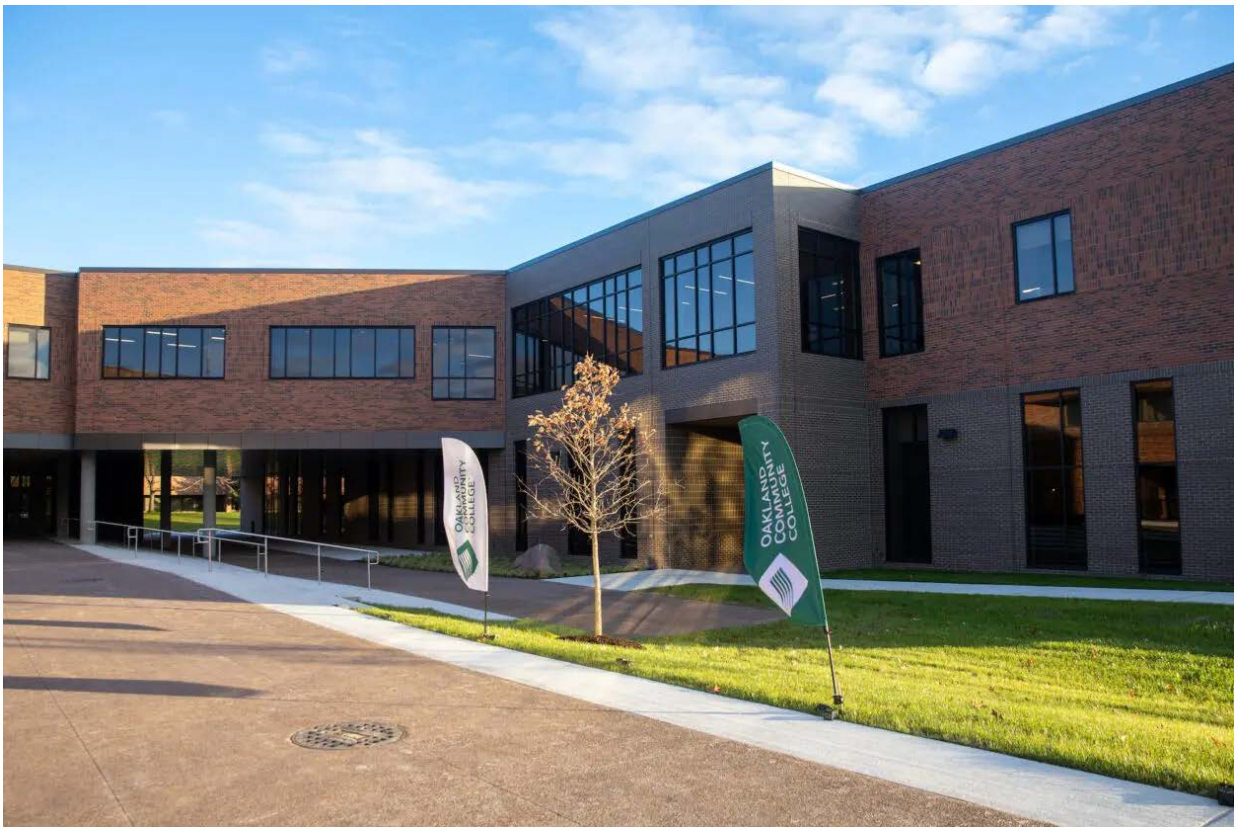
OAKLAND COMMUNITY COLLEGE™

Excellence *Empowered.*™



Five Year Capital Outlay Plan
2026-2030

Section I

Mission Statement

Mission, Values & Vision

Through our six-step integrated strategic planning process, OCC systematically reviews our mission, values, and vision statements. Our current mission, reflective of our stakeholder interests, highlights our commitment to our students and community. Our values demonstrate who we are as an institution, while our vision clearly identifies our desire to be the college, partner and employer of choice.

MISSION

OCC is committed to empowering our students to succeed and advancing our community.

VALUES

- ACCESSIBLE - We welcome people of diverse backgrounds and abilities.
- EXCELLENT - We offer high-quality and relevant educational experiences, and celebrate the accomplishments of our people.
- ETHICAL - We act with respect, integrity, and kindness, and carefully steward the resources entrusted to us.

VISION

EXCELLENCE IN ALL WE DO...

- Become the college of choice.
- Become the partner of choice.
- Become the employer of choice.

Section II

Instructional Programming

Instructional Programming

Academic Programs and Projected Changes

As a comprehensive two-year institution of higher education Oakland Community College (OCC) offers 993 courses and 109 programs in art, business, technology, health, science, humanities, public service and advanced manufacturing. The college is committed to offering high quality curricular programs that meet the needs of the community while preparing individuals for high-wage, high-demand occupations, as well as providing pathways for students who wish to pursue advanced study at a four-year university.

The College employs a system of continual evaluation to ensure curricular offerings align with student interest and community need. In this process, generally referred to as the curriculum life cycle, OCC examines regional labor market and economic trends, including occupational demand compared to skilled worker supply, wage levels, and required level of education among other key factors. The curriculum review process allows the college to rapidly adjust curricular offerings as regional labor market needs shift. Additionally, the curricular review process helps to ensure OCC is offering programs and subjects of study that meet student needs and interest as well as align with local four-year transfer institutions.

Guided by this information along with a comprehensive assessment of physical plant assets, an evaluation of technology infrastructure, and a long-range financial forecast, the college is able to plan for the continual renewal of the curriculum and fulfill its commitment to students and the broader community.

In consideration of upgrading facilities to better serve faculty and students while reducing emergency repairs, maintenance and energy cost, the College has developed a Five Year Capital Plan. This plan considers major capital planning on a college-wide basis. The assessment of existing facilities showed the infrastructure components of many buildings have aged significantly. Despite ongoing maintenance and repair, which in most cases has extended the expected usable life beyond industry standards, OCC is currently faced with a large amount of deferred maintenance needs.

Utilizing the facility needs assessment report provided by the consultants, along with consideration for the programmatic needs of the College community, we have prioritized the major projects and have included them in the budget. Each year, during the budget process the Board will approve the specific project(s) for the following year's budget. During the FY 2019 budget process, Auburn Hills C building was selected as the top priority, for the FY 2020 budget process, the Royal Oak campus planning was selected and for FY 2022, the plans are to design and construct a new Culinary building for the Royal Oak campus. The next capital projects will be strategically chosen based on overall student and community need during the budgeting process for that fiscal year. The FY 2026 Capital Outlay submission, as attached speaks to the renovation and expansion of the Auburn Hills Campus Skilled Trades and Industrial Technology building. The approval of this request will allow OCC to better train the future workforce of Oakland County.

Significant current projects include:

- Auburn Hills campus exterior signage and marquee upgrades
- Orchard Ridge interior hardware upgrade
- Orchard Ridge bldg. M remodel
- Orchard Ridge bldg. L renovation
- Royal Oak Culinary addition

Significant projects in the planning stages include:

- Auburn Hills Bldg. A Skilled Trades and Industrial Technology renovation and expansion
- Auburn Hills CREST addition
- Orchard Ridge bldg. H renovation

Recognizing the importance of a global economy and preparing students to work within a diverse world, the college has established a global literacy endorsement. Students in any program can earn the endorsement by participating in a combination of academic courses, experimental learning experiences, and local events and activities, all with a global focus. The endorsement helps students develop the competencies necessary to see the world from different perspectives, navigate cultural difference with curiosity, empathy, and humility, and develop the knowledge, skills, and attitudes needed to succeed in a connected global world and workplace.

In response to the rapid growth of online education, and in fulfilling our mission, the College adheres to strict standards with regard to distance learning and has been recognized as a Quality Matters institution. Currently, twenty one programs meet the HLC definition of a distance-delivered program where 50% or more of the required courses in the program are offered via distance education.

During the unique challenges posed by COVID-19, the College has quickly adapted to accelerate the process of remote readiness and course development. Increased staffing and support have created a structure to facilitate the growth of remote course delivery required by campus closures. Remote readiness webinars by the Academic Technologies Group (ATG) have combined with dynamic discussion boards and threads to help faculty advance in their pedagogy, advanced remote instructional practices, and nuanced understanding of higher education issues. Plans to blend course options based on pedagogical needs allow for online, remote, hybrid, and in-person delivery are developed as needed. The Online Learning Readiness Course (DIST 1000) prepares students for success in online learning and remote students are encouraged to take part in it as well.

Academic Mission for Degree and Certificate Technical Education

The college's 86 career and technical certificate and degree programs are designed to prepare individuals for entry-level employment or professional certification, as well as prepare students to pursue advanced degrees at a four-year institution. In order to optimize student success in these areas, it's necessary to ensure that the curricular focus of these programs remain aligned with employer needs, accrediting agency requirements and transfer institution expectations.

To this end, the college requires that all degree and certificate programs undergo a comprehensive review once every five years. This internal review process results in a series of action strategies that guide curricular revision, pedagogical modification, capital spending and facility improvement.

Currently 14 career and technical programs are accredited by their professional organization. External validation of OCC's career and technical programs helps to ensure alignment with academic and professional standards that guide the best practices of each profession.

Workforce Development and Continuing Education

As a public community college, a central part of the mission at OCC lies in economic development and community advancement. OCC provides an accessible, affordable way for individuals to further their skills and interests, for businesses to increase the capabilities of their staff, and for the community as a whole to flourish. Programming within Workforce Training is particularly agile and adaptive to the needs of employers, the workforce, community members, and the regional economy.

The staff in Economic and Workforce Development (EWD) work extensively with state and local government, professional organizations, grant programs, and the community to increase the alignment between workforce needs and skilled candidates to meet them. With offices housed at the M-TEC facility, EWD facilitates the successful collaboration among diverse stakeholders in the public and private sectors. They cultivate and sustain the relationships and working partnerships that allow the College to fulfill its role as a trainer and educator, dedicated to lifelong learning and community enrichment.

In recent years, OCC's workforce training has seen significant growth. Annually, over 5,000 individuals benefit from these offerings through Economic and Workforce Development (EWD) and CREST. Our hands-on trainings, often conducted in specialized facilities has been steadily recovering from the pandemic, and demand is expected to continue growing.

Business Services: This area of the college plays a vital role in providing workforce training and education solutions for businesses and industries. We offer contract training and collaborate with OCC to deliver customized programs that meet specific needs.

- *Customized Contract Training*: Includes collaboration with business and industry partners to identify training needs and develop customized educational programming offered in a variety of delivery options. The Going Pro Talent Fund and Michigan New Jobs Training (MNJT) are two current state programs that provide support and funding for these efforts.

- *10,000 Small Businesses*: The Goldman Sachs 10,000 Small Businesses program provides a partnership with colleges to help drive economic growth within small business communities, while providing a curriculum that focuses on applicable skills to develop a strategic and customized growth plan for a business.

- *Talent Development Management and Proposal*: Attraction proposals are created for businesses locating a facility or expanding operations in Oakland County, Michigan, to offer benefits and incentivize business growth in the county. Proposals are developed in conjunction with the Michigan Economic Development Corporation (MEDC), Oakland County and Oakland County Michigan Works!

Short-Term Training Programs: Our cohort-based training programs began with the successful PLC and Robotics Technician Program, which has completed 21 cohorts since its inception through the Advance Michigan Catalyst grant. This program was a collaborative effort involving the WIN (Workforce Intelligence Network) partnership, including ten community colleges and six Michigan Works! Agencies.

In collaboration with Oakland County Michigan Works! EWD had developed the following cohort training programs:

Healthcare: Sterile Processing Technician, Certified Nursing Aide,Patient Care Technician, Mammography Technician

Logistics/Supply Chain: Logistics Technician

Manufacturing/Industrial: CNC Machine Operator, EV Technician, PLC and Robotics Technician, Pre-Apprenticeship - Industrial Technologies

Technology: Computer Support Technician

EWD pursues and coordinates multiple grant programs. Oakland County Michigan Works! is a valued partner to OCC. A $235,000 annual grant has supported a number of services for qualified individuals. Other active grants include a health care consortium grant (Department of Labor, Strengthening Community Colleges) lead by Grand Rapids Community College, the Industry Infinity grant (facilitated by the Workforce Intelligence Network/WIN), the Global Epicenter of Mobility/GEM grant (led by the Detroit Regional Partnership Foundation/DRP) as well as the Mobility Sector thread of the Detroit Drives Degrees Community College Consortium (also DRP lead).

M-TEC Testing Center: Testers come from a broad range of locations and their testing experience can provide them with a positive impression and awareness of OCC. The Center provides HESI (Health Education Systems, Inc.) Testing (entrance exams for specific applicant-based health programs). It also offers test proctoring services for students of other colleges and universities, individuals, businesses and industry, and groups. Finally, the testing center is authorized to administer a very extensive range of professional licensure and certification exams, as well as industry-specific and company-based tests.

Continuing Education focuses on enrichment and personal growth for individuals, offering programming for adult learners at all stages of their lives.

CREST

Extensive training and continuing education opportunities are available via OCC's Combined Regional Emergency Services Training (CREST) center. These programs serve the community by offering access to multiple career training and professional development paths in the police, fire, and EMS fields. The variety and level of trainings provide growth opportunities to a broad range of individuals and agencies, from prospective students wanting to train for a career to seasoned professionals and their agencies. CREST collaborates with over 120 police agencies, fire departments, and educational institutions across the region to help them accelerate their skills and update their abilities, using state of the art facilities, customized off-site training, and interactive, remote learning technology.

CREST's impact extends beyond traditional trainings to include advanced topics and continuing education for working professionals, as well as innovative programs for first responders, 911 dispatch, Reserve Officer Training, and K9 patrol dog trainers and handlers. The CREST facility and specialized equipment are often rented by area agencies, further supporting the area workforce and local collaboration. These diverse training opportunities keep emergency service personnel up-to-date on the latest technology and best practices of their professions. They provide continuous learning and development that improves the safety and success of the region.

In terms of facilities and training delivery, the CREST center is the result of ideas from local Police, Fire and EMS agencies, in collaboration with Oakland Community College. The concept of a training "city" providing realistic settings for real-life problems faced by emergency responders is an innovative outcome of Oakland Community College's more than fifty years' experience in training emergency services personnel. Instructors take critical training subjects from the classroom onto the CREST site, a virtual live lab setting, where scenarios based on real world problems become invaluable learning tools. Basic and advanced emergency services personnel, as well as private industry and civilian organizations benefit from putting theory into practice in a secure setting.

- Police Academy

The Oakland Police Academy, established in 1967, is recognized by the Michigan Commission on Law Enforcement Standards (MCOLES). This recognizes the academy as a regional training academy for cadets, or potential law enforcement officers, in the State of Michigan. It is currently the second largest police academy in the state and offers full and part-time academy options. OCC has a mobile FAAC driving simulator and a VirTra use of force simulator, utilized for basic and advanced academy training. MCOLEs is requiring more reality-based training for cadets and these simulators meet that demand. The Academy collaborates with the Oakland County Tactical Response Consortium (OAKTAC), a county-wide organization of all police entities, to help ensure quality instruction and consistent skill attainment among cadets.

- Fire Academy

Oakland Community College made a significant commitment to fire service training and education in 1990 with the establishment of the Oakland Fire Training Institute. This program offers fire-based degree and certificate programs as well as both initial and advanced training for the fire service, recognized by both state and national accreditation standards. Training includes outdoor spaces at CREST such as a 6-story tower with apartments to simulate building fires, flashover and other burn simulators. Extensive equipment such as class one pumper/tanker fire engine on a commercial chassis was procured as a teaching truck outfitted for the academies and general fire training.

- EMS Program

OCC's EMS (Emergency Medical Services) Programs offers state-approved initial training and continuing education courses from the Emergency First Responder to Paramedic levels.

Students that successfully complete an initial training course and the clinical requirements will be eligible to take the National Registry examination for licensure in the State of Michigan. The Oakland EMS Academy's continuing education classes are offered in both lecture and practical formats, which are compliant with the State of Michigan's continuing education requirements for maintaining licensure.

Community Activities

The college is engaged in community outreach activities that provide resources for students and community members, while helping to determine relevant programming. The College sponsors outreach activities that engage the community in social, cultural and educational enrichment. A sampling of these activities include events sponsored by Workforce Development, Student Life, the Culinary Arts Institute, Athletics and Theatre.

Service Delivery Area

Oakland Community College is a multi-campus, two-year comprehensive institution of higher education serving all of Oakland County. The College opened in September 1965, with a record community college enrollment of 3,860 students on two campuses - Highland Lakes, a renovated hospital in what was Union Lake, and Auburn Hills, a former Army Nike missile site in what was Auburn Heights. In September 1967, the award-winning Orchard Ridge Campus opened. First housed in leased facilities in Oak Park, the Southeast Campus System expanded through the purchase and remodeling of buildings at a second site in Royal Oak. In 1980, the Oak Park facilities were replaced by a new campus in Southfield. The Royal Oak buildings were replaced by a new campus complex which opened in the fall of 1982.

In academic year 2023-24 approximately 81% of students were residents of Oakland County, while the remaining 19% resided outside of the county. The Highland Lakes campus located in Waterford has the highest proportion (82.3%) of in-district students, while the Southfield campus had the highest (28.3%) of out-of-district students.

Partnerships with Intermediate School Districts

Oakland Community College (OCC) has statewide articulation agreements through the Michigan Department of Education for several occupational programs. These agreements offer students the opportunity to earn college credit following successful completion of a state approved career and technical education (CTE) programs while still in high school. In addition, OCC offers traditional Dual Enrollment opportunities to students in grades 9-12.

The Dual Enrollment initiatives at OCC involve a strategic planning approach aimed at achieving a tangible increase in enrollment by the 2024-2025 school year. We've explored various models for forming formal and structured partnerships with our school districts. OCC is actively working on developing specialized options for Oakland County students to access the benefits of dual enrollment in multiple ways. While students have traditionally been able to take classes either in-person or online, we are expanding our offerings to include "on-site" courses, where an OCC instructor visits the high school. The interest in this approach has been quite positive, with strong feedback from those who desire this option.

We've collaborated closely with the Admissions team to enhance awareness of OCC and the advantages of dual enrollment. Recent efforts include our participation in MACRAO-sanctioned college fairs, the introduction of the "Dual Enrollment Navigator" role for counseling and school leadership contacts in Oakland County Schools, and the upcoming Dual Enrollment Information Sessions designed to boost enrollment numbers for the Winter 2024 term. We will continue to collaborate with the Admissions team, especially when dual enrollment information is specifically requested during their visits.

Through the implementation of specialized and targeted proposals, our goal is not only to reinforce existing relationships but also to establish new ones. We're committed to expanding opportunities for dual enrollment and furthering our mission to provide quality education for our students.

Still a more structured college-in-high-school program, referred to as an Early Middle College (EMC), offers students a 13th year of high school while enrolled in multiple courses at OCC. Many EMC students complete their high school diploma and an associate degree at the end of their fifth year in high school. The college has formal agreements with four EMCs including:

- Oakland Early College
- Oakland Accelerated College Experience
- Oakland Technical Early College
- Hazel Park School District

The Oakland Early College is a unique program in that it is physically located on the Orchard Ridge campus which offers a broader college experience than the other programs. Additionally, in recognition of the critical role these programs have on student success the College has hired a Director of Secondary Partnerships who will oversee and coordinate all such programs college-wide.

It's worth noting that the college actively supports the transition from high school to college through partnerships with four Promise Zones, encompassing the Detroit, Hazel Park, Pontiac, and Kalamazoo school districts, as well as Oakland County's opportunity districts in Madison

Heights, Southfield, and Oak Park. Our comprehensive programming fosters college and career awareness, exposure, and preparation. Let's highlight two of our upcoming academic enrichment and college preparation initiatives: Bridges to Success and Bridging the Gap.

Bridges to Success is a three-week summer college readiness program that enables high school students to explore college programs and careers, all while potentially earning up to three college credits. Meanwhile, Bridging the Gap focuses on enhancing academic alignment between higher education and high school-level Math and English. This program equips students from underserved districts to better prepare for college-level math and English, with the added opportunity to earn college credits.

In line with our commitment to reducing equity gaps in both higher education and K-12, we are also dedicated to offering additional, complementary programs for Oakland County districts, such as our upcoming College and Career Exploration Day at our Auburn Hills campus where 125 8th grade students from our targeted districts will have a chance to explore varying OCC programs. These programs include campus tours, college exploration days, informative presentations, and more, all aimed at increasing our visibility and accessibility in the realm of higher education.

Articulation and Partnership Agreements with Four-Year Institutions

The Academic Partnerships department proactively supports all areas of post-secondary transferring from Oakland Community College (OCC) initiatives and is dedicated to reducing, simplifying and streamlining transfer process in a dynamic, creative and constantly evolving environment through internal and external collaboration.

Support and resources are provided to students who desire to continue their educational pursuit with information, empowering them to navigate the often-challenging seas of transfer, thus improving the student experience. Efforts to create transfer opportunities and enhance awareness remains steadfast.

The College has active and collaborative partnerships regionally, statewide and nationally with community colleges and 4-year colleges and universities to enhance awareness, create opportunities and promote successful transfer. These efforts include; institutional partnership agreements, master articulation agreements, articulation agreements, program agreements, pathways agreements, reverse transfer agreements, Michigan Transfer Agreement, MiTransfer Pathways and MiWorkforce Pathways participation, MiTransfer Network, transfer events, transfer resource webpages and more.

Currently, there are approximately 52 transfer-oriented agreements with more than 18 partnering institutions for 75 of the 88 OCC academic degree and certificate programs.

Articulation Agreements

Articulation Agreements assist students who desire to continue their studies and obtain a bachelor’s degree, while saving time and money with a clear roadmap to ensure that the appropriate courses and requirements are completed prior to transfer.

In order to assist students who wish to pursue advanced studies, College has program partnerships with 18 post-secondary institutions representing 75 of the 88 academic degree and certificate program offered. These agreements provide for the smooth transfer of course credits earned at OCC and help students avoid the unnecessary repetition of courses at the four-year institution, with up to 75% of a bachelor's degree requirements completed at OCC prior to transfer. As a result, students are able to complete their advanced study in a more cost effective and timely manner.

MiTransfer Pathways

MiTransfer Pathways are multi-institutional articulation agreements between participating Michigan community colleges and four-year public and independent colleges and universities. The pathways provide guidance about transferring courses in specific academic programs to multiple colleges and universities in Michigan. The pathways are ideal for students who desire a specific bachelor's degree major and are uncertain of which Michigan college/university they desire to attend. OCC has participated in the three pathways phases and the 9 of the 10 program pathways consisting of the most desired and pursued transfer programs including; Art, Biology, Business, Communication, Criminal Justice, Exercise Science, Mechanical Engineering, Psychology, Public Health and Social Work. OCC does not participate in the Public Health Pathway due to not offering applicable courses. Currently there are 35 public and independent four-year institutions participating in at least one of the pathways.

MiWorkforce Pathways

MiWorkforce Pathways are multi-institutional articulation agreements between participating Michigan community colleges and four-year public and independent colleges and universities. The pathways provide guidance about transfer agreements between applied workforce degrees (i.e. A.A.S.) at community colleges and bachelor's degree completion programs at Michigan's public and independent colleges and universities. The bachelor degree fields of completion are in; Applied Business, General Applied Science, Health Care and Information Technology. Overall, these pathways eliminate the individual course-by-course evaluation and accept the program requirements as a whole, thus maximizing the utilization of credits. In total there are three public universities and seven private institutions that are initially participating. OCC will have 42 Associates in Applied Science programs represented in this agreement. Currently, there are nine (9) public and independent four-year institutions participating in at least one pathway.

Michigan Transfer Agreement

Oakland Community College participates in the Michigan Transfer Agreement (MTA). The MTA was designed to facilitate the transfer of general education requirements from one institution to another. Students may complete the MTA as part of an associate's degree, certificate or as a stand-alone package.

Reverse Transfer Agreement

A Reverse Transfer Agreement (RTA) provides an opportunity for former community college students who transfer to a partnering Michigan four-year college or university to apply credits earned at the four-year institution toward an associate degree. Oakland Community College has 10 RTA with colleges and universities throughout the state.

Ongoing communication throughout the year to all regionally accredited four-year colleges and universities in the state (44) has developed and/or enhance transfer opportunities, awareness and institutional relationships. Demonstrating OCC's commitment to exploring, developing and enhancing transfer partnerships.

- Annual emails to the 44, four-year institutions in the state containing the OCC catalog changes in curricula, courses and policies.

- Annually compare OCC course offerings to the Michigan Transfer Network (MTN) to identify OCC courses in need of evaluations for all 15 public and those private colleges and universities located in the greater southeastern region of the state. Email evaluation requests and are accompanied by syllabi are sent. With an additional request of having the evaluation outcomes be posted on the MTN.

- Ongoing emails to the 44, four-year institutions in the state containing examples and best practices have resulted in the development of virtual advisor/counselor updates and the creation of several newsletters keeping advisors/counselors abreast of campus happenings and transfer opportunities.

- Continuous email invitations to the 44, four-year institutions in the state regarding transfer table visits participation and the College Transfer Events webpage content solicitation.

Transfer Table Visits –

In lieu of traditional transfer table visits, OCC is providing opportunities for more targeted, meaningful engagement between its students and partnering four-year institutions. These opportunities include face-to-face and virtual information sessions by four-year institutions as well as by program. OCC's Director of Academic Partnerships will serve as the conduit between OCC students who desire to transfer and four-year institutions. The Director will work to establish engagement opportunities, classroom visits, and information sessions.

OCC Webpages & Links Dedicated to Transfer Success -

- Michigan Transfer Agreement
- Michigan Transfer Network – provides course-by-course transfer evaluations
- MiTransfer Pathways –identified courses for students who know what they want as a major, but are uncertain of where they want to transfer
- MiWorkforce Pathways – AAS program partnerships with multiple four-year institutions
- Questions to Ask Transfer Admissions Representatives
- Transfer Credit Agreements – articulation agreements, added value beyond a transfer guide
- Transfer Credit Agreement Guides – By OCC Program

- Transfer Credit Agreement Guides – By Institution
- Transfer Events – provides four-year campus and virtual opportunities as well as OCC campus
- Transfer Guides
- Transfer Student FAQs
- OCC –WSU Pathways – agreements with multiple OCC programs allowing up to 90 applicable credit hours
- Free Tuition Programs – Michigan Public Universities
- Transferology – provides course evaluations for participating in and out of state institutions

Pre-Transfer Opportunities

- Transfer Bridges
- Michigan-Connect (M-Connect)
- Community College Summer Fellowship Program (CCSFP)
- Pharmacy Community College Connect (PC3)
- Transfer Student Center – University of Michigan, LSA
- Transfer Student Success Center – Wayne State University
- Transfer Table Visits

Unique Transfer Opportunity

- Northwestern Michigan College's Great Lakes Maritime Academy

Post Transfer Opportunities

- Reverse Transfer Agreement – students who left OCC prior to credential attainment
- Albion College Promise
- Alma College Transition Assistance Program
- Pharmacy Scholars Program
- Research Experiences for Undergraduates Program
- Student Transition Enrichment Program
- Guest Student

Additional Resources Employed to Enhance Transfer Opportunity Awareness -

- An OCC internal Academic Partnerships webpage provides transfer initiative updates and resources for staff, faculty and administration

- College Transfer Resources Club
- Transfer Talks – classroom visits providing a quick transfer presentation
- Utilize the OCC Events Calendar, InsideOCC e-newsletter, Student Essentials e-newsletter, SharePoint Online and Campus monitors to promote and enhance awareness of transfer opportunities
- Transfer Jeopardy, Transfer Myths, Opportunities & Understanding, Speed Transfer and Stop & Shop – Ask Your Transfer Questions events

Other Initiatives

OCC serves a large geographic region that is economically, demographically and socially diverse and dynamic. With unemployment at historically low levels prior to the COVID-19 pandemic and a declining high school age population, the College has taken steps to restructure administrative and academic offerings, while implementing new technologies to better serve students and the community. The consolidation of academic programs, centralization and modernization of administrative processes, changes in pedagogy, as well as the formation of public and private partnerships are directly impacting the utilization of facilities college-wide.

Multiple outside organizations have a physical presence at OCC last year. These organizations include:

- Adult Learning Institute (Orchard Ridge)
- Detroit & Hazel Park Promise Zone (Royal Oak/Southfield)
- Ferris State University (Auburn Hills)
- Oakland Early College (Orchard Ridge)

Economic Impact

Like the rest of the country, the onset of the COVID-19 pandemic in March 2020 created a severe economic disruption in the state of Michigan. According from information obtained from the U.S. Bureau of Labor Statistics' website, unemployment in Oakland County reached a pandemic high of 19.9% in April 2020.* Since that time, with the help of federal, state and local stimulus funding, increased virus testing and the introduction of effective vaccines, unemployment rates have improved. In August 2024, the rate of unemployment in Oakland County had dropped to 3.4%. *

Related to available occupations and college programming within our region, the College believes there to be approximately 284,939 projected annual job openings across all occupations and education levels.* When OCC considers the occupations most likely to need a two-year post-secondary education, there are approximately 85,092 job openings projected each year for the next five years in our region. *

OCC currently offers programs with approximately 21,195 job openings in the region. For these occupations, the average of the median wages is $26.02 per hour.

The ten occupations supported by OCC programs (based on the number of projected job openings) included:

1. Medical Assistants
2. General and Operations Managers
3. Bookkeeping, Accounting, and Auditing Clerks
4. Registered Nurses
5. Childcare Workers
6. Medical Secretaries
7. Cooks, Restaurant
8. First-Line Supervisors of Retail Sales Workers
9. Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products
10. Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel

**Data Sources:*

Local Area Unemployment Statistics Map. U.S. Bureau of Labor Statistics. *https://data.bls.gov/lausmap/showMap.jsp;jsessionid=6B2B1C1930DC42161F69AE1A111F6F1A.t3_06v;*

Lightcast™. 2024 https://analyst.lightcast.io/analyst;

OCC Institutional Effectiveness, October, 2024

Prospects for the Future

Since there are approximately 21,195 job openings in the County that relate to programs OCC offers, the College is well positioned to provide training to meet these employment needs. OCC believes the top priorities for meeting community needs include the following 10 programs:

1. Construction Management Professional
2. General Accounting Certificate
3. Business Administration
4. Machine Tool - Numerical Control Technology Certificate
5. Culinary Arts
6. Business Administration-Concentration International Business
7. Early Childhood Education Lead Infant and Toddler Teacher
8. Medical Assisting Certificate
9. Automobile Servicing
10. Oakland Police Academy

Data Source: Lightcast™ . 2024 https://analyst.lightcast.io/analyst ;
OCC Institutional Effectiveness, October, 2024

Section III

Staffing and Enrollment

Staffing and Enrollment

Of the 15,517 students enrolled at OCC during fall 2024, 29.5% are considered full-time (taking 12 or more credit hours), while 48.5% are taking between 5 to 11 credit hours and 22.0% are enrolled in four or fewer credit hours. While the majority of students are part-time, the College seeks to optimize scheduling in an effort to accelerate a student's progress through their program of study. Program courses are scheduled so that full-time students can complete their degree in normal time, while part-time students are able to complete their program in the most expedient time-frame.

A wide variety of programs are offered at each of the College's five campuses. In academic year 2023-24 enrollment was highest at the Auburn Hills campus which offered coursework in 60 subject areas. Enrollment in Computer Information Systems, English, Mathematics, Biology, Business, Oakland Police Academy, Psychology, and Criminal Justice accounted for slightly more than half of total credit hour enrollment in Auburn Hills.

As the College's second largest campus, Orchard Ridge (located in Farmington Hills) offers courses in 41 unique subject areas. During 2023-24, approximately half of total credit hour enrollment was in Computer Information Systems, English, Mathematics, Biology, Business, and Chemistry.

The Royal Oak campus (located in downtown Royal Oak) offers courses in 34 subject areas and is OCC's third largest campus. During 2023-24 half of total credit hour enrollment on the campus was in English, Mathematics, Psychology, Art, Sociology, and Communication.

In 2023-24, the Highland Lakes campus (located in Waterford) offered courses in 28 subject areas which half of total credit hours were represented in Nursing, Biology, English, Mathematics, Psychology, and Business.

The Southfield campus offers course work in 32 subject areas. In 2023-24 credit hour enrollment in four disciplines (Biology, English, Chemistry, and Medical Assisting) comprised nearly half of total enrollment at the campus.

Enrollment Projections

Based on statistical modeling that incorporates past enrollment, the number of high school graduates, the unemployment rate, and student applicant activities, the College is projecting a stabilized enrollment in headcount and a 4.5% increase in credit hour enrollment in academic year 2024-25.

Enrollment Patterns

Between 2021-22 and 2023-24 annual credit hour enrollment increased by 7.4 percent. The increase indicates that the enrollment has recovered from historically low enrollment rates during the COVID-19 pandemic.

In fall 2024 class size averaged 23.3 students which was up slightly from the prior year (23.0).

Instructional Staff/Student and Administrative Staff/Student Ratios

The college employs full-time faculty in all its programs and disciplines in order to maintain the quality of curricular offerings, guide curriculum review and oversee student learning assessment to ensure students are learning at optimal levels.

Projected Staffing Needs

During fall 2024, 1,247 academic, administrative and support staff were employed at OCC. Of these staff:

- 215 were full time and 344 were adjunct faculty.
- 68 administrative and 126 management staff
- 158 classified
- 5 student workers and 70 tutors
- The remaining 261 are comprised of public safety, operating engineers, maintenance and other support staff.

Given current economic and demographic trends in Southeast Michigan, the college anticipates enrollment will recover from its lowest point during the COVID-19 pandemic, though it has not yet returned to pre-pandemic levels. As a result, the college believes that current staffing levels are sufficient and will make adjustments as necessary, based on future conditions.

Average Class Size

Oakland Community College is committed to empowering student success and advancing our community. In part the accomplishment of this mission is achieved by keeping class sizes low (with a maximum of 30 students per section) and reducing enrollment further in select course sections to address high-risk populations, accreditation standards and facilities limitations. Using these enrollment limits is seen in the College's average class size of 23.3 students during academic year 2023-24. Having just reaffirmed this mission, the College plans to continue with these class size targets for the foreseeable future.

Section IV

Facility Assessment

Facility Assessment

A comprehensive facility condition assessment was completed by ISES Corporation in August 2017. This report was performed to accomplish the following objectives:

- Provide an inventory of the college's facilities in a database format to be easily updated and maintained by OCC personnel and allow for quick access to facilities information.
- Determine the condition of the buildings and grounds at OCC and provide the data in a concise format, allowing quick determination of the current replacement value and condition of each facility.
- Determine a Facilities Condition Index (FCI) for each building, each campus and OCC as a whole. The FCI is a benchmark index that rates the condition of existing college buildings and is used by the facilities managers nationwide to quantify and prioritize deferred maintenance projects for capital planning purposes.
- Assist OCC in meeting the goals of its Mission Statement through timely maintenance of the physical backbone of the college – the buildings of OCC.

The following reports (included herein) were prepared by ISES Corporation.

1. ISES Executive Summary – Facility Condition Assessment
    - Identifies the summary condition of each facility
    - Replacement value of existing buildings
    - Utility system conditions

OAKLAND COMMUNITY COLLEGE

Executive Summary

Facility & Utility Condition Assessments

August 2017

ISES CORPORATION

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OVERVIEW

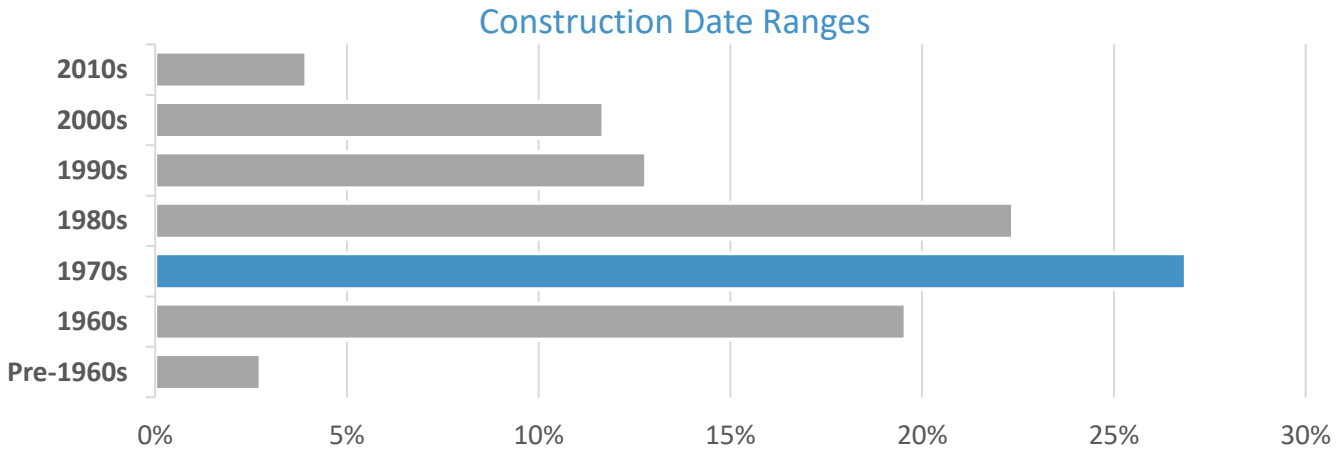
Project Summary

In February and March of 2017, Oakland Community College (OCC) contracted with ISES Corporation to perform comprehensive Facility Condition Assessment (FCA) and Utility Condition Assessment (UCA) services for its Auburn Hills, District Office, Highland Lakes, Orchard Ridge, Royal Oak, and Southfield campuses. The overall FCA effort included 73 buildings encompassing 2.1 million square feet of general education, administrative, infrastructure, athletics, and support space. In addition, 40 utility infrastructure assets were assessed as part of the UCA and include heating and chilled water generation and distribution, high voltage electrical, potable and fire water, and sanitary and stormwater systems. Four additional buildings were also inspected as part of the UCA, bringing the total number of buildings inspected to 77.

Twenty-two percent of the 73 inspected buildings (16) are in below average to poor condition. The average FCNI of these 16 buildings is 0.40, which suggests that there are significant renewal needs in these buildings. Furthermore, the average FCI of these 16 buildings, which is a measure of just Deferred Renewal, is 0.15 and well within the poor rating. The overall FCI for all of the facilities inspected by ISES is 0.07. This means that, beyond just the amount of system renewal needed across the buildings, a significant portion of these systems are considered past due for renewal. It is worth noting that the Facilities Operations department and the Chiefs for the Campus Facility Operations at each campus have done an admirable job of keeping these systems operational. Subsequent sections of this report will define these terms and present the relevant data to help OCC determine where resources are most needed.

Construction Dates

Over 49 percent of the square footage (29 buildings) was built before 1980. The vast majority of these older facilities are located on the Auburn Hills, Highland Lakes, and Orchard Ridge campuses.



Percentages based on square footage

Facility Usage Types

The following table shows the usage types of the inspected buildings.

USAGE TYPE	BUILDING COUNT	SQUARE FOOTAGE	PERCENT OF TOTAL (%)
Classroom/Academic (CL)	23	822,307	38.6
Parking/Garage (PK)	2	330,975	15.5
Laboratory (LB)	7	270,363	12.7
Student Union (SU)	3	186,276	8.7
Office/Administrative (OF)	7	178,845	8.4
Gymnasium/Athletics (GM)	4	152,788	7.2
Library (LY)	2	51,063	2.4
Theater/Auditorium (TH)	2	43,383	2.0
Warehouse/Storage/Utility (WH)	12	34,549	1.6
Retail (RT)	2	32,909	1.5
Shops/Trade (ST)	4	13,272	0.6
Residential/Single Family (RS)	3	6,573	0.3
Child Care (CC)	1	3,491	0.2
Dormitory/Apartments (DM)	1	3,415	0.2
TOTAL	**73**	**2,130,209**	

FCA Inspections

Extensive experience with asset surveys has led ISES to develop a standardized system of data collection that efficiently and effectively utilizes the time spent in each building. Each asset was inspected by a two-person team, which consisted of experienced architectural and engineering inspectors. They inspected the various components in each building and determined what repairs or modifications are necessary to restore the systems and buildings to an acceptable condition, or to a level defined by the college. The team typically starts on the roof, or the highest accessible level, and proceeds to the lowest level, inspecting each of the discrete building categories as the building is walked.

The assessment is an evaluation of the mechanical, electrical and plumbing systems, structural architectural components, vertical transportation systems, and utilities as they relate to each asset in the study. Exterior equipment obviously associated with a building, such as a pad-mounted chiller or loading dock service lot, is

included in the assessment. In addition, the recommendations developed within the reports generated by Carl Walker for the condition of the North and South Parking Structures at the Royal Oak campus have been incorporated into this analysis.

An ISES FCA complies fully with ASTM E2018-15. It includes an evaluation of resource conservation opportunities and addresses compliance with the ADA Accessibility Guidelines. All accessible equipment and building components receive a thorough visual inspection. The inspection team lifts ceiling tiles in suspended ceilings and opens access doors to reveal hidden equipment and building components that are integral to the survey.

The visual nature of this inspection process requires close interaction with your operations and maintenance personnel. Many of the problems inherent in building systems are not visually apparent. ISES field assessors conducted staff interviews to ensure that all known system problems were cataloged and identified. Working as a team with your personnel improves the accuracy of the database and provides the most useful data. Historical documents, building and utility drawings, and the current and previous year's water treatment services were reviewed.

Contacts

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Director, Physical Facilities

ISES Corporation

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Project Manager

Definitions

Facility Renewal Needs

Facility renewal needs are identified during the field inspections and result in recommendations that are intended to bring facilities up to like-new standards and condition. Renewal recommendations can also enhance user safety and mitigate college liability. They replenish the lifecycle of existing assets but do not include updates related to departmental space or program use changes, system replacements as a reaction to failure, or specialized program-related equipment. Routine facilities maintenance and repair activities are also not considered to be facilities renewal efforts.

Recurring vs. Nonrecurring Renewal Needs

Facility renewal needs are divided into two main categories – recurring and nonrecurring. Recurring needs are cyclical and associated with replacement (or renewal) of building components and systems. Examples include roofs, chillers, windows, finishes and air handling units. The tool for projecting the recurring renewal costs is the Lifecycle Component Inventory. Each component has an associated renewal cost, installation date and life expectancy. From this data, a detailed projection of recurring renewal needs is developed for each building. These needs are categorized by UNIFORMAT II classification codes (down to Level 4). The result is a detailed year-by-year projection of recurring renewal needs for a given asset.

Nonrecurring needs pertain to one-time facility repairs and improvements. They typically consist of improvements to accommodate accessibility, address fire life/safety issues, or alter a building for a new use. They also include deficiencies that could negatively affect the structure or systems and components within. For these needs, recommendations are developed with estimated costs to rectify said deficiency. They each have a unique project number and are categorized by system, priority, and classification. The costs are indexed to local conditions and markups applied as the situation dictates. Examples of such needs are repair of building facade damage or a roof section or installing an ADA entrance ramp.

Renewal Need Categories

Renewal needs are divided into appropriate categories, as well as multiple systems, components, and elements within each category. Categories in this study include:

- Immediate Building Site
- Exterior Structure and Roof Systems
- Interior Structure, including Architectural Finishes
- ADA Accessibility
- Energy/Water Conservation
- Health Hazards
- Fire/Life Safety
- Heating, Ventilation, and Air Conditioning Systems
- Plumbing System
- Electrical System
- Vertical Transportation

Recurring Renewal Need Classifications *(generated by the Lifecycle Component Inventory)*

- *Deferred Renewal*
  Recurring needs that are past due for completion and have not yet been accomplished as part of normal maintenance or capital repair efforts. Further deferral of such renewal could impair the proper functioning of the facility. Costs estimated for Deferred Renewal needs should include compliance with applicable codes, even if such compliance requires expenditures beyond those essential to affect the needed repairs.

- *Projected Renewal*
  Recurring renewal needs that will be due within the scope of the assessment. These represent regular or normal facility maintenance, repair, or renovation that should be planned in the near future.

Nonrecurring Renewal Need Classifications *(stored in the Projects module)*

- *Plant Adaption*
  Nonrecurring expenditures required to adapt the physical plant to the evolving needs of the organization and to changing codes or standards. These are expenditures beyond normal maintenance. Examples include compliance with changing codes (e.g., accessibility), facility alterations required by changing teaching or research methods, and improvements occasioned by the adoption of modern technology (e.g., the use of personal computer networks).

- *Corrective Action*
  Nonrecurring expenditures for repairs needed to correct random and unpredictable deficiencies that could have an effect on building aesthetics, safety, or usability. Such recommendations are not related to aligning a building with codes or standards.

Prioritization of Nonrecurring Renewal Needs

Recurring renewal needs do not receive individual prioritization, as the entire data set of needs in this category is year-based. Each separate component has a distinct need year, rendering further prioritization unnecessary. Each nonrecurring renewal need, however, has a priority assigned to indicate the criticality of the recommended work. The prioritization utilized for this subset of the data is as follows.

- *Immediate*

  Items in this category require immediate action to:

  a. correct a cited safety hazard
  b. stop accelerated deterioration
  c. and/or return a facility to normal operation

- *Critical*

  Items in this category include actions that must be addressed in the short-term:

  a. repairs to prevent further deterioration
  b. improvements to facilities associated with critical accessibility needs
  c. potential safety hazards

- *Noncritical*

  Items in this category include:

  a. improvements to facilities associated with noncritical accessibility needs
  b. actions to bring a facility into compliance with current building codes as grandfather clauses expire
  c. actions to improve the usability of a facility following an occupancy or use change

Calculations

Current Replacement Value

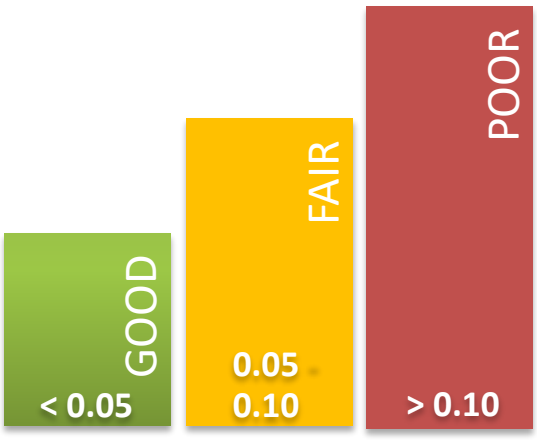
ISES traditionally calculates Current Replacement Value (CRV) using a cost per gross square foot based on building size and use (e.g. theater, research lab, classroom building, etc.). R.S. Means Section Square Foot costs are used as the starting point. This base number is adjusted for the size of the facility and modified with city cost indices to the local area, with appropriate modifiers for professional fees and demolition of existing structure added. Our standard methodology will prorate the base cost per GSF based on different use types in a building.

Traditional methods of calculating CRV do not take into account the historic significance of a structure. Replacement of a historic structure would only occur in the event of a catastrophic loss of said building. In such occurrences, the normal practice ISES observes is to construct modern facilities that meet the site/campus architectural standards rather than attempt to mimic the historical construction style that has been lost. Calculated CRVs are updated automatically in the AMS software when the annual inflation factor is added to the database.

Facility Condition Index

The Facility Condition Index (FCI) provides a relative measure for an objective comparison of building condition. This is a simple calculation derived by dividing the Deferred Renewal needs by the CRV. The following standards can be applied to assess where a facility falls within a range of conditions.

$$FCI = \frac{\text{Deferred Renewal}}{\text{Current Replacement Value}}$$



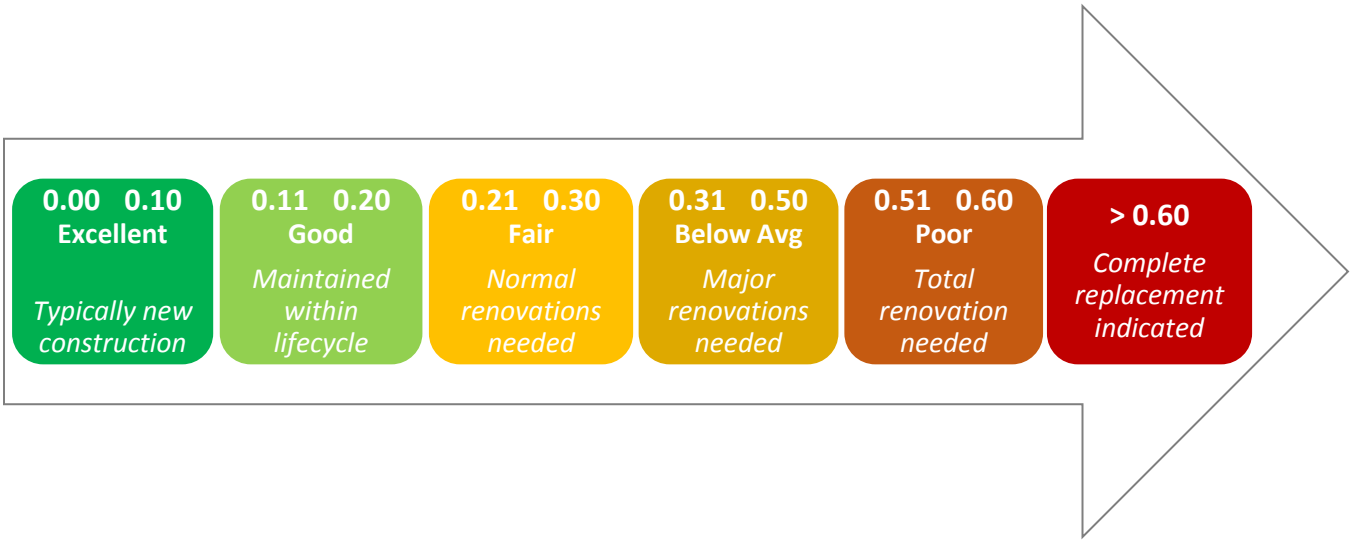
Facility Condition Needs Index

The Facility Condition Needs Index (FCNI) provides a lifecycle cost comparison. It is a ratio of the 10-year renewal needs (including Deferred Renewal) to the current replacement value of the asset.

$$\text{FCNI} = \frac{\text{10-Year Renewal Needs}}{\text{Current Replacement Value}}$$

The FCNI can be employed at multiple levels for analysis. It is most commonly used to compare buildings to other buildings. The index can be used as an evaluation tool when applying it to a single facility. The lower the FCNI, the better the facility condition. It should also be noted that this is an index, not a percentage. It can, especially in the case of historic facilities, exceed 1.00.

In terms of assessing where a facility falls within a range of conditions, the following standards can be applied.



The above ranges represent averages based upon our extensive FCA experience. The reader is cautioned, however, to examine each facility independently for mitigating factors (i.e., historic structures, temporary structures, facilities with abnormally low replacement costs, such as warehouses, etc.).

The FCNI can also be used for comparing groups of facilities to other groupings, including entire campuses. Comparisons in this vein form the basis of analysis for comparing the overall state of facilities to another comparable grouping. Note that the above ranges *do not* apply to multiple facilities. Variability among groups of buildings is reduced further as sample sets get larger. You can see how your institution ranks among other institutions in Appendix C.

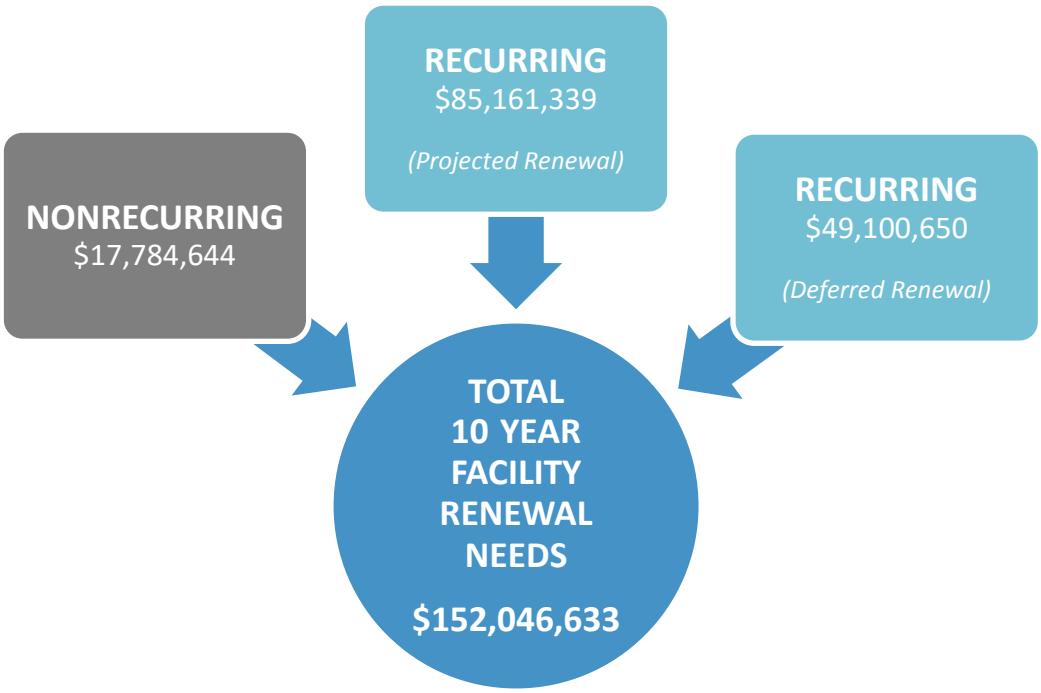
SUMMARY OF FINDINGS

Facility Condition Assessments

All data related to the FCAs was developed in, and is contained within, the ISES AMS (Asset Management System) database. ISES hosts this database system on our servers, and college personnel have access to the system via the Internet. The database is available for ongoing use by the facilities management team.

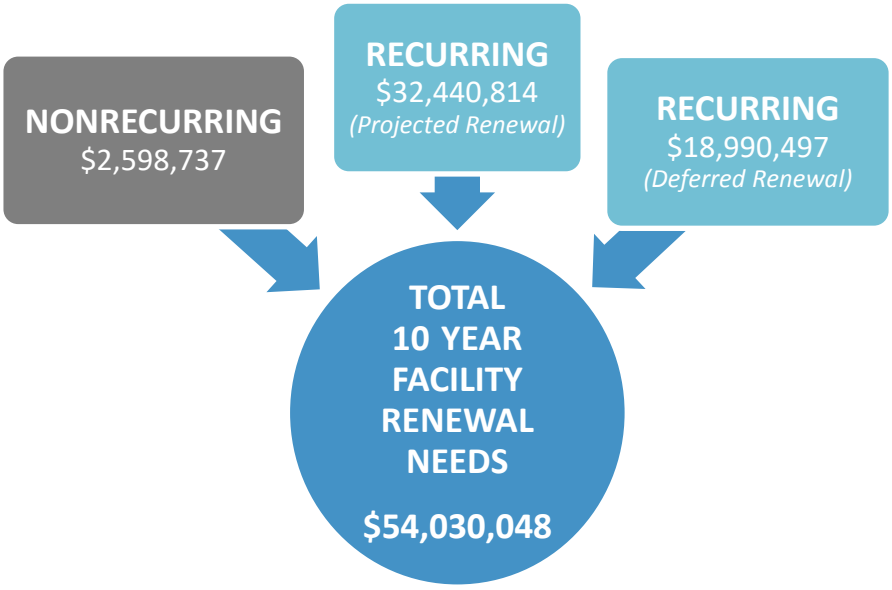
Total 10-Year Renewal Costs

As illustrated below, the FCA effort identified $152 million in nonrecurring projects and recurring renewal needs that should be addressed across all campuses over the next 10 years. Recurring renewal needs total more than $134 million, with the remaining $18 million being nonrecurring Plant Adaption or Corrective Action projects. Of the recurring costs, Deferred Renewal needs total $49 million, which is 32 percent of the total 10-year renewal costs.

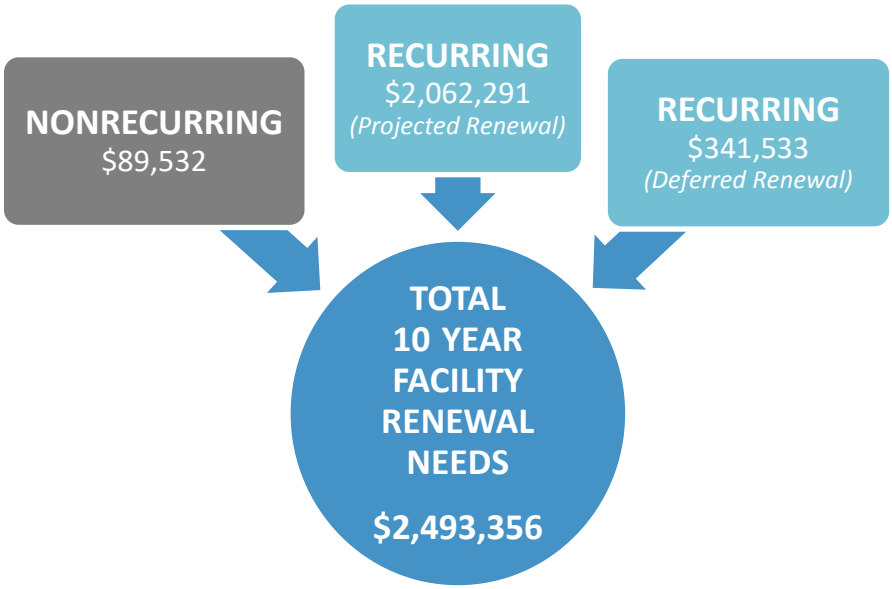


The charts on the following pages show the renewal cost breakdowns for each campus.

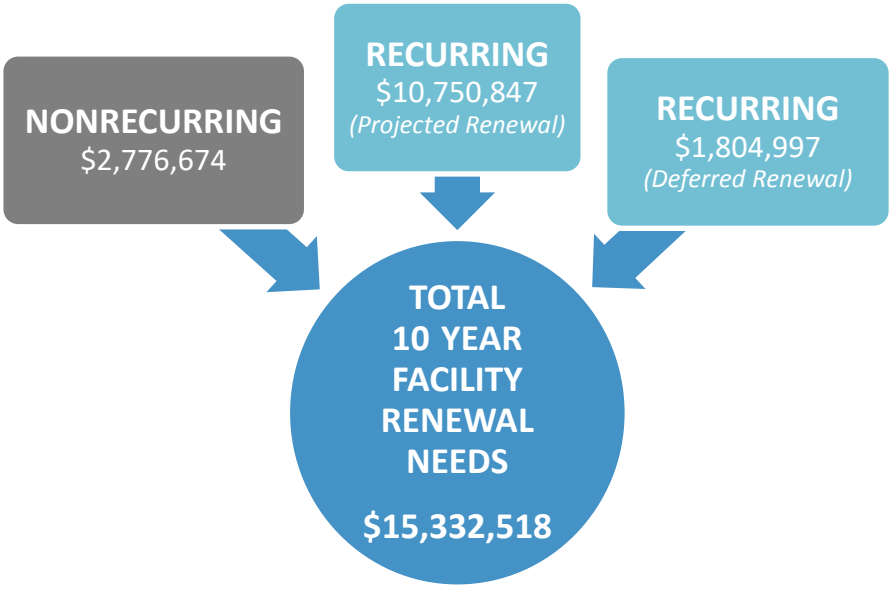
Auburn Hills



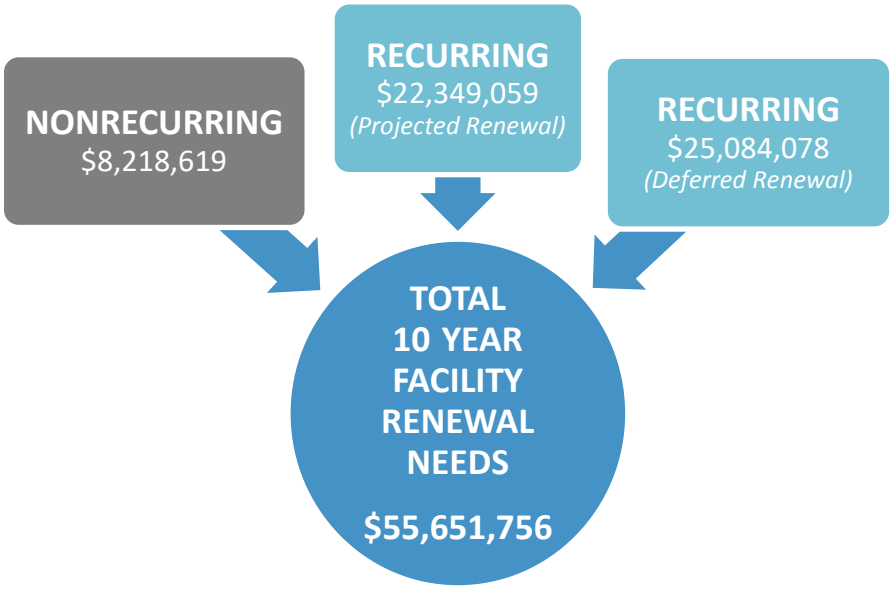
District Offices



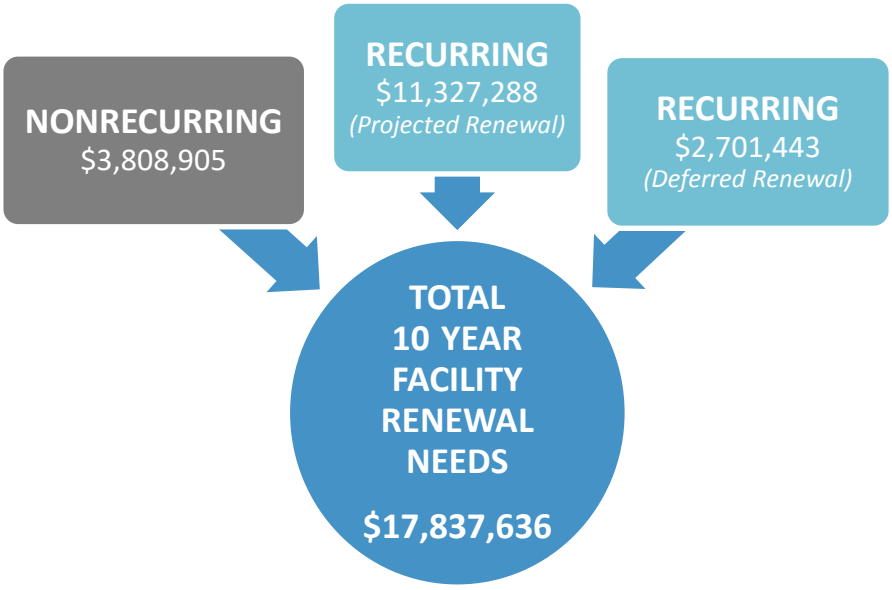
Highland Lakes



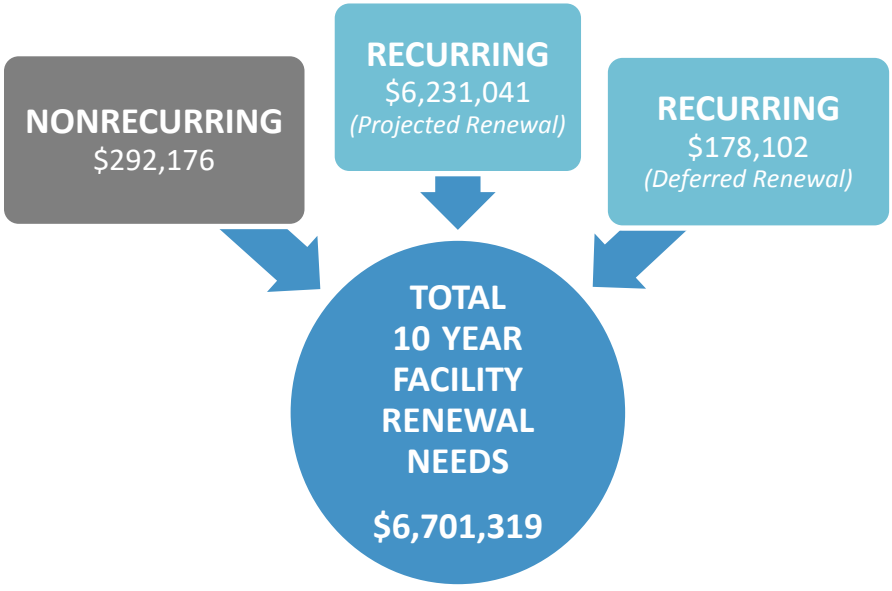
Orchard Ridge



Royal Oak



Southfield



FCNI and FCI Calculations

$$\text{FCNI} \quad \frac{\text{10-Year Renewal Needs}}{\text{Current Replacement Value}} = \frac{\$152,046,633}{\$703,295,615} = \mathbf{0.22}$$

$$\text{FCI} \quad \frac{\text{Deferred Renewal Needs}}{\text{Current Replacement Value}} = \frac{\$49,100,650}{\$703,295,615} = \mathbf{0.07}$$

The average FCNI of the 73 inspected buildings is 0.22. Although this is in line with the ISES average of 0.24 (as amassed by 30 years of ISES clients), the high average FCI of 0.07 suggests that there is a significant amount of Deferred Renewal across the campuses and that they are underfunded relative to the national average. This underfunding of colleges and universities is not isolated to the State of Michigan but is systemic problem nationally. As funding becomes limited or is removed altogether, one of the first items removed from annual budgets is resources for continued maintenance and staffing. Limited funding places significant strain on the facilities operations and campus facility operations to try to maintain the operational reliability of aging systems. The lack of funded preventative maintenance programs will reduce the reliable service life of equipment and systems.

Several factors beyond limited funding have a significant impact on the overall and individual campus condition indices and general conditions. The overall age of the assets, particularly at the Auburn Hills, Highland Lakes, and Orchard Ridge campuses, is certainly a factor. Also, several unique assets, such as the Earl M. Anderson facility at Auburn Hills and Tirrell Hall at Orchard Ridge, require significant major repairs over the forecast 10-year period, affecting the needs for the system as a whole.

As stated earlier, the high FCI calculation suggests OCC needs to look at major renovations. Twenty-seven of the 37 buildings constructed before 1981, constituting 41 percent of the inspected square footage, are considered to be in fair to poor condition, and many of the major systems in those buildings were assessed to be original. Planned renovations in the 16 poor and below average buildings will help reduce these major backlogs and will improve the overall campus condition and ratings.

The information on the following pages highlights the needs by campus. These statistics reveal that the areas in most need of an influx of capital are Orchard Ridge and Auburn Hills.

Auburn Hills

$$\text{FCNI} \quad \frac{\text{10-Year Renewal Needs}}{\text{Current Replacement Value}} = \frac{\$54,030,048}{\$214,082,835} = \mathbf{0.25}$$

$$\text{FCI} \quad \frac{\text{Deferred Renewal Needs}}{\text{Current Replacement Value}} = \frac{\$18,990,497}{\$214,082,835} = \mathbf{0.09}$$

District Offices

$$\text{FCNI} \quad \frac{\text{10-Year Renewal Needs}}{\text{Current Replacement Value}} = \frac{\$2,493,356}{\$11,227,000} = \mathbf{0.22}$$

$$\text{FCI} \quad \frac{\text{Deferred Renewal Needs}}{\text{Current Replacement Value}} = \frac{\$341,533}{\$11,227,000} = \mathbf{0.03}$$

Highland Lakes

$$\text{FCNI} \quad \frac{\text{10-Year Renewal Needs}}{\text{Current Replacement Value}} = \frac{\$15,332,518}{\$122,177,228} = \mathbf{0.13}$$

$$\text{FCI} \quad \frac{\text{Deferred Renewal Needs}}{\text{Current Replacement Value}} = \frac{\$1,804,997}{\$122,177,228} = \mathbf{0.01}$$

Orchard Ridge

$$\text{FCNI} \quad \frac{\text{10-Year Renewal Needs}}{\text{Current Replacement Value}} = \frac{\$55,651,756}{\$192,003,000} = \mathbf{0.29}$$

$$\text{FCI} \quad \frac{\text{Deferred Renewal Needs}}{\text{Current Replacement Value}} = \frac{\$25,084,078}{\$192,003,000} = \mathbf{0.13}$$

Royal Oak

$$\text{FCNI} \quad \frac{\text{10-Year Renewal Needs}}{\text{Current Replacement Value}} = \frac{\$17,837,636}{\$91,251,000} = \mathbf{0.20}$$

$$\text{FCI} \quad \frac{\text{Deferred Renewal Needs}}{\text{Current Replacement Value}} = \frac{\$2,701,443}{\$91,251,000} = \mathbf{0.03}$$

Southfield

$$\text{FCNI} \quad \frac{\text{10-Year Renewal Needs}}{\text{Current Replacement Value}} = \frac{\$6,701,319}{\$72,555,552} = \mathbf{0.09}$$

$$\text{FCI} \quad \frac{\text{Deferred Renewal Needs}}{\text{Current Replacement Value}} = \frac{\$178,102}{\$72,555,552} = \mathbf{0.00}$$

The following tables provide a detailed breakdown of all renewal needs listed by system, priority class (nonrecurring), and year (recurring), with totals for each category. There is one for all of the FCA buildings across all campuses and one for each campus.

RENEWAL COSTS MATRIX

All dollars shown as Present Value

CATEGORY	NONRECURRING PROJECT NEEDS			RECURRING COMPONENT REPLACEMENT NEEDS											
	Immediate	Critical	Noncritical	Deferred Renewal	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	TOTAL
ACCESSIBILITY	0	615,219	1,600,029	0	0	0	0	0	0	0	0	0	0	0	**$2,215,248**
EXTERIOR	1,263,750	857,292	1,941,633	6,157,887	103,652	3,233,629	1,866,312	2,530,659	1,424,054	2,146,900	917,935	46,400	399,454	1,025,234	**$23,914,792**
INTERIOR	0	861	27,793	6,287,695	1,734,150	659,889	787,429	4,390,236	615,717	4,055,116	507,968	1,073,120	1,449,167	1,660,738	**$23,249,878**
PLUMBING	0	35,739	0	930,741	4,531,805	371,732	74,372	2,101,625	6,472	47,233	20,817	41,714	854,488	7,799	**$9,024,536**
HVAC	0	0	0	23,902,676	384,868	237,788	41,299	2,910,536	582,423	3,637,698	1,532,124	1,219,633	9,324,315	2,638,602	**$46,411,962**
FIRE/LIFE SAFETY	27,847	129,783	9,831,115	620,671	53,859	191,669	0	92,555	0	974,843	1,372,532	470,426	157,540	3,536,207	**$17,459,046**
ELECTRICAL	0	0	1,307,548	7,881,159	3,450,053	659,339	156,494	5,171,144	179,489	438,513	401,519	790,325	3,369,764	165,369	**$23,970,717**
SITE	0	0	126,148	76,567	0	0	0	46,436	0	100,367	0	0	62,886	0	**$412,404**
VERT. TRANS.	0	0	0	3,176,664	0	0	0	0	0	252,656	252,656	0	252,656	0	**$3,934,631**
HEALTH/EQUIP.	0	0	19,886	66,590	0	0	0	0	0	0	19,026	0	1,347,917	0	**$1,453,419**
SUBTOTAL	**$1,291,597**	**$1,638,894**	**$14,854,152**	**$49,100,650**	**$10,258,386**	**$5,354,045**	**$2,925,905**	**$17,243,190**	**$2,808,155**	**$11,653,326**	**$5,024,575**	**$3,641,617**	**$17,218,188**	**$9,033,950**	**$152,046,633**
TOTAL NONRECURRING PROJECT NEEDS			**$17,784,644**	TOTAL RECURRING COMPONENT REPLACEMENT NEEDS										**$134,261,989**	

CURRENT REPLACEMENT VALUE	**$703,296,615**
FACILITY CONDITION NEEDS INDEX	**0.22**
FACILITY CONDITION INDEX	**0.07**

GSF	TOTAL 10-YEAR FACILITY NEEDS	10-YEAR NEEDS/SF
2,130,209	**$152,046,633**	**71.38**

RENEWAL COSTS MATRIX

All dollars shown as Present Value

CATEGORY	NONRECURRING PROJECT NEEDS			RECURRING COMPONENT REPLACEMENT NEEDS											
	Immediate	Critical	Noncritical	Deferred Renewal	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	TOTAL
ACCESSIBILITY	0	106,771	396,558	0	0	0	0	0	0	0	0	0	0	0	**$503,329**
EXTERIOR	0	0	46,649	584,080	0	1,320,216	914,138	1,215,002	627,223	584,436	479,637	31,386	349,523	611,552	**$6,763,843**
INTERIOR	0	0	0	1,143,959	47,302	41,411	40,899	1,945,892	15,465	423,692	411,050	78,523	976,353	1,569,883	**$6,694,429**
PLUMBING	0	0	0	257,068	4,943	23,467	0	2,100,139	6,472	25,824	11,511	23,309	761,416	3,226	**$3,217,376**
HVAC	0	0	0	10,232,741	15,593	162,063	14,715	2,036,152	74,533	24,709	766,021	51,604	3,003,253	312,487	**$16,693,871**
FIRE/LIFE SAFETY	0	20,373	1,164,240	419,359	0	191,669	0	92,555	0	0	998,439	0	0	710,871	**$3,597,505**
ELECTRICAL	0	0	798,920	5,049,672	20,403	596,243	12,025	4,994,420	44,666	229,850	263,495	13,990	2,427,001	12,025	**$14,462,709**
SITE	0	0	51,171	40,340	0	0	0	40,549	0	100,367	0	0	62,886	0	**$295,313**
VERT. TRANS.	0	0	0	1,263,279	0	0	0	0	0	0	252,656	0	252,656	0	**$1,768,591**
HEALTH/EQUIP.	0	0	14,056	0	0	0	0	0	0	0	19,026	0	0	0	**$33,081**
SUBTOTAL	$0	$127,145	$2,471,593	$18,990,497	$88,241	$2,335,069	$981,777	$12,424,710	$768,359	$1,388,879	$3,201,835	$198,812	$7,833,088	$3,220,044	$54,030,048
TOTAL NONRECURRING PROJECT NEEDS			$2,598,737	TOTAL RECURRING COMPONENT REPLACEMENT NEEDS										$51,431,311	

CURRENT REPLACEMENT VALUE	$214,082,835
FACILITY CONDITION NEEDS INDEX	0.25
FACILITY CONDITION INDEX	0.09

GSF	TOTAL 10-YEAR FACILITY NEEDS	10-YEAR NEEDS/SF
619,653	$54,030,048	87.19

RENEWAL COSTS MATRIX

All dollars shown as Present Value

CATEGORY	NONRECURRING PROJECT NEEDS			RECURRING COMPONENT REPLACEMENT NEEDS											
	Immediate	Critical	Noncritical	Deferred Renewal	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	TOTAL
ACCESSIBILITY	0	23,368	18,419	0	0	0	0	0	0	0	0	0	0	0	$41,787
EXTERIOR	0	0	0	10,634	42,134	475,713	0	0	0	0	0	0	0	0	$528,481
INTERIOR	0	0	0	201,107	0	0	0	1,210	0	0	0	354,293	96,837	0	$653,446
PLUMBING	0	0	0	37,494	0	0	0	0	0	0	0	2,095	2,601	0	$42,189
HVAC	0	0	0	0	0	0	0	41,209	0	123,233	0	0	8,849	144,455	$317,746
FIRE/LIFE SAFETY	0	7,662	0	0	0	0	0	0	0	0	0	0	157,540	0	$165,202
ELECTRICAL	0	0	0	92,298	0	1,417	15,086	0	0	96,476	0	359,863	139,280	0	$704,421
SITE	0	0	40,083	0	0	0	0	0	0	0	0	0	0	0	$40,083
VERT. TRANS.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$0
HEALTH/EQUIP.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$0
SUBTOTAL	$0	$31,030	$58,502	$341,533	$42,134	$477,129	$15,086	$42,419	$0	$219,710	$0	$716,250	$405,106	$144,455	$2,493,356
TOTAL NONRECURRING PROJECT NEEDS			$89,532	TOTAL RECURRING COMPONENT REPLACEMENT NEEDS										$2,403,824	

CURRENT REPLACEMENT VALUE	$11,227,000
FACILITY CONDITION NEEDS INDEX	0.22
FACILITY CONDITION INDEX	0.03

GSF	TOTAL 10-YEAR FACILITY NEEDS	10-YEAR NEEDS/SF
31,119	$2,493,356	80.12

RENEWAL COSTS MATRIX

All dollars shown as Present Value

CATEGORY	NONRECURRING PROJECT NEEDS			RECURRING COMPONENT REPLACEMENT NEEDS											
	Immediate	Critical	Noncritical	Deferred Renewal	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	TOTAL
ACCESSIBILITY	0	176,707	146,744	0	0	0	0	0	0	0	0	0	0	0	$323,451
EXTERIOR	0	0	169,690	31,131	0	111,277	0	456,856	499,048	388,310	438,297	14,454	8,034	403,178	$2,520,277
INTERIOR	0	0	27,793	236,071	906,314	45,759	0	1,697,887	0	697,398	0	380,482	32,921	0	$4,024,626
PLUMBING	0	7,966	0	127,882	0	976	0	0	0	0	8,330	0	0	3,241	$148,395
HVAC	0	0	0	225,937	0	6,890	0	0	0	1,215,107	239,665	534,333	24,831	1,121,208	$3,367,971
FIRE/LIFE SAFETY	0	6,518	1,726,907	201,313	0	0	0	0	0	0	0	470,426	0	548,739	$2,953,903
ELECTRICAL	0	0	508,629	368,705	32,475	29,134	0	26,047	38,828	7,713	106,126	110,577	19,572	120,526	$1,368,331
SITE	0	0	5,719	0	0	0	0	5,887	0	0	0	0	0	0	$11,606
VERT. TRANS.	0	0	0	613,959	0	0	0	0	0	0	0	0	0	0	$613,959
HEALTH/EQUIP.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$0
SUBTOTAL	$0	$191,192	$2,585,482	$1,804,997	$938,789	$194,036	$0	$2,186,677	$537,876	$2,308,529	$792,417	$1,510,272	$85,357	$2,196,892	$15,332,518
TOTAL NONRECURRING PROJECT NEEDS			$2,776,674	TOTAL RECURRING COMPONENT REPLACEMENT NEEDS										$12,555,844	

CURRENT REPLACEMENT VALUE	$122,177,228
FACILITY CONDITION NEEDS INDEX	0.13
FACILITY CONDITION INDEX	0.01

GSF	TOTAL 10-YEAR FACILITY NEEDS	10-YEAR NEEDS/SF
307,367	$15,332,518	49.88

RENEWAL COSTS MATRIX

All dollars shown as Present Value

CATEGORY	NONRECURRING PROJECT NEEDS			RECURRING COMPONENT REPLACEMENT NEEDS											
	Immediate	Critical	Noncritical	Deferred Renewal	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	TOTAL
ACCESSIBILITY	0	285,983	796,657	0	0	0	0	0	0	0	0	0	0	0	**$1,082,640**
EXTERIOR	0	88,932	63,200	4,678,172	61,518	728,608	0	3,851	0	19,183	0	560	23,586	0	**$5,667,610**
INTERIOR	0	861	0	3,424,776	780,533	572,718	672,180	551,453	462,392	826,164	96,918	244,283	167,455	90,855	**$7,890,587**
PLUMBING	0	27,772	0	449,085	4,526,862	345,513	1,508	1,486	0	21,409	976	11,086	55,410	0	**$5,441,108**
HVAC	0	0	0	13,091,189	6,867	68,835	0	833,175	507,891	2,274,648	507,104	136,789	155,272	8,133	**$17,589,902**
FIRE/LIFE SAFETY	10,450	25,075	6,887,803	0	0	0	0	0	0	0	0	0	0	2,276,597	**$9,199,925**
ELECTRICAL	0	0	0	2,291,270	3,397,174	27,320	54,821	7,321	95,996	91,920	18,301	13,816	0	0	**$5,997,940**
SITE	0	0	29,175	36,227	0	0	0	0	0	0	0	0	0	0	**$65,402**
VERT. TRANS.	0	0	0	1,046,769	0	0	0	0	0	252,656	0	0	0	0	**$1,299,425**
HEALTH/EQUIP.	0	0	2,710	66,590	0	0	0	0	0	0	0	0	1,347,917	0	**$1,417,218**
SUBTOTAL	**$10,450**	**$428,623**	**$7,779,545**	**$25,084,078**	**$8,772,954**	**$1,742,994**	**$728,510**	**$1,397,286**	**$1,066,278**	**$3,485,980**	**$623,299**	**$406,534**	**$1,749,640**	**$2,375,584**	$55,651,756
TOTAL NONRECURRING PROJECT NEEDS			$8,218,619	TOTAL RECURRING COMPONENT REPLACEMENT NEEDS										$47,433,137	

CURRENT REPLACEMENT VALUE	$192,148,755
FACILITY CONDITION NEEDS INDEX	0.29
FACILITY CONDITION INDEX	0.13

GSF	TOTAL 10-YEAR FACILITY NEEDS	10-YEAR NEEDS/SF
476,120	$55,651,756	116.89

RENEWAL COSTS MATRIX

All dollars shown as Present Value

CATEGORY	NONRECURRING PROJECT NEEDS			RECURRING COMPONENT REPLACEMENT NEEDS											
	Immediate	Critical	Noncritical	Deferred Renewal	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	TOTAL
ACCESSIBILITY	0	9,839	227,329	0	0	0	0	0	0	0	0	0	0	0	**$237,168**
EXTERIOR	1,263,750	768,360	1,409,482	841,663	0	597,815	202,117	854,950	297,783	103,338	0	0	0	10,504	**$6,349,761**
INTERIOR	0	0	0	1,189,174	0	0	72,668	193,794	137,859	276,953	0	15,539	135,443	0	**$2,021,430**
PLUMBING	0	0	0	59,213	0	1,776	14,578	0	0	0	0	5,224	35,061	1,332	**$117,183**
HVAC	0	0	0	304,927	291,731	0	0	0	0	0	19,334	493,227	6,129,595	3,355	**$7,242,170**
FIRE/LIFE SAFETY	4,707	70,155	52,164	0	0	0	0	0	0	974,843	0	0	0	0	**$1,101,869**
ELECTRICAL	0	0	0	53,811	0	5,226	0	143,354	0	12,553	13,598	69,852	213,888	0	**$512,281**
SITE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**$0**
VERT. TRANS.	0	0	0	252,656	0	0	0	0	0	0	0	0	0	0	**$252,656**
HEALTH/EQUIP.	0	0	3,120	0	0	0	0	0	0	0	0	0	0	0	**$3,120**
SUBTOTAL	$1,268,457	$848,354	$1,692,095	$2,701,443	$291,731	$604,816	$289,363	$1,192,098	$435,642	$1,367,686	$32,932	$583,842	$6,513,987	$15,190	$17,837,636
TOTAL NONRECURRING PROJECT NEEDS			$3,808,905	TOTAL RECURRING COMPONENT REPLACEMENT NEEDS										$14,028,731	

CURRENT REPLACEMENT VALUE	$91,251,000
FACILITY CONDITION NEEDS INDEX	0.20
FACILITY CONDITION INDEX	0.03

GSF	TOTAL 10-YEAR FACILITY NEEDS	10-YEAR NEEDS/SF
531,946	$17,837,636	33.53

RENEWAL COSTS MATRIX

All dollars shown as Present Value

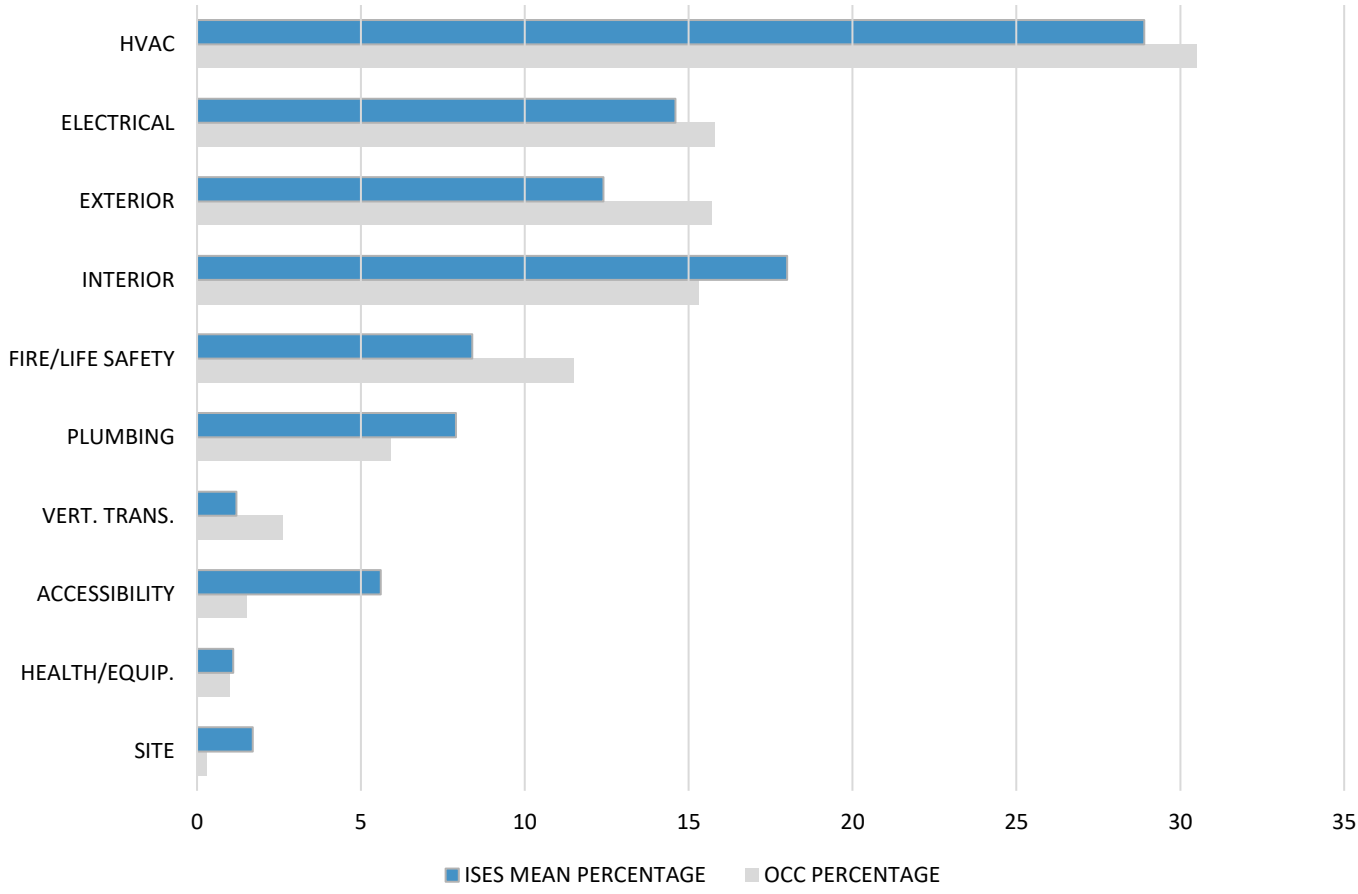
CATEGORY	NONRECURRING PROJECT NEEDS			RECURRING COMPONENT REPLACEMENT NEEDS											
	Immediate	Critical	Noncritical	Deferred Renewal	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	TOTAL
ACCESSIBILITY	0	12,551	14,322	0	0	0	0	0	0	0	0	0	0	0	$26,874
EXTERIOR	0	0	252,612	12,208	0	0	750,057	0	0	1,051,633	0	0	18,311	0	$2,084,820
INTERIOR	0	0	0	92,609	0	0	1,681	0	0	1,830,910	0	0	40,159	0	$1,965,359
PLUMBING	0	0	0	0	0	0	58,285	0	0	0	0	0	0	0	$58,285
HVAC	0	0	0	47,881	70,677	0	26,584	0	0	0	0	3,679	2,516	1,048,964	$1,200,302
FIRE/LIFE SAFETY	12,691	0	0	0	53,859	0	0	0	0	0	374,093	0	0	0	$440,643
ELECTRICAL	0	0	0	25,404	0	0	74,562	0	0	0	0	222,227	570,024	32,819	$925,036
SITE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$0
VERT. TRANS.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$0
HEALTH/EQUIP.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$0
SUBTOTAL	$12,691	$12,551	$266,934	$178,102	$124,536	$0	$911,169	$0	$0	$2,882,543	$374,093	$225,907	$631,009	$1,081,783	$6,701,319
TOTAL NONRECURRING PROJECT NEEDS			$292,176	TOTAL RECURRING COMPONENT REPLACEMENT NEEDS										$6,409,143	

CURRENT REPLACEMENT VALUE	$72,555,552
FACILITY CONDITION NEEDS INDEX	0.09
FACILITY CONDITION INDEX	0.00

GSF	TOTAL 10-YEAR FACILITY NEEDS	10-YEAR NEEDS/SF
164,004	$6,701,319	40.86

Renewal Costs by System Code

A viable approach to capital planning is to analyze common building systems for needs. The following chart illustrates the system project backlog by weight of total backlog and compares the results at OCC to the average found across the ISES clients.



HVAC is the highest proportion of the overall needs backlog at 30.5 percent, which is only slightly higher than the ISES average. Fifty-two percent (over $24 million) of the HVAC needs are considered deferred or needed in the next year. Of these near-term needs, HVAC distribution system upgrades account for nearly $18 million, air handler and fan upgrades $2.5 million, and control systems upgrades $2.3 million.

Electrical needs are the second highest proportion (15.8 percent), which is slightly higher than the ISES average. These needs are also the third highest proportion of Deferred Renewal at nearly $7.9 million. Most of the buildings are in need of near-term interior and exterior lighting upgrades as well as replacement of aging variable speed drives, which provide a measure of investment payback in the form of energy savings if the latest technology is installed.

Interior finish and exterior structure needs account for 15.3 and 15.7 percent, respectively, of the total backlog. Deferred Renewal needs in these categories total $12.5 million. Most of the deferred needs are for flooring, casework, and doors. While not considered deferred, the $10.7 million of roofing upgrades are a significant proportion of the exterior systems backlog and should be included in any future budget planning.

Fire/life safety needs are the next highest proportion of the backlog and are higher than the ISES average. Over half of these needs are for the installation of fire suppression systems in the older buildings.

Accessibility makes up less than 1.5 percent of the overall needs, which is drastically lower than the 5.6 percent ISES mean. This can be attributed to the relatively young age of over 40 percent of the building square footage (32 buildings) and the significant renovations and remodeling of the older buildings built prior to modern ADA requirements. Most of the remaining systems are in line with the ISES client averages.

The Auburn Hills campus has a total FCA renewal need estimate of $54 million, with nearly $19 million identified as deferred. The majority of these needs are in the HVAC, electrical, interior, and exterior systems.

The District Office has a total FCA renewal need estimate of $2.5 million, with nearly $342,000 identified as deferred. The majority of the needs are in interior finish and electrical systems.

The Highland Lakes campus has a total FCA renewal need estimate of $15.3 million, with nearly $1.8 million identified as deferred. The majority of these needs are in the vertical transportation, electrical, and interior finish systems. There is a slightly smaller proportion of needs in the fire/life safety and HVAC systems.

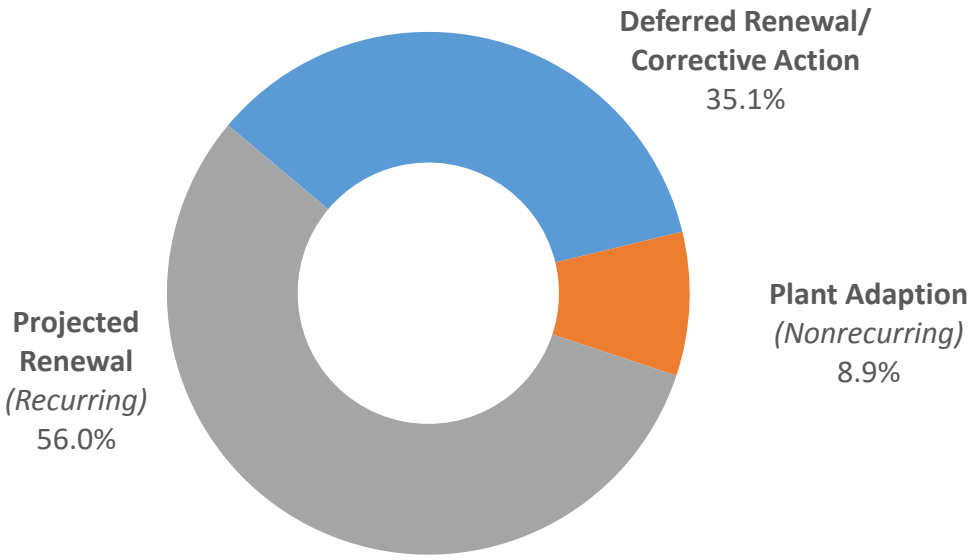
The Orchard Ridge campus has a total FCA renewal need estimate of $55.6 million, with nearly $25.1 million identified as deferred. The majority of these needs are in the HVAC, exterior, and finish interior systems. There is a significant amount of deferred needs in the electrical and vertical transportation systems.

The Royal Oak campus has a total FCA renewal need estimate of $17.8 million, with nearly $2.7 million identified as deferred. The majority of these needs are in the exterior and interior finish systems.

The Southfield campus has a total FCA renewal need estimate of $6.7 million, with nearly $178,102 identified as deferred. The majority of these needs are in the interior finish and HVAC systems.

Renewal Costs by Classification

- Nonrecurring Plant Adaption needs make up 8.9 percent of the total cost ($13,512,794).
- The recurring needs projected to emerge over the next 10 years represent 56.0 percent ($85,161,339) of the facilities renewal recommendations.
- Recurring Deferred Renewal and nonrecurring Corrective Action needs are 35.1 percent of the recommendations ($53,372,500).

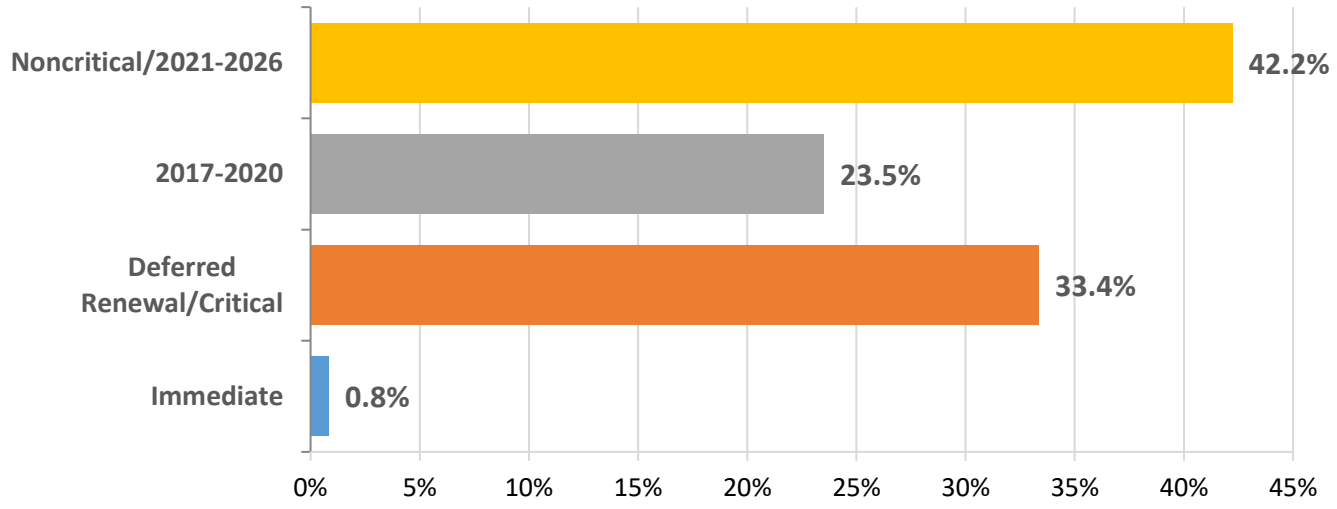


CLASSIFICATION	PERCENTAGE (%)	COST ($)
Projected Renewal	56.0	85,161,339
Deferred Renewal/Corrective Action	35.1	53,372,500
Plant Adaption	8.9	13,512,794
	TOTAL	**$152,046,633**

Renewal Costs by Priority

The renewal needs have been prioritized to indicate the urgency of the recommendations. Like the previous chart, this also summarizes both the recurring and nonrecurring recommendations.

- Immediate nonrecurring needs are 0.8 percent of the needs and total $1,291,597.
- Recurring Deferred Renewal and nonrecurring Critical needs combined represent 33.4 percent of the recommendations ($50,739,544).
- The first four years (2017-2020) of recurring component replacement needs equal $35,781,527 (23.5 percent).
- The next six years (2021-2026) of recurring component replacement needs combined with the nonrecurring Noncritical needs equal $64,233,964 or 42.2 percent.



PRIORITY	PERCENTAGE (%)	COST ($)
Immediate	0.8	1,291,597
Deferred Renewal/Critical	33.4	50,739,544
2017-2020	23.5	35,781,527
Noncritical/2021-2026	42.2	64,233,964
	TOTAL	**$152,046,633**

Utility Condition Assessments

General Utility Condition

The Utility Condition Assessment (UCA) performed for the Oakland Community College system included a visual, nondestructive inspection of the heating and chilled water generation and distribution systems, along with high voltage electrical, sanitary distribution, stormwater distribution, and potable/fire water systems. In addition, Facility Condition Assessments were performed at each generational plant and associated pump house facilities.

The UCA results indicate that these systems are overall in relatively fair to good condition. With a total current replacement value of nearly $137 million, the utility infrastructure represents a significant percentage of the OCC portfolio. In the late 1990s and early 2000s, there was significant funding for the replacement of the aging boilers and chiller at Highland Lakes and Orchard Ridge, as well as energy upgrades at Auburn Hills in the form of high efficiency burner assemblies installed at each of the three boilers. Regular major maintenance and teardown of the principal generation equipment every three to five years (as funding is available) will extend the reliable and efficient service life of this equipment. The Royal Oak plant underwent a major renewal of chilled and heating water systems in 2003, and the Southfield plant was modernized in 1999 and 2010. In summary, the majority of the recommendations at the generation plants are for the ancillary and system support equipment.

Of the nearly $27 million in total identified needs, approximately 40 percent ($11 million) are for the upgrade of heating and chilled water piping distribution systems and associated valves and support equipment. The average useful life of a section of steel pipe for hydronic systems is approximately 50 years. This service life is directly impacted by the operational history of the systems as well as the consistency of the water treatment programs. While the operational history, in the form of limited capacity fluxuations, has been consistent, the water treatment program has changed over time due to multiple vendors and strategies. Nonrecurring and recurring needs were developed for the upgrade of approximately 30 percent of the piping systems, specifically at the three largest campuses.

The majority of the high voltage electrical systems at the three larger campuses have been retrofit with new primary switchgear that includes automatic transfer capabilities in the event of a loss of one of the main utility service feeds. There is specific equipment at each campus (primarily load interrupters serving buildings) that will require upgrade within the next ten years, but as a whole, the systems are in good condition. The one priority needs established at each campus is the development of a consistent and extensive preventative maintenance and testing program. The majority of the installed electrical equipment needs to undergo operation, testing, and maintenance services every three to five years. A service contract with detailed maintenance practices needs to be implemented to not only extend the life of the new substation equipment but to also ensure the reliable and, most importantly, safe operation of this equipment.

Within the FCA reports of the individual buildings are recommendations for the installation of emergency generators at 14 Auburn Hills and Highland Lakes facilities. It is prudent to perform an analysis to determine whether or not these two campuses would benefit from the installation of central emergency power systems.

The stormwater and sanitary systems are in proper working condition, but investment in the modernization of the underground systems is recommended specifically at Highland Lakes. These two systems should undergo CCTV inspection in order to develop a more detailed priority needs list for future reinvestment.

Total 10-Year Renewal Costs by Utility

BLDG #	BUILDING NAME	YEAR BUILT	SQUARE FEET	CRV ($)	RENEWAL COSTS ($)	FCNI	FCI
AHHCD	HEATING/CHILLED WATER DIST.	1967	NA	17,028,000	4,693,765	0.28	0.00
AHHVE	HIGH VOLTAGE ELECTRICAL	1970	NA	5,451,420	594,308	0.11	0.07
AHP	POWER HOUSE	1970	13,298	15,349,184	4,277,913	0.28	0.01
AHPWF	POTABLE AND FIRE WATER SYS.	1968	NA	2,700,000	206,042	0.08	0.00
AHSAN	SANITARY SEWER SYSTEM	1968	NA	1,625,000	243,248	0.15	0.00
AHSTR	STORMWATER SEWER SYSTEM	1968	NA	4,000,000	367,616	0.09	0.00
HLCP	CENTRAL PLANT	1998	8,135	10,114,400	2,115,344	0.21	0.02
HLHCD	HEATING/CHILLED WATER DIST.	1929	NA	11,136,000	2,363,087	0.21	0.00
HLHVE	HIGH VOLTAGE ELECTRICAL	1929	NA	2,950,000	128,682	0.04	0.03
HLPWF	POTABLE AND FIRE WATER SYS.	1965	NA	1,600,000	91,801	0.06	0.00
HLSAN	SANITARY SEWER SYSTEM	1965	NA	1,500,000	796,926	0.53	0.52
HLSTR	STORMWATER SEWER SYSTEM	1965	NA	2,200,000	1,064,034	0.48	0.47
ORE	POWER HOUSE	1967	17,581	14,079,930	3,507,333	0.25	0.05
ORHCD	HEATING/CHILLED WATER DIST.	1967	NA	19,650,576	3,844,729	0.20	0.00
ORHVE	HIGH VOLTAGE ELECTRICAL	1967	NA	4,474,920	293,152	0.07	0.05
ORPWF	POTABLE AND FIRE WATER SYS.	1967	NA	2,000,000	482,782	0.24	0.07
ORSAN	SANITARY SEWER SYSTEM	1967	NA	1,000,000	316,875	0.32	0.00
ORSTR	STORMWATER SEWER SYSTEM	1967	NA	4,850,000	382,365	0.08	0.00
ROHCD	HEATING/CHILLED WATER DIST.	1982	NA	3,669,000	108,201	0.03	0.00
ROHVE	HIGH VOLTAGE ELECTRICAL	1982	NA	951,400	335,803	0.35	0.00
ROP	POWER HOUSE	1982	3,926	5,214,000	543,637	0.10	0.00
ROPWF	POTABLE AND FIRE WATER SYS.	1982	NA	10,000	0	0.00	0.00
ROSAN	SANITARY SEWER SYSTEM	1982	NA	45,000	0	0.00	0.00

BLDG #	BUILDING NAME	YEAR BUILT	SQUARE FEET	CRV ($)	RENEWAL COSTS ($)	FCNI	FCI
ROSTR	STORMWATER SEWER SYSTEM	1982	NA	800,000	0	0.00	0.00
SFHCD	HEATING/CHILLED WATER DIST.	1980	NA	2,027,368	112,872	0.06	0.00
SFHVE	HIGH VOLTAGE ELECTRICAL	1980	NA	574,700	15,966	0.03	0.00
SFPWF	POTABLE AND FIRE WATER SYS.	1980	NA	50,000	0	0.00	0.00
SFSAN	SANITARY SEWER SYSTEM	1980	NA	150,000	0	0.00	0.00
SFSTR	STORMWATER SEWER SYSTEM	1980	NA	1,600,000	0	0.00	0.00
TOTALS			**42,965**	**$136,800,898**	**$26,886,481**	**0.20**	**0.03**

RENEWAL COSTS MATRIX

All dollars shown as Present Value

CATEGORY	NONRECURRING PROJECT NEEDS			RECURRING COMPONENT REPLACEMENT NEEDS											
	Immediate	Critical	Noncritical	Deferred Renewal	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	TOTAL
ACCESSIBILITY	0	5,810	35,384	0	0	0	0	0	0	0	0	0	0	0	$41,194
EXTERIOR	0	0	16,707	14,284	0	0	0	36,623	274,423	531,218	49,184	2,276	0	0	$924,714
INTERIOR	0	0	0	218,709	1,466	0	0	36,134	41,337	0	2,488	0	15,036	0	$315,169
PLUMBING	0	595,302	800,062	204,397	128,198	290,834	2,167	21,494	0	0	68,355	5,820	172,359	0	$2,288,989
HVAC	102,982	2,355,769	8,649,904	215,934	151,088	8,727	20,671	0	29,520	2,546,214	195,358	157,469	805,664	458,206	$15,697,506
FIRE/LIFE SAFETY	0	0	0	199,043	0	0	0	0	50,194	18,120	39,820	0	0	5,980	$313,156
ELECTRICAL	99,381	133,481	99,705	823,906	219,335	170,176	16,733	463,634	94,987	1,041,241	1,437,138	25,356	10,588	0	$4,635,661
SITE	0	0	2,448	1,822,926	0	0	0	0	0	590,701	0	0	0	0	$2,416,075
VERT. TRANS.	0	0	0	252,656	0	0	0	0	0	0	0	0	0	0	$252,656
HEALTH/EQUIP.	0	0	1,360	0	0	0	0	0	0	0	0	0	0	0	$1,360
SUBTOTAL	$202,363	$3,090,363	$9,605,571	$3,751,855	$500,087	$469,738	$39,571	$557,884	$490,461	$4,727,493	$1,792,342	$190,921	$1,003,647	$464,186	$26,886,481
TOTAL NONRECURRING PROJECT NEEDS			$12,898,297	TOTAL RECURRING COMPONENT REPLACEMENT NEEDS										$13,988,184	

CURRENT REPLACEMENT VALUE	$112,332,760
FACILITY CONDITION NEEDS INDEX	0.24
FACILITY CONDITION INDEX	0.03

GSF	TOTAL 10-YEAR FACILITY NEEDS	10-YEAR NEEDS/SF
42,965	$26,886,481	625.78

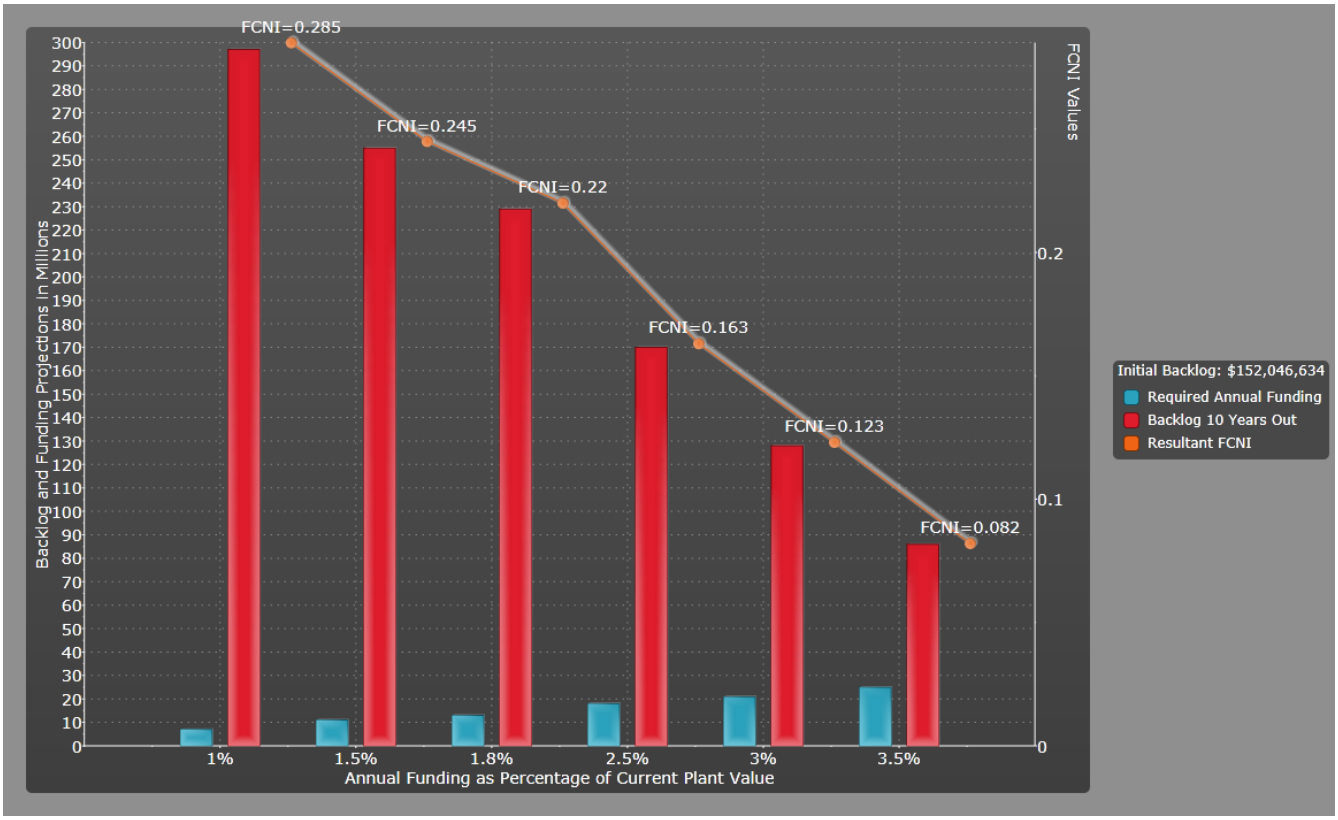
AMS FINANCIAL MODELING

FCNI Projections

The ISES AMS software features a funding modeling tool that can estimate the effects of funding levels on the FCNI. This tool calculates that $12.7 million would need to be reinvested annually to maintain the current FCNI of 0.22. This is equal to 1.8 percent of plant value on an annual basis. (Note: This figure accounts for 3 percent inflation.) The model also incorporates a 1 percent portfolio growth rate (rate at which square footage is added) and a 1.5 percent plant deterioration rate (the rate at which new capital project needs arise).

Reinvestment Rates

If the reinvestment rate is lower than 1.8 percent of plant value, then the FCNI at the end of the tenth year will be higher than it was in the first year. For instance, if 1 percent of plant value ($7 million) is reinvested annually, the resultant FCNI after 10 years is estimated to be 0.29. Conversely, if 3.0 percent of plant value ($21.1 million) is reinvested annually, the resultant FCNI is estimated to be 0.12 after 10 years. The following chart shows sample funding scenarios.



The calculations in the model above take into account all money that goes towards renewing the facilities and their supporting components. In most cases, not all of the needs are funded by the Facilities Management organization's budget. Programs, donors, schools, and other stakeholders can pay for projects. It is common for projects that are part of major renovation efforts to be funded predominately by other sources besides the Facilities department.

The funding level presented in this section is a steady and annualized rate. It is important to understand that, in most cases, the fulfillment of these needs is ad hoc and the amount reinvested can vary widely from year to year. Not all projects are performed on a piecemeal basis. Projects can include limited renovation projects, gut renovation activities, or full raze and replace measures. These large-scale efforts can eliminate a significant proportion of needs in a relatively short period of time.

CONCLUSIONS

Including all of the inspected buildings and utility systems, Oakland Community College has an asset portfolio value estimated at nearly $840 million, and the estimated needs developed from the inspections total $179 million. This results in an overall FCNI of 0.21 for the OCC system (FCA and UCA). Of the total needs, nearly 30 percent ($53 million) are considered to be deferred. Aged facilities and underground utility systems at the Auburn Hills, Orchard Ridge, and Highland Lakes campuses represent that the vast majority of the needs.

Like most institutions, the most needs are found within aging HVAC and electrical distribution systems and in the modernization of interior finishes and exterior systems. HVAC and electrical distribution systems are critical to the day-to-day operation of a facility. Many are aged and, though functional, require routine and repetitive maintenance. The failure of either system could result in the ineffective use of, or the inability to use, the facility as a whole, especially given the age of a large percentage of the asset catalog.

With regard to FCNI, the most effective method of shrinking the index is to holistically reinvest in existing facilities. This means either razing and rebuilding or gut renovating aging assets. This type of project work has collateral benefits, such as making maintenance organizations more effective. New construction will have a positive effect on the FCNI only if existing buildings are replaced. If new structures are built but the older facilities kept in service, any existing FCNI problems will be exacerbated. Furthermore, if the maintenance staff is not expanded in the event of adding incremental square footage to the portfolio, the FCNI issues will become more difficult to manage.

If it is impossible to fully gut renovate or raze and replace a facility, consider bundling ISES recommendations to achieve economy-of-scale and minimize campus impact. For example, if an expensive HVAC system renewal project is justified and funded, consider undertaking any exterior envelope projects in concert with it. Replacing roofs, windows, and exterior doors will produce maximum energy savings, which will allow for as short a payback period as possible. Also, when common efforts are needed in buildings that are close to each other, consider executing projects over multiple buildings. As plans are developed to address identified needs, the scope of these repairs should be carefully considered to maximize the financial impact of capital reinvestment.

The primary goal of reinvesting in or renewing facilities is to mitigate customer or program downtime, which, of course, results in happier customers. There are many other benefits as well, such as providing more suitable and modern space for schools and programs and making the facilities more attractive to prospective students and programs. When effectively executed, facilities renewal efforts will reduce purchased energy consumption and make the existing maintenance organization more efficient.

APPENDIX A

Building List by Building Number

Appendix A is a general building inventory sorted by building number. The table includes typical stats such as primary use, year built, and size and also provides valuable information like CRV, total renewal costs, FCNI, and FCI.

BLDG #	BUILDING NAME	BLDG TYPE	YEAR BUILT	SQUARE FEET	CRV ($)	RENEWAL COSTS ($)	FCNI	FCI
AHA	EARL M. ANDERSON	CL	1970	104,725	35,575,000	13,895,177	0.39	0.18
AHB	ADMINISTRATION	OF	1975	34,511	12,254,000	3,577,742	0.29	0.10
AHC	JOSEPH E. HILL	CL	1970	56,169	19,819,000	7,935,604	0.40	0.18
AHD	GEORGE R. MOSHER	CL	1975	52,197	18,713,000	7,080,196	0.38	0.07
AHE	BUSINESS, SCIENCE AND ART	CL	1980	28,819	10,900,000	4,433,638	0.41	0.19
AHF1	GENERAL ASSEMBLY - MAIN AND ADDITION	CL	1970	25,550	9,664,000	3,315,206	0.34	0.10
AHF2	GENERAL ASSEMBLY - ADDITION	CL	1998	49,907	17,892,000	1,614,470	0.09	0.03
AHG1	BOOKSTORE, IT, PUBLIC SAFETY	RT	2008	29,909	6,298,000	403,973	0.06	0.00
AHG2	STUDENT UNION ADDITION	SU	2008	36,792	14,330,000	894,345	0.06	0.00
AHGCS	GROUNDS COVERED STORAGE	WH	2008	4,036	755,000	7,453	0.01	0.00
AHGM	GROUNDS MAINTENANCE	WH	2008	3,494	654,000	141,152	0.22	0.00
AHH	HEALTH EDUCATION	GM	1977	35,138	10,989,000	591,411	0.05	0.00
AHH1	WEIGHTLIFTING AND CLASSROOM ADDITION	GM	2010	12,195	4,341,000	83,896	0.02	0.00
AHJ	CRIMINAL JUSTICE	CL	1981	21,378	8,527,000	543,973	0.06	0.05
AHK	CHILD CARE CENTER	CC	1991	3,491	1,367,000	0	0.00	0.00
AHL	LANDSCAPE GREENHOUSE	ST	1993	1,991	298,395	242,014	0.81	0.06

BLDG #	BUILDING NAME	BLDG TYPE	YEAR BUILT	SQUARE FEET	CRV ($)	RENEWAL COSTS ($)	FCNI	FCI
AHMT1	MICHIGAN TECHNICAL EDUCATION CTR - MAIN	CL	2000	27,561	10,425,000	2,608,615	0.25	0.02
AHMT2	MICHIGAN TECHNICAL EDUCATION CTR - ANNEX	WH	2000	10,859	2,032,000	271,684	0.13	0.02
AHS1	CREST - TRAINING CENTER	CL	2002	10,655	4,444,000	465,967	0.10	0.01
AHS10	CREST - RANCH	RS	2001	1,890	374,100	66,706	0.18	0.08
AHS2	CONTROL TOWER	CL	2003	1,352	564,000	48,296	0.09	0.00
AHS3	CREST - POLE BARN METAL BUILDING	WH	2008	1,739	272,850	34,338	0.13	0.00
AHS4	CREST - BURN BUILDING	CL	2003	13,350	5,569,000	283,662	0.05	0.00
AHS5	CREST - MOTEL	DM	2002	3,415	1,607,000	171,250	0.11	0.02
AHS6	CREST - TWO-STORY	RS	2001	2,700	552,470	79,367	0.14	0.05
AHS7	CREST - BANK	OF	2002	1,800	705,000	130,062	0.18	0.00
AHS8	CREST - CONVENIENCE STORE/GAS STATION	RT	2002	3,000	697,000	109,689	0.16	0.01
AHS9	CREST - CAPE COD	RS	2001	1,983	404,440	85,562	0.21	0.08
AHSD	SALT DOME	WH	2008	987	112,580	0	0.00	0.00
AHT	ADVANCED TECHNOLOGY CENTER	CL	1983	38,060	13,947,000	4,914,602	0.35	0.15
DOGB	GEORGE A. BEE ADMINISTRATION CENTER	OF	1965	26,230	9,313,000	1,877,944	0.20	0.00
DOMH	DORIS MOSHER FOUNDATION HOUSE	OF	1925	4,889	1,914,000	615,411	0.32	0.16
HLGB1	GROUNDS BUILDING	ST	1998	3,175	1,102,000	308,886	0.28	0.06
HLGB2	GROUNDS COVERED STORAGE	WH	1998	3,997	748,000	107,296	0.14	0.02
HLGB3	SALT DOME	WH	2005	900	52,720	5,995	0.11	0.00
HLHOH	HIGH OAKS HALL	CL	1929	46,822	16,786,000	2,261,562	0.13	0.02
HLLH	LEVINSON HALL (SCIENCE)	LB	1977	42,327	23,165,000	2,849,954	0.12	0.00
HLLHA	LEVINSON HALL ADDITION (HEALTH)	LB	2006	38,130	20,868,000	1,604,735	0.08	0.00

BLDG #	BUILDING NAME	BLDG TYPE	YEAR BUILT	SQUARE FEET	CRV ($)	RENEWAL COSTS ($)	FCNI	FCI
HLMB	METAL BUILDING (OLD SALT STORAGE)	WH	1998	1,200	79,140	21,980	0.28	0.00
HLPAV	PAVILION	WH	1994	2,025	278,368	61,540	0.22	0.09
HLPE	PHYSICAL EDUCATION	GM	1977	35,098	10,976,000	3,303,339	0.30	0.09
HLPH	PUMP HOUSE	WH	1965	1,500	281,000	99,110	0.35	0.03
HLRC	REDWOOD CENTER	ST	1927	4,098	1,422,000	292,981	0.21	0.00
HLSC	STUDENT CENTER	SU	1972	31,120	12,511,000	1,483,546	0.12	0.00
HLWH	WOODLAND HALL (NORTH)	CL	1980	42,505	15,576,000	1,569,187	0.10	0.02
HLWHA	WOODLAND HALL ADDITION (SOUTH)	OF	2008	54,470	18,332,000	1,362,408	0.07	0.00
ORA	CLASSROOM BUILDING A AND ADDITION	LB	1967	36,363	19,684,000	4,062,695	0.21	0.10
ORB	CLASSROOM BUILDING B	LB	1967	26,555	15,001,000	4,246,946	0.28	0.15
ORC	CLASSROOM BUILDING C	LB	1967	26,627	15,042,000	3,567,554	0.24	0.11
ORD	CLASSROOM BUILDING D	LB	1967	28,561	16,134,000	4,720,564	0.29	0.17
ORF	CLASSROOM BUILDING F	CL	1967	28,280	10,697,000	3,462,284	0.32	0.17
ORG	CLASSROOM BUILDING G	CL	1967	26,781	10,130,000	2,469,129	0.24	0.09
ORH	COMMUNITY ACTIVITY	GM	1977	70,357	20,922,000	7,689,514	0.37	0.13
ORJ	TIRRELL HALL	SU	1967	118,364	42,259,000	14,252,443	0.34	0.15
ORK	MARTIN L. KING JR. LIBRARY	LI	1967	40,181	14,437,000	2,903,924	0.20	0.06
ORL	ARTS BUILDING	CL	1967	28,967	10,956,000	4,017,052	0.37	0.19
ORM	ADMINISTRATION	OF	1967	27,383	9,723,000	2,558,008	0.26	0.10
ORN	GROUNDS GARAGE	ST	1972	4,008	1,391,000	523,359	0.38	0.19
ORP	PUMP HOUSE	WH	1967	1,060	198,000	86,169	0.44	0.32
ORT	SMITH THEATRE	TH	1982	12,633	5,429,000	1,092,114	0.20	0.06

BLDG #	BUILDING NAME	BLDG TYPE	YEAR BUILT	SQUARE FEET	CRV ($)	RENEWAL COSTS ($)	FCNI	FCI
ROA1	CLASSROOM	CL	1980	28,443	10,758,000	2,578,373	0.24	0.05
ROA2	CLASSROOM ADDITION	CL	1999	21,080	8,408,000	472,162	0.06	0.00
ROB	ADMINISTRATION	CL	1980	38,036	13,938,000	3,264,427	0.23	0.05
ROC	LEARNING RESOURCES CENTER	CL	1980	20,188	8,052,000	515,124	0.06	0.01
ROD	FINE ARTS	CL	1980	30,160	11,408,000	2,822,124	0.25	0.02
ROE	LILA R. JONES-JOHNSON THEATER	TH	1980	30,750	11,983,000	3,100,634	0.26	0.05
ROG	GROUNDS BUILDING	WH	1935	2,752	955,000	365,615	0.38	0.10
ROM	MALL	OF	1980	29,562	10,496,000	1,653,719	0.16	0.04
ROPS1	PARKING STRUCTURE - NORTH	PK	1983	155,975	7,200,000	1,872,479	0.26	0.00
ROPS2	PARKING STRUCTURE - SOUTH	PK	1999	175,000	8,053,000	1,192,980	0.15	0.00
SFSF1	SOUTHFIELD - BUILDING A	CL	1979	81,322	28,074,000	3,517,384	0.13	0.00
SFSF2	SOUTHFIELD - BUILDING A ADDITION	LI	1999	10,882	7,115,552	1,798,507	0.25	0.01
SFSF3	SOUTHFIELD - BUILDING B	LB	2010	71,800	37,366,000	1,385,427	0.04	0.00
GRAND TOTAL				**2,130,209**	**$703,296,615**	**$152,046,634**	**0.22**	**0.07**

APPENDIX B

Building List by FCNI

Appendix B provides a building list sorted by FCNI in descending order. This report is useful for directing funding for building renovations. If a building is high on the list and projected to be a relevant part of the campus mission for years to come, it is recommended that the building be sustained to a minimal degree until a major renovation or facility replacement can be funded.

BLDG #	BUILDING NAME	BLDG TYPE	YEAR BUILT	SQUARE FEET	CRV ($)	TOTAL 10 YR NEEDS ($)	FCNI
> 0.60							
AHL	LANDSCAPE GREENHOUSE	ST	1993	1,991	298,395	242,014	0.81
0.60 0.51							
NONE							
0.50 0.31							
ORP	PUMP HOUSE	WH	1967	1,060	198,000	86,169	0.44
AHE	BUSINESS, SCIENCE AND ART	CL	1980	28,819	10,900,000	4,433,638	0.41
AHC	JOSEPH E. HILL	CL	1970	56,169	19,819,000	7,935,604	0.40
AHA	EARL M. ANDERSON	CL	1970	104,725	35,575,000	13,895,177	0.39
ROG	GROUNDS BUILDING	WH	1935	2,752	955,000	365,615	0.38
AHD	GEORGE R. MOSHER	CL	1975	52,197	18,713,000	7,080,196	0.38
ORN	GROUNDS GARAGE	ST	1972	4,008	1,391,000	523,359	0.38
ORH	COMMUNITY ACTIVITY	GM	1977	70,357	20,922,000	7,689,514	0.37
ORL	ARTS BUILDING	CL	1967	28,967	10,956,000	4,017,052	0.37
HLPH	PUMP HOUSE	WH	1965	1,500	281,000	99,110	0.35

BLDG #	BUILDING NAME	BLDG TYPE	YEAR BUILT	SQUARE FEET	CRV ($)	TOTAL 10 YR NEEDS ($)	FCNI
AHT	ADVANCED TECHNOLOGY CENTER	CL	1983	38,060	13,947,000	4,914,602	0.35
AHF1	GENERAL ASSEMBLY - MAIN AND ADDITION	CL	1970	25,550	9,664,000	3,315,206	0.34
ORJ	TIRRELL HALL	SU	1967	118,364	42,259,000	14,252,443	0.34
ORF	CLASSROOM BUILDING F	CL	1967	28,280	10,697,000	3,462,284	0.32
DOMH	DORIS MOSHER FOUNDATION HOUSE	OF	1925	4,889	1,914,000	615,411	0.32
		0.30	**0.21**				
HLPE	PHYSICAL EDUCATION	GM	1977	35,098	10,976,000	3,303,339	0.30
ORD	CLASSROOM BUILDING D	LB	1967	28,561	16,134,000	4,720,564	0.29
AHB	ADMINISTRATION	OF	1975	34,511	12,254,000	3,577,742	0.29
ORB	CLASSROOM BUILDING B	LB	1967	26,555	15,001,000	4,246,946	0.28
HLGB1	GROUNDS BUILDING	ST	1998	3,175	1,102,000	308,886	0.28
HLMB	METAL BUILDING (OLD SALT STORAGE)	WH	1998	1,200	79,140	21,980	0.28
ORM	ADMINISTRATION	OF	1967	27,383	9,723,000	2,558,008	0.26
ROPS1	PARKING STRUCTURE - NORTH	PK	1983	155,975	7,200,000	1,872,479	0.26
ROE	LILA R. JONES-JOHNSON THEATER	TH	1980	30,750	11,983,000	3,100,634	0.26
SFSF2	SOUTHFIELD - BUILDING A ADDITION	LI	1999	10,882	7,115,552	1,798,507	0.25
AHMT1	MICHIGAN TECHNICAL EDUCATION CTR - MAIN	CL	2000	27,561	10,425,000	2,608,615	0.25
ROD	FINE ARTS	CL	1980	30,160	11,408,000	2,822,124	0.25
ORG	CLASSROOM BUILDING G	CL	1967	26,781	10,130,000	2,469,129	0.24
ROA1	CLASSROOM	CL	1980	28,443	10,758,000	2,578,373	0.24
ORC	CLASSROOM BUILDING C	LB	1967	26,627	15,042,000	3,567,554	0.24

BLDG #	BUILDING NAME	BLDG TYPE	YEAR BUILT	SQUARE FEET	CRV ($)	TOTAL 10 YR NEEDS ($)	FCNI
ROB	ADMINISTRATION	CL	1980	38,036	13,938,000	3,264,427	0.23
HLPAV	PAVILION	WH	1994	2,025	278,368	61,540	0.22
AHGM	GROUNDS MAINTENANCE	WH	2008	3,494	654,000	141,152	0.22
AHS9	CREST - CAPE COD	RS	2001	1,983	404,440	85,562	0.21
ORA	CLASSROOM BUILDING A AND ADDITION	LB	1967	36,363	19,684,000	4,062,695	0.21
HLRC	REDWOOD CENTER	ST	1927	4,098	1,422,000	292,981	0.21
		0.20	**0.11**				
DOGB	GEORGE A. BEE ADMINISTRATION CENTER	OF	1965	26,230	9,313,000	1,877,944	0.20
ORT	SMITH THEATRE	TH	1982	12,633	5,429,000	1,092,114	0.20
ORK	MARTIN L. KING JR. LIBRARY	LI	1967	40,181	14,437,000	2,903,924	0.20
AHS7	CREST - BANK	OF	2002	1,800	705,000	130,062	0.18
AHS10	CREST - RANCH	RS	2001	1,890	374,100	66,706	0.18
ROM	MALL	OF	1980	29,562	10,496,000	1,653,719	0.16
AHS8	CREST - CONVENIENCE STORE/GAS STATION	RT	2002	3,000	697,000	109,689	0.16
ROPS2	PARKING STRUCTURE - SOUTH	PK	1999	175,000	8,053,000	1,192,980	0.15
AHS6	CREST - TWO-STORY	RS	2001	2,700	552,470	79,367	0.14
HLGB2	GROUNDS COVERED STORAGE	WH	1998	3,997	748,000	107,296	0.14
HLHOH	HIGH OAKS HALL	CL	1929	46,822	16,786,000	2,261,562	0.13
AHMT2	MICHIGAN TECHNICAL EDUCATION CTR - ANNEX	WH	2000	10,859	2,032,000	271,684	0.13
AHS3	CREST - POLE BARN METAL BUILDING	WH	2008	1,739	272,850	34,338	0.13
SFSF1	SOUTHFIELD - BUILDING A	CL	1979	81,322	28,074,000	3,517,384	0.13

BLDG #	BUILDING NAME	BLDG TYPE	YEAR BUILT	SQUARE FEET	CRV ($)	TOTAL 10 YR NEEDS ($)	FCNI
HLLH	LEVINSON HALL (SCIENCE)	LB	1977	42,327	23,165,000	2,849,954	0.12
HLSC	STUDENT CENTER	SU	1972	31,120	12,511,000	1,483,546	0.12
HLGB3	SALT DOME	WH	2005	900	52,720	5,995	0.11
AHS5	CREST - MOTEL	DM	2002	3,415	1,607,000	171,250	0.11
	0.10	**0.00**					
AHS1	CREST - TRAINING CENTER	CL	2002	10,655	4,444,000	465,967	0.10
HLWH	WOODLAND HALL (NORTH)	CL	1980	42,505	15,576,000	1,569,187	0.10
AHF2	GENERAL ASSEMBLY - ADDITION	CL	1998	49,907	17,892,000	1,614,470	0.09
AHS2	CONTROL TOWER	CL	2003	1,352	564,000	48,296	0.09
HLLHA	LEVINSON HALL ADDITION (HEALTH)	LB	2006	38,130	20,868,000	1,604,735	0.08
HLWHA	WOODLAND HALL ADDITION (SOUTH)	OF	2008	54,470	18,332,000	1,362,408	0.07
AHG1	BOOKSTORE, IT, PUBLIC SAFETY	RT	2008	29,909	6,298,000	403,973	0.06
ROC	LEARNING RESOURCES CENTER	CL	1980	20,188	8,052,000	515,124	0.06
AHJ	CRIMINAL JUSTICE	CL	1981	21,378	8,527,000	543,973	0.06
AHG2	STUDENT UNION ADDITION	SU	2008	36,792	14,330,000	894,345	0.06
ROA2	CLASSROOM ADDITION	CL	1999	21,080	8,408,000	472,162	0.06
AHH	HEALTH EDUCATION	GM	1977	35,138	10,989,000	591,411	0.05
AHS4	CREST - BURN BUILDING	CL	2003	13,350	5,569,000	283,662	0.05
SFSF3	SOUTHFIELD - BUILDING B	LB	2010	71,800	37,366,000	1,385,427	0.04
AHH1	WEIGHTLIFTING AND CLASSROOM ADDITION	GM	2010	12,195	4,341,000	83,896	0.02
AHGCS	GROUNDS COVERED STORAGE	WH	2008	4,036	755,000	7,453	0.01

BLDG #	BUILDING NAME	BLDG TYPE	YEAR BUILT	SQUARE FEET	CRV ($)	TOTAL 10 YR NEEDS ($)	FCNI
AHSD	SALT DOME	WH	2008	987	112,580	0	0.00
AHK	CHILD CARE CENTER	CC	1991	3,491	1,367,000	0	0.00

APPENDIX C
FCNI Comparison

Appendix C is a comparison table with a sampling of results from similar FCA efforts to benchmark against Oakland Community College.

CLIENT	FCNI	GSF	ASSET COUNT	AVG YEAR BUILT	AVG AGE AT INSP	RENEWAL COSTS/ SF ($)	TOTAL RENEWAL COSTS ($)	FCNI PERCENTILE	AVG AGE PERCENTILE
Georgia College	0.10	1,129,229	21	1991	21	35.09	39,624,804	100%	100%
Columbia College	0.13	452,265	24	1952	61	52.60	23,789,565	92%	9%
San Bernardino Community College District	0.16	1,031,471	54	1991	25	62.50	64,464,728	82%	91%
Kishwaukee College	0.16	576,637	11	1979	38	62.93	36,290,629	84%	42%
North Georgia College & State Univ.	0.20	649,095	9	1989	23	47.86	31,066,394	67%	92%
Oakland Community College	0.22	2,130,209	73	1981	36	71.38	152,046,633	59%	59%
Navarro College	0.25	306,420	14	1967	49	80.65	24,714,139	50%	25%
Notre Dame of Maryland University	0.25	655,037	16	1939	77	92.01	60,268,988	50%	0%
Portland Community College	0.27	2,055,698	39	1983	27	93.49	192,190,548	34%	75%
Morehouse College	0.29	716,619	25	1969	47	97.35	69,765,043	25%	34%
Black Hawk College	0.30	562,976	19	1974	37	114.82	64,639,609	17%	50%
Kenyon College	0.32	825,023	52	1949	58	84.38	69,612,041	9%	17%
University of Nebraska - Omaha	0.36	690,190	6	1971	35	76.81	53,013,995	0%	67%

APPENDIX D

AMS Database Functionality

The ISES AMS database is the industry standard for maintaining and managing capital and deferred renewal needs. It was designed inhouse exclusively for the purpose of managing FCA data and is the tool used daily by ISES personnel for data development and report generation. The system accommodates ongoing management and use of FCA information in an efficient manner, allowing facilities professionals to manage their portfolios – instead of being managed by deteriorating facilities conditions.

AMS is cloud-based and user-friendly. It has a menu-driven system for the efficient management and organization of FCA information. It uses a relational database, eliminating the storage of redundant data. From ease of use for data entry to providing reports and graphics utilized to quantify and qualify capital improvement plans, AMS is a powerful and invaluable tool.

All assessment data is stored in AMS. The database is hosted under an ASP model. There are no minimal hardware specifications, and it is accessible via the Internet to anyone designated by the Client as an authorized user. Users can be created with different levels of view and edit capabilities based upon your needs. ISES will provide access via our own web servers and ensure that the system remains available and current. The only requirements for your authorized users are Internet access and web browser software. It is compatible with Windows Internet Explorer 7.0 or higher, as well as comparable browser systems, such as Firefox.

Benefits

The power of AMS lies in its ability to sort data in numerous ways and generate customized reports to meet your needs. AMS allows you to easily track, sort and prioritize facility conditions by building, defined group, site/campus or for all of the buildings in the database. Users will be able to identify needs across multiple assets through utilization of user-defined queries. Results can be exported for integration into presentations, analytical studies, reports, CMMS databases and more.

AMS Access

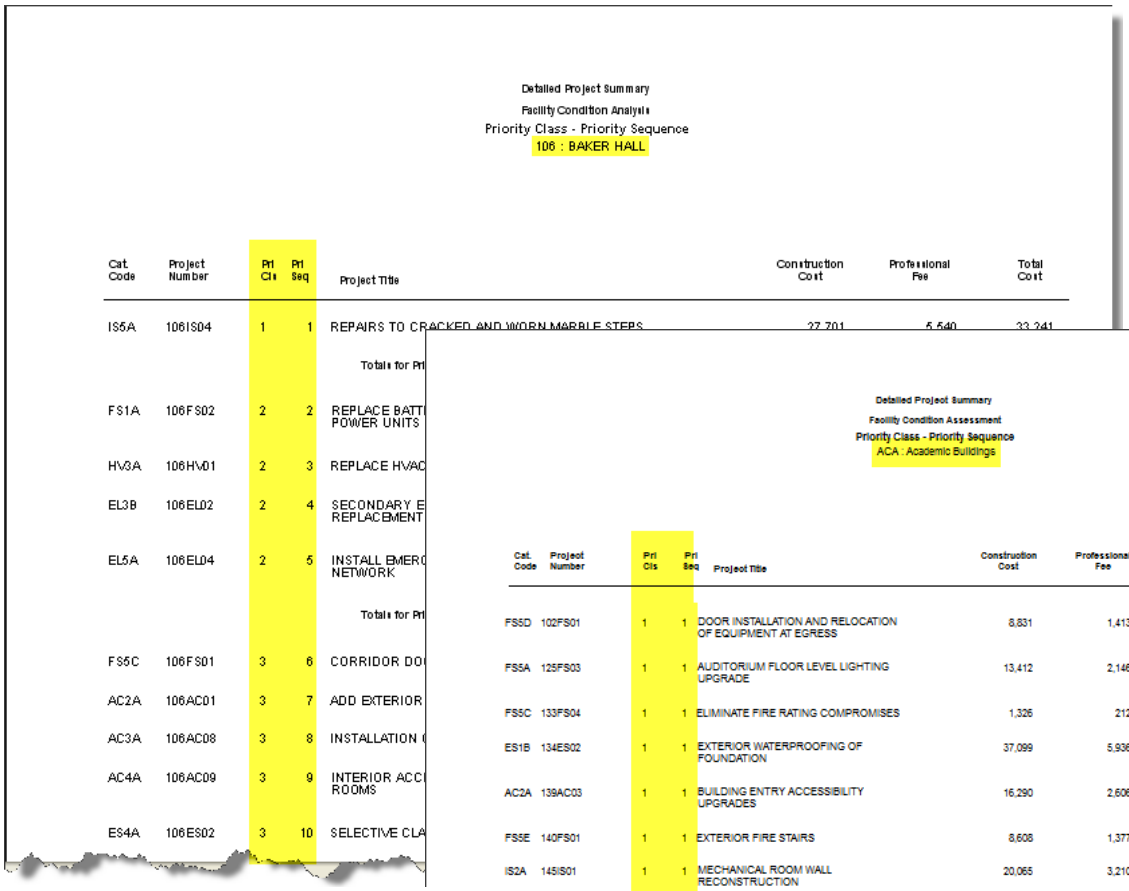
Your customized AMS database can be accessed by visiting the ISES homepage (http://www.isescorp.com). Click on **My AMS** in the upper right-hand corner to enter your login information.

Data Sorting and Customized Reporting

The data housed in AMS can be sorted in numerous ways. Project data fields and characteristics enable you to sort and filter electronic data more effectively. Typical sortable fields include, but are not limited to:

- Deficiency Priority
- Deficiency Category
- Facility Type
- Facility Location
- Correction Type
- Repair Cost
- Item/Component Types

AMS generates a report listing all of the renewal needs by building, group, or all buildings. Figures 1a and 1b show renewal needs sorted by priority class and priority sequence.



Detailed Project Summary
Facility Condition Analysis
Priority Class - Priority Sequence
106 : BAKER HALL

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
IS5A	106IS04	1	1	REPAIRS TO CRACKED AND WORN MARBLE STEPS	27,701	5,540	33,241
				Totals for Pri			
FS1A	106FS02	2	2	REPLACE BATT POWER UNITS			
HV3A	106HV01	2	3	REPLACE HVAC			
EL3B	106EL02	2	4	SECONDARY E REPLACEMENT			
EL5A	106EL04	2	5	INSTALL EMERG NETWORK			
				Totals for Pri			
FS6C	106FS01	3	6	CORRIDOR DO			
AC2A	106AC01	3	7	ADD EXTERIOR			
AC3A	106AC08	3	8	INSTALLATION			
AC4A	106AC09	3	9	INTERIOR ACC ROOMS			
ES4A	106ES02	3	10	SELECTIVE CLA			

Figure 1a. Priority Class by Priority Sequence report for Facility 106, Baker Hall.

Detailed Project Summary
Facility Condition Assessment
Priority Class - Priority Sequence
ACA : Academic Buildings

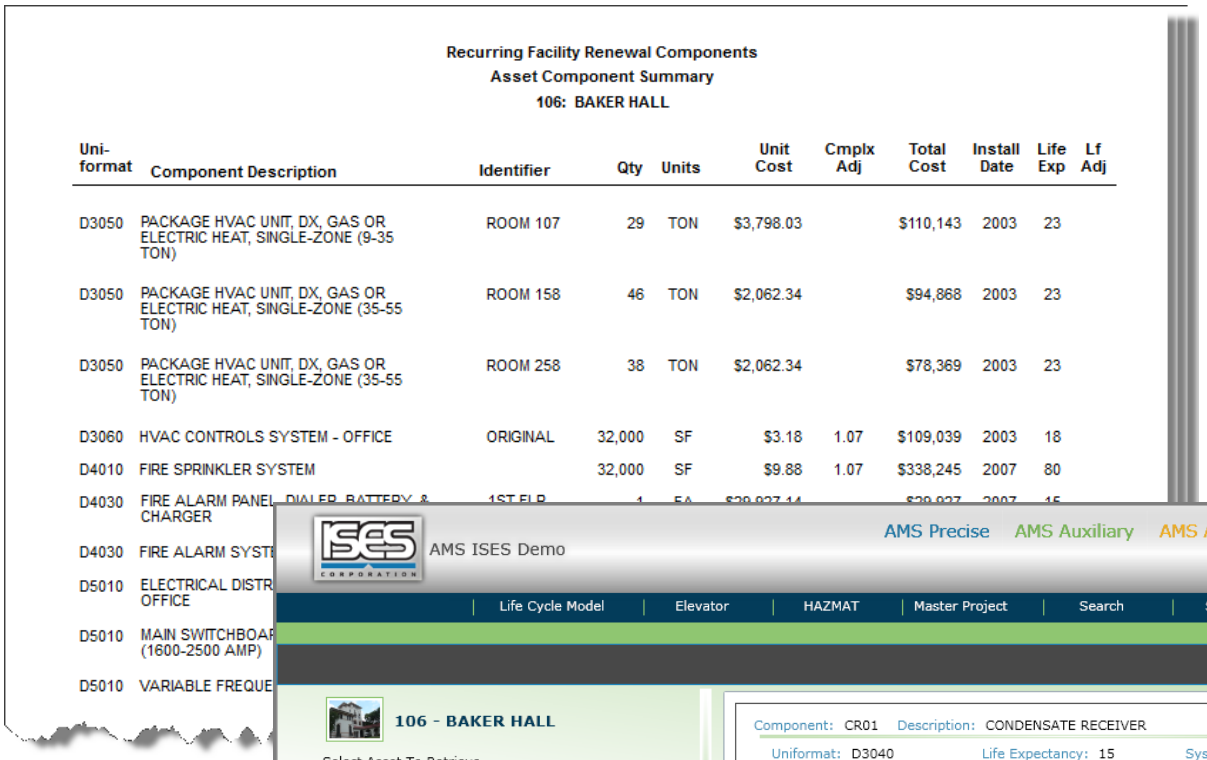
Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Actual Cost to Date	Remaining Cost
FS5D	102FS01	1	1	DOOR INSTALLATION AND RELOCATION OF EQUIPMENT AT EGRESS	8,831	1,413	0	10,244
FS5A	125FS03	1	1	AUDITORIUM FLOOR LEVEL LIGHTING UPGRADE	13,412	2,146	0	15,558
FS5C	133FS04	1	1	ELIMINATE FIRE RATING COMPROMISES	1,326	212	0	1,692
ES1B	134ES02	1	1	EXTERIOR WATERPROOFING OF FOUNDATION	37,099	5,936	0	43,034
AC2A	139AC03	1	1	BUILDING ENTRY ACCESSIBILITY UPGRADES	16,290	2,606	0	20,786
FS5E	140FS01	1	1	EXTERIOR FIRE STAIRS	8,608	1,377	0	9,986
IS2A	145IS01	1	1	MECHANICAL ROOM WALL RECONSTRUCTION	20,065	3,210	0	23,276
FS4A	148FS01	1	1	INSTALL HAZARDOUS CHEMICAL STORAGE CONTAINMENT	1,723	0	0	1,723
PL2B	153PL01	1	1	INSTALL SUMP PUMP SYSTEM	9,261	1,482	0	11,818
ES4A	134ES03	1	2	SELECTIVE GUTTER AND SOFFIT REPAIRS	6,042	967	0	7,009
AC2A	140AC03	1	2	ACCESSIBILITY UPGRADE FOR BUILDING ENTRY	7,762	1,242	0	9,905
ES4B	151ES03	1	4	MODIFY ROOF AND DRAINAGE SYSTEM	425,407	68,065	0	493,472
VT7A	151VT01	1	4	COMPREHENSIVE ELEVATOR MODERNIZATION	48,002	0	0	48,002

Figure 1b. Priority Class by Priority Sequence report for user-created group called "Academic Buildings".

Lifecycle Component Inventory (Recurring Renewal Needs)

The ISES FCA includes development of a full lifecycle component inventory of each facility. The inventory is based on industry standard life expectancies applied to an inventory of building systems and major components within a facility. This inventory covers the *entire* lifespan of the facility.

Figure 2a displays a typical lifecycle inventory list. Figure 2b shows the detail associated with individual line items in the inventory.



Recurring Facility Renewal Components
Asset Component Summary
106: BAKER HALL

Uni-format	Component Description	Identifier	Qty	Units	Unit Cost	Cmplx Adj	Total Cost	Install Date	Life Exp	Lf Adj
D3050	PACKAGE HVAC UNIT, DX, GAS OR ELECTRIC HEAT, SINGLE-ZONE (9-35 TON)	ROOM 107	29	TON	$3,798.03		$110,143	2003	23	
D3050	PACKAGE HVAC UNIT, DX, GAS OR ELECTRIC HEAT, SINGLE-ZONE (35-55 TON)	ROOM 158	46	TON	$2,062.34		$94,868	2003	23	
D3050	PACKAGE HVAC UNIT, DX, GAS OR ELECTRIC HEAT, SINGLE-ZONE (35-55 TON)	ROOM 258	38	TON	$2,062.34		$78,369	2003	23	
D3060	HVAC CONTROLS SYSTEM - OFFICE	ORIGINAL	32,000	SF	$3.18	1.07	$109,039	2003	18	
D4010	FIRE SPRINKLER SYSTEM		32,000	SF	$9.88	1.07	$338,245	2007	80	
D4030	FIRE ALARM PANEL, DIALER, BATTERY & CHARGER	1ST FLR	1	EA	$20,027.14		$20,027	2007	15	
D4030	FIRE ALARM SYST									
D5010	ELECTRICAL DISTR OFFICE									
D5010	MAIN SWITCHBOAR (1600-2500 AMP)									
D5010	VARIABLE FREQUE									

Figure 2a. Lifecycle Component Inventory report for Facility 106, Baker Hall

Figure 2b. AMS screenshot of Lifecycle Component Inventory detail.

Nonrecurring Renewal Needs

A. Management of Recommended Projects

The user can select an asset for specific data entry; enter, edit, or view various system data and settings, including photographs and CAD; print or view a wide array of reports produced by SAP Crystal Reports; generate on-the-fly search lists; and construct forecasting models of system financial data. Each deficiency is classified by the major property components identified for survey in the field. The user has the ability to edit fields and support tables to allow for owner-specified classifications to be added to the above lists.

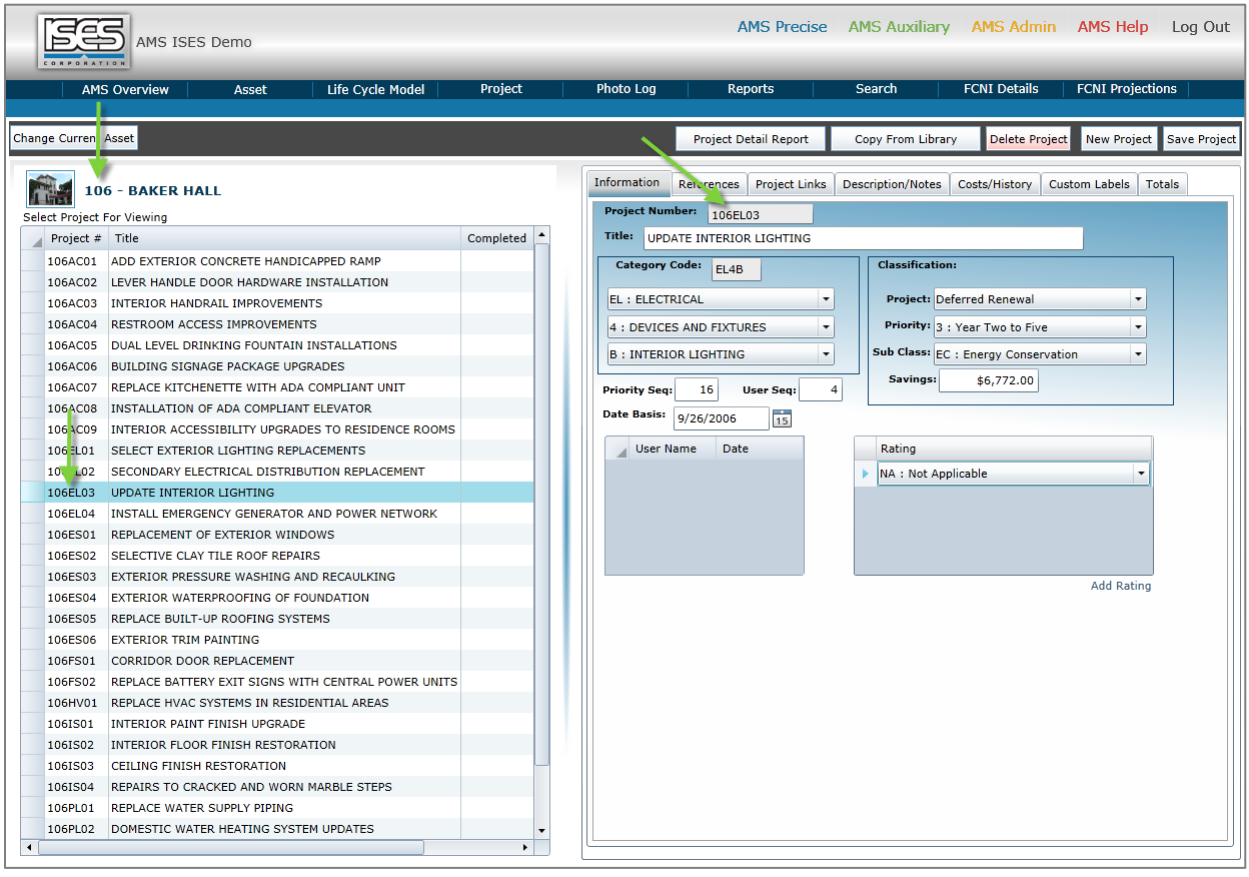


Figure 3. AMS screenshot of Project EL03 showing the Information tab of the Project Menu.

B. Cost Estimates

Costs for nonrecurring renewal needs include multiple tasks, as dictated by circumstances. All costs are estimated and then indexed to local conditions. Markups are applied as the situation dictates.

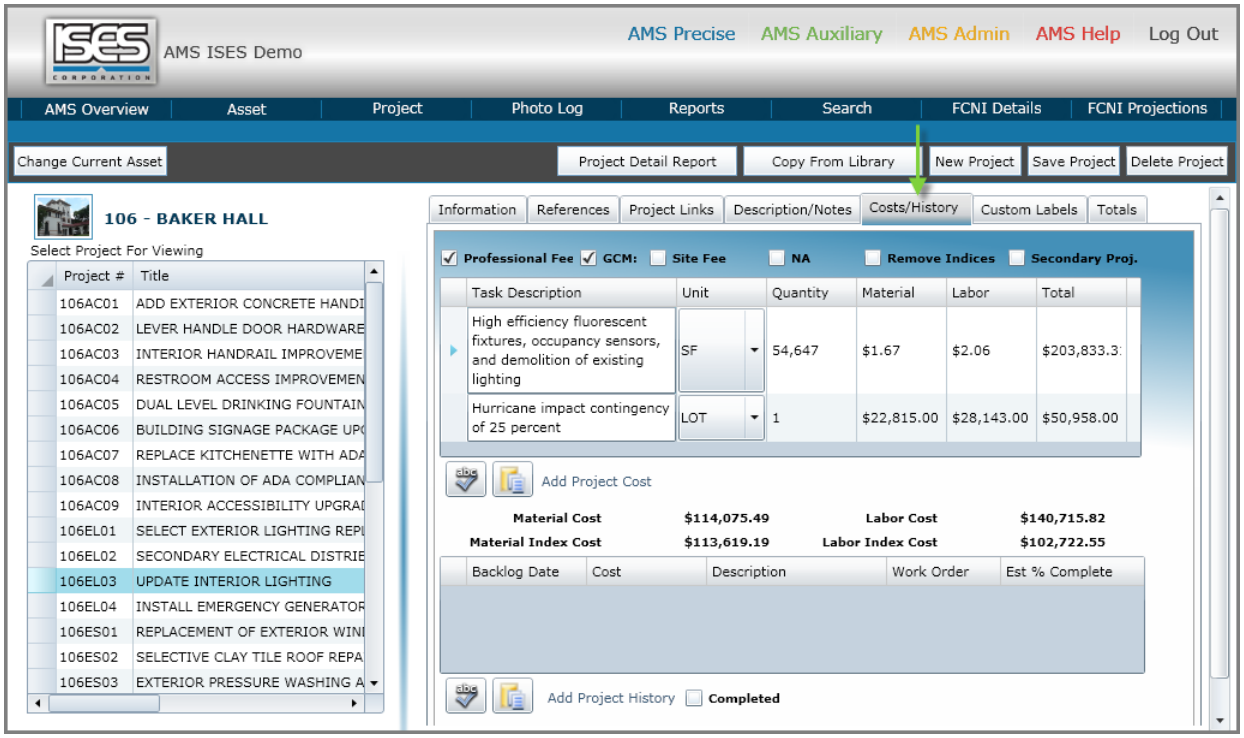


Figure 4. AMS screenshot of Project EL03's Costs/History tab.

The database also contains a History section that allows you to record any work that is performed on a project. This feature records the date, actual cost, description of work performed, work order number (if applicable) and estimated percentage of completion. If the work is 100% complete, it will remain in the database but is removed from the reporting of outstanding projects.

C. Project Totals

This summary shows original costs, inflation (as dictated by the base year of the estimate), total markups and work completed to date.

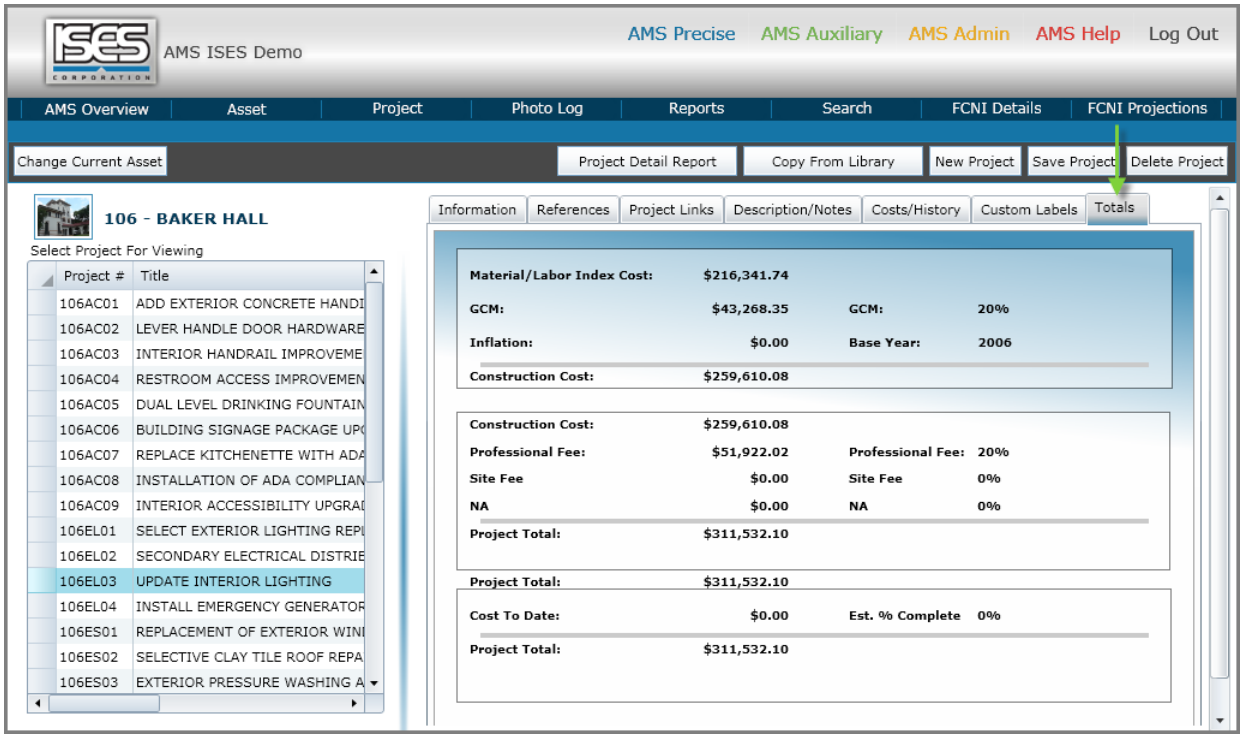


Figure 5. AMS screenshot of Project EL03's Totals tab.

Photolog

In addition to detailed renewal information, ISES creates a full photographic record of the physical inspection of the building, which is accessible via the database. This provides visual identification of the facility, as well as documentation of renewal needs.

Figure 6a depicts thumbnails of the photographs taken by the field inspectors, together with their description and location. Clicking on the photo will generate a larger popup of the image. The photos in 6b are linked to project EL03 (Upgrade Interior Lighting), showing affected areas in the building.

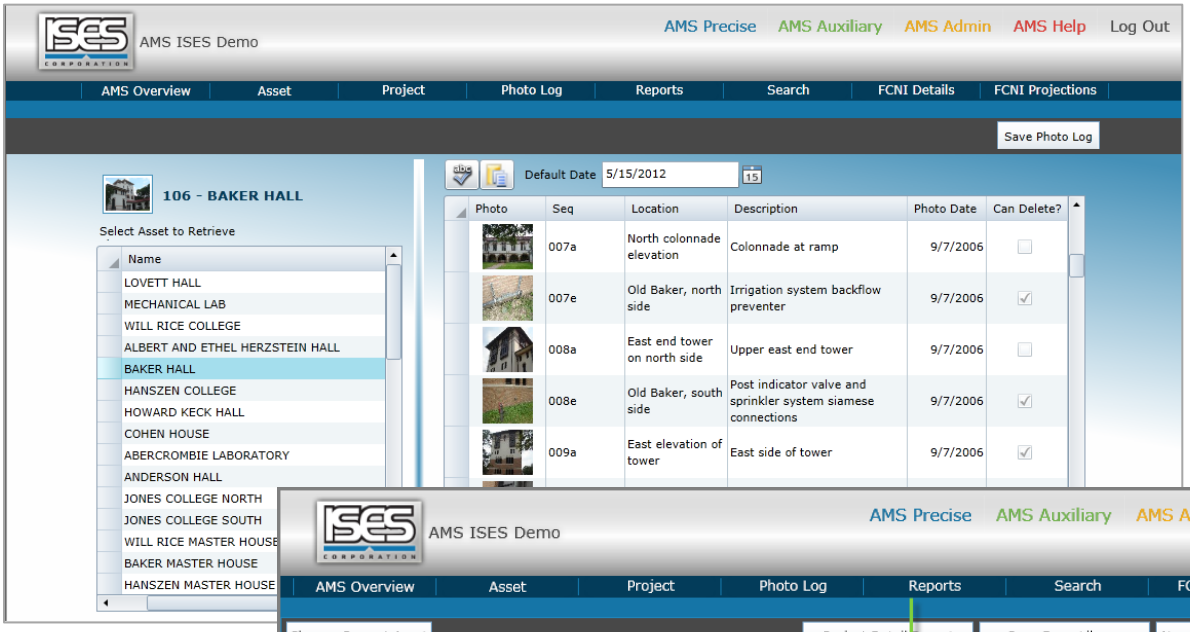


Figure 6a. AMS screenshot of building Photolog.

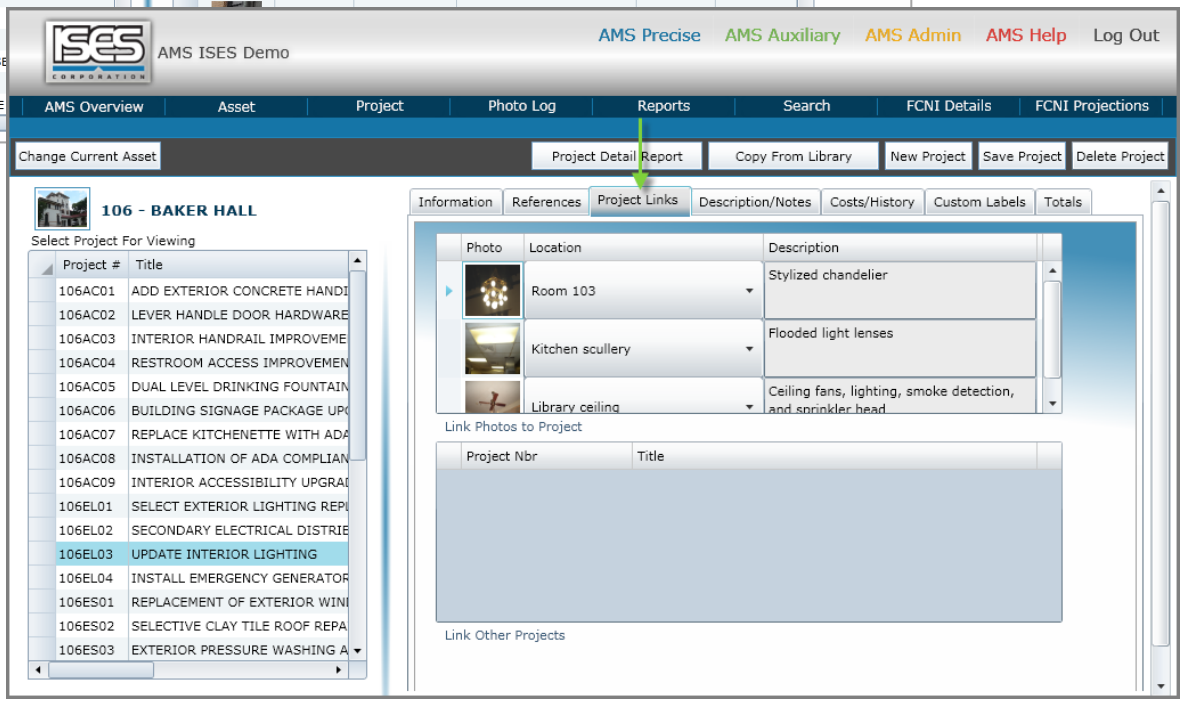


Figure 6b. AMS screenshot of project EL03's Project Links Tab.

CAD Drawings

If drawings are provided by the Client, ISES identifies the location of nonrecurring renewal recommendations on the floor plans. These drawings are integrated with the database and included in published facility reports.

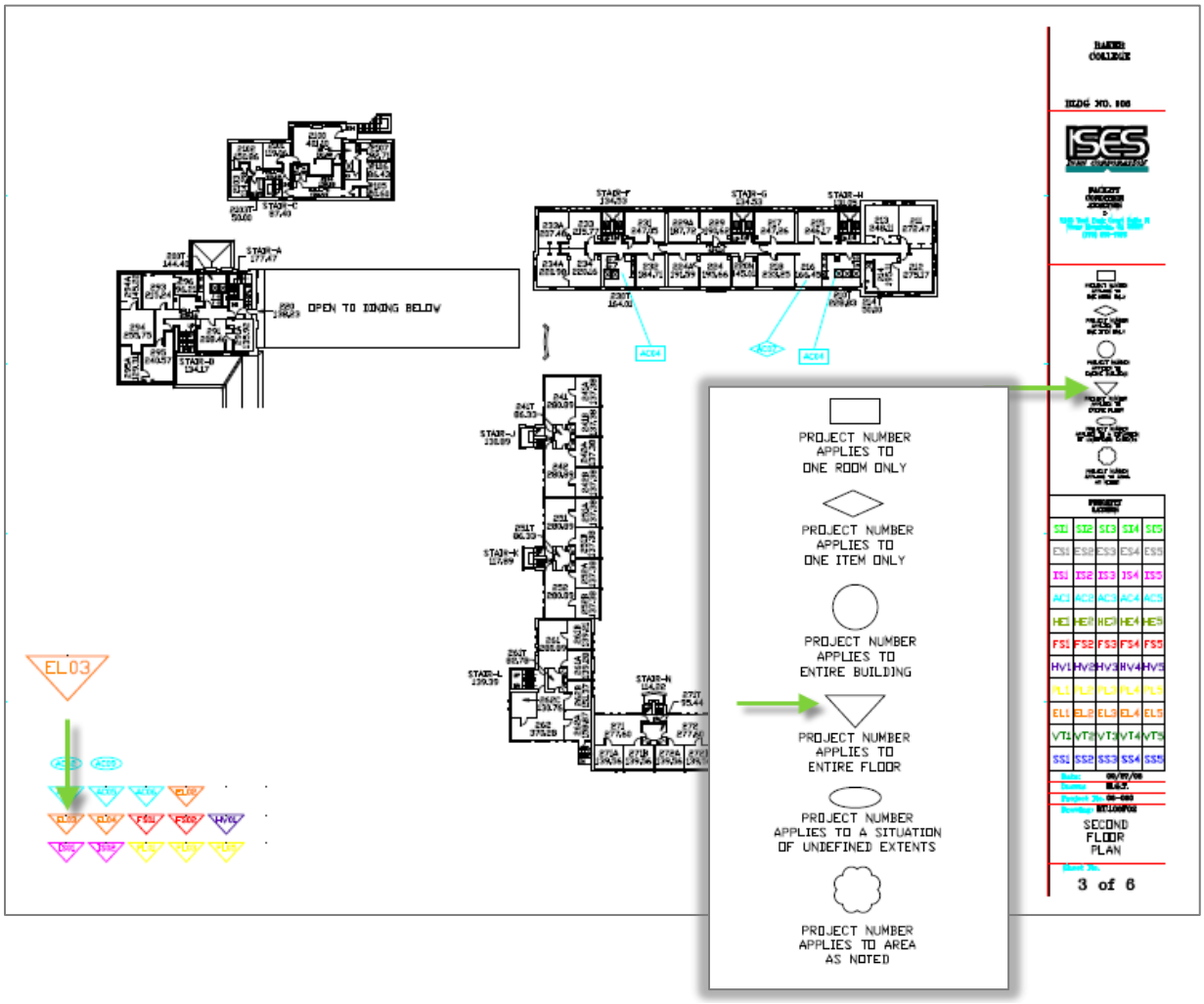


Figure 7. CAD for the second floor of the facility. The triangular icon for EL03 indicates that the renewal recommendation pertains to the entire floor.

Facility Reinvestment Modeling

Once the baseline condition of each facility has been established through the FCA process, the built-in modeling capability of AMS allows you to forecast funding requirements to meet target goals of condition. Multi-level financial modeling can be generated by deferred renewal backlog, capital renewal and selected timeframe. The information can be presented both graphically and textually and exported in standardized Microsoft Office formats. ISES will work with you to develop funding scenarios based on differing targets.

Projections can be based on renewal needs for a single building or across the entire facilities portfolio. AMS also calculates various metrics of your asset portfolio and measures the overall Facility Condition Needs Index (FCNI) against a national standard.

Figure 8 depicts economic parameters for setting up the models. It shows the various parameters that are input into the model once the existing condition has been established.

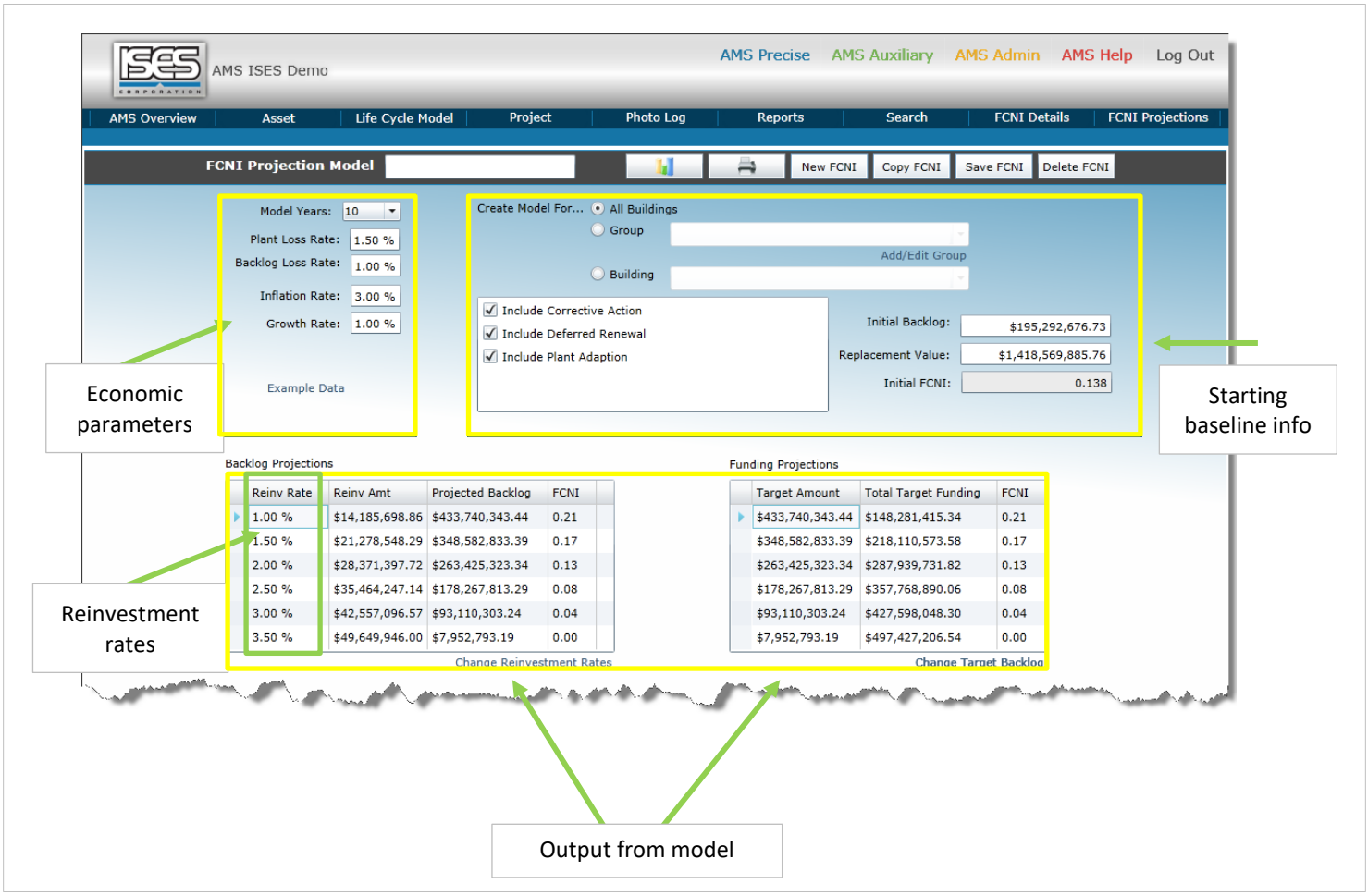


Figure 8. AMS screenshot of the Projection Model feature for the entire campus.

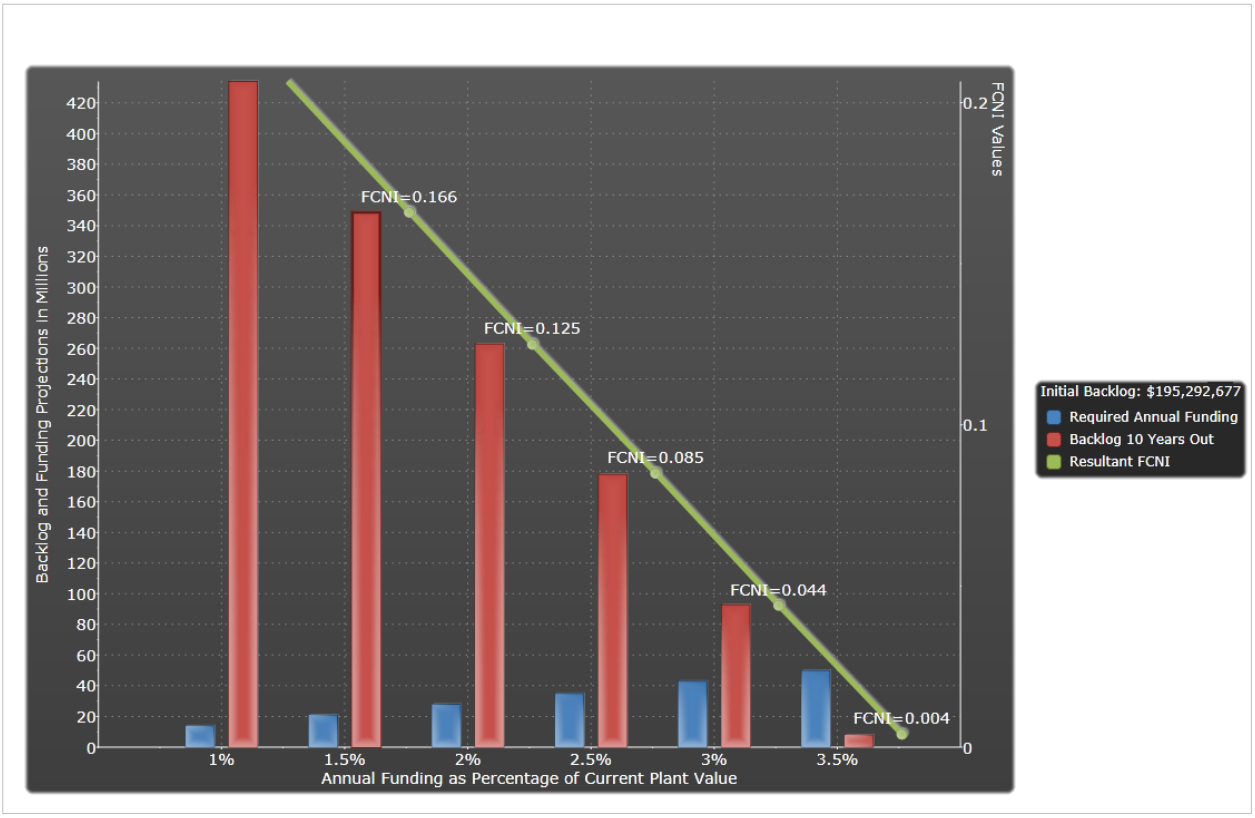


Figure 9. AMS screenshot of the Projection Model's Graphic Report.

ISES will work with you to develop several funding scenarios based on differing targets. Using the modeling function, the required levels of funding to achieve target conditions can be established.

The projections in Figure 8 are based on the facilities renewal need across the entire facilities portfolio. They are displayed graphically in Figure 9.

Classroom Utilization

Fall 2022 classroom utilization is based on 30 count seats for enhanced classrooms. The morning is from 8:00am – 11:55am; afternoon 12:00pm – 5:55pm; evening 6:00pm – 9:55pm.

Auburn Hills:

Morning	Monday – Thursday	45%
Afternoon	Monday – Thursday	38%
Evening	Monday – Thursday	24%
	Friday/Saturday	25%

Highland Lakes:

Morning	Monday – Thursday	32%
Afternoon	Monday – Thursday	29%
Evening	Monday – Thursday	11%
	Friday	22%

Orchard Ridge:

Morning	Monday – Thursday	42.5%
	Friday	1.0%
Afternoon	Monday – Thursday	41.0%
	Friday	0.0%
Evening	Monday – Thursday	34.5%

Royal Oak:

Morning	Monday – Thursday	38%
Afternoon	Monday – Thursday	22%
Evening	Monday – Thursday	11%
	Friday	.2%

Southfield:

Morning	Monday – Thursday	35%
Afternoon	Monday – Thursday	20%
Evening	Monday – Thursday	11%
	Friday/Saturday	.2%

Mandated Facility Standards & Space Allocation by Campus

Below are the mandated facility standards for specific programs and the campuses square footage distribution for the program areas:

- Ceramics – State/Local Fire Code Enforcement, OSHA/MIOSHA, EPA/EGLE
- Culinary – State/County Health Department, State/Local Fire Code Enforcement, OSHA/MIOSHA, EPA/EGLE
- Photo (analogue) – State/Local Fire Code Enforcement, OSHA/MIOSHA, EPA/EGLE
- All Science Labs – State/Local Fire Code Enforcement, OSHA/MIOSHA, EPA/EGLE, ANSI
- Auto and Body Lab – State/Local Fire Code Enforcement, OSHA/MIOSHA, EPA/EGLE
- Nursing – State/Local Fire Code Enforcement, OSHA/MIOSHA, EPA/EGLE
- Radiation Therapy Technology – State/Local Fire Code Enforcement, OSHA/MIOSHA, NRC & Equipment Certification, EPA/EGLE
- Respiratory Therapy – State/Local Fire Code Enforcement, OSHA/MIOSHA, EPA/EGLE
- Surgical Technology – State/Local Fire Code Enforcement, OSHA/MIOSHA, EPA/EGLE
- Dental - State/Local Fire Code Enforcement, OSHA/MIOSHA, EPA/EGLE
- Welding Labs - State/Local Fire Code Enforcement, OSHA/MIOSHA, EPA/EGLE

Auburn Hills

- Advanced Engineering & Technology - 76,436 Sq. Ft.
- Emergency Services - 2,374
- Humanities - 10,481
- Life Science - 32,015
- Physical Science - 1,215

Highland Lake

- Dental - 7,500 Sq. Ft.
- Nursing - 6,340
- Medical Assist - 3,380

Orchard Ridge

- Life Science - 26,627 Sq. Ft.
- Business Administration - 28,280
- Performing Arts - 28,967
- Culinary - 85,500
- Humanities - 9,870
- Learning Resources - 22,953
- Physical Education - 46,765
- Computer Information Systems - 6,789

Royal Oak

- Ceramics - 7,000 Sq. Ft.
- CIS – 3,600
- Management Technology - 7,500
- Photography - 5,800

Southfield

- All Science Labs - 15,500 Sq. Ft.
- Diagnostic Medical Sonography - 750
- Nursing - 5,500
- Radiation Therapy Technology - 1,750
- Respiratory Therapy - 1,650
- Surgical Technology - 1,650

Facility Replacement Values

The 2022 replacement value of the college's facilities was prepared by Michigan Community College Risk Management Authority.

Location No.	Location	Replacement Value
	Administrative Center	
1	Admin. Ctr. - District Office	7,286,900
47	Admin. Ctr.-Guest House	1,187,900
48	Admin. Ctr.-Pump House	11,000
	Auburn Hills Campus	
2	Auburn Hills Building A-G	140,620,800
9	Auburn Hills Building H/J	23,545,700
10	Auburn Hills - High Tech	10,486,300
11	Auburn Hills - Power House	12,395,600
12	Auburn Hills - Crest Vehicle Storage	172,700
49	Auburn Hills-Greenhouse	0
72	Auburn Hills Grounds Bldg.	1,303,500
73	Auburn Hills Covered Storage	421,100
74	Auburn Hills New Salt Storage	248,600
50	Auburn Hills Project Brave Storage	0
51	Auburn .Hills Tech Storage Building	31,800
57	Auburn Hills Kiln Shelter	56,400
58	Auburn Hills M-TEC	10,683,100
60	Crest Training Center	3,855,900

Location No.	Location	Replacement Value
61	Crest Bank	657,500
62	Crest Convenience Store	725,800
63	Crest Motel	675,900
64	Crest Cape Cod Residence	318,100
65	Crest Ranch Residence	373,300
66	Crest 2-Story Residence	368,900
67	Crest Detached Garage	58,000
68	Crest Burn Simulator	7,643,600
69	Crest Control Tower	881,900
	Highland Lakes Campus	
13	Highland Hall - Building B	0
14	Highland Lakes Building C - Student Union	9,045,100
15	High Lakes Building D - High Oaks Hall	12,774,700
16	Highland Lakes Building E - Physical Ed	10,180,300
17	Highland Lakes - Levinson Hall/Addition	24,963,800
18	Highland Lakes - Woodland Hall/Addition	26,939,400
19	Highland Lakes Building G - Redwood Center	1,059,900
20	Highland Lakes Maintenance Pole Barn	34,700
21	Highland Lakes-Pump house	593,100
52	Highland Lakes - Pavilion	176,000
54	Highland Lakes - Central Power Plant	16,078,800
55	Highland Lakes - Grounds Building	1,303,500
56	Highland Lakes - Covered Storage	415,100
71	Highland Lakes - Salt Storage	248,600
	Orchard Ridge Campus	
22	Orchard Ridge - Building A-D	38,511,200
26	Orchard Ridge - Building E-G	32,174,500
29	Orchard Ridge - Building H	16,600,900
30	Orchard Ridge.- Building J-K & Fine Arts	61,841,500
32	Orchard Ridge - Building L-M	18,189,100
34	Orchard Ridge - Building N	964,400
36	Orchard Ridge - Pump house	293,600
37	Orchard Ridge - Maintenance Storage	98,100
38	Orchard Ridge. - Utility Tunnels	1,310,800
53	Orchard Ridge - Kiln Shelter	0
	Royal Oak Campus	
40	Royal Oak - Building A-D & Mall	57,673,400

Location No.	Location	Replacement Value
41	Royal Oak - Grounds Storage	329,700
42	Royal Oak - Parking Structure	23,696,400
43	Royal Oak - Power Plant	5,287,300
46	Pontiac Center	0
	Southfield Campus	
39	S.E. Campus-Southfield Building	51,699,000
	Grand Total	$636,493,200

Utility System and Facility Infrastructure Condition

In 2017, the College commissioned a comprehensive facility report from ISES Corporation and Carl Walker, Inc. that assessed infrastructure conditions included herein.

Enterprise-Wide Energy Plan

The college has an active enterprise-wide energy plan implemented through the Siemens Building Technology, Building Automation System (BAS). The goal of the plan is reduce energy usage, decrease greenhouse gas emissions, and avoid energy costs. Level One energy audits have been completed and no-cost/low-cost energy efficiency measures were implemented.

Land owned by Oakland Community College

Below is the property that OCC possesses along with its acreage. At this time OCC has the capacity for future development.

- Auburn Hills Campus, Auburn Hills 170 acres
- Highland Lakes Campus, Waterford 157 acres
- Orchard Ridge Campus, Farmington Hills 147 acres
- Royal Oak Campus, Royal Oak 7 acres
- Southfield Campus, Southfield 31 acres

Section V

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).**
Included in this year's Capital Outlay plan is a request to renovate and expand Auburn Hills Bldgs. A & T. These buildings house Automotive Servicing, Collision Repair, Computer Aided Design, Welding Technology, Machine Tool Technology, Robotics and other vocational trades programs. The project consists of a 90,000 square foot building addition as well as extensive renovations to the current 105,000 square feet structure. The College's Economic & Workforce Development program will be relocated to the renovated and addition spaces, enhancing synergy and collaboration with our Engineering, Manufacturing and Industrial Technology department. The total estimated cost of the project is $121 million dollars.

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.**
Please refer to Section IV Facility Assessment.

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.**
There are no on-going projects financed with the State Building Authority at this time.

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.**
With each planned expenditure the College strives to improve overall operations, either by enhancing the student environment, decreasing operational costs, and/or addressing issues in timely, scheduled manner. The continual goal is to replace or restore infrastructure as planned, versus incurring the additional costs inherent with emergency repairs.

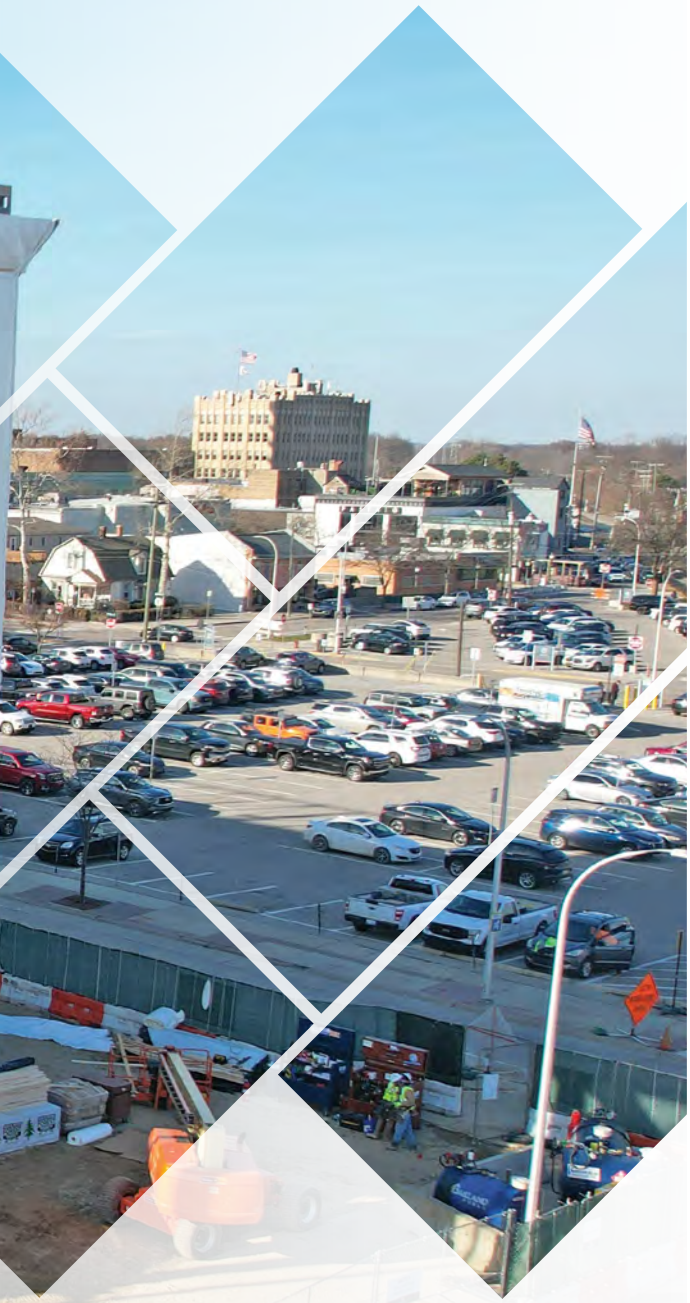
e. **Where applicable, consider alternatives to new infrastructure, such as distance learning.**
The College continually examines the means and methods for delivering instruction, seeking effectiveness and efficiency. In general the intent is to renovate current facilities rather than build new. While distance learning can be highly effective, many forms of instruction require or are enhanced within the environment of the College facilities.

f. **Identify a maintenance schedule for major maintenance items in excess of $1,000,000 for fiscal year 2026 through fiscal year 2030.**

Please refer to Section IV Facility Assessment.

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

Sources of financing are funded from the capital operating budget. Budget & Financial Forecast, Fiscal Years 2025 – 2029 as shown below:



CAPITAL FUND

The Capital Fund provides for the College's capital needs, including capital equipment, information technology and physical facility projects, and where appropriate, the principal and interest payments on bond debt. The budget in the Capital Fund was based on input from the College community.

Capital Fund

The Capital Fund provides for the College's capital needs, including capital equipment, information technology and physical facility projects, and where appropriate, the principal and interest payments on bond debt. A capital expense is defined as the purchase of an asset used in the course of the College's operations with a useful life in excess of one year and a purchase cost of $10,000 or more. A capital expense is recorded as an asset on the College's financial statements and is depreciated over its anticipated useful life.

Capital Budget and Forecast
Fiscal Years 2025–2029

	2025 Budget	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast
Unrestricted Net Position-Beginning of Year	**$224,600,439**	**$17,679,659**	**$23,279,659**	**$44,319,659**	**$17,749,659**
Transfer from the General Fund	38,000,000	37,000,000	37,000,000	35,500,000	35,500,000
Capital Equipment College-Wide	1,620,000	1,650,000	1,650,000	1,650,000	1,650,000
Information Technology Projects	1,345,000	2,000,000	1,560,000	2,920,000	1,710,000
Physical Facility Projects (By Campus):					
Auburn Hills	82,000,690	250,000	250,000	250,000	500,000
College-Wide	6,270,000	6,750,000	6,750,000	6,750,000	6,750,000
Highland Lakes	220,000	250,000	250,000	-	-
Orchard Ridge	94,323,369	10,250,000	250,000	250,000	250,000
Royal Oak	58,791,721	150,000	5,150,000	50,150,000	150,000
Southfield	350,000	10,100,000	100,000	100,000	100,000
Total Physical Facility Projects	**241,955,780**	**27,750,000**	**12,750,000**	**57,500,000**	**7,750,000**
Total Capital Equipment & Project Forecast	**244,920,780**	**31,400,000**	**15,960,000**	**62,070,000**	**11,110,000**
Unrestricted Net Position-End of Year	**$17,679,659**	**$23,279,659**	**$44,319,659**	**$17,749,659**	**$42,139,659**

For the fiscal year 2025 budget, the College allocated $244,920,780 for capital equipment and projects which included just over $138 million of estimated costs remaining on physical facility projects not expected to be completed in fiscal year 2024. The College intends on covering the fiscal year 2025 projects and equipment with the estimated $224.6 million in unrestricted net position at July 1, 2024, and approximately $20 million from the $38 million transfer budgeted from the General Fund. This will leave an estimated $17.7 million in the Capital Fund's unrestricted net position at the end of fiscal year 2025. Utilities, repairs and maintenance, staffing requirements, insurance and other expenses associated with the capital equipment and projects have been considered and included in the Operating Fund budget for fiscal years 2025 through 2029.

Capital Equipment

Capital equipment purchases are requested at the department level through submission and various approvals in the Questica Budget software. The initiator enters the request and supporting documentation into Questica, approvals are made based on available financial resources, environmental, health and safety impacts as well as facility requirements. This ensures before a major purchase is made, the College has buy-in from all relevant areas and related costs of safety and infrastructure are included in the budget. In the fiscal year 2025 budget, $1,620,000 was allocated for the purchase of capital equipment.

Debt Service

At present, the College has no outstanding bonds or debt service requirements.

Information Technology

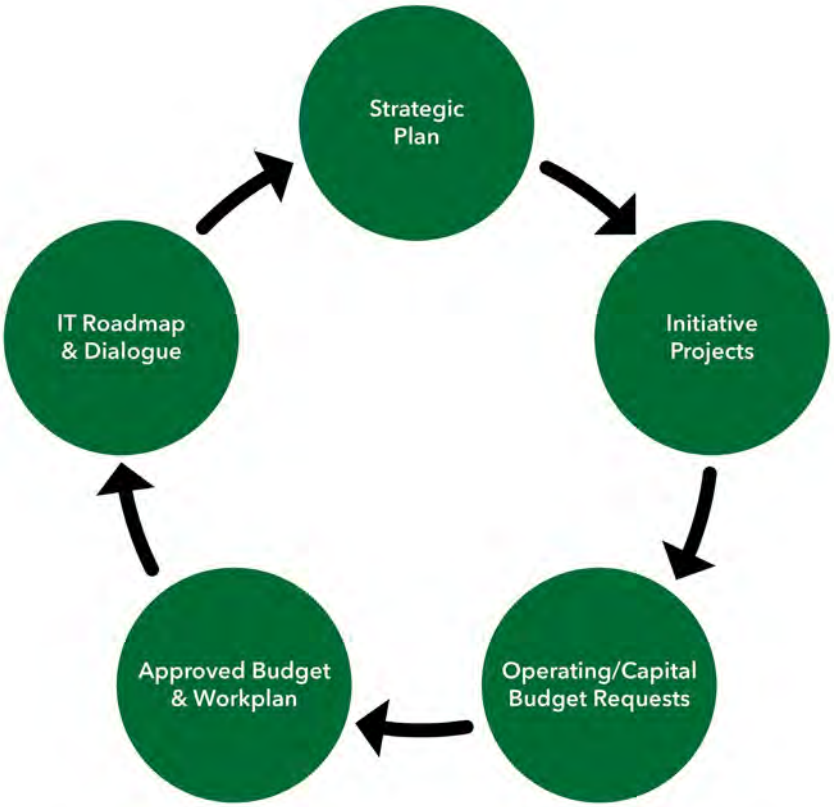
Oakland Community College's Information Technology Department (IT) commits to implementing robust, reliable and secure systems, maintaining the privacy of students, faculty and staff, allowing ease of accessibility, with continuous improvement and high-quality customer service. Through our strategic planning process, the College identifies strategic objectives and supporting action plans. The IT resources needed to support the action plans are identified by the initiative teams and are documented using IT project requests.

IT Capital and Operational Planning and Budgeting

IT combines the day-to-day maintenance requirements with the enhancement projects supporting the Strategic Planning actions, and/or new system requests (including hardware, software, and services) and builds a capital and operational budget request. Once the college budget is approved by the Board of Trustees, the draft work plan is finalized based on what funding has been approved. The College allocated $1,345,000 for IT projects in the fiscal year 2025.

IT Roadmap

The IT Roadmap is the college's Master Information Technology Plan. The roadmap contains projects that align with the college's strategic plan through support for approved action plans. The roadmap details how the College intends to deploy resources for technology in alignment with the strategic initiatives over a one to three-year planning horizon.



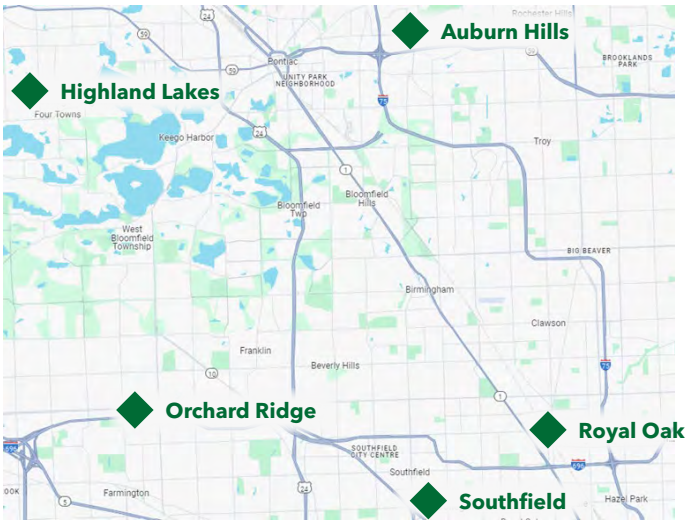
Facilities and Grounds

Oakland Community College is a large, multi-campus institution of higher education, training and community enrichment located in Oakland County. OCC has five academic campuses with:

- 514 acres of land
- 68 buildings
- 2.1 million square feet
- And almost 364 classrooms

The estimated replacement value of the College buildings exceeds $780 million and the annual cost to operate the physical plant is approximately $16 million.

Current Campus Placement throughout Oakland County



The One OCC future plan adapts to changing realities. In the next few years, we will make changes to academic spaces and the overall college footprint across the County in order to ensure that we will enhance the student experience, increase student success, and respond to our community, all while improving financial operations. Highlights include:

- OCC's District Office in Bloomfield Hills sold in December 2023. Administration staff have relocated to campus spaces to be closer to our students, faculty, and staff.
- A state-of-the-art Culinary Arts Institute on the Royal Oak campus, relocating from the Orchard Ridge campus, and making Royal Oak a unique college town.
- Career opportunity growth is widely expected in health care in the coming years. To make health care education more convenient for students and invest in these growing programs, Health Sciences will be concentrated on one campus, combining programs from Highland Lakes and Southfield, planned for Fall 2026. The Highland Lakes campus is planned to close after the programs are moved.
- Expansion of the Combined Regional Emergency Services Training Center (CREST), the largest police and fire academy in southeast Michigan, on the Auburn Hills campus.

Facilities Department

The Facilities' Operations and Maintenance Department is a centralized organizational unit within the College and is responsible for the entire physical plant, including all geographic locations owned and operated by the college. Responsibilities include maintenance and cleaning of buildings and grounds, renovation of facilities and new construction. The primary purpose of this unit is to provide a safe, clean, inviting and engaging environment for students and staff that is conducive to teaching, learning and working.

Budgeting for Facilities

The average OCC building is approximately 35 years old. As our facilities wear with age and heavy use, we must strategically plan to ensure we are meeting the needs and expectations of our students and community while at the same time, balancing the financial challenges currently present in higher education.

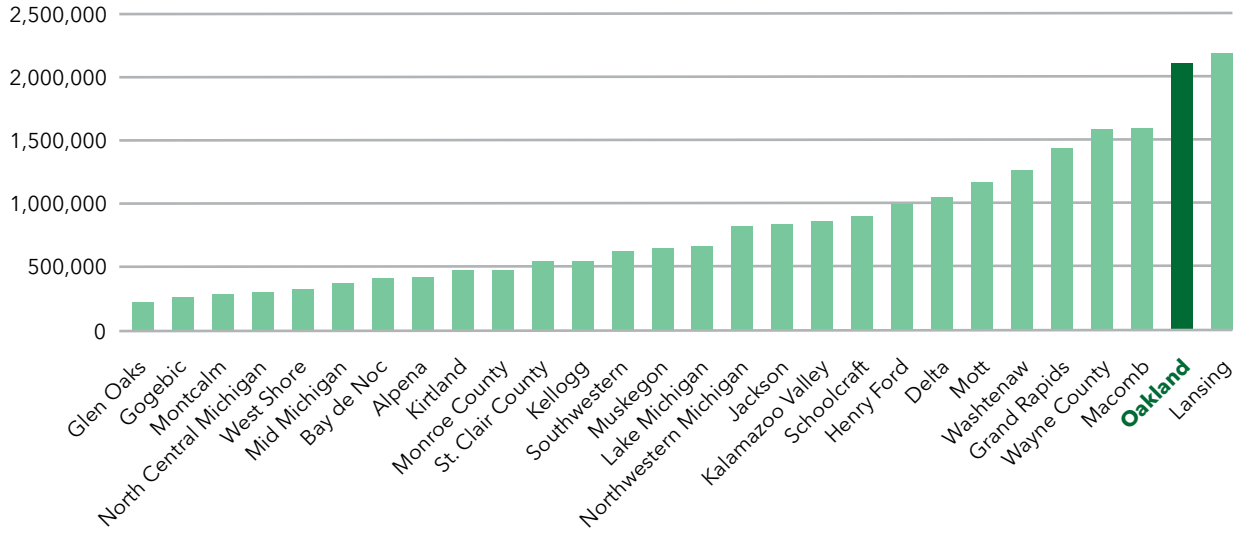
In 1995, the taxpayers of Oakland County approved an .8 mill levy to provide additional financial resources to assist the college in building and maintaining facilities, offering new programs, and providing student scholarships. The millage was renewed by voter consent in 2002, 2010 and again in 2019. These funds have been used for their proposed purposes and are a critically important component of our Capital budget.

In fiscal year 2025, the amount earmarked for physical facility projects is $241,955,780 which includes an estimated $138 million of costs remaining on facility projects that are not expected to be completed in fiscal year 2024. Facility projects funded through the Capital Fund include scheduled maintenance and several major building projects. One college-wide safety and security project that spans a couple of fiscal years is the replacement of door locks in classrooms and other areas. This ongoing project is nearly complete at the Auburn Hills and Orchard Ridge campuses. Most doors at the Highland Lakes, Royal Oak and Southfield campuses meet the new standard. An audit is planned to replace lingering doors that do not meet this standard.

How We Compare to Our Peers

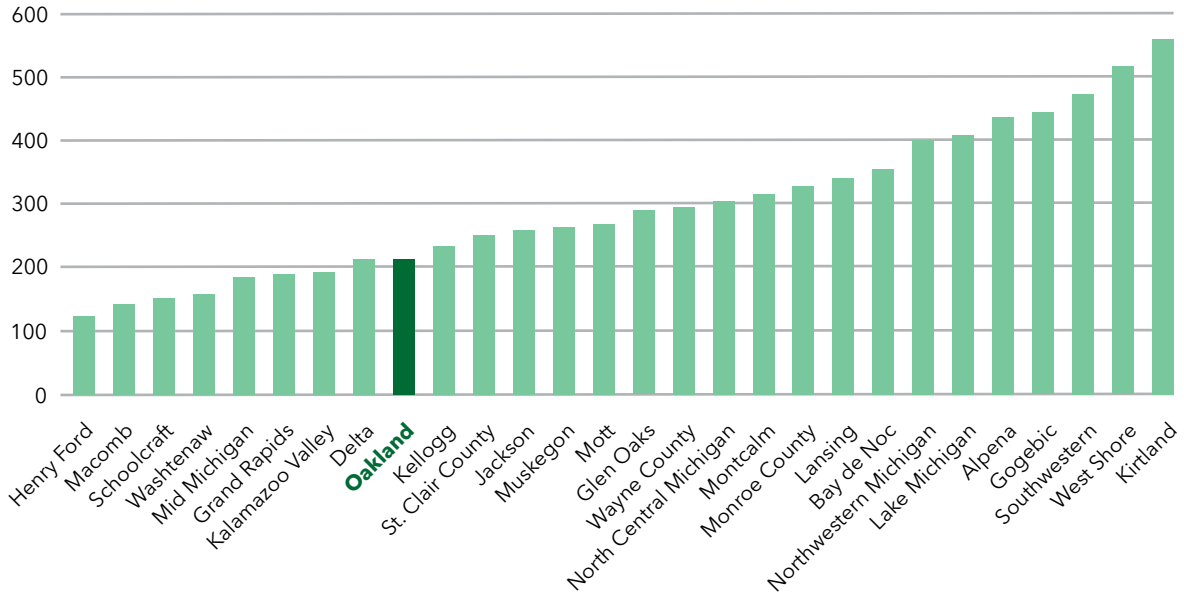
With 2.1 million square feet of building space, Oakland Community College is the second largest community college in Michigan based on facility size.

Michigan Community College Square Footage



However, because OCC is also among the top in the number of fiscal year equated students (FYES), our ratio of square feet to FYES of 215, places OCC as tied for the eighth lowest among the 28 Michigan Community Colleges and below the State average of 298 square feet per FYES. The chart below illustrates the College size based on number of students.

Square Feet per Fiscal Year Equated Student



With over two million square feet of building space, OCC maintains a large footprint. To assist in prioritizing facility needs, the College has employed a consulting firm to provide a comprehensive facility condition needs assessment. Field work for this assessment has been completed, and the associated report is under review. It is forecasted that this review will be completed in Summer 2024.

The comprehensive facility condition needs assessment was initially performed to accomplish the following objectives:

- Provide a database inventory of the college's facilities to allow for quick access to facilities information.
- Determine the condition of the buildings and provide the data in a concise format, allowing quick determination of the current replacement value and condition of each facility.
- Determine a Facilities Condition Needs Index (FCNI) for each building, each campus and the College as a whole. The FCNI is a benchmark index that rates the condition of existing college buildings and is used by facilities managers nationwide to quantify and prioritize deferred maintenance projects for capital planning purposes.
- Assist OCC in meeting the goals of its Mission Statement through timely maintenance of its facilities, which are the physical backbone of the college.

Facility Maintenance

Management of this large facilities portfolio carries with it the responsibility to preserve the assets and maintain them in a condition that will allow the College to effectively carry out its mission. Facility projects are requested through conversation with the Facilities Department and by submission of a Change Request through Questica. The Change Requests are vetted through department supervisors, facilities, IT and environmental health and safety. The projects are prioritized along with major capital improvements and repairs as supported by our facility conditions assessment. The requests are then added to our Five-Year Capital Plan (discussed below) for prioritization.

We anticipate spending approximately $10 million each year on paving, roofing, electrical repairs, HVAC equipment and boiler repairs/replacement to maintain a safe and comfortable environment at the College.

Major Capital Projects

In consideration of upgrading facilities to better serve faculty and students while reducing emergency repairs, maintenance and energy costs, the College has developed a Five-Year Capital Plan. This plan considers major capital planning on a college-wide basis. The assessment of existing facilities showed the infrastructure components of many buildings have aged significantly. Despite ongoing maintenance and repair, which in most cases has extended the expected usable life beyond industry standards, OCC is faced with a large deferred maintenance need.

Utilizing the facility needs assessment report provided by the consultants, along with consideration for the programmatic needs of the College community, the projects have been prioritized. The Board of Trustees has agreed to set aside funds for the next five years for these projects. Each year, during the budget process the Board will approve the specific projects for the upcoming year's budget. The 2020 and 2021 budgets identified a new building on the Royal Oak campus as a priority, which led to the E Building project, with construction in progress.

Royal Oak E Building project was selected because of the need for updated, state-of-the-art Culinary spaces. The Culinary program is currently located at the Orchard Ridge campus. The aging building and equipment need replacement and the move to Royal Oak will provide an urban venue for the student operated restaurant and retail space. The construction of a new, state of the art Culinary Institute along Main Street in Royal Oak will provide updated facilities that will enable OCC to work collaboratively with the city to make Royal Oak a unique college town. The building will also include a central power plant to feed the HVAC and electrical needs of the entire campus. It is anticipated in a future project the current power plant will be removed providing a more aesthetically pleasing view from Main Street.

The three-story addition housed on our Royal Oak campus will feature three classrooms, two demonstration kitchens and five teaching kitchens providing students with the most up-to-date culinary learning facility in Southeast Michigan.

The new facility will also feature a 2,600 square-foot restaurant on the third floor with a sloping ceiling, large glass windows and 360-degree views of downtown Royal Oak, known for its hospitality, cuisine, and vibrant culture. The restaurant will offer the community a new dining option where culinary students will prepare and serve fine-dining recipes as part of their training.

The College is building to enhance the educational experience for students and faculty for another 50 years. Accessibility, ADA regulations and inclusion considerations will be thoughtfully reviewed and addressed throughout this project. Building features include:

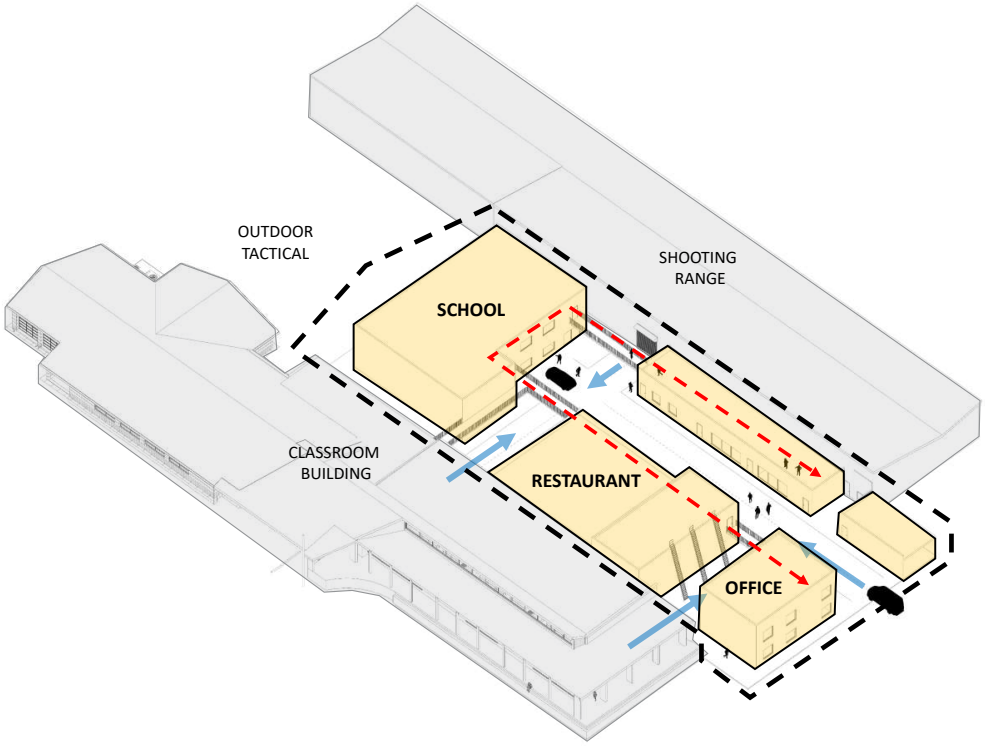
- Natural lighting and windows will be used to provide inviting spaces and promote student collaboration and interaction.
- The third-floor restaurant will seat up to 200 for dinner or can be reconfigured to accommodate up to 300 for events. It will also include a custom glass wine storage room and a full-service bar to provide students with additional training in beverage service.
- Flexible first floor design for pop-up culinary retail and café service.
- A separate charcuterie kitchen on the first floor with a dry-aged cooler for aging meats.
- The demonstration kitchens will feature instructional video technology that will live stream the teaching chef's cooking demonstrations to monitors around the facility to enhance student learning.
- Integration of instructional technology for flexibility in teaching and learning, remote access to diverse kitchens around the world and space for academic conferences and national culinary competitions.

- Sustainable design for adaptability and future use to stay current with culinary trends.

College staff, faculty and Board members have engaged with architects to design this state-of-the-art building as shown below. Groundbreaking occurred in the Fall of 2022 and completion is expected in Fall 2025.

To serve the health care industry demands, Orchard Ridge campus building H will be renovated to "state-of-the art" learning spaces to best prepare our future healthcare professionals along with new science laboratories. Renovation is forecasted to be completed for the Fall 2026 semester, with the Health Sciences programs moving from the Highland Lakes and Southfield campuses the summer previous. Extensive site upgrades are included in the project. To further support consolidation of College activities, Highland Lakes' general education classes will move and commence on other OCC campuses in Fall 2024. The campus is planned to close in Fall 2026, and OCC is working closely with local officials to ensure the property continues to benefit the people of Waterford.

The Auburn Hills campus is home to the Combined Regional Emergency Services Training Center (CREST), the largest police and fire academy in southeast Michigan. OCC collaborated with local police, fire, and EMS agencies to create the CREST center to train emergency response teams. The College has more than 50 years of experience training emergency services personnel and demand is increasing. CREST's future plans include a new gun range for both pistol and rifle training, an indoor tactical village to simulate scenarios, which is in addition to the current outdoor tactical village simulations, increased classrooms, and renovated locker rooms.



The guiding, five-year roadmap for future facility projects has been developed with Year 1 projects included in the College's budget subject to board approval May 2024. Years 2 through Year 5 represent preliminary planning, guiding the College and its architecture and construction partners through design and project development. The roadmap is reviewed annually and revised as necessary to meet the changing requirements of the College and the community.

The future roadmap for OCC's facilities is focused on flexible spaces that provide rich technology opportunities, active learning spaces and inviting meeting places. Oakland Community College's Capital Plan is an investment in the College, the community, and our students.

Capital Budget Detail
Fiscal Year 2025

Unrestricted Net Position-Beginning of Year	$224,600,439
Transfers from the General Fund	38,000,000

Capital Equipment College-Wide

Campus	Description	2025
Various	Capital Equipment Pool	1,420,000
Various	Emergency Capital Equipment Pool	200,000
Capital Equipment College-Wide Total		**1,620,000**

Information Technology Projects

Campus	Description	2025
Proposed Projects:		
College-Wide	Campus Servers Replacement	113,000
College-Wide	College Data Backup Solution	208,200
College-Wide	External/Internal Firewall Replacement	456,800
College-Wide	Web Content Management (Technical Optimization Project)	67,000
College-Wide	Information Technology Pool	500,000
Information Technology Project Total		**1,345,000**

Physical Facilities Projects

Campus	Description	2025
Carryover Projects:		
Auburn Hills	Exterior Signage Upgrade Project	2,700,055
Auburn Hills	Building F Rooftop Unit Replacements	3,253,360
Auburn Hills	CREST	16,077,275
Auburn Hills	Miscellaneous Door & Hardware Upgrades	170,000
Highland Lakes	Closure Activities	20,000
Orchard Ridge	Building L Renovation	3,200,000
Orchard Ridge	Building H - Health Professions and Sciences	55,873,369
Royal Oak	Building E Construction	56,511,721
Royal Oak	Building D Roof Replacement	250,000
Royal Oak	Miscellaneous Window Replacements	30,000
Carryover Projects Total		**138,085,780**

Physical Facilities Projects

Campus	Description	2025
Proposed Projects:		
Auburn Hills	CREST Expansion	34,500,000
Auburn Hills	Campus Chilled Water Upgrades	25,000,000
Auburn Hills	Site Work & Small Projects	250,000
Auburn Hills	Potential Softball Field	50,000
College-Wide	Carpet/Flooring Replacement	200,000
College-Wide	Paving, Catch Basin & Sidewalk Restorations	500,000
College-Wide	Parking Lot Fixture Upgrade Program	100,000
College-Wide	Roof Upgrades	1,000,000
College-Wide	Elevator Restorations	500,000
College-Wide	Restroom Upgrade Program	500,000
College-Wide	Construction Management Core Staff	470,000
College-Wide	Academic/Campus Enhancements	1,000,000
College-Wide	Emerging Needs/Contingency/Emergency	2,000,000
Highland Lakes	Site Work & Small Projects	50,000
Highland Lakes	Interior Hardware Renovation	150,000
Orchard Ridge	Building H - Health Professions and Sciences	35,000,000
Orchard Ridge	Site Work & Small Projects	250,000
Royal Oak	Parking Structure Maintenance	1,700,000
Royal Oak	Site Work & Small Projects	150,000
Royal Oak	Interior Hardware Renovation	150,000
Southfield	Site Work & Small Projects	100,000
Southfield	Interior Hardware Renovation	150,000
Southfield	Potential Driving Pad	100,000
Physical Facility Projects Total		**241,955,780**
Capital Equipment & Project Forecast Total		**244,920,780**
Unrestricted Net Position-End of Year		**$17,679,659**

Capital Outlay Major Project Request

Fiscal Year 2026

FISCAL YEAR 2026
CAPITAL OUTLAY MAJOR PROJECT REQUEST

Institution Name:	Oakland Community College
Capital Outlay Code:	
Project Title:	Skilled Trades and Industrial Technology Building
Request Code:	
Project Focus:	Academic
Type of Project:	Renovation/Expansion
Approximate Square Footage:	105,000 sq. ft. existing + 95,000 sq. ft. expansion
Total Estimated Cost:	$127 million
Estimated Duration of Project:	anticipated completion 2 years after approval

Is the Five-Year Plan posted on the department's public Internet site? Yes
Is the requested project included in the Five-Year Capital Outlay Plan? Yes

Project Purpose:

The Skilled Trades and Industrial Technology Building (A Building) is located on the Auburn Hills campus of Oakland Community College (OCC). The building is a 105,000 square foot, two-story structure, originally built in 1970. It currently includes skilled trade programs such as Automotive Servicing, Collision Repair, Computer Aided Design (CAD), Environmental Systems Technology, Electrical Trades, Computer Numerical Control (CNC) Machining, Robotics, Mechatronics, Construction Management and Welding Technologies. Renovation will allow the College to offer improved, up-to-date education and training and apprenticeships in these and other high-demand areas.

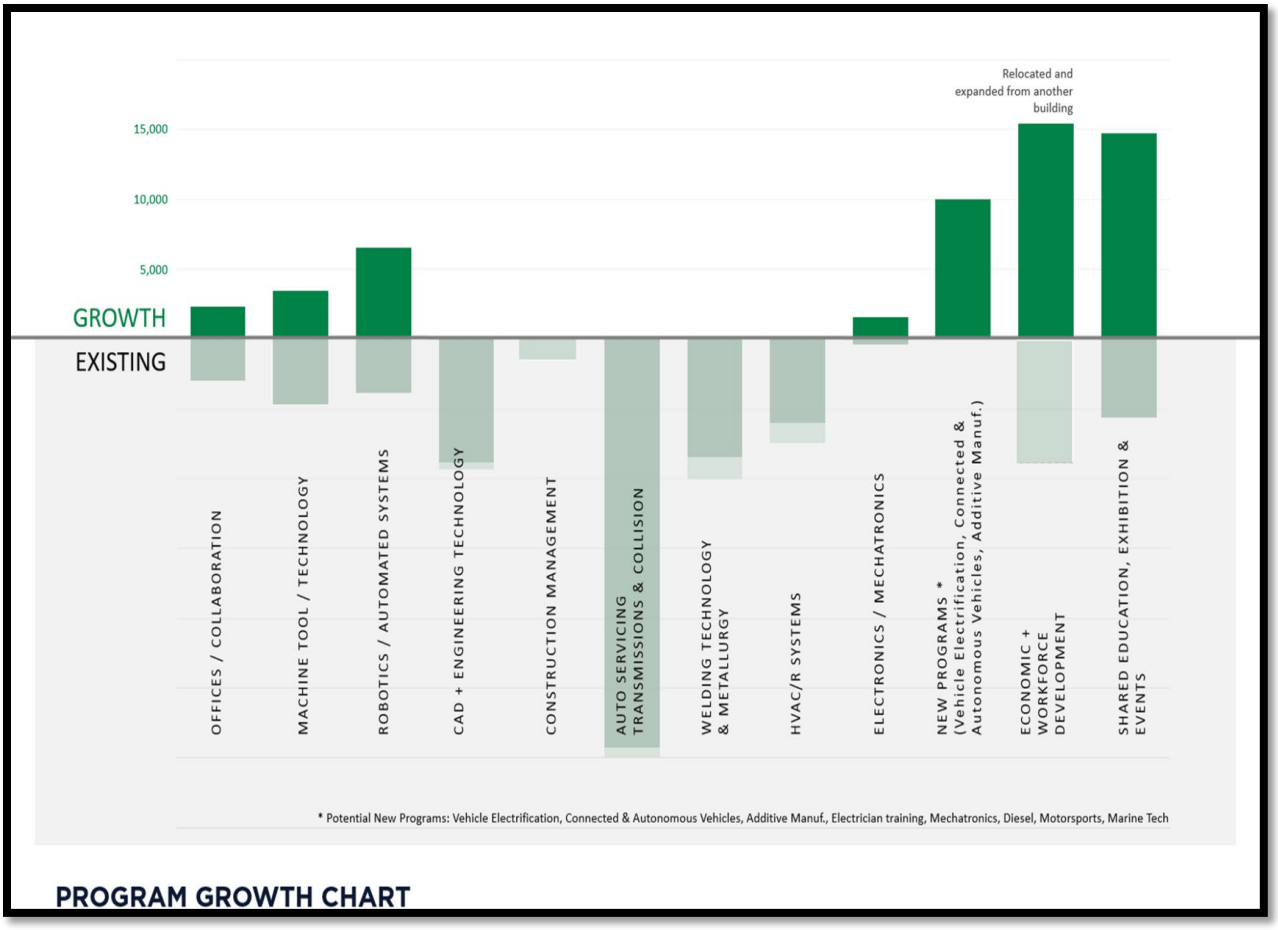
The College previously completed a $2 million, 20,000 square foot renovation project within the building for the automotive lab, welding lab and automotive collision repair lab. These renovations have allowed OCC to update small areas within the building to enable overdue programmatic updates and industry partnerships. The renovated areas are utilizing equipment purchased through the State of Michigan's Community College Skilled Trades Equipment Program (CCSTEP). They are now safer, more modern and better equipped for training students in high-demand skilled trade positions. The changes enabled by this small renovation have made it apparent, the remaining areas of this fifty-year-old building require significant modernization and refurbishment. There is also a need for additional space to house updated technologies, hands-on lab spaces, high-flex learning spaces equipped with technology to facilitate remote learning, as well as a need to expand programs and industry partnerships in the areas of Robotics, Mechatronics/Industry 4.0, Additive Manufacturing, Electric Vehicles (EV), Battery Technology, and Connected and Automated Vehicles (CAV). The square footage, deteriorated condition, age and layout of the current building are no longer adequate to prepare graduates for industry demands.

The Oakland Community College Auburn Hills campus is centrally located within Oakland County, which is one of the largest technical employment areas in the State of Michigan and the United States. It is a priority of Oakland Community College to meet the skilled workforce demands of employers within the county we serve. The need for trained individuals within Industrial and Applied Technology areas, such as Automotive, Robotics and Mechatronics is expanding. As a community college located in the center of this high growth area, OCC has an opportunity to train more students in these marketable careers and expand industry outreach to train, upskill and retain workforce talent. As companies must continually develop their current employees to compete globally, the community college with modern facilities and flexible programs can play an increasing role in providing needed and relevant skills and certifying with appropriate credentials both academic and industry. The programs housed in this facility also support associated apprenticeship education with industry.

Scope of the Project:

This project begins with renovating the remaining 85,000 square feet of the existing building, including the supporting systems infrastructure. Also, fundamental to the goals of this project, is a proposed relocation and expansion of the Economic and Workforce Development functions as well as Machine Tool and Robotics programs to be collected collaboratively under one roof from other areas on campus. The proposed building expansion will increase the current spaces by an overall 95,000 square feet. The result will be a 200,000 sf (105,000 sf existing and 95,000 sf new) facility which creates an innovative, inspiring, collaborative and connected learning space which will house Robotics Lab and Makers Space, enhancement of current automotive servicing lab to allow incorporating new vehicle electrification/battery and connected and automated vehicle (CAV) curriculum, shared classrooms, collaborative offices, expansion of current Machine Tool lab permitting expansion into Additive Manufacturing and the co-located Economic and Workforce Development labs.

The deteriorated condition and layout of the current facility are no longer adequate to prepare graduates for industry demands or foster engaging and updated learning environments. Attracting potential students, particularly youth, to careers in manufacturing has been difficult given the industry's historical 'dirty' image of job conditions. Today's manufacturing and technology work environment is shiny, technology laden and interactive. Without an educational facility and environment that mirrors the today's workplace, the college is disadvantaged attracting students to these in-demand careers and retaining them in Michigan. With the expansion and renovation of the Skilled Trades and Industrial Technology building, Oakland Community College will attract additional students and faculty members into growing programs. The facility renovation and expansion will also allow for strategic opportunities to seamlessly incorporate partnerships with regional community industry leaders. Thus, exposing students to potential employers and fulfilling the increasing need for industry workers in the State of Michigan.



Program Focus of Occupants

The occupants of the building will be the range of academic and workforce students participating in the skilled trades, apprenticeship, workforce development and career/technical education classes, along with those focused on other customized programs related to advanced manufacturing, automotive, applied/engineering technologies and other in-demand career areas. Associated faculty, trainers, and staff will also be occupants in the building. A maker space will facilitate the community and engage K-12 audiences as visiting occupants for linkage to the career programs. Employers of local businesses and industry will also be served through up-skilling and specialized training.

Programs to be offered in the building will be expanded from these current programs:

Program
Automobile Servicing
Automobile Servicing Certificate
CAD - Computer Aided Engineering Option
CAD - Level I Fundamentals Certificate of Achievement
CAD - Level II Intermediate Certificate
CAD - Product Design Option
CAD - Vehicle Design Option
Collision Auto Repair - Body Repair Technician Assistant
Collision Auto Repair Detailer/Painter Assistant Certificate of Achievement
Collision Auto Repair Non-Structural Certificate
Collision Auto Repair Paint and Refinish Certificate
Construction Management
Construction Management Certificate
Construction Management Professional
HVAC/R - Air Conditioning Certificate
HVAC/R - Heating Certificate
HVAC/R - Heating, Ventilation, Air Conditioning and Refrigeration Technician Option
HVAC/R - Refrigeration Certificate
Industrial Technology Technical Apprentice/Skilled Trades
Machine Tool Technology
Machine Tool Technology Certificate
Pre-Engineering
Robotics/Automated Systems Technology
Robotics/Automated Systems Technology Certificate
Robotics/Automated Systems Technology Programmable Controllers Certificate of Achievement
Technological Sciences
Welding/Fabrication Technology - Level 2
Welding/Fabrication Technology - Level 1 Fundamentals

The College continues to collaborate and respond to industry needs to ensure program alignment to labor markets while continuously focusing on new and emerging fields.

How does the project support Michigan's talent enhancement, job creation and economic growth initiatives on a local, regional and/or statewide basis?

A central purpose of community colleges is to provide career education pathways including those in skilled trades and career and technical education areas. The skills gap between employer demand and available supply for technical, skilled trade jobs is in crisis and getting worse. In a "future of work in manufacturing" study done by Deloitte in 2018, research concluded that between 2018 and 2028, 2.7m jobs would be open due to retirements in the manufacturing sector, and 1.9m jobs would become available due to growth. The resulting combination is 4.6m manufacturing jobs to fill in this decade. Of that number, Deloitte projected only 2.2m jobs are likely to be filled, leaving 2.4m jobs unfilled due to the skills gap of unavailable trained workers. Their survey of manufacturers noted 73% indicated available skilled talent was their number one concern. According to the Michigan Department of Labor and Economic Opportunity, there will be 545,000 skilled trade jobs to fill in Michigan through 2026.

In Southeast Michigan, high growth advanced manufacturing occupations include, CNC programmers and operators, industrial mechanics, electro-mechanical, industrial and mechanical engineering technicians, robotics technicians, CAD designers, and welders. In 2019, there were over 160,501 unique jobs posted by employers in Southeast Michigan related to these types of middle and high skill occupations (per EMSI Job Posting Analytics). Of the total jobs posted, 64.8 percent of those indicated a required minimum level of education desired candidates with a post-secondary certification, degree, or industry-recognized credential.

Renovation and expansion of the OCC Skilled Trades and Industrial Technology building will enable the College to grow this talent pipeline and skills credentialing activity though: 1) growth and modernization of current academic and workforce programs, 2) establishment of new academic and workforce programs, particularly in the areas of advanced integrated manufacturing and new automotive technologies 3) growth of training for Michigan businesses, 4) expansion of apprenticeships and other experiential learning opportunities, and 5) expanded outreach with secondary schools and community organizations in events and promotion of advanced technology and skilled trades careers. Modernizing and expanding the facility will enable the associated programs to grow and easily double throughput of students and apprentices in these sectors key to Michigan's economy.

Oakland County's 2023 top 10 employers included automotive, healthcare, finance and governmental jobs. Two of the largest southeast Michigan's employers are automotive related. The OCC Skilled Trades and Industrial Technology building will provide spaces for training and education supporting these industries and related occupations with employers both large and small.

CRAIN'S LIST OF LARGEST EMPLOYERS IN OAKLAND COUNTY
Ranked by full-time employees as of July 2024

Company	Full-time employees in Oakland County July 2024	Type of Business
Corewell Health Grand Rapids	13,712	Health care system
Stellantis (formerly FCA US LLC) Auburn Hills	10,462	Automobile manufacturer
General Motors Co. Detroit	7,451	Automobile manufacturer
UWM Holdings Corp. Pontiac	7,300	Mortgage lender
Henry Ford Health Detroit	5,588	Health care system
Ascension Michigan Warren	5,250	Health care system

Largest Southeast Michigan Employers
Source: Crain's Detroit Business, 2023

Company	City	Full-Time Employees in SE MI (July 2022)
Ford Motor Co.	Dearborn	47,750
Stellantis NV	Auburn Hills	42,444
General Motors Co.	Detroit	38,600
University of Michigan	Ann Arbor	35,620
Corewell Health	N/A	21,674

How does the project enhance the core academic, development of critical skill degrees, and/or research mission of the institution?

The mission of OCC is to empower student success and advance the community. The renovation and expansion of the Skill Trades and Industrial Technology Building will allow the College to fulfill the needs of students by providing modern learning spaces, both classroom and experiential lab spaces, that incorporate the latest technologies used in industry. This in turn advances the community in expanding the skilled talent needed by area businesses to compete effectively in today's global economy. Students and the community all benefit from the shared economic prosperity resulting from applied skilled education.

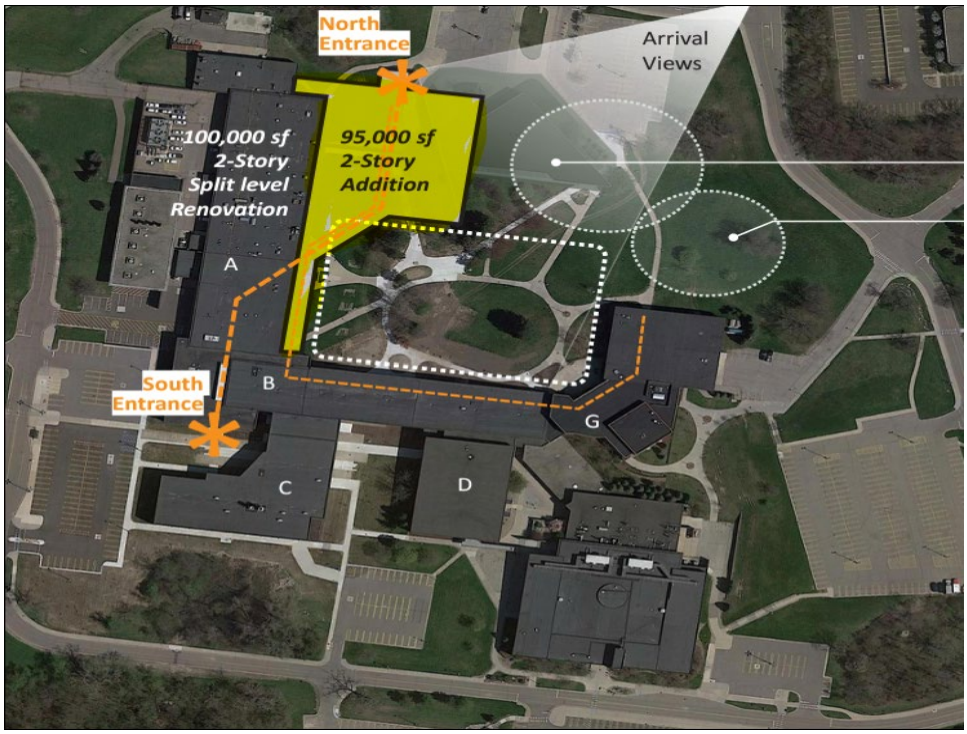
Michigan's rapidly changing economy is tied to technological innovation and training. Manufacturing and technology is a vital part of the Michigan economy. Over 600,000 workers are employed in the manufacturing sector alone. Skilled trade careers are in high-demand and can be delivered effectively through community college programs with modern facilities and equipment. Often the needed credentials for these careers are 'stackable', pathways where a

credential can build to a certificate which can build toward an associate degree and beyond. These programs and curriculum also support students pursuing employer defined apprenticeships, combining focused college classes with on-the-job experience. This facility renovation will enable co-located academic and high intensity workforce programs that further complement stack-ability and industry focused credentialing. This also supports the State of Michigan's goal to increase the number of working-age adults with a certified training credential or post-secondary degree from 49% today to 60% by 2030 and Oakland County's goal of 80%.

This renovation/expansion project will allow the College to update existing technologies in high demand areas and focus on emerging technology sectors. It will allow OCC to be a leader in skilled trade areas. The fifty-year age and high utilization of the worn building are readily apparent. In addition, outdated equipment from defunct programs, such as foundry operations should be removed to make room for new and emerging technologies such as smart Manufacturing/Industry 4.0 and automotive technologies supporting vehicle electrification, connectedness and automation. Providing an excellent state-of-the-art facility is critical in attracting and retaining students and is absolutely necessary for the development and growth of these programs.

Is the requested project focused on a single, stand-alone facility? If no, please explain.

Yes, this project request includes renovation of 85,000 existing square feet in the Skilled Trades and Industrial Building, as well as a 95,000 square foot expansion to the current structure.



How does the project support investment in or adaptive re-purposing of existing facilities and infrastructure?

The Skilled Trades and Industrial Technology building was constructed in 1970 and houses a variety of specialty programs related to Automotive, Welding, HVAC, CAD and other technology related programs. The physical infrastructure of the building is sound and has the necessary means to support the movement of heavy equipment, and our programs that need large scale, high bay spaces to function. However, it does not support the advanced technologies or types of spaces that the industry now requires. There are several spaces throughout the building that cannot be utilized for classroom space because of their inefficiencies. This proposed investment is needed to bring the building up-to-date, modernizing classroom and integrated lab spaces, as well as providing new equipment for programmatic improvements in highly technical programs. Investing in an expansion will allow the skilled-trades area to grow and accommodate programs such as Robotics, Electric Vehicles, Construction, Cyber-Physical Systems, Additive Manufacturing, Simulation and Mechatronics. As a part of the college's growing sustainability and reuse initiatives, it is important to properly invest in the existing campus structures while also building the necessary modernizations and technologies.

Does the project address or mitigate any current health/safety deficiencies relative to existing facilities? If yes, please explain.

Yes, as the renovation and expansion efforts are underway, OCC will address lab safety by utilizing and implementing best practices and standards (eye wash stations, ventilation and current building codes). Current classrooms and lab areas are out-of-date and newer safety standards exist that will be integrated during the building process. Gender neutral and barrier free restrooms will be added to facilitate the requirements of our students and employees. Access and accommodations for entrance and egress will also be addressed. Interior door locks and phones will be installed in all classrooms and labs in order to address potential crisis and safety deficiencies. Fire suppression and life safety systems will be examined and upgraded as necessary.

How does the institution measure utilization of its existing facilities, and how does it compare relative to established benchmarks for educational facilities? How does the project help to improve the utilization of existing space and infrastructure, or conversely how does current utilization support the need for additional space and infrastructure?

The Skilled Trades and Industrial Technology building is a well-used facility with an estimated classroom capacity of approximately 6,000 seats. In fiscal year 2018, 254 sections were offered in the building with a utilization rate of 70%. This utilization rate would be substantially increased if several outdated classrooms/lab spaces could be renovated and put back on-line. The College currently has an old paint booth room, a classroom that was devoted to Foundry operations and an old Welding lab that are unsafe and not usable. Through building improvements which focus on safety, technology, programming and creation of appealing student spaces, additional capacity and utilization can be added.

The programs currently occupying the building are training students in high demand, technical careers. These programs will provide the opportunity for sustainable, high paying jobs in professions necessary to our community. The project includes plans to efficiently utilize existing infrastructure and provide expanded programming. It supports investment in existing facilities through renovation of a fifty-year-old structure and promotes expansion to accommodate emerging, high demand programs. Higher utilization rates will be achieved through flexibility of large, open spaces that can be accessed by multiple programs and educational modality delivery for lab space or skills practice. With the addition of new program spaces, the college will be able to provide a broad range of non-credit and customized courses to the community that will also increase the building's utilization. After the renovation is complete, there will be additional capacity for programs to grow and the college plans increase the utilization rate above current levels.

How does the institution intend to integrate sustainable design principles to enhance the efficiency and operations of the facility?

OCC recognizes the importance of reducing its environmental impact. The college is committed to incorporate energy efficient systems and sustainable building practices to be a responsible steward of our collective resources, this includes automated controls, lighting sensors, and the use of healthy, recycled and recyclable materials, low flow fixtures, and mechanical energy recovery systems. OCC intends to ensure the building's mechanical, electrical and plumbing systems work and interact efficiently to promote optimal performance. We will strive to reach a LEED - certified level of intent.

The College has a proven history of incorporating environmentally sustainable design elements into similar strategic renovation and building addition projects. In the recent Science Building renovation and expansion (completed Fall 2021) several principles can be highlighted which demonstrate the commitments of the College to sustainable design:

- Building reuse of main concrete infrastructure as a carbon reduction strategy
- Restoration of the natural habitat and watershed to a previous natural state
- Incorporating daylight and views into nearly every occupiable space
- Energy efficiency improvements of mechanical systems
- LED lighting throughout both renovated and new spaces for reduced power densities
- Occupancy sensors
- Low maintenance and long-lasting brick masonry exterior wall materials - manufactured regionally
- Water use reductions with low flow and pint flush fixtures

The College will continue looking for additional opportunities to incorporate sustainable design features into the design of this renovation and expansion. Building on our previous successful reuse of a facilities concrete framing system, OCC will again use this strategy of carbon reduction to reduce our embodied carbon impact. Operational carbon reductions will also be achieved through efficiency improvements in mechanical systems and low maintenance material selections. Selections will be made which offer the most value while providing real-life training opportunities as our curriculum is developed in these evolving fields.

Are match resources currently available for the project? If yes, what is the source of the match resources? If no, identify the intended source and the estimated timeline for securing said resources.

Yes, the matching requirements of this project will be funded by College reserves. All financial resources will be available prior to the start of the project. The College has allocated resources to fund the remaining project cost.

If authorized for construction, the state typically provides a maximum of 75% of the total cost for university projects and 50% of the total cost for community college projects. Does the institution intend to commit additional resources that would reduce the state share from the amounts indicated? If so, by what amount?

Yes, the College is requesting a less than one quarter match of $27 million from the State Capital Outlay fund. The remaining $100 million in financial resources will be obtained from resources designated to fund the deferred maintenance needs of the College.

Will the completed project increase operating costs to the institution? If yes, please provide an estimated cost (annually, and over a five-year period) and indicate whether the institution has identified available funds to support the additional cost.

There are no substantial operational cost increases anticipated as part of this project. In fact, based on the age of the building and the planned improvements, the College anticipates any increased energy costs from the expansion to be offset by efficiencies realized through renovating the remainder of the existing building. The college plans to prioritize sustainability and energy conscious building methods in all future projects, resulting in newly renovated buildings that run more efficiently. With the implementation of heat recovery, high efficiency mechanical systems, daylight harvesting, reduced solar heat gains, increased exterior wall insulation values, displacement ventilation / stratification, and solar hot water, it is anticipated that an overall reduction in operating costs may potentially be realized.

What impact, if any, will the project have on tuition costs?

This project will have no impact on future tuition costs. OCC is currently proud to be one of the most affordable community colleges in Michigan. The College has a history of minimal tuition increases, balanced budgets and 5 year forward financial planning. It is our desire to continue providing affordable tuition and the assistance of the Capital Outlay funding will also enable the College to provide state-of-the-art facilities for our students and community.

If this project is not authorized, what are the impacts to the institution and its students?

Future students and the Oakland County workforce will be negatively impacted without the training opportunities afforded by this project. A recent facility assessment reported the Skilled Trades and Industrial Technology building as the second of OCC's buildings most in need of renovation. If this project is not authorized for State funding, the College will continue utilizing existing resources for repair and maintenance on the building and will pursue small, phased

renovation projects within the building. This approach will hinder a full response to current industry workforce demands in the county and state.

What alternatives to this project were considered? Why is the requested project preferable to those alternatives?

Without State Capital Outlay support, OCC will pursue the alternative solution of a phased renovation. This approach will be disruptive to our students and costlier to the College, in addition it will not adequately address the current skilled workforce needs of area businesses and industries. The safety, security and academic potential of our students will be impaired if we have to renovate the building in phases.

Describe how the project will address, incorporate, or enhance any equity efforts, policies, or goals for the academic programs within the scope of the project or as a component of your institution and campus at large?

At Oakland Community College, we prepare our students to be contributors to the larger world as global citizens. Toward that end, we foster a campus community that is inclusive—for students, faculty and staff, independent of appearance or how they began life or where they came from. We support all perspectives and cultures; we respect all differences. We strive to listen, to understand and to learn. To foster these values, we provide services, programs and initiatives that ensure an inclusive community that affirms diverse perspectives.

Increasing diversity within the skilled trades and areas located within the proposed project is an on-going and measured as evidenced by Perkins funding required core indicator Non-traditional Program Concentration (3P1) focusing on the percentage of career and technical education concentrators in career and technical education programs and programs of study that lead to non-traditional fields. Having an outdated facility built over 50 years ago does not help our efforts in attracting and retaining the largest breadth of potential students. This project and renovation includes not only the teaching, learning, collaboration and laboratory areas but also support areas such as restrooms and break areas. The project also includes Makerspace area designed to assist in introducing a breath of audiences to experience skilled trades and making professions. Funding and completion of this request will greatly assist and enhance the college's work with equity in outreach and retention.