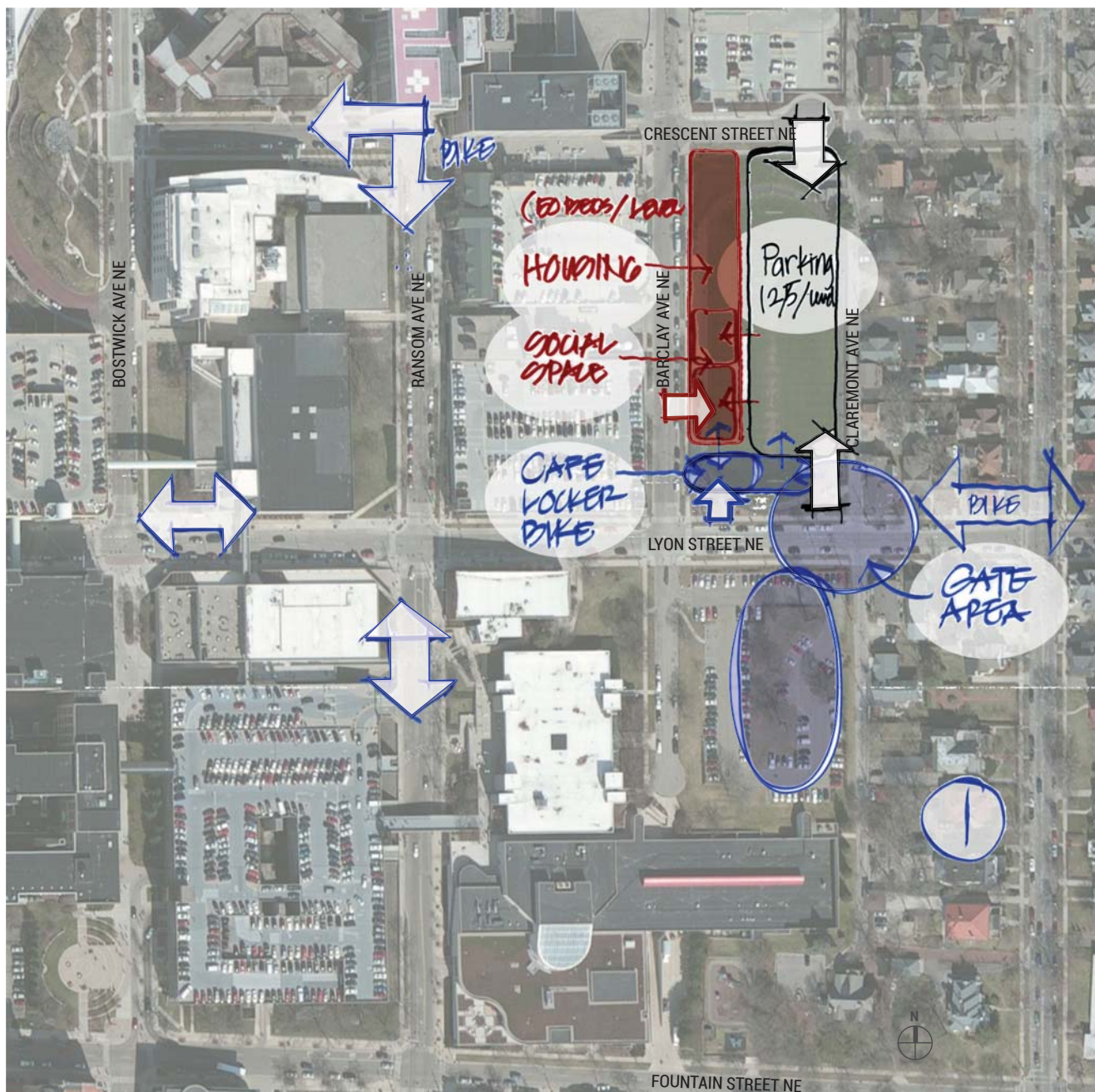


ENGAGEMENT

A charrette is an immersive engagement where key individuals collaborate to set priorities, understand goals and what drives success. Through dialogue and activities we draw upon knowledge and insights to uncover the essence of the project. We drive alignment and creative design principles to measure success.

OUTCOMES

- Building Program
- Planning Options
- Consensus Plan
- Conceptual Development
- Implementation Phasing

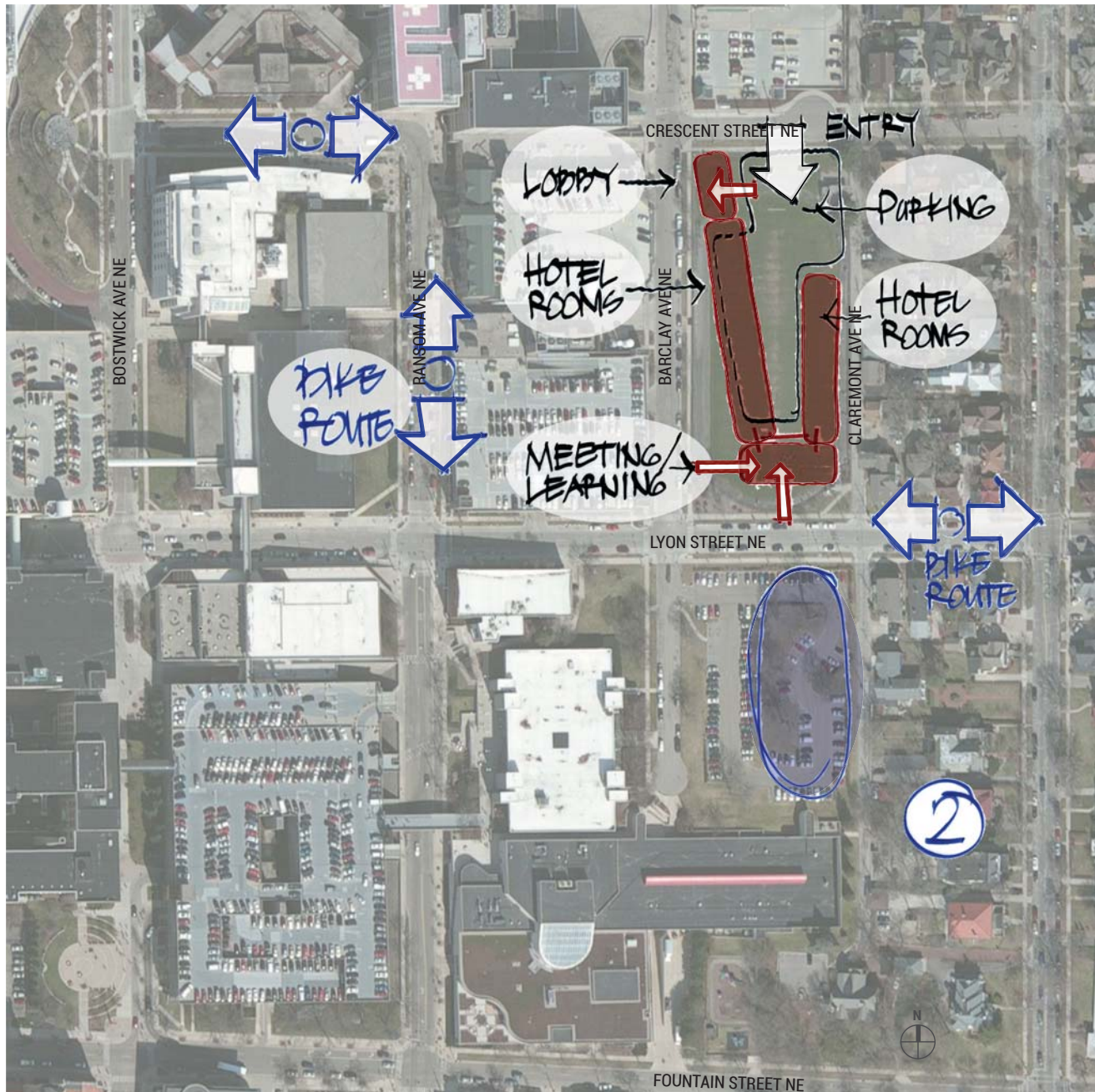


The longer term strategies from the previous version of the Master Plan regarding the parking structure and center of campus were identified as still valid and are carried forward later in this document.

CONCEPT 1

This concept explores the idea of developing the practice football field and track. The plan indicates several uses which would support the needs of GRCC students, staff, and visitors as well as neighboring community partners. A combination of light commercial and residential development, short-term housing alongside services and small retail would support community needs and encourage sustainable transit practices; ultimately reducing vehicular traffic on the area and making a more pedestrian-friendly gateway to the College's campus. All development is pulled to the west and south edges, relieving space near the residential area to the east.

Note that vehicular access to the field site is only from the Crescent Street NE Cul-de-Sac on the north end.

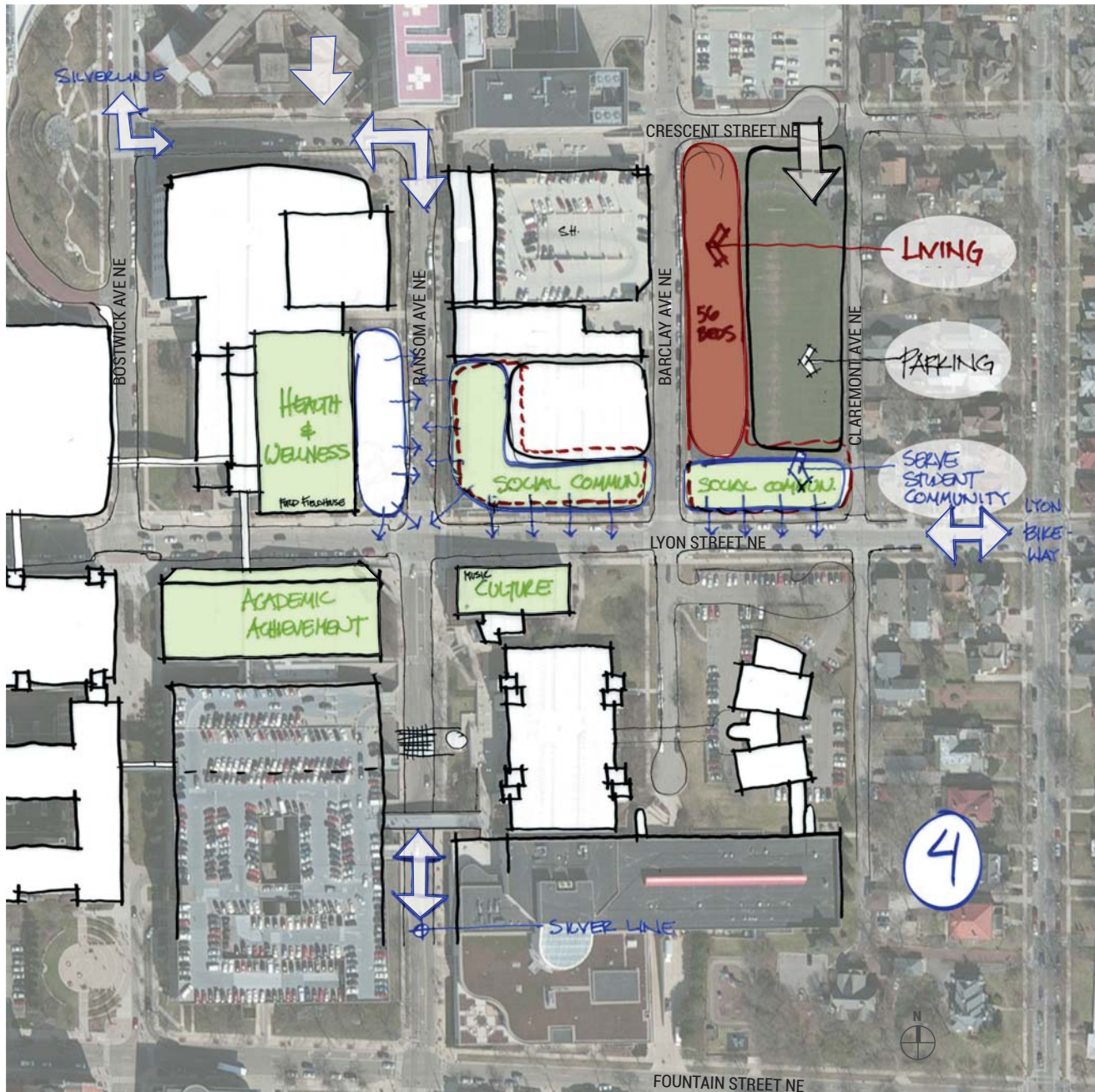


CONCEPT 2

This concept explores the idea of developing the practice football field and track as well. The plan indicates developing a hotel and conference center. This development is more traditional, and would be primarily used by those visiting health and research institutions in the area.

Again, vehicular access to the field site is only from the Crescent Street NE Cul-de-Sac on the north end.

Those from the neighborhood and GRCC could use portions of this development; with a restaurant and conference center being of potential use.



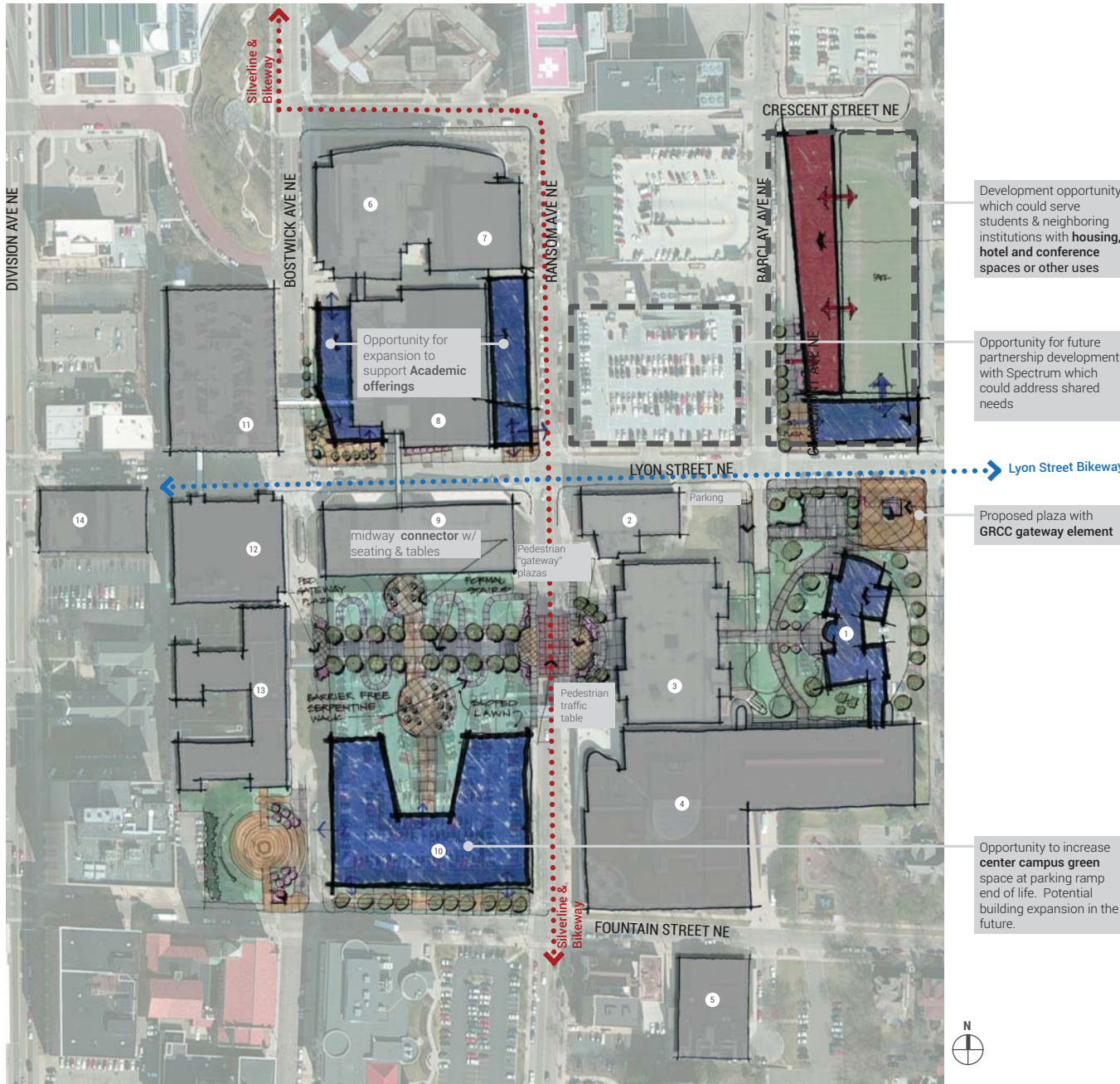
CONCEPT 4

This concept furthers the ideas represented in Concept 1. This developed concept integrates a proposed development for the practice field with a redevelopment of the site directly to the west. Spectrum Health currently operates a two-level parking structure on Lyon between Ransom and Barclay Streets.

A redevelopment of this aged structure could serve the neighborhood with services including food, small retail, and services related to more sustainable public transit.

A development of the intersection of Ransom and Lyon would strengthen the College's mission of supporting sustainable transit, pedestrian-focused planning, and overall community wellness.

A proposed addition to Ford Field House is shown to open that facility to the intersection, thereby encouraging the community to engage it more intentionally.



CHOSEN CONCEPT

As chosen by GRCC's master planning team, this concept best supports the planning and design principles, capitalizes on the opportunity to utilize the practice field to serve all neighborhood partners, and transition the main campus to be more pedestrian-focused, learner-centric through balanced, sustainable land use. Outdoor spaces offer relief to pedestrians from vehicular traffic by providing intentional plazas to congregate.

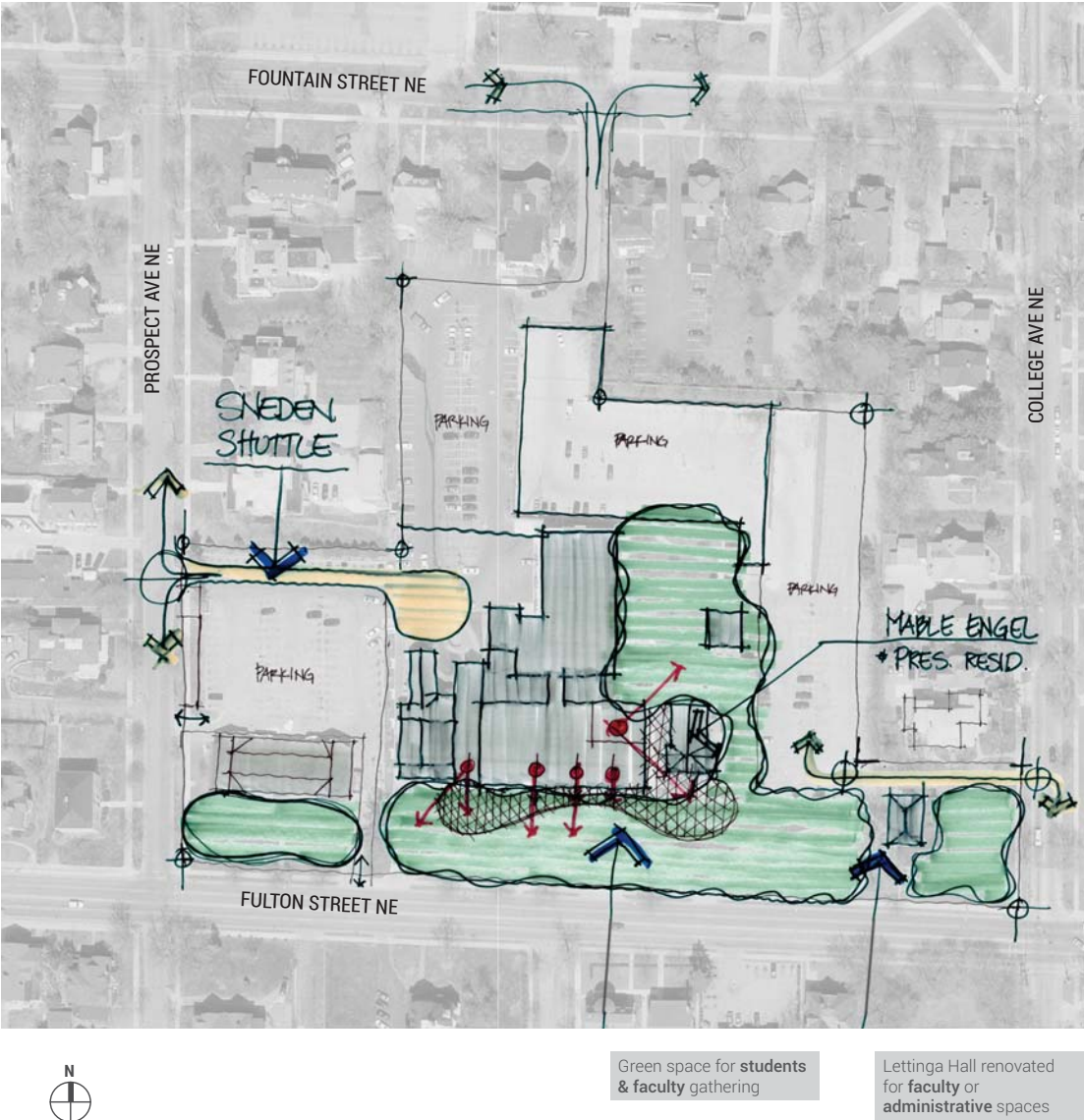
The concept anticipates the majority of development taking place to serve the college directly. These areas are shown in blue. The area shown in red proposes development to support the needs of students and neighboring institutions. Highlighted pathways for more sustainable access include a dedicated bikeway as well as the Silver Line Bus Rapid Transit route

GRCC BUILDINGS

1	Laboratory Preschool - Coming 2017	8	Ford Fieldhouse
2	Music Building - Renovated 2016	9	Student Center
3	Learning Center	10	Proposed Academic/Services Building
4	Applied Technology Center	11	Lyon Street Parking Structure
5	Spectrum Theater	12	Peter and Pat Cook Academic Hall
6	Calkins Science Center	13	Main Building
7	Natorium	14	College Park Plaza Building

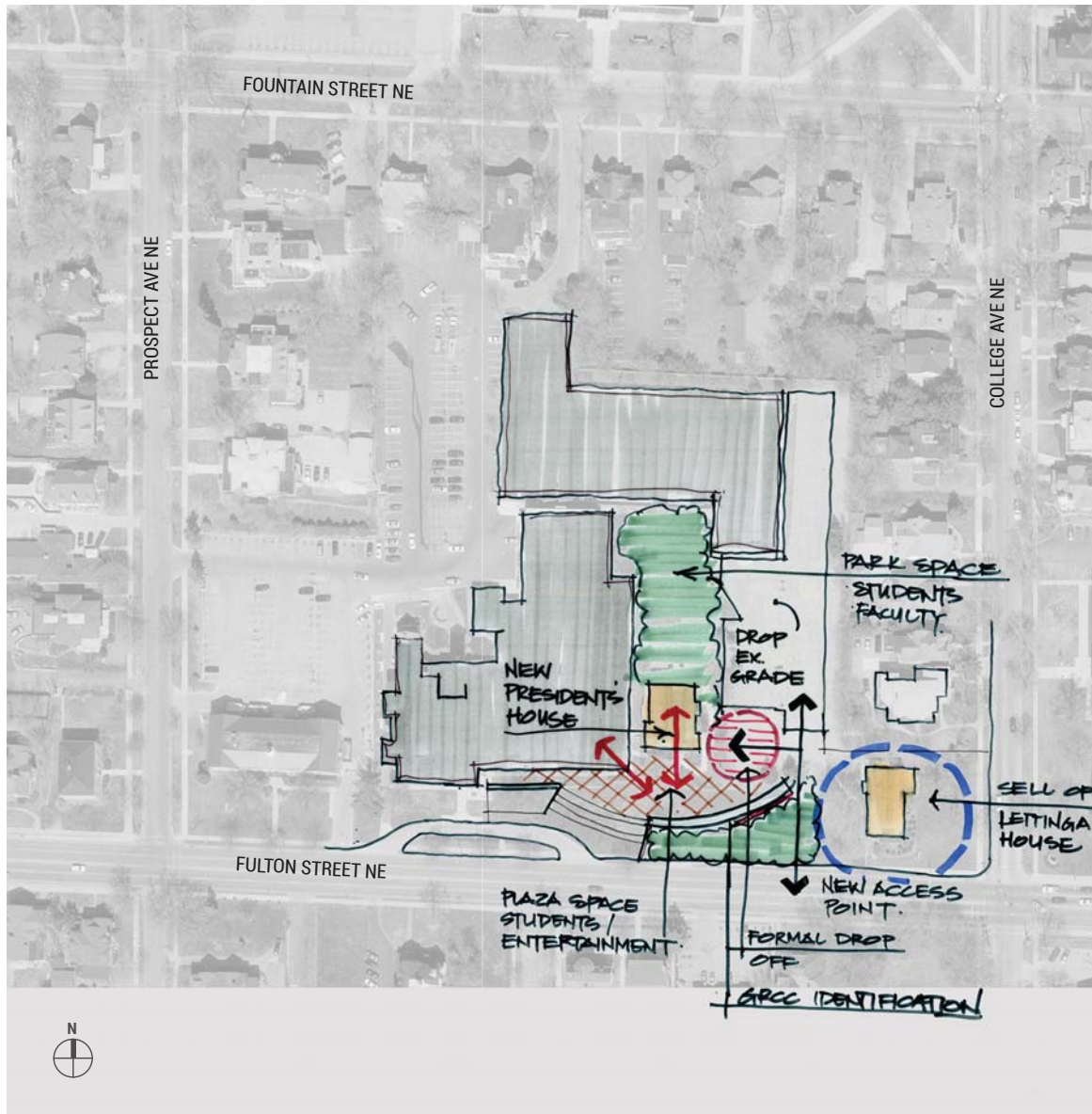


master plan | DEVOS CAMPUS - CONCEPTUAL DESIGN



CONCEPT 1
This concept for the DeVos Campus proposes developing a Sneden Shuttle drop-off within the campus near the Welcome Center. This would eliminate travel time and congestion along Fulton Street, ultimately providing a safer and more equitable pedestrian access to and from the main campus. Additionally, this concept proposes developing the green space along Fulton Street at Sneden Hall. This activates the campus, engaging students with the community and provides transitional space between indoor and out. This concept indicates a minor drive from the east parking lot behind Lettinga Hall, thereby eliminating the existing, one-way drive from the parking lot to Fulton Street.

master plan | DEVOS CAMPUS - CONCEPTUAL DESIGN



CONCEPT 2

This concept for the DeVos Campus proposes developing a plaza outside of and connecting Sneden and Mable Engle Halls. Additionally, this concept indicates reconstructing the existing east parking lot and introduces a more linear drive for two-way access to Fulton Street. As this concepts increases the utilization of existing site development, there is a potential to sell off Lettinga House, or maintain it for administrative offices and meeting spaces

master plan | DEVOS CAMPUS - CONCEPTUAL DESIGN



Future ACADEMIC building

GREEN space

ADMINISTRATIVE OFFICES

PLAZA

ADMINISTRATION OFFICES, PRESIDENT'S RESIDENCE OR CONSIDER FOR SALE

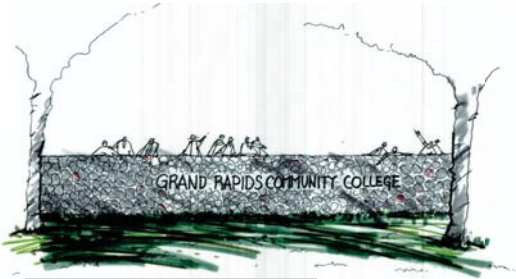
FULTON STREET entrance

VEHICULAR drop-off

CHOSEN CONCEPT

As chosen by GRCC's master planning team, this concept best supports the planning and design principles, capitalizes on the opportunity to increase pedestrian-friendly access from the Main Campus, and transition the campus to be more pedestrian-focused, learner-centric through balanced, sustainable land use. Outdoor spaces offer relief to pedestrians from vehicular traffic by providing intentional plazas to congregate.

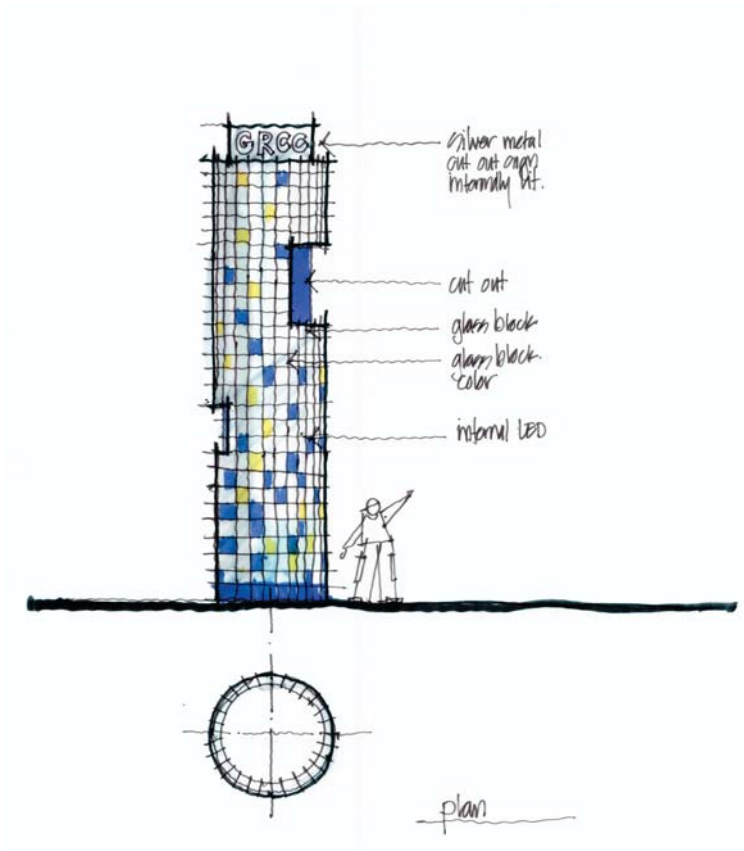
In the future, as the campus becomes less car-centric, the existing parking structure would be razed leaving opportunity for building expansion.



CAMPUS SIGNAGE AT PLAZA WALL

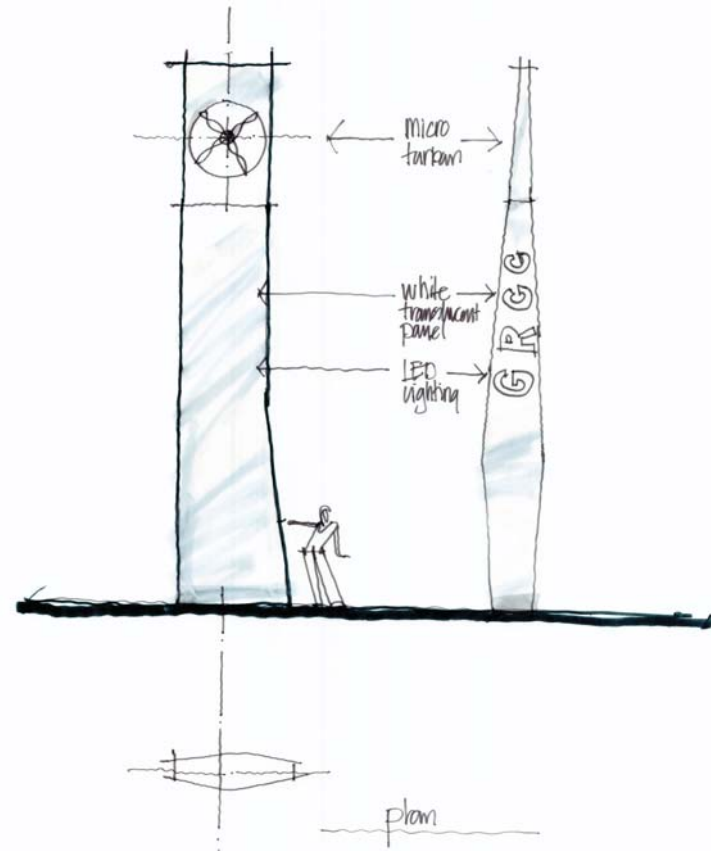
CONCEPT 1

A more contemporary approach to developing visual identity at campus gateways, this concept proposes glass block towers which can be scaled appropriately but would identify the GRCC campus with branded signage, color, and lighting.



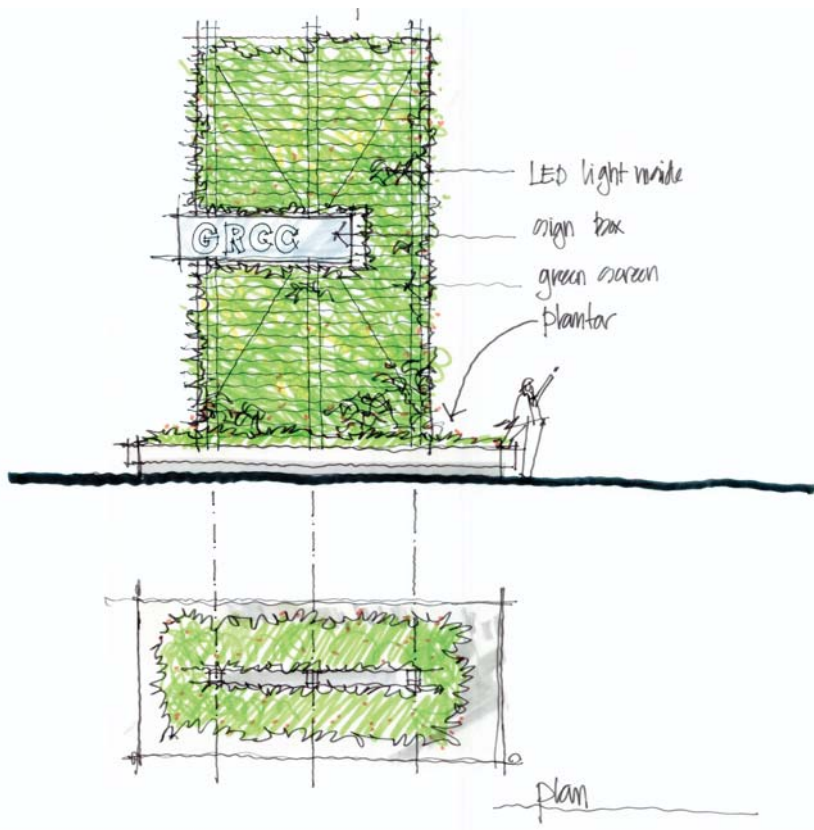
CONCEPT 2

This concept embraces the urban environment in a sustainable way. Harnessing the wind often felt when downtown, a turbine would capture that energy, providing power for lighting and signage in a metal and translucent light bollard of various scale.



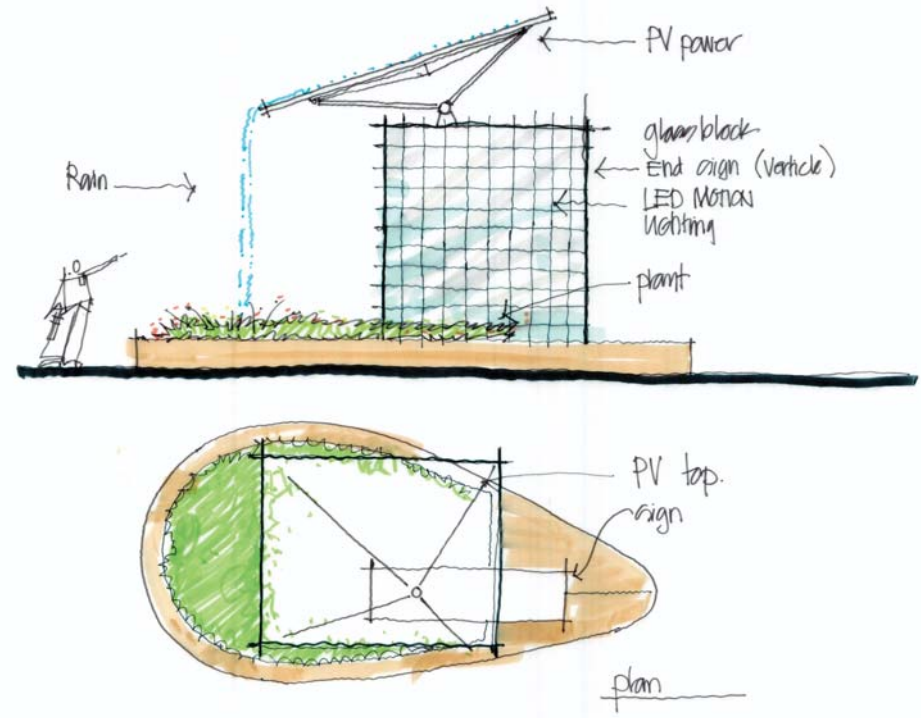
CONCEPT 3

This concept envelops a metal scaffold with vegetation that would evolve throughout the seasons; lush, leafy and green in the growing seasons, and more structural, both natural and hand-crafted during dormant seasons. This concept invites visitors of the campus to site, enjoy the surrounds, and de-stress while engaging the landscape element.



CONCEPT 4

A rendition of concepts one, two and three, this fourth idea celebrates the opportunity to capture energy with the gateway feature, nourish the landscape, and provide shelter and excitement at campus edges. A photo-voltaic canopy powers lighting and signage within the glass block tower. It also captures rainwater, feeding the landscape while washing the PV panels.



master plan | PHASING PLAN - MAIN CAMPUS



PROGRESSIVE AE ©2015 | Grand Rapids Master Plan | 2015 Master Plan




CHOSEN CONCEPT

As with any master plan, this development concept for the main campus will be developed in phases, with each being verified every 5 years prior to implementation.

In the next three years, the Lyon Street gateway of the campus will be realized, with a combination of new and renovated spaces for college programs and a potential development partnership for under-utilized campus assets.

Additional development to existing facilities (Ford Fieldhouse), and creation of a campus quad in support of a more pedestrian-centric campus in lieu of parking for cars (main parking structure) rounds out the next 10 years for the main campus.

Existing facilities, many of which have been renovated, would be revitalized to remain current to the GRCC's mission to serve our community.

-  1-3 year development
-  5-10 year development
-  10-15 year development

master plan | PHASING PLAN - DEVOS CAMPUS



CHOSEN CONCEPT

As with any master plan, this development concept for the main campus will be developed in phases, with each being verified every 5 years prior to implementation.

In the next three years, an elevated pedestrian walkway from Prospect Ave to the Welcome Center will encourage more sustainable access to the DeVos Campus. Constructing the plaza at Sneden Hall and reconfiguring access to the east parking lot will improve connections to the community.

In the near future, Mable Engle Hall and Lettinga Hall will be studied for increased utilization of these assets, and the potential to construct another academic or administrative building along Prospect will further the goal of a more student-centric campus.

White and Sneden Halls are recently renovated and will serve the community for at the least the next generation of students and faculty, but will remain relevant to GRCC's mission to serve our community.

- 1-3 year development
- 5-10 year development
- 10-15 year development

Closing Comments



In the past five years, GRCC has invested significant resources into its physical plant and historic facilities. More than \$42 million has been invested to upgrade building infrastructure, improve energy efficiency, enhance life safety systems and renovate classrooms, labs and faculty offices. The college's commitment to preserving and protecting its historic structures has earned it LEED certification for Steward Edward White Hall, College Park Plaza, and certification is pending for the recently completed Cook Hall renovation.

The college continues to demonstrate its commitment to creating and improving quality learning environments with projects that are currently in planning phases. Construction will begin on a new Laboratory Preschool in Fall 2015, with occupancy expected by January 2017. Much needed renovations to the Music Building are scheduled to begin in May 2016.

Even though significant improvements have been made to capital infrastructure, there remain opportunities to address and improve interior learning environments and student service spaces. Keeping current with learning spaces that support technology-rich teaching and learning, are flexible and support the diverse GRCC student population will continue to be factors that will contribute to student success.

As noted in the student and employee surveys, both groups identify access to campus, wayfinding, and safety and security as areas that can be improved upon. Both groups also identified access to food and retail amenities as factors that would contribute to the ideal learning and work environment. Mobility issues, food and retail opportunities are issues shared by the external organizations and neighbors near GRCC. The vacant practice field property provides an immediate opportunity to explore a development partnership which would serve both the College and the larger community.

The improvements made to existing facilities demonstrates the College's commitment to protecting and preserving these community assets. As the College enters its second century, the completion of the laboratory pre-school and music building renovation will assure high quality learning environments are available to students for decades to come.