

CAPITAL OUTLAY PLAN FY2028- 2032

Updated October 30, 2026

Table of Contents

I. MISSION STATEMENT 4
II. INSTRUCTIONAL PROGRAMMING 5
III. STAFFING AND ENROLLMENT 24
IV. FACILITY ASSESSMENT 28
V. IMPLEMENTATION PLAN 35

Introduction

For over 80 years, Henry Ford College (HFC) has been a leader in providing innovative education focused on student success. Located in Dearborn, Michigan, the school opened in 1938 as Fordson Junior College . In 1946, the College adopted the name Dearborn Junior College. In 1946, it became Henry Ford Community College , named after the Henry Ford Trade School, which closed and whose assets were transferred to the Dearborn Public Schools Board of Education. In May 2014, the College was renamed Henry Ford College.

Henry Ford College is a comprehensive college offering both two- and four-year degrees. Educational opportunities include more than 100 career and university transfer programs, pre-professional studies, associate's degrees in science, applied science, and arts, associate's in general studies, a bachelor's in culinary arts, and certificates. The College website provides a complete listing of the more than 100 academic programs offered. During the 2024-2025 academic year, HFC served more than 12,000 students (unduplicated headcount), equivalent to more than 6,500 full-time students. The average age of HFC students is 23, and 34% attend full-time.

HFC offers high-quality, innovative programs that meet the region's educational and training needs. Students prepare to transfer to a university or enter the workforce directly. HFC also specializes in customized workforce development training for business and industry.

HFC offers classes on two campuses in Dearborn. HFC's Main Campus is located at the southwest corner of Ford Road and Evergreen, north of the University of Michigan-Dearborn campus. The East Campus is home to HFC's Michigan Technical Education Center (M-TEC) and a state-of-the-art nursing education facility.

On July 1, 2026, Mr. David M. Knezek, Jr., was appointed the College's seventh president following an extensive national search. Mr. Knezek brings an exceptional combination of executive leadership, strategic policy expertise, and deep dedication to Dearborn and the Metro Detroit region.

I. MISSION STATEMENT

Mission

Henry Ford College transforms lives and builds better futures by providing outstanding education. As a student-centered, evidence-based college, our success is measured by the success of our students. We empower learners through the development of independent, critical, and creative thinking, and we foster diversity, inclusion, understanding, and acceptance to prepare learners to succeed in a global society. We anticipate and respond to the needs of our stakeholders, exceed their expectations, and serve the public good.

Vision

First Choice... Best Choice...

Values

We have a PASSION for...

- teaching and learning;
- exploring diverse perspectives and ideas;
- creating a student-centered environment;
- transforming lives through continuous learning; and
- excellence in all that we do.

We demonstrate INTEGRITY through…

- accountability;
- responsible stewardship;
- ethical conduct;
- honest dialogue; and
- sustainable practices.

We promote INGENUITY by…

- being agile, flexible, and responsive;
- rewarding discovery, creativity, and innovation;
- collecting, evaluating, and acting on evidence;
- thinking critically; and
- continuously reimagining the future.

We show RESPECT for one another when we…

- collaborate and rely on teamwork;
- celebrate diversity and inclusiveness;
- maintain transparent practices;
- show compassion and empathy; and
- are engaged and committed to our shared work.

II. INSTRUCTIONAL PROGRAMMING

a. Describe existing academic programs and projected programming changes during the next five years, insofar as academic programs are affected by specific structural considerations

Student Success Center (SCC)

Project Purpose:

Michigan ranks in the bottom third of states for the share of citizens with a post-secondary credential. To reach the statewide goal of 60% of citizens with a post-secondary credential (certificate or diploma), the higher-education system must improve its outcomes. The college pipeline has leaks that must be stopped: only 53% of new college students from Southeast Michigan graduate, and the graduation rate for new college students from Detroit is 24%. Michigan cannot achieve this college attainment goal of 60% by simply sending more students through the system, because Michigan will have declining high school graduates until 2035, at the earliest. The Student Success Center (SSC) positions Henry Ford College to better address these challenges across Southeast Michigan and will be a key contributor to the State's efforts to achieve its statewide goal.

Central to the SSC's mission is a commitment to transform HFC into a truly "student-ready" institution – leveraging new and coordinated resources to raise completion rates and improve industry and employment outcomes, especially by better understanding and serving the needs of diverse student populations.

While serving as a welcoming "front door" to HFC's campus, the SSC invites partnerships with other regional institutions and organizations committed to improving student success, increasing attainment of a college credential, and connecting students to career opportunities in Wayne County and across Southeast Michigan, while striving to:

- Develop and deliver comprehensive, holistic, wrap-around support services that accompany students on every step of their journeys from college awareness, preparation, admissions, and orientation through goal completion, graduation, transfer, or transition to the working world.
- Create and promote academic and career pathways that are relevant, clear, accessible, achievable, and affordable – seamlessly leading to meaningful, sustaining employment and/or advanced educational opportunities.
- Promote innovation and continuous improvement informed by regional, state, and national data, benchmarks, predictive analytics, and performance metrics.
- Focus on establishing complementary student and cooperative student success programming readily available when, where, and how they best meet the scheduling needs and learning styles of learners.

- Facilitate and support the adoption and sharing of proven evidence-based student success initiatives that can be amplified and accelerated while simultaneously managing resources and costs.
- Play an active role in advocating for collective action and policy that enhances and propels student success outcomes at HFC as well as across the region.

The SCC may also host collaborative initiatives sponsored by other state and regional entities, including the Michigan Community College Association (MCAA), the Michigan Center for Student Success (MCSS), the Detroit Drives Degrees Community College Collaborative (D3C3), the Michigan College Access Network (MCAN), and the Michigan Department of Labor & Economic Opportunity (LEO).

Project Scope:

Successful completion of this project will entail the design and construction of a new facility on the main campus of Henry Ford College, possibly interconnected with existing neighboring academic buildings, which may be renovated as part of this project as well. Together, these will provide a highly visible and welcoming entrance to HFC and the Student Success Center, where student-facing, student-focused support services will be accessible and readily available to all. The aging and inadequate Reuther Liberal Arts Building may also be renovated either as a component of or as a closely related project to the SSC. The estimated total cost of this project is $110 million.

As much as an institution focuses on learning, it should also emphasize the student service and support system that is crucial to student success. This support is essential to students' success both in the classroom and in society as a whole. For example, Henry Ford College recognizes that students have a greater opportunity to succeed when they feel a sense of belonging at the institution where they are studying.

Further, student services and support systems must model the learning style proposed by the Academics Scope. That is, we need to engage our students and help them learn to help themselves while also advocating for themselves. We must offer intuitive services that answer questions and provide support for all students we serve. We need to recognize that a “one-size-fits-all” model does not work for our student population. For example, students interested in transferring to a four-year degree program may have different needs, supports, and questions than students completing a career-focused degree and moving directly into their chosen field. Additionally, adult, or non-traditional, students will require different expertise than first-year students. The underserved populations that attend Henry Ford College will present unique needs that we must be prepared to address.

The vision for high-touch services is strong, but it must be balanced with a forward-thinking service-delivery model. This plan would utilize smart technology such as Hy Flex to meet students where they are. We need to recognize that students gain much from experiencing the technology in our setting that they will use in their careers and, if they continue their education, in future programs.

Program Focus of Occupants:

Student success depends on the effort put into it. To that end, we must offer student support and services through different modalities, meeting students where they are, including virtual, in-person, and hybrid services and support. In person, services need to be consolidated in one physical area where different areas of higher education expertise can collaborate to provide the best possible support and service for students. Currently, these services are spread across campus in three different buildings. This results in students having to restate their situations, sometimes very personal stories, repeatedly. This can be embarrassing and frustrating. Students also sometimes forgo a service to attend class or miss class to address a support or service need. Students also need other supports outside Henry Ford College. This can include support for housing and food insecurity, transportation, child or elder care, and other wraparound services that, if not met, become barriers to success.

Our vision is that within the SSC, we will offer support and services that span the full "A to Z," with "A" meaning Admissions and "Z" meaning completion/graduation and beyond, including support for our alumni members and assistance with continuing education and professional development. This would bring together services such as Admissions and Recruiting, Student Success Teams, a robust Academic Advising and Counseling Center that would also include the work of a Transfer Center, and a restructured Career Services Office designed to meet the needs of students as well as those of business and industry.

As mentioned earlier, students perform better and are more successful when they feel connected and have a sense of belonging. This means that space for key student mentoring programs will be essential. This includes an overall Student Mentoring Program, the work of the Detroit Promise Coaches, the work of the Dr. Henry J. Bowers Focus Group, the College Completion Coaches, and the work produced through the faculty/student mentor and advising system.

It is also important to bring together teams that collaborate on Student Financial Aid, Emergency Student Aid Programs, Student Accounts, and Payment Plans. This will enable teams to partner to best assist students, ensure we provide financial literacy information, and help them attend college with greater financial awareness, focused on minimizing the debt they incur. Studies also show that when students do not have to worry about their educational finances, they perform better academically.

Lastly, with a continued focus on the retention and completion aspects of the College's Strategic Plan, the Registrar's Office would ideally be housed in this same location to provide students, coaches, mentors, and advisors with real-time information identifying students close to graduation, enabling just-in-time outreach to ensure that students cross the finish line and graduate/complete.

Reuther Liberal Arts Teaching & Learning Facility Renovation

Project Purpose and Scope:

Built in 1963, the Reuther Liberal Arts Building (also identified as Building-K on HFC's Main Campus; 4 floors covering 91,018 sf) has served as Henry Ford College's largest and principal teaching and learning facility for nearly six and a half decades. As the central hub for the study and delivery of general education coursework required of all degree- and certificate-seeking students at HFC, the building has been the launching point for many generations of learners' academic journeys and career paths – classrooms that, in some ways, remain largely unchanged since Dr. Martin Luther King, Jr. delivered his iconic "I Have a Dream" speech during the March on Washington for Jobs and Freedom on August 28, 1963. Today, the current structure severely limits the institution's ability to deliver instruction that best meets the learning needs of today's college students, the expectations of their future employers, or the most advanced and effective pedagogical practices. The infrastructure is seriously outdated and cannot support new or emerging instructional technologies that are radically transforming and improving both teaching and learning at Henry Ford College. Furthermore, limitations in the size, number, and distribution of classrooms and learning spaces throughout the building:

- prohibit the college from serving larger student cohorts or accommodating group learning,
- restrict seat availability in high-demand courses (resulting in long waitlists or postponing student access, adding time and cost to degree completion),
- curb innovative teaching techniques such as active, project, and team-based learning (which generally require larger and more flexible spaces), and
- thwart efforts to promote interdisciplinary, cross-curricular, and co-curricular learning opportunities for students and faculty alike.

These issues will all be resolved within the scope of this proposed renovation project, providing sufficient and appropriate teaching and learning spaces designed to be:

- ***Learner-centered/student-focused:*** Shifting the focus of activity from teacher-centered lecture to student-centered doing through promotion of active, cooperative, and inductive learning strategies.
- ***Aligned with 21st-century skills:*** Teaching and learning focused on developing those skills most necessary for personal and professional success, including but not limited to critical and creative thinking, collaboration and communication, information and technology/media literacy, initiative and leadership, productivity and flexibility, and other durable skills for the workplace.
- ***Collaborative:*** Creating spaces and synergies that foster and encourage opportunities for students to interact and work together with one another as well as with their instructors in both formal and informal settings, both within and beyond the walls of the classroom.

- ***Smart:*** Transforming and equipping classrooms with integrated state-of-the-art technologies that enhance and improve both teaching and learning while reinforcing the development and application of 21st-century skills as identified above.
- ***Flexible and future-ready:*** Designing, furnishing, and equipping classroom spaces to accommodate multiple teaching and learning styles while remaining capable of adopting and implementing new instructional technologies and pedagogical practices as they continue to emerge in higher education.

More than 2,200 students are actively pursuing associate degrees (AA, AAA, AFA, AGS) in Liberal Arts programs at HFC. An additional 1,250+ students are pursuing Associate in Business (AB) degrees and/or a limited number of related one-year certificate programs. To these student populations, one must add the large number of students who enroll in Liberal Arts courses to satisfy requirements associated with General Education, HFC's Institutional Learning Outcomes (ILOs), and/or the statewide Michigan Transfer Agreement. These numbers are expected to increase in the next academic year with the implementation of recent revisions and improvements to academic and career pathways across the college.

Program Focus of Occupants:

The School of Liberal Arts consists of seven academic departments, each comprised of interrelated programs of study:

- English: Composition and Literature
- Social Sciences: Anthropology, Criminal Justice, Geography, History, Political Science, Psychology, Sociology
- Communication & Media Arts: Telecommunications, Speech, Journalism
- Humanities, Philosophy, Religious Studies
- Language Studies: English Language Institute (ELI), World Languages (Arabic, Chinese, French, German, Italian, Spanish), American Sign Language
- Honors: Honors Program and Phi Theta Kappa Honors Society
- Fine & Performing Arts: Studio Art, Art History, Digital & Graphic Arts, Ceramics, Music, and Theatre

By design, to facilitate cross-disciplinary connections, the Business and Economics Department (an academic unit within HFC's School of Business, Entrepreneurship and Professional Development) offers additional courses alongside these programs in the Liberal Arts Building. While the facility currently serves as a temporary home for the Dearborn Public Schools' Adult Learner Program, its eventual relocation will allow the College to explore other academic interrelationships and adjacencies, accommodating studies and career preparation in several allied health fields, social work, and engineering.

In addition to providing new and improved classrooms for flexible programming, the proposed project will also include and incorporate space for several key academic support services:

- *Henry Ford II Honors Program:* Honors students at Henry Ford College are challenged to excel academically as they develop their skills in composition, speech, independent research, and critical thinking. Honors Program faculty mentor and guide students to explore their intellectual interests and potential in many areas. Students work together actively. Faculty members take an active role in assisting students in transferring to four-year transfer institutions of their choice, including applying for transfer scholarships.
- *Writing Center:* A hub for exploring, developing, and enacting writing, the Writing Center is a collaborative and relational space where writers, readers, and texts can coexist and get to know each other. Open to any writer, at any level, at any stage of the writing process, the Writing Center provides support for writers as they think through their writing goals, approaches, and products. Faculty tutors in the Writing Center work with writers to provide them with a fuller understanding of the academic, social, and cultural effects of writing.
- *English Language Institute:* The mission of the English Language Institute at HFC is to foster a cooperative learning environment that supports English Language Learners as they strive to reach their academic, personal, and professional language goals in a culturally diverse and internationally-based community.
- *The Dr. Henry J. Bowers Focus Group:* The Focus Group challenges and changes the accepted narrative regarding Black academic success. Open to all HFC students, the Focus Group engages with the experiences of Black women and men worldwide, -building academic, professional, and leadership skills while connecting students with helpful campus resources.

1. How does the project enhance the core academic and/or research mission of the institution?

Both the Student Success Center (SSC) and the Reuther Liberal Arts Renovation projects align with and advance HFC's Strategic Plan 2025-2027, which is centered on the radical improvement of student success for all HFC learners. The plan embraces four Strategic Priorities (improving success rates and student performance with respect to Access, Retention, Completion, and Transfer), each of which is further defined by targeted Goals:



Strategic Priority 1: ACCESS

HFC will increase enrollment, especially for underrepresented and historically underserved student populations.

Goal 1: Increase enrollment of Black/African American students by 10% per year for two years.

Goal 2: Increase enrollment of Hispanic/Latino students by 10% per year for two years.

Strategic Priority 2: RETENTION

Henry Ford College will achieve improved and equitable retention rates for all students by increasing credit accumulation reinforced through proactive, student-focused support and intervention programs.

Goal: Increase the percentage of first-time, full-time students who earn 24+ credits in their first year by 4% each year and increase the rate of part-time students who earn 15+ credits in their first year by 4% each year.

Strategic Priority 3: COMPLETION

HFC will increase credential attainment and close completion equity gaps across all student populations.

Goal: Increase the total number of certificates and degrees awarded while raising the institutional Graduation Rate above 25%.

Strategic Priority 4: TRANSFER

HFC will achieve improved and equitable results regarding successful and seamless transfer to a 4-year college or university for all students seeking to attain a bachelor's or other advanced degree.

Goal: Increase HFC's Transfer Out with Award Rate to 50%.

HFC's *Strategic Plan 2025-2027* is framed by a strategic and cultural foundation for student success identified as Advancing Belonging, Inclusion, Diversity and Equity (ABIDE):

> *At Henry Ford College, "our success is measured by the success of our students" – and that means ALL of our students! An open-access educational community, Henry Ford College strives to provide a welcoming and safe place that ALL learners may call home. We seek to close ALL achievement and equity gaps wherever they exist. We embrace and work collaboratively to advance a culture celebrating and centered on belonging, inclusion, diversity, and equity. These are our shared strengths. They inform and propel our efforts to improve both the educational and economic outlook for Southeast Michigan.*

This is also echoed by the following statement from HFC's Mission:

> *We empower learners through the development of independent, critical, and creative thinking, and we foster diversity, inclusion, understanding, and acceptance to prepare learners to succeed in a global society.*

Furthermore, both HFC's strategic plan and the purpose of this proposed project align with the vision of the Detroit Drives Degrees Community College Collaborative (D3C3) sponsored through the Detroit Regional Chamber in conjunction with the Ralph C. Wilson Jr. Foundation and the Ballmer Group:

> *to reduce the regional equity gap by half while driving progress towards the education attainment goal of 60 X 30, leading to high-quality jobs with family-sustaining wages for those who call the Detroit region home*. D3C3 strives to meet the following outcomes:
>
> - improved student outcomes and reduced equity gaps (e.g., graduation, persistence, job placement, and transfer rates),
> - college-level systems change centering on student success,
> - deepened regional collaboration between colleges in Southeast Michigan,
> - more timely, transparent, and complete college data,
> - unlocked public funding to sustain and grow student success, and
> - effective implementation of Detroit Drives Degrees.

2. How does the project support investment in or adaptive repurposing of existing facilities and infrastructure?

Successfully realizing these two projects will require designing and constructing a new single-story building connected to existing structures, which will undergo necessary renovations to support both student services and teaching and learning. Rather than pursuing new construction, the planned repurposing and renovation of at least two major academic facilities (the current A and K buildings), along with the demolition of the small, aging, and inefficient N-Building, will help contain project costs while preserving iconic architecture on HFC's main campus in a manner that is sustainable, efficient, and allows for future growth. Some additional features accommodated in these redesigned spaces may include the following:

- Hosting conferences and larger events on the HFC campus, possibly generating revenue from rental fees and services
- Providing space to house and expand campus life activities, student clubs and organizations, student government, and the Hawk's Nest (food pantry)
- Offering a greatly expanded Quiet Reflection Room for the use of students, faculty, and staff, better serving the needs of our diverse student body and their many expressions of faith
- Providing office, collaboration, and student conferencing space and services for our large body of adjunct faculty members (500+), facilitating greater interaction with and availability for their students both before and after classes
- Dedicating soft "touch down" spaces and lounges for use by students when not otherwise engaged in class, promoting a collaborative learning environment beyond the classroom and lab
- Housing the Center for Teaching Excellence and Innovation (CTEI), expanding facilities to accommodate growing professional development opportunities and fostering faculty engagement in the improvement of teaching and learning
- Providing larger technology-enhanced lecture spaces for sharing scholarly and cultural presentations, facilitating civic engagement activities, and hosting professional meetings or gatherings

Project Extension: EV Lab and Battery Testing Center (pursuant to "Henry Ford College Innovation Institute/ Technology Building Renovation and Addition")

Although HFC completed significant renovations and an addition to the Technology Building (Building E), as reported in its Capital Outlay Plan for FY 2023-2024, the project will be extended to repurpose the former Welding Lab into an **EV Battery Lab and Testing Center**.

Henry Ford College is committed and uniquely positioned to prepare Wayne County residents for new and emerging jobs in EV, battery, and automotive technologies, as well as related career pathways in the mobility sector. Working in tandem with leading industry and educational partners, as well as regional workforce and economic development agencies, HFC is developing and advancing programs aligned with the rapidly changing needs and workforce

challenges in these evolving areas. As the industry shifts toward EVs, demand will grow for technicians and engineers who can work on electric drivetrains, battery management systems, and EV infrastructure. HFC has developed specialized training programs in electric vehicle (EV) technology, battery systems, and EV maintenance. Newly launched programs lead to certificates or degrees in related areas such as Electric Vehicle Technology, EV Battery Manufacturing, Battery Technician, Energy Management, Data Science, Software Developer, and Software Engineering.

Project Purpose and Scope:

HFC is extending its original project to include the design and equipping of an EV Lab and Battery Testing Center – a flexible, multi-purpose, interdisciplinary, and collaborative active-learning space where students, faculty, industry partners, and employers can work together to build the technical competencies and skills necessary for successful careers in these emerging fields. The proposed project entails repurposing and renovating spaces within HFC's Technology Building (E160, E163, E163A, E165, and E166) to create the EV Lab and Battery Testing Center, with adjoining classroom and storage space. The Center will be designed to be flexible for future modification to address trends and advances in industry and technology, incorporating universal design principles and showcasing student learning to increase awareness of career opportunities in these fields. Space-specific details include, but are not limited to, the following:

- Renovation and creation of a teaching and learning environment to accommodate 24 students, including laboratory and equipment for testing, analyzing, and characterizing battery cells, modules, and packs
- Provision of oversized work surfaces to facilitate collaborative and group-based learning with power and connectivity for computers and testing equipment.
- Upgrade of electrical, HVAC, fire suppression, exhaust, and cooling water systems as necessitated by laboratory, testing, and instructional equipment and to ensure safety

Program Focus of Occupants:

Henry Ford College's Trade and Apprenticeship, Automotive Technology, and Advanced Manufacturing programs serve nearly 1,250 students each year, providing specialized training in high-demand industries. More than 250 area high school students attend HFC's Middle College Trade, where they develop technical and employment skills relevant to these fields. The proposed EV Lab and Battery Testing Center will provide students with hands-on experience using the latest technology and equipment, helping them build the skills needed to succeed in their future careers.

Technology-rich labs and learning environments will support project- and competency-based curricula. In these labs, students build job skills and gain experience using advanced technology essential to the economy. With access to education through collaborative spaces and open labs, and by working on industry-defined projects, students will develop the tools needed to integrate new learning practices, become self-directed learners, achieve their

personal and professional goals, and contribute directly to economic growth and development.

1. How does the project enhance the core academic and/or research mission of the institution?

The Industrial Technology programs at HFC share a joint mission centered on providing educational experiences to plan, build, fabricate, and maintain the designed world. We offer instruction through hands-on, interactive learning, utilizing the most relevant technologies found in working environments. We aspire to develop mastery of skills that will supply business and industry with competent professionals for a future-driven technological society.

This project will provide critical elements for enhanced student success and mastery of real-world skills through the development of strategic spaces that foster and support industry-driven, hands-on, project-based learning incorporating some, if not all, of the following:

- Providing students short, project-intensive courses that assure skills mastery and create the foundation for further skills development and greater topical knowledge.
- Giving students real-world projects and problems that immediately transfer and apply to the world of work.
- Utilizing industry-defined equipment and other advanced simulation-based learning tools relevant to the technical field and workplace environment.
- Creating the opportunity for students to leverage the skills mastered and certifications achieved toward jobs and the creation of new businesses.
- Developing student confidence and technological areas of expertise that will be recognized by business and industry.

These learning experiences challenge students and accelerate their maturity, which is necessary to successfully complete an occupational associate degree and/or transfer to another educational institution to complete a bachelor's degree.

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

This project will continue renovating and repurposing the Technology Building to meet the interdisciplinary needs of college programs.

Henry Ford College has invested significantly in this facility and its programs through the State of Michigan Skilled Trades Equipment Grant match. The College committed $1.2 million as a direct match to the grant to renovate the Technology Building to accommodate $4.5 million in equipment for advanced manufacturing, mechatronics, and automotive engine testing programs. The State increased the original equipment grant by an additional $480,000, bringing the equipment purchase to $5 million. To date, the local direct match for the equipment project is over $1.8 million. Beyond the direct expense match for the grant, Henry Ford College committed an additional $1.1 million in indirect costs, for a total commitment of

$2.9 million for this building and its programs.

The introduction of project-based learning strategies, expected to be more materials-intensive, has significantly reduced scrap generation and, therefore, materials consumption by 15%. This is due to increased student awareness of their project work and, therefore, material use.

The 2020 Facility Condition Assessment determined that the Technology Building has a current replacement value of approximately $60,599,500 and a 5-year projected deferred maintenance backlog of over $7,667,000, primarily related to HVAC, electrical, and lighting. To reduce maintenance costs, this project will address a portion of the HVAC, electrical, lighting, hardware, and finishes identified as due for upgrade or replacement. Although many of these systems are at the end of their expected life, the building infrastructure can support the improvements with minimal difficulty.

Project Extension: Energy Learning Center – Academic Programming and Support

Project Purpose:

Major transformations are reshaping how energy is used, distributed, and sourced in the USA and globally. Several factors are driving these changes. Worldwide efforts are underway to reduce carbon emissions from energy use and limit the effects of climate change. Energy and water systems in Michigan and beyond are being upgraded to improve flexibility and reliability while reducing environmental damage. Technological advances are enabling cleaner, cheaper, and more efficient energy and water use, distribution, and supply. Information technology is enabling the continuous optimization of energy performance from supply to end use. The need to develop comprehensive energy solutions that deliver breakthrough levels of efficiency, reliability, flexibility, and environmental performance at lower day-to-day costs and overall economic risk is growing. The result is increasing demand for new skills in tomorrow's workforce at all levels, a need that Henry Ford College aims to be uniquely positioned to serve.

Against this backdrop, the leadership of Henry Ford College developed an Integrated Energy Master Plan (IEMP) that represents global best practices in both its energy education and its energy performance in terms of energy efficiency, water efficiency, energy reliability, and reduced greenhouse gas emissions, while achieving acceptable investment returns. These results stem from substantial investments in controls and metering, efficiency improvements, restructured energy supply and distribution, and enhanced energy management. As a result, the HFC Main Campus now stands as a world-class "Living Classroom," demonstrating the effectiveness and efficiency of well-executed energy transition planning, which also forms the basis for developing and expanding new and improved academic offerings at the College. HFC is extending our original project to accommodate needs emerging from a more targeted focus on academic programming and support associated with energy transition planning and implementation. Envisioning the Energy Learning Center as a "Living Classroom" enables the

College to offer services and education to meet the following objectives:

- Preparing students for careers in management and skilled trades associated with the planning, design, implementation, and operation of world-class integrated energy solutions.
- Providing talented workers to address the growing gap between the needs of communities, industry, and other leaders to drive breakthrough improvements in energy performance and the lack of suitably qualified employees.
- Providing talented workers to fill the gap between the needs of local and global industry partners concerning the knowledge and skills gap of current workers and the growing market for integrated energy solutions.
- Providing early engagement and outreach to elementary and high-school students in Dearborn, greater Detroit, and Windsor to raise awareness and open up energy-related career choices.
- Creating a "Reference Destination" for US and Canadian civic and industrial leaders, policymakers, trade associations, environmental groups, and other key influencers to experience a world-class neighborhood energy solution.
- Creating a flexible technology platform that can evolve as new technical and operating approaches are developed
- Providing the basis for collaboration with selected non-US colleges to ensure a global best-practice perspective is nurtured and maintained.

Creating a pervasive energy productivity culture in which all staff, faculty, and students better understand the importance of proper energy management so it influences their future personal and business decisions.

Scope of Project:

The Energy Learning Center (ELC) Project includes creating a new energy center of about 7,000 square feet at the southern arc of the Tech Building, using both repurposed space within the existing building and some external space. This will be designed as an architecturally distinctive, high-visibility campus feature that underscores the College's transformational approach to energy education. The entire campus energy use and supply will be accessible and controllable from the ELC for both teaching and operational purposes. The ELC will include a flexible mix of heating supply components serving the entire campus. These include combined heat and power generation, high-efficiency boilers, and thermal storage. Space will be organized to facilitate reference visits, teaching, and general engagement. The space will include a dedicated classroom. Throughout the ELC, labeling, graphics, and electronic displays will support engagement and teaching.

The IEMP's academic focus includes realigned workforce training, technical certification, continuing education certificates, and potentially a new bachelor's degree program. The plan positions the College as the destination for elementary and high-school students in Dearborn, greater Detroit, and Windsor, Ontario, as an innovative resource for raising energy and climate awareness, creating new career paths, and engaging future College students. The Energy Learning Center, as a "Living Classroom," will support over 1500 students annually,

including those in the college's programs in Energy Technology, Building Sciences, pre-Engineering, Industrial Technologies, Computer Science and Computer Information Systems, Trade & Apprenticeship Education, and dual-enrolled students in the HFC Middle College Trade School.

Program Focus of Occupants:

The ELC will facilitate programs that complement or upgrade the awareness and skills of a wide range of full-time and part-time students, with the underlying goal of ensuring adequate human resources are available to support and accelerate transformations in the energy market.

Technical Certification on crucial elements of the integrated energy system: These will focus on areas less common in the current US market. These will include:

- Building energy modeling and demand estimation
- Design of DE networks
- Site preparation for installing district energy networks
- Pre-insulated DE pipe welding and inspection
- Installing and commissioning DE substations
- Installation and commissioning of CHP engines
- Multi-utility metering and sub-metering

These programs would serve the employment needs of both local and global industry players looking to expand the US market. The College would finalize the design of these programs in partnership with the relevant industry players.

Career and Transfer Pathways in Energy Technology and Transition: HFC is establishing short-term classroom-to-career certificate programs, pathways leading to Associate in Applied Science (AAS) degrees with embedded industry licensure and certification, and 2+2/3+1 transfer pathways to baccalaureate attainment, in partnership with UM-Dearborn and Wayne State University. All pathways will include significant hands-on, experiential learning in the Energy Center's Lab, with an emphasis on teaching global best practices in an active North American context, facilitated by an international institutional and faculty team.

Continuing Education to enhance the understanding of integrated energy solutions and the approaches needed to evaluate implementation alternatives. These would be eligible for the appropriate professional CEUs but would generally not earn academic credits. Topics would include:

- Integrated Energy Master Planning basic techniques
- Relationship of Energy Master Plans to other municipal/campus plans
- District energy basics
- Optimizing neighborhood energy production and distribution systems
- Neighborhood energy planning for property developers
- Energy Planning for municipal leaders and staff
- Transformational versus incremental energy planning

- Industrial site energy planning
- Community energy planning
- Campus energy planning
- Comparison of global energy practices

These would target students already in roles that need new approaches to energy decision-making. They would also suit training for sales, marketing, and project managers at industry companies entering or operating in this market. They could also attract students in unrelated fields looking to move into the emerging multi-billion-dollar global market driven by energy transformation and climate change mitigation.

Education and Outreach to K-12 Schools in Dearborn and neighboring communities: These programs would aim to increase understanding of energy basics and the risks and opportunities around energy use, and to attract a new generation to explore the transforming energy market as a career choice. The ELC will be the platform for site visits.

Hosting Meetings: Aimed at institutions, associations, and corporations focused on sustainable energy. The ELC will be a significant asset, supporting the campus as a preferred site for regular and ad hoc meetings. The College will structure a program to host such meetings on a professional basis.

1. How does the project enhance the core academic and/or research mission of the institution?

The Industrial Technology programs at HFC share a joint mission centered upon providing educational experiences to plan, build, fabricate, and maintain the designed world. We offer instruction through hands-on, interactive learning, utilizing the most relevant technologies found in working environments. We aspire to develop the mastery of skills that will supply business and industry with competent professionals for a future-driven technological society.

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

This project will continue renovating and repurposing the Technology Building, as indicated in the Integrated Energy Master Plan (IEMP), updating it to meet the interdisciplinary needs of college programs. Henry Ford College has significantly invested in this facility. The College committed over $26 million as a direct cost to renovate the campus energy space, with additional funds for forthcoming technology energy improvements to the Technology Building to accommodate $11.5 million in equipment.

The 2020 Facility Condition Assessment determined that the Technology Building has a current replacement value of approximately $60,599,500 and a 5-year projected deferred maintenance backlog of over $7,667,000, primarily related to HVAC, electrical, and lighting. To reduce maintenance costs, this project will address a portion of the HVAC, electrical, lighting, hardware, and finishes identified as due for upgrade or replacement. Although many of these systems are at the end of their expected life, the building infrastructure can support

the improvements with minimal difficulty.

b. The unique characteristics of HFC's academic mission include:

- **Over 100 associate degree and certificate programs** providing seamless transitions to meaningful career opportunities or transfer to advanced study at 4-year colleges and universities.
- HFC serves more dual-enrollment students than any other 2- or 4-year institution of higher learning in Michigan. Through strong partnerships with more than 50 local school districts, HFC offers dual-enrollment and career exploration opportunities to help high school students prepare for postsecondary education and the workforce.
- HFC hosts: 1) an Early College focused on health careers (in collaboration with Henry Ford Health); 2) the Collegiate Academy, a collaboration with Dearborn Public Schools that provides academic and career pathways to college credentials for qualifying 11th- and 12th-grade students; and 3) the HFC Middle College Trade School, which delivers career and technical training for a consortium of dual-enrolled high school students across a range of professional fields and skilled trades.
- HFC is home to **the state's largest population of Detroit Promise** students. In collaboration with the Detroit Scholarship Fund (DSF), HFC has implemented effective retention and success initiatives to improve completion rates and the attainment of college credentials for students across the region's diverse learning community.
- **Unique Learn4ward Transfer Articulation agreements** with **guaranteed admission** to UM-Dearborn, Wayne State University, Eastern Michigan University, and Davenport College (100% online BA/BS completion options) ensure seamless transition while providing considerable cost savings to students. **300+ articulation and reverse transfer agreements** with over colleges and universities across the state, region, and nation.
- Grant-supported seamless **ADN/RN to BSN completion pathways** provide qualified students seamless and affordable transfer from HFC's Nursing Program to both EMU and MSU.
- **Workforce development training,** including customized on-site training for many regional organizations such as UAW Ford, Stellantis, and AK Steel. HFC **embeds industry-standard certifications and credentials, as well as an integrated focus on durable skills,** into all its occupational and career programs as a means of ensuring seamless transitions into the workforce.
- **Assisted Learning Services** provides accommodations to students with disabilities through an array of support services tailored to meet the needs of individual learners.

- HFC's **Center for Teaching Excellence and Innovation** for teacher development provides programming and professional opportunities supporting the continuous improvement of teaching and learning.
- The Office of **Military and Veterans Services** offers assistance to help veterans as well as active military and their families enroll and succeed at HFC, nationally recognized as a Veteran-friendly institution.
- The **English Language Institute** offers intensive preparation in English for English Language Learners, allowing them to move directly into college-level academic programs.
- **Accelerated and co-requisite pathways** facilitate remediation and successful transition to college-level coursework in English (Writing, Reading) and Mathematics
- **Community engagement** provides vibrant cultural outreach and enrichment opportunities, including plays and concerts, open lecture and film series, conference and convention facilities, fundraising events in support of student scholarships, and featured dining experiences.
- HFC's radio station, **WHFR 89.3**, provides real-world lab experience in telecommunications for HFC students to serve the needs of Dearborn and surrounding communities.

c. Identify other initiatives which may impact facilities usage

Stemming from the HFC Strategic Plan, the following objectives will affect facilities usage:

1. Develop new and revise existing programs to meet the expectations of the workforce, including flexible, **innovative manufacturing education environments**.
2. Obtained a $5 million equipment grant from the State of Michigan which includes a $1.2million facility renovation investment to accommodate the equipment for program delivery.
3. Create and expand local, regional, national, and international partnerships and collaborations with business, governmental, non-profit, and educational institutions to create a **global institution**.
4. Develop and deliver **technology** training based on the assessed needs of students, faculty, and staff.
5. Ensure that the College's physical facilities, equipment, and technological **infrastructure** support fulfillment of the College's mission.
6. Promote **sustainability** and environmentally sound policy in facilities resource planning.

In June 2017, the College initiated a project to develop an Integrated Energy Master Plan (IEMP), which, when combined with the College's Facility Master Plan, will provide an integrated approach to renovate facilities that meet "World Class" energy performance standards.

The Integrated Energy Master Plan Scope and Design (IEMP) was completed in March 2018 and aims to ensure the College has world-class energy performance in terms of energy reliability, energy efficiency, greenhouse gas emissions, and energy cost. This transformative plan aims to reduce the College's energy and emissions footprint by at least 60% and align it with global best practices. The IEMP targets were guided by benchmarks from US, Canadian, and European institutions. (Details in Appendix B)

An equally important IEMP goal is to create new academic offerings, including new courses, apprenticeships, and internships. For this reason, the VP of Finance & Administration and the VP Academic Affairs co-sponsor the IEMP. In support of this aspect of the IEMP, the College Campus will be consciously configured as a "Living Classroom" to serve both the academic and operational aspects of the IEMP. The project has an investment of over $23 million and has a projected payback of 12 years, with performance guarantees established in the construction contract. Additional investment of over $11 million will be committed to enhance green energy, cogeneration, and solar energy capture.

d. Demonstrate economic development impact of current/future programs

HFC contributes significantly to the local economy. A 2023 study by Lightcast revealed the following results for fiscal year (FY) 2020-2021 (see also Figure 1):

- Through operations spending, student spending, and alumni impact, HFC added $1.4 billion in income to the economy of the area it serves (Macomb, Monroe, Oakland, Washtenaw, and Wayne counties), which equates to 16,487 jobs.
- HFC is a wise investment of students' time and money. Students' annual rate of return on investment (ROI) averaged 17.7%, making HFC a better investment than the stock market, whose 30-year average annual ROI was 10.5%.
- Local taxpayers also benefit greatly, with a 10.9% average annual ROI for FY 2020-2021.
- A strong return on investment statewide was forecasted as well. The study forecasts that through economic growth and public and private sector savings, "[f]or every dollar invested [by the state] in HFC in FY 2020-21, people in Michigan will receive $17.90 in return, for as long as HFC's FY 2020-21 students remain active in the state workforce."

HENRY FORD COLLEGE

Fact Sheet
MARCH 2023

The Economic Value of Henry Ford College

Henry Ford College (HFC) creates a significant positive impact on the business community and generates a return on investment to its major stakeholder groups—students, taxpayers, and society. Using a two-pronged approach that involves an economic impact analysis and an investment analysis, this study calculates the benefits received by each of these groups. Results of the analysis reflect fiscal year (FY) 2020-21.

Economic impact analysis

In FY 2020-21, HFC added **$1.4 billion** in income to the HFC Service Area* economy, a value approximately equal to **0.5%** of the region's total gross regional product (GRP). Expressed in terms of jobs, HFC's impact supported **16,487 jobs**. in the HFC Service Area.

Operations spending impact

- HFC employed 1,324 full-time and part-time faculty and staff. Payroll amounted to $72.6 million, much of which was spent in the region for groceries, mortgage and rent payments, dining out, and other household expenses. The college spent another $10.1 million on day-to-day expenses related to facilities, supplies, and professional services.
- The net impact of the college's operations spending added **$76.7 million** in income to the regional economy in FY 2020-21.

Student spending impact

- Some in-region students, referred to as retained students, would have left the HFC Service Area for other educational opportunities if not for HFC. These retained

* For the purposes of this analysis, the HFC Service Area is comprised of Macomb, Monroe, Oakland, Washtenaw, and Wayne Counties.

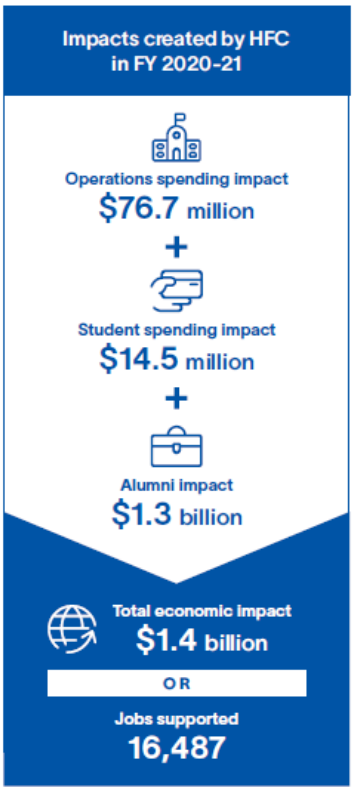


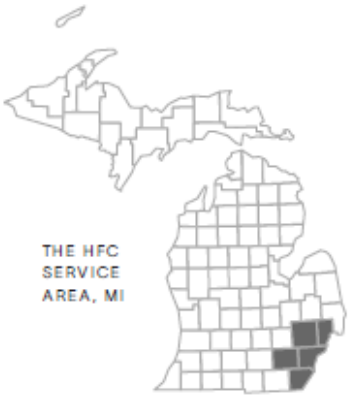
Figure 1

students spent money on groceries, mortgage and rent payments, and other living expenses at regional businesses.

- The expenditures of retained students in FY 2020-21 added **$14.5 million** in income to the HFC Service Area economy.

Alumni impact

- Over the years, students have studied at HFC and entered or re-entered the workforce with newly-acquired knowledge and skills. Today, hundreds of thousands of these former students are employed in the HFC Service Area.
- The net impact of HFC's former students currently employed in the regional workforce amounted to **$1.3 billion** in added income in FY 2020-21.



Investment analysis

Student perspective

- HFC's FY 2020-21 students paid a present value of **$58.6 million** to cover the cost of tuition, fees, supplies, and interest on student loans. They also forwent **$53 million** in money that they would have earned had they been working instead of attending college.
- In return for their investment, students will receive a cumulative present value **$580.3 million** in increased earnings over their working lives. This translates to a return of **$5.20** in higher future earnings for every dollar students invest in their education. Students' average annual rate of return is **17.7%**.

Taxpayer perspective

- Taxpayers provided HFC with **$47.8 million** of funding in FY 2020-21. In return, they will benefit from added tax revenue, stemming from students' higher lifetime earnings and increased business output, amounting to **$226.3 million**. A reduced demand for government-funded services in Michigan will add another **$17.6 million** in benefits to taxpayers.
- For every dollar of public money invested in HFC, taxpayers will receive **$5.10** in return, over the course of students' working lives. The average annual rate of return for taxpayers is **10.9%**.

Social perspective

- In FY 2020-21, Michigan invested **$149 million** to support HFC. In turn, the Michigan economy will grow by **$2.6 billion**, over the course of students' working lives. Society will also benefit from **$49.4 million** of public and private sector savings.
- For every dollar invested in HFC in FY 2020-21, people in Michigan will receive **$17.90** in return, for as long as HFC's FY 2020-21 students remain active in the state workforce.

Students see a high rate of return for their investment in HFC

Average annual return for HFC students
17.7%

Stock market 30-year average annual return
10.5%

Interest earned on savings account (National Rate Cap)
0.8%

Source: Forbes' S&P 500, 1992-2021. FDIC.gov, 2-2022.

For every $1...

Students gain in lifetime earnings
$5.20

Taxpayers gain in added tax revenue and public sector savings
$5.10

Society gains in added income and social savings
$17.90

III. STAFFING AND ENROLLMENT

a. Describe current full- and part-time student enrollment levels by academic program and define how the programs are accessed by the student

40% of students attend full-time, while part-time students make up the remaining 60% of enrollment across program offerings. Certain academic programs, particularly those with selective admissions such as Physical Therapist Assistant, require completion of all coursework within a specified time period, strongly encouraging full-time participation.

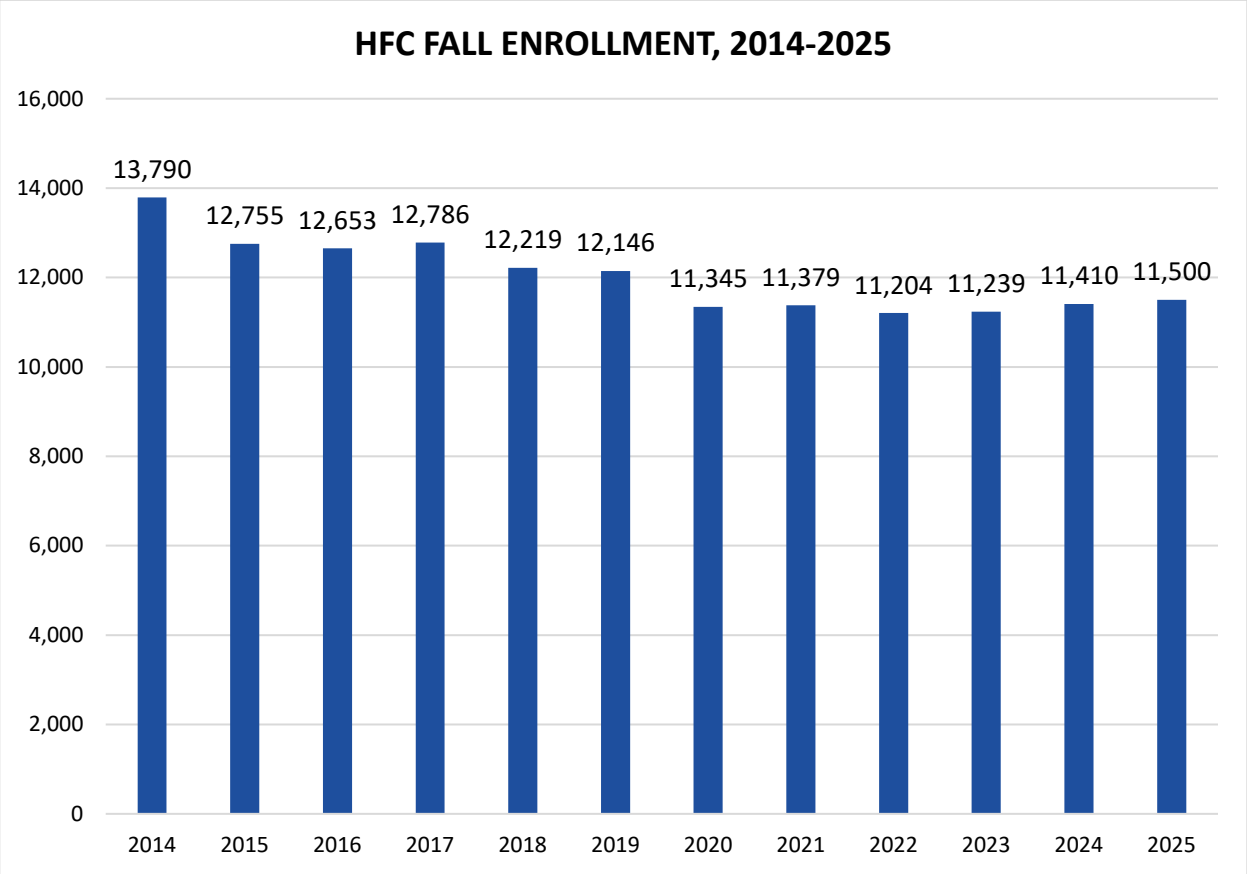
HFC provides diverse course delivery methods to accommodate students' needs and preferences while maintaining curriculum consistency. Before COVID, HFC ran 100% asynchronous online, hybrid, hyflex, and 100% on-campus classes. When COVID necessitated remote learning for an extended period, the College added another modality: "Live Without the Drive." In this format, classes meet at specific times via conferencing software such as Zoom or Teams, approximating the on-campus class experience. Adherence to course masters assures the same learning outcomes for all classes, regardless of modality. While teaching strategies differ, the learning objectives and quality do not.

In the current post-COVID landscape, course modalities are driven by the pedagogical needs of individual academic programs and student demand. For example, during the Fall 2025 semester, approximately 50% of courses in the School of Business, Entrepreneurship, and Professional Development were offered on campus, 32% online, and 18% as hybrid courses. In contrast, 81% of courses housed within the School of STEM were offered as hybrid courses, 15% online, and 4% exclusively on campus. Clinical courses for health careers programs are offered onsite at partner healthcare facilities. Training programs for business and industry are provided either at the worksite or at the M-TEC facility on east campus.

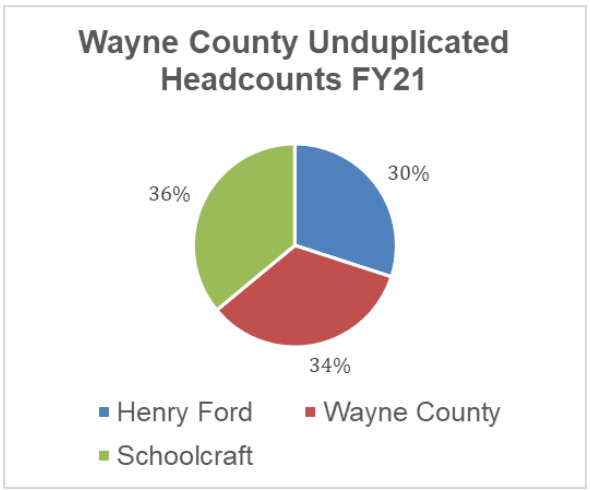
b. Enrollment Patterns over the last five years & projected enrollment pattern for the next five years

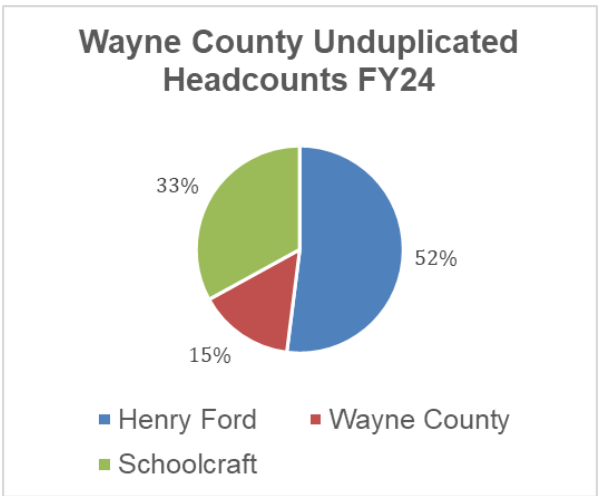
Following several years of enrollment declines that matched statewide trends, HFC's enrollment stabilized between 2016 and 2019. Enrollment declined further during the pandemic, although it began to rebound with modest increases in Fall 2023 and Fall 2024. Increases in total credit hours have been even greater (2% in Fall 2023 and 3.8% in Fall 2024), indicating that students are enrolling in more credit hours than in previous years. While not yet reported to IPEDS, Fall 2025 enrollment has increased to pre-COVID levels, with 12,291 students. Table 1 below illustrates Fall HFC enrollment from 2014-2024.

TABLE 1
HFC FALL ENROLLMENT, 2014-2025
AS REPORTED TO IPEDS



Even during years of declining enrollment, Henry Ford College has been increasing its market share, most notably over the last five years. This shift is most evident in Wayne County, where Henry Ford College has increased its unduplicated headcount market share among the three community colleges by nearly 22 percentage points. In FY21, HFC's enrollment reflected 30% of the total community college enrollment in Wayne County. By FY24, that percentage had increased to 52%.





HFC attributes this market-share increase to breaking new ground in meeting students' needs for customer satisfaction and degree completion. Agreements with transfer colleges and universities, training and retraining programs, and an emphasis on distance education are among the strategies used to grow and create new programs and services. Programs have been made more accessible by offering more flexible scheduling of classes, including weekend College programs, and by offering more courses and ultimately programs online.

Despite the previously experienced decline in enrollment due to the strength of the economy and COVID-19, HFC is making significant efforts to mitigate future decreases by increasing marketing and recruitment efforts and revising policies and procedures to enhance the student experience at HFC, including efforts to ensure posted class offerings are provided. The College forecasts an annual 1-2% increase in enrollment over the next five years.

Recruitment and retention efforts will remain strong, and environmental scanning will ensure the College continues to offer programs that meet students' and the community's needs.

The College has expanded its presence in Early College programs, with over 20% of teaching for K-12 students done on campus.

c. Provide instructional staff/student and administrative staff/student ratios for major academic programs

In the nursing program, the faculty-to-student ratio is about 1:25, and the administrative staff-to-student ratio is about 1:91. For the health careers programs, the faculty-to-student ratio is about 1:17, and the administrative staff-to-student ratio is about 1:16. In the computer information systems program, the faculty to student ratio is about 1:20 and the administrative staff to student ratio is about 1:152.

d. Project future staffing needs based on five-year enrollment estimates and future programming

In 2024-2025, of the 846 employees, 174 were full-time faculty, and 324 were adjunct faculty. Notably, the full-time faculty bargaining agreement contains new language that ties the number of full-time faculty lines to student enrollment and state aid levels. Based on enrollment projections, the total number of full-time faculty is expected to increase slightly, which may mean using fewer adjunct faculty or maintaining current numbers. Faculty hiring priorities are also enrollment-driven and occur annually; for example, a retirement within a certain academic program does not necessarily mean the College will hire a new faculty member in the same academic program area. The College currently seeks new full-time faculty members within the Business area, particularly in the areas of entrepreneurship and accounting, both of which have been identified as growth areas. Additionally, we seek faculty within the Nursing program due to enrollment growth.

e. Identify current average class size and projected average class size based on institution's mission and planned programmatic needs

It is the policy of the College that the minimum class size is fifteen students. The average class size is twenty students. This, of course, varies according to the nature of the program or type of course. For example, certain types of general education courses may seat thirty students per section. However, more difficult courses or technical courses that require particular labs are appropriately run with fewer students. At times, a class of fewer than fifteen students is offered if a group of students needs a course during a particular semester to graduate.

No change is projected to this policy or average class size. It is the mission of the community college, in general, and Henry Ford College, in particular, to offer small class sizes. This aspect differentiates the community college from the four-year university where a class size of 100 is not unusual. Henry Ford College students are provided more individual attention from faculty and support services.

IV. Facility Assessment

A professionally developed comprehensive facilities assessment is required.

Henry Ford College engaged Stantec, Inc. (formerly SHW) to facilitate the Master Facilities Planning process, which included a facility assessment, utilization plan, and updated master plan. This initiative supports HFC's mission and strategic plan by ensuring the College provides an outstanding environment in which to deliver high-quality academic programs.

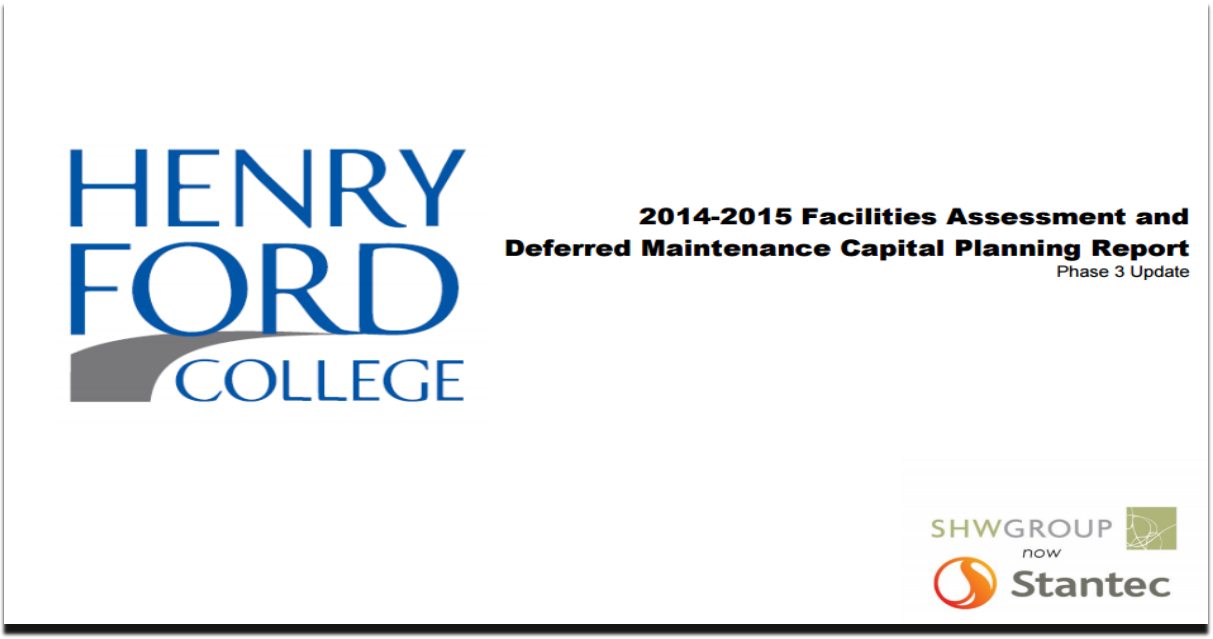


HENRY FORD COLLEGE CAMPUS MASTER PLAN 2015

COMPREHENSIVE FACILITY ASSESSMENT:

Click on the link or report icon below to review the comprehensive facility assessment in accordance with categories outlined in "net-to-gross ratio guidelines for various building types," DMB-Office of Design and Construction Major Project Design Manual, Appendix 7.

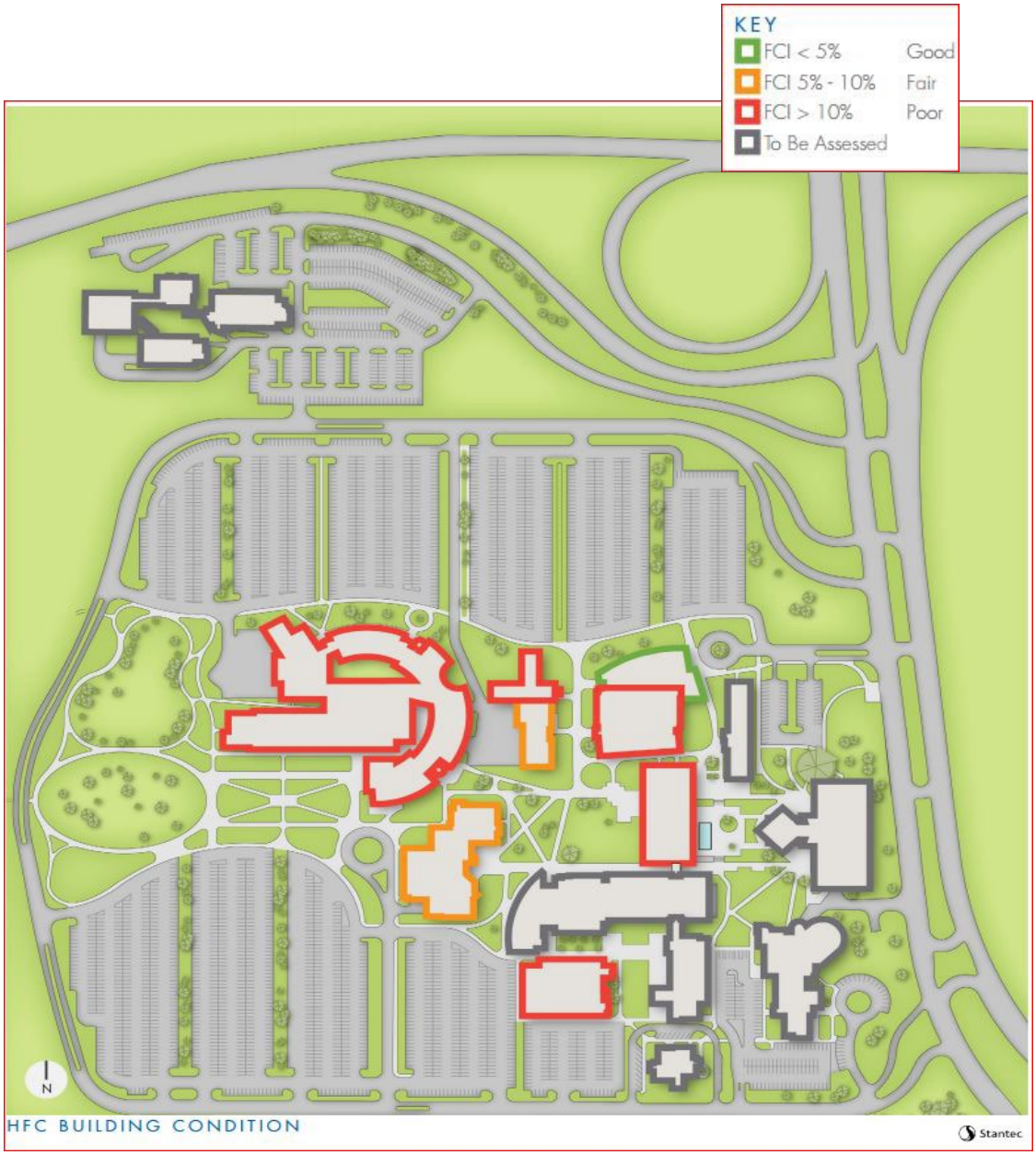
FACILITIES ASSESSMENT & DEFERRED MAINTENANCE CAPITAL PLANNING REPORT
Updated October 12, 2022. See: https://www.hfcc.edu/assets/transparency/2023/2023-hfc-facility-assessment-update-summary.pdf



The 2023 HFC Facilities Assessment of over 921,335 square feet and $400,370,700 replacement value has yielded a Facility Condition Index (FCI) of GOOD (0-5%) with respect to Priority 1-3. That is, the total value of projects that will require attention within the next five years, including those that require immediate attention to maintain facilities and related infrastructure for safe use. The buildings identified as having significant issues include the Technology, Liberal Arts, and Physical Fitness buildings.

Since 2018, major progress has been made in addressing the buildings' maintenance issues. Appendix G identifies specific priority repairs required, while Appendix I identifies outstanding priority 1 projects at $4,421,000 and priority 1-3 outstanding projects at $17,678,000 at the end of 2028.

HFC BUILDING CONDITION



The Current Replacement Value (**CRV is** the cost to construct a replacement building in today's dollars; the Deferred Maintenance Backlog (**DMB**) and the Facility Condition Index (**FCI**) (DMB/CRV) are shown below for fiscal year 2023-2024:

`Facility Current Replacement Value (CRV)	Annual Estimate to Maintain (3% of CRV)
$388,456,000	$11,653,680
PRIORITY 1: CURRENT YEAR	**PRIORITIES 1-3: TOTAL THROUGH YEAR FIVE**
Facility Condition Index (FCI)	**Facility Condition Index (FCI)**
1.1%	4.6%
Deferred Maintenance Backlog (DMB)	**Deferred Maintenance Backlog (DMB)**
$4,421,000	**$17,678,000**

CLASSROOM UTILIZATION

Detailed information regarding classroom utilization can be found on pages 52-54 of the Master Plan.

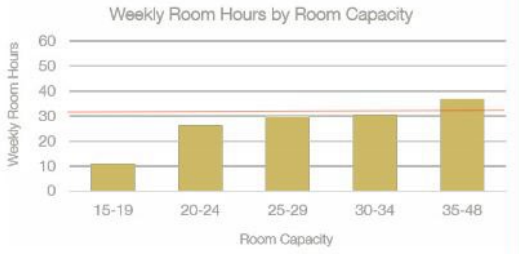
CLASSROOM UTILIZATION

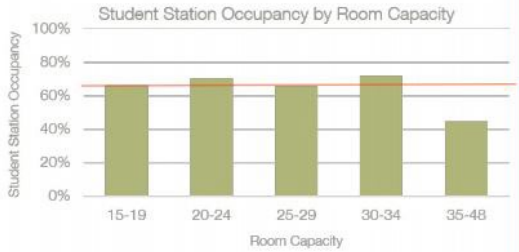
Of the 120 classrooms on campus, the majority are located in the Liberal Arts building. Built in 1963, this building is generally perceived to be in poor condition and badly in need of infrastructure, finish and layout improvements. Of the classroom spaces on campus, those located in the Liberal Arts building are on average undersized, coming in at 21 Assignable Square Feet per Student Station (ASF/SS), as compared to the target of 22-48 ASF/SS.

Building	Number of Rooms	Total Area	Average ASF/SS	Average Weekly Seat Hours	Average Weekly Room Hours	Student Station Occupancy
ATHL	2	2,015	47	27.7	32	82%
FA	8	5,350	31	19.8	22	90%
HCEC	21	18,072	26	20.5	30	67%
LA	57	35,167	21	22.8	32	73%
LRC	1	712	40	27.8	38	74%
SC	2	1,785	43	11.3	25	42%
SCI	7	7,678	26	15.7	36	48%
TECH	22	16,705	32	10.9	19	59%
Total	120	87,483	26	19.6	29	69%

Classrooms included in this study averaged 29 Weekly Room Hours across the campus, with an average Student Station Occupancy of 69%. Classrooms with smaller capacity are used less frequently during the week, but have a higher occupancy rate when they are scheduled. The larger rooms were used more frequently, but with a lower occupancy rate. These averages are not too far off from the target Weekly Room Hours of 32 and Student Station Occupancy of 65%.

Additionally, with an average 26 Assignable Square Feet per Student Station (ASF/SS), HFC is well within the target range of 22-48 ASF/SS, although at the low end of that range. This wide range allows for different types of classrooms with different furniture needs and set ups, with the smaller end of the range being appropriate for lecture halls with fixed seating, and the larger end being geared towards flexible classrooms with movable furniture.





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

   In the science program, laboratories must meet standards set by the Department of Transportation (chemical labeling), OSHA (workplace safety and ventilation requirements), and the EPA (chemical disposal). Chemicals are handled according to prudent practices for academic chemical laboratories, with emphasis on pertinent local, state, and federal regulations. All faculty go through yearly lab safety training.

   The Science Division has a part-time chemical health and safety technician who oversees chemical inventories and lab safety. Standardized inventory and labeling comply with workplace safety and chemical labeling regulations.

   Technology programs that teach the use of industrial machinery follow OSHA regulations, including requirements for personal protective equipment, machine guards, and designated operator areas.

2. **Functionality of existing structures and space allocation to program areas served**

   Programs being revised in the next five years include Associate degrees and certificates in HVAC, Renewable Energy, Transportation, and Mechatronics. These program improvements require high-tech classrooms and laboratories that are supported by a robust technological infrastructure. The replacement value of existing facilities is $400,370,700 as of 2024.

   A report provided by R. A. Schettler, Inc., listing the Replacement Value New and the Sound or Depreciated Value of all buildings at HFC (dated 10/2024) is included in Appendix E. Building age and size data are included in Appendix F.

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

   The current systems provide sufficient heating, cooling, ventilation, and other utilities to meet occupant needs under most operating conditions. However, the Facilities Assessment and Deferred Maintenance Capital Planning Report has identified **major issues in the life expectancy of some equipment and infrastructure**.

   See https://www.hfcc.edu/sites/hfcmain/files/attachments/2015/hfc-facilities-master-plan.pdf

   Facility infrastructure condition (i.e., roads, bridges, parking structures, lots, etc.)

   The College completed the redesign and reconstruction of all parking lots at the Evergreen site. This includes a new stormwater improvement system that significantly benefits the Rouge River, which receives stormwater runoff. From 2014 through 2026, the District invested in sealing and preventive maintenance of the parking lots at

both the Main and East Campuses. The District completed extensive upgrades and repairs to concrete walkways at both the Main and East Campuses from 2014 through 2026. The District also completed roof replacements in 2021 and 2026. Appendix G includes the list of building repair priorities.

4. **Adequacy of existing utilities and infrastructure systems to current and five-year projected programmatic needs**

   The electrical system at the Evergreen site includes many components that, after more than forty years of use, have exceeded their useful life. A plan has been developed to replace much of this infrastructure and to convert from 4.8 kV to 13.2 kV feeders as recommended by the local electricity provider. The electrical project related to the North Loop feeder should be completed by 2027. The team completed 90% of the North Feeder loop upgrade to 13.2 kV, including an additional section covering the Facilities Building and Powerhouse. The final phase of the North Loop upgrade includes the Tech Building Feeder and return to the Main Vault. Construction is underway and is expected to be complete by the summer of 2027. The institution completely replaced the Liberal Arts substation in the previously completed phase.

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

   The College has completed an Integrated Energy Master Plan (IEMP), the comprehensive energy savings plan for the campus. Integrated Energy Master Plan (IEMP) defines building and system improvements linked to the College's Facilities Master Plan.

   The Integrated Energy Master Plan (IEMP- Appendix B) launched in June 2017 was completed in March 2018 and is aimed at ensuring the College has world-class energy performance in terms of energy reliability, energy efficiency, greenhouse gas emissions and energy cost. This transformative plan aims to increase source energy efficiency by 60%, increase water efficiency by 40%, and reduce GHG emissions by 50% to align the College with global best practices. The IEMP targets were guided by benchmarks from US, Canadian, and European institutions.

   The IEMP creates a detailed integrated technical, environmental, and economic model of the College’s energy use from end-user through campus distribution and supply with an outlook of about 20 years. The IEMP evaluates scenarios for end-use efficiency, smart-campus control and measurement networks, electrical and thermal distribution, and on-site clean and renewable supplies against different regulatory and cost risks. The Scenario that best meets all transformative targets will be adopted by the College as the implementation roadmap, with year-on-year investments in energy infrastructure and associated technical and economic performance.

Implementing the IEMP includes changes to energy management practices and energy-related procurement. The aim is to build in continuous improvement around energy performance. Changes in procurement policies will also ensure new construction (including the major expansion of E building), renovation, retrofits, and energy infrastructure meet the highest possible levels of efficiency measured against comparable examples anywhere in the world.

The College's enterprise-wide energy plan depends largely on the age of the building and the details of its particular heating/cooling systems as follows:

- Construction/renovation to current energy code standards. This applies to the renovated science building (2011) as well as the new addition to the Science Center (2012) and the Welcome Center (2012).
- All buildings have been updated with low-energy LED lighting and occupancy sensors.
- All buildings have been updated with modern building automation controls, and approximately half of the Campus's air handling systems were refurbished or replaced with energy-efficient variable-speed upgrades.
- Gas, water, and electrical meters have been installed locally at each building to monitor use and for analysis in aid of continuous improvement of energy efficiency.

The main campus central heating and cooling plants receive special attention for energy consumption. The previous plant featured a 66-year-old central boiler system and a 32-year-old 4.8 kV chiller. In Spring 2022, the College switched over to a new central heating plant in the Technology building. The current plant features 6 new high-efficiency condensing boilers, a 500-ton magnetic bearing chiller, an underground district heating network, and two combined heat-power units capable of generating 910 kW of electrical output and 3,635 MBTU/hr of recoverable thermal output. We replaced the 1960s-era cooling tower in 2017.

The Facilities Services Staff are trained and dedicated to managing the mechanical systems to save energy as much as possible. We retain a building controls firm that provides regular services to maintain our Building Management System and provides technical support as we improve the system.

The College is currently finishing the initial implementation phase of the $23.2 million IEMP project, with Johnson Controls Inc. as the lead vendor.

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

Included in Appendix H is a map of the main campus of the College. The southern property line is shared with the University of Michigan-Dearborn and the Gabriel Richard Campus Ministry Center. The eastern border flanks Evergreen Road and provides the major vehicular entry points to the campus roadway systems and parking

facilities. Immediately east of Evergreen Road is land owned by the Ford Motor Land Development Corporation, the Fairlane Town Center, and Fairlane Meadows. The western facilities boundary is the Rouge River watershed, which falls under Wayne County jurisdiction. The northern property line is Ford Road (M-153).

Despite these space limitations, it is considered important to protect and preserve as much open space as possible, particularly space adjacent to buildings and building additions.

At this time, additional acquisitions are not needed to meet future demands.

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

   Student and Culinary Arts Center 2028

V. IMPLEMENTATION PLAN

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

1. **Prioritize major capital projects requested from the State, including a brief project description and estimated cost, in the format provided.**

   Based on the assessments described above, Henry Ford College has established the following projects, which are listed in priority order:

   a.
   b. Energy Learning Center (ELC)
   c. Liberal Arts Building - Student Success Center (SSC)
   d. Library - Learning Commons

Detailed descriptions of the projects listed above are included in Appendices A-D.

2. **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**

   The 2014-2015 (Updated in 2022) Facilities Assessment and Deferred Maintenance Capital Planning Report https://www.hfcc.edu/assets/transparency/2023/2023-hfc-facility-assessment-update-summary.pdf includes facilities issues based on their impact on health and safety, accessibility, code compliance, the potential to stop further deterioration, and the learning environment.

   Because of the current state of deferred maintenance, the College continues to budget

as much as possible to address these issues annually.

The findings of the **Technology Building** analysis include:

- IEMP contract provided updates to the HVAC equipment and controls, plumbing fixtures, lighting, and lighting controls.
- HVAC: AHU has been refurbished with a new supply fan array, damper actuators, and cabinets repaired. Coils were pressure tested and replaced as needed. Mixing boxes were upgraded to digital control, but the equipment remains a constant-volume, dual-duct system.
- HVAC: 1995 addition RTUs 1, 2, 3, and 4 were replaced late 2022- early 2023.
- HVAC: Insufficient heat in winter issue resolved through improved controls and pump upgrades.
- Plumbing: Restroom fixtures upgraded to low-flow type. The IEMP did not address accessibility.
- Lighting: As part of the IEMP, light fixtures were re-lamped or replaced with LED units, and lighting was upgraded to motion sensors.
- Roof: Significant portions of the roof were replaced as part of the renovation.
- Ceiling: 1964 wing ceilings were replaced as part of the renovation.
- Electrical: The substation is outdated and due for replacement with a 13.2 kV system once the North Campus primary loop is extended to the building. Construction is currently underway, and the existing 4.8 kV substation is scheduled to be replaced by summer 2027. This building is the last remaining building on the original 4,800-volt primary.
- Signage: Interior signage is planned to be updated/replaced to address the new building naming system. Egress maps will be updated to reflect the new building naming system.
- ADA: Door hardware is not being upgraded as part of the renovation. Many doors still have old-style knob hardware.

Facility Current Replacement Value (CRV)	Annual Estimate to Maintain (3% of CRV)
$69,638,000	$2,089,000

PRIORITY 1: CURRENT YEAR	PRIORITIES 1-3: TOTAL THROUGH YEAR FIVE
Facility Condition Index (FCI)	Facility Condition Index (FCI)
5.3%	7.3%
Deferred Maintenance Backlog (DMB)	Deferred Maintenance Backlog (DMB)
$3,712,000	$5,114,000

Facility Condition Index – Building E. 2023.

The findings of the **Eshleman Library** analysis include:

- IEMP contract provided updates to the HVAC equipment and controls, plumbing fixtures, lighting, and lighting controls.
- Signage: Interior signage planned to be updated/replaced to address the new building naming system. Egress maps were updated to address the new building

naming system.

- Plumbing: Restroom fixtures upgraded to low-flow type. Accessibility was not addressed as part of IEMP.
- Lighting: As part of IEMP, light fixtures were re-lamped or replaced with LED units, and lighting controls were upgraded to motion sensors.
- Floors: Original carpet was replaced in Summer 2022.
- Roof: Skylights were resealed to prevent leaks
- Fire alarm: Panel is original and reported nearing the end of its useful service life.

Facility Current Replacement Value (CRV)	Annual Estimate to Maintain (3% of CRV)
$ 16,305,000	$489,000
PRIORITY 1: CURRENT YEAR	**PRIORITIES 1-3: TOTAL THROUGH YEAR FIVE**
Facility Condition Index (FCI)	**Facility Condition Index (FCI)**
0.0%	1.1%
Deferred Maintenance Backlog (DMB)	**Deferred Maintenance Backlog (DMB)**
$0	$179,000

Facility Condition Index – Building B. 2023.

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

The project includes an addition and select renovation of the Technology Building on the main campus of Henry Ford College in Dearborn, Michigan. It includes 69,300 square feet of construction. Renovation of existing space accounts for 28,300 sf, and the remaining 41,000 sf is new construction. The project and its associated academic program spaces provide newly created or renovated spaces for the equivalent of 250 total full-time students. This increases the building's current student capacity from 2,360 full-time students to 2,610 full-time students. Four (4) new interactive classrooms featuring hands-on lab space for the equivalent of 16 full-time students each will be added to the Transportation / Automotive Technology program. The existing program space will be updated with new HVAC systems and doors to prevent noise and exhaust from disrupting neighboring programs in the building. Architecture / Construction Technology is currently housed in separate parts of the campus and is now consolidated in the new addition of the Technology building. The new space includes design studios for 16 students each, testing labs, a collaborative "maker" space, a high bay area for large projects such as constructing and manufacturing tiny houses, a secured outdoor space, and ample storage for materials, tools, and other equipment. The area that previously housed the College's construction program will be renovated into two (2) CIS classrooms, each accommodating the equivalent of 16 full-time students. This improves building flow and adds instructional space to the growing CIS program. The HVAC and electrical equipment in areas affected by the

construction (both renovation and addition) meet specifications outlined in the College's campus-wide Energy Master Plan.

4. **The project is currently on schedule, with Phase I complete with possession of Certificate of Occupancy and Phase II at substantial completion with possession of temporary Certificate of Occupancy. Classes began in the addition in Fall 2023. Phase III was completed, and classes were held on time in Winter 2024. 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.**

   Studies indicate that campus facilities and appearance are among the top reasons for students choosing a college. Therefore, modern, attractive facilities and classrooms will significantly impact recruitment and retention. The experience and education students receive will benefit local, state, national, and global employers, as shown by the Economic Modeling Specialist Data. This highly skilled workforce will contribute to the economic development of the areas where students are employed. With the completion of the Integrated Energy Master Plan (IEMP), any modifications and upgrades have been benchmarked to yield an ROI of 8%.

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

   The distance learning program at HFC is being reviewed against the college's long-range strategic goals. The Board of Trustees is allocating resources for research, personnel, and ultimately the development of the *Online at HFC* College. In essence, the College is developing and implementing a brand-new, sustainable, quality-first structure and model focused on student success. To achieve this, the College will establish a new structure, guarantee quality standards before publication, conduct regular evaluations, easily evaluate student learning, embed student services, and set sustainability measures. However, the growth of distance education programs will not reduce the physical space needs for face-to-face instruction at HFC.

6. **Identify a maintenance schedule for major maintenance items in excess of $1,000,000 for fiscal year 2028 through fiscal year 2032.**

   The college has identified that multiple building roofs need replacement. The two high-priority buildings currently in need of a full roof replacement are buildings E, H, and WC/CC.

   Replacing building E's roof is estimated to cost roughly $5.2m. The building has 17 roof sections, 13 of which are due for replacement. The sections due for replacement cover all spaces added in the 1995 addition, which totals roughly half of the building's total square footage.

   Replacing Building H's roof is estimated to cost roughly $1m. The replacement

includes the gymnasium, East storage rooms, South building entrance, and North elevator addition (6 of 7 total building sections).

Replacing the building WC's roof is estimated to cost roughly $1.3m. The roof has 8 sections and covers both the Welcome Center and Community Center buildings entirely.

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

   For 2026-27, the College has budgeted from operations approximately $8,000,000 for non-routine maintenance.

   Upgrades to the College's Wi-Fi network and GroupWise e-mail system were funded through the College's Technology Fee in fiscal 2019.

Student Success Center (SSC)

Central to the mission of the Student Success Center SSC is a commitment to transform HFC into a truly "student-ready" institution – leveraging new and combined resources that will raise completion rates and improve industry/employment outcomes, especially by better understanding and serving the needs of Southeast Michigan's diverse student populations.

While providing a welcoming "front door" to HFC's campus, the SSC invites partnership with other regional organizations committed to improving student success, attainment of a college credential, and connecting students to career opportunities in Southeast Michigan, striving to:

- Develop and deliver comprehensive, holistic, wrap-around support services that accompany students on every step of their journeys from college awareness, preparation, admissions, and orientation through goal completion, graduation, transfer, or transition to the working world.
- Create and promote academic and career pathways that are relevant, clear, accessible, achievable, and affordable – seamlessly leading to meaningful, sustaining employment and/or advanced educational opportunities.
- Promote innovation and continuous improvement informed by regional, state, and national data, benchmarks, predictive analytics, and performance metrics.
- Focus on establishing complementary student services and cooperative student success programming readily available when, where, and how they best meet the scheduling needs and learning styles of learners.
- Facilitate and support the adoption and sharing of proven evidence-based student success initiatives that can be amplified and accelerated while simultaneously managing resources and costs.
- Play an active role in advocating for collective action and policy that enhances and propels student success outcomes at HFC as well as across the region.

The SCC may also serve as host for furthering collaborative initiatives sponsored by other state and regional entities such as the Michigan Community College Association (MCAA), the Michigan Center for Student Success (MCSS), the Detroit Drives Degrees Community College Collaborative (D3C3), the Michigan College Access Network (MCAN), and the Michigan Department of Labor & Economic Opportunity (LEO).

Successful completion of this project will entail designing and constructing a new single-story structure on the main campus of Henry Ford College, connected to existing structures that may also be renovated as part of this project. Together, these will provide a highly visible and welcoming entrance to HFC and the Student Success Center, where student-facing, student-focused support services will be both accessible and readily available to all. The aging and inadequate Reuther Liberal Arts Building may also be renovated either as a component of or as a closely related project to the SSC.

More than 2,200 students are actively pursuing associate degrees (AA, AAA, AFA, AGS) in Liberal Arts programs at HFC. A further 1,250+ students are actively pursuing Associate in Business (AB) degrees and/or a limited number of related one-year certificate programs. To these student populations, one must add the large number of students who enroll in Liberal Arts courses to satisfy requirements associated with General Education, HFC's Institutional Learning Outcomes (ILOs), and/or the statewide Michigan Transfer Agreement. These numbers are anticipated to increase in the next academic year with the institution of recent revisions and improvements to academic and career pathways across the college.

In addition to providing new and improved learning spaces for the study of the Liberal Arts and Business at HFC, the proposed project will also include and incorporate space for several key academic support services relevant to these areas: the Writing Center, the English Language Institute, the Henry Ford II Honors Program, and the Dr. Henry J. Bowers Focus Group.

APPENDIX B

Reuther Liberal Arts Teaching & Learning Facility Renovation

Built in 1963, the Reuther Liberal Arts Building (also identified as Building-K on HFC's Main Campus; 4 floors covering 91,018 sf) has served as Henry Ford College's largest and principal teaching and learning facility for nearly six and a half decades. As the central hub for the study and delivery of general education coursework required of all degree- and certificate-seeking students at HFC, its classrooms have launched many generations of learners into their academic journeys and career paths. As it stands today, the current structure severely limits the institution's ability to deliver instruction that best meets the learning needs of today's college students, the expectations of their future employers, or the most advanced and effective pedagogical practices. Seriously outdated infrastructure cannot support new or emerging instructional technologies that are radically transforming and improving both teaching and learning at Henry Ford College. Furthermore, limitations in the size, number, and distribution of classrooms and learning spaces throughout the building:

- prohibit the college from serving larger student cohorts or accommodating group learning,
- restrict seat availability in high-demand courses (resulting in long waitlists or postponing student access, adding time and cost to degree completion),
- curb innovative teaching techniques such as active, project, and team-based learning (which generally require larger and more flexible spaces), and
- thwart efforts to promote interdisciplinary, cross-curricular, and co-curricular learning opportunities for students and faculty alike.

These issues will all be resolved within the scope of this proposed renovation project, providing sufficient and appropriate teaching and learning spaces designed to be:

- ***Learner-centered/student-focused:*** Shifting the focus of activity from teacher-centered lecture to student-centered doing through promotion of active, cooperative, and inductive learning strategies.
- ***Aligned with 21st-century skills:*** Teaching and learning focused on developing those skills most necessary for personal and professional success, including but not limited to critical and creative thinking, collaboration and communication, information and technology/media literacy, initiative and leadership, productivity and flexibility, and other durable skills for the workplace.
- ***Collaborative:*** Creating spaces and synergies that foster and encourage opportunities for students to interact and work together with one another as well as with their instructors in both formal and informal settings, both within and beyond the walls of the classroom.

- ***Smart:*** Transforming and equipping classrooms with integrated state-of-the-art technologies that enhance and improve both teaching and learning while reinforcing the development and application of 21st-century skills as identified above.
- ***Flexible and future-ready:*** Designing, furnishing, and equipping classroom spaces to accommodate multiple teaching and learning styles while remaining capable of adopting and implementing new instructional technologies and pedagogical practices as they continue to emerge in higher education.

APPENDIX C

Project Extension: EV Lab and Battery Testing Center (pursuant to "Henry Ford College Innovation Institute/ Technology Building Renovation and Addition")

HFC is extending its original project to include designing and equipping an **EV Lab and Battery Testing Center** – a flexible, multi-purpose, interdisciplinary, and collaborative active-learning space where students, faculty, industry partners, and employers can work together to build the technical competencies and skills necessary for successful careers in these emerging fields. The proposed project entails repurposing and renovating spaces within HFC's Technology Building (E160, E163, E163A, E165, and E166) to create the EV Lab and Battery Testing Center, with adjoining classroom and storage. The Center will be designed to be flexible for future modification to address trends and advances in industry and technology, incorporating universal design principles and showcasing student learning as a means of increasing awareness of career opportunities in these fields. Space-specific details include, but are not limited to, the following:

- Renovation and creation of a teaching and learning environment to accommodate 24 students, including laboratory and equipment for testing, analyzing, and characterizing battery cells, modules, and packs
- Provision of oversized work surfaces to facilitate collaborative and group-based learning with power and connectivity for computers and testing equipment.
- Upgrade of electrical, HVAC, fire suppression, exhaust, and cooling water systems as necessitated by laboratory, testing, and instructional equipment and to ensure safety

Henry Ford College's Trade and Apprenticeship, Automotive Technology, and Advanced Manufacturing programs serve nearly 1,250 students annually, delivering specialized training in high-demand industries. More than 250 area high school students attend HFC's Middle College Trade, developing technical and employment skills relevant to these fields. The proposed **EV Lab and Battery Testing Center** will give students hands-on experience with the latest technology and equipment, helping them develop the skills needed to succeed in their future careers.

Technology-rich labs and learning environments will support project- and competency-based curricula. In these labs, students build job skills and gain experience using advanced technology essential to the economy. With access to education through collaborative spaces and open labs, and by working on industry-defined projects, students will develop the tools needed to integrate new learning practices, become self-directed learners, achieve their personal and professional goals, and contribute directly to economic growth and development.

APPENDIX D

Project Extension: Energy Learning Center – Academic Programming and Support

College Leadership set the challenge to create an energy plan that would represent global best practices in both its energy education and its own energy performance. After a year of effort, an Integrated Energy Master Plan (IEMP) was completed and favorably reviewed by the College's Board of Trustees in May 2018. The IEMP is a 20-year roadmap to 2039 for the College to raise its energy efficiency by 60%, its water efficiency by 40%, improve energy reliability, and cut absolute greenhouse gas emissions by over 60%, while achieving acceptable investment returns. It will also create a range of new energy-oriented academic and community outreach programs.

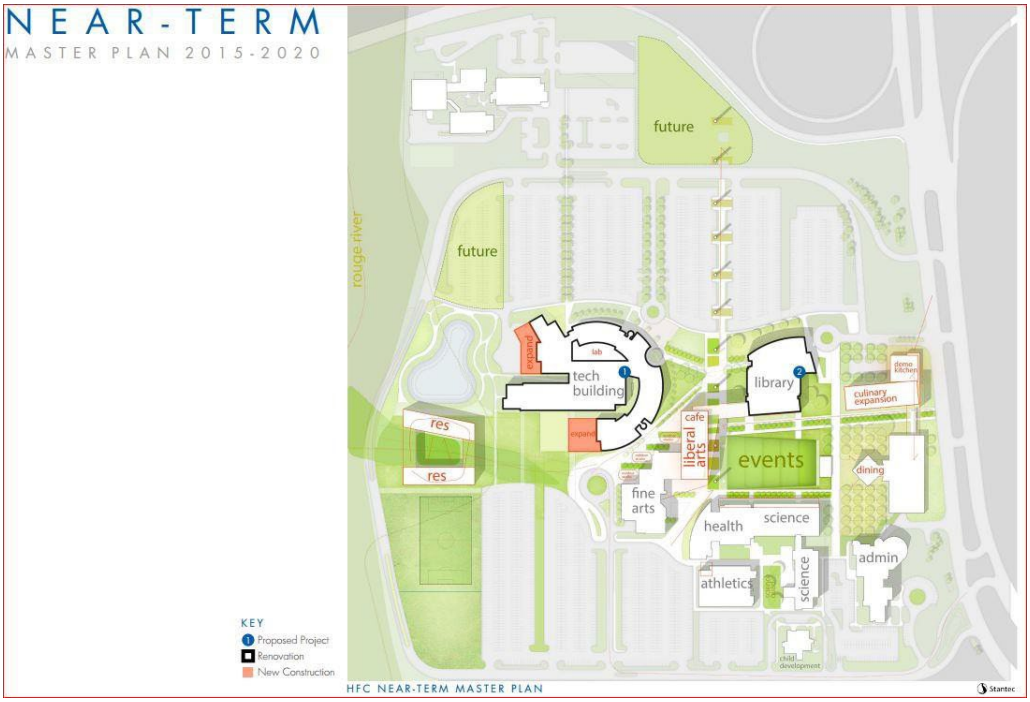
These results were achieved through comprehensive investments in control and metering, efficiency, restructured energy supply and distribution, and changes to energy management processes, practices, and engagement. The College upgraded its entire energy and water metering and control capability to create a Smart City Network, supporting efficient day-to-day operations, long-term continuous improvement, performance reporting, and campus-wide engagement. All buildings have comprehensive energy efficiency retrofits. The 60-year-old heating network was replaced with one that meets current global municipal standards and extends to 12 of 15 buildings on main campus – a relatively rare US example of a global best practice district energy network and a valuable teaching and community asset.

The Tech Building refurbishment incorporated a new Energy Learning Center. The Center supplies competitive, clean, reliable energy from efficient sources, including high-efficiency boilers and chillers, thermal storage, combined heat and power (CHP) generation, and significant solar power generation. The Energy Center will be both a modern operational facility and a teaching facility. It was designed as a visible statement of the College's energy leadership.

The IEMP areas of academic focus include realigned workforce training, technical certification, associate degree pathways embedded with industry-standard credentials, seamless 2+2 or 3+1 transfer pathways to bachelor-degree attainment, corporate and municipal energy transition leadership training, and the potential to award post-bachelor certificates. The College will also be positioned as a destination for elementary and high-school students in Dearborn, greater Detroit, and Windsor, Ontario as a resource for raising energy and climate awareness, new career paths, and engaging future College students. Revenue from enrollment in academic, career, and corporate programming will complement and add to the returns already witnessed regarding energy savings and generation.

Implementing the Henry Ford College Integrated Energy Master Plan recommendation will

transform the College's ability to serve rapidly evolving educational needs while eliminating waste and freeing up resources for more productive use. It will set the College on the pathway to becoming a recognized US Center of Excellence for energy education.



Outcomes:

Renovation of 83,000 GSF to create

- Establishing a Learning Commons
- Relocating Bookstore to Learning Commons.
- Incorporating several technology-enhanced Smart Classrooms as well as an Information Literacy Computer Lab
- Reallocating floor space for quiet and collaborative study, distributing computers throughout the building.
- Aligning all Academic Support Programs into one building.
- Learning Commons to house student services such as Veterans Affairs, Honors, Study Abroad, Service Learning, Civic Engagement, Assisted Learning, Outreach, and Counseling.

R.A. SCHETTLER, INC
SUMMATION
OF
10/1/24

REAL ESTATE - BUILDING - HENRY FORD COLLEGE

SUMMARY BY BUILDINGS	REPLACEMENT VALUE NEW	SOUND OR DEPR. VALUE
N BUILDING	9,609,700.00	4,910,000.00
F BUILDING	24,384,800.00	14,143,200.00
K BUILDING	38,565,000.00	18,511,200.00
A-B BUILDING	42,400,600.00	28,832,400.00
E BUILDING	98,212,900.00	65,802,600.00
H BUILDING	13,574,100.00	7,194,300.00
C-D BUILDING	6,337,100.00	3,295,300.00
G-J BUILDING	66,025,500.00	44,897,300.00
M BUILDING	26,579,700.00	18,074,200.00
L BUILDING	23,308,900.00	13,519,200.00
I BUILDING	2,831,600.00	2,265,300.00
YARD IMPROVEMENTS	1,013,400.00	597,900.00
M-TEC BUILDING/MT	11,222,400.00	8,753,500.00
WELCOME CENTER/WC	24,780,700.00	19,329,000.00
NURSING BULDING/SN	11,419,800.00	9,021,600.00
DTE POLE SERVICE	84,800.00	80,600.00
MODULAR SECURITY OFFICE	19,700.00	18,900.00
ASSET ACCOUNT GRAND TOTAL	400,370,700.00	259,246,500.00
PERCENT DEPRECIATION	X	

APPENDIX F

HENRY FORD COLLEGE
Building Age/Size

Building	Construction Date	Gross Area (Square Feet)	Volume (Cubic Feet)
Administrative Services & Conference Center	1983	59,645	980,348
ASCC – Addition	1988		
Athletic Memorial Building	1964	37,268	696,661
Athletic Memorial Building - Addition	1993	2,284	27,359
Child Development Center	1996	7,005	108,630
College Store	1975	7,752	69,768
Facilities Services Building	1994	7,932	116,576
Fine Arts	1981	65,079	987,639
Health Careers Education Center	1998	81,452	1,274,053
Learning Resources Center – Library	1966	46,587	556,615
Learning Resources Center – North Hall	1997	69,594	787,489
Learning Technology Center	1963	25,157	322,034
Learning Technology Addition	1997	615	7,971
Liberal Arts	1963	91,018	1,169,802
Liberal Arts – Chiller Addition	1995	3,823	68,812
Michigan Technical Education Center (M-TEC)	2001	28,890	300,000
Power House	1963	5,222	106,428
East Building (former SME)	1983	63,264	822,432
North Building (former SME)	1962	9,203	119,639
School of Nursing	2001	32,800	455,119
Science	1963	30,686	419,863
Student & Culinary Arts Center	1963	41,807	626,784
Technology Building – Patterson Technical Building	1965	61,567	810,222
Technology Building – Pump House	1964	462	6,468
Technology Building – Addition	1995	98,223	
Technology Building – Addition	2022	44,000	1,452,281
TOTAL		921335	13,139,475

APPENDIX G

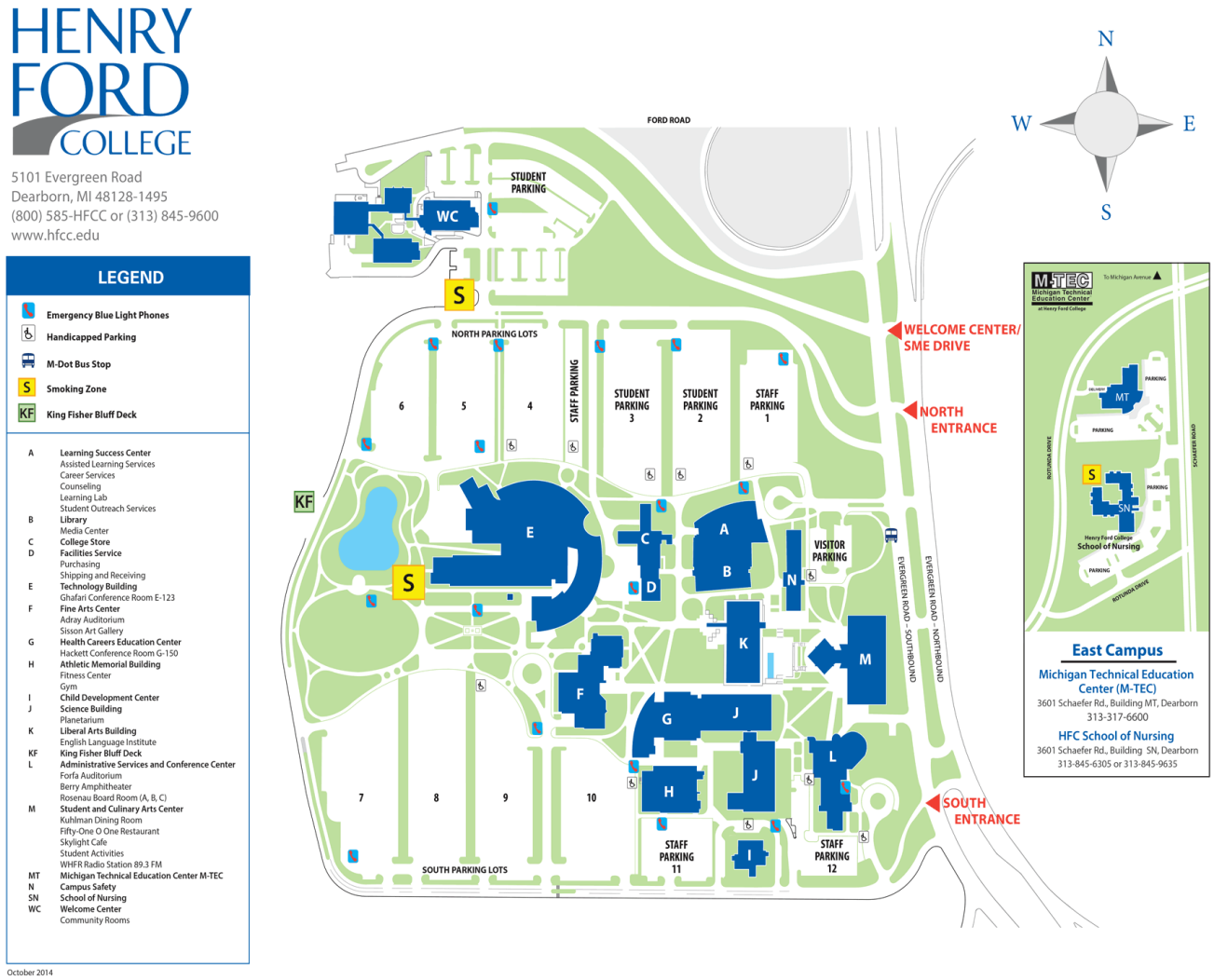
BUILDING REPAIR PRIORITIES

Building	Sq Feet	Priority 1	Priority 2	Priority 3
Administration	59,002	Weatherproofing	Install VAV re-heat upgrades	Replace Exterior Windows
Athletic Memorial Building	36,460	Roof Replacement	Replace Electrical Switchgear	Continue HVAC refurbishment
Child Development Center	7,003	Replace Exterior Windows	Replace ceiling fans	Weather proofing
College Store	7,730	Finish HVAC updates.	Update electrical panels	Replace hot water tank
Facilities Management Building	13,180	Scrap equipment and repurpose abandoned heating plant	Roof Replacement	Restore basement foundation
Fine Arts	61,501	Continue HVAC refurbishment	Modernize restrooms	Replace compressor and air dryer
Health Careers Education Center	83,956	Continue floor covering replacement	Chemical exhaust hood upgrades	Roof replacement
Learning Success Center				
Library	46,587	PM - Electrical	Update interior signage	Weatherproofing
LSC - North	69,594	Update fire panel	Modernize elevator	Weatherproofing
Learning Technology Center	25,772	Replace exterior doors	Repair ramp at east entrance	Modernize elevator
Liberal Arts	89,580	Upgrade HVAC systems	Modernize restrooms	Replace exterior doors
Science	72,086	Exterior panels sealants/glazing	Modernize restrooms	Restore ramp and associated railing.
Student Center & Culinary Arts	39,504	Upgrade kitchen HVAC systems	Modernize restrooms	Modernize fire panel
Technology				
Patterson	61,567	Electrical upgrade	Masonry and tuck-pointing	HVAC System Replacement
New Technology	98,223	Roof Replacement	Masonry and tuck-pointing	Replace drop ceiling tiles
Pump House	462	Roof Replacement		
Welcome Center				
North	6,640	Roof Replacement	Replace exterior emergency exit doors	Address precast panels per Stantec report
HFC Welcome Center	60,800	Roof Replacement	Replace HVAC cooling units	Parking lot resurfacing and restriping
M-TEC	28,115	Upgrade/modernize heating system	Update exterior signage	Replace fire panel
School of Nursing	33,155	Replace HVAC RTU's	Replace fire panel	Update BAS

APPENDIX H

BUILDING REPAIR PRIORITIES

HENRY FORD COLLEGE
Main Campus Map



The latest version of the campus map can be found on the HFC website.

APPENDIX I

PowerPage Report

Henry Ford College

Monday, October 23, 2023
10:11:37 AM

Building Name	Year Built	Building Area	% of Total Area	CRV	% of Total CRV	Priority 1 (current year) Issues				Priority 1-3 (year 0-5) Issues			
						Project Totals	% of Total Project Costs	FCI	Rating	Project Totals	% of Total Project Costs	FCI	Rating
All Assessed Facilities:		**983,863**		**$388,456,000**		**$4,421,000**		**1.1%**	**Good**	**$17,678,000**		**4.6%**	**Good**
East Campus		61,140		$25,434,000									
MT-M-Tec Building	2001	28,120	2.9%	$11,698,000	3.0%	$21,000	0.5%	0.2%	Good	$165,000	0.5%	1.4%	Good
NS-Nursing Building	2001	33,020	3.4%	$13,736,000	3.5%	$5,000	0.1%	0.0%	Good	$270,000	0.8%	2.0%	Good
Main Campus		922,723		$363,022,000									
A-Learning Resource Center	1998	53,744	5.5%	$19,562,000	5.0%	$0	0.0%	0.0%	Good	$352,000	1.0%	1.8%	Good
B-Eshleman Library	1960	46,587	4.7%	$16,957,000	4.4%	$0	0.0%	0.0%	Good	$170,000	0.5%	1.0%	Good
C-College Store	1970	7,730	0.8%	$2,573,000	0.7%	$49,000	1.1%	1.9%	Good	$158,000	0.4%	6.1%	Fair
D-Facilities Management Building	1960	16,093	1.6%	$5,858,000	1.5%	$0	0.0%	0.0%	Good	$288,000	0.8%	4.9%	Good
E-Technology Building	1964	169,848	17.3%	$72,424,000	18.6%	$3,738,000	84.6%	5.2%	Fair	$4,176,000	11.8%	5.8%	Fair
F-Fine Arts Building	1978	75,742	7.7%	$27,570,000	7.1%	$42,000	1.0%	0.2%	Good	$983,000	2.8%	3.6%	Good
G-Health Sciences Education Center	1997	81,500	8.3%	$33,904,000	8.7%					$639,000	1.8%	1.9%	Good
H-Athletic Building	1964	36,460	3.7%	$13,271,000	3.4%	$90,000	2.0%	0.7%	Good	$912,000	2.6%	6.9%	Fair
I-Child Development Center	1996	7,100	0.7%	$2,253,000	0.6%	$0	0.0%	0.0%	Good	$284,000	0.8%	12.6%	Poor
J-Science Building North	1960	49,000	5.0%	$21,148,000	5.4%					$806,000	2.3%	3.8%	Good
J-Science Building South	2012	18,383	1.9%	$7,934,000	2.0%	$0	0.0%	0.0%	Good	$0	0.0%	0.0%	Good
K-Liberal Arts Building	1960	104,046	10.6%	$43,283,000	11.1%	$126,000	2.9%	0.3%	Good	$5,118,000	14.5%	11.8%	Poor
L-Admin Services and Conference Center	1983	59,000	6.0%	$21,476,000	5.5%	$300,000	6.8%	1.4%	Good	$1,116,000	3.2%	5.2%	Fair
M-Student and Culinary Arts Center	1960	41,800	4.2%	$17,389,000	4.5%	$15,000	0.3%	0.1%	Good	$261,000	0.7%	1.5%	Good
N-Campus Safety	1963	19,240	2.0%	$8,004,000	2.1%	$21,000	0.5%	0.3%	Good	$544,000	1.5%	6.8%	Fair
W-Welcome Center	1982	62,000	6.3%	$22,568,000	5.8%	$0	0.0%	0.0%	Good	$277,000	0.8%	1.2%	Good
X-South Building	1978	32,250	3.3%	$11,740,000	3.0%	$14,000	0.3%	0.1%	Good	$569,000	1.6%	4.8%	Good
Y-West Building	1965	36,000	3.7%	$11,981,000	3.1%	$0	0.0%	0.0%	Good	$484,000	1.4%	4.0%	Good
Z-Community Center	1965	6,200	0.6%	$3,127,000	0.8%	$0	0.0%	0.0%	Good	$106,000	0.3%	3.4%	Good