

# CAPITAL OUTLAY PLAN 2022-2026



# SECTION A: Executive Summary



## **EXECUTIVE SUMMARY**

For over half a century, Washtenaw Community College (WCC) has been committed to serving its campus community and fulfilling its mission of making a positive difference in people's lives through accessible and excellent educational programs and services. The College recognizes the key role it plays in promoting the prosperity of the region through student success and completion, training, and the development of a diversified and educated workforce. As the College has responded in 2020 to the unprecedented challenges facing higher education as a result of COVID-19, it has grown ever more focused on its vision of promoting success for its students, partners, and the community.

### **Ensuring Student Success**

The College has been intentional in ensuring quality and seeking innovation in serving its populations as it moved its courses and services online in March 2020 due to COVID-19. WCC has been able to build upon its existing, well-established process for developing and teaching online courses, along with professional development support for instructors through the Faculty Professional Development Committee, Teaching and Learning Center, and Center for Interactive Teaching and Learning, thus enabling rapid deployment of highest quality online and virtual classroom courses. The addition in spring/summer 2020 of sections with a Virtual Classroom model, which incorporates scheduled, synchronous components, supports success for those online students who preferred a more structured option. Over the last year, the College has added 58 online courses. In Fall 2020, 513 sections of 184 courses were offered online. In 2020-21, 36 programs (26% of all programs) were available completely online.

A robust support system provided infrastructure for the shift to remote teaching and learning, including extensive professional development for faculty and resources for WCC students. Since March 2020, the Teaching and Learning Center has held more than 300 professional development sessions to advance online teaching and remote work, totaling nearly 4,000 hours of professional development for WCC faculty and staff. A focus on best practices in online teaching assures that WCC will continue as a leader in this area. The instructional, student services, and information technology areas of the college worked collaboratively to provide laptops and mobile hotspots on loan to remove technology barriers for students in their courses. Additional supports, such as a Circle-In App facilitating collaborative, virtual group study, and the expanded availability of tele-mental health services, also foster a positive online learning environment.

The College also moved quickly to transition student services to support remote learning and success throughout the student lifecycle, including accessible wrap-around services ranging from recruitment and admissions, entry assessment, orientation, advising, coaching, and counseling, through tutoring, labs, library services, student organizations and activities, and career services. WCC will continue to improve and expand its services to centralize and maximize accessibility of the student experience, whether online or on-campus.

WCC continues to be intensely engaged in an institutional focus on student success, retention, and completion. The College has expanded its Success Coach program to incorporate a Success Team model, offering free, individualized coaching to help students achieve their goals, as well as a team of liaisons from various areas of the college (such as advising, counseling, and the library) to provide a holistic, relational approach to students utilizing multiple resources to promote academic success. Student success is also supported through recent initiatives such as a Student Success Conference

introducing new students to campus resources; the implementation of TargetX software to facilitate communication and early intervention; program maps to emphasize completion; a revised, discipline-based tutoring model; and other tools. The college recently learned it was approved for a Title III Grant through the Department of Education that will further the upscaling of many of WCC's success initiatives, in particular its coaching model.

**In light of the current COVID pandemic conditions impacting the State of Michigan and the higher education community, the College is currently reassessing its major capital project needs. However, the \$23 million Center for Success renovation project which the College submitted last year is still relevant and needed to support student, employer and community needs. While the project may need modest adjustments to reflect any impacts that results from the aftermath of the pandemic, the College respectfully requests that the Center for Success project be considered when the State reopens the opportunity to submit funding requests for major capital projects.**

### **Programming for Students, Community, and Partners**

As the job market evolves now and post-COVID-19 throughout the state, it is critical that WCC offer future-focused education and skills training that meets employer needs and prepares students for jobs in the region. The college now offers 141 certificate and degree programs, up from 137 in Fall of 2019. New programs in 2020-21 include a Cybersecurity Associate in Applied Science Degree and Automotive Cybersecurity Certificate, addressing the field of information security analysis, which is expected to grow by 11 percent through 2028. In 2020 the college was designated a National Center for Academic Excellence in Cyber Defense Education by the U.S. National Security Agency and Department of Homeland Security for its alignment with nationally recognized standards.

In 2020-21 WCC also launched a Medical Assisting certificate developed with input from IHA, one of the largest medical care groups in the state of Michigan and a key WCC partner in hiring WCC students. The program is designed to be completed in as little as ten months, and meets a critical employment need within local healthcare facilities. This is a continuation of WCC's intensive efforts to meet local workforce needs in healthcare through high quality programs, as evidenced through its Center of Excellence for Nursing Education. The College also initiated a Transportation Technologies Associate in Applied Science Degree and Advanced Automotive Service Technician advanced certificate program to capitalize on the state-of-the-art equipment and intelligent transportation curriculum embedded in WCC's Advanced Transportation Center (ATC). To address the distinct needs of adult learners, WCC also implemented a Business Enterprise certificate program that is being offered in an accelerated format.

The college continues to expand its position as a destination for STEM education through its National Science Foundation LSAMP grant in partnership with the University of Michigan and other institutions statewide. WCC's STEM Scholars program, a cohort-based program for students in STEM curricula with intent to transfer and pursue STEM careers, has grown each year since it began in 2018, and is supported by an annual college and community STEAM week. Transfer is a significant focus of the institution, with a majority (over 65%) of students intending to transfer; transfer is supported by nearly one hundred articulation agreements and a dedicated transfer coordinator.

Acknowledging its integral role in economic and community development, the College has continued to serve its community and business partners throughout COVID-19, shifting to online professional development training and free community enrichment webinars on making masks and a variety of

other topics, with 1,200 registrations total to date. As the college also continues to develop customized training to upskill the workforce and meet the needs of employers, it has focused specifically on apprenticeships, and identifying and addressing talent development needs within an organization.

WCC is proud of its nationally-recognized partnerships with four national building trade unions that have an international reach. Because of COVID-19, face-to-face instruction, which is normally held on campus in the summer months, had to be canceled. An innovative collaboration between the college and the United Association of Plumbers, Pipefitters, Welders, and HVAC Services Technicians (UA) led to WCC's development of virtual instruction that was delivered internationally to apprenticeship instructors. The training was so successful it will be offered again in Fall 2020, and will become part of the UA's regular offerings. Additionally, WCC worked with the UA's apprenticeship programs to establish over a thousand virtual courses for the unions to continue their apprenticeship training.

WCC has a significant impact on the local community through its program development in areas supportive of trending local job market fields such as health care, information technology, and STEM; the College also plays an important role in the regional economy through increased job, business, and investment opportunities and support. A recent EMCI study noted that in 2016-17, the College had a \$524.1 million impact on the local region through combined operations, students spending, and alumni employment. In recognition of WCC's work on behalf of the many populations it serves, the College has achieved unprecedented community support over the last few years. In March 2020, an unprecedented 77.5% of Washtenaw County voters approved a 10-year millage restoration and renewal, the highest ever in the College's history.

### **Profile of Washtenaw Community College**

The College provides key educational programs, training, and services to meet the needs of students, business and industry, and the community, and to promote the economic growth of the local region.

- Each year over 21,000 students register for credit classes.
- In 2018-19, there were over 9,000 enrollments in non-credit (Workforce Development and Continuing Education) classes.
- Over 90,000 guests visited campus in the year prior to COVID-19, with over 4,500 events held on campus.
- WCC is one of the largest employers in Washtenaw County, with nearly 1,500 full-and part-time faculty and staff.

Students at WCC represent the diversity within the surrounding community:

- 33% are first generation college students, 4% of students are single parents, 3% request accommodations, and 3% are veterans.
- The average student age is 27.4
- 15% of students have already graduated from college and are returning to school at WCC to attain new skills in their current field or prepare for a new career.

Due to the pandemic, the College's degree enrollment for Fall 2020 decreased approximately 4% from Fall 2019. The College has put multiple measures in place to enhance recruitment, enrollment, and retention, such as personal calling campaigns, targeted recruitment, and flexible scheduling. The College had experienced an enrollment increase of 3.5% over the five years prior to COVID-19. During the year 2019-20, which was impacted by the pandemic, WCC saw a decrease of less than one percent over the prior year, which is significantly smaller than enrollment drops experienced by other

Michigan community colleges over the same period.

As the current economic environment demands that students seek retraining and skill upgrades, the college has marketed its services and ability to meet those needs, and continues to enroll new students as a result; in addition, it is serving those students who are choosing to continue to further their education during the pandemic. Some areas of anticipated growth include continued expansion of distance education offerings (consistent with past enrollment trends); programming for early middle college/dual enrolled students; and programs and services for the older adult population.

### **Conclusion**

The College's Five-Year Capital Outlay Plan 2022-2026 describes WCC's current and future instructional programming needs along with an assessment of present and projected enrollments. It also includes a detailed outline of existing facilities through a condition survey of all buildings on campus.

**Section C** describes the College's current academic programs and initiatives and projected impact on facilities.

**Section D** provides current enrollment information with projected increases over five years, as well as staffing needs and class size based on anticipated changes.

**Section E** includes the current facilities assessment with an evaluation of the overall condition of all buildings on the College's main campus.

**Section F** describes how the College will implement the plan.

Washtenaw Community College remains at the forefront of education, employment, and economic development, even as it addresses current challenges through innovation and campus-wide collaboration. The College expresses its appreciation for the support it has received in the past from the State as it continues to meet its mission and serve its constituents.



# SECTION B: Mission, Values and Vision



## MISSION, VALUES AND VISION

### Mission

Our college strives to make a positive difference in people's lives through accessible and excellent educational programs and services.

### Values

**Teaching and Learning:** We embrace teaching and learning as our central purpose.

**Support:** We make every effort to help learners achieve success.

**Diversity:** We respect differences in people and in ideas.

**Partnerships:** We plan and work together with respect, trust, and honesty within the College and with the communities we serve.

**Innovation:** We seek the best possible ways to conduct our work.

### Vision

WCC is a learner-centered, open-door college dedicated to student, community, and staff success. We offer a wide spectrum of community college services with an emphasis on premier technical and career educational programs. The College staff continuously learns to improve learning.

**Student Success:** Our students come first. We are committed to their learning, success, and satisfaction. We strive to serve every student in an effective, caring, and supportive way. In order to enhance student learning outcomes, we engage in continuous improvement of teaching, programs, processes, and structures. We increase our accessibility by reaching learners where, when, and how they need instruction through the use of learning technologies, workplace learning experiences, and flexible scheduling of classes.

**Community Success:** We are committed to community learning, success, and satisfaction. WCC's primary contribution to community success is the development of a highly skilled workforce. A strong partnership with area employers emphasizes customized employee training and rapid adaptation of WCC programs to changing job training needs. Through strategic alliances with business, government, labor, and other educational institutions, WCC increases its emphasis on applied technology education, joint technical education programs with the public schools, and basic job-training services to underserved and at-risk groups.

**Staff Success:** We are committed to staff learning, success, and satisfaction. As a staff, we emphasize teamwork within College units and between the units. We support our colleagues and help them to be successful. We learn to improve learning; that is, we continuously increase our capacity to meet the educational requirements of the students, employers, and communities we serve. Through staff learning, we continuously improve services at each stage of the flow of students through WCC. All staff members align their work to contribute to improved teaching and increased student and community learning.



# SECTION C: Instructional Programming



## INSTRUCTIONAL PROGRAMMING

Overview of current academic programs and major academic initiatives

- a. Describe existing academic programs and projected programming changes during the next five years, in so far as academic programs are affected by specific structural considerations (i.e., laboratories, classrooms, current and future distance learning initiatives, etc.).**

As an open-door institution, Washtenaw Community College has attracted students from local communities and around the United States by providing affordable tuition and high-quality classes. With over 21,000 students registering for credit classes each year<sup>1</sup>, and more enrolled in Economic and Community Development classes, WCC serves the varying needs of the community. The College makes a strong impact on the local economy by helping diverse groups of students reach their educational goals as well as training and educating talent. As WCC continues to emphasize student success and completion, coordination and collaboration among various areas are essential.

WCC has expanded our Success Coach Initiative, which provides free, one-on-one coaching to help students complete their academic goals. This case management model helps keep students motivated and connected to all of the wraparound services available to them such as academic tutoring, work-study and internship opportunities, and other resources to remove barriers to student success. The following groups have a designated Welcome Team Member, Success Coach, several Advising & Counseling contacts as well as multiple Library & Learning Commons liaisons.

- Advanced Technologies and Public Service Careers
- Humanities, Liberal Arts & General Studies
- Digital and Media Arts
- STEM
- Business

Each member of the Success Team provides a specific service to the students and assures a holistic approach to achieving their goals. In addition to TargetX communications software, workshops, orientations, programs and conferences, WCC has engaged in a college-wide emphasis on success and completion. Additional ways WCC supports student success includes our Student Success Conference – a conference designed to welcome new students to campus and introduce them to campus resources – as well as success workshops at our Entrepreneurship Center and combined tutoring services.

Our position as a STEM Education destination has grown through our award-winning National Science Foundation LSAMP Grant in partnership with the University of Michigan and other programs across the state. The College continues the WCC STEM Scholars program launched with its first cohort in 2018 with special programming for students pursuing STEM-based degrees at WCC with intent to transfer. The STEM-Scholars program

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<sup>1</sup> Annual Student and Financial Aid Profile 2019-2020

started with 16 students in Fall 2018 and will have a Fall 2020 Cohort with 45 students. The College hosted more than 200 college and community participants as part of STEAM Week in early 2020, which included WCC alumna Aisha Bowe, who has worked for NASA.

WCC continues to address the growing need for health care professionals in Washtenaw County with the Center of Excellence for Nursing Education. By working with health care professionals in our region, WCC continues to aggressively assess community needs in an effort to develop programs and that not only prepare students for employment but meet the need for employees in local healthcare facilities. In 2019-2020, WCC added a Medical Assisting certificate that can be completed in as little as 10 months and prepares the student to manage both administrative and clinical duties such as coding, scheduling, arranging for laboratory services, instructing patients about medication and special diets, as well as drawing blood. This program was developed with input from IHA, a key business partner in hiring and supporting health care students at WCC. Employment opportunities exist in physician's offices, medical clinics, laboratories and other ambulatory health care facilities. Graduates will be prepared to sit for the medical assisting certification program.

Our recent designation as a National Center for Academic Excellence in Cyber Defense Education by the National Security Agency as well as our recognition by the U.S. Department of Homeland Security validate our alignment with nationally-recognized guidelines. With both degree and non-credit options, cybersecurity students will learn industry- accepted network security, cyber countermeasures and NSA and DHS standards from WCC. The field of information security analysis is expected to grow 11% between 2018 and 2028. These estimates were established prior to the shakeup of work and school due to the Covid-19 outbreak. The rapid expansion of technology, software and use of the internet is expected to result in an increased demand for cybersecurity practitioners.

In addition to our Cybersecurity Associate in Applied Science degree, the Computer Information and Transportation Technologies departments collaborated on an Automotive Cybersecurity certificate that introduces the skills and strategies needed to test security related to automobile networks and related infrastructure. Students will work with the various automobile networks and explore protocols and messages produced by the vehicle that could be vulnerable to attacks and consider risk mitigation technologies including authentication, encryption and firewall technologies. This program is new for the 2020-2021 academic year.

The College makes a strong impact on the regional economy by helping diverse groups of students reach their educational goals as well as training and educating talent. Innovation and continuous improvement are the foundation of all of the programs and courses at WCC. The College has effectively leveraged technology by growing and supporting online education and integrating technologically advanced software and equipment into courses across campus. This was put to the test in March 2020 when the Governor of Michigan ordered all schools closed due to the Covid-19 virus and WCC moved to online or virtual learning. Having a mature process for developing and teaching online courses, best practices were shared with instructors through our Faculty Professional Development Committee and the Teaching and Learning Center. The Center for interactive Teaching & Learning (CiTL) developed a fast-track process that supports instructors in the development of forty (40) new online courses while maintaining the rigor and oversight inherent in the process.

Across all of our programs, over 65 percent of WCC’s degree seeking students have identified that they intend to transfer to a four-year college or university to pursue a bachelor’s degree. Other students are seeking short-term training to earn industry-recognized certificates. No matter the student’s goals, over the next five years, the College will focus on forming a visible footprint of services to promote student success. Beginning with recruitment and admission, entry assessment, orientation, advising, coaching and counseling services, through tutoring, instructional labs, library services, childcare, access and veterans services to career and transfer services, WCC plans to create a physical and virtual representation of the student life cycle. Centralizing the student experience and services, whether in person or through online and virtual means, is the foundation for institution-wide transformative change to increase student retention and completion.

WCC has focused on being responsive to the ever-changing industry needs and technological changes that prepare employees for the future. Our goal is to continue to innovate and lead in helping more students reach their goals. Updated equipment and learning spaces as well as the expansion of online services facilitate promising higher education outcomes. We are confident that an emphasis on supporting student success and a valuable educational experience and wraparound services will drive increased results to create economic impact in the community and across the state.

- b. Identify the unique characteristics of the institution’s academic mission. (Two-year degree and certificated technical/vocational training, workforce development activities, adult education focus, continuing or lifelong educational programming, partnerships with intermediate school districts(s), community activities; geographic service delivery area(s), articulation agreements or partnerships with four-year institutions, etc.)**

**Student success and completion remain central to the mission and values of Washtenaw Community College.**

**WCC fulfills its mission to make a positive difference in people’s lives through accessible and excellent educational programs and services by the wide variety of educational programs and services offered. The College’s programs and outreach spans from relationships with K–12 organizations through partnerships with employers and four-year institutions.**

**1. *Career and occupational education.***

- ❖ The College has statewide agreements with High School Career and Technical Education (CTE) programs for 29 WCC courses that allow high school students to earn college credit for their work.
  - Any student who completed all 12 segments of an approved CTE program at an approved Michigan High School with a final grade of “B” or better may request a recommendation for credit from their high school instructor and be awarded college credit for high school career and technical education course work.

- ❖ The College also has direct agreements with local high schools for an additional 21 WCC courses that allow high school students to earn college credit for their work.
- ❖ In 2019-20, 111 CTE enrollments were approved resulting in a savings of over \$40,000 in tuition and fees.
- ❖ 45.7 percent of WCC students are in occupational programs.
  - The line between transfer and occupational programs is becoming less distinct as some certificates and associate degrees are within an occupation while also being transferable to a four-year institution. As colleges and universities continue to recognize occupational programs as degree worthy, WCC will continue to foster relationships that will benefit students.

2. **Dual Enrollment:** WCC also offers dual enrollment programs throughout the region. National research shows that high school students who dual enroll in college are more likely to enroll in college after high school and successfully complete their college degree. As the State aggressively pursues higher credential attainment for Michiganders, dual enrollment serves both students seeking credentials and employers who are seeking highly skilled employees. In the Fall 2020 semester, WCC dually enrolled 1,171 students, a 52 percent increase since Fall of 2014.

One outstanding example of our strategy is our partnership with Ypsilanti Community High School that allows students to earn college credit while enrolled in high school. WCC offers this popular program for students in Ypsilanti Community Schools, Lincoln Consolidated Schools, and other districts in Michigan:

- **Certified Nursing Assistant Certificate:** This certificate program provides an opportunity for entry-level employment for health care jobs. This program also includes CPR and medical terminology courses and students are able to earn six to eight college credits for this one-semester program.

3. **Washtenaw Technical Middle College (WTMC).** Washtenaw Community College houses an award-winning charter high school that continues to attract more students than can be admitted. Space and classroom issues will need to be addressed. Because WTMC students achieve in the top 1 percent of all high school students in Michigan, the middle college has earned Michigan Department of Education's "Reward School" status.
4. **Transfer education.** Programs and courses in both general and many occupational education areas provide students with the option of transferring to a four-year college or university, as well as supporting personal growth. Over sixty-five percent of WCC students plan to transfer to a four-year institution to pursue a bachelor's degree. The College continues to work with four-year institutions to secure additional agreements that promote seamless transfer that also minimizes duplication of or loss of credits for students. Transfer articulation agreements allow students to attain a credential at WCC while simultaneously accumulating credits that will transfer and apply toward a higher-level credential at another institution.

- ❖ **WCC has 97 articulation agreements** with various colleges and universities that provide course requirements and guidance for transfer between WCC programs and those at other higher education institutions.
- ❖ Eleven agreements allow students to transfer prior credits to WCC, while pursuing a degree or certificate at WCC.
- ❖ Eight reverse transfer agreements allow students to transfer credits from their current institution back to WCC to complete a certificate or degree at WCC, while attending another college or university.
- ❖ Fifty “3+1 agreements” allow students to complete 80 credit hours or more at WCC towards a bachelor’s degree at another institution.

These agreements can reduce by up to three years the time and expense spent at the four-year college, potentially saving each student more than \$60,000 in tuition and fee costs alone, when comparing the cost at WCC to the average cost for Michigan public four-year colleges and universities.

In support of the completion agenda, the college has hired a transfer coordinator to focus on communicating the benefits and process for smooth transfer and build meaningful relationships with transfer partners. In addition to managing articulation relationships, the coordinator will manage reverse transfer agreements with eight four-year colleges.

5. **Developmental education.** Courses in this area strengthen writing, reading and mathematical skills, as well as instruction for those learning English as a Second Language (ESL). Academic Skills (ACS) courses are assigned to those who read below college level. The College also works with Washtenaw Literacy and other community agencies to assist students who have reading skills below the high school level. WCC uses the MTH 099 Math Placement Acceleration Lab for developing math skills. This one-credit hour class allows students the opportunity to increase their math placement test score. Students use an online system to practice skills then are able to retake their math placement tests. Instruction is provided as needed on a one-on-one basis. To assist more students with completing college-level math and English during their first year at WCC, high-school grade point average has been added as a tool for placement and both math and English faculty are piloting accelerated programs to prepare students for college-level courses.
6. **Student support services.** A variety of services at the College prepares students to fully use and benefit from academic programs and courses. These services include orientation, entry assessment, academic advising, financial aid, transfer assistance, career counseling, personal counseling, computer email accounts, tutoring, childcare, job placement, special needs services, instructional labs, and library services.

**Table 3. New Programs for 2020-2021**

Program Name	Award
Transportation Technologies	Associate in Applied Science
Business Enterprise	Associate in Applied Science
Advanced Automotive Services Technician	Advanced Certificate

Business Enterprise Basics	Certificate
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Washtenaw Community College offers 141 for-credit programs, with 1,241 credit courses in 94 disciplines. The programs represent an array of credentials from certificates of completion to associate degrees and post-associate certificates. Table 4 summarizes the number of current programs sorted by level of award.

**Table 4. All Programs by Type of Award**

Type of Award	Number of WCC Programs
Certificate of Completion	2
Certificate	56
Advanced Certificate	19
Post-Associate Certificate	4
<b>Certificates</b>	<b>81</b>
Associate in Applied Science	32
Associate in Arts	16
Associate in Science	11
Associate in General Studies	1
<b>Degrees</b>	<b>60</b>
<b>Total WCC Programs by Award Type</b>	<b>141</b>

These programs are categorized either as career degree/certificate programs or as university transfer programs. Career degree/certificate programs prepare students for jobs and career advancement. When a program might appear in more than one category, the best fit was selected for an unduplicated count.

Within the career degree/certificate classification, WCC offers 119 programs. The programs are listed in Section C Appendix A.

WCC offers 22 programs designed specifically for transfer students. These programs are listed in Section C Appendix B.

As society and the workplace continue to move to prioritize learning and open education for its members, the residents of Washtenaw County will look toward WCC for programs and courses that help them achieve their personal and career goals, and they will do this several times during their lives. The implications of the lifelong learning trend as related to space, facilities, and equipment will have a major influence on planning for the next five years.

Washtenaw County is unique in the state in terms of its high percentage (48%) of adults, those 25 and older, who hold at least a bachelor's degree. Reflective of this demographic and of the need for lifelong learning, over 15 percent of the WCC student body already holds a bachelor's degree or higher. WCC accepts this unique situation and melds these students into the educational and training programs of the institution, an effort that is a benefit to all of our



students, broadening perspectives, raising awareness, modeling continuous learning, and sharing in success and growth.

**Customized Training:** The Workforce Development team at WCC are experts at developing training programs to upskill the workforce and improve a company's performance. Our capabilities allow for us to develop training and workshops that are tailored to the present and anticipated needs of the local workforce. **A new strategy that was recently launched is Apprenticeships. We now are laser-focused on identifying talent development needs within an organization, conducting a thorough needs assessment, and introducing solutions that help companies with their talent and organizational effectiveness challenges.**

7. ***Eastern Washtenaw County Outreach and Support:*** In eastern Washtenaw County, WCC offers job coaching, resume writing, and interviewing skills at our Harriet Street office, which is co-located with Michigan Works! Southeast. Other services offered at this office include workforce development training for those looking to advance their career or obtain an entry-level position in high-demand, high-wage growth industries.
8. ***Livingston County:*** Washtenaw Community College has also collaborated with Livingston County ISD to begin offering cybersecurity courses to high school students in the area through the Livingston County Early College. These students will have the opportunity to continue at WCC to earn an associate's degree in Cybersecurity.
9. ***Health and Fitness Center:*** Washtenaw Community College students are able to take advantage of fitness classes at our Health and Fitness Center. As a certified Medical Fitness Facility, the Health & Fitness Center at Washtenaw Community College offers the highest in quality staffing, equipment and programming under a medical oversight. Fitness staff members are required to have four-year degrees and many maintain additional certifications in specialty areas such as arthritis or cardiac health. Programs are regularly reviewed by the center's Medical Advisory Board, which includes physicians from St. Joseph Mercy Ann Arbor Hospital and a physical therapist from Probility Physical Therapy. All staff members are required to hold certifications in CPR, AED and First Aid.

**c. Identify other initiatives that may impact facilities usage.**

The College continues to address the changing economic, sociological, educational, and technological environment by creating new programs. Therefore, WCC has continued to examine a variety of ways to meet the community's demand for programs that prepare workers for newly emerging fields in technology, balancing this need with the growing need for appropriate space. Several initiatives have resulted from this examination.

**Washtenaw Community College is a leader in the nation with regard to its partnerships with four national building trade unions that have an international reach. In 2020, with the unprecedented COVID-19 pandemic, the trade unions were forced to make the decision to cancel face-to-face training programs normally held at the campus, which impacted the usage of the College's facilities over the summer. However, it is important to note that the UA worked with the College to develop virtual training of college credit**

**courses that were delivered internationally to apprenticeship instructors. Two sessions were offered in the Spring-Summer semesters. Because the training was such a success, the UA has decided to offer that training in the 20/Fall semester, as well and make it part of their normal line up of training for those who cannot participate on campus in years to come.**

**Additionally, WCC worked with the UA's apprenticeship programs across the country to establish over 1,000 virtual courses so that the unions could continue to do the excellent apprenticeship training that they conduct, with little impact to their training schedules. As a result of the exposure to online classes, WCC was able to market opportunities to complete the associate degree and interest has increased dramatically.**

To get a sense of the work that Washtenaw Community College does in partnership with each of the national trade unions in a non-COVID-19 year, please see the information below:

***United Association Union of Plumbers, Pipefitters, Welders and HVAC Service Technicians (UA).*** Every year for the last 30 years, the college has hosted the weeklong Instructor Training Program for the UA in classrooms and laboratories across campus. Approximately 2,500 student instructors for the UA and an additional 400 faculty, industry representatives and staff visited Ann Arbor and WCC for an intensive week of hands-on instruction. UA members use the WCC campus facilities, including classrooms, computer labs, mechatronics facility, welding labs, to name a few. According to the Ann Arbor Convention and Visitors Bureau, this program generates over \$8 million in economic development to the local economy.

***International Association of Bridge, Structural, Ornamental and Reinforcing Ironworkers Union.*** WCC continues to hold the Iron Workers Instructor Training Program (ITP) on the WCC campus. Approximately 825 participants attend the program that trains for proficiency in jobs involving welding, structural steel erection, architectural and ornamental ironwork, concrete reinforcement, rigging, and machinery moving and installation – as well as blueprint reading and computer skills for the ever-changing job market. The regional community benefits when the program comes each year, it generates nearly \$5 million in economic impact within Washtenaw County.

In 2017, the college launched a pre-apprenticeship certificate program for Ironworkers. The certificate program teaches some of the skills needed to become a union Ironworker apprentice in the United States and Canada. A combination of classroom and lab training provides real-world experience, including blueprint reading, math, safety, and welding training used by the union Ironworker trade. Students who successfully complete the program receive a certificate of completion and are eligible for advanced standing in the Ironworker Local Union Apprenticeship Training Program.

***Operative Plasterers, Cement Masons International Association.*** WCC signed a five-year agreement with the OPCMIA in 2017, and the union held its national instructor training program on the campus in June of 2019. Approximately 125 participants attended the training program conducted in the computer labs on campus and it is anticipated that participation will grow in years to come.

*United Union of Roofers, Waterproofers and Allied Workers.* WCC signed a five-year agreement with the Roofers Union in 2019, and the union will hold its training program on campus in June.

*Virtual courses.* Following the outbreak of Covid-19 and out of an abundance of caution, WCC moved all face-to-face courses to a virtual format. Continuing instruction using a variety of online tools, faculty meet with students on a regular schedule. This format helps ensure that students who may need direct and steady interaction with their instructors the opportunity to be successful.

*Blended (Mixed Mode) courses.* WCC continues to offer classes that blend both online and face-to-face delivery that take advantage of both formats. In fall 2020-2021 these blended courses are limited to lab and practical courses that require students to use facilities, tools and equipment that are only available on campus.

*Online (Distance Learning) Courses:* Online courses utilize materials such as interactive lectures, video, activities, textbooks and workbooks as well as faculty produced open education resources (OERs), which are free or very low-cost learning and teaching materials such as textbooks made available online for anyone to use. Faculty members engage with students through the college's Blackboard course management system in which students receive feedback from instructors and complete exercises and examinations. In 2019-2020, 1,082 sections of the 190 possible courses were offered with 23,524 enrollments.

*Online Programs:* In 2020-2021, thirty-six (36) programs (26%) were completely available online through distance learning.

**d. Demonstrate the economic development impact of current/future programs (i.e., technical training centers, life science corridor initiatives, etc.).**

Health care, information technology and STEM fields continue to exert a strong influence on the development of programs at WCC as the College supports local workforce trends. Student enrollments remain strong in the areas of criminal justice, automotive, business management, video production, human services worker, health, and science. Preparing highly skilled technical support personnel through occupational programs will continue to be a critical target for the College. A concomitant need will be to expand facilities to house equipment so that these programs can flourish.

WCC plays a significant role in the regional economy and is a sound investment from multiple perspectives. Students benefit from improved lifestyles and increased earnings. Taxpayers benefit from a larger economy and lower social costs. Finally, the community as a whole benefits from increased job and investment opportunities, higher business revenues, greater availability of public funds, and an eased tax burden. A recent EMCI study demonstrated that in 2016-17, the college had a \$524.1 million impact on the local region through combined operations, student spending, and alumni employment. **In recognition of the good work that Washtenaw Community College does, an unprecedented 78% of taxpayers in the College's district approved a 10-year millage renewal in March 2020. Virtually every township in the county voted in favor.**

WCC's important partnership with the United Association has spurred initiatives such as the development of online courses and programs. The success of this national partnership has additionally led to the development of national partnerships with the Ironworkers, the International Brotherhood of Electrical Workers (IBEW), the International Union of Bricklayers and Allied Craftworkers, and the Operative Plasterers', Cement Masons International Association (OPCMIA) and the United Union of Roofers, Waterproofers and Allied Workers (UURWAW).

The college is active in its connections to regional economic development organizations as it seeks the best pathways to educating and credentialing students and preparing them for employment. WCC President, Dr. Rose B. Bellanca has led the development and recruitment of talent for Washtenaw County through the Ann Arbor SPARK Talent Committee, currently serves on the Board of Directors and is a member of the Michigan Works! Southeast Workforce Development Board and is on the board for the American Center for Mobility. Further, the WCC Workforce Development Department has served as a sub-contractor to provide the Michigan Works! Southeast Agency with business and career services that address the needs of the un- and underemployed. The Vice President of Economic & College Development, Dr. Michelle Mueller, serves on LDFA for Ann Arbor and Ypsilanti Board of Directors, the ITS Michigan Board of Directors, the American Center for Mobility Education Committee, and the American Association of Community Colleges Council for Workforce Education Committee. In addition, **Brandon Tucker, Associate Vice President for Workforce & Community Development serves on the Michigan Council on Future Mobility housed at the Michigan Department of Transportation, the Workforce Intelligence Network's (WIN) Board of Directors for Southeast Michigan, the Michigan Works! Southeast Workforce Development Board, and SEMCOG Talent Committee.**

## Appendix A. Career Degree/Certificates

<ul style="list-style-type: none"> <li>• <b>Health Sciences (14)</b></li> </ul>
<ul style="list-style-type: none"> <li>○ Computed Tomography (CT) Post-Associate Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Dental Assisting Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Health Care Foundations Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Magnetic Resonance Imaging (MRI) Post-Associate Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Mammography Post-Associate Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Medical Assisting Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Medical Billing and Coding Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Nursing Assistant Skills Training Certificate of Completion</li> </ul>
<ul style="list-style-type: none"> <li>○ Nursing, Licensed Practical Nurse to Registered Nurse Associate in Applied Science</li> </ul>
<ul style="list-style-type: none"> <li>○ Nursing, Registered Associate in Applied Science</li> </ul>
<ul style="list-style-type: none"> <li>○ Physical Therapist Assistant Associate in Applied Science</li> </ul>
<ul style="list-style-type: none"> <li>○ Radiography Associate in Applied Science</li> </ul>
<ul style="list-style-type: none"> <li>○ Sterile Processing Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Surgical Technology Associate in Applied Science</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Business and Culinary Management (25)</b></li> </ul>
<ul style="list-style-type: none"> <li>○ Accounting Associate in Applied Science</li> </ul>
<ul style="list-style-type: none"> <li>○ Accounting for Business Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Administrative Assistant I Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Administrative Assistant II Advanced Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Applied Data Science Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Baking and Pastry Arts and Management Associate in Applied Science</li> </ul>
<ul style="list-style-type: none"> <li>○ Baking and Pastry Essentials Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Baking and Pastry Skills and Operations Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Business Enterprise Associate in Applied Science</li> </ul>
<ul style="list-style-type: none"> <li>○ Business Enterprise Basics Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Business Office Administration Associate in Applied Science</li> </ul>
<ul style="list-style-type: none"> <li>○ Computer Software Applications Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Core Business Skills Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Culinary Arts and Management Associate in Applied Science</li> </ul>
<ul style="list-style-type: none"> <li>○ Culinary Essentials Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Culinary Skills an Operations Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Digital Business Marketing and Sales Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Entrepreneurship and Innovation Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Human Resource Management (HRM) Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Management Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Management Associate in Applied Science</li> </ul>
<ul style="list-style-type: none"> <li>○ Retail and Business Operations Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Retail Management Associate in Applied Science</li> </ul>
<ul style="list-style-type: none"> <li>○ Supply Chain Management Associate in Applied Science</li> </ul>
<ul style="list-style-type: none"> <li>○ Supply Chain Operations Certificate</li> </ul>

<ul style="list-style-type: none"> <li>• <b>Human Services, Pre-Education &amp; Public Safety (5)</b></li> </ul>
<ul style="list-style-type: none"> <li>○ Addiction Studies Post Associate Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Child Development Associate in Applied Science</li> </ul>
<ul style="list-style-type: none"> <li>○ Child Development Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Criminal Justice - Law Enforcement Associate in Applied Science</li> </ul>
<ul style="list-style-type: none"> <li>○ Police Academy Certificate</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Manufacturing &amp; Automotive (21)</b></li> </ul>
<ul style="list-style-type: none"> <li>○ Advanced Automotive Services Technician Advanced Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Advanced Machine Tool Programming Advanced Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Auto Body Repair Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Automotive Cybersecurity Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Automotive Services Technician Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Automotive Test Technician Associate in Applied Science</li> </ul>
<ul style="list-style-type: none"> <li>○ Collision Repair and Refinish Technician Advanced Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Custom Auto Body Fabrication and Chassis Design Advanced Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Engineering Technologist – Manufacturing Associate in Applied Science</li> </ul>
<ul style="list-style-type: none"> <li>○ Fluid Power Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Industrial Electronics Technology Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Industrial Electronics Technology II Advanced Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Introduction to Manufacturing Processed Certificate of Completion</li> </ul>
<ul style="list-style-type: none"> <li>○ Machine Tool Programming (CNC) Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Machine Tool Setup and Operation Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Mechatronics Associate in Applied Science</li> </ul>
<ul style="list-style-type: none"> <li>○ Motorcycle Service Technology I Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Motorcycle Service Technology II Advanced Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Occupational Studies Associate in Applied Science</li> </ul>
<ul style="list-style-type: none"> <li>○ Powertrain Development Technician Associate in Applied Science</li> </ul>
<ul style="list-style-type: none"> <li>○ Transportation Technologies Associate in Applied Science</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Broadcast, Communication, Visual, Digital &amp; Fine Arts (23)</b></li> </ul>
<ul style="list-style-type: none"> <li>○ 3D Animation Arts Associate in Applied Science</li> </ul>
<ul style="list-style-type: none"> <li>○ 3D Animation Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Animation for Film and Broadcast Advanced Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Animation for Game Art Advanced Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Audio Production and Engineering Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Broadcast Media Arts Associate in Arts</li> </ul>
<ul style="list-style-type: none"> <li>○ Broadcast Media Arts Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Client-side Web Developer Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Digital Strategy Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Digital Video Advanced Production Advanced Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Digital Video Production Associate in Arts</li> </ul>
<ul style="list-style-type: none"> <li>○ Digital Video Production Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Fine and Performing Arts Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Graphic Design Associate in Applied Science</li> </ul>
<ul style="list-style-type: none"> <li>○ Graphic Design Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Interface Design Certificate</li> </ul>
<ul style="list-style-type: none"> <li>○ Photographic Imaging Certificate</li> </ul>

○ Photographic Technology Associate in Applied Science
○ Server-side Web Development Certificate
○ Technical Communication Associate in Arts
○ Technical Communication Certificate
○ User Experience Designer Certificate
○ Web Design and Development Associate in Applied Science
<b>• Science, Computer Technology, Engineering &amp; Math (12)</b>
○ C++ Programming Advanced Certificate
○ Computer Networking Academy I Advanced Certificate
○ Computer Networking Operating Systems I Advanced Certificate
○ Computer Systems and Networking Associate in Applied Science
○ Computer Systems Technology Certificate
○ Cybersecurity Associate in Applied Science
○ Engineering and Design Technology Certificate
○ Foundations of Information Systems Certificate
○ Linux/UNIX Systems Certificate
○ Principles of Cybersecurity Certificate
○ Program in Java Advanced Certificate
○ Web Database Programming Professional Advanced Certificate
<b>• Skilled Trades &amp; Construction (12)</b>
○ Cabinetmaking/Millwork Technology Advanced Certificate
○ Construction Management Associate in Arts
○ Construction Technology Associate in Science
○ Construction Technology I Certificate
○ Construction Technology II Advanced Certificate
○ Heating, Ventilation, Air Conditioning and Refrigeration - Commercial Trade Advanced Certificate
○ Heating, Ventilation, Air Conditioning and Refrigeration Associate in Applied Science
○ Heating, Ventilation, Air Conditioning, and Refrigeration - Residential Certificate
○ Ironworkers Pre-Apprenticeship Certificate
○ Welding Technology Associate in Applied Science
○ Welding and Fabrication Principles Certificate
○ Welding and Fabrication Advanced Applications Advanced Certificate
<b>• Apprenticeship &amp; Union Programs (7)</b>
○ Apprentice Completion Certificate
○ Construction Supervision Associate in Applied Science
○ Construction Supervision Associate in Science
○ Construction Supervision Certificate
○ Industrial Training Associate in Applied Science
○ Industrial Training Associate in Science
○ Journeyman Industrial Associate in Applied Science



## Appendix B. Transfer Degrees and Certificates (22)

Business Administration - Transfer Associate in Arts
Computer Science: Programming in Java Associate in Science
Criminal Justice Associate in Arts
Early Childhood Education Associate in Arts
Elementary Education Associate in Arts
English as a Second Language Certificate
Environmental Science Associate in Science
Exercise Science Associate in Science
Film Studies Associate in Arts
Fine Arts Associate in Arts
General Studies Associate in General Studies
General Studies in Math and Natural Sciences Associate in Science
Global Studies Associate in Arts
Health Program Preparation Associate in Science
Human Services Associate in Arts
Information Systems: Programming in C++ Associate in Science
Journalism Associate in Arts
Liberal Arts Transfer Associate in Arts
Math and Science Associate in Science
Paralegal Studies/Pre-Law Associate in Arts
Pre-Engineering Science Transfer Associate in Science
Secondary Education Associate in Arts

# SECTION D: Staffing and Enrollment



## STAFFING AND ENROLLMENT

Colleges and universities must include staffing and enrollment trends in the annual 5-year comprehensive master plans.

- a. Describe current full-and part-time student enrollment levels by academic program and define how the programs are accessed by the student (i.e., main or satellite campus instruction, collaboration efforts with other institutions, Internet or distance learning, etc.)**

As of October 15, 2020; 11,165 students are enrolled for the Fall 2020 semester. Overall, 28% of these students are enrolled on a full-time basis (12 or more credits). The percentage of full-time students varies by program area.

For the Fall 2020 semester, the program area full-time enrollments are as follows:

Division	Percent Full-Time
Humanities and Social Sciences	31%
Business and Computer Technologies	32%
Math, Science, and Engineering	27%
Advanced Technologies & Public Service	25%
Health	16%
WCC Total Enrollment	28%

Due to COVID-19 the vast majority of the College's programs are being offered remotely through Distance Learning or through a virtual classroom format. For the Fall 2020 semester, a limited number of courses are being offered in a mixed mode lab format where the hands-on lab portion of a course cannot be provided in an online format,

- b. Project enrollment patterns over the next five years (including distance learning initiatives)**

Since 2012-13 our degree credit enrollments have been comparatively flat in an environment in which most community colleges have seen large enrollment deficits. Due to the pandemic, the college's degree enrollment for Fall 2020 has decreased approximately 4% from Fall 2019. The college has put many factors in place in the last year to enhance recruitment, enrollment and retention, including personal calling campaigns, targeted recruitment, increased flexible scheduling, expanded student services, and many other measures to attract and keep students at WCC.

In considering enrollments over the next five years, several factors need to be examined:

- SEMCOG projections indicate that the overall population in the region will rise slightly through 2025; there will be slightly slower growth in traditional age groups, but substantial increases in the older adult population. We expect to see enrollment growth in the next five years in the older adult population and need address this population's needs, particularly for retraining and career changing in high demand careers.
- Over the last five years, there has been steady growth in the college's distance education offerings, with an 85% increase in online enrollments and 20% increase in mixed mode enrollments during that time. The College is a participant in the SARA state reciprocity agreement to offer online programming in 49 states and is approved by the Higher Learning Commission to offer up to 100% of its programs and courses online. The college expects this to be a significant growth area over the next five years, consistent with past enrollment patterns.
- With the State's expansion in the authorization of Early Middle Colleges, we have also experienced increasing numbers of middle college students. Local districts are taking advantage of our on-campus offerings and students from middle colleges outside Washtenaw County are taking advantage of our on-line offerings.
- Over the past several years, the majority of our enrollment growth has been in on-line courses. WCC has a rigorous quality development process before a class is offered in an online format. Over the last year we have added 58 on-line courses and for the Fall 2020 semester are offering 513 sections of 184 different courses.

**c. Evaluate enrollment patterns over the last five years**

Based on our annual headcount (unduplicated students), WCC had experienced an enrollment increase of 3.5% over the five years prior to COVID-19. For 2019-20, which was impacted by COVID-19, we experienced a decrease of less than 1% over the prior year. The enrollment drop is much smaller than the enrollment drops of other Michigan colleges that have experienced double digit drops in enrollment over the same time period.

The College continues to earn and enjoy the support of the community and of our constituents. We respond to the changing needs of our students, adding sections and courses as appropriate. The current economic situation has driven many students to seek retraining and skills upgrades. WCC has both marketed its ability to provide such services and we have enrolled many new students as a result. In a different direction, we see more of our students continue their formal education beyond the levels provided here at the College. We expect that pattern to continue.

Students come to Washtenaw Community College representing the diversity within our community. Many – about 33 percent – of our new students are first generation college students, about four percent are single parents, about three percent are veterans, and another three percent request physical accommodation. The average age

of our students is 27 and 15% (1,675) are college graduates returning to school to gain new skills to use in their current field or to prepare for a new career in another field. Regardless of their background, all of our students come through our doors with the expectation that we will prepare them with the skills and knowledge they need to thrive in a rapidly evolving educational, technological, and economic environment and ultimately succeed in a job that may not exist yet. Employers and partners in business and industry expect that we will train, prepare and deliver a high-skilled workforce to meet their quickly changing needs.

**d. Student/Faculty Ratios –**

The ratios for instructional staff to students for major program areas at the College may be calculated using credit hour or by contact hour generation. Student/faculty FTE ratios based on student credit hours where one student FTE equals 30 semester hours are as follows:

General Education	19.8
Business / Computer	16.6
Technical	15.3
Health care	7.9

Student / faculty FTE ratios based on contact hour generation where one student FTE equals 480 contact hours are as follows:

General Education	24.3
Business / Computer	20.5
Technical	24.4
Health care	15.1

**e. Project future staffing needs based on 5-year enrollment estimates and future programming changes.**

It is anticipated that the college's current staffing models will accommodate projected program growth. Positions that are currently vacant will be filled to meet the anticipated needs in program demand. Under the leadership of current full-time faculty members, part-time instructors will be employed to meet any additional demand.

The average credit hours taken per student is 8.3 for Fall 2020. This is, of course, a statistic that is relatively fixed given the large number of students. An analysis of our underlying financial base indicates that, in order to fund the institution, we need to increase both headcount and credit hours. The use of part-time faculty remains at acceptable levels. During the previous academic year, 2019-20, we experienced less than a 33% use of part-time staff (according to the computation specified in the collective bargaining agreement) whereas the agreed upon limit is 37%. Thus, the College has room to adjust to new initiatives and demands. At the same time, the

College continues to manage its staffing allocations to provide full-time faculty support appropriate to the growth and decline within given academic areas.

**f. Identify current average class size and projected average class size based on institution’s mission and planned programming changes.**

Average class size is determined by many factors, not the least of which is the maximum allowed class size, a factor that is influenced by facilities, collective bargaining agreements, accreditation specifications, safety, and enrollment demand. Also influencing enrollment is the location and type of course. We calculated the classroom utilization at the end of the semester, though enrollment is often higher at the beginning of the semester. It has been calculated that we lose approximately two (2) students from our larger sections through attrition. At the end of the semester we calculate an average class utilization of 78% of the maximum enrollment. Shown below are the average class size and utilization percentage by some of our common maximum enrollment options.

Max Enrollment	Fall 2019	Winter 2020	Both	Average for Both
30	22.6	21.5	22.1	74%
25	21.1	18.2	19.6	79%
24	19.8	18.7	19.3	80%
22	18.6	16.1	17.5	79%
20	17.0	15.7	16.3	82%
All	17.8	16.5	17.2	78%

Further influencing the utilization of classroom space is the location of courses. Extension center courses – generally held on our partner high school locations - have the highest utilization rate of courses scheduled outside of main campus with an average 94% of the seats filled at the end of the semester.

SITE	AVERAGE
Main Campus	78%
Clinical	86%
Extension	94%
North	63%

We continue to work to increase our fill ratio for all of our sections while balancing our other obligations. We must provide the courses that students need to complete their degree program even if those sections are not at full enrollment. Further, we have an obligation to our constituents to provide courses at convenient locations throughout the county. The small number of off-campus sites has a minimal impact (approximately -0.7%) on our overall fill rate. The value of these off-campus sections is reviewed on a regular basis and we work to balance fiscal responsibility with service to the community. We anticipate that the average class size will remain constant over the next few years.

# SECTION E: Facility Assessment





## FACILITY ASSESSMENT

A professionally developed comprehensive facilities assessment is required. The assessment must identify and evaluate the overall condition of capital facilities under college or university control. The description must include facility age, use patterns and an assessment of general physical condition. The assessment must specifically identify:

- a. **Summary description of each facility (administrative, classroom, biology, hospital, etc.) according to categories outlined in “net-to-gross ratio guidelines for various building types,” DTMB-Office of Design and Construction Capital Outlay Design Manual, appendix 8. If facility is of more than one “type,” please identify the percentage of each type within a given facility.**

See attached assessment document.

- b. **Building and/or classroom utilization rates (percentage of rooms used, and percent capacity.) Identify building/classroom usage rates for peak (M-F 10-3), off-peak (M-F, 8-10 a.m., 3-5 p.m.) evening, and weekend periods.**

The utilization rates for WCC classroom buildings for peak, off-peak, evening, and weekend time frames as defined by the capital outlay parameters. For purposes of calculating the utilization rate, the college determined for a given building and defined time period the percentage of all classrooms which were utilized at least once during the defined time period. Note that some classrooms are used as labs that are available for faculty and students to use during open building hours. Given that the COVID-19 pandemic significantly impacted the number of courses offered on-campus, the follow utilization rates are based upon Fall 2019 data.

Building	Peak	Off Peak	Evening	Weekend
	M-F 10am-3pm	M-F 8-10am M-F 3-5pm	M-Th 5-10pm	F 5-10pm Sa/Su 8am- 10pm
Business Education	100%	100%	100%	65%
Great Lakes Regional Training Center	29%	29%	29%	0%
Gunder Myran	95%	89%	82%	26%
Henry S. Landau Skilled Trades	60%	80%	100%	60%
Crane Liberal Arts & Science	90%	89%	90%	65%
Morris J. Lawrence	69%	69%	92%	77%
Occupational Education	95%	95%	95%	46%
Student Center	100%	100%	100%	33%
Technical & Industrial	92%	86%	78%	48%

- c. Mandated facility standards for specific programs, where applicable (i.e., federal/industry standards for laboratory, animal, or agricultural research facilities, hospitals use of industrial machinery, etc.);**

See attached assessment document.

- d. Functionality of existing structures and space allocation to program areas served;**

See attached assessment document.

- e. Replacement value of existing facilities (insured value of structures to the extent available);**

The replacement value of existing College facilities as of June 30, 2020, excluding land is \$350,483,410.

- f. Utility system condition (i.e., heating, ventilation, and air conditioning (HVAC), water and sewage, electrical, etc.);**

See attached assessment document.

- g. Facility infrastructure condition (i.e., roads, bridges, parking structures, lots, etc.);**

See attached assessment document.

- h. Adequacy of existing utilities and infrastructure systems to current and 5-year projected programmatic needs;**

See attached assessment document.

- i. Does the institution have an enterprise-wide energy plan? What are its goals? Have energy audits been completed on all facilities, if not, what is the plan/timetable for completing such audits?**

The College has a campus-wide energy plan with the goals of improving overall efficiency of the campus operations and reducing energy consumption and greenhouse gas inventories by an average of 2% per year. While the College employs internal systems to measure the consumption and efficiencies of energy, we will retain a professional engineering firm in the near future to complete a campus-wide energy audit. Through the replacement of outdated and inefficient equipment combined with the use of technology, the College continues the campus-wide energy plan for savings in budget, greenhouse gas emissions, and improved sustainability.

**j. Land owned by the institution, and includes a determination of whether capacity exists for future development, additional acquisitions are needed to meet future demands, or surplus land can be conveyed for a different purpose**

The College currently owns 291 acres of land. This acreage provides the College with the capacity to expand in the future, if needed, but also serves as an “outdoor laboratory” with its wetlands and wildlife. The land is in a very desirable location, and could be sold, if necessary, subject to rezoning.

**k. What portions of existing buildings, if any, are currently obligated to the State Building Authority and when are these State Building Authority leases set to expire.**

The College currently has five buildings obligated to the State Building Authority for leases. These buildings include:

1. Business Education Building (BEB) in 1997. The lease expires in 2032.
2. Technology Education Building (GMB) in 2002. The lease expires in 2037.
3. Plumbers and Pipefitters Addition (GLRTC) in 2005. The lease expires in
4. 2040.
5. Skilled Trades Training Program Renovations (OEB) in 2012. The lease expires in 2052.
6. Skilled Trades Training Program Renovations (HLC) in 2012. The lease expires in 2052.

# Deferred Maintenance Report

*Updated September 2, 2020*  
*Facilities Management*

# Glossary

## **Current Replacement Value (CRV)**

The CRV is the cost to construct a replacement building in today's dollars. The figure is based on the square footage of the current structure and the estimated current construction cost for that type of structure.

## **One Year Deferred Maintenance Backlog (1 YR DMB)**

This is the value of projects that have been deferred and require completion in order to safely maintain facilities and related infrastructure for their current use. The 1 year DMB amounts shown are for items requiring immediate attention to fix critical problems.

## **Facilities Condition Index (FCI)**

Simply put, the FCI is the current DMB divided by the CRV. The resulting number is compared against nationally accepted standards and used to determine the condition of the building, campus or college.

FCI < 5% = Good

FCI > 5% and < 10% = Fair

FCI > 10% = Poor

## **One Year DMB Excess**

This represents the amount the DMB exceeds the APPA benchmark of a building with a 5% FCI - essentially the dollar amount to be spent immediately to reduce the DMB to attain the APPA rating of "Good". In situations where a building is in better than "Good" condition (FCI < 5%), the one year DMB excess is shown as zero.

## **Five Year Deferred Maintenance Backlog (5 Yr DMB)**

Similar to the One Year DMB, the Five Year DMB represents the total value of projects that will require attention within the next five years to repair and/or replace problems items before they become critical.

## **Five Year DMB Excess**

Similar to the One Year DMB Excess value, this amount represents the investment to bring the DMB in line with the APPA benchmark of 5% of the Current Replacement Value. In situations where a building is in better than "Good" condition - a bit more difficult over a five year span, the five year DMB excess is shown as zero.

## FCI SUMMARY FOR ALL CAMPUS BUILDINGS

	<u>Building</u>	<u>FCI</u>	<u>Rating</u>
1	Athletic Field House (AFH 027)	0.66%	Good
2	Business Education Building (BE 013)	3.28%	Good
<b>3</b>	<b>Chemical Storage Building (CS 019)</b>	<b>12.55%</b>	<b>Poor</b>
4	Crane LASB (LASB 002)	1.91%	Good
5	Energy Center (EC 017)	2.01%	Good
6	Family Education Building (FE 006)	<b>18.85%</b>	<b>Poor</b>
7	Great Lakes Regional Training Center (GL 024)	1.14%	Good
8	Gunder Myran Building (GM 022)	1.07%	Good
<b>9</b>	<b>Hazardous Materials Building (HM 014)</b>	<b>14.06%</b>	<b>Poor</b>
10	Health and Fitness Center (HFC 025)	2.08%	Good
11	Landau Skilled Trades Building (HL 028)	0.91%	Good
<b>12</b>	<b>Maintenance Building (MB 012)</b>	9.80%	Fair
<b>13</b>	<b>Morris Lawrence Building (ML 011)</b>	<b>13.26%</b>	<b>Poor</b>
14	Motorcycle Storage Building (MS 026)	2.54%	Good
15	Whitworth Occupational Education Building (OE 007)	2.95%	Good
16	Parking Structure (PS 029)	1.01%	Good
17	Damon B. Flowers Building (DF 008)	5.17%	Fair
18	Pump House (Campus Utility Building CU 015)	1.92%	Good
19	Storage and Receiving Building (SRB 016)	1.23%	Good
20	Student Center Building (SC 004)	<b>13.42%</b>	<b>Poor</b>
21	Technical and Industrial Building (TI 001)	2.39%	Good

## Deferred Maintenance Report - Entire College

### College Stats

Number of Buildings	21
Oldest Building	1970
Newest Building	2012
Avg. Building Age	23
Avg. Cost per S.F. (total = 1,201,820 s.f.)	\$292

### Facilities Condition Index - Entire College

	First Year Data					Five Year Data				
1,201,820	\$350,483,410	\$16,284,330	(\$1,239,840)	4.6%	Good	\$35,871,255	\$18,321,781	10.2%	\$7,009,668	\$14,183,919
<b>TOTAL S.F.</b>	<b>CRV</b>	<b>DMB</b>	<b>EXCESS</b>	<b>FCI</b>	<b>RATING</b>	<b>DMB</b>	<b>EXCESS</b>	<b>FCI</b>	<b>\$/YR MAINTAIN</b>	<b>\$/YR REDUCE</b>

## Deferred Maintenance Detail Report - Athletic Field House

<b>Campus:</b>	Main	<b>Use Types:</b>	Notes:
<b>Bldg. No.:</b>	AFH (027)	100% Athletics	
<b>Building:</b>	Athletic Field House		
<b>Area (s.f.):</b>	2,417		
<b>Year Built:</b>	2010		
<b>Floors:</b>	1		

Components	CRV of Component		% of Component Requiring Repair/Replace in:				Notes:
	%	\$	0-1 Yr	2022 Cost	2-5 Yrs	2023-26 Cost	
Structure	53%	\$256,202	0	\$0	1	\$2,562	
Roof	15%	\$72,510	0	\$0	3	\$2,175	Metal roof.
Glazing		\$0					None
Cladding	4%	\$19,336	2	\$387	5	\$967	Brick
HVAC	1%	\$4,834	3	\$145	4	\$193	
Plumbing	2%	\$9,668	2	\$193	5	\$483	Well pump system replaced due to failure and upgraded for more efficient system.
Primary/Secondary	4%	\$19,336	2	\$387	3	\$580	Feeder conductors replaced in 2020 due to theft.
Distribution	4%	\$19,336	0	\$0	1	\$193	
Lighting	1%	\$4,834	1	\$48	2	\$97	Outdoor lighting system upgraded to modern lighting control system.
Voice/Data	1%	\$4,834	0	\$0		\$0	
Ceilings	2%	\$9,668	1	\$97	2	\$193	
Walls	4%	\$19,336	1	\$193	2	\$387	
Doors	4%	\$19,336	1	\$193	5	\$967	
Floors	1%	\$4,834	1	\$48	5	\$242	
Bldg., Fire, ADA, Elevator	1%	\$4,834	1	\$48	2	\$97	
Immed. Site, Ext. Ltg., etc.	3%	\$14,502	10	\$1,450	3	\$435	
<b>CRV Totals:</b>	<b>100%</b>	<b>\$483,400</b>		<b>\$3,190</b>		<b>\$9,571</b>	

First Year Data					Five Year Data				
\$483,400	\$3,190	(\$20,980)	0.7%	Good	\$12,762	(\$11,408)	2.6%	\$9,668	\$12,220
<b>CRV</b>	<b>DMB</b>	<b>EXCESS</b>	<b>FCI</b>	<b>RATING</b>	<b>DMB</b>	<b>EXCESS</b>	<b>FCI</b>	<b>\$/YR MAINTAIN</b>	<b>\$/YR REDUCE</b>



### Deferred Maintenance Detail Report - Business Education Building

<b>Campus:</b>	Main	<b>Use Types:</b>	<b>Notes:</b>
<b>Bldg. No.:</b>	BE (013)	15% Lab	
<b>Building:</b>	Business Education	25% Administration	
<b>Area (s.f.):</b>	41,673	60% Classroom	
<b>Year Built:</b>	1996		
<b>Floors:</b>	2		

Components	CRV of Component		% of Component Requiring Repair/Replace in:				Notes:
	%	\$	0-1 Yr	2022 Cost	2-5 Yrs	2023-26 Cost	
Structure	20%	\$2,142,574	0	\$0	5	\$107,129	Interior floor settlement causing tile to crack and loosen in corridor 142. Gypsum Board exterior soffits replaced with DriVit cementitious material.
Roof	5%	\$535,643	1	\$5,356	5	\$26,782	Original single ply EDPM ballast roof, in fair condition.
Glazing	4%	\$428,515	1	\$4,285	10	\$42,851	Original, no problems identified.
Cladding	7%	\$749,901	1	\$7,499	8	\$59,992	Brick/Precast. Minor efflorescence on surface of brick on west elevation of building. Exterior soffit along north and east elevations have been replaced.
HVAC	14%	\$1,499,802	1	\$14,998	10	\$149,980	Data center CRAC unit in need of replacement. Duct system investigation and corrections to be performed to improve air flows. FTU's replaced.
Plumbing	9%	\$964,158	0.5	\$4,821	5	\$48,208	Minor issues reported.
Primary/Secondary	5%	\$535,643	0	\$0	2	\$10,713	No reported problems.
Distribution	6%	\$642,772	0	\$0	0	\$0	No reported problems.
Lighting	5%	\$535,643	3	\$16,069	20	\$107,129	Stairway lighting to be upgraded this FY with retrofit LED lamps to eliminate the ballast. Corridors being upgraded to LED fixtures.
Voice/Data	3%	\$321,386	0	\$0	0	\$0	No reported problems.
Ceilings	4%	\$428,515	2	\$8,570	5	\$21,426	Ceiling grid damaged at pull own screens when screens were mounted to grid. Screens are now hung from structure above.
Walls	4%	\$428,515	2	\$8,570	15	\$64,277	Wall finishes were moved away from the Zolotone finish to solid color for easier repair and maintenance.
Doors	3%	\$321,386	40	\$128,554	10	\$32,139	Exterior door should be considered for replacement in near future. Interior door hardware is due for upgrade.
Floors	4%	\$428,515	4	\$17,141	20	\$85,703	Quarry tile cracks in corridor 142 from floor settlement, otherwise no problems identified. Carpet was replaced in 2014 with rubber floor tile on the second floor.
Bldg., Fire, ADA, Elevator	4%	\$428,515	30	\$128,554	5	\$21,426	Fully sprinkled building; fire alarm system was upgraded to an addressable system in 2014; ADA compliant.
Immed. Site, Ext. Ltg., etc.	3%	\$321,386	2	\$6,428	5	\$16,069	Some exterior paving heaving along the southeast corner of the building potential tripping hazard. Additional exterior security camera is required to cover west portion of Parking lot #4
<b>CRV Totals:</b>	<b>100%</b>	<b>\$10,712,869</b>		<b>\$350,846</b>		<b>\$793,824</b>	

First Year Data					Five Year Data				
\$10,712,869	\$350,846	(\$184,797)	3.3%	Good	\$1,144,670	\$609,027	10.7%	\$214,257	\$443,191
<b>CRV</b>	<b>DMB</b>	<b>EXCESS</b>	<b>FCI</b>	<b>RATING</b>	<b>DMB</b>	<b>EXCESS</b>	<b>FCI</b>	<b>\$/YR MAINTAIN</b>	<b>\$/YR REDUCE</b>

## Deferred Maintenance Detail Report - Chemical Storage

<b>Campus:</b>	Main	<b>Use Types:</b>	100% Chemical Storage	<b>Notes:</b>	Prefabricated unit.
<b>Bldg. No.:</b>	CS (019)				
<b>Building:</b>	Chemical Storage				
<b>Area (s.f.):</b>	193				
<b>Year Built:</b>	2001				
<b>Floors:</b>	1				

Components	CRV of Component		% of Component Requiring Repair/Replace in:				Notes:
	%	\$	0-1 Yr	2022 Cost	2-5 Yrs	2023-26 Cost	
Structure	60%	\$17,370	10	\$1,737	15	\$2,606	Self contained prefabricated storage unit. Roof, walls and floors are integral parts of structure. Exterior paint condtion an ongoing issue.
HVAC	20%	\$5,790	25	\$1,448	50	\$2,895	Replace ventilation system.
Plumbing	5%	\$1,448	0	\$0	0	\$0	Spill containment drain system.
Primary/Secondary	2%	\$579	5	\$29	10	\$58	Primary: none. Secondary: minimal, PM and parts replacement.
Distribution	2%	\$579	5	\$29	15	\$87	Minimal, no reported problem.
Lighting	2%	\$579	5	\$29	10	\$58	Minimal explosion-proof fixtures, no reported problems.
Doors	5%	\$1,448	25	\$362	25	\$362	Door hardware needs to be upgraded including single door cyclinder cores.
Bldg., Fire, ADA, Elevator	2%	\$579	0	\$0	0	\$0	Not sprinkled.
Immed. Site, Ext. Ltg., etc.	2%	\$579	0	\$0	0	\$0	Minimal, no reported problems.
<b>CRV Totals:</b>	<b>100%</b>	<b>\$28,950</b>		<b>\$3,633</b>		<b>\$6,065</b>	

First Year Data					Five Year Data				
\$28,950	\$3,633	\$2,186	12.6%	Poor	\$9,698	\$8,251	33.5%	\$579	\$2,519
CRV	DMB	EXCESS	FCI	RATING	DMB	EXCESS	FCI	\$/YR MAINTAIN	\$/YR REDUCE

### Deferred Maintenance Detail Report - Crane Liberal Arts and Science Building

<b>Campus:</b>	Main	<b>Use Types:</b>		<b>Notes:</b>	
<b>Bldg. No.:</b>	LASB (002)		10% Auditorium		Major addition in 1999. Major lab remodeling in 2003
<b>Building:</b>	Liberal Arts/Science		15% Administration		
<b>Area (s.f.):</b>	180,757		30% Lab		
<b>Year Built:</b>	1970		45% Classroom		
<b>Floors:</b>	4				

Components	CRV of Component		% of Component Requiring Repair/Replace in:				Notes:
	%	\$	0-1 Yr	2022 Cost	2-5 Yrs	2023-26 Cost	
Structure	19%	\$10,206,828	0	\$0	0.5	\$51,034	Cast-in-place concrete showing signs of cracks admitting water into building on north and south elevations. Waterproofing was replaced in 2014. Rusting of pre-cast for addition is growing and becoming unsightly. Original building cast-in-place concrete is in need of deep cleaning.
Roof	5%	\$2,686,007	20	\$537,201	11	\$20,000	Inspection performed by TREMCO. Restoration of sections 1 - 4 to be completed by Spring 2021
Glazing	4%	\$2,148,806	0.25	\$5,372	2	\$42,976	Windows have been replaced on all three floors of the original section of building.
Cladding	8%	\$4,297,612	0.75	\$32,232	2	\$85,952	Brick, precast concrete. Precast showing rust damage in 1999 addition. Funding source being investigated. Minor cracking repaired at various locations.
HVAC	14%	\$7,520,820	0.5	\$37,604	5	\$376,041	Air handling systems in the original 1970 building are 17 year old and in good working order. Some temperature control issues in the 3 floors of the addition. Lab fume hoods replaced with new Phoenix flow controls and upgraded with Airquity system.
Plumbing	10%	\$5,372,015	0.25	\$13,430	2	\$107,440	Laboratory plumbing, restroom plumbing, and general plumbing throughout the original 1970 building have been replaced in the last 13 years and have no reported problems.
Electrical Systems	6%	\$3,223,209	0.25	\$8,058	0.5	\$16,116	Original transformer and switchgear were replaced in 2015.
Electrical Distribution	4%	\$2,148,806	0.5	\$10,744	2	\$42,976	No reported problems.
Lighting	4%	\$2,148,806	1.5	\$32,232	8	\$171,904	All corridor lighting including emergency replaced by 2020-21. Classroom lighting to be upgraded to LED over the next 3 years.
Voice/Data	4%	\$2,148,806	1	\$21,488	1	\$21,488	No reported problems.
Ceilings	4%	\$2,148,806	0.5	\$10,744	5	\$10,000	Many ceiling tiles replaced. Continued monitoring of leaks to keep replacements as needed.
Walls	4%	\$2,148,806	0	\$0.00	5	\$107,440	Corridors on 2nd refreshed with new painting. 1st and 3rd to be completed along with flooring work.
Doors	2%	\$1,074,403	0.5	\$5,372	5	\$53,720	Door hardware needs to be upgraded. Some wood doors must be replaced.
Floors	5%	\$2,686,007	1	\$26,860	28	\$700,000	All corridor flooring in original section of building on 2nd floor replacement with rubber flooring. Same areas on 1st and 3rd floor to be completed by June 2022.
Bldg., Fire, ADA, Elevator	4%	\$2,148,806	12	\$257,857	0	\$0	Fully sprinkled building; original fire alarm system with horns and pull, and smoke detectors in ceiling. Toilet rooms updated in 1999 to comply with ADA. Elevator replaced in 2000.
Immed. Site, Ext. Ltg., etc.	3%	\$1,611,604	1.5	\$24,174	5	\$40,000	Concrete sidewalk closest to CLASB was replace last year.
<b>CRV Totals:</b>	<b>100%</b>	<b>\$53,720,146</b>		<b>\$1,023,369</b>		<b>\$1,847,089</b>	

First Year Data					Five Year Data				
\$53,720,146	\$1,023,369	(\$1,662,639)	1.9%	Good	\$2,870,458	\$184,450	5.3%	\$1,074,403	\$1,648,494.46
<b>CRV</b>	<b>DMB</b>	<b>EXCESS</b>	<b>FCI</b>	<b>RATING</b>	<b>DMB</b>	<b>EXCESS</b>	<b>FCI</b>	<b>\$/YR MAINTAIN</b>	<b>\$/YR REDUCE</b>

## Deferred Maintenance Detail Report - Energy Center

<b>Campus:</b>	Main	<b>Use Types:</b>	<b>Notes:</b>
<b>Bldg. No.:</b>	EC (017)	95% Power House	
<b>Building:</b>	Energy Center	5% Offices	
<b>Area (s.f.):</b>	15,724		
<b>Year Built:</b>	1999		
<b>Floors:</b>	1		

Components	CRV of Component		% of Component Requiring Repair/Replace in:				Notes:
	%	\$	0-1 Yr	2022 Cost	2-5 Yrs	2023-26 Cost	
Structure	8%	\$1,656,075	8	\$132,486	8	\$132,486	minor cracks in foundation walls
Roof	0%	\$0	0	\$0	0	\$0	Basement space, no roof.
HVAC	55%	\$11,385,513	1.5	\$170,783	6	\$683,131	Primary heating pumps replaced Boiler # 2 controls upgrade underway. Plant master controls to follow. Boilers 1 & 3 will also receive boiler controls upgrade.
Plumbing	7%	\$1,449,065	3	\$43,472	8	\$115,925	No reported problems.
Primary/Secondary	21%	\$4,347,196	1	\$43,472	5	\$217,360	Main switchgear to entire campus, no reported problems.
Distribution	2%	\$414,019	3	\$12,421	5	\$20,701	No reported problems.
Lighting	1%	\$207,009	0	\$0	5	\$10,350	Lighting was upgraded to LED in 2015.
Voice/Data	1%	\$103,505	0	\$0	1	\$1,035	No reported problems.
Ceilings	1%	\$207,009	1	\$2,070	3	\$6,210	Some ceiling tile damage reported.
Walls	1%	\$207,009	2	\$4,140	2	\$4,140	Some wall damage.
Doors	1%	\$207,009	1	\$2,070	10	\$20,701	Some damage to doors and hardware needs to be replaced. Door hardware needs to be upgraded.
Floors	1%	\$207,009	1	\$2,070	45	\$93,154	Epoxy floor finish is 14 years old and needs to be replaced.
Bldg., Fire, ADA, Elevator	1%	\$207,009	1	\$2,070	5	\$10,350	No reported problems.
Immed. Site, Ext. Ltg., etc.	0%	\$0	0	\$0	0	\$0	Underground - n/a.
<b>CRV Totals:</b>	<b>100%</b>	<b>\$20,700,000</b>		<b>\$415,054</b>		<b>\$1,315,544</b>	

First Year Data					Five Year Data				
\$20,700,932	\$415,054	(\$619,993)	2.0%	Good	\$1,730,598	\$695,551	8.4%	\$414,019	\$760,138
<b>CRV</b>	<b>DMB</b>	<b>EXCESS</b>	<b>FCI</b>	<b>RATING</b>	<b>DMB</b>	<b>EXCESS</b>	<b>FCI</b>	<b>\$/YR MAINTAIN</b>	<b>\$/YR REDUCE</b>

## Deferred Maintenance Detail Report - Family Education Building

<b>Campus:</b>	Main	<b>Use Types:</b>	100% Child Care	<b>Notes:</b>
<b>Bldg. No.:</b>	FE (006)			
<b>Building:</b>	Family Education			
<b>Area (s.f.):</b>	8,923			
<b>Year Built:</b>	1980			
<b>Floors:</b>	1			

Components	CRV of Component		% of Component Requiring Repair/Replace in:				Notes:
	%	\$	0-1 Yr	2022 Cost	2-5 Yrs	2023-26 Cost	
Structure	18%	\$314,252	5	\$15,713	10	\$31,425	Potential settlement causing cracking in gypsum board walls sporadically throughout building - mostly at clearstory windows.
Roof	6%	\$104,751	5	\$5,238	3	\$3,143	Roof replaced in 2018. 80% roof is shingled; 20% is fully adhered single ply EDPM.
Glazing	5%	\$87,292	10	\$8,729	25	\$21,823	Flashing at clearstory windows leaks depending on direction of wind driven rain. Storefront aluminum entrance needs to be modified.
Cladding	10%	\$174,585	50	\$87,292	10	\$17,458	Metal panels and brick. Metal panel finish peeling, needs to be replaced. Steel plate lintel rusting at entrance opening. Brick spalling at site walls.
HVAC	18%	\$314,252	3	\$9,428	10	\$31,425	HVAC system was upgraded in 2004 and again in 2013. No problems reported.
Plumbing	7%	\$122,209	3	\$3,666	20	\$24,442	Hard water has damaged water heater, faucets and flush valves; water softener needed.
Primary/Secondary	5%	\$87,292	0	\$0	0	\$0	Primary: none in building. Secondary: no reported problems.
Distribution	3%	\$52,375	100	\$52,375	10	\$5,238	Distribution system is receiving the upgrade in conjunction with the lighting upgrades.
Lighting	4%	\$69,834	140	\$97,767	3	\$2,095	Lighting system is receiving the upgrade to LED fixtures for energy efficiency and reliability.
Voice/Data	3%	\$52,375	0	\$0	10	\$5,238	No reported problems.
Ceilings	4%	\$69,834	20	\$13,967	15	\$10,475	Many gypsum board ceilings limit access to equipment above. Some cracking in gypsum board ceilings near clearstory windows.
Walls	4%	\$69,834	15	\$10,475	20	\$13,967	Gypsum board on wood stud framing. Some cracking in gypsum board at windows.
Doors	3%	\$52,375	3	\$1,571	30	\$15,713	Exterior classroom doors replaced with fiberglass units. Have not been able to make main entrance door ADA automatic assist as no headroom at top of door for hardware. Interior doors are knob type. Door hardware needs to be upgraded. Hardware needs continued repair lately.
Floors	3%	\$52,375	2	\$1,048	25	\$13,094	Carpet was replaced in 2014.
Bldg., Fire, ADA, Elevator	4%	\$69,834	5	\$3,492	20	\$13,967	Building is not sprinkled. Fire alarm system was upgraded in 2014. There was an upgrade for exit and emergency lighting. Toilet rooms not ADA compliant.
Immed. Site, Ext. Ltg., etc.	3%	\$52,375	35	\$18,331	50	\$26,188	Entrance walkway was replaced in 2018 to improve pedestrian safety.
<b>CRV Totals:</b>	<b>100%</b>	<b>\$1,745,846</b>		<b>\$329,092</b>		<b>\$235,689</b>	

First Year Data					Five Year Data				
\$1,745,846	\$329,092	\$241,800	18.9%	Poor	\$564,781	\$477,489	32.4%	\$34,917	\$147,873
<b>CRV</b>	<b>DMB</b>	<b>EXCESS</b>	<b>FCI</b>	<b>RATING</b>	<b>DMB</b>	<b>EXCESS</b>	<b>FCI</b>	<b>\$/YR MAINTAIN</b>	<b>\$/YR REDUCE</b>

**Deferred Maintenance Detail Report - Great Lakes Regional Training Center**

<b>Campus:</b>	Main	<b>Use Types:</b>	<b>Notes:</b>
<b>Bldg. No.:</b>	GL (024)	50% Classrooms	This building connects directly to the Occupational Education Building
<b>Building:</b>	Great Lakes RTC	30% Labs	
<b>Area (s.f.):</b>	21,946	10% Office	
<b>Year Built:</b>	2003	10% Computer labs	
<b>Floors:</b>	2		

Components	CRV of Component		% of Component Requiring Repair/Replace in:				Notes:
	%	\$	0-1 Yr	2022 Cost	2-5 Yrs	2023-26 Cost	
Structure	18%	\$1,163,983	0	\$0	4	\$46,559	Exterior concrete stairs are deteriorating and need to be repaired. Stairs were repaired in 2014
Roof	6%	\$387,994	1	\$3,880	45	\$174,597	Roof leaks reported
Glazing	5%	\$323,329	0	\$0	3	\$9,700	No issues
Cladding	10%	\$646,657	0	\$0	2	\$12,933	
HVAC	18%	\$1,163,983	2	\$23,279.66	45	\$523,792	HVAC system was retro-commissioned and temperature controls replaced in 2015. ERU and RTU are scheduled to be replaced in 5 year plan.
Plumbing	7%	\$452,660	7	\$31,686	8	\$36,213	Storm and sanitary lift station pumps scheduled to be replaced.
Primary/Secondary	5%	\$323,329	0	\$0	5	\$16,166	
Distribution	3%	\$193,997	1	\$1,940	5	\$9,700	
Lighting	4%	\$258,663	4	\$10,347	12	\$31,040	No reported problems.
Voice/Data	3%	\$193,997	0	\$0	2	\$3,880	
Ceilings	4%	\$258,663	0	\$0	5	\$12,933	Some ceiling tiles are water damaged and need to be replaced.
Walls	4%	\$258,663	0	\$0	5	\$12,933	No reported problems.
Doors	3%	\$193,997	0	\$0	5	\$9,700	Door hardware needs to be upgraded.
Floors	3%	\$193,997	0	\$0	15	\$29,100	Carpet in some spaces need to be replaced
Bldg., Fire, ADA, Elevator	4%	\$258,663	1	\$2,587	35	\$90,532	No reported problems.
Immed. Site, Ext. Ltg., etc.	3%	\$193,997	0	\$0	5	\$9,700	Concrete stair and ramp replaced in 2018
<b>CRV Totals:</b>	<b>100%</b>	<b>\$6,466,572</b>		<b>\$73,719</b>		<b>\$1,029,478</b>	

First Year Data					Five Year Data				
CRV	DMB	EXCESS	FCI	RATING	DMB	EXCESS	FCI	\$/YR MAINTAIN	\$/YR REDUCE
\$6,466,572	\$73,719	(\$249,610)	1.1%	Good	\$1,103,197	\$779,869	17.1%	\$129,331	\$349,971

**Deferred Maintenance Detail Report - Gunder Myran Building**

<b>Campus:</b>	Main	<b>Use Types:</b>	<b>Notes:</b>
<b>Bldg. No.:</b>	GM (022)	10% faculty offices	5th level is a mechanical penthouse
<b>Building:</b>	Gunder Myran Building	30% Library	
<b>Area (s.f.):</b>	139,390	40% classrooms	
<b>Year Built:</b>	2002	20% computer labs	
<b>Floors:</b>	5		

Components	CRV of Component		% of Component Requiring Repair/Replace in:				Notes:
	%	\$	0-1 Yr	2022 Cost	2-5 Yrs	2023-26 Cost	
Structure	18%	\$9,700,024	0	\$0	2	\$194,000	No reported problems
Roof	5%	\$2,694,451	0.5	\$13,472	17	\$458,057	Minor flashing and roof curb deterioration
Glazing	5%	\$2,694,451	0.25	\$6,736	1	\$26,945	No reported problems
Cladding	9%	\$4,850,012	0	\$0	0.5	\$24,250	Joint sealant replacement is scheduled in the 5 year plan.
HVAC	15%	\$8,083,353	3.25	\$262,709	5	\$404,168	Vibration and isolation springs for air-handling equipment need to be replaced. VFD's to AHU 1 & 2 have been replaced. Humidifiers are scheduled to be replaced in the 5 year plan. HVAC BAS is being converted to the campus wide system.
Plumbing	10%	\$5,388,902	0.5	\$26,945	1	\$53,889	Photo lab temperature issue resolved with replacement valves.
Primary/Secondary	6%	\$3,233,341	0	\$0	1	\$32,333	Electical tranformer replaced in 2018.
Electrical Distribution	4%	\$2,155,561	2	\$43,111	2	\$43,111	No reported problems
Lighting	4%	\$2,155,561	1	\$21,556	7	\$150,889	All emergency egress lighting batteries replaced. Lighting in Library atrium upgraded to LED fixtures.
Voice/Data	4%	\$2,155,561	0	\$0	1	\$21,556	No reported problems
Ceilings	4%	\$2,155,561	1.5	\$32,333	1	\$21,556	Stained ceiling tiles throughout
Walls	4%	\$2,155,561	0.5	\$10,778	2	\$43,111	Damaged column corners; wall protection program in place.
Doors	3%	\$1,616,671	1	\$16,167	2	\$32,333	Minimal door hardware replacement; some doors damaged. Door hardware needs to be upgraded .
Floors	4%	\$2,155,561	0.5	\$10,778	5	\$107,778	Carpeting needs to be replaced throughout. Carpet on the 2nd floor replaced in 2013. 3rd floor corridors converted to rubber flooring material.
Bldg., Fire, ADA, Elevator	2%	\$1,077,780	10	\$107,778	25	\$269,445	Elevator upgrade scheduled in 5 year plan.
Immed. Site, Ext. Ltg., etc.	3%	\$1,616,671	1.5	\$24,250	5	\$80,834	Half of Lot 6 resurfaced to prolong life. Underground wiring breaks to lighting repaired.
<b>CRV Totals:</b>	<b>100%</b>	<b>\$53,889,022</b>		<b>\$576,613</b>		<b>\$1,964,255</b>	

First Year Data					Five Year Data				
\$53,889,022	\$576,613	(\$2,117,839)	1.1%	Good	\$2,540,867	(\$153,584)	4.7%	\$1,077,780	\$1,585,953.92
<b>CRV</b>	<b>DMB</b>	<b>EXCESS</b>	<b>FCI</b>	<b>RATING</b>	<b>DMB</b>	<b>EXCESS</b>	<b>FCI</b>	<b>\$/YR MAINTAIN</b>	<b>\$/YR REDUCE</b>

**Deferred Maintenance Detail Report - Hazardous Materials Shed**

<b>Campus:</b>	Main	<b>Use Types:</b>	<b>Notes:</b>
<b>Bldg. No.:</b>	HMS (014)	100% HazMat Storage	
<b>Building:</b>	Hazardous Materials Building		
<b>Area (s.f.):</b>	564		
<b>Year Built:</b>	1997		
<b>Floors:</b>	1		

Components	CRV of Component		% of Component Requiring Repair/Replace in:				Notes:
	%	\$	0-1 Yr	2022 Cost	2-5 Yrs	2023-26 Cost	
Structure	25%	\$21,150	1	\$212	15	\$3,173	Metal roof showing signs of corrosion and should be painted.
Roof	18%	\$15,228	3	\$457	30	\$4,568	Roof leaks repaired.
Glazing	0%	\$0	0	\$0	0	\$0	None
Cladding	18%	\$15,228	2	\$305	25	\$3,807	Metal siding showing signs of rust.
HVAC	11%	\$9,306	80	\$7,445	0	\$0	Power vevtilation added.
Plumbing	0%	\$0	0	\$0	0	\$0	None
Primary/Secondary	3%	\$2,538	1	\$25	10	\$254	Primary: none. Secondary: no reported problems.
Distribution	0%	\$0	5	\$0	10	\$0	Minimal, no reported problems.
Lighting	5%	\$4,230	60	\$2,538	2	\$85	Lighting upgrades scheulded in 1 year plan.
Voice/Data	0%	\$0	0	\$0	0	\$0	None
Ceilings	0%	\$0	0	\$0	0	\$0	None
Walls	0%	\$0	0	\$0	0	\$0	No interior partitions.
Doors	8%	\$6,768	10	\$677	50	\$3,384	Door hardware needs to be upgraded including all door cyclinder cores.
Floors	8%	\$6,768	1	\$68	10	\$677	Floor needs to be re-sealed.
Bldg., Fire, ADA, Elevator	0%	\$0	0	\$0	0	\$0	None
Immed. Site, Ext. Ltg., etc.	4%	\$3,384	5	\$169	50	\$1,692	Minimal, no reported problems.
<b>CRV Totals:</b>	<b>100%</b>	<b>\$84,600</b>		<b>\$11,895</b>		<b>\$17,639</b>	

First Year Data					Five Year Data				
\$84,600	\$11,895	\$7,665	14.1%	Poor	\$29,534	\$0	34.9%	\$1,692	\$7,599
<b>CRV</b>	<b>DMB</b>	<b>EXCESS</b>	<b>FCI</b>	<b>RATING</b>	<b>DMB</b>	<b>EXCESS</b>	<b>FCI</b>	<b>\$/YR MAINTAIN</b>	<b>\$/YR REDUCE</b>



## Deferred Maintenance Detail Report - Health and Fitness Center

<b>Campus:</b>	Main	<b>Use Types:</b>	<b>Notes:</b>
<b>Bldg. No.:</b>	HFC (025)	5% Administrative Offices	
<b>Building:</b>	Health & Fitness Center	2% conference	
<b>Area (s.f.):</b>	76,831	10% Mechanical	
<b>Year Built:</b>	2007		
<b>Floors:</b>			

Components	CRV of Component		% of Component Requiring Repair/Replace in:				Notes:
	%	\$	0-1 Yr	2022 Cost	2-5 Yrs	2023-26 Cost	
Structure	17%	\$4,989,911	0	\$0	5	\$249,496	Precast concrete bowing, cracking. Repairs have been addressed
Roof	7%	\$2,054,669	0.4	\$8,219	0.6	\$12,328	No reported problems.
Glazing	5%	\$1,467,621	1	\$14,676	4	\$58,705	No reported problems.
Cladding	7%	\$2,054,669	0	\$0	1.5	\$30,820	Exterior brick showing signs of cracking and movement.
HVAC	16%	\$4,696,387	0.5	\$23,482	3	\$140,892	ERU # 3 motor scheduled for replacement. Possible ductwork rusting issues being investigated.
Plumbing	8%	\$2,348,193	3.5	\$82,187	7	\$164,374	Steam generators for steam room need to be replaced. Pool sand filters need to be replaced.
Primary/Secondary	5%	\$1,467,621	1	\$14,676	5	\$73,381	No reported problems.
Distribution	4%	\$1,174,097	0.5	\$5,870	5	\$58,705	No reported problems.
Lighting	4%	\$1,174,097	8	\$93,928	5	\$58,705	Minor problems addressed with upgrades of LED lighting in majority of spaces and new lighting over front desk area.
Voice/Data	1%	\$293,524	1	\$2,935	0	\$0	No reported problems.
Ceilings	2%	\$587,048	1	\$5,870	3	\$17,611	Minor problems reported.
Walls	2%	\$587,048	3	\$17,611	5	\$29,352	Minor problems reported.
Doors	3%	\$880,572	1	\$8,806	2	\$17,611	Door hardware needs to be upgraded including all door cyclinder cores. Locker room locks upgraded to better design.
Floors	2%	\$587,048	5	\$29,352	40	\$234,819	Carpet on 2nd floor replaced in 2017; fitness floor carpet replaced in 2016; locker room carpet replaced in 2017.
Bldg., Fire, ADA, Elevator	4%	\$1,174,097	0	\$0	2	\$23,482	No reported problems.
Pool Equipment	10%	\$2,935,242	10	\$293,524	15	\$440,286	The TMI water balance control unit scheduled to be replaced in 5 year plan. Family locker room showers were renovated. Pool handrails need to be replaced. Trench drains need to be replaced. Therapy and lap pools both resurfaced. Womens, Mens and Co-Ed spas all reconstructed.
Immed. Site, Ext. Ltg., etc.	3%	\$880,572	1	\$8,806	10	\$88,057	Platform tennis deck surface needs to be refinished.

<b>CRV Totals:</b>	<b>100%</b>	<b>\$29,352,416</b>		<b>\$609,943</b>		<b>\$1,698,624</b>	
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First Year Data					Five Year Data				
\$29,352,416	\$609,943	(\$857,678)	2.1%	Good	\$2,308,568	\$840,947	7.9%	\$587,048	\$1,048,761.82
<b>CRV</b>	<b>DMB</b>	<b>EXCESS</b>	<b>FCI</b>	<b>RATING</b>	<b>DMB</b>	<b>EXCESS</b>	<b>FCI</b>	<b>\$/YR MAINTAIN</b>	<b>\$/YR REDUCE</b>

**Deferred Maintenance Detail Report - Henry S. Landau Skilled Trades Building**

<b>Campus:</b>	Main	<b>Use Types:</b>	100% Vo/tech	<b>Notes:</b>	Major Renovations: Capital Outlay project completed: October 2011
<b>Bldg. No.:</b>	HL (028)				
<b>Building:</b>	Henry S. Landau Skilled Trades Building				
<b>Area(s.f.):</b>	7,362				
<b>Year Built:</b>	2012				
<b>Floors:</b>	1				

Components	CRV of Component		% of Component Requiring Repair/Replace in:				Notes:
	%	\$	0-1 Yr	2022 Cost	2-5 Yrs	2023-26 Cost	
Structure	19%	\$277,537	0	\$0	0	\$0	No reported problems.
Roof	13%	\$189,894	2	\$3,798	25	\$47,473	No reported problems.
Glazing	2%	\$29,214	0	\$0	5	\$1,461	No reported problems.
Cladding	15%	\$219,108	0	\$0	2	\$4,382	No reported problems.
HVAC	15%	\$219,108	2	\$4,382	8	\$17,529	Dust collection system is due for an overhaul.
Plumbing	4%	\$58,429	1	\$584	0	\$0	No reported problems.
Primary/Secondary	2%	\$29,214	0	\$0	0	\$0	No reported problems.
Distribution	4%	\$58,429	0	\$0	0	\$0	No reported problems.
Lighting	4%	\$58,429	3	\$1,753	20	\$11,686	No reported problems.
Voice/Data	2%	\$29,214	0	\$0	0	\$0	No reported problems.
Ceilings	1%	\$14,607	0	\$0	2	\$292	No reported problems.
Walls	4%	\$58,429	0	\$0	2	\$1,169	No reported problems.
Doors	4%	\$58,429	2	\$1,169	2	\$1,169	Door hardware needs to be upgraded.
Floors	4%	\$58,429	2	\$1,169	2	\$1,169	No reported problems.
Bldg., Fire, ADA, Elevator	4%	\$58,429	0	\$0	0	\$0	No reported problems.
Immed. Site, Ext. Ltg., etc.	3%	\$43,822	1	\$438	2	\$876	No reported problems.
<b>CRV Totals:</b>	<b>100%</b>	<b>\$1,460,723</b>		<b>\$13,293</b>		<b>\$87,205</b>	

First Year Data					Five Year Data				
\$1,460,723	\$13,293	(\$59,744)	0.9%	Good	\$100,498	\$27,462	6.9%	\$29,214	\$49,314
<b>CRV</b>	<b>DMB</b>	<b>EXCESS</b>	<b>FCI</b>	<b>RATING</b>	<b>DMB</b>	<b>EXCESS</b>	<b>FCI</b>	<b>\$/YR MAINTAIN</b>	<b>\$/YR REDUCE</b>

## Deferred Maintenance Detail Report - Maintenance Building

<b>Campus:</b>	Main	<b>Use Types:</b>	100% Maintenance	<b>Notes:</b>	With mezzanine above east half of building and a 5-door garage addition at west end.
<b>Bldg. No.:</b>	MB (012)				
<b>Building:</b>	Maintenance Building				
<b>Area (s.f.):</b>	15,356				
<b>Year Built:</b>	1992				
<b>Floors:</b>	1				

Components	CRV of Component		% of Component Requiring Repair/Replace in:				Notes:
	%	\$	0-1Yr	2022 Cost	2-5 Yrs	2023-26 Cost	
Structure	20%	\$329,746	5	\$16,487	15	\$49,462	Rusting at bases of steel columns at salt storage area.
Roof	10%	\$164,873	1	\$1,649	10	\$16,487	Minor leaks in some areas.
Glazing	0%	\$0	0	\$0	0	\$0	None
Cladding	10%	\$164,873	15	\$24,731	30	\$49,462	Rusting around various area of building perimeter at base.
HVAC	15%	\$247,309	3	\$7,419	10	\$24,731	HVAC units need to be replaced. Should be moved to centralized rooftop unit. BAS should be included.
Plumbing	9%	\$148,386	15	\$22,258	25	\$37,096	Sanitary sewer drains, trench drains and oil interceptor replaced in 2018.
Primary/Secondary	6%	\$98,924	5	\$4,946	50	\$49,462	Primary: none. Secondary: no reported problems. Three phase power should be installed.
Distribution	5%	\$82,436	20	\$16,487	50	\$41,218	Electrical service needs to be upgraded
Lighting	5%	\$82,436	20	\$16,487	25	\$20,609	Lighting upgraded to LED in unconditioned storage in 2016 and mechanics area in 2012.
Voice/Data	2%	\$32,975	0	\$0	0	\$0	No reported problems.
Ceilings	0%	\$0	0	\$0	0	\$0	None
Walls	4%	\$65,949	10	\$6,595	25	\$16,487	No reported problems.
Doors	4%	\$65,949	20	\$13,190	30	\$19,785	Exterior doors don't align properly and bind. Door to salt storage area rusting, won't close completely. Doors and hardware need to be upgraded including all door cyclinder cores.
Floors	4%	\$65,949	15	\$9,892	50	\$32,975	No reported problems.
Bldg., Fire, ADA, Elevator	4%	\$65,949	20	\$13,190	25	\$16,487	No reported problems.
Immed. Site, Ext. Ltg., etc.	2%	\$32,975	25	\$8,244	50	\$16,487	No reported problems.
<b>CRV Totals:</b>	<b>100%</b>	<b>\$1,648,729</b>		<b>\$161,575</b>		<b>\$390,749</b>	

First Year Data					Five Year Data				
\$1,648,729	\$161,575	\$79,139	9.8%	Fair	\$552,324	\$469,888	33.5%	\$32,975	\$143,439
<b>CRV</b>	<b>DMB</b>	<b>EXCESS</b>	<b>FCI</b>	<b>RATING</b>	<b>DMB</b>	<b>EXCESS</b>	<b>FCI</b>	<b>\$/YR MAINTAIN</b>	<b>\$/YR REDUCE</b>

## Deferred Maintenance Detail Report - Morris Lawrence Building

<b>Campus:</b>	Main	<b>Use Types:</b>	<b>Notes:</b>
<b>Bldg. No.:</b>	ML (011)	10% Administration	Original building, with 2 additions. A 1,365 s.f. storage addition was completed in 2013.
<b>Building:</b>	Morris Lawrence	40% Auditorium	
<b>Area (s.f.):</b>	72,789	50% Classroom	
<b>Year Built:</b>	1990		
<b>Floors:</b>	1		

Components	CRV of Component		% of Component Requiring Repair/Replace in:				Notes:
	%	\$	0-1 Yr	2022 Cost	2-5 Yrs	2023-26 Cost	
Structure	18%	\$4,985,845	2.5	\$124,646	25	\$1,246,461	Cracks in concrete and block walls possibly caused by settlement. Exposed structural steel under skylight at each entrance is rusting, needs to be repainted. Exterior columns at each entrance, some cracking, efflorescence on brick surfaces. Rust from rebar showing through exposed beams at each entrance. Slabs in mechanical room don't slope to drain.
Roof	7%	\$1,938,940	5	\$96,947	1	\$19,389	Original roof was replaced in 2005. Firing range roof needs to be replaced. Flashing needs to be replaced.
Glazing	5%	\$1,384,957	0	\$0	37	\$512,434	North curtain wall, K-wall skylight system and glazing along northeast corner of building scheduled for replacement beginning in Fall 2021.
Cladding	7%	\$1,938,940	0	\$0	15	\$290,841	Precast/brick. Water is getting into cavity between brick and block, possibly through wind driven rain through roof flashing, or other openings, and not weeping back out causing efflorescence in some areas and potential mold.
HVAC	16%	\$4,431,862	70	\$3,102,304	1	\$44,319	Original boilers were replaced with three new condensing boilers. Firing range equipment upgraded from AHU to ERU. All remaining AHU's will be replaced during renovations beginning in Fall of 2021. Chillers were replaced in 2016. Room supply boxes and controls will be upgraded during same renovation.
Plumbing	8%	\$2,215,931	1	\$22,159	8	\$177,274	Plumbing infrastructure will be replaced during renovation beginning in Fall of 2021. Water softener is scheduled to be replaced in 5 year plan.
Primary/Secondary	5%	\$1,384,957	1	\$13,850	60	\$830,974	Primary: power supply is adequate. One transformer replaced recently. Secondary: no identified issues.
Distribution	4%	\$1,107,966	0	\$0	0	\$0	Not enough power to seminar rooms, conference and lobby space. Seminar rooms will have upgrades to power during renovations.
Lighting	4%	\$1,107,966	1	\$11,080	35	\$387,788	Original. Conversion to LED in Towsley Auditorium. Canned track lighting fixtures upgraded to LED lamps. Energy efficient lighting will be included in renovation.
Voice/Data	4%	\$1,107,966	0.5	\$5,540	2	\$22,159	No identified issues.
Ceilings	4%	\$1,107,966	0.5	\$5,540	2	\$22,159	Suspended lay-in and gypsum board ceiling show minor damage from previous leaking through roof flashing.
Walls	4%	\$1,107,966	2	\$22,159	85	\$941,771	Vinyl wall covering recently replaced in some areas with Acrovyn wall covering.

## Deferred Maintenance Detail Report - Morris Lawrence Building

<b>Campus:</b>	Main	<b>Use Types:</b>	<b>Notes:</b>
<b>Bldg. No.:</b>	ML1 (011)	10% Administration	Original building, with 2 additions. A 1,365 s.f. storage addition was completed in 2013.
<b>Building:</b>	Morris Lawrence	40% Auditorium	
<b>Area (s.f.):</b>	72,789	50% Classroom	
<b>Year Built:</b>	1990		
<b>Floors:</b>	1		

Components	CRV of Component		% of Component Requiring Repair/Replace in:				Notes:
	%	\$	0-1 Yr	2022 Cost	2-5 Yrs	2023-26 Cost	
Doors	3%	\$830,974	2	\$16,619	15	\$124,646	Exterior door hardware wearing out needing more maintenance. Door hardware needs to be upgraded. Main sliding entrance doors are scheduled to be replaced. Interior doors have lock hardware assembly failures.
Bldg., Fire, ADA, Elevator	4%	\$1,107,966	1	\$11,080	1	\$11,080	Door hardware has knobs instead of lever handles. Building fully sprinkled. Fire alarm system is combination of new and existing.
Immed. Site, Ext. Ltg., etc.	3%	\$830,974	27	\$224,363	10	\$83,097	Exterior pavement at east entrance heaved up; holding water at entrance doors; potential tripping hazard.
<b>CRV Totals:</b>	<b>99%</b>	<b>\$27,422,148</b>		<b>\$3,672,906</b>		<b>\$4,714,393</b>	

First Year Data					Five Year Data				
CRV	DMB	EXCESS	FCI	RATING	DMB	EXCESS	FCI	\$/YR MAINTAIN	\$/YR REDUCE
\$27,699,139	\$3,672,906	\$2,287,949	13.3%	Poor	\$8,387,299	\$7,002,342	30.3%	\$553,983	\$2,231,443

## Deferred Maintenance Detail Report - Motorcycle Storage

<b>Campus:</b>	Main	<b>Use Types:</b>	<b>Notes:</b>
<b>Bldg. No.:</b>	MS (026)	100% Storage	
<b>Building:</b>	Motorcycle Storage		
<b>Area (s.f.):</b>	871		
<b>Year Built:</b>	2008		
<b>Floors:</b>	1		

Components	CRV of Component		% of Component Requiring Repair/Replace in:				Notes:
	%	\$	0-1 Yr	2022 Cost	2-5 Yrs	2023-26 Cost	
Structure	27%	\$35,274	2	\$705	10	\$3,527	No reported problems.
Roof	27%	\$35,274	2	\$705	5	\$1,764	Asphalt shingles, no reported problems.
Glazing	0%	\$0	0	\$0	0	\$0	None
Cladding	27%	\$35,274	3	\$1,058	5	\$1,764	
HVAC	0%	\$0	0	\$0	0	\$0	None
Plumbing	0%	\$0	0	\$0	0	\$0	None
Primary/Secondary	3%	\$3,919	0	\$0	0	\$0	Primary: none. Secondary: Minimal, no reported problems.
Distribution	3%	\$3,919	0	\$0	2	\$78	
Lighting	3%	\$3,919	15	\$588	0	\$0	Interior lighting is needed.
Voice/Data	0%	\$0	0	\$0	0	\$0	None
Ceilings	0%	\$0	0	\$0	0	\$0	None
Walls	0%	\$0	0	\$0	0	\$0	No interior partitions.
Doors	10%	\$13,064	2	\$261	5	\$653	Pedestrian and overhead door, no reported problems.
Floors	0%	\$0	0	\$0	0	\$0	
Bldg., Fire, ADA, Elevator	0%	\$0	0	\$0	0	\$0	None
Immed. Site, Ext. Ltg., etc.	0%	\$0	10	\$0	10	\$0	None
<b>CRV Totals:</b>	<b>100%</b>	<b>\$130,644</b>		<b>\$3,318</b>		<b>\$7,786</b>	

First Year Data					Five Year Data				
\$130,644	\$3,318	(\$3,214)	2.5%	Good	\$11,105	\$4,573	8.5%	\$2,613	\$4,834
<b>CRV</b>	<b>DMB</b>	<b>EXCESS</b>	<b>FCI</b>	<b>RATING</b>	<b>DMB</b>	<b>EXCESS</b>	<b>FCI</b>	<b>\$/YR MAINTAIN</b>	<b>\$/YR REDUCE</b>

**Deferred Maintenance Detail Report - Larry L. Whitworth Occupational Education Building**

<b>Campus:</b>	Main	<b>Use Types:</b>		<b>Notes:</b>	
<b>Bldg. No.:</b>	OE (007)		10% Administration		With partial mezzanine, with Auto Service addition.
<b>Building:</b>	Occupational Education		40% Vo/tech		Major Renovations completed October 2011.
<b>Area (s.f.):</b>	136,432		50% Classroom		
<b>Year Built:</b>	1980				
<b>Floors:</b>	1				

Components	CRV of Component		% of Component Requiring Repair/Replace in:				Notes:
	%	\$	0-1 Yr	2022 Cost	2-5 Yrs	2023-26 Cost	
Structure	20%	\$6,479,536	5	\$323,977	0	\$0	Some cracking of steps due to settlement, repairs are funded.
Roof	5%	\$1,619,884	0	\$0	0.5	\$8,099	No reported problems.
Glazing	3%	\$971,930	4	\$38,877	3	\$29,158	Some minimal moisture/air penetration through original glazing mostly at southwest corner of building. The windows need to be replaced.
Cladding	7%	\$2,267,837	3	\$68,035	2	\$45,357	Brick and precast. Brick cladding was spalling at face. Recent repairs include brick replacement and tuck pointing.
HVAC	16%	\$5,183,628	5	\$259,181	15	\$777,544	New Energy Recovery Units installed in penthouse of original (1981) building. AHU's in auto demo labs, auto mechanical and body are scheduled for replacement in the 5 year plan.
Plumbing	9%	\$2,915,791	1	\$29,158	4	\$116,632	Solar panels and related hot water storage tank needs to be repaired.
Primary/Secondary	6%	\$1,943,861	2	\$38,877	0	\$0	No reported problems.
Distribution	4%	\$1,295,907	1	\$12,959	3	\$38,877	No reported problems.
Lighting	4%	\$1,295,907	4	\$51,836	15	\$194,386	No reported problems.
Voice/Data	3%	\$971,930	1	\$9,719	0	\$0	No reported problems.
Ceilings	4%	\$1,295,907	1	\$12,959	2	\$25,918	No reported problems.
Walls	5%	\$1,619,884	2	\$32,398	10	\$161,988	No reported problems.
Doors	3%	\$971,930	0.5	\$4,860	4	\$38,877	Exterior doors: some hardware deterioration. Door hardware needs to be upgraded. Interior doors: all wood doors have been replaced with hollow metal doors with faux wood finish. Overhead doors in Auto Center need to be replaced.
Floors	4%	\$1,295,907	2	\$25,918	3	\$38,877	Most floor are VCT and epoxy, offices are carpet. Concrete flooring in Auto Center and mechanical rooms have been upgraded to epoxy coatings.
Bldg., Fire, ADA, Elevator	4%	\$1,295,907	2	\$25,918	2	\$25,918	Toilets have been upgraded to meet intent of ADA. Door hardware is not ADA compliant. Building is 100% sprinkled. Fire alarm system is up to date with strobes, pulls and duct detectors.
Immed. Site, Ext. Ltg., etc.	3%	\$971,930	2	\$19,439	3	\$29,158	North entrance concrete has been replaced and low course of brick replaced as needed and tuck pointed.
<b>CRV Totals:</b>	<b>100%</b>	<b>\$32,397,678</b>		<b>\$954,112</b>		<b>\$1,530,790</b>	

First Year Data					Five Year Data				
CRV	DMB	EXCESS	FCI	RATING	DMB	EXCESS	FCI	\$/YR MAINTAIN	\$/YR REDUCE
\$32,397,678	\$954,112	(\$665,772)	2.9%	Good	\$2,484,902	\$865,018	7.7%	\$647,954	\$1,144,934

### Deferred Maintenance Detail Report - Parking Structure

<b>Campus:</b>	Main	<b>Use Types:</b>		<b>Notes:</b>	
<b>Bldg. No.:</b>	PS (029)		3% Administration		
<b>Building:</b>	Parking Structure		97% Parking		Opened January 2012
<b>Area (s.f.):</b>	167,303				
<b>Year Built:</b>	2012				
<b>Floors:</b>	4				

Components	CRV of Component		% of Component Requiring Repair/Replace in:				Notes:
	%	\$	0-1 Yr	2022 Cost	2-5 Yrs	2023-26 Cost	
Structure	70%	\$13,496,700	0.5	\$67,484	1.5	\$202,451	5 year maintenance overhaul performed by qualified contractor as prescribed by architect.
Roof	2%	\$385,620	5	\$19,281	20	\$77,124	Leaking issue in Public Safety vegetative roof.
Glazing	1%	\$192,810	0	\$0	5	\$9,641	No reported problems.
Cladding	7%	\$1,349,670	2	\$26,993	5	\$67,484	No reported problems.
HVAC	5%	\$964,050	2	\$19,281	20	\$192,810	Minor air flow and temperature issues reported.
Plumbing	1%	\$192,810	1	\$1,928	15	\$28,922	Some toilet drainage reported.
Primary/Secondary	3%	\$578,430	1	\$5,784	0	\$0	No reported problems.
Distribution	1%	\$192,810	0	\$0	0	\$0	No reported problems.
Lighting	2%	\$385,620	5	\$19,281	20	\$77,124	Multiple LED fixtures have to be replaced due to fixture mounted occupancy sensor issues.
Voice/Data	1%	\$192,810	0	\$0	0	\$0	No reported problems.
Ceilings	1%	\$192,810	0	\$0	0	\$0	No reported problems.
Walls	1%	\$192,810	0	\$0	0	\$0	No reported problems.
Doors	1%	\$192,810	3	\$5,784	10	\$19,281	No reported problems.
Floors	1%	\$192,810	5	\$9,641	5	\$9,641	Some deterioration of deck waterproofing over occupied areas needs to be replaced. Corrected during 5 year matenance repairs.
Bldg., Fire, ADA, Elevator	1%	\$192,810	0	\$0	25	\$48,203	No reported problems.
Immed. Site, Ext. Ltg., Security cameras, etc.	2%	\$385,620	5	\$19,281	5	\$19,281	No reported problems.

<b>CRV Totals:</b>	<b>100%</b>	<b>\$19,281,000</b>		<b>\$194,738</b>		<b>\$751,959</b>	
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First Year Data					Five Year Data				
\$19,281,000	\$194,738	(\$769,312)	1.0%	Good	\$946,697	(\$17,353)	4.9%	\$385,620	\$574,959
<b>CRV</b>	<b>DMB</b>	<b>EXCESS</b>	<b>FCI</b>	<b>RATING</b>	<b>DMB</b>	<b>EXCESS</b>	<b>FCI</b>	<b>\$/YR MAINTAIN</b>	<b>\$/YR REDUCE</b>



### Deferred Maintenance Detail Report - Plant Operations Building

<b>Campus:</b>	Main	<b>Use Types:</b>	Notes:
<b>Bldg. No.:</b>	DF (008)	100% Administration	
<b>Building:</b>	Damon B. Flowers		
<b>Area (s.f.):</b>	7,368		
<b>Year Built:</b>	1983		
<b>Floors:</b>	1		

Components	CRV of Component		% of Component Requiring Repair/Replace in:				Notes:
	%	\$	0-1 Yr	2022 Cost	2-5 Yrs	2023-26 Cost	
Structure	20%	\$331,406	4	\$13,256	20	\$66,281	Suspected settlement causing cracking to walls and floor at locker/lounge end of building.
Roof	5%	\$82,852	2	\$1,657	10	\$8,285	Roofing, flashing, fascia, and soffit replaced in 2016.
Glazing	2%	\$33,141	5	\$1,657	2	\$663	No reported problems.
Cladding	6%	\$99,422	5	\$4,971	2	\$1,988	Exterior brick had issue with spauling of face. Recent repairs corrected issue with brick replacement and tuck pointing.
HVAC	24%	\$397,688	8	\$31,815	10	\$39,769	Six of the seven air handling units were replaced in 2002. Restroom/lockerroom HVAC unit replaced, duct detectors replaced on remaining units. Telecommunication closet not air conditioned, Overheating of equipment potentially will reduce equipment life.
Plumbing	9%	\$149,133	7	\$10,439	3	\$4,474	Water heater replaced with properly sized unit.
Primary/Secondary	6%	\$99,422	3	\$2,983	20	\$19,884	Primary: original, still working ok, but undersize required for present operations. Secondary: no reported problems.
Distribution	3%	\$49,711	3	\$1,491	3	\$1,491	Panels upgraded in 2014 with Square D.
Lighting	5%	\$82,852	4	\$3,314	2	\$1,657	Original, no reported problems.
Voice/Data	3%	\$49,711	0	\$0	0	\$0	No reported problems except for non air-conditioned telecommunication closet causing premature wear.
Ceilings	4%	\$66,281	3	\$1,988	1	\$663	No reported problems. Ceiling access panels added for equipment accessibility
Walls	3%	\$49,711	2	\$994	1	\$497	Gypsum board on metal stud. No reported problems.
Doors	2%	\$33,141	4	\$1,326	3	\$994	Exterior galvanized steel doors are corroded from salt and weather. Door hardware to 8 doors require upgrading to lever style handle.
Floors	4%	\$66,281	10	\$6,628	60	\$39,769	Carpet and VCT in most areas has no reported problems. VCT in restroom is worn and should be replaced. Carpet should be replaced in Small Business offices.
Bldg., Fire, ADA, Elevator	1%	\$16,570	4	\$663	0	\$0	Hardware to 8 doors remains as type style with plans upgrade. No sprinkler system in building. Fire alarm system has been upgraded with strobes and horns.
Immed. Site, Ext. Ltg., etc.	3%	\$49,711	5	\$2,486	2	\$994	Wall pack lighting replaced. The Building's sanitary sewer line and manhole need to be repaired.
<b>CRV Totals:</b>	<b>100%</b>	<b>\$1,657,032</b>		<b>\$85,669</b>		<b>\$187,410</b>	

First Year Data					Five Year Data				
\$1,657,032	\$85,669	\$2,817	5.2%	Fair	\$273,079	\$190,227	16.5%	\$33,141	\$87,756
<b>CRV</b>	<b>DMB</b>	<b>EXCESS</b>	<b>FCI</b>	<b>RATING</b>	<b>DMB</b>	<b>EXCESS</b>	<b>FCI</b>	<b>\$/YR MAINTAIN</b>	<b>\$/YR REDUCE</b>

## Deferred Maintenance Detail Report - Pump House

<b>Campus:</b>	Main	<b>Use Types:</b>	<b>Notes:</b>
<b>Bldg. No.:</b>	CU (015)	100% Utility	
<b>Building:</b>	Campus Utility		
<b>Area (s.f.):</b>	393		
<b>Year Built:</b>	2012		
<b>Floors:</b>	1		

Components	CRV of Component		% of Component Requiring Repair/Replace in:				Notes:
	%	\$	0-1 Yr	2022 Cost	2-5 Yrs	2023-26 Cost	
Structure	15%	\$147,375	0	\$0	1	\$1,474	
Roof	2%	\$19,650	0.5	\$98	2	\$393	
Glazing	0%	\$0		\$0		\$0	No glazing.
Cladding	7%	\$68,775	0	\$0	2	\$1,376	
HVAC	1%	\$9,825	2	\$197	5	\$491	
Plumbing	51%	\$501,075	3	\$15,032	8	\$40,086	
Primary/Secondary	9%	\$88,425	0.5	\$442	3	\$2,653	
Distribution	9%	\$88,425	3	\$2,653	5	\$4,421	Sensitive VFD units susceptible to external electrical surge/sag.
Lighting	1%	\$9,825	3	\$295	1	\$98	
Voice/Data	1%	\$9,825	0	\$0	2	\$197	
Ceilings	0%	\$0	0	\$0		\$0	
Walls	1%	\$9,825	0	\$0	2	\$197	
Doors	1%	\$9,825	0.5	\$49	2	\$197	
Floors	0%	\$0	0	\$0		\$0	Unfinished concrete.
Bldg., Fire, ADA, Elevator	1%	\$9,825	0.5	\$49		\$0	
Immed. Site, Ext. Ltg., etc.	1%	\$9,825		\$0	2	\$197	
<b>CRV Totals:</b>	<b>100%</b>	<b>\$982,500</b>		<b>\$18,815</b>		<b>\$51,778</b>	

First Year Data					Five Year Data				
\$982,500	\$18,815	(\$30,310)	1.9%	Good	\$70,593	\$21,468	7.2%	\$19,650	\$33,769
<b>CRV</b>	<b>DMB</b>	<b>EXCESS</b>	<b>FCI</b>	<b>RATING</b>	<b>DMB</b>	<b>EXCESS</b>	<b>FCI</b>	<b>\$/YR MAINTAIN</b>	<b>\$/YR REDUCE</b>

## Deferred Maintenance Detail Report - Storage and Receiving Building

<b>Campus:</b>	Main	<b>Use Types:</b>	<b>Notes:</b>
<b>Bldg. No.:</b>	SRB (016)	25% Maintenance	With two partial mezzanines.
<b>Building:</b>	Storage & Receiving	75% Storage	
<b>Area (s.f.):</b>	35,172		
<b>Year Built:</b>	1997; 12,000 s.f. addition completed 8/2015		
<b>Floors:</b>	1		

Components	CRV of Component		% of Component Requiring Repair/Replace in:				Notes:
	%	\$	0-1 Yr	2022 Cost	2-5 Yrs	2023-26 Cost	
Structure	20%	\$1,367,411	1	\$13,674	6	\$82,045	Potential settlement at east entry causing cracking. Various area of block wall showing signs of cracking and breaking apart.
Roof	13%	\$888,817	1	\$8,888	4	\$35,553	Gutters along north elevation replaced to match size and grade of addition gutters.
Glazing	1%	\$68,371	0	\$0	0	\$0	Very minimal, no reported problems.
Cladding	15%	\$1,025,558	1	\$10,256	2	\$20,511	Water runoff from roof saturating block walls at various locations, causing minor efflorescence.
HVAC	15%	\$1,025,558	2	\$20,511	3	\$30,767	Two roof top units, controls issues at the addition west unit, one college mounted gas heater, stand-alone heating/cooling unit for office space.
Plumbing	4%	\$273,482	1	\$2,735	2	\$5,470	No reported problems.
Primary/Secondary	3%	\$205,112	1	\$2,051	13	\$26,665	DTE transformer disconnect switch is planned to be installed to allow for routine electrical switchgear maintenance.
Distribution	4%	\$273,482	2	\$5,470	1	\$2,735	No reported problems.
Lighting	4%	\$273,482	2	\$5,470	1	\$2,735	No reported problems.
Voice/Data	2%	\$136,741	0	\$0	0	\$0	Minimal, some data lines damaged, repairs are funded.
Ceilings	0%	\$0	0	\$0	0	\$0	None
Walls	4%	\$273,482	1	\$2,735	1	\$2,735	No reported problems.
Doors	4%	\$273,482	1	\$2,735	1	\$2,735	Door hardware needs to be upgraded including all door cylinder cores.
Floors	4%	\$273,482	2	\$5,470	1	\$2,735	No reported problems.
Bldg., Fire, ADA, Elevator	4%	\$273,482	0	\$0	1	\$2,735	Building is 100% sprinkled. Smoke detectors only.
Immed. Site, Ext. Ltg., etc.	3%	\$205,112	2	\$4,102	3	\$6,153	Exterior concrete stairs in need of replacement.
<b>CRV Totals:</b>	<b>100%</b>	<b>\$6,837,053</b>		<b>\$84,096</b>		<b>\$223,572</b>	

First Year Data					Five Year Data				
\$6,837,053	\$84,096	(\$257,757)	1.2%	Good	\$307,667	(\$34,185)	4.5%	\$136,741	\$198,275
<b>CRV</b>	<b>DMB</b>	<b>EXCESS</b>	<b>FCI</b>	<b>RATING</b>	<b>DMB</b>	<b>EXCESS</b>	<b>FCI</b>	<b>\$/YR MAINTAIN</b>	<b>\$/YR REDUCE</b>

### Deferred Maintenance Detail Report - Student Center Building

<b>Campus:</b>	Main	<b>Use Types:</b>		<b>Notes:</b>	
<b>Bldg. No.:</b>	SC (004)		10% Kitchen/Food Service		With partial basement and penthouse.
<b>Building:</b>	Student Center		20% Student Activities		Minor Renovations in 2003-2004
<b>Area (s.f.):</b>	164,598		25% Classroom		
<b>Year Built:</b>	1976		40% Administration		
<b>Floors:</b>	3		5% Facility Services		

Components	CRV of Component		% of Component Requiring Repair/Replace in:				Notes:
	%	\$	0-1 Yr	2022 Cost	2-5 Yrs	2023-26 Cost	
Structure	19%	\$9,920,524	1	\$99,205	2	\$198,410	Settlement potentially causing cracking at west end of building. Partial basement and tunnel under building. Basement does not leak. Tunnel has some leaking, Possible leak in sanitary line needs to be investigated. Culinary arts reach in and walk in refrigeration in need of replacement. Approximately 50% of reach-in and undercounter refrigeration units have been replaced.
Roof	7%	\$3,654,930	0	\$0	2	\$73,099	Existing single ply EPDM mechanically fastened roof was replaced in 2015 with high albedo EPDM fully adhered roofing membrane.
Glazing	4%	\$2,088,531	1	\$20,885	1	\$20,885	Seals deteriorating. Air infiltration noticed at many windows.
Cladding	7%	\$3,654,930	0	\$0	0	\$0	Cast in place concrete. Some rebar rust showing through wall.
HVAC	16%	\$8,354,125	80	\$6,683,300	3	\$250,624	Eight existing Air Handling units are scheduled to be replaced during major renovation.
Plumbing	6%	\$3,132,797	1	\$31,328	2	\$62,656	Galvanized plumbing 4" and smaller has leaking at joints. Lines 2" and smaller are mostly copper, with no identified issues. Sanitary lines are deteriorating. Fixtures, drip. Fixtures scheduled and funded for replacement on first floor. Sanitary sewer and storm sewers, and drainage system in basement need to be repaired or replaced.
Primary/Secondary	6%	\$3,132,797	1	\$31,328	2	\$62,656	Transformers and electrical switchgear was replaced in 2005.
Distribution	4%	\$2,088,531	0	\$0	5	\$104,427	Walker duct makes retrofitting difficult. Power ok for present.
Lighting	5%	\$2,610,664	1	\$26,107	7	\$182,746	Lighting in stairwells difficult to reach for replacement. Ballasts and lights are original. Lighting in central area of 2nd floor needs to be upgraded. Lighting is being converted to LED with lighting controls within project renovations.
Voice/Data	4%	\$2,088,531	0	\$0	0	\$0	No reported problems.
Ceilings	4%	\$2,088,531	1	\$20,885	1	\$20,885	Most of ceiling space is exposed construction.
Walls	4%	\$2,088,531	1	\$20,885	1	\$20,885	Exposed concrete and drywall. Major areas throughout the building have been painted.
Doors	3%	\$1,566,398	1	\$15,664	1	\$15,664	Exterior glass and aluminum doors, hardware failing. Interior doors hardware mortise locks and lever handles are wearing out. Door hardware needs to be upgraded.
Floors	4%	\$2,088,531	1	\$20,885	7	\$146,197	Ceramic tile on main stairs has popped and been replaced in some areas. Future popping is expected. Tile popping in one men's toilet room. Has been repaired but more popping expected. Carpet should be replaced throughout.
Bldg., Fire, ADA, Elevator	4%	\$2,088,531	1	\$20,885	1	\$20,885	Building is now fully sprinklered
Immed. Site, Ext. Ltg., etc.	3%	\$1,566,398	1	\$15,664	1	\$15,664	Extensive cracking of paving and exterior stairs and caps on concrete site walls. Repairs are funded. Exterior lighting surrounding building has been upgraded to LED.

<b>CRV Totals:</b>	<b>100%</b>	<b>\$52,213,283</b>	<b>\$7,007,023</b>	<b>\$1,195,684</b>
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First Year Data					Five Year Data				
\$52,213,283	\$7,007,023	\$4,396,358	13.4%	Poor	\$8,202,707	\$5,592,043	15.7%	\$1,044,266	\$2,684,807
<b>CRV</b>	<b>DMB</b>	<b>EXCESS</b>	<b>FCI</b>	<b>RATING</b>	<b>DMB</b>	<b>EXCESS</b>	<b>FCI</b>	<b>\$/YR MAINTAIN</b>	<b>\$/YR REDUCE</b>

## Deferred Maintenance Detail Report - Technical and Industrial Building

<b>Campus:</b>	Main	<b>Use Types:</b>	<b>Notes:</b>
<b>Bldg. No.:</b>	TI (001)	10% Lab	Minor renovations in 1995, 2001.
<b>Building:</b>	Technical & Industrial	15% Administration	Major renovations in 2008
<b>Area (s.f.):</b>	105,757	35% Vo/tech	
<b>Year Built:</b>	1970	40% Classroom	
<b>Floors:</b>	2		

Components	CRV of Component		% of Component Requiring Repair/Replace in:				Notes:
	%	\$	0-1 Yr	2022 Cost	2-5 Yrs	2023-26 Cost	
Structure	18%	\$5,218,358	2	\$104,367	4	\$208,734	Window sills along east and south elevations are scheduled for replacement.
Roof	6%	\$1,739,453	1	\$17,395	1	\$17,395	No reported problems.
Glazing	5%	\$1,449,544	15	\$217,432	15	\$217,432	Glazing and precast sills are in need of replacement along east and south elevations for 1st and 2nd floor. Storefront entrances replaced at NE and SW entrances in 2017.
Cladding	7%	\$2,029,361	0	\$0	0	\$0	Brick/precast/cast-in-place concrete/block. No reported problems.
HVAC	15%	\$4,348,631	0.5	\$21,743	4	\$173,945	Exhaust system required for ceramics lab
Plumbing	8%	\$2,319,270	1	\$23,193	2	\$46,385	No reported problems.
Primary/Secondary	5%	\$1,449,544	0	\$0	1	\$14,495	No reported problems.
Distribution	4%	\$1,159,635	10	\$115,964	3.5	\$40,587	No reported problems.
Lighting	4%	\$1,159,635	2	\$23,193	5	\$57,982	Lay in ceiling fixtures were upgraded in 2016 to LED with light harvesting features.
Voice/Data	4%	\$1,159,635	0	\$0	0	\$0	
Ceilings	4%	\$1,159,635	0	\$0	1	\$11,596	Ceiling staining occurring from HVAC leakage issues.
Walls	5%	\$1,449,544	10	\$144,954	8	\$115,964	
Doors	3%	\$869,726	0	\$0	5	\$43,486	Interior doors: doors ok, hardware is wearing out. Mortise locks and lever handles are failing. Door hardware needs to be upgraded.
Floors	4%	\$1,159,635	1	\$11,596	25	\$289,909	
Bldg., Fire, ADA, Elevator	4%	\$1,159,635	0	\$0	10	\$115,964	Building is fully sprinkled.
Immed. Site, Ext. Ltg., etc.	4%	\$1,159,635	1	\$11,596	15	\$173,945	Some paving heaving on south side of building. Exterior lighting controls upgraded for parking lot and outside lighting.
<b>CRV Totals:</b>	<b>100%</b>	<b>\$28,990,876</b>		<b>\$691,432</b>		<b>\$1,527,819</b>	

First Year Data					Five Year Data				
\$28,990,876	\$691,432	(\$758,111)	2.4%	Good	\$2,219,252	\$769,708	7.7%	\$579,818	\$1,023,668
<b>CRV</b>	<b>DMB</b>	<b>EXCESS</b>	<b>FCI</b>	<b>RATING</b>	<b>DMB</b>	<b>EXCESS</b>	<b>FCI</b>	<b>\$/YR MAINTAIN</b>	<b>\$/YR REDUCE</b>

# SECTION F: Implementation Plan



## Implementation Plan

The Five-Year Capital Outlay Plan should identify the schedule by which the institution proposes to address major capital deficiencies, and:

- a. Prioritize major capital projects requested from the State, including a brief project description and estimated cost, in the format provided. (Adjust previously developed or prior year’s figures utilizing industry standard CPI indexes where appropriate.)**

In light of the current COVID pandemic conditions impacting the State of Michigan and the higher education community, the College is currently reassessing its major capital project needs. However, the \$23 million Center for Success renovation project which the College submitted last year is still relevant and needed to support student, employer and community needs. While the project may need modest adjustments to reflect any impacts that results from the aftermath of the pandemic, the College respectfully requests that the Center for Success project be considered when the State reopens the opportunity to submit funding requests for major capital projects.

- b. If applicable, provide an estimate relative to the institution’s current deferred maintenance backlog. Define the impact of addressing deferred maintenance and structural repairs, including programmatic impact, immediately versus over the next five years.**

Current list includes the following projects. For additional details, please see the deferred maintenance report for the entire College in Section E:

PROJECT DESCRIPTION		BUDGET
BEB	Replace ceramic tile in (4) restrooms	\$ 80,000
BEB	North and South Storefront Replacement	\$ 125,000
BEB	Replace transformers	\$ 75,000
BEB	Lighting Control & LED Lamp Upgrades	\$ 160,000
BEB	Install roof hatch to catwalk	\$ 8,000
Campus	Upgrades to campus elevators	\$ 725,000
Campus	Roof Repairs (Based off of IR Study)	\$ 1,250,000
Campus	Parking Lot Lighting Repairs/Upgrades	\$ 320,000
Campus	Flooring Replacement	\$ 105,000
Campus	Install safety anchors for roof maintenance	\$ 120,000
Campus	Campus-wide Parking Lot replacement	\$ 1,240,000
Campus	Repair concrete sidewalks	\$ 230,000
Campus	Install electrical covers for tunnel cable trays	\$ 22,000
Campus	Repair water leaks in tunnel system	\$ 65,000
Campus	Replace building entry heating units	\$ 240,000
Campus	Upgrade tunnel lighting	\$ 35,000



Campus	Seal and paint all mechanical and electrical area floors	\$ 60,000
Campus	Maintain joint seals, tuck pointing, waterproofing	\$ 100,000
LA	Stairwell Upgrades	\$ 180,000
LA	Install tunnel floor drain at low point	\$ 20,000
LA	Replace corridor tile flooring	\$ 705,000
LA	Upgrade Fire Alarm control panel	\$ 85,000
LA	Upgrade elevator interior	\$ 42,000
EC	Plant Master Controller with isolation valves at each boiler	\$ 95,000
EC	Chiller Plant sumps	\$ 30,000
EC	Refurbish entire plant epoxy floor	\$ 40,000
EC	Upgrade two remaining boiler controls	\$ 140,000
FEB	Replace hot water tanks	\$ 16,000
FEB	Replace wood doors and hardware	\$ 15,000
FEB	Replace lighting	\$ 150,000
GL	Replace lighting in 108 & 112	\$ 45,000
GL	Replace plumbing fixtures	\$ 50,000
GL	Replace HVAC VAV Coils	\$ 40,000
GL	Replace RTU and controls	\$ 200,000
GL	Replace ERU above labs	\$ 230,000
GM	Replace vestibule entrance mat	\$ 15,000
GM	Replace stair tread in stairwell C	\$ 60,000
GM	Controls upgrade to BAS	\$ 170,000
GM	Replace humidification system	\$ 230,000
HFC	Upgrade sewage lift station grinder pumps	\$ 80,000
HFC	Paint exterior concrete surfaces	\$ 75,000
HFC	Install main disconnect for primary service feed	\$ 20,000
HFC	Replace lap pool surge tank	\$ 25,000
HFC	Waterproof Mechanical Penthouse floor	\$ 40,000
HFC	Replace bronze pumps with cast iron pumps	\$ 50,000
HFC	Replace Free Weight 10mm flooring	\$ 50,000
HFC	Chlorine Generator for all bodies of water	\$ 70,000
HFC	Replace wall and edge protection	\$ 15,000
HFC	Replace carpet in offices, conference room and kids area	\$ 46,000
HFC	Walk/Run Track Replacement	\$ 90,000
HFC	Replace Exterior Pole Mounted Lights	\$ 80,000
HFC	Replace Lap Pool Surge Tank	\$ 25,000
MLB	Repair water infiltration into atrium	\$ 85,000
MLB	Replace carpet multiple areas	\$ 350,000
MLB	Upgrade BAS to DDC	\$ 500,000
MLB	Replace aluminum primary feeder wiring	\$ 85,000
MLB	Replace the sliding doors, both entrances	\$ 900,000
MLB	Repair the joint to the precast on the building	\$ 24,000



MLB	Replace lobby flooring	\$ 250,000
MLB	Replace Victaulic piping	\$ 260,000
MLB	Repair foundation leaks in gun range	\$ 85,000
MLB	Install access doors to roof from penthouse	\$ 17,000
MLB	Repair drainage flow for MLB retention pond	\$ 225,000
MLB	Install additional data/voice jacks to mechanical areas	\$ 12,000
MLB	Upgrade lights to LED for overhangs and lobby area	\$ 350,000
MLB	Replace seminar walls	\$ 400,000
MLB	Upgrade VFD controls to BAS	\$ 45,000
MLB	Upgrade building electrical system	\$ 765,000
MLB	Replace windows on northeast elevation	\$ 100,000
MLB	Replace kitchen sanitary line	\$ 60,000
MLB	Replace wood stage flooring	\$ 80,000
MLB	Install access doors to equipment in ceiling	\$ 15,000
MLB	Upgrade plastic drain collars	\$ 8,000
MLB	Replace west landscaping	\$ 80,000
MLB	Repair wall finishes	\$ 75,000
MLB	Replace remaining 4 AHUs	\$ 2,500,000
MLB	Replace skylight	\$ 400,000
MLB	New electronic event directories	\$ 70,000
OE	Repair mechanical room floor	\$ 30,000
OE	Replace B & G pumps	\$ 120,000
OE	Install new 200A Electrical Panel for Adv. Manufacturing	\$ 30,000
OE	Install isolation valves on geothermal system	\$ 15,000
OE	Faculty Pod Renovations	\$ 150,000
OE	Replace Auto Center Demo Lab A/C units	\$ 250,000
OE	Replace Welding Lab dust collection system	\$ 400,000
PO	Install 800A panel for electrical distribution	\$ 15,000
PS	Maintain joints and concrete	\$ 150,000
SC	Replace heating pumps and heat exchangers	\$ 200,000
SC	Repair bonding and grounding issues	\$ 40,000
SC	Replace all AHUs in both penthouses	\$ 4,800,000
SC	Seal penthouse floor	\$ 60,000
SC	Replace cabinet unit heaters including BAS	\$ 200,000
SC	Replace stairwell lighting and staircase	\$ 30,000
SC	Replace second floor HVAC diffusers	\$ 600,000
SC	Install additional HVAC for Data Center	\$ 130,000
SC	Replace B & G pumps	\$ 325,000
SC	Install bird netting around exterior	\$ 15,000
SRB	Install outside main disconnect for primary service feed	\$ 25,000
SRB	Install Paint booth	\$ 15,000
SRB	Install radiant heat panels	\$ 10,000

TI	Elevator repairs	\$ 92,000
TI	Install UPS gear in 1st floor electrical room	\$ 90,000
TI	Provide heating to 2nd floor north hallway	\$ 75,000
TI	Replace all single glazed windows with double pane	\$ 375,000
TI	Replace precast sills on exterior windows	\$ 55,000
TI	Replace drywall exterior soffit	\$ 60,000
TI	Faculty Pod Renovations	\$ 275,000
TI	Repair iron deposits seeping through exterior concrete	\$ 45,000
TI	Replace emergency lighting??	\$ 60,000
TI	Replace air compressor and dryer	\$ 50,000

Deferred maintenance, by definition, is maintenance work that has been backlogged and delayed due to lack of available resources. The impact of delaying these projects will have an immense impact on academic programs. Failures of facility utility systems or building envelope issues could render the space unfit for use for the educational or administrative functions for the short- or long-term, depending on the type of failure, ultimately leading to greater costs to remedy if not addressed.

**c. Include the status of on-going projects financed with State Building Authority resources and explain how completion coincides with the overall Five-Year Capital Outlay Plan.**

The College recently was fortunate to have a \$5.7 million project for the Advanced Transportation Center authorized for construction in Public Act 207 of 2018. The College submitted the schematic design and cost estimate for the project to DTMB and as a result of significantly increased construction costs, the project cost has increased to \$7.9 million. In August 2019, the College requested State approval for this increased project cost, with the College funding the entire incremental cost. In March 2020, Public Act 66 approved the increased ATC project cost of \$7.9 million. Phase 400 project design documents were submitted to DTMB for review and approval. The Advanced Transportation Center project does not impact the College’s deferred maintenance program since it will be new construction. Further, that project also does not impact the capital outlay project for the Center for Student Success that is the subject of this our current capital outlay request.

**d. Identify to the extent possible, a rate of return on planned expenditures. This could be expressed as operational “savings” that a planned capital expenditure would yield in future years.**

Most of the projects described in the implementation plan will have a seven-year payback or less. The mechanical and electrical retrofits will have an immediate operational impact and reduction of operational expenditures.

- e. **Where applicable, consider alternatives to new infrastructure, such as distance learning.**

The College currently offers many distance and blended courses. However, at this time we are not proposing any new construction in this 5-year Capital Outlay Plan.

- f. **Identify a maintenance schedule for major maintenance items in excess of \$1,000,000 for fiscal year 2022 through fiscal year 2026.**

<b>BUILDING</b>	<b>PROJECT</b>	<b>FY COMPLETE</b>	<b>BUDGET</b>
Morris Lawrence Building	Replace 4 AHU Units	2022	\$2,500,000
Student Center Building	Replace 8 AHU Units	2022	\$4,800,000
Campus-Wide	Roof Replacements	2023	\$1,250,000
Campus-Wide	Resurface Parking Lots	2026	\$1,240,000

- g. **Identify the amount of non-routine maintenance the institution has budgeted for in its current fiscal year and relevant sources of financing.**

The College funded from its General Fund \$1.5 million for non-routine deferred maintenance for FY 2021. The College has and expects to continue to fund on average \$2.5 million/year from its General Fund for non-routine deferred maintenance.